April 3, 2008

Mr. William J. Clarke
NYS Dept. of Environmental Conservation
Div. of Environmental Permits, Region 4
1130 North Westcott Road
Schenectady, New York 12306-2014

RE: Rapp Road Waste Management Facility – DEC # 4-0101-171/11
Eastern Landfill Expansion Part 360 Permit Application
Response to February 4, 2008 DEC Notice of Incomplete Application
CHA Project No. 12206.4005.1502

Dear Mr. Clarke:

Clough Harbour & Associates LLP (CHA) is in receipt of your letter dated February 4, 2008 which contains comments based on the NYSDEC technical review of the 6 NYCRR Part 360 Permit Application prepared by CHA on behalf of the City of Albany for the Rapp Road Solid Waste Management Facility Eastern Landfill Expansion.

Based on our review of your comments on the 6 NYCRR Part 360 Permit Application (following in bold print), CHA offers the following responses (in italics) on behalf of the City:

Part 360 Permit Application -Section 4: Engineering Report

1. **Section 1.0 Introduction, 1.1 History - The second and third paragraphs of this section are confusing. It is not entirely clear why a discussion has been included which attempts to take away the history of the expansions of the original Albany Interim Landfill (AIL). The discussion has dropped the individual names for subsequent expansions then calling the collective area AIL. The original 1991 Part 360 Permit had intended for the "AIL" to only have 5 cells that would cease accepting waste by December 31, 1995. If this discussion is titled "History", then it should describe an accurate history of the landfill with each expanded operation distinctly described and identified by their respective names.**

   The heading of Section 1.1 of the Engineering Report has been changed from "History" to "Existing Landfill Cells", and the text has been revised to accurately describe the existing landfill.

2. **Section 1.0 Introduction, 1.3 Description - Second paragraph, need to be careful when discussing use of the Rapp Road Landfill, this facility does not only serve the ANSWERS Planning Unit with capacity, discussions should not give this impression, the current operation is a merchant facility.**

   Section 1.3 on page 3 of the Engineering Report has been revised to indicate that the Rapp Road Landfill Eastern Expansion will serve City of Albany residents and businesses, as well as the communities that make up the ANSWERS Planning Unit, and the Capital Region as a whole.

3. **Section 1.0 introduction, 1.4 Current Landfill Operations and Capacity, last paragraph, most individuals outside of City and/or DEC staff would be familiar with the term "monitor" as it is used in this discussion. This statement would leave most readers thinking that there is no DEC oversight of landfill operations for purposes of monitoring regulatory compliance.**

   The last paragraph of Section 1.4 on page 5 of the Engineering Report has been deleted to not cause confusion over this issue.

4. **Section 2.0 Proposed Site Analysis, 2.3.10 Geotextiles - Was the 10 oz. non-woven geotextile that has been selected evaluated on the basis of the requirements contained in 360-1.13(n)(2) for filtering properties'?**

   Section 2.3.10 on page 12 of the Engineering Report has been revised to indicate compliance; and additional calculations for Appendix B are attached.

5. **Section 2.0 Proposed Site Analysis, 2.3.11 Gas Collection Trenches and Piping - Is it proposed that stone will be the only acceptable material for bedding the 6 inch slotted HDPE pipe as stated in this section?**

   Section 2.3.11 on page 12 of the Engineering Report has been revised to include tire chips and other NYSDEC approved materials.

6. **Section 2.0 Proposed Site Analysis, 2.5 Leachate Storage System, 2.5.1 General - Under the circumstances of the potential of a permit being issued for an expansion area that would significantly increase the active life of the current operations, it is necessary to renew the letter of understanding with the Albany County Sewer District for the continued direct discharge of the landfill's leachate.**

   Section 2.5 on page 15 of the Engineering Report has been revised to reference an updated agreement will be obtained for Appendix E.

7. **Section 2.0 Proposed Site Analysis, 2.6 Geotechnical Evaluation, 2.6.1. Landfill Stability Analysis - This section needs to provide a discussion with reported results of calculation/evaluations in terms presented in 360-2.7(b)(6) demonstrating that the landfill's design will meet each of the requirements of this paragraph. While this information is for the most part, or in its entirety, presented in the Appendices, it needs to be presented in the Engineering Report discussions.**

   Bearing Capacity calculations have been performed for the landfill subgrade; and are attached. These calculations show a factor of safety against bearing failure of the subgrade well in excess of 2 as required by 360-2.7(b)(6). Section 2.6.1 of the engineering report has been revised to describe factors of safety from the geotechnical analyses in terms of 360-2.7(b)(6).

8. **Engineering Report. general comment, - does not require addendum/revision of discussions in application, the Engineering Report too often made statements that would have been better supported/understood if some portion of the calculations contained in the Appendices had been included. It is very difficult when reviewing this material if all the time you are diving back into the highly technical calculations to determine regulatory requirements are being satisfied.**

   The comment has been noted.

9. **Section 3.0 Closure and Post-Closure Maintenance and Operation, 3.1 Closure Design, documentation relating to the Department's approval to eliminate the gas venting layer from the closure design needs to be included as part of the Eastern Expansion's Part 360 Permit Application.**

   A reference to documentation containing the DEC approval has been added to Section 3.1 on page 29 of the Engineering Report, and documentation will be provided for Appendix F.

10. **Appendices, Calculation, formulas used in the calculations should provide the references, and all symbols in formulas should be defined. This work must not assume everyone reviewing this work has an immediate familiarity. It is recognized that reference materials have been provided following the calculations; as a minimum, there needed to be a statement reference material follows the formulas/calculations. An example why this causes difficulty in reviewing this work: calculation of wall Buckling, the value graven for E'= 3,000 psi, no reference, no qualifier for this value. Later in the document you are able to find information supporting this choice, but not with the calculation itself.**

    The calculations have been examined. The statement "reference materials follows" has been added to select sets of calculations where required to provide more clarity.

11. **Appendices, Calculations, Evaluation of static loading on primary leachate collection pipes, why was the waste height used in the calculation 90 feet when the "max. waste height" was given as 350 feet?**

    The pipe integrity calculations in Appendix A of the Engineering Report have been revised to be based on a maximum of 120 feet of waste over the leachate collection system pipes.

12. **Boring Location Plan and Boring Logs, the map provided does not appear to include all the borings in place related to this project.**

    The complete boring location plan has been provided for Appendix B of the Engineering Report.

13. **General comment, would have been very helpful to have had tabs and/or color pages to define the various Appendices. A small item, but just adds to frustration that is typically associated with review of a document like a Permit Application.**

    The comment has been noted.

14. **Appendix D, Technical Specifications, general comment, it would have very helpful if this appendix had a table of contents. Considering its content, lacking a table of contents resulted in a significant amount of wasted time "searching" for information to review in relation to specific regulatory requirements for compliance with the Part 360 regulations.**

    A table of contents for Appendix D is attached.

15. **Appendix D, Technical Specifications, was there an effort made to compare the requirements of this appendix with the those contained in the CQA/QC Plan for inconsistencies? The frequent duplication of requirements between these two sections causes concern that there will be inconsistencies (at least one was found; if they exist, which requirements/criteria governs?)**

    These sections were checked and have been checked again for this submission. As a result, the word "standard" was changed to "modified" in paragraph 2.1(A) of specification Section 02206.

16. **Appendix D, Technical Specifications, Low Permeability Soil, 2.1 Materials, 360-2.1 (j)(l)(ii) limits maximum particle size to 1 inch.**

    Paragraph 2.1(A) of specification Section 02206 in Appendix D of the Engineering Report has been revised accordingly.

17. **Appendix D, Technical Specifications, 3.1, Material Tests, where in the specifications is the requirement for developing a permeability- moisture-density curve pre 360-2.13(j)(3)?**

    Paragraphs 3.1(B)(4) and (5) of specification Section 02206 in Appendix D of the Engineering Report have been modified, and paragraphs 3.1(B)(8) and (9) have been added to fulfill this requirement.

18. **Appendix D, Technical Specifications, Leachate Collection Soil, 2.1 Materials, percent passing a No, 200 sieve is stated as 0-10%, the regulatory limit for this specification is 5% maximum passing a No. 200 sieve.**

    Paragraph 2.1(A) of specification Section 02207 in Appendix D of the Engineering Report has been revised accordingly.

19. **Appendix D. Technical Specifications, Leachate Collection Soil. 3.4 Clean Up, be specific regarding what measures will betaken to protect newly filled areas against damage (i.e. fines intrusion). Provide a description of the potential damage to correlate with measures to protect.**

    Paragraph 3.4(A) of specification Section 02207 in Appendix D of the Engineering Report has been modified accordingly.

20. **Appendix D, Technical Specifications, Structural Layer, 3.2 Placement and Compaction, B. Structural Layer and Compaction, 1., shouldn't the requirement be for "a minimum lift height of 12" rather than the use of the word "maximum" in this statement?**

    Paragraph 3.2(B)(1) of specification Section 02208 in Appendix D of the Engineering Report has been modified to clearly limit the maximum lift height.

21. **Appendix D, Technical Specifications, Synthetic Geomembranes, 2.1 Material, tabulated specifications, under Thickness, the Requirement needs to be stated as 60 mils. Elsewhere in the application the geomembrane has been correctly specified as a 60 mil material. The Part 360 Solid Waste Management Facilities regulations states a required thickness of 60 mils with no tolerance for what has evidently become an industry standard of +/- 10% *on* this thickness specification. The 60 mil minimum thickness standard has been required to be met at other similar projects in Region 4.**

    The table in paragraph 2.1(B)(1) of specification Section 02212 in Appendix D of the Engineering Report has been modified accordingly.

22. **Appendix D, Technical Specifications. Synthetic Geomembranes, 2.1 Material, tabulated specifications, these tabulated values are not exactly the same as those listed in the CQA/QC Plan.**

    Specification 02212 updated to reflect the minimum sheet thickness of 60 mils is required.

23. **Appendix D, Technical Specifications, Synthetic Geomembranes, 3.3 Installation, B. Sheet Placement, 4., would like this statement to better reflect the language contained in 360-2.13(k)(2)(vi), especially requirements for attention to seam orientation with slope.**

Paragraph 3.3(B)(4) of specification Section 02212 in Appendix D of the Engineering Report has been modified accordingly.

24. **Appendix D, Technical Specifications, Synthetic Geomembranes, 3.4 Field Quality Control, B. 1. Textured Synthetic Geomembrane, same comment as in No. 22 above.**

    The ASTM standard number has been revised in the QC/QA Plan to reflect the correct standard number as shown in the specification.

25. **Appendix D, Technical Specifications, Synthetic Geomembranes, 3.4 Field Quality Control, D., will the inspection of seams and then marking /recording of defects only involve the Quality-control technicians employed by the installation contractor? Won't the "Engineer", or one of his representatives be involved in this activity?**

    Paragraph 3.4(D) of specification Section 02212 in Appendix D of the Engineering Report has been modified accordingly.

Part 360 Permit Application - Section 5: Construction Quality Assurance/Quality Control Plan

1. **Construction Quality Assurance/Quality Control Plan, 3.1 Engineer's Role, A. Project Engineer:, need a better definition of the direct role this individual will have with the execution of toe CQA/QC Plan.**

   Construction Quality Assurance/Quality Control Plan, Section 3.1.A, Engineer's Role Project Engineer - The following definition has been added to the Project Engineer's role description "This person will be responsible for oversight and review of observations and tests that will be used before, during, and upon completion of construction to ensure that the construction materials will meet the design criteria and specifications as required."

2. **Construction Quality Assurance/Quality Control Plan, 3.1 Engineer's Role, 13. Engineer's Project Representation:, need minimum qualifications for this position.**

   Construction Quality Assurance/Quality Control Plan, Section 3.1.B Engineer's Role Engineer's Project Representatives - Each individual will meet the minimum requirements of construction observation staff as outlined in Section 3.2C.

3. **Construction Quality Assurance/Quality Control Plan, 3.4 Contractor's Personnel, are there any minimum qualification requirements for the contractor's CQCC staff? It appears there will be both contractor and engineer's CQC staff on site involved in CQA/CQC activities, how will control conflicts be avoided. how will final say on defects/approvals happen, what's the resolution process if disagreement occur?**

   Construction Quality Assurance/Quality Control Plan, Section 3.4 Contractor's Personnel - The Contractor's QC Manger should have at a minimum at least five (5) years of field construction experience. Two of the five years should include new landfill construction, expansion or closure projects.

   A new section, Section 3.6.A. – Conflict Resolution has been added to the Construction Quality Assurance/Quality Control Plan. The Section provides that in order "to avoid control conflicts during construction between the Engineer and the Contractor, the Engineer and/or the Engineer's Observation

Staff will communicate directly with the Contractor's QC Manager. The Engineer and/or the Engineer's Observation Staff will not direct the Contractor's personnel."

A new section, Section 3.6.B. - Conflict Resolution has been added which states "Should a defect or unapproved installation and/or materials be found during construction by the Contractor's QC Manager, the Engineer or the Engineer's Observation Staff the Engineer will make the final decision on how to proceed to ensure that the defect is corrected and is acceptable to the Engineer."

A new section, Section 3.6.C. - Conflict Resolution has been added which states Should a disagreement occur between the Contractor and the Engineer concerning the acceptance of an installation or material the Engineer will retain the services of an independent testing laboratory familiar with testing the material/installation in question to re-test the material (e.g. welded seam, soils). Should the material/installation be found unacceptable the cost of the re-tests will be the responsibility of the Contractor.

4. **Construction Quality Assurance/Quality Control Plan, 3.6.1 Qualifications of Installer of Geosynthetic Membrane Liner, B., 5., "The Installation Supervisor or Master Seamier will be on-site whenever seaming is being performed."; this statement contradicts item No. 1, under this section of the application in which it is stated the Installation Supervisor will be on site...in charge throughout...seaming... It is a requirement of Part 360 that a person be on site during all geomembrane installation that has the experience defined in item No. 2 of this section (50 acres...on a minimum of 5 different jobs).**

   As required by Part 360, Section 3.6.1.B.5 Qualifications of Installer of Geosynthetic Membrane Liner line has been revised to reflect that the installation supervisor (having the experience as defined in Section 3.61.B.2) is required to be on-site whenever seaming is being performed.

5. **Construction Quality Assurance/Quality Control Plan, 3.7.1.1 Inspection Schedule, it is not clear from these discussions who will he responsible for these inspections. Only the inspections themselves are described, not the individual(s) from which CQA/QC team that will have the responsibilities for performing them. This is a general problem throughout this Plan. it is not always clear who has what responsibility; or if a particular task will be shared or done in tandem. More clear definition of specific responsibilities needs to be provided.**

   Text has been added to Section 3.7.1.1 - Construction Quality Control/Quality Control Plan to clarify that the preparatory initial and follow-up inspections are to be preformed by both the Contractor's QC Manager and the Engineer or Engineer's Observation Staff.

6. **Construction Quality Assurance/Quality Control Plan, 3.7.1.2 Tests, will the Engineer's CQA/QC staff be involved with any aspects of the testing (observation of any on-site testing performed, or acquiring samples for laboratory testing.)**

   Section 3.7.1.2 Tests (Other than Chemical Sampling and Analysis) Test Procedure – has been modified as follows: "The Contractor will perform the tests ***and obtain samples as*** *specified or required in order to verify that control measures are adequate, and to provide a product that conforms to contract requirements.* ***Test performed and samples obtained in the field by the Contractor or the Contractor's testing laboratory will be observed by the Engineer or Engineer's Observation Staff on a random basis to verify that the proper testing and sampling procedures are being followed.*** *The Contractor will procure the services of an industry recognized testing laboratory, or an approved testing laboratory may be established at the project site. This laboratory will be approved by the Engineer. A list and schedule of tests (other than chemical sampling and analysis), which the Contractor understands are to be performed, will be furnished as a part* *of the CQC plan to the Engineer. The list will give the test name, specification paragraph containing the test requirements, and the personnel and laboratory responsible for each type of test. The Contractor will perform the following activities, and record and provide the following data:"*

7. **Construction Quality Assurance/Quality Control Plan, 3.7.1.3 Completion Inspection, no one from the Engineer's CQA/QC staff will attend the second completion inspection to document deficiencies have been corrected? If it is considered important to have the Chief Construction Observer present on the initial completion inspection, why isn't it equally as important for this individual to be present during a second inspection of corrections of detected deficiencies?**

   Construction Quality Assurance/Quality Control Plan, Section 3.7.1.3 has been updated to reflect that the Contractor's QC Manager and the Engineer's Chief Construction Observer together will make a second completion inspection in order to ascertain that all deficiencies have been corrected, and so notify the Engineer.

8. **Construction Quality Assurance/Quality Control Plan, 3.7.1.4 Documentation, would like to see a copy of the form to be used by the Engineer's observation staff for maintaining daily reports. If not a form that might represent a "final" form, at least one that could be presented to have minimum information requirements.**

   The Daily Report form and Liner Installation Checklist that the Engineer's Observation Staff would use to document daily activities is now provide in Appendix A of the Construction Quality Assurance/Quality Control Plan.

9. **Construction Quality Assurance/Quality Control Plan, 3.7.2.3 Corrective Action, would like a more detailed description of the procedures for taking this action, requirement for corrective action based on what testing performed by who, notification, and procedure for re-testing and ultimate approval.**

   Section 3.7.2.3 Corrective Action has been revised to clarify the corrective actions. Corrective action will be required when the Contractor's testing laboratory test results indicate that the materials is inconsistent with the specifications or with the pre-tested source borrow material will be removed from the site as directed by the Engineer or Engineer's Observation Staff. The material will be replaced with conforming material which has been sampled and tested and approved by the Engineer. Material for which tests reveal insufficient compaction will be re-compacted and tested in accordance with the above schedule. The retests will be submitted to the Engineer for final approval.

10. **Construction Quality Assurance/Quality Control Plan, 3.7.3.2 Quality Control Testing During Construction, need to include the requirement for moisture-density-permeability contained in 3602-136)(3)(1)**

    In Section 3.7.3.2 Quality Assurance/Quality Control Plan Subgrade Material Quality Control Testing During Construction the table has been updated to include the requirement for moisture-density-permeability testing in accordance with Part 360-2.13(j)(3)(1).

11. **Construction Quality Assurance/Quality Control Plan, 3.7.3.3 Quality Assurance Testing During Construction, again, need to reference testing requirement for moisture-density-permeability contained in 360-2.13(j)(3)(ii).**

    In Section 3.7.3.3 Quality Assurance/Quality Control Plan Subgrade Material Quality Assurance Testing During Construction the table has been updated to include the requirement for moisture-density-permeability testing in accordance with Part 360-2.13(j)(3)(1).

12. **Construction Quality Assurance/Quality Control Plan, 3.7.4 Georнembrane, 3.7.4.1 Quality Control Testing During Manufacture, additional specification requirements not apparently listed (i.e. water vapor transmission rate or chemical compatibility testing), refer to 360-2.13(k)(1). In addition; refer to requirements contained in 360-2.13(k)(3)(i)(b & c),**

    Construction Quality Assurance/Quality Control Plan, Section 3.7.4.1 Quality Control Testing During Manufacture of Geomembrane has been updated to include additional specification requirements (e.g. water vapor transmission rate or chemical compatibility) as referenced in Part 360-2.13(k)(l) and 360-2.13(k)(3)(i)(b&c).

13. **Construction Quality Assurance/Quality Control Plan, 3.7.4.2 Quality Assurance Testing During Installation, C. Non-Destructive Testing, 2., the sample length for this testing is stated as "4 feet", in the Technical Specifications this test sample length is stated as "3 feet" long. This is not a significant difference except such discrepancies create concern there might be differences that could be critical to the CQA/QC program.**

    Construction Quality Assurance/Quality Control Plan, Section 3.7.4.2.C Quality Assurance Testing During Installation of Geomembrane, Non-Destructive Testing has been revised and the sample length matches the technical specification length of 4 feet.

14. **Construction Quality Assurance/Quality Control Plan. 3.7.4.2 Quality Assurance Testing During installation, E. Inspection and Acceptance, often in this plan the term "engineer" is used to perform tasks/activities that it is felt will be the responsibility for the Chief Construction Observer. Actual responsibilities by title/specific individual needs to be defined in this plan so it will be clear during construction inspections by Department staff who should be involved with what CQA/QC task/activities.**

    Construction Quality Assurance/Quality Control Plan, Section 3.7.4.2.E Quality Assurance Testing During Installation of Geomembrane, Inspection and Acceptance has been updated to reflect that the Engineer's Chief Construction Observer will perform the duties outlined in this section.

15. **Construction Quality Assurance/Quality Control Plan, 3.7.4.2 Quality Assurance Testing During Installation. E. Inspection and Acceptance, need a statement in these discussions reflective of the requirements of360-2.13(k)3)(ii)(c)(1-4).**

    Construction Quality Assurance/Quality Control Plan, Section 3.7.4.2.E Quality Assurance Testing During Installation of Geomembrane, Inspection and Acceptance has been updated to reflect the requirements of Part 360-2.13(k)(3)(iii)(c)(1-4).

<u>**Part 360 Permit Application - Section 6: Operation and Maintenance Manual**</u>

Permit Application- Section 6 Operation and Maintenance Manual, there needs to be a comprehensive landfill gas management plan included that goes beyond the discussions included in the sections in this manual regarding landfill gas monitoring and/or odors. In the gas monitoring section of the manual the only concern appeared to be for explosive gases. The City is performing a number o f routine tasks for the monitoring and control of landfill gas at the landfill that need to be incorporated into this document as a guarantee they continue to be "routine."

Section 12.0 on page 28 of the Operation and Maintenance Manual has been revised to include landfill gas collection and control system monitoring.

Part 360 Permit Application - Section 7: Contingency Plan

1. **Contingency Plan, general comment, review this plan against the requirements of 360-2.10(b)(1), found that several items required by this regulatory citation were not mentioned in the submitted plan.**

   The Contingency Plan has been revised to all contingency items included under 360-2.10(b)(1).

2. **Contingency Plan, Event/Response Summary - Section 2.5 Leachate Rejected by Albany County Sewer District, - would like to see this discussion expanded to provide specific scenarios under which it is likely the Sewer District would refuse the leachate. and discuss alternatives in these terms. The discussion that was provided came across as so general, it seemed there is the likelihood if the leachate got refused, more time would lapse before finding an alternative than there is adequate on-site storage for the leachate.**

   Section 2.7 of the Contingency Plan has been revised to discuss possible scenarios that Albany County Sewer District would refuse leachate and contingency procedures.

3. **Contingency Plan, Section 7.0 Landfill Remediation Alternatives, 20-30 gpad. 6th bullet. need to specify a period of time if the ALR remains above 20 gpad that sampling for Leachate parameters will be mandatory (i.e. 45 days). This same type of approach should be applied to the requirement for inspection of the collection lines by closed circuit television, but with a further out time as a trigger (i.e. 90 days)**

   Section 8.0 of the Contingency Plan has been revised to specific times that trigger leachate sampling and inspection of collection lines.

4. **Contingency Plan, Section 7.0 Landfill Remediation Alternatives, 30-40 gpad, measures are overall acceptable, but without the consideration that is associated with an asterisk. Could state cease accepting waste in the area of the cell that has exceeded ALR in this range when directed by the Department. There are situations during which this range could happen that unconditioned ceasing to accept waste would not be the required immediate alternative.**

   Section 8.0 of the Contingency Plan has been revised to indicate an evaluation will be performed before ceasing to accept waste.

5. **Contingency Plan, Section 7,0 Landfill Remediation Alternatives, > 40 gpad, change language to read "Design and submit remedial construction plan when directed to by Department for approval and, implement upon approval."**

   Section 8.0 of the Contingency Plan has been revised to reflect language suggested.

Engineering Drawings

1. **General comment, many of the drawings would have been assisted by including footnotes to better describe features, specifications, construction detail.**

   The comment has been noted.

2. **G-4, are either of the two benchmarks referenced to a USGS benchmark as required by 360-2.13(b)? If not there needs to be an explanation why not and why these benchmarks will be secure throughout the project and in the future (through initial post closure period).**

   Elevations of benchmarks shown on drawing G-4 are referenced to USGS Datum. General note 4 on drawing G-2 has been modified accordingly.

3. **G-4, are the coordinates given according to the New York Transverse Mercator (NYTM) system according to 360-2.1 (c)**

   The coordinates of baseline points shown on drawing G-4 has been revised to reference the NYTM system. General note 3 on drawing G-2 has been modified accordingly.

4. **G-4, lands to the immediate East of the active cell identified as owned by Alfred & Carol Ann Landees were believed to be owned by New York State. This drawing does not identify any surrounding properties being owned by the State of New York, contrary to my understanding.**

   Drawing G-4 has been modified accordingly.

5. **G-7, wells on the properties identified as owned by Alfred & Carol Ann Landees, these wells are not identified in any manner. This is an example of one of those features that a footnote would be valuable.**

   Two of the three wells in question were observed in the field. However, ownership was not confirmed. Since they are not used for this project, they have been removed from drawing G-7.

6. **G-8, only two leachate collection laterals arc indicated to have a clean out. The labeling does have "(typ.)" indicated, is this to mean each lateral will have a clean out? The drawing should make it clear where and how the leachate collection system will be accessed for maintenance.**

   There will be a clean-out on all leachate collection laterals. Drawing G-8 has been revised to more clearly denote this.

7. **G-11, has there been an analysis of runoff from closed 3:1 (Horizontal: Vertical) slopes to determine erosion potential over the relatively long slopes.**

   An analysis of erosion protection has been completed; and is attached. Section 2.9 on page 26 of the report has been revised to discuss and reference the additional calculations for Appendix C of the Engineering Report .

8. **G-12, there needs to be a footnote on this drawing that qualifies the high ground water elevation. What data/information was used to establish this reference point, which is a critical aspect of regulatory compliance for the proposed expansion's liner system.**

   The "high groundwater elevation note" on drawing G-12 has been expanded accordingly.

9. **G- 16. manhole detail; piping , material specifications.**

   A schematic detail for the leachate system manholes is included on drawing G-20 which has been added to the drawing set.

10. General, for future reference, print on a drawing should not be so small that it is difficult or impossible to read.

Extremely small print that is irrelevant to the project design has been removed from the drawings.

11. G-16, need to provide detail for pump houses 1 and 2. When they are relocated, will they be placed as is or modified? Providing detail will address this questions as well as show any changes/modifications that have been made since they were first constructed/ installed.

Schematic details of pump houses 1 and 2 have been included on drawing G-20 which has been added to the drawing set.

12. G-17, Detail 6 Anchor Trench, would like to discuss extension of GCL and immediate area surrounding where liners are welded together.

Detail 6 on drawing G-17 has been modified accordingly.

13. G-17, would like to have a footnote for the stone specification on this drawing.

The note reference for crushed stone on drawing G-17 has been expanded to explain the use of stone for this application.

<u>Part 360 Permit Application - Section 8: Hydrogeologic Investigation Report</u>

General Response to Hydrogeologic Investigation Report Comments

Since the original Hydrogeologic Investigation Report was submitted in July 2007, additional groundwater quality monitoring data has been collected during subsequent pre-operational water quality monitoring events. The Hydrogeologic Investigation Report has been revised to include the additional monitoring data as well as a discussion of the results. As a result of the significant revisions to the report text, a complete copy of the revised text for both the Hydrogeologic Investigation Report and the Environmental Monitoring Plan has been included with our response to comments. However, complete copies of the previously submitted Figures, Tables, and Appendices have not been re-submitted. Only the revised Figures and Tables, and pertinent additional appendix data has been included with our response to comments.

1. Section 4 Geology and Hydrogeology, Section 4.2 Regional Hydrogeology - A discussion of the Colonie Channel needs to be included in this section.

Section 4.2 of the Hydrogeologic Report has been revised accordingly to include a discussion of the Colonie Channel.

2. Section 4.3 Site Geology, Section 4.3.1 Surficial Geology and Overburden Stratigraphy - A discussion of the thickness of the Deep Clay Unit must be included in this section. Logs for the MW-12 cluster are not included.

Section 4.3.1 has been revised to include a discussion of the thickness of the Deep Clay Layer. However, copies of the boring logs for the MW-12 well cluster have not been included. CHA has attempted to locate the boring logs for the MW-12 cluster, however after reviewing existing City files as well as the previously submitted Part 360 permit documents, these well logs could not be located. CHA also contacted the previous consultant that was responsible for the installation of these wells in an effort to locate the well records. The previous consultant was also unable to locate these logs in their files. Given the significant *amount of available subsurface data that exists for the Rapp Road facility, there is no data that would suggest that the subsurface conditions in the vicinity of the MW-12 would vary significantly from that of the rest of the Rapp Road site.*

3. **Section 4.4 Site Hydrogeology, Section 4.4.3 Groundwater Elevation and Flow Direction - Seasonal high and low water tables must be depicted on geologic cross-sections.**

   Since the original Hydrogeologic Investigation Report was submitted in July 2007, additional water level monitoring data has been collected in September 2007, December 2007, and January 2008. Figures 3-2, 3-3, and 3-4, Geologic Sections, have been revised to illustrate the high and low water table elevations, which reflect the additional monitoring data. In addition, Section 4.4.3 of the Hydrogeologic Investigation Report has also been revised to present the additional groundwater elevation data.

4. **Section 5.0 Groundwater Quality, Section 5.2 Existing AIL/ Wedge/P-4 Water Quality - The source of the Chloroform and Chloromethane in MW-12S must be identified with additional investigation.**

   Chloromethane has never been detected in this well. Only chloroform has been previously detected in this well during the December 2004, March 2005, and June 2006 monitoring events. However, during the most current baseline monitoring event that was performed in September 2007, there was no chloroform detected in this well. Although chloroform has been detected on several occasions, the remaining data collected from this well does not suggest that the chloroform impacts are landfill derived. Potential sources of chloroform have been identified in Section 5.2 of the Hydrogeologic Investigation Report. One potential source includes potable water discharged from a fire hydrant located immediately adjacent to well MW-12S. Chloroform is a disinfectant byproduct of chlorinated drinking water. . The City routinely utilizes this fire hydrant as a source of water for dust suppression along the site roadways.

   A second potential source of the chloroform includes run-off from the recycling building. The recycling building is used for the storage of appliances containing refrigerants (e.g. refrigerators, air conditioners, etc.), that are also a source of chloroform. Wash water from the building operations, combined with the application of potable water for dust suppression could have a cumulative effect on the level of chloroform in this well.

   Due to the fact that chloroform was not detected during the most recent monitoring event, and the fact that there is no additional data that suggests that the presence of chloroform is landfill derived (i.e. from other perimeter monitoring wells), CHA does not believe that any additional investigation is necessary at this time. However, over the next year, CHA proposes to sample monitoring well MW-12S for chloroform during each quarterly monitoring event to further evaluate the presence of chloroform in this well. If chloroform continues to be detected in this well, then a work plan will be submitted to NYSDEC to further investigate the source of the chloroform. Section 5.2 of the Hydrogeologic Investigation Report has been revised to present a discussion of the additional monitoring data from well MW-12S and the additional sample analyses that is proposed for this well during future quarterly monitoring events.

5. **Section 5.3 - Proposed Eastern Expansion Water Quality-5.3.3 Preliminary Water Quality Evaluation- The source of the Ammonia in MW-14S and MW-15S must be identified. Elevated Ammonia has also been found in the small streams east of the expansion area.**

   Section 5.3 has been revised to include a discussion of the additional monitoring data that was collected since the original submission of the July 2007 Hydrogeologic Investigation Report. Section 5.3 also includes a discussion of the potential sources of the ammonia that has been detected in monitoring well MW-14S and MW-15S.

At this time, CHA does not believe that additional investigation to identify the source of the ammonia is warranted based on the relatively low levels detected in the newly installed shallow monitoring wells. The source of the ammonia is not considered to be a result of impacts from the existing landfill facility based on the operational water quality from the existing AIL monitoring network. As outlined in Section 5.3 of the Hydrogeologic Investigation Report, two potential sources of the ammonia include the run-off from the horse-farm located to the east of the expansion area and/or the highly organic natural soils within the expansion area.

Based on visual observations during a recent inspection, the horse farm is located only a few hundred feet to the east of monitoring well MW-15S. The horse farm is bounded to the east by Rapp Road. Although the topography is relatively flat, the area between monitoring well MW-15S and the horse farm is slightly depressed. During CHA's most recent inspection of the area in March of 2008, standing water was observed throughout the entire area between the horse farm and monitoring well MW-15S. Seasonal high groundwater levels indicate that the groundwater table at both monitoring well location MW-14S and MW-15S can be at ground surface elevation. This would suggest that run-off from the horse farm could potentially be directed towards MW-15S and is impacting this well, and to a lesser extent well MW-14S. This is further supported by the elevated levels of sodium and chloride in well MW-15S, which suggest that road salt impacts from run-off from Rapp Road could also be influencing well MW-15S. Sodium and chloride levels in wells MW-15S are higher than any of the newly installed monitoring wells and the existing AIL upgradient monitoring well MW-1S.

The only other obvious potential source of ammonia that has been identified at the site includes the highly organic (muck type) soils within the expansion area. Organic nitrogen in soils is transformed by microorganisms in the soil to ammonium, which is available to plants. However, ammonium nitrogen can be transformed via ammonia volatilization into ammonia gas, especially in soils with a pH higher than 7.5. Typically the ammonia gas is in equilibrium with the ammonium and excess ammonia gas is generally releases to the atmosphere. However, due to the fact that the seasonal high groundwater elevation can be close to the ground surface, it is possible that the gaseous ammonia is dissolving into the shallow groundwater.

6. **Section 5.4 Environmental Monitoring Plan -Based on the previous comment, the surface water flowing to the east must be monitored. Existing water quality must be established prior to stream relocation. At some point after construction, once the area has returned to equilibrium, monitoring can resume.**

   Section 5.4 of the Environmental Monitoring Plan (EMP) has been revised to include a pre- and post-stream relocation surface water sampling program to establish existing water quality and evaluate post-relocation water quality. Figure 1 and Figure 3 of the EMP have also been revised to illustrate the proposed surface water sampling locations.

   The well spacing between well cluster MW-10 and MW-14 exceeds the maximum distance of 500 feet.

   Section 3.2 of the Environmental Monitoring Plan has been revised to include the installation of on additional well cluster prior to construction of the expansion. SECTION 3.4 of the Hydrogeologic Investigation Report has also been revised to reflect this additional well cluster. The new well cluster will be added to provide the proper spacing of wells downgradient of the landfill. Figure 1 and Figure 2 of the Environmental Monitoring Plan have been revised to illustrate the location of the proposed new well cluster location.

CHA

Logs for MW-A16, MW-A16B, and MW-A17 are included. Where are they located and what is their significance?

Figure 3 of the Environmental Monitoring Plan has been revised to illustrate the location of these additional wells. MP will be revised to include wells MW-16A and MW-17A. Refusal was met installing borings MW-16A so MW-16B is the completion of the boring. The completed well was named MW-16A. The significance of these wells will be discussed in the revised EMP.

7. **As per 6 NYCRR Part 360-2,11 (d), Landfills - Hydro geologic Report - a Site Analytical Plan needs to be included.**

   Appendix D of the Environmental Monitoring Plan originally included the originally included an updated laboratory QA/QC Plan. Appendix D has been replaced with a Site Analytical Plan. Section 6.0 of the EMP has been revised to reference the Site Analytical Plan instead of the updated laboratory QA/QC Plan.

<u>The following comments on the 360 solid waste permit application were prepared by staff from the department's headquarters office in Albany:</u>

1. **The facilities to be relocated, including the offices, recycling building, detention pond, other accessory uses, and the access to the relocated landfill operations, should be included on the drawings in their proposed new locations along with identification of the parcels where they will be located.**

   Drawing G-6 has been revised to show the proposed locations of ancillary facilities as requested.

2. **Comparing the settlement calculations for the two points on cross-section A-A' in Appendix B of the Engineering Report withdrawing G-10, it appears that the grades indicated on that drawing are before settlement. Therefore, after settlement the grades on the drawing indicated as 2% slope would be less than the minimum 2% slope required by 360-2.13(l)(2)(iii), 360-2.13(k)(2)(iv) and 360-2.13(i)(2).**

   360-2.13(l)(2)(iii) and 360-2.13(k)(2)(iv) do not reference post-settlement slopes. The post settlement slope requirement of 360-2.13(i)(2) is interpreted as predicted settlement at completion of the liner system construction. Section 2.6.2 of the engineering report has been revised to include a discussion regarding compliance with the post settlement slope requirements of 360-2.13(i)(2).

3. **A review of the Albany Landfill secondary leachate collection and removal system 30-day average leakage rates for the period from 11/23/06 through 10/02/07 reveals only 13 days when those values for cell 10 were equal to or below the 20 gallons per acre per day required by 360-2.7(b)(9)(iv). For approximately six and a half months there were no readings provided and for approximately two months the leakage rates exceeded 20 GPAD, mostly in the range of 40-100 GPAD. There were also significant exceedences of the 20 GPAD limit in cells 8, 9 and 11 during this time frame. Cell 11 also lacked data for about one and a half months. This should be addressed in some way, such as by constructing an overfill liner in part or all of the area where the overfill expansion is proposed.**

   The secondary leachate collection and removal system 30-day average leakage rates (ALR) for cells 8,9,10 and 11 were reviewed during the period November 23, 2006 through October 2, 2007. Exceedences above 20 gallons per acre per day (g/a/d) were observed during this period in each of these cells, however, construction of an overfill liner is not warranted. Each cell exceedence was the result of damaged to the primary geomembrane liner which was subsequently repaired or pump and/ or meter failures which were *repaired. A meeting was held on March 26, 2008 with Mr. Tom Reynolds of DEC Region 4, the City of Albany and Clough Harbour & Associates LLP to discuss ALRs for each of the 11 landfill cells at the facility for the past several years.*

The cell 8 daily ALR significantly increased on October 12, 2006 due to damage to the primary geomembrane liner that occurred during the installation of a storm water control feature on the east side of the cell. Repairs were subsequently made to the damaged primary geomembrane liner and a decreasing trend in the daily ALR was observed in the middle of October 2006 and dropped below 20 g/a/d on November 15, 2006. The 30-day ALR dropped to 10.2 g/a/d on December 9, 2006 and has since remained below 20 g/a/d.

The cell 9 exceedence was also the result of damage to the primary geomembrane liner which occurred during the installation of landfill gas collection system piping on the southeast side of the cell in the middle of November 2006. The liner was subsequently repaired on December 29, 2006 and the daily ALR dropped below 20 g/a/d. The 30-day ALR dropped to 19.7 g/a/d on January 12, 2007 and has since remained below 20 g/a/d.

ALR data was not recorded in cell 10 for several months during this period due to damage to the cell 10 pump station which included a broken pump, piping and meter. The damage was likely the result of a pump failure which subsequently allowed secondary leachate to fill the pump station and damage the piping and meter. While the pump station was damaged, secondary leachate flow into the pump station was stopped by closing the inlet value which allowed secondary leachate to accumulate in the cell. Pump station 10 was repaired in February 2007 and ALR readings were recorded for several months which reflect secondary leachate that had accumulated in the cell, and therefore exceed 20 g/a/d, since the secondary flow is representative of several months of leachate that accumulated in the cell. Again, in the early April and several additional times since, a pump station failure resulted no recorded ALR values and closing the secondary leachate inlet valve and accumulation of leachate in the cell. To date the pump station has been repaired and ALRs are being recorded. The ALR is currently above 20 g/a/d since they are representative of leachate accumulated in the cell, however, are trending downward and as of March 25, 2007 the daily ALR is 22.8 g/a/d.

The exceedence in cell 11 was the result of secondary leachate that accumulated in cell 10, while the inlet value to pump station was closed, which overflowed into the cell 11 secondary collection system. The cell 10 and cell 11 secondary systems are hydraulically connected. The daily ALR exceeded 20 g/a/d starting in early July 2007 and subsequently dropped below 20 g/a/d when the inlet value to pump station 10 was open and the secondary leachate in cell 10 was allowed to drain. The 30-day ALR for cell 11 dropped below 20 g/a/d on October 21, 2007 and has since remained below 20 g/a/d. From April 14, 2007 through May 30, 2007 ALR was not recorded in cell 11 due to a meter malfunction.

4. **Temporary and permanent stormwater controls and facilities should be included on the drawings.**

   A silt fence alignment has been added to appropriate plan sheets. Hay bales and other controls will be used as needed and described in general notes on drawing G-2.

5. **Section 2.3.1 on page 10 of the engineering report should apparently refer to Technical Specification Section 02206, not 02208.**

   Paragraph 2.1(A) of specification Section 02205 in Appendix D of the Engineering Report has been modified accordingly.

6. **2.1 A of Technical Specification Section 02206 specifies particle sizes up to three inches, while 360-2.130)(1)(ii) requires soil particles to pass a one inch screen.**

CHA

Paragraph 2.1(A) of specification Section 02206 in Appendix D of the Engineering Report has been mofiied accordingly.

7. **2.1 A of Technical Specification Section 02206 refers to standard Proctor, while elsewhere in that specification and in the engineering report the modified Proctor is referenced.**

   The word "standard" has been changed to "modified" in paragraph 2.1(A) of specification Section 02206 in Appendix D of the Engineering Report.

8. **3.1 B 7 b on page 4 of Technical Specification Section 02206 should apparently refer to testing the interface friction angle at 1 psi, 2 psi and 4 psi, not at 1 psi, 1 psi and 4 psi.**

   Paragraph 3.1(B)(7)(b) of specification Section 02206 in Appendix D of the Engineering Report has been modified accordingly.

9. **3.3 C on page 6 of Technical Specification Section 02206 indicates in the first sentence that one Shelby tube sample will be taken per acre per lift for laboratory permeability testing, as required by 360-2.13(j)(3)(ii). However, the last sentence states that "Samples shall only be obtained of the upper lift" This seems to indicate that only the final, uppermost lift will be sampled. Changing the wording of this last sentence to "Samples shall only be obtained of the most recently constructed lift and each sample shall penetrate only one lift." might make it more clear that while each lift must be sampled, the Shelby tubes should not be driven through more than one lift for each sampling, which appears to be the intended meaning.**

   Paragraph 3.3(C) of specification Section 02206 in Appendix D of the Engineering Report has been modified accordingly.

10. **3.7.3.1 A on page 18 of the CQA/QC plan should apparently refer to ASTM D854, not ASTM D584.**

    In Section 3.7.3.1 .A, "ASTM D584" has been changed to "ASTM D854".

11. **Although 3.7.3.3 on page 19 of the CQA/QC plan states that the placement of the low permeability liner materials will be in six inch lifts as shown on the drawings, this does not appear to he shown on the drawings.**

    In Section 3.7.3.3 the words "as shown on the drawings" have been removed.

12. **In Section 2.3.7 on page 11 of the engineering report, the primary geomembrane thickness should be 60 mils instead of 60 millimeters. It is also unclear what the reference to "new" HDPE geomembrane means.**

    Section 2.3.7 on page 11 of the Engineering Report has been revised to indicate 60 mils for geomemrane thickness. The work "new" has been deleted.

13. **3.4C.1.c.5)a) of Technical Specification Section 02212 does not seem clear. Should it read something more like, "When two (2) passing samples are located, the length of seam <u>not</u> bounded by the two (2) passing test locations will be considered non-complying. The overlap left by the wedge welder shall be heat tacked in place along the entire length of seam and the <u>entire length of</u> [non-complying portion of, seam will be extrusion fillet welded." (added wording underlined, deleted wording in brackets)**

CHA

Paragraph 3.4(C)(1)(c)(5)(A) of specification Section 02212 has been revised to correctly identify the complying and non-complying portions of seams during air testing. However, the revised paragraph requires extrusion welding of only non-complying portions of wedge welded seams.

14. Should line 11 of 3.4E in Technical Specification Section 02212 read, "Trial weld samples shall be archived for potential subsequent laboratory strength testing..."?

Paragraph 3.4(E) of specification Section 02212 in Appendix D of the Engineering Report has been revised accordingly.

15. 5. B. on page 26 of the CQA/QC plan indicates that geomembrane fusion seams will be tested for peel adhesion on both sides of the weld. However, 3.4 G. 2. and 3. on page 12 of Technical Specification Section 02212 indicate that only the inner track welds will be tested in peel. These references in the specifications should be changed to require testing both tracks.

Paragraphs 3.4(E) of specification Section 02212 in Appendix D of the Engineering Report has been modified to indicate testing of the inner and outer track welds of the geomembrane.

16. Sections 3.5.4.2.13. and 3.5.4.2-D. referred to on pages 25,27 and 28 of the CQA/QC plan, cannot be found.

Sections 3.4.2.B and 3.5.4.2.D have been revised to correctly read 3.7.4.2.B and 3.7.5.4.D.

17. The calculations on which the design of the gas collection system were based should be provided.

Appendix A of the Gas Collection System Design Plan has been added to include the design calculations for the system design.

18. A drawing detail of the construction of the vertical gas collection wells should be provided.

A vertical gas collection well detail has been added to Drawing D-19.

19. The existing active gas collection system has had significant problems from such causes as the gas collection lines watering out. How will this be avoided in the proposed gas recovery system?

Existing gas collection system piping will not located deeper than 20 feet from the existing ground surface. And all new piping will be placed near the surface or at a maximum of four feet below the ground surface with a five percent slope. Should it be determined that the slope becomes shallower, performance of the piping will be evaluate and replaced, if required.

Should it be discovered that gas flow is being impeded during a daily monitoring event or monthly well tuning, the City will excavate the suspect area within 12 hours and begin physical repair of the problem area within 48 hours.

20. A variance could be applied for to eliminate the structural fill layer below the GCL in the primary composite liner. Similar variances have been approved for other landfills.

A variance will not be sought to eliminate the structural layer at this time.

21. The following components required by 360-2.10 should be either addressed or, if they exist m some other document, referenced in the contingency plan:

construction related contingency plan
access to confined spaces
dust
litter
odor
equipment breakdown
unusual traffic
leachate pumps
loss of electrical power
post-closure contingency plan

The Contingency Plan has been revised to address all contingency items included under 360-2.10(b)(1).

Comments on CQA/CQC Plan

Comment #1 - Section 2.0 Why is there a separate "Contractor's Quality Control Plan"? All CQA/CQC measures should be contained in one document that has been reviewed and approved by the Department. This should be the CQA/CQC Plan submitted with the Permit Application. Please clarify.

The QA/QC Plan has been updated to reflect that there will only be one QA/QC plan. The Contractor will be required to submit to the Engineer for approval information, including proposed personnel, procedures, instructions, records and forms to be used during construction. The information submitted by the Contractor will become part of the QA/QC Plan.

Comment #2 - Section 3.1 (A) Add the underlined to the last sentence. "The Project Engineer <u>and his construction observation staff</u> will act independently, and without influence from the Contractors, or the City of Albany.

Section 3.1.A has been updated to include the addition of the text "and his Construction Observation Staff" as recommended in the comments.

Comment #3 - Section 3.6.1 (A) Specify who will be reviewing and verifying that the field crew foreman (Installation Supervisor) has the experience required in 360 - 2.13(k)(2)(x).

Section 3.6 has been updated to reflect that the Engineer will review and verify the field crew foreman (Installation Supervisor) has the required experience.

Comment #4 - Section 3.7.4 Address ambient air temperature. Include a statement regarding how it will be assured that seaming will occur during proper air/sheet temperatures, what the temperature range is, and what will occur in the event that seaming must be performed in temperatures outside the specified range.

Information has been added to Section 3.7.4.2 that addresses acceptable ambient air and sheet temperature ranges, who will monitor temperatures, and what will occur should temperatures be found to be out of the acceptable range.

Comment #5 - Section 3.7.4.1 (F)(1-3) These provisions, which appear to have been inserted into the CQA/CQC Plan based on 360 - 2.13(k)(3)(ii)(a-c), are only necessary if geosynthetic rolls are pre-

fabricated into geomembrane sheets at the factory, as opposed to on site. If these provisions were meant to apply to factory pre-fabrication of sheets, then this section of the plan should be clarified.

Provisions in Section 3.7.41.1.F Items 1 to 3 are for field seams. The items have been revised for clarification.

Comment #6 - Section 3.7.4.2 (C)(6) and (9) The test methods referred to, GRI GM6 and ASTM E1066 are field tests. A copy of these test methods, as well as any other published field tests that will be used for CQC/CQA purposes, should be included in the Plan.

Copies of each of the field tests including GRI GM6 and ASTM E1066 have been provided in Appendix A. ASTM D2922, D3017, D2216 and D1556 have also been added.

Comment #7 - Section 3.7,4.2 (D)(4)(b), 3.7.4.2 (D)(7), 3.7.4.2 (E)(2)(b)(1-2), 3.7.4.2 (E)(3) and (6) contain incorrect references. The Plan citations are mislabeled.

The sections noted in the comments have been revised to reflect the correct references.

Comment #8 - Section 3.7.3, 3.7.4, 3.7.5, 3.7.6, 3.7.7, 3.7.8, 3.7.9 For clarification, a statement should be included at the beginning of these Sections that the material testing results will be submitted to the Project Engineer for evaluation and approval.

The sections noted in the comments have had updated to include a statement that the material test results will be submitted to the Project Engineer for evaluation and approval.

Comment #9 - Section 3.7.5.4 Include a statement about protection of the leachate collection pipe network. (e.g. Pipes will not be driven over by heavy equipment until covered by __ feet of gravel sand etc.)

A statement has been included in Section 3.7.5.4 regarding protection of the leachate collection pipe network. The pipes will not be driven over by heavy equipment until covered by at least 2 feet of leachate collection soil.

Comment #10 - Section 3.7.7 Include a statement regarding geosynthetic clay liner (GCL) overlap. Proper GCL overlap must be verified through construction inspections in order to ensure proper functioning of the landfill liner system.

A statement has been added to Section 3.7.7 regarding geosynthetic clay liner overlap. Proper overlap will be verified through construction inspections in order to ensure proper functioning of the landfill liner system.

Comment on Seismic Analysis (Section 2.6.3)

This comment is based on information contained in EPA Publication "RCRA Subtitle D Seismic Design Guidance for Municipal Solid Waste Landfill Facilities" dated April 1995. (Guidance)

The 1982 Seed and Idriss curve used in tie analysis to determine free field acceleration at the site is outdated and can under-predict site amplification of bedrock motion by the local soil deposits. The more recent 1990 diagram by Idriss, which is located below the 1982 diagram in the attachment, or the diagram by Kavazanjian and Matasovic (Figure 4.5 in the Guidance) should be used. Also, in determining permanent displacement of the landfill mass and liner system the upper bound of the design earthquake magnitude (not the lower bound) of the Makdisi and Seed (1977) curve diagram should be used. The source of the design earthquake magnitude is not referenced. According to 1982 USGS seismic source zone mapping the design earthquake Richter magnitude should be 6.7. For a conservative analysis, the

Makdisi and Seed (1977) curve upper and lower bounds should be interpolated/adjusted; or provide a more recent reference or additional reasoning for using the specified magnitude in calculating displacement.

The seismic calculations included in Appendix B of the Engineering Report have been revised accordingly, and Section 2.6.3 on page 19 of the report ahs been updated.

This response letter, together with the attached information is hereby made part of the 6 NYCRR Part 360 Permit Application for the Rapp Road Solid Waste Management Facility Eastern Landfill Expansion.

If you have any questions or require additional clarification regarding the information included herein, please do not hesitate to contact me at 518-453-2851.

Very truly yours,

CLOUGH HARBOUR & ASSOCIATES LLP

Warren A. Harris, P.E.
Senior Associate

PROFESSIONAL ENGINEER 077420

/dmf

Attachments

cc: B. Bruce, City of Albany
J. Giebelhaus, City of Albany
R. Leistensnider, Nixon, Peabody LLP
F. LaVardera, CHA (w/o attachment)

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Engineering Report
Eastern Landfill Expansion

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

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July 30, 2007

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1.0 INTRODUCTION

1.1 Existing Landfill Cells

The Greater Albany Landfill (GAL) operated from the 1970's until 1991 and represents the first phase of landfilling at the Rapp Road Solid Waste Management Facility. It is an unlined 80± acre landfill that was closed (i.e., capped) pursuant to an Order on Consent with DEC. The Albany Interim Landfill (AIL), which represents the second phase of landfilling, is a 14± acre double-composite lined landfill (5 cells) located north of the GAL. It was constructed in 1990-91 and started operation in October 1991. Some perimeter side slopes of the AIL have been capped, and its top portion is still active. The 8.7± acre AIL Expansion (1 cell) is the third phase of landfilling which is tied into the double composite liner system of the AIL. It was constructed in 1997 as a "piggyback" overliner on top of the GAL and provided additional air space in the valley-shaped area between the closed GAL and operating AIL (the Wedge). The P-4 Project consisting of five cells constructed in two phases was completed in the fall of 2003.

Collectively, the AIL and AIL Expansion comprise one connected volumetric space, which is simply referred to herein as the AIL. The AIL has a double composite liner and primary and secondary leachate collection systems.

The AIL has a Part 360 permit (DEC #4-0101-00171/00011) which was granted by the DEC on February 29, 2000, and subsequently modified by the DEC on May 28, 2004. An application for renewal was submitted on April 28, 2005 in accordance with the permitee obligations as stated on Page 2 of the Part 360 permit.

1.2 Purpose

The proposed solid waste landfill expansion, known as the Eastern Landfill Expansion project, is located in the eastern quadrant of the Rapp Road property. The Eastern Landfill Expansion project is a horizontal expansion, and it represents the fifth phase of landfilling at the Rapp Road Solid Waste Management Facility.

The City of Albany, on behalf of the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit, seeks to increase solid waste disposal capacity at the Rapp Road Facility. The intent of this action is to provide additional solid waste disposal capacity for the ANSWERS Planning Unit while a permit for a long range landfill continues to be pursued, consistent with the continuing objective of maximizing solid waste disposal capacity at the Rapp Road solid waste management facility.

1.3 Description

The Eastern Landfill Expansion will involve an overfill of approximately 22 acres of the existing landfill and a lateral expansion of approximately 14 acres onto the adjacent City-owned property. The City proposes to relocate existing landfill infrastructure including offices, the recycling building, and other accessory uses to several parcels totaling approximately 3.5 acres located directly east of the landfill entrance road off of Rapp Road. An approximately 1 acre remnant parcel of land owned by the State of New York, under the jurisdiction of the Department of Transportation, would be required to access the relocated landfill operations off of Rapp Road.

The potential solid waste capacity of the Eastern Landfill Expansion is estimated to be 2,925,000 cubic yards which is currently anticipated to provide 6.5 years of disposal capacity for the City of Albany residents and businesses, as well as the communities that make up the ANSWERS Planning Unit, and the Capital Region as a whole.

The proposed expansion project is located in the eastern region of the Rapp Road property, north and east of the AIL cells 10 and 11. A double composite liner and primary and secondary leachate collection systems will be constructed for the horizontal expansion area and tied into the existing liner and leachate collection systems for the AIL. The secondary leachate collection system for the Eastern Landfill Expansion will be monitored independent of the existing leachate collection and detection systems of the AIL. Leachate will be pumped into the existing leachate tanks, tested, and ultimately sent via existing piping to the Albany County Sewer District for treatment.

Upon closure, the Eastern Landfill Expansion will extend the finished height of the landfill to approximately 474 feet above mean sea level.

Phasing of the Rapp Road Landfill Eastern Expansion construction will be necessary to allow continued landfilling operations and continued operation of vital landfill systems including the leachate collection system and the landfill gas control system.

Demolition of existing infrastructure and modification and new construction associated with the leachate collection and gas control systems will take place at the front end of construction to allow continued use of these systems during construction. New landfill cell construction will follow; and may occur in two phases divided with respect to the drainage areas for the proposed leachate sumps.

Construction activities, equipment, and materials will be staged to allow for continuous access for waste haulers to the existing landfill area.

1.3.1 Population Centers

The Eastern Landfill Expansion project will involve the expansion of the existing City of Albany Rapp Road Landfill onto City-owned lands located north and east of the existing landfill in order to continue to meet the solid waste disposal needs of City residents and businesses as well as the communities that make up the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit, and the Capital Region as a whole. ANSWERS is comprised of a consortium of communities that include the cities of Albany, Rensselaer and Watervliet, the Towns of Berne, Bethlehem, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island and Altamont.

1.4 Current Landfill Operations and Capacity

The City currently accepts about 1250 tons of solid waste and cover material per day (permit limit is 1050 tons of solid waste). Calculations based on a topographic survey performed in March 2007 indicate that approximately 765,000 cubic yards of air space was available at the time of the survey. Using a municipal solid waste density of 1,500 pounds per cubic yard and the current monthly acceptance rate, the remaining air space within the operating facility will be depleted entirely by mid-to-late November 2009.

Calculations based on the March 2007 survey, and all previous volume surveys, indicate consistently achieved waste densities of greater than 1,500 pounds per cubic yard. The increased waste densities are due in part to upgrades in landfill equipment and waste placement procedures.

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On March 8, 1999 the DEC modified the existing permit for the facility by removing the requirement for an on-site environmental monitor. Therefore, current operations are without DEC monitoring, as will be future operations, unless otherwise required by DEC at some later date.

1.4.1 Machinery and Equipment

The machinery and equipment used at the Rapp Road Solid Waste Management Facility:

Machinery/ Equipment	Quantity of Equipment	Type
Wheel Loader	2	2000 John Deere Model 744 2002 John Deere Model 544H
Compactor	4	1989 Caterpillar Model 826 1996 Caterpillar Model 836 2000 CMI Model 35C 2006 Caterpillar Model 836
Dozer	2	1995 Caterpillar Model D4 2006 Caterpillar Model D6R
Track Loader	2	1998 Caterpillar Model 973 2005 Caterpillar Model 973
Excavator	2	2001 John Deere Model 220 2006 Caterpillar Model 330
Waste Shredder	1	2004 Diamond Z Model SWG
Posishell Applicator	1	1997 Caterpillar Model D250E
Mower	1	1992 Deweeze
Skid Steer	1	2004 Bobcat
Litter Vac	1	2003 OBD
Tanker Truck (fuel)	1	1987 International

This equipment will continue to receive routine maintenance by the City of Albany mechanics so that few breakdowns occur. In the event of a breakdown that cannot be immediately repaired by the City of Albany Staff, the City of Albany will rent a similar machine. This practice is currently in use and a replacement machine usually arrives on the site in less than one day.

A grader, located at the DGS Facility (One Conners Boulevard, Albany) has also been dedicated for use at the Landfill and will be mobilized to the site on an as-needed basis. Additional DGS equipment such as backhoes and various sizes of trucks are available on an as-needed basis.

1.5 Transportation Systems and Routes

The Rapp Road Solid Waste Management Facility is located off of Rapp Road, approximately 0.25 miles north of Washington Avenue Extension. Entrance to the site is by an existing two lane paved road. All truck traffic must access the site via Washington Avenue Extension to Rapp Road. No truck traffic related to the landfill is permitted on Rapp Road north of the landfill entrance.

Washington Avenue Extension is a four-lane, divided highway with a posted speed limit of 55 miles per hour (mph). Washington Avenue Extension approaches are well suited to handle large truck traffic as they contain two through lanes and separate left and right turn lanes. The signal system provides for protected left turn phases to facilitate movement through the intersection. The right turn lane allows large trucks to decelerate and queue up prior to entering Rapp Road. Rapp Road contains two lanes both north and south of the intersection with a posted speed limit of 30 miles per hour.

Traffic generated by landfill personnel consists of 26 employees working 3 shifts during normal operating hours (M-F 7:00 am to 3:30 pm) and two backshift employees. Other activities at the site such as maintenance of heavy City vehicles not related to landfill operations will continue under current conditions.

The current range of traffic volumes entering the site is 50 to 100 vehicles per day based on City of Albany records for Rapp Road Facility. Traffic to the site depends on the volume or tonnage of municipal solid waste entering the facility and will be consistent with the volume currently experienced due to the landfill operations. The approved capacity of the Albany Interim Landfill is currently 1,050 tons of solid waste per day (based on a rolling 30 day average), and no change or increase to this existing rate is proposed.

All waste haulers will enter the landfill site using the existing site access road. Trucks will proceed to the scales where incoming loads will be weighed before entering the landfill area. The expansion area will be initially accessed by waste haulers from the southeast corner. Haulers will enter the landfill cell, deposit solid waste near the working face, and exit the landfill.

2.0 PROPOSED SITE ANALYSIS

2.1 Facility Layout

The subgrade locations and elevations were selected considering the base liner elevation of AIL cells 1, 10 and 11 and the seasonal high groundwater level at the site. The following criteria, as required by Part 360, were also met:

- Maintain 10 foot buffer between bedrock and bottom of the lining system.
- Maintain 5 foot buffer between maximum groundwater elevation and the bottom of the lining system.
- Provide minimum 2% slope within lined area.
- Provide maximum 3:1 liner and cover system slopes.
- Provide minimum post-settlement slope of 1 % on all piping.

2.2 Subgrade

2.2.1 General

The existing topsoil layer on the east side expansion site will be stripped and stockpiled. Excavated materials will be utilized, as appropriate, for landfill operations.

The top 12 inches of the subgrade in the horizontal expansion will be compacted to 90% modified Proctor maximum dry density. Embankment construction and intermediate grading that is necessary to reach subgrade elevations, must be compacted to 90% modified Proctor maximum dry density. A minimum of nine (9) moisture/density field tests will be performed per acre per lift in order to provide certification of the required compaction.

2.2.2 Subgrade Preparation

The site of the east side expansion will be cut and filled as necessary to achieve the design grades shown on the permit drawings, as well as a 2% minimum slope. A NYS licensed land surveyor will be required to provide certification of subgrade as-built conditions, to a tolerance of 1± inch, to the Project Engineer.

2.3 Liner Components

A double composite liner will be installed over those areas of the footprint which have not been previously landfilled (i.e., the new horizontal expansion area).

The proposed liner system for the horizontal expansion area consists of the following components:

- Secondary Clay Liner;
- Secondary HDPE Geomembrane;
- Secondary Leachate Collection Layer;
- Secondary Leachate Collection Piping;
- Structural Layer;
- Primary Geosynthetic Clay Liner;
- Primary HDPE Geomembrane;
- Primary Leachate Collection Layer; and
- Primary Leachate Collection Piping.

2.3.1 Secondary Clay Liner

The secondary clay layer for the horizontal expansion will consist of 24 inches of low permeability soil. The minimum compaction required will be 90% of the modified Proctor maximum dry density to provide a maximum hydraulic conductivity of 1 x 10^{-7} cm/sec. The soil will be applied in lifts having a compacted thickness of 6 inches. QA/QC testing will be performed at the frequencies specified in Section 02206 of the Technical Specifications and in Section 3.7.3 of the Construction Quality Assurance/ Quality Control Plan. The QA/QC testing requirements meet or exceed the requirements of 6 NYCRR Part 360.

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2.3.2 Secondary HDPE Geomembrane

The secondary HDPE liner will have a minimum thickness of 60 mils. All of the geomembrane will have a textured finish on both sides in order to provide a higher friction angle for improved slope stability. The liner will be welded by approved methods. The QA/QC program will be followed for the liner installation in accordance with 6 NYCRR Part 360 and as specified in Section 02212 of the Technical Specifications and Section 3.7.4 of the Construction Quality Assurance/ Quality Control Plan.

2.3.3 Secondary Leachate Collection Layer

The secondary leachate collection layer will be installed over the secondary HDPE geomembrane. The layer will be composed of 12 inches of granular soil with a minimum permeability of 1 x 10^{-2} cm/sec when compacted to 90% modified Proctor maximum dry density. The granular soil will be installed in one 12 inch lift. QA/QC testing will be performed at the frequencies specified in Section 02207 of the Technical Specifications and Section 3.7.5 of the Construction Quality Assurance/ Quality Control Plan.

2.3.4 Secondary Leachate Collection Piping

A network of slotted 4 and 6 inch SDR 17 HDPE pipe wrapped in stone and geotextile will drain the secondary leachate collection layer. Outside the limits of the liner, the leachate from the secondary collection system will be carried to a pump station in 6 inches DR 17 HDPE piping contained within an outer 10 inch DR 17 HDPE pipe. Details for the penetration of the liner system by the leachate collection piping are shown on the permit plans.

2.3.5 Structural Fill Layer

A 12 inch structural fill layer will be constructed below the primary geosynthetic clay liner within the double composite lined area. The layer will consist of 12 inches of granular material at a minimum in place density of 90% modified Proctor maximum dry density. Density testing will be performed at a minimum rate of 9 per acre.

2.3.6 Primary Geosynthetic Clay Liner

A geosynthetic clay liner (GCL) will be used in place of the required 6 inch low permeability soil component in the primary double composite liner system. The GCL will be a shear reinforced geosynthetic clay liner composed of bentonite clay sandwiched between two nonwoven geotextiles, and needle-punched for increased internal shear resistance.

2.3.7 Primary HDPE Geomembrane

The primary HDPE liner will be a minimum of 60 mils thick, and of a textured finish on both sides in order to provide for a higher interface friction angle for improved slope stability. The HDPE geomembrane will be welded by approved methods. A QA/QC program will be conducted as specified in Section 2.3.2, above.

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2.3.8 Primary Leachate Collection Layer

The primary leachate collection layer will be installed over the primary HDPE geomembrane. The layer will be composed of 24 inches of granular soil with a minimum permeability of 1×10^{-2} cm/sec when compacted to 90% modified Proctor maximum dry density. The granular soil will be installed in one 24 inch lift. QA/QC testing will be performed at the frequencies specified in Section 02207 of the Technical Specifications and Section 3.7.5 of the Construction Quality Assurance/ Quality Control Plan.

2.3.9 Primary Leachate Collection Piping

The primary leachate collection piping will be 6 and 8 inch slotted SDR 17 HDPE pipe, as shown on the permit drawings. The design was based on pipe strength and hydraulic calculations contained in Appendix A. The leachate collection pipes will be constructed within a stone trench lined with geotextile. Stone proposed for use is crushed, screened, non-carbonate, NYSDOT No. 2 stone. The stone will exhibit an acid solubility no greater than 25% by ASTM D3042. The geotextile proposed to wrap the stone is a 10 oz/sy non-woven fabric. Pipes will be placed at the locations and slopes as shown on the permit drawings.

Outside the limits of the liner, the leachate from the primary collection system will be carried to a pump station in 8 inch SDR 17 HDPE piping contained within an outer 12 inch SDR 17 HDPE pipe. Details for the penetration of the liner system by the leachate collection piping are shown on the permit plans.

2.3.10 Geotextiles

The geotextiles in the liner design provide separation, filtration, and protection at their various locations. A 10 oz/ sy non-woven geotextile has been selected for use throughout the landfill construction. Geotextile physical properties included in the technical specification Section 02240 will ensure performance of the geotextile material in accordance with the requirements of 6 NYCRR Part 360-2.13(n)(2). Reference Appendix B for geotextile calculations.

2.3.11 Gas Collection Trenches and Piping

Gas collection trenches will be installed within select solid waste lifts, parallel to the slope and 100 feet apart, on center. The trenches will consist of a 6 inch slotted HDPE pipe, embedded in stone, tire chips or DEC approved material.. The trenches will be at least 3 feet wide and extend at least 4 feet into the waste.

The gas collection pipes will be connected upon installation to the landfill gas collection system. HDPE gas collection header piping will be installed outside of the lined area to carry the newly collected gas to a as flare system the existing gas to energy system.

2.4 Leachate Collection Systems

2.4.1 General

In order to design the proposed leachate collection systems, and confirm their feasibility, potential leachate generation quantities were estimated and hydraulic calculations were performed. Primary leachate collection system maximum head and efficiencies were completed. Calculations to ensure the integrity of piping in the primary leachate collection system was also performed. These calculations are included in Appendix B.

2.4.2 Leachate Generation

Projected quantities of leachate for the Eastern Landfill Expansion Project were estimated using the Hydrologic Evaluation of Landfill Performance (H.E.L.P.) Model. Projected leachate quantities were estimated for three separate scenarios including the empty landfill, the landfill half full with solid waste, and the landfill closed and capped. The H.E.L.P. Model calculations are contained in Appendix C. The average leachate generation quantities for the three scenarios are as follows:

- Empty Landfill: 1,850 gal./ac./day
- Half Full Landfill: 1,525 gal./ac./day
- Capped Landfill: 0.5 gal./ac./day

The actual leachate generation records for the lined landfill cells at the Rapp Road Site were reviewed to confirm the accuracy of the estimated leachate quantities. Actual records show that a total of 22,037,153 gallons of leachate was collected from the 42 acres of lined landfill area from the beginning of 2006 through the end of April 2007. This translates to an average leachate generation rate of approximately 1,100 gal./ac./day. Given that the existing landfill is approaching final waste elevations, this actual generation rate correlates well with the estimated half full rate of 1,525 gal./ac./day that was calculated for the Eastern Expansion Project. The correlation also validates the empty landfill rate of 1,850 gal./ac./day, as the empty cell rate is expected to be higher. The calculated empty landfill leachate generation rate also falls in the middle of generation rates, ranging from 1100 to 2700 gal/ac/day, cited by Dr. Robert Koerner at the NYSDEC/EPA Seminar for Advanced Landfill Design in August 1990.

2.4.3 Leachate Conveyance

The capacity of the 8 inch primary leachate gravity carrier pipe from the point of liner penetration to proposed pump station is considered to be the limiting section regarding pipe flow from the primary leachate collection system due to the minimum design slope of this section (0.5 % slope). Maximum flow in this pipe section was calculated to be approximately 330 gallons per minute (gpm) when flowing full. Calculations are included in Appendix D.

Based on a peak daily flow of 4,070 gal./ac./day for the empty landfill scenario as calculated using the H.E.L.P. Model, the peak flows from sump no. 1 and 2 of the Eastern Landfill Expansion were calculated based on cell drainage areas of 3.5 and 10.5 acres, respectively, for the sumps. The highest expected flow rate for sump No. 1 and 2 are approximately 10 gpm and 30 gpm, respectively, which can be handled by the proposed piping system.

2.5 Leachate Storage System

2.5.1 General

Leachate management for the existing landfill cells at the site includes leachate collection, sampling, testing, storage, and disposal. The existing systems consist of the leachate collection pipes, manholes, pump stations and storage tanks. Precipitation which falls on the landfill and reaches the primary liners, flows down the liners to one of the leachate collection pipes and by gravity through the manholes to the leachate pump stations, from where it is pumped via a force main to a single 522,000 gallon leachate storage tank. This same concept is proposed for the Eastern Landfill Expansion. The existing piping and pump stations will be modified as shown on the permit drawings to allow for construction of the proposed landfill cell.

Additional leachate storage capacity due to the additional leachate generation from the proposed Eastern Landfill Expansion will not be required because the City of Albany has developed an alternative to on-site leachate storage. The alternative is that the City of Albany has an executed agreement with the Albany County Sewer District to accept the leachate generated at the facility. Both the North and South Plants of the Albany County Sewer District are individually capable of treating 100% of the daily generation of leachate, and have agreed to accept this quantity of leachate. There is no set limit on the volume of leachate that can be accepted by the County. A copy of a renewed agreement with the Albany County Sewer District for the acceptance of leachate is included in Appendix E.

The City of Albany has developed a sufficient analytical history of the leachate such that the Albany County Sewer District allows a direct discharge of the leachate to the sanitary sewer system. Currently, the 522,000 gallon storage tank acts as a "pass-through" tank to equalize the flow into the sewer system. If necessary, additional storage volume is available in the 552,000 gallon tank and the second 400,000 gallon tank on the site as a contingency measure.

Since the Albany County Sewer District will be accepting the leachate on a daily basis, the 522,000 gallon storage tank will be able to be maintained at not more than 50% full on a routine basis. If, after one year of operation of the Eastern Landfill Expansion, the NYSDEC determines that the existing leachate storage capacity is insufficient, the City of Albany will construct additional storage.

Features of the proposed leachate collection and storage system are shown on sheet G-16 of the permit drawings.

2.5.2 Monitoring

The volume of leachate in the storage tank will be monitored on a daily basis by recording the leachate as indicated by the level transmitter and converting this number to gallons using a conversion chart. The quantity of rainfall will also be recorded on a daily basis from a rain gauge mounted adjacent to the tank level indicator. The existing and proposed leachate collection systems will be inspected on a regular basis.

The existing and proposed leachate collection systems will be cleaned on an annual basis to prevent clogging and to assess the overall operation and performance of the systems. Access for cleaning will be provided by strategically located clean-outs.

2.5.3 Maximum Flows

Operation of the leachate storage will follow current operations. An agreement is in place with the Albany County Sewer District that will allow for discharge on a daily basis at the North Albany Plant, and if the North Plant cannot receive flow, the South Plant will serve as a contingency. The re-direction of leachate would require storage for, at the worst case, a three day weekend.

Using the average daily leachate generation rate of approximately 1,100 gal./ac./day (based on actual site records) for the existing 42 acres of lined landfill cells at the site, and the predicted empty landfill generation rate of 1,850 gal./ac./day for the 14 acre Eastern Landfill Expansion, a total daily leachate production rate of 72,100 gal./day is realized. This leachate flow is considered a worst case scenario, as leachate production in both the existing landfill cells and the proposed landfill will decrease as additional waste is placed at the site, and portions of the existing landfill are closed as they reach capacity.

Using the worst case leachate production rate of 72,100 gal./day and considering the available on-site storage volume of 952,000 gallons (between the two existing storage tanks), leachate could be stored on-site for a maximum period of approximately 13 days. This is more than sufficient time to allow for re-direction of leachate to the South Albany WWTP if required as a contingency measure.

2.6 Geotechnical Evaluation

2.6.1 Landfill Stability Analysis

Bearing capacity of the landfill subgrade was evaluated to ensure compliance with 360-2.7(b)(6) which requires a minimum factor of safety of 2 against bearing failure of the landfill's subbase under full loading conditions. Calculations of ultimate bearing capacity versus actual overburden pressure of the full height waste mass show a factor of safety of 29; far exceeding the minimum requirements.

A stability analysis was completed for the Eastern Landfill Expansion to ensure integrity of the liner system to provide containment of contaminants and protection of the environment over the operating life and post-closure period. A computer analysis was performed using GSLOPE Version 4 by the Mitre Software Corporation. The stability analysis was completed along a cross section of the proposed landfill cell considered to represent the critical section based on the designed cell geometry and subsurface soil conditions (Cross Section A-A' on the Permit Drawings). The stability analysis considered the following cases:

- Full depth excavation during landfill construction
- Final waste mass and cover system elevations at landfill closure

Results of the analysis show a factor of safety for structural design of the facility liner and leachate collection and removal components for the full depth excavation case during construction, and for the final waste mass and cover system elevations at landfill closure equal to or greater than 1.5; which exceeds the reqirement of 360-2.7(b)(6) of 1.25.

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Geotechnical parameters for the site soils and solid waste were chosen for the analysis based on information from the borings and cone penetrometer testing performed at the site by CHA, site records of solid waste placement, and previous geotechnical investigations performed at the site by others.¶

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Stability of the individual geosynthetic/soil interfaces within the landfill liner and cover systems was also analyzed to insure integrity of the containment systems. Interface friction angles required to maintain a factor of safety of 1.5 in accordance with 360-2.7(b)(6) were determined for the critical soil/geosynthetic interfaces in the liner and cover systems for incorporation into the technical specifications for the project.

Geotechnical parameters for the site soils and solid waste were chosen for the analyses based on information from the borings and cone penetrometer testing performed at the site by CHA, site records of solid waste placement, and previous geotechnical investigations performed at the site by others. Geotechnical calculations and data are included in Appendix B.

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2.6.2 Settlement Analysis

A settlement analysis was completed for the Eastern Landfill Expansion to ensure integrity of the liner and leachate collection systems to provide containment of contaminants effective collection, conveyance, and disposal of leachate, and protection of the environment over the operating life and post-closure period. The rationale for the settlement analysis was to calculate settlement at strategic points in the proposed landfill cell based on the designed cell geometry, final waste height, and subsurface soil conditions that would result in a worst case effect on the liner with respect to differential settlement. The two points selected were along Cross Section A-A' (shown on the Permit Drawings) at the outer edge of the cell floor (adjacent to the proposed containment berm), and at the inner edge of the cell adjacent to the tie-in with the existing landfill.

The calculations performed show a differential settlement of approximately seven inches between the two points analyzed; with a higher amount of settlement on the inside edge of the landfill (adjacent to the tie-in with the existing landfill). Based on the geometry of the final waste elevations, as they directly correlate with settlement potential, the calculated differential settlement of seven inches would be considered typical between the inside and outside portions of the landfill cell when final waste elevations are achieved.

Based on the settlement analysis performed, integrity of the liner system will not be compromised. The largest negative impact of differential settlement on the liner and leachate collection systems relates to leachate flow due to potential decrease in liner slope over time. The largest impacts will occur in areas where the floor of the landfill cell slopes most directly toward the outside perimeter berm. Based on the designed cell floor grading and the results of the settlement analysis, it is anticipated that limited portions of the cell floor may decrease in slope from 2.0 percent when the cell is initially constructed, to 1.8 percent when final waste elevations are achieved at landfill closure. Based on these results, the effect on liner and leachate collection system performance is considered negligible.

The landfill liner system has been designed to meet the minimum design slope requirement of 2 percent specified in 360-2.13(i)(2), 360-2.13(k)(2)(ii), and 360-2.13(l)(2)(iii). 360-2.13(i)(2) qualifies the minimum slope requirement as a post-settlement slope upon completion of the subgrade construction. Based on inspection of Cross Section A-A'(shown on the Permit Drawings) used in the full waste height settlement analysis, it can be seen that the liner subgrade on the upgradient side of the landfill cell actually experiences a net unloading as a result of the liner system construction. Subsequently, settlement of the liner system subgrade to produce a post liner system construction slope of less than 2 percent is not predicted.

2.6.3 Seismic Analysis

A seismic stability analysis was performed using GSLOPE along Cross Section A-A', as it was determined to be the most critical geometry regarding slope stability. The program computes a pseudo-static factor of safety after incorporating inertial earthquake forces. The USGS Earthquake Hazards Program Probabilistic Look-up by Zip Code indicates a peak horizontal bedrock acceleration with 2 % probability of exceedance in 50 years to be 0.11 g at the landfill site. This value was used in the pseudo-static analysis.

Bedrock accelerations are altered based on local soil conditions. It is estimated that the peak free field ground surface acceleration at the landfill site will be altered to approximately 0.225 g, considering the underlying soils. Studies have shown that bedrock accelerations generally remain un-altered by the waste mass, resulting in an estimated peak acceleration of 0.225 g at the top of the landfill.

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The peak accelerations at the ground surface and at the top of the waste mass were determined using graphical representations of established relationships between maximum acceleration on bedrock and maximum ground accelerations for local soil conditions. The seismic analysis for is included in Appendix B.

The seismic analysis of the landfill considering the proposed waste mass elevations indicates a yield ground acceleration of approximately 0.09 g. The yield ground acceleration is defined as the acceleration that yields a pseudo-static safety factor of 1.0. The resulting ratio of the maximum acceleration at the top of the waste mass to the calculated yield acceleration is 0.40. Based on statistical correlation, a permanent displacement of up to 9.8 inches is predicted given the value of this ratio. Subsequently, the safety and integrity of the proposed landfill will not be compromised.

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2.7 Groundwater Management

Groundwater management is addressed in the Environmental Monitoring Plan appended to the Hydrogeologic Report included in Section 8 of the 6 NYCRR Part 360 Application.

2.8 Storm Water Management Plan

In order to evaluate the potential impacts associated with the proposed development, existing condition and post-development hydrographs were generated for the site, using a type II rainfall distribution. Rainfall amounts were referenced from the "New York State Stormwater Management Design Manual," Chapter 4, August 2003. The 24-hour rainfall amount for the 25-year design storm is 5.0", respectively.

The runoff curve numbers and times of concentration were computed using NRCS TR-55 methodology. Peak stormwater flows and hydrographs for the existing and post development conditions were computed using the Haestad Method's Pondpack Hydrology Program (Version 10.0). Culverts and storm pipes were analyzed for flow capacity using Hasestad Method's CulvertMaster software.

2.8.1 Existing Condition Analysis

For the purposes of the existing condition analysis, four design points (DP-1, 2, 3, 4) were defined to characterize the natural drainage patterns of the site (See Figure 1 - Existing Condition Watershed Map). The design points were selected to assess the hydrology at several culvert and storm pipe crossings. Design points proceed from north to south along the roadway. DP-1 is located at the inlet of a 36" CMP, and contains one subarea (DA-1). DA-1 is located northeast of the landfill, and contains a mix of forested areas and developed area (Fox Run Estates) that discharge runoff to DP-1.

DP-2 is located at the inlet of a silt filled culvert of indeterminable size, and contains one subarea (DA-2). DA-2 is located east of the landfill and south of DA-1, and contains a mix of wetlands and forested area that runoff to DP-2.

DP-3 is located at the inlet of dual 18" culverts, and is contains three subareas (DA-3A, 3B, 3C). DA-3A is further divided into DA-3A1 which contains most of the existing landfill, and DA-3A2 which contains the existing facility and an adjacent 8.6 acre-foot detention basin (DA-3A2).

DA-3A1 contains capped and open landfill areas, and has been modeled as a capped landfill (open space in good condition) on hydrologic soil group C for this analysis. DA-3A2 contains mostly impervious area and open space (detention basin). DA-3B is located north of DA-3A1, and contains a mix of wetlands, forested area, and developed area (Fox Run Estates). DA-3C is located east of DA-3A, and is subdivided into DA-3C1 which contains mostly wetlands and forested area, and DA-3C2 which contains a mix of forested and developed area.

DP-4 is located at the inlet of a 36" storm pipe with a headwall, and contains one subarea (DA-4). DA-4 contains a capped portion of the landfill that drains southeast along the NYS Thruway to DP-4. All runoff from the landfill (DA-3A1 and DA-4) drains overland to respective drainage points.

The results of the existing condition analysis are shown in Table 1 below.

Table 1 - Existing Condition Analysis Summary

Design Point	Watershed	Area (acres)	Tc (hours)	Curve Number	Peak Flow Rate (cfs)
					25-year
DP-1	DA-1	46.8	0.4	57	39.7
DP-2	DA-2	17.9	0.8	71	23.7
DP-3	DA-3A1	64.8	0.6	67	79.7
	DA-3A2	9.4	0.4	79	3.3
	DA-3B	45.4	0.9	71	51.2
	DA-3C1	18.6	0.5	60	17.5
	DA-3C2	14.9	0.5	53	8.3
	Total	153.4	-	66	147.0
DP-4	DA-4	49.1	0.4	66	74.2

2.8.2 Proposed Condition Analysis

The Eastern Expansion of the landfill will result in a reduction of impervious area in watershed (DA-1), due to the conversion of an existing trailer park (Fox Run Estates) to brush and wetlands. A swale will be constructed north of the existing landfill and will reduce the amount of runoff flowing to the dual 18" culverts (DP-3). Flows to DP-2 and DP-4 will not change from existing to post-construction condition. The expansion of the landfill (DA-3A) will improve or maintain hydrologic soil class (modeled as HSG C) and alter existing impervious landcover (formerly DA-3A2) to pervious vegetated land. The project will also include major site grading within the landfill lateral expansion area. To assess the effect of these changes on the drainage patterns of the watershed, landcovers, hydrologic soil groups and drainage areas were altered accordingly and analyzed.

For the purposes of the proposed condition analysis, design points (DP-1, 2, 3, 4) were maintained to characterize the natural drainage patterns of the site (See Figure 2 - Post-Development Watershed Map).

Drainage areas from the existing condition analysis were adjusted as follows. Addition of a restoration stream through DA-1 and DA-3B increased contributing area to DA-1 and reduced the equivalent amount in area DA-3B. Impervious area was removed in DA-1 and replaced with wetland storage areas. DA-1 contains mostly wetlands and forested areas. DA-2 remained unchanged from the existing to proposed condition. DA-3A1 and 3A2 were merged into DA-3A and represent the entire landfill area and lateral expansion area, excluding a portion of the landfill which drains to the south (DA-4). The existing facility and detention basin (formerly DA-3A2) were removed to accommodate the lateral expansion. DA-3C1 remained unchanged from the existing to proposed condition. The overall area in DA-3C2 remained unchanged, however 2.6 acres of forested area was converted to impervious area. DA-4 remained unchanged from the existing to proposed condition. All runoff from the landfill (DA-3A1 and DA-4) drains overland to respective drainage points.

The results of the proposed condition analysis are shown in Table 2 below.

Table 2 - Proposed Condition Analysis Summary

Design Point	Watershed	Area (acres)	Tc (hours)	Curve Number	Peak Flow Rate (cfs)
					25-year
DP-1	DA-1	76.3	0.8	62	59.6
DP-2	DA-2	17.9	0.8	71	23.7
DP-3	DA-3A	73.0	0.4	72	156.6
	DA-3B	14.6	0.9	72	18.0
	DA-3C1	18.6	0.5	60	17.5
	DA-3C2	14.9	0.3	59	18.3
	Total	121.1	-	69	200.9
DP-4	DA-4	49.1	0.4	66	74.2

2.8.3 Proposed Mitigated Condition Analysis

As a result of the project, wetlands and vegetation will be added to DA-1. Addition of wetlands will increase storage within DA-1, and therefore reduce runoff flows to DP-1. Storage may be accounted for through an initial abstraction for storage, which accounts for added storage within a subarea by effectively adjusting (reducing) the subarea curve number. Ponding within wetland storage areas was assumed to occur to a depth of one foot. The results of the adjusted post-development analysis for DP-1 are shown in Table 3 below.

Table 3 – Adjusted Post-Development Analysis Summary

Design Point	Watershed	Area (acres)	Tc (hours)	Curve Number	Peak Flow Rate (cfs)
					25-year
DP-1	DA-1	76.3	0.8	53	28.8

The project will also include reestablishing native vegetation in and around the landfill area. For the purpose of the existing and proposed condition analysis, the landfill and lateral expansion area were considered to be capped, and were modeled as open space in good condition on hydrologic soil group C. Also, overfill of sand will occur within the landfill area. Addition of vegetation and overfill will improve the soil condition within the capped landfill and lateral expansion area. Therefore, the landfill and lateral expansion area were modeled in the proposed mitigated condition analysis as open space in good condition on hydrologic soil group B. Additionally, flows to DP-2 and DP-4 are constant from the existing to proposed condition. The results of the proposed mitigated condition analysis to DP-1 are shown in Table 4 below and detailed computations are included.

Table 4 - Proposed Mitigated Condition Analysis Summary

Design Point	Watershed	Area (acres)	Tc (hours)	Curve Number	Peak Flow Rate (cfs)
					25-year
DP-3	DA-3A	73.0	0.4	61	90.1
	DA-3B	14.6	0.9	72	18.0
	DA-3C1	18.6	0.5	60	17.5
	DA-3C2	14.9	0.3	59	18.3
	Total	121.1	-	69	135.4

As a result of the project, peak flowrates and runoff volumes will not be increased. Therefore, all on site culverts and storm pipes that provide safe conveyance for the 25-year storm in the existing condition will also provide safe conveyance for the proposed mitigated condition. Culverts and storm pipes at drainage points (DP-1, 2, 3, 4) were analyzed for size and capacity in regards to the existing 25-year, 24-hour storm. The 36” CMP at DP-1 is of adequate capacity to pass the 25-year storm. The culvert at DP-2 is silt filled and of indeterminable size. A culvert of 36” is required at DP-2, in order to adequately pass the 25-year storm. The existing dual 18” culverts are currently undersized to safely convey the 25-year storm. These culverts must be replaced with two 24" CMP in order to safely convey a 25-year storm event. The 36" storm pipe at DP-4 currently provides safe conveyance; as such will remain as is.

2.9 Erosion and Sedimentation Control Plan

Standard methods of erosion and sedimentation control will be practiced during construction. These methods are described in the Technical Specifications and permit drawings. Long term controls will be provided by establishing vegetative cover in as many areas as practical within the project area and are identified on the permit drawings. Prior to establishing final vegetative cover, erosion control blankets will be installed on the cover system slopes. Design calculations included in Appendix C indicate that the cover soils will remain stable with respect to erosion and sedimentation for up to 11 month with an appropriate erosion control blanket, such as C-125 by North American Green or equal, installed.

2.10 Landscape Plan

Landscaping will be in accordance with the facility's existing landscape management plans. After the Eastern Landfill Expansion construction is completed, all disturbed areas will be topsoiled and seeded, consistent with current existing conditions. At the end of landfilling, the Eatern Landfill Expansion area will be capped, topsoiled, and seeded, in compliance with the closure plan.

A seed mix will be used that contains species native to the Pine Bush. The following mix of species may be used: Indian Grass, Big Bluestem, Wild Blue Lupine, Round-Headed Bush Clover, and Annual Rye Grass. These species were selected in coordination with the Albany Pine Bush Preserve Commission, in a cooperative effort to select those species which were most appropriate to sustained growth on a landfill cap. These species are perennial, mowable, drought tolerant, and adept to growth on side slopes.

The growth of native Pine Bush species fits well into the long range site use plan, which is to support the native wildlife present within the area. No additional plans for future site use, aside from post-closure monitoring and gas to energy conversion are currently in planned.

2.11 Frost Protection

No additional measures for covering or insulating the lined area are proposed as a part of this permit application. The sand blanket, as well as the geosynthetic lining components are not susceptible to frost damage, and are, therefore, not a concern. The only area for the possible concern of frost damage is the secondary clay liner.

The concern for frost damage to the secondary clay liner is minimal for a number of reasons. First, the liner is overlain by 48 inches of drainage sand which will afford it insulation. Secondly, research has shown degradation in permeability after many freeze thaw cycles. However, the vast majority of the landfill liner will be covered with solid waste relatively quickly, leaving little possibility for exposure to many freeze thaw cycles. Research also shows that the permeability degradation repairs itself when the system is loaded (waste is applied to the cell).

2.12 Materials Protection

Daily inspection will be made of installed construction materials to ensure that the materials continue to meet specifications and are in compliance with the requirements of 6 NYCRR Part 360-2.13 from completion of construction to operation of the new landfill cell.

2.13 Gas Recovery System

The City of Albany plans to continue with the practice of active landfill gas collection for the AIL, including the Original AIL, Wedge, P-4 Project and Eastern Landfill Expansion. Details of the plans can be found in the Gas System Design Report.

3.0 CLOSURE AND POST-CLOSURE MAINTENANCE AND OPERATION

3.1 Closure Design

The conceptual closure design, was developed in accordance with 6 NYCRR Part 360-2.15(b), and applicable portions of 6 NYCRR Part 360-2.15(c) and (d). The conceptual closure site and details is shown on the permit drawings in accordance with 6 NYCRR Part 360-2.15(b)(1) and (2).

An approvable final closure plan will be submitted to the department within 60 days before the last receipt of waste, within 60 days before the last day of operating permit, or in accordance with permit requirements, whichever is earlier. The plan will comply with the requirements of Part 360-2.13 and 2.15(b), (c) and (d).

In order to maximize landfill airspace, filling of the landfill will progress with side slopes of 33% (3H to 1V) up to an elevation of 460 feet. The remaining fill will produce a slope of 4% across the top of the landfill up to a maximum elevation of 474 feet. The final grading plan is provided on Drawing G-10 of the permit drawings. In accordance with 6 NYCRR Part 360-2.15(b)(3) and (4), the largest active portion of the Eastern Landfill Expansion that will require a final cover is estimated to encompass 36 acres and have a capacity of 2,925,000 C.Y.

The cover system will meet the requirements of 6 NYCRR Part 360-2.15(d). For the side slope areas over 25%, the cap will consist of, from bottom to top, a 12 inch intermediate cover layer, a 40 mil LLDPE geomembrane, a 24 inch barrier protection layer, and a 6 inch topsoil (vegetative) layer.

For the top of the landfill, where final slopes will be less than 25%, a composite cap will be constructed. The composite cap will consist of, from bottom to top, a 12 inch intermediate cover layer, an 18 inch barrier soil layer, a 40 mil LLDPE geomembrane, a 24 inch barrier protection layer, and a 6 inch topsoil (vegetative) layer.

In both of the above cases, the 12 inch gas venting soil layer required by 6 NYCRR Part 360 has been eliminated, as active gas collection will be a part of the operational and post-closure plan for the expansion, and has been approved for the facility as an equivalent design by NYSDEC, upon issuance of the permit for the Wedge. Reference DEC correspondence included in Appendix F.

A cost estimate for the closure of the landfill is included in Section 13 of the permit application for the Eastern Landfill Expansion. The closure estimate has been prepared to fulfill the requirements of 6 NYCRR Part 360-2.19(b) and include the information required by 6 NYCRR Part 360-2.15(b)(5)(i) and (ii).

3.2 Post-Closure Monitoring and Maintenance

Post-closure environmental monitoring and maintenance will meet the requirements of 6 NYCRR Part 360-2.15(k).

Post-closure water quality monitoring meeting the requirements of 6 NYCRR Part 360-2.15(k)(4) is addressed in detail within the Environmental Monitoring Plan appended to the Hydrogeological Report in Section 8 of the 6 NYCRR Part 360 Application.

Landfill gases will be controlled after closure in accordance with 6 NYCRR Part 360-2.15(e) by the active gas recovery system which will continue to operate after closure. Perimeter gas collection as required by 6 NYCRR Part 360-2.15(f) will not be necessary while the recovery system is operational. Details of the gas control system are included in the Gas Collection System Report included in Section 13 of the permit application.

The landfill cover system, vegetation, drainage control structures, leachate and gas collection systems, and other site facilities will be monitored during regular inspections and maintained after closure of the landfill in accordance with 6 NYCRR Part 360-2.15(k).

3.3 Closure of Leachate Collection and Storage

Closure of the system will be completed within 180 days after leachate collection has ceased, or when demonstration can be made by the owner that the leachate no longer poses a threat to human health or the environment, however, in no case will closure be made before the DEC waives the requirement set forth in Part 360-2.15(k)(5).

All solid waste will be removed from the tanks, connecting lines, and all associated secondary containment systems. All solid waste removed will be properly handled and disposed of according to Federal and State requirements, and all connecting lines will be disconnected and securely capped or plugged.

Access ways to the aboveground tanks will be securely fastened in place to prevent unauthorized access. Tanks will be stenciled with the date of permanent closure. The secondary containment system will be breached to provide for drainage with the approval of the DEC.

3.4 Closure of Gas Recovery System

The landfill gas recovery system will be operated and maintained by the City of Albany in accordance with all applicable federal, state and local regulations and permits until the DEC receives and approves, in writing, a request for its shutdown. If subsequent to the approved shutdown of the system, odor or methane problems or landfill gas pressure problems in the waste mass are identified by either the City, its engineering consultant, or by the DEC, the City will immediately either reactivate the existing active system or install and place an operational alternative system with appropriate air pollution controls as proposed to and approved by the DEC.

Upon final termination of operations of the landfill gas recovery system, a long-term gas monitoring program, to be approved by the DEC, will be developed and implemented which evaluates the migration of landfill gases off-site and excessive uplift forces under the landfill cap from gas pressures in the waste mass that may impact the cap's integrity.

APPENDIX A

Leachate/Liner Systems Calculations

Leachate Generation Calculations

Liner Efficiency/Maximum Head Calculations

Pipe Integrity Calculations

CHA COMPUTATION PAD

	DMF		1 2 2 0 6 4 0 0 5 1 5 0 2
	JAE		1 of 5
PROJECT NAME	Eastern Landfill Expansion	DATE	5/9/07 Rev. 2/14/08
	Rapp Road Landfill		Pipe Integrity Calcs

Evaluation of Static Loading on Primary Leachate Collection Pipes

From Design Drawings:
Max. Waste height over LCS = 120'
~~Max. Waste height = 350'~~ — Waste @ 75 lb/c.f.
Cap thickness = 3' — Soil @ 120 lb/c.f.
PLCS thickness over pipe = 1.5' — Soil @ 120 lb/c.f.

Total static Load:
$\cancel{90}$ 120' × 75 lb/ft³ = ~~6,750~~ 9,000 psf
3' × 120 lb/ft³ = 360 psf
1.5' × 120 lb/ft³ = 180 psf

~~7290~~ 9,540 psf = ~~51~~ 66.25 psi = P_t ✓

Wall Crushing:

Use SDR 17 (from Des. [illegible])
Compressive Strength = 1,600 psi (ISCO Industries)

SA = Actual Compressive Strength = $\left(\frac{SDR-1}{2}\right) P_t$

$SA = \left(\frac{17-1}{2}\right)(\cancel{51}\ 66.25 \text{ psi}) = \cancel{408}\ 530 \text{ psi}$ ✓

SF = 1,600 psi / ~~408~~ 530 psi = ~~3.9~~ 3.0 ✓ ≈ OK ✓

Wall Buckling:

P_s = 51 psi
E = 23,000 psi (50 year service life)

P_c = Critical Collapse Differential Pressure = $\frac{2.32\,(E)}{(SDR)^3} = \frac{(2.32)(23{,}000 \text{ psi})}{(17)^3} = 10.9 \text{ psi}$ ✓

Reference Materials Follow

CHA COMPUTATION PAD

CLIENT:	DLIF	PROJECT #:	12206400515022
COMPUTED BY:	JAK	PAGE:	2 OF 5
PROJECT NAME:	Eastern Landfill Expansion	DATE:	5/9/07
	Rapp Road Landfill	SUBJECT:	Pipe Integrity Calcs.

Soil Modulus (E') : Coarse Grained Soil, Moderate to High Compaction

Use E' = 3,000 psi

Critical Buckling Pressure (P_{cr}) = $0.8\sqrt{E' \cdot P_c}$

$$= (0.8)\sqrt{(3000)(10.9)}$$
$$= (0.8)(181)$$
$$= 145$$

SF = P_{cr}/P_T = 145 psi / ~~51~~ 66.25 psi = ~~2.8~~ 2.2 ✓ ≈ OK

Ring Deflection :

% Soil Strain = P_T/E = (~~51~~ 66.25 psi / 3,000 psi) 100 = ~~1.7%~~ 2.2%

Allowable Deflection for SDR 17 HDPE ≠ 5%

SF = 5% / ~~1.7%~~ 2.2% = ~~2.9~~ ✓ 2.3 ✓ OK

Reference Materials Follow

High Density Polyethylene

HDPE CHARACTERISTICS
TYPICAL PROPERTIES
CHEMICAL RESISTANCE CHAR
SIZE AND DIMENSION CHARTS
APPLICATION
CALCULATION PROGRAMS

TYPICAL PROPERTIES

HIGH DENSITY POLYETHYLENE PIPE
Typical Physical Properties***

Property	Specification	Unit	Nomin Value
Material Designation	PPI / ASTM		PE 3408
Material Classification	ASTM D-1248		III C 5 F
Cell Classification	ASTM D3350-99		345464(
-Density (3)	ASTM D-1505	gm/cm3	0.955
-Melt Index (4)	ASTM D-1238 (216 kg/190iC)	gm/10 min.	0.11*
-Flex Modulus (5)	ASTM D-790	psi	135,000
-Tensile Strength (4)	ASTM D-638	psi	3,200
PENT (6)	ASTM F-1473	Hours	>100
-HDB @73i F (4)	ASTM D-2837	psi	1,600
-HDB @ 140 Deg F	ASTM D-2837	psi	800
-U-V Stabilizer (C)	ASTM D-1603	% C	2.5
Hardness	ASTM D-2240	Shore "D"	65
Compressive Strength (yield)	ASTM D-695	psi	1,600
Tensile Strength @ Yield (Type IV Spec.)	ASTM D-638 (2"/min.)	psi	3,200
Elongation @ Yield	ASTM D-638	%, minimum	8
Tensile Strength @ Break (Type IV Spec.)	ASTM D-638	psi	5,000
Elongation @ Break	ASTM D-638	%, minimum	750
Modulus of Elasticity	ASTM D-638	psi	130,000
PENT (6)	ASTM F-1473	Hours	>100
(Cond. A, B, C: Mold. Slab)	ASTM D-1693	Fo, Hours	>5,000
(Compressed Ring - pipe)	ASTM F-1248	Fo, Hours	>3,500
Slow Crack Growth	Battelle Method	Days to Failure	>64
Impact Strength (IZOD) (.125Ó Thick)	ASTM D-256 (Method A)	In-lb / in notch	42
Linear Thermal Expansion Coef.	ASTM D-696	in / in/iF	1.2x10-
Thermal Conductivity	ASTM D-177	BTU-in/ft2/ hrs/ degreesF	2.7
Brittleness Temp.	ASTM D-746	degrees F	< -180
Vicat Soft. Temp.	ASTM D-1525	degrees F	257
Heat Fusion Cond.	ASTM D-1525	@ psi degrees F	75 @ 4C

*** This list of typical physical properties is intended for basic characterization of the materi does not represent specific determinations of specifications. The physical properties values re herein were determined on compression molded specimens prepared in accordance with Proc C of ASTM D 1928 and may differ from specimens taken from pipe.
** Tests were discontinued because no failures and no indication of stress crackinitiation.
* Average Melt Index value with a standard deviation of 0.01

The modulus is selected using the same criteria used for determining the stress in the pipe wall due to the thermal change. The applicability of Euler's equation for any specific pipeline calculation must be evaluated. For pipe installed on top of a surface (i.e. the ground, a pipe rack) pipe and fluid weight in the pipe and frictional forces increase the critical thrust force whereas in aerial applications weight and initial curvature due to deflection reduce the critical thrust force.

While the amount of length change experienced by polyethylene pipe during thermal changes is greater than many other materials, the amount of force required to restrain the movement is less because of its lower modulus of elasticity.

Table 1 Typical Elastic Modulus for DriscoPlex® PE 3608

Load Duration	*Elastic Modulus†, 1000 psi (MPa), at Temperature, °F (°C)*							
	-20 (-29)	*0 (-18)*	*40 (4)*	*60 (16)*	*73 (23)*	*100 (38)*	*120 (49)*	*140 (60)*
Short-Term	300.0 (2069)	260.0 (1793)	170.0 (1172)	130.0 (896)	110.0 (758)	100.0 (690)	65.0 (448)	50.0 (345)
10 h	140.8 (971)	122.0 (841)	79.8 (550)	61.0 (421)	57.5 (396)	46.9 (323)	30.5 (210)	23.5 (162)
100 h	125.4 (865)	108.7 (749)	71.0 (490)	54.3 (374)	51.2 (353)	41.8 (288)	27.2 (188)	20.9 (144)
1000 h	107.0 (738)	92.8 (640)	60.7 (419)	46.4 (320)	43.7 (301)	35.7 (246)	23.2 (160)	17.8 (123)
1 y	93.0 (641)	80.6 (556)	52.7 (363)	40.3 (278)	38.0 (262)	31.0 (214)	20.2 (139)	15.5 (107)
10 y	77.4 (534)	67.1 (463)	43.9 (303)	33.5 (231)	31.6 (218)	25.8 (178)	16.8 (116)	12.9 (89)
50 y	69.1 (476)	59.9 (413)	39.1 (270)	29.9 (206)	28.2 (194)	23.0 (159)	15.0 (103)	11.5 (79)

† Typical values based on ASTM D 638 testing of molded plaque material specimens.
Modulus values for PE4710 are under development.

Controlling Expansion and Contraction

Black polyethylene pipe on the surface or above grade and exposed to the sun can absorb solar energy. The resulting pipe temperatures can be greater than the air temperature. To help reduce temperature changes resulting solar heating of a piping system, the pipe may be shaded or placed in a location that receives less direct sunlight.

The effects of thermal expansion and contraction on a piping system can be controlled in several ways, including

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Table 7-7 Bureau of Reclamation Average E' Values for Iowa Formula (Initial Deflection)

Soil type – pipe bedding material (Unified Classification)†	*E' for Degree of Bedding Compaction, lb/in²*			
	Dumped	*Slight (<85% Proctor <40% relative density)*	*Moderate (48%-95% Proctor 40%-70% relative density)*	*High (>95% Proctor >70% relative density)*
Fine-grained soils (LL>50)‡ Soils with medium to high plasticity CH, MH, CH-MH	No data available; consult a competent soils engineer; otherwise, use E' = 0.			
Fine-grained soils (LL<50) Soils with medium to no plasticity CL, ML, CL-ML, with <25% coarse grained particles	50	200	400	1000
Fine-grained soils (LL<50) Soils with medium to no plasticity CL, ML, CL-ML, with >25% coarse grained particles Coarse-grained soils with fines GM, GC, SM, SC◊ contains >12% fines	100	400	1000	2000
Coarse-grained soils with little or no fines GW, GP, SW, SP◊ contains <12% fines	200	1000	2000	3000
Crushed rock	1000	3000	3000	3000
Accuracy in terms of percentage deflection▼	±2%	±2%	±1%	±0.5%

† ASTM D 2487; USBR Designation E-3. ‡ LL = Liquid limit. ◊ Or any borderline soil beginning with one of these symbols, i.e., GM-GC, GC-SC. ▼For ±1% accuracy and predicted deflection of 3%, actual deflection would be between 2% and 4%.

Note – Values applicable only for fills less than 50 ft (15 m). No safety factor included in table values. For use in predicting initial deflections only; appropriate Deflection Lag Factor must be applied for long-term deflections. If bedding falls on the borderline between two compaction categories, select the lower E' value or average the two values. Percentage Proctor based on laboratory maximum dry density from test standards using 12,500 ft-lb/ft^3 (598,000 J/m^2) (ASTM D 698, AASHTO T-99, USBR Designation E-11). 1 lb/in^2 = 6.895 kPa.

Table 7-8 Duncan-Hartley Soil Reaction Modulus

Type of Soil	Depth of Cover, ft	E' for Standard AASHTO Relative Compaction, lb.in²			
		85%	90%	95%	100%
Fine-grained soils with <25% sand content (CL, ML, CL-ML)	0-5	500	700	1000	1500
	5-10	600	1000	1400	2000
	10-15	700	1200	1600	2300
	15-20	800	1300	1800	2600
Coarse-grained soils with fines (SM, SC)	0-5	600	1000	1200	1900
	5-10	900	1400	1800	2700
	10-15	1000	1500	2100	3200
	15-20	1100	1600	1400	3700
Coarse-grained soils with little or no fines (SP, SW, GP, GW)	0-5	700	1000	1600	2500
	5-10	1000	1500	2200	3300
	10-15	1050	1600	2400	3600
	15-20	1100	1700	2500	3800

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Table 7-9 Safe Pressure Pipe Deflection

DR	*Safe Deflection as % of Diameter*
32.5	8.5
26	7.0
21	6.0
17	5.0
13.5	4.0
11	3.0
9	2.5

Example 7-13

Find the ring bending strain in the wall of the DriscoPlex™ 2000 SPIROLITE® 36" Class 100 pipe in Example 7-12.

Solution: Use Formula 7-40 and f_D = 6.0. From Bulletin PP-401, h = 2.02 in., and z = 0.58 in.

$$\varepsilon = 6(0.0237)\frac{(2.02-0.58)}{(36+2(0.58))} = 0.0055 = 0.55\%$$

The strain is well below the permissible strain for ASTM F 894 profile pipe.

Design Considerations For Shallow Cover Pipe

Pipe installed under shallow cover does not completely develop a the interaction between pipe and soil structure interaction; therefore, design methods must be modified. The designer should consider the following three cases: (1) flotation due to insufficient soil cover, (2) ring bending due to live load, and (3) upward buckling due to flooding or high groundwater levels.

The exact depth of cover required to fully develop pipe-soil structure interaction depends on the particular installation conditions.

Shallow Cover Surcharge Load

The preceding design methods assume that the pipe behaves primarily as a membrane structure, that is, the pipe is almost perfectly flexible with little ability to resist bending.

At depths of cover less than one pipe diameter, this membrane action may not develop fully, thus a surcharge load or live load places a bending load on the pipe crown. For this reason, flexible pipe manufacturers often recommend that pipe be buried at least one pipe diameter below a live load. If this cannot be accomplished, the designer should perform a special analysis to determine if the pipe has adequate beam bending strength.

R. Watkins in *Minimum Soil Cover Required Over Buried Flexible Cylinders* provides a design equation for determining the pipe cross section for shallow cover live load applications. Watkins' method presumes that a combination of pipe flexural strength and the ring resistance of the soil surrounding the pipe resist the live load at shallow cover. The maximum bending stress

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Off-Highway and Unpaved Road Loads

Off-highway vehicles may be considerably heavier than H20 or HS20 trucks, and these vehicles frequently operate on unpaved roads that may have uneven surfaces. Thus impact factors higher than 1.5 may be reached depending on the vehicle speed. Except for slow traffic, an impact factor of 2.0 to 3.0 should be considered.

During construction, both permanent and temporary underground pipelines may be subjected to heavy vehicle loading from construction equipment. A designated vehicle crossing with special design measures such as temporary pavement or structural sheeting may be prudent, as well as vehicle speed controls to limit impact loading.

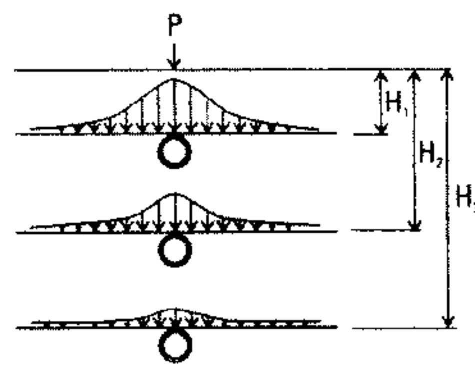
Vehicular Loads As Point Loads

There are generally two approaches for calculating vehicle live load surcharge pressure. The more conservative approach is to treat the wheel load as a concentrated (point) load. The other is to treat it as a distributed load spread over the contact area of the tire with the ground (imprint area). The pressure due to a distributed load and the pressure due to a concentrated load begin to approach the same value at a depth of about twice the square root of the loaded area.

The distributed load method gives more realistic values where the depth equals less than twice the square root of the loaded area, whereas for deeper depths concentrated loads are preferred because the calculations are simpler and typically more conservative.

The pressure distribution under a concentrated load varies with depth as illustrated in Figure 7-9. When the live load is calculated using the point load methods in the following sections, a conservative approach is to assume that the maximum pressure at the pipe crown is distributed across the entire pipe.

Figure 7-9 Concentrated Vehicular Load Pressure Distribution at Various



A key consideration in determining live load pressure on the pipe is the location of vehicle wheels relative to the pipe. A higher pressure may occur below a point between two vehicles passing in adjacent lanes than directly under a single vehicle wheel. This depends on the depth of cover.

When depths are not greater than four or five feet, the combined H20 load for two separate wheels straddling the pipe is greater than that for a single wheel directly over the pipe. Deeper than five feet, H20 loads are not usually significant because the load is attenuated significantly compared loads under one or two feet of cover. However, greater live loads may produce design significant effects at depths greater than five feet. Therefore, the designer should check load conditions for a single wheel directly over the pipe, and for two wheels spaced six feet apart and centered over the pipe.

Single Wheel Load Centered On Pipe

To check a single wheel load centered directly over the pipe, a method based on Holl's integration of Boussinesq's equation assumes that the wheel load is a concentrated (point) load. Holl's integration finds the pressure at the depth of the pipe crown that is distributed over a surface three feet long and the width of the pipe outside diameter.

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Holl's Integration

Holl's equation for the average vertical pressure acting on a pipe due to a concentrated surface load is:

Holl's Equation

$$P_L = C_H \frac{I_f W_L}{L D} \quad \textbf{(7-12)}$$

Where terms are previously defined and:

I_f	=	impact factor
C_H	=	load coefficient, Table 7-4
W_L	=	wheel load, lb
L	=	pipe length, ft
D	=	pipe outside diameter, ft

If the pipe is longer than 3 ft, the usual practice is to assume a length of 3 ft. Values for C_H are found in Table 7-4 as a function of D/2H and L/2H where H is the depth of cover.

Example 7-4

Find the single H20 rear wheel live load surcharge pressure on a 30" OD pipe buried 4 feet deep. Assume an impact factor of 1.5.

Solution: Use Formula 7-12, Table 7-4, and Figure 7-7. To solve Formula 7-12, the load coefficient, C_H, from Table 7-4 is required. For 4 ft of cover, D/2H = 0.31, and L/2H = 0.38. Interpolating Table 7-4 for C_H yields 0.189. From Figure 7-7, the H20 rear wheel live load is 0.4 x 40,000 = 16,000 lb. Solving Formula 7-12 yields:

$$P_L = (0.189)\frac{(1.5)(16{,}000)}{3\left(\frac{30}{12}\right)}$$

$$P_L = 598\ lb/ft^2$$

Multiple Wheel Loads Along Pipe Length

In many cases, the maximum load on the pipe occurs when a single (or dual) wheel is located directly over the pipe. However, at some depths the combined load due to more than one wheel may be larger than the single wheel load. This usually occurs at a location along the pipe that is not directly beneath a wheel load. This point (Figure 7-10, Case I, Point 2) will usually be centered between two wheel loads.

Point Load on Pipe Crown

The Boussinesq point load equation may be used to find the wheel load pressure on the pipe, neglecting any pavement effects. Pavement effects are covered later using a modified form of Boussinesq's equation, Formula 7-13.

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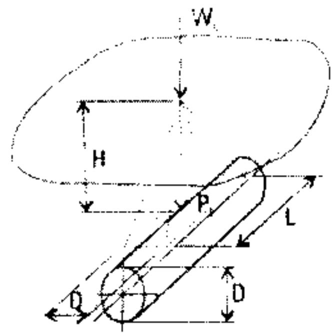
Table 7-4 Load Coefficient, C_H, for Holl's Integration of Boussinesq's Equation



D/2H	L/2H													
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0	20.0
0.1	0.019	0.037	0.053	0.067	0.079	0.089	0.097	0.103	0.108	0.112	0.117	0.121	0.124	0.127
0.2	0.037	0.072	0.103	0.131	0.155	0.174	0.189	0.202	0.211	0.219	0.229	0.238	0.244	0.248
0.3	0.053	0.103	0.149	0.190	0.224	0.252	0.274	0.292	0.306	0.318	0.333	0.346	0.355	0.361
0.4	0.067	0.131	0.190	0.241	0.284	0.320	0.349	0.373	0.391	0.405	0.425	0.442	0.454	0.462
0.5	0.079	0.155	0.224	0.284	0.336	0.379	0.414	0.441	0.463	0.481	0.505	0.525	0.540	0.550
0.6	0.089	0.174	0.252	0.320	0.379	0.428	0.467	0.499	0.524	0.544	0.572	0.596	0.613	0.625
0.7	0.097	0.189	0.274	0.349	0.414	0.467	0.511	0.546	0.574	0.597	0.628	0.655	0.674	0.688
0.8	0.103	0.202	0.292	0.373	0.441	0.499	0.546	0.584	0.615	0.639	0.674	0.703	0.725	0.740
0.9	0.108	0.211	0.306	0.391	0.463	0.524	0.574	0.615	0.647	0.673	0.711	0.743	0.766	0.783
1.0	0.112	0.219	0.318	0.405	0.481	0.544	0.597	0.639	0.673	0.701	0.740	0.775	0.800	0.818
1.2	0.117	0.229	0.333	0.425	0.505	0.572	0.628	0.674	0.711	0.740	0.783	0.821	0.849	0.871
1.5	0.121	0.238	0.346	0.422	0.525	0.596	0.655	0.703	0.743	0.775	0.821	0.863	0.895	0.920
2.0	0.124	0.244	0.355	0.454	0.540	0.613	0.674	0.725	0.766	0.800	0.849	0.895	0.930	0.960
20.0	0.127	0.248	0.361	0.462	0.550	0.625	0.688	0.740	0.783	0.818	0.871	0.920	0.960	1.000

Boussinesq's Equation

$$P_L = \frac{3 I_f W_L H^3}{2 \pi r^5} \tag{7-13}$$

Where terms are previously defined and:

H = vertical depth to point on pipe crown, ft
r = distance from the point of load application to the pipe crown, ft

$$r = \sqrt{X^2 + H^2} \tag{7-14}$$

Where:

X = horizontal distance from the point of load application to the pipe crown, ft

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Hydraulic Calculations

APPENDIX B

Geotechnical Calculations

CHA COMPUTATION PAD

COMPLETED BY: DMF	PROJECT / PHASE / TASK: 12206 / 4009 / 1502
CHECKED BY:	SHEET # 1 OF 1
PROJECT NAME: Eastern Landfill Expansion	DATE: 3/3/08
PROJECT LOCATION: Rapp Road Landfill	SUBJECT: Bearing Capacity Calculation

A bearing capacity type failure of the landfill subgrade is assumed to occur for a small loaded area. For this analysis, a 1'x1' area is assumed to be the loaded area.

The ultimate bearing capacity is calculated using the following general bearing capacity formula:

$$q_u = \gamma B N_\gamma F_\gamma + c N_c F_c + \gamma D_f N_q$$

__where:__ N_γ, N_c, N_q are Terzaghi Bearing capacity factors for general shear

F_γ, F_c are shape factors for loaded area

B = loaded area width

D_f = Depth of loaded area

γ = unit weight (soil, waste)

__For landfill subgrade:__ $\gamma = 120$ pcf

$c = 0$ (cohesionless sand)

$\phi = 32^\circ$ (internal friction angle typical for sands)

$\gamma_{soil} = 120$ pcf

$D_f = 170'$ (highest landfill mass height resulting from expansion)

$\gamma_{waste} = 75$ pcf

For $\phi = 32^\circ$, $N_\gamma = 26.87$, $N_c = 44.08$, $N_q = 28.52$

for square area: $F_\gamma = 0.85$ $F_c = 1.25$

$\therefore q_u = (120)(1)(26.87)(.85) + (0)(44.08)(1.25) + (75)(170)(28.52)$
$= 3.7 \times 10^5$ psf

Safety Factor $= q_u / p_{actual} = \dfrac{3.7 \times 10^5 \text{ psf}}{(75 \text{ pcf})(170')} = 29 \geq 2$

Settlement Calculations

Liner System Stability Calculations

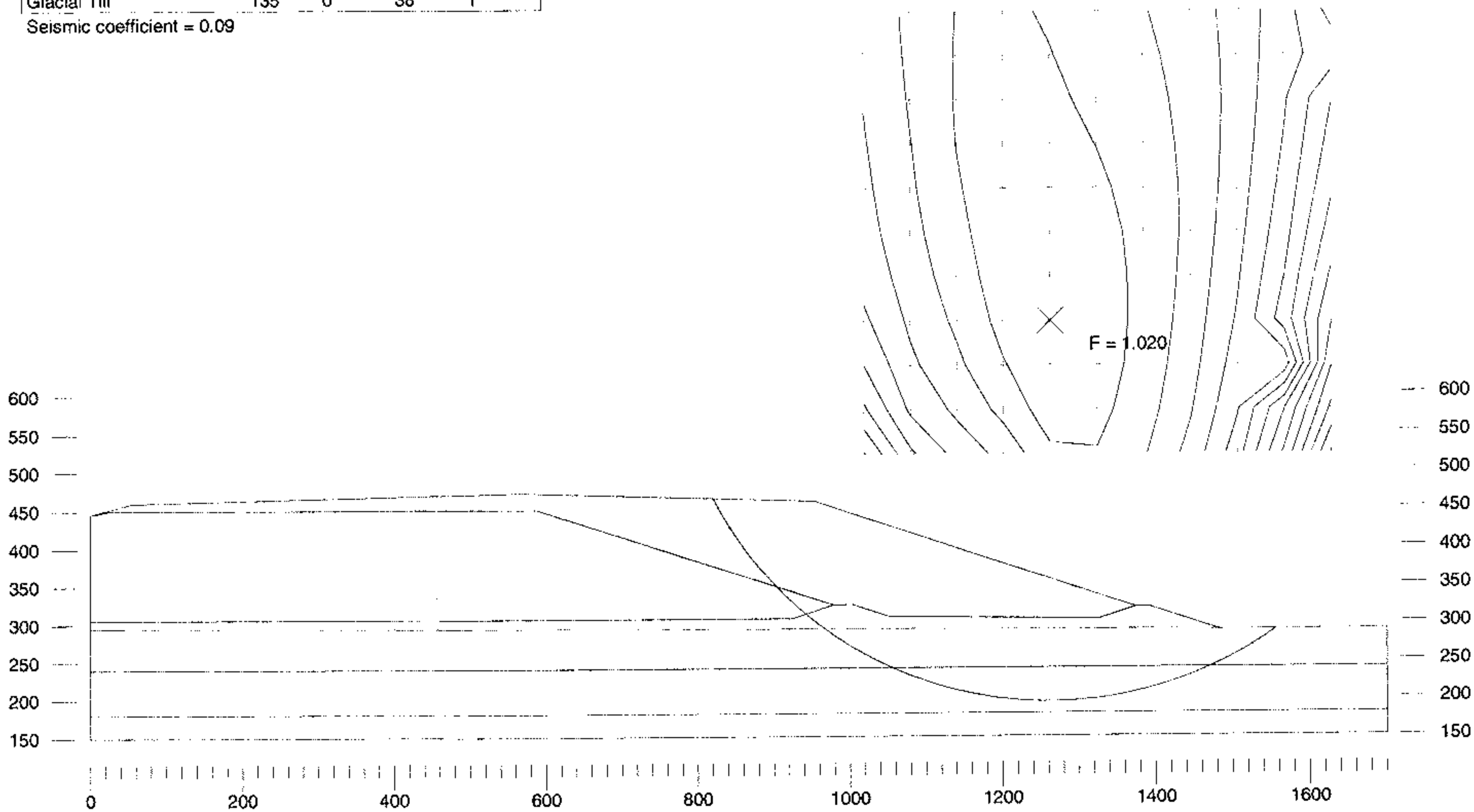
Interface Stability Calculations

Seismic Stability Calculations

Clough Harbour & Associates LLP - Albany, NY
12206.4500.1502
Rapp Rd Landfill, East Expansion
5-15-2007
Section A-A' Full Expansion

	Gamma pcf	C psf	Phi deg	Piezo Surf.
N Landfill Waste	75	300	33	0
E Landfill Waste	75	300	33	0
Sand	120	0	32	1
Silt & Clay	125	2000	0	1
Glacial Till	135	0	38	1

Seismic coefficient = 0.09

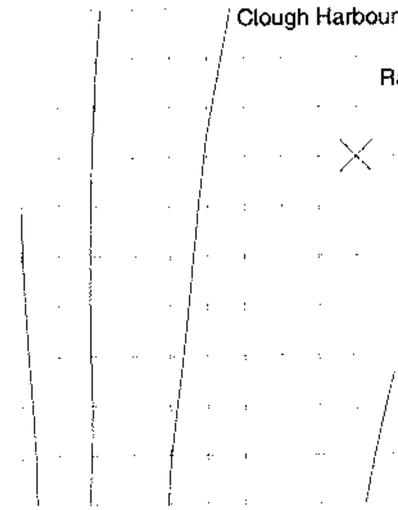


5/21/2007 3:04:18 PM K:\12206\EXPANS~1\PART36~1\SLOPES~1\AA_FULLS.GSL Clough Harbour & Associates LLP - Albany, NY F = 1.020

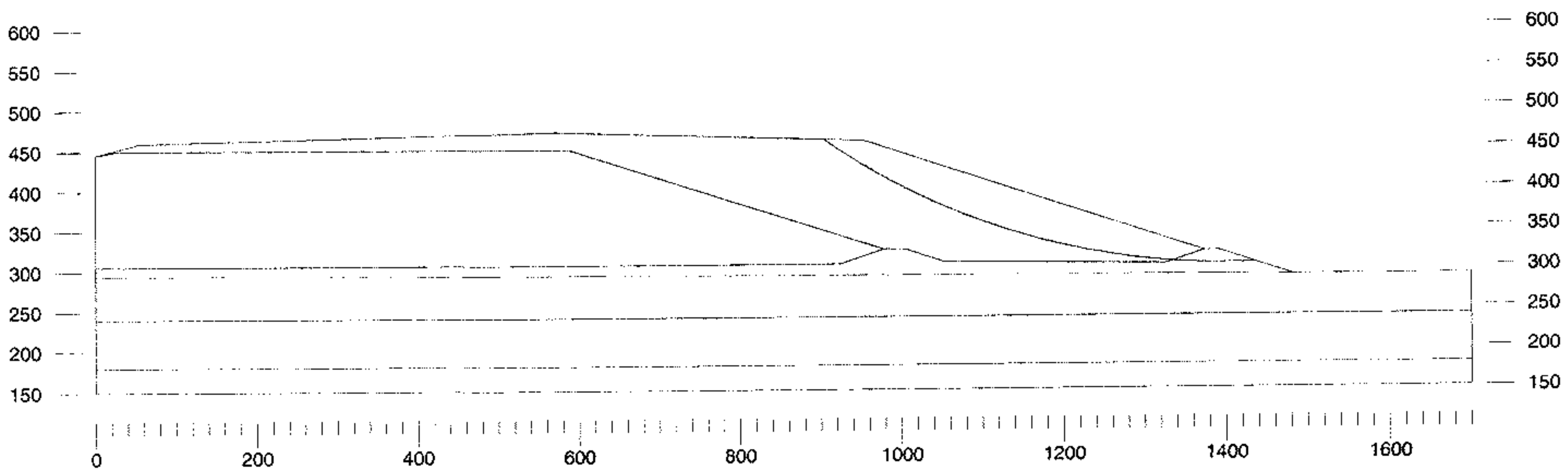
	Gamma pcf	C psf	Phi deg	Piezo Surf.
N Landfill Waste	75	300	33	0
E Landfill Waste	75	300	33	0
Sand	120	0	32	1
Silt & Clay	125	2000	0	1
Glacial Till	135	0	38	1

Seismic coefficient = 0.39

Clough Harbour & Associates LLP - Albany, NY
12206.4500.1502
Rapp Rd Landfill, East Expansion
5-15-2007
Section A-A' Full Expansion



F = 1.010



CHA

CHA COMPUTATION PAD

S. DAME

1 2 2 0 6 4 5 0 0 1 5 0 2

1 1

RAPP RD LANDFILL EAST EXP

5-12-07

ALBANY, NY

GROUND DISPLACEMENT-SEISMIC

1) a_{rock} = PGA = 0.11 (USGS Zip Code Look-up)

2) a_{ground} = a_{rock} = 0.11, FROM SEED & IDRISS, 1982

3) $k_y = 0.09 \Rightarrow \frac{k_y}{k_{max}} = \frac{0.09}{\cancel{0.11}\ 0.225} = \cancel{0.82}\ 0.40$

4) ~~Δ = 0.1 cm = 0.04 in~~, FROM MAKDISI & SEED, 1977 < 12 in OK

Δ = 25 cm = 9.8",

✓

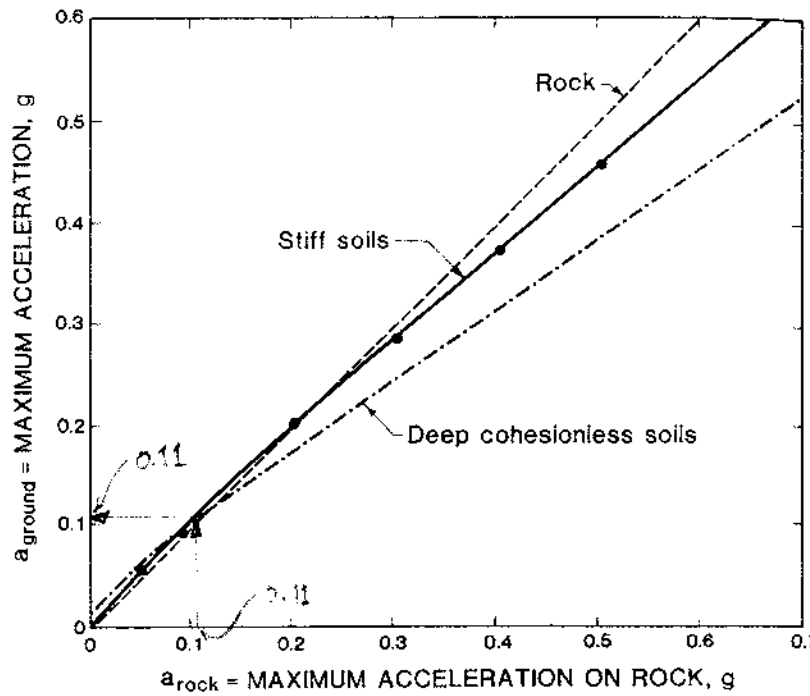


Figure 10.20 Approximate values for ground acceleration. (From Seed and Idriss, 1982. Reproduced by permission of Earthquake Engineering Research Institute.)

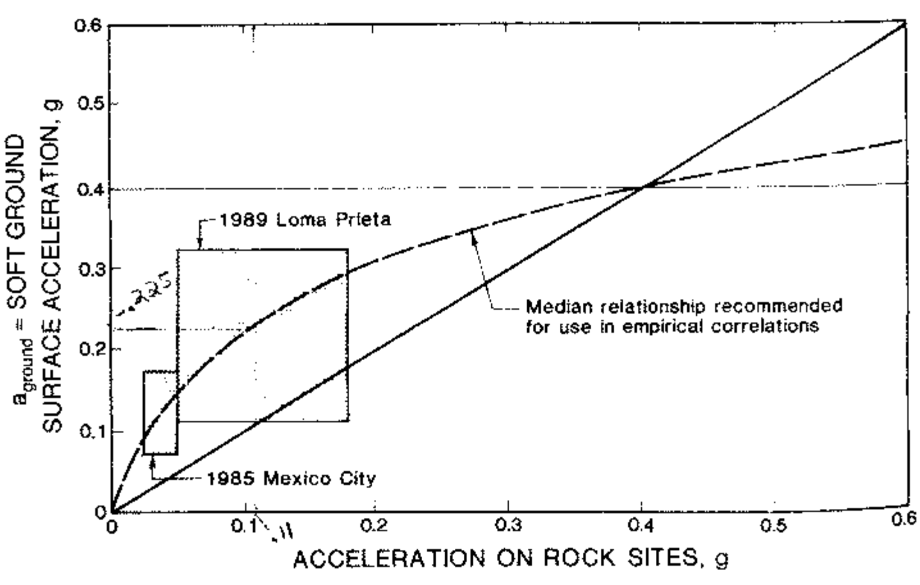


Figure 10.21 Variations of acceleratons on soft soil sites versus rock sites. (From Idriss, 1990.)

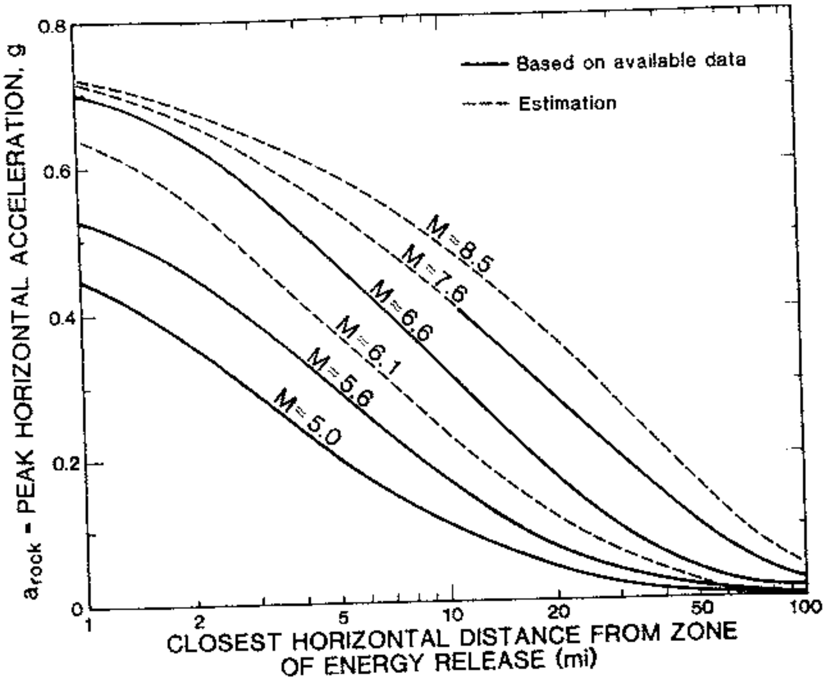
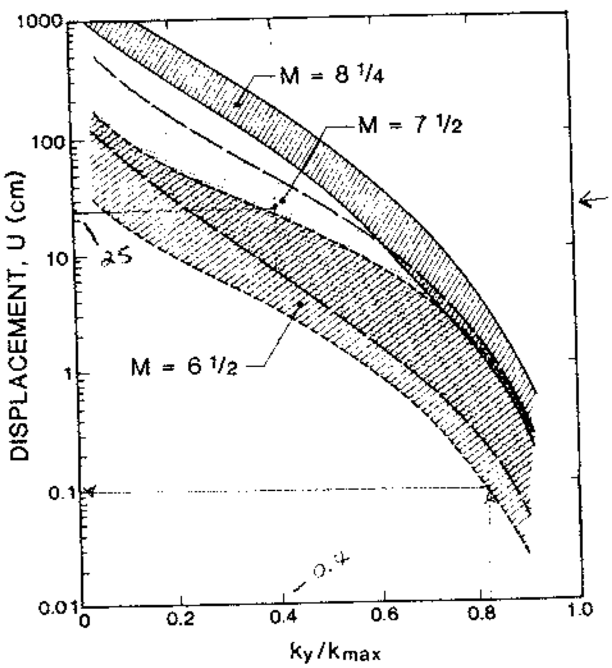


Figure 10.22 Average values of maximum accelerations in rock. (From Seed and Idriss, 1982. Reproduced by permission of Earthquakes Engineering Research Institute.)



← Interpolating upper bound for M = 6.7

Figure 10.23 Variation of permanent displacement with yield acceleration. (From Makdisi and Seed, 1977.)

Geotextile Calculations

CHA

CHA COMPUTATION PAD

COMPLETED BY:	DMF		12206 4003 15 02
CHECKED BY:		SHEET #	1 OF 1
PROJECT NAME:	Eastern Landfill Expansion	DATE:	2/12/08
PROJECT LOCATION:	Rapp Road Landfill	SUBJECT:	Geotextile Calculations

Geotextile Permeability / Retention Criteria:

- From 6 NYCRR Part 360-2.13 (o)(2)(i): $k_f > 10\,k_s$

  where k_f = geotextile permeability

  k_s = soil permeability

- From Project Specification Section 02240-2.2(A): Geotextile Permittivity: $\geq 1.0\ sec^{-1}$

  Geotextile thickness: For 10 oz./yd², $t = 2.29\ mm = 0.229\ cm$ (see attached ref.)

  $\therefore k_f = (Permittivity)(t) = (1.0\ sec^{-1})(0.229\ cm) = 0.229\ cm/sec$

  k_s: From project specification Section 02207-2.1, $k_s \approx 1\times10^{-2}\ cm/sec$

  $\therefore k_f = .229\ cm/sec > 10(1\times10^{-2}\ cm/sec) = k_s \Rightarrow 0.229 > 0.1\ cm/sec$ ✓

- From 6 NYCRR Part 360-2.13 (o)(2)(ii): O_{95} (geotextile) $<$ (2-3) d_{85} (soil)

  - O_{95} = A.O.S. = 100 (from project specification Section 02240-2.2(A)) = 0.15 mm

  d_{85} = 11 to 17 mm (based on soil gradation specification 02207-2.1(A), and the attached plot)

  $\therefore O_{95} = 0.15\ mm < (2\text{-}3)\times(11 \rightarrow 17\ mm)$ ✓

TENCATE

Mirafi

Drainage Separation

Mirafi® 1100N

Mirafi® 1100N is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi® 1100N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.12 (250)	1.12 (250)
Grab Tensile Elongation	ASTM D 4632	%	50	50
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.45 (100)	0.45 (100)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3445 (500)	
Puncture Strength[1]	ASTM D 4833	kN (lbs)	0.69 (155)	
CBR Puncture Strength	ASTM D 6241	kN (lbs)	3.14 (700)	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.15 (100)	
Permittivity	ASTM D 4491	sec^{-1}	0.8	
Flow Rate	ASTM D 4491	$l/min/m^2$ ($gal/min/ft^2$)	3056 (75)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

[1] ASTM D 4833 has been replaced with ASTM D 6241

Physical Properties	Test Method	Unit	Typical Value
Weight	ASTM D 5261	g/m^2 (oz/yd^2)	349 (10.3)
Thickness	ASTM D 5199	mm (mils)	2.29 (90)
Roll Dimensions (width x length)	--	m (ft)	4.5 x 91 (15 x 300)
Roll Area	--	m^2 (yd^2)	418 (500)
Estimated Roll Weight	--	kg (lb)	154 (339)

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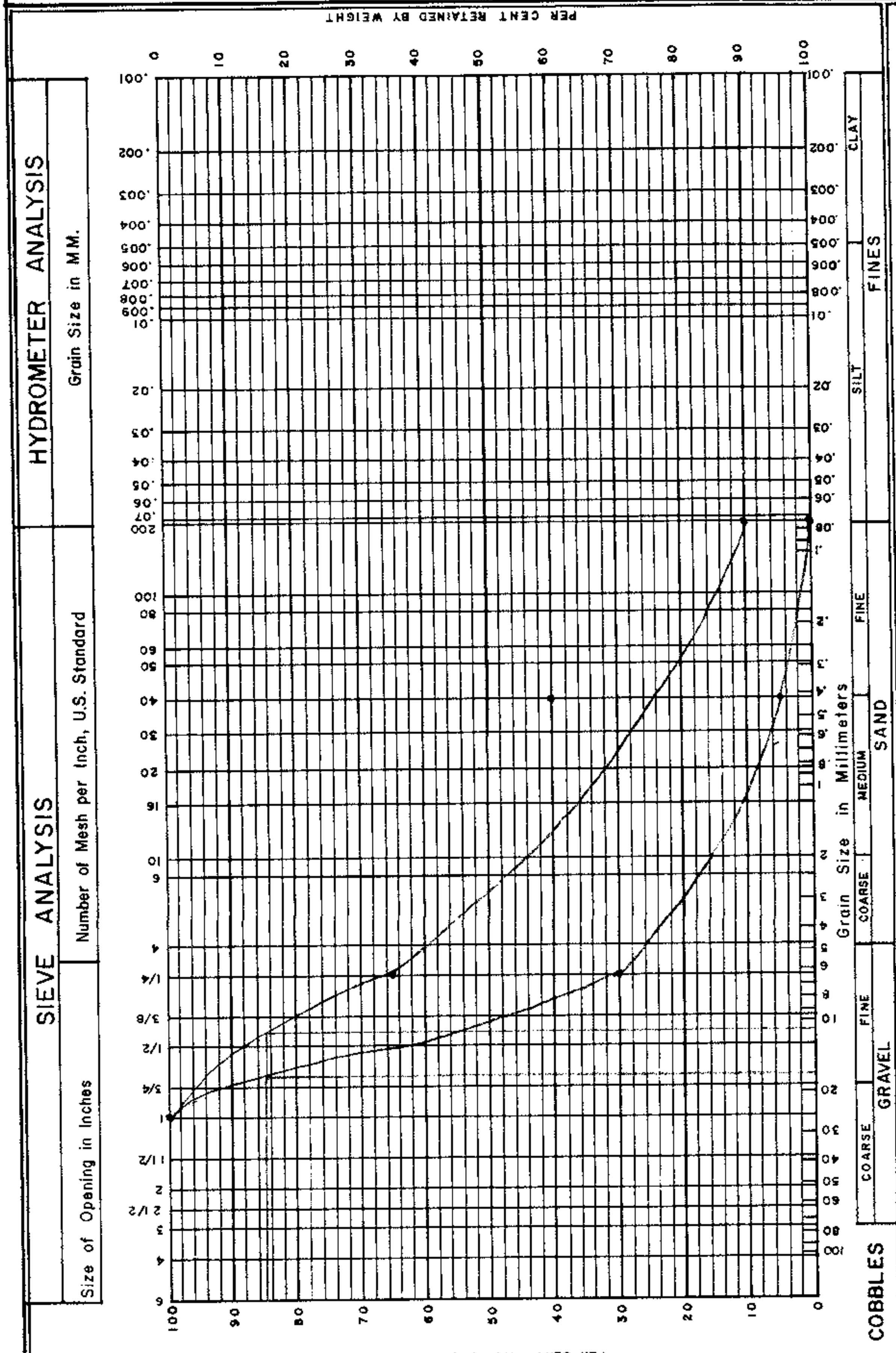
TENCATE
materials that make a difference

FGS000363
ETQR12

CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

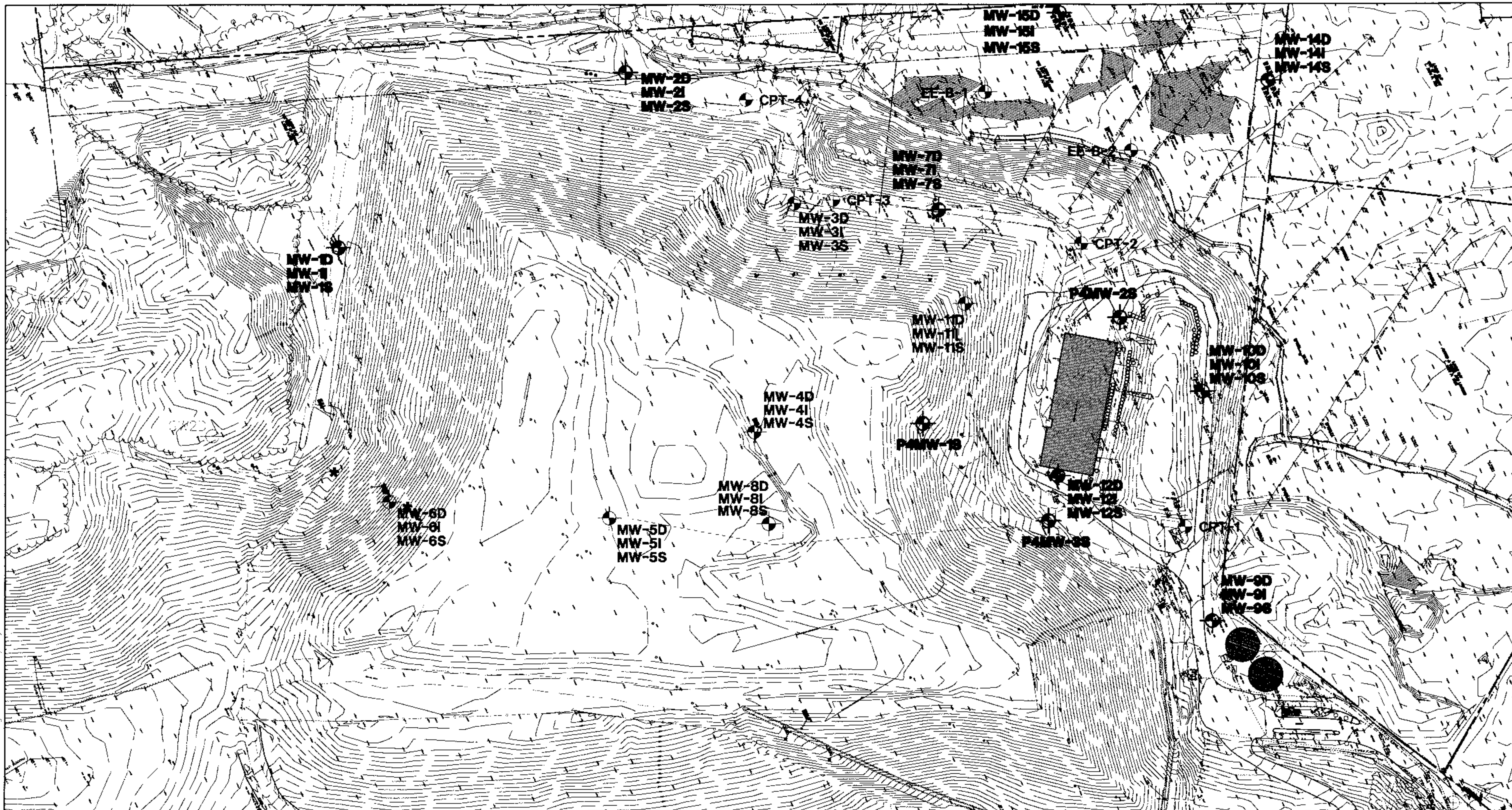
LABORATORY GRADATION ANALYSIS

PROJECT/CLIENT	FILE NO.	EXPLORATION TYPE & NUMBER
LOCATION	DATE	SAMPLE NO.



d_{85} = 11 – 17 mm

Geotechnical Investigation Data



LEGEND

MW-1D MW-1I MW-1S	ALBANY INTERIM LANDFILL MONITORING WELL CLUSTER	GW1D	GREATER ALBANY/RAPP ROAD LANDFILL MONITORING WELL CLUSTER
MW-1D MW-1I MW-1S	ABANDONED MONITORING WELL CLUSTER	CPT-1	CONE PENETROMETER TEST LOCATION
EE-B-1	SUPPLEMENTAL BORING LOCATION	P4MW-2S	P4 BORING LOCATION

SCALE: 1" = 200'

CHA
CLOUGH HARBOUR & ASSOCIATES LLP

12206.4009.1102 | DATE: 05/11/07

BORING/WELL LOCATION PLAN

FOR THE PROPOSED EASTERN EXPANSION
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

APPENDIX C

Stormwater Management Calculations

"

```
**************************************************************************
NORTH AMERICAN GREEN EROSION CONTROL MATERIALS DESIGN SOFTWARE VERSION 4.3
NORTH AMERICAN GREEN SLOPE PROTECTION - ENGLISH/S.I.
USER SPECIFIED - TEMPORARY BACK-UP COMPUTATIONS
**************************************************************************

PROJECT NAME: Rapp Road Landfill Eastern Expansion PROJECT NO.: 12206.4009.1502
COMPUTED BY: DMF                              DATE: 2/18/2008
SLOPE DESCRIPTION: Final Closure Grades

---------------------------------------------------------------------------
                     ***** INPUT PARAMETERS *****
---------------------------------------------------------------------------
Slope Gradient: 3:1
Slope Degrees = tan^(-1) (1/3) = 18.43 degrees
Slope Length:   425 feet (129.5 meters)
Soil Type: Sandy Loam
K Factor: K= 0.19 t*ac*h/100*ac*ft*tonf*in (K= 0.03 t*ha*h/ha*MJ*mm)
Annual R Factor: 100 100ft*t*in/ac*hr*yr (1702 MJ*mm/ha*h*y)
                 for United States, New York, Albany
Protection Period:   11 months from September to August, over  0 whole year(s)
Cumulative Annual R Factor For The Beginning Month: 76.0 %
Cumulative Annual R Factor For The End Month:       55.0 %

PRECIPDIST = (100 - 76) + 55 + (100 * 0) = 79

 REACH   CUMULATIVE DISTANCE  MATERIAL                     C
  NO.      TO END OF REACH                              FACTOR
   1    425 feet/129.5 meters  C125                      0.070
SLT  =  0.25 inches (0.64 centimeters)
ADJR = 100 * 79.0 / 100 =79. 100ft*tonf*in/ac*hr*yr (1344.6MJ*mm/ha*h*yr)
Soil Loss Factor (SLF) = 1.73 inches (4.39 cm)
---------------------------------------------------------------------------
                     ***** CALCULATIONS *****
---------------------------------------------------------------------------

REACH NUMBER: ***1***
CUMHORZL1  =425 * cos(18.4) = 403.2 feet (122.9 meters)
LS 1 Factor = 19.00
Cumulative LS 1 Factor = 19.00
ASLBARE  1 = .00595 * 79 * 0.19 * 19.00 =1.698 in (4.312 cm)
MSLBARE 1  = .00595 * 79 * 0.19 * 1.73 *19.00 =2.934 in (7.452 cm)
ASLMAT 1   = 0.07 * 1.698                       =0.119 in (0.302 cm)
MSLMAT 1   = 0.07 * 2.934                       =0.205 in (0.522 cm)
SF  1      = 0.250 / 0.205 = 1.217
```

```
COMPASLBARE 1 =1.698 * [( 425 - 0) / 425]       = 1.698 in (4.312 cm)
                           TOTCOMPASLBARE      = 1.698 in (4.312 cm)

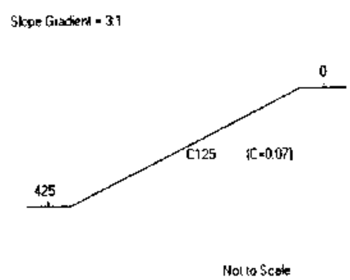
COMPASLMAT 1  =0.119 * [( 425 - 0) / 425]       = 0.119 in (0.302 cm)
                            TOTCOMPASLMAT      = 0.119 in (0.302 cm)
```

For additional computation details, see the North American Green Users Manual and the Natural Resource Conservation Service RUSLE Documentation.
"

North American Green - ECMDS Version 4.3 | 2/18/2008 | 08:59 AM | COMPUTED BY DMF

PROJECT NAME: Rapp Road Landfill Eastern | PROJECT NO. 12206.4009.1502 | SLOPE DESCRIPTION: Final Closure Grades

Country	United States
State/Region	New York
City	Albany
Annual R Factor	100
Total Slope Length (ft)	425
Protection Type	Temporary
Protection Period (months)	11
Beginning Month	September
Adjusted R Value	79.
Slope Gradient (H:1)	3
Soil Type	Sandy Loam
K Factor	0.19
Soil Loss Tolerance (in)	0.25



Reach	**Cum. Dist.**		**Material**	[illegible]	[illegible]	**ASL bare (in)**	**ASL mat (in)**	**MSL bare (in)**	**MSL mat (in)**	**SLT (in)**	**SF**	**Remarks**	**Staple**
	Begin (ft)	**End (ft)**											
1	0	425	C125			1.698	0.119	2.934	0.205	0.25	1.217	STABLE	D
2													
3													
	0	425		**Composite**		1.698	0.119						

Vegetation Density=Percentage of soil coverage provided by vegetation
ASLbare=Average Soil Loss potential of unprotected soil (uniform inches)
MSLbare=Maximum Soil Loss potential on unprotected soil (uniform inches)
SLT=Soil Loss Tolerance for slope segment (uniform inches)
Composite=Average soil loss from total slope length (uniform inches)

C=Cover material performance factor (Fraction of soil loss of unprotected)
ASLmat=Average Soil Loss potential w/material (uniform inches)
MSLmat=Maximum Soil Loss potential w/material (uniform inches)
SF=Safety Factor

APPENDIX D

Technical Specifications

TABLE OF CONTENTS

SECTION

02206 Low Permeability Soil
02207 Leachate Collection of Soil
02208 Structural Layer
02212 Synthetic Geomembrane
02215 Geosynthetic Clay Liner
02240 Geotextile Fabric-Separation/Filtration/Stabilization
02614 High Density polyethylene Pipe

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, furnishing and installing separation/stabilization fabric as shown on the Contract Drawings and as specified herein.

1.2 QUALITY ASSURANCE

A. The latest edition of the following standards, as referenced herein, shall be applicable.

1. American Society for Testing and Materials (ASTM).

1.3 SUBMITTALS

A. Product Data:

1. Submit Manufacturer's catalog cuts, specifications and installation instructions.

B. Samples:

1. Submit a one (1) square yard piece of each type of fabric.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Delivery:

1. Deliver sufficient materials to the site to prevent interruption of the work.

2. All materials shall be inspected by Contractor upon delivery. Contractor shall notify Engineer of any damage. Products received at the site torn, with holes, deteriorated, or otherwise damaged will not be approved and shall be returned and replaced at no expense to the Owner.

B. Storage:

1. All material shall be stored in strict accordance with the manufacturer's recommendations and as approved by the Engineer.

2. All material shall be stored so as to be protected from wind, rain, excess moisture, or sunlight. Material shall be wrapped in an opaque, protective cover until ready for use.

C. Handling:

1. All material shall be handled in strict accordance with the manufacturer's recommendations and as approved by the Engineer.

PART 2 - PRODUCTS

2.1 GENERAL

A. For material separation/filtration, fabric shall be Mirafi 1100N or approved equal.

B. For stabilization, fabric shall be Mirafi 600X or approved equal.

2.2 MATERIAL PROPERTIES

A. Separation/Filtration Fabric: (To be used in drainage ditches, haybale installation, culvert outfall installations, rip-rap outfall installations, cover material separation and methane vent installation).

Property	**Design Value**	**Test Method**
Tensile Strength	250 lbs (min)	ASTM D4632
Elongation	50% (max)	ASTM D4632
Burst Strength	500 psi (min)	ASTM D3786
Puncture Strength	155 lbs (min)	ASTM D4833
A.O.S.	100	ASTM D4751
Permittivity	1.0 sec^{-1} (min)	ASTM D4491

B. Stabilization Fabric (To be used beneath access roads)

Property	**Design Value**	**Test Method**
Tensile Strength	315 lbs (min)	ASTM D4632
Elongation	15% (max)	ASTM D4632
Burst Strength	600 psi (min)	ASTM D3786
Puncture Strength	145 lbs (min)	ASTM D4833
A.O.S.	40	ASTM D4751
Permittivity	0.05 sec^{-1} (min)	ASTM D4491

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall be responsible for the storage, handling, installation, and seaming of geotextile fabric in accordance with the specifications and the manufacturer's recommendations, as approved by the Engineer.

3.2 SUBBASE PREPARATION

A. Surfaces to be covered with geotextile fabric shall be smooth and free of rocks, sticks, roots, sharp objects, and all debris that may damage the fabric. The surface to be covered shall be firm and unyielding, with no sudden changes or breaks in grade. There shall be no standing water or excessive moisture on the surface when the fabric is placed.

B. The compacted subbase shall be maintained in a smooth, uniform and compacted condition during installation of the fabric.

3.3 GEOTEXTILE INSTALLATION

A. The fabric shall be cleaned of all debris or other materials that may negatively affect the fabric's performance.

B. Mechanical equipment shall not be permitted to operate directly on the fabric unless authorized to do so by the manufacturer and approved by the Engineer.

C. Geotextile Placement:

1. Fabric shall be placed as recommended by the manufacturer and approved by the Engineer on surfaces which have been prepared to conform with these Specifications and found acceptable for fabric installation.

2. The fabric shall be placed as smooth and wrinkle-free as possible. All laps shall be at least 18” in width without tension, stress, folds, or creases.

3. Separation fabric for the bottom of the drainage layers shall be placed so that laps are parallel to the water flow within the layer. If specific site conditions in certain areas do not allow for placement in this manner the upstream fabric shall lap over the downstream fabric.

4. Stabilization fabric shall be laid in the direction of construction traffic.

5. In areas where wind is prevalent, fabric installation shall be started at the upwind side of the project and proceed downwind. The leading edge of the fabric shall be secured at all times with sandbags or other means sufficient to hold it down during high winds.

6. Sandbags or rubber tires may be used as required to hold the fabric in position during installation. Tires shall not have exposed steel cords or other sharp edges which may snag or cut the fabric. Materials, equipment or other items shall not be dragged across the fabric or be allowed to slide down slopes on the fabric.

7. Smoking shall not be permitted by personnel working on the fabric.

8. All areas of fabric damaged during installation as determined by the Engineer shall be repaired by the Contractor as specified at no additional cost to the Owner.

9. At time of installation, fabric will be rejected if it has defects, ribs, holes, flaws, deterioration, or damage incurred during manufacture, transportation, handling, or storage. Damaged materials shall be removed and replaced at no additional cost to the Owner.

10. Fabric shall be placed with long dimension down slope.

11. Fabric shall be protected at all times during construction from contamination by surface run-off and any fabric so contaminated shall be removed and replaced with uncontaminated fabric.

D. Seams and Overlaps of Geotextile:

1. All overlaps shall be a minimum of 18 inches.
2. Joints shall be sewn or bonded unless otherwise noted. Securing pins shall not be used.

3.4 GEOTEXTILE REPAIR

A. Should the fabric be damaged during any step of the installation, the damaged section shall be repaired by covering it with a piece of fabric which extends at least 18 inches in all directions beyond the damaged area. The fabric shall be secured by sewing or bonding as approved by the Engineer.

3.5 COVER MATERIALS OVER GEOTEXTILES

A. During backdumping and spreading, a minimum depth of 12 inches of material shall be maintained at all times between the fabric and wheels of trucks or spreading equipment. All equipment used in spreading or traveling on the cover layer for any reason shall exert low ground pressures and shall be approved by the manufacturer and Engineer. Dozer blades, etc. shall not make direct contact with the fabric; however, if tears occur in the fabric during the spreading operation, the cover material shall be cleared from the fabric and the damaged area repaired as previously described.

B. The cover material shall be spread in the direction of fabric overlap. Large fabric wrinkles which may develop during the spreading operations shall be folded and flattened in the direction of the spreading. Occasionally, large folds may reduce the fabric overlap width. Special care shall be given to maintain proper overlap and fabric continuity.

C. All equipment spreading cover material or traveling on the cover layer shall avoid making sharp turns, quick stops or quick starts.

D. Fabric shall be covered as soon as possible after placement to minimize exposure to sunlight. Fabric shall not be exposed for more than 7 days.

3.6 DISPOSAL OF SCRAP MATERIALS

A. On completion of installation, the Contractor shall dispose of all trash and scrap material off-site or in a location approved by the Owner and Engineer, remove equipment used in connection with the work herein, and shall leave the premises in a neat acceptable manner.

END OF SECTION 02240

SECTION 02215 GEOSYNTHETIC CLAY LINER

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, furnishing, installing and testing the geosynthetic clay liner (GCL) as shown on the Drawings and specified herein.

1.2 QUALITY ASSURANCE

A. Codes and Standards: Perform all work in compliance with applicable requirements of governing authorities having jurisdiction.

B. The latest edition of the following standards, as referenced herein, shall be applicable.

1. American Society for Testing and Materials (ASTM)

C. Manufacturer's Qualifications:

1. The GCL manufacturer shall have manufacturing experience of at least two million square feet of GCL.

2. The manufacturer shall permit the Owner and Engineer to visit the manufacturing plant.

D. Installers Qualifications:

1. The installation Contractor shall submit to the Engineer documented evidence of their ability and sufficient capacity to perform the work by having previously successfully installed a minimum of five hundred thousand square feet of GCL.

E. Sheet Manufacture:

1. Contractor shall supply data on each roll of material documenting that the thickness, bentonite content, elongation at break and tensile strength at yield and break comply with the product specification.

1.3 SUBMITTALS

A. The Contractor shall submit to the Engineer product data, samples, schedules, and Shop Drawings describing the Work to be performed. Work covered by these submittals shall not proceed until they have been approved by the Engineer.

B. Required submittals include:

1. Manufacturer's qualifications.
2. Installer's qualifications.
3. Product data and specifications for GCL components.
4. Description of seaming equipment and procedures.
5. GCL panel layout detailing seams and sequence of installation.
6. Installation schedule.
7. Material samples of all GCL components, including seams.
8. Maintenance and repair procedures.
9. Details of joints, anchoring, penetrations and other construction details.
10. Material Safety Data Sheets (MSDS) for herbicide spray.

C. The Contractor shall provide the Engineer with all pertinent record documents including:

1. Manufacturer's quality control certification for all material delivered. Submit certification upon delivery.

2. Record drawings showing panel layout, installation sequence, and repairs.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Delivery:

1. Deliver sufficient materials to the site to prevent interruption of the work.

2. All materials shall be inspected by Contractor upon delivery. Contractor shall notify Engineer of any damage. Products received at the site torn, de-laminated, partially or fully hydrated or otherwise damaged will not be approved and shall be returned and replaced at no expense to the Owner.

B. Storage:

1. GCL shall be stored in strict accordance with the manufacturer's recommendations and as approved by the Engineer.

2. GCL shall be stored so as not to be exposed to wind, rain, sunlight, or excess moisture.

C. Handling:

1. GCL shall be handled in strict accordance with the manufacturer's recommendations and as approved by the Engineer.

1.5 MATERIALS AND INSTALLATION WARRANTY

A. The Contractor shall guarantee the GCL against defects in materials, fabrication, installation, and workmanship for thirty years commencing with the date of final acceptance.

PART 2 - PRODUCTS

2.1 Materials:

A. Bentonite:

1. All bentonite in GCLs shall be pure premium grade sodium (Wyoming) bentonite comprising a minimum of 90% montmorillonite. Bentonite content shall be a minimum of one pound per square foot.

B. Geotextile:

1. The fabric acting as the backing shall be attached by mechanical connection, to the bentonite and shall be manufactured from polypropylene, either woven or nonwoven.

C. Composite:

1. Materials shall be Bentomat DN manufactured by CETCO Lining Technologies or approved equal.

2. The coefficient of permeability of the GCL shall be less than $1x10^{-7}$ cm/s as determined by triaxial permeability tests.

3. The coefficient of permeability of seams with no additional bentonite placed along the seam shall be less than $1x10^{-7}$ cm/s as determined by triaxial permeability tests.

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall be responsible for the storage, handling, installation, and seaming of GCL's in accordance with the specifications and the conditions of the manufacturer's warranty.

B. The manufacturer's representative shall be on site to supervise initial installation of the GCL.

C. At time of installation, GCL will be rejected if it has defects, ribs, holes, flaws, deterioration, partial or full hydration, or damage incurred during manufacture, transportation, storage, or handling. Damaged material shall be removed and replaced at no additional cost to the Owner.

3.2 SUBBASE PREPARATION

A. Surfaces to be lined shall be smooth and free of rocks, sticks, roots, sharp objects, angular material, and all debris that may puncture the GCL. Material larger than three-quarter inch shall not be allowed at the surface of subbase material. Subbase material shall be free of organic, frozen, or other deleterious materials. The surface to be lined shall be firm and unyielding, with no sudden changes or breaks in grade. There shall be no standing water or excessive moisture on the surface when the GCL is placed. The installation Contractor shall certify daily in writing that the subbase surface on which the GCL is to be installed is acceptable.

B. Spray the surface with a herbicide to prevent growth of vegetation through the GCL.

C. Moisture Content:

1. Allow no standing water or excessive moisture within construction area. The GCL shall not be installed in standing water or during rain.

2. Cover all surfaces where moisture content is critical promptly after they have been accepted for GCL installation.

3. Maintain moisture content of the surface soils to receive GCL within four percent of the optimum moisture until covered by the GCL.

D. The compacted subgrade shall be maintained in a smooth, uniform, and compacted condition during installation of the GCL.

3.3 GCL INSTALLATION

A. The GCL shall be cleaned of all debris or other materials that may negatively affect the liner system.

B. Mechanical equipment shall not be allowed to operate directly on the GCL unless directed to do so by the manufacturer's duly authorized representative.

C. Sheet Placement:

1. Sheets shall be placed as directed by the manufacturer's representative on surfaces which have been prepared to conform with these Specifications and found acceptable for GCL installation.

2. The overlap between adjacent sheets shall be a minimum of ten inches.

3. The GCL shall be placed over the prepared surface in such a manner as to assure minimum handling. Anchor trench excavation and any structure seal preparation shall be completed before GCL installation begins. The sheets shall be of such lengths and widths and shall be placed in such a manner as to minimize field seaming. Horizontal field seams on slopes shall not be permitted. Only those sheets of GCLs which can be anchored, seamed together and covered that same day shall be unpackaged and placed into position. The GCL shall be dry when installed and dry when covered. Work on slopes shall be undertaken before work on the bottom to permit drainage in the event of rainfall. Placement methods shall be such that formation of wrinkles is minimized. The GCL shall be installed so that it is free of tension or stress upon completion of installation. Stretching of the GCL to fit will not be allowed.

4. In areas where wind is prevalent, GCL installation shall be started at the upwind side of the project and proceed downwind. The leading edge of the GCL shall be secured at all times with sandbags or other means sufficient to hold it down during high winds.

5. Sand bags or tires may be used as required to hold down the GCL in position during installation. Tires shall not have exposed cords or other sharp edges which may snag or cut the GCL. Materials, equipment or other items shall not be allowed to slide down slopes on the GCL. All parties walking or working upon the GCL shall wear soft-sole shoes.

6. GCL sheets shall be closely fit and sealed around projections through the GCL. All piping, structures and other projections through the GCL shall be sealed with approved sealing methods as recommended by the manufacturer or as shown on the Drawings.

7. Smoking shall not be permitted by personnel working on the GCL.

8. All areas of the GCL damaged during installation as determined by the Engineer shall be repaired by the Contractor as recommended by the manufacturer or as specified at no additional cost to the Owner.

9. If rainfall commences during installation or while under construction, the uncovered sections of GCL shall be covered with plastic sheeting to provide interim protection.

3.4 FIELD REPAIRS

A. All field repairs shall be authorized by the Engineer.

B. Field repairs shall not be allowed on slopes greater than ten percent.

C. Field repairs to the GCL shall be accomplished by covering the damage with a piece of GCL large enough to provide twelve inch overlap on all sides of the damage.

D. The patch shall be fastened to the damaged sheet with staples or glue. Additional bentonite shall be placed between the patch and the repaired material as specified by the manufacturer or at a rate of one-quarter pound per lineal foot of edge, whichever is greater.

3.5 COVER MATERIAL PLACEMENT

A. All GCL placed shall be covered by a minimum of six inches of backfill the day of installation.

B. Cover material shall be pushed forward onto the liner so that the equipment does not work directly upon the GCL. Cover material placed on slopes shall be pushed up slope from the bottom.

C. All equipment used in spreading or travelling on the cover for any reason shall exert low ground pressures and shall be approved by the GCL manufacturer and Engineer.

D. Dozer blades, etc. shall not make direct contact with the GCL; however, if tears occur in the GCL during the spreading operation, the cover material shall be carefully cleared from the GCL and the damaged area repaired.

E. The cover material shall be spread in the direction of the GCL overlap. Large wrinkles in the GCL which may develop during the spreading operations shall be folded and flattened in the direction of the spreading. Occasionally, large folds may reduce the overlap width. Special care shall be given to maintain proper overlap and continuity. Insufficient overlaps that develop during spreading shall be repaired by patching over the seam.

F. All equipment spreading cover material or traveling on the cover layer shall avoid making sharp turns, quick stops or quick starts.

3.6 FIELD SEAMS

A. All field seams shall be made in strict conformance with the manufacturer’s specifications and recommendations.

B. All overlaps hall be a minimum of ten inches.

C. Seam areas or runs shall be flat and clear of large rocks, debris, or ruts. Contacting surfaces shall be clean and clear of dirt or native soil with all edges pulled tight to maximize contact and to smooth out any wrinkles or creases.

3.7 HYDRATION OF GCL

A. Upon completion of installation of GCL, required stabilization geosynthetics, and cover material, the blanket shall be hydrated.

B. Hydration with fresh water void of substances which will either contaminate the GCL or cover material or hinder hydration shall be accomplished by use of a sprinkler system.

C. If natural rain fall occurs prior to hydration of the GCL in quantities which both the manufacturer’s representative and Engineer believe to have sufficiently hydrated the liner, sprinkler hydration will not be required.

3.8 DISPOSAL OF SCRAP MATERIALS

A. On completion of installation, the Contractor shall dispose of all scrap material off site or in a location approved by the Owner and Engineer, remove equipment used in connection with the work herein, and shall leave the premises in a neat acceptable manner.

END OF SECTION 02215

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes textured synthetic geomembrane.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM).

B. Federal Testing and Material Standards (FTMS).

C. 6NYCRR Part 360

1.3 SUBMITTALS

A. Submit product data, samples, schedules, and shop drawings describing the work to be performed. Work covered by these submittals shall not proceed until they have been approved by the Engineer.

B. Required submittals include:

1. Manufacturer's qualifications.

2. Liner installer's qualifications.

3. Liner installer's crew foreman, welders and quality assurance/quality control personnel qualifications.

4. Manufacturer's product data and specifications for synthetic geomembrane components.

5. Manufacturer's detailed description of recommended seaming equipment and procedures, including testing.

6. Manufacturer's QA/QC procedures, for both manufacturing and installation.

7. Synthetic geomembrane panel layout detailing seams and sequence of installation.

8. Installation schedule.

9. Material samples of all synthetic geomembrane components, including seams.

10. Manufacturer's recommended maintenance and repair procedures.

11. Details of joints, anchoring, penetrations and other construction details.

C. Submit pertinent record documents including:

1. Manufacturer's quality control certification for all material delivered. Submit certification upon delivery.

2. Results of all destructive and non-destructive seam strength tests performed by the contractor or installer including failed trial welds, test results and subsequent repairs, retests and any imperfection repairs, tests and inspections. Documentation shall include but not be limited to date, location, test unit number, name of tester, type of test and results of each

individual test.

3. Record drawings showing panel layout, number, installation sequence and date, locations of destructive seam tests, non-destructive tests, all seam test failures and all repairs and patches.

4. Upon completion of the geomembrane installation and prior to payment for completed work, a complete and comprehensive set of records and record drawings shall be submitted for final review and approval.

1.4 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer's Qualifications:

a. The synthetic geomembrane manufacturer shall have manufactured 25 million square feet of synthetic geomembrane and at least 5 million square feet of the type listed in this specification.

b. The manufacturer shall permit the Owner and Engineer to visit the manufacturing plant.

2. Liner Installer's Qualifications:

a. The liner installer shall submit to the Engineer documented evidence of their ability and sufficient capacity to perform the work by having previously successfully installed a minimum of twenty (20) million square feet of similar type synthetic geomembrane.

b. The liner installer's crew foreman must have documented minimum qualifications of successful installation experience of at least five (5) million square feet on five (5) different projects.

c. Each of the liner installer's welders shall have documented minimum qualifications of successful welding experience of 100,000 linear feet of seam.

d. Liner installer shall have quality assurance/quality control personnel on site at all times. These personnel will be dedicated solely to performing quality assurance/quality control functions. The quality assurance/quality control foreman will have documented minimum qualifications of successful quality assurance/quality control experience of at least three (3) million square feet, on five (5) different projects. No substitution for QA/QC personnel will be allowed during the course of the project unless approved by the Engineer.

3. Sheet Manufacturer:

a. Documentation for the resin shall be checked against the material as received.

b. Contractor shall supply data on each roll of material documenting that the thickness, density, percent carbon black, melt index, elongation at break and tensile strength at yield and break comply with the product specification.

B. Resin used in sheet manufacture shall be specified by the manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store and handle synthetic geomembrane in accordance with the manufacturer's recommendations. Each roll shall be clearly labeled with the name of the manufacturer, product type, roll number, physical dimensions and date of production.

1.6 WARRANTY

A. Manufacturer shall furnish a material warranty for the synthetic geomembrane material to the Owner. Material warranty shall be for 20 years commencing with the date of final acceptance of the installation.

B. The Contractor shall guarantee the synthetic geomembrane installation against defects in materials, installation and workmanship for 2 years commencing with the date of completion. The guarantee shall include the services of qualified service technicians and all material required for repairs at no expense to the Owner. All welds shall be included in the guarantee. Where the double wedge welding technique is used, both the inner and outer welds along the seam shall be guaranteed.

PART 2 - PRODUCTS

2.1 MATERIAL

A. General:

1. All synthetic geomembrane components shall be new.

2. Synthetic geomembrane material shall be a high density polyethylene geomembrane having a nominal thickness of 60 mils and shall be textured on both sides.

3. The synthetic geomembrane material used must have a maximum coefficient of permeability of 1 x 10^{-12} centimeters per second.

4. The synthetic geomembrane material shall be free of holes, blisters, undispersed raw materials, and any sign of contamination by foreign matter. Synthetic geomembrane with holes, blisters, undispersed raw material or signs of contamination by foreign material shall be removed from the site and replaced at no additional cost to the Owner.

5. The synthetic geomembrane lining material shall be a minimum 20.0' seamless width. Labels on the roll shall identify the thickness, length, width, manufacturer's mark number, and the direction to unroll the material.

B. Specific:

1. Textured Geomembrane: Textured synthetic geomembrane shall be manufactured from first quality polyethylene resins and meet or exceed the following specifications:

PROPERTY	**TEST METHOD**	**QUALIFIER**	**REQUIREMENT**
Thickness (mils)	ASTM D 5994	Minimum	~~54~~ 60
Carbon Black Content (percent)	ASTM D 1603	Range	2-3
Asperity Height	GRI GM12	Minimum	10
Carbon Black Dispersion	ASTM D 5596	Range	A1, A2, B1
Density (g/cc) (minimum)	ASTM D 1505	Minimum	0.94
Minimum Tensile Properties (each direction) 1. Tensile Strength at Yield (pounds/inch width)	ASTM D 6693 Type IV	Minimum	126

PROPERTY	TEST METHOD	QUALIFIER	REQUIREMENT
2. Tensile Strength at Break (pounds/inch width) 3. Elongation at Yield (percent) 4. Elongation at Break (percent)		Minimum Minimum Minimum	90 12 100
Tear Resistance Initiation (pounds)	ASTM D 1004 Die C	Minimum	42
Low Temperature Brittleness (°F)	ASTM D 746, Method B	Maximum	-90
Dimensional Stability (each direction, percent change)	ASTM D 1204 212°F, 1 hour	Range	2
Environmental Stress Crack (resistance hours)	ASTM D 5397	Minimum	1,300
Puncture Resistance (pounds)	ASTM D 4833	Minimum	90

* The value for melt flow index shall be in accordance with manufacturers standard publicized value for the resin utilized in production of the geomembrane.

C. Chemical resistance of the synthetic geomembrane shall be in keeping with typical properties of high quality polyethylene products currently available through commercial sources.

PART 3 - EXECUTION

3.1 EXAMINATION

A. The geomembrane installer shall certify daily in writing that the subgrade surface on which the synthetic geomembrane is to be installed is acceptable.

3.2 PREPARATION

A. Surfaces to be lined shall be smooth and free of rocks, sticks, roots, sharp objects, and all debris that may puncture the synthetic geomembrane. The surface to be lined shall be firm and unyielding, with no sudden changes or breaks in grade.

B. Moisture Content:

1. Allow no standing water or excessive moisture within construction area.

2. Maintain moisture content of the surface soils to receive synthetic geomembrane within three percent low of the optimum moisture until covered by the synthetic geomembrane.

3. Cover all surfaces where moisture content is critical promptly after they have been accepted for synthetic geomembrane installation.

3.3 INSTALLATION

A. The synthetic geomembrane material shall be cleaned of all debris or other materials that may negatively affect the membrane system.

B. Sheet Placement:

1. The first ten (10) feet of material of each roll shall be inspected prior to placement by the Engineer. Material deemed unsuitable for placement by Engineer shall be discarded at no additional cost to the Owner.

2. Sheets shall be placed as directed by the manufacturer's representative on surfaces which have been prepared to conform with these specifications and found acceptable for membrane installation. A subgrade acceptance form provided by the Engineer shall be prepared and signed daily by the Installer, Contractor and Engineer. Copies of these documents shall be included in the final record documents submitted by the Contractor.

3. The overlap between adjacent sheets shall be a minimum of four (4) inches.

4. The synthetic geomembrane shall be placed over the prepared surface in such a manner as to assure minimum handling. Anchor trench excavation and any structure seal preparation shall be completed before the synthetic geomembrane installation begins. The sheets shall be of such lengths and widths and shall be placed in such a manner as to minimize field seaming. Field seams shall be oriented parallel to the line of maximum slope (oriented along, not across the slope). In corners and irregularly sloped areas, the number of field seams shall be minimized. Horizontal field seams on the slopes shall be kept to a minimum. No horizontal seam shall be less than five feet from the toe of slope inside the landfill cell. Only those sheets of synthetic geomembrane material which can be anchored and sealed together that same day shall be unpackaged and placed in position. Placement methods shall minimize formation of wrinkles. Wrinkles shall be repaired at the direction of the Engineer.

5. In areas where wind is prevalent, synthetic geomembrane installation shall be started at the upwind side of the project and proceed downwind. The leading edge of the synthetic geomembrane shall be secured at all times with sandbags or other means sufficient to hold it down during high winds.

6. Sandbags or rubber tires may be used as required to hold the synthetic geomembrane in position during installation. Tires shall not have exposed steel cords or other sharp edges which may snag or cut the synthetic geomembrane. Materials, equipment or other items shall not be dragged across the surface of the synthetic geomembrane or be allowed to slide down slopes on the synthetic geomembrane. All parties walking or working upon the synthetic geomembrane material shall wear soft-sole shoes.

7. Synthetic geomembrane sheets shall be closely fit and sealed around protrusions through the synthetic geomembrane. All piping, structures and other protrusions through the synthetic geomembrane shall be sealed with approved sealing methods, or as shown on the Drawings.

8. Smoking shall not be permitted by personnel working on the synthetic geomembrane.

9. All areas of the synthetic geomembrane damaged during installation as determined by the Engineer shall be repaired by the Contractor as specified at no additional expense to the Owner.

10. No vehicles of any sort will be allowed to operate directly on the liner.

C. Field Seams:

1. All seams shall be made using either the extrusion welding technique or the double wedge welding technique. Field seaming is prohibited when either ambient air or sheet temperature is below 32°F, when the ambient air temperature is above 120°F, when the sheet temperature is above 158°F, during periods of precipitation, or when winds are in excess of 20 miles per hour.

2. All field welds shall have a minimum test strength of 120 ppi when tested in shear, and 91 and 78 ppi when tested in peel for fusion and extrusion welds, respectively. A test revealing a non-film tear bond seam failure shall be deemed a failed test regardless of seam strength. Shear and peel testing shall be performed in accordance with ASTM D 4437.

3. Welding equipment which exhibits an excessive number of "burn-outs" or failing tests, as determined by the Engineer, shall be removed from the project until proof of repair is shown. The engineer may require continuous monitoring of the welding machine by the installer.

D. Extrusion Welding:

1. Field joints shall be made by overlapping adjacent sheets a minimum of four (4) inches and extruding a ribbon of extrusion joining resin between overlapped sheets or over the seam between the sheets according to procedures recommended by the manufacturer.

2. Prior to extrusion welding of the seams, all areas which are to become seam interfaces shall be cleaned of dust and dirt as directed by the synthetic geomembrane manufacturer's representative. The slick surfaces of the sheet which are to become seam interfaces shall be roughened with a wire brush, grinding wheel or other acceptable means as directed by the synthetic geomembrane manufacturer's representative before extrudate is placed between the overlapping sheets or over a lapped seam.

3. Self-propelled extrusion welders shall be used for welding the lapped seams between sheets.

4. Hand-held extrusion welders shall be used for making repairs and for welding in areas not accessible to the self-propelled welder as directed by the synthetic geomembrane manufacturer's representative.

E. Double Wedge Welding:

1. Field joints shall be made by overlapping adjacent sheets a minimum of four (4) inches or as recommended by the welding machine manufacturer or synthetic geomembrane manufacturer.

2. Prior to double wedge welding of the seams, all areas which are to become seam interfaces shall be cleaned of dust and dirt as directed by the geomembrane manufacturer.

3. Self-propelled double wedge welders shall be used for welding the lapped seams between sheets.

4. Double wedge welding shall not take place unless the sheet is dry.

5. Hand-held extrusion type welders shall be used for making repairs and for welding in areas not accessible to the self-propelled welders as directed by the synthetic geomembrane manufacturer's representative.

F. Defects and Repairs:

1. All seams and non-seam areas of the geomembrane shall be examined by Installer for identification of defects, holes, blisters, excessive scuffing, wrinkles, distress, undispersed raw materials and any sign of contamination by foreign matter.

   a. Defective or damaged materials shall be identified via a deficiency report. Actions taken to resolve or correct the problem will also be recorded on the form.

   b. Defects, wrinkles, holes, blisters, undispersed raw materials, signs of contamination by foreign matter, unacceptable welds in geomembranes and other unsatisfactory conditions will be identified on the Daily Report Form. The repair or corrective action to "correct" the problem will also be recorded on a Deficiency Correction Form.

   c. Both deficiency and daily reports must be received and approved by the Engineer prior to covering the geomembrane.

2. Each suspect location both in seam and non-seam areas shall be non-destructively tested as specified. Each location which fails the non-destructive testing shall be marked by Installer and repaired. Work shall not proceed with any materials which will cover locations which have been repaired until laboratory test results with passing values are available. Owner or Engineer may require Installer to perform conformance tests in areas which appear inadequate or damaged. Owner shall pay for tests which show suspect areas are adequate. Installer shall pay for tests which prove suspect areas are inadequate or deficient.

G. Geomembrane Repair Procedures:

1. Any portion of the Geomembrane failing a destructive or non-destructive test shall be repaired. Several procedures exist for the repair of these areas. The final decision as to the appropriate repair procedure shall be decided by the Engineer. The procedures available include:

   a. Patching - used to repair large holes, tears, wrinkles, and contamination by foreign matter;

   b. Buffing and re-welding - used to repair small sections of extruded seams;

   c. Spot welding or seaming - used to repair small tears, pinholes, or other minor localized flaws;

   d. Capping - used to repair large lengths of failed seams or wrinkles;

   e. Topping - used to repair areas of inadequate seams which have an exposed edge;

2. In addition, the following provisions shall be satisfied:

   a. Surfaces of the geomembrane which are to be repaired shall be abraded no more than one hour prior to the repair;

   b. All surfaces must be clean and dry at the time of the repair;

   c. All seaming equipment used in repairing procedures must be approved;

   d. The repair procedures, materials, and techniques shall be approved in advance of the specific repair by the Engineer.

   e. Patches or caps shall extend at least 6 in. beyond the edge of the defect, and all corners of patches shall be rounded with a radius of at least 3 inches.

H. Geomembrane Verification of Repairs:

1. All repairs shall be identified on the as-built drawing. Each repair shall be non-destructively tested using the methods described in Paragraph 3.4 (C) of this Section as appropriate. The Engineer may also require repaired areas to be destructively tested. Failed tests indicate that the repair shall be redone and retested until a passing test result is obtained.

3.4 FIELD QUALITY CONTROL

A. Installation Contractor shall employ on-site physical inspection of installation procedures.

B. Contractor shall notify Engineer in writing when material is delivered to site. Contractor will perform conformance tests on material within three (3) weeks of receiving materials. At a minimum, parent material conformance testing shall be performed every 50,000 square feet of liner material delivered to the site. A two foot wide sample along the entire roll width shall be cut after the first lap on the roll is removed and submitted by the Contractor for testing. The following tests shall be performed:

1. Textured Synthetic Geomembrane:

PROPERTY	TEST METHOD	QUALIFIER	REQUIREMENT
Thickness (mils)	ASTM D 5994	Minimum	~~54~~60
Minimum Tensile Properties (each direction)	ASTM D6693 Type IV		
1. Tensile Strength at Yield (pounds/inch width)		Minimum	126
2. Tensile Strength at Break (pounds/inch width)		Minimum	100
3. Elongation at Yield (percent)		Minimum	12
4. Elongation at Break (percent)		Minimum	100
Puncture Resistance (pounds)	ASTM D 4833	Minimum	90

C. Installation Contractor shall perform physical nondestructive testing on all welds to document airtight homogeneous seams. Testing shall consist of pressure testing on fused seams and vacuum box testing on extrusion welded seams. Engineer shall observe and document that all non-destructive testing of the geomembrane was performed.

1. Air Pressure Testing (ASTM D5820):

a. Equipment for Air Testing:

1) Air pump capable of generating and sustaining a pressure between 20 to 60 psi.

2) Rubber hose with fittings and connections.

3) Sharp hollow needle, or other approved pressure feed device with a sealed and liquid filled pressure gauge capable of reading and sustaining a pressure between 0 and 60 psi in one pound increments.

b. Procedure for Air Testing:

1) Seal both ends of the seam to be tested.

2) Insert needle or other approved pressure feed device into the sealed channel created by the fusion weld.

3) Inflate the test channel to a pressure of approximately 25 to 30 psi, and allow the pressurized channel to stabilize for two (2) minutes. Re-inflate to a minimum of 25 psi as necessary. The initial pressure reading shall be recorded once stabilization has taken place. Close valve, observe and record the initial pressure.

4) Observe and record the air pressure five (5) minutes after the initial pressure setting is recorded. If loss of pressure exceeds 4 psi or if the pressure does not stabilize, locate the suspect area and repair.

5) At the conclusion of all pressure tests, the end of the air-channel opposite the pressure gauge shall be cut. A decrease in gauge pressure must be observed or the air channel will be considered "blocked" and the tests shall be repeated from the point of blockage. If the point of blockage cannot be found, cut the air channel in the middle of the seam and treat each half as a separate test.

6) Remove the pressure feed needle and seal the resulting hole be extrusion welding.

c. In the event of a Non-Complying Air Pressure Test, the following procedure shall be followed:

1) Check seam and seals and retest seams.

2) If a seam will not maintain the specified pressure, the seam shall be visually inspected to localize the flaw. If this method is unsuccessful, cut one inch (1") samples from each end of the seam.

3) Perform destructive peel tests on the samples using the field tensiometer.

4) If all samples pass destructive testing remove the overlap left by the wedge welder and vacuum test the entire length of seam.

a) If a leak is located by the vacuum test, repair by extrusion fillet welding. Test the repair by vacuum testing.

b) If no leak is discovered by vacuum testing, the seam will be considered to have passed non-destructive testing.

5) If one or more peel specimens are in non-compliance, additional samples shall be taken in accordance with the specifications.

a) When two (2) passing samples are located, the length of seam bounded by the two (2) passing test locations will be considered non-complying. The overlap left by the wedge welder shall be heat tacked in place along the entire length of seam and the ~~non-~~complying portion of seam will be extrusion fillet welded.

b) Test the entire length of the repaired seam by vacuum testing.

d. General Air Testing Procedures:

1) The opposite end of the air channel will in all cases be pierced to assure that no blockages of the air channel have occurred.

2) Whenever possible, seams should be air-tested prior to completing butt seams to avoid having to cut into liner. All cuts through the liner as a result of testing will be repaired by extrusion welding.

3) All needle holes in air channels remaining after testing shall be circled by testing crew and will be repaired with an extrusion bead.

e. Air Pressure Testing Documentation:

1) All information regarding air-pressure testing, (date, initial time and pressure, final time and pressure, pass/fail designation, and Technician's initials) shall be written at both ends of the seam, or portion of seam tested. All of this information shall be logged on appropriate forms provided by the Engineer. Test locations and unit numbers shall also be logged by the Installer's QA/QC personnel on appropriate forms provided by the Engineer. These forms will be reviewed daily by the Engineer. The Contractor shall include this information in the record document submittal for the geomembrane.

2. Vacuum Testing (ASTM D5641):

This test shall be used on extrusion welds, or when the geometry of a fusion weld makes air pressure testing impossible or impractical, or when attempting to locate the precise location of a defect believed to exist after air pressure testing.

a. Equipment for Vacuum Testing:

1) Vacuum box assembly consisting of a rigid housing with a soft neoprene gasket attached to the bottom, a transparent viewing window, port hole or valve assembly, and a vacuum gauge.

2) Vacuum pump assembly equipped with a pressure controller and pipe connection.

3) A rubber pressure/vacuum hose with fittings and connections.

4) A bucket and means to apply a soapy solution.

5) A soapy solution.

b. Procedure for Vacuum Testing:

1) Trim excess overlap from the seam, if any.

2) Turn on the vacuum pump to reduce the vacuum box to between 3 and 5 psi gauge.

3) Apply a generous amount of a strong solution of liquid detergent and water to the area to be tested.

4) Place the vacuum box over the area to be tested and apply sufficient downward pressure to "seat" the seal strip against the liner.

5) Close the bleed valve and open the vacuum valve.

6) Apply a minimum of 3 psi vacuum to the area as indicated by the gauge on the vacuum box.

7) Ensure that a leak tight seal is created.

8) For a period of approximately 10 to 15 seconds, examine the geomembrane through the viewing window for the presence of soap bubbles.

9) If no bubbles appear after 15 seconds, close the vacuum valve and open the bleed valve, move the box over the next adjoining area with a minimum three inch (3") overlap, and repeat the process.

c. Procedure for Non-Complying Test:

1) Mark all areas where soap bubbles appear and repair the marked areas.
2) Retest repaired areas.

d. General Vacuum Testing Procedures:

1) Vacuum box testing shall be performed by qualified personnel with frequent supervision by the Installers Construction Quality Control Coordinator.

2) Overlap shall be trimmed prior to vacuum boxing all seams.

3) Special attention shall be exercised when vacuum testing "T" seams or patch intersections with seams.

e. Vacuum Testing Documentation:

1) Vacuum testing crew will use permanent markers to write on liner indicating tester's initials, date, and pass/fail designation on all areas tested.

2) All of the above information plus location and test unit number shall be logged by the Installer's QA/QC personnel on appropriate forms provided by the Engineer. The forms will be reviewed daily by the Engineer. The Contractor shall include this information in the record document submittal for the geomembrane.

D. Quality-control technicians, employed by the Installation Contractor, shall inspect each seam in the presence of the Engineer. Any area showing a defect as determined by the Engineer shall be marked and repaired by the installation Contractor.

E. Trial Welds: A test weld three feet long from each welding machine and from each operator shall be run twice per day (once in the morning and once in the afternoon) prior to geomembrane welding and under the same conditions as exist for the geomembrane welding. Test welds shall also be run when significant changes in geomembrane sheet temperatures are observed. The test weld shall be marked with date, ambient temperature, and welding machine number. Samples of weld measuring 1 inch x 12 inches shall be cut from the test weld and pulled in peel in the field prior to production welding using a field tensiometer, and recorded as pass or fail regarding the requirements of Section 3.3 - C. If trial test specimens do not pass, then the seaming device and its operator will not perform any seaming operations until the deficiencies are corrected and two successive passing trial seam test specimens are produced. Completed trial seam samples cannot be used as portions of a second sample and must be discarded. Trial weld samples shall be ~~achieved~~ archived for potential subsequent laboratory strength testing in accordance with applicable ASTM standards (ASTM D 4437). Documentation of all trials welds shall be logged on appropriate forms provided by the Engineer. The data shall be reviewed by the Engineer prior to the commencement of work each day. The Contractor shall include copies of trial weld reports in the record document submittal for the geomembrane.

F. Destructive Testing: Destructive seam tests shall be performed at random locations. Seam strength testing shall be done as the seaming work progresses, not at the completion of all field seaming. The Owner or Engineer shall select locations where seam samples will be cut. Destructive samples shall be pulled at intervals of 1 sample for every 500 linear feet of weld, at a minimum. At least one representative sample shall be taken for each seaming machine being used on any given day. The seaming technician shall not be informed in advance of the locations where the seam samples will be taken. Seam strength and failure mode shall be as specified in Paragraph 3.3-C of this Section.

1. Samples shall be cut by Installer as the seaming progresses.

2. Installer shall assign a number to each sample which is to be based upon seam and sample number and mark it accordingly.

3. Installer shall record sample location and number on "As-Built" record drawing.

4. All holes in the geomembrane resulting from destructive seam sampling shall be repaired in accordance with repair procedures described in Paragraph 3.3-F of this Section at no additional cost to the Owner. The continuity of the new seams in the repaired area shall be tested according to Paragraph 3.4-c of this Section.

G. Samples for Destructive Tests:

1. Installer, under the Engineers direction, shall take two coupon samples. The coupon samples shall be 1 inch x 12 inches, and separated by 36 inches.

2. Installer shall test the two coupon samples in the presence of the Engineer. The installer shall test the coupon samples in peel (inner and outer track welds~~ only~~) and shear, and the sample shall not fail in the seam (failor shall not be by a non-film tear bond mode). If both coupon samples pass, the Engineer will direct the Installer to collect a sample from between the locations from which the coupon samples were removed. Installer shall cut the sample into three, 12 inch by 12 inch specimens and Engineer will distribute the three specimens as follows:

   a. One specimen will be given to the Owner for archive storage;

   b. One specimen will be retained by the Engineer should further sampling be required; and

   c. One sample will be shipped by overnight mail to the Contractors/Installers independent geosynthetic laboratory for testing in accordance with ASTM D 4437.

3. Contractor/Installer shall direct the selected geosynthetic laboratory to perform five peel (inner and outer track welds~~ only~~) and five shear tests. If more than one of the tests fail to meet the strength or failure mode requirements, the seam shall be considered inadequate and the Installer shall repair the seam or retest the seam as required by the specifications.

4. The following procedures shall apply whenever a sample fails a destructive test. Installer has two options:

   a. Reconstruct the seam between any two passed test locations;

   b. Trace the welding path to an intermediate location [10 feet minimum from the point of the failed test in each direction] and take a small sample for an additional field test at each location. If these additional samples pass the field test, then full laboratory samples shall be taken in accordance with Paragraph 3.4-G of this Section. If these laboratory samples pass the tests, then the seam is reconstructed between these locations. If either sample fails, then the process is repeated (with testing at the Contractor's expense with no additional cost to Owner) to establish the zone in which the seam shall be reconstructed.

1) All acceptable seams must be bounded by two locations from which samples passing laboratory destructive tests have been taken.

2) Installer shall document all actions taken in conjunction with destructive test failures; e.g., capping of failed seam area.

H. Any tensile testing which indicates a defective weld shall result in the contractor repairing the weld by capping the weld between two locations where successful welds have been documented by tests. Repaired seam strength shall be as specified in Paragraph 3.3-C of this Section.

I. Alternative test methods or quality control procedures and specifications shall be reviewed and approved by the Engineer prior to use.

J. Installation Contractor shall submit to the Engineer a written description of procedures, sample types and locations and results of laboratory testing described above.

K. No materials shall be placed over any area of installed geomembrane until the installed geomembrane has been accepted by the Engineer. In order to gain acceptance by the Engineer, Contractor shall submit all as-built documentation and test results required by this specification including, but not necessarily limited to, as-built geomembrane panel lay-out, all field installation logs, destructive and non-destructive test logs and results showing passing and failing tests, and repair reports. This information shall be reviewed and approved by the Engineer prior to acceptance of any areas of installed geomembrane and installation of cover materials above the geomembrane.

L. Upon the Engineer's acceptance of the geomembrane installation or portions thereof, the geomembrane shall be covered with proposed geosynthetic and or soil materials as soon as possible to prevent damage to the geomembrane that could be caused by weather conditions or construction activities. Any completed geomembrane that is left uncovered prior to acceptance by the Engineer shall be protected from potential wind damage through the use of sandbags and/or tires to prevent uplift, and protected from construction activities by preventing construction personnel and equipment from entering these areas. In no case shall a geomembranes that has been accepted by the Engineer remain uncovered for longer than 14 calendar days.

M. The Contractor shall maintain and prepare at the site, record drawings which detail and delineate all geomembrane panels, deficiencies, seams, repairs, destructive sample locations, penetrations, roll numbers, seam numbers, and other required information to fully and comprehensively document the as-built condition.

END OF SECTION 02212

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, furnishing, placing, compacting and testing the structural layer as shown on the Contract Drawings and as specified herein.

B. The Contractor shall accept the site in the condition in which it exists at the time of the award of the Contract.

C. The Engineer will determine the suitability of materials that are to be used in the work and should any materials encountered be unsatisfactory for the purpose intended, they shall be removed from the site at the Contractor's expense.

1.2 QUALITY ASSURANCE

A. The latest edition of the following standards and regulations, as referenced herein, shall be applicable.

1. American Society for Testing and Materials (ASTM).

2. Standard Specification for Highway Materials and Methods of Sampling and Testing, American Association of State Highway and Transportation Officials (AASHTO).

3. 6 NYCRR Part 360 Solid Waste Management Facilities.

B. The Contractor shall comply with the requirements for soil erosion and sedimentation control, and other requirements of governmental authorities having jurisdiction, including the State of New York.

C. The Contractor shall provide and pay for all costs in connection with an approved independent testing facility to determine conformance of soils with the specifications.

1.3 SUBMITTALS

A. The Contractor shall furnish representative earth materials to the testing laboratory for analysis and report, as directed by the Engineer or as outlined in the specifications.

B. Descriptive information on compaction equipment to be used for construction including equipment proposed for use in confined areas.

C. Plan detailing proposed borrow source, borrow source prequalification testing data, and estimated borrow source quantity. A copy of the NYSDEC mining permit for the borrow source shall be included in the plan.

D. Schedule of placement.

E. Test reports for prequalification and construction quality control/quality assurance testing shall be submitted to both the Contractor and Engineer.

1.4 PRODUCT HANDLING

A. Soil materials shall be excavated from the borrow source, transported, conditioned, placed, and stockpiled in such a manner so as to prevent contamination, segregation, and excessive wetting. Materials that have become contaminated, excessively wet, or segregated shall not be used and shall be removed from the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Structural Layer Soil: Sound, durable, sand, gravel, stone, or blends of these materials, free from organic, frozen or other deleterious materials, conforming to the following gradation requirements:

Sieve	Percent Passing
1"	100
No. 40	5 -40
No. 200	0 - 10

1. Fines passing No. 200 sieve shall be non-plastic.
2. Particle size analysis shall show no gap grading.

*All soil or stone particles shall be classified as sub-rounded to well-rounded.

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MATERIAL QUALIFICATION TESTING AND QUALITY CONTROL TESTING

A. General:

1. Sufficient size samples shall be obtained from the potential borrow source to allow completion of tests listed in paragraph B below. Samples may be obtained from test borings, test pits, or from borrow pit faces provided that surficial dry or wet soil is removed to expose undisturbed earth. Tests listed below shall be performed on each sample obtained.

   a. A minimum of three (3) representative samples from each potential borrow source shall be furnished to the testing laboratory for prequalification testing. Test data shall be provided to the Engineer a minimum of 2 weeks prior to start of barrier protection layer construction for approval of borrow source.

   b. Additional quality control samples shall be obtained during construction at the frequencies specified in paragraph B below to verify that borrow materials meet specification requirements.

B. Material Tests:

1. Particle Size Analysis:

   a. Method: ASTM D422
   b. Number of Tests:

      1.) Prequalification: One (1) test per source.
      2.) Quality Control: One (1) test per 2,000 CY placed.

   c. Acceptance Criteria: Gradation within specified limits.

2. Maximum Density Determination:

   a. Method: ASTM D1557 - Modified Proctor
   b. Number of Tests: One (1) per potential source.

3. Internal angle of soil friction and cohesion:

   a. Method: ASTM 3080 - Direct shear test.

   b. Number of Tests: One (1) prequalification test series per source. Test series shall consist of three (3) identical specimens from each sample subjected to direct shear test using normal (vertical) stresses of approximately 1 pounds per square inch (psi), 2 psi and 4 psi. Test specimens shall be compacted to 90% of modified Proctor maximum dry density.

4. Interface Friction Angle:

   a. Method: ASTM 5321 – Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Geosynthetic Friction by the Direct Shear Method.

   b. Number of Tests: One (1) prequalification test series per potential borrow source for each of the synthetic materials listed in paragraph 6-d below. Test series shall consist of three (3) identical specimens from one of the three borrow source samples subjected to direct shear test using normal (vertical) stresses of approximately 1 psi, 2 psi, and 4 psi. Test specimens shall be compacted to 90% of modified Proctor maximum dry density.

   c. Acceptance Criteria: Friction angle greater than or equal to 29°.

   d. Synthetic to be used for interface:

      1.) Geosynthetic Clay Liner materials meeting specification described in Section 02215.

3.2 PLACEMENT AND COMPACTION

A. General:

1. Remove or recompact any soft or loose soils as determined by the Engineer prior to filling. Particular emphasis shall be placed on obtaining a firm, compacted surface on the landfill side slopes.

2. Do not place fill material on surfaces that are muddy, frozen, or contain frost, ice, ponded water or extraneous debris.

3. When work is suspended during periods of freezing weather, measures shall be taken to prevent fill already in place from freezing. Upon resumption of work after any inclement weather, prepare the exposed surface by proof rolling to identify any zones of soft/loose soils. Soft/loose materials or frozen soils shall be removed and replaced.

4. The distribution of materials throughout the structural layer shall be such that the layer will be free from lenses, pockets, streaks, and layers of materials differing substantially from the surrounding materials.

5. The placing of material shall be done so as to obtain a layer of uniform thickness without spaces between successively deposited loads.

6. Compaction shall proceed in a systematic, orderly, and continuous manner so as to ensure the specified coverages by the compaction equipment.

7. Materials which cannot be compacted by the approved rolling compaction equipment because of interferences shall be compacted with smaller approved compactors to a density at least equal to the density achieved in adjacent areas by the rolling compaction equipment and methods. Single pad vibratory base plate compactors shall weigh not less than 200 lbs. and have a vibration frequency not less than 1600 cycles per minute.

8. Should the fill surface become rutted or uneven subsequent to compaction, it shall be releveled and recompacted before placing the next layer of material.

B. Structural Layer Placement and Compaction:

1. Place fill material in layers not ~~less~~ more than 12" in depth. Lift height shall be governed by the ability of the compaction equipment to obtain the required compaction with 12" as a maximum lift height.

2. Moisture content of the material during compaction shall be between 3 percent dry and 3 percent wet of optimum moisture content as determined by ASTM D 1557 (Modified Proctor).

3. All fill shall be thoroughly and satisfactorily compacted to at least 90 percent of the Modified Proctor maximum dry density of the material used (ASTM D-1557).

4. Where fill must be moisture conditioned before compaction, uniformly apply water to the surface of each layer of fill. Prevent ponding or other free water on the surface subsequent to, or during, compaction operations.

5. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to the specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified.

6. Rolling compaction equipment shall be heavy smooth drum in vibratory equipment capable of achieving the intended result. Any equipment not originally manufactured for compaction purposes and equipment which is not in proper working order will not be approved. Furnish manufacturer’s specifications covering data not obvious from a visual inspection of the equipment and necessary to determine its classification and performance characteristics.

7. Compaction equipment shall make a minimum of 4 complete passes over the entire area of each lift.

8. The Contractor shall grade partially completed fill areas for drainage and thoroughly compact and smooth the surface at the end of each workday.

9. For areas not accessible to heavy rolling compaction equipment, fill materials shall be placed in horizontal layers not to exceed 6 inches in loose thickness and compacted with smaller rolling compaction equipment or hand operated equipment, as approved by the Engineer.

10. The final surface of the structural layer shall be uniform and suitable for placement of the

next subsequent layer.

3.3 FIELD QUALITY CONTROL

A. The Contractor's Testing Laboratory shall perform testing of structural layer fill materials to insure compliance with these specifications.

B. In-place density and moisture content tests shall be performed on in- place fill material in accordance with ASTM D 1556, D 2167 or D 2922. In-place density shall be determined at a depth of 6 inches below grade. At least 9 tests shall be performed per acre per lift of material placed and at least one test shall be performed each day. Field test locations shall be subject to approval or relocation by the Engineer.

C. Tests for moisture content (by ASTM D 3017) shall be performed on the in-place fill at a rate of nine tests per acre per lift. If nuclear methods or microwave methods are used to determine field moisture content, one oven-dry moisture content determination (ASTM D2216) shall be performed per acre per lift for calibration. Sample shall be obtained from a location immediately adjacent to an in-place density location.

D. The Engineer may direct additional tests to establish gradation, Atterberg limits, permeability, maximum density, in-place density, and water content as required by working conditions, or changes in borrow source material at the Contractor's expense.

E. Acceptance Criteria:

1. Acceptance Criteria: The criteria for acceptability of in-place fill shall be in situ dry density and moisture content. Minimum dry density for all fill shall be 90 percent of the modified Proctor maximum dry density. The in-place moisture content shall be between 3 percent dry and 3 percent wet of optimum as determined by the modified Proctor compaction method (ASTM D-1557). If a test fails to qualify, the fill shall be further reworked, compacted and re-tested. Subsequent test failures shall be followed by removal and replacement of the material.

3.4 CLEAN UP

A. Provide and maintain protection of newly filled areas against damage. Upon completion or when directed, correct all damaged and deficient work by building up low spots and remove temporary protections, fencing, shoring and bracing if any.

B. Remove all surplus excavated material not required for filling and backfilling and legally dispose of same away from premises.

C. Leave the premises and work in clean, satisfactory condition, ready to receive subsequent operations.

END OF SECTION 02208

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, furnishing, placing, compacting and testing the leachate collection layers as shown on the Contract Drawings and as specified herein.

B. The Contractor shall accept the site in the condition in which it exists at the time of the award of the Contract.

C. The Engineer will determine the suitability of materials that are to be used in the work and should any materials encountered be unsatisfactory for the purpose intended, they shall be removed from the site at the Contractor's expense.

1.2 QUALITY ASSURANCE

A. The latest edition of the following standards and regulations, as referenced herein, shall be applicable.

1. American Society for Testing and Materials (ASTM).

2. Standard Specification for Highway Materials and Methods of Sampling and Testing, American Association of State Highway and Transportation Officials (AASHTO).

3. 6 NYCRR Part 360 Solid Waste Management Facilities.

B. The Contractor shall comply with the requirements for soil erosion and sedimentation control, and other requirements of governmental authorities having jurisdiction, including the State of New York.

C. The Contractor shall provide and pay for all costs in connection with an approved independent testing facility to determine conformance of soils with the specifications.

1.3 SUBMITTALS

A. The Contractor shall furnish representative earth materials to the testing laboratory for analysis and report, as directed by the Engineer or as outlined in the specifications.

B. Descriptive information on compaction equipment to be used for construction, including equipment proposed for use in confined areas.

C. Plan detailing proposed borrow source, borrow source prequalification testing data, and estimated borrow source quantity. A copy of the NYSDEC mining permit for the borrow source shall be included in the plan.

D. Schedule of placement.

E. Test reports for prequalification and construction quality control/quality assurance testing shall be submitted to both the Contractor and Engineer.

1.4 PRODUCT HANDLING

A. Soil materials shall be excavated from the borrow source, transported, conditioned, placed, and stockpiled in such a manner so as to prevent contamination, segregation, and excessive wetting. Materials that have become contaminated, excessively wet, or segregated shall not be used and shall be removed from the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Leachate Collection Soil: Sound, durable, sand, gravel, stone or blends of these materials, free from organic, frozen, or other deleterious materials, conforming to the following requirements:

Sieve	Percent Passing
1"	100
1/4"	30 - 65
No. 40	5 - 40
No. 200	0 - 5~~10~~

1. Fines passing No. 200 sieve shall be non-plastic.

2. Particle size analysis shall show no gap grading.

3. The permeability of the soil shall be greater than 1x10^{-2} centimeters per second when compacted to a minimum of 90 percent of modified Proctor maximum dry density.

4. All soil or stone particles shall be classified as rounded or subrounded (ASTM D 2488)

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MATERIAL QUALIFICATION TESTING AND QUALITY CONTROL TESTING

A. General:

1. Sufficient size samples shall be obtained from the potential borrow source to allow completion of tests listed in paragraph B below. Samples may be obtained from test borings, test pits, or from borrow pit faces provided that surficial dry or wet soil is removed to expose undisturbed earth. Tests listed below shall be performed on each sample obtained.

   a. A minimum of three (3) representative samples from each potential borrow source shall be furnished to the testing laboratory for prequalification testing. Test data shall be provided to the Engineer a minimum of 2 weeks prior to start of gas venting layer construction for approval of borrow source.

   b. Additional quality control samples shall be obtained during construction at the frequencies specified in paragraph B below to verify that borrow materials meet specification requirements.

B. Material Tests:

1. Particle Size Analysis:

a. Method: ASTM D422
b. Number of Tests:

1.) Prequalification: One (1) test per source.
2.) Quality Control: One (1) test per1,000 CY placed.

c. Acceptance Criteria: Gradation within specified limits.

2. Atterberg Limits Determinations:

a. Method: ASTM D4318
b. Number of Tests: One (1) prequalification test per source.
c. Acceptance Criteria: Plasticity index within specified limits.

3. Moisture Content:

a. Method: ASTM D2216

b. Number of Tests: One (1) prequalification test per source.

4. Maximum Density Determination:

a. Method: ASTM D1557 - Modified Proctor

b. Number of Tests: One (1) prequalification test per source.

5. Permeability of Granular Soils:

a. Method: ASTM D2434 - Constant Head Method

b. Number of Tests:

1.) Prequalification: Three tests per source.
2.) Quality Control: One test per 2,500 Cy placed.

c. Acceptance Criteria: Coefficient of permeability greater than $1x10^{-2}$ centimeters per second when compacted to 90% of the modified Proctor maximum dry density.

6. Internal angle of soil friction and cohesion:

a. Method: ASTM 3080 - Direct shear test.

b. Number of Tests: One (1) prequalification test series per source. Test series shall consist of three (3) identical specimens from each sample subjected to direct shear test using normal (vertical) stresses of approximately 1 pound per square inch (psi), 2 psi and 4 psi. Test specimens shall be compacted to 90% of modified Proctor maximum dry density.

7. Interface Friction Angle:

a. Method: ASTM 5321 – Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic Fricton by the Direct Shear Method.

b. Number of Tests: One (1) prequalification test series per potential borrow source for each of the synthetic materials listed in paragraph 7-d below. Test series shall consist of three (3) identical specimens from one of the three borrow source samples subjected to shear test using normal (vertical) stresses of approximately 1 psi, 2 psi, and 4 psi. Test specimens shall be compacted to 90% of modified Proctor maximum dry density.

c. Acceptance Criteria: Friction angle greater than or equal to 29°.

d. Synthetic to be used for interface:

1.) Geomembrane materials meeting specifications described in Section 02212.

3.2 PLACEMENT AND COMPACTION

A. General:

1. Do not place fill material on surfaces that are muddy, frozen, or contain frost, ice, ponded water or extraneous debris.

2. When work is suspended during periods of freezing weather, measures shall be taken to prevent fill already in place from freezing. Upon resumption of work after any inclement weather, prepare the exposed surface by proof rolling to identify any zones of soft/loose soils. Soft/loose materials or frozen soils shall be removed and replaced.

3. The distribution of materials throughout the leachate collection layers shall be such that the layers will be free from lenses, pockets, streaks, and layers of materials differing substantially from the surrounding materials.

4. The placing of material shall be done so as to obtain a layer of uniform thickness without spaces between successively deposited loads.

5. Compaction of each layer shall proceed in a systematic, orderly, and continuous manner so as to ensure the specified coverages by the compaction equipment.

6. Materials which cannot be compacted by the approved rolling compaction equipment because of interferences shall be compacted with smaller approved compactors to a density at least equal to the density achieved in adjacent areas by the rolling compaction equipment and methods. Single pad vibratory base plate compactors shall weigh not less than 200 lbs. and have a vibration frequency not less than 1600 cycles per minute.

7. Should the fill surface become rutted or uneven subsequent to compaction, it shall be releveled and recompacted before placing the next layer of material.

B. Placement and Compaction:

1. Place fill materials in a layer not less than 12" in compacted depth. Lift height shall be governed by the ability of the compaction equipment to obtain the required compaction. The moisture content of the material during compaction shall be between 3 percent wet and 3 percent dry of optimum moisture content as determined by ASTM D1557 (modified Proctor)

2. All fill shall be thoroughly and satisfactorily compacted to at least 90 percent of the modified Proctor maximum dry density of the material used (ASTM D-1557).

3. Where fill must be moisture conditioned before compaction, uniformly apply water to the surface of each layer of fill. Prevent ponding or other free water on the surface subsequent to, or during, compaction operations.

4. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to the specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified.

5. Rolling compaction equipment shall be heavy smooth drum vibratory equipment capable of achieving the intended result. Compaction equipment used for the Work is subject to approval by the Engineer. Any equipment not originally manufactured for compaction purposes and equipment which is not in proper working order will not be approved. Furnish manufacturer's specifications covering data not obvious from a visual inspection of the equipment and necessary to determine its classification and performance characteristics.

6. Compaction equipment shall make a minimum of 4 complete passes over the entire area of each lift.

7. The Contractor shall grade partially completed fill areas for drainage and thoroughly compact and smooth the surface at the end of each workday.

8. For areas not accessible to heavy rolling compaction equipment, fill materials shall be placed in horizontal layers not to exceed 6 inches in loose thickness and compacted with smaller rolling compaction equipment or hand operated equipment, as approved by the Engineer.

9. The final surface of the layer shall be uniform and suitable for placement of the next subsequent layer.

3.3 FIELD QUALITY ASSURANCE

A. The Contractor's Testing Laboratory shall perform testing of leachate collection layer materials to insure compliance with these specifications.

B. In-place density and moisture content tests shall be performed on in- place fill material in accordance with ASTM D 1556, D 2167 or D 2922. In-place density shall be determined at a depth of 6 inches below grade. At least 9 tests shall be performed per acre per lift of material placed and at least one test shall be performed each day. Field test locations shall be subject to approval or relocation by the Engineer.

C. Tests for moisture content (by ASTM D 3017) shall be performed on the in-place fill at a rate of nine tests per acre per lift. If nuclear methods or microwave methods are used to determine field moisture content, one oven-dry moisture content determination (ASTM D2216) shall be performed per acre per lift for calibration. Sample shall be obtained from a location immediately adjacent to an in-place density location.

D. The Engineer may direct additional tests to establish gradation, Atterberg limits, permeability, maximum density, in-place density, and water content as required by working conditions, or changes in borrow source material at the Contractor's expense.

E. Acceptance Criteria:

1. Grain size analyses shall show gradation of the soil material placed to be within specified limits.

2. Minimum dry density for all fill shall be 90 percent of the modified Proctor maximum dry density. The in-place moisture content shall be within 3 percent dry or 3 percent wet of optimum as determined by the modified Proctor compaction method (ASTM D-1557). If a test fails to qualify, the fill shall be further reworked, compacted and re-tested. Subsequent test failures shall be followed by removal and replacement of the material.

3.4 CLEAN UP

A. ~~Provide and maintain protection of newly filled areas against damage. Upon completion or when directed, correct all damaged and deficient work by building up low spots and remove temporary protections, fencing, shoring and bracing if any~~Provide and maintain protection of newly filled areas against damage. This includes the following items:

1. Protecting the leachate collection soil from rutting due to equipment traffic.

2. Protecting the installed collection soil layer from erosion due to rain events.

3. Protecting the installed collection soil from wind erosion.

4. Protecting underlying and adjacent geosynthetic materials such as geomembrance and geocomposite drainage netting from damage caused by deterioration of in-place leacdhate collection soil such as silting in of drainage netting from windblown soils and damage of geomembrane from direct contact of construction equipment.

B. Upon completion or when directed by the Engineer, correct all damaged and deficient work as follows:

1. Build up and fill in low spots across the leachate collection soil layer.

2. Fill in areas where soil erosion has occurred.

3. Repair geosynthetic materials such as geomembrane and composite drainage netting in accordance with repair procedures in respective specification sections. Replace damaged materials at the discretion of the Engineer.

~~B.~~C. Remove all surplus excavated material not required for filling and backfilling and legally dispose of same away from premises.

~~C.~~D. Leave the premises and work in clean, satisfactory condition, ready to receive subsequent operations.

END OF SECTION 02207

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, furnishing, placing, compacting and testing the low permeability soil as shown on the Contract Drawings and as specified herein.

B. The Contractor shall accept the site in the condition in which it exists at the time of the award of the Contract.

C. The Engineer shall determine the suitability of materials that are to be used in the work and should any materials encountered be unsatisfactory for the purpose intended, they shall be removed from the site at the Contractor's expense.

1.2 QUALITY ASSURANCE

A. The latest edition of the following standards and regulations, as referenced herein, shall be applicable.

1. American Society for Testing and Materials (ASTM).

2. Standard Specification for Highway Materials and Methods of Sampling and Testing, American Association of State Highway and Transportation Officials (AASHTO).

3. 6 NYCRR Part 360 Solid Waste Management Facilities.

B. The Contractor shall comply with the requirements for soil erosion and sedimentation control, and other requirements of governmental authorities having jurisdiction, including the State of New York.

C. The Contractor shall provide and pay for all costs in connection with an approved independent testing facility to determine conformance of soils with the specifications.

1.3 SUBMITTALS

A. The Contractor shall furnish representative earth materials to the testing laboratory for analysis and report, as directed by the Engineer or as outlined in the specifications.

B. Descriptive information on compaction equipment to be used for construction with low permeability soil, including equipment proposed for use in confined areas.

C. Plan detailing proposed borrow source, borrow source prequalification testing data, and estimated borrow source quantity.

D. Schedule of placement.

E. Test reports for prequalification and construction quality control/quality assurance testing shall be submitted to both the Contractor and Engineer.

1.4 PRODUCT HANDLING

A. Soil materials shall be excavated from the borrow source, transported, conditioned, placed, and stockpiled in such a manner so as to prevent contamination, segregation, and excessive wetting. Materials that have become contaminated, excessively wet, or segregated shall not be used and shall be removed from the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Impervious silty clay and clayey silt soils, classified as MH, CL, or CH in the Unified Soil Classification System (ASTM D 2487), with no sizes larger than ~~3 inches~~ one inch and at least 75 percent by dry weight of fines passing the No. 200 standard sieve size. The plasticity index shall be at least 15 (ASTM D 4318). The coefficient of permeability of the clay shall be less than 1×10^{-7} centimeters per second when compacted to a minimum of 90 percent of ~~standard~~ modified Proctor maximum dry density at a moisture content wet of optimum.

PART 3 - EXECUTION

3.1 BORROW SOIL MATERIAL QUALIFICATION AND QUALITY CONTROL TESTING

A. General:

1. Sufficient size samples shall be obtained from the potential borrow source to allow completion of tests listed in paragraph B (material tests) below. Samples may be obtained from test borings, test pits, or from borrow pit faces provided that surficial dry or wet soil is removed to expose undisturbed earth. Tests listed below shall be performed on each sample obtained.

a. A minimum of three (3) representative samples from each potential borrow source shall be furnished to the testing laboratory for prequalification testing. Test data shall be submitted to the Engineer a minimum of 2 weeks prior to start of construction for approval of the borrow source.

b. Additional quality control samples shall be obtained during construction at the frequencies specified in paragraph B below to verify that borrow materials meet specification requirements.

B. Material Tests:

1. Particle Size Analysis:

a. Method: ASTM D422

b. Number of Tests:

1.) Prequalification: 1 test per source.
2.) Quality Control: 1 per 2,500 cubic yards placed.

c. Acceptance Criteria: Gradation within specified limits.

2. Atterberg Limits Determinations:

a. Method: ASTM D4318

b. Number of Tests:

1.) Prequalification: 1 test per source.
2.) Quality Control: 1 per 1,000 cubic yards placed.

c. Acceptance Criteria: Plasticity index within specified limits.

3. Moisture Content:

   a. Method: ASTM D2216

   b. Number of Tests:

      1.) Prequalification: 2 tests per source.
      2.) Quality Control: 1 per 1,000 cubic yards placed.

   Test shall be performed on sample specimen preserved at natural (undisturbed) moisture condition.

4. Maximum Density Determination:

   a. Method: ASTM D1557 - Modified Proctor

   b. Number of Tests:

      1.) Prequalification:1 test per source. See Paragraph 3.1 (B)(8).
      2.) Quality Control:1 per 5,000 cubic yards placed.

5. Permeability of Cohesive Soils:

   a. Method: ASTM D5084

   b. Number of Tests: Minimum two (2) tests per sample performed with sample compacted to 85% and 90% maximum Modified Proctor dry density at optimum moisture content.

      1.) Prequalification: ~~1 test per source. The intent is to demonstrate that the coefficient of permeability will be less than 1x10^{-7} cm/sec for specified density and moisture content requirements~~ See Paragraph 3.1 (B)(9).~~.~~

      2.) Quality Control: 1 sample per 5,000 cubic yards placed. Tests shall be performed using same criteria as for prequalification testing.

   c. Acceptance Criteria: Coefficient of permeability less than 1x10^{-7} centimeters per second.

6. Internal angle of soil friction and cohesion:

   a. Method: ASTM 3080 - Direct shear test.

   b. Number of Tests: One (1) prequalification test series per source. Test series shall consist of three (3) identical specimens from each sample subjected to direct shear test using normal (vertical) stresses of approximately 1 pound per square inch (psi), 2 psi and 4 psi. Test specimens shall be compacted to 90% of maximum modified Proctor dry density at a moisture content 2 percent wet of optimum.

7. Interface Friction Angle:

   a. Method: ASTM D5321 – Test Method for Determining the Coefficient of the Soil and Geosynthetic or Geosynthetic and Geosynthetic Friction by the Direct Sear Method.

b. Number of Tests: One (1) prequalification test series per potential borrow source. Test series shall consist of three (3) identical specimens from one of the three borrow source samples subjected to shear test using normal (vertical) stresses of approximately 1 psi, ~~1~~ 2 psi, and 4 psi. Test specimens shall be compacted to 90% of maximum modified Proctor dry density at a moisture content 2 percent wet of optimum.

c. Acceptance Criteria: Friction angle greater than or equal to 29°.

d. Geosynthetic to be used for interface:

1.) Proposed geomembrane meeting specifications described in Section 02212.

8. Moisture-Density Relationship: A moisture-density relationship shall be determined by using the modified Proctor Method (ASTM D1557) modified as follows: Three proctors shall be performed, each at a different compactive effort. The three compactive efforts shall be 12,26, and 56 blows per layer as compacted in 5 layers in a standard 6 inch diameter mold. A compaction curve shall be developed for each of the three compactive efforts. For each compaction curve, a minimum of five specimens shall be prepared, specifically at the following moisture contents: 2% below optimum moisture content (OMC), OMC, 2%, 4%, and 6% above OMC.

9. Permeability Relationship (ASTM D5084)~~.~~: Each one of the compacted moisture-density test specimens from the three proctor curves listed above shall be sampled and tested to determine its hydraulic conductivity (ASTM D5084).

3.2 PLACEMENT AND COMPACTION

A. General:

1. The ground on which the low permeability soil is to be placed shall be proof rolled until the underlying soil is thoroughly compacted to the satisfaction of the Engineer before any filling is begun. A steel-wheel tandem roller weighing 8 to 10 tons or equipment capable of obtaining the same compactive effort shall be used to obtain a thoroughly compacted subgrade. Remove or recompact any soft or loose soils as determined by the Engineer prior to filling. Particular emphasis shall be placed on obtaining a firm, compacted surface.

2. Do not place fill material on surfaces that are muddy, frozen, or contain frost, ice, ponded water or extraneous debris.

3. When work is suspended during periods of freezing weather, measures shall be taken to prevent fill already in place from freezing. Upon resumption of work after any inclement weather, prepare the exposed surface by proof rolling to identify any zones of soft/loose soils. Soft/loose materials or frozen soils shall be removed and replaced.

4. The distribution of materials throughout the low permeability soil shall be such that the layer will be free from lenses, pockets, streaks, and layers of materials differing substantially from the surrounding materials.

5. The placing of material shall be done so as to obtain a layer of uniform thickness without spaces between successively deposited loads.

6. Compaction of each layer shall proceed in a systematic, orderly, and continuous manner so as to ensure the specified coverages by the compaction equipment.

7. Materials which cannot be compacted by the approved rolling compaction equipment because of interferences shall be compacted with smaller approved compactors to a density at least equal to the density achieved in adjacent areas by the rolling compaction equipment and methods. Single pad vibratory base plate compactors shall weigh not less than 200 lbs. and have a vibration frequency not less than 1600 cycles per minute.

8. Should the fill surface become rutted or uneven subsequent to compaction, it shall be releveled and recompacted before placing the next layer of material.

B. Low Permeability Soil Placement and Compaction:

1. Place fill materials in layers not more than 6" in loose depth. Lift height shall be governed by the ability of the compaction equipment to obtain the required compaction with 6" as a maximum lift height.

2. Moisture content of the material during compaction shall be between 0 and 4 percent wet of optimum moisture content as determined by ASTM D 1557 (Modified Proctor). The average moisture content of the as placed fill shall be 1 to 3 percent wet of optimum.

3. All fill shall be thoroughly and satisfactorily compacted to at least 90 percent of the modified Proctor maximum dry density of the material used (ASTM D-1557).

4. Where fill must be moisture conditioned before compaction, uniformly apply water to the surface of each layer of fill. Prevent ponding or other free water on the surface subsequent to, or during, compaction operations. Any surface exhibiting cracking from excessive drying shall be moisture conditioned and reworked by scarifying, discing, pulverizing, and recompacting prior to placement of successive lifts of earth fill or geosynthetic materials.

5. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to the specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified.

6. Rolling compaction equipment shall be heavy rubber tired rollers or pad-foot type rollers capable of achieving the intended result. Compaction equipment used for the Work is subject to approval by the Engineer. Any equipment not originally manufactured for compaction purposes and equipment which is not in proper working order will not be approved. Furnish manufacturer’s specifications covering data not obvious from a visual inspection of the equipment and necessary to determine its classification and performance characteristics.

7. Compaction equipment shall make a minimum of 4 complete passes over the entire area of each lift.

8. The surface of each compacted layer shall be scarified to a minimum depth of 1 inch before placing the next layer. If the fill surface softens as a result of heavy rains, the surface shall be scarified and allowed to dry until the moisture content is within the range specified herein or the wet material shall be removed. Should the surface become so dry that bond between such surface and the next layer of material will not be adequate, the Contractor shall loosen the embankment surface by discing and shall add moisture and further condition and recompact the exposed surface immediately prior to placement of the next layer.

9. The Contractor shall grade partially completed fill areas for drainage and thoroughly compact and smooth the surface at the end of each workday.

10. For areas not accessible to heavy rolling compaction equipment, fill materials shall be placed in horizontal layers not to exceed 6 inches in loose thickness and compacted with smaller rolling compaction equipment or hand operated equipment, as approved by the Engineer.

11. The final surface of the low permeability soil shall be uniform and suitable for placement of the next subsequent layer.

3.3 FIELD QUALITY ASSURANCE

A. The Contractor's Testing Laboratory shall perform testing of low permeability soil to insure compliance with these Specifications.

B. In-place density and moisture content tests shall be performed on in- place fill material in accordance with ASTM D 1556, D 2167 or D 2922. In-place density shall be determined at a depth of 3 inches below grade. At least 9 tests shall be performed per acre per lift of material placed and at least one test shall be performed each day. Field test locations shall be subject to approval or relocation by the Engineer.

C. Laboratory permeability tests shall be performed on thin wall "Shelby" tube samples of the in-place soil at a frequency of 1 per acre per lift. Shelby tubes shall be advanced by jacking in one continuous smooth thrust into the compacted soil. Use of hammers or similar driving equipment will not be permitted. Use of a backhoe bucket or bulldozer blade to push sampling tubes will not be permitted. Earth moving equipment may be used as a reaction for jacks. Field methods and test locations subject to approval by the Engineer. Void resulting from sample removal shall be backfilled with low permeability soil according to placement specifications. Samples shall only be obtained of the ~~upper lift~~ most recently constructed lift; and each sample shall penetrate only the most recently constructed lift.

D. Tests for moisture content (by ASTM D 3017) shall be performed on the in-place fill at a rate of nine tests per acre per lift. If nuclear methods or microwave methods are used to determine field moisture content, one oven-dry moisture content determination (ASTM D2216) shall be performed per acre per lift for calibration. Sample shall be obtained from a location immediately adjacent to an in-place density test location.

E. The Engineer may direct additional tests to establish gradation, Atterberg limits, permeability, maximum density, in-place density, and water content as required by working conditions, or changes in borrow source material at the Contractor's expense.

F. Acceptance Criteria:

1. Acceptance Criteria: The criteria for acceptability of in-place fill shall be in situ dry density and moisture content and in-situ permeability. Minimum dry density for all fill shall be 90 percent of the modified Proctor maximum dry density. The in-place moisture content shall be 0 to 4 percent wet of optimum as determined by the modified Proctor compaction method (ASTM D-1557). In place permeability shall be less than $1x10^{-7}$ cm/sec. If a test fails to qualify, the fill shall be further reworked, compacted and re-tested. Subsequent test failures shall be followed by removal and replacement of the material.

3.4 CLEAN UP

A. Provide and maintain protection of newly filled areas against damage. Upon completion or when directed, correct all damaged and deficient work by building up low spots and remove temporary protections, fencing, shoring and bracing if any.

B. Remove all surplus excavated material not required for filling and backfilling and legally dispose of same away from premises.

C. Leave the premises and work in clean, satisfactory condition, ready to receive subsequent operations.

END OF SECTION 02206

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Contractor shall provide all labor, materials, equipment and services necessary for, and, incidental to the installation of High Density Polyethylene Piping Systems as shown on the drawings and specified herein. All pipe shall be PE 3408 as manufactured by Plexco Piping Systems, a subsidiary of Chevron, or equal.

B. All piping, fittings, and appurtenances shall be new, clean and in accordance with material specifications. In no instance shall secondhand or damaged materials be acceptable.

C. Pipe, fittings and the installation shall meet the applicable requirements of Title 49, Code of Federal Regulations, Part 192.

1.2 QUALITY ASSURANCE

A. Reference Standards:

1. The latest edition of the standards referenced herein, shall be applicable.

a. American Society of Testing and Materials (ASTM).

1. HDPE Cell Classification ASTM D 3350.

B. Product Markings: Each pipe length shall be plainly and permanently marked with the following information:

1. Name of trademark of manufacturer
2. Date of manufacture
3. Diameter and Class

1.3 SUBMITTALS

A. Product Data:

1. Obtain and submit manufacturer’s catalog cuts, specifications and installation instructions.

2. Provide data on equipment for providing butt fusion welded joints and all special equipment related to the installation and jointing of HDPE pipe.

B. Shop Drawings:

1. Assembly and installation details for all pipe fittings, pipe specials and appurtenances located within manholes.

C. Certification:

1. Submit fusion training certification for all joint installers.
2. Submit copy of Plexco Bulletin 106.
3. Submit Manufacturers certification of hydraulic testing in accordance with ASTM D-2837.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Delivery:

1. Schedule delivery of materials to the site to prevent interruption of work.

2. All materials shall be inspected by the Contractor upon delivery to the site. Contractor shall notify Engineer of any loss or damage.

B. Handling:

1. Pipe, fittings, specials appurtenances and accessories shall be handled carefully with approved handling devices in strict conformance with the manufacturer's recommendations.

2. Products shall not be dropped or rolled off trucks, nor shall products be otherwise dragged, rolled or skidded.

C. Products received at the site cracked, gouged, chipped, dented or otherwise damaged will not be approved and shall be returned and replaced at the Distributor/Supplier's expense.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Pipe and Fittings:

1. All pipe and fittings shall be high density polyethylene and exhibit the following properties:

Property	**Test Method**	**Unit**	**Value**
Density	ASTM D-1505	gm/cm^3	0.955
Melt Index	ASTM D-1238	gm/10 min.	0.1
Flexural Modulus	ASTM D-790	psi	133,000
Tensile Strength	ASTM D-638	psi	3,500
Environmental Stress Crack Resistance	ASTM D-1693	HRS/Failure %	>5,000
Hydrostatic Design Basis	ASTM D-2387	psi at 140°F psi at 73.4°F	800 1,600
Color & Ultraviolet Stabilizer		Colored	

2. All fittings shall meet the pressure rating of the HDPE pipe. Fitting sizes and types shall be as shown on the Drawings unless otherwise directed by the Engineer.

3. All HDPE pipe shall be of the nominal size and SDR specified on the Drawings.

B. Joints:

1. All joints of HDPE pipe shall be butt fused by the heat fusion method in strict accordance with manufacturer's recommended procedures and specifications. The Contractor shall provide fusion training certification by the local utility company, and all workers involved in joining piping shall have a valid certification card.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect all pipe and fittings prior to laying in the trench. Remove defective pipe and fittings from the site.

B. Do not backfill until inspection by the Engineer, unless otherwise approved by the Engineer.

3.2 INSTALLATION

A. Trenching, backfilling and compaction shall conform to Section "Trenching, Backfilling, and Compaction."

B. Pipe installation shall conform to Section "Buried Pipe Installation."

3.3 TESTING

A. Testing of piping shall conform to Section "Buried Pipe Installation."

END OF SECTION 02614

APPENDIX E

Albany County Sewer District Agreement

APPENDIX F

Gas Venting Layer Variance Approval

Construction Quality Assurance/ Quality Control Plan Eastern Landfill Expansion

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

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July 30, 2007

(Updated February 2008)

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INTRODUCTION

1.1 General

This report presents a Construction Quality Assurance/ Quality Control (QA/QC) Plan for the construction of the Rapp Road Solid Waste Management Facility Eastern Landfill Expansion Project. The plan is presented for compliance with the requirements of New York State Department of Environmental Conservation Sub-Part 6 NYCRR Part 360-2.8, effective March 15, 2002.

1.2 Description of Proposed Landfill Construction Activity

The proposed landfill construction QA/QC plan is for the double composite liner described as follows:

A. Primary Composite Liner System

- Primary Leachate Collection Layer – This leachate collection layer consists of 24 inches of granular soil ($1x10^{-2}$ cm/sec) with a leachate collection pipe network.
- Primary Composite Liner – The primary composite liner consists of a textured 60 mil HDPE flexible membrane liner that overlies a geosynthetic clay liner.
- Structural Layer – The layer will consist of 12-inches of granular soil.

B. Secondary Composite Liner System

- Secondary Leachate Collection Layer - This layer will include 12 inches of granular soil ($1.0x10^{-2}$ cm/sec) and a leachate collection pipe network.
- Secondary Composite Liner - This layer will contain a textured 60 mil HDPE flexible membrane liner (1×10^{-12} cm/sec) that directly overlays 24 inches of low permeability soil layer (1×10^{-7} cm/sec).
- Subgrade - This will consist of the existing in-place soils, after the topsoil has been removed and/ or select fill that will be graded and prepared for construction

of containment berms. The existing soils will be reworked if necessary to meet the new line and grade requirements.

1.3 Components of the QA/QC Plan

The following list presents the principal components of a QA/QC Plan as required by 6 NYCRR 360-2.8, along with the location (in parenthesis) of where demonstration of each component can be found in this document:

- All landfill construction requirements set forth in Section 360-2.13 are addressed (throughout the document),
- Information from the contractor installing the liner system regarding the contractor's proposed personnel, procedures, instructions, records and forms to be used during construction (Section 1.4)
- Pre-construction meeting (Section 2.2 Preconstruction Meeting),
- Responsibilities of the QA/QC management organization (Section 3.0 Responsibilities and qualifications of QA/QC Officers and Staff),
- Chain of command of the QA/QC inspectors and contractors (Section 3.1-D Chain of Command),
- Qualification of the QA/QC officers and inspectors (Section 3.2 Personnel Qualifications),
- Qualifications of installers (Section 1.6 Qualifications of Installers of Liner Components),
- QA/QC testing and monitoring and contingency protocols (Section 3.7 Testing and Monitoring Protocols) including:

  A. Frequency of inspection;
  B. Types and frequency of field tests;
  C. Types and frequency of laboratory tests;
  D. Testing equipment (field and lab) to be utilized and calibrations of each;
  E. Frequency of performance audits;
  F. Sampling sizes;

G. QA/ QC of laboratory procedures;

H. Limits for test failure;

I. Selection of corrective measures and frequency of inspection to insure compliance;

J. Documentation and reporting requirements.

2.0 Information to be Submitted by the Contactor as Part of the QA/QC Plan

Prior to the initiation of construction, the contractor installing the liner system(s) shall furnish to the Engineer information on the following items; proposed personnel, procedures, instructions, records and forms to be used during construction. No construction will begin prior to Engineer's review and approval of these items.

The information submitted by the Contractor and approved by the Engineer will become part of the overall QA/QC Plan. Acceptance of the submitted information is conditional and will be predicated on satisfactory performance during the construction by the Contractor. The Engineer reserves the right to require the Contractor to make changes to his submitted information and operations as necessary to obtain the quality specified. The Contractor shall notify the Engineer in writing of any proposed changes. Proposed changes are subject to acceptance by Change Order.

The information to be submitted by the Contractor will include at a minimum the following:

A. The description of the Contractor's quality control organization, including a chart showing lines of authority and acknowledgment that the Contractor's Quality Control (CQC) staff will be in addition to, and separate from, the contractor's project supervisory staff and will report to the Contractor's management at a level of Vice President or above in the Contractor's organization.

B. The name, qualifications, duties, responsibilities and authorities of each firm or person assigned a QC function.

C. A copy of the letter to the QC manager signed by an authorized official of the firm, which describes the responsibilities and delegates the authorities of the QC manager.

D. Procedures for scheduling and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents.

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E. Control testing procedures for each specific test included in a Quality Assurance Program Plan or equivalent from the proposed laboratory. Laboratory facilities will be approved by the Project Engineer.

F. Resumes for those licensed Professional Engineers who will be certifying the testing data.

G. Reporting procedures including proposed reporting formats.

H. Procedures for responding to construction deficiencies resulting from circumstances including, but not limited to, inclement weather, defective materials or construction inconsistent with specifications as demonstrated by QC testing, and must include a plan to be utilized in evaluating deficiencies and implementing corrective actions.

I. Construction contingency plan describing in detail the courses of action to be taken in response to events which may occur during all phases of construction, and will at a minimum cover the following: damaged construction materials and/or equipment, unavailability of approved materials and/or subcontractors; on-site personnel injury; excessive dust; excessive noise; equipment breakdown or unavailability of equipment; unusual traffic conditions; and uncontrolled releases of run-off adjacent to surface waters.

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2.1 Preconstruction Meeting

Before the start of construction, the Contractor will meet with the Engineer and discuss the QA/QC Plan. Representatives of the facility owner/operator, engineer, Contractor's QA/QC (CQA/CQC) staff, and the contractor will attend this meeting. During the meeting, a mutual understanding for the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the plan for both on-site and off-site work, and the interrelationship of Contractor's inspection and control with the Engineer's overall construction inspection/certification responsibilities.

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The preconstruction meeting will address the following topics, as a minimum:

1. Provide each involved entity with all of the relevant CQA/CQC documents and supporting information.
2. Address the site specific QA/QC plan, including the information submitted by the Contractor, and its role relative to the design criteria, plans and specifications.
3. Review the responsibilities, authorities and lines of communication for each of the involved entities.
4. Review the established procedure for observation and testing, including the sampling strategies specified in the QA/QC plan.
5. Review the established acceptance and rejection criteria as specified in the QA/QC plan and project specifications, along with the methods and means for decision making and/or resolution of problems over data.
6. Review the methods for documenting and reporting all inspection data.
7. Discuss procedures for the storage and protection of landfill construction materials on site.
8. Conduct a site walk-through to review the project site layout, and construction material and equipment storage locations.

The meeting minutes will become a part of the contract file. There may also be occasions when subsequent conferences will be called to reconfirm mutual understanding.

2.2 Conflict Resolution

A. To avoid control conflicts during construction between the Engineer and the Contractor, the Engineer and/or the Engineer's Observation Staff will communicate directly with the Contractor's QC Manager. The Engineer and/or the Engineer's Observation Staff will not direct the Contractor's personnel.

B. Should a defect or unapproved installation and/or materials be found during construction by the Contractor's QC Manager, the Engineer or the Engineer's Observation Staff the

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Engineer will make the final decision on how to proceed to ensure that the defect is corrected and is acceptable to the Engineer.

C. Should a disagreement occur between the Contractor and the Engineer concerning the acceptance of an installation or material the Engineer will retain the services of an independent testing laboratory familiar with testing the material/installation in question to re-test the material (e.g. welded seam, soils). Should the material/installation be found unacceptable the cost of the re-tests will be the responsibility of the Contractor.

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This plan will include as a minimum the following:¶
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<#>The description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will be in addition to, and separate from, the contractor's project supervisory staff and will report to the Contractor's management at a level of Vice President or above in the Contractor's organization.¶
¶
<#>The name, qualifications, duties, responsibilities and authorities of each firm or person assigned a QC function.¶
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<#>A copy of the letter to the QC manager signed by an authorized official of the firm, which describes the responsibilities and delegates the authorities of the QC manager.¶
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<#>Procedures for scheduling and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents.¶
<#>Control testing procedures for each specific test included in a Quality Assurance Program Plan or equivalent from the proposed laboratory. Laboratory facilities will be approved by the Project Engineer.¶
¶
<#>Resumes for those licensed Professional Engineers who will be certifying the testing data.¶
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<#>Reporting procedures including proposed reporting formats.¶
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<#>Procedures for responding to construction deficiencies resulting from circumstances including, but not limited to, inclement weather, defective materials or construction inconsistent with specifications as demonstrated by QC testing, and must include a plan to be utilized in evaluating deficiencies and implementing corrective actions.¶
¶
<#>Construction contingency plan describing in detail the courses of action to be taken in response to events which may occur during all phases of construction, and will at a minimum cover the following: damaged construction materials and/or equipment, unavailability of approved materials and/or subcontractors; on-site personnel injury; excessive dust; excessive noise; equipment breakdown or unavailability of equipment; unusual traffic conditions; and uncontrolled releases of run-off adjacent to surface waters.¶
¶
<#>**Acceptance of CQC Plan**¶
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3.0 RESPONSIBILITIES AND QUALIFICATIONS OF QA/QC OFFICERS AND STAFF

3.1 Engineer's Role

A. Project Engineer: A New York State licensed professional engineer will be designated as the Project Engineer. This person will be responsible for oversight and review of observations and tests that will be used before, during, and upon completion of construction to ensure that the construction materials will meet the design criteria and specifications as required. This person will review and sign the permit and construction documents and drawings, as well as the construction certification report. The Project Engineer and his Construction Observation Staff will act independently, and without influence from the Contractors, or the City of Albany.

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B. Engineer's Project Representation: The Engineer will maintain a full time construction observation staff at the project site. Each individual will meet the minimum requirements of construction observation staff as outlined in Section 3.2C. The staff will be headed by a Chief Construction Observer, who will coordinate the staff, interface with the Contractor's QC manager, and traffic information to and from the project Engineer. The number of staff on-site will vary, depending upon the Contractor's workload. The Chief Construction Observer will be on-site for the entire project. The Chief Construction Observer and staff will be fully qualified by experience and technical training to perform their assigned duties.

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C. The Project Engineer will conduct regular site visits during the construction phase, and will also attend the coordination meeting as well as weekly progress meetings.

D. Chain of Command

1. Project Engineer: The Project Engineer will reside at the top of the chain of command. The Project Engineer will directly supervise both the design and construction observation engineering teams. This person will also interface directly with the facility

owner, and the contractor when necessary. The Project Engineer will also be responsible for the final decision making with regard to construction change orders, and the interpretation or clarification of the project drawings and documents.

2. Chief Construction Observer: The Chief Construction Observer will supervise the Engineer's field staff, and interface directly with the contractor's field supervision on a daily basis. This person will also traffic questions and interpretations to the Project Engineer for decision making.

3. Construction Observation Staff: This staff will observe and provide QA oversight to the Contractor's QC personnel. This staff will report directly to the Chief Construction Observer.

3.2 Personnel Qualifications

A. Project Engineer: The project engineer will be a professional engineer (PE), licensed in New York State, and will have a minimum of five (5) years of experience in landfill design, construction, operation and closure. Additionally, the project engineer will have supervised at least five (5) successfully completed landfill construction and/or closure projects.

B. Chief Construction Observer: The chief construction observer will have at least five (5) years of field construction experience. At least two (2) of those years to have worked on new landfill construction, expansions or closures. The chief construction observer must be certified as a NICET Level III Engineering Technician, or, as a New York State Engineer in Training (ElT).

C. Construction Observation Staff: The construction observation staff will be fully qualified by experience and technical training to perform construction observation of specific components of landfill construction.

3.3 Contractor's Quality Control Manager

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The QC Manager will be responsible for overall management of the CQC and have the authority to act in all CQC matters for the Contractor. This person will demonstrate the ability to perform correctly the duties required to the satisfaction of the Engineer. This person, or a designated representative, shall be physically present at the project site whenever work is in progress, and will be in charge of the Contractor's Quality Control Program for this project. Submittals will be reviewed and modified, as needed, by the QC Manager, prior to forwarding to the Engineer.

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3.4 Contractor's Personnel

A staff will be maintained by the Contractor, under the direction of the QC Manager, to perform all CQC activities. The actual strength of the staff during any specific work period may vary to cover work phase needs, shifts, and rates of placement. The personnel of this staff shall be fully qualified by experience and technical training to perform their assigned responsibilities, as follows. The Contractor's QC Manger should have at a minimum at least five (5) years of field construction experience. Two of the five years of experience should include new landfill construction, expansion or closure projects.

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3.5 Contractor's Testing Laboratory

A. The Contractor will employ an independent testing laboratory to perform testing of construction materials prior to their installation, and during installation, as required to meet the provisions of this plan.

B. The testing laboratory will meet the standards as set forth in ASTM D3740 - Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as used in Engineering Design and Construction.

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3.6 Qualifications of Installers of Liner Components

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3.6.1 Qualifications of Installer of Geosynthetic Membrane Liner

The installer of the geosynthetic membrane liner will have the following qualifications, which will be reviewed and verified by the Engineer:

A. Experience - The Installer must document a minimum of 50 acres of successfully installed polyethylene geomembrane experience. Additionally, the Installer must document either:

   1. At least five (5) years continuous experience in the installation of HDPE geomembrane.
   2. At least ten (10) successfully completed HDPE installation projects.

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B. Installation will be performed under the direction of a single installation supervisor.

   1. The Installation Supervisor will be on site, and in responsible charge throughout the liner installation, including subgrade acceptance, liner layout, seaming, testing and repairs, and all other activities contracted for with the Installer.

   2. The Installation Supervisor will have the documented qualification of having supervised the installation of at least 50 acres of previous landfill, or comparable geosynthetic systems on a minimum of five different projects.

   3. The Installation Supervisor will direct the seaming to be performed under the direction of a Master Seamer.

   4. The Master Seamer will have a minimum of 25 acres polyethylene geomembrane seaming experience using the same type of seaming apparatus as that specified in this project.

5. The Installation Supervisor will be on-site whenever seaming is being performed.

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C. The Installer will be approved by the Manufacturer.

3.6.2 Qualifications of Installers Other Than Installers of Geosynthetic Membrane Liner

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Work performed on other parts of the liner system will be performed by similarly qualified Installers.

A. Experience - The Installer must have either:

1. At least five (5) years continuous experience in the installation of landfill liner systems.

2. At least three (3) successfully completed projects of all liner system components except the synthetic membrane.

B. Installation will be performed under the direction of a single Installation Supervisor.

1. Installation Supervisor will be on-site and in responsible charge throughout the cover system installation, including drainage layer placement and acceptance, vegetative support layer subgrade preparation, placement, final grading and seeding, and establishment of vegetative cover.

3.7 Testing and Monitoring Protocols - Liner System Components

3.7.1 General

3.7.1.1 Inspection Schedule

Contract Quality Control is the means by which the Engineer and Contractor assure that the construction complies with the requirements of the contract plans and specifications. The controls will be adequate to cover all construction operations, including both on-site and off-site operations, and will be keyed to the proposed construction sequence. The controls will include at least three phases of inspection, to be preformed by both the Contractor's QC Manager and the Engineer or Engineer's Observation Staff, for all definitive features of work as follows:

A. Preparatory Inspection - This will be performed prior to beginning any work on any definable feature of work. It will include a review of contract requirements; a check to assure that all materials and/or equipment have been tested, submitted and approved; a check to assure that provisions have been made to provide required control testing; examination of the work area to ascertain that all preliminary work has been completed; and a physical examination of materials, equipment and sample work to assure that they conform to approved shop drawings or submittal data, and that all materials and/or equipment are on hand. The Chief Construction Observer will be notified at least 24 hours in advance of the preparatory inspection, and such inspection will be made a matter of record in the daily quality control documentation as required below. Subsequent to the preparatory inspection and prior to commencement of work, the Contractor will instruct each applicable worker as to the acceptable level of workmanship required in his plan in order to meet contract specifications.

B. Initial Inspection - This will be performed as soon as a representative portion of the particular feature of work has been accomplished, and will include examination of the quality of workmanship, a review of quality control testing for compliance with contract requirements, a check for the use of defective or damaged materials, omissions or errors, and dimensional requirements. Such inspection will be made a matter of record in the CQC documentation as required below.

C. Follow-Up Inspections - These will be performed daily to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. Such inspections shall be made a matter of record in the CQC documentation as required below. Final follow-up inspections will be conducted, and test deficiencies corrected prior to the addition of new features of work.

3.7.1.2 Tests (Other than Chemical Sampling and Analysis)

A. Test Procedure - The Contractor will perform the tests and obtain samples as specified or required in order to verify that control measures are adequate, and to provide a product that conforms to contract requirements. Test performed and samples obtained in the field by the Contractor or the Contractor's testing laboratory will be observed by the Engineer or Engineer's Observation Staff on a random basis to verify that the proper testing and sampling procedures are being followed. The Contractor will procure the services of an industry recognized testing laboratory, or an approved testing laboratory may be established at the project site. This laboratory will be approved by the Engineer. A list and schedule of tests (other than chemical sampling and analysis), which the Contractor understands are to be performed, will be furnished as a part of the CQC plan to the Engineer. The list will give the test name, specification paragraph containing the test requirements, and the personnel and laboratory responsible for each type of test. The Contractor will perform the following activities, and record and provide the following data:

1. Verify that testing procedures comply with contract requirements.

2. Verify that facilities and testing equipment are available and comply with testing standards.

3. Verify that recording forms, including all of the test documentation requirements, have been prepared.

B. Testing

1. Capability Check - The Engineer will have the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques.

2. Capability Re-Check - If the selected laboratory fails the capability check, the Contractor will be assessed a charge to reimburse the Owner for each succeeding re-check of the laboratory or the checking of a subsequently-selected laboratory.

3. Project Laboratory - The Engineer will have the right to utilize the Contractor's quality control testing laboratory and equipment in order to make quality assurance tests, and to check the Contractor's testing procedures, techniques, and test results, at no additional cost to the Owner.

4. Transportation of Samples for Testing - Costs incidental to the transportation of samples or materials shall be borne by the Contractor.

C. Quality control tests or certification will be performed on, but not necessarily limited to, the following:

1. Certification of landfill lines and grades.

2. Laboratory and field testing of soils for subbase, liner system and backfill.

3. Laboratory and field testing of geosynthetics materials and installation.

3.7.1.3 Completion Inspection

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A. At the completion of all work or any increment thereof, the CQC System Manager and the Chief Construction Observer will conduct a completion inspection of the work, and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list will be included in the CQC documentation, as required by paragraph 3.7.1.4 below, and will include the date by which the deficiencies will be corrected.

The CQC System Manager and the Chief Construction Observer will make a second completion inspection in order to ascertain that all deficiencies have been corrected, and so notify the Engineer. The completion inspection and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work, or any particular increment thereof if the project is divided into increments by separate completion dates.

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3.7.1.4 Documentation

A. The Contractor will maintain current records of quality control operations, activities, and tests performed, including the work of suppliers and

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subcontractors. These records shall be on an acceptable form, and indicate a description of trades working on the project, the numbers of personnel working, the weather conditions encountered, any delays encountered, and acknowledgment of deficiencies noted along with the corrective actions taken on current and previous deficiencies. In addition, these records shall include the following:

1. Type and number of control activities and tests involved.
2. Results of control activities or tests.
3. Nature of defects, causes for rejection, etc.
4. Proposed remedial action.
5. Corrective actions taken.

These records will cover both conforming and defective or deficient features, and will include a statement that materials incorporated in the work comply with the contract documents. Legible copies of these records shall be furnished to the Engineer daily.

B. The Engineer's on-site construction observation staff will maintain daily field reports, and records of quality control operations. These reports and records will document daily work status, and will cover work both conforming and deficient. A copy of the Engineer's Observations Staff's Daily Construction Observation Report and Landfill Liner Inspection Checklist are attached in Appendix A.

3.7.1.5 Notification of Noncompliance

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The Engineer will notify the Contractor of any noncompliance with the foregoing requirements. The Contractor will, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, will be sufficient for the purpose of notification. If the Contractor fails, or refuses to comply promptly, the Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work orders shall be made the subject of a claim for extension to time, or for excess costs or damages by the Contractor.

3.7.1.6 Construction Contingency Protocol

The following contingencies may occur during construction of the Landfill Expansion:

- Inclement weather,
- Defective material installed or proposed for installation, and
- Methods of installation inconsistent with contract documents

For most liner components, the above contingencies are addressed within the QA/QC and technical specifications. Also, it is required that these issues be addressed further within the information submitted by the Contractor, prior to the start of construction.

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The Owner and/or Engineer may, at their discretion, retain a qualified and approved outside testing firm to perform additional testing for any component of the facility installation as necessary for verification of the on-going testing.

3.7.2 Subgrade Material

3.7.2.1 Material Evaluation Prior to Construction

Material evaluation will be performed on the subgrade material to determine suitability for use as follows for each different soil type:

Test	Standard	Frequency
Particle Size	ASTM D422	1 per soil type
Moisture Density	ASTM D1557	1 per soil type

3.7.2.2 Quality Assurance Testing During Construction

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Subgrade material will be reworked and compacted to 90% modified Proctor maximum dry density and at a moisture content within ±3% of optimum. The following tests will be performed prior to placement of any liner component as follows:

Test	Standard	Frequency
a. In Place Soil Density/Nuclear	ASTM D2922	9 tests /acre
In Place Soil Moisture Content	ASTM D3017	9 tests/acre
	or	
b. Moisture Content	ASTM D2216	9 tests /acre
Sand Cone Density	ASTM D1556	9 tests /acre

3.7.2.3 Corrective Actions

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Material for which laboratory or field test results performed by the Contractor's testing laboratory, indicates that the material is inconsistent with the specifications or with the pre-tested source borrow material will be removed from the site as directed by the Engineer or Engineer's Observation Staff. The material will be replaced with conforming material which has been sampled and tested and approved by the Engineer. Material for which tests reveal insufficient compaction will be re-compacted and tested in accordance with the above schedule. The retests will be submitted to the Engineer for final approval.

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3.7.3 Low Permeability Soil

3.7.3.1 Material Evaluation Prior to Construction

Material evaluations will be performed on all clay borrow sources to determine suitability for use in construction. The following tests will be performed on the borrow source prior to construction, and whenever soil material changes are noted, and the test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard	Frequency
Particle Size Analysis	ASTM D 422	1 per potential borrow source
Atterberg Limits Determination	ASTM D4318	1 per potential borrow source
Moisture Content	ASTM D2216	4 per potential borrow source
Moisture-Density-Permeability Relationship Method is as specified below.*	ASTM D1557 ASTM D5084 ASTM D854	1 per potential borrow source
Direct Shear Testing of Soils	ASTM D3080	1 test series per potential borrow source
Direct Shear Testing for each Synthetic Material	ASTM D5321	1 test series per potential borrow source

* The testing laboratory will perform the following testing in order to provide sufficient information for the Engineer to develop a moisture-density-permeability relationship:

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A. Moisture-Density Relationship. A moisture-density relationship will be determined by using the modified Proctor Method (ASTM D1557) modified as follows: Three proctors will be performed, each at a different compactive effort. The three compactive efforts shall be 12, 26, and 56 blows per layer as compacted in 5 layers in a standard 6 inch diameter mold. A compaction curve will be developed for each of the three compactive efforts. For each compaction curve, a minimum of five specimens will be prepared, specifically at the following moisture contents: 2% below optimum moisture content (OMC), OMC, 2%, 4%, and 6% above OMC. The testing lab will also determine the specific gravity (ASTM D584) of the soil in order to prepare a zero air voids curve.

B. Permeability Relationship (ASTM D5084). Each one of the compacted moisture-density test specimens from the three proctor curves listed above will be sampled and tested to determine its hydraulic conductivity (ASTM D5084).

3.7.3.2 Quality Control Testing During Construction

Material Evaluation will be performed on all low permeability liner material brought to the site to determine its conformance with approved material. The following tests shall be performed on the material as it is brought from the borrow source, at the following frequencies, and the test results will be submitted to the Project Engineer for evaluation and approval.:

Test	**Standard**	**Frequency**
Particle Size & Hydrometer	ASTM D422	1for Each 2,500 CY
Atterberg Limits Determination	ASTM D4318	1 for Each 1,000 CY
Moisture Content	ASTM D2216	1 for Each 1,000 CY
Modified Proctor Compaction Test	ASTM D1557	1 for Each 5,000 CY
Moisture-Density-Permeability Relationship Method	ASTM D1557 ASTM D5084 ASTM D854	1 for Each 5,000 CY

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Triaxial Cell with Back Pressure

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* A graphic representation of the moisture content/density/hydraulic conductivity relationship will be constructed using all of the qualification testing data. This graphic will be continuously updated as testing data is received. From this graphic, a window (or envelope) of acceptable moisture and density values will be determined. The window of acceptable values will be used to guide soil placement conditions, and ultimately determine the pass/fail parameters for in-place moisture/density testing.

3.7.3.3 Quality Assurance Testing During Construction

Low permeability liner materials will be placed in 6 inch lifts as shown on drawings, and compacted to at least 90% modified Proctor maximum dry density, and a maximum permeability of 1 x 10^{-7} cm/sec. The following tests will be performed in order to evaluate the installed material and the test results will be submitted to the Project Engineer for evaluation and approval:

Test	Standard	Frequency
In Place Soil Density By Sand Cone Method and/or by Nuclear Methods	ASTM D1556 ASTMD 2922 ASTM D2167	9/acre/lift
Moisture-Density-Permeability Relationship Method	ASTM D1557 ASTM D5084 ASTM D854	1 for Each 5,000 CY
In Place Soil Moisture Content	ASTM D2216	1/acre/lift
Moisture Content by Nuclear Methods	ASTM D3017	9/acre/lift

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3.7.3.4 Corrective Actions

Material for which testing reveals to be inconsistent with the specifications or with the pre-tested source borrow material will be removed from the site, and replaced with conforming material. Material for which tests reveal insufficient compaction will be re-compacted and tested in accordance with the above schedule.

3.7.4 Geomembrane

3.7.4.1 Quality Control Testing During Manufacture

A. The Contractor will provide the textured synthetic geomembrane manufacturer's certification showing that, as a minimum, the tests listed below were conducted by the geomembrane manufacturer. These test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard
Thickness (mils)	ASTM D5994
Carbon Black Content (percent)	ASTM D1603
Asperity Height	GRI GM12
Carbon Black Dispersion	ASTM D5596
Density (g/cc) (minimum)	ASTM D1505
Minimum Tensile Properties (each direction) 1.) Tensile Strength at Yield (pounds/inch width) 2.) Tensile Strength at Break (pounds/ inch width) 3.)Elongation at Yield (percent) 4.)Elongation at Break (percent)	ASTM D6693 Type IV
Tear Resistance Initiation (pounds)	ASTM D1004 Die C
Low Temperature Brittleness (° F)	ASTM D746, Method B
Dimensional Stability (each direction, percent change)	ASTM D1204, 212°F, 1 hour
Environmental Stress Crack (resistance hours)	ASTM D5937
Puncture Resistance (pounds)	ASTM D4833

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B. The synthetic geomembrane must have demonstrated a maximum water vapor transmission rate of 0.03 gram per meter squared per day and chemical and physical resistance not adversely affected by waste placement or leachate generated. Documentation must be submitted to ensure chemical compatibility of the geomembrane liner material chosen, or in absence of the appropriate documentation, chemical compatibility testing must be performed using a method acceptable to the department.

C. The resin manufacturer will provide to the geomembrane sheet manufacturer the origin and identification of the raw materials used to manufacture the resin.

D. The resin manufacturer will provide to the geomembrane sheet manufacturer the quality control (QC) certificates for each batch of resin.

E. The resin manufacturer will provide to the geomembrane sheet manufacturer certification that the resin meets or exceeds the specifications for density, specific gravity, melt flow index, and percent carbon black and carbon dispersion.

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F. Sheet thickness will be a minimum of 60 mils, and monitored continuously during manufacture.

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G. The geomembrane sheet manufacturer will provide documentation that quality control testing at the factory was performed in accordance to the following.

1. The geomembrane will be continuously inspected for uniformity, damage, imperfections, holes, cracks, thin spots, and foreign materials. Additionally, the geomembrane liner must be inspected for tears, punctures, and blisters. Any imperfections must be immediately repaired and re-inspected.
2. Nondestructive seam testing will be performed on all fabricated seams over their full length.
3. Destructive seam testing will be performed on a minimum of two samples per roll.

H. Rolls not satisfying the specifications will be rejected. The manufacturer will provide certifications of all testing.

3.7.4.2 Quality Assurance Testing During Installation

A. The contractor will perform conformance tests on geomembrane material within three (3) weeks of receiving materials and at a minimum for every 50,000 square feet of liner material delivered to the site. The test results will be submitted to the Project Engineer for evaluation and approval. The following tests will be performed in order to evaluate the textured synthetic geomembrane:

Test	Standard
Thickness (mils)	ASTM D5994
Minimum Tensile Properties (each direction)	ASTM D6693 Type IV
1. Tensile Strength at Yield (pounds/ inch width)	
2. Tensile Strength at Break (pounds/ inch width)	
3. Elongation at Yield (percent)	
4. Elongation at Break (percent)	
Puncture Resistance (pounds)	ASTM D4833

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B. Site Test Equipment - The Installer will maintain on site, in good working order, the following items.

1. Field Tensiometer:
   a. The tensiometer will be motor-driven and have jaws capable of traveling at a measured rate of 2 inches/minute.
   b. The tensiometer will be equipped with a gauge which measures the force in unit pounds exerted between the jaws.

2. Vacuum Box:
   a. The vacuum box will consist of a rigid housing with a transparent viewing window on top and a soft, closed-cell neoprene gasket attached to the bottom of the housing.
   b. The housing will be equipped with a bleed valve.
   c. A separate vacuum source will be connected to the vacuum box such that a negative pressure can be created and maintained inside the box.
   d. A solution consisting of soap and water will be dispensed on the seam immediately ahead of the vacuum box.

3. Air Pressure Test Equipment - This method will apply only when the split hot wedge seaming method is used.

a. Equipment will consist of an air pump capable of generating and maintaining a positive pressure of between 20 and 60 psi.

b. A manometer capable of reading up to 60 psi attached to a needle or nipple will be used to pressurize the air channel in the seam.

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C. Field seaming will be prohibited when either the ambient air temperature or sheet temperature is below 32° F, when the sheet temperature exceeds 158°F, and/or when the air temperature is above 120°F. The Contractor's personnel will verify that the air and sheet temperatures are within the required ranges at the beginning of the work day and at multiple times throughout the work day. The Engineer's Chief Construction Observer can request at any time that the Contractor verify in his presence the air and/or sheet temperature. Should the air and/or sheet temperature be found to be outside the acceptable temperature range at any time, seaming will be immediately discontinued. The Chief Construction Observer can request that any area that may have been seamed during temperatures outside of the acceptable range be tested (non-destructive and/or destructive). Seaming can will begin again after temperature measurements have been retaken in the presence of the Chief Construction Observer and it has been verified that the temperatures are within the acceptable range.

D. Non-Destructive Testing:

1. Test Seams:

a. Test seams will be made to verify that adequate conditions exist for field seaming to proceed.

b. Each seamer will produce a test seam at the beginning of each four (4) hour shift.

c. If a seaming operation has been suspended for more than four (4) hours or if a breakdown of the seaming equipment occurs, a test seam will be produced prior to resumption of seaming operations.

d. Every time that the seamer or seaming equipment changes, a new test seam shall be produced.

e. Additional test seams will be required when significant changes in geomembrane or air temperature are observed, or when seaming problems such as burn-throughs are observed.

2. Test seams will be made in the field on pieces of the approved membrane. Each test seam will be at least 4 feet long by 1 foot wide and with sufficient overlap for peel testing in the field tensiometer.

3. Four samples, each 1 inch wide, will be taken across the seam using an approved template. The samples will be tested in the field tensiometer, two in peel and two in shear.

a. Samples tested for peel adhesion will exhibit a film tear bond (FTB) and have a minimum seam peel strength as required by Specification Section 02212. Both samples must pass and fusion welds will be tested on both sides of the seam.

b. Samples tested for seam shear strength will exhibit FTB and have a minimum seam strength as required by Specification Section 02212. Both samples must pass to exhibit a passing test seam.

4. If the seam fails to pass, the seaming apparatus will not be used for field seaming until any deficiencies have been corrected. This will be verified by the production and successful testing of two consecutive test seams.

5. Vacuum Testing:

a. All extrusion welded and solid fusion welded seams will be evaluated using vacuum box testing.

b. The sudsy solution will be applied to the test section and the vacuum box placed over the section. The bleed valve is then closed and the vacuum valve opened.

c. Once a tight seal has been established, the test section will be visually examined for a period of not less than ten seconds to determine whether bubbling of the soapy solution is occurring.

d. The vacuum box is then moved and the process is repeated on the next adjacent section. A minimum 3 inch overlap shall be provided between all test sections.

e. All locations where bubbling of the sudsy solution was observed will be clearly marked for repairs with a high visibility marker and recorded by number on field test reports.

f. Any failed portion of seam will be repaired and retested.

6. Air pressure testing will be performed in accordance with GRI GM6 Pressurized Air Channel Test for Dual Seamed Geomembranes.

7. All holes created during air pressure testing will be sealed on completion of the test and vacuum tested.

8. All seams will be non-destructive tested by the Installer over their full length to verify the integrity of the seam.

a. Non-destructive testing will be performed concurrently with field seaming.

b. Prefabricated field seams which will be inaccessible after installation, such as those under structures or fastened to penetrations, shall be tested prior to final installation.

c. All non-destructive testing will be documented by the installer's QC technician.

9. A double boot will be constructed as shown on the construction drawings, for all pipe penetrations.

Deleted: Boot integrity will be verified by ammonia gas colorimetric testing, conducted in accordance with ASTM E1066.

10. No vehicular traffic of any type, including low ground pressure ATV's, will be permitted directly on the geomembrane.

11. All non-destructive testing will be observed by the Engineer.

E. Destructive Testing:

1. Prior to placement, a fingerprint sample will be taken for each lot number of geomembrane material used at the site. This sample should be nominally 12 inches by 15 inches and indelibly marked with the manufacturer's name, lot number and date sampled. The fingerprint samples will be turned over to the Engineer for archived storage.

2. Destructive testing of field seams will be performed at locations randomly selected and marked by the Engineer, after the welding of the seams. Test samples will be taken at a rate of one sample per 500 feet (or fraction thereof) of seam, per seamer, per day.

    a. Sample locations will be determined by the Engineer with consideration to the difficulty of subsequent repair and testing of the test site.

    b. The Installer will not be informed in advance of the locations where the seam samples will be taken.

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3. The Engineer may increase the amount of destructive testing based on the results of previous testing.

a. Additional samples may also be required when the Owner or Engineer have reason to suspect the presence of excess crystallinity, contamination, faulty seaming or any other reason affecting seam quality.

4. The test sample shall measure approximately 12 inches wide by 50 inches long with seam centered lengthwise along the sample.

   a. Two one inch wide sample strips will be cut using an approved template from either end of the sample.

   b. These strips will be tested by the Installer in the field tensiometer in both peel and shear in accordance with Section 3.7.4.2.B.

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   c. The remainder of the sample will be cut into three 15 inch lengths.

   d. One sample will be sent by the Installer for independent laboratory testing, one shall be kept by the Installer for his own records or testing, and one will be given to the Engineer for Owner's permanent records. The work done by the independent laboratory will be paid for by the Contractor and the laboratory will be approved by the Engineer.

5. Laboratory Testing:

   a. The Contractor will forward destructive seam test samples to an independent laboratory approved by the Engineer. The laboratory will adhere the requirements of the Technical Specifications.

   b. The testing lab will cut 10 one inch wide strips from each sample. Five of the strips will be tested for peel adhesion per ASTM D4437. Fusion seams will be tested for peel adhesion on both sides of the weld. In order for a test strip to be deemed acceptable, it must exhibit a film tear bond (FTB) and produce a minimum seam peel strength as required by Specification Section 02212. A passing peel adhesion test is exhibited by a minimum of 4 out of 5 passing test strips. Five of the test strips will be tested for seam shear strength by ASTM D4437. The minimum acceptable seam shear strength shall be as required by Specification Section 02212, and the seam must exhibit FTB. A passing seam shear strength test will be exhibited by a minimum of 4 out of 5 passing test strips.

c. The results of laboratory testing will be made available to the Engineer not more than 48 hours after receipt of the samples by the laboratory. The Engineer will receive six copies of all laboratory test results.

6. Samples will be cut by the Installer under the direction of the Engineer, indelibly numbered and identified, and the location recorded by the QC technician.

7. The area from which the destructive test sample was taken will be repaired without delay, and will be non-destructively tested in accordance with Section 3.7.4.2.B.

F. Inspection and Acceptance:

1. All field seams will be nondestructively tested. The Chief Construction Observer will monitor all nondestructive testing; record the location, date, test unit number, name of tester, and results of all testing; and inform the installer of any required repairs.

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2. As the work progresses in the field, the Chief Construction Observer will mark all locations requiring repair work and verify all repairs have been successfully made by the Installer.

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3. A field seam will only be considered acceptable when bounded by two destructive test locations which have passed laboratory testing and acceptable non-destructive testing. The following procedures will apply in the event that a seam fails laboratory testing.

   a. The Installer may reconstruct the seam between the previous passing test location and the next passing test location and retest, or

   b. The Installer may elect to trace the extent of an unacceptable seam to some intermediate location. This shall involve taking 1 inch template-cut cross-sections from these seams at a minimum distance of 10 feet in both directions from the failed test location.

      1. These samples shall be tested in the field tensiometer in both shear and peel in accordance with Section 3.7.4.2.B.

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      2. If one or both of these samples fail, the field test tracing along the seam shall continue at a minimum 10 foot increments until a passing result is recorded in both directions from the failed test location. At these locations large samples shall be cut for laboratory testing as in Section 3.7.4.2.D.

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      3. If laboratory testing shows the seam to be unacceptable, the Installer shall further trace the unacceptable seam until acceptable test results are recorded in both directions.

c. If more than one field seaming unit is employed, tracing of a failed weld shall only be done along seams welded by the same equipment used to weld the seam in question.

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d. Seams which cannot be nondestructively tested will be overlain with the same geomembrane. The seaming and patching operation will be inspected by the Chief Construction Observer for uniformity and completeness.

4. Reconstructed seams less than 150 feet in length will be non-destructively tested in accordance with Section 3.7.4.2.B. Reconstructed seams greater than 150 feet in length shall be destructively tested in accordance with Section 3.7.4.2.D.

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5. The entire geomembrane surface will be examined by the Chief Construction Observer to confirm that it is free of any defects, holes, blisters, undispersed raw materials, or contamination by foreign matter.

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6. The geomembrane surface will be cleaned by the Installer, if required, so that it is free of dust, mud, debris or any other material which may inhibit a thorough examination of the surface.

7. Any suspect areas will be clearly marked by the Chief Construction Obsever and nondestructively tested in accordance with Section 3.7.4.2.B.

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3.7.5 Leachate Collection Layers

3.7.5.1 Material Evaluation Prior to Construction

Material evaluations will be performed on all granular soil borrow sources to determine suitability for use in construction. The tests listed below will be

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performed on the borrow source prior to construction, and whenever soil material changes are noted. The test results will be submitted to the Project Engineer for evaluation and approval.

Deleted: :

Test	Standard	Number
Particle Size Analysis	ASTM D422	1 per potential borrow source
Atterberg Limits Determination	ASTM D4318	1 per potential borrow source
Moisture Content	ASTM D2216	1 per potential borrow source
Maximum Density Determination	ASTM D1557	1 per potential borrow source
Permeability of Granular Soils	ASTM D2434	4.0 per potential borrow source
Internal Angle of Soil Friction and Cohesion	ASTM D3080	1 test series per potential borrow source
Interface Friction Angle for each Synthetic Material	ASTM D5321	1 test series per potential borrow source

3.7.5.2 Quality Control Testing During Construction

Material Evaluation will be performed on all leachate collection soil brought to the site to determine its conformance with approved material. The following tests shall be performed on the material as it is brought from the borrow source, at the frequencies listed below. The test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard	Number
Particle Size Analysis	ASTM D422	1 for Each 1,000 CY
Permeability of Granular Soils	ASTM D2434	1 for Each 2,500 CY

3.7.5.3 Quality Assurance Testing During Construction

Leachate collection soil will be placed in 12 to 24 inch lifts as shown on drawings, and compacted to at least 90% modified Proctor maximum dry density, and a minimum permeability of 1 x 10^{-2} cm/sec. The tests listed below will be performed in order to evaluate the installed material. The test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard	Frequency
Density By Nuclear Methods	ASTM D2922	9/acre/lift
Moisture Content by Nuclear Methods	ASTM D3017	9/acre/lift

3.7.5.4 Leachate Collection Soil Installation

1. The Engineer will identify any large wrinkles which may have been built into the underlying geomembrane. Any such wrinkle not built in to accommodate thermal contraction of the geomembrane prior to placement of the soil shall be cut, repaired and tested by the Installer. Determination of the wrinkles to be cut and repaired will be made solely by the Engineer. All repair work shall be made at no cost to Owner.

2. The Engineer will identify any slope toe, declivity, or other surface transitions which might result in bridging of the geomembrane during placement of the sand. Any such area shall be cut, repaired and tested by the Installer, at no cost to the Owner.

3. Equipment used for placing and compacting the soil will not be driven directly on the geomembrane. Such equipment will be closely monitored during placement to ensure that no damage occurs to the geomembrane.

4. A minimum thickness of one foot of cover will be maintained between the geomembrane and tracked light earth moving equipment.

5. Tracked equipment operated on the soil will have a maximum ground pressure of 5 psi. No rubber tired equipment will be allowed to operate on less than three feet of cover above the geomembrane.

6. In all cases, the placement of soil will be done with caution and in a manner which is least likely to cause wrinkles in, or damage to, the geomembrane.

7. Wrinkles which occur during the sand placement operation will be evaluated by the Contractor and Engineer. Wrinkles which are large enough to roll over themselves will be cut and repaired. Smaller wrinkles will be trapped in the soil by backfilling ahead of the wrinkle and then on top of it. In general, any wrinkle which is more than half as tall as it is wide may require corrective action. Approval of the Engineer will be required for the method of handling all wrinkles (either trapping or repairing), and the Contractor will perform the repairs at no cost to the Owner.

8. In such a case where the size and number of wrinkles becomes unwieldy due to very high geomembrane temperature, the soil backfilling will temporarily cease until the temperature decreases.

9. The leachate collection piping network should not be driven over by heavy equipment until covered by two feet of leachate collection soil.

3.7.5.5 Corrective Actions

Material for which testing reveals to be inconsistent with the specifications or with the pre-tested source borrow material will be removed from the site, and replaced with conforming material. Material for which tests reveal insufficient compaction will be re-compacted and tested in accordance with the above schedule.

3.7.6 Structural Layer

3.7.6.1 Material Evaluation Prior to Construction

Material evaluations will be performed on all granular soil borrow sources to determine suitability for use in construction. The following tests will be performed on the borrow source prior to construction, and whenever soil material changes are noted. The test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard	Number
Particle Size Analysis	ASTM D422	1 per potential borrow source
Maximum Density Determination	ASTM D1557	1 per potential borrow source
Internal Angle of Soil Friction and Cohesion	ASTM D3080	1 test series per potential borrow source
Interface Friction Angle for each Synthetic Material	ASTM D5321	1 test series per potential borrow source per

3.7.6.2 Quality Control Testing During Construction

Material Evaluation will be performed on the structural layer soils brought to the site to determine its conformance with approved material. The following tests shall be performed on the material as it is brought from the borrow source, at the following frequencies. The test results will be submitted to the Project Engineer for evaluation and approval.

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Test	Standard	Number
Particle Size Analysis	ASTM D422	1 for Each 2,000 CY

3.7.6.3 Quality Assurance Testing During Construction

Structural layer soils will be placed in 12 to 24 inch lifts as shown on drawings, and compacted to at least 90% modified Proctor maximum dry density. The following tests will be performed in order to evaluate the installed material. The test results will be submitted to the Project Engineer for evaluation and approval.

Deleted: :

Test	Standard	Frequency
Density By Nuclear Methods	ASTM D2922	9/acre/lift
Moisture Content by Nuclear Methods	ASTM D3017	9/acre/lift

3.7.6.4 Corrective Actions

Material for which testing reveals to be inconsistent with the specifications or with the pre-tested source borrow material will be removed from the site and replaced with conforming material. Material for which tests reveal insufficient compaction will be re-compacted and tested in accordance with the above schedule.

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3.7.7 Geosynthetic Clay Liner

3.7.7.1 Material Evaluation Prior to Construction

A review of manufacturers production testing shall be completed prior to materials being shipped to the project site to determine conformance of the material with the project specification requirements. The following test results will be submitted to the Project Engineer for evaluation and approval.

Deleted: reviewed:

Test	Method
Direct Shear: Average GCL Internal Friction Angle	ASTM D5321 (@ 500-4000 psf Normal Stress Range)
Permeability	GRI GCL-2
Mass per unit area	ASTM D5261
Thickness	ASTM D5199
Grab Tensile	ASTM D4632
Puncture	ASTM D4833
Peel Strength	ASTM D4632

3.7.7.2 Quality Control Testing During Construction

Prior to the placement of the GCL, one sample will be randomly cut from the rolls delivered to the job site for every 100,000 SF of GCL to be deployed. The following tests will be performed. The test results will be submitted to the Project Engineer for evaluation and approval.

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a. Permeability GRI GCL-2
b. Mass per unit area ASTM D5261
c. Thickness ASTM D5199
d. Peel strength ASTM D4632
e. Puncture ASTM D4833
f. Grab tensile ASTM D4632

During installation the Project Engineer and/or the Construction Observation Staff will inspect the GCL for proper overlap to ensure proper function of the landfill liner.

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3.7.7.3 Corrective Actions

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Corrective Actions

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GCL material for which testing reveals to be inconsistent with the specifications or with the manufacturers testing for the material will be removed from the site and replaced with conforming material.

3.7.8 Geotextile Separation Fabric

3.7.8.1 Material Evaluation Prior to Construction

A review of manufacturers production testing shall be completed prior to materials being shipped to the project site to determine conformance of the material with the project specification requirements. The following test results will be submitted to the Project Engineer for evaluation and approval.

Deleted: test results will be reviewed:

Property	Test
Tensile Strength	ASTM D4632
Elongation	ASTM D4632
Burst Strength	ASTM D3786
Puncture Strength	ASTM D4833
Apparent Opening Size	ASTM D4751
Permittivity	ASTM D4491

3.7.8.2 Corrective Actions

Geotextile material that inconsistent with the specifications will be removed from the site and replaced with conforming material.

3.7.9 Leachate Conveyance Pipes

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3.7.9.1 Material Evaluation Prior to Construction

Test Procedures/Frequency - Documentation will be provided by the manufacturer which demonstrates the chemical compatibility of the leachate collection pipe material, or chemical compatibility testing using a method acceptable to the Engineer will be used in absence of manufacturer documentation. The test results will be submitted to the Project Engineer for evaluation and approval.

3.7.9.2 Corrective Actions

Material for which testing reveals it to be inconsistent with specifications will be removed from the site and replaced with conforming material. All material will be installed in accordance with the requirements of the approved engineering plans, reports, and specifications.

3.8 Testing, Monitoring and Contingency Protocols

Testing and monitoring for all other construction components, other than liner components, will be in accordance with each specific technical specification. Contingencies will be addressed within the QA/QC Plan and the in the information to be submitted by the Contractor prior to the start of construction.

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3.9 Construction Certification Report

A construction certification report will be submitted by the Engineer to DEC within 45 days after the completion of landfill construction. The construction certification report will be submitted in full compliance with Section 360 - 2.13 (u) of 6NYCRR Part 360.

This report will include, at a minimum, the information prepared in accordance with the application requirements of this QA/QC report, results of all quality assurance and quality control testing required in this report, documentation of any failed test results, descriptions of procedures used to correct the improperly installed material, and statements of all re-testing performed. In addition, the construction certification report will contain as-built drawings noting any deviation from the approved engineering plans, and will also contain a narrative, including but not limited to, daily reports from the project engineer, and a series of color photographs of major project features.

Flow data for secondary leachate will be collected daily for 30 days, prior to facility start-up, in order to verify that the primary liner system will effectively meet the 20 gallon per acre per day leakage rate threshold.

APPENDIX A

INSPECTION FORMS

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City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Report No.	
Page No. of	
Weather	Temp

Daily Panel Placement Report

Panel #	Roll #	Mach #	Tech	Width	Length	Area	Cum (sf)	Seam #	Seam Length	Cum (ft)

TOTAL INSTALLED TO DATE, PREVIOUS SHEET _________________ SF, TOTAL INSTALLED TO DATE THIS SHEET _________________ SF
TOTAL INSTALLED TO DATE ________________ SF, MATERIAL TYPE ______________
THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: _______________________
OBSERVER SIGNATURE

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Report No.	
Page No. of	
Weather	Temp

Non-Destructive Test Log

/		Test /		Pressure /		Time /		Location /			
Date	Seam #	Air	Vac	Start	Finish	Start	Finish	Start	End	Passs/Fail	Comment

EOS – END OF SEAM, AT – ANCHOR TRENCH, A – AIR TEST, V – VACUUM TEST
THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ______________________
OBSERVER SIGNATURE

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Report No.	
Page No. of	
Weather	Temp

Daily Panel Layout

X – REPAIR, O – PATCH, B – BOOT, D – DESTRUCT #, R – ROLL #, P – PANEL #
THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ______________________
OBSERVER SIGNATURE

Report No.	
Page No. of	
Weather	Temp

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Laboratory Destruct Sample Test Log

				/ Peel			/	Shear /		
Date	Destruct #	Seam #	Location	#1	#2	#3	#4	#1	#2	Passs/Fail

THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ________________________
OBSERVER SIGNATURE

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Report No.	
Page No. of	
Weather	Temp

Field Seam Sample Test Log

			/ Material		/	Machine		/	Peel			/	Shear	/
Date	Time	Tech	Type	Mils	Mach #	Type	Temp	Speed	#1	#2	#3	#4	#1	#2	Passs/Fail

T – TEXTURED, S – SMOOTH, FW – FUSION WELDER, EX – EXTRUSION WELDER
THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ______________________
OBSERVER SIGNATURE

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector _______________

Report No.	
Page No. of	
Weather	Temp

Field Destruct Sample Test Log

				/ Peel				/ Shear		/
Date	Destruct #	Seam #	Location/ Comments	#1	#2	#3	#4	#1	#2	Passs/Fail

THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ______________________
OBSERVER SIGNATURE

City of Albany

CHA Project No. 12206
Rapp Road Landfill
City of Albany, New York

CERTIFICATION OF ACCEPTANCE OF SOIL SUBGRADE SURFACE

PROJECT NAME: ______________________________________

PROJECT NUMBER: ______________________________________

OWNER: ______________________________________

LOCATION: ______________________________________

I, the undersigned, a duly appointed representative of __________________, have visually observed the soil subgrade surface described below, and found it to be an acceptable surface on which to install geomembrane.

Area being accepted: ____
____
____

__________________________: Geomembrane Installer

Date: _________________________

Signature: ______________________

Name: _________________________

Title: _________________________

CLOUGH, HARBOUR & ASSOCIATES: Owner’s Representative

Date: _________________________

Signature: ______________________

Name: _________________________

Title: _________________________

City of Albany
CHA Project No. 12206
Rapp Road Landfill

City of Albany, New York
Contractor:
QA/QC Inspector ________________

Report No.	
Page No. of	
Weather	Temp

Daily Repair Report

Date	Tech	Mach #	Type	Seam #	Location	Passs/Fail

TYPES OF REPAIRS: P – PATCH, E – EXTRUSION WELD, O - OTHER
THE ABOVE DESCRIBED WORK WAS INCORPATED INTO THE PROJECT AND WAS OBSERVED BY: ______________________
OBSERVER SIGNATURE

APPENDIX B

FIELD TESTS STANDARDS

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Designation: D 1556 – 00

Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method[1]

This standard is issued under the fixed designation D 1556; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope *

1.1 This test method may be used to determine the in-place density and unit weight of soils using a sand cone apparatus.

1.2 This test method is applicable for soils without appreciable amounts of rock or coarse materials in excess of 1½ in. (38 mm) in diameter.

1.3 This test method may also be used for the determination of the in-place density and unit weight of undisturbed or *in situ* soils, provided the natural void or pore openings in the soil are small enough to prevent the sand used in the test from entering the voids. The soil or other material being tested should have sufficient cohesion or particle attraction to maintain stable sides on a small hole or excavation, and be firm enough to withstand the minor pressures exerted in digging the hole and placing the apparatus over it, without deforming or sloughing.

1.4 This test method is not suitable for organic, saturated, or highly plastic soils that would deform or compress during the excavation of the test hole. This test method may not be suitable for soils consisting of unbound granular materials that will not maintain stable sides in the test hole, soils containing appreciable amounts of coarse material larger than 1½ in. (38 mm), and granular soils having high void ratios.

1.5 When materials to be tested contain appreciable amounts of particles larger than 1½in. (38 mm), or when test hole volumes larger than 0.1 ft^3 (2830 cm^3) are required, Test Method D 4914 or D 5030 are applicable.

1.6 It is common practice in the engineering profession to concurrently use pounds to represent both a unit of mass (lbm) and a unit of force (lbf). This implicitly combines two separate systems of units, that is, the absolute system and the gravitational system. It is scientifically undesirable to combine the use of two separate sets of inch-pound units within a single standard. This test method has been written using the gravitational system of units when dealing with the inch-pound system. In this system the pound (lbf) represents a unit of force (weight). However, the use of balances or scales recording pounds of mass (lbm), or the recording of density in lbm/ft^3 should not be regarded as nonconformance with this test method.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 653 Terminology Relating to Soil, Rock, and Contained Fluids[2]

D 698 Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft.lbf/ft^3 (600 kN·m/m^3))[2]

D 1557 Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))[2]

D 2216 Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock[2]

D 3584 Practice for Indexing Papers and Reports on Soil and Rock for Engineering Purposes[3]

D 3740 Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction[2]

D 4253 Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table[2]

D 4254 Test Method for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density[2]

D 4643 Test Method for Determination of Water (Moisture) Content of Soil by the Microwave Oven Method[2]

D 4718 Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles[2]

D 4753 Specification for Evaluating, Selecting, and Specifying Balances and Scales for Use in Testing Soil, Rock, and Related Construction Materials[2]

D 4914 Test Methods for Density of Soil and Rock in Place by the Sand Replacement Method in a Test Pit[2]

D 4944 Test Method for Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester Method[4]

D 4959 Test Method for Determination of Water (Moisture) Content of Soil by Direct Heating Method[4]

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[1] This test method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.08 on Special and Construction Control Tests.

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[2] *Annual Book of ASTM Standards*, Vol 04.08.

[3] Discontinued; see *1995 Annual Book of Standards*, Vol 04.08.

[4] *Annual Book of ASTM Standards*, Vol 04.09.

***A Summary of Changes section appears at the end of this standard.**

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D 5030 Test Method for Density of Soil and Rock in Place by the Water Replacement Method in a Test Pit[4]

3. Terminology

3.1 *Definitions*—All definitions are in accordance with Terminology D 653.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *compacted lift*—a layer of compacted soil.

4. Summary of Test Method

4.1 A test hole is hand excavated in the soil to be tested and all the material from the hole is saved in a container. The hole is filled with free flowing sand of a known density, and the volume is determined. The in-place wet density of the soil is determined by dividing the wet mass of the removed material by the volume of the hole. The water content of the material from the hole is determined and the dry mass of the material and the in-place dry density are calculated using the wet mass of the soil, the water content, and the volume of the hole.

5. Significance and Use

5.1 This test method is used to determine the density of compacted soils placed during the construction of earth embankments, road fill, and structural backfill. It often is used as a basis of acceptance for soils compacted to a specified density or percentage of a maximum density determined by a test method, such as Test Methods D 698 or D 1557.

5.2 This test method can be used to determine the in-place density of natural soil deposits, aggregates, soil mixtures, or other similar material.

5.3 The use of this test method is generally limited to soil in an unsaturated condition. This test method is not recommended for soils that are soft or friable (crumble easily) or in a moisture condition such that water seeps into the hand excavated hole. The accuracy of the test may be affected for soils that deform easily or that may undergo a volume change in the excavated hole from vibration, or from standing or walking near the hole during the test (see Note 1).

NOTE 1—When testing in soft conditions or in soils near saturation, volume changes may occur in the excavated hole as a result of surface loading, personnel performing the test, and the like. This can sometimes be avoided by the use of a platform that is supported some distance from the hole. As it is not always possible to detect when a volume change has taken place, test results should always be compared to the theoretical saturation density, or the zero air voids line on the dry density versus water content plot. Any in-place density test on compacted soils that calculates to be more than 95 % saturation is suspect and an error has probably occurred, or the volume of the hole has changed during testing.

NOTE 2—Notwithstanding the statements on precision and bias contained in this test method, the precision of this test method is dependent on the competence of the personnel performing it, and the suitability of the equipment and facilities used. Agencies that meet the criteria of Practice D 3740 are generally considered capable of competent and objective testing. Users of this test method are cautioned that compliance with Practice D 3740 does not in itself ensure reliable testing. Reliable testing depends on many factors; Practice D 3740 provides a means of evaluating some of those factors.

6. Apparatus

6.1 *Sand-Cone Density Apparatus*, consisting of the following:

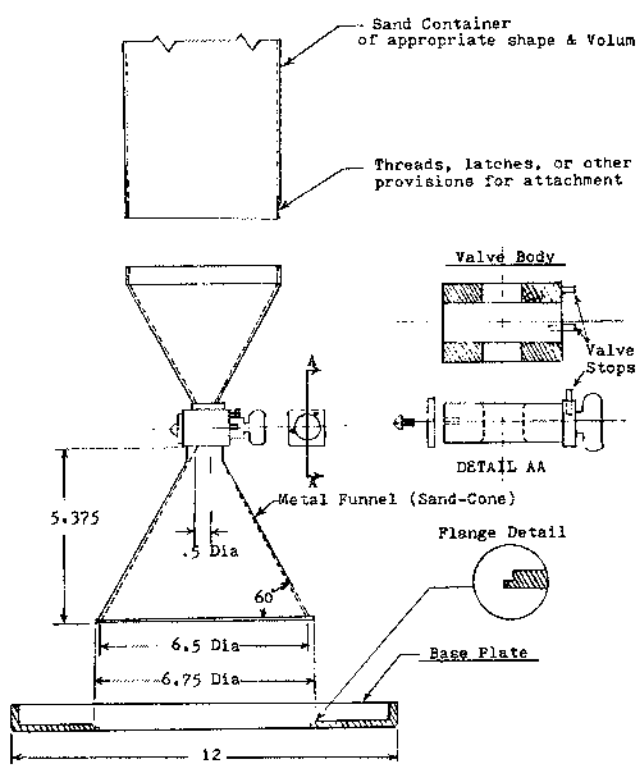
6.1.1 An attachable jar or other sand container having a volume capacity in excess of that required to fill the test hole and apparatus during the test.

6.1.2 A detachable appliance consisting of a cylindrical valve with an orifice approximately ½in. (13 mm) in diameter, attached to a metal funnel and sand container on one end, and a large metal funnel (sand-cone) on the other end. The valve will have stops to prevent rotating past the completely open or completely closed positions. The appliance will be constructed of metal sufficiently rigid to prevent distortion or volume changes in the cone. The walls of the cone will form an angle of approximately 60° with the base to allow uniform filling with sand.

6.1.3 A metal base plate or template with a flanged center hole cast or machined to receive the large funnel (cone) of the appliance described in 6.1.2. The base plate may be round or square and will be a minimum of 3 in. (75 mm) larger than the funnel (sand-cone). The plate will be flat on the bottom and have sufficient thickness or stiffness to be rigid. Plates with raised edges, ridges, ribs, or other stiffners of approximately ⅜ to ½ in. (10 to 13 mm) high may be used.

6.1.4 The mass of the sand required to fill the apparatus and base plate will be determined in accordance with the instructions in Annex A1 prior to use.

6.1.5 The details for the apparatus shown in Fig. 1 represents the minimum acceptable dimensions suitable for testing



Metric Equivlents

in.	mm
.5	12.5
5.375	136.5
6.5	165.1
6.75	171.5
12	304.8

FIG. 1 Density Apparatus

soils having maximum particle sizes of approximately 1½ in. (38 mm) and test hole volumes of approximately 0.1 ft^3 (2830 cm^3). When the material being tested contains a small amount of oversize and isolated larger particles are encountered, the test should be moved to a new location. Larger apparatus and test hole volumes are needed when particles larger than 1½ in. (38 mm) are prevalent. The apparatus described here represents a design that has proven satisfactory. Larger apparatus, or other designs of similar proportions may be used as long as the basic principles of the sand volume determination are observed. When test hole volumes larger than 0.1 ft^3 (5660 cm^3) are required Test Method D 4914 should be utilized.

6.2 *Sand*—Sand must be clean, dry, uniform in density and grading, uncemented, durable, and free-flowing. Any gradation may be used that has a uniformity coefficient ($C_u = D_{60}/D_{10}$) less than 2.0, a maximum particle size smaller than 2.0 mm (No. 10 sieve), and less than 3 % by weight passing 250 µm (No. 60 sieve). Uniformly graded sand is needed to prevent segregation during handling, storage, and use. Sand free of fines and fine sand particles is required to prevent significant bulk-density changes with normal daily changes in atmospheric humidity. Sand comprised of durable, natural subrounded, or rounded particles is desirable. Crushed sand or sand having angular particles may not be free-flowing, a condition that can cause bridging resulting in inaccurate density determinations (see Note 3). In selecting a sand from a potential source, a gradation and bulk-density determinations in accordance with the procedure in Annex A2 should be made on each container or bag of sand. To be an acceptable sand, the bulk-density variation between any one determination shall not be greater than 1 % of the average. Before using sand in density determinations, it shall be dried, then allowed to reach an air-dried state in the general location where it is to be used (see Note 4). Sand shall not be re-used without removing any contaminating soil, checking the gradation, drying and redetermining the bulk-density (see Note 5). Bulk-density tests of the sand will be made at time intervals not exceeding 14 days, always after any significant changes in atmospheric humidity, before reusing, and before use of a new batch from a previously approved supplier (see Note 6).

NOTE 3—Some manufactured (crushed) sands such as blasting sand have been successfully used with good reproducibility. The reproducibility of test results using angular sand should be checked under laboratory controlled testing situations before selecting an angular sand for use.

NOTE 4—Many organizations have found it beneficial to store sands in moisture resistant containers. Sand should be stored in dry areas protected from weather. The use of a lighted bulb or other heat source in, or adjacent to the storage containers has also been found to be beneficial in areas of high humidity.

NOTE 5—As a general rule, reclaiming sand after testing is not desirable.

NOTE 6—Most sands have a tendency to absorb moisture from the atmosphere. A very small amount of absorbed moisture can make a substantial change in bulk-density. In areas of high humidity, or where the humidity changes frequently, the bulk-density may need to be determined more often than the 14 day maximum interval indicated. The need for more frequent checks can be determined by comparing the results of different bulk-density tests on the same sand made in the same conditions of use over a period of time.

6.3 *Balances or Scales*—Meeting Specification D 4753. with 5.0 g readability, or better, to determine the mass of sand and excavated soils. A balance or scale having a minimum capacity of 20 kg and 5.0-g readability is suitable for determining the mass of the sand and the excavated soil when apparatus with the dimensions shown in Fig. 1 is used.

6.4 *Drying Equipment*—Equipment corresponding to the method used for determining water content as specified in Test Methods D 2216, D 4643, D 4959, or D 4944.

6.5 *Miscellaneous Equipment*—Knife, small pick, chisel, small trowel, screwdriver, or spoons for digging test holes, large nails or spikes for securing the base plate; buckets with lids, plastic-lined cloth sacks, or other suitable containers for retaining the density samples, moisture sample, and density sand respectively; small paint brush, calculator, notebook or test forms, etc.

7. Procedure

7.1 Select a location/elevation that is representative of the area to be tested, and determine the density of the soil in-place as follows:

7.1.1 Inspect the cone apparatus for damage, free rotation of the valve, and properly matched baseplate. Fill the cone container with conditioned sand for which the bulk-density has been determined in accordance with Annex A2, and determine the total mass.

7.1.2 Prepare the surface of the location to be tested so that it is a level plane. The base plate may be used as a tool for striking off the surface to a smooth level plane.

7.1.3 Seat the base plate on the plane surface, making sure there is contact with the ground surface around the edge of the flanged center hole. Mark the outline of the base plate to check for movement during the test, and if needed, secure the plate against movement using nails pushed into the soil adjacent to the edge of the plate, or by other means, without disturbing the soil to be tested.

7.1.4 In soils where leveling is not successful, or surface voids remain, the volume horizontally bounded by the funnel, plate and ground surface must be determined by a preliminary test. Fill the space with sand from the apparatus, determine the mass of sand used to fill the space, refill the apparatus, and determine a new initial mass of apparatus and sand before proceeding with the test. After this measurement is completed, carefully brush the sand from the prepared surface (see Note 7).

NOTE 7—A second calibrated apparatus may be taken to the field when this condition is anticipated (instead of refilling and making a second determination). The procedure in 7.1.4 may be used for each test when the best possible accuracy is desired, however, it is usually not needed for most production testing where a relatively smooth surface is obtainable.

7.1.5 The test hole volume will depend on the anticipated maximum particle size in the soil to be tested. Test hole volumes are to be as large as practical to minimize the errors and shall not be less than the volumes indicated in Table 1. A hole depth should be selected that will provide a representative sample of the soil. For construction control, the depth of the hole should approximate the thickness of one, or more, compacted lift(s). The procedure for calibrating the sand must reflect this hole depth. See Annex A2.

7.1.6 Dig the test hole through the center hole in the base

TABLE 1 Minimum Test Hole Volumes Based on Maximum Size of Included Particle

Maximum Particle Size		Minimum Test Hole Volumes	
in.	(mm)	cm^3	ft^3
½	(12.7)	1415	0.05
1	(25.4)	2125	0.075
1½	(38)	2830	0.1

plate, being careful to avoid disturbing or deforming the soil that will bound the hole. The sides of the hole should slope slightly inward and the bottom should be reasonably flat or concave. The hole should be kept as free as possible of pockets, overhangs, and sharp obtrusions since these affect the accuracy of the test. Soils that are essentially granular require extreme care and may require digging a conical-shaped test hole. Place all excavated soil, and any soil loosened during digging, in a moisture tight container that is marked to identify the test number. Take care to avoid losing any materials. Protect this material from any loss of moisture until the mass has been determined and a specimen has been obtained for a water content determination.

7.1.7 Clean the flange of the base plate hole, invert the sand-cone apparatus and seat the sand-cone funnel into the flanged hole at the same position as marked during calibration (see Annex A1). Eliminate or minimize vibrations in the test area due to personnel or equipment. Open the valve and allow the sand to fill the hole, funnel, and base plate. Take care to avoid jarring or vibrating the apparatus while the sand is running. When the sand stops flowing, close the valve.

7.1.8 Determine the mass of the apparatus with the remaining sand, record, and calculate the mass of sand used.

7.1.9 Determine and record the mass of the moist material that was removed from the test hole. When oversized material corrections are required, determine the mass of the oversized material on the appropriate sieve and record, taking care to avoid moisture losses. When required, make appropriate corrections for the oversized material using Practice D 4718.

7.1.10 Mix the material thoroughly, and either obtain a representative specimen for water content determination, or use the entire sample.

7.1.11 Determine the water content in accordance with Test Method D 2216, D 4643, D 4944, or D 4959. Correlations to Test Method D 2216 will be performed when required by other test methods.

7.2 Water content specimens must be large enough and selected in such a way that they represent all the material obtained from the test hole. The minimum mass of the water content specimens is that required to provide water content values accurate to 1.0 %.

8. Calculation

8.1 Calculations shown are for mass in grams and volumes in cubic centimetres. Other units are permissible provided the appropriate conversion factors are used to maintain consistency of units throughout the calculations. See 1.6 for additional comments on the usage of inch-pound units.

8.2 Calculate the volume of the test hole as follows:

$$V = (M_1 - M_2)/\rho_1 \tag{1}$$

where:

V = volume of the test hole, cm^3,
M_1 = mass of the sand used to fill the test hole, funnel and base plate, g (from 7.1.8),
M_2 = mass of the sand used to fill the funnel and base plate (from Annex A1.2.2.6), g, and
ρ_1 = bulk density of the sand (from A2.3.5), g/cm^3.

8.3 Calculate the dry mass of material removed from the test hole as follows:

$$M_4 = 100\, M_3/(w + 100) \tag{2}$$

where:

w = water content of the material removed from test hole, %, (from 7.1.11),
M_3 = moist mass of the material from test hole, g, (from 7.1.9), and
M_4 = dry mass of material from test hole, g, or multiply by 0.002205 for lb.

8.4 Calculate the in-place wet and dry density of the material tested as follows:

$$\rho_m = M_3/V \tag{3}$$
$$\rho_d = M_4/V$$

where:

V = volume of the test hole, cm^3 (from 8.2),
M_3 = moist mass of the material from the test hole, g, (from 7.1.9),
M_4 = dry mass of the material from the test hole, g, (from 8.3),
ρ_m = wet density of the tested material g/cm^3 or its wet unit weight, γ_m in lb/ft^3 where $\gamma_m = \rho_m \times 62.43$, and
ρ_d = dry density of the tested material, g/cm^3 or its dry unit weight, γ_d in lb/ft^3 where $\gamma_d = \rho_d \times 62.43$.

8.5 It may be desired to express the in-place density as a percentage of some other density, for example, the laboratory densities determined in accordance with Test Method D 698, D 1557, D 4253, or D 4254. This relation can be determined by dividing the in-place density by the laboratory density and multiplying by 100. Calculations for determining relative density are provided in Test Method D 4254. Corrections for oversize material, if required, should be performed in accordance with Practice D 4718.

9. Report

9.1 Report, as a minimum, the following information:

9.1.1 Test location, elevation, thickness of layer tested, or other pertinent data to locate or identify the test.

9.1.2 Test hole volume, cm^3 or ft^3.

9.1.3 In-place wet density, g/cm^3 or lb/ft^3.

9.1.4 In-place dry density, ρ_d, g/cm^3.

9.1.5 In-place dry unit weight, kN/m^3 ($\rho_d \times 9.807$), or lb/ft^3 ($\rho_d \times 62.43$), expressed to the nearest 0.1 KN/m^3, or 1.0 for lb/ft^3.

9.1.6 In-place water content of the soil expressed as a percentage of dry mass, and the test method used.

9.1.7 Test apparatus identity and calibrated volume.

9.1.8 Bulk density of the sand used, g/cm^3, or lb/ft^3.

9.1.9 Visual description of the soil or material designation.

9.1.10 Mass and percentage of oversized particles and the size sieve used, if performed.

9.1.11 Comments on the test, as applicable.

9.1.12 If the in-place dry density or unit weight is expressed as a percentage of another value, include the following:

9.1.12.1 The laboratory test method used.

9.1.12.2 The comparative dry density or unit weight value and water content used.

9.1.12.3 Correction for oversized material and details, if applicable.

9.1.12.4 The comparative percentage of the in-place material to the comparison value.

9.1.13 If the in-place density, unit weight, or water content are to be used for acceptance, include the acceptance criteria applicable to the test.

10. Precision and Bias

10.1 *Statement of Precision*—Due to the nature of the soil or rock materials tested by the method it is either not feasible or too costly at this time to produce multiple specimens that have uniform physical properties. Any variation observed in the data is just as likely to be due to specimen variation as to operator or laboratory testing variation. Subcommittee D18.08 welcomes proposals that would allow for development of a valid precision statement.

10.2 *Statement of Bias*—There is no accepted reference value for this test method, therefore, bias cannot be determined.

10.3 While no formal round-robin testing has been completed, it is estimated by Subcommittee D18.08 from available data that the results of two properly conducted tests performed by a skilled operator on the same material at a given time and location should not differ by more than approximately 2 lb/ft^3 (3.2 kg/m^3). Tests performed by unskilled operators on the same material would be expected to yield substantially greater differences.

11. Keywords

11.1 The following keywords are applicable to this test method in accordance with Practice D 3584: acceptance tests; compaction tests; degree of compaction; density tests; earthfill; embankments; field control density; field tests; inplace density; inplace dry density; *in situ* density; relative density; sand cone; soil compaction; soil tests; unit weight.

ANNEXES

(Mandatory Information)

A1. CALIBRATION OF SAND CONE APPARATUS

A1.1 Scope

A1.1.1 This annex describes the procedure for determining the mass of sand contained in the funnel and base plate of the sand-cone apparatus.

A1.1.2 The mass of sand contained in the apparatus and base plate is dependent on the bulk-density of the sand. Consequently, this procedure must be performed for each apparatus whenever there are changes in the sand bulk-densities.

A1.2 Calibration Procedure

A1.2.1 Calibration of the apparatus can be accomplished by either of two methods:

A1.2.1.1 *Method A*—By determining the mass of calibrated sand that can be contained in each funnel and base plate set, or

A1.2.1.2 *Method B*—By determining the volume of sand needed to fill each funnel and base plate set and applying this volume constant whenever new sand bulk-densities are calculated.

A1.2.1.3 Since the mass of sand contained in the apparatus funnel and base plate is dependent on the bulk density of the sand, if Method A is used, it must be repeated whenever the bulk-density of the sand changes.

A1.2.2 All determinations of mass are to be made to the nearest 5 g.

A1.2.3 *Method A*:

A1.2.3.1 Fill the apparatus with sand that is dried and conditioned to the same state anticipated during use in testing.

A1.2.3.2 Determine the mass of the apparatus filled with sand, g.

A1.2.3.3 Place the base plate on a clean, level, plane surface. Invert the container/apparatus and seat the funnel in the flanged center hole in the base plate. Mark and identify the apparatus and base plate so that the same apparatus and plate can be matched and reseated in the same position during testing.

A1.2.3.4 Open the valve fully until the sand flow stops, making sure the apparatus, base plate, or plane surface are not jarred or vibrated before the valve is closed.

A1.2.3.5 Close the valve sharply, remove the apparatus and determine the mass of the apparatus and remaining sand. Calculate the mass of sand used to fill the funnel and base plate as the difference between the initial and final mass.

A1.2.3.6 Repeat the procedure a minimum of three times. The maximum variation between any one determination and the average will not exceed 1 %. Use the average of the three determinations for this value in the test calculations.

A1.2.4 *Method B (Optional)*:

A1.2.4.1 When large numbers of tests and batches of sand are anticipated, it may be advantageous to determine the volume of each apparatus and base plate. Baring damage to the apparatus or mismatching of the base plates, this volume will remain constant, and will eliminate the need to repeat Method A when the sand bulk-density changes (see Note A1.1). If this alternative is chosen, the calculations in the field test must be altered to determine the total volume of the sand in the field test hole and apparatus. The volume of the apparatus is then subtracted to determine the volume of the test hole.

A1.2.4.2 Determine the mass of sand required to fill the apparatus funnel and base plate in accordance with A1.2.3, following steps A1.2.3.1-A1.2.3.6 for each batch of sand.

A1.2.4.3 Calculate the volume of the funnel and base plate by dividing the bulk-density of the sand (as determined in Annex A2) by the mass of sand found in A1.2.3.6. Perform a minimum of three determinations and calculate an average value. The maximum volume variation between any one determination and the average will not exceed 1 %. Use the average of the values when performing test calculations.

NOTE A1.1—The sand-cone apparatus should be routinely inspected for damage that may affect the volume of the cone. Dings, out-of-round, or other damage will affect the volume and will necessitate a redetermination of the volume (if repairable).

A2. CALIBRATION OF DENSITY SAND

A2.1 Scope

A2.1.1 This annex is used for determining the bulk-density (calibration) of the sand for use in this test method.

A2.1.2 The calibration determines an average density of the sand for use in calculating the volume of the test hole.

A2.2 Equipment Required

A2.2.1 *Container*—Select a container of known volume that is approximately the same size and allows the sand to fall approximately the same distance as the hole excavated during a field test. The 1/30-ft^3 (944-cm^3) and 1/13.33-ft^3 (2124-cm^3) molds specified in Test Methods D 698, or the 0.1-ft^3 (2830-cm^3) mold specified in Test Method D 4253 are recommended. Alternatively, cast duplicates of actual test holes may be used. This is accomplished by forming plaster of paris negatives in actual test holes over a range of test volumes, and using these as forms for portland cement concrete castings. These should be cast against a flat plane surface, and after the removal of the negative, sealed water tight and the volume determined in accordance with the procedure in Test Method D 4253 (10.2.2).

A2.2.1.1 Determine the container volume to 1 % using water in accordance with the procedures described in Test Method D 4253.

A2.2.2 *Sand-Cone Apparatus*—Use a sand cone apparatus of the same size and design as will be used during field testing.

A2.2.2.1 Flow characteristics through different valve assemblies have been shown to cause different bulk-density values. Bulk-density determinations will be required for each apparatus set unless other assemblies are determined to provide the same results.

A2.2.3 *Balance or Scale*—A balance or scale having a sufficient capacity to determine the mass of the calibration container filled with sand. For 0.500 ft^3 (14 200 cm^3) containers, a balance having a minimum capacity of 50 lb (20 kg) and meeting the requirements of Specification D 4753 for 0.01-lb (5-g) readability is required.

A2.2.4 *Metal Straightedge*, about 2 in. (50 cm) wide, at least ⅛ in. (3 mm) thick, and length approximately 1.5 times the diameter of the calibration container.

A2.3 Bulk-Density Determination

A2.3.1 Fill the assembled apparatus with sand. The sand is to be dried and conditioned to the same state anticipated during use.

A2.3.2 Determine and record the mass of the calibration container when empty.

A2.3.3 *Method A (Preferred)*:

A2.3.3.1 When the calibration container has the same diameter as the flanged center hole in the base plate, invert and center the sand filled apparatus and base plate on the calibration container.

A2.3.3.2 Fully open the valve and allow the sand to fill the container. When the sand flow stops, close the valve.

A2.3.3.3 Determine the mass of the apparatus and remaining sand. Calculate the net mass of sand in the calibration container by subtracting the mass of sand contained in the cone and base plate (as determined in Annex A1) and record.

A2.3.4 *Method B (Alternative)*:

A2.3.4.1 Invert and support the apparatus over the calibration container so that the sand falls approximately the same distance and location as in a field test, and fully open the valve.

A2.3.4.2 Fill the container until it just overflows and close the valve. Using a minimum number of strokes and taking care not to jar or densify the sand, carefully strike off excess sand to a smooth level surface. Any vibration or jarring during the bulk-density determination will result in settling and densifying the sand, leading to erroneous results.

A2.3.4.3 Clean any sand from the outside of the calibration container. Determine the mass of the container and sand. Record the net mass of the sand by subtracting the mass of the empty container.

A2.3.5 Perform at least three bulk-density determinations and calculate the average. The maximum variation between any one determination and the average will not exceed 1 %. Repeated determinations not meeting these requirements indicates nonuniform sand density, and the sand source should be re-evaluated for suitability. The average value obtained is to be used in the test calculations.

A2.4 Calculation

A2.4.1 Calculate the bulk-density of the sand as follows:

$$\rho_1 = M_5/V_1 \tag{A2.1}$$

where:

ρ_1 = bulk-density of the sand, g/cm^3, (multiply by 9.807 for KN/m^3, or 62.43 for lb/ft^3),
M_5 = mass of the sand to fill the calibration container, g, (from A2.3.4.3), and
V_1 = volume of the calibration container, cm^3 (from A2.2.1.1).

SUMMARY OF CHANGES

In accordance with Committee D-18 policy, this section identifies the location of changes to this standard since the last edition (90 (1996)$^{\epsilon 1}$) that may impact the use of this standard.

(*1*) Revised Section 2 to include Practice D 3740.
(*2*) Revised Section 3 to include definition for "compacted lift."
(*3*) Revised Section 5 to include Note 2 referencing Practice D 3740.
(*4*) Revised Sections 6 and 7 by renumbering notes.
(*5*) Added 7.1.5 to define test hole dimensions and deleted a sentence from 7.1.6.
(*6*) Added Summary of Changes.

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Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass[1]

This standard is issued under the fixed designation D 2216; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope *

1.1 This test method covers the laboratory determination of the water (moisture) content by mass of soil, rock, and similar materials where the reduction in mass by drying is due to loss of water except as noted in 1.4, 1.5, and 1.7. For simplicity, the word "material" hereinafter also refers to either soil or rock, whichever is most applicable.

1.2 Some disciplines, such as soil science, need to determine water content on the basis of volume. Such determinations are beyond the scope of this test method.

1.3 The water content of a material is defined in 3.2.1.

1.4 The term "solid material" as used in geotechnical engineering is typically assumed to mean naturally occurring mineral particles of soil and rock that are not readily soluble in water. Therefore, the water content of materials containing extraneous matter (such as cement, and the like) may require special treatment or a qualified definition of water content. In addition, some organic materials may be decomposed by oven drying at the standard drying temperature for this method (110°C). Materials containing gypsum (calcium sulfate dihydrate or other compounds having significant amounts of hydrated water) may present a special problem as this material slowly dehydrates at the standard drying temperature (110°C) and at very low relative humidities, forming a compound (calcium sulfate hemihydrate) which is not normally present in natural materials except in some desert soils. In order to reduce the degree of dehydration of gypsum in those materials containing gypsum, or to reduce decomposition in highly organic soils, it may be desirable to dry these materials at 60°C or in a desiccator at room temperature. Thus, when a drying temperature is used which is different from the standard drying temperature as defined by this test method, the resulting water content may be different from standard water content determined at the standard drying temperature.

NOTE 1—Test Methods D 2974 provides an alternate procedure for determining water content of peat materials.

1.5 Materials containing water with substantial amounts of soluble solids (such as salt in the case of marine sediments) when tested by this method will give a mass of solids which includes the previously soluble solids. These materials require special treatment to remove or account for the presence of precipitated solids in the dry mass of the specimen, or a qualified definition of water content must be used. For example, see Noorany[2] regarding information on marine soils.

1.6 This test method requires several hours for proper drying of the water content specimen. Test Method D 4643 provides for drying of the test specimen in a microwave oven which is a shorter process. Also see Gilbert[3] for details on the background of this test method.

1.7 This standard requires the drying of material in an oven at high temperatures. If the material being dried is contaminated with certain chemicals, health and safety hazards can exist. Therefore, this standard should not be used in determining the water content of contaminated soils unless adequate health and safety precautions are taken.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 653 Terminology Relating to Soil, Rock, and Contained Fluids[4]

D 2974 Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils[4]

D 4220 Practice for Preserving and Transporting Soil Samples[4]

D 4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils[4]

D 4643 Test Method for Determination of Water (Moisture) Content of Soil by the Microwave Oven Method[4]

D 4753 Specification for Evaluating, Selecting, and Specifying Balances and Scales for Use in Soil and Rock Testing[4]

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[1] This test method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.03 on Texture, Plasticity and Density Characteristics of Soils.

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[2] Noorany, I., "Phase Relations in Marine Soils", Journal of Geotechnical Engineering, ASCE, Vol. 110, No. 4, April 1984, pp. 539–543.

[3] Gilbert, P.A., "Computer Controlled Microwave Oven System for Rapid Water Content Determination", Tech. Report GL-88-21, Department of the Army, Waterways Experiment Station, Corps of Engineers, Vicksburg, MS, November 1988.

[4] *Annual Book of ASTM Standards*, Vol 04.08.

***A Summary of Changes section appears at the end of this standard.**

D 6026 Guide for Using Significant Digits in Calculating and Reporting Geotechnical Test Data[5]

E 145 Specification for Gravity-Convection And Forced-Ventilation Ovens[6]

3. Terminology

3.1 Refer to Terminology D 653 for standard definitions of terms.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *water content (of a material)*—the ratio expressed as a percent of the mass of "pore" or "free" water in a given mass of material to the mass of the solid material. A standard temperature of 110° ± 5°C is used to determine these masses.

4. Summary of Test Method

4.1 A test specimen is dried in an oven at a temperature of 110° ± 5°C to a constant mass. The loss of mass due to drying is considered to be water. The water content is calculated using the mass of water and the mass of the dry specimen.

5. Significance and Use

5.1 For many materials, the water content is one of the most significant index properties used in establishing a correlation between soil behavior and its index properties.

5.2 The water content of a material is used in expressing the phase relationships of air, water, and solids in a given volume of material.

5.3 In fine-grained (cohesive) soils, the consistency of a given soil type depends on its water content. The water content of a soil, along with its liquid and plastic limits as determined by Test Method D 4318, is used to express its relative consistency or liquidity index.

6. Apparatus

6.1 *Drying Oven*, thermostatically-controlled, preferably of the forced-draft type, meeting the requirements of Specification E 145 and capable of maintaining a uniform temperature of 110 ± 5°C throughout the drying chamber.

6.2 *Balances*—All balances must meet the requirements of Specification D 4753 and this section. A Class GP1 balance of 0.01g readability is required for specimens having a mass of up to 200 g (excluding mass of specimen container) and a Class GP2 balance of 0.1g readability is required for specimens having a mass over 200 g. However, the balance used may be controlled by the number of significant digits needed (see 8.2.1 and 12.1.2).

6.3 *Specimen Containers*—Suitable containers made of material resistant to corrosion and change in mass upon repeated heating, cooling, exposure to materials of varying pH, and cleaning. Unless a dessicator is used, containers with close-fitting lids shall be used for testing specimens having a mass of less than about 200 g; while for specimens having a mass greater than about 200 g, containers without lids may be used (see Note 7). One container is needed for each water content determination.

NOTE 2—The purpose of close-fitting lids is to prevent loss of moisture from specimens before initial mass determination and to prevent absorption of moisture from the atmosphere following drying and before final mass determination.

6.4 *Desiccator*—A desiccator cabinet or large desiccator jar of suitable size containing silica gel or anhydrous calcium sulfate. It is preferable to use a desiccant which changes color to indicate it needs reconstitution. See 10.5.

NOTE 3—Anhydrous calcium sulfate is sold under the trade name Drierite.

6.5 *Container Handling Apparatus*, gloves, tongs, or suitable holder for moving and handling hot containers after drying.

6.6 *Miscellaneous*, knives, spatulas, scoops, quartering cloth, sample splitters, etc, as required.

7. Samples

7.1 Samples shall be preserved and transported in accordance with Practice 4220 Groups B, C, or D soils. Keep the samples that are stored prior to testing in noncorrodible airtight containers at a temperature between approximately 3 and 30°C and in an area that prevents direct contact with sunlight. Disturbed samples in jars or other containers shall be stored in such a way as to prevent or minimize moisture condensation on the insides of the containers.

7.2 The water content determination should be done as soon as practicable after sampling, especially if potentially corrodible containers (such as thin-walled steel tubes, paint cans, etc.) or plastic sample bags are used.

8. Test Specimen

8.1 For water contents being determined in conjunction with another ASTM method, the specimen mass requirement stated in that method shall be used if one is provided. If no minimum specimen mass is provided in that method then the values given below shall apply. See Howard[7] for background data for the values listed.

8.2 The minimum mass of moist material selected to be representative of the total sample shall be in accordance with the following:

Maximum particle size (100 % passing)	Standard Sieve Size	Recommended minimum mass of moist test specimen for water content reported to ±0.1 %	Recommended minimum mass of moist test specimen for water content reported to ±1 %
2 mm or less	No. 10	20 g	20 g[A]
4.75 mm	No. 4	100 g	20 g[A]
9.5 mm	⅜-in.	500 g	50 g
19.0 mm	¾-in.	2.5 kg	250 g
37.5 mm	1½ in.	10 kg	1 kg
75.0 mm	3-in.	50 kg	5 kg

[A]To be representative not less than 20 g shall be used.

8.2.1 The minimum mass used may have to be increased to obtain the needed significant digits for the mass of water when reporting water contents to the nearest 0.1 % or as indicated in 12.1.2.

[5] *Annual Book of ASTM Standards*, Vol 04.09.

[6] *Annual Book of ASTM Standards*, Vol 14.02.

[7] Howard, A. K., "Minimum Test Specimen Mass for Moisture Content Determination", *Geotechnical Testing Journal*, A.S.T.M., Vol. 12, No. 1, March 1989, pp. 39-44.

8.3 Using a test specimen smaller than the minimum indicated in 8.2 requires discretion, though it may be adequate for the purposes of the test. Any specimen used not meeting these requirements shall be noted on the test data forms or test data sheets.

8.4 When working with a small (less than 200g) specimen containing a relatively large gravel particle, it is appropriate not to include this particle in the test specimen. However, any discarded material shall be described and noted on the test data forms or test data sheets.

8.5 For those samples consisting entirely of intact rock, the minimum specimen mass shall be 500 g. Representative portions of the sample may be broken into smaller particles, depending on the sample's size, the container and balance being used and to facilitate drying to constant mass, see 10.4. Specimen sizes as small as 200 g may be tested if water contents of only two significant digits are acceptable.

9. Test Specimen Selection

9.1 When the test specimen is a portion of a larger amount of material, the specimen must be selected to be representative of the water condition of the entire amount of material. The manner in which the test specimen is selected depends on the purpose and application of the test, type of material being tested, the water condition, and the type of sample (from another test, bag, block, and the likes.)

9.2 For disturbed samples such as trimmings, bag samples, and the like, obtain the test specimen by one of the following methods (listed in order of preference):

9.2.1 If the material is such that it can be manipulated and handled without significant moisture loss and segregation, the material should be mixed thoroughly and then select a representative portion using a scoop of a size that no more than a few scoopfuls are required to obtain the proper size of specimen defined in 8.2.

9.2.2 If the material is such that it cannot be thoroughly mixed or mixed and sampled by a scoop, form a stockpile of the material, mixing as much as possible. Take at least five portions of material at random locations using a sampling tube, shovel, scoop, trowel, or similar device appropriate to the maximum particle size present in the material. Combine all the portions for the test specimen.

9.2.3 If the material or conditions are such that a stockpile cannot be formed, take as many portions of the material as practical, using random locations that will best represent the moisture condition. Combine all the portions for the test specimen.

9.3 Intact samples such as block, tube, split barrel, and the like, obtain the test specimen by one of the following methods depending on the purpose and potential use of the sample.

9.3.1 Using a knife, wire saw, or other sharp cutting device, trim the outside portion of the sample a sufficient distance to see if the material is layered and to remove material that appears more dry or more wet than the main portion of the sample. If the existence of layering is questionable, slice the sample in half. If the material is layered, see 9.3.3.

9.3.2 If the material is not layered, obtain the specimen meeting the mass requirements in 8.2 by: (1) taking all or one-half of the interval being tested; (2) trimming a representative slice from the interval being tested; or (3) trimming the exposed surface of one-half or from the interval being tested.

NOTE 4—Migration of moisture in some cohesionless soils may require that the full section be sampled.

9.3.3 If a layered material (or more than one material type is encountered), select an average specimen, or individual specimens, or both. Specimens must be properly identified as to location, or what they represent, and appropriate remarks entered on the test data forms or test data sheets.

10. Procedure

10.1 Determine and record the mass of the clean and dry specimen container (and its lid, if used).

10.2 Select representative test specimens in accordance with Section 9.

10.3 Place the moist test specimen in the container and, if used, set the lid securely in position. Determine the mass of the container and moist material using a balance (see 6.2) selected on the basis of the specimen mass. Record this value.

NOTE 5—To prevent mixing of specimens and yielding of incorrect results, all containers, and lids if used, should be numbered and the container numbers shall be recorded on the laboratory data sheets. The lid numbers should match the container numbers to eliminate confusion.

NOTE 6—To assist in the oven-drying of large test specimens, they should be placed in containers having a large surface area (such as pans) and the material broken up into smaller aggregations.

10.4 Remove the lid (if used) and place the container with moist material in the drying oven. Dry the material to a constant mass. Maintain the drying oven at 110 ± 5°C unless otherwise specified (see 1.4). The time required to obtain constant mass will vary depending on the type of material, size of specimen, oven type and capacity, and other factors. The influence of these factors generally can be established by good judgment, and experience with the materials being tested and the apparatus being used.

NOTE 7—In most cases, drying a test specimen overnight (about 12 to 16 h) is sufficient. In cases where there is doubt concerning the adequacy of drying, drying should be continued until the change in mass after two successive periods (greater than 1 h) of drying is an insignificant amount (less than about 0.1 %). Specimens of sand may often be dried to constant mass in a period of about 4 h, when a forced-draft oven is used.

NOTE 8—Since some dry materials may absorb moisture from moist specimens, dried specimens should be removed before placing moist specimens in the same oven. However, this would not be applicable if the previously dried specimens will remain in the drying oven for an additional time period of about 16 h.

10.5 After the material has dried to constant mass remove the container from the oven (and replace the lid if used). Allow the material and container to cool to room temperature or until the container can be handled comfortably with bare hands and the operation of the balance will not be affected by convection currents and/or its being heated. Determine the mass of the container and oven-dried material using the same type/capacity balance used in 10.3. Record this value. Tight fitting lids shall be used if it appears that the specimen is absorbing moisture from the air prior to determination of its dry mass.

NOTE 9—Cooling in a desiccator is acceptable in place of tight fitting lids since it greatly reduces absorption of moisture from the atmosphere during cooling especially for containers without tight fitting lids.

11. Calculation

11.1 Calculate the water content of the material as follows:

$$w = [(M_{cws} - M_{cs})/(M_{cs} - M_c)] \times 100 = \frac{M_w}{M_s} \times 100 \qquad (1)$$

where:

w = water content, %,
M_{cws} = mass of container and wet specimen, g,
M_{cs} = mass of container and oven dry specimen, g,
M_c = mass of container, g,
M_w = mass of water ($M_w = M_{cws} - M_{cds}$), g, and
M_s = mass of solid particles ($M_s = M_{cds} - M_c$), g.

12. Report

12.1 Test data forms or test data sheets shall include the following:

12.1.1 Identification of the sample (material) being tested, such as boring number, sample number, test number, container number etc.

12.1.2 Water content of the specimen to the nearest 1 % or 0.1 %, as appropriate based on the minimum sample used. If this method is used in concert with another method, the water content of the specimen should be reported to the value required by the test method for which the water content is being determined. Refer to Guide D 6026 for guidance concerning significant digits, especially if the value obtained from this test method is to be used to calculate other relationships such as unit weight or density. For instance, if it is desired to express dry unit weight to the nearest 0.1 lbf/f^3(0.02 kN/m^3), it may be necessary to use a balance with a greater readability or use a larger specimen mass to obtain the required significant digits the mass of water so that the water content can be determined to the required significant digits. Also, the significant digits in Guide D 6026 may need to be increased when calculating phase relationships requiring four significant digits.

12.1.3 Indicate if test specimen had a mass less than the minimum indicated in 8.2.

12.1.4 Indicate if test specimen contained more than one material type (layered, etc.).

12.1.5 Indicate the temperature of drying if different from 110 ± 5°C.

12.1.6 Indicate if any material (size and amount) was excluded from the test specimen.

12.2 When reporting water content in tables, figures, etc., any data not meeting the requirements of this test method shall be noted, such as not meeting the mass, balance, or temperature requirements or a portion of the material is excluded from the test specimen.

13. Precision and Bias

13.1 *Statement on Bias*—There is no accepted reference value for this test method; therefore, bias cannot be determined.

13.2 *Statements on Precision*:

13.2.1 *Single-Operator Precision (Repeatability)*—The single-operator coefficient of variation has been found to be 2.7 percent. Therefore, results of two properly conducted tests by the same operator with the same equipment should not be considered suspect unless they differ by more than 7.8 percent of their mean.[8]

13.2.2 *Multilaboratory Precision (Reproducibility)*[9]—The multilaboratory coefficient of variation has been found to be 5.0 percent. Therefore, results of two properly conducted tests by different operators using different equipment should not be considered suspect unless they differ by more than 14.0 percent of their mean.

14. Keywords

14.1 consistency; index property; laboratory; moisture analysis; moisture content; soil aggregate; water content

[8] These numbers represent the (1s) and (d2s) limits as described in Practice C 670.

[9] These numbers represent the (1s %) and (d2s %) limits as described in Practice C 670.

SUMMARY OF CHANGES

Committee D-18 has identified the location of selected changes to this standard since the last issue. (D 2216-92) that may impact the use of this standard.

(*1*) Title was changed to emphasize that mass is the basis for the standard.
(*2*) Section 1.1 was revised to clarify "similar materials".
(*3*) New 1.2 was added to explain a limitation in scope. The other sections were renumbered as appropriate.
(*4*) An information reference was included in 1.5.
(*5*) An information reference was included in 1.6
(*6*) A new ASTM referenced document was included in 2.1.
(*7*) New Footnotes 2, 3, and 5 were added and identified. Other footnotes were renumbered where necessary for sequential identification.
(*8*) Information concerning balances was added in 6.2
(*9*) Section 6.3 was revised to clarify the use of close-fitting lids, and a reference to Note 8 was added.
(*10*) In 6.4. "anhydrous calcium phosphate" was changed to "anyhydrous calcium sulfate" to correct an error and to agree with Note 3.
(*11*) A typo in 8.1 was corrected from "before" to "below" and a footnoted reference was added for information.
(*12*) A portion of 8.2 was deleted for clarity.
(*13*) A new 8.2.1 was added to clarify minimum mass requirements.
(*14*) Sections 8.3, 8.4, 9.3.3, and 12.1 were changed to substitute "test data form/sheet" for "report".
(*15*) Footnote seven was identified.
(*16*) Section 9.2.1 was revised to improve clarity and intent.
(*17*) The word "possible" was changed to "practical" in 9.2.3.

(*18*) Section 9.3.1 and 9.3.2 were revised to improve clarity and for practicality.
(*19*) A reference to Guide D 6026 was added in 12.1.2.
(*20*) Footnotes 8 and 9 were added to 13.2.1 and 13.2.2, respectively. These were inadvertently omitted from the 1992 version. These explanations provide clarity and information to the user.
(*21*) A Summary of Changes was added to reflect D-18's policy.

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This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 100 Barr Harbor Drive, West Conshohocken, PA 19428.

Designation: D 2922 – 01

Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)[1]

This standard is issued under the fixed designation D 2922; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 These test methods cover the determination of the total or wet density of soil and soil-rock mixtures by the attenuation of gamma radiation where the source and detector(s) remain on the surface (Backscatter Method) or the source or detector is placed at a known depth up to 300 mm (12 in.) while the detector(s) or source remains on the surface (Direct Transmission Method).

1.2 The density in mass per unit volume of the material under test is determined by comparing the detected rate of gamma radiation with previously established calibration data.

1.3 The values tested in SI units are to be regarded as the standard. The inch-pound equivalents may be approximate.

1.4 It is common practice in the engineering profession to concurrently use pounds to represent both a unit of mass (lbm) and a unit of force (lbf). This implicitly combines two separate systems of units; that is, the absolute system and the gravitational system. It is scientifically undesirable to combine the use of two separate sets of inch-pound units within a single standard. These test methods have been written using the gravitational system of units when dealing with the inch-pound system. In this system the pound (lbf) represents a unit of force (weight). However, the use of balances or scales recording pounds of mass (lbm), or the recording of density in lbm/ft^3 should not be regarded as nonconformance with these test methods.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific Hazard statements, see Section 6.

2. Referenced Documents

2.1 *ASTM Standards:*

D 698 Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))[2]

D 1557 Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))[2]

D 2216 Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass[2]

D 3017 Test Method for Water Content of Soil and Rock In-Place by Nuclear Methods (Shallow Depth)[2]

D 4253 Test Method for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table[2]

D 4643 Test Method for Determination of Water Content by the Microwave Oven Heating[2]

D 4718 Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles[2]

D 4944 Test Method for Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester Method[2]

D 4959 Test Method for Determination of Water (Moisture) Content by Direct Heating [2]

3. Significance and Use

3.1 The test methods described are useful as rapid, nondestructive techniques for the in-place determination of density of soil and rock.

3.2 The test methods are suitable for quality control and acceptance testing for construction and for research and development applications.

3.3 The nondestructive nature of the tests allow repetitive measurements to be made at a single test location.

4. Interferences

4.1 The chemical composition of the sample may affect the measurement, and adjustments may be necessary.

4.2 The test methods exhibit spatial bias in that the instrument is more sensitive to the density of the material in close proximity to the surface (Backscatter Method only).

NOTE 1—The nuclear gauge density measurements are somewhat biased to the surface layers of the soil being tested. This bias has largely

[1] These test methods are under the jurisdiction of ASTM Committee D18 on Soil and Rock and are the direct responsibility of Subcommittee D18.08 on Special and Construction Control Tests.

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[2] *Annual Book of ASTM Standards*, Vol 04.08.

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been corrected out of the direct transmission method and any remaining bias is insignificant. The backscatter method is still more sensitive to the material within the first several inches from the surface.

4.3 Oversize rocks or large voids in the source-detector path may cause higher or lower density determination. Where lack of uniformity in the soil due to layering, rock or voids is suspected, the test volume site should be dug up and visually examined to determine if the test material is representative of the full material in general and if rock correction (see 9.6) is required.

4.4 The sample volume is approximately 0.0028 m^3 (0.10 ft^3) for the Backscatter Method and 0.0057 m^3 (0.20 ft^3) for the Direct Transmission Method when the test depth is 15 cm (6 in.). The actual sample volume is indeterminate and varies with the apparatus and the density of the material. In general, the higher the density the smaller the volume.

5. Apparatus

5.1 *Nuclear Gage*—An electronic counting instrument, capable of being seated on the surface of the material under test, and which contains:

5.1.1 A sealed source of high energy gamma radiation such as cesium or radium.

5.1.2 *Gamma Detector*—Any type of gamma detector such as a Geiger-Mueller tube(s).

5.2 *Reference Standard*—A block of material used for checking instrument operation and to establish conditions for a reproducible reference count rate.

5.3 *Site Preparation Device*—A plate, straightedge, or other suitable leveling tool which may be used for planning the test site to the required smoothness, and in the Direct Transmission Method, guiding the drive pin to prepare a perpendicular hole.

5.4 *Drive Pin*—A pin of slightly larger diameter than the rod in the Direct Transmission Instrument, used to prepare a hole in the material under test for inserting the rod.

5.5 *Drive Pin Extractor*—A tool that may be used to remove the drive pin in a vertical direction so that the pin will not distort the hole in the extraction process.

5.5.1 A slide hammer, with a drive pin attached, may also be used both to prepare a hole in the material to be tested and to extract the pin without distortion to the hole.

6. Hazards

6.1 This equipment utilizes radioactive materials that may be hazardous to the health of the users unless proper precautions are taken. Users of this equipment must become familiar with applicable safety procedures and government regulations.

6.2 Effective user instructions together with routine safety procedures, such as source leak tests, recording and evaluation of film badge data, and so forth, are a recommended part of the operation and storage of this instrument.

7. Calibration

7.1 Calibration of the instrument will be in accordance with Annex A1.

8. Standardization and Reference Check

8.1 Nuclear gages are subject to long-term aging of the radioactive source, detectors, and electronic systems, which may change the relationship between count rate and material density. To offset this aging, the gage may be calibrated as the ratio of the measured count rate to a count rate made on a reference standard or to an air-gap count (for the backscatter air-gap technique, see 9.5.1.3). The reference count rate should be of the same order of magnitude as the measured count rate over the useful density range of the instrument.

8.2 Standardization of the gage shall be performed at the start of each day's work, and a permanent record of these data shall be retained. Perform the standardization with the gage located at least 8 m (25 ft) away from other sources of radioactive material, and clear of large masses or other items which may affect the reference count rate.

8.2.1 If recommended by the instrument manufacturer to provide more stable and consistent results: (*1*) turn on the gauge prior to use to allow it to stabilize, (*2*) leave the power on during the use of the gage for that day.

8.2.2 Using the reference standard, take at least four repetitive readings at the normal measurement period and determine the mean. If available on the gage, one measurement period of four or more times the normal period is acceptable. This constitutes one standardization check.

8.2.3 If the value obtained above is within the limits stated below, the gage is considered to be in satisfactory condition, and the value may be used to determine the count ratios for the day of use. If the value is outside these limits, allow additional time for the gage to stabilize, make sure the area is clear of sources of interference, and then conduct another standardization check. If the second standardization check is within the limits, the gage may be used, but if it also fails the test, the gage shall be adjusted or repaired as recommended by the manufacturer. The limits are as follows:

$$|N_s - N_o| |La\, 2.0 \sqrt{N_o/F} \tag{1}$$

where:

N_s = value of current standardization count,
N_o = average of the past four values of N_s taken for prior usage, and
F = value of prescale. [The prescale value (F) is a divisor which reduces the actual value for the purpose of display. The manufactor will supply this value if other than 1.0.] Some instruments may have provisions to compute and display these values.

8.2.3.1 If the instrument standardization has not been checked within the previous three months, perform at least four new standardization checks, and use the mean as the value for N_o.

8.3 Use the value of N_s to determine the count ratios for the current day's use of the instrument. If for any reason the measured density becomes suspect during the day's use, perform another standardization check.

9. Procedure for Field Use

9.1 Standardize the gage. (See Section 8.)

9.2 Select a test location. If the gage will be closer than 250 mm (10 in.) to any vertical mass that might influence the result, such as in a trench or alongside a pipe, follow the manufacturer's correction procedure.

9.3 Remove all loose and disturbed material. Remove additional material as necessary to reach the material that represents a valid sample of the zone or stratum to be tested. Surface drying and spatial bias should be considered in determining the depth of material to be removed.

9.4 Plane or scrape a smooth horizontal surface so as to obtain maximum contact between the gage and the material being tested. The placement of the gage on the surface of the material to be tested is always important, but is especially critical to the successful determination of density when using the backscatter method. The optimum condition in all cases, is total contact between the bottom surface of the gauge and the surface of the material being tested. To correct for surface irregularities, use of native fines or fine sand as a filler may be necessary. The depth of the filler should not exceed approximately 3 mm (⅛ in.) and the total area filled should not exceed 10 % of the bottom area of the instrument. The maximum depth of any void beneath the gage that can be tolerated without filling shall not exceed approximately 3 mm (⅛ in.). Several trial seatings may be required to achieve these conditions.

9.5 Proceed with the test in the following manner:

9.5.1 *Backscatter Procedure*:

9.5.1.1 Seat the gage firmly on the prepared test site.

9.5.1.2 Keep all other radioactive sources away from the gauge to avoid affecting the measurement so as not to affect the readings.

9.5.1.3 Secure and record one or more readings for the normal measurement period in the backscatter position.

NOTE 2—When using the backscatter air-gap procedure, follow the instrument manufacturers instructions regarding apparatus set up. Take the same number of readings for the normal measurement period in the air-gap position as in the standard backscatter position. Determine the air-gap ratio by dividing counts per minute obtained in the air-gap position by counts per minute obtained in standard backscatter position.

9.5.1.4 Determine the ratio of the reading to the standard count or to the air gap count. From this count ratio and the appropriate calibration and adjustment data, determine the in-place wet density.

9.5.2 *Direct Transmission Procedure*:

9.5.2.1 Make a hole perpendicular to the prepared surface using the guide and the hole-forming device (5.4), or by drilling if necessary. The hole shall be of such depth and alignment that insertion of the probe will not cause the gage to tilt from the plane of the prepared area. The depth of the hole must be deeper than the depth to which the probe will be placed. The guide shall be the same size as the base of the gauge, with the hole in the same location on the guide as the probe on the gauge. The corners of the guide are marked by scoring the surface of the soil. The guide plate is then removed and any necessary repairs are made to the prepared surface.

9.5.2.2 Proceed with testing in the following manner:

9.5.2.3 Set the gage on the soil surface, carefully aligning it with the marks on the soil so that the probe will be directly over the pre-formed hole.

9.5.2.4 Insert the probe in the hole.

9.5.2.5 Seat the gage firmly by rotating it about the probe with a back and forth motion.

9.5.2.6 Pull gently on the gage in the direction that will bring the side of the probe against the side of the hole that is closest to the detector (or source) location in the gauge housing.

9.5.2.7 Keep all other radioactive sources away from the gage to avoid affecting the measurement.

9.5.2.8 Secure and record one or more readings for the normal measurement period.

9.5.2.9 Determine the ratio of the reading to the standard count. From this count ratio and the appropriate calibration and adjustment data, determine the in-place wet density.

NOTE 3—Some instruments have built-in provisions to compute the ratio, wet density, and to enter an adjustment bias. Additionally some instruments may have provisions to measure and compute moisture content, and dry density.

9.6 If the volume tested as defined in 4.4 has excess oversize material with respect to the limitations in the appropriate Test Methods D 698, D 1557 or D 4253, then a correction for wet density (unit weight) and water content must be applied. This correction will be done in accordance with Practice D 4718. This test method requires sampling from the actual test volume.

9.6.1 If samples of the measure material are to be taken for purposes of correlation with other test methods or rock correction, the volume measured can be approximated by a 200 mm (8 in.) diameter cylinder located directly under the center line of the radioactive source and detector(s). The height of the cylinder to be excavated will be the depth setting of the source rod when using the Direct Transmission method or approximately 75 mm (3 in.) when using the Backscatter Method.

9.6.2 An alternative to the correction for oversize particles, that can be used with mass density methods or minimal oversize situations, involves multiple tests. Tests may be taken at adjacent locations and the results averaged to get a representative value. Comparisons need to be made to evaluate whether the presence of a single large rock or void in the soil is producing unrepresentative values of density. Whenever values obtained are questionable, the test volume site should be dug up and visually examined.

10. Calculation of Results

10.1 The in-place wet density is determined as outlined in 9.5. If dry density is required, the in-place water content shall be determined using either gravimetric samples and laboratory determination of water content (Test Methods D 2216, D 4643, D 4959, D 4944), or an instrument which determines water content by neutron thermalization (Test Method D 3017).

10.1.1 If the water content is determined by nuclear methods, Test Method D 3017, subtract the kg/m^3 (lbf/ft^3) of moisture from the kg/m^3 (lbf/ft^3) of wet density, and obtain dry density in kg/m^3 (lbf/ft ^{3}).

10.1.2 If the water content is determined by other methods, and is in the form of percent, proceed as follows:

$$\rho_d = \frac{100\rho_m}{100 + W} \tag{2}$$

where:

ρ_d = dry density in kg/m^3 (lbf/ft^3),

ρ_m = wet density in kg/m^3 (lbf/ft^3), and
W = water as a percent of the dry mass.

11. Report

11.1 Report the following information:

11.1.1 Standardization and adjustment data for the date of the tests.

11.1.2 Make, model and serial number of the test instrument.

11.1.3 Name of the operator(s).

11.1.4 Test site identification.

11.1.5 Visual description of material tested.

11.1.6 Test mode (backscatter or direct transmission) and test depth (if applicable).

11.1.7 Wet and dry densities in kg/m^3 or unit weights in lb/ft^3.

11.1.8 Water content in percent of dry mass or dry unit weight.

12. Precision and Bias

12.1 *Precision*:

12.1.1 *Precision*—Criteria for judging the acceptability of wet density test results obtained by this test method are given in Table 1. The figure in column three represents the standard deviations that have been found to be appropriate for the materials tested in column one. The figures given in column four are the limits that should not be exceeded by the difference between the results of two properly conducted tests. The figures given are based upon an interlaboratory study in which five test sites containing soils, with wet densities as shown in column two were tested by eight different devices and operators. The wet density of each test site was determined three times by each device.[3]

12.1.2 An instrument count precision of 8 kg/m^3 (0.5 lbf/ft^3) for the Backscatter Method and 4 kg/m^3 (0.25 lbf/ft^3) Direct Transmission Method are typical on a material of approximately 2000 kg/m^3 (125 lbf/ft^3) density, with a measurement time of one minute.

[3] The data used to establish this precision statement is contained in a Research Report available from ASTM Headquarters. Request RR:D18-1004.

TABLE 1 Results of Statistical Analysis

Precision and Soil Type	Average kg/m^3 (lb/ft^3)	Standard Deviation, kg/m^3 (lb/ft^3)	Acceptable Range of Two Results kg/m^3 (lb/ft^3)
Single Operator Precision:			
Direct Transmission:			
CL	1837 (114.7)	5.4 (0.34)	15.1 (0.94)
SP	1937 (120.9)	4.3 (0.27)	11.9 (0.74)
ML	2084 (130.1)	7.4 (0.46)	20.5 (1.28)
Backscatter:			
ML	1996 (124.6)	19.4 (1.21)	54.3 (3.39)
Multilaboratory Precision:			
Direct Transmission:			
CL	1837 (114.7)	10.6 (0.66)	29.8 (1.86)
SP	1937 (120.9)	10.9 (0.68)	30.6 (1.91)
ML	2084 (130.1)	12.3 (0.77)	34.4 (2.15)
Backscatter:			
ML	1996 (124.6)	38.1 (2.38)	107 (6.67)

12.1.2.1 Instrument count precision is defined as the change in density that occurs corresponding to a one standard deviation change in the count due to the random decay of the radioactive source. The density of the material and the time period of the count must be stated. It may be determined from a series of 20 or more counts taken without moving the instrument, or alternately from the calibration data using the assumption that σ is equal to the – count at that density. The count must be the true instrument count corrected for any pre-scaling (see 8.2.3).

$$P = \frac{\sigma}{S} \quad (3)$$

where:
P = instrument precision in density (kg/m^3 or lbf/ft^3)
σ = one standard deviation of the count
S = the slope of the calibration curve at the defined density value.

12.2 *Bias*:

12.2.1 There is no accepted reference value for this test method, therefore, bias cannot be determined.

13. Keywords

13.1 density; field density; nuclear methods

ANNEXES

(Mandatory Information)

A1. WET DENSITY CALIBRATION & VERIFICATION

A1.1 **Calibration**—Newly acquired gauges shall be calibrated initially. Existing gauges shall be calibrated after repairs that may affect the instrument geometry. Existing gauges shall be calibrated to re-establish calibration curves, tables, or equivalent coefficients if the gauge does not meet the specified tolerances in the verification process. If the owner does not establish a verification procedure, the gauge shall be calibrated at a minimum frequency of 24 months.

A1.2 **Verification**—Existing gauges shall be verified at a minimum frequency of 12 months. The verification process and resultant tolerances obtained over the depths the gauge is used shall be formally recorded and documented. If the verification process indicates a variance beyond the specified tolerances, the gauge shall be calibrated.

A1.3 **Calibration Response**—The calibration response of the gauge shall be within ±16 kg/m^3 (±1.0 lb/ft^3) on the block(s) on which the gauge was calibrated. This calibration may be done by the manufacturer, the user, or an independent vendor. Nuclear instrument response is influenced by the chemical composition of measured materials. This response must be taken into account in establishing the assigned standard block density. The block(s) used for calibration shall be capable of generating a general and reliable curve covering the entire density range of the materials to be tested in the field. The density of these standard block(s) shall be determined to an accuracy of ±0.2 %.

A1.3.1 Sufficient data shall be taken on each density standard block to ensure an instrument count precision of at least one-half the instrument count precision required for field use, assuming field use measurement of 1 min duration and 4 min duration used for calibration, or an equivalent relationship. The data may be presented in the form of a graph, table, equation coefficients, or stored in the gauge, to allow converting the count rate data to density.

A1.3.2 The method and test procedures used in establishing the calibration count rate data shall be the same as those used for obtaining the field count rate data.

A1.4 Calibration Standards

A1.4.1 The material type, actual density, or assigned standard block density of each calibration standard used to establish or verify the instrument calibration shall be stated as part of the calibration data for each measurement depth.

A1.4.2 The standards should be sufficient in size to not change the count rate if enlarged in any dimension.

NOTE A1.1—Minimum surface dimensions of approximately 610 by 430 mm (24 by 17 in.) have proven satisfactory. For the backscatter method, a minimum depth of 230 mm (9 in.) is adequate; while for the direct transmission method the depth should be at least 50 mm (2 in.) deeper than the deepest rod penetration depth. A larger surface area should be considered for the backscatter air-gap method. For blocks with widths or lengths smaller than the sizes specified, follow block manufacturers' recommendations for proper installation and use.

A1.4.3 The most successful standards that have been established for calibration have been made of magnesium, aluminum, aluminum/magnesium, granite, and limestone. These standards have been used in combination with each other, with historical curve information, and with other prepared block(s) to produce accurate and reliable calibration.

A1.4.4 Standards of soil, rock, and concrete that have stable characteristics for reproducibility and uniformity are difficult to prepare. These standards may be of use for specialty verification or field calibration where local site material chemistry or background situations require special adaptation.

A1.5 Verification of an Existing Calibration

A1.5.1 Verify an existing calibration by taking a sufficient number of counts at each measurement depth on one or more blocks of established density to ensure the accuracy of the existing calibration within ±32 kg/m^3 (±2.0 lb/ft^3) at each measurement depth.

A1.5.2 Sufficient data shall be taken to ensure an instrument count precision of at least one-half the instrument count precision required for field use assuming field use measurement of 1 min duration and 4 min duration used for calibration, or an equivalent relationship.

A1.5.3 Calibration block(s) which are used for calibration of the gauge or prepared block(s) which are capable of generating a general and reliable curve covering the entire density range of the materials to be tested in the field can be used to verify gauge calibration.

A1.5.4 Block(s) prepared of soil, rock, concrete, asphalt, and engineered blocks that have characteristics of reproducible uniformity may be used, but care must be taken to minimize changes in density and water content over time.

A1.5.5 Density values of prepared blocks shall be determined to an accuracy of ±0.5 % at each measurement depth.

A1.5.6 The assigned block density for each calibration depth used to verify the instrument calibration shall be stated as part of the verification data.

A2. DETERMINING PRECISION OF APPARATUS
(Moved from Precision and Bias Section of the standard to an Annex)

A2.1 **Instrument Count Precision**:

A2.1.1 Instrument count precision is defined as the change in density that occurs corresponding to a one standard deviation change in the count due to the random decay of the radioactive source. The density of the material and time period of the count must be stated. It may be determined using calibration data (Eq A2.1) or A2.2.

A2.1.2 Determine the instrument precision of the system, P, from the slope of the calibration curve, S, and the standard deviation, σ, of the signals (detected gamma rays) in counts per minute (cpm), as follows:

$$P = \sigma/S \tag{A2.1}$$

where:

P = precision
σ = standard deviation, cpm
S = slope, cpm/kg/m^3(cpm/lb/ft^3)

A2.2 Determine the slope of the calibration curve at the 2000 kg/m^3 (125 lb/ft^3) point in counts per minute per kilogram per cubic meter (counts per minute per pound per cubic foot). Determine the standard deviation of a minimum of 20 repetitive readings of 1 min each (gauge is not moved after seating for the first count) taken on material having a density of 2000 kg ± 80 kg/m^3 (125.0 ± 5.0 lb/ft^3). The value of P is typically less than 10 kg/m^3 (0.6 lb/ft^3) in the backscatter method and 5 kg/m^3 (0.3 lb/ft^3) in the direct transmission method at a 6 in. depth.

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Designation: D 3017 – 01

Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)[1]

This standard is issued under the fixed designation D 3017; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This test method covers the determination of water content of soil and rock by the thermalization or slowing of fast neutrons where the neutron source and the thermal neutron detector both remain at the surface.

1.2 The water content in mass per unit volume of the material under test is determined by comparing the detection rate of thermalized or slow neutrons with previously established calibration data.

1.3 The values stated in SI units are to be regarded as the standard. The inch-pound equivalents may be approximate.

1.3.1 It is common practice in the engineering profession to concurrently use pounds to represent both a unit of mass (lbm) and of force (lbf). This implicitly combines two systems of units, that is, the absolute system and the gravitational system. This test method has been written using the absolute system for water content (kilograms per cubic metre) in SI units. Conversion to the gravitational system of unit weight in lbf/ft^3 may be made by multiplying by 0.06243 or in kN/m^3 by multiplying by 9.807. The recording of water content in pound-force per cubic foot should not be regarded as non-conformance with this test method although the use is scientifically incorrect.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 1556 Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method[2]

D 2167 Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method[2]

D 2216 Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass[2]

D 2922 Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth)[2]

D 2937 Test Method for Density of Soil in Place by the Drive-Cylinder Method[2]

D 4643 Test Method for Determination of Water (Moisture) Content of Soil by the Microwave Oven Heating[2]

D 4718 Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles[2]

3. Significance and Use

3.1 The test method described is useful as a rapid, nondestructive technique for the in-place determination of water content of soil and rock.

3.2 The test method is used for quality control and acceptance testing of compacted soil and rock for construction and for research and development. The non-destructive nature allows repetitive measurements at a single test location and statistical analysis of the results.

3.3 The fundamental assumptions inherent in the test method are that the hydrogen present is in the form of water as defined by Test Method D 2216, and that the material under test is homogeneous.

3.4 Test results may be affected by chemical composition, sample heterogeneity, and, to a lesser degree, material density and the surface texture of the material being tested. The technique also exhibits spatial bias in that the apparatus is more sensitive to water contained in the material in close proximity to the surface and less sensitive to water at deeper levels.

4. Interferences

4.1 The chemical composition of the sample may dramatically affect the measurement and adjustments may be necessary. Hydrogen in forms other than water, as defined by Test Method D 2216, and carbon will cause measurements in excess of the true value. Some chemical elements such as boron, chlorine, and minute quantities of cadmium will cause measurements lower than the true value.

4.2 The water content determined by this test method is not necessarily the average water within the volume of the sample involved in the measurement. The measurement is heavily influenced by the water content of the material closest to the surface. The volume of soil and rock represented in the

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[1] This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.08 on Special and Construction Control Tests.

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[2] *Annual Book of ASTM Standards*, Vol 04.08.

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measurement is indeterminate and will vary with the water content of the material. In general, the greater the water content of the material, the smaller the volume involved in the measurement. At 160 kg/m^3 (10 lbf/ft^3), approximately 50 % of the typical measurement results from the water content of the upper 50 to 75 mm (2 to 3 in.).

4.2.1 If samples of the measured material are to be taken for purposes of correlation with other test methods or rock correction, the volume measured can be approximated by a 200-mm (8-in.) diameter cylinder located directly under the center line of the fast neutron source and thermal neutron detector. The height of the cylinder to be excavated is approximated by:

Moisture Content		Cylinder Height		Volume	
kg/m^3	lbf/ft^3	mm	in.	m^3	ft^3
80	5	250	10	0.0079	0.29
160	10	200	8	0.0063	0.23
240	15	150	6	0.0047	0.17
320	20	125	5	0.0039	0.15
400	25	112	4.5	0.0035	0.13
480	30	100	4	0.0031	0.12

NOTE 1—The volume of field compacted material sampled by the test can effectively be increased by repeating the test at immediately adjacent (vertically or horizontally) locations and averaging the results.

4.3 Other neutron sources must not be within 8 m (25 ft) of equipment in operation.

5. Apparatus

5.1 While exact details of construction of the apparatus may vary, the system shall consist of:

5.1.1 *Fast Neutron Source*—A sealed mixture of a radioactive material such as americium or radium and a target material such as beryllium.

5.1.2 *Slow Neutron Detector*—Any type of slow neutron detector such as boron trifluoride or helium-3 proportional counter.

5.1.3 *Readout Device*—A suitably timed scaler(s). Usually the readout device will contain the high-voltage supply necessary to operate the detector, and low-voltage power supply to operate the readout and accessory devices.

5.1.4 *Housing*—The source, detector, readout device, and power supply shall be in housings of rugged construction which shall be water and dust resistant.

5.1.5 *Reference Standard*—A block of hydrogeneous material for checking equipment operation and to establish conditions for a reproducible count rate.

5.1.6 *Site Preparation Device*—A steel plate, straightedge, or other suitable leveling tools which may be used to plane the test site to the required smoothness.

5.2 Calibrate apparatus in accordance with Annex A1.

5.3 Determine the precision of the apparatus in accordance with Annex A2.

6. Hazards

6.1 This equipment utilizes radioactive materials which may be hazardous to the health of the users unless proper precautions are taken.

6.2 Effective operator instruction together with routine safety procedures such as source leak tests, recording and evaluation of film badge data, use of survey meters, etc., are a recommended part of the operation of equipment of this type.

7. Standardization

7.1 All nuclear water content instruments are subject to long-term aging of the radioactive source, detectors, and electronic systems, which may change the relationship between count rate and water content. To offset this aging, instruments are calibrated as a ratio of the measurement count rate to a count rate made on a reference standard. The reference count rate should be in the same or higher order of magnitude than the range of measurement count rates over the useful water range of the equipment.

7.2 Standardization of equipment on the reference standard is required at the start of each day's use and a permanent record of these data shall be retained. The standardization shall be performed with the equipment located at least 8 m (25 ft) away from other gages and clear of large masses of water or other items which may affect the gage readings.

7.2.1 Turn on the instrument and allow for stabilization in accordance with the manufacturer's recommendations. If the instrument is to be used either continuously or intermittently during the day, it is generally best to leave it in the "power on" condition to prevent having to repeat the stabilization. This will provide more stable, consistent results.

7.2.2 Using the reference standard take at least four repetitive readings at the normal measurement period and obtain the mean. If available on the instrument, one measurement at a period of four or more times the normal period is acceptable. This constitutes one standardization check.

7.2.3 If the value obtained above is within the limits stated below, the equipment is considered to be in satisfactory condition and the value may be used to determine the count ratios for the day of use. If the value obtained is outside these limits, another standardization check should be made. If the second standardization check is within the limits, the equipment may be used, but if it also fails the test, the equipment shall be adjusted or repaired as recommended by the manufacturer.

$$N_s \leq N_o + \frac{2.0\sqrt{N_o}}{\sqrt{F}} \tag{1}$$

and

$$N_s \geq N_o - \frac{2.0\sqrt{N_o}}{\sqrt{F}} \tag{2}$$

where:

N_s = value of current standardization check (7.2.2) on the reference standard,
N_o = average of the past four values of N_s taken for prior usage, and
F = value of prescale (A2.2.1).

7.3 The value of N_s will be used to determine the count ratios for the current day's use of the equipment. If, for any reason, measured water content becomes suspect during the day's use, perform another standardization.

8. Procedure

8.1 Standardize the instrument (Section 7).

8.2 Select a location for test where the instrument in test position will be at least 250 mm (10 in.) away from any vertical projection.

8.3 Prepare the test site in the following manner:

8.3.1 Remove all loose and disturbed material, and remove additional material as necessary to reach the top of the vertical interval to be tested. Surface drying and the spatial bias should be considered in determining the depth at which the instrument is to be seated.

8.3.2 Prepare a horizontal area, sufficient in size to accommodate the instrument, by planing to a smooth condition so as to obtain maximum contact between the instrument and material being tested. If the instrument base is to be placed below the surrounding surface, the horizontal area shall be at least twice the area of the base of the instrument. If the depression is greater than 25 mm (1 in.), the condition in 8.2 must be met by clearing a larger area.

8.3.3 The placement of the instrument on the surface of the material to be tested is critical to the successful determination of water. The optimum condition is total contact between the bottom surface of the instrument and the surface of the material being tested. The maximum void beneath the instrument shall not exceed approximately 3 mm (⅛ in.). Use native fines of similar water content or dry quartz sand to fill voids and level the excess with a rigid plate or other suitable tool. The total area filled shall not exceed 10 % of the bottom area of the instrument.

8.4 Proceed with the test in the following manner:

8.4.1 Seat the instrument firmly, place the source in the proper position and take a count for the normal measurement period.

8.4.2 Determine the ratio of the reading to the standard count (Section 7). From this ratio and the calibration and adjustment data, determine the in-place water content per unit volume (Note 2).

NOTE 2—Some instruments have built-in provisions to compute the ratio, the water content per unit volume with adjustments, the dry density, and the water content in percent of dry density (or dry unit weight).

8.5 If the volume tested as defined in 4.2.1 is insufficient for the size of rock contained in the soil (refer to Practice D 4718), take additional tests at adjacent locations and average the results (Note 3).

NOTE 3—The water content value obtained should be compared to other water contents obtained for similar soils and conditions. The presence of a large rock particle or void in the soil being tested may give an unrepresentative value of water content. If the value is unusually high or low, another determination of water content should be performed. To avoid preparation of another test site, the gage may be repositioned (such as rotating the gage 90°) at the original site.

9. Calculation

9.1 Calculate the water content, w, in percent of dry density (or dry unit weight) of soil as follows:

$$w = \frac{M_m \times 100}{\rho_d} \tag{3}$$

or

$$w = \frac{M_m \times 100}{\rho - M_m} \tag{4}$$

where:

w = water content, percent of dry density,
M_m = water content, kg/m³(lbf/ft³),
ρ_d = dry density of soil (kg/m³) or dry unit weight (lbf/ft³), and
ρ = wet (total) density of soil (kg/m³) or wet unit weight (lbf/ft³).

10. Report

10.1 Report the following information:

10.1.1 Make, model, and serial number of the test device,

10.1.2 Standard count and adjustment data for the date of the tests,

10.1.3 Name of the operator,

10.1.4 Test site identification,

10.1.5 Visual description of material tested,

10.1.6 Count rate for each reading, if applicable,

10.1.7 Water content in kg/m³ or lbf/ft³,

10.1.8 Wet and dry densities in kg/m³ or unit weights in lbf/ft³,

10.1.9 Water content in percent of dry density or dry unit weight.

11. Precision and Bias

11.1 *Precision*—Criteria for judging the acceptability of the water content results obtained by this test method are given in Table 1. The value in column two is in the units actually measured by the nuclear gage. The figures in column three represent the standard deviations that have been found to be appropriate for the materials tested in column one. The figures given in column four are the limits that should not be exceeded by the difference between the results of two properly conducted tests. The figures given are based upon an interlaboratory study in which five test sites containing soils, with water content as shown in column two, were tested by eight different devices and operators. The water content of each test site was determined three times by each device.[3]

11.2 *Bias*—There is no accepted reference value for this test method, therefore, bias cannot be determined.

TABLE 1 Results of Statistical Analysis

Precision and Soil Type	Average kg/m³(lb/ft³)	Standard Deviation, kg/m³(lb/ft³)	Acceptable Range of Two Results kg/m³(lb/ft³)
Single Operator Precision:			
CL	194 (12.1)	5.6 (0.35)	15.5 (0.97)
SP	300 (18.7)	7.4 (0.46)	20.7 (1.29)
ML	314 (19.6)	5.6 (0.35)	15.8 (0.99)
Multilaboratory Precision:			
CL	194 (12.1)	8.3 (0.52)	23.1 (1.44)
SP	300 (18.7)	12.0 (0.75)	33.6 (2.10)
ML	314 (19.6)	9.3 (0.58)	26.1 (1.63)

12. Keywords

12.1 compaction test; construction control; density; field control; inspection; moisture content; moisture control; nuclear methods; nuclear moisture; quality control; soil moisture; test procedure; water content

[3] Details of the study are contained in a Research Report available from ASTM Headquarters. Request RR:D18-1005.

ANNEXES

(Mandatory Information)

A1. WATER CONTENT CALIBRATION AND VERIFICATION

A1.1 **Calibration**—Newly acquired gauges shall be calibrated initially. Existing gauges shall be calibrated after repairs that may affect the instrument geometry. Existing gauges shall be calibrated to re-establish calibration curves, tables, or equivalent coefficients if the unit does not meet the specified tolerances in the verification process. If the owner does not establish a verification procedure, the gauge shall be calibrated at a minimum frequency of 24 months.

A1.2 **Verification**—Existing gauges shall be verified at a minimum frequency of 12 months. The verification process and resultant tolerances obtained shall be formally recorded and documented. If the verification process indicates a variance beyond the specified tolerances, the gauge shall be calibrated.

A1.3 **Calibration Response**—The calibration response of the gauge shall be within ± 16 kg/m^3(± 1 lb/ft^3) on the block(s) on which the gauge was calibrated. This calibration may be done by the gauge manufacturer, the user, or an independent vendor. The block(s) used for calibration should be capable of generating a general curve covering the entire water content range of the materials to be tested in the field. The calibration curve can be established using counts and water contents of standard blocks, previous factory curve information or historical data. Due to the effect of chemical composition, the calibration supplied by the manufacturer with the apparatus will not be applicable to all materials. It shall be accurate for silica and water; therefore, the calibration must be verified and adjusted, if necessary, in accordance with A1.4.

A1.4 Calibration Standards

A1.4.1 Calibration standards may be established using any of the following methods. Prepared containers or standards must be large enough to not change the observed count rate if made larger in any dimension.

NOTE A1.1—Dimensions of approximately 610 by 460 by 360 mm (approximately 24 by 18 by 14 in.) have proven satisfactory. For blocks with width or lengths smaller than the sizes specified, follow the block manufacturers' recommendations for proper installation and use.

A1.4.2 Prepare a homogeneous standard of hydrogenous materials having an equivalent water content determined by comparison (using a nuclear instrument) with a saturated silica sand standard prepared in accordance with A.2.4.2. Metallic blocks used for wet density calibration such as magnesium or aluminum are convenient zero water content standards.

A1.4.3 Prepare containers of compacted material with a percent water content determined by (Test Method D 2216) and a wet density calculated from the mass of the material and the inside dimensions of the container. The water content may be calculated as follows:

$$M_m = \frac{\rho \, x \, w}{100 + w} \tag{A1.1}$$

where:
M_m = the volumetric water content, kg/m^3 or lbm/ft^3.
w = water content, percent of dry mass, and
ρ = wet (total) density, kg/m^3 or lbm/ft^3.

A1.4.4 Where neither of the previous calibration standards are available, the gauge may be calibrated by using a minimum of four selected test sites in an area of a compaction project where material has been placed at several different water contents. The test sites shall represent the range of water contents over which the calibration is to be used. At least four replicate nuclear measurements shall be made at each test site. The density at each site shall be measured by making four closely spaced determinations with calibrated equipment in accordance with Test Methods D 2922, D 1556, or D 2937. The water content of each of the density tests shall be determined by Test Method D 2216. Use the mean value of the replicate readings as the calibration point value for each site.

A1.5 Calibration Adjustments

A1.5.1 The calibration of newly acquired or repaired gauges shall be verified and adjusted prior to use. Calibration curves shall be checked prior to performing tests on materials that are distinctly different from material types previously used in obtaining or adjusting the calibration. Sample materials may be selected by either A1.5.1.1 or A1.5.1.2. The amount of water shall be within ± 2 % of the water content established as optimum for compaction. Determine the water content in kg/m^3 or lb/ft^3 by Eq A1.1. A microwave oven or direct heater may be utilized for drying materials that are not sensitive to temperature, in addition to the methods listed in A1.4.4. A minimum of four comparisons is required and the mean of the observed differences used as the correction factor.

A1.5.1.1 Container(s) of compacted material taken from the test site may be prepared in accordance with the procedures in A1.4.3.

A1.5.1.2 Test site(s) or the compacted material may be selected in accordance to A1.4.4.

A1.5.2 The method and test procedures used in obtaining the count rate to establish the error must be the same as those used for measuring the water content of the material to be tested.

A1.5.3 The mean value of the difference between the water content of the test samples as determined in A1.5.1.1 or A1.5.1.2 and the values measured with the gauge shall be used as a correction to measurements made in the field. Some gauges utilizing a microprocessor may have provision to input a correction factor that is established by the relative values of water content as a percentage of dry density, thus eliminating the need to determine the difference in mass units of water.

A1.6 Verification of an Exisiting Calibration

A1.6.1 Verify an existing calibration by taking sufficient number of counts on one or more blocks of established water content to ensure the accuracy of the existing calibration within ± 16 kg/m^3 (± 1 lb/ft^3). The water content block(s) should be prepared in accordance with section A1.4.2 and A1.4.3.

A1.6.2 Sufficient data shall be taken to ensure an instrument count precision of at least one half the instrument count precision required for field use assuming field use measurement of 1 min duration and 4 min duration used for calibration, or an equivalent relationship.

A1.6.3 Calibration blocks used to establish calibration parameters and prepared blocks can be used to verify calibration.

A1.6.4 Prepared blocks that have characteristics of reproducible uniformity maybe used, but care must be taken to minimize changes in density and water content over time.

A1.6.5 The assigned water content of the block(s) used for verification of the instrument shall be stated as part of the verification data.

A2. DETERMINING PRECISION OF APPARATUS

A2.1 Instrument Count Precision

A2.1.1 Instrument count precision is defined as the change in water content that occurs corresponding to a one standard deviation change in the count due to the random decay of the radioactive source. The water content of the material and time period of the count must be stated. It may be determined using calibration data (Eq A1.1) or verification procedures from A1.6.

A2.1.2 Determine the instrument precision of the system, *P*, from the slope of the calibration curve, *S*, and the standard deviation, σ, of the signals (detected neutrons) in counts per minute (cpm), as follows:

$$P = \sigma/S \tag{A2.1}$$

where:

P = precision
σ = standard deviation, cpm
S = slope, cpm/kg/m^3(cpm/lb/ft^3)

NOTE A2.1—Displayed gauge counts may be scaled. Contact the manufacturer to obtain the appropriate pres-scale factor.

A2.2 Determine the slope of the calibration curve at the 160-kg/m^3(10-lb/ft.^{3}) point in counts per minute per kilogram per cubic meter (counts per minute per cubic foot). Determine the standard deviation of a minimum of 20 repetitive readings of 1 min each (the gauge is not moved after seating for the first count) taken on material having a water content of 160 ± 10 kg/m^3(10.0 ± 0.6 lb/ft^3). The value of *P* is typically less than 4.8 kg/m^3(0.30 lb/ft^3).

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Designation: D 5820 – 95 (Reapproved 2001)$^{\epsilon 1}$

Standard Practice for Pressurized Air Channel Evaluation of Dual Seamed Geomembranes[1]

This standard is issued under the fixed designation D 5820; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ϵ^1 NOTE—Editorial changes were made in July 2001.

1. Scope

1.1 The practice covers a nondestructive evaluation of the continuity of parallel geomembrane seams separated by an unwelded air channel. The unwelded air channel between the two distinct seamed regions is sealed regions is sealed and inflated with air to a predetermined pressure. Long lengths of seam can be evaluated by this practice more quickly than by other common nondestructive tests.

1.2 This practice should not be used as a substitute for destructive testing. Used in conjunction with destructive testing, this method can provide additional information regarding the seams undergoing testing.

1.3 This practice supercedes Practice D 4437 for geomembrane seams that include an air channel. Practice D 4437 may continue to be used for other types of seams. The user is referred to the referenced standards, or to EPA/530/SW-91/ 051 for additional information regarding geomembrane seaming techniques and construction quality assurance.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 4437 Practice for Determining the Integrity of Field Seams Used in Joining Flexible Polymeric Sheet Geomembranes[2]

D 4439 Terminology for Geosynthetics[2]

D 4491 Test Methods for Water Permeability of Geotextiles by Permittivity[2]

2.2 *Other Standard:*

EPA/530/SW-91/051 Technical Guidance Document: Inspection Techniques for the Fabrication of Geomembrane Field Seams[3]

3. Terminology

3.1 *Definitions:*

3.1.1 *dual seam, n*—a geomembrane seam with two parallel welded zones separated by an unwelded air space.

3.1.2 *Discussion*—The dual seam itself can be made by a number of methods, the most common being the hot wedge technique. Other possible methods include hot air and ultrasonic bonding techniques.

3.1.3 *geomembrane, n*—an essentially impermeable geosynthetic composed of one or more synthetic sheets.

3.1.4 *Discussion*—In geotechnical engineering, impermeable essentially means that no measurable liquid flows through a geosynthetic when tested in accordance with Test Methods D 4491.

3.1.5 *seam, n*—a permanent joining of two or more materials.

3.2 For definitions of other terms, see Terminology D 4439.

4. Summary of Practice

4.1 This practice utilizes a dual seam where an air channel exists between the two welded zones. Both ends of the air channel are sealed and then a pressure gage is attached to the air space. Air pressure is applied and the gage is monitored for excessive gage air pressure drop.

4.2 Air pressures used in this practice are related to the thickness, stiffness and material type of the geomembrane.

4.3 The minimum monitoring time is recommended to be 2 min following stabilization of the pressure.

4.4 Maximum allowable loss of air pressure varies depending upon thickness, stiffness and type of material of the geomembrane.

5. Significance and Use

5.1 The increased use of geomembranes as barrier materials to restrict liquid or gas movement, and the common use of dual

[1] This practice is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.10 on Geomembranes.

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[2] *Annual Book of ASTM Standards*, Vol 04.09.

[3] Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

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track seams in joining these sheets, has created a need for a standard nondestructive test by which the quality of the seams can be assessed for continuity and water tightness. The test is not intended to provide any indication of the physical strength of the seam.

5.2 This practice recommends an air pressure test within the channel created between dual seamed tracks whereby the presence of unbonded sections or channels, voids, nonhomogenities, discontinuities, foreign objects, and the like, in the seamed region can be identified.

5.3 This technique is intended for use on seams between geomembrane sheets formulated from the appropriate polymers and compounding ingredients to form a plastic or elastomer sheet material that meets all specified requirements for the end use of the product.

6. Equipment

6.1 *Sealing Equipment*, appropriate to seal the two ends of the air channel.

6.2 A device is necessary to insert air into the open channel and to allow monitoring its pressure.

NOTE 1—A sharp, hollow needle attached to a properly functioning pressure gage has been used successfully. Other devices may provide equivalent functions.

6.3 *Air Pump*, either manual or motor driven, capable of generating up to 350 kPa (50 lb/in.^{2}) pressure is necessary. It must be placed on an adequate cushion to preclude damage to the geomembrane. A flexible hose is used to connect the pump to the air pressure device. This hose should have a quick connect on its end for disengagement after pressure is supplied to its desired value, that is, the pump is not to be attached while the air pressure is being monitored.

6.4 *Knife*, capable of cutting or trimming the liner material.

NOTE 2—A hook bladed knife is recommended. Straight bladed knives may damage the geomembrane by cutting through the material being trimmed and into the underlying geomembrane.

6.5 *Pressure Gage*, capable of indicating the air pressure in 7 kPa (1 lb/in.^{2}) within the test range.

NOTE 3—The gage should be calibrated as specified by the manufacturer, or at a frequency of at least once per year.

7. Procedure

7.1 After the dual track seam is fabricated and the length of seam that is to be evaluated is determined, seal off the two ends of the continuous air channel.

7.2 Connect the pressure gage directly to the air channel.

7.3 Connect an air pump to the pressure gage with a flexible hose via a quick connect and pressurize the air channel to the pressure appropriate for the geomembrane type.

7.4 Remove the flexible hose that connects the air channel to the pressure gage. Following pressure stabilization, observe the air pressure gage for the desired test time. The test time should be a minimum of 2 min. Mark the time and pressure of the beginning and end of the test on the geomembrane with a visible marker. The maximum allowable pressure drop may be compared to the maximum allowable value.

7.5 If the pressure does not drop below the maximum allowable value after the specified test period, open the air channel at the end away from the pressure gage. Air should rush out and the pressure gage should register an immediate drop in pressure, indicating that the entire length of the seam has been tested. If this does not happen, either the air channel is blocked or the equipment is faulty, and the test is not valid. Attempt to locate the problem and retest the seam in accordance with the project specifications.

7.6 If the pressure drop is greater than the maximum allowable value after the test period, check the end seals of the air channel. Reseal these areas if a leak is noticed and then repeat the entire test.

NOTE 4—Leaks around the end seals and air pressure device can usually be located by putting moisture around the suspected area and looking for bubbles.

7.7 If significant changes in geomembrane temperature occur during pressure testing (for example, cloud cover or other shading), a variation in channel pressure may be recorded due to expansion or contraction of the air channel. If an increase or decrease in temperature is suspected of having caused a pressure variation, repeat the test after the geomembrane temperature has stabilized.

7.8 Any dual seam that cannot be successfully tested using this practice should be marked and tested using another nondestructive testing practice when possible.

8. Report

8.1 The report of a pressurized dual seam test is usually given in the form of a completed chart. It should include the following information as a minimum:

8.1.1 Data of test,

8.1.2 Time of test,

8.1.3 Temperature at time of test,

8.1.4 Location of test with respect to panel layout plan,

8.1.5 Stabilized air channel pressure,

8.1.6 Duration of test time,

8.1.7 Gage pressure drop during test,

8.1.8 Outcome of test (pass/fail/retest), and

8.1.9 If fail—remedial action is described in detail.

8.2 A form as shown in Fig. 1 includes the above information and may be used for such reporting.

9. Precision and Bias

9.1 The precision of this test has not been established.

9.2 The threshold value for accepting seam quality is that value agreed upon by all parties overseeing the installation of the project and is thus the source of bias in this procedure.

Installer Company's Name________________________ Page __ of __

Project Name________________________ Project No. ______ Superintendent________________________

SHOP DWG SEAM NO.	FIELD SEAM NO.	SEAM DATE	WELDER AND SEAMER I.D. NO.	TEST DATE	START		END		AIR TEST RESULTS	COMMENTS	REPAIR DATE	WELDER AND GUN I.D. NO.	REPAIR VACUUM TEST NO.	SEAM (INITIAL, DATE)
					Pressure (PSI)	Time (MIN)	Pressure (PSI)	Time (MIN)						

FIG. 1 Report Form for Pressurized Air Channel Test for Dual Seamed Geomembranes

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Operation and Maintenance Manual
Eastern Landfill Expansion

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

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July 30, 2007

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APPENDIX A – FORMS

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1.0 INTRODUCTION

1.1 GENERAL

This document is the Operation and Maintenance Manual for the Eastern Expansion Project which is an expansion to the Albany Interim Landfill (AIL). The AIL, as referred to within this document, is inclusive of the following landfill phases:

Cells 1-5:	Original AIL
Cell 6:	Wedge
Cells 7-11:	P-4
Cells 12-13:	Eastern Expansion

Where references to individual landfill phases are required, they will be referred to within this document by their cell numbers or common names (i.e., Original AIL, Wedge, P-4, Eastern Expansion). Where references are made to the "AIL", it is inclusive of all phases.

This Operation and Maintenance Manual provides a basis for the day to day facility operations and those activities that are associated with the expansion of the facility (i.e., Eastern Expansion Project). Current operations at the facility are described within the Operations Plan dated January 28, 2000 prepared by C.T. Male Associates P.C., which complies with the 6 NYCRR Part 360 Solid Waste Management Facilities regulations effective October 9, 1993, and has been approved by NYSDEC. In order to provide continuity with the previously approved Operations Plan for the permitted air space of the AIL and P-4, the January 2000 document has been used herein as a substantial basis for describing the overall landfill operations.

The City of Albany owns and operates the AIL and is responsible for groundwater and surface water monitoring, site development, excavation and filling, leachate collection, closure, and post-closure maintenance. Typical wastes entering the landfill will be municipal solid waste (MSW), picked material, processed recycling residuals, petroleum containing soil, construction and demolition debris, and bypassed solid waste. Other types of solid wastes as allowed under 6 NYCRR Part 360 regulations may be accepted at the facility. The procedures described herein for operation are based on NYSDEC Part 360 regulations and guidelines. By following the procedures and protocols established within this plan, the facility will be operated in an environmentally sound and resource conscious manner.

1.2 REPORT ORGANIZATION

The Operation and Maintenance Manual is organized as follows:

Section 1.0	Introduction;
Section 2.0	Landfill Disposal Methods;
Section 3.0	Personnel Requirement;
Section 4.0	Machinery and Equipment;
Section 5.0	Landfill Operational Controls;
Section 6.0	Fill Progression;
Section 7.0	Waste Amounts and Characterizations;
Section 8.0	Solid Waste Receiving Process;
Section 9.0	Cover Material Management;
Section 10.0	Environmental Monitoring Plan;
Section 11.0	Leachate Management Plan;
Section 12.0	Gas Monitoring Plan;
Section 13.0	Winter and Inclement Weather Operations;
Section 14.0	Fire Prevention Plan.

2.0 LANDFILL DISPOSAL METHODS

Daily monitoring of leachate collection system components and the incoming waste characteristics, and periodic inspections of landfill structures are to be performed at the landfill to ensure it is operated in an environmentally sound and resource conscious manner. Monitoring will be important for developing a baseline of normal operations so that unusual conditions can be noted and corrective actions taken. Daily monitoring of leachate detection quantities is vital to the rapid discovery and elimination of problems which could cause groundwater contamination. Scheduled inspections of the landfill are required as part of routine maintenance to assure that hazards, or the potential for hazards, can be identified and the appropriate action(s) taken. The appropriate actions may require minor repairs or the activation of the Contingency Plan. The items to be addressed in each inspection are shown on the attached forms for daily and weekly monitoring, and monthly inspections included in Appendix A.

2.1 MONITORING AND INSPECTIONS

Daily monitoring will include checking the quantity of leachate in the leachate storage tanks (until such time as daily direct discharges are authorized) and the leak detection manholes. Precipitation is also to be monitored daily. This will be very important for determining how leachate production corresponds to rainfall. As outlined in Section 8.0, incoming loads of waste will be randomly inspected for the presence of unacceptable wastes. This will be done on the landfill's working face or recycling building tipping floor in a segregated area large enough for the waste to spread out to a thickness of one foot or less. A waste load inspection form is included in Appendix A. Additional loads will be inspected if there is suspicion that unacceptable wastes are present. In addition, operators at the working face of the landfill will observe the waste as it is being unloaded for the presence of unacceptable waste and segregate any that is found in a separate area for subsequent removal. The source (or hauler) of the waste will be recorded and the supervisor notified so that appropriate action can be taken against the responsible parties.

2.2 REPORTING

Reports summarizing the operation of the landfill must be prepared periodically. Attached are a monthly operations summary form and a semi-annual operations summary form in Appendix A. The semi-annual report will be submitted to the NYSDEC for review every March 1 and September 1, and will cover the status of the facilities operations as shown on the report form.

For the semi-annual reports, leachate and groundwater monitoring data may be summarized in table or chart form, along with a verbal summary of the data and a discussion of any groundwater results which contravene state water quality standards.

2.3 RECORDKEEPING

Included in this operating manual are formats for all of the monitoring forms and reports necessary for operating the landfill. Note that on the daily monitoring form there is a place to record the completion of other reports. It is suggested that each report be kept in a separate file or binder with the daily reports serving as the index to all of the other rep

2.4 ODOR CONTROL PLAN

The active fill area or working face of the landfill is anticipated to be a source of odor emissions. All landfill leachate will be contained in closed areas which will minimize odors due to leachate.

To prevent the occurrence of nuisance odors around the landfill's working face, fill operations will be conducted so that no municipal solid waste is left uncovered for more than eight hours with the application of daily cover at the end of each workday. Should odors be detected, application of daily cover will be reduced to every four hours. The working area of the landfill will not be so large that a full lift cannot be completed and covered within four hours.

Additionally, an active landfill gas collection system within the active waste mass of both the Original AIL, P-4 and the Wedge. A similar landfill gas collection system will be installed during the Eastern Expansion Project as landfilling of the waste occurs.

The active gas collection system consists of a network of horizontal collection lines installed at an approximate spacing of 100 feet horizontal and 30 feet vertical. Spacing will be staggered between individual layers, and the collection pipes will be constructed of a pre-molded HDPE leaching chamber with suitable reinforcement. Once collected, the landfill gas controlled through combustion through the flare or internal combustion engines. The installation of these lines provides a necessary infrastructure for the active control of landfill gases and their resultant odors contemporaneous with the landfilling waste within the facility.

In addition to the application of daily cover, the landfill will disburse an odor neutralizer (Ecosorb®) in three techniques. The neutralizer is fragrance-free. The neutralizer can be applied to surfaces however it is most effectively applied in vapor form. The neutralizer will be mixed into the Posi-shell® cover material and applied to compacted waste, at a ratio of 400:1(water to Ecosorb®) as needed. The second dispersal technique is via the Posi-shell applicator on an as needed basis; diluted to 300:1, the neutralizer will be directly applied to select areas of the working face as the waste is being compacted. The third dispersal method entails the use of a wide swath sprayers (`foggers') to disperse the diluted product (100:1) as needed. The sprayer will be deployed between the working face and areas that may be impacted by off-site odors. The dispersal techniques will be utilized on an as-needed basis during normal operations.

Special procedures will be used by landfill operators for odiferous non-municipal type solid wastes, such as sludges. These wastes will be immediately covered with Ecosorb®- enhanced Posi-shell, non-odiferous wastes (e.g., petroleum-containing soils) or six inches of daily cover material (e.g. soil). If such actions are unable to control odors emanating from the waste, then the City will consider either the rejection of these wastes in the future or impose prelandfilling treatment to significantly reduce odors from the waste.

2.5 VECTOR CONTROL

Potential adverse bird impacts can occur on and off site. Nuisance conditions due to birds however are generally considered to be limited to off-site areas and can include droppings (which require cleaning and can cause staining), noise (particularly in early morning), and the potential for disease transmission. The City of Albany has and will continue to taken proactive steps to alleviate and mitigate the bird situation at the AIL, and be responsive to complaints with the objective of preventing the facility from being a vector breeding ground.

The primary method for controlling vectors is the placement of sufficient cover material over the waste. The continual supply of cover material to the landfill will assure that the problems can also be prevented by limiting the open working face to an area as small as possible. Landfill equipment operators have been directed to keep the working area to a manageable size and prevent the unloading of solid waste, until they are prepared to manage that load.

Supplemental vector control activities will be initiated seasonally when determined necessary by the City of Albany consistent with protocols developed by the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Wildlife Services, which worked under a cooperative agreement to provide direct operational bird control to reduce the population of gulls, starlings and crows at the AIL from 1996-1999. A Bird Damage Management Program was developed as part of the cooperative agreement. The Bird Management Program uses an Integrated Wildlife Damage Management approach, which is a series of science based methods used to reduce wildlife conflict. Methods employed include the alteration of cultural practices as well as habitat and behavioral modification to prevent or control adverse impacts. This may require killing or reducing the populations of the offending species to reinforce the non-lethal methods.

Other measures which may be employed, as necessary, include the following:

- Utilize non-lethal control measures such as pyrotechnics (i.e. screamers, noise bombs and caps), propane cannons, repellents, and bird distress tapes.
- Utilize live ammunition for selective removal of a small number of birds at the AIL (no live ammunition is used at Fox Run Estates) to reinforce scare tactics and reduce bird loafing.
- Install decoy traps and euthanize captured birds.
- Plant and maintain dense vegetation on capped portions of landfill.
- Implement a no bird feeding policy at the landfill.
- Install and maintain Allsopp Helekites on the roof of Service Liquor Distributors.
- Encourage thinning or pruning of selected vegetation in and around Fox Run Estates.
- Encourage the implementation of a bird feeding policy at Fox Run Estates that would limit the use of ground feeders and encourage the use of elevated bird feeders.
- Continue the `good neighbor' policy by being responsive to local concerns regarding potential bird damage by providing technical assistance to landowners in the immediate vicinity of the landfill.

2.6 NOISE

Noise attenuation will be accomplished primarily by the noise control wall constructed on the north boundary of the site. Additional noise attenuation can be accomplished by commencing placement of the initial lifts along the north and/ or east side of each cell. Once these lifts are constructed, operations will continue behind the lift. If problems still occur, then the width of the lift can be reduced so that the initial barrier can be completed in less time. All equipment at the site will be equipped with adequate mufflers and exhaust systems.

Fill progression techniques have been and will continue to be employed by landfill personnel to further reduce potential noise impacts to the nearby residents.

2.7 LITTER

The litter control plan is designed to prevent, minimize and contain litter at the facility. The plan addresses litter issues encountered in the past and details future preventive methods.

Litter will be controlled at the site with the use of fencing and waste placement operations. Fences at the working face and along the perimeter of the landfill cell will be used. The fence used at the working face area will consist of seven portable fences developed by Abletech, Inc that can be moved to accommodate changes with wind direction and placement area. These fences measure 13 feet tall by 20 feet long. The fences will be placed directly downwind of the working face area and immediately adjacent each other to prevent “leaks” in the coverage. In addition to the seven fences currently at the site, the City is awaiting the arrival of 10 additional fences that have been ordered. Permanent fences ranging in height from 10 feet to 55 feet will be used along the perimeter of the landfill to capture any litter that has blown past the working area fences. The permanent fences at the site generally consist of five foot chain link mesh at the bottom and nylon mesh on the upper portion. In addition to the chain link/ mesh fence, the sound wall along the north slope of the Albany Interim Landfill also serves as a permanent litter control fence.

Waste placement operations will also be modified to control litter. Placement operations will be directed to provide the best coverage of the portable fences and should severe wind conditions occur, the landfill supervisor will temporary cease waste placement at their discretion.

The litter fences will be inspected on a daily basis to determine if litter removal is required, in addition the fences will be inspected for damage to determine if any repair or replacement is necessary. Litter removal will be accomplished with a vacuum truck and/ or hand picking. Should litter travel off the facility, the landfill supervisor will direct the removal of the litter immediately. During winter months, removal of litter is hindered by the weather conditions and visibility of blown litter is significantly reduced. Therefore following the winter season, removal of blown litter that has accumulated and was not accessible and/ or visible shall be removed within 21 days and no later than May 1st. Should an alternative schedule be required, a request is to be made to the Department and approved.

2.8 DUST CONTROL

Dust will be controlled by applying water to the areas creating the problem. Water shall be supplied to the site by the Department of General Services' equipment, including a 3,500 gallon water truck, and staff.

2.9 SNOW REMOVAL

During winter operations, equipment operators must contend with intermittent snow removal from the working face. At the beginning of each day, or as necessary when snow accumulates during the day, the operator will push snow to a location that has received intermediate cover. The preferred location would be along an exterior side slope. If there are no available areas which have received intermediate cover, or if landfilling is still occurring below the berm elevations, then the operator will push snow to an area that has received daily cover and is not scheduled to receive another lift for approximately two weeks.

2.10 BURNING

Open burning of any kind is, and will continue to be, strictly prohibited at the Rapp Road Solid Waste Management Facility.

2.11 SALVAGING

Salvaging of any kind is, and will continue to be, strictly prohibited at the Rapp Road Solid Waste Management Facility.

3.0 PERSONNEL REQUIREMENTS

The landfill will be staffed by the following City of Albany personnel included in Table 1, below.

Table 1

Landfill Personnel

Name		Title	NYSAWM Landfill Operator	NYSASWM Waste Identification
Last	First			
Bruce	Willard	Commissioner		
Costello	Harry	Landfill Superintendent	X	
Costello	Phil	Operating Engineer	X	
Dwyer	Kelly	Recycling Specialist		
Giebelhaus	Joseph	Solid Waste Manager	X	X
Gudz	Andrew	Operating Engineer	X	
Kirker	Christopher	Operating Engineer		
Liddle	Ron	Laborer II		
Loundsbery	Peter	Laborer II		
Loundsbury	David	Operating Engineer	X	
Mastriano	Pasquale	Laborer II		
Mcgraw	John	Laborer II		
Smith	Mark	Laborer II		
Weller	Kelly	Operating Engineer		
Zagata	Richard	Operating Engineer		

The Landfill Superintendent directs the day-to-day operations at the landfill. The superintendent is authorized to reject inbound solid waste loads from any hauler suspected of handling unacceptable solid waste. The superintendent will direct the placement of lifts, inspect the site and oversee maintenance of all components of the landfill. The superintendent will report directly to the Solid Waste Manager and the Commissioner of the Department of General Services who have responsible charge of the facility. The Equipment Operating Engineers and Laborers will operate the required equipment for placement and compaction of the waste at the landfill face and perform required maintenance.

Facility operators and other key personnel for the landfill operation will trained in waste identification and restriction procedures, facility performance monitoring, and reporting of health and safety issues for site personnel and facility users. For new employees, training will occur at the time of hiring and during the hands-on training at the landfill. Existing landfill personnel have been informed of and trained in these procedures. Additional training will be provided for existing landfill personnel as the superintendent deems necessary.

Any written communications relating to the operation of the facility will be directed to the Solid Waste Manager who will authorize corrective actions, if necessary. Written landfill offenses will originate from the manager’s office to the respective haulers with copies forwarded to the on-site supervisor.

In addition to the above staff, there are four night watchmen who provide security at the landfill during non-working hours to prevent unauthorized access.

Weekly inspection reports will be kept on file both at the site and the Commissioners' office. Monthly summary sheets will be forwarded to NYSDEC.

Most information pertaining to the quantity and type of inbound solid waste is currently tracked and reported to the NYSDEC. Quarterly reports shall be submitted to the NYSDEC which consolidates the information contained in the monthly summaries, including any violations that may have occurred at the landfill.

Landfill personnel are provided with adequately heated and lighted shelters, a safe drinking water supply, sanitary toilet facilities, and radio or telephone communication.

4.0 MACHINERY AND EQUIPMENT

All of the landfill equipment is continually updated. Table 2, below, summarizes the equipment current utilized or stored at the facility.

Table 2

Landfill Equipment Summary

Machinery/ Equipment	Quantity of Equipment	Type
Wheel Loader	2	2000 John Deere Model 744 2002 John Deere Model 544H
Compactor	4	1989 Caterpillar Model 826 1996 Caterpillar Model 836 2000 CMI Model 35C 2006 Caterpillar Model 836
Dozer	2	1995 Caterpillar Model D4 2006 Caterpillar Model D6R
Track Loader	2	1998 Caterpillar Model 973 2005 Caterpillar Model 973
Excavator	2	2001 John Deere Model 220 2006 Caterpillar Model 330
Waste Shredder	1	2004 Diamond Z Model SWG
Posi-shell Applicator	1	1997 Caterpillar Model D250E
Mower	1	1992 Deweeze
Skid Steer	1	2004 Bobcat
Litter Vac	1	2003 OBD
Tanker Truck (fuel)	1	1987 International
3,500 Gallon Water Truck	1	1997 Rosco

Two compactors and one dozer are used to spread and compact the deposited waste at the landfill. The track loaders are used for transporting waste and material, as required. The City utilizes a waste shredder to shred a significant portion (about 75 percent) of the in-coming waste to increase the waste density. An excavator is used in conjunction with the shredder to deposit the incoming waste into the shredder hopper. The Posi-shell Applicator machine is used for apply Posi-shell alternative daily cover.

This equipment shall receive routine maintenance by the City of Albany mechanics and manufacturer certified mechanics so that few breakdowns occur. In the event of a breakdown that cannot be immediately repaired by the City or manufacturer, the City of Albany will use an available back-up machine or rent a similar machine. This practice is currently in use and a replacement machine usually arrives on site in less than one day.

A grader, located at the DGS Facility (One Conners Boulevard, Albany) also has been dedicated for use at the landfill and can be mobilized to the site on an as-needed basis. Additional DGS equipment such as backhoes and various sizes of trucks are available on an as-needed basis.

Equipment at the landfill is currently parked during the off hours at the adjacent to the working area in a designated area. Each piece of equipment at the landfill has a portable fire extinguisher which can be used to attempt to control small fires in the equipment or on the landfill. Each operator has been provided with dust masks which can be used at the operator's discretion or when directed by the on-site supervisor. The landfill supervisor has all of the necessary safety equipment including quad alarms and confined space entry equipment, and is able to maintain radio communication with the scale house, tipping floor, and Department headquarters.

Landfill personnel conduct routine maintenance on all landfill equipment at a frequency of every 250 working hours, or sooner if a problem is identified. Typical maintenance includes oil and filter changes, air filter replacement, greasing and lubing, and replacement of worn parts. Records of the maintenance conducted are maintained on-site as part of the Maintenance Program.

The City has two CES-Landtec GEM 2000 landfill gas analyzers for tuning of the landfill gas collection and control system.

5.0 LANDFILL OPERATIONAL CONTROLS

The hours of operation at the AIL include Mondays through Fridays from 7:00 AM to 4:30 PM. Signs will be provided at all maintained access points indicating hours of operation and the types of solid waste accepted and not accepted, in accordance with Part 360-1.14(e) and 2.9(d). On holidays, which occur during the work week, the City operates the landfill for disposal of residential waste from the City only. The working hours on these days are limited to 8:00 AM to 12:00 PM and a limit of 16 packer trucks only. The waste is to be deposited and covered with daily cover and shredding and compacting activities are performed during regular working days to limit noise impacts.

Landfill operations do not occur on nights during the week or on Saturday or Sunday; however, the City sponsors several Spring Cleanup Days per year which are held on Saturdays. These days are set aside for residents and benefit the community.

Public access to the facilities and receipt of solid waste will occur only when an attendant is on duty. Access to the facility via Rapp Road is continuously controlled through the use of fencing and gates.

The facility currently has, and will continue to maintain, a perimeter access road.

6.0 FILL PROGRESSION

Fill progression in the eastern expansion will progress in accordance with the engineering drawings and Sections 6.1 and 6.2, below. The fill progression plan is depicted in plan and sectional view on the following engineering drawings:

- G13 Solid Waste Progression Plan,
- G14 Solid Waste Progression Cross Section.

6.1 FIRST LIFT PLACEMENT PROCEDURE FOR EASTERN EXPANSION

Placement of the first layer of solid waste is critical to maintaining the integrity of the landfill for both its operating and post-closure phases. The 18-inch granular soil drainage layer covering the liner provides protection to the liner from the operating compaction equipment. However, should large rigid objects become included in the first lift material, then the potential for damage to the liner system by these objects could exist. For this reason the first layer of solid waste deposited will be limited to shredded select municipal solid waste. The select material will contain no large rigid objects, such as bed springs or posts, placed in a manner which could damage the liner system. This layer, which will be a minimum of five feet thick, will provide an extra degree of protection to the liner system. After this layer is in place, then typical daily operating procedures will be implemented.

Once this lift is completed, the operator must still be aware of the components of the inbound waste to assure that rigid materials deposited are compacted in a plane, parallel to the liner surface. This regular observance by the operator must take place until the first 10 foot lift is completed across the bottom of the cell.

6.2 FILLING OF THE EASTERN EXPANSION

The Eastern Expansion has been divided into two sections, each with its own leachate collection and leak detection system. These sections can operate as independent landfill cells, providing flexibility in landfill operation. The operator can monitor the progression across each cell by controlling depth and width of each waste layer of lift.

A temporary access road constructed over the southeast berm will terminate inside the cell on an unloading pad. Temporary access roads and unloading pads may be constructed of gravel, soil or equivalent. Trucks will discharge their loads off the edge of the pad and exit the landfill via the same access road. Landfill equipment operators will then begin shredding, spreading and compacting the waste in maximum daily lift heights of 10 feet. Daily cover will be installed as outlined in Section 9.0 at the end of each work day. The operator will begin increasing the size of the unloading pad as additional waste is deposited.

The first lift will start from the unloading pad, located on southern portion of the Eastern Expansion, which will be accessed from the existing access road, and will then proceed across the expansion area towards the north berm. The first lift will be placed across the entire expansion area prior to placing the second lift.

Once this first push is completed, the operator will construct an access road across the lift to the northern portion of the expansion area where the second lift will begin. Fill progression for the landfill will progress from the north to the south. Filling will progress in this manner for the entire life of the Eastern Expansion.

All filling above the top of berm elevations will limit outside slopes to 3 horizontal to 1 vertical. The operator will terminate the outside toe of the solid waste a minimum of 6 inches below the top of berm. Intermediate cover then will be placed in this space.

It is important that, as the operator fills the landfill, terraces and drainage swales be maintained in the intermediate cover. Though runoff is not as significant over the intermediate cover as it will be over the final cap, it must still be prevented from accumulating and washing out the intermediate cover. The use of the terraces and swales will direct what runoff occurs and prevent erosion of the cover.

It is anticipated that as the landfill is filled, the access road must increase in grade up to the final grade proposed of 9.5 percent. This grade is only applicable during the final few months of operations of the landfill. Though trucks are capable of ascending or descending this grade, it can become difficult if this occurs during the winter months. It is anticipated that only a limited amount of traffic will ever need to contend with these conditions.

The actual location and construction of the truck unloading pad is left to the discretion of the operator. The initial unloading pad is of special construction so as to prevent any damage to the liner system below. Future pads may be constructed similarly but the operator may also elect to reduce the thickness of one of the components of the pad (e.g., the No. 4 stone). Exactly how durable the pad must be could be based on the time of year in which the landfill is operating and length of time for which it is to be operated. During the winter and spring, operators may choose the type of construction shown, while in the summer the road could be constructed out of a stable, well draining select fill.

The working face will be restricted to the smallest area practicable, based on peak usage traffic conditions at the landfill. Daily cover will be installed as outlined in Section 9.0.

7.0 WASTE AMOUNT AND CHARACTERIZATION

7.1 WASTE RECEIVING AMOUNT

The Eastern Expansion will be permitted to receive 273,000 tons of solid waste per year. This corresponds with an average daily receipt of 1,050 tons per day, five days per week, fifty-two weeks per year.

7.2 WASTE PLACEMENT AND COMPACTION

Incoming waste will be directed to the working face area to be landfilled. Once the waste is unloaded the trucks are directed away from the working area. Prior to departure from the landfill, the driver is to inspect the truck for cleanliness. The working area will be maintained perpendicular to the direction of prevailing winds as much as possible with wind screens placed downwind of unloading operations. It is anticipated that about 70 percent of the waste will be shredded, therefore, unloaded waste will be pushed towards or unloaded adjacent to the shredder where, the dedicated excavator will place the waste in the shredder.

Shredded and unshredded waste will be spread by bulldozers or waste compactors in thin layers less than two foot thick. For most efficient waste compaction, waste will be spread in a number of thin lifts up to a total thickness of 10 feet. Proper waste compaction and placement will reduce the overall volume of daily cover required and allow more room for waste. Waste will be compacted by driving the compactor over the thin waste layer a minimum of four times. The anticipated effective in-place density of the waste is 1,800 lb/CY. Such a density could be realistically achieved through the use of proper compaction equipment and techniques, shredding a significant portion of the waste and operational procedures. The City's goal is to minimize utilization of airspace, therefore, maximum density efficiency is an important part of the landfill's operation.

After compaction the landfill surface will be graded to be smooth as possible.

8.0 SOLID WASTE RECEIVING PROCESS

In order to successfully operate the landfill and maximize the facility's operating life, it is imperative that operators control the quantity and type of inbound solid waste. The City of Albany implements a "Fugitive Waste Program" in an effort to keep control of the waste and to enforce recycling. If violators are found, then they will be subject to landfill use restrictions. The City of Albany currently has a list of materials (Table 3) that will not be accepted at the landfill. The initial enforcement of the list must be made by the haulers when they pick up their loads. Any hauler who does not abide by this list will be subject to a loss of tipping privileges. Operators will quarter each incoming load to check for gross violations of the list. In addition, inspections will be conducted daily on randomly chosen vehicles to check a load for the presence of each of these unacceptable wastes. It is anticipated that up to six inspections for unacceptable waste will be conducted on a daily basis at the working landfill face

All vehicles transporting solid waste to the facility are weighed at the scale house as they enter and exit the facility, thereby determining the tonnage of each solid waste shipment. The tonnage, type (ex., MSW, sludge, etc.) and source (ex., City of Albany, ANSWERS, private, etc.) of each solid waste shipment is recorded within the daily log. The daily logs are summarized at the end of each month in the monthly log.

Table 3:

Unacceptable Materials List

Solid waste must NOT contain the following:

1. Explosives or ammunition
2. Combustible liquid or gas containers, bottles, cylinders or cans
3. Caustic acids, corrosives, hazardous chemicals or other wastes containing radioactivity or other contamination or pollutants prohibited by mandatory and binding laws or
   regulations of the United States Government and New York State
4. Liquid or slurry wastes
5. Unopened containers, except empty household spray cans

6. Tree trunks, stumps, branches, or limbs or lumber over four inches in diameter or over five feet in length
7. Slag, rock, sand, brick, or concrete
8. Thick-walled or solid metallic objects such as castings, forgings, gas cylinders or large motors
9. Steel or nylon rope, cables or slings more than four feet long
10. Case hardened or alloy steel chains over 3/8 inches in diameter or 4 feet long
11. Rolls of carpet or fencing over twelve inches in diameter, or 4 feet long
12. Animal wastes or parts of animals other than normal household garbage
13. Automotive or larger size tires
14. Solid blocks or rubber or plastic in excess of two cubic feet
15. Tied or unbroken bales of paper, cardboard, or textiles. (Ties must be broken for acceptance)
16. Whole truckloads or substantial portions thereof, composed of non combustible materials or materials otherwise unsuitable for conversion to fuel
17. Any material classified as 'Infectious Hazardous Wastes', (Contaminated hypodermic needles, syringes, broken glass, and scalpel blades; isolation wastes, cultures and stocks from hospitals and laboratories; human blood and blood products)
18. Barrels of any kind
19. White goods (washers, dryers, refrigerators, etc.)
20. Lawn or leaf debris including grass, branches, leaves, etc.
21. Tires, newspapers or any other recyclables as determined by the Commissioner of Department of General Services of the City of Albany
22. Asbestos wastes
23. Lead Acid Batteries

Infrequent materials that are accepted at the landfill are digested, dewatered sewage sludge and water treatment plant residues. Sewage sludge is typically in excess of 20 percent solids and presents no special concerns when landfilling. Typically, the landfill receives very small quantities of sewage sludge annually. Petroleum containing soils (PCS) may be used for daily cover at the landfill.

The following steps will be taken upon receipt of unacceptable waste.

l. Out of Town (Contract) Waste
   - Identify hauler
   - Identify origin of waste
   - Contact supervisory personnel
   - Notify hauler of offense and landfill restriction
   - Complete a Waste Load Inspection Form

2. Receipt of Unacceptable Materials List Waste
   - Identify hauler
   - Provide temporary cover
   - Contact supervisory personnel
   - Notify hauler to return to landfill and remove waste
   - Complete a Waste Load Inspection Form

3. Receipts of Infectious, Hazardous or Unknown Waste
   - Identify hauler
   - Stop landfilling in location of material
   - Contact supervisory personnel
   - Contact NYSDEC HOTLINE 1-800-457-7362
   - Contact Commissioner of General Services and NYSDEC to
   - determine corrective action
   - Complete a Waste Load Inspection Form

9.0 COVER MATERIAL MANAGEMENT PLAN

9.1 DAILY COVER

The following materials are intended for use as daily cover at the landfill:

1) conventional soil cover material;

2) Posi-Shell (or equal) mortar-like fiber-reinforced mixture; and

3) petroleum containing soil (PCS).

A mixture of Posi-She11™ and conventional soil is anticipated to be used as the primary daily cover material. Daily cover will consist of a 6-inch, compacted layer of conventional cover material or PCS, or a 1/4-inch layer of Posi-Shell (or equal) material, placed on all exposed municipal solid waste such that no waste is exposed for more than four hours. Since limited space is available to stockpile cover material the City of Albany will contract with private firms to supply conventional material to the site. Conventional cover material, which has typically been a silty sand, will be delivered and stockpiled within the working landfill cell on an as needed basis. All conventional cover material shall be obtained from a permitted source. PCS received at the facility for use as daily cover will also be stockpiled within the working landfill cell. Because the landfill primarily uses Posi-She11 for the daily cover and the alternative cover materials are used in relatively small quantities, it has not been necessary for the facility to maintain a stockpile area outside of the working landfill cell.

Posi-Shell uses cement kiln dust as a mineral binder, is non-flammable, and it has inert characteristics which sets up and forms a mortar like coating when applied. Lime within the Posi-Shell' acts as an odor suppressant. One coating of Posi-Shell' has an approximate thickness of $^{1}/4$-inch and has been found to be functionally equivalent to daily cover.

The placement of daily cover over the active municipal solid waste disposal areas will occur twice daily. The initial application will occur before 12:00 PM and will be used to minimize the open areas receiving wastes. The final application of daily cover will occur before 4:30 PM and shall cover the entire active area which has received wastes since the last application of daily cover.

9.2 INTERMEDIATE COVER

Intermediate cover consists of one foot of compacted soil with a maximum hydraulic conductivity of $1\times10^{-4}\ ^{cm}/_{sec}$, placed on all surfaces of the landfill where no additional solid waste will be deposited for 30 days. Cover will be graded so as to direct runoff inside the top of the perimeter berms, and into the landfill's leachate collection system. This runoff will be collected and treated as leachate.

Additionally, any location where the solid waste has reached its final grade will receive a interim cap consisting of a medium weight plastic cover material such as Dura-Skim manufactured by Raven Industries. These locations will typically be the exterior slopes of 3 horizontal to 1 vertical.

10.0 ENVIRNOMENTAL MONITORING PLAN

Reference the Hydrogeologic Report in the 6 NYCRR Part 360 Permit Application.

11.0 LEACHATE MANAGEMENT PLAN

Leachate management includes leachate collection, sampling, testing, storage, and disposal. The leachate system consists of the leachate collection pipes, manholes, pump stations and storage tank.

11.1 MODE OF OPERATION

Leachate is pumped via force main from Pump Station No.'s 1 and 2 to the single 522,000 gallon storage tank then discharged into the sanitary sewer. The leachate is directed through the storage in order to regulate the discharge rate of the leachate into the sewer system and eliminate spikes in discharge flow due to storm events. The storage tank acts a "pass-through" tank.

In the event that discharge to the sewer is not permitted, the contingency plan for disposal of leachate will be implemented and the leachate will be removed as described in Contingency Plan. If necessary, the second 400,000 gallon storage tank may be utilized for leachate storage while disposal is completed.

Additional leachate storage capacity will not be required because the City of Albany has developed an alternative to on-site leachate storage. The alternative is that the City of Albany has executed an agreement with the Albany County Sewer District to accept the leachate generated at the facility. Both the North and South Plants of the Albany County Sewer District are individually capable of treating 100% of the maximum daily generation of leachate, and have agreed to accept this quantity of leachate. Since the Albany County Sewer District will be accepting the leachate on a daily basis, the 522,000 gallon storage tank will be able to be maintained at not more than 50% full on a routine basis.

11.2 MONITORING

The volume of leachate in the storage tank will be monitored on a daily basis by recording the leachate as indicated by the level transmitter and converting this number to gallons using a conversion chart. The quantity of rainfall will also be recorded on a daily basis from a rain gauge mounted adjacent to the tank level indicator. The leachate collection system is to be inspected on a regular basis as indicated by the inspection plan.

The primary leachate collection system will be flushed on an annual basis to prevent clogging and to assess the overall operation and performance of the system. The monthly total leachate generation is recorded on the Monthly Operations Summary form which is maintained at the facility and made part of the landfill's annual report.

11.3 SAMPLING

Leachate sampling/monitoring will be conducted in accordance with Environmental Monitoring Plan (EMP) on a semi-annual basis.

The leachate collection system for the eastern expansion will serve as environmental monitoring points. The collection locations will be monitored quarterly during the first year of operation of each cell, and analyzed for baseline parameters. The collection locations for the eastern expansion will be monitored semi-annually thereafter and analyzed for routine parameters.

11.4 DISPOSAL

Disposal of the leachate requires that arrangements be made with the Albany County Sewer District. Discharge from the storage tank is accomplished by opening the return valve to the sanitary sewer and emptying the tank on a continuous basis. The leachate storage tank would only be utilized in the event that the leachate was not able to be accepted. Leachate discharge is to be report on the Leachate Discharge Report included in Appendix A.

If the leachate is not accepted by the sewer district, the contingency plan for leachate disposal will be put into effect.

11.5 LEAK DETECTION LAYER

The leak detection system is a drainage layer located below the primary composite liner with its associated collection pipes and manholes. It follows the same contours as the primary liner and is separated into discrete collection areas for the individual cells. Any leak through the primary liner could be isolated into one of these cells, and remedial action taken in that section of the landfill. The appropriate remedial action is outlined in the Contingency Plan.

The Action Leakage Rate for the eastern expansion will be 20 gallons per acre per day (gpad, based on a 30 day average) in accordance with 6 NYCRR Part 360. An exceedance of the Action Leakage Rate would require implementation of the Contingency Plan. Historical flows from the leak detection system from existing cells have been found to be relatively stable, but subject to seasonal fluctuations.

It should be recognized that a small quantity of water will be found in the leak detection system on a regular basis, particularly in the period immediately following construction, due to the drainage of water from the clay in the primary liner and the sand of the leak detection layer.

11.6 PROCEDURES FOR THE EASTERN EXPANSION

Each cell of the eastern expansion includes a dedicated leachate collection and leak detection system. Leachate which is collected within the leachate collection system will flow by gravity to a leachate collection manhole then flow by gravity to Pump Station No. 1.

Fluid which passes through the primary liner and collects within the leak detection system will flow by gravity to a leachate collection manhole then to Leak Detection Monitoring Building No. 1 by gravity. In the leak detection building the fluid will drain into a sump. When the fluid reaches a certain level in the sump, pumps will activate and transfer the fluid from the leak detection sump into the leachate collection lines which flows by gravity to Pump Station No. 1 or and ultimately to the leachate storage tank. The Fluid which collects within the leak detection sump will be metered as it pumped, and quantities will be recorded in the daily operating log.

The various components of the leachate collection and leak detection systems are shown throughout the engineering drawings. T he following drawings are some of those which contain the details of the systems:

- G8 Secondary Liner/ LCRS Plan,
- G9 Primary Liner/ LCRS Plan,
- G16 Leachate Conveyance System Plan.

12.0 LANDFILL GAS

Deleted: GAS MONITORING PLAN

12.1 EXPLOSIVE GAS MONITORING

Explosive gas monitoring will be conducted at the facility. The landfill structures (buildings and monitoring wells) and the site perimeter will be checked on a quarterly basis for the presence of explosive gases. This will be accomplished by means of a walking inspection of the site by a person carrying a portable explosive gas meter that indicates the presence of explosive gases as a percentage of the lower explosive limit (LEL). The meter is to have a three foot long (minimum) probe to allow the inspector to check manholes and to check concentrations near the ground from a standing position. Ground surface concentrations will be taken with the tip of the probe from 0 to 2 inches from the ground surface. The inspector will check all of the following locations:

1. All manholes. Probe will be completely inserted into manhole.
2. Ground surface on inside top of landfill berm. (This will be at the tow of the interim cover if fill has proceeded above the top of the berm).
3. Ground surface at outside toe of landfill slope.

As stipulated in 6NYCRR 360.2.17(f), the concentration of methane and other explosive gases generated by the facility must not exceed:

1. 25 % of the LEL in structures located on or off the site;
2. the LEL limit for gases at or beyond the property boundary.

If methane or other explosive gas levels exceed these limits, then the operator will immediately take steps to ensure safety and human health and notify NYSDEC. T he operator will then submit detected gas levels and measures that were taken to correct the situation to NYSDEC. Within 45 days of detection, a plan will be submitted to NYSDEC to implement a remediation plan for the methane gas releases. Within 60 days of detection, a schedule for the implementation of the remediation plan will be provided.

12.2 COLLECTION AND CONTROL SYSTEM MONITORING

This collection system monitoring plan is intended to be a source of information, practices and procedures for the operation of the landfill gas collection and control system at the facility.

The objectives of this plan are:

1. Present an overview of the landfill gas collection and control system and key system

components.

2. Provide general procedures for operation of the system.
3. Provide general maintenance procedures and schedules.
4. Provide a Contingency Plan for interruptions to the system and odor complaints.
5. Compile key information about the system.

This plan was developed based on operational experience of the gas collection and control system at the facility and the *Landfill Gas Operation & Maintenance – Manual of Practice* published by the Solid Waste Association of North America (SWANA).

12.2.1 Overview

The landfill gas collection and control system is intended to control the landfill gas to eliminate surface emissions, nuisance odors and collect landfill gas for energy benefit. The collection and control system is comprised of the following components, each of which is discussed in the below sections:

- Wellfield,
- Collection System,
- Flare and Blower Systems and
- Gas to Energy Facility.

The collection and control system at this facility is an active system to remove landfill gas under vacuum. The system has continually evolved since the Albany Interim Landfill began operation in the early 1990's. Prior to the construction of the gas to energy facility in 1997 the control system at the landfill was passive. With the construction of the gas to energy facility, a number of improvements were made to the landfill gas control system including the installation of a number of vertical gas collection wells and elimination of landfill gas with combustion engines and candle stick flares. With the construction of new cells at the landfill the active collection system also expanded with the installation of horizontal collection trenches and vertical gas collection wells. Elimination of the landfill gas is achieved by combustion with a flare and/ or engines.

12.2.2 Wellfield

The wellfield at the landfill consists of horizontal gas collection trenches and vertical collection wells to collect landfill gas generated by the waste mass.

Horizontal Collection Trenches

Horizontal collection trenches are installed during the active phase of landfilling. The collection trenches are excavated into the waste mass at a horizontal spacing of 100 feet and vertical spacing of 30 feet. The trenches are constructed with perforated 12 inch HDPE pipe interlaced with solid 4 inch HDPE pipe or perforated 6 inch HDPE pipe. The pipe is surrounded by stone, tire chips or DEC approved material and is to connect to the gas collection header.

Vertical Collection Wells

Vertical collection wells have proven to be the most effective collection point at the landfill and are generally installed as the waste mass meets the proposed finished grade at spacing between 100 to 200 feet. The vertical collection wells are installed to a depth of about 75 percent of the total waste height and constructed with PVC ranging in diameter from 2 to 6 inches. Wells are to be constructed with slotted pipe in the bottom ¾ of the well surrounded with stone then completed with a solid pipe riser surrounded with benonite to seal the well and eliminate air infiltration.

12.2.3 Collection System

The collection system conveys landfill gas collected from the horizontal collection trenches and vertical collection wells to the flare and engines. Collection system piping is constructed of HDPE pipe ranging in diameter from 6 to 18 inches. The piping is buried at a minimum depth of four feet within the waste mass or outside the footprint of the landfill and placed at the maximum slope possible to accommodate landfill settlement. Condensate is removed from the collection system piping with the use of condensate drop outs and condensate traps.

12.2.4 Flare and Blower System

The main gas collection header is connected to the flare and blower system. The system provides vacuum to collect gas from the wellfield and disposal of the collected landfill gas. Collected landfill gas is routed through the collection system to the blower at vacuum ranging from 10 to 30 inches of water depending on the operating conditions of the wellfield and is then discharged from the blower through the flame arrestor to the flare stack or to the engines. The landfill gas is then disposed of in the flare by combustion or combusted in the engines.

12.2.5 Operations and Maintenance

Proper operation and maintenance of the gas collection and control system is essential to minimizing landfill gas surface emissions and complying with regulatory requirements.

Daily Collection System Monitoring

To ensure that gas flow is unimpeded from the collection points through the header system to the blowers and elimination point, daily monitoring of key collection and header points is to be performed. Daily monitoring will include vacuum, flow and/or gas quality at selected points and visual checks of condensate sump levels and operation, surface scans at problem areas, and surveys of the intermediate cover integrity. A daily monitoring report outlining performance and/ or maintenance issues encountered will be reported to the supervisor.

Routine Operations Of The Wellfield

Operation of the gas collection and control system is continuous and dynamic, therefore, the system needs to be routinely "tuned" and inspected to ensure optimum performance for good combustion of landfill gas. Tuning of the wellfield consists of adjustment of each gas collection point to meet certain objectives relative to the operational goal of the system. The operational goals of this system are elimination of surface emissions to avoid odors and landfill gas recovery for energy production.

The wellfield is to be tuned a minimum of once per month to monitor and evaluate conditions within the landfill and make necessary adjustments to meet operational goals. Tuning of the wellfield should be performed with a Landtec GEM-2000 landfill gas meter and the following parameters for each well are to be recorded:

- Name of person taking readings,
- Date and time of reading,
- Methane concentration,
- Oxygen concentration,
- Carbon dioxide concentration,
- Balance gas concentration,
- Well head gas temperature,
- Well head vacuum,
- Well head gas flow and
- Comments.

Tuning of the gas collection points is achieved by adjusting the well head value to obtain the following requirements:

- A negative pressure must be maintained at each wellhead.
- Temperature of the collected LFG must remain below 55 ^{o}C.
- Nitrogen concentration in the collected LFG must be maintained below 20%, or oxygen concentration below 5%.

Methane concentration should be between 40 to 50 percent and oxygen concentration should be less than two percent. If adjusting the well based on flow volume, the gas composition should not fall far outside of the recommended gas concentrations. Tuning should start at the furthest collection point and work towards the blower facility. While tuning the wellfield, it needs to be recognized that adjustment to a single well will affect the entire wellfield and “re-tuning” of affected wells will need to be performed. In addition to “tuning” of the wellfield, measurement of gas quantity and quality are to be performed at the sample ports.

Negative Pressure at Wellheads

The collection system is designed to provide a negative pressure at each wellhead. Pressure readings at each wellhead will be performed on a monthly basis.

Temperature

Temperature at each wellhead will be monitored on a monthly basis and maintained below 130 degree F.

Nitrogen/ Oxygen Concentration

For purposes of demonstrating whether excess air infiltration into the landfill is occurring, each well must be monitored monthly for nitrogen or oxygen concentration.

Methane Concentration

The gas collection system will be operated so that the methane concentration is less than 500 ppm above background at the surface of the landfill. Surface testing will be performed around the perimeter and on the surface at an interval of about 100 feet and at areas that indicated signs of distress due to gas migration. These surface scans will be performed on a quarterly basis.

12.2.6 Maintenance of the Wellfield

During adjustment of the wellfield, the collection and control system and the landfill are to be inspected for needed maintenance and unusual conditions. Any conditions that need to be corrected should be noted and the responsible personnel are to be notified.

Wellfield maintenance is essential to maintaining an effective gas collection system to meet operational goals. Maintenance includes the following:

- Repairs to the collection system piping network due to accidents, settlement or aging.
- Replacement of system components such as wellheads, flex piping, valves, and sampling ports.

12.2.7 Routine Operation of the Blower and Flare

Routine operation of the blower and flare consists of disposal of the landfill gas to ensure regulatory compliance and reduce off site odors. Daily inspection to ensure the system is operating properly includes visual inspection of the flare flame, check of the flame temperature and check for unusual conditions and vibrations. During adjustment of the well field the following should also be performed as part of the routine operation of the blower and flare: 1) inspection of the blower and flare, 2) measurement of the suction on the blower inlet and 3) gas quality and quantity determination.

12.2.8 Maintenance of Blower and Flare

Maintenance of the blower and flare are essential for continuous operation of the gas control system to ensure complete elimination of the landfill gas. The following maintenance is required on each component of the blower and flare.

Blower
The blower is driven by a direct drive motor. Weekly maintenance of the blower and motor consists of listening to the unit for unusual sounds and observing for any excessive vibration and temperature. The blower housing is to be drained weekly to ensure no build up of condensate. Quarterly maintenance consists of greasing the bearings and repacking any seals. Should seal repacking not last, replacement should be considered.

Inspection of inlet and outlet piping should be inspected for damage. Replacement of the piping is required should any damage be observed.

Flare
The flare consists of the flame arrestor and stack. The flame arrestor is an important safety device for the unit and needs to be properly maintained to prevent the flame from backing into the piping network. The element in the unit should be inspected quarterly and changed annually to ensure proper operation. At the sign of any building up of residue in the unit or backpressure

on the system and arrestor should be serviced and the element changed.

Maintenance of the flare consists of maintaining proper fuel pressure, operation of the igniter and draining of any condensate. Proper fuel pressure is maintained by inspection and changing of the flame arrestor element and proper operation of the blower. Maintenance of the igniter consists of monthly testing of the batteries and periodic cleaning of the sparker unit to ensure proper operation. The condensate drain at the bottom of the flare unit is to be drained monthly and excessive build up of condensate should be noted and investigated to ensure proper operation of the unit.

12.2.9 Spare Parts Inventory

To maintain continual operation of the landfill gas collection and control system, a supply of spare parts is essential and is to be maintained on-site.

12.2.10Contingency plan

It is possible due to breakdown, wear and tear, changed conditions or other reasons system interruptions may occur and the system will fail to operate properly and meet the operational goals. The following sections outline the procedures and backup measures to be implemented in the case of interruptions.

Alarm and Notification

Observation of the landfill gas collection and control system is continually monitored at the landfill during hours of operation and during off-hours. Should interruption to the system be suspected or detected the following alarm and notification procedure is to be implemented immediately.

1) When a system interruption is detected, the inlet valve to the blower is to be closed and the blower and flare unit are to be observed for damage. The date, time and duration of the interruption is to be recorded in the Facility Inspection Report.

2) Should no damage be observed, an attempt to restart the flare is to be performed. Should the flare not restart and three attempts, the landfill supervisor is to be notified and inspection of other parts of the landfill gas collection and control system are to be performed.

3) Should damage or any unusual occurrence to the system be identified, corrective actions are to be taken immediately and the flare reignited.

4) Should correction actions not be taken immediately and corrective actions require days to initiate, contingency back up measures are to be implemented as outlined in the section below.

5) The New York State Department of Environmental Conservation is to be notified of any flare interruptions within 24 hours of the interruption. Contact Thomas Reynolds at 518-357-2245.

Contingency Back Up Measures

In the case the flare will not restart and/ or corrective actions are not implemented immediately, the following contingency back up measures are to be implemented.

1) An assessment of the landfill gas collection and control system is to be performed to determine the most efficient method of collecting and controlling the landfill gas to reduce the possibility of off site odors. The following actions should be considered.

- Isolating the blower and flare system from the landfill gas to energy facility to allow operation of either of these while maintaining vacuum on the wellfield and continued collection and disposal of landfill gas. Isolation can be achieved by closing the interconnect valves at various portions of the system.
- Replacement of damaged equipment with a spare, purchase of new equipment or rental of equipment.

2) Upon implementation of the back up measures to continue operation of the landfill gas collection and control system, trouble shooting of the system problem that caused the interruption is to be performed and the corrective actions taken to eliminate the problem in the future.

12.2.11Off Site Odor Complaints

Odor complaints received are to be investigated promptly to identify the source of the odor and implement corrective actions. Off site odor compliant investigation are the follow the following procedure.

1) Upon receipt of the compliant at the landfill the date, time, weather conditions, nature of odor, and complainants name and address are documented on the compliant log. An attempt to contact the complainant is also done to discuss the odor.

2) A site visit should then be attempted immediately following the receipt of the compliant and an assessment of the odor at the complainants' location is performed. In addition, weather conditions at the complainants' location are recorded.

3) Should the odor compliant be validated, an attempt to locate of the odor source is performed at the landfill by performing inspections along the route between the landfill and the complainants' location. At the landfill an attempt to identify the source of the odor is performed and remedial actions are to be implemented to eliminate the source of the odor.

13.0 WINTER AND INCLEMENT WEATHER OPERATIONS

During winter operations, equipment operators must contend with intermittent snow removal from the working face. At the beginning of each day, or as necessary when snow accumulates during the day, the operator will push snow to a location that has received intermediate cover. The preferred location would be along an exterior side slope. If there are no available areas which have received intermediate cover, or if landfilling is still occurring below the berm elevations, then the operator will push snow to an area that has received daily cover and is not scheduled to receive another lift for approximately two weeks.

14.0 FIRE PREVENTATION PLAN

Reference the Contingency Plan in the 6 NYCRR Part 360 Permit Application.

APPENDIX A
FORMS

Contingency Plan
Eastern Landfill Expansion

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

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1.0 GENERAL

This Contingency Plan section applies to both the operation of the Eastern Landfill Expansion project, as well as its post-closure period.

The contingency plan has been designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of leachate or waste constituents to air, soil, surface water or groundwater. The provisions of the plan will be carried out immediately whenever there is a fire, explosion, or release of waste constituents that could threaten human health or the environment.

Any accident or emergency requiring the activation of a contingency plan for the purpose of responding to such an event will be followed by a written report of the incident. Reports will include time, date and details preceding and during the incident and a description of the response. Reports of a minor accident or emergency will be submitted to the NYSDEC within two weeks of the event. For a major accident or emergency (such as, but not limited to, large fires, landfill gas migration towards known sensitive targets, explosions, off-site odor impacts, and other incidents as judged by the landfill supervisor), immediate verbal notification (i.e., within 2 hours of incident) will be given to NYSDEC, followed by a written report forwarded within 24 hours. These reports will also be included in the landfill's semi-annual report. Responses required by the plan follow in subsequent subsections.

Telephone numbers to emergency response agencies such as the local police department, fire department, ambulance, and hospital will be conspicuously posted in all areas where telephones are available for use at the facility.

2.0 EVENT/RESPONSE SUMMARY

2.1 PERSONAL INJURY

- Call Albany Fire Department at (518)-447-7879,
- Call Emergency Medical and Safety Officer (EMSO) (see Section 1.3 of this document) or other qualified personnel to administer first aid,
- Notify supervisory personnel, and
- Prepare accident report.

2.2 FIRE/EXPLOSIONS

- Call Albany Fire Department at (518)-447-7879,
- Remove operating equipment (if possible),
- Notify supervisory personnel, and
- Note in daily log.

2.3 ACTION LEACHATE RATE EXCEEDED

- Notify supervisory personnel, NYSDEC Region 4 office ((518) 357-2073 general number),
- Identify general location of leak,
- Install intermediate cover over breached location,
- Sample liquid and test with known leachate, and
- Correct identified problem in accordance with Landfill Remediation Alternatives.

2.4 LEACHATE SEWER FAILURE

- Notify supervisory personnel,
- Close leachate discharge valves,
- Pump from manholes to tanker truck,
- Haul leachate directly to Albany County Sewer District (ACSD),
- Repair failed sewer and
- Note in daily log.

2.5 LEACHATE STORAGE FACILITY AT OF ABOVE APPROVED CAPACITY

- Notify supervisory personnel,
- Reduce leachate stored by hauling leachate directly to Albany County Sewer District (ACSD) and
- Note in daily log.

2.6 TANK LEAKAGE

- Notify supervisory personnel,
- Close leachate valves to storage tank and direct flow directly to sewer line,
- Repair leakage and
- Note in daily log.

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2.7 LEACHATE REJECTED BY ALBANY COUNTY SEWER DISTRICT

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The Albany County Sewer District may refuse leachate due to a specific leachate parameter of concern. It is unlikely the Sewer District would refuse leachate due to under capacity, since the Sewer District has two facilities that are each capable of processing 100 percent of the leachate. The response summary for a parameter of concern follows.

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Specific Leachate Parameter of Concern

- Notify supervisory personnel,
- Direct leachate to storage tanks,
- Perform analysis expanded scan analysis of leachate,
- Determine constituents within leachate that caused it to be rejected by the ACSD,
- Determine if necessary to tank haul leachate to an alternative treatment facility based on available on-site storage capacity,
- Determine on-site or off-site treatment methods that could be implemented so that approval of discharge could be granted; and implement alternative disposal method.

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3.0 EMERGENCY MEDICAL AND SAFETY OFFICER

The City of Albany has designated the Landfill Supervisor as the facility's Emergency Medical and Safety Officer (EMSO). The EMSO has been appropriately trained and equipped to address or respond to minor medical emergencies. In the event of a medical emergency, the EMSO shall be notified immediately and shall be in charge of and responsible for assuring appropriate handling of the emergency situation. The EMSO will conduct monthly safety inspections of the facility and meetings with the employees of the facility to promote the safety of employees and other facility users. The alternate or backup EMSO has been designated as Glenn Lounsbury. In the event that the Landfill Supervisor is not available or not on the landfill site, the alternate EMSO shall carry out the responsibilities of the EMSO.

3.1 PERSONNEL SAFETY

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Reference the City of Albany, Department of General Services, Safety and Health Manual.

4.0 PERSONAL INJURY

Prevention of personal injury occurrences can be accomplished by adherence to established safety precautions and standard operating procedures. A personal injury for the purposes of this section will be defined as any injury which cannot be treated with a basic first aid kit. Minor cuts, bruises, first degree burns over a small area and other minor physical problems will be noted on the daily log along with their causes, but they would not require a full accident report. Minor injuries will be given adequate attention; cuts will be thoroughly washed, treated with a bactericidal ointment and bandaged to prevent the occurrence of infection. This is particularly important because of the potential to be exposed to a large variety of infectious agents during the work day.

A more serious personal injury will require off-site treatment and the following procedure is to be followed:

1. Qualified personnel will perform first aid and a call be placed to the Albany Fire Department at (518)-447-7879 for assistance,
2. Notify supervisory personnel and
3. Prepare detailed accident report including:
   - Date, time, and location of accident,
   - Nature and extent of injury,
   - Outside treatment required,
   - Cause of accident and
   - Final disposition of injured person.

A follow-up report will be completed within two weeks outlining the corrective measures taken to prevent a similar accident from occurring.

5.0 FIRE EMERGENCY PLAN

The City will notify the Department immediately in the event of a fire detected in the waste mass. For the purpose of this plan, a "fire" is to mean any event which involves a response at the landfill by an outside Fire Company (i.e., Pine Bush Station).

5.1 TYPES OF FIRE EMERGENCY

The inspections of incoming waste will prevent entrance of smoldering embers or flammable chemicals into the landfill, each of which could start fires. These inspections will greatly diminish the likelihood of a fire. A fire emergency at the landfill would be in the form of an aboveground or underground fire of a conventional nature which is fueled by combustible material in the landfill. Another type of emergency would be a vehicle fire on one of the pieces of the landfill operating equipment. Each piece of equipment carries a fire extinguisher and on-board fire-suppression systems so that a vehicle fire may be put out before it spreads to the waste. There is also the possibility of a brush fire occurring outside of the landfill berms. This will be dealt with by normal fire fighting procedures.

5.2 FIRE EMERGENCY RESPONSE

Response to a fire emergency at the landfill will be by the Albany Fire Department, whose Pine Bush Station is located less than 1/4 mile from the entrance of the landfill. A detailed procedure for response including response time, equipment, water supply and deployment strategy has been worked out with the City of Albany Fire Department. In the event that a major fire develops at the facility, beyond the control of the Pine Bush Station, backup assistance would be called by the fire chief at the Pine Bush Station. Emergency plans for this coordination with nearby fire stations already exists.

5.3 PROTECTION OF FOX RUN ESTATES

Fox Run Estates is located approximately 150 feet north of the eastern landfill expansion limits. In the event of a fire at the landfill, a designated representative of Fox Run Estates will be contacted and advised of the situation and the level of danger to residents in the area. If evacuation is indicated, it will be coordinated through the designated representative.

Arrangements have been made with the City of Albany Fire Department to fight a fire which has spread from the landfill to any portion of Fox Run Estates which is not in the City. The City's fire department will work with other fire departments having jurisdiction to ensure a maximum responses to any fire threat to the area.

6.0 ALTERNATIVE LEACHATE DISPOSAL

In the event that the Albany County Sewer District will not accept leachate from the landfill based on the submitted test results or other factors, an alternative means of disposal must be provided. Two alternatives, on-site treatment and off-site disposal are available and the choice will be determined based upon the reason the leachate was rejected.

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6.1 ON-SITE TREATMENT

If the contaminant of concern to the Albany County Sewer District is one that can be removed from the leachate (or reduced to an acceptable level) by an on-site treatment method, then treatment and subsequent discharge to the sewer is an option. On-site treatment normally involves using a mobile treatment unit. There are a number of companies that have developed treatment systems mounted on trailers that can be mobilized to a site and set up with minimum effort. These systems often include carbon adsorption units for the removal of organics, and precipitation units for the removal of metals. Air strippers can also be trailer mounted.

If the leachate is suitable for treatment by a mobile treatment unit, this unit could be brought on-site and the leachate treated and discharged upon approval by the Albany County Sewer District.

On-site treatment is available to remove most of the contaminants that could be present in municipal landfill leachate.

6.2 OFF-SITE DISPOSAL

Off-site disposal will require that the leachate be transported by tanker truck (All County Sanitation) to an acceptable disposal facility. The type of facility will be determined by the nature of the leachate. It may be amenable to treatment off-site as a non-hazardous waste or it may need to be disposed of at a hazardous waste facility.

In the event that off-site treatment/disposal is required, the following steps will be taken:

1. Confirmation sampling and testing for hazardous characteristics, if necessary.
2. Retention of a transporter with ability to transport hazardous waste if necessary.
3. Arranging with waste company to treat and/or dispose of the waste.

Off-site disposal must be handled on a case by case basis because it is not known what the chemical constituents of the leachate will be.

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7.0 OPERATIONAL CONTINGENCIES

7.1 LOSS OF POWER

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Should the facility loss electrical power, an on-site back up generator will restore power to the facility automatically. The back up generator is regularly maintained in accordance with the manufacturer's recommendations and is run each week to ensure proper operation.

7.2 EQUIPMENT BREAKDOWNS

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Equipment breakdowns are minimized with routine maintenance of all equipment at the facility, including heavy machinery (i.e. compactors, dozers and excavators), landfill gas system components (i.e. blowers, wellheads and valves) and leachate management components (i.e. pumps and meters).

Should a piece of heavy equipment breakdown or became unavailable for use, the City will rent the necessary equipment or contract with a contractor with appropriate equipment to perform the work.

The City maintains a spare equipment and material inventory for the landfill gas system to ensure continuous operations should equipment break. The City has blank contracts with equipment and material suppliers for equipment and materials not maintained in their spare parts supply.

Should a breakdown of the leachate management system occur due to an inoperable pump or damaged meter, the City maintains a spare equipment inventory of this equipment to ensure continuous operation. Should the City not have the appropriate equipment for repair, the has blank contracts with equipment suppliers and contractors to ensure prompt repair of the equipment.

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7.3 DUST

Excessive dust may occur during the operations at the facility from the access roads, cover materials and any un-vegetated areas. When necessary, water will be applied periodically to suppress dust.

7.4 LITTER

Litter will be controlled at the site with the use of fencing and waste placement operations. Fences at the working face and along the perimeter of the landfill cell will be used. The fence used at the working face area will consist of portable fences that can be moved to accommodate changes with wind direction and placement area. These fences measure 13 feet tall by 20 feet long. The fences will be placed directly downwind of the working face area and immediately adjacent each other to prevent “leaks” in the coverage. Permanent fences ranging in height from 10 feet to 20 feet will be used along the perimeter of the landfill to capture any litter that has blown past the working area fences. The permanent fences at the site generally consist of five foot chain link mesh at the bottom and nylon mesh on the upper portion. In addition to the chain link/ mesh fence, the sound wall along the north slope of the Albany Interim Landfill also serves as a permanent litter control fence.

Waste placement operations will also be modified to control litter. Placement operations will be directed to provide the best coverage of the portable fences and should severe wind conditions occur, the landfill supervisor will temporary cease waste placement at their discretion.

The litter fences will be inspected on a daily basis to determine if litter removal is required, in addition the fences will be inspected for damage to determine if any repair or replacement is necessary. Litter removal will be accomplished with a vacuum truck and/ or hand picking. Should litter travel off the facility, the landfill supervisor will direct the removal of the litter immediately. During winter months, removal of litter is hindered by the weather conditions and visibility of blown litter is significantly reduced. Therefore following the winter season, removal of blown litter that has accumulated and was not accessible and/ or visible shall be removed

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Should wind conditions at the facility become excessive and the above measures not control blown litter, the facility may cease accepting waste for a period of time till wind conditions calm.

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7.5 NOISE

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Noise attenuation will be accomplished primarily by the noise control wall constructed on the north boundary of the site. Additional noise attenuation can be accomplished by commencing placement of the initial lifts along the north and/ or east side of each cell. Once these lifts are constructed, operations will continue behind the lift. If problems still occur, then the width of the lift can be reduced so that the initial barrier can be completed in less time. All equipment at the site will be equipped with adequate mufflers and exhaust systems.

Fill progression techniques have been and will continue to be employed by landfill personnel to further reduce potential noise impacts to the nearby residents.

7.6 ODORS

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To prevent the occurrence of nuisance odors around the landfill's working face, fill operations will be conducted so that no municipal solid waste is left uncovered for more than eight hours with the application of daily cover at the end of each workday. Should odors be detected, application of daily cover will be reduced to every four hours.

Should working face odors continue after application of daily cover, the landfill will disburse an odor neutralizer (Ecosorb®) in three techniques. The neutralizer is fragrance-free. The neutralizer can be applied to surfaces however it is most effectively applied in vapor form. The neutralizer will be mixed into the Posi-shell® cover material and applied to compacted waste, at a ratio of 400:1(water to Ecosorb®) as needed. The second dispersal technique is via the Posi-shell applicator on an as needed basis; diluted to 300:1, the neutralizer will be directly applied to select areas of the working face as the waste is being compacted. The third dispersal method entails the use of a wide swath sprayers (`foggers') to disperse the diluted product (100:1) as needed. The sprayer will be deployed between the working face and areas that may be impacted by off-site odors. The dispersal techniques will be utilized on an as-needed basis during normal operations.

Landfill gas odor at the facility are controlled with an active landfill gas collection system. The system consists of a network of horizontal collection lines and vertical collection wells that can be adjusted to vary the amount of vacuum at each collection point. Should landfill gas odor be detected at the facility, the system shall be adjusted to ensure comprehensive collection of landfill gas from each collection point.

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Should odors from the facility persist after application of daily cover and adjustment of the landfill gas collection system, cover system options and/ or installation of additional collection points is to be evaluated. Cover system options include the placement of a temporary geomembrane cover or placement or low permeability soil.

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7.7 VECTORS

Vectors will be controlled by placement of daily material over exposed waste and limiting the open working face area to as small as possible. Vectors are also controlled with the use vector management programs implemented by on-site USDA representatives.

Should vectors become a problem at the site; the USDA will adjust their management program accordingly.

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7.8 EXPLOSIVE GAS

Explosive gas monitoring will be conducted at the AIL as outlined in the Site Analytical Plan (SAP). The landfill structures (buildings and monitoring wells) and the site perimeter will be checked on a quarterly basis for the presence of explosive gases. This will be accomplished by means of a walking inspection of the site by a person carrying a portable explosive gas meter that indicates the presence of explosive gases as a percentage of the lower explosive limit (LEL). The meter is to have a three foot long (minimum) probe to allow the inspector to check manholes and to check concentrations near the ground from a standing position. Ground surface concentrations will be taken with the tip of the probe from 0 to 2 inches from the ground surface. The inspector will check all of the following locations:

1. All manholes. Probe will be completely inserted into manhole.
2. Ground surface on inside top of landfill berm. (This will be at the tow of the interim cover if fill has proceeded above the top of the berm).
3. Ground surface at outside toe of landfill slope.

As stipulated in 6NYCRR 360.2.17(f), the concentration of methane and other explosive gases generated by the facility must not exceed:

1. 25% of the LEL in structures located on or off the site;

2. the LEL limit for gases at or beyond the property boundary.

If methane or other explosive gas levels exceed these limits, then the operator will immediately take steps to ensure safety and human health and notify NYSDEC. The operator will then submit detected gas levels and measures that were taken to correct the situation to NYSDEC. Within 45 days of detection, a plan will be submitted to NYSDEC to implement a remediation plan for the methane gas releases. Within 60 days of detection, a schedule for the implementation of the remediation plan will be provided.

7.9 UNUSUAL TRAFFIC CONDITIONS

Should unusual traffic conditions, such as a long delay or accident, occur along access roadways to the facility, incoming vehicles will be notified and appropriate re-routing or entrance to the facility will be delayed until the situation is corrected.

7.10 UNAUTHORIZED WASTE

The following procedure is to be performed should unauthorized waste be received at the facility.

The following steps will be taken upon receipt of unacceptable waste.

l.Out of Town (Contract) Waste

- Identify hauler

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- Identify origin of waste
- Contact supervisory personnel
- Notify hauler of offense and landfill restriction
- Complete a Waste Load Inspection Form

2. Receipt of Unacceptable Materials List Waste
    - Identify hauler
    - Provide temporary cover
    - Contact supervisory personnel
    - Notify hauler to return to landfill and remove waste
    - Complete a Waste Load Inspection Form

3. Receipts of Infectious, Hazardous or Unknown Waste
    - Identify hauler
    - Stop landfilling in location of material
    - Contact supervisory personnel
    - Contact NYSDEC HOTLINE 1-800-457-7362
    - Contact Commissioner of General Services and NYSDEC to determine corrective action
    - Complete a Waste Load Inspection Form

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8.0 LANDFILL REMEDIATION ALTERNATIVES

In accordance with NYCRR Part 360-2.7(b)(9)(iv), unless otherwise approved by the NYSDEC, the maximum allowable leakage rate measures in the secondary leachate collection system shall not exceed 20 gallons per acre per day based on a 30 day average.

Fluid which enters the secondary leachate collection system of the Eastern Landfill Expansion cell will be collected and conveyed to newly constructed pump stations. The meter will be read and the result converted to a gpad value on a daily basis, as required. If the 20 gallons per day per acre threshold is exceeded, then the Region 4 office of NYSDEC will be contacted, and samples will be taken of the leachate. An analysis will be performed and comparisons made to determine if the leachate is characteristic of leachate from the landfill or possibly uncontaminated water draining from within the leak detection zone (for example water contained within soil layers placed during construction).

If the ALR exceeds 20 gpad during operation, proactive steps will be taken to verify the accuracy of the reading, determine the source of the problem, and take corrective measures, if applicable. Such actions will include the following, except for optional tasks which are noted with an asterisk (*):

20 – 30 gpad

- Notify DEC of the event within seven working days.
- Question landfill staff on recent operations.
- Examine exposed sand layer, if applicable.
- Verify the flows from the secondary leachate collection system and increase monitoring to twice per day.
- Submit a written preliminary assessment to DEC within 14 days of notification of the event.
- Should the exceedance remain for 45 days, a sample of the leachate will be collected and analyzed for routine parameters*. Compare the results to that of what is typical for the landfill site.

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- Should the exceedance remain for 90 days, inspect the secondary collection lines with closed circuit television*.
- Identify all potential sources of the flow. (e.g., construction water, groundwater).
- Develop a remedial action plan based on results of the investigations, and submit to DEC within 30 days of notification of the event*.
- If the secondary leachate collection levels average greater than 20 gpad on a 30 day rolling average, DEC will be notified within 5 working days.

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30 - 40 gpad

- All above responses to be followed.
- Evaluate cease accepting waste in the area of the cell that has exceeded the ALR.

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> 40 gpad

- All above responses to be followed, except that notification to DEC will be made within 24 hours.
- Design and submit a remedial construction plan when directed to by the Department for approval and implement upon approval.
- Submit a report on a monthly basis to DEC summarizing the flows and results of the remediation until flows drop below 20 gpad.

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9.0 RELEASE OF HAZARDOUS OR TOXIC MATERIAL

The release of a hazardous or toxic material to surface or groundwater will be handled in the same manner as a release of leachate to the surface or groundwater. For a release to the land or air, the affected area will be evacuated and a company specializing in the cleanup of toxic and hazardous waste will be retained. The following local companies are equipped to rapidly respond to and remediate hazardous and toxic material releases:

1. Jet Line Environmental Services, Inc.
2. Clean Harbors Environmental Services

Any release of a reportable quantity of a hazardous substance will be reported to the NYSDEC regional office and any affected local governmental agencies within two (2) hours.

10.0 GROUNDWATER DEGRADATION

Groundwater quality will be routinely monitored as indicated in the Environmental Monitoring Plan (EMP) which is appended to the Hydogeologic Report. The EMP provides requirements for contingency water quality monitoring to determine if water quality degradation has occurred and to determine appropriate actions based on the results of this determination. Implementation of corrective measures, if necessary, that may take place at the landfill shall be performed in accordance with Part 360-2.20(c).

11.0 GROUNDWATER CORRECTIVE MEASURES

If it is found that a leachate plume is adversely impacting the groundwater, then a corrective measures report will be developed to abate impacts to groundwater and secure the quality of a potable groundwater resource for public and private use in the vicinity of the facility. This report will identify corrective measure alternatives, and evaluate these alternatives against a well defined set of site conditions (i.e., site hydrogeology and plume geometry) to determine the most feasible and cost-effective option. Based upon the known hydrogeology of the site area, a corrective measure that appears to be appropriate would be a "pump and treat system", however the actual selection of a preferred corrective measure would be after an in-depth feasibility study once the problem is well defined.

12.0 CONSTRUCTION RELATED CONTINGENCIES

This section describes the course of action to be taken in response to contingency events that may occur during construction of the landfill expansion.

12.1 WORK DELAYS DUE TO ADVERSE WEATHER CONDITIONS

Upstate New York has a variety of weather conditions that must be contended with during the construction of the landfill expansion. It is understood that serve weather conditions relating to wind, various forms of precipitation or electrical storm may require the temporary interruption of construction until the weather abates. The construction schedule will allow for minor delays due to weather. Longer delays will be address with an extension to the construction schedule.

12.2 DAMAGED CONSTRUCTION MATERIALS AND/ OR EQUIPMENT

Replacement construction materials and/ or equipment will be obtained for damaged materials and equipment. The replacement material and/ or equipment will be delivered to the site promptly, so construction will not be interrupted for any significant duration.

12.3 UNAVAILABILITY OF APPROVED MATERIAL AND/OR SUBCONTRACTORS

The City of Albany will be soliciting multiple bids for the construction of the expansion at the landfill. The award of the bid will be contingent upon the availability of approved material and subcontractors.

12.4 ON-SITE PERSONAL INJURY

In the event of an on-site injury, the construction personnel will assist the injured party in accordance with section 4.0 Personal Injury of this Contingency Plan.

12.5 DUST

Excessive dust may occur during the construction of the landfill from the access roads, soil liners and un-vegetated areas. When necessary, water will be applied periodically to suppress dust.

12.6 NOISE

Construction and hauling equipment will be the primary source of noise encountered during construction of the landfill expansion. It is anticipated that noise will not be a problem due to the confinement of the construction area, bordered by the sound wall to the north, forested area to the east, Thruway to the south and existing landfill and Pine Bush Preserve to the west. However, all equipment will be fitted with adequate muffler systems and construction activities will be limited to normal work hours, except as required by extenuating circumstances.
Equipment Breakdown or Unavailability

Proper maintenance or equipment will minimize equipment breakdowns. In the event of a breakdown, minor repairs will be made on-site. Equipment requiring major servicing will be removed from the site and replaced with similar equipment. Should equipment breakdown result in the shortage of a critical piece of equipment, the construction contractor will make arrangements for leasing or subcontracting equipment.

12.7 UNUSUAL TRAFFIC CONDITIONS

Traffic is not anticipated to be a problem during the expansion landfill construction. The site has all weather road surfaces to permit travel during wet and snow conditions. The majority of the traffic resulting from the construction will be generated and remain on-site. Off-site traffic will consist of employees traveling to and from the site and delivery of construction materials.

12.8 UNCONTROLLED RELEASES OF RUN OFF TO ADJACENT SURFACE WATERS

Storm water management during construction will be accomplished with temporary and permanent erosion and sediment control measures in accordance with regulations established by the NYSDEC. Uncontrolled releases of run off to adjacent surface water are not anticipated, however, should a release occur, spill control equipment will be available on-site and will be employed for containment and minimization of migration of releases. Operations causing the

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Hydrogeologic Investigation Report
Proposed East Side Expansion

Volume 1

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

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March 26, 2008

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1.0 INTRODUCTION

1.1 General

Clough, Harbour & Associates LLP (CHA) was retained by the City of Albany to provide hydrogeologic services in support of the proposed expansion for the Rapp Road Landfill, which is located in the City of Albany, Albany County, New York (Figure 1-1). These services were provided in accordance with the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 360 regulations (Part 360 regulations).

As part of this project, the City of Albany is seeking to expand the existing landfill footprint to the area located north and east of the existing area known as the Albany Interim Landfill (AIL). Figure 1-2 illustrates the location of the existing facility and the proposed landfill expansion area. The proposed expansion will result in an additional landfill cell footprint area of approximately 14 acres, and a total disturbance area of approximately 20 acres including the functional landfill and support facilities and infrastructure. As illustrated by Figure 1-2, the area of the proposed expansion minimizes the expansion on previously undisturbed lands by "piggy-backing" the expansion on top of portions of the existing AIL.

This Hydrogeologic Report was prepared to summarize the hydrogeologic conditions at both the existing landfill site, as well as the proposed landfill expansion area. The information presented in this report is based on CHA's review of data collected as part of the numerous historic investigations for the exiting AIL facility and the closed Greater Albany Landfill (GAL), and the recently completed hydrogeologic investigations for the proposed expansion areas. The recently completed hydrogeologic investigations were completed in accordance with CHA's November 17, 2006 *Site Investigation Work Plan for the Proposed East Side Expansion* (the Work Plan). The Work Plan details the site investigation activities and associated methods that were utilized to investigate the hydrogeologic conditions at the site and was specifically prepared to satisfy the requirements of the site investigation plan as outlined in Part 360-2.11(a). A copy of the Work Plan is provided as Appendix A.

As previously mentioned, substantial hydrogeologic data has been accumulated for the Rapp Road facility and the area in the vicinity of the proposed expansion area as part of previous hydrogeologic investigations for the existing AIL and the closed GAL, which is located immediately adjacent to the AIL (Figure 1-2). Groundwater quality data continues to be collected on a quarterly basis for both the AIL and the GAL facilities. As a result, the data presented in this report is focused primarily on the expansion area, and its hydrogeologic relationship to the existing facilities.

In addition to this Hydrogeologic Report, an Environmental Monitoring Plan (EMP) has been prepared as a stand along document which outlines proposed on-site and off-site monitoring, including the location of all environmental, facility, and other monitoring points, sampling schedule, analyses to be performed, statistical methods, and reporting requirements. The EMP is discussed in more detail in Section 5.4 of this report.

1.2 Report Organization

The Hydrogeologic Report is organized as follows:

Section 1.0 presents the Introduction;
Section 2.0 presents the Project Background;
Section 3.0 presents a summary of the Investigation Activities/Investigation Methods;
Section 4.0 presents the regional and site-specific Geology and Hydrogeology;
Section 5.0 presents a summary of the Existing Water Quality; and
Section 6.0 presents the references used during preparation of this report.

2.0 BACKGROUND

2.1 Site Description

The existing Rapp Road Solid Waste Management Facility, including the AIL and associated Phase 4 expansion project (P-4 Project), is located on Rapp Road, adjacent to the former Greater Albany Sanitary Landfill (a.k.a. GAL and/or the Rapp Road landfill). The Rapp Road landfill facility is located on the northeast side of the Interstate I-90, just west of the Exit 24/I-87 interchange. The proposed expansion area is located to the north and east, immediately adjacent to the AIL. As previously noted, the expansion area will consist of an additional landfill footprint area of approximately 14 acres and a total disturbance of approximately 20 acres (Figure 1-2). The proposed expansion area is bounded by the AIL and GAL to the south-southwest and west, vacant forested lands to the east, and a residential trailer park and vacant forested lands to the north.

At this time, the site is accessible from the south and east via the existing access road for the Rapp Road Landfill, which is located off of Washington Avenue Extension and Rapp Road. It is anticipated that only improvements to the existing access roads and the construction of a perimeter access road for the expansion area will be required to facilitate access to the expansion area. With the exception of relocating the alignment of the existing main entrance to the facility, no additional access roads off of major thoroughfares are proposed for the expansion area.

2.2 Previous Site Investigations

Historically, numerous hydrogeologic investigations have been performed relative to the existing Rapp Road Solid Waste Management Facility including the AIL, the P-4 Project, and the closed Greater Albany Sanitary Landfill, and the area in the vicinity of the proposed expansion. These investigations have been conducted at the site to characterize the geology and hydrogeology for various closure and expansion projects related to the Rapp Road Solid Waste Management Facility. These studies have generated significant hydrogeologic data that is documented in the following reports:

- *Rapp Road Sanitary Landfill Expansion (AIL), 6 NYCRR Part 360 Application and 6 NYCRR Part 617 Draft Environmental Impact Statement*; Malcolm Pirnie, August 1988

- *Engineering Investigations at Inactive Hazardous Waste Sites, Phase II Investigations at the Albany City Landfill (GAL);* Engineering-Science, March 1991
- *Final Hydrogeologic Report, Greater Albany Sanitary Landfill (GAL);* Smith and Mahoney, April 1991
- *Supplemental Draft Environmental Impact Statement (SDEIS), Albany Interim Landfill (AIL Permit Renewal), Volumes 1 and 2, and Response to Comments (FEIS) document;* C.T. Male Associates, P.C., October 1994 and May 1995
- *6 NYCRR Part 360 Application, Albany Interim Landfill Expansion (Wedge);* C.T. Male Associates, P.C.; March 1996.
- *Part 360 Application to Construct and Operate a Solid Waste Management Facility, P-4 Expansion Project Landfill Expansion*; C.T. Male Associates, P.C.; July 1999

Based on the information presented in the July 1999 Part 360 Application to Construct and Operate a Solid Waste Management Facility; P-4 Project Landfill Expansion, a summary of the previous investigations is presented in the following sections of this document.

2.2.1 Greater Albany Sanitary Landfill Investigations

The Greater Albany Landfill was the first operational landfill at the Rapp Road facility. The GAL was originally listed by NYSDEC as an Inactive Hazardous Waste Site. However, in 1991 a Phase II Investigation was conducted to assess the contamination present at the site and determine if the GAL should in fact be included as an Inactive Hazardous Waste Site. The findings were presented in the March 1991 report entitled *Engineering Investigations at Inactive Hazardous Waste Sites, Phase II Investigations at the Albany City Landfill*, which concluded that that there was no documentation that hazardous wastes have been disposed of at the GAL. In addition to the Phase II Report, a Hydrogeologic Report was also prepared in April of 1991 in association with the closure investigation for the GAL. As a result of the Phase II investigation, the GAL was removed from the NYSDEC Registry of Inactive Hazardous Waste Sites (C.T. Male, 1999). The landfill was subsequently closed in accordance with Part 360 regulations.

As part of the post-closure monitoring activities for the GAL, there are currently nine groundwater monitoring wells that are monitored as part of the post-closure activities for the GAL facility. These wells include:

- MW-1
- MW-2
- MW-3
- GW-1D (Upgradient Well)
- GW-2D
- GW-4D
- GW-4S
- GW-5D
- GW-5S

The location of the monitoring wells associated with the GAL are illustrated by Figure 2-1. Groundwater quality monitoring has continued at the GAL facility since the closure of the facility. Laboratory results for the initial water quality monitoring event are contained within the Phase II Investigation Report (Engineering-Science, 1991). Post-closure water quality monitoring data has been and is currently reported to NYSDEC in quarterly monitoring reports.

2.2.2 Albany Interim Landfill Investigations

Prior to construction of the AIL in 1991, detailed geologic and hydrogeologic information relative to the Rapp Road site was presented in the Part 360 Application and Draft Environmental Impact Statement entitled *Rapp Road Sanitary Landfill Expansion (AIL) 6 NYCRR Part 360 Application and 6 NYCRR Part 617 Draft Environmental Impact Statement* prepared by Malcolm Pirnie, August 1988.

Due to the construction of various phases of the AIL expansion and P-4 Project, a number of well clusters have been abandoned, while additional well clusters were installed in support of several landfill expansion areas. Prior to constructing the first AIL expansion between the AIL and GAL (known as the Wedge) the AIL had a total of seven (7) monitoring well clusters (MW-1 through MW-7) located around the perimeter of the AIL. The location of the original AIL and Wedge, and the associated monitoring well locations are illustrated by Figure 2-1. Each well cluster consisted of a shallow intermediate and deep monitoring well. To accommodate the "Wedge" landfill expansion, in December 1996 two AIL well clusters (MW-5 and MW-6) were abandoned in accordance with the 6 NYCRR Part 360 regulations (C.T. Male, 1999). As a result of the abandonment of these wells, a new well cluster was installed southeast of the Wedge designated MW-8. Monitoring well cluster MW-8 has since been abandoned as part of the P-4 expansion project, which is further discussed in Section 2.2.3. Groundwater quality monitoring including pre-operational and operational monitoring has been conducted since October 1986 for the AIL and Wedge and subsequent expansion with the P-4 Project. (C.T. Male, 1999).

All monitoring well clusters installed as part of the AIL and Wedge are generally consistent in terms of the screened interval. The shallow monitoring well clusters were installed in an upper sand unit, designed to monitor the shallow water table aquifer. The intermediate wells were installed with the screens set to monitor a silty sand/sandy silt formation. The deep monitoring wells were installed to monitor a silty clay/clayey silt unit, which overlies the confining clay unit. A detailed description of the site specific hydrogeology and groundwater quality for the entire Rapp Road site is provided in Section 4.0 of this document.

2.2.3 P-4 Expansion Project Investigations

In 1998, several additional investigations were conducted for the P-4 expansion project to further characterize the hydrogeology for the expansion area. These investigations focused on the P-4 expansion project footprint, which is located to the east of the limits of the AIL and Wedge (Figure 1-2).

The investigations conducted for the P-4 Project included a seismic survey, the installation of test borings, and the installation of additional monitoring well clusters and single shallow well locations. The following description of the P-4 expansion project investigations is taken from the Part 360 Permit Application for the P-4 Project that was prepared by C.T. Male in 1999.

From December 1997 to January 1998, four test borings were installed within the proposed P-4 expansion area. The locations of these borings are presented on Figures 2-2. Boring P4-B1 was advanced to a depth of approximately 112.5 feet. A grouted steel casing was then installed at this location to facilitate a downhole geophysical survey. Results from the geophysical survey indicate that shear wave velocities increase with depth from 450 ft/sec to 1,000 ft/sec. The compressional wave velocity profile was defined as two distinct layers including the upper unsaturated sand and the lower saturated unit having compressional wave velocities of 2,850 ft/sec and 4,800 ft/sec, respectively (C.T. Male, 1999).

Three additional shallow borings (P4-B2 through P4-B4) were installed and converted into shallow monitoring wells designated as P4 MW-1S through P4 MW-3S, respectively. These borings were installed to further assess the shallow site stratigraphy and to define the seasonally high water table in the P-4 footprint. The depths of these monitoring wells ranged from 20 to 37 feet below ground surface. These wells have since been abandoned with the construction of the P-4 project.

In addition to the shallow monitoring wells, three new well clusters (MW-9, MW-10, and MW-11), each consisting of a shallow, intermediate, and deep monitoring well were installed to provide the necessary monitoring network for the P-4 Expansion Area. These wells were installed in July 1998. The screened intervals for these wells were set to monitor the same stratigraphic sections as the wells that were installed for the AIL and Wedge.

As a result of additional expansion activates, monitoring well cluster MW-11 was abandoned in accordance with Part 360 regulations and an additional cluster (MW-12) was installed to provide an additional monitoring location for the expansion area.

Existing AIL and P-4 Project Groundwater Monitoring Network Summary

As outlined in the previous sections of this document, numerous monitoring wells were installed and/or abandoned in accordance with Part 360 regulations as various phases of expansion were completed. The current monitoring network (as of the second quarter of 2005) for the AIL, Wedge, and P-4 project includes the following well locations:

- MW-1S, MW-1I, MW-1D
- MW-2S, MW-2I, MW-2D
- MW-7S, MW-7I, MW-7D
- MW-9S, MW-9I, MW-9D
- MW-10S, MW-10I, MW-10D
- MW-12S, MW-12I, MW-12D

In addition to the existing monitoring wells for the AIL and P-4 Project, six (6) additional monitoring wells were installed as part of the hydrogeologic site investigation for the proposed expansion area. These wells include the following:

- MW-14S, MW-14I, MW-14D
- MW-15S, MW-15I, MW-15D

A summary of the above listed monitoring wells including individual screened intervals and monitored stratigraphic sections is provided in Table 2-1. Table 2-1 also lists the previously installed wells, which have since been abandoned in accordance with Part 360 regulations, and the newly installed monitoring wells that were installed for proposed expansion area. Operational water quality monitoring for the AIL/Wedge and P-4 project has been, and continues to be performed in accordance with Part 360 regulations. An evaluation of the operational water quality for the existing AIL, including a comparison with the data from samples collected from the newly installed monitoring wells is provided in Section 5.0.

3.0 HYDROGEOLOGIC INVESTIGATION METHODS

3.1 Literature Review

Prior to conducting any intrusive on-site investigations, pursuant to Part 360-2.11(a)(2), CHA conducted a literature review of published information and reports relative to the regional and site specific hydrogeology. The objective of the literature review was to obtain as much published information relative to the site and the surrounding area in an effort to develop a preliminary understanding the site's hydrogeologic conditions and it's relation to the regional geology, as well as to maximize the hydrogeologic investigation activities. The list of references presented in Section 7.0 provided the basis for the much of background hydrogeologic description presented in Section 4.0.

3.2 Surficial Geologic Mapping

Surficial geologic mapping, including representative cross sections of the subsurface stratigraphy was completed based on published information obtained from the Albany County Soil Survey, published geologic mapping and reports, both current and historical subsurface site investigation data, and observation during CHA's site reconnaissance. The regional and site specific surficial geology is discussed in detail in Sections 4.1 and 4.2.

3.3 Water Well Survey

Pursuant to Part 360-2.11(a)(5), CHA conducted a survey of water wells located within one mile upgradient and downgradient of the Rapp Road facility. The well survey was conducted by reviewing both state and federal database records, contacting the Albany County Department of Health, and by contacting the four local water districts that service the area in the vicinity of the site. Based on the information obtained from the well inventory database search, no public water supply wells were identified within one mile of the landfill.

To confirm the results of the water well database search, CHA contacted the Albany County Department of Health (DOH) to identify the potential presence of public water supply wells in the vicinity of the Rapp Road facility that may not have been reported by the database search. According to Mr. Cliff Forando of the Albany County DOH, there are no public water supply wells located within one mile of the landfill.

In addition to contacting DOH, CHA also contacted the Town of Colonie/Village of Colonie water departments (Latham Water District), the City of Albany Water Department, and the Town of Guilderland Water Department, each of which service the areas in the vicinity of the Rapp Road facility. Based on CHA's conversations with personnel from each water district, there are no sources of public water supply within one mile of the Rapp Road facility. In addition, none of the water districts currently have plans for developing additional water sources in the vicinity of the landfill.

In addition to evaluating the presence of public water supply sources, CHA also completed a review of potential private water wells in the vicinity of the Rapp Road Solid Waste Management Facility. It should be noted that there are only limited records available relative to the location of private wells within New York State. Except for recently completed private well installations (typically within the last 10 years), both State and County databases do not contain historical private water supply well information.

Based on a review of the NYSDEC water supply well database, there are no recently completed private wells reported within the vicinity of the site. However, based on CHA's conversations with the Albany County DOH, there are several private water supply wells located in the vicinity of Pine Lane in Guilderland. Pine Lane is located approximately 0.75 miles in a cross-gradient direction of groundwater flow relative to the Rapp Road facility. These wells are reportedly used for individual domestic water supplies for private residences. Due to their distance from the landfill facility, it is unlikely that potential impacts from the landfill would impact these wells.

To further evaluate the potential presence of private water wells within the vicinity of the Rapp Road facility, CHA contacted the Town/Village of Colonie, the City of Albany, and the Town of Guilderland water departments to determine if the areas in the vicinity of the landfill are serviced by public water supplies. Based on CHA's conversations with these water departments, the areas in the vicinity of the Rapp Road facility, which the exception of several homes on Pine Lane, are all serviced by municipal water sources. Therefore, it is unlikely that any private wells would be in use within the vicinity of the landfill.

3.4 Soil Boring and Monitoring Well Installations

During the period December 2006 to February 2007, CHA conducted a series of investigation activities to characterize the actual hydrogeologic conditions outside the existing landfill footprint and within the proposed eastern expansion area. All investigation activities were conducted in accordance with the November 17, 2006 *Site Investigation Work Plan* that was previously submitted to NYSDEC (Appendix A).

From December 11, 2006 to January 4, 2007, eight soil borings were installed within the proposed eastern expansion area. Six of the eight soil borings were completed as monitoring wells. The monitoring wells were installed within two clusters (MW-14, and MW-15), each of which contains a shallow, intermediate, and deep monitoring well. The monitoring wells were installed just beyond the limits of the proposed landfill footprint and have been used to establish pre-operational water quality for the expansion area. The new monitoring well clusters include one cross-gradient cluster (MW-15) and one downgradient monitoring well cluster (MW-14). Existing crossgradient monitoring well cluster MW-2 will continue to be used as a cross-gradient monitoring location for the expansion area as well as the existing AIL facility. The location of cross-gradient well cluster MW-15 was selected to meet the Part 360 regulations, which require that cross-gradient wells be installed at a spacing of 1,500 feet or less. Since it is anticipated that well clusters MW-9 and MW-10 will also remain in place and serve to establish downgradient pre-operational and operational water quality, downgradient well cluster MW-14 was installed along the eastern boundary to satisfy the Part 360 regulations. It is anticipated that the new well clusters will remain in-place during construction of the proposed expansion and will also provide monitoring locations during operation of the proposed facility. As outlined in the Environmental Monitoring Plan, one additional monitoring well cluster will be added between the MW-10 cluster and the MW-14 cluster to fulfill the Part 360 regulations, which require a maximum spacing of 500 feet for all downgradient wells. This well cluster was not installed as part of the hydrogeologic investigation as the additional subsurface data was not required to define the hydrogeologic conditions within the expansion area.

The remaining two soil boring locations (Borings EE-B-1 and EE-B-2) were installed inside the limits of the proposed landfill cell footprint to characterize the actual subsurface hydrogeologic conditions across the site. Upon completion, all soil boring and monitoring well locations were surveyed for location and elevation to the nearest 0.01 feet. The soil boring and monitoring well locations are illustrated by Figure 3-1.

The two deep soil borings, designated as EE-B-1 and EE-B-2, were installed to a depth of 104 feet each. The soil borings were installed by advancing 4” diameter flush joint, driven casing throughout the depth of each borehole. Between drilling locations, all downhole equipment was decontaminated via high pressure potable water rinse. No drilling fluid other than potable water was used during the installation of the soil borings. During the installation of each deep soil boring, soil samples were collected throughout the depth of each boring using a split spoon sampler and classified by CHA's on-site geologist/scientist. Copies of the subsurface soil boring logs for the deep soil borings are included as Appendix B.

It should be noted that the Hydrogeologic Investigation Work Plan originally specified that the deep soil borings would be converted to shallow monitoring piezometers upon completion. However, as part of the on-going ecological assessment for the proposed expansion, a number of shallow piezometers were installed throughout the expansion area. As a result, the deep soil borings were not completed as shallow piezometers. A discussion of the water level data collected from the shallow piezometers is discussed in Section 4.3.3.

The soil borings associated with the two new monitoring well clusters (MW-14 and MW-15) included a total of three soil borings at each well cluster location. These boring specifically included a shallow, intermediate, and deep soil boring. At each well cluster location, the deep soil boring was installed first, during which soil samples were collected continuously throughout the depth of each boring. Soil samples were collected and characterized at standard intervals during the installation of the shallow and intermediate soil borings. Each monitoring well was constructed of Schedule 40 PVC riser and a ten foot section of 0.010-inch slot well screen. A #0 Morie sand pack was placed in the annulus between the well screen and the borehole and extended approximately 1.5 to 2.0 feet above top of the well screen. An approximately six inch interval of #00 fine sand choke was placed above the sand pack, followed by a three foot thick bentonite seal. Grout consisting of a cement and bentonite mixture was then tremied from the top of the bentonite seal to the surface. A concrete pad was then formed at the surface to complete the monitoring well installations. Each monitoring wells was furnished with protective steel casing and locking caps.

The well screens associated with the shallow monitoring wells were set at a depth to straddle the surficial water table. The well screens for the intermediate and deep monitoring wells were set at a depth to monitor the base of the respective stratigraphic unit in which they were installed. Upon completion, each well was developed by pumping and surging until the turbidity level of the discharge was below 50 NTUs. The depth of each monitoring well, including screened interval, and screened stratigraphic section is summarized in Table 2-1. Copies of the soil boring and monitoring well construction logs are also included as Appendix B.

3.5 Groundwater Sampling

To evaluate the pre-operational groundwater quality for the proposed expansion area, four rounds of groundwater samples were collected from the newly installed wells. The first sampling event was conducted two weeks following installation and final well development on January 23-24, 2007. The remaining three quarterly sampling events were conducted on April 4-7, 2007, September 17-21, and January 9, 2008. Immediately following collection, all samples were hand delivered to Upstate Laboratories, Inc. (Upstate) of Albany, New York. Upstate is currently certified under the New York State Department of Health's (NYSDOH) Environmental Laboratory Approval Program (ELAP).

The groundwater samples collected during the first monitoring event were analyzed for the expanded list of parameters as required by 6 NYCRR Part 360-2.11(c)(5). Pursuant to the Part 360 regulations, two samples were collected from each monitoring during this first monitoring event. The groundwater samples collected during the subsequent monitoring events were analyzed for the baseline list of parameters. The laboratory analytical data for each sampling event was provided in a Category B deliverables package pursuant to the New York State Analytical Services Protocol (ASP). Upon receipt, the complete laboratory deliverable packages were submitted to Alpha Geoscience of Clifton Park, New York for independent data validation. A discussion of the laboratory data, including a summary of the existing water quality for the proposed expansion area is included in Section 5.0.

3.6 Hydraulic Conductivity Testing

To evaluate the hydraulic conductivity of the monitored stratigraphic sections, in-situ conductivity tests (i.e. slug tests) were performed on each of the newly installed monitoring wells. Both rising and falling head slug tests were performed on each well to estimate the hydraulic conductivity of the unit in which they are installed.

The slug test method involves "instantaneously" raising or lowering the water level in a well to a known depth and measuring the time it takes the water bearing unit to recharge the well. Hydraulic conductivity was then calculated for each test by inputting the collected data into a computer software program developed by Geraghty & Miller (AQTESOLV). The Bouwer and Rice (1966) method was used to evaluate slug test data for each well.

4.0 GEOLOGY AND HYDROGEOLOGY

4.1 Regional Geology

4.1.1 Unconsolidated Deposits and Glacial Geology

The site lies within the Hudson-Champlain Lowland physiographic province of New York State, which was once occupied by the Hudson Lobe of the Laurentide ice sheet during the Woodfordian Stage of the Wisconsin Glaciation (Dineen 1982). This last major episode of glaciation occurred during the Pleistocene Age. This most recent ice age is responsible for much of the current surficial geologic features in the Albany area.

As advancing glaciers scoured the preglacial land surface, sediments and debris were entrained in the glacial ice sheet, transported for some distance, and eventually deposited as unconsolidated materials overlying the bedrock surface. Some of these materials were deposited directly by the ice sheet (ice-contact deposits) and some were sorted and deposited in layers by meltwater streams and lakes. As the glaciers retreated and deposited sediment loads into moraines that blocked surface water flow, a series of proglacial lakes were formed, one of which was glacial Lake Albany (C.T. Male 1999).

Eventually, glacial Lake Albany drained completely and the wind action created a dune field on the former lake floor between Schenectady and Albany, and north to Glens Falls. The dunes were built from drifting sands derived from the deltas and the lake floor. The dune fields that were located within the western arm of the former glacial Lake Albany plain is known as the Pine Bush Dune Field (Isachsen and others, 1991). The surficial deposits within the Pine Bush dune field consist primarily of dune sand or Lake Albany sand deposits. The dune sand deposits are characterized as cross-bedded loose, light yellow to brown sand. The Lake Albany surficial sand deposits on the other hand are characterized as laminated, and compact yellow sands. The project site is located within the Pine Bush Dune field and the near surface deposits consist of either dune sands and/or Lake Albany sands. The shallow surficial geology in the area of the Rapp Road facility is illustrated by Figure 4-1.

Based on published reports, the site is mapped as being in close proximity to what is known as the Colonie Channel. During the Pleistocene epoch, scouring of the region occurred during the advancement and retreat of the glaciers. The scouring left behind channels that over time were filled in with various deposits such a glacial outwash deposits, Lake Albany deposits, and Aeolian deposits, which eventually buried the existing channels. According to the report entitled *Bedrock Topography and Glacial Deposits of the Colonie Channel Between Saratoga Lake and Coeymans, New York (Dineen and Hanson 1983)*, the Colonie Channel is one of the buried valleys that was formed by glacial scouring. Once the principal valley that drained the Hudson-Champlain Lowlands of Eastern New York State, the channel reportedly deepens from 165 ft to 395 ft and widens from one mile to two miles from the north in the area of Saratoga Lake to the south in the vicinity of Coeymans. The bottom of the channel is reportedly underlain by the Snake Hill Shale bedrock formation. A number of unconsolidated geological units have been identified by historical reports as being deposited above the Snake Hill Shale bedrock that have filled in the Colonie Channel. The deepest of these units is a glacial till, followed by outwash/ice contact sand & gravel, a sequence of Lake Albany deposits (e.g. silt & clay, lake sand & silty sand, delta sand & gravel), and Aeolian sands at the surface. Published reports have indicated that the ice contact sand and gravel deposits associated with the Colonie Channel have the potential to supply a significant quantity of groundwater in areas where these deposits are continuous over significant areas.

Based on site specific data collected by CHA, there was no significant layer of ice contact sand and gravel present in any of the borings installed as part of the eastern expansion investigation. In the deep borings installed by CHA, the glacial till layer was observed directly under the lake clay and silt unit. It should be noted that the subsurface data collected from the eastern expansion investigation by CHA is similar to the subsurface stratigraphy presented in the report entitled *The Geology of the Pine Bush Aquifer, North Central Albany County, New York,* which mapped the site area as wind blown dune sand located at the surface, followed by a sequence of Lake Albany deposits (lake sand, lake silt and sand, lake clay and silt), and finally a till layer on top of the bedrock surface. The bedrock in the project location is considered to be at a depth of between 100 and 150 feet bgs. Bedrock was not encountered in any of the soil borings installed at the site.

Based on review of historical mapping of the Colonie Channel (Dineen and Hanson; 1983), the axis of the Colonie Channel is approximately 3.6 miles to the east/southeast of the proposed expansion area. Given the distance from the axis of the channel and the absence of significant water bearing units within the subsurface stratigraphy in the expansion area, the landfill expansion would not be expected to have any impact on the significant water bearing formations within the Colonie Channel.

4.1.2 Bedrock Geology

According to the *Generalized Bedrock Geology of Albany County, New York* (Fickies, 1982), the bedrock located beneath the project site consists of the Snake Hill Shale. The Snake Hill Shale is described as medium to dark-gray, silty, micaceous, pyretic shales with occasional thin interbeds of siltstones, fine-grained calcareous mudstone, and fine-grained sandstones, intensely folded and well cleaved. Based on the report entitled *Bedrock Topography and Glacial Geology of the Colonie Channel Between Saratoga Lake and Coeymans, New York;* (Dineen & Hanson, 1983), the depth to bedrock is expected to exceed 125 feet below ground surface in the vicinity of the proposed expansion area. The maximum depth of the deep soil borings installed as part of this investigation was 104 feet below ground surface. Bedrock was not encountered in any of the recently completed soil borings for the proposed expansion area.

4.2 Regional Hydrogeology

In the vicinity of the site, the shallow surficial sand deposits are known as the Pine Bush Formation. The Pine Bush Formation is an unconsolidated (i.e., surficial) sand deposit located within the City of Albany, the Town of Guilderland, and the Town of Colonie. It is located within a 40 square mile urban area between Albany and Schenectady, New York that has been developed for primarily residential and commercial land uses. The name for the Pine Bush is taken from its dominant and unique pitch pine and scrub oak vegetative community. The Pine Bush is part of an extensive sand dune field and swamp area that extends from South Glens Falls to Delmar. This extensive dune field developed on top of a series of interconnected glacial lake sediments that occupied the Hudson River Valley from approximately Glens Falls to Newburgh. The glacial lakes developed in front of the ablating continental ice sheet during and after the Late Wisconsinan deglaciation. The Pine Bush is covered by sand dunes of light yellow-brown to light gray very fine to medium grained sand deposits that are reported to range in thickness from 5 to 150 feet. The thickest sand deposit is located in the northwestern and central parts of the Pine Bush. In some areas, streams have eroded completely through the sand formation and into the underlying clay (C.T. Male, 1999).

The water bearing surface and near-surface sand of the Pine Bush Formation is the Pine Bush Aquifer. Recharge of the unconfined Pine Bush Aquifer is derived solely from precipitation, which is distributed uniformly over the area (Snavely, 1983). Groundwater generally occurs within the Pine Bush Aquifer at depths of 10 to 15 feet below ground surface and rarely exceeds 20 feet. The groundwater table intersects the surface in small streams and lakes such as Rensselaer Lake.

Due to it's historically perceived water bearing properties, the Pine Bush Formation is currently classified as a New York State principal aquifer. The Pine Bush Formation was first listed as a principal aquifer by NYSDEC's division of Water in the Draft Upstate New York Groundwater Management Program in January, 1985, which was later published as final in May 1987. The 6 NYCRR Part 360 Regulations define a principal aquifer as follows:

"a formation or formations known to be highly productive or whose geology suggests abundant potential water supply, but which is not intensively used as a source of water supplies by major municipal systems at the present time. Some water supply development has taken place in some of these areas, but it is not generally as intensive as in the primary aquifer areas".

The initial classification of the Pine Bush Formation as a principal aquifer was based upon general, state wide geologic mapping. Many of the mapped principal aquifers were believed to represent locations underlain by deposits of sand and gravel, which suggested the potential for an abundance of available groundwater supply. However, little or no consideration was given to actual site specific hydrogeologic condition of these mapped areas.

Although the Pine Bush Formation in the vicinity of the Rapp Road facility is classified as a principal aquifer, a January 1999 Pine Bush Formation Declassification Study completed by C.T. Male Associated P.C. demonstrates that the Pine Bush Formation: (1.) does not have the distinguishing characteristics of a principal aquifer, (2.) does not represent a viable public water supply source for the future, and (3.) that the development of a potential public water supply source would have an adverse impact to the Pine Bush habitat by lowering of the water table (C.T. Male, 1999). Historical studies and testing activities also support C.T. Males conclusions regarding the Pine Bush Formation.

Due to the fact that the 6 NYCRR Part 360 regulations restrict siting a landfill over a New York State Principal Aquifer, the Permit Application includes an Aquifer Variance Report that specifically requests for variance from the provisions of 6 NYCRR 360-2.12(c)(1), which prohibits siting a landfill over a primary water supply aquifer or principal aquifer. The aquifer variance report further demonstrates that the Pine Bush Formation is not presently, and most likely will never be, used as a public water supply. In addition to its potential use for a public water supply, the Pine Bush Formation is not intensively utilized as a source of private water supply. As outlined in Section 3.3, based on CHA's conversations with the water district that service the area in the vicinity of the Rapp Road facility, with limited exception, the area within one mile of the landfill is all serviced by municipal water from either the City of Albany, the Town of Guilderland, or the Town/Village of Colonie (Latham Water), water districts.

4.3 Site Geology

The following description of the geology of the site is derived from site-specific stratigrapic data obtained during the recent soil boring and monitoring well installations at the site. Detailed descriptions of the subsurface soils are provided in the Subsurface Logs included as Appendix B.

Both current and historical borehole and well installation data were also employed to provide graphic depictions of the subsurface data. Four cross-sections were prepared to illustrate the stratigraphic setting for the Rapp Road facility, including the proposed expansion area. The locations of the cross-sections are illustrated by Figure 4-2. Representative cross-sections A-A', B-B', C-C', and D-D' are included as Figures 4-3 through 4-6, respectively.

4.3.1 Surficial Geology and Overburden Stratigraphy

Based on the stratigraphic data obtained from the recent investigations, five (5) primary stratigraphic units were identified. These primary units within the overburden, in order of descending depth are listed below:

- i. Shallow, Brown/Gray Sand Unit (Shallow Sand Unit);
- ii. Silty Sand/ Sand and Silt Unit (Intermediate Unit);
- iii. Deep Silty Clay/Sand and Silt Unit;
- iv. Deep Clay Unit; and
- v. Till Unit.

In general, the surficial geology beneath the proposed expansion area is quite similar to the geology at the entire Rapp Road facility. A more detailed comparison of the subsurface geology for the expansion area including a comparison with previously collected subsurface data for the Rapp Road facility is provided below.

Shallow Sand Unit

The upper Sand Unit within the proposed expansion area ranges in thickness from approximately 28 feet at soil boring location EE-B-2 to 44 feet at boring locations EE-B-1 and MW-15D. The upper Sand Unit consists primarily of fine to medium sand with trace amounts of silt. The uppermost portion of the shallow Sand Unit consists of brown sand, which transitions to gray in color at a maximum depth of 6 feet bgs at boring location EE-B-1.

Based on a comparison with the data from the soil borings associated with nearby AIL monitoring wells MW-9D and MW-10D, an upper Sand Unit was also identified beneath the Rapp Road/AIL facility. The upper Sand Unit is described in previous soil boring logs as primarily a brown to gray fine Sand Unit with trace amounts of silt. During the recent investigation for the proposed expansion area, the thickness of the uppermost brown sand layer was significantly less than the brown sands identified for the Rapp Road facility. This is not unexpected since the topography slopes steeply downward towards the proposed expansion area and the ground surface elevations in the vicinity of soil borings MW-14D, MW-15D, EE-B-1, and EE-B-2 are on the order of 17 to 20 feet lower in surface elevation than AIL borings MW-9D and MW-10D. The change in surface elevation is illustrated by cross-sections C-C' (Figure 4-5) and D-D' (Figure 4-6).

Silty Sand/Sand and Silt Unit (Intermediate Unit)

The Silty Sand/Sand and Silt Unit, which underlies the shallow sand in the eastern expansion area consists primarily of gray fine sands with varying amounts of silt. This unit is somewhat variable as a result of varying amounts of silt. This unit varies in classification from a Silty Sand to a Sand and Silt Unit within some sample intervals. This unit ranges in thickness from approximately 24 feet at boring location MW-14D to approximately 10 feet at location MW-15D. This unit has been referred to in historical investigation reports as the Intermediate Silty Sand/Sandy Silt. This unit appears to be continuous throughout the existing AIL facility however, the sandy silt component that is referenced in previous investigation reports appears to grade to a Sand and Silt Unit within the expansion area. Regardless, this unit is quite similar for both the AIL and proposed expansion areas.

Silty Clay/Deep Sand and Silt Units (Deep Unit)

The Silty Clay Unit and the Deep Sand and Silt Unit, which underlie the intermediate unit, have been grouped together due to the fact that previous investigation reports have classified this entire interval as the Deep Silty Clay/Clayey Silt Unit. However, CHA has identified a distinct transition from a Silty Clay unit to a Sand and Silt Unit that is generally consistent throughout the expansion area. This represents a subtle difference when compared to the soil boring data from the existing AIL and is a result of either natural changes in gradation moving from the west (existing AIL facility area) to east (proposed expansion area), or slight differences in the classification by current and historical field personnel. With limited exception, CHA's field descriptions correlate with the grain-size analysis performed on selected soil samples, which were collected and analyzed following completion of the field activities. For reference, copies of the grain-size analyses are included as Appendix C. For the existing AIL facility, the silty clay grades to clayey silt with increasing depth, however, in the eastern expansion area, the silty clay grades to a fine Sand and Silt unit. Cross-sections C-C' (Figure 4-5) and D-D' (Figure 4-6) illustrate the transition from the existing AIL facility to the proposed eastern expansion area.

In general, the Silty Clay Unit ranges in thickness from approximately 16.5 feet in boring MW-15D, to 23 feet in boring EE-B-2. The underlying Sand and Silt Unit ranges in thickness from approximately 2 feet in boring EE-B-1 to 28 feet in boring MW-14D. Combined, both the Silty Clay and Sand and Silt Units range in thickness from 27 to 48.5 feet within the expansion area.

Deep Clay Unit

Similar to the above stratigraphic units, the Deep Clay Unit underlies both the existing Rapp Road facility and the proposed eastern expansion area. According to *The Geology of the Pine Bush Aquifer, North-Central Albany County, New York*, this unit is the Lake Albany Silt and Clay and classified as a gray, silty clay with trace to some fine sand. The stratigraphic description of this unit is consistent between the current and historical soil boring logs. This unit appears to be continuous throughout the expansion area and the existing Rapp Road facility. In deep borings MW-14D and MW-15D, the Deep Clay Unit was encountered at depths of approximately 103 feet bgs and 90 feet bgs, respectively. At each of these boring locations the borings were not advanced beyond a depth of six feet into the Deep Clay Unit. At deep boring locations EE-B-1 and EE-B-2, the Deep Clay Unit was encountered at depths of 97 and 99 feet bgs, respectively. However, at each of these locations, the borings were advanced through the clay unit and into the underlying Till Unit. The thickness of the Deep Clay Unit was approximately 4.5 feet at both boring locations.

Based on historical boring logs for the existing AIL facility, the Deep Clay unit thickens to the west and has been observed to be as thick as 15 feet in previously installed borings P4-B1 and MW-2D.

Till Unit

In deep borings EE-B-1 and EE-B-2, a Till Unit was encountered at depths of approximately 101 and 103 feet below ground surface, respectively. The Till Unit was not encountered in any of the remaining soil borings that were installed as part of the eastern expansion investigation activities. Based on CHA's review of available historical information, the Till Unit was not encountered in any of the borings that have historically been installed as part of previous investigations for the AIL facility.

The Till Unit is characterized as very stiff/very compact Clayey Silt with some fine to coarse sand and little fine to coarse gravel. Till Units, in general, have a low permeability and are often found overlying bedrock in the vicinity of the project site. Cross-sections C-C' and D-D' also illustrate the underlying Till Unit.

4.3.2 Bedrock Geology

Bedrock was not encountered in any of the soil borings that were installed as part of the east side expansion hydrogeologic investigation. Based on CHA's review of available historical soil boring data, bedrock has not been encountered at any of the on-site boring locations that were installed as part of previous investigations for the AIL facility. The bedrock located beneath the project site is mapped as the Snake Hill Shale. The Snake Hill Shale is described as medium to dark-gray, silty, micaceous, pyretic shales with occasional thin interbeds of siltstones, fine-grained calcareous mudstone, and fine-grained sandstones, intensely folded and well cleaved.

It is reported that bedrock in the GAL, AIL, and P-4 areas lies approximately 100 to 150 feet bgs, which is consistent with regional mapping (Dineen & Hanson, 1983). Again, no soil borings have been drilled to bedrock at the GAL, AIL, or P-4 over the past several years (C.T. Male, 1999).

4.4 Site Hydrogeology

4.4.1 General

The stratigraphic units discussed in Section 4.2.1 can also be classified based on their hydrogeologic properties as hydrostratigraphic units (water-bearing units). Generally, water-bearing units consist of geologic formations that are able to transmit water (e.g. fractured bedrock and permeable overburden units). Confining units consist of geologic media such as silt and clay, which are not able to transmit appreciable amounts of water.

Groundwater in the uppermost shallow Sand Unit occurs under unconfined conditions. The surficial groundwater table within the shallow sand unit (beneath the proposed expansion area) is approximately two (2) feet below ground surface and is recharged predominantly through precipitation and direct infiltration to the shallow Sand Unit. Groundwater recharge to the deeper units, such as the intermediate Silty Sand and the deep Silty Clay/Silt and Sand Unit occurs from infiltration through the upper unit. Locally, the surficial groundwater table often emanates as surface water within small streams and surface water bodies such as the tributary to Rensselaer Lake and the wetlands on the east side of the Rapp Road facility

As outlined previously in this document, the three hydrostratigraphic units currently monitored at the AIL, Wedge, and P-4 project include the shallow water bearing Sand Unit, the intermediate Silty Sand/Sandy Silt Unit, and the Silty Clay/Sand and Silt Unit that overlies the confining clay. As stated in Section 4.2, the stratigraphic units beneath the proposed expansion areas were similar in nature with the exception of the changes noted in the gradation within the deep Silty Clay/Clayey Silt Unit. For the proposed expansion area, CHA characterized the upper portion of this unit as silty clay, however, a transition to an underlying fine Sand and Silt Unit is noted, rather than the clayey silt.

Based on a review of the subsurface conditions for the proposed expansion area and the existing Rapp Road facility, a total of two monitoring well clusters (MW-14 and MW-15) were installed to facilitate the collection of groundwater samples, as well as pertinent hydrogeologic data from the critical subsurface stratigraphic units.

In keeping with the monitored stratigraphic sections for the existing AIL, Wedge, and P-4 project, each of the two well clusters included the installation of a shallow, intermediate and deep monitoring well. The shallow monitoring wells at each cluster were installed in the upper Sand Unit with the well screen set to straddle the surficial groundwater table. The intermediate monitoring wells were installed to monitor the base of intermediate Silty Sand/Sand and Silt Unit. More specifically, the bottom of the well screen associated with the intermediate wells were set just above the interface between the Silty Sand/Sand and Silt Unit, and the underlying Silty Clay Unit. The deep monitoring wells were installed to monitor the base of the deep Silty Clay/Sand and Silt Unit with the bottom of the well screen set at the top of the deep Clay Unit. These monitored stratigraphic units are considered to form the critical stratigraphic section, which is defined by the 6 NYCRR Part 360 regulations as:

> *…all stratigraphic units, both unconsolidated deposits and bedrock, including, but not limited to the unsaturated zone, uppermost aquifer and first water bearing unit into which facility derived contaminants that escape from a solid waste management facility might reasonably be expected to enter and cause*

contamination during the active life or within 30 years following closure of the facility.

Based on data presented in historical investigation reports, the deep clay unit at the base of the monitored stratigraphic section is considered a confining layer (C.T. Male 1999). This deep Clay Unit is continuous across the site, and due to its relatively low conductivity/permeability is expected to provide hydraulic separation between the underlying hydrogeologic units that will serve as a hydraulic barrier to the downward migration of potential site contaminants.

4.4.2 Hydraulic Conductivity

To evaluate the hydraulic conductivity of the monitored stratigraphic sections, CHA conducted a series of slug tests relative to each of the newly installed monitoring wells in accordance with the methods outlined in Section 3.3 and the Work Plan. The slug test data was evaluated with the aid of the computer program Aqtesov using the Bouwer and Rice Method. A summary of the hydraulic conductivity data is presented in Table 4-1. The results from the AQTESOLV™. program are includes as Appendix D. The average hydraulic conductivity for each stratigraphic interval is summarized below:

Stratigraphic Unit	**Average Hydraulic Conductivity**	
	Existing AIL Wells[1]	**Expansion Area Wells[2]**
Shallow Sand Unit	1.76×10^{-2} cm/sec	4.0×10^{-3} cm/sec
Intermediate Silty Sand/Sand and Silt Unit	9.17×10^{-6} cm/sec	1.4×10^{-3} cm/sec
Deep Silty Clay/Sand and Silt Unit	2.36×10^{-5} cm/sec	3.0×10^{-4} cm/sec

Note:

1. Average hydraulic conductivity presented in the Part 360 Application to Construct and Operate a Solid Waste Management Facility; P-4 Project Landfill Expansion (C.T. Male; July 1999).
2. Average hydraulic conductivity for expansion area is based on geometric mean of February 2007 in-situ hydraulic conductivity testing.

As indicated by the above data, the geometric mean of the hydraulic conductivity values for the stratigraphic intervals within the proposed expansion area differ by at least an order of magnitude from that of the existing AIL facility. However, this difference is generally consistent with the variability noted for the stratigraphic units based on the visual soil classification within the expansion area. With the exception of the shallow unit, the intermediate and deep units appear to grade to slightly coarser sediments when compared to the existing AIL facility. The shallow monitoring wells within the existing AIL facility were installed within the upper sand unit, which based on the soil boring logs consisted of fine, brown sand with trace amounts of silt. Due to the ground surface elevation difference within the proposed eastern expansion area, the brown, fine sands were almost non-existent with the exception of the upper two to four feet of soils. Within the proposed expansion area, the upper sand unit consisted of a gray, fine sand unit with varying amounts of silt, which accounts for the slightly lower permeability of the upper Sand Unit. Similarly, the intermediate Silty Sand/Sand and Silt Unit within the expansion area is classified as containing a larger component of sand rather than silt, which again accounts for the relatively higher permeability within this unit.

The deep Silty Clay/Sand and Silt Unit within the expansion area has been characterized as a Silty Clay/Clayey Silt within the area of the existing AIL facility. As a result, there appears to be a slight gradation change in which the Clayey Silt Unit grades to a fine Sand and Silt Unit moving from the west to the east. This would account for the higher permeability of the deep interval within the proposed expansion area.

4.4.3 Groundwater Elevation and Flow Direction

Groundwater Elevations

Groundwater elevation data has been collected on a quarterly basis for the Rapp Road facility (GAL, AIL, Wedge, and P-4 project) since the early 1990's and reported to NYSDEC with the quarterly operational water quality monitoring reports. Following the installation of the newly installed monitoring wells for the proposed expansion area, a complete round of groundwater elevation data was collected from all of the monitoring wells associated with the AIL and the expansion area on February 2, 2007. In addition, water elevation data has also been collected on a routine basis from the shallow monitoring piezometers within the proposed expansion area. Historical groundwater elevation data, as well as the recently collected water levels for the proposed expansion area wells are presented in Table 4-2. The groundwater elevation data for the recently installed piezometers is presented in Table 4-3. Since the wells were initially installed, water levels have been collected on a minimum of a quarterly frequency since February 2007. The seasonal high and low water levels based on the data collected to date is presented below:

Well Location	Groundwater Elevations (ft. AMSL)			
	MW-14		MW-15	
	SHWL	SLWL	SHWL	SLWL
Shallow	288.95	292.13	292.28	295.17
Intermediate	288.46	292.14	292.28	295.25
Deep	289.63	292.98	292.45	295.59

Notes:

SHWL = Seasonal High Water Level

SLWL = Seasonal Low Water Level

As illustrated by Table 4-2, at newly installed monitoring well clusters MW-14 and MW-15, there is a predominant upward gradient relative to each of the subsurface hydrostratigrapic units. Based on the average quarterly elevation data for the previous year for the AIL facility, an upward gradient is generally noted at most monitoring well cluster locations when the shallow and intermediate elevations are compared to deep monitoring wells. Of note is the fact that at monitoring well cluster MW-1, a downward component of flow has been noted during almost all historical monitoring events, and at well cluster location MW-2, there is no significant gradient observed.

Groundwater Flow

Groundwater elevation data for the existing AIL facility has been collected on a quarterly basis since the early 1990's. Quarterly Groundwater Potentiometric Surface Contour Maps are also prepared and submitted to NYSDEC with each quarterly monitoring report. The recently collected groundwater elevation data for the proposed expansion area, as well as data from the existing AIL monitoring well network was used to prepare groundwater potentiometric surface contours for each of the monitored straitigraphic units at the site. The Water Table/Potentiometric Surface Contours for the Shallow, Intermediate, and Deep stratigraphic units for the February and April 2007 monitoring events are included in Appendix E.

In general, groundwater within each stratigraphic flow regime flows to the southeast towards nearby Rensselaer Lake. The component of groundwater flow within the proposed expansion area (based on elevation data from monitoring well clusters MW-14 and MW-15) is consistent with the historical monitoring data and the expected direction of groundwater flow at the site.

Based on the groundwater surface contours for each flow regime generated from the February 2007 monitoring event, a hydraulic gradient of 0.0062, 0.0060, and 0.0057 was calculated for the shallow, intermediate, and deep monitored stratigraphic units, respectively. This is generally consistent with historical data, which indicates that the average hydraulic gradients for the three units ranged from 0.0060 to 0.0071 (C.T. Male 1999). The slightly lower gradient for the February 2007 water level monitoring event is likely a result of seasonal variability or slight variation in topography relative to the eastern expansion area. After an initial decrease of 20 feet in ground surface elevation between the existing AIL facility and the proposed expansion area, the topography associated with the eastern expansion area is generally flat.

5.0 GROUNDWATER QUALITY

As stated previously, groundwater quality data has been collected for the Rapp Road facility throughout the operation of the AIL, Wedge, and P-4 project. This data, including a quarterly evaluation of water quality, is submitted to NYSDEC on a regular basis in Quarterly Water Quality Monitoring Reports.

Water quality data collected to date and from previous site investigations have indicated that groundwater quality at the Rapp Road facility has been impacted by the unlined, closed Greater Albany Landfill. Existing water quality has not, however, exhibited any impacts attributable directly to the existing AIL, Wedge, and/or P-4 project. As part of the recently completed investigation activities for the proposed eastern expansion area, additional crossgradient/downgradient monitoring wells were installed to evaluate the water quality for the proposed expansion area. Analytical results from water quality samples collected from the newly installed wells for the eastern expansion area were utilized to characterize the existing water quality within the expansion area as well as establish preliminary pre-operation water quality. Existing water quality for the existing GAL, AIL, and the proposed eastern expansion area is summarized in the following sections. It should be noted that prior to deposition of waste within the expansion area, a minimum of four rounds of water quality data will be collected from the existing monitoring wells to establish the pre-operational water quality for the eastern expansion area.

5.1 <u>Existing GAL Water Quality</u>

Water quality within the unlined GAL has been monitored on a quarterly basis since 1991. More specifically, groundwater samples are collected on a quarterly basis from one upgradient and eight downgradient monitoring wells that are located around the perimeter of the GAL (Figure 2-1). During each calendar year, groundwater samples are analyzed for the Routine list of parameters for three quarters and the Baseline parameter list during the remaining quarter in accordance with 6 NYCRR Part 360 (effective 1988). A tabulated summary of the groundwater monitoring results for the previous three years is provided in Appendix F.

Similar to the existing AIL and much of the Rapp Road facility, there are three hydrogeologic regimes associated with the GAL which include the shallow sand, the intermediate silty sand/sandy silt, and the deep silty clay/clayey silt. Upgradient monitoring well GW-1D is installed within the intermediate silty/sand/sandy silt unit. Downgradient monitoring wells MW-1, MW-2, MW-3, GW-4S, and GW-5S are installed in the shallow sand unit, and monitoring wells GW-4D and GW-5D are installed in the deep silty/clay/clayey silt.

Water quality at upgradient monitoring well location GW-1D exhibits little to no impact from the GAL. Over the past 16 monitoring events, the parameters pH, turbidity, total dissolved solids (TDS), chloride, ammonia, total phenols, aluminum, antimony, iron, nickel, potassium, and thallium have been detected at levels in excess of groundwater standards during one or more monitoring event. With the exception of turbidity and iron, the remaining parameters have only been detected at levels above the groundwater standard on a sporadic basis in this well.

With the exception of deep monitoring well GW-4D, the majority of the downgradient monitoring well locations associated with the GAL have been impacted by the historical operations of the GAL. The highest parameter concentrations indicative of landfill leachate have been identified in downgradient monitoring wells MW-1, MW-2, GW-4S, and GW-5S. Parameter concentrations are significantly lower in monitoring wells MW-3, GW-5D, and GW-2D. Parameter concentrations in monitoring well GW-4D do not appear are not significantly elevated when compared to the upgradient well.

5.2 Existing AIL/Wedge/P-4 Water Quality

Background

Groundwater monitoring for the existing AIL has been conducted on a quarterly basis in accordance with the initial October 1995 Part 360 permit to operate the AIL, as well conditions outlined in subsequent permit modifications for the Wedge and P-4 Project. As the landfill has expanded, various monitoring wells have been abandoned and others installed to accommodate the various landfill expansions in accordance with the NYSDEC approved Environmental Monitoring Plan (EMP).

The current operational water quality monitoring program consists of the collection and analysis of groundwater samples from 18 monitoring wells located around the perimeter of the AIL (Figure 2-1). The monitoring wells are located within six well clusters, each of which includes a shallow, intermediate, and deep monitoring well. These monitoring well clusters include the following:

- MW-1S, MW-1I, MW-1D
- MW-2S, MW-2I, MW-2D
- MW-7S, MW-7I, MW-7D
- MW-9S, MW-9I, MW-9D
- MW-10S, MW-10I, MW-10D
- MW-12S, MW-12I, MW-12D

The shallow ("S" wells), intermediate ("I" wells), and the deep ("D" wells), correspond with the shallow Sand Unit, the intermediate Silty Sand/Sandy Silt Unit, and the deep Silty Clay/Clayey Silt Unit, respectively. Monitoring well cluster MW-1 is located upgradient of the AIL, and clusters MW-2 and MW-7 are considered cross-gradient well clusters. The remaining monitoring wells are located downgradient of the AIL.

Operational groundwater quality for the AIL is evaluated by comparing the quarterly monitoring data with Existing Water Quality Values (EWQVs) that were established in the original 1994 EMP for the AIL, as well as subsequent revisions for the various expansion projects. In addition, trends in individual parameter concentrations and a comparison with New York State Ambient Groundwater Quality Standards is also used to evaluate the operational water quality for the AIL facility.

In accordance with Part 360-2.11(c), the calculated EWQV is the mean of the pre-operational analytical results for each well. The analytical monitoring results obtained during each quarterly monitoring event are compared to the EWQVs and regulatory guidance values (groundwater standard) as a basis to determine if a statistically significant increase has occurred. Specifically, a significant increase is defined by Part 360 regulations as a parameter concentration which exceeds the EWQV by three standard deviations <u>or</u> exceeds both the EWQV and regulatory guidance value for that parameter. Regulatory guidance values (GVs) for the protection of groundwater are called maximum contaminant levels (MCLs) and are established by the Safe Drinking Water Act under 40 CFR Part 141 or guidance values as established pursuant to 6 NYCRR Parts 701, 702, 703, and Division of Water Technical and Operational Guidance Series 1.1.1., June 1998. Again, the evaluation of operational water quality is currently conducted on a quarterly basis.

Based on the quarterly monitoring data collected to date, significant increases have been identified for a number of parameters in each of the downgraidient monitoring wells. However, these significant increases are not attributed to impacts from the AIL, but rather a number of factors that include the following:

(1) impacts from the unlined, closed GAL;
(2) potential errors due to matrix interference affects or variability in the laboratory analysis;
(3) natural variation;
(4) the size of the sample population for statistical analysis of the existing water quality value database;
(5) construction/expansion of the landfill cells; with impervious composite liner systems, which reduce recharge; and
(6) impacts from road salt.

As a result of the above factors, it is not uncommon that significant increases are often identified. However, trends in parameter concentrations are also evaluated during each quarterly monitoring event to determine if the significant increases are in fact an indication of significant changes in water quality.

AIL Water Quality Summary

Historical quarterly monitoring data for the AIL is summarized in the tables included as Appendix G. Graphical depictions of trends in the concentration of key water quality parameters are illustrated by the graphs included as Appendix H.

Given the close proximity to the adjacent, unlined GAL, historical water quality monitoring data has indicated that leachate from the GAL has impacted groundwater quality in downgradient AIL well clusters MW-9 and MW-12, and to a lesser extent MW-10 and MW-7. Upgradient monitoring well cluster MW-1 and cross-gradient cluster MW-2 have exhibited little to no impact from the GAL. In general, the degree of impact increases with closer proximity to the GAL.

At monitoring well cluster MW-9, elevated levels of common leachate indicator parameters, including ammonia, iron, manganese, sodium, chloride, total dissolved solids, and total hardness have been identified in the shallow, deep, and intermediate monitoring wells. In general the results for these compounds are elevated when compared to the upgradient well. The elevated levels of these parameters are attributed to the GAL rather than the operational AIL. This is supported by the fact that these parameters were elevated at the time the wells were first installed, prior to placement of waste in the AIL and because there have been no considerable increasing trends in key leachate indicator concentrations over time in these wells.

One exception is a recent increasing trend in the levels of sodium and chloride in shallow monitoring well MW-9S. This well would be particularly susceptible to road salt impacts due to its shallow nature and close proximity to the primary site access road. Similar increasing trends in the level of sodium and chloride have also been noted in monitoring wells MW-7S, MW-10S, and to a lesser extent MW-2S. These wells are also located immediately adjacent to the site access roads. The road salt impacts are further supported by the monitoring data from well cluster MW-12. There have been no recent increasing trends in the concentration of these parameters in well MW-12S, which is located much closer to the AIL waste mass than well clusters MW-9 and 10. In addition, there are no increasing trends in concentration for typical leachate indicator parameters including iron and manganese and ammonia in wells MW-9S and MW-10S. In fact, rather significant decreasing trends are noted for a number of key leachate indicator parameters (e.g. iron, manganese, ammonia) in downgradient/cross-gradient well clusters MW-7, MW-9, MW-10, and MW-12.

In addition to the above road salt impacts, calcium, magnesium, hardness, alkalinity, and sulfate have also exhibited moderate variability since 2003 in a number of wells adjacent to the site access roads. Similar to the elevated sodium and chloride concentrations, the variability in the concentration of these parameters can be attributable to a number of factors including road salt mixtures and the tracking of synthetic cover material on the site access roads. The road salt utilized by the City can include a mixture of calcium chloride and trace levels of magnesium salts. The presence of both calcium and magnesium ions will directly influence both hardness and alkalinity. In addition to de-icing salt use, the City also applies a synthetic cover to the waste known as Posi-Shell®. Posi-Shell® is an aqueous alkaline slurry/cement mortar coating that is spray applied as a daily cover. The major constituent of the Posi-Shell® is a mineral binder that contains varying proportions of mineral compounds including, but not limited to calcium carbonate, and potassium and sodium sulfates. Due to the nature of the landfill operations, this material often gets tracked onto and/or over-sprayed on the site access roads during application. Run-off from the roads is generally directed towards the nearby monitoring well clusters. Run-off from the Posi-Shell® could have similar impacts to the effects of de-icing salts, however, the Posi-Shell® would also result in an increase in alkalinity levels and sulfate concentrations.

With the exception of an anomalous increase in ammonia concentration during the second quarter of 2005 monitoring event, ammonia levels in downgradient well MW-9S have also decreased to levels that are consistently below laboratory method detection limits. Other common leachate indicators have also remained at levels consistent with the historical database or at levels below method detection limits in well MW-12S and the remaining downgradient well network. With the exception of the deicing salt impacts, these decreasing trends actually suggest an improvement in water quality over time in these well clusters since the inception of the monitoring program for the AIL. The graphical presentations included in Appendix H illustrate both the increasing trends in the typical compounds associated with road salt impacts as well as the observed decreasing trends for a number of leachate indicator parameters.

The decreasing trend in parameter concentrations in many of the downgradient and cross-gradient wells can be attributable to a number of factors including natural improvement in water quality beneath the unlined GAL and potentially the various expansion phases of the AIL. As new landfill cells are constructed, especially those that have been installed immediately adjacent to or "piggy-backed" on top of the GAL, the nature of the new double lined landfill system reduces the groundwater recharge at the GAL or a component of flow beneath the facility. This reduction in recharge within the GAL can often result in both increases and decreases in parameter concentrations. Similar to landfill closure and capping, new landfill construction reduces the amount of infiltration of precipitation at the site. In some instances, the decreased infiltration can reduce the dilution of the leachate within the unlined portion of the landfill, which increases individual parameter concentrations. However, over time, the decrease in infiltration will also inhibits the additional generation of landfill leachate. Initial increases in parameter concentrations generally stabilize and subsequently decrease over time. This trend is observed in a number of the graphical trends for the AIL, which potentially indicates that the various expansions have resulted in an improvement in groundwater quality at the Rapp Road facility or that water quality at the Rapp Road facility. It is also presumed that water quality has exhibited a natural improvement in water quality following closure of the GAL.

With limited exception, volatile organic compounds (VOCs) have not been detected in samples collected from the AIL monitoring network. Of note is the fact that chloroform has been detected in a number of wells on an intermittent basis including monitoring wells MW-12S, MW-12D, MW-9S, and MW-9D. Chloromethane was also detected in monitoring well MW-9D during one monitoring event at a relatively low concentration. Based on the monitoring data collected to date, the source of the chloroform and chloromethane have not been identified, however, these compounds are not considered to be landfill derived contaminants since these compounds are not typical indicators of AIL or GAL leachate. There are several other VOCs that would be expected to be detected in these wells (in addition to chloroform) if there was in fact an impact from the AIL and/or GAL. These compounds include acetone and 2-butanone from the AIL and benzene from the GAL.

As stated previously, the source of the chloroform and chloromethane has not been identified, however, there are several potential sources that may have resulted in the presence of these compounds. Both chloroform and chloromethane are disinfection byproducts that are often produced from the chlorination of drinking water sources. The addition of chlorine reacts with available organics within the water supply, which results in the formation of these compounds. The City routinely applies potable water to the roadways to minimize dust as a result of vehicle traffic. The potable water is spray applied via water truck or directly from on-site hydrants. Two of the hydrants are located immediately adjacent to well clusters MW-9 and MW-12. Both of these clusters are also located adjacent to site access roads.

A second potential source of the elevated chloroform, especially in well MW-12S can also be a result of runoff from the recycling building. The recycling building is used for the storage of appliances containing refrigerants (e.g. refrigerators, air conditioners, etc.), which are also a source of chloroform. Wash waters from the building operations, combined with the application of potable water for dust suppression could have a cumulative effect on the level of chloroform in this well. With the exception of well MW-12S, chloroform has only been detected on a sporadic basis and at very low levels. It is only in well MW-12S where slightly higher levels of chloroform have been detected.

With the exception of monitoring well MW-12S, both chloroform and chloromethane have only been detected on a sporadic basis and at relatively low levels. The level of chloroform observed in well MW-12S has increased slightly from 2004 to 2006, however, chloroform was not detected in the sample collected from this well during the September 2007 baseline monitoring event.

Due to the fact that there is no data that suggests that the presence of chloroform is landfill derived, CHA does not believe that any additional investigation is necessary at this time. However, over the next year, monitoring well MW-12S be sampled for chloroform during each quarterly monitoring event for the next monitoring year to evaluate the presence of chloroform in this well. If chloroform continues to be detected in this well, then a work plan will be submitted to NYSDEC to further investigate the source of the chloroform.

In addition to the chloroform and chloromethane levels discussed above, the parameters benzene and 1,1-dichloroethene were detected in one sample collected from monitoring well MW-9I in September 2003. Additionally, the compounds acetone and 2-butanone were detected only in well MW-7I during one sampling event in December 2004. This was the only time in which these compounds were detected in these wells, or any of the remaining wells associated with the AIL. Due to the presence of benzene, and the fact that the MW-9 well cluster is located closest to the GAL, it is likely that the presence of both benzene and 1,1-dichloroethene in well MW-9I were a result of impacts associated with the GAL. The presence of benzene is a common indicator of GAL-derived impacts.

As stated above, acetone and 2-butanone were detected in monitoring well MW-7I during the December 2004 monitoring event. Both acetone and 2-butanone were detected in this well at levels below New York State groundwater standards during this monitoring event. Although both acetone and 2-butanone can be considered indicators of AIL leachate, these compounds are also two of the most common laboratory contaminants. These compounds have not been detected in this well, or any other AIL monitoring well during any previous or subsequent monitoring events. Since there is no increasing trend in concentration or consistent pattern of detections, the results are considered anomalous and their presence is likely attributable to laboratory or field contamination during the December 2004 sampling event.

5.3 Proposed Eastern Expansion Area Water Quality

5.3.1 General

An evaluation of water quality for the proposed expansion area was conducted based on the results of the water quality samples collected from the expansion wells during four quarterly monitoring events. These monitoring events were conducted in January 2007, April 2007, September 2007, and December 2007. Samples collected during the first monitoring event (January 2007) were analyzed for Expanded Parameters pursuant to 6 NYCRR Part 360 2.11(c)(5). Groundwater samples collected during the remaining three quarterly monitoring events were analyzed for Baseline Parameters pursuant to the Part 360 regulations. The laboratory analytical results are summarized in Table 5-1. It should be noted that groundwater samples collected during the fourth quarter monitoring event (December 2007) were inadvertently analyzed by the laboratory for Routine Parameters. As a result, the monitoring wells were re-sampled on January 9, 2008 and analyzed for Baseline Parameters. The data from the routine analysis have been included in Table 5-1. All laboratory deliverables were provided in a Category B deliverables package in accordance with NYSDEC Analytical Services Protocol (ASP). Due to the size of the Category B laboratory deliverables package only the Laboratory Sample Data Summary Packages for the first sampling event have been included in this report (Appendix I). The remaining data is available upon request.

5.3.2 Data Quality Assessment

Upon receipt of the laboratory results, the complete Category B deliverable packages from the sampling events were submitted to Alpha Environmental Consultants of Clifton Park, New York for independent validation. Copies of the data validation reports are included as Appendix J.

As indicated by the validation report for the January 2007 sample deliverable package, the data was generally acceptable with the exception of some issues noted in the validation report. Of note is the fact that the validation report indicates that the “not detected” results for several volatile organic compounds (VOCs) including acetonitrile, acrylonitrile, propionitrile, and isobutyl alcohol were flagged as unusable “R” in all groundwater samples due to the fact that the response factors for these compounds were below the allowable minimum in the initial and continuing calibrations. Although the non-detect results for the above parameters were flagged as rejected, there is no reason to suspect that these compounds would be present in the groundwater. Similarly, these compounds are not typical indicators of landfill derived contaminants. These compounds will continue to be evaluated during future monitoring events as part of future baseline parameter analyses.

Based on the validation report for the April 2007 sampling event, the data were mostly acceptable with some issues that were identified in the data usability summary report. Of note is the fact that “not detected” results for acrylonitrile were flagged as unusable (R). In addition, positive results for 2-hexanone were flagged as “not detected” for the sample collected from well MW-14S due to the fact that the level reported in the sample was not significantly greater than the associated method blank level.

During the September 2007 baseline sampling event all VOC data was determined to be unusable. In addition, the data for a significant number of metal compounds and TDS was flagged as estimated. As a result of the data quality issues, the expansion wells were re-sampled for VOCs, metals, and TDS. All of the data from the re-analysis was determined to be usable with the qualifications noted in the validation report.

At the time of this writing, the data validation report has not been completed for the samples that were collected on January 9, 2008.

5.3.3 Preliminary Water Quality Evaluation

A preliminary evaluation of the groundwater quality within the proposed eastern expansion area has been conducted based on the results of water samples collected from newly installed monitoring well clusters MW-14 and MW-15 (Figure 3-1). Similar to the AIL monitoring well network, the newly installed well clusters within the expansion area each consist of a shallow, intermediate, and deep monitoring well that correlate with the critical water bearing stratigraphic units. Samples were collected from these monitoring wells during four separate quarterly monitoring events. The monitoring events were conducted in January 2007, April 2007, September 2007, December 2007, the results of which are discussed below.

January 2007 Monitoring Results

In general, water quality within the proposed expansion area is most similar to water quality up-gradient of the AIL. The distance of the newly installed wells from the closed, unlined GAL is sufficient in that impacts from the GAL are not observed. Based on a review of the water quality data collected from the newly installed wells during the January 2007 monitoring event, a number of parameters were detected at levels above the New York State Ambient Water Quality Standards in one or more wells. These parameters include turbidity, total phenols, ammonia, total dissolved solids (TDS), color, aluminum, arsenic, beryllium, cobalt, iron, lead, manganese, nickel, sodium, thallium, and vanadium. The parameters sodium and chloride were also elevated in well MW-15S when compared to the remaining monitoring wells. With the exception of ammonia, the elevated level of most of these parameters is a result of both naturally elevated background concentrations and/or elevated turbidity levels at the time of sample collection.

During the subsequent monitoring events, CHA modified the well sampling activities to include a modified low-flow purging technique to minimize turbidity levels. Samples containing elevated turbidity levels can influence the concentration of metals parameters, as metallic ions are often adsorbed to the particulates in the sample. During subsequent monitoring events, the wells were purged using a peristaltic pump rather than a Waterra inertia pump, which significantly reduced the turbidity levels. However, in some instances, the turbidity levels remained above 50 NTUs in the downgradient wells.

Although not specifically related to turbidity, a slightly elevated level of ammonia was detected in monitoring well MW-15S during the January 2007 monitoring event. Ammonia was detected in the original sample at a level of 2.14 mg/L, and at a level of 1.99 mg/L in the duplicate sample. The original sample result is slightly above the groundwater standard of 2 mg/L. Ammonia was not detected in any of the remaining monitoring wells.

April 2007 Monitoring Results

During the second monitoring event of 2007 monitoring event, the turbidity level in all monitoring wells was below 50 nephelometric turbidity units (NTUs) with the exception of well MW-15D. In well MW-15D, the turbidity level after purging was measured at 142 NTUs, and therefore, a portion of the sample from well MW-15D was filtered in the field using a 0.45 micron filter and analyzed for both total and dissolved metals. In general, the lower turbidity levels in all wells resulted in fewer parameters in excess of NYSDEC groundwater standards. More specifically, only the parameters turbidity, ammonia, color, TDS, aluminum, iron, manganese, sodium, thallium, and ammonia were detected at levels above groundwater standards during the second monitoring event. Similar to the first monitoring event, the level of sodium and chloride was slightly elevated in well MW-15S when compared to the remaining eastern expansion wells. Of note is that there were no parameters detected at levels above standards in monitoring well MW-14D. Based on the dissolved metals analysis associated with the sample collected from well MW-15D, the only metal compound in excess of groundwater standards in this sample was thallium. With the exception of ammonia, the elevated level of these compounds is a result of naturally elevated background concentrations.

During the April 2007 monitoring event, ammonia was again detected at a level above the standard in well MW-15S. More specifically, the level of ammonia was 2.15 mg/L, which is comparable with the results from the first quarter monitoring event. However, it should be noted that ammonia was also detected in shallow monitoring well MW-14S at a concentration of 0.751 mg/L, which is below the groundwater standard for ammonia.

September 2007 Monitoring Results

During the September 2007 monitoring event, turbidity levels were again relatively low, however, in wells MW-14S and MW-15D, the turbidity level was above 50 NTUs. Since the turbidity levels were not significantly elevated, all samples were submitted unfiltered for total metals analysis. In general, the results from the September 2007 monitoring event were generally consistent with the second quarter monitoring results from April 2007. However, the ammonia level in well MW-14S decreased to a level below the laboratory method detection limit. Although ammonia was again detected in well MW-15S, the level was below the groundwater standard during this monitoring event. Similar to the second quarter (April 2007) monitoring event, there were no parameters detected at levels above groundwater standards in monitoring well MW-14D. The parameters turbidity, color, total phenols, aluminum, iron, manganese, and sodium were detected at levels above groundwater standards in one or more of the remaining downgradient wells. However, the level of these parameters were not significantly different than the remaining monitoring events or the concentrations that have been observed in the upgradient landfill monitoring wells.

December 2007 Monitoring Event

As previously noted, the samples collected during the December 2007 monitoring event were inadvertently analyzed by the laboratory for routine parameters. As a result, the wells were re-sampled on January 9, 2008 and analyzed for the baseline list of parameters. The discussion of the December 2007 monitoring event presented herein presents a summary of both the routine and baseline monitoring data from December 2007 and January 2008.

In general, the concentration of most parameters were comparable with the previously collected monitoring data for these wells. In well MW-14S and MW-15S, ammonia was detected in both the December 2007 and January 2008 samples collected from these wells. However, the level of ammonia was below standards in both wells. Similar to previous monitoring events, the level of sodium and chloride was slightly elevated in well MW-15S when compared to the remaining expansion wells.

Discussion of Elevated Ammonia Levels

The existing water quality for the expansion area has been well defined by the data four monitoring events conducted to data. With few exceptions, the data indicates that the water quality in the expansion area is not significantly different than the water quality upgradient of the landfill. Of particular note is the fact that ammonia has been detected during each monitoring event in the samples collected from monitoring well MW-15S. However, ammonia has only been detected above the standard in two of the six samples collected from this well. Ammonia has also been detected in well MW-14S, however, the level of ammonia in this well has not been detected above the groundwater standard.

The elevated ammonia level in these wells is not considered to be derived from the existing Rapp Road landfill operations. Based on the quarterly monitoring data from the AIL, with limited exception, ammonia has not been detected in downgradient/crossgradient monitoring wells MW-7S and MW-10S. Since 1998, the only exception is a one time detection of ammonia in well MW-10S during the June 2003 monitoring event. In June 2003, ammonia was detected in well MW-10S at a level of 0.5 mg/L, which at the time was equal to the method detection limit. The level of ammonia would not be expected to increase with increasing distance from the landfill.

In existing AIL wells MW-9S and MW-12S, which are located in close proximity to the GAL, ammonia has been sporadically detected in these wells as a result of impacts from the GAL. However, given the fact that the newly installed expansion wells are located cross-gradient of wells MW-9S and MW-12S, the presence of ammonia in the eastern expansion wells is not considered to be a result of impacts from the GAL.

There are several potential sources of the ammonia. Initially, the source of the elevated ammonia detected in the expansion wells was initially believed to be from potential failing septic systems within the mobile home park that is located adjacent to the proposed expansion area. The adjacent mobile home park is located just west of the newly installed wells, which would coincide with what has been determined to be the upgradient direction of groundwater flow. To further evaluate the potential impacts from the mobile home park, an additional monitoring well (MW-16A) was installed at the southeast corner of the mobile home park and was installed to a depth of approximately 15 feet with the screen set to straddle the shallow water table. Based on samples collected from this well, which were submitted for laboratory analysis, ammonia was not detected in this well and therefore, the mobile home park is not considered to be the source of the ammonia.

Two remaining potential sources of the ammonia include either the highly organic natural soils within the expansion area, or run-off from a horse-farm located to the east of the expansion area. Based on visual observations during a recent inspection, the horse farm is located only a few hundred feet to the east of monitoring well MW-15S. The horse farm is bounded to the east by Rapp Road. Although the topography is relatively flat, the area between monitoring well MW-15S and the horse farm is fairly low lying. During CHA's most recent inspection of the area in March of 2008, standing water was observed throughout the entire area between the horse farm and monitoring well MW-15S. This would suggest that run-off from the horse farm could potentially be directed towards MW-15S and is impacting this well, and to a lesser extent well MW-14S. Seasonal high groundwater levels indicate that the groundwater table at both monitoring well location MW-14S and MW-15S can be at ground surface elevation. This is further supported by the elevated levels of sodium and chloride in well MW-15S, which suggest that road salt impacts from run-off from Rapp Road could also be influencing well MW-15S. As noted in the above water quality discussions, the level of sodium and chloride in well MW-15S is elevated when compared to all of the remaining expansion wells. If run-off from Rapp Road is influencing well MW-15S, it would be unexpected that run-off from the horse farm would also impact this well.

The only other potential source of ammonia that has been identified at the site includes the highly organic (muck type) soils within the expansion area. Organic nitrogen in soils is transformed by microorganisms in the soil to ammonium, which is available to plants. However, ammonium nitrogen can be transformed via ammonia volatilization into ammonia gas, especially in soils with a pH higher than 7.5. Typically the ammonia gas is in equilibrium with the ammonium and excess ammonia gas is generally releases to the atmosphere. However, due to the fact that the seasonal high groundwater elevation can be approaching ground surface, it is believed that the gaseous ammonia can become dissolved in the uppermost groundwater, which is being detected in the shallow monitoring wells. While this process alone can result in the presence of ammonia in the groundwater, the additional of relatively low quantities of nitrogen rich manure run-off from the adjacent horse farm can further promote the volatilization of ammonia.

At this time the levels of ammonia in the expansion wells have been adequately characterized to establish the pre-operational baseline water quality and fulfill the objectives of the hydrogeologic investigation. There is no data that indicates the slightly elevated ammonia levels are a result of impacts from the existing landfill facility and therefore, the source of the ammonia is not of significant concern at this time.

5.4 Environmental Monitoring Plan

Pursuant to 6 NYCRR Part 360-2.11(c), an Environmental Monitoring Plan (EMP) has been prepared to outline the proposed on-site and off-site monitoring for the Expansion Area, as well as the existing AIL. Specifically, the EMP describes the location of all environmental, facility, and other monitoring points, sampling schedule, analyses to be performed, statistical methods, and reporting requirements. Following approval of the Part 360 Permit Application, it is intended that this newly prepared EMP will serve as a stand alone document that will supersede the existing EMP for the AIL facility. A copy of the EMP is included as Appendix K.

6.0 SUMMARY

Based on the data generated from the current and historical hydrogeologic investigations conducted at the Rapp Road facility the following conclusions are presented in support of the proposed Easter Expansion application:

- The uppermost portion of the site is underlain by the Pine Bush Formation, which is an unconsolidated (surficial) sand deposit. located within the City of Albany, the Town of Guilderland, and the Town of Colonie. The Pine Bush is part of an extensive sand dune field and swamp area that extends from South Glens Falls to Delmar.

- Below the surficial Pine Bush Formation are the Lake Albany deposits, which consist of a relatively thick sequence of fine sands and silt/clays. The base of the formation consists of a relatively impermeable clay unit that is continuous across the entire Rapp Road site.

- The surficial water bearing sequence of fine sand, silt, and silty clay units that overly the impermeable clay unit make up the critical stratigraphic section at the site.

- The depth to bedrock in the vicinity of the Rapp Road facility is in excess of 100 feet below ground surface as evidence by historical soil boring data and the results of recently completed borings for the proposed eastern expansion.

- Groundwater occurs within the unconsolidated upper sand unit. Groundwater within each stratigraphic flow regime flows to the southeast towards nearby Rensselaer Lake. The component of groundwater flow throughout the proposed expansion area (based on elevation data from monitoring well clusters MW-14 and MW-15) is consistent with the historical monitoring data and the expected direction of groundwater flow at the site.

- Groundwater recharge to the surficial Sand Unit occurs from precipitation and direct infiltration.

- The Rapp Road facility overlies the Pine Bush Aquifer, which is classified as a principal aquifer as defined by Part 360-1.2(b)(10)(i) or Part 360-1.2(b)(10)(ii). However, current and historical data, and available published reports demonstrate that the Pine Bush Formation is not presently, and most likely will never be, used as a public water supply.

In addition to its potential use for a public water supply, the Pine Bush Formation is not intensively utilized as a source of private water supply. An Aquifer Variance Report has been prepared and is included with the permit document package, which specifically requests a variance from the provisions of 6 NYCRR 360-2.12(c)(1), which prohibits siting a landfill over a primary water supply aquifer or principal aquifer.

- The groundwater quality at the Rapp Road facility has been characterized based on the extensive water quality monitoring data that has been and continues to be collected on a quarterly basis. The existing water quality monitoring database and the newly collected water quality information for the expansion area provides the basis for the pre-operation water quality for the proposed expansion area.

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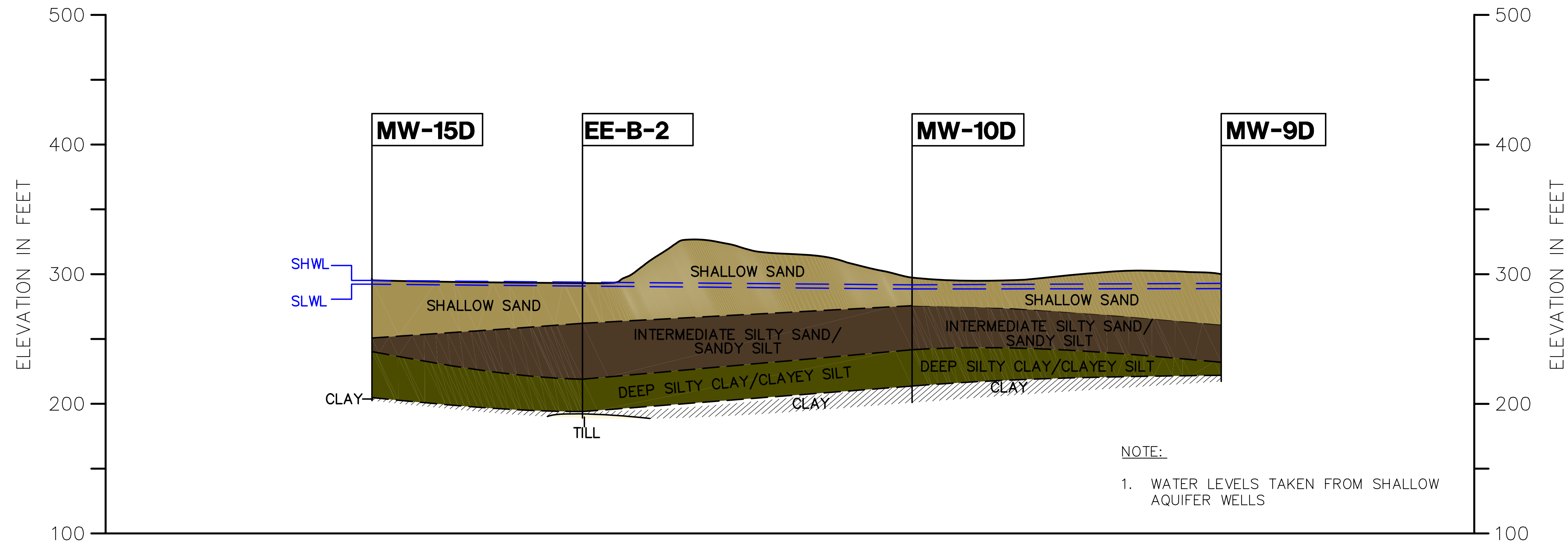
FIGURES



SECTION C–C'

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 100'

LEGEND:

SHWL – SEASONAL HIGH WATER LEVEL

SLWL – SEASONAL LOW WATER LEVEL

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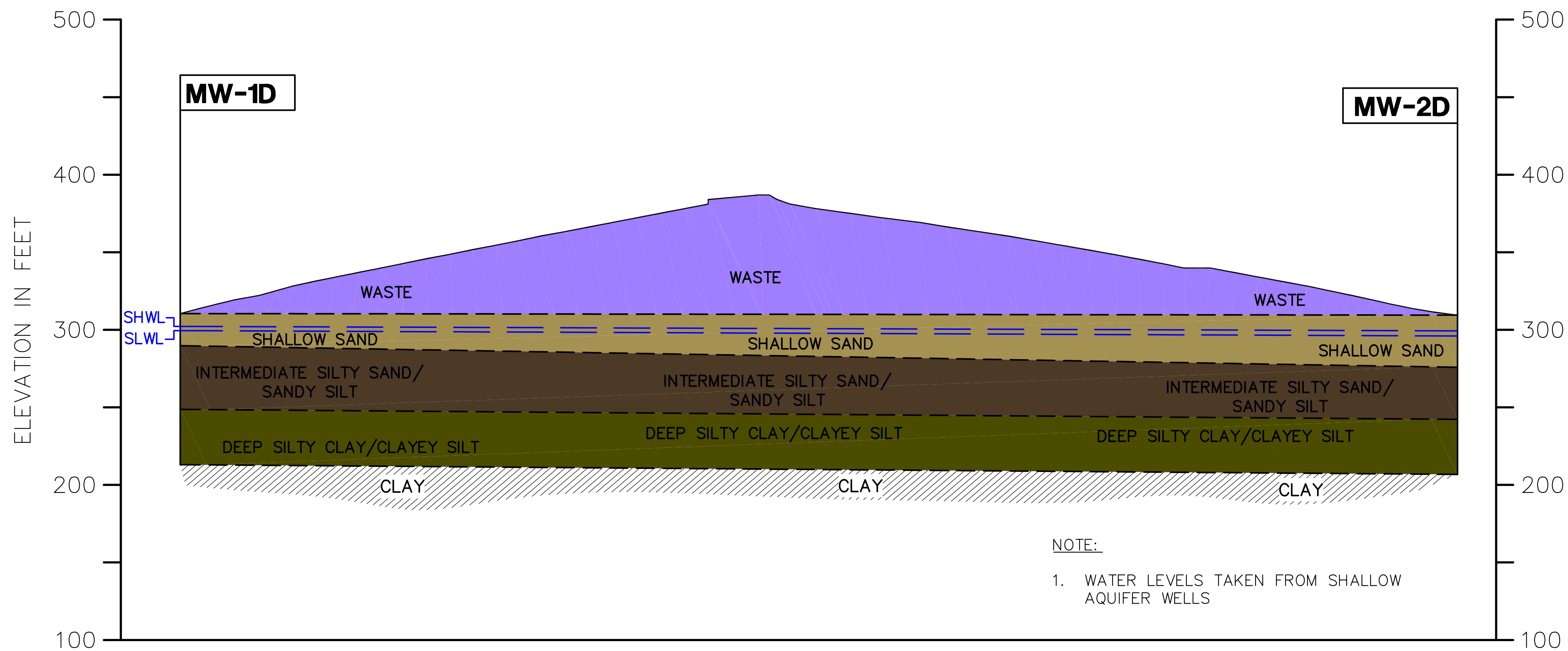
FIGURE 4–5

GEOLOGIC SECTION C–C'

HYDROGEOLOGIC INVESTIGATION
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\FIGURE 4-5 - SECTION C-C'.DWG Saved: 3/25/2008 3:17:52 PM Plotted: 3/26/2008 11:34:50 AM User: Cowan, Keith



SECTION B–B'

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 100'

LEGEND:

SHWL – SEASONAL HIGH WATER LEVEL

SLWL – SEASONAL LOW WATER LEVEL

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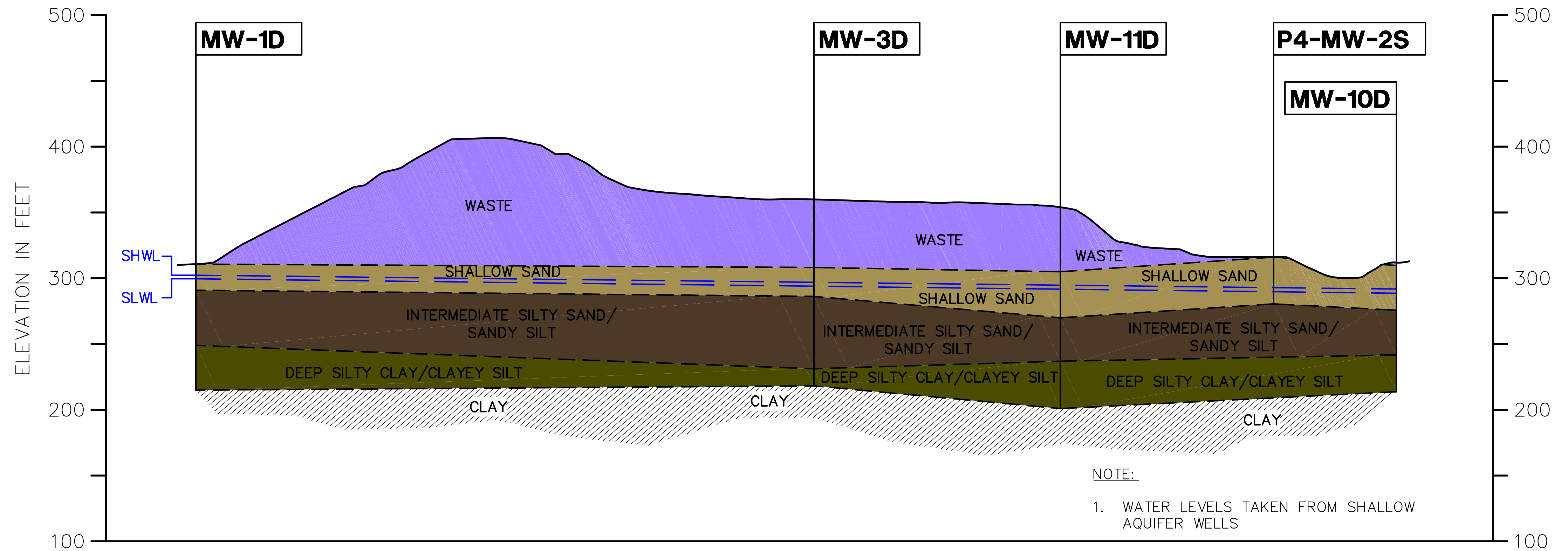
FIGURE 4–4

GEOLOGIC SECTION B–B'

HYDROGEOLOGIC INVESTIGATION
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\FIGURE 4-4 - SECTION B-B'.DWG Saved: 3/25/2008 3:16:56 PM Plotted: 3/26/2008 11:37:18 AM User: Cowan, Keith



SECTION A–A'

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 100'

LEGEND:

SHWL – SEASONAL HIGH WATER LEVEL

SLWL – SEASONAL LOW WATER LEVEL

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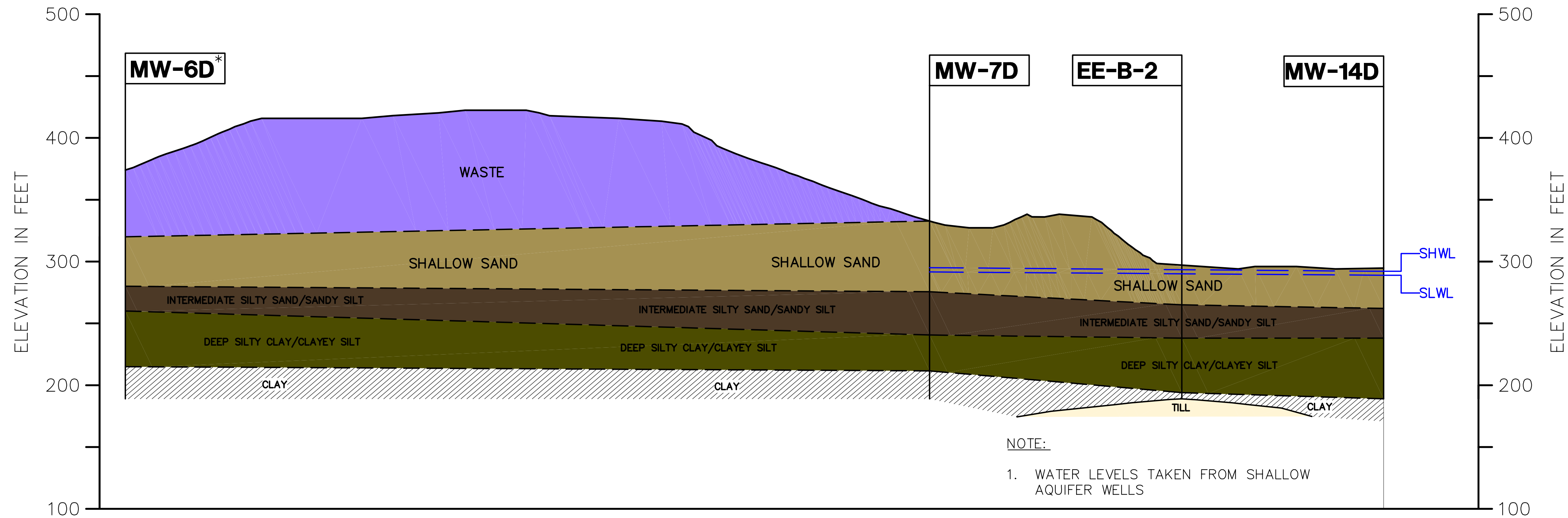
FIGURE 4–3

GEOLOGIC SECTION A–A'

HYDROGEOLOGIC INVESTIGATION
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\FIGURE 4-3 - SECTION A-A'.DWG Saved: 3/25/2008 3:16:05 PM Plotted: 3/26/2008 11:38:45 AM User: Cowan, Keith



SECTION D–D'

* ORIGINAL SURFACE ELEVATION FOR "6D" ESTIMATED BY CLOSEST ORIGINAL TOPOLOGICAL FEATURE

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 100'

LEGEND:

SHWL – SEASONAL HIGH WATER LEVEL

SLWL – SEASONAL LOW WATER LEVEL

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FIGURE 4–6

GEOLOGIC SECTION D–D'
HYDROGEOLOGIC INVESTIGATION
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\FIGURE 4-6 – SECTION D-D'.DWG Saved: 3/25/2008 3:37:39 PM Plotted: 3/26/2008 11:39:36 AM User: Cowan, Keith

TABLES

Table 4-2
Current and Historical Water Table Elevations (Feet above MSL)
City of Albany Landfill - Proposed Eastern Expansion
Rapp Road, Albany, New York
CHA Project No. 12206

Well ID	MW-1S	MW-1I	MW-1D	MW-2S	MW-2I	MW-2D	MW-7S	MW-7I	MW-7D	MW-9S	MW-9I	MW-9D	MW-10S	MW-10I	MW-10D	MW-12S	MW-12I	MW-12D	MW-14S	MW-14I	MW-14D	MW-15S	MW-15I	MW-15D
TOC:	312.84	313.08	312.89	311.05	311.61	311.08	324.50	324.00	324.60	302.41	302.57	302.90	312.18	311.77	311.70	318.62	318.69	318.72	294.75	294.26	294.23	296.58	296.60	296.50
03/24/03	300.28	300.13	299.79	297.45	297.51	297.58	293.20	293.77	294.95	290.41	289.92	290.42	289.66	289.59	290.10	292.04	292.07	291.62	NI	NI	NI	NI	NI	NI
06/09/03	299.58	299.81	296.71	296.01	296.34	295.44	291.98	294.34	294.91	289.78	289.52	284.19	288.68	289.42	289.12	291.60	291.45	287.43	NI	NI	NI	NI	NI	NI
09/22/03	299.60	299.66	299.54	296.61	296.53	296.88	292.09	292.68	293.85	288.87	289.12	286.43	288.73	288.68	289.17	291.44	291.46	291.62	NI	NI	NI	NI	NI	NI
12/16/03	299.70	300.50	300.28	297.27	297.43	297.54	293.28	293.82	289.29	289.76	290.19	290.73	289.80	289.68	290.26	291.62	291.24	292.19	NI	NI	NI	NI	NI	NI
03/22/04	300.28	300.34	300.13	296.89	297.03	297.20	291.74	293.54	294.80	290.10	289.89	290.40	289.42	289.29	289.94	292.17	292.19	292.34	NI	NI	NI	NI	NI	NI
06/15/04	300.29	300.31	300.13	296.85	296.99	297.10	291.60	293.19	294.38	290.03	289.73	290.15	289.10	289.06	289.66	292.07	292.03	292.19	NI	NI	NI	NI	NI	NI
09/27/04	300.16	300.17	299.65	296.96	297.00	296.59	292.79	293.29	294.25	290.24	289.89	289.35	289.27	289.22	289.12	292.17	292.19	292.27	NI	NI	NI	NI	NI	NI
12/14/04	300.24	300.25	300.01	297.21	297.29	297.42	293.00	293.56	294.76	290.21	289.90	290.36	289.48	289.43	290.00	292.22	292.16	292.32	NI	NI	NI	NI	NI	NI
03/28/05	300.39	300.51	300.32	297.33	297.43	297.26	293.36	293.95	295.18	290.49	290.29	290.80	289.90	289.89	290.39	292.58	292.54	292.67	NI	NI	NI	NI	NI	NI
06/13/05	300.40	300.45	300.28	296.84	296.79	297.13	292.62	293.15	294.33	289.97	289.75	290.18	289.13	289.09	289.66	292.12	292.11	292.22	NI	NI	NI	NI	NI	NI
09/19/05	299.64	299.68	299.54	296.55	296.58	296.68	291.90	292.43	293.62	289.26	289.07	289.57	288.60	288.67	289.12	291.48	291.45	291.53	NI	NI	NI	NI	NI	NI
12/19/05	300.56	300.64	300.47	297.14	297.09	297.14	293.15	293.72	294.87	290.60	290.27	290.76	289.68	289.53	290.18	292.62	292.59	292.72	NI	NI	NI	NI	NI	NI
03/20/06	300.79	300.34	300.64	297.07	297.16	297.28	293.23	293.72	294.92	290.12	291.12	290.44	289.50	289.55	290.17	292.59	292.60	292.69	NI	NI	NI	NI	NI	NI
06/26/06	300.86	301.03	300.87	297.20	297.13	296.46	293.20	293.78	294.97	290.61	290.32	290.70	289.83	289.76	290.24	292.72	292.19	292.80	NI	NI	NI	NI	NI	NI
09/25/06	300.22	300.24	300.09	296.75	296.89	297.06	292.45	292.99	294.18	289.96	289.62	290.12	289.17	289.12	289.65	292.10	292.00	292.12	NI	NI	NI	NI	NI	NI
12/18/06	300.42	300.48	300.36	297.05	297.16	297.35	292.91	293.47	294.71	289.76	290.22	290.50	289.46	289.45	290.00	292.52	292.40	292.48	NI	NI	NI	NI	NI	NI
02/02/07	300.39	300.45	300.31	297.00	297.13	297.31	292.76	293.95	293.92	290.19	289.91	290.29	289.31	289.27	289.88	292.22	292.32	292.20	289.46	289.50	290.69	292.58	292.73	293.11
03/26/07	300.59	300.62	300.49	297.55	297.56	297.84	293.55	294.05	295.30	291.28	290.67	291.10	290.08	290.02	290.60	292.72	292.89	292.82	291.75	291.59	291.56	294.46	294.42	294.35
04/04/07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	289.05	291.06	291.63	294.05	294.10	294.30
06/25/07	301.00	301.06	300.87	297.13	297.36	297.78	293.02	293.51	294.66	290.52	290.14	290.50	289.59	289.51	290.06	292.52	292.68	292.62	NM	NM	NM	NM	NM	NM
09/17/07	300.19	300.53	300.01	297.00	297.06	297.26	292.60	293.16	294.33	290.11	289.73	290.22	289.62	289.51	289.84	292.18	292.21	292.18	288.95	289.20	290.34	292.28	292.45	292.85
12/04/07	302.29	302.33	302.24	299.32	299.38	299.58	295.07	295.65	296.80	292.91	292.25	292.68	291.78	291.52	292.30	294.42	294.44	294.62	292.13	292.14	292.98	295.17	295.25	295.59
12/17/07	300.16	300.23	300.09	297.11	297.21	297.08	293.00	293.56	294.75	290.33	289.97	290.42	289.60	289.55	290.10	292.22	292.23	292.38	290.10	290.11	291.03	293.13	293.22	293.50
01/09/08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	291.75	291.47	291.43	294.34	294.46	294.39

Notes:
TOC = Elevation of the reference point, the top of the PVC casing, in feet above mean sea level (MSL).
NI = Data not available. Well not yet installed.
NA = Information not available.
NM = No measurement collected for this date.

K:\12206\EXPANSION\Hydro Investigation\Hydro Report\Table 4-2 GWELEV

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-14S

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		6.6	6.6	4.04	14.54/6.1	8.37	7.54
Conductivity	uS		226	226	288	281/442	343	295
pH	SU	6.5-8.5	6.71	6.71	6.6	6.98/6.83	6.7	6.69
Eh	mV		15.5	15.5	-25.8	-5.6/-60	-65	-79.8
Turbidity (after purging well)	N.T.U	5	505	464	28.2	981/119	12.7	19.8
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	<0.5	<0.5	0.751	<0.5	0.765	0.536
BOD 5	mg/l		6	<4	43	<4	<4	<4
Bromide	mg/l	2	<2	<2	<20	<20	<2.0	<200
COD	mg/l		<20	<20	180	<20	<20	<20
Chloride	mg/l	250	7.26	6.35	6.86	2.14	7.41	5.35
Nitrate	mg/l	10	<0.2	<0.2	<0.2	<0.2	0.223	<0.2
Sulfate	mg/l	250	<5	6.71	9.82	<10	29.5	28.2
Total Alkalinity	mg/l		130	140	130	100	140	120
Total Disolved Solids	mg/l	500	162	250	440	120	188	215
Total Hardness	mg/l		226	231	129	62	152	135
Total Kjed. Nitrogen	mg/l		<0.50	<0.05	1.47	<0.5	1.37	1.11
Total Organic Carbon	mg/l	500	11	11	33.8	11.8	11.9	11.6
Total Phenols	mg/l	0.001	<0.005	<0.005	<0.005	0.007	<0.005	<0.005
Color	P.C.U.	15	100	80	100	12	NA	400
Boron	mg/l	1	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Sulfide	mg/l	1	<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	31.2	28.7	1.19	1.37	NA	0.582
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	0.0184	0.0209	<0.010	<0.01	NA	<0.01
Barium	mg/l	1	0.199	0.198	<0.05	<0.05	NA	<0.05
Beryllium	mg/l	0.003	<0.003	<0.003	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	0.00642	0.00669	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		60.7	63.6	39.2	18.4	44.8	40.1
Chromium	mg/l		0.0451	0.0426	<0.005	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.010	<0.010	<0.010	<0.04	NA	<0.01
Cobalt	mg/l	0.005	0.0445	0.0435	<0.020	<0.02	NA	<0.002
Copper	mg/l	0.2	0.122	0.121	0.0201	<0.01	NA	<0.01
Total Cyanide	mg/l	0.1	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Iron	mg/l	0.3	50.9	48.3	7.12	8.19	7.62	8.28
Lead	mg/l	0.025	0.0377	0.0408	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35	17.9	17.5	7.65	3.92	9.84	8.59
Manganese	mg/l	0.3	0.732	0.731	0.323	0.175	0.343	0.306
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	0.0763	0.0736	<0.030	<0.03	NA	0.225
Potassium	mg/l		4.31	3.85	<1	<1	<1	<1
Selenium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	NA	<0.005
Silver	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Sodium	mg/l	20	4.24	3.75	3.68	2.68	3.91	3.79
Thallium	mg/l	0.004	<0.01	<0.010	0.0144	<0.01	NA	<0.01
Vanadium	mg/l	0.014	0.0639	0.0626	<0.030	<0.03	NA	<0.03
Zinc	mg/l		0.217	0.207	0.115	0.0567	NA	0.0213
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies	<MDL	<MDL	<MDL	<MDL		<MDL

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-14I

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	Jan-07A Routine	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		7.52	7.52	7.9	13.4/6.5	9.36	9.65
Conductivity	uS		302	302	441	168/555	328	381
pH	SU	6.5-8.5	7.96	7.96	7.85	8.23/8.03	7.6	7.01
Eh	mV		-42.9	-42.9	-88.1	-17.2/-25	-79.9	-68.1
Turbidity (after purging well)	N.T.U	5	98.7	76	1.34	398/26.6	8.35	7.19
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l		<4	<4	<4	<4	<4	<4
Bromide	mg/l	2	<2	<2	<0.2	<0.2	<0.2	<20
COD	mg/l		<20	<20	<20	<20	<20	<20
Chloride	mg/l	250	15	15.5	26.2	5.55	14.1	19.9
Nitrate	mg/l	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250	29.5	25.4	52.6	21.4	36	48.2
Total Alkalinity	mg/l		110	120	130	100	120	150
Total Disolved Solids	mg/l	500	277	190	423	212	200	310
Total Hardness	mg/l		176	215	197	180	147	186
Total Kjed. Nitrogen	mg/l		<0.5	<0.5	1.47	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500	<3	<3	<3	<3	<3	<3
Total Phenols	mg/l	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15	15	12	8	290	NA	21
Boron	mg/l	1	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Sulfide	mg/l		<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	3.18	3.61	<0.1	0.133	NA	0.139
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	<0.010	0.0121	<0.10	<0.010	NA	<0.010
Barium	mg/l	1	0.0848	0.113	0.0692	0.0672	NA	0.0665
Beryllium	mg/l	0.003	<0.003	<0.003	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		56.2	68.5	64.3	59	48.4	60.8
Chromium	mg/l		<0.005	<0.005	<0.005	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Cobalt	mg/l	0.005	<0.02	<0.02	<0.020	<0.02	NA	<0.02
Copper	mg/l	0.2	0.0155	0.0202	<0.010	<0.01	NA	<0.01
Total Cyanide	mg/l	0.1	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Iron	mg/l	0.3	6.89	8.04	0.535	0.681	0.741	0.71
Lead	mg/l	0.025	0.00782	0.00863	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35	8.72	10.6	8.76	7.02	6.44	8.21
Manganese	mg/l	0.3	0.232	0.275	0.153	0.143	0.116	0.145
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	<0.030	<0.030	<0.030	<0.03	NA	<0.03
Potassium	mg/l		1.09	1.28	<1	<1	<1	<1
Selenium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	NA	<0.005
Silver	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Sodium	mg/l	20	4.73	5.77	4.44	4.32	3.69	3.73
Thallium	mg/l	0.004	<0.010	<0.010	0.0228	<0.01	NA	<0.01
Vanadium	mg/l	0.014	<0.030	<0.030	<0.030	<0.03	NA	<0.03
Zinc	mg/l	0.3	0.0297	0.034	0.0665	0.0242	NA	<0.01
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies		<MDL	<MDL	<MDL	NA	<MDL
Bis 2(ethylhexyl)phthlate		5	10					

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-14D

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		7.53	7.53	8.57	12.86/7.2	9.46	9.6
Conductivity	uS		188	188	205	192/399	185	186
pH	SU	6.5-8.5	8.32	8.32	8.39	8.11/7.22	6.96	6.56
Eh	mV		-4.9	-4.9	-14.1	-32/-70	-82.8	-57.9
Turbidity (after purging well)	N.T.U	5	101	90	2.68	186/8.7	5.98	4.86
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l		<4	<4	<4	<4	<4	<4
Bromide	mg/l	2	<20	<2	<0.2	0.49	<0.2	<0.2
COD	mg/l		<20	<20	<20	<20	<20	50
Chloride	mg/l	250	7.38	1.76	4.51	1.1	1.11	1.68
Nitrate	mg/l	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250	<5	<5	<5	<5	<5	<5
Total Alkalinity	mg/l		100	110	110	100	110	110
Total Disolved Solids	mg/l	500	160	88	402	132	76	123
Total Hardness	mg/l		119	111	66.8	65.3	66.8	68.5
Total Kjed. Nitrogen	mg/l		<0.5	<0.5	2.86	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500	<3	<3	<3	<3	<3	<3
Total Phenols	mg/l	0.001	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15	18	15	7	15	NA	8
Boron	mg/l	1	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Sulfide	mg/l		<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	2.87	3.42	<0.1	<0.1	NA	0.102
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	<0.010	0.0121	<0.010	<0.01	NA	<0.01
Barium	mg/l	1	0.0692	0.067	<0.05	<0.05	NA	<0.05
Beryllium	mg/l	0.003	<0.003	<0.003	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		35.4	32.6	20.3	19.9	20.4	20.9
Chromium	mg/l		<0.005	<0.005	<0.005	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.01	<0.010	<0.010	<0.01	NA	<0.01
Cobalt	mg/l	0.005	<0.020	<0.020	<0.020	<0.02	NA	<0.02
Copper	mg/l	0.2	0.0211	0.0119	<0.010	<0.01	NA	<0.01
Total Cyanide	mg/l	0.1	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Iron	mg/l	0.3	5.66	6.53	0.149	0.155	0.426	0.247
Lead	mg/l	0.025	0.00387	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35	7.4	7.1	3.94	3.81	3.88	3.94
Manganese	mg/l	0.3	0.203	0.193	0.0234	0.0355	0.0311	0.0256
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	<0.030	<0.030	<0.030	<0.03	NA	<0.03
Potassium	mg/l		1.16	1.22	<1	<1	<1	<1
Selenium	mg/l	0.01	<0.005	<0.005	<0.005	0.00569	NA	<0.005
Silver	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.010
Sodium	mg/l	20	16	15	16.3	15.5	14.7	15.1
Thallium	mg/l	0.004	<0.010	<0.010	<0.010	<0.01	NA	<0.010
Vanadium	mg/l	0.014	<0.030	<0.030	<0.030	<0.03	NA	<0.03
Zinc	mg/l	0.3	0.0378	0.0454	0.0572	0.0108	NA	<0.01
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies	<MDL	<MDL	<MDL	<MDL	NA	<MDL

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-15S

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		8.99	8.99	6.34	12.84/8.6	10.4	9.88
Conductivity	uS		565	565	570	614/907	643	621
pH	SU	6.5-8.5	6.86	6.86	7.03	7.86/7.20	6.86	6.44
Eh	mV		-17.1	-17.1	-59.2	-106.7/-65	-86.6	-71.9
Turbidity (after purging well)	N.T.U	5	464	331	38.1	8.66/43.5	9.86	10
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	2.14	1.99	2.15	1.54	1.71	1.74
BOD 5	mg/l		5	6	4	<4	<4	<4
Bromide	mg/l	2	<2	<2	<20	<20	<200	<200
COD	mg/l		22	32	31	<20	<20	<20
Chloride	mg/l	250	65.2	65.5	50.2	67.7	123	85.2
Nitrate	mg/l	10	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2
Sulfate	mg/l	250	40.1	46.7	35.5	45.9	58.2	50.2
Total Alkalinity	mg/l		180	170	150	130	140	150
Total Disolved Solids	mg/l	500	275	322	680	376	356	390
Total Hardness	mg/l		448	452	195	181	176	175
Total Kjed. Nitrogen	mg/l		1.47	2.2	3.6	2.02	2.23	2.3
Total Organic Carbon	mg/l	500	9	26	7.1	5.4	5.6	6.8
Total Phenols	mg/l	0.001	<0.005	<0.005	<0.005	0.007	<0.005	<0.005
Color	P.C.U.	15	80	70	125	250	NA	290
Boron	mg/l	1	<0.005	<0.005	<0.5	<0.5	NA	<0.5
Sulfide	mg/l		<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	15.8	19	0.292	<0.1	NA	<0.1
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	0.0207	0.0382	<0.010	<0.01	NA	<0.010
Barium	mg/l	1	0.139	0.149	0.0636	0.0671	NA	0.0663
Beryllium	mg/l	0.003	<0.003	<0.003	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	0.00786	0.0099	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		139	139	55.9	51.1	50.1	50.1
Chromium	mg/l		0.0284	0.0316	<0.005	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.01	<0.01	<0.01	<0.02	NA	<0.010
Cobalt	mg/l	0.005	0.0265	0.0252	<0.020	<0.02	NA	<0.02
Copper	mg/l	0.2	0.156	0.135	<0.010	0.0125	NA	<0.010
Total Cyanide	mg/l	0.1	<0.01	<0.01	<0.01	<0.01	NA	<0.010
Iron	mg/l	0.3	58.1	77.1	9.59	8.84	8.76	8.51
Lead	mg/l	0.025	0.0526	0.0453	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35	24.5	1.25	13.4	12.9	12.3	12.1
Manganese	mg/l	0.3	1.24	1.25	0.658	0.695	0.656	0.657
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	0.0539	0.0509	<0.030	<0.03	NA	<0.030
Potassium	mg/l		4.65	6.45	3.29	3.24	3.05	3.35
Selenium	mg/l	0.01	<0.005	<0.005	0.00585	<0.005	NA	<0.005
Silver	mg/l	0.05	<0.01	<0.010	<0.010	<0.01	NA	<0.010
Sodium	mg/l	20	40.1	39.2	36.5	51.8	49.1	50.7
Thallium	mg/l	0.004	<0.01	<0.010	0.018	<0.01	NA	<0.01
Vanadium	mg/l	0.014	0.0791	0.0775	<0.030	<0.03	NA	<0.030
Zinc	mg/l	0.3	0.147	0.145	0.0561	0.0124	NA	0.0117
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies	<MDL	<MDL	<MDL	<MDL	NA	NA
Carbon Disulfide		5						3 J

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-15I

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	JAN-07A Expanded	JAN-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		8.64	8.64	7.48	15.06/6.8	9.87	10.26
Conductivity	uS		406	406	4.44	430/586	393	403
pH	SU	6.5-8.5	7.9	7.9	7.82	8.87/8.10	7.6	6.88
Eh	mV		-129.6	-129.6	-96	-12.2-60	-75.3	-39.6
Turbidity (after purging well)	N.T.U	5	35.5	18.4	3.64	38.4/22.2	32.6	15.6
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l		4	5	7	<4	<4	<4
Bromide	mg/l	2	<2	<2	<0.2	<2	<0.2	<20
COD	mg/l		<20	<20	<20	<20	<20	<20
Chloride	mg/l	250	30	29.7	29.9	21.2	32.6	29.8
Nitrate	mg/l	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250	37.2	33.1	39.4	36.3	45.4	49.8
Total Alkalinity	mg/l		140	140	140	120	130	140
Total Disolved Solids	mg/l	500	225	160	387	272	272	283
Total Hardness	mg/l		246	320	197	198	179	200
Total Kjed. Nitrogen	mg/l		<0.5	<0.5	1.76	<0.5	0.989	<0.5
Total Organic Carbon	mg/l	500	3	3	<3	<3	<3	<3
Total Phenols	mg/l	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15	20	18	10	55	NA	21
Boron	mg/l	1	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Sulfide	mg/l		<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	5.24	6.52	0.207	0.243	NA	0.262
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Barium	mg/l	1	0.138	0.159	0.126	0.128	NA	0.124
Beryllium	mg/l	0.003	<0.003	<0.003	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		75.4	96.9	64.5	64.8	58.9	65.6
Chromium	mg/l		0.00684	0.00888	<0.005	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Cobalt	mg/l	0.005	<0.02	<0.020	<0.020	<0.02	NA	<0.02
Copper	mg/l	0.2	0.0157	0.0162	<0.010	<0.01	NA	<0.010
Total Cyanide	mg/l	0.1	<0.01	<0.01	<0.010	<0.01	NA	<0.01
Iron	mg/l	0.3	11.2	15.4	1.07	0.996	0.943	1.2
Lead	mg/l	0.025	0.00575	0.0062	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35	14.1	18.8	8.82	8.91	7.77	8.77
Manganese	mg/l	0.3	0.452	0.63	0.187	0.201	0.165	0.188
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	<0.030	<0.030	<0.030	<0.03	NA	0.0311
Potassium	mg/l		1.62	1.59	<1	<1	<1	<1
Selenium	mg/l	0.01	<0.005	<0.005	<0.005	0.0111	NA	<0.005
Silver	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Sodium	mg/l	20	7.97	9.11	9.44	9.68	8.01	8.73
Thallium	mg/l	0.004	<0.010	<0.010	0.0227	<0.01	NA	<0.010
Vanadium	mg/l	0.014	<0.030	<0.030	<0.030	<0.03	NA	<0.030
Zinc	mg/l	0.3	0.0542	0.0705	0.231	0.0121	NA	0.0117
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies	<MDL	<MDL	<MDL	<MDL	NA	<MDL

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

TABLE 5-1
Groundwater Analytical Monitoring Data
Eastern Expansion Area Monitoring Wells
City of Albany Landfill
Rapp Road, Albany, New York
CHA Project No. 12206

Monitoring Well MW-15D

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value[1]	JAN-07A Expanded	JAN-07B Expanded	Apr-07 Baseline	Sep-07 Baseline[2]	Dec-07 Routine	Jan-08 Baseline
Temperature	C°		8.47	8.47	8.79	12.12/8.4	9.91	10.45
Conductivity	uS		208	208	221	210/326	200	198
pH	SU	6.5-8.5	8.38	8.38	8.26	7.94/7.76	7.79	6.6
Eh	mV		29.5	29.5	2	-70.2/-80	-93.6	-69.6
Turbidity (after purging well)	N.T.U	5	840	1290	142	4.8/80.2	49.6	16.2
LEACHATE INDICATORS:								
Ammonia Nitrogen	mg/l	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l		6	<4	<4	<4	<4	<4
Bromide	mg/l	2	<2	<2	0.25	<0.2	<0.2	<20
COD	mg/l		<20	<20	<20	<20	<20	<20
Chloride	mg/l	250	3.39	3.14	5.71	1.36	2.95	3.18
Nitrate	mg/l	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250	<5	<5	<5	<5	<5	<5
Total Alkalinity	mg/l		110	110	110	100	110	110
Total Disolved Solids	mg/l	500	157	150	232	112	144	135
Total Hardness	mg/l		5270	2220	181	143	114	94.2
Total Kjed. Nitrogen	mg/l		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500	17	32	10.5	<3	<3	<3
Total Phenols	mg/l	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15	120	100	10	7	NA	20
Boron	mg/l	1	<0.5	<0.50	<0.50	<0.5	NA	<0.5
Sulfide	mg/l		<0.1	<0.1	NA	NA	NA	NA
INORGANIC PARAMETERS:								
Aluminum	mg/l	0.1	139	99.2	6.09	2.55	NA	0.452
Antimony	mg/l	0.003	<0.015	<0.015	<0.015	<0.015	NA	<0.015
Arsenic	mg/l	0.025	0.0952	0.0598	0.0138	0.0136	NA	0.0127
Barium	mg/l	1	0.951	0.822	0.0918	0.0611	NA	0.0505
Beryllium	mg/l	0.003	0.00659	0.00502	<0.003	<0.003	NA	<0.003
Cadmium	mg/l	0.01	0.0446	0.0298	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l		1460	629	53.2	42.5	35	29.5
Chromium	mg/l		0.176	0.129	0.00838	<0.005	NA	<0.005
Hexavalent Chromium	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Cobalt	mg/l	0.005	0.141	0.1	<0.020	<0.02	NA	<0.02
Copper	mg/l	0.2	0.406	0.302	0.016	<0.01	NA	<0.01
Total Cyanide	mg/l	0.1	<0.010	<0.010	<0.010	<0.01	NA	<0.01
Iron	mg/l	0.3	303	220	12.4	5.41	3.33	1.18
Lead	mg/l	0.025	0.105	0.0767	0.00502	<0.003	<0.003	<0.003
Magnesium	mg/l	35	246	158	11.7	8.87	6.41	5.01
Manganese	mg/l	0.3	9.54	6.83	0.416	0.244	0.159	0.0934
Mercury	mg/l	0.002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002
Nickel	mg/l	0.007	0.281	0.198	<0.030	<0.03	NA	<0.030
Potassium	mg/l		17.1	12	13.9	1.02	<1	<1
Selenium	mg/l	0.01	<0.005	<0.005	<0.005	<0.005	NA	<0.005
Silver	mg/l	0.05	<0.010	<0.010	<0.010	<0.01	NA	<0.010
Sodium	mg/l	20	10.8	12.3	13.9	13	13.2	12.9
Thallium	mg/l	0.004	<0.010	<0.010	<0.0238	<0.01	NA	<0.01
Vanadium	mg/l	0.014	0.289	0.206	<0.030	<0.03	NA	<0.03
Zinc	mg/l	0.3	0.842	0.628	0.144	0.0244	NA	<0.01
Aluminum (Dissolved)	mg/l	0.1	NA	NA	<0.1	NA	NA	NA
Antimony (Dissolved)	mg/l	0.003	NA	NA	<0.015	NA	NA	NA
Arsenic (Dissolved)	mg/l	0.025	NA	NA	0.0185	NA	NA	NA
Barium (Dissolved)	mg/l	1	NA	NA	<0.05	NA	NA	NA
Beryllium (Dissolved)	mg/l	0.003	NA	NA	<0.003	NA	NA	NA
Cadmium (Dissolved)	mg/l	0.01	NA	NA	<0.005	NA	NA	NA
Calcium (Dissolved)	mg/l		NA	NA	23.9	NA	NA	NA
Chromium (Dissolved)	mg/l		NA	NA	<0.005	NA	NA	NA
Cobalt (Dissolved)	mg/l	0.005	NA	NA	<0.020	NA	NA	NA
Copper (Dissolved)	mg/l	0.2	NA	NA	<0.010	NA	NA	NA
Iron (Dissolved)	mg/l	0.3	NA	NA	0.105	NA	NA	NA
Lead (Dissolved)	mg/l	0.025	NA	NA	<0.003	NA	NA	NA
Magnesium (Dissolved)	mg/l	35	NA	NA	3.77	NA	NA	NA
Manganese (Dissolved)	mg/l	0.3	NA	NA	0.0607	NA	NA	NA
Mercury (dissolved)	mg/l	0.002	NA	NA	<0.0002	NA	NA	NA
Nickel (Dissolved)	mg/l	0.007	NA	NA	<0.030	NA	NA	NA
Potassium (Dissolved)	mg/l		NA	NA	<1	NA	NA	NA
Selenium (Dissolved)	mg/l	0.01	NA	NA	<0.005	NA	NA	NA
Silver (Dissolved)	mg/l	0.05	NA	NA	<0.010	NA	NA	NA
Sodium (Dissolved)	mg/l	20	NA	NA	13.4	NA	NA	NA
Thallium (Dissolved)	mg/l	0.004	NA	NA	0.0157	NA	NA	NA
Vanadium (Dissolved)	mg/l	0.014	NA	NA	<0.030	NA	NA	NA
Zinc (Dissolved)	mg/l	0.3	NA	NA	0.051	NA	NA	NA
ASP PEST/PCB WATERS	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
CHLORINATED HERBICIDES	ug/l	Varies	<MDL	<MDL	NA	NA	NA	NA
ORGANIC PARAMETERS:	ug/l	Varies	<MDL	<MDL	<MDL	<MDL	NA	<MDL

Notes:
NA = Not Analyzed
"<" indicates not detected at the specified method detection limit (MDL)
1. Ambient groundwater quality standards as presented in the NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1).
2. Due to data quality issues, samples were recollected for VOCs, TDS, and Metals on December 6, 2007. Field parameters for both the September and December 2007 monitoring results are presented.

APPENDIX A

Site Investigation Work Plan – Proposed Eastern Expansion Area

APPENDIX B

Soil Boring and Monitoring Well Construction Logs

APPENDIX C

Grain Size Distributions

APPENDIX D

Slug Test Analysis - AQTESOLV Results/Output

APPENDIX E

AIL Shallow, Intermediate, and Deep Groundwater Contours

APPENDIX F

GAL Historical Groundwater Quality Monitoring Data

APPENDIX G

AIL Historical Groundwater Quality Monitoring Data

APPENDIX H

AIL Water Quality Graphical Trends

APPENDIX I

Laboratory Analytical Deliverables Package

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Summary Package

Case Narrative, Summary of Test Results, Summary of QC Results, Chain of Custody Documentation and Field Data
Volume 1 of 4

SDG No. CHA-85

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

Samples Collected:

September 18, 2007
September 19, 2007
September 20, 2007
September 21, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-9S	U0709313-001	8260	-	-	-	Baseline 1993	Baseline1993
MW-9I	U0709313-002	8260	-	-	-	Baseline 1993	Baseline1993
MW-9D	U0709313-003	8260	-	-	-	Baseline 1993	Baseline1993
MW-12S	U0709313-004	8260	-	-	-	Baseline 1993	Baseline1993
CHA-1	U0709313-005	8260	-	-	-	Baseline 1993	Baseline1993
MW-12I	U0709313-006	8260	-	-	-	Baseline 1993	Baseline1993
MW-12D	U0709313-007	8260	-	-	-	Baseline 1993	Baseline1993
MW-10S	U0709313-008	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I	U0709313-009	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I MS	U0709313-009MS	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I MSD	U0709313-009MSD	8260	-	-	-	-	-
MW-10I Dupe	U0709313-009DP	-	-	-	-	Baseline 1993	Baseline1993
MW-10D	U0709313-010	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-011	8260	-	-	-	-	-
Holding Blank	U0709313-012	8260	-	-	-	-	-
MW-1S	U0709313-013	8260	-	-	-	Baseline 1993	Baseline1993
MW-1I	U0709313-014	8260	-	-	-	Baseline 1993	Baseline1993
MW-1D	U0709313-015	8260	-	-	-	Baseline 1993	Baseline1993
MW-2S	U0709313-016	8260	-	-	-	Baseline 1993	Baseline1993
MW-2I	U0709313-017	8260	-	-	-	Baseline 1993	Baseline1993
MW-2D	U0709313-018	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-019	8260	-	-	-	-	-
Holding Blank	U0709313-020	8260	-	-	-	-	-
MW-7S	U0709313-021	8260	-	-	-	Baseline 1993	Baseline1993
MW-7I	U0709313-022	8260	-	-	-	Baseline 1993	Baseline1993
MW-7D	U0709313-023	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-024	8260	-	-	-	-	-
Holding Blank	U0709313-025	8260	-	-	-	-	-
MW-15S	U0709313-026	8260	-	-	-	Baseline 1993	Baseline1993
MW-15I	U0709313-027	8260	-	-	-	Baseline 1993	Baseline1993
MW-15D	U0709313-028	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank (20070913A)	U0709313-029	8260	-	-	-	-	-
Holding Blank	U0709313-030	8260	-	-	-	-	-
MW-14S	U0709313-031	8260	-	-	-	Baseline 1993	Baseline1993
MW-14I	U0709313-032	8260	-	-	-	Baseline 1993	Baseline1993
MW-14D	U0709313-033	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-034	8260	-	-	-	-	-
Holding Blank	U0709313-035	8260	-	-	-	-	-

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Narrative

1.0 Summary

This report presents the sample test results and quality control results for twenty-five water sample locations for the City of Albany Interim Landfill Project, Albany, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and four volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-4) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples were collected by Clough, Harbour & Associates and Upstate Laboratories, Inc. personnel on September 18, 19, 20 and 21, 2007, and were then delivered to Upstate Laboratories, Inc., Syracuse, New York, via Velocity. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Volatile Organics	8260	(1)
Aluminum	200.7	(1)
Antimony	200.7	(1)
Arsenic	200.7	(1)
Barium	200.7	(1)
Beryllium	200.7	(1)
Boron	200.7	(1)
Cadmium	200.7	(1)
Calcium	200.7	(1)
Chromium	200.7	(1)
Cobalt	200.7	(1)
Copper	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Mercury	245.2	(1)
Nickel	200.7	(1)
Potassium	200.7	(1)
Selenium	200.7	(1)
Silver	200.7	(1)
Sodium	200.7	(1)
Thallium	200.7	(1)
Vanadium	200.7	(1)
Zinc	200.7	(1)

The total number of pages in this Data Package is: 1908

Total Alkalinity	310.2	(1)
Ammonia-Nitrogen	350.1	(1)
BOD	405.1	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Color	110.2	(1)
Cyanide	335.2	(1)
Hexavalent Chromium	SM3500	(1)
Nitrate-Nitrogen	353.1	(1)
Phenols	420.4	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.3	(1)
TOC	415.1	(1)
Bromide	300.0	(1)

(1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 10/95 Revision

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

Holding Time : Criteria were satisfied.

Calibration : The IC %RSD value for Bromomethane was outside QC acceptance limits. Several target compounds exceeded method criteria in CC, lab files E15533.D, E15537.D and E15549.D. The CC %D values for Tetrachloroethene were outside QC acceptance limits for CC, lab files E15439.D and C19050.D. Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.

Method Blank : Criteria were satisfied.

MSB : VMBS02 exhibited LCS Standard recoveries below QC acceptance limits. The LCS recovery for Benzene was slightly below QC acceptance limits for VMBS04. All other criteria were satisfied.

MS/MSD : Criteria were satisfied.

Surrogates : Criteria were satisfied.

Internal Stds : Criteria were satisfied.

Trace Metals and Cyanide Data

Holding Time : Criteria were satisfied.

Calibration : The CCV4 recovery for Silver was greater than QC acceptance limits. The CCV recoveries for Total Cyanide were below QC acceptance limits. The initial and final CRDL Standard recoveries for Zinc were greater than QC acceptance limits. All other criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref. Samples	: The LCS recovery for Potassium was slightly greater than QC acceptance limits. All other criteria were satisfied.
Matrix Spikes	: The MS recovery for Iron was below QC acceptance limits for the MS performed on sample location MW-10I. A Post Digestion Spike was analyzed with a similar recovery for Iron. All other criteria were satisfied.
Duplicates	: Criteria were satisfied.

Wet Chemistry Data

Holding Time	: Criteria were satisfied.
Calibration	: Criteria were satisfied.
Method Blanks	: Criteria were satisfied.
Ref. Samples	: The LCS recovery for COD was below QC acceptance limits due to a defective COD vial. A subsequent LCS was analyzed with a recovery slightly greater than QC acceptance limits. All other criteria were satisfied.
Matrix Spikes	: Criteria were satisfied.
Duplicates	: Criteria were satisfied.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved Anthony J. Scala

Anthony J. Scala, Director

CHA85BALB.INT.doc

Sample Data

Upstate Laboratories, Inc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-9S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-001

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2600			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	72.8	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	111000			P
7440-47-3	Chromium	32.8			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	B		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	338000			P
7439-89-6	Iron	5410		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	14900			P
7439-96-5	Manganese	185			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	5830		J	P
7782-49-2	Selenium	18.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	156000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	82.4		J	P

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Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-9S
Lab Order:	U0709313	**Collection Date:**	9/18/2007 11:05:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-001	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	105	25.0		UNITS	5	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	982	25	J	mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	230	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	286	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	16.8	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	155	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	9.8	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ____________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	8.83	6	JN

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-9I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-002

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	109			P
7440-39-3	Barium	75.3	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	555			P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	73400			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	346000			P
7439-89-6	Iron	4490		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	39500			P
7439-96-5	Manganese	43.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	22000		J	P
7782-49-2	Selenium	6.4			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	142000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	28.9		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-9I
Lab Order:	U0709313	**Collection Date:**	9/18/2007 11:23:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-002	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	145	25.0		UNITS	5	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	915 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	510	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	401	10.0		mg/L	10	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	26.2	0.500		mg/L	1	10/8/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	3.69	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	0.830	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	10.0		mg/L	2	9/24/2007
NOTES: The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	51	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	24.7	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-9D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-003

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2270			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	12.8			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	27700			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	96600			P
7439-89-6	Iron	4250		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	6650			P
7439-96-5	Manganese	171			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	6.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	15500			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	39.2		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light BlackSediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-9D
Lab Order:	U0709313	**Collection Date:**	9/18/2007 11:15:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-003	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	75.0	25.0		UNITS	5	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	225	25	J	mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	2.17	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	10.0		mg/L	2	9/24/2007
NOTES: The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________ **Date:** ______________

Qualifiers:				
	*	Low Level	**	Value exceeds Maximum Contaminant Value
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ____________ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: __________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ____ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-12S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-004

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4350			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	61100			P
7440-47-3	Chromium	6.5	B		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	190000			P
7439-89-6	Iron	8690		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	204			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2320	B	J	P
7782-49-2	Selenium	9.4			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	39200			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	37.7	B		P
7440-66-6	Zinc	62.2		J	P

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Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-12S
Lab Order:	U0709313	**Collection Date:**	9/18/2007 12:50:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-004	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	210	50.0		UNITS	10	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	430 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	250	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	106	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	21.9	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	20	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	4.1	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ________ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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FORM I VOA-TIC 3/90

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

CHA-1

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-005

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4460			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	63400			P
7440-47-3	Chromium	7.0	B		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	197000			P
7439-89-6	Iron	8860		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	9480			P
7439-96-5	Manganese	212			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3240	B	J	P
7782-49-2	Selenium	8.4			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	40700			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	39.6	B		P
7440-66-6	Zinc	45.1		J	P

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Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	CHA-1
Lab Order:	U0709313	**Collection Date:**	9/18/2007 1:00:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-005	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	210	50.0		UNITS	10	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	447 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	240	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	108	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	22.6	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	3.9	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

Approved By: ______________________ **Date:** ______________________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-12I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-006

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2490			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	334			P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	116000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.6	B		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	436000			P
7439-89-6	Iron	7890		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	35400			P
7439-96-5	Manganese	625			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	7840		J	P
7782-49-2	Selenium	9.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	106000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	49.5		J	P

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Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light BlackSediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-12I
Lab Order:	U0709313	**Collection Date:**	9/18/2007 1:20:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-006	**Matrix:**	GROUNDWATER

Analyses	Result		Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS			E300.1				Analyst: **BY**
Bromide	ND		2.0		mg/L	10	9/27/2007
NOTES:							
The reporting limits were raised due to matrix interference.							
COLOR			E110.2				Analyst: **KAM**
Color	210		50.0		UNITS	10	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)			E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	855	J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA			E310.2				Analyst: **BY**
Alkalinity, Total (As CaCO3)	470		10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT			E325.2				Analyst: **BY**
Chloride	263		1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			E350.1				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	8.92		0.500		mg/L	1	10/8/2007
TKN FOR WATERS			E351.3				Analyst: **BS**
Nitrogen, Kjeldahl, Total	10.7		0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)			E353.2				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND		0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE			E375.4				Analyst: **KAM**
Sulfate	16.1		10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			E405.1				Analyst: **DEY**
Biochemical Oxygen Demand	ND		4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)			E410.4				Analyst: **NJS**
Chemical Oxygen Demand	52		20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)			E415.1				Analyst: **NJS**
Organic Carbon, Total	15.1		3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS			E420.4		(E420.4)		Analyst: **MB**
Phenolics, Total Recoverable	ND		0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005			SM3500				Analyst: **DEY**
Hexavalent chromium	ND		0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:			
*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07 -

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-12D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-007

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12600			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	20.4			P
7440-39-3	Barium	165	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	109000			P
7440-47-3	Chromium	14.5			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	36.0			P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	386000			P
7439-89-6	Iron	27000		J N	P
7439-92-1	Lead	8.7			P
7439-95-4	Magnesium	27600			P
7439-96-5	Manganese	1000			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3720	B	J	P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	11400			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	106		J	P

Color Before: GREY Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light BlackSediment

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Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-12D
Lab Order:	U0709313	**Collection Date:**	9/18/2007 1:10:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-007	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	550	250		UNITS	50	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	207 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	8.57	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	10.0		mg/L	2	9/24/2007
NOTES: The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: **Date:**

Qualifiers:				
*	Low Level		**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank		E	Value above quantitation range
H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit		S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-10S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-008

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5770			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	36300			P
7440-47-3	Chromium	1810			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	22.5	B		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	117000			P
7439-89-6	Iron	21600		J N	P
7439-92-1	Lead	5.1			P
7439-95-4	Magnesium	6510			P
7439-96-5	Manganese	606			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	66.1			P
7440-09-7	Potassium	3060	B	J	P
7782-49-2	Selenium	6.1			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	33200			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	29.8		J	P

Color Before: ORANGE Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-10S
Lab Order:	U0709313	**Collection Date:**	9/18/2007 1:57:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-008	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		E300.1				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		E110.2				Analyst: **KAM**
Color	900	250		UNITS	50	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	320 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: **BY**
Alkalinity, Total (As CaCO3)	86	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: **BY**
Chloride	102	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		E350.1				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		E351.3				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		E353.2				Analyst: **BY**
Nitrogen, Nitrate (as N)	1.28	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		E375.4				Analyst: **KAM**
Sulfate	57.0	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/2/2007
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		E420.4		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________ **Date:** ______________

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc.   Contract: CHA

Lab Code: 10170   Case No.:   SAS No.:   SDG No.: CHA85

Matrix: (soil/water) WATER   Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML   Lab File ID: E15445.D

Level: (low/med) LOW   Date Received: 9/19/07

% Moisture: not dec.   Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm)   Dilution Factor: 1.0

Soil Extract Volume: ______ (uL)   Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15445.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15445.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-101

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-009

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1040			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	114000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	12.7	B		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	429000			P
7439-89-6	Iron	2340		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	35000			P
7439-96-5	Manganese	955			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	5150		J	P
7782-49-2	Selenium	10.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	12500			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	57.0		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light BlackSediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-10I
Lab Order:	U0709313	**Collection Date:**	9/18/2007 2:20:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-009	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	55.0	25.0		UNITS	5	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	560 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	440	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	24.2	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	5.88	0.500		mg/L	1	10/8/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	7.22	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	72.2	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-10D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-010

Level (low/med): LOW Date Received: 9/19/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12100			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	17.1			P
7440-39-3	Barium	116	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	119000			P
7440-47-3	Chromium	15.5			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	30.8			P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	421000			P
7439-89-6	Iron	25900		J N	P
7439-92-1	Lead	7.4			P
7439-95-4	Magnesium	30300			P
7439-96-5	Manganese	1070			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	35.3	B		P
7440-09-7	Potassium	3450	B	J	P
7782-49-2	Selenium	5.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	19900			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	161			P

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Color Before: GREY Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments:
Light BlackSediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-10D
Lab Order:	U0709313	**Collection Date:**	9/18/2007 2:30:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-010	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	550	250		UNITS	50	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	120 J	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	2.01	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/19/2007 9:33:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	10.0		mg/L	2	9/24/2007
NOTES: The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/19/2007 7:30:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/19/2007 10:00:00 AM

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Approved By: ____________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UL TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB A

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TB
A

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK A

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-1S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-013

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1240			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	51000			P
7440-47-3	Chromium	745			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	23.8	B		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	165000			P
7439-89-6	Iron	5660		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	9090			P
7439-96-5	Manganese	1090			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	66.7			P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	8.2			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	2650	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	46.1		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment/Leaves

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-1S
Lab Order:	U0709313	**Collection Date:**	9/19/2007 10:20:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-013	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	90.0	25.0		UNITS	5	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	215	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	190	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	6.51	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	0.305	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	10.6	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: ____________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-1I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-014

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	35000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	112000			P
7439-89-6	Iron	618		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	5880			P
7439-96-5	Manganese	140			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	9.7			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	1590	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	117		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-11
Lab Order:	U0709313	**Collection Date:**	9/19/2007 10:30:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-014	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	15.0	5.00		UNITS	1	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	150	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	110	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	10.1	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	18.7	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-1D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-015

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1670			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	12.7			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	20500			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	68400			P
7439-89-6	Iron	1830		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	4190	B		P
7439-96-5	Manganese	62.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	8.5			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	12900			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	27.7		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-1D
Lab Order:	U0709313	**Collection Date:**	9/19/2007 10:45:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-015	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	26.0	10.0		UNITS	2	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	112	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	93	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	1.52	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: ____________________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-2S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-016

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9050			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	74.1	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	1330			P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	79000			P
7440-47-3	Chromium	148			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	35.4			P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	262000			P
7439-89-6	Iron	14200		J N	P
7439-92-1	Lead	4.8			P
7439-95-4	Magnesium	15800			P
7439-96-5	Manganese	344			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	83.7			P
7440-09-7	Potassium	11100		J	P
7782-49-2	Selenium	8.4			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	102000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	73.6		J	P

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Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:
Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-2S
Lab Order:	U0709313	**Collection Date:**	9/19/2007 11:25:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-016	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	950	250		UNITS	50	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	487	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	290	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	160	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/8/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	1.53	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	9.14	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	46.1	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	11.6	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-2I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-017

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	33200			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	101000			P
7439-89-6	Iron	295		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	4320	B		P
7439-96-5	Manganese	116			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	7.7			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	1840	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	16.9	B	J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-21
Lab Order:	U0709313	**Collection Date:**	9/19/2007 11:35:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-017	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	9.00	5.00		UNITS	1	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	140	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	95	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	2.88	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	16.2	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-2D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-018

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1050			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	13.6			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	10900			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	37900			P
7439-89-6	Iron	1220		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	2580	B		P
7439-96-5	Manganese	43.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1310	B	J	P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	19600			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	30.9		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-2D
Lab Order:	U0709313	**Collection Date:**	9/19/2007 11:45:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-018	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	26.0	10.0		UNITS	2	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	108	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	93	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	1.51	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/20/2007 5:15:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	0.005	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 9:30:00 AM

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI T B
B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI T B
G

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULLT B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK
B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-7S

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Matrix (soil/water): WATER   Lab Sample ID: U0709313-021

Level (low/med): LOW   Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1510			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	164000			P
7440-47-3	Chromium	18.1			P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	505000			P
7439-89-6	Iron	2570		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	23400			P
7439-96-5	Manganese	77.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3460	B	J	P
7782-49-2	Selenium	13.0			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	25900			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	35.4		J	P

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Color Before: COLORLESS   Clarity Before: CLEAR   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-7S
Lab Order:	U0709313	**Collection Date:**	9/19/2007 2:45:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-021	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	38.0	10.0		UNITS	2	9/20/2007 9:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	600	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	400	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	61.7	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/8/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	0.532	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	1.81	0.200		mg/L	1	9/21/2007 4:38:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	91.1	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	34	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	4.2	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 11:00:00 AM

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Approved By: ______________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ____________ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: __________ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-7I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-022

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	205			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	34300			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	108000			P
7439-89-6	Iron	573		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	5530			P
7439-96-5	Manganese	119			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	6380			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	14.0	B	J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-7I
Lab Order:	U0709313	**Collection Date:**	9/19/2007 2:00:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-022	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	19.0	5.00		UNITS	1	9/20/2007 2:30:00 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	150	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	4.91	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 4:38:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	15.5	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 11:00:00 AM

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-7D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-023

Level (low/med): LOW Date Received: 9/20/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	12.8			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	15400			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	51600			P
7439-89-6	Iron	60.0	U	J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3210	B		P
7439-96-5	Manganese	39.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1300	B	J	P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	15000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	28.6		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-7D
Lab Order:	U0709313	**Collection Date:**	9/19/2007 2:25:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-023	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	11.0	5.00		UNITS	1	9/20/2007 2:30:00 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	90	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	97	10		mg/LCaCO3	1	9/27/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	1.32	1.00		mg/L	1	9/27/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 4:38:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4	H	mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/20/2007 11:00:00 AM

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK C

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK C

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U R
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK C

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U J
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-15S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-026

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.9	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	42700			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	148000			P
7439-89-6	Iron	6590		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	10100			P
7439-96-5	Manganese	452			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3080	B	J	P
7782-49-2	Selenium	13.9			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	39200			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	11.0	B	J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15S
Lab Order:	U0709313	**Collection Date:**	9/20/2007 5:00:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-026	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	250	50.0		UNITS	10	9/21/2007 10:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	280	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	130	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	67.7	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	1.54	0.500		mg/L	1	10/8/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	2.02	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	45.9	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	5.4	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	0.007	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.020		mg/L	2	9/21/2007 10:00:00 AM
NOTES: The reporting limits were raised due to matrix interference.						

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

J J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-15I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-027

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1930			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	121	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	59200			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	183000			P
7439-89-6	Iron	4700		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8470			P
7439-96-5	Manganese	232			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	11.1			P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	7600			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	32.5		J	P

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Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light BlackSediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15I
Lab Order:	U0709313	**Collection Date:**	9/20/2007 4:25:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-027	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	9/27/2007
NOTES:						
The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	55.0	25.0		UNITS	5	9/21/2007 10:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	258	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	21.2	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	36.3	10.0		mg/L	2	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/21/2007 10:00:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-15D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-028

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	291			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	13.4			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	23000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	72900			P
7439-89-6	Iron	537		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3740	B		P
7439-96-5	Manganese	50.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1150	B	J	P
7782-49-2	Selenium	5.1			P
7440-22-4	Silver	10.0	U	J	P
7440-23-5	Sodium	11700			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	13.0	B	J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15D
Lab Order:	U0709313	**Collection Date:**	9/20/2007 3:30:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-028	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	7.00	5.00		UNITS	1	9/21/2007 10:00:00 AM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	105	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	1.36	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/21/2007 10:00:00 AM

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

J J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TB
D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ___ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ____ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U J
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc.   Contract: CHA

Lab Code: 10170   Case No.:   SAS No.:   SDG No.: CHA85

Matrix: (soil/water) WATER   Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML   Lab File ID: E15531.D

Level: (low/med) LOW   Date Received: 9/21/07

% Moisture: not dec.   Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm)   Dilution Factor: 1.0

Soil Extract Volume: (uL)   Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15531.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15531.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-14S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-031

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1090			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	17500			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	61200			P
7439-89-6	Iron	4700		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	4240	B		P
7439-96-5	Manganese	147			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U	J	P
7440-23-5	Sodium	2290	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	47.3		J	P

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

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Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14S
Lab Order:	U0709313	**Collection Date:**	9/21/2007 9:40:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-031	**Matrix:**	GROUNDWATER

Analyses *	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	20		mg/L	100	9/27/2007
NOTES: The reporting limits were raised due to matrix interference.						
COLOR		**E110.2**				Analyst: **KAM**
Color	12.0	5.00		UNITS	1	9/21/2007 4:00:00 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	150	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	2.14	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	10.0		mg/L	2	9/24/2007
NOTES: The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	11.8	6.0		mg/L	2	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	0.007	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.040		mg/L	4	9/21/2007 4:00:00 PM
NOTES: The reporting limits were raised due to matrix interference.						

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Approved By: ______________________ **Date:** ______________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-14I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-032

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	129	B		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.9			P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	37300			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	114000			P
7439-89-6	Iron	427		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	5070			P
7439-96-5	Manganese	79.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U	J	P
7440-23-5	Sodium	3820	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	53.6		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14J
Lab Order:	U0709313	**Collection Date:**	9/21/2007 9:30:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-032	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	290	50.0		UNITS	10	9/21/2007 4:00:00 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	182	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	5.55	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	21.4	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/21/2007 4:00:00 PM

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Approved By: **Date:**

Qualifiers:
- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	1	J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

FORM I VOA 3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-14D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Lab Sample ID: U0709313-033

Level (low/med): LOW Date Received: 9/21/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	288			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	19400			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
57-12-5	Cyanide	10.0	U	J	C
471-34-1	Hardness, T	63400			P
7439-89-6	Iron	495		J N	P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3630	B		P
7439-96-5	Manganese	23.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.7			P
7440-22-4	Silver	10.0	U	J	P
7440-23-5	Sodium	13500			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	98.8		J	P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *19-Oct-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14D
Lab Order:	U0709313	**Collection Date:**	9/21/2007 10:00:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0709313-033	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	0.49	0.20		mg/L	1	9/27/2007
COLOR		**E110.2**				Analyst: **KAM**
Color	15.0	5.00		UNITS	1	9/21/2007 4:00:00 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	92	25		mg/L	1	9/21/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **BY**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	10/3/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **BY**
Chloride	1.10	1.00		mg/L	1	10/3/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/5/2007
TKN FOR WATERS		**E351.3**				Analyst: **BS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	9/21/2007 5:23:00 PM
SULFATE		**E375.4**				Analyst: **KAM**
Sulfate	ND	5.00		mg/L	1	9/24/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **DEY**
Biochemical Oxygen Demand	ND	4		mg/L	1	9/21/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	10/3/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	10/3/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **MB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/5/2007
HEXAVALENT CHROMIUM BY ASP 2005		**SM3500**				Analyst: **DEY**
Hexavalent chromium	ND	0.010		mg/L	1	9/21/2007 4:00:00 PM

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Approved By: ________ **Date:** ________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

UJ R UJ

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q	
74-87-3	Chloromethane	5	U	UJ
75-1-4	Vinyl Chloride	5	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	UJ
67-64-1	Acetone	6	J	J
75-35-4	1,1-Dichloroethene	5	U	UJ
74-88-4	Iodomethane	5	U	UJ
75-15-0	Carbon Disulfide	5	U	UJ
75-09-2	Methylene Chloride	5	U	UJ
107-13-1	Acrylonitrile	100	U	R
156-60-5	trans-1,2-Dichloroethene	5	U	UJ
75-34-33	1,1-Dichloroethane	5	U	
108-5-4	Vinyl Acetate	50	U	
78-93-3	2-Butanone	10	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
74-97-5	Bromochloromethane	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
97-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-pentanone	10	U	
10061-1-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-2-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	
108-90-7	Chlorobenzene	5	U	
630-20-6	1,1,1,2-Tetrachloroethane	5	U	
100-41-4	Ethylbenzene	5	U	
108-38-3	m,p-Xylene	5	U	UJ

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK
G

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q	
95-47-6	o-Xylene	5	U	J
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
110-57-6	1,4-Dichloro-2-butene	10	U	
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloro-propane	10	U	J

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK E

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quality Control Summary

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Upstate Laboratories, Inc.

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	114	99	101	0
02	VMBS01	106	99	106	0
03	MW-101MS	106	99	97	0
04	MW-101MSD	109	99	98	0
05	MW-101	109	99	99	0
06	MW-9S	108	97	97	0
07	MW-9I	109	98	99	0
08	MW-9D	111	99	100	0
09	MW-12S	111	97	99	0
10	CHA-1	114	98	98	0
11	VBLK02	114	97	99	0
12	VMBS02	106	98	108	0
13	MW-12I	111	99	100	0
14	MW-12D	111	99	101	0
15	MW-10S	112	98	102	0
16	MW-10D	112	98	101	0
17	ULI TB	114	98	102	0
18	HOLDING BLA	113	97	100	0
19	MW-1S	114	98	101	0
20	VBLK03	100	95	92	0
21	VMBS03	96	100	104	0
22	MW-15S	103	96	96	0
23	MW-15I	106	97	97	0
24	MW-15D	107	97	98	0
25	ULI TB	113	97	99	0
26	HOLDING BLA	113	96	98	0
27	MW-14S	113	97	94	0
28	MW-14I	112	97	99	0
29	VBLK04	89	95	102	0
30	VMBS04	84	98	113	0
31	MW-14D	80	97	100	0
32	ULI TB	84	97	101	0
33	HOLDING BLA	86	95	102	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK05	98	101	103	0
02	VMBS05	97	99	104	0
03	MW-1I	92	99	106	0
04	MW-1D	95	101	102	0
05	MW-2S	95	101	106	0
06	MW-2I	91	100	103	0
07	MW-2D	93	99	104	0
08	ULI T B	94	97	104	0
09	HOLDING BLAN	93	98	106	0
10	MW-7S	96	100	104	0
11	MW-7I	91	99	106	0
12	MW-7D	94	100	103	0
13	ULI TRIP BLAN	94	100	106	0
14	HOLDING BLAN	94	99	103	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

 FORM II VOA-1 3/90

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix Spike - EPA Sample No MW-101

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	68	136	61 - 145
Benzene	50	0.0	56	112	76 - 127
Trichloroethene	50	0.0	59	118	71 - 120
Toluene	50	0.0	59	118	76 - 125
Chlorobenzene	50	0.0	58	116	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	66	132	3	14	61 - 145
Benzene	50	55	110	2	11	76 - 127
Trichloroethene	50	59	118	0	14	71 - 120
Toluene	50	59	118	0	13	76 - 125
Chlorobenzene	50	56	112	4	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

CLIENT SAMP ID: MW-10IS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75-125	462.2667		15.0000	U	500.00	92.5		P
Arsenic	75-125	1877.7341		10.0000	U	2000.00	93.9		P
Barium	75-125	1852.4852		50.0000	U	2000.00	92.6		P
Beryllium	75-125	45.5508		3.0000	U	50.00	91.1		P
Boron	75-125	4983.1385		500.0000	U	5000.00	99.7		P
Cadmium	75-125	46.4454		5.0000	U	50.00	92.9		P
Chromium	75-125	176.5635		5.0000	U	200.00	88.3		P
Cobalt	75-125	438.9246		20.0000	U	500.00	87.8		P
Copper	75-125	232.6695		12.7229	B	250.00	88.0		P
Iron	75-125	3069.1788		2343.8813		1000.00	72.5	N	P
Lead	75-125	449.2015		3.0000	U	500.00	89.8		P
Manganese	75-125	1378.1914		954.5474		500.00	84.7		P
Nickel	75-125	449.7803		30.0000	U	500.00	90.0		P
Selenium	75-125	2051.0955		10.8897		2000.00	102.0		P
Silver	75-125	48.7340		10.0000	U	50.00	97.5		P
Thallium	75-125	1847.6747		10.0000	U	2000.00	92.4		P
Vanadium	75-125	438.6195		30.0000	U	500.00	87.7		P
Zinc	75-125	479.7175		56.9541		500.00	84.6		P

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Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMP ID

MW-10IA

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Matrix (soil/water): WATER   Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Iron		3085.49		2343.88		1000.0	74.2		P

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

CLIENT SAMP ID

MW-101S

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Matrix (soil/water): WATER   Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75-125	1.1413		0.2000	U	1.00	114.1		CV

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Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

CLIENT SAMP ID

MW-10IS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Cyanide	75-125	193.0000		10.0000	U	200.00	96.5		C

Comments:

U.S. EPA - CLP

6
DUPLICATES

CLIENT SAMP ID: MW-10I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER TOTAL Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	200	1044.1142		875.0968		17.6		P
Antimony		0.0000	U	0.0000	U			P
Arsenic		0.0000	U	0.0000	U			P
Barium		0.0000	U	0.0000	U			P
Beryllium		0.0000	U	0.0000	U			P
Boron		0.0000	U	0.0000	U			P
Cadmium		0.0000	U	0.0000	U			P
Calcium		114099.9190		102751.0040		10.5		P
Chromium		0.0000	U	0.0000	U			P
Cobalt		0.0000	U	0.0000	U			P
Copper		12.7229	B	10.4701	B	19.4		P
Cyanide		0.0000	U	0.0000	U			C
Iron		2343.8813		2104.2936		10.8		P
Lead		0.0000	U	0.0000	U			P
Magnesium		35013.3708		31452.1907		10.7		P
Manganese		954.5474		862.0157		10.2		P
Mercury		0.0000	U	0.0000	U			CV
Nickel		0.0000	U	0.0000	U			P
Potassium	5000	5154.8933		5095.4998		1.2		P
Selenium	5	10.8897		13.9913		24.9		P
Silver		0.0000	U	0.0000	U			P
Sodium	5000	12530.2031		11163.9714		11.5		P
Thallium		0.0000	U	0.0000	U			P
Vanadium		0.0000	U	0.0000	U			P
Zinc	20	56.9541		43.0187		27.9		P

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK01 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	38	76	61-145
Benzene	50	0	40	80	76-127
Trichloroethene	50	0	40	80	71-120
Toluene	50	0	41	82	76-125
Chlorobenzene	50	0	43	86	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK02 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	31	62	61-145
Benzene	50	0	31	62	76-127
Trichloroethene	50	0	33	66	71-120
Toluene	50	0	33	66	76-125
Chlorobenzene	50	0	35	70	75-130

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK03 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	37	74	61-145
Benzene	50	0	44	88	76-127
Trichloroethene	50	0	47	94	71-120
Toluene	50	0	47	94	76-125
Chlorobenzene	50	0	49	98	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK04 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	33	66	61-145
Benzene	50	0	37	74	76-127
Trichloroethene	50	0	44	88	71-120
Toluene	50	0	42	84	76-125
Chlorobenzene	50	0	43	86	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK05 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	42	84	61-145
Benzene	50	0	46	92	76-127
Trichloroethene	50	0	50	100	71-120
Toluene	50	0	53	106	76-125
Chlorobenzene	50	0	57	114	75-130

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U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Solid LCS Source: ERA

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L) True	Aqueous (ug/L) Found	Aqueous (ug/L) %R	Solid (mg/kg) True	Solid (mg/kg) Found	C	Limits		%R
Aluminum	12000.0	11880.22	99.0						
Antimony	1000.0	947.10	94.7						
Arsenic	1000.0	948.87	94.9						
Barium	12000.0	11663.00	97.2						
Beryllium	1000.0	927.41	92.7						
Boron	2000.0	2174.30	108.7						
Cadmium	1000.0	953.74	95.4						
Calcium	21000.0	20040.04	95.4						
Chromium	1000.0	898.87	89.9						
Cobalt	1000.0	921.10	92.1						
Copper	1000.0	933.29	93.3						
Iron	21000.0	19309.22	91.9						
Lead	1000.0	937.65	93.8						
Magnesium	21000.0	20077.50	95.6						
Manganese	1000.0	916.26	91.6						
Nickel	1000.0	933.88	93.4						
Potassium	20000.0	24624.30	123.1						
Selenium	1000.0	1067.36	106.7						
Silver	2000.0	1959.09	98.0						
Sodium	22000.0	19761.48	89.8						
Thallium	1000.0	944.98	94.5						
Vanadium	1000.0	887.53	88.8						
Zinc	1000.0	973.73	97.4						

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U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Solid LCS Source: ERA

Aqueous LCS Source: CPI

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Aluminum	12000.0	11838.33	98.7					
Antimony	1000.0	941.68	94.2					
Arsenic	1000.0	930.36	93.0					
Barium	12000.0	11528.71	96.1					
Beryllium	1000.0	930.19	93.0					
Boron	2000.0	2131.50	106.6					
Cadmium	1000.0	947.92	94.8					
Calcium	21000.0	18935.91	90.2					
Chromium	1000.0	888.64	88.9					
Cobalt	1000.0	919.39	91.9					
Copper	1000.0	931.24	93.1					
Iron	21000.0	19204.18	91.4					
Lead	1000.0	924.89	92.5					
Magnesium	21000.0	19833.42	94.4					
Manganese	1000.0	913.62	91.4					
Nickel	1000.0	930.25	93.0					
Potassium	20000.0	24557.32	122.8					
Selenium	1000.0	1066.65	106.7					
Silver	2000.0	1957.28	97.9					
Sodium	22000.0	19725.61	89.7					
Thallium	1000.0	936.90	93.7					
Vanadium	1000.0	878.35	87.8					
Zinc	1000.0	980.86	98.1					

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Solid LCS Source: ERA

Aqueous LCS Source: CPI

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Cyanide	250.0	225.00	90.0					

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15441.D Lab Sample ID: MB

Date Analyzed: 9/27/07 Time Analyzed: 12:56

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS01	LCS	E15442.D	13:45
02	MW-101MS	U0709313-009HMS	E15443.D	14:35
03	MW-101MSD	U0709313-009HMSD	E15444.D	15:24
04	MW-101	U0709313-009H	E15445.D	16:13
05	MW-9S	U0709313-001H	E15446.D	17:02
06	MW-9I	U0709313-002H	E15447.D	17:52
07	MW-9D	U0709313-003H	E15448.D	18:40
08	MW-12S	U0709313-004H	E15449.D	19:30
09	CHA-1	U0709313-005H	E15450.D	20:19

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15455.D Lab Sample ID: MB

Date Analyzed: 9/28/07 Time Analyzed: 0:26

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS02	LCS	E15456.D	1:15
02	MW-12I	U0709313-006H	E15458.D	2:53
03	MW-12D	U0709313-007H	E15459.D	3:42
04	MW-10S	U0709313-008H	E15460.D	4:32
05	MW-10D	U0709313-010H	E15461.D	5:21
06	ULI TB	U0709313-011A	E15462.D	6:10
07	HOLDING BLANK	U0709313-012A	E15463.D	6:59
08	MW-1S	U0709313-013H	E15464.D	7:48

COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. - Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15523.D Lab Sample ID: MB

Date Analyzed: 10/1/07 Time Analyzed: 15:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS03	LCS	E15524.D	15:55
02	MW-15S	U0709313-026H	E15526.D	17:34
03	MW-15I	U0709313-027H	E15527.D	18:23
04	MW-15D	U0709313-028H	E15528.D	19:11
05	ULI TB	U0709313-029A	E15529.D	20:01
06	HOLDING BLANK	U0709313-030A	E15530.D	20:50
07	MW-14S	U0709313-031H	E15531.D	21:39
08	MW-14I	U0709313-032H	E15532.D	22:28

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15539.D Lab Sample ID: MB

Date Analyzed: 10/2/07 Time Analyzed: 18:44

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS04	LCS	E15541.D	20:22
02	MW-14D	U0709313-033H	E15546.D	0:28
03	ULI TB	U0709313-034H	E15547.D	1:18
04	HOLDING BLANK	U0709313-035H	E15548.D	2:07

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID: C19035.D Lab Sample ID: MB

Date Analyzed: 9/30/2007 Time Analyzed: 13:36

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS05	LCS	C19036.D	14:14
02	MW-1I	U0709313-014H	C19038.D	15:29
03	MW-1D	U0709313-015H	C19039.D	16:07
04	MW-2S	U0709313-016H	C19040.D	16:46
05	MW-2I	U0709313-017H	C19041.D	17:24
06	MW-2D	U0709313-018H	C19042.D	18:01
07	ULI T B	U0709313-019A	C19043.D	18:39
08	HOLDING BLANK	U0709313-020A	C19044.D	19:17
09	MW-7S	U0709313-021H	C19045.D	19:55
10	MW-7I	U0709313-022H	C19046.D	20:33
11	MW-7D	U0709313-023H	C19047.D	21:11
12	ULI TRIP BLANK	U0709313-024A	C19048.D	21:49
13	HOLDING BLANK	U0709313-025A	C19049.D	22:27

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28996 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Preparation Blank	C	M
Aluminum	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Barium	50.0	U	50.0	U	50.0	U	50.0	U	50.000	U	P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Calcium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Cobalt	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Copper	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Iron	60.0	U	60.0	U	60.0	U	60.0	U	60.000	U	P
Lead	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Magnesium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Nickel	30.0	U	30.0	U	30.0	U	30.0	U	30.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Vanadium	30.0	U	30.0	U	30.0	U	30.0	U	30.000	U	P

U.S. EPA - CLP

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BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28996 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Prepa-ration Blank	C	M
Aluminum			100.0	U							P
Arsenic			10.0	U							P
Barium			50.0	U							P
Beryllium			3.0	U							P
Cadmium			5.0	U							P
Calcium			1000.0	U							P
Chromium			5.0	U							P
Cobalt			20.0	U							P
Copper			10.0	U							P
Iron			60.0	U							P
Lead			3.0	U							P
Magnesium			1000.0	U							P
Manganese			10.0	U							P
Nickel			30.0	U							P
Potassium			1000.0	U							P
Selenium			5.0	U							P
Silver			10.0	U							P
Sodium			1000.0	U							P
Thallium			10.0	U							P
Vanadium			30.0	U							P

U.S. EPA - CLP

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BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28996 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Prepa-ration Blank	C	M
Aluminum	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Barium	50.0	U	50.0	U	50.0	U	50.0	U	50.000	U	P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Calcium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Cobalt	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Copper	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Iron	60.0	U	60.0	U	60.0	U	60.0	U	60.000	U	P
Lead	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Magnesium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Nickel	30.0	U	30.0	U	30.0	U	30.0	U	30.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Vanadium	30.0	U	30.0	U	30.0	U	30.0	U	30.000	U	P

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U.S. EPA - CLP

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BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28996 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Prepa-ration Blank	C	M
Aluminum			100.0	U							P
Arsenic			10.0	U							P
Barium			50.0	U							P
Beryllium			3.0	U							P
Cadmium			5.0	U							P
Calcium			1000.0	U							P
Chromium			5.0	U							P
Cobalt			20.0	U							P
Copper			10.0	U							P
Iron			60.0	U							P
Lead			3.0	U							P
Magnesium			1000.0	U							P
Manganese			10.0	U							P
Nickel			30.0	U							P
Potassium			1000.0	U							P
Selenium			5.0	U							P
Silver			10.0	U							P
Sodium			1000.0	U							P
Thallium			10.0	U							P
Vanadium			30.0	U							P

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28997 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Prepa-ration Blank	C	M
Antimony	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Zinc	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28997 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Prepa-ration Blank	C	M
Antimony			15.0	U							P
Zinc			10.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28997 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Prepa-ration Blank	C	M
Antimony	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Zinc	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28997 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Preparation Blank	C	M
Antimony			15.0	U							P
Zinc			10.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 29010 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Prepa-ration Blank	C	M
Boron	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 29010 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11734 Preparation Blank	C	M
Boron			500.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 29010 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Prepa-ration Blank	C	M
Boron	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 29010 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11735 Prepa-ration Blank	C	M
Boron			500.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11621 Prepa-ration Blank	C	M
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11621 Prepa- ration Blank	C	M
Mercury			0.2	U	0.2	U	0.2	U			CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11621 Prepa-ration Blank	C	M
Mercury			0.2	U	0.2	U	0.2	U			CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11621 Prepa-ration Blank	C	M
Mercury			0.2	U							CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11622 Prepa-ration Blank	C	M
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11622 Prepa-ration Blank	C	M
Mercury			0.2	U	0.2	U	0.2	U			CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11622 Prepa-ration Blank	C	M
Mercury			0.2	U	0.2	U	0.2	U			CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28474 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11622 Prepa-ration Blank	C	M
Mercury			0.2	U							CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28553 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11640 Prepa-ration Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	C

FORM III - IN ILM04.1

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28553 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11640 Preparation Blank	C	M
Cyanide			10.0	U	10.0	U	10.0	U			C

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28553 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11646 Prepa- ration Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	C

FORM III - IN ILM04.1

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28553 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11646 Preparation Blank	C	M
Cyanide			10.0	U	10.0	U	10.0	U			C

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28724 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11662 Prepa- ration Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	C

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 28724 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-11662 Preparation Blank	C	M
Cyanide			10.0	U	10.0	U					C

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	524849	515701.0	103.1	521824	511641.2	102.3
Arsenic	0	0	-21	-14.7		-17	-24.5	0.0
Barium	0	500	15	518.6	103.7	13	510.5	102.1
Beryllium	0	500	0	506.5	101.3	0	505.6	101.1
Cadmium	0	1000	12	976.7	97.7	11	971.0	97.1
Calcium	500000	500000	520215	511167.2	102.2	516083	507280.1	101.5
Chromium	0	500	2	490.4	98.1	2	483.4	96.7
Cobalt	0	500	2	482.7	96.5	2	480.9	96.2
Copper	0	500	2	541.9	108.4	-2	536.3	107.3
Iron	200000	200000	182407	180160.2	90.1	181912	178892.4	89.4
Lead	0	1000	-32	964.5	96.4	-25	937.9	93.8
Magnesium	500000	500000	509880	501358.8	100.3	504158	493881.2	98.8
Manganese	0	500	5	506.3	101.3	4	504.5	100.9
Nickel	0	1000	1	958.5	95.9	0	955.4	95.5
Potassium	0	0	2295	2379.7		3279	3713.2	0.0
Selenium	0	0	-83	-92.8		-75	-75.8	0.0
Silver	0	1000	5	1079.9	108.0	5	1075.2	107.5
Sodium	0	0	-1180	-953.6		-1059	-926.8	0.0
Thallium	0	0	-52	-55.9		-45	-53.2	0.0
Vanadium	0	500	2	496.9	99.4	2	490.4	98.1

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U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Antimony	0	0	-10	-8.0		-11	-13.3	0.0
Zinc	0	1000	-6	935.8	93.6	-7	955.6	95.6

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U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Boron	0	1000	97	1105.2	110.5	0	984.1	98.4

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15410.D BFB Injection Date: 9/25/07

Instrument ID: 49 BFB Injection Time: 21:30

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.4
75	30.0 - 66.0% of mass 95	55.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	82.2
175	4.0 - 9.0% of mass 174	5.6 (6.9)1
176	93.0 - 101.0% of mass 174	81.3 (98.9)1
177	5.0 - 9.0% of mass 176	5.7 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-228-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	E15411.D	9/25/07	22:19
02	VSTD010	VSTD010	E15412.D	9/25/07	23:08
03	VSTD020	VSTD020	E15413.D	9/25/07	23:57
04	VSTD050	VSTD050	E15414.D	9/26/07	0:47
05	VSTD100	VSTD100	E15415.D	9/26/07	1:36
06	VSTD200	VSTD200	E15416.D	9/26/07	2:25

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15438.D BFB Injection Date: 9/27/07

Instrument ID: 49 BFB Injection Time: 10:17

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.8
75	30.0 - 66.0% of mass 95	57.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	81.8
175	4.0 - 9.0% of mass 174	6.5 (8.0)1
176	93.0 - 101.0% of mass 174	80.3 (98.2)1
177	5.0 - 9.0% of mass 176	6.3 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-229-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC01	CCV	E15439.D	9/27/07	11:18
02	VBLK01	MB	E15441.D	9/27/07	12:56
03	VMBS01	LCS	E15442.D	9/27/07	13:45
04	MW-101MS	U0709313-009HMS	E15443.D	9/27/07	14:35
05	MW-101MSD	U0709313-009HMSD	E15444.D	9/27/07	15:24
06	MW-101	U0709313-009H	E15445.D	9/27/07	16:13
07	MW-9S	U0709313-001H	E15446.D	9/27/07	17:02
08	MW-9I	U0709313-002H	E15447.D	9/27/07	17:52
09	MW-9D	U0709313-003H	E15448.D	9/27/07	18:40
10	MW-12S	U0709313-004H	E15449.D	9/27/07	19:30
11	CHA-1	U0709313-005H	E15450.D	9/27/07	20:19
12	VSTD050CC02	CC	E15451.D	9/27/07	21:08

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15452.D BFB Injection Date: 9/27/07

Instrument ID: 49 BFB Injection Time: 21:58

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	21.5	
75	30.0 - 66.0% of mass 95	59.2	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.9	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	85.8	
175	4.0 - 9.0% of mass 174	4.8	(5.6)1
176	93.0 - 101.0% of mass 174	83.1	(96.8)1
177	5.0 - 9.0% of mass 176	6.6	(7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-230-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC03	CCV	E15453.D	9/27/07	22:47
02	VBLK02	MB	E15455.D	9/28/07	0:26
03	VMBS02	LCS	E15456.D	9/28/07	1:15
04	MW-12I	U0709313-006H	E15458.D	9/28/07	2:53
05	MW-12D	U0709313-007H	E15459.D	9/28/07	3:42
06	MW-10S	U0709313-008H	E15460.D	9/28/07	4:32
07	MW-10D	U0709313-010H	E15461.D	9/28/07	5:21
08	ULI TB	U0709313-011A	E15462.D	9/28/07	6:10
09	HOLDING BLANK	U0709313-012A	E15463.D	9/28/07	6:59
10	MW-1S	U0709313-013H	E15464.D	9/28/07	7:48
11	VSTD050CC04	CC	E15465.D	9/28/07	8:38

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15520.D BFB Injection Date: 10/1/07

Instrument ID: 49 BFB Injection Time: 12:14

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	52.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	88.7
175	4.0 - 9.0% of mass 174	6.1 (6.9)1
176	93.0 - 101.0% of mass 174	85.9 (96.9)1
177	5.0 - 9.0% of mass 176	4.8 (5.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC05	CCV	E15521.D	10/1/07	13:27
02	VBLK03	MB	E15523.D	10/1/07	15:06
03	VMBS03	LCS	E15524.D	10/1/07	15:55
04	MW-15S	U0709313-026H	E15526.D	10/1/07	17:34
05	MW-15I	U0709313-027H	E15527.D	10/1/07	18:23
06	MW-15D	U0709313-028H	E15528.D	10/1/07	19:11
07	ULI TB	U0709313-029A	E15529.D	10/1/07	20:01
08	HOLDING BLANK	U0709313-030A	E15530.D	10/1/07	20:50
09	MW-14S	U0709313-031H	E15531.D	10/1/07	21:39
10	MW-14I	U0709313-032H	E15532.D	10/1/07	22:28
11	VSTD050CC06	CC	E15533.D	10/2/07	8:36

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15536.D BFB Injection Date: 10/2/07

Instrument ID: 49 BFB Injection Time: 16:11

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	57.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	95.5
175	4.0 - 9.0% of mass 174	7.1 (7.5)1
176	93.0 - 101.0% of mass 174	94.9 (99.4)1
177	5.0 - 9.0% of mass 176	5.1 (5.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC07	CCV	E15537.D	10/2/07	17:06
02	VBLK04	MB	E15539.D	10/2/07	18:44
03	VMBS04	LCS	E15541.D	10/2/07	20:22
04	MW-14D	U0709313-033H	E15546.D	10/3/07	0:28
05	ULI TB	U0709313-034H	E15547.D	10/3/07	1:18
06	HOLDING BLANK	U0709313-035H	E15548.D	10/3/07	2:07
07	VSTD050CC08	CC	E15549.D	10/3/07	2:56

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID: C18959.D BFB Injection Date: 9/25/2007

Instrument ID: 12 BFB Injection Time: 11:00

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	57.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	95.5
175	4.0 - 9.0% of mass 174	7.1 (7.5)1
176	93.0 - 101.0% of mass 174	94.9 (99.4)1
177	5.0 - 9.0% of mass 176	5.1 (5.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	C18960.D	9/25/2007	13:43
02	VSTD010	VSTD010	C18961.D	9/25/2007	14:21
03	VSTD020	VSTD020	C18962.D	9/25/2007	14:58
04	VSTD050	VSTD050	C18963.D	9/25/2007	15:36
05	VSTD100	VSTD100	C18964.D	9/25/2007	16:14
06	VSTD200	VSTD200	C18965.D	9/25/2007	16:52

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID: C19032.D BFB Injection Date: 9/30/2007

Instrument ID: 12 BFB Injection Time: 11:23

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	20.6	
75	30.0 - 66.0% of mass 95	57.4	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.0	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	95.5	
175	4.0 - 9.0% of mass 174	7.1	(7.5)1
176	93.0 - 101.0% of mass 174	94.9	(99.4)1
177	5.0 - 9.0% of mass 176	5.1	(5.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC009	CC	C19033.D	9/30/2007	12:03
02	VBLK05	MB	C19035.D	9/30/2007	13:36
03	VMBS05	LCS	C19036.D	9/30/2007	14:14
04	MW-1I	U0709313-014H	C19038.D	9/30/2007	15:29
05	MW-1D	U0709313-015H	C19039.D	9/30/2007	16:07
06	MW-2S	U0709313-016H	C19040.D	9/30/2007	16:46
07	MW-2I	U0709313-017H	C19041.D	9/30/2007	17:24
08	MW-2D	U0709313-018H	C19042.D	9/30/2007	18:01
09	ULI T B	U0709313-019A	C19043.D	9/30/2007	18:39
10	HOLDING BLANK	U0709313-020A	C19044.D	9/30/2007	19:17
11	MW-7S	U0709313-021H	C19045.D	9/30/2007	19:55
12	MW-7I	U0709313-022H	C19046.D	9/30/2007	20:33
13	MW-7D	U0709313-023H	C19047.D	9/30/2007	21:11
14	ULI TRIP BLANK	U0709313-024A	C19048.D	9/30/2007	21:49
15	HOLDING BLANK	U0709313-025A	C19049.D	9/30/2007	22:27
16	VSTD050CC010	CC	C19050.D	9/30/2007	23:04

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15439.D Date Analyzed: 9/27/07

Instrument ID: 49 Time Analyzed: 11:18

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	78686	14.15	117025	16.07	109867	24.20
	UPPER LIMIT	157372	14.65	234050	16.57	219734	24.70
	LOWER LIMIT	39343	13.65	58513	15.57	54934	23.70
	EPA SAMPLE NO.						
01	VBLK01	77720	14.16	117284	16.08	110395	24.20
02	VMBS01	79837	14.16	118604	16.07	109993	24.20
03	MW-101MS	81818	14.17	122937	16.07	112188	24.21
04	MW-101MSD	78615	14.17	119326	16.07	110369	24.21
05	MW-101	76956	14.17	114267	16.09	105115	24.21
06	MW-9S	75660	14.18	114391	16.08	104494	24.21
07	MW-9I	74465	14.18	112961	16.08	103702	24.22
08	MW-9D	73973	14.17	110745	16.09	103183	24.21
09	MW-12S	72311	14.18	110350	16.08	101226	24.22
10	CHA-1	70859	14.17	109396	16.08	100796	24.21

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15439.D Date Analyzed: 09/27/07

Instrument ID: 49 Time Analyzed: 11:18

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	75247	31.08				
	UPPER LIMIT	150494	30.58				
	LOWER LIMIT	37624	31.58				
	EPA SAMPLE NO.						
01	VBLK01	66015	31.09				
02	VMBS01	76344	31.09				
03	MW-101MS	67754	31.09				
04	MW-101MSD	65962	31.09				
05	MW-101	63102	31.10				
06	MW-9S	62734	31.10				
07	MW-9I	62332	31.10				
08	MW-9D	62034	31.09				
09	MW-12S	61928	31.10				
10	CHA-1	60341	31.09				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15453.D Date Analyzed: 9/27/07

Instrument ID: 49 Time Analyzed: 22:47

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	77539		14.17		114978		16.09		107539		24.21	
	UPPER LIMIT	155078		14.67		229956		16.59		215078		24.71	
	LOWER LIMIT	38770		13.67		57489		15.59		53770		23.71	
	EPA SAMPLE NO.												
01	VBLK02	75136		14.18		112912		16.08		103818		24.21	
02	VMBS02	75647		14.17		113414		16.08		104796		24.20	
03	MW-12I	72715		14.17		110174		16.08		101275		24.21	
04	MW-12D	72281		14.17		107883		16.09		100900		24.21	
05	MW-10S	69827		14.17		104933		16.08		97576		24.21	
06	MW-10D	69498		14.18		104755		16.09		95975		24.21	
07	ULI TB	68778		14.17		104319		16.09		95646		24.21	
08	HOLDING BLANK	67818		14.17		103408		16.08		95080		24.21	
09	MW-1S	67046		14.18		102287		16.09		93848		24.22	

-237-

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15453.D Date Analyzed: 09/27/07

Instrument ID: 49 Time Analyzed: 22:47

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	74392	31.10				
	UPPER LIMIT	148784	30.60				
	LOWER LIMIT	37196	31.60				
	EPA SAMPLE NO.						
01	VBLK02	62666	31.10				
02	VMBS02	72542	31.09				
03	MW-12I	61620	31.10				
04	MW-12D	60166	31.10				
05	MW-10S	59611	31.10				
06	MW-10D	58878	31.10				
07	ULI TB	58796	31.09				
08	HOLDING BL	58658	31.09				
09	MW-1S	57785	31.10				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15521.D Date Analyzed: 10/1/07

Instrument ID: 49 Time Analyzed: 13:27

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	104788	14.07	138588	15.98	120870	24.10
	UPPER LIMIT	209576	14.57	277176	16.48	241740	24.60
	LOWER LIMIT	52394	13.57	69294	15.48	60435	23.60
	EPA SAMPLE NO.						
01	VBLK03	85266	14.09	115709	16.00	98728	24.12
02	VMBS03	82875	14.09	108758	16.00	97579	24.13
03	MW-15S	74945	14.09	100369	16.01	86684	24.12
04	MW-15I	68924	14.09	92584	16.01	81039	24.13
05	MW-15D	67251	14.09	88594	16.00	77905	24.12
06	ULI TB	63670	14.09	85027	16.00	74922	24.11
07	HOLDING BLANK	62642	14.09	83285	16.00	72657	24.12
08	MW-14S	60723	14.09	81026	16.00	71764	24.12
09	MW-14I	60682	14.09	79694	16.00	70762	24.11

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15521.D Date Analyzed: 10/01/07

Instrument ID: 49 Time Analyzed: 13:27

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	79692	30.99				
	UPPER LIMIT	159384	30.49				
	LOWER LIMIT	39846	31.49				
	EPA SAMPLE NO.						
01	VBLK03	59988	31.00				
02	VMBS03	68171	31.01				
03	MW-15S	54706	31.01				
04	MW-15I	50286	31.01				
05	MW-15D	50079	31.01				
06	ULI TB	47708	31.01				
07	HOLDING BL	46407	31.00				
08	MW-14S	45383	31.01				
09	MW-14I	44777	31.01				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15537.D Date Analyzed: 10/2/07

Instrument ID: 49 Time Analyzed: 17:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB)		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	60859	14.11	67447	16.03	60027	24.14
	UPPER LIMIT	121718	14.61	134894	16.53	120054	24.64
	LOWER LIMIT	30430	13.61	33724	15.53	30014	23.64
	EPA SAMPLE NO.						
01	VBLK04	59090	14.11	66300	16.02	57677	24.14
02	VMBS04	66827	14.11	72798	16.02	66145	24.14
03	MW-14D	78439	14.13	88326	16.03	76839	24.15
04	ULI TB	71235	14.13	80359	16.04	70342	24.16
05	HOLDING BLANK	66301	14.12	76049	16.04	65658	24.15

-241-

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15537.D Date Analyzed: 10/02/07

Instrument ID: 49 Time Analyzed: 17:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB)						
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	48237	31.02				
	UPPER LIMIT	96474	30.52				
	LOWER LIMIT	24119	31.52				
	EPA SAMPLE NO.						
01	VBLK04	40026	31.03				
02	VMBS04	51341	31.03				
03	MW-14D	52502	31.04				
04	ULI TB	47999	31.04				
05	HOLDING BL	46112	31.04				

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID (Standard): C19033.D Date Analyzed: 9/30/2007

Instrument ID: 12 Time Analyzed: 12:03

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	512824	7.72	375595	10.98	280349	18.54
	UPPER LIMIT	1025648	8.22	751190	11.48	560698	19.04
	LOWER LIMIT	256412	7.22	187798	10.48	140175	18.04
	EPA SAMPLE NO.						
01	VBLK05	526196	7.72	385866	10.99	293882	18.52
02	VMBS05	542366	7.73	387083	10.98	285427	18.52
03	MW-1I	559700	7.73	389354	11.01	300956	18.53
04	MW-1D	505751	7.73	365338	11.00	274152	18.53
05	MW-2S	542745	7.75	386651	10.99	296945	18.52
06	MW-2I	553939	7.73	391627	10.99	295256	18.52
07	MW-2D	549171	7.73	391692	11.01	299575	18.52
08	ULI T B	549800	7.73	394024	11.00	293624	18.52
09	HOLDING BLANK	554036	7.72	391327	10.97	298087	18.51
10	MW-7S	535464	7.72	389127	10.98	294089	18.51
11	MW-7I	562678	7.71	386487	10.99	294774	18.52
12	MW-7D	537083	7.72	391141	10.99	297994	18.51
13	ULI TRIP BLANK	548830	7.72	386505	10.97	296130	18.51
14	HOLDING BLANK	470837	7.72	344048	10.98	262060	18.51

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID (Standard): C19033.D Date Analyzed: 09/30/07

Instrument ID: 12 Time Analyzed: 12:03

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	220139		23.21									
	UPPER LIMIT	440278		22.71									
	LOWER LIMIT	110070		23.71									
	EPA SAMPLE NO.												
01	VBLK05	231686		23.17									
02	VMBS05	233034		23.18									
03	MW-1I	242783		23.18									
04	MW-1D	216875		23.18									
05	MW-2S	241650		23.18									
06	MW-2I	238314		23.18									
07	MW-2D	238734		23.18									
08	ULI T B	240685		23.18									
09	HOLDING BL	235890		23.18									
10	MW-7S	234320		23.17									
11	MW-7I	234505		23.17									
12	MW-7D	232147		23.17									
13	ULI TRIP BLA	242407		23.18									
14	HOLDING BL	205568		23.16									

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	%R(1)	Continuing Calibration True	Continuing Calibration Found	%R(1)	Found	%R(1)	M
Aluminum	10000.0	10077.82	100.8	16000.0	15830.82	98.9	15807.17	98.8	P
Arsenic	500.0	509.10	101.8	2000.0	2081.96	104.1	2071.93	103.6	P
Barium	10000.0	10574.60	105.7	16000.0	15887.45	99.3	15833.65	99.0	P
Beryllium	250.0	257.86	103.1	400.0	397.48	99.4	397.62	99.4	P
Cadmium	250.0	258.82	103.5	1000.0	1045.52	104.6	1045.38	104.5	P
Calcium	25000.0	25088.71	100.4	40000.0	39782.81	99.5	39624.06	99.1	P
Chromium	500.0	518.80	103.8	800.0	787.47	98.4	783.80	98.0	P
Cobalt	2500.0	2610.97	104.4	4000.0	3980.89	99.5	3979.48	99.5	P
Copper	1250.0	1291.51	103.3	2000.0	1973.99	98.7	1972.20	98.6	P
Iron	5000.0	5203.80	104.1	8000.0	7918.67	99.0	7897.09	98.7	P
Lead	250.0	259.37	103.7	2000.0	2090.42	104.5	2081.64	104.1	P
Magnesium	25000.0	26104.91	104.4	40000.0	40137.41	100.3	39950.23	99.9	P
Manganese	750.0	781.24	104.2	1200.0	1195.22	99.6	1194.49	99.5	P
Nickel	2000.0	2089.82	104.5	3200.0	3179.32	99.4	3182.54	99.5	P
Potassium	25000.0	24434.22	97.7	40000.0	40448.97	101.1	40310.26	100.8	P
Selenium	250.0	254.17	101.7	2000.0	2106.17	105.3	2109.61	105.5	P
Silver	500.0	516.13	103.2	800.0	800.55	100.1	806.14	100.8	P
Sodium	25000.0	24319.80	97.3	40000.0	39452.96	98.6	39513.09	98.8	P
Thallium	500.0	515.15	103.0	2000.0	2104.86	105.2	2100.11	105.0	P
Vanadium	2500.0	2593.38	103.7	4000.0	3944.04	98.6	3924.82	98.1	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum				16000.0	15858.44	99.1	15841.15	99.0	P
Arsenic				2000.0	2078.07	103.9	2063.66	103.2	P
Barium				16000.0	15824.35	98.9	15764.23	98.5	P
Beryllium				400.0	399.46	99.9	398.92	99.7	P
Cadmium				1000.0	1046.06	104.6	1041.59	104.2	P
Calcium				40000.0	39784.51	99.5	39676.37	99.2	P
Chromium				800.0	783.24	97.9	779.04	97.4	P
Cobalt				4000.0	3998.33	100.0	3993.99	99.8	P
Copper				2000.0	1979.96	99.0	1978.21	98.9	P
Iron				8000.0	7915.82	98.9	7912.49	98.9	P
Lead				2000.0	2071.30	103.6	2066.31	103.3	P
Magnesium				40000.0	39915.19	99.8	39703.49	99.3	P
Manganese				1200.0	1198.44	99.9	1197.69	99.8	P
Nickel				3200.0	3197.82	99.9	3195.61	99.9	P
Potassium				40000.0	40018.13	100.0	40198.75	100.5	P
Selenium				2000.0	2094.65	104.7	2090.46	104.5	P
Silver				800.0	2284.00	285.5	804.52	100.6	P
Sodium				40000.0	39580.45	99.0	39592.59	99.0	P
Thallium				2000.0	2132.29	106.6	2125.90	106.3	P
Vanadium				4000.0	3920.69	98.0	3905.88	97.6	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	%R(1)	Continuing Calibration True	Continuing Calibration Found	%R(1)	Found	%R(1)	M
Antimony	2500.0	2749.67	110.0	4800.0	4904.94	102.2	4495.77	93.7	P
Zinc	1000.0	1037.75	103.8	1600.0	1619.97	101.2	1588.02	99.3	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Antimony				4800.0	5057.33	105.4	5046.30	105.1	P
Zinc				1600.0	1609.42	100.6	1730.57	108.2	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Boron	10000.0	10235.73	102.4	5000.0	5108.74	102.2	4812.23	96.2	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Boron				5000.0	4869.02	97.4	4802.81	96.1	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Mercury	2.0	2.19	109.3	4.0	4.35	108.7	4.33	108.1	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Mercury				4.0	4.33	108.3	4.31	107.7	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.　　Contract:

Lab Code: 10170　　Case No.　　SAS No.:　　SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Mercury				4.0	4.03	100.9	4.32	108.0	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Mercury				4.0	4.50	112.6	4.17	104.2	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				4.0	4.05	101.2	4.24	106.0	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Cyanide	250.0	213.00	85.2	103.0	72.50	70.4	297.00	72.4	C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Cyanide				103.0	73.50	71.4	296.00	72.2	C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Cyanide				103.0	73.50	71.4	296.00	72.2	C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Cyanide	250.0	216.00	86.4	410.0	319.00	77.8	81.60	79.2	C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	%R(1)	Found	%R(1)	M
Cyanide				410.0	304.00	74.1	77.70	75.4	C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG Ño.: CHA85

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Cyanide				410.0	300.00	73.2			C

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				0.0	13.03	0.0	18.47	0.0
Arsenic				20.0	24.89	124.4	24.22	121.1
Barium				0.0	0.23	0.0	-0.04	0.0
Beryllium				10.0	11.40	114.0	11.29	112.9
Cadmium				10.0	11.67	116.7	11.66	116.6
Calcium				0.0	280.90	0.0	297.89	0.0
Chromium				20.0	22.45	112.2	22.06	110.3
Cobalt				100.0	114.05	114.1	112.83	112.8
Copper				50.0	53.34	106.7	51.70	103.4
Iron				0.0	2.05	0.0	1.11	0.0
Lead				6.0	6.54	108.9	4.65	77.5
Magnesium				0.0	4.50	0.0	7.56	0.0
Manganese				30.0	34.26	114.2	33.80	112.7
Nickel				80.0	93.12	116.4	92.36	115.4
Potassium				0.0	-245.20	0.0	425.76	0.0
Selenium				10.0	9.70	97.0	10.89	108.9
Silver				20.0	23.29	116.5	23.04	115.2
Sodium				0.0	-33.66	0.0	40.15	0.0
Thallium				20.0	21.71	108.5	22.57	112.9
Vanadium				100.0	110.49	110.5	107.73	107.7

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Antimony				120.0	122.48	102.1	121.49	101.2
Zinc				40.0	54.56	136.4	50.86	127.1

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U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Boron				500.0	591.52	118.3	520.79	104.2

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U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.25	127.3					

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Cyanide	20.0	20.80	104.0					
Cyanide	20.0	20.30	101.5					
Cyanide	20.0	20.40	102.0					
Cyanide	20.0	20.40	102.0					

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Cyanide	20.0	23.60	118.0					
Cyanide	20.0	21.20	106.0					
Cyanide	20.0	21.20	106.0					

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U.S. EPA - CLP

9
ICP SERIAL DILUTIONS

MW-15S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Aluminum	100.00	U	500.00	U			P
Antimony	15.00	U	75.00	U			P
Arsenic	10.00	U	50.00	U			P
Barium	50.95	B	250.00	U	0.0		P
Beryllium	3.00	U	15.00	U			P
Boron	500.00	U	2500.00	U			P
Cadmium	5.00	U	25.00	U			P
Calcium	42741.56		58788.00		37.5		P
Chromium	5.00	U	25.00	U			P
Cobalt	20.00	U	100.00	U			P
Copper	10.00	U	50.00	U			P
Iron	6590.54		6967.75		5.7		P
Lead	3.00	U	15.00	U			P
Magnesium	10082.47		11143.34		10.5		P
Manganese	452.30		491.92		8.8		P
Nickel	30.00	U	150.00	U			P
Potassium	3079.90	B	5000.00	U	0.0		P
Selenium	13.93		25.00	U	0.0		P
Silver	10.00	U	50.00	U			P
Sodium	39197.24		40730.19		3.9		P
Thallium	10.00	U	50.00	U			P
Vanadium	30.00	U	150.00	U			P
Zinc	11.01	B	453.57		4018.4		P

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U.S. EPA - CLP

9
ICP SERIAL DILUTIONS

MW-14D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA85

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Aluminum	287.69		500.00	U	0.0		P
Antimony	15.00	U	75.00	U			P
Arsenic	10.00	U	50.00	U			P
Barium	50.00	U	250.00	U			P
Beryllium	3.00	U	15.00	U			P
Boron	500.00	U	2500.00	U			P
Cadmium	5.00	U	25.00	U			P
Calcium	19395.83		26906.63		38.7		P
Chromium	5.00	U	25.00	U			P
Cobalt	20.00	U	100.00	U			P
Copper	10.00	U	50.00	U			P
Iron	495.37		510.61		3.1		P
Lead	3.00	U	15.00	U			P
Magnesium	3632.00	B	5000.00	U	0.0		P
Manganese	23.29		50.00	U	0.0		P
Nickel	30.00	U	150.00	U			P
Potassium	1000.00	U	5000.00	U			P
Selenium	5.69		25.00	U	0.0		P
Silver	10.00	U	50.00	U			P
Sodium	13533.50		14204.68		5.0		P
Thallium	10.00	U	50.00	U			P
Vanadium	30.00	U	150.00	U			P
Zinc	98.77		585.32		492.6		P

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Upstate Laboratories, Inc. Date: *19-Oct-07*

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 110.2

Sample ID: **MB-R28306** SampType: **MBLK** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28306**
Client ID: **ZZZZZ** Batch ID: **R28306** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514194**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	ND	5.00									

Sample ID: **MB-R28307** SampType: **MBLK** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28307**
Client ID: **ZZZZZ** Batch ID: **R28307** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514216**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	ND	5.00									

Sample ID: **MB-R28329** SampType: **MBLK** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28329**
Client ID: **ZZZZZ** Batch ID: **R28329** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	ND	5.00									

Sample ID: **MB-R28372** SampType: **MBLK** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28372**
Client ID: **ZZZZZ** Batch ID: **R28372** TestNo: **E110.2** Analysis Date: **9/21/2007** SeqNo: **515791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	ND	5.00									

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28306**
Client ID: **MW-10I** Batch ID: **R28306** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514207**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	55.00	25.0						55	0	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 110.2

Sample ID: **U0709290-036ADUP** SampType: **DUP** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28307**
Client ID: **ZZZZZ** Batch ID: **R28307** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514228**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	15.00	5.00						15	0	20	

Sample ID: **U0709303-013ADUP** SampType: **DUP** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28329**
Client ID: **ZZZZZ** Batch ID: **R28329** TestNo: **E110.2** Analysis Date: **9/20/2007** SeqNo: **514647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	145.0	25.0						145	0	20	

Sample ID: **U0709313-033ADUP** SampType: **DUP** TestCode: **110.2** Units: **UNITS** Prep Date: RunNo: **28372**
Client ID: **MW-14D** Batch ID: **R28372** TestNo: **E110.2** Analysis Date: **9/21/2007** SeqNo: **515795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	15.00	5.00						15	0	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1

Sample ID: **MB-R28437** | SampType: **MBLK** | TestCode: **160.1** | Units: **mg/L** | Prep Date: | RunNo: **28437**
Client ID: **ZZZZZ** | Batch ID: **R28437** | TestNo: **E160.1** | Analysis Date: **9/21/2007** | SeqNo: **517258**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	ND	25.0									

Sample ID: **MB-R28488** | SampType: **MBLK** | TestCode: **160.1** | Units: **mg/L** | Prep Date: | RunNo: **28488**
Client ID: **ZZZZZ** | Batch ID: **R28488** | TestNo: **E160.1** | Analysis Date: **9/21/2007** | SeqNo: **518609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	ND	25.0									

Sample ID: **MB-R28489** | SampType: **MBLK** | TestCode: **160.1** | Units: **mg/L** | Prep Date: | RunNo: **28489**
Client ID: **ZZZZZ** | Batch ID: **R28489** | TestNo: **E160.1** | Analysis Date: **9/21/2007** | SeqNo: **518628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	ND	25.0									

Sample ID: **LCS-R28437** | SampType: **LCS** | TestCode: **160.1** | Units: **mg/L** | Prep Date: | RunNo: **28437**
Client ID: **ZZZZZ** | Batch ID: **R28437** | TestNo: **E160.1** | Analysis Date: **9/21/2007** | SeqNo: **517259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	205.0	25.0	220	0	93.2	89	111				

Sample ID: **LCS-R28488** | SampType: **LCS** | TestCode: **160.1** | Units: **mg/L** | Prep Date: | RunNo: **28488**
Client ID: **ZZZZZ** | Batch ID: **R28488** | TestNo: **E160.1** | Analysis Date: **9/21/2007** | SeqNo: **518610**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	220.0	25.0	220	0	100	89	111				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1

Sample ID: **LCS-R28489** SampType: **LCS** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **28489**
Client ID: **ZZZZZ** Batch ID: **R28489** TestNo: **E160.1** Analysis Date: **9/21/2007** SeqNo: **518629**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	230.0	25.0	220	0	105	89	111				

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **28437**
Client ID: **MW-10I** Batch ID: **R28437** TestNo: **E160.1** Analysis Date: **9/21/2007** SeqNo: **517282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	567.5	25.0						560	1.33	25	

Sample ID: **U0709313-010ADUP** SampType: **DUP** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **28488**
Client ID: **MW-10D** Batch ID: **R28488** TestNo: **E160.1** Analysis Date: **9/21/2007** SeqNo: **518627**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	130.0	25.0									

Sample ID: **U0709359-003ADUP** SampType: **DUP** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **28489**
Client ID: **ZZZZZ** Batch ID: **R28489** TestNo: **E160.1** Analysis Date: **9/21/2007** SeqNo: **518647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	1387	25.0						1410	1.61	25	

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_IC

Sample ID: **U0709313-009AMS** SampType: **MS** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **MW-10I** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520976**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	4.259	0.20	5	0	85.2	75	125				

Sample ID: **U0709303-013ADUP** SampType: **DUP** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	20						0	0	0	

Sample ID: **U0709314-002ADUP** SampType: **DUP** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520950**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	20						0	0	0	

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **MW-10I** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520975**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20						0	0	0	

Sample ID: **U0709442-019ADUP** SampType: **DUP** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **521001**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20						0	0	0	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_IC

Sample ID: **CCB1** SampType: **CCB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520920**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: **CCB2** SampType: **CCB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: **CCB3** SampType: **CCB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: **CCB4** SampType: **CCB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520960**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: **CCB5** SampType: **CCB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_IC

Sample ID: CCB6 | SampType: CCB | TestCode: 300_IC | Units: mg/L | Prep Date: | RunNo: 28568
Client ID: ZZZZZ | Batch ID: R28568 | TestNo: E300.1 | Analysis Date: 9/27/2007 | SeqNo: 520986

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: CCB7 | SampType: CCB | TestCode: 300_IC | Units: mg/L | Prep Date: | RunNo: 28568
Client ID: ZZZZZ | Batch ID: R28568 | TestNo: E300.1 | Analysis Date: 9/27/2007 | SeqNo: 520998

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: CCB8 | SampType: CCB | TestCode: 300_IC | Units: mg/L | Prep Date: | RunNo: 28568
Client ID: ZZZZZ | Batch ID: R28568 | TestNo: E300.1 | Analysis Date: 9/27/2007 | SeqNo: 521006

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: CCV5 | SampType: CCV | TestCode: 300_IC | Units: mg/L | Prep Date: | RunNo: 28568
Client ID: ZZZZZ | Batch ID: R28568 | TestNo: E300.1 | Analysis Date: 9/27/2007 | SeqNo: 520971

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	4.547	0.20	5	0	90.9	90	110				

Sample ID: CCV6 | SampType: CCV | TestCode: 300_IC | Units: mg/L | Prep Date: | RunNo: 28568
Client ID: ZZZZZ | Batch ID: R28568 | TestNo: E300.1 | Analysis Date: 9/27/2007 | SeqNo: 520985

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	4.611	0.20	5	0	92.2	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_IC

Sample ID: **ICB** SampType: **ICB** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520908**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.20									

Sample ID: **ICV** SampType: **ICV** TestCode: **300_IC** Units: **mg/L** Prep Date: RunNo: **28568**
Client ID: **ZZZZZ** Batch ID: **R28568** TestNo: **E300.1** Analysis Date: **9/27/2007** SeqNo: **520907**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	4.613	0.20	5	0	92.3	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **U0709313-009CMS** SampType: **MS** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **MW-10I** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519260**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	459.0	10	25	436	92.0	27	138				

Sample ID: **U0709277-007CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	90.50	10						92	1.64	15	

Sample ID: **U0709290-036CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	62.90	10						56.8	10.2	15	

Sample ID: **U0709290-050CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519051**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	23.30	10						25.8	10.2	15	

Sample ID: **U0709297-036CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	308.0	10						306	0.651	15	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **U0709297-037CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519066**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	82.80	10						91.8	10.3	15	

Sample ID: **U0709303-013BDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	534.0	10						530	0.752	15	

Sample ID: **U0709313-009CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **MW-10I** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	434.0	10						436	0.460	15	

Sample ID: **U0709314-002CDUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	411.0	10						397	3.47	15	

Sample ID: **U0709291-006ADUP** SampType: **DUP** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519326**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	252.0	10						309	20.3	15	R

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **CCB1** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB2** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519032**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB3** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB4** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB5** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: CCB6 | SampType: CCB | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519085

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: CCB7 | SampType: CCB | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519099

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: CCB8 | SampType: CCB | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519111

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: CCB9 | SampType: CCB | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519125

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: CCB10 | SampType: CCB | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519139

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **CCB11** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519153**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB12** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519267**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB13** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB14** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519316**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB15** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **CCB1** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522406**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB2** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522418**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCB3** SampType: **CCB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522428**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **CCV10** SampType: **CCV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	23.30	10	25	0	93.2	81.9	116				

Sample ID: **CCV11** SampType: **CCV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	264.0	10	250	0	106	81.9	116				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **CCV12** SampType: **CCV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	23.30	10	25	0	93.2	81.9	116				

Sample ID: **CCV13** SampType: **CCV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519289**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	265.0	10	250	0	106	81.9	116				

Sample ID: **CCV1** SampType: **CCV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522405**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	251.0	10	250	0	100	81.9	116				

Sample ID: **ICB** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519007**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB2** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **ICB3** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519060**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB4** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB5** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB6** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB7** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: **ICB8** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522392**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICB2** SampType: **ICB** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28647**
Client ID: **ZZZZZ** Batch ID: **R28647** TestNo: **E310.2** Analysis Date: **10/3/2007** SeqNo: **522420**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Sample ID: **ICV** SampType: **ICV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	14.90	10	20.2	0	73.8	67.5	119				

Sample ID: **ICV2** SampType: **ICV** TestCode: **310.2W** Units: **mg/LCaCO3** Prep Date: RunNo: **28503**
Client ID: **ZZZZZ** Batch ID: **R28503** TestNo: **E310.2** Analysis Date: **9/27/2007** SeqNo: **519033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.50	10	20.2	0	76.7	67.5	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: ICV3 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519059

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.70	10	20.2	0	77.7	67.5	119				

Sample ID: ICV4 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519086

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.50	10	20.2	0	76.7	67.5	119				

Sample ID: ICV5 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519112

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.00	10	20.2	0	74.3	67.5	119				

Sample ID: ICV6 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519140

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.80	10	20.2	0	78.2	67.5	119				

Sample ID: ICV7 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	15.50	10	20.2	0	76.7	67.5	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 310.2W

Sample ID: ICV8 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28503
Client ID: ZZZZZ | Batch ID: R28503 | TestNo: E310.2 | Analysis Date: 9/27/2007 | SeqNo: 519317

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	14.30	10	20.2	0	70.8	67.5	119				

Sample ID: ICV | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28647
Client ID: ZZZZZ | Batch ID: R28647 | TestNo: E310.2 | Analysis Date: 10/3/2007 | SeqNo: 522391

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	19.40	10	23.6	0	82.2	67.5	119				

Sample ID: ICV2 | SampType: ICV | TestCode: 310.2W | Units: mg/LCaCO3 | Prep Date: | RunNo: 28647
Client ID: ZZZZZ | Batch ID: R28647 | TestNo: E310.2 | Analysis Date: 10/3/2007 | SeqNo: 522419

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	19.90	10	23.6	0	84.3	67.5	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **U0709313-009AMS** SampType: **MS** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **MW-10I** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518892**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	57.80	1.00	50	24.2	67.2	51.5	156				

Sample ID: **U0709277-007ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.570	1.00						2.84	9.98	15	

Sample ID: **U0709290-036ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.330	1.00						1.71	30.7	15	R

Sample ID: **U0709290-050ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1140	10.0						1130	0.881	15	

Sample ID: **U0709297-036ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518771**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.670	1.00						4.65	0.429	15	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **U0709297-037ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	51.80	1.00						49.5	4.54	15	

Sample ID: **U0709303-013ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	266.0	1.00						261	1.90	15	

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **MW-10I** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518891**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	25.00	1.00						24.2	3.25	15	

Sample ID: **U0709314-002ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	910.0	10.0						908	0.220	15	

Sample ID: **U0709291-006BDUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518941**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5650	100						5700	0.881	15	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **U0709359-003ADUP** SampType: **DUP** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28637**
Client ID: **ZZZZZ** Batch ID: **R28637** TestNo: **E325.2** Analysis Date: **10/3/2007** SeqNo: **522046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	279.0	1.00						278	0.359	15	

Sample ID: **CCB1** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB2** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB3** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB4** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: CCB5 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518781

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB6 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518793

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB7 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518807

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB8 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518819

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB9 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518850

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: CCB10 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518871

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB11 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518885

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB12 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518904

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB13 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518919

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: CCB14 | SampType: CCB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518931

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **CCB15** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518958**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB1** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28637**
Client ID: **ZZZZZ** Batch ID: **R28637** TestNo: **E325.2** Analysis Date: **10/3/2007** SeqNo: **522049**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB2** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28637**
Client ID: **ZZZZZ** Batch ID: **R28637** TestNo: **E325.2** Analysis Date: **10/3/2007** SeqNo: **522061**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCB3** SampType: **CCB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28637**
Client ID: **ZZZZZ** Batch ID: **R28637** TestNo: **E325.2** Analysis Date: **10/3/2007** SeqNo: **522071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **CCV10** SampType: **CCV** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	46.60	1.00	50	0	93.2	83.2	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: CCV11 | SampType: CCV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518884

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	245.0	1.00	250	0	98.0	83.2	119				

Sample ID: CCV12 | SampType: CCV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518903

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47.10	1.00	50	0	94.2	83.2	119				

Sample ID: CCV13 | SampType: CCV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518918

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	241.0	1.00	250	0	96.4	83.2	119				

Sample ID: CCV1 | SampType: CCV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28637
Client ID: ZZZZZ | Batch ID: R28637 | TestNo: E325.2 | Analysis Date: 10/3/2007 | SeqNo: 522048

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	248.0	1.00	250	0	99.2	83.2	119				

Sample ID: ICB | SampType: ICB | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518715

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **ICB2** SampType: **ICB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518742**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB3** SampType: **ICB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518768**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB4** SampType: **ICB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB5** SampType: **ICB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518821**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB6** SampType: **ICB** TestCode: **325.2_W** Units: **mg/L** Prep Date: RunNo: **28492**
Client ID: **ZZZZZ** Batch ID: **R28492** TestNo: **E325.2** Analysis Date: **9/27/2007** SeqNo: **518873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: **ICB7** | SampType: **ICB** | TestCode: **325.2_W** | Units: **mg/L** | Prep Date: | RunNo: **28492**
Client ID: **ZZZZZ** | Batch ID: **R28492** | TestNo: **E325.2** | Analysis Date: **9/27/2007** | SeqNo: **518906**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB8** | SampType: **ICB** | TestCode: **325.2_W** | Units: **mg/L** | Prep Date: | RunNo: **28492**
Client ID: **ZZZZZ** | Batch ID: **R28492** | TestNo: **E325.2** | Analysis Date: **9/27/2007** | SeqNo: **518933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB** | SampType: **ICB** | TestCode: **325.2_W** | Units: **mg/L** | Prep Date: | RunNo: **28637**
Client ID: **ZZZZZ** | Batch ID: **R28637** | TestNo: **E325.2** | Analysis Date: **10/3/2007** | SeqNo: **522035**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICB2** | SampType: **ICB** | TestCode: **325.2_W** | Units: **mg/L** | Prep Date: | RunNo: **28637**
Client ID: **ZZZZZ** | Batch ID: **R28637** | TestNo: **E325.2** | Analysis Date: **10/3/2007** | SeqNo: **522063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.00									

Sample ID: **ICV** | SampType: **ICV** | TestCode: **325.2_W** | Units: **mg/L** | Prep Date: | RunNo: **28492**
Client ID: **ZZZZZ** | Batch ID: **R28492** | TestNo: **E325.2** | Analysis Date: **9/27/2007** | SeqNo: **518714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	197.0	1.00	200	0	98.5	89.5	124				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: ICV2 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518741

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	203.0	1.00	200	0	102	89.5	124				

Sample ID: ICV3 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518767

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	203.0	1.00	200	0	102	89.5	124				

Sample ID: ICV4 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518794

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	205.0	1.00	200	0	103	89.5	124				

Sample ID: ICV5 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518820

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	208.0	1.00	200	0	104	89.5	124				

Sample ID: ICV6 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518872

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	208.0	1.00	200	0	104	89.5	124				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 325.2_W

Sample ID: ICV7 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518905

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	209.0	1.00	200	0	104	89.5	124				

Sample ID: ICV8 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28492
Client ID: ZZZZZ | Batch ID: R28492 | TestNo: E325.2 | Analysis Date: 9/27/2007 | SeqNo: 518932

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	210.0	1.00	200	0	105	89.5	124				

Sample ID: ICV | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28637
Client ID: ZZZZZ | Batch ID: R28637 | TestNo: E325.2 | Analysis Date: 10/3/2007 | SeqNo: 522034

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	63.00	1.00	63.3	0	99.5	89.5	124				

Sample ID: ICV2 | SampType: ICV | TestCode: 325.2_W | Units: mg/L | Prep Date: | RunNo: 28637
Client ID: ZZZZZ | Batch ID: R28637 | TestNo: E325.2 | Analysis Date: 10/3/2007 | SeqNo: 522062

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	67.10	1.00	63.3	0	106	89.5	124				

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 350.1_W

Sample ID: **U0709313-009BMS** SampType: **MS** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **MW-10I** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524340**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	10.40	0.500	5	5.88	90.4	60	135				

Sample ID: **U0710018-003BDUP** SampType: **DUP** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E350.1** Analysis Date: **10/5/2007** SeqNo: **523268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500						0	0	25	

Sample ID: **U0709313-009BDUP** SampType: **DUP** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **MW-10I** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524339**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	5.810	0.500						5.88	1.20	25	

Sample ID: **U0709359-003CDUP** SampType: **DUP** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **ZZZZZ** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524349**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	5.080	0.500						5.09	0.197	25	

Sample ID: **CCB1** SampType: **CCB** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **ZZZZZ** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 350.1_W

Sample ID: CCB2 | SampType: CCB | TestCode: 350.1_W | Units: mg/L | Prep Date: | RunNo: 28727
Client ID: ZZZZZ | Batch ID: R28727 | TestNo: E350.1 | Analysis Date: 10/8/2007 | SeqNo: 524357

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Sample ID: CCB3 | SampType: CCB | TestCode: 350.1_W | Units: mg/L | Prep Date: | RunNo: 28727
Client ID: ZZZZZ | Batch ID: R28727 | TestNo: E350.1 | Analysis Date: 10/8/2007 | SeqNo: 524370

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Sample ID: CCB4 | SampType: CCB | TestCode: 350.1_W | Units: mg/L | Prep Date: | RunNo: 28727
Client ID: ZZZZZ | Batch ID: R28727 | TestNo: E350.1 | Analysis Date: 10/8/2007 | SeqNo: 524382

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Sample ID: CCB5 | SampType: CCB | TestCode: 350.1_W | Units: mg/L | Prep Date: | RunNo: 28727
Client ID: ZZZZZ | Batch ID: R28727 | TestNo: E350.1 | Analysis Date: 10/8/2007 | SeqNo: 524391

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Sample ID: CCV1 | SampType: CCV | TestCode: 350.1_W | Units: mg/L | Prep Date: | RunNo: 28727
Client ID: ZZZZZ | Batch ID: R28727 | TestNo: E350.1 | Analysis Date: 10/8/2007 | SeqNo: 524341

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	15.30	0.500	15	0	102	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 350.1_W

Sample ID: **CCV5** SampType: **CCV** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **ZZZZZ** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524390**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	15.20	0.500	15	0	101	90	110				

Sample ID: **ICB** SampType: **ICB** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **ZZZZZ** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524322**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	ND	0.500									

Sample ID: **ICV** SampType: **ICV** TestCode: **350.1_W** Units: **mg/L** Prep Date: RunNo: **28727**
Client ID: **ZZZZZ** Batch ID: **R28727** TestNo: **E350.1** Analysis Date: **10/8/2007** SeqNo: **524321**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As NH3)	3.470	0.500	3.41	0	102	71.6	129				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 351.3_W

Sample ID: **MBLK1** SampType: **MBLK** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: **MBLK2** SampType: **MBLK** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: **MBLK3** SampType: **MBLK** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523186**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: **LCS1** SampType: **LCS** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523181**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	20.70	0.500	21.9	0	94.5	65	127				

Sample ID: **LCS2** SampType: **LCS** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523182**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	20.40	0.500	21.9	0	93.2	65	127				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 351.3_W

Sample ID: LCS3 | SampType: LCS | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523183

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	20.80	0.500	21.9	0	95.0	65	127				

Sample ID: U0709313-009BMS | SampType: MS | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: MW-10I | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	11.90	0.500	5	7.22	93.6	65.3	140				

Sample ID: U0709313-009BDUP | SampType: DUP | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: MW-10I | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523196

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	7.180	0.500						7.22	0.556	19	

Sample ID: U0710018-003BDUP | SampType: DUP | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523225

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500						0	0	19	

Sample ID: CCB1 | SampType: CCB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523166

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 351.3_W

Sample ID: CCB2 | SampType: CCB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523167

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: CCB3 | SampType: CCB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523168

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: CCB4 | SampType: CCB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523169

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: CCB5 | SampType: CCB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523170

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: CCV4 | SampType: CCV | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523174

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	4.810	0.500	5	0	96.2	89.2	109				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 351.3_W

Sample ID: CCV5 | SampType: CCV | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523242

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	4.730	0.500	5	0	94.6	89.2	109				

Sample ID: ICB1 | SampType: ICB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523175

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: ICB2 | SampType: ICB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523176

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: ICB3 | SampType: ICB | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523177

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	0.500									

Sample ID: ICV1 | SampType: ICV | TestCode: 351.3_W | Units: mg/L | Prep Date: | RunNo: 28673
Client ID: ZZZZZ | Batch ID: R28673 | TestNo: E351.3 | Analysis Date: 10/5/2007 | SeqNo: 523178

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	24.60	0.500	25	0	98.4	92.6	108				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 351.3_W

Sample ID: **ICV2** SampType: **ICV** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	24.30	0.500	25	0	97.2	92.6	108				

Sample ID: **ICV3** SampType: **ICV** TestCode: **351.3_W** Units: **mg/L** Prep Date: RunNo: **28673**
Client ID: **ZZZZZ** Batch ID: **R28673** TestNo: **E351.3** Analysis Date: **10/5/2007** SeqNo: **523180**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	24.50	0.500	25	0	98.0	92.6	108				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 353.2_WNO3

Sample ID: **U0709313-009AMS** SampType: **MS** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **MW-10I** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	2.200	0.200	2	0	110	35	125				

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **MW-10I** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200						0	0	20	

Sample ID: **U0709291-006BDUP** SampType: **DUP** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28452**
Client ID: **ZZZZZ** Batch ID: **R28452** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **517650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	2.350	0.200						2.3	2.15	20	

Sample ID: **U0709359-003ADUP** SampType: **DUP** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28666**
Client ID: **ZZZZZ** Batch ID: **R28666** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **523046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200						0	0	20	

Sample ID: **CCB11** SampType: **CCB** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **ZZZZZ** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517605**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 353.2_WNO3

Sample ID: CCB | SampType: CCB | TestCode: 353.2_WNO3 | Units: mg/L | Prep Date: | RunNo: 28450
Client ID: ZZZZZ | Batch ID: R28450 | TestNo: E353.2 | Analysis Date: 9/20/2007 | SeqNo: 517622

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: CCB1 | SampType: CCB | TestCode: 353.2_WNO3 | Units: mg/L | Prep Date: | RunNo: 28452
Client ID: ZZZZZ | Batch ID: R28452 | TestNo: E353.2 | Analysis Date: 9/21/2007 | SeqNo: 517653

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: CCB2 | SampType: CCB | TestCode: 353.2_WNO3 | Units: mg/L | Prep Date: | RunNo: 28452
Client ID: ZZZZZ | Batch ID: R28452 | TestNo: E353.2 | Analysis Date: 9/21/2007 | SeqNo: 517668

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: CCB1 | SampType: CCB | TestCode: 353.2_WNO3 | Units: mg/L | Prep Date: | RunNo: 28666
Client ID: ZZZZZ | Batch ID: R28666 | TestNo: E353.2 | Analysis Date: 9/21/2007 | SeqNo: 523049

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: CCB2 | SampType: CCB | TestCode: 353.2_WNO3 | Units: mg/L | Prep Date: | RunNo: 28666
Client ID: ZZZZZ | Batch ID: R28666 | TestNo: E353.2 | Analysis Date: 9/21/2007 | SeqNo: 523055

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 353.2_WNO3

Sample ID: **CCV11** SampType: **CCV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **ZZZZZ** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517604**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.800	0.200	4	0	95.0	90	110				

Sample ID: **CCV** SampType: **CCV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28450**
Client ID: **ZZZZZ** Batch ID: **R28450** TestNo: **E353.2** Analysis Date: **9/20/2007** SeqNo: **517621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.740	0.200	4	0	93.5	90	110				

Sample ID: **CCV1** SampType: **CCV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28452**
Client ID: **ZZZZZ** Batch ID: **R28452** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **517652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.870	0.200	4	0	96.8	90	110				

Sample ID: **CCV1** SampType: **CCV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28666**
Client ID: **ZZZZZ** Batch ID: **R28666** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **523048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.830	0.200	4	0	95.8	90	110				

Sample ID: **CCV2** SampType: **CCV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28666**
Client ID: **ZZZZZ** Batch ID: **R28666** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **523054**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	7.920	0.200	8	0	99.0	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 353.2_WNO3

Sample ID: **ICB7** SampType: **ICB** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **ZZZZZ** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517589**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: **ICB** SampType: **ICB** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28450**
Client ID: **ZZZZZ** Batch ID: **R28450** TestNo: **E353.2** Analysis Date: **9/20/2007** SeqNo: **517609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: **ICB** SampType: **ICB** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28452**
Client ID: **ZZZZZ** Batch ID: **R28452** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **517638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: **ICB** SampType: **ICB** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28666**
Client ID: **ZZZZZ** Batch ID: **R28666** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **523033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.200									

Sample ID: **ICV7** SampType: **ICV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28449**
Client ID: **ZZZZZ** Batch ID: **R28449** TestNo: **E353.2** Analysis Date: **9/19/2007** SeqNo: **517588**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.270	0.200	3.32	0	98.5	90	111				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 353.2_WNO3

Sample ID: **ICV** SampType: **ICV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28450**
Client ID: **ZZZZZ** Batch ID: **R28450** TestNo: **E353.2** Analysis Date: **9/20/2007** SeqNo: **517608**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.140	0.200	3.32	0	94.6	90	111				

Sample ID: **ICV** SampType: **ICV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28452**
Client ID: **ZZZZZ** Batch ID: **R28452** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **517637**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.120	0.200	3.32	0	94.0	90	111				

Sample ID: **ICV** SampType: **ICV** TestCode: **353.2_WNO3** Units: **mg/L** Prep Date: RunNo: **28666**
Client ID: **ZZZZZ** Batch ID: **R28666** TestNo: **E353.2** Analysis Date: **9/21/2007** SeqNo: **523032**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	3.290	0.200	3.32	0	99.1	90	111				

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 375.4_W

Sample ID: U0709313-009AMS | SampType: MS | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: MW-10I | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515913

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	79.92	5.00	10	72.18	77.3	29.3	158				

Sample ID: U0709277-007ADUP | SampType: DUP | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: ZZZZZ | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515896

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00						0	0	10	

Sample ID: U0709313-009ADUP | SampType: DUP | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: MW-10I | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515912

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	72.12	5.00						72.18	0.0857	10	

Sample ID: U0709314-002ADUP | SampType: DUP | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516634

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	89.06	10.0						88.93	0.139	10	

Sample ID: CCB1 | SampType: CCB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: ZZZZZ | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515902

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 375.4_W

Sample ID: CCB2 | SampType: CCB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: ZZZZZ | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515916

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Sample ID: CCB1 | SampType: CCB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516626

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Sample ID: CCB2 | SampType: CCB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516640

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Sample ID: CCV1 | SampType: CCV | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516625

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	53.25	5.00	50	0	107	87.6	117				

Sample ID: ICB | SampType: ICB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: ZZZZZ | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515888

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 375.4_W

Sample ID: ICB | SampType: ICB | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516614

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5.00									

Sample ID: ICV | SampType: ICV | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28373
Client ID: ZZZZZ | Batch ID: R28373 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 515887

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	27.70	5.00	28.4	0	97.5	78	119				

Sample ID: ICV | SampType: ICV | TestCode: 375.4_W | Units: mg/L | Prep Date: | RunNo: 28374
Client ID: ZZZZZ | Batch ID: R28374 | TestNo: E375.4 | Analysis Date: 9/24/2007 | SeqNo: 516613

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	27.64	5.00	28.4	0	97.3	78	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 405.1

Sample ID: **MB-R28379** SampType: **MBLK** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00									

Sample ID: **MB-R28434** SampType: **MBLK** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28434**
Client ID: **ZZZZZ** Batch ID: **R28434** TestNo: **E405.1** Analysis Date: **9/21/2007** SeqNo: **517125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00									

Sample ID: **LCS-R28379** SampType: **LCS** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	177.0	4.00	200	0	88.5	59.4	122				

Sample ID: **LCS-R28434** SampType: **LCS** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28434**
Client ID: **ZZZZZ** Batch ID: **R28434** TestNo: **E405.1** Analysis Date: **9/21/2007** SeqNo: **517126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	185.0	4.00	200	0	92.5	59.4	122				

Sample ID: **U0709277-007ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516060**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 405.1

Sample ID: **U0709290-036ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Sample ID: **U0709290-050ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Sample ID: **U0709297-036ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516140**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Sample ID: **U0709297-037ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516142**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Sample ID: **U0709297-051ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 405.1

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **MW-10I** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	4.00						0	0	20	

Sample ID: **U0709303-013ADUP** SampType: **DUP** TestCode: **405.1** Units: **mg/L** Prep Date: RunNo: **28379**
Client ID: **ZZZZZ** Batch ID: **R28379** TestNo: **E405.1** Analysis Date: **9/19/2007** SeqNo: **516288**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	23.00	12.0						25	8.33	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: **MB** SampType: **MBLK** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **MB1** SampType: **MBLK** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521298**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **MB** SampType: **MBLK** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521716**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **MB2** SampType: **MBLK** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **LCS** SampType: **LCS** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521270**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0	24.1	0	0	54	144				S

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: LCS1 | SampType: LCS | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28581
Client ID: ZZZZZ | Batch ID: R28581 | TestNo: E410.4 | Analysis Date: 10/2/2007 | SeqNo: 521299

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	34.74	20.0	24.1	0	144	54	144				S

Sample ID: LCS | SampType: LCS | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521717

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	26.19	20.0	24.1	0	109	54	144				

Sample ID: LCS2 | SampType: LCS | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521749

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	20.48	20.0	24.1	0	85.0	54	144				

Sample ID: U0709313-009BMS | SampType: MS | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: MW-10I | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521734

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	44.74	20.0	50	0	89.5	26.5	141				

Sample ID: U0709303-013CDUP | SampType: DUP | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28581
Client ID: ZZZZZ | Batch ID: R28581 | TestNo: E410.4 | Analysis Date: 10/2/2007 | SeqNo: 521278

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	113.5	20.0						107.6	5.39	15	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: **U0710018-003BDUP** SampType: **DUP** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0						0	0	15	

Sample ID: **U0709313-009BDUP** SampType: **DUP** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **MW-10I** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0						0	0	15	

Sample ID: **U0709359-003CDUP** SampType: **DUP** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	87.71	20.0						81.06	7.89	15	

Sample ID: **CCB1** SampType: **CCB** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521283**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **CCB2** SampType: **CCB** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521295**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: CCB3 | SampType: CCB | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28581
Client ID: ZZZZZ | Batch ID: R28581 | TestNo: E410.4 | Analysis Date: 10/2/2007 | SeqNo: 521308

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: CCB1 | SampType: CCB | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521731

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: CCB2 | SampType: CCB | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521745

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: CCB3 | SampType: CCB | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521761

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: CCB4 | SampType: CCB | TestCode: 410.4 | Units: mg/L | Prep Date: | RunNo: 28617
Client ID: ZZZZZ | Batch ID: R28617 | TestNo: E410.4 | Analysis Date: 10/3/2007 | SeqNo: 521775

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: **CCV1** | SampType: **CCV** | TestCode: **410.4** | Units: **mg/L** | Prep Date: | RunNo: **28581**
Client ID: **ZZZZZ** | Batch ID: **R28581** | TestNo: **E410.4** | Analysis Date: **10/2/2007** | SeqNo: **521282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	54.65	20.0	50	0	109	74.5	126				

Sample ID: **CCV2** | SampType: **CCV** | TestCode: **410.4** | Units: **mg/L** | Prep Date: | RunNo: **28581**
Client ID: **ZZZZZ** | Batch ID: **R28581** | TestNo: **E410.4** | Analysis Date: **10/2/2007** | SeqNo: **521294**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	69.76	20.0	75	0	93.0	74.5	126				

Sample ID: **CCV1** | SampType: **CCV** | TestCode: **410.4** | Units: **mg/L** | Prep Date: | RunNo: **28617**
Client ID: **ZZZZZ** | Batch ID: **R28617** | TestNo: **E410.4** | Analysis Date: **10/3/2007** | SeqNo: **521730**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	37.67	20.0	50	0	75.3	74.5	126				

Sample ID: **CCV2** | SampType: **CCV** | TestCode: **410.4** | Units: **mg/L** | Prep Date: | RunNo: **28617**
Client ID: **ZZZZZ** | Batch ID: **R28617** | TestNo: **E410.4** | Analysis Date: **10/3/2007** | SeqNo: **521744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	76.42	20.0	75	0	102	74.5	126				

Sample ID: **ICB** | SampType: **ICB** | TestCode: **410.4** | Units: **mg/L** | Prep Date: | RunNo: **28581**
Client ID: **ZZZZZ** | Batch ID: **R28581** | TestNo: **E410.4** | Analysis Date: **10/2/2007** | SeqNo: **521268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: **ICB1** SampType: **ICB** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **ICB1** SampType: **ICB** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **ICB2** SampType: **ICB** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28617**
Client ID: **ZZZZZ** Batch ID: **R28617** TestNo: **E410.4** Analysis Date: **10/3/2007** SeqNo: **521747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20.0									

Sample ID: **ICV** SampType: **ICV** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521267**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	101.4	20.0	100	0	101	79.6	122				

Sample ID: **ICV1** SampType: **ICV** TestCode: **410.4** Units: **mg/L** Prep Date: RunNo: **28581**
Client ID: **ZZZZZ** Batch ID: **R28581** TestNo: **E410.4** Analysis Date: **10/2/2007** SeqNo: **521296**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	93.20	20.0	100	0	93.2	79.6	122				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 410.4

Sample ID: ICV1 SampType: ICV TestCode: 410.4 Units: mg/L Prep Date: RunNo: 28617
Client ID: ZZZZZ Batch ID: R28617 TestNo: E410.4 Analysis Date: 10/3/2007 SeqNo: 521714

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	90.68	20.0	100	0	90.7	79.6	122				

Sample ID: ICV2 SampType: ICV TestCode: 410.4 Units: mg/L Prep Date: RunNo: 28617
Client ID: ZZZZZ Batch ID: R28617 TestNo: E410.4 Analysis Date: 10/3/2007 SeqNo: 521746

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	91.12	20.0	100	0	91.1	79.6	122				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 415.1

Sample ID: **U0709313-009FMS** SampType: **MS** TestCode: **415.1** Units: **mg/L** Prep Date: RunNo: **28613**
Client ID: **MW-10I** Batch ID: **R28613** TestNo: **E415.1** Analysis Date: **10/3/2007** SeqNo: **521664**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	19.94	3.00	20	0	99.7	60	130				

Sample ID: **U0710018-003FDUP** SampType: **DUP** TestCode: **415.1** Units: **mg/L** Prep Date: RunNo: **28613**
Client ID: **ZZZZZ** Batch ID: **R28613** TestNo: **E415.1** Analysis Date: **10/3/2007** SeqNo: **521646**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00						0	0	15	

Sample ID: **U0709313-009FDUP** SampType: **DUP** TestCode: **415.1** Units: **mg/L** Prep Date: RunNo: **28613**
Client ID: **MW-10I** Batch ID: **R28613** TestNo: **E415.1** Analysis Date: **10/3/2007** SeqNo: **521663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00						0	0	15	

Sample ID: **CCB1** SampType: **CCB** TestCode: **415.1** Units: **mg/L** Prep Date: RunNo: **28613**
Client ID: **ZZZZZ** Batch ID: **R28613** TestNo: **E415.1** Analysis Date: **10/3/2007** SeqNo: **521653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Sample ID: **CCB2** SampType: **CCB** TestCode: **415.1** Units: **mg/L** Prep Date: RunNo: **28613**
Client ID: **ZZZZZ** Batch ID: **R28613** TestNo: **E415.1** Analysis Date: **10/3/2007** SeqNo: **521667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 415.1

Sample ID: **CCB3** | SampType: **CCB** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Sample ID: **CCB4** | SampType: **CCB** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521692**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Sample ID: **CCV1** | SampType: **CCV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	20.46	3.00	20	0	102	90	110				

Sample ID: **CCV2** | SampType: **CCV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521666**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	39.43	3.00	40	0	98.6	90	110				

Sample ID: **CCV3** | SampType: **CCV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	18.52	3.00	20	0	92.6	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 415.1

Sample ID: **CCV4** | SampType: **CCV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521691**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	43.75	3.00	40	0	109	90	110				

Sample ID: **ICB1** | SampType: **ICB** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Sample ID: **ICB2** | SampType: **ICB** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	3.00									

Sample ID: **ICV1** | SampType: **ICV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521637**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	25.21	3.00	24.6	0	102	82	114				

Sample ID: **ICV2** | SampType: **ICV** | TestCode: **415.1** | Units: **mg/L** | Prep Date: | RunNo: **28613**
Client ID: **ZZZZZ** | Batch ID: **R28613** | TestNo: **E415.1** | Analysis Date: **10/3/2007** | SeqNo: **521668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	25.86	3.00	24.6	0	105	82	114				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: **11710-MBLK** SampType: **MBLK** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11710** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **11711-MBLK** SampType: **MBLK** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11711** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **11714-MBLK** SampType: **MBLK** TestCode: **420.4** Units: **mg/L** Prep Date: **10/5/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11714** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **11710-LCS** SampType: **LCS** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11710** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1490	0.00500	0.187	0	79.7	59	175				

Sample ID: **11711-LCS** SampType: **LCS** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11711** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1490	0.00500	0.187	0	79.7	59	175				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: **11714-LCS** SampType: **LCS** TestCode: **420.4** Units: **mg/L** Prep Date: **10/5/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11714** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1480	0.00500	0.187	0	79.1	59	175				

Sample ID: **U0709313-009EMS** SampType: **MS** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **MW-10I** Batch ID: **11711** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.02100	0.00500	0.02	0	105	75	125				

Sample ID: **U0709313-009EDUP** SampType: **DUP** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **MW-10I** Batch ID: **11711** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522752**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500						0	0	10	

Sample ID: **U0709314-002DDUP** SampType: **DUP** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11710** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522772**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.005360	0.00500						0.00602	11.6	10	R

Sample ID: **U0710018-003EDUP** SampType: **DUP** TestCode: **420.4** Units: **mg/L** Prep Date: **10/4/2007** RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **11711** TestNo: **E420.4** **(E420.4)** Analysis Date: **10/5/2007** SeqNo: **522797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500						0	0	10	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: CCB 1 SampType: CCB TestCode: 420.4 Units: mg/L Prep Date: RunNo: 28656
Client ID: ZZZZZ Batch ID: R28656 TestNo: E420.4 Analysis Date: 10/5/2007 SeqNo: 522688

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: CCB 10 SampType: CCB TestCode: 420.4 Units: mg/L Prep Date: RunNo: 28656
Client ID: ZZZZZ Batch ID: R28656 TestNo: E420.4 Analysis Date: 10/5/2007 SeqNo: 522689

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: CCB 2 SampType: CCB TestCode: 420.4 Units: mg/L Prep Date: RunNo: 28656
Client ID: ZZZZZ Batch ID: R28656 TestNo: E420.4 Analysis Date: 10/5/2007 SeqNo: 522690

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: CCB 3 SampType: CCB TestCode: 420.4 Units: mg/L Prep Date: RunNo: 28656
Client ID: ZZZZZ Batch ID: R28656 TestNo: E420.4 Analysis Date: 10/5/2007 SeqNo: 522691

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: CCB 4 SampType: CCB TestCode: 420.4 Units: mg/L Prep Date: RunNo: 28656
Client ID: ZZZZZ Batch ID: R28656 TestNo: E420.4 Analysis Date: 10/5/2007 SeqNo: 522692

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: **CCB 5** SampType: **CCB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522693**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **CCB 6** SampType: **CCB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **CCB 7** SampType: **CCB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522695**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **CCB 8** SampType: **CCB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **CCB 9** SampType: **CCB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: CCV 9 | SampType: CCV | TestCode: 420.4 | Units: mg/L | Prep Date: | RunNo: 28656
Client ID: ZZZZZ | Batch ID: R28656 | TestNo: E420.4 | Analysis Date: 10/5/2007 | SeqNo: 522707

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.09860	0.00500	0.1	0	98.6	90	110				

Sample ID: ICB 1 | SampType: ICB | TestCode: 420.4 | Units: mg/L | Prep Date: | RunNo: 28656
Client ID: ZZZZZ | Batch ID: R28656 | TestNo: E420.4 | Analysis Date: 10/5/2007 | SeqNo: 522708

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: ICB 2 | SampType: ICB | TestCode: 420.4 | Units: mg/L | Prep Date: | RunNo: 28656
Client ID: ZZZZZ | Batch ID: R28656 | TestNo: E420.4 | Analysis Date: 10/5/2007 | SeqNo: 522709

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: ICB 3 | SampType: ICB | TestCode: 420.4 | Units: mg/L | Prep Date: | RunNo: 28656
Client ID: ZZZZZ | Batch ID: R28656 | TestNo: E420.4 | Analysis Date: 10/5/2007 | SeqNo: 522710

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: ICB 4 | SampType: ICB | TestCode: 420.4 | Units: mg/L | Prep Date: | RunNo: 28656
Client ID: ZZZZZ | Batch ID: R28656 | TestNo: E420.4 | Analysis Date: 10/5/2007 | SeqNo: 522711

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: **ICB 5** SampType: **ICB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **ICB 6** SampType: **ICB** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522713**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.00500									

Sample ID: **ICV 1** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1950	0.00500	0.2	0	97.5	90	110				

Sample ID: **ICV 2** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1970	0.00500	0.2	0	98.5	90	110				

Sample ID: **ICV 3** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522716**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1990	0.00500	0.2	0	99.5	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 420.4

Sample ID: **ICV 4** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522717**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1920	0.00500	0.2	0	96.0	90	110				

Sample ID: **ICV 5** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522718**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1940	0.00500	0.2	0	97.0	90	110				

Sample ID: **ICV 6** SampType: **ICV** TestCode: **420.4** Units: **mg/L** Prep Date: RunNo: **28656**
Client ID: **ZZZZZ** Batch ID: **R28656** TestNo: **E420.4** Analysis Date: **10/5/2007** SeqNo: **522719**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.1940	0.00500	0.2	0	97.0	90	110				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: U0709313-009AMS SampType: MS TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28356
Client ID: MW-10I Batch ID: R28356 TestNo: SM3500 Analysis Date: 9/19/2007 SeqNo: 515519

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5312	0.010	0.5	0	106	68.4	129				

Sample ID: U0709313-018AMS SampType: MS TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28359
Client ID: MW-2D Batch ID: R28359 TestNo: SM3500 Analysis Date: 9/20/2007 SeqNo: 515533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5521	0.010	0.5	0	110	68.4	129				

Sample ID: U0709313-023AMS SampType: MS TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28401
Client ID: MW-7D Batch ID: R28401 TestNo: SM3500 Analysis Date: 9/20/2007 SeqNo: 516533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5521	0.010	0.5	0	110	68.4	129				

Sample ID: U0709313-028AMS SampType: MS TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28403
Client ID: MW-15D Batch ID: R28403 TestNo: SM3500 Analysis Date: 9/21/2007 SeqNo: 516547

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5365	0.010	0.5	0	107	68.4	129				

Sample ID: U0709313-033AMS SampType: MS TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28404
Client ID: MW-14D Batch ID: R28404 TestNo: SM3500 Analysis Date: 9/21/2007 SeqNo: 516561

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5430	0.010	0.5	0	109	68.4	129				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: **U0709303-013ADUP** SampType: **DUP** TestCode: **Cr6_W** Units: **mg/L** Prep Date: RunNo: **28356**
Client ID: **ZZZZZ** Batch ID: **R28356** TestNo: **SM3500** Analysis Date: **9/19/2007** SeqNo: **515496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010						0	0	20	

Sample ID: **U0709313-009ADUP** SampType: **DUP** TestCode: **CR6_W** Units: **mg/L** Prep Date: RunNo: **28356**
Client ID: **MW-10I** Batch ID: **R28356** TestNo: **SM3500** Analysis Date: **9/19/2007** SeqNo: **515516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010	0	0	0	0	0				

Sample ID: **U0709313-018ADUP** SampType: **DUP** TestCode: **CR6_W** Units: **mg/L** Prep Date: RunNo: **28359**
Client ID: **MW-2D** Batch ID: **R28359** TestNo: **SM3500** Analysis Date: **9/20/2007** SeqNo: **515532**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010						0	0	20	

Sample ID: **U0709313-023ADUP** SampType: **DUP** TestCode: **CR6_W** Units: **mg/L** Prep Date: RunNo: **28401**
Client ID: **MW-7D** Batch ID: **R28401** TestNo: **SM3500** Analysis Date: **9/20/2007** SeqNo: **516532**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010						0	0	20	

Sample ID: **U0709313-028ADUP** SampType: **DUP** TestCode: **CR6_W** Units: **mg/L** Prep Date: RunNo: **28403**
Client ID: **MW-15D** Batch ID: **R28403** TestNo: **SM3500** Analysis Date: **9/21/2007** SeqNo: **516546**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010						0	0	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: U0709313-033ADUP SampType: DUP TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28404
Client ID: MW-14D Batch ID: R28404 TestNo: SM3500 Analysis Date: 9/21/2007 SeqNo: 516560

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010						0	0	20	

Sample ID: CCB SampType: CCB TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28356
Client ID: ZZZZZ Batch ID: R28356 TestNo: SM3500 Analysis Date: 9/19/2007 SeqNo: 515499

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: CCB SampType: CCB TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28359
Client ID: ZZZZZ Batch ID: R28359 TestNo: SM3500 Analysis Date: 9/20/2007 SeqNo: 515535

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: CCB SampType: CCB TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28401
Client ID: ZZZZZ Batch ID: R28401 TestNo: SM3500 Analysis Date: 9/20/2007 SeqNo: 516535

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: CCB SampType: CCB TestCode: CR6_W Units: mg/L Prep Date: RunNo: 28403
Client ID: ZZZZZ Batch ID: R28403 TestNo: SM3500 Analysis Date: 9/21/2007 SeqNo: 516553

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: CCB | SampType: CCB | TestCode: CR6_W | Units: mg/L | Prep Date: | RunNo: 28404
Client ID: ZZZZZ | Batch ID: R28404 | TestNo: SM3500 | Analysis Date: 9/21/2007 | SeqNo: 516563

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: CCV | SampType: CCV | TestCode: CR6_W | Units: mg/L | Prep Date: | RunNo: 28356
Client ID: ZZZZZ | Batch ID: R28356 | TestNo: SM3500 | Analysis Date: 9/19/2007 | SeqNo: 515498

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5312	0.010	0.5	0	106	85.5	114				

Sample ID: CCV | SampType: CCV | TestCode: CR6_W | Units: mg/L | Prep Date: | RunNo: 28359
Client ID: ZZZZZ | Batch ID: R28359 | TestNo: SM3500 | Analysis Date: 9/20/2007 | SeqNo: 515534

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.4934	0.010	0.5	0	98.7	85.5	114				

Sample ID: CCV | SampType: CCV | TestCode: CR6_W | Units: mg/L | Prep Date: | RunNo: 28401
Client ID: ZZZZZ | Batch ID: R28401 | TestNo: SM3500 | Analysis Date: 9/20/2007 | SeqNo: 516534

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5365	0.010	0.5	0	107	85.5	114				

Sample ID: CCV | SampType: CCV | TestCode: CR6_W | Units: mg/L | Prep Date: | RunNo: 28403
Client ID: ZZZZZ | Batch ID: R28403 | TestNo: SM3500 | Analysis Date: 9/21/2007 | SeqNo: 516552

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5365	0.010	0.5	0	107	85.5	114				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: **CCV** | SampType: **CCV** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28404**
Client ID: **ZZZZZ** | Batch ID: **R28404** | TestNo: **SM3500** | Analysis Date: **9/21/2007** | SeqNo: **516562**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.5365	0.010	0.5	0	107	85.5	114				

Sample ID: **ICB** | SampType: **ICB** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28356**
Client ID: **ZZZZZ** | Batch ID: **R28356** | TestNo: **SM3500** | Analysis Date: **9/19/2007** | SeqNo: **515485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: **ICB** | SampType: **ICB** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28359**
Client ID: **ZZZZZ** | Batch ID: **R28359** | TestNo: **SM3500** | Analysis Date: **9/20/2007** | SeqNo: **515525**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: **ICB** | SampType: **ICB** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28401**
Client ID: **ZZZZZ** | Batch ID: **R28401** | TestNo: **SM3500** | Analysis Date: **9/20/2007** | SeqNo: **516528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: **ICB** | SampType: **ICB** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28403**
Client ID: **ZZZZZ** | Batch ID: **R28403** | TestNo: **SM3500** | Analysis Date: **9/21/2007** | SeqNo: **516542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Qualifiers: E Value above quantitation range; ND Not Detected at the Reporting Limit; H Holding times for preparation or analysis exceeded; R RPD outside accepted recovery limits; J Analyte detected below quantitation limits; S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: **ICB** | SampType: **ICB** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28404**
Client ID: **ZZZZZ** | Batch ID: **R28404** | TestNo: **SM3500** | Analysis Date: **9/21/2007** | SeqNo: **516555**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	ND	0.010									

Sample ID: **ICV** | SampType: **ICV** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28356**
Client ID: **ZZZZZ** | Batch ID: **R28356** | TestNo: **SM3500** | Analysis Date: **9/19/2007** | SeqNo: **515484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.1825	0.010	0.167	0	109	77.5	119				

Sample ID: **ICV** | SampType: **ICV** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28359**
Client ID: **ZZZZZ** | Batch ID: **R28359** | TestNo: **SM3500** | Analysis Date: **9/20/2007** | SeqNo: **515524**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.1708	0.010	0.167	0	102	77.5	119				

Sample ID: **ICV** | SampType: **ICV** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28401**
Client ID: **ZZZZZ** | Batch ID: **R28401** | TestNo: **SM3500** | Analysis Date: **9/20/2007** | SeqNo: **516527**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.09635	0.010	0.084	0	115	77.5	119				

Sample ID: **ICV** | SampType: **ICV** | TestCode: **CR6_W** | Units: **mg/L** | Prep Date: | RunNo: **28403**
Client ID: **ZZZZZ** | Batch ID: **R28403** | TestNo: **SM3500** | Analysis Date: **9/21/2007** | SeqNo: **516541**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.09374	0.010	0.0835	0	112	77.5	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0709313
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: CR6_W

Sample ID: **ICV** SampType: **ICV** TestCode: **CR6_W** Units: **mg/L** Prep Date: RunNo: **28404**
Client ID: **ZZZZZ** Batch ID: **R28404** TestNo: **SM3500** Analysis Date: **9/21/2007** SeqNo: **516554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent chromium	0.09635	0.010	0.0835	0	115	77.5	119				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Chain of Custody

-343-

Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-9S	9/18/07	11:05A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-9I	9/18/07	11:23A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-9D	9/18/07	11:15A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		ASP CAT. B
MW-12S	9/18/07	12:50A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
CHA-1	9/18/07	1:00P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-12I	9/18/07	1:20P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-12D	9/18/07	1:10P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-10S	9/18/07	1:57P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-10I MS/MSD	9/18/07	2:20P	GW	GRAB		10	X	X	X	X	X	X	X	X	X		
MW-10D	9/18/07	2:30P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
ULI TRIP BLANK	9/18/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	9/18/07	3:00	Received by: (sign)
Relinquished by:(sign)	9/18/07	5:00	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 9/18/07	Time 8:45	Rec'd for Lab by:

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-1S	9/19/07	10:20A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-1I	9/19/07	10:30A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-1D	9/19/07	10:45A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		ASP CAT. B
MW-2S	9/19/07	11:25A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-2I	9/19/07	11:35A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
MW-2D	9/19/07	11:45A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		
ULI TRIP BLANK	9/19/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier ~~VELOCITY~~ Tony. Sack.

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) [signature]	9/19/07	2:30	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 9/20/07	Time 0930	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-7S	9/19/07	2:45P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-7I	9/19/07	2:00P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-7D	9/19/07	2:25P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK	9/19/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	9/19/07	5:30	
Relinquished by:(sign)	9/20/07	0930	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-15S	9/20/07	5:00P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-15I	9/20/07	4:25P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-15D	9/20/07	3:30P	GW	GRAB		9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK	9/20/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	9/20/07	5:00	
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 9/21/07	Time 9:20	Rec'd for Lab by: Natalie Spaulding

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Client: CHA

Project #/ Project Name: C/O ALBANY INTERIM LANDFILL

Client Contact: KEITH COWAN

Phone #: 453-4500

Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-14S	9/21/07	9:40A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-14I	9/21/07	9:30A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-14D	9/21/07	10:00A	GW	GRAB		9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK	9/21/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER

Company: CHA/ULI

Name of Courier ~~VELOCITY~~

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	9/21/07	1:30	[signature]
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) [signature]	Date 9/21/07	Time 3:45	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.
Internal Laboratory Sign–Out Log

?-10-03 Revised 3/98

Project: CHA
SDG No.:
ULI ID No.: U0709313

ULI Number or Range of ULI Numbers	Date/Time Sample(s) Taken	Purpose	S.Custodian Initials	Analyst Initials	Date/Time Sample(s) Returned	S.Custodian Initials	Analyst Initials
1-7	9/26/07 1PM	8260		MM			
1-10, 13-18	9/27/07 8AM	Hg		RD	9/27/07 12PM		RD
21-23, 26-28	↓	↓		↓	↓		↓
31-33	↓	↓		↓	↓		↓
8-11, 12, 13	9/27/07 2:00	8260		MG			MG
14-25	~~10/1/07~~ 9/30/07 1PM	8260		MM	9/30/07 3PM		MM
26-32	10/1/07 200	8260		MG	10/1/07 4PM		MG
33-35	10/2/07 300	8260		MG	10/2/07 400		MG
1→10 13→18 21→23 26→28 31→33	10/8/07 9Am	ICP prep		~~B~~	10/8/07 12pm		B
1-10, 13-18, 21-23, 26-28	10/5/07	TKN/NH3		BS	10/5/07		BS
1-9	9/21/07	TDS		Dy	9/21/07		Dy
10, 13, 14	9/21/07	TDS		Dy	9/21/07		Dy
15-18, 21-23, 26-28, 31-33	9/21/07	TDS		Dy	9/21/07		Dy
1-10	9/19/07 8:00AM	BODS		Dy	9/19/07 4:00pm		Dy
13-18, 21-23, 26-28, 31-33	9/21/07 8:00AM	BODS		Dy	9/21/07 4:00pm		Dy
1-10	9/19/07 10:00AM	Cr6+		Dy	9/19/07 1:00pm		Dy
13-18	9/20/07 9:30AM	Cr6		Dy	9/20/07 12:00pm		Dy
21-23	9/20/07 11:00AM	Cr6+		Dy	9/20/07 12:01pm		Dy
26-28	9/21/07 10:00AM	Cr6+		Dy	9/21/07 12:00pm		Dy
31-33	9/21/07 4:00pm	Cr6+		Dy	9/21/07 4:30pm		Dy
1-10	9/19/07	NO3		BY	9/19/07		BY
13-18	9/20/07	NO3		BY	9/20/07		BY
21-23, 31-33	9/21/07	NO3		BY	9/21/07		BY
1-10, 13-18, 21-23, 31-33	9/27/07	Alk/Cl/Br		BY	9/27/07		BY
1-10, 13-18, 21-23, 26-28, 31-33	10/5/07	Phenol		MB	10/5/07		MB
1-8	10/2/07 11:00am	CODS		NS	10/2/07 2pm		NS
1-10, 13-18, 21-23, 26-28, 31-33	10/3/07 10:30am	CODS		NS	10/3/07 12pm		NS
9-10, 13-18, 21-23, 26-28, 31-33	10/3/07 9am	TOC		NS	10/3/07 9:30am		NS
1-10, 13-18, 21	9/20/07 9:00	Color		KM	9/20/07 10:00		KM
22, 23	9/20/07 14:30	Color		KM	9/20/07 15:30		KM
26-28, 31-33	9/21/07 10:00	Color		KM	9/21/07 11:00		KM
1-10, 13-18, 21-23, 26-28, 31-33	9/24/07	Sulfate		KM	9/24/07		KM

-349-

Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY | Date and Time Receive 9/20/2007

Work Order Numbe U0709313 | Received by TC

Checklist completed by KCrump 9/20/07 (Signature, Date) | Reviewed by (Initials) 9/26/07 (Date)

Matrix: | Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ________ Checked by ________

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments: ________

Corrective Action ________

-350-

Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY | Date and Time Receive 9/20/2007

Work Order Numbe U0709313 | Received by TC

Checklist completed by K Crump (Signature) 9/20/07 (Date) -Reviewed by [handwritten initials] (Initials) 9/26/07 (Date)

Matrix: Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ______ Checked by ______

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ______ Date contacted: ______ Person contacted ______

Contacted by: ______ Regarding: ______

Comments: ______

Corrective Action ______

-351-

Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY — Date and Time Receive 9/20/2007

Work Order Numbe U0709313 — Received by TC

Checklist completed by N Spaulding (Signature) 9-21-07 (Date) — Reviewed by (Initials) 9/26/07 (Date)

Matrix: — Carrier name Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ____________ Checked b ____________

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ____________ Date contacted: ____________ Person contacted ____________

Contacted by: ____________ Regarding: ____________

Comments: ____________

Corrective Action ____________

-352-

Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY

Date and Time Receive 9/21/2007

Work Order Numbe U0709313

Received by TC

Checklist completed by KCrump 9/24/07
Signature Date

Reviewed by [signature] 9/26/07
Initials Date

Matrix:

Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ______ Checked by ______

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ______ Date contacted: ______ Person contacted ______

Contacted by: ______ Regarding: ______

Comments: ______

Corrective Action ______

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Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Package

Case Narrative, Chain of Custody Documentation, Field Data and VOC Data
Volume 2 of 4

SDG No. CHA-85

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

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Samples Collected:

September 18, 2007
September 19, 2007
September 20, 2007
September 21, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-9S	U0709313-001	8260	-	-	-	Baseline 1993	Baseline1993
MW-9I	U0709313-002	8260	-	-	-	Baseline 1993	Baseline1993
MW-9D	U0709313-003	8260	-	-	-	Baseline 1993	Baseline1993
MW-12S	U0709313-004	8260	-	-	-	Baseline 1993	Baseline1993
CHA-1	U0709313-005	8260	-	-	-	Baseline 1993	Baseline1993
MW-12I	U0709313-006	8260	-	-	-	Baseline 1993	Baseline1993
MW-12D	U0709313-007	8260	-	-	-	Baseline 1993	Baseline1993
MW-10S	U0709313-008	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I	U0709313-009	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I MS	U0709313-009MS	8260	-	-	-	Baseline 1993	Baseline1993
MW-10I MSD	U0709313-009MSD	8260	-	-	-	-	-
MW-10I Dupe	U0709313-009DP	-	-	-	-	Baseline 1993	Baseline1993
MW-10D	U0709313-010	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-011	8260	-	-	-	-	-
Holding Blank	U0709313-012	8260	-	-	-	-	-
MW-1S	U0709313-013	8260	-	-	-	Baseline 1993	Baseline1993
MW-1I	U0709313-014	8260	-	-	-	Baseline 1993	Baseline1993
MW-1D	U0709313-015	8260	-	-	-	Baseline 1993	Baseline1993
MW-2S	U0709313-016	8260	-	-	-	Baseline 1993	Baseline1993
MW-2I	U0709313-017	8260	-	-	-	Baseline 1993	Baseline1993
MW-2D	U0709313-018	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-019	8260	-	-	-	-	-
Holding Blank	U0709313-020	8260	-	-	-	-	-
MW-7S	U0709313-021	8260	-	-	-	Baseline 1993	Baseline1993
MW-7I	U0709313-022	8260	-	-	-	Baseline 1993	Baseline1993
MW-7D	U0709313-023	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-024	8260	-	-	-	-	-
Holding Blank	U0709313-025	8260	-	-	-	-	-
MW-15S	U0709313-026	8260	-	-	-	Baseline 1993	Baseline1993
MW-15I	U0709313-027	8260	-	-	-	Baseline 1993	Baseline1993
MW-15D	U0709313-028	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank (20070913A)	U0709313-029	8260	-	-	-	-	-
Holding Blank	U0709313-030	8260	-	-	-	-	-
MW-14S	U0709313-031	8260	-	-	-	Baseline 1993	Baseline1993
MW-14I	U0709313-032	8260	-	-	-	Baseline 1993	Baseline1993
MW-14D	U0709313-033	8260	-	-	-	Baseline 1993	Baseline1993
ULI Trip Blank	U0709313-034	8260	-	-	-	-	-
Holding Blank	U0709313-035	8260	-	-	-	-	-

Narrative

1.0 Summary

This report presents the sample test results and quality control results for twenty-five water sample locations for the City of Albany Interim Landfill Project, Albany, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and four volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-4) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples were collected by Clough, Harbour & Associates and Upstate Laboratories, Inc. personnel on September 18, 19, 20 and 21, 2007, and were then delivered to Upstate Laboratories, Inc., Syracuse, New York, via Velocity. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Volatile Organics	8260	(1)
Aluminum	200.7	(1)
Antimony	200.7	(1)
Arsenic	200.7	(1)
Barium	200.7	(1)
Beryllium	200.7	(1)
Boron	200.7	(1)
Cadmium	200.7	(1)
Calcium	200.7	(1)
Chromium	200.7	(1)
Cobalt	200.7	(1)
Copper	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Mercury	245.2	(1)
Nickel	200.7	(1)
Potassium	200.7	(1)
Selenium	200.7	(1)
Silver	200.7	(1)
Sodium	200.7	(1)
Thallium	200.7	(1)
Vanadium	200.7	(1)
Zinc	200.7	(1)

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The total number of pages in this Data Package is: 1908

Total Alkalinity	310.2	(1)
Ammonia-Nitrogen	350.1	(1)
BOD	405.1	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Color	110.2	(1)
Cyanide	335.2	(1)
Hexavalent Chromium	SM3500	(1)
Nitrate-Nitrogen	353.1	(1)
Phenols	420.4	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.3	(1)
TOC	415.1	(1)
Bromide	300.0	(1)

(1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 10/95 Revision

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

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Holding Time	: Criteria were satisfied.
Calibration	: The IC %RSD value for Bromomethane was outside QC acceptance limits. Several target compounds exceeded method criteria in CC, lab files E15533.D, E15537.D and E15549.D. The CC %D values for Tetrachloroethene were outside QC acceptance limits for CC, lab files E15439.D and C19050.D. Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.
Method Blank	: Criteria were satisfied.
MSB	: VMBS02 exhibited LCS Standard recoveries below QC acceptance limits. The LCS recovery for Benzene was slightly below QC acceptance limits for VMBS04. All other criteria were satisfied.
MS/MSD	: Criteria were satisfied.
Surrogates	: Criteria were satisfied.
Internal Stds	: Criteria were satisfied.

Trace Metals and Cyanide Data

Holding Time	: Criteria were satisfied.
Calibration	: The CCV3 recovery for Silver was greater than QC acceptance limits. The CCV recoveries for Total Cyanide were below QC acceptance limits. The initial and final CRDL Standard recoveries for Zinc were greater than QC acceptance limits. All other criteria were satisfied.
Method Blanks	: Criteria were satisfied.

Ref. Samples : The LCS recovery for Potassium was slightly greater than QC acceptance limits. All other criteria were satisfied.

Matrix Spikes : The MS recovery for Iron was below QC acceptance limits for the MS performed on sample location MW-10I. A Post Digestion Spike was analyzed with a similar recovery for Iron. All other criteria were satisfied.

Duplicates : Criteria were satisfied.

Wet Chemistry Data

Holding Time : Criteria were satisfied.

Calibration : Criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref. Samples : The LCS recovery for COD was below QC acceptance limits due to a defective COD vial. A subsequent LCS was analyzed with a recovery slightly greater than QC acceptance limits. All other criteria were satisfied.

Matrix Spikes : Criteria were satisfied.

Duplicates : Criteria were satisfied.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved Anthony J. Scala

Anthony J. Scala, Director

CHA85BALB.INT.doc

Chain of Custody

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Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0709313	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-9S	9/18/07	11:05A	GW	GRAB	-1	9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-9I	9/18/07	11:23A	GW	GRAB	-2	9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-9D	9/18/07	11:15A	GW	GRAB	-3	9	X	X	X	X	X	X	X	X	X		ASP CAT. B
MW-12S	9/18/07	12:50~~A~~P	GW	GRAB	-4	9	X	X	X	X	X	X	X	X	X		
CHA-1	9/18/07	1:00P	GW	GRAB	-5	9	X	X	X	X	X	X	X	X	X		
MW-12I	9/18/07	1:20P	GW	GRAB	-6	9	X	X	X	X	X	X	X	X	X		
MW-12D	9/18/07	1:10P	GW	GRAB	-7	9	X	X	X	X	X	X	X	X	X		
MW-10S	9/18/07	1:57P	GW	GRAB	-8	9	X	X	X	X	X	X	X	X	X		
MW-10I MS/MSD	9/18/07	2:20P	GW	GRAB	-9	10	X	X	X	X	X	X	X	X	X		
MW-10D	9/18/07	2:30P	GW	GRAB	-10	9	X	X	X	X	X	X	X	X	X		
ULI TRIP BLANK	9/18/07	N/A	WATER	GRAB	-11	1								X			
(Holding Blank) KC 9/19/07	(9-19-07)	(1835)	(Water)	(Grab)	-12	1								(X)			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	9/18/07	3:00	[signature]
[signature]	9/18/07	5:00	[signature]
Relinquished by:(sign)	9/18/07	5:45	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo **Albany** Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0709313	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-1S	9/19/07	10:20A	GW	GRAB	-13	9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-1I	9/19/07	10:30A	GW	GRAB	-14	9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-1D	9/19/07	10:45A	GW	GRAB	-15	9	X	X	X	X	X	X	X	X	X		ASP CAT. B
MW-2S	9/19/07	11:25A	GW	GRAB	-16	9	X	X	X	X	X	X	X	X	X		
MW-2I	9/19/07	11:35A	GW	GRAB	-17	9	X	X	X	X	X	X	X	X	X		
MW-2D	9/19/07	11:45A	GW	GRAB	-18	9	X	X	X	X	X	X	X	X	X		
ULI TRIP BLANK	9/19/07	N/A	WATER	GRAB	-19	1								X			
(Holding Blank) KC 9/20/07	(9-20-07)	(0515)	(Water)	(Grab)	-20	1								(X)			

Parameter and Method	Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: ~~VELOCITY~~ Tony. Soak.

Relinquished by: (sign)	Date	Time	Received by: (sign)
[signature]	9/19/07	2:30	
Relinquished by: (sign)	9/20/07	0505	Rec'd for Lab by: KChurp

Syracuse Rochester Buffalo ***Albany*** Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0709313	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-7S	9/19/07	2:45P	GW	GRAB	-21	9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-7I	9/19/07	2:00P	GW	GRAB	-22	9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-7D	9/19/07	2:25P	GW	GRAB	-23	9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK	9/19/07	N/A	WATER	GRAB	-24	1								X			
(Holding Blank)	(9-20-07)	(1240)	(Water)	(grab)	-25	1								(X)			

Parameter and Method	Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by: (sign)	Date	Time	Received by: (sign)
[signature]	9/19/07	5:00	
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date 9/20/07	Time 0930	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo **Albany** Binghamton Fair Lawn (NJ)

ULI Computer Input Form

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0709313	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-15S	9/20/07	5:00P	GW	GRAB	-26	9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-15I	9/20/07	4:25P	GW	GRAB	-27	9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-15D	9/20/07	3:30P	GW	GRAB	-28	9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK (20070913A) NS 9/21/07	9/20/07	N/A	WATER	GRAB	-29	1								X			
(Holding Blank)	(9-21-07)	(2:40pm)	(water)	(G)	-30	(1)								(x)			

Parameter and Method	Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) [signature]	9/20/07	5:??	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	9/21/07	0926	Rec'd for Lab by: Natalie S[illegible]

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Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

ULI Computer Input Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0709313	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-14S	9/21/07	9:40A	GW	GRAB	-31	9	X	X	X	X	X	X	X	X	X		NYS PART 360
MW-14I	9/21/07	9:30A	GW	GRAB	-32	9	X	X	X	X	X	X	X	X	X		BASELINE 1993
MW-14D	9/21/07	10:00A	GW	GRAB	-33	9	X	X	X	X	X	X	X	X	X		ASP CAT. B
ULI TRIP BLANK	9/21/07	N/A	WATER	GRAB	-34	1								X			
(Holding Blank)	(9-21-07)	(0130)	(Water)	(Grab)	-35	1								(X)			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) J.MOREY/M.BROKER
Company: CHA/ULI
Name of Courier: ~~VELOCITY~~

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	9/21/07	1:30	[signature]
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) [signature]	Date 9/21/07	Time 3:45	Rec'd for Lab by: [signature]

Syracuse Rochester Buffalo **Albany** Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.
Internal Laboratory Sign–Out Log
73–10–03 Revised 3/98

Project: CHA
SDG No.:
ULI ID No.: U0709313

ULI Number or Range of ULI Numbers	Date/Time Sample(s) Taken	Purpose	S.Custodian Initials	Analyst Initials	Date/Time Sample(s) Returned	S.Custodian Initials	Analyst Initials
1-7	9/26/07 1PM	8260		UM			
1-10, 13-18	9/27/07 8AM	Hg		RD	9/27/07 2PM		RD
21-23, 26-28	↓	↓		↓	↓		↓
31-33	↓	↓		↓	↓		↓
8-11, 12, 13	9/27/07 2:00	8260		MG			MG
14-25	~~10/1/07~~ 9/30/07 1PM	8260		UM	9/30/07 3PM		UM
26-32	10/1/07 200	8260		MG	10/1/07 4PM		MG
33-35	10/2/07 300	8260		MG	10/2/07 400		MG
1→10 13→18 21→23 26→28 31→33	10/8/07 9AM	ICP prep		[illegible]	10/8/07 12pm		[illegible]
1-10, 13-18, 21-28, 31-33	10/5/07	TKN/NH3		JS	10/5/07		JS
1-9	9/21/07	TDS		DY	9/21/07		DY
10, 13, 14	9/21/07	TDS		DY	9/21/07		DY
15-18, 21-23, 26-28, 31-33	9/21/07	TDS		DY	9/21/07		DY
1-10	9/19/07 8:00AM	BOD5		DY	9/19/07 4:00pm		DY
13-18, 21-23, 26-28, 31-33	9/21/07 8:00AM	BOD5		DY	9/21/07 4:00pm		DY
1-10	9/19/07 10:00AM	Cr6+		DY	9/19/07 1:00PM		DY
13-18	9/20/07 9:30AM	Cr6		DY	9/20/07 12:00pm		DY
21-23	9/20/07 11:00AM	Cr6+		DY	9/20/07 12:01pm		DY
26-28	9/21/07 10:00AM	Cr6+		DY	9/21/07 12:00pm		DY
31-33	9/21/07 4:00pm	Cr6+		DY	9/21/07 4:30pm		DY
1-10	9/19/07	NO3		BY	9/19/07		BY
13-18	9/20/07	NO3		BY	9/20/07		BY
21-23, 31-33	9/21/07	NO3		BY	9/21/07		BY
1-10, 13-18, 21-23, 31-33	9/27/07	Alk/Cl/BR		BY	9/27/07		BY
1-10, 13-18, 21-23, 26-28, 31-33	10/5/07	Phenol		MB	10/5/07		MB
1-8	10/2/07 11:00am	COD5		NS	10/2/07 2pm		NS
1-10, 13-18, 21-23, 26-28, 31-33	10/3/07 10:30am	COD5		NS	10/3/07 12pm		NS
9-10, 13-18, 21-23, 26-28, 31-33	10/3/07 9am	TOC		NS	10/3/07 9:30am		NS
1-10, 13-18, 21	9/20/07 9:00	Color		KM	9/20/07 10:00		KM
22, 23	9/20/07 14:30	Color		KM	9/20/07 15:30		KM
26-28, 31-33	9/21/07 10:00	Color		KM	9/21/07 11:00		KM
1-10, 13-18, 21-23, 26-28, 31-33	9/24/07	Sulfate		KM	9/24/07		KM

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY

Work Order Numbe U0709313

Checklist completed by KCrump 9/20/07

Signature Date

Date and Time Receive 9/20/2007

Received by TC

Reviewed by 9/26/07

Initials Date

Matrix:

Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ______ Checked by ______

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ______ Date contacted: ______ Person contacted ______

Contacted by: ______ Regarding: ______

Comments: ______

Corrective Action ______

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY

Date and Time Receive 9/20/2007

Work Order Numbe U0709313

Received by TC

Checklist completed by K Crump 9/20/07
Signature Date

Reviewed by 9/26/07
Initials Date

Matrix:

Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ________ Checked by ________

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments: ________

Corrective Action ________

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name **CHA-ALBANY** Date and Time Receive **9/20/2007**

Work Order Numbe **U0709313** Received by TC

Checklist completed by N Spaulding (Signature) 9-21-07 (Date) Reviewed by (Initials) 9/26/07 (Date)

Matrix: Carrier name Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ________ Checked b ________

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments: ________

Corrective Action ________

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY

Date and Time Receive 9/21/2007

Work Order Numbe U0709313

Received by TC

Checklist completed by BCrump 9/24/07
Signature Date

Reviewed by 9/26/07
Initials Date

Matrix:

Carrier name: Velocity

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? ________ Checked by ________

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments: ________

Corrective Action ________

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GC/MS Volatiles

Upstate Laboratories, Inc.

Quality Control Data

Upstate Laboratories, Inc.

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	114	99	101	0
02	VMBS01	106	99	106	0
03	MW-101MS	106	99	97	0
04	MW-101MSD	109	99	98	0
05	MW-101	109	99	99	0
06	MW-9S	108	97	97	0
07	MW-9I	109	98	99	0
08	MW-9D	111	99	100	0
09	MW-12S	111	97	99	0
10	CHA-1	114	98	98	0
11	VBLK02	114	97	99	0
12	VMBS02	106	98	108	0
13	MW-12I	111	99	100	0
14	MW-12D	111	99	101	0
15	MW-10S	112	98	102	0
16	MW-10D	112	98	101	0
17	ULI TB	114	98	102	0
18	HOLDING BLA	113	97	100	0
19	MW-1S	114	98	101	0
20	VBLK03	100	95	92	0
21	VMBS03	96	100	104	0
22	MW-15S	103	96	96	0
23	MW-15I	106	97	97	0
24	MW-15D	107	97	98	0
25	ULI TB	113	97	99	0
26	HOLDING BLA	113	96	98	0
27	MW-14S	113	97	94	0
28	MW-14I	112	97	99	0
29	VBLK04	89	95	102	0
30	VMBS04	84	98	113	0
31	MW-14D	80	97	100	0
32	ULI TB	84	97	101	0
33	HOLDING BLA	86	95	102	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK05	98	101	103	0
02	VMBS05	97	99	104	0
03	MW-1I	92	99	106	0
04	MW-1D	95	101	102	0
05	MW-2S	95	101	106	0
06	MW-2I	91	100	103	0
07	MW-2D	93	99	104	0
08	ULI T B	94	97	104	0
09	HOLDING BLAN	93	98	106	0
10	MW-7S	96	100	104	0
11	MW-7I	91	99	106	0
12	MW-7D	94	100	103	0
13	ULI TRIP BLAN	94	100	106	0
14	HOLDING BLAN	94	99	103	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix Spike - EPA Sample No MW-101

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	68	136	61 - 145
Benzene	50	0.0	56	112	76 - 127
Trichloroethene	50	0.0	59	118	71 - 120
Toluene	50	0.0	59	118	76 - 125
Chlorobenzene	50	0.0	58	116	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	66	132	3	14	61 - 145
Benzene	50	55	110	2	11	76 - 127
Trichloroethene	50	59	118	0	14	71 - 120
Toluene	50	59	118	0	13	76 - 125
Chlorobenzene	50	56	112	4	13	75 - 130

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Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK01 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	38	76	61-145
Benzene	50	0	40	80	76-127
Trichloroethene	50	0	40	80	71-120
Toluene	50	0	41	82	76-125
Chlorobenzene	50	0	43	86	75-130

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK02 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	31	62	61-145
Benzene	50	0	31	62	76-127
Trichloroethene	50	0	33	66	71-120
Toluene	50	0	33	66	76-125
Chlorobenzene	50	0	35	70	75-130

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK03 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	37	74	61-145
Benzene	50	0	44	88	76-127
Trichloroethene	50	0	47	94	71-120
Toluene	50	0	47	94	76-125
Chlorobenzene	50	0	49	98	75-130

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK04 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	33	66	61-145
Benzene	50	0	37	74	76-127
Trichloroethene	50	0	44	88	71-120
Toluene	50	0	42	84	76-125
Chlorobenzene	50	0	43	86	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA-85

Matrix Spike-EPA Sample No.: VBLK05 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	42	84	61-145
Benzene	50	0	46	92	76-127
Trichloroethene	50	0	50	100	71-120
Toluene	50	0	53	106	76-125
Chlorobenzene	50	0	57	114	75-130

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4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15441.D Lab Sample ID: MB

Date Analyzed: 9/27/07 Time Analyzed: 12:56

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS01	LCS	E15442.D	13:45
02	MW-101MS	U0709313-009HMS	E15443.D	14:35
03	MW-101MSD	U0709313-009HMSD	E15444.D	15:24
04	MW-101	U0709313-009H	E15445.D	16:13
05	MW-9S	U0709313-001H	E15446.D	17:02
06	MW-9I	U0709313-002H	E15447.D	17:52
07	MW-9D	U0709313-003H	E15448.D	18:40
08	MW-12S	U0709313-004H	E15449.D	19:30
09	CHA-1	U0709313-005H	E15450.D	20:19

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COMMENTS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15455.D Lab Sample ID: MB

Date Analyzed: 9/28/07 Time Analyzed: 0:26

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS02	LCS	E15456.D	1:15
02	MW-12I	U0709313-006H	E15458.D	2:53
03	MW-12D	U0709313-007H	E15459.D	3:42
04	MW-10S	U0709313-008H	E15460.D	4:32
05	MW-10D	U0709313-010H	E15461.D	5:21
06	ULI TB	U0709313-011A	E15462.D	6:10
07	HOLDING BLANK	U0709313-012A	E15463.D	6:59
08	MW-1S	U0709313-013H	E15464.D	7:48

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15523.D Lab Sample ID: MB

Date Analyzed: 10/1/07 Time Analyzed: 15:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS03	LCS	E15524.D	15:55
02	MW-15S	U0709313-026H	E15526.D	17:34
03	MW-15I	U0709313-027H	E15527.D	18:23
04	MW-15D	U0709313-028H	E15528.D	19:11
05	ULI TB	U0709313-029A	E15529.D	20:01
06	HOLDING BLANK	U0709313-030A	E15530.D	20:50
07	MW-14S	U0709313-031H	E15531.D	21:39
08	MW-14I	U0709313-032H	E15532.D	22:28

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ________ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15539.D Lab Sample ID: MB

Date Analyzed: 10/2/07 Time Analyzed: 18:44

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS04	LCS	E15541.D	20:22
02	MW-14D	U0709313-033H	E15546.D	0:28
03	ULI TB	U0709313-034H	E15547.D	1:18
04	HOLDING BLANK	U0709313-035H	E15548.D	2:07

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID: C19035.D Lab Sample ID: MB

Date Analyzed: 9/30/2007 Time Analyzed: 13:36

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS05	LCS	C19036.D	14:14
02	MW-1I	U0709313-014H	C19038.D	15:29
03	MW-1D	U0709313-015H	C19039.D	16:07
04	MW-2S	U0709313-016H	C19040.D	16:46
05	MW-2I	U0709313-017H	C19041.D	17:24
06	MW-2D	U0709313-018H	C19042.D	18:01
07	ULI T B	U0709313-019A	C19043.D	18:39
08	HOLDING BLANK	U0709313-020A	C19044.D	19:17
09	MW-7S	U0709313-021H	C19045.D	19:55
10	MW-7I	U0709313-022H	C19046.D	20:33
11	MW-7D	U0709313-023H	C19047.D	21:11
12	ULI TRIP BLANK	U0709313-024A	C19048.D	21:49
13	HOLDING BLANK	U0709313-025A	C19049.D	22:27

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COMMENTS

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15410.D BFB Injection Date: 9/25/07

Instrument ID: 49 BFB Injection Time: 21:30

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.4
75	30.0 - 66.0% of mass 95	55.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	82.2
175	4.0 - 9.0% of mass 174	5.6 (6.9)1
176	93.0 - 101.0% of mass 174	81.3 (98.9)1
177	5.0 - 9.0% of mass 176	5.7 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	E15411.D	9/25/07	22:19
02	VSTD010	VSTD010	E15412.D	9/25/07	23:08
03	VSTD020	VSTD020	E15413.D	9/25/07	23:57
04	VSTD050	VSTD050	E15414.D	9/26/07	0:47
05	VSTD100	VSTD100	E15415.D	9/26/07	1:36
06	VSTD200	VSTD200	E15416.D	9/26/07	2:25

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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15438.D BFB Injection Date: 9/27/07

Instrument ID: 49 BFB Injection Time: 10:17

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.8
75	30.0 - 66.0% of mass 95	57.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	81.8
175	4.0 - 9.0% of mass 174	6.5 (8.0)1
176	93.0 - 101.0% of mass 174	80.3 (98.2)1
177	5.0 - 9.0% of mass 176	6.3 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC01	CCV	E15439.D	9/27/07	11:18
02	VBLK01	MB	E15441.D	9/27/07	12:56
03	VMBS01	LCS	E15442.D	9/27/07	13:45
04	MW-101MS	U0709313-009HMS	E15443.D	9/27/07	14:35
05	MW-101MSD	U0709313-009HMSD	E15444.D	9/27/07	15:24
06	MW-101	U0709313-009H	E15445.D	9/27/07	16:13
07	MW-9S	U0709313-001H	E15446.D	9/27/07	17:02
08	MW-9I	U0709313-002H	E15447.D	9/27/07	17:52
09	MW-9D	U0709313-003H	E15448.D	9/27/07	18:40
10	MW-12S	U0709313-004H	E15449.D	9/27/07	19:30
11	CHA-1	U0709313-005H	E15450.D	9/27/07	20:19
12	VSTD050CC02	CC	E15451.D	9/27/07	21:08

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID: E15452.D BFB Injection Date: 9/27/07

Instrument ID: 49 BFB Injection Time: 21:58

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.5
75	30.0 - 66.0% of mass 95	59.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	85.8
175	4.0 - 9.0% of mass 174	4.8 (5.6)1
176	93.0 - 101.0% of mass 174	83.1 (96.8)1
177	5.0 - 9.0% of mass 176	6.6 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC03	CCV	E15453.D	9/27/07	22:47
02	VBLK02	MB	E15455.D	9/28/07	0:26
03	VMBS02	LCS	E15456.D	9/28/07	1:15
04	MW-12I	U0709313-006H	E15458.D	9/28/07	2:53
05	MW-12D	U0709313-007H	E15459.D	9/28/07	3:42
06	MW-10S	U0709313-008H	E15460.D	9/28/07	4:32
07	MW-10D	U0709313-010H	E15461.D	9/28/07	5:21
08	ULI TB	U0709313-011A	E15462.D	9/28/07	6:10
09	HOLDING BLANK	U0709313-012A	E15463.D	9/28/07	6:59
10	MW-1S	U0709313-013H	E15464.D	9/28/07	7:48
11	VSTD050CC04	CC	E15465.D	9/28/07	8:38

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15520.D BFB Injection Date: 10/1/07

Instrument ID: 49 BFB Injection Time: 12:14

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	52.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	88.7
175	4.0 - 9.0% of mass 174	6.1 (6.9)1
176	93.0 - 101.0% of mass 174	85.9 (96.9)1
177	5.0 - 9.0% of mass 176	4.8 (5.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC05	CCV	E15521.D	10/1/07	13:27
02	VBLK03	MB	E15523.D	10/1/07	15:06
03	VMBS03	LCS	E15524.D	10/1/07	15:55
04	MW-15S	U0709313-026H	E15526.D	10/1/07	17:34
05	MW-15I	U0709313-027H	E15527.D	10/1/07	18:23
06	MW-15D	U0709313-028H	E15528.D	10/1/07	19:11
07	ULI TB	U0709313-029A	E15529.D	10/1/07	20:01
08	HOLDING BLANK	U0709313-030A	E15530.D	10/1/07	20:50
09	MW-14S	U0709313-031H	E15531.D	10/1/07	21:39
10	MW-14I	U0709313-032H	E15532.D	10/1/07	22:28
11	VSTD050CC06	CC	E15533.D	10/2/07	8:36

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID: E15536.D BFB Injection Date: 10/2/07

Instrument ID: 49 BFB Injection Time: 16:11

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	20.6	
75	30.0 - 66.0% of mass 95	57.4	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.0	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	95.5	
175	4.0 - 9.0% of mass 174	7.1	(7.5)1
176	93.0 - 101.0% of mass 174	94.9	(99.4)1
177	5.0 - 9.0% of mass 176	5.1	(5.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC07	CCV	E15537.D	10/2/07	17:06
02	VBLK04	MB	E15539.D	10/2/07	18:44
03	VMBS04	LCS	E15541.D	10/2/07	20:22
04	MW-14D	U0709313-033H	E15546.D	10/3/07	0:28
05	ULI TB	U0709313-034H	E15547.D	10/3/07	1:18
06	HOLDING BLANK	U0709313-035H	E15548.D	10/3/07	2:07
07	VSTD050CC08	CC	E15549.D	10/3/07	2:56

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Lab File ID: C18959.D BFB Injection Date: 9/25/2007

Instrument ID: 12 BFB Injection Time: 11:00

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	~~20.6~~ 31.2	
75	30.0 - 66.0% of mass 95	~~57.4~~ 62.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	~~8.0~~ 5.8	
173	Less than 2.0% of mass 174	0.0 (0.0)1	
174	50.0 - 120.0% of mass 95	~~95.6~~ 113	
175	4.0 - 9.0% of mass 174	9.3 ~~7.1~~ (~~7.5~~)1	8.2
176	93.0 - 101.0% of mass 174	109.5 ~~94.0~~ (~~99.4~~)1	96.9
177	5.0 - 9.0% of mass 176	7.9 ~~5.1~~ (~~5.3~~)2	7.2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS: -405-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	C18960.D	9/25/2007	13:43
02	VSTD010	VSTD010	C18961.D	9/25/2007	14:21
03	VSTD020	VSTD020	C18962.D	9/25/2007	14:58
04	VSTD050	VSTD050	C18963.D	9/25/2007	15:36
05	VSTD100	VSTD100	C18964.D	9/25/2007	16:14
06	VSTD200	VSTD200	C18965.D	9/25/2007	16:52

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID: C19032.D BFB Injection Date: 9/30/2007

Instrument ID: 12 BFB Injection Time: 11:23

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	~~20.6~~ 29.7	
75	30.0 - 66.0% of mass 95	~~57.4~~ 61.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	~~8.0~~ 6.0	
173	Less than 2.0% of mass 174	0.0 (0.0)1	
174	50.0 - 120.0% of mass 95	~~95.5~~ 107.7	
175	4.0 - 9.0% of mass 174	6.6 ~~7.1~~ (~~7.5~~)1	6.1
176	93.0 - 101.0% of mass 174	106.4 ~~94.9~~ (~~99.4~~)1	98.7
177	5.0 - 9.0% of mass 176	6.6 ~~5.1~~ (~~5.3~~)2	6.2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC009	CC	C19033.D	9/30/2007	12:03
02	VBLK05	MB	C19035.D	9/30/2007	13:36
03	VMBS05	LCS	C19036.D	9/30/2007	14:14
04	MW-1I	U0709313-014H	C19038.D	9/30/2007	15:29
05	MW-1D	U0709313-015H	C19039.D	9/30/2007	16:07
06	MW-2S	U0709313-016H	C19040.D	9/30/2007	16:46
07	MW-2I	U0709313-017H	C19041.D	9/30/2007	17:24
08	MW-2D	U0709313-018H	C19042.D	9/30/2007	18:01
09	ULI T B	U0709313-019A	C19043.D	9/30/2007	18:39
10	HOLDING BLANK	U0709313-020A	C19044.D	9/30/2007	19:17
11	MW-7S	U0709313-021H	C19045.D	9/30/2007	19:55
12	MW-7I	U0709313-022H	C19046.D	9/30/2007	20:33
13	MW-7D	U0709313-023H	C19047.D	9/30/2007	21:11
14	ULI TRIP BLANK	U0709313-024A	C19048.D	9/30/2007	21:49
15	HOLDING BLANK	U0709313-025A	C19049.D	9/30/2007	22:27
16	VSTD050CC010	CC	C19050.D	9/30/2007	23:04

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15439.D Date Analyzed: 9/27/07

Instrument ID: 49 Time Analyzed: 11:18

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	78686		14.15		117025		16.07		109867		24.20	
	UPPER LIMIT	157372		14.65		234050		16.57		219734		24.70	
	LOWER LIMIT	39343		13.65		58513		15.57		54934		23.70	
	EPA SAMPLE NO.												
01	VBLK01	77720		14.16		117284		16.08		110395		24.20	
02	VMBS01	79837		14.16		118604		16.07		109993		24.20	
03	MW-101MS	81818		14.17		122937		16.07		112188		24.21	
04	MW-101MSD	78615		14.17		119326		16.07		110369		24.21	
05	MW-101	76956		14.17		114267		16.09		105115		24.21	
06	MW-9S	75660		14.18		114391		16.08		104494		24.21	
07	MW-9I	74465		14.18		112961		16.08		103702		24.22	
08	MW-9D	73973		14.17		110745		16.09		103183		24.21	
09	MW-12S	72311		14.18		110350		16.08		101226		24.22	
10	CHA-1	70859		14.17		109396		16.08		100796		24.21	

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15439.D Date Analyzed: 09/27/07

Instrument ID: 49 Time Analyzed: 11:18

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	75247	31.08				
	UPPER LIMIT	150494	30.58				
	LOWER LIMIT	37624	31.58				
	EPA SAMPLE NO.						
01	VBLK01	66015	31.09				
02	VMBS01	76344	31.09				
03	MW-101MS	67754	31.09				
04	MW-101MSD	65962	31.09				
05	MW-101	63102	31.10				
06	MW-9S	62734	31.10				
07	MW-9I	62332	31.10				
08	MW-9D	62034	31.09				
09	MW-12S	61928	31.10				
10	CHA-1	60341	31.09				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Lab File ID (Standard): E15453.D Date Analyzed: 9/27/07

Instrument ID: 49 Time Analyzed: 22:47

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	77539	14.17	114978	16.09	107539	24.21
	UPPER LIMIT	155078	14.67	229956	16.59	215078	24.71
	LOWER LIMIT	38770	13.67	57489	15.59	53770	23.71
	EPA SAMPLE NO.						
01	VBLK02	75136	14.18	112912	16.08	103818	24.21
02	VMBS02	75647	14.17	113414	16.08	104796	24.20
03	MW-12I	72715	14.17	110174	16.08	101275	24.21
04	MW-12D	72281	14.17	107883	16.09	100900	24.21
05	MW-10S	69827	14.17	104933	16.08	97576	24.21
06	MW-10D	69498	14.18	104755	16.09	95975	24.21
07	ULI TB	68778	14.17	104319	16.09	95646	24.21
08	HOLDING BLANK	67818	14.17	103408	16.08	95080	24.21
09	MW-1S	67046	14.18	102287	16.09	93848	24.22

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15453.D Date Analyzed: 09/27/07

Instrument ID: 49 Time Analyzed: 22:47

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB)											
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	74392		31.10									
	UPPER LIMIT	148784		30.60									
	LOWER LIMIT	37196		31.60									
	EPA SAMPLE NO.												
01	VBLK02	62666		31.10									
02	VMBS02	72542		31.09									
03	MW-12I	61620		31.10									
04	MW-12D	60166		31.10									
05	MW-10S	59611		31.10									
06	MW-10D	58878		31.10									
07	ULI TB	58796		31.09									
08	HOLDING BL	58658		31.09									
09	MW-1S	57785		31.10									

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Lab File ID (Standard): E15521.D Date Analyzed: 10/1/07

Instrument ID: 49 Time Analyzed: 13:27

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	104788	14.07	138588	15.98	120870	24.10
	UPPER LIMIT	209576	14.57	277176	16.48	241740	24.60
	LOWER LIMIT	52394	13.57	69294	15.48	60435	23.60
	EPA SAMPLE NO.						
01	VBLK03	85266	14.09	115709	16.00	98728	24.12
02	VMBS03	82875	14.09	108758	16.00	97579	24.13
03	MW-15S	74945	14.09	100369	16.01	86684	24.12
04	MW-15I	68924	14.09	92584	16.01	81039	24.13
05	MW-15D	67251	14.09	88594	16.00	77905	24.12
06	ULI TB	63670	14.09	85027	16.00	74922	24.11
07	HOLDING BLANK	62642	14.09	83285	16.00	72657	24.12
08	MW-14S	60723	14.09	81026	16.00	71764	24.12
09	MW-14I	60682	14.09	79694	16.00	70762	24.11

-411-

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15521.D Date Analyzed: 10/01/07

Instrument ID: 49 Time Analyzed: 13:27

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	79692		30.99									
	UPPER LIMIT	159384		30.49									
	LOWER LIMIT	39846		31.49									
	EPA SAMPLE NO.												
01	VBLK03	59988		31.00									
02	VMBS03	68171		31.01									
03	MW-15S	54706		31.01									
04	MW-15I	50286		31.01									
05	MW-15D	50079		31.01									
06	ULI TB	47708		31.01									
07	HOLDING BL	46407		31.00									
08	MW-14S	45383		31.01									
09	MW-14I	44777		31.01									

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15537.D Date Analyzed: 10/2/07

Instrument ID: 49 Time Analyzed: 17:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	60859	14.11	67447	16.03	60027	24.14
	UPPER LIMIT	121718	14.61	134894	16.53	120054	24.64
	LOWER LIMIT	30430	13.61	33724	15.53	30014	23.64
	EPA SAMPLE NO.						
01	VBLK04	59090	14.11	66300	16.02	57677	24.14
02	VMBS04	66827	14.11	72798	16.02	66145	24.14
03	MW-14D	78439	14.13	88326	16.03	76839	24.15
04	ULI TB	71235	14.13	80359	16.04	70342	24.16
05	HOLDING BLANK	66301	14.12	76049	16.04	65658	24.15

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Lab File ID (Standard): E15537.D Date Analyzed: 10/02/07

Instrument ID: 49 Time Analyzed: 17:06

GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	48237	31.02				
	UPPER LIMIT	96474	30.52				
	LOWER LIMIT	24119	31.52				
	EPA SAMPLE NO.						
01	VBLK04	40026	31.03				
02	VMBS04	51341	31.03				
03	MW-14D	52502	31.04				
04	ULI TB	47999	31.04				
05	HOLDING BL	46112	31.04				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID (Standard): C19033.D Date Analyzed: 9/30/2007

Instrument ID: 12 Time Analyzed: 12:03

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	512824	7.72	375595	10.98	280349	18.54
	UPPER LIMIT	1025648	8.22	751190	11.48	560698	19.04
	LOWER LIMIT	256412	7.22	187798	10.48	140175	18.04
	EPA SAMPLE NO.						
01	VBLK05	526196	7.72	385866	10.99	293882	18.52
02	VMBS05	542366	7.73	387083	10.98	285427	18.52
03	MW-1I	559700	7.73	389354	11.01	300956	18.53
04	MW-1D	505751	7.73	365338	11.00	274152	18.53
05	MW-2S	542745	7.75	386651	10.99	296945	18.52
06	MW-2I	553939	7.73	391627	10.99	295256	18.52
07	MW-2D	549171	7.73	391692	11.01	299575	18.52
08	ULI T B	549800	7.73	394024	11.00	293624	18.52
09	HOLDING BLANK	554036	7.72	391327	10.97	298087	18.51
10	MW-7S	535464	7.72	389127	10.98	294089	18.51
11	MW-7I	562678	7.71	386487	10.99	294774	18.52
12	MW-7D	537083	7.72	391141	10.99	297994	18.51
13	ULI TRIP BLANK	548830	7.72	386505	10.97	296130	18.51
14	HOLDING BLANK	470837	7.72	344048	10.98	262060	18.51

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Lab File ID (Standard): C19033.D Date Analyzed: 09/30/07

Instrument ID: 12 Time Analyzed: 12:03

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	220139		23.21									
	UPPER LIMIT	440278		22.71									
	LOWER LIMIT	110070		23.71									
	EPA SAMPLE NO.												
01	VBLK05	231686		23.17									
02	VMBS05	233034		23.18									
03	MW-1I	242783		23.18									
04	MW-1D	216875		23.18									
05	MW-2S	241650		23.18									
06	MW-2I	238314		23.18									
07	MW-2D	238734		23.18									
08	ULI T B	240685		23.18									
09	HOLDING BL	235890		23.18									
10	MW-7S	234320		23.17									
11	MW-7I	234505		23.17									
12	MW-7D	232147		23.17									
13	ULI TRIP BLA	242407		23.18									
14	HOLDING BL	205568		23.16									

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sample Data

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Upstate Laboratories, Inc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-001H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15446.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ____ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Data File : G:\DATA\E15446.D Vial: 9
Acq On : 27 Sep 2007 5:02 pm Operator: MG
Sample : U0709313-001H Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 10:21 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.18	168	75660	50.00 ug/L	0.02
36) 1,4-Difluorobenzene	16.08	114	114391	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.21	117	104494	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.10	152	62734	50.00 ug/L	0.02

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.10	65	57433	53.94 ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	107.88%	
50) Toluene-d8	20.06	98	118332	48.70 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.40%	
55) Bromofluorobenzene	27.64	95	59118	48.68 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	97.36%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

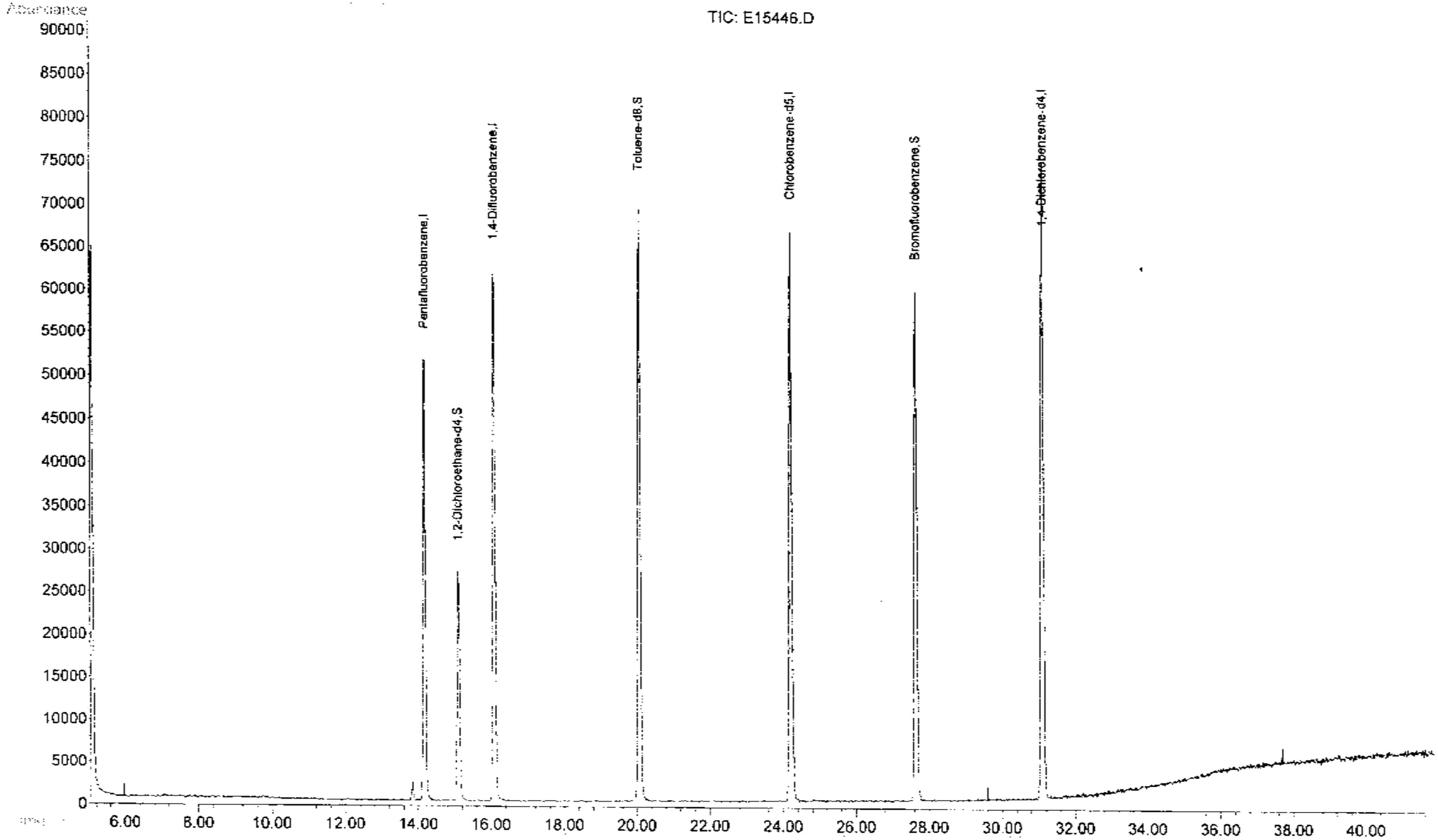
Quantitation Report

Data File : G:\DATA\E15446.D
Acq On : 27 Sep 2007 5:02 pm
Sample : U0709313-001H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:21 2007

Vial: 9
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

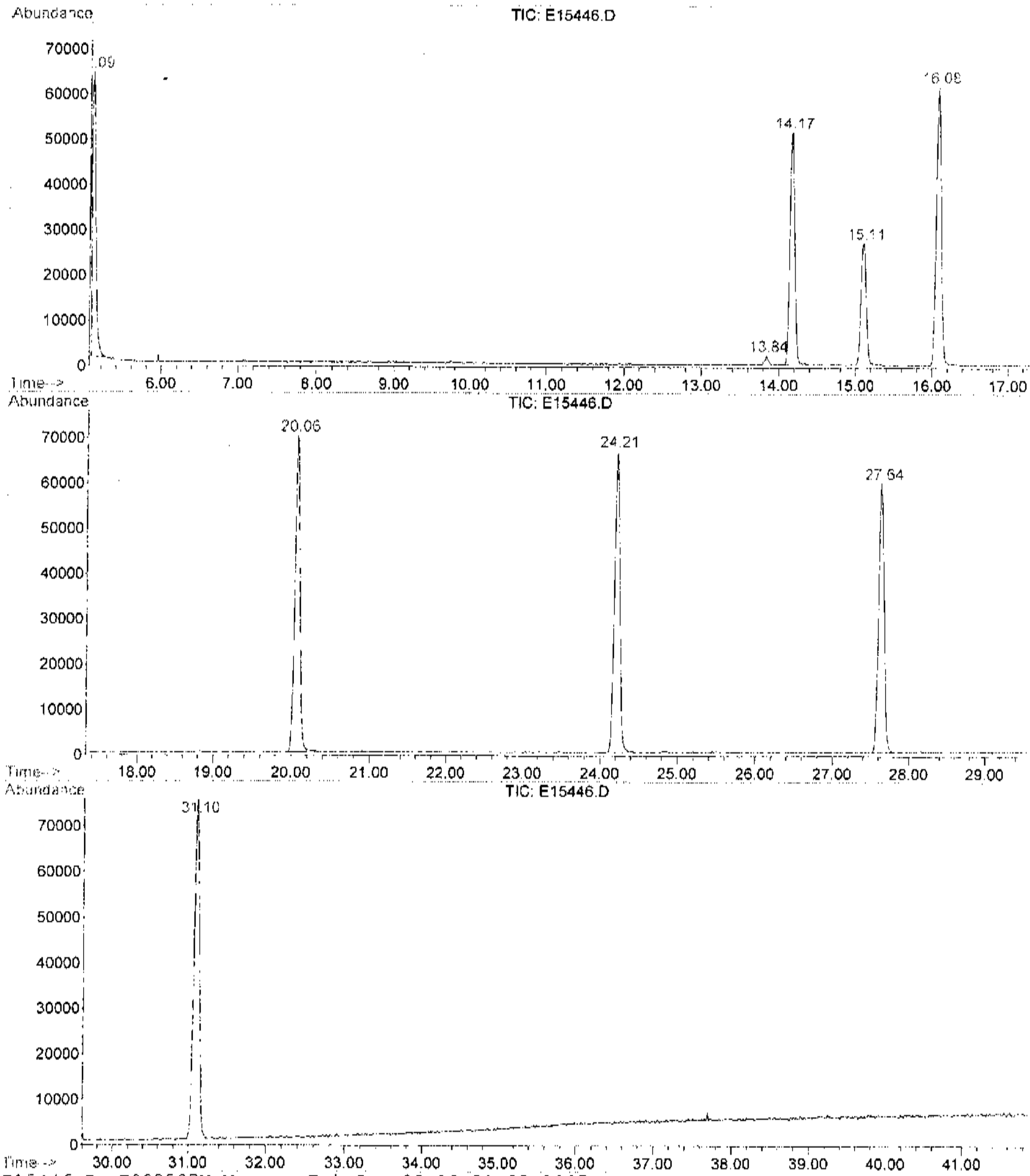
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



Report - Integrated Chromatogram

File : D:\DATA\E15446.D
Operator : MG
Acquired : 27 Sep 2007 5:02 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-001H
Misc Info : 5mL
Vial Number: 9
Quant File :E092507W.RES (RTE Integrator)



E15446.D E092507W.M Fri Sep 28 10:31:25 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-002H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15447.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	8.83	6	JN

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```
Data File : G:\DATA\E15447.D                              Vial: 10
Acq On    : 27 Sep 2007   5:52 pm                     Operator: MG
Sample    : U0709313-002H                             Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 28 10:22 2007               Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                   R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
  1) Pentafluorobenzene              14.18  168     74465    50.00 ug/L    0.02
 36) 1,4-Difluorobenzene             16.08  114    112961    50.00 ug/L    0.02
 56) Chlorobenzene-d5                24.22  117    103702    50.00 ug/L    0.03
 87) 1,4-Dichlorobenzene-d4          31.10  152     62332    50.00 ug/L    0.02

 System Monitoring Compounds
 33) 1,2-Dichloroethane-d4           15.11   65     57082    54.47 ug/L    0.02
  Spiked Amount     50.000   Range  76 - 118    Recovery   =  108.94%
 50) Toluene-d8                      20.07   98    117289    48.88 ug/L    0.02
  Spiked Amount     50.000   Range  88 - 110    Recovery   =   97.76%
 55) Bromofluorobenzene              27.65   95     59175    49.35 ug/L    0.03
  Spiked Amount     50.000   Range  86 - 115    Recovery   =   98.70%

 Target Compounds                                                     Qvalue
```

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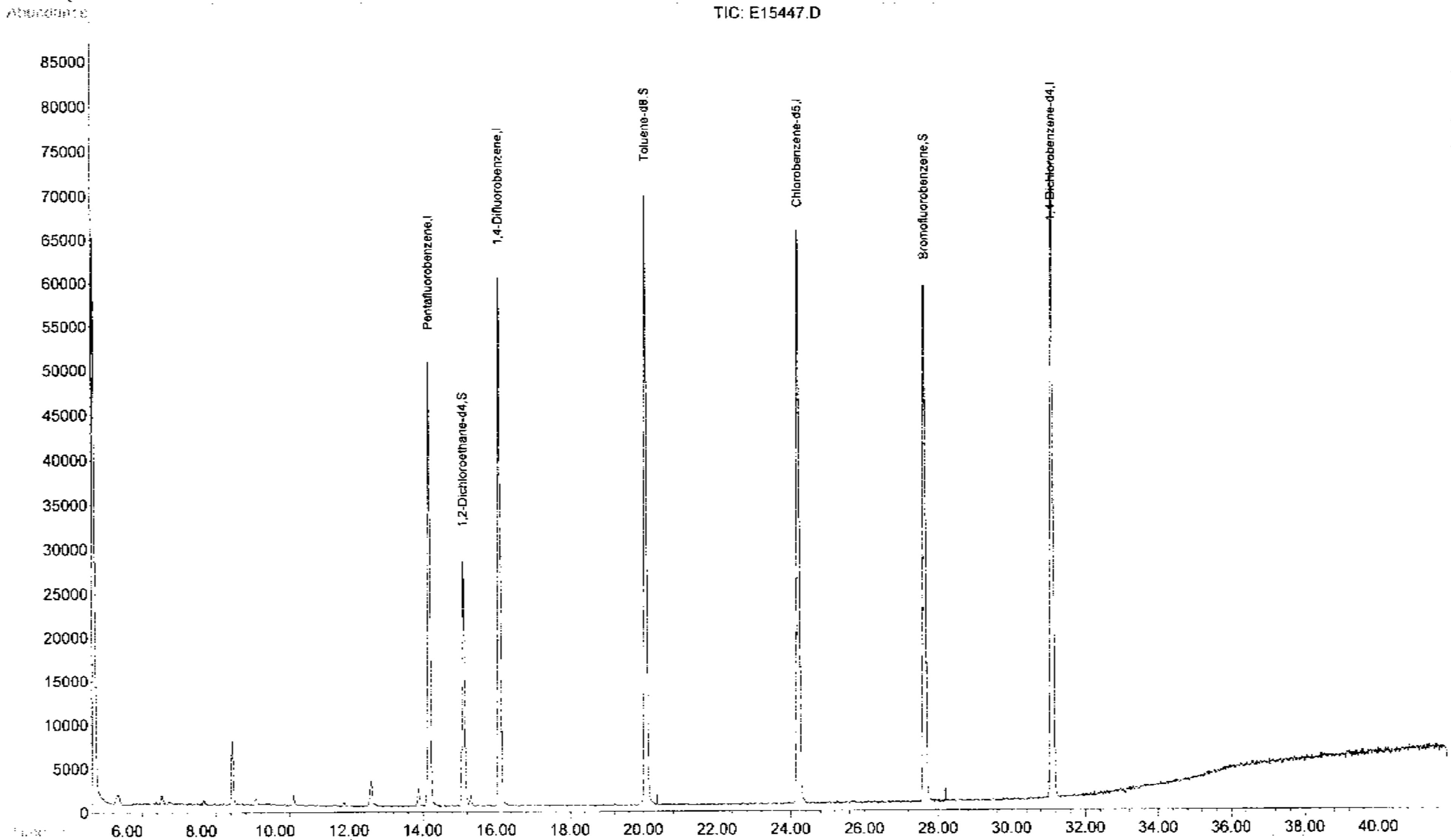
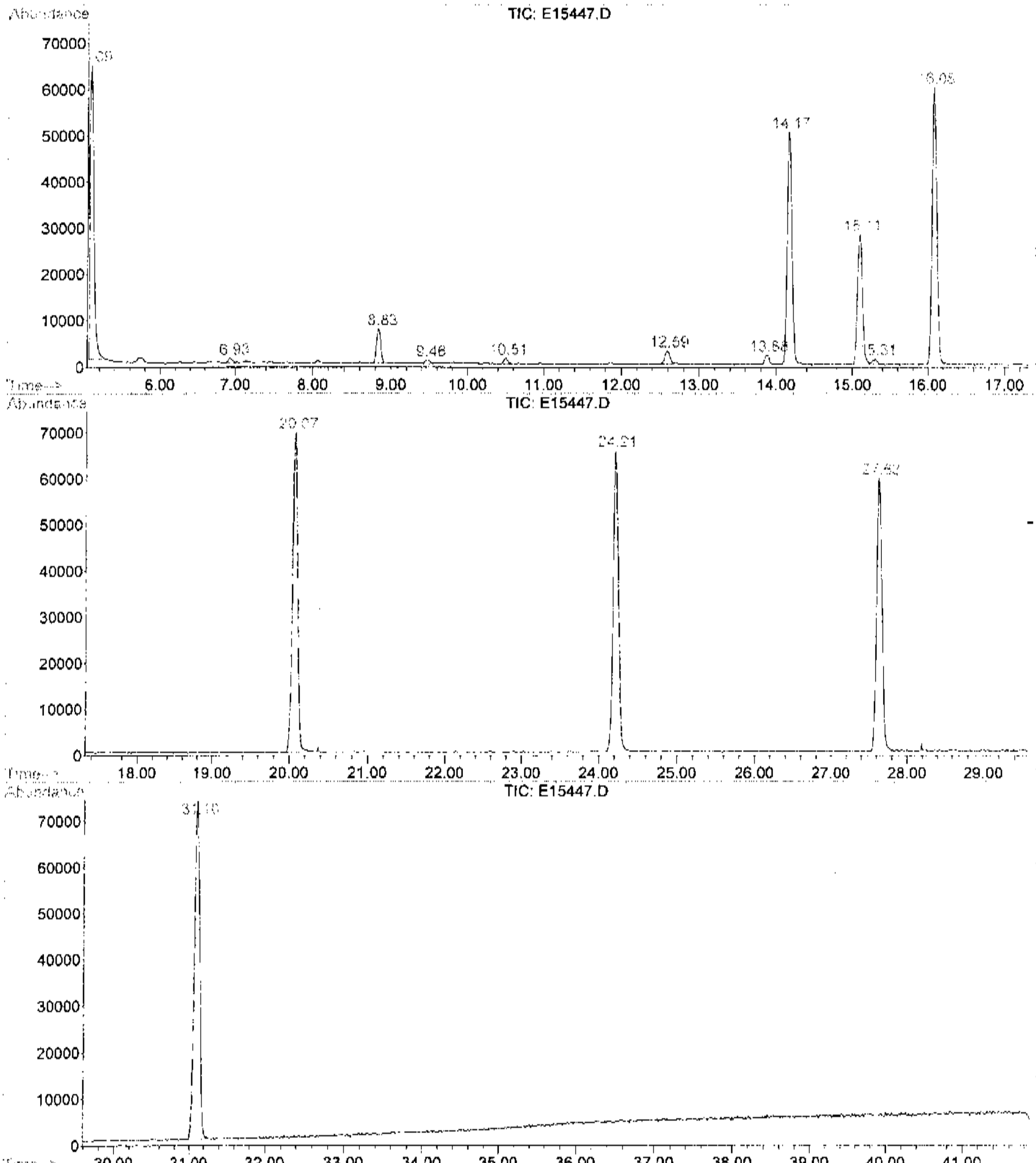
```
-------------------------------------------------------------------------------
(#) = qualifier out of range (m) = manual integration
```

```
Data File : G:\DATA\E15447.D                              Vial: 10
Acq On    : 27 Sep 2007   5:52 pm                     Operator: MG
Sample    : U0709313-002H                             Inst     : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 10:22 2007           Quant Results File: E092507W.RES

Method        : G:\METHODS\E092507W.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Wed Sep 26 10:42:24 2007
Response via  : Initial Calibration
```



File : D:\DATA\E15447.D
Operator : MG
Acquired : 27 Sep 2007 5:52 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-002H
Misc Info : 5mL
Vial Number: 10
Quant File :E092507W.RES (RTE Integrator)



-429-

E15447.D E092507W.M Sun Sep 30 13:25:27 2007

Data File : D:\DATA\E15447.D
Acq On : 27 Sep 2007 5:52 pm
Sample : U0709313-002H
Misc : 5mL
MS Integration Params: LSCINT.P

Vial: 10
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

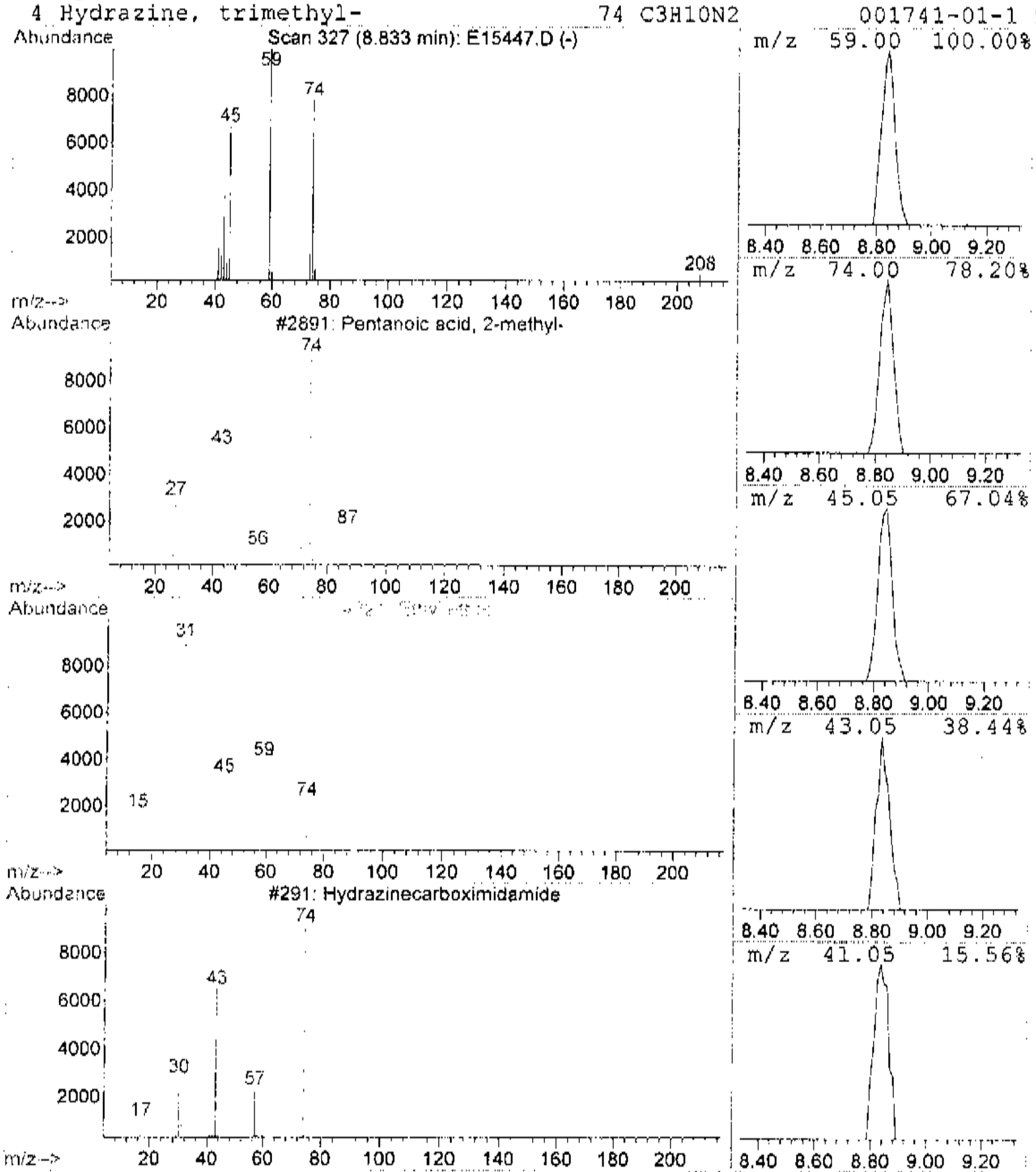
Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Library : NBS54K.L

****

Peak Number 1 Ethyl ether Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.83	6.11 ug/L	26829	Pentafluorobenzene	14.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanoic acid, 2-methyl-	116	C6H12O2	000097-61-0	17
2	Ethyl ether	74	C4H10O	000060-29-7	9
3	Hydrazinecarboximidamide	74	CH6N4	000079-17-4	9
4	Hydrazine, trimethyl-	74	C3H10N2	001741-01-1	9



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-003H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15448.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15448.D Vial: 11
Acq On : 27 Sep 2007 6:40 pm Operator: MG
Sample : U0709313-003H Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rtcint.p
Quant Time: Sep 27 18:22 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	73973	50.00	ug/L	0.01
36) 1,4-Difluorobenzene	16.09	114	110745	50.00	ug/L	0.02
56) Chlorobenzene-d5	24.21	117	103183	50.00	ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	62034	50.00	ug/L	0.01

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	15.10	65	57606	55.34	ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery	=	110.68%	
50) Toluene-d8	20.07	98	116630	49.58	ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery	=	99.16%	
55) Bromofluorobenzene	27.63	95	58582	49.83	ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	=	99.66%	

Target Compounds Qvalue

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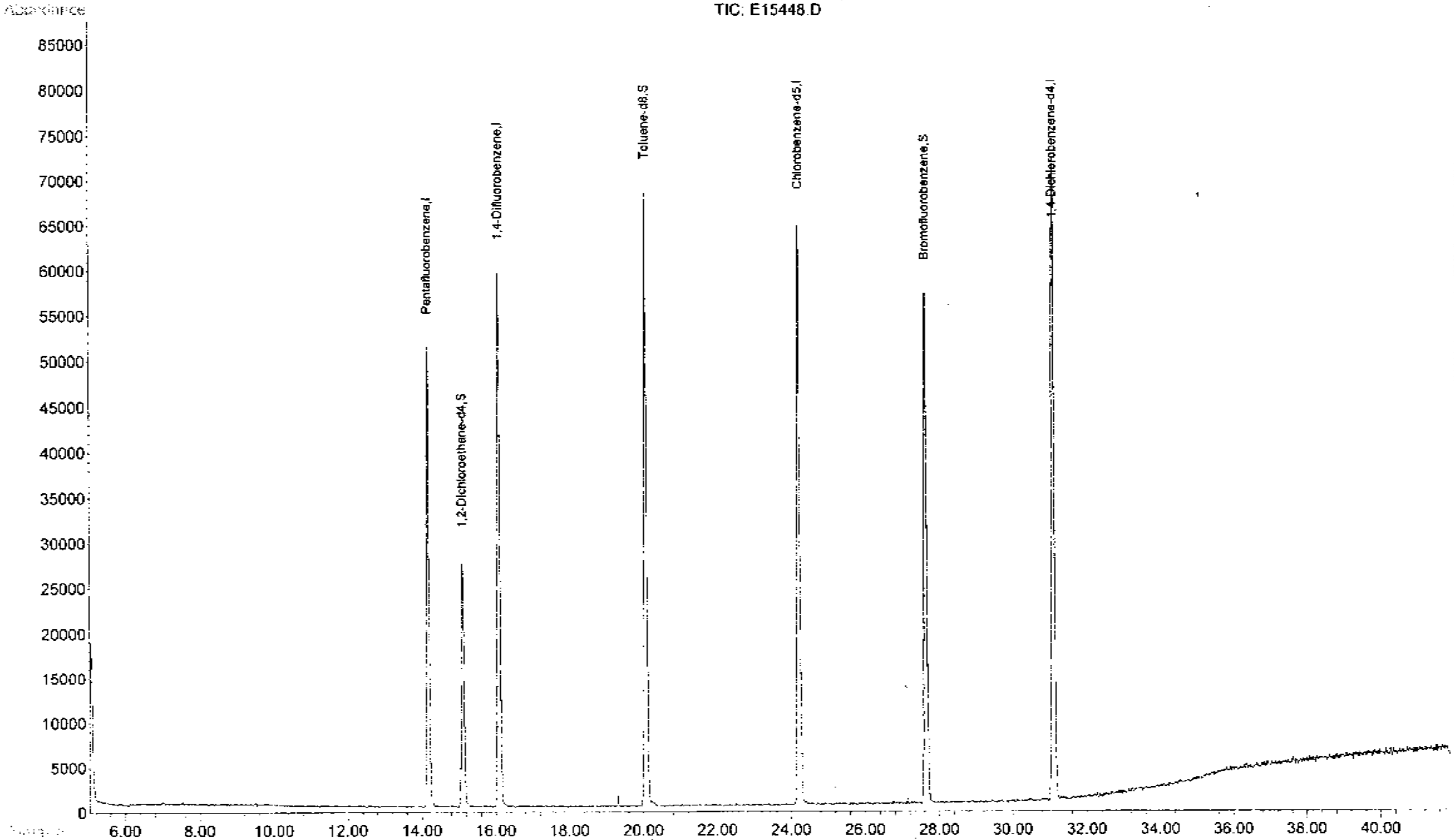
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15448.D
Acq On : 27 Sep 2007 6:40 pm
Sample : U0709313-003H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 18:22 2007

Vial: 11
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

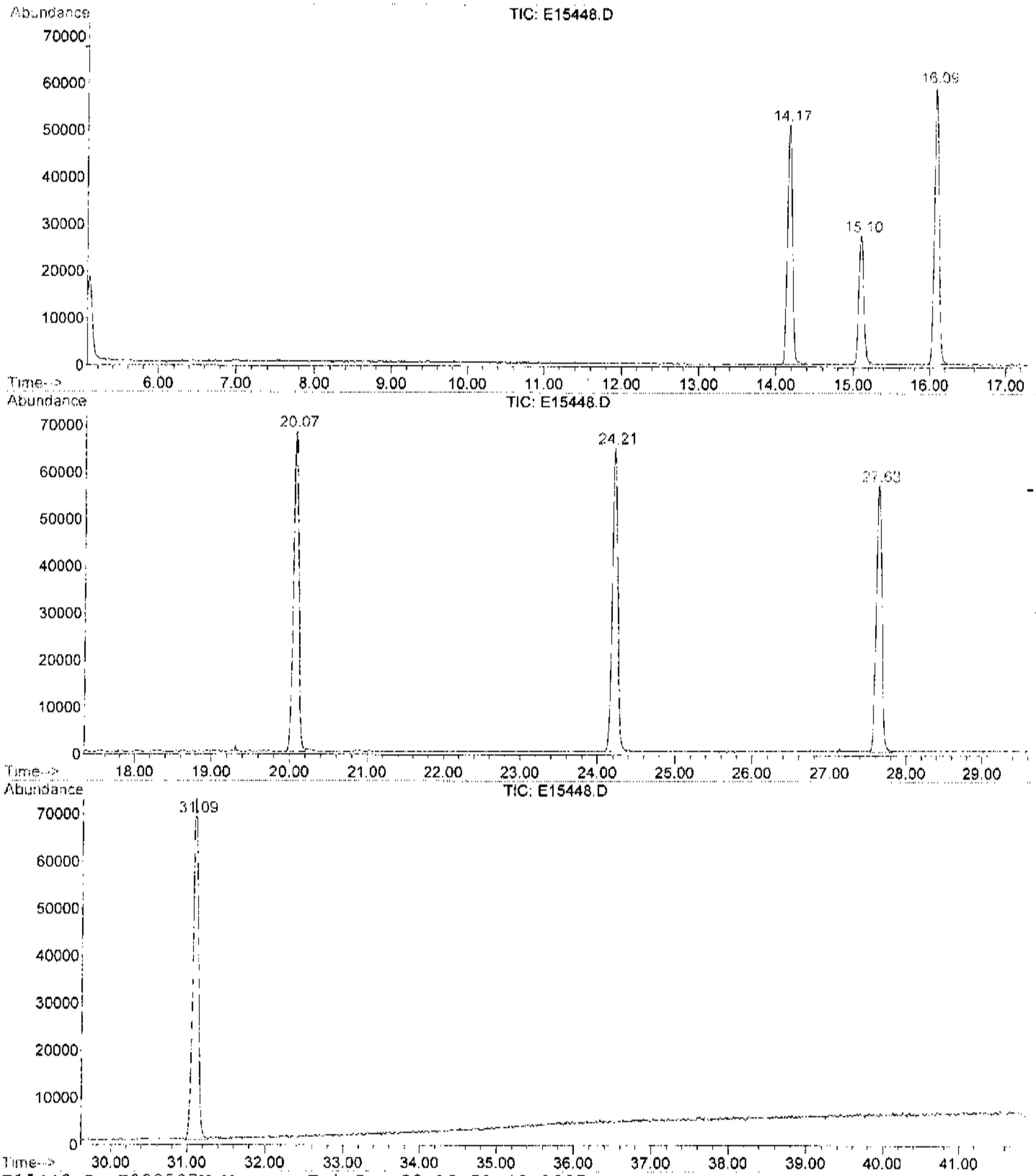
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15448.D
Operator : MG
Acquired : 27 Sep 2007 6:40 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-003H
Misc Info : 5mL
Vial Number: 11
Quant File :E092507W.RES (RTE Integrator)



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E15448.D E092507W.M Fri Sep 28 10:31:40 2007

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-004H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15449.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Data File : G:\DATA\E15449.D
Acq On : 27 Sep 2007 7:30 pm
Sample : U0709313-004H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 19:12 2007

Vial: 12
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.18	168	72311	50.00 ug/L	0.02
36) 1,4-Difluorobenzene	16.08	114	110350	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.22	117	101226	50.00 ug/L	0.03
87) 1,4-Dichlorobenzene-d4	31.10	152	61928	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.11	65	56309	55.34 ug/L	0.02
Spiked Amount 50.000	Range 76 - 118		Recovery =	110.68%	
50) Toluene-d8	20.07	98	114202	48.72 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.44%	
55) Bromofluorobenzene	27.63	95	57730	49.28 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.56%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

```
Data File : G:\DATA\E15449.D                              Vial: 12
Acq On    : 27 Sep 2007   7:30 pm                     Operator: MG
Sample    : U0709313-004H                             Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 19:12 2007          Quant Results File: E092507W.RES

Method       : G:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
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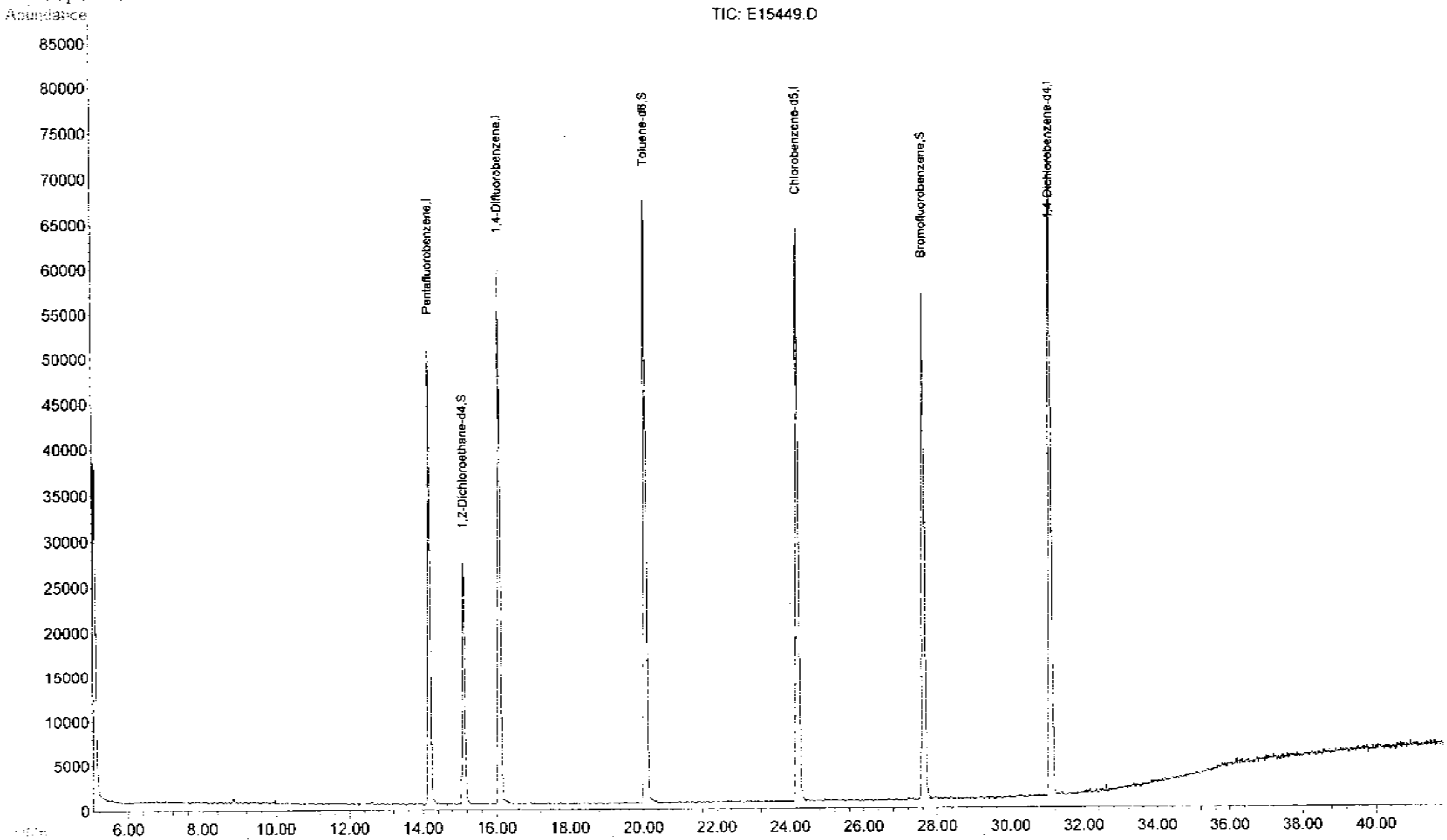
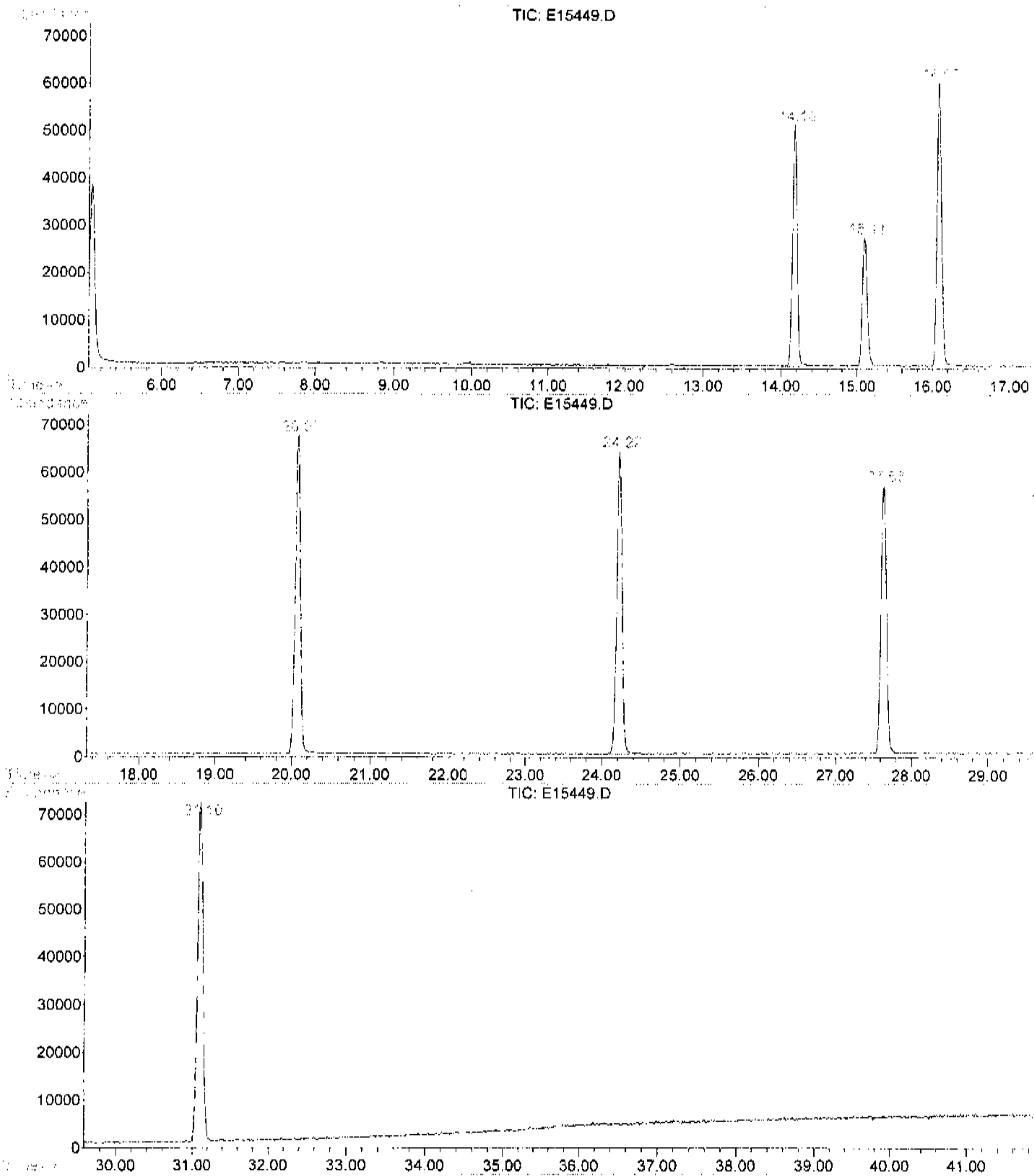


LSC Report - Integrated Chromatogram

File : D:\DATA\E15449.D
Operator : MG
Acquired : 27 Sep 2007 7:30 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-004H
Misc Info : 5mL
Vial Number: 12
Quant File :E092507W.RES (RTE Integrator)



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E15449.D E092507W.M Fri Sep 28 10:31:45 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-005H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15450.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15450.D
Acq On : 27 Sep 2007 8:19 pm
Sample : U0709313-005H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:28 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	70859	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.08	114	109396	50.00 ug/L	0.01
56) Chlorobenzene-d5	24.21	117	100796	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	60341	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	56666m MM	56.83 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery	= 113.66%	
50) Toluene-d8	20.07	98	114049	49.08 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery	= 98.16%	
55) Bromofluorobenzene	27.63	95	56949	49.04 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	= 98.08%	

Target Compounds Qvalue

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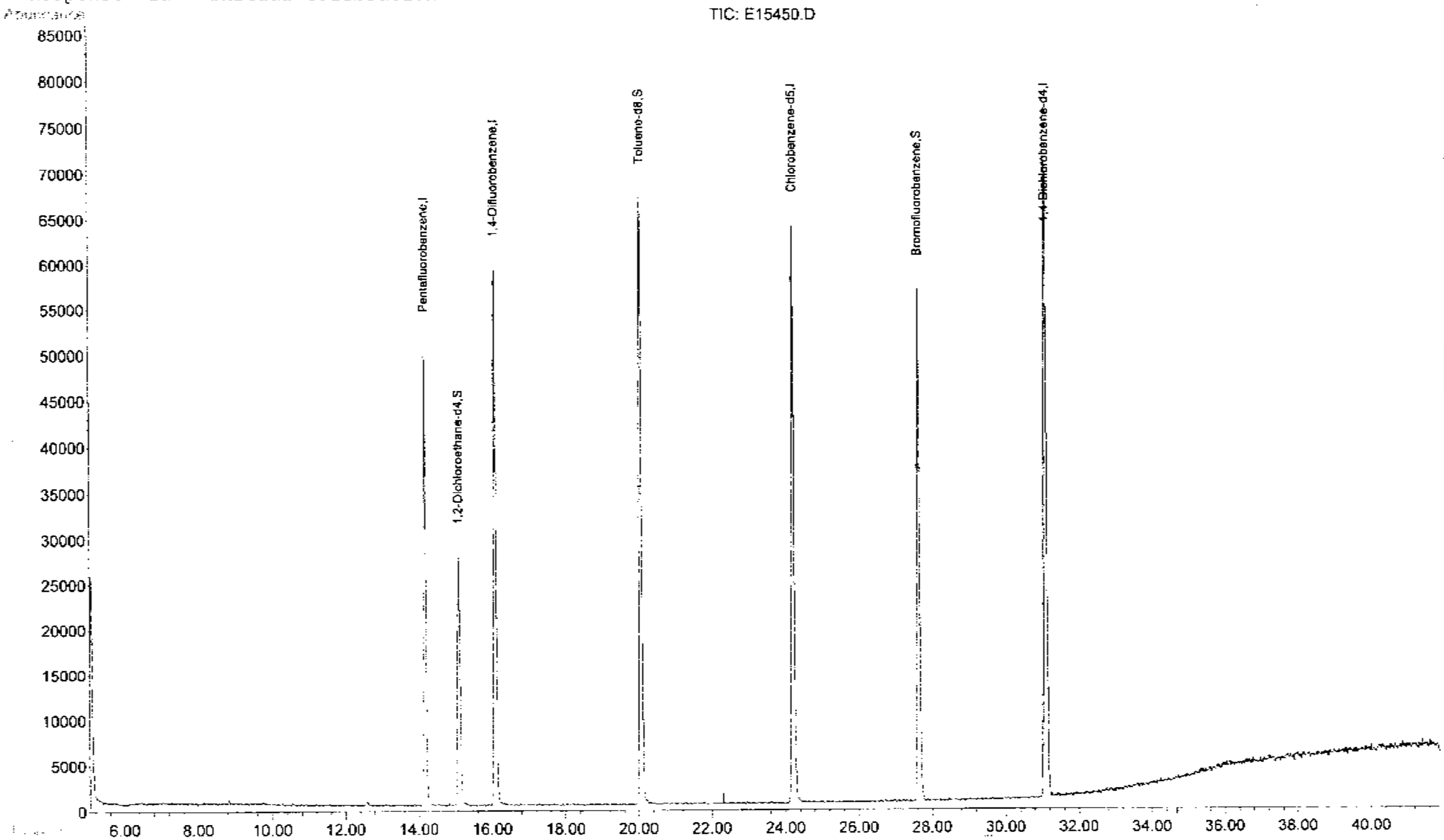
(#) = qualifier out of range (m) = manual integration

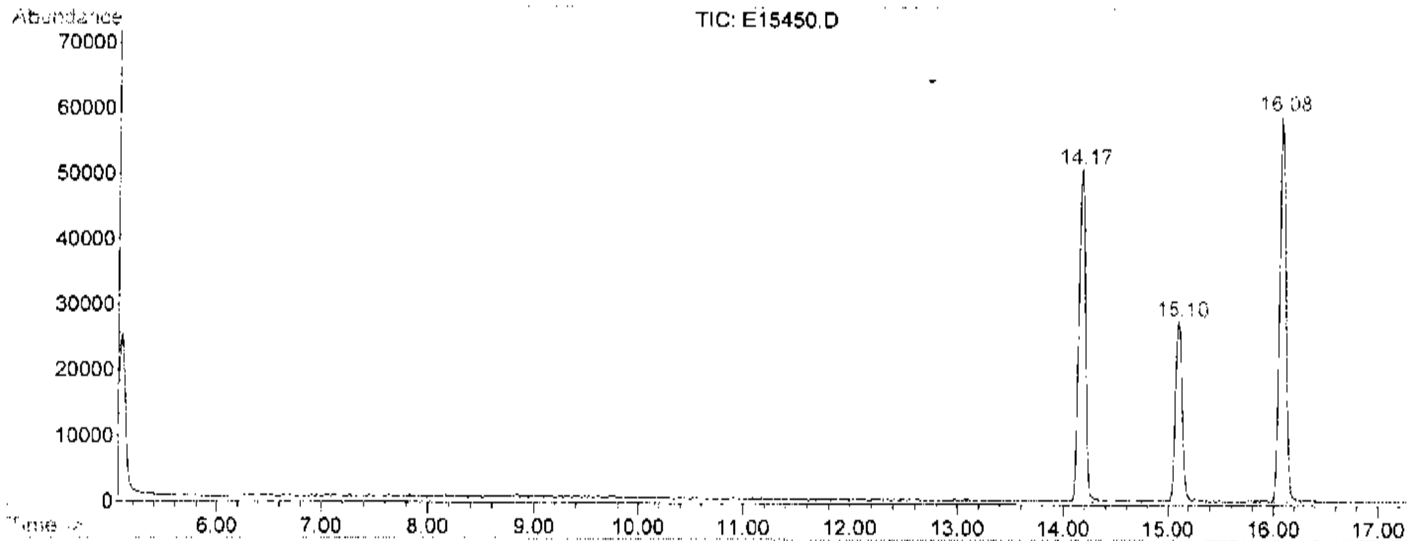
Data File : G:\DATA\E15450.D Vial: 13
Acq On : 27 Sep 2007 8:19 pm Operator: MG
Sample : U0709313-005H Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 10:28 2007 Quant Results File: E092507W.RES

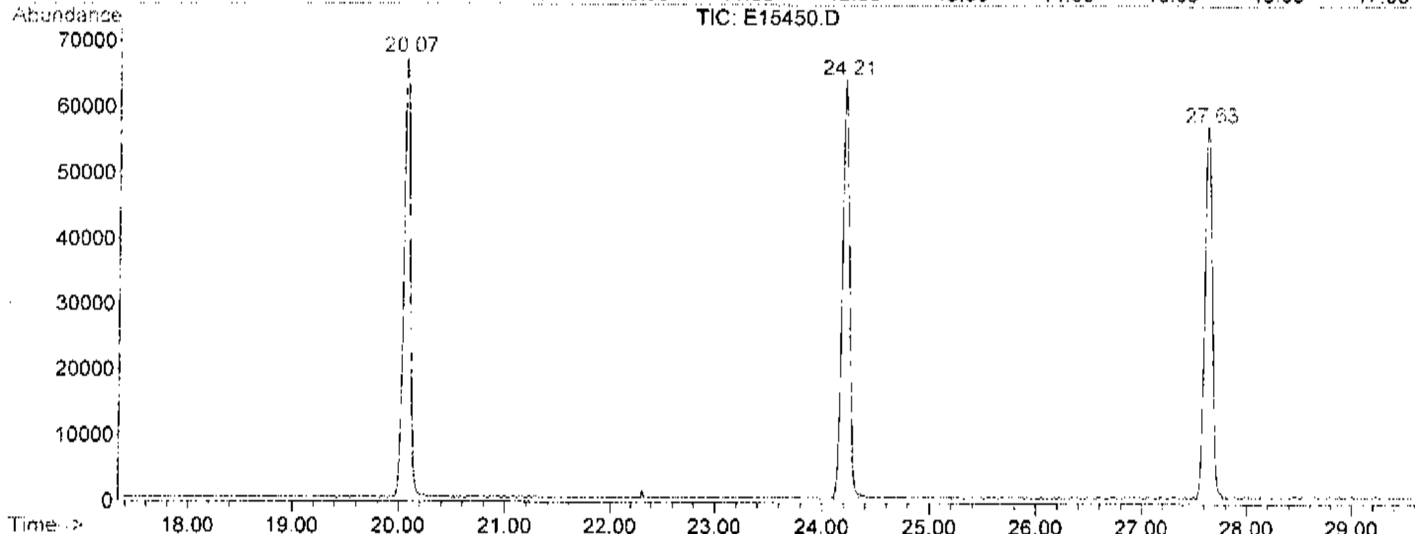
Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration

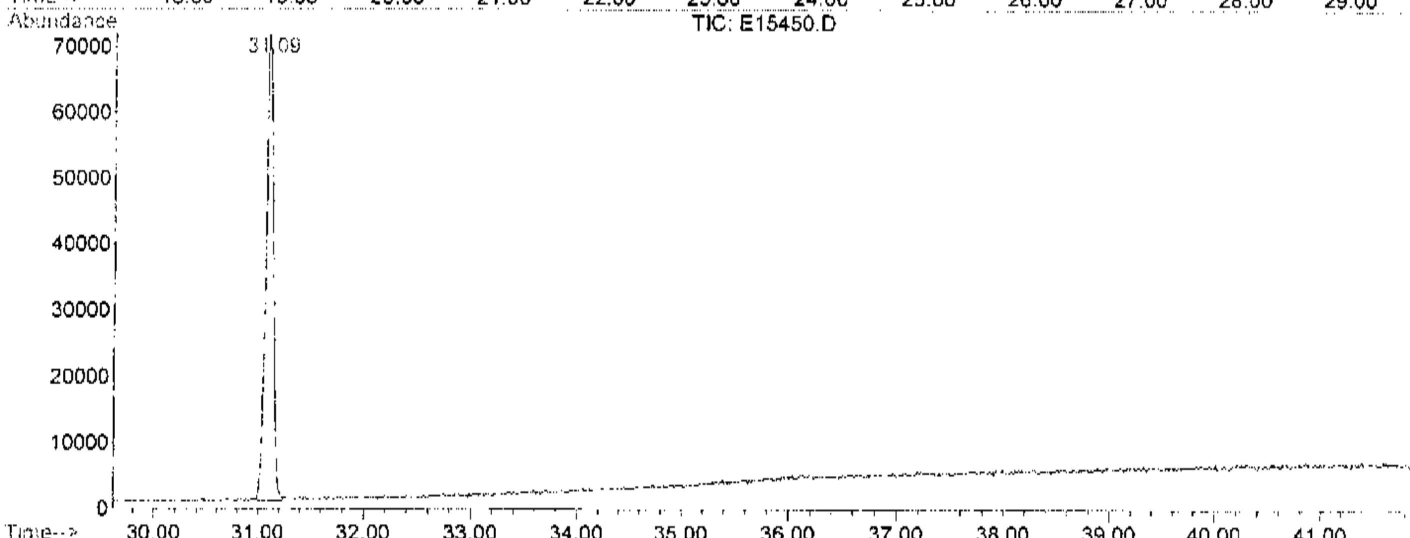


LSC Report - Integrated Chromatogram

```
File        : D:\DATA\E15450.D
Operator    : MG
Acquired    : 27 Sep 2007   8:19 pm using AcqMethod E092507W
Instrument  :   Voa Instr
Sample Name: U0709313-005H
Misc Info   : 5mL
Vial Number: 13
Quant File :E092507W.RES (RTE Integrator)
```







E15450.D   E092507W.M   Fri Sep 28 10:31:51 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-006H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15458.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-451-

```
Data File : G:\DATA\E15458.D                              Vial: 21
Acq On    : 28 Sep 2007   2:53 am                     Operator: MG
Sample    : U0709313-006H                             Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 28  2:35 2007           Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                 R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
   1) Pentafluorobenzene           14.17  168    72715    50.00 ug/L    0.01
  36) 1,4-Difluorobenzene          16.08  114   110174    50.00 ug/L    0.01
  56) Chlorobenzene-d5             24.21  117   101275    50.00 ug/L    0.02
  87) 1,4-Dichlorobenzene-d4       31.10  152    61620    50.00 ug/L    0.02

 System Monitoring Compounds
  33) 1,2-Dichloroethane-d4        15.10   65    56974    55.68 ug/L    0.01
   Spiked Amount     50.000   Range  76 - 118    Recovery   =  111.36%
  50) Toluene-d8                   20.06   98   115288    49.26 ug/L    0.01
   Spiked Amount     50.000   Range  88 - 110    Recovery   =   98.52%
  55) Bromofluorobenzene           27.63   95    58315    49.86 ug/L    0.01
   Spiked Amount     50.000   Range  86 - 115    Recovery   =   99.72%

 Target Compounds                                                  Qvalue
```

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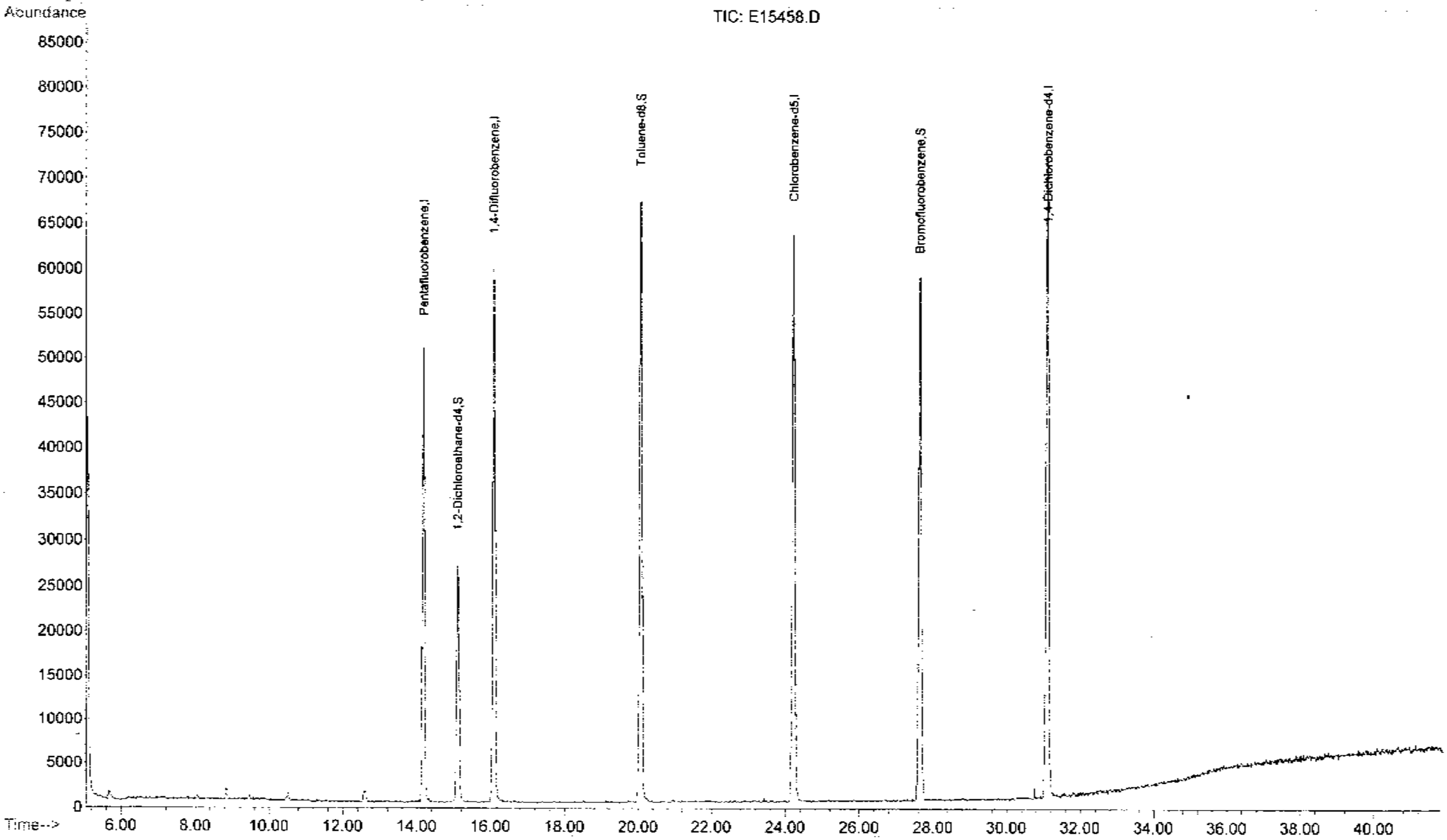
Quantitation Report

Data File : G:\DATA\E15458.D
Acq On : 28 Sep 2007 2:53 am
Sample : U0709313-006H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 2:35 2007

Vial: 21
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

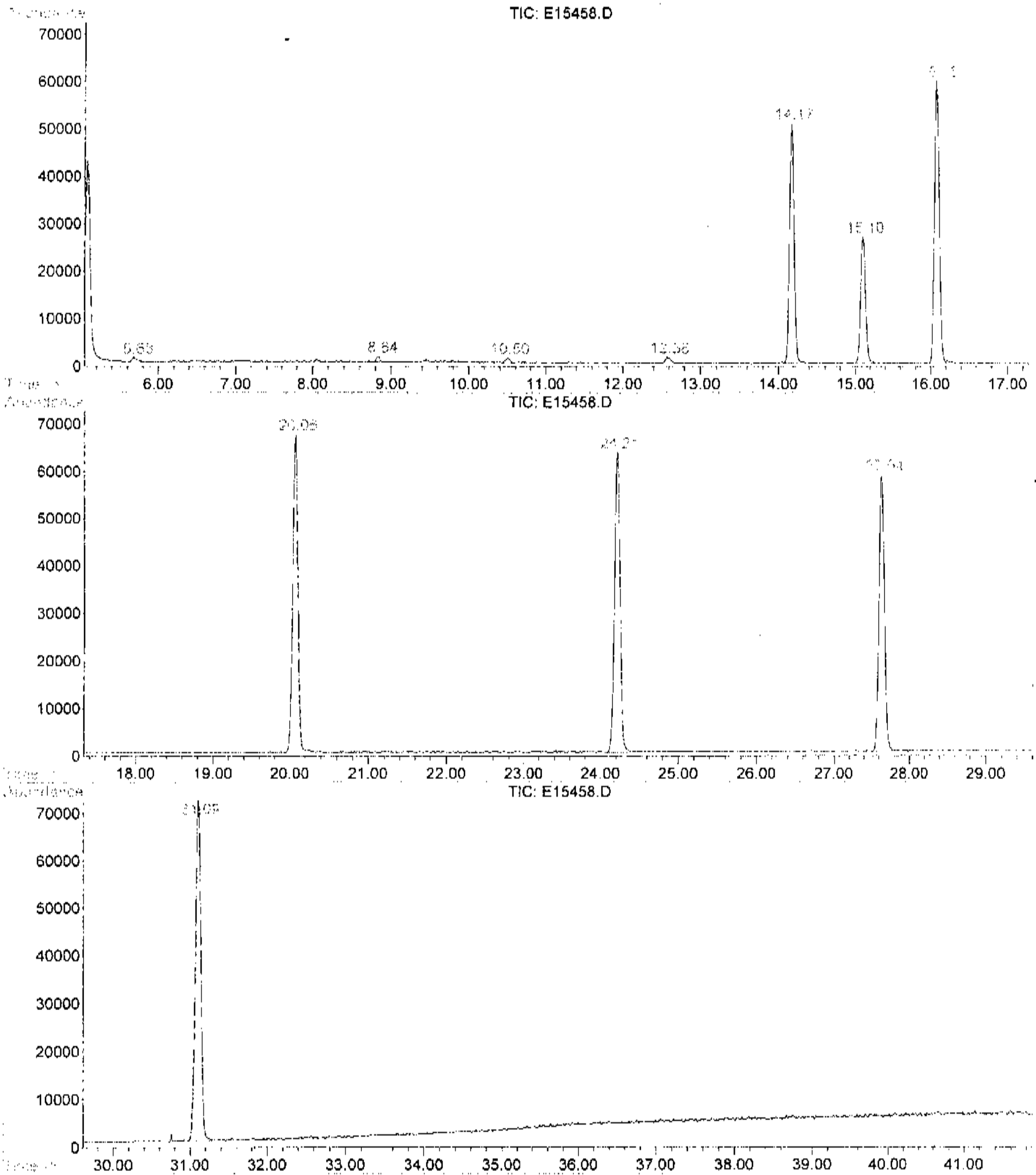
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15458.D
Operator : MG
Acquired : 28 Sep 2007 2:53 am using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-006H
Misc Info : 5mL
Vial Number: 21
Quant File :E092507W.RES (RTE Integrator)



-454-

E15458.D E092507W.M Fri Sep 28 11:18:08 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-007H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15459.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

```
Data File : G:\DATA\E15459.D                              Vial: 22
Acq On    : 28 Sep 2007   3:42 am                     Operator: MG
Sample    : U0709313-007H                             Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 28  3:24 2007               Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                    R.T. QIon  Response  Conc Units Dev(Min)
 -----------------------------------------------------------------------------
   1) Pentafluorobenzene              14.17  168    72281    50.00 ug/L    0.00
  36) 1,4-Difluorobenzene             16.09  114   107883    50.00 ug/L    0.02
  56) Chlorobenzene-d5                24.21  117   100900    50.00 ug/L    0.02
  87) 1,4-Dichlorobenzene-d4          31.10  152    60166    50.00 ug/L    0.02

 System Monitoring Compounds
  33) 1,2-Dichloroethane-d4           15.11   65    56589    55.64 ug/L    0.02
   Spiked Amount     50.000   Range  76 - 118    Recovery   =  111.28%
  50) Toluene-d8                      20.06   98   112878    49.25 ug/L    0.00
   Spiked Amount     50.000   Range  88 - 110    Recovery   =   98.50%
  55) Bromofluorobenzene              27.64   95    57730    50.41 ug/L    0.02
   Spiked Amount     50.000   Range  86 - 115    Recovery   =  100.82%

 Target Compounds                                                      Qvalue
```

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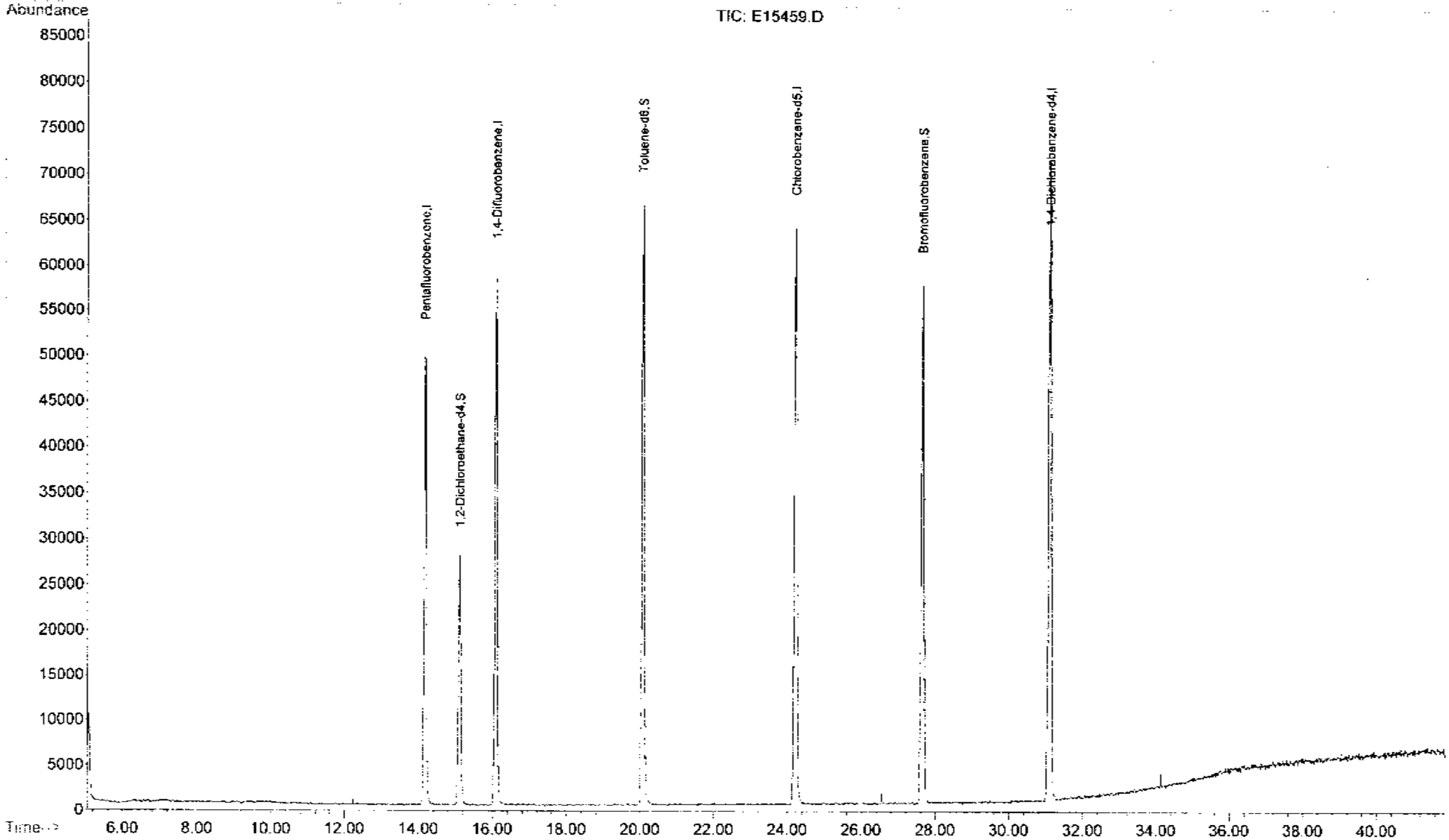
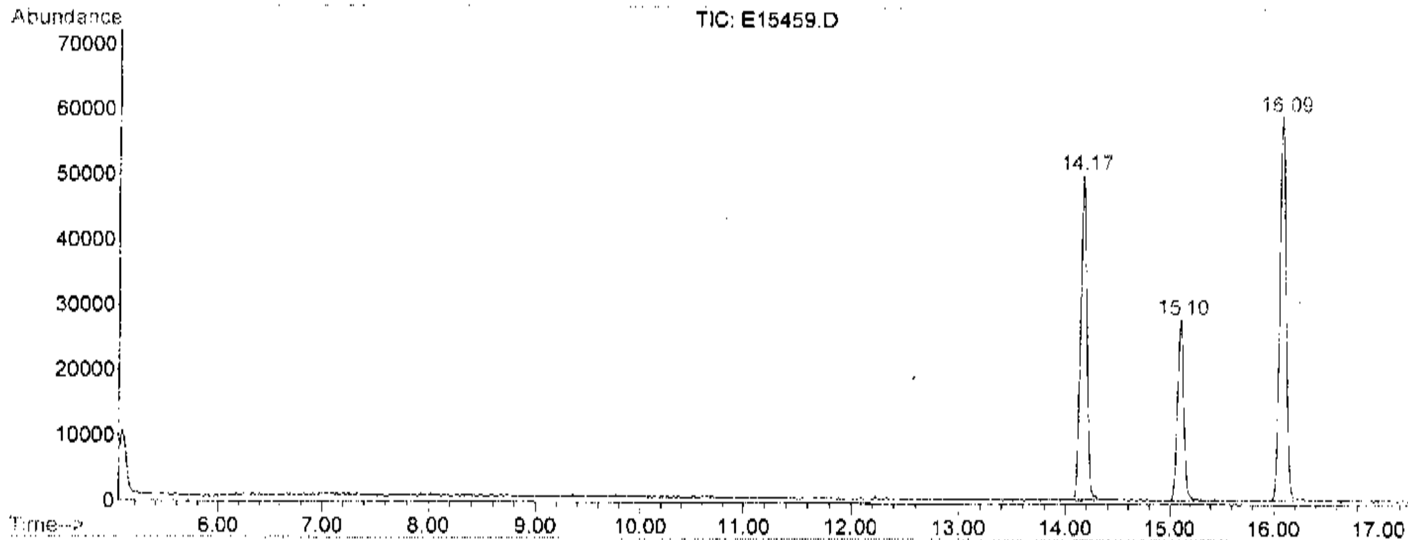
```
Data File : G:\DATA\E15459.D                       Vial: 22
Acq On    : 28 Sep 2007   3:42 am               Operator: MG
Sample    : U0709313-007E                       Inst    : Voa Instr
Misc      : 5mL                                 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28  3:24 2007            Quant Results File: E092507W.RES

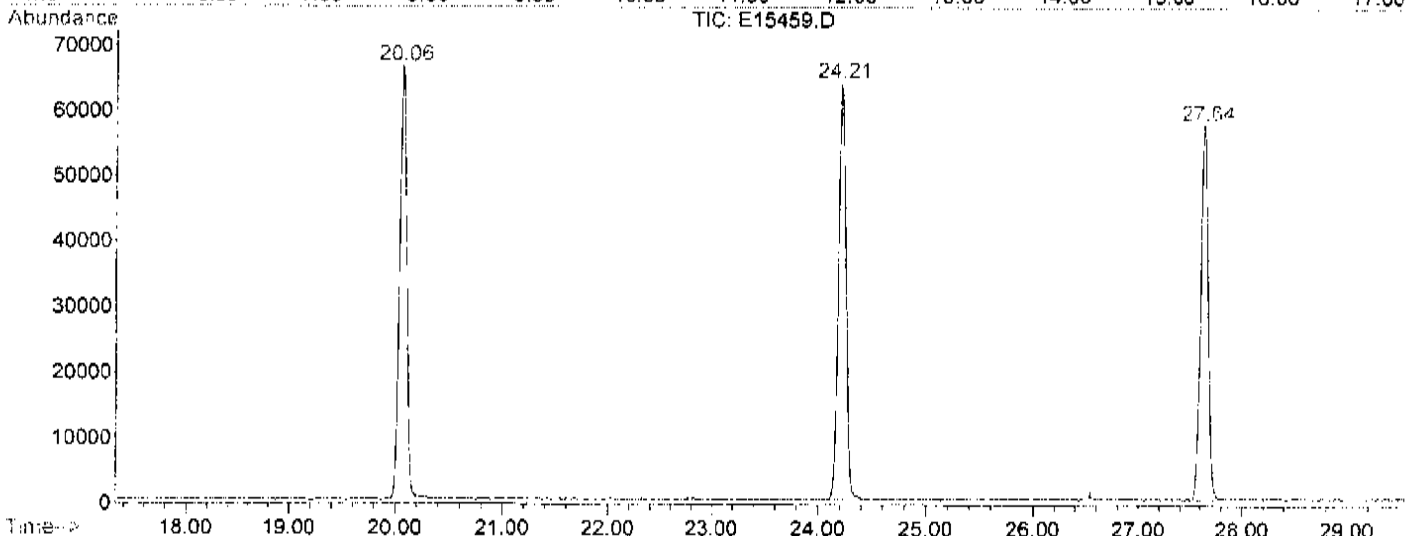
Method       : G:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
```



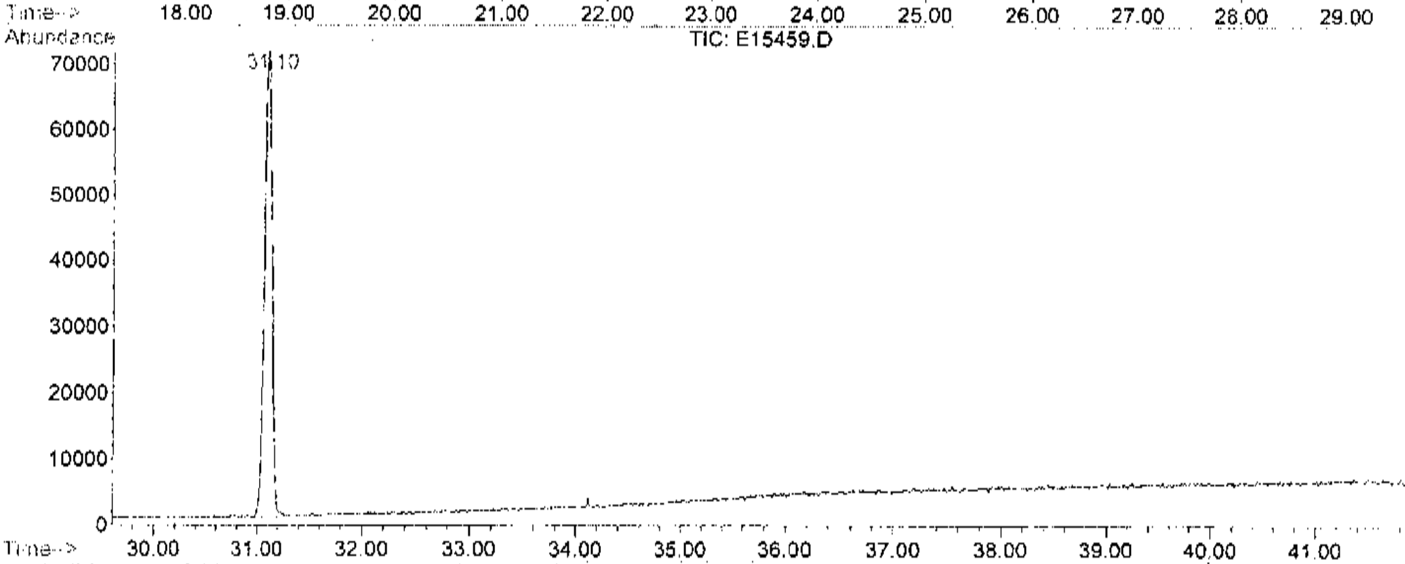
LSC Report - Integrated Chromatogram

```
File       : D:\DATA\E15459.D
Operator   : MG
Acquired   : 28 Sep 2007   3:42 am using AcqMethod E092507W
Instrument :   Voa Instr
Sample Name: U0709313-007H
Misc Info  : 5mL
Vial Number: 22
Quant File :E092507W.RES (RTE Integrator)
```





-460-



E15459.D E092507W.M Fri Sep 28 11:18:13 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-008H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15460.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15460.D Vial: 23
Acq On : 28 Sep 2007 4:32 am Operator: MG
Sample : U0709313-008H Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 4:14 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	69827	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.08	114	104933	50.00 ug/L	0.01
56) Chlorobenzene-d5	24.21	117	97576	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.10	152	59611	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	55205	56.18 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery =	112.36%	
50) Toluene-d8	20.06	98	109526	49.13 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.26%	
55) Bromofluorobenzene	27.63	95	56844	51.03 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	102.06%	

Target Compounds Qvalue

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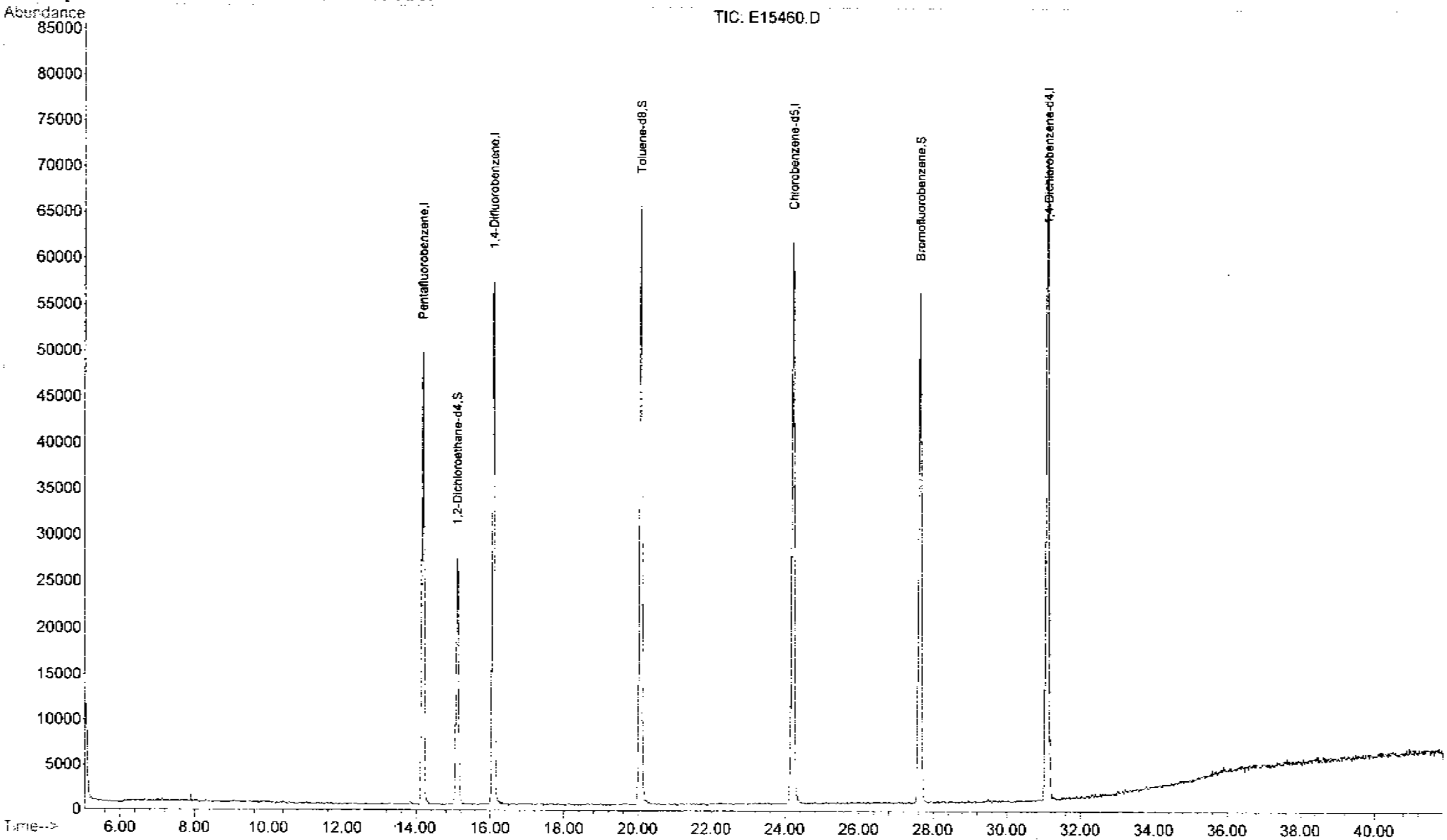
Data File : G:\DATA\E15460.D
Acq On : 28 Sep 2007 4:32 am
Sample : U0709313-008H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 4:14 2007

Vial: 23
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

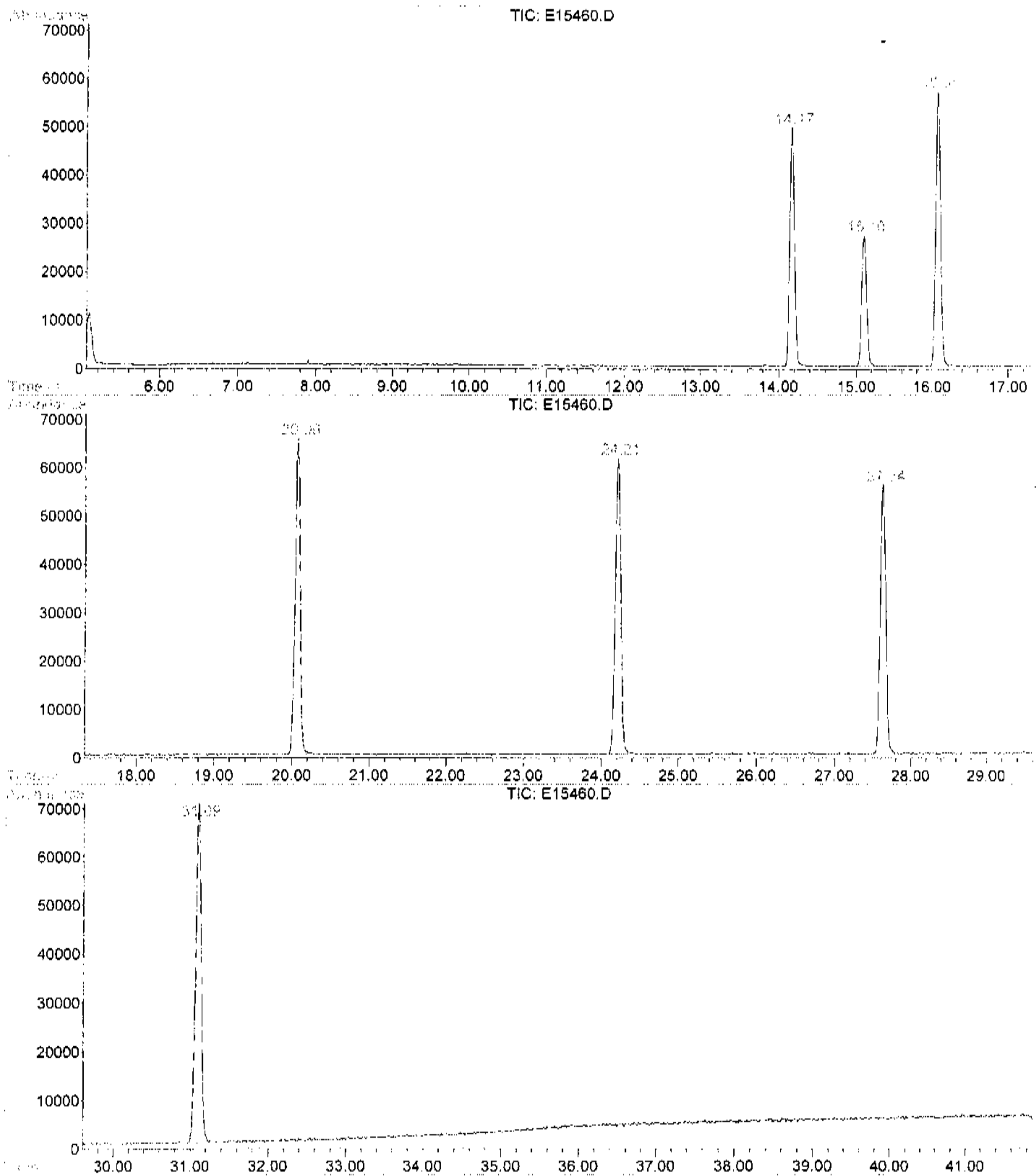
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File   : D:\DATA\E15460.D
Operator   : MG
Acquired   : 28 Sep 2007   4:32 am using AcqMethod E092507W
Instrument :   Voa Instr
Sample Name: U0709313-008H
Misc Info : 5mL
Vial Number: 23
Quant File :E092507W.RES (RTE Integrator)



E15460.D E092507W.M   Fri Sep 28 11:18:18 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15445.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15445.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-101

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15445.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15445.D
Acq On : 27 Sep 2007 4:13 pm
Sample : U0709313-009H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 15:55 2007

Vial: 8
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	76956	50.00 ug/L	0.00
36) 1,4-Difluorobenzene	16.09	114	114267	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.21	117	105115	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.10	152	63102	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	58970	54.45 ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	108.90%	
50) Toluene-d8	20.06	98	120025	49.45 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.90%	
55) Bromofluorobenzene	27.64	95	59870	49.35 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.70%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

```
Data File : G:\DATA\E15445.D                          Vial: 8
Acq On    : 27 Sep 2007   4:13 pm                 Operator: MG
Sample    : 00709313-009H                         Inst    : Voa Instr
Misc      : 5mL                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 15:55 2007           Quant Results File: E092507W.RES

Method       : G:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
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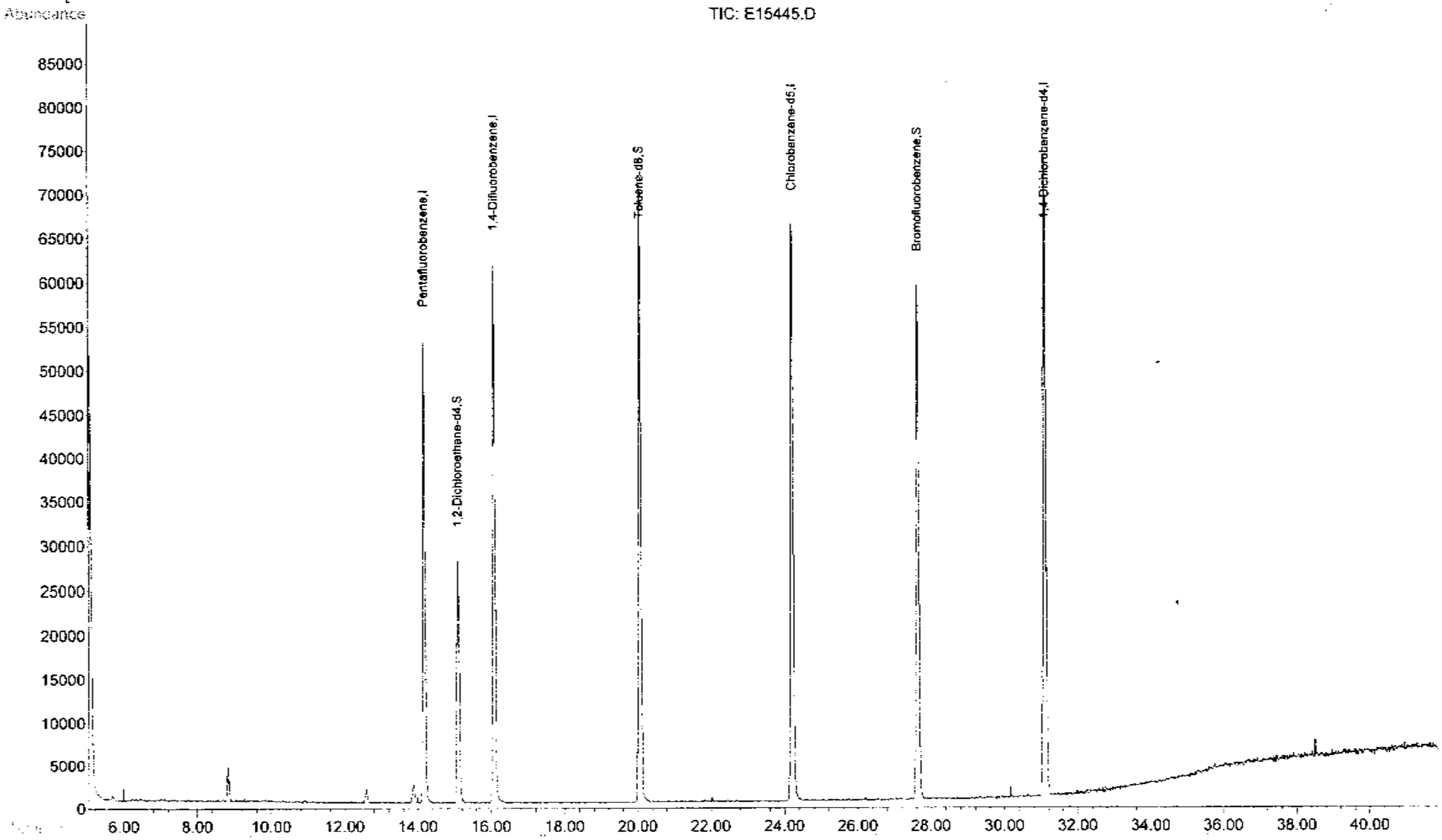
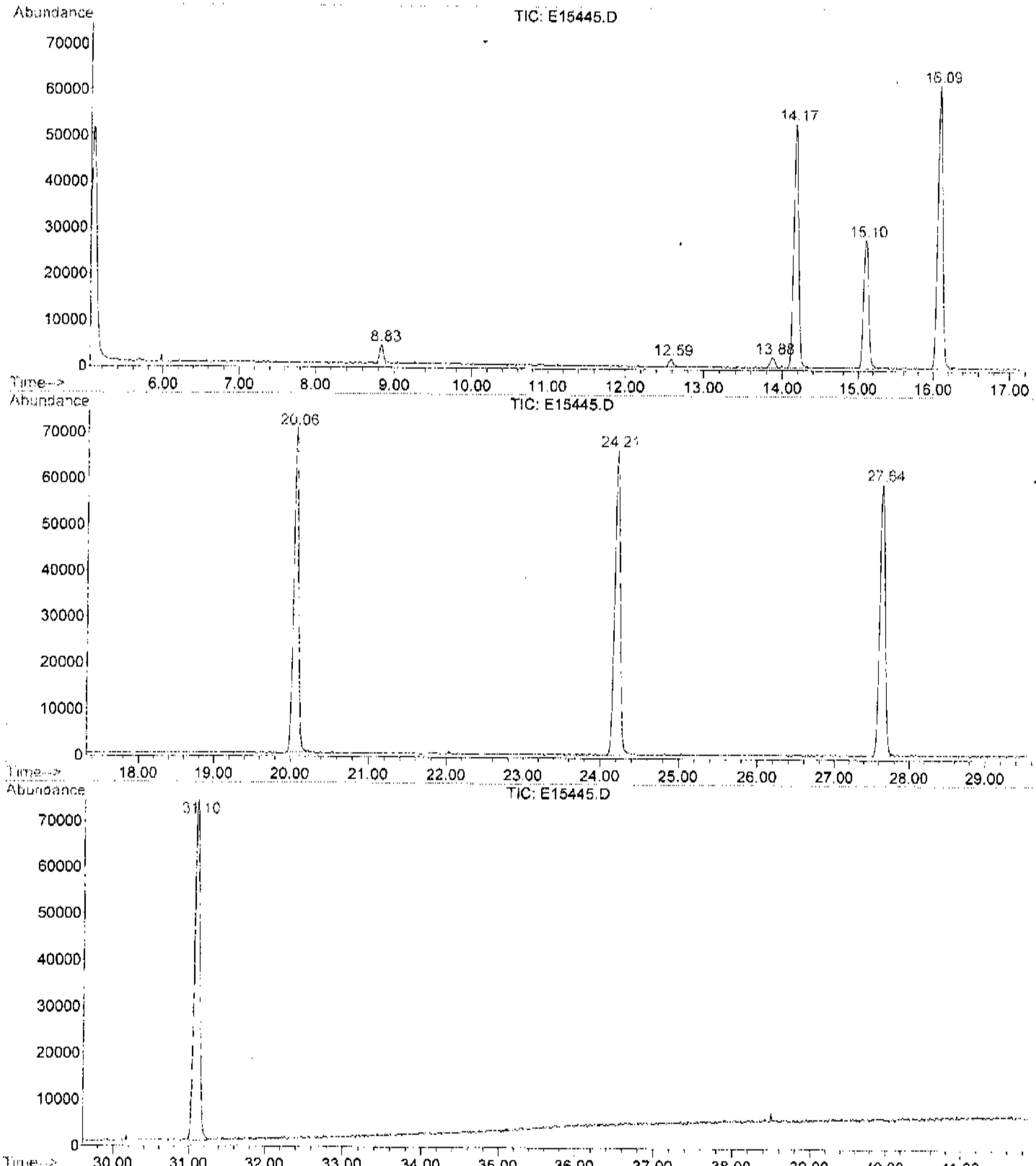


LSC Report - Integrated Chromatogram

File : D:\DATA\E15445.D
Operator : MG
Acquired : 27 Sep 2007 4:13 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-009H
Misc Info : 5mL
Vial Number: 8
Quant File :E092507W.RES (RTE Integrator)



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E15445.D E092507W.M Fri Sep 28 10:31:19 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-010H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15461.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15461.D
Acq On : 28 Sep 2007 5:21 am
Sample : U0709313-010H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:14 2007

Vial: 24
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.18	168	69498	50.00	ug/L	0.02
36) 1,4-Difluorobenzene	16.09	114	104755	50.00	ug/L	0.02
56) Chlorobenzene-d5	24.21	117	95975	50.00	ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.10	152	58878	50.00	ug/L	0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	15.10	65	54885m MM	56.12	ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery	=	112.24%	
50) Toluene-d8	20.06	98	108786	48.89	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	=	97.78%	
55) Bromofluorobenzene	27.64	95	56408	50.72	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery	=	101.44%	

Target Compounds Qvalue

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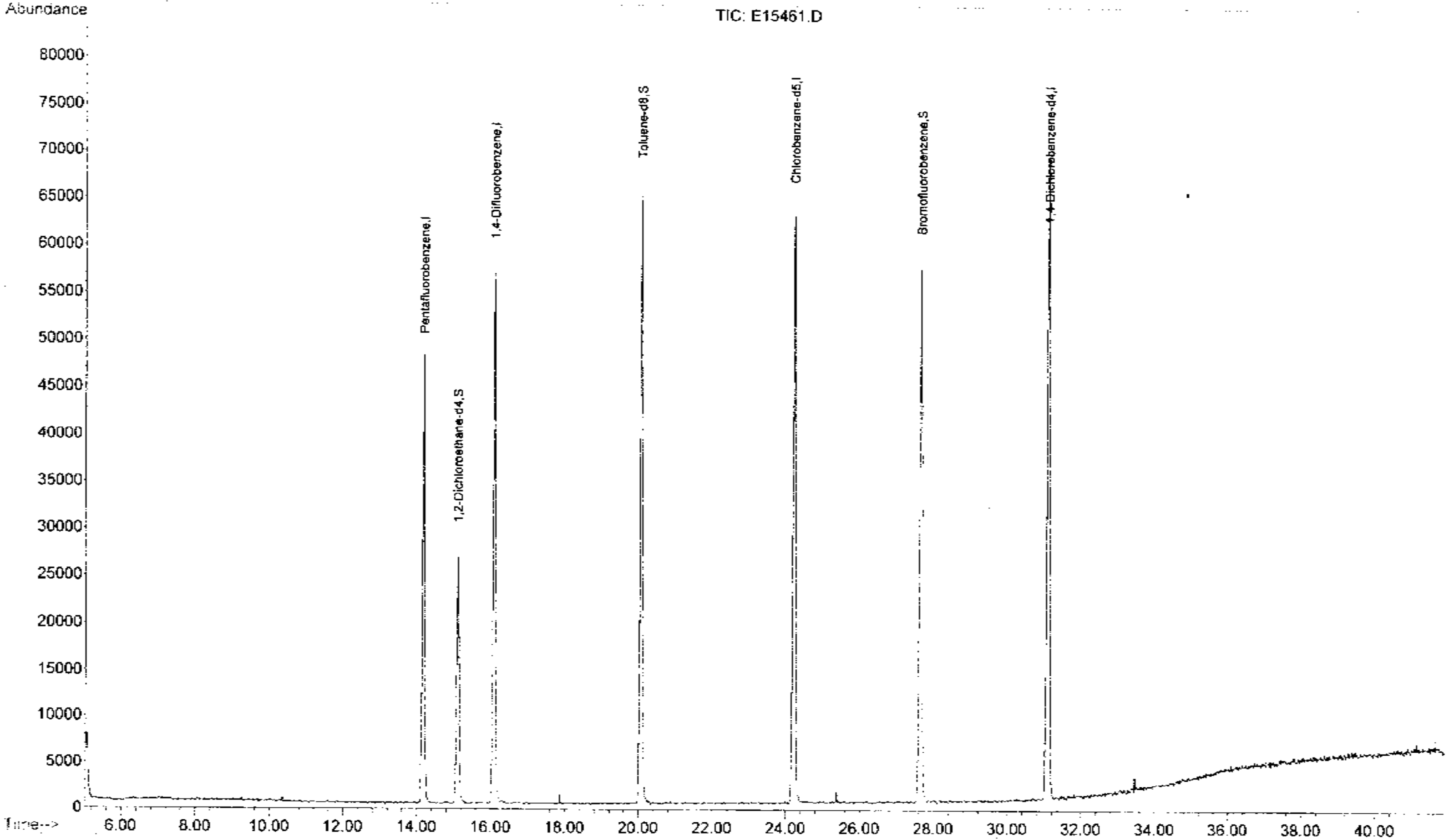
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15461.D
Acq On : 28 Sep 2007 5:21 am
Sample : U0709313-010H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:14 2007

Vial: 24
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

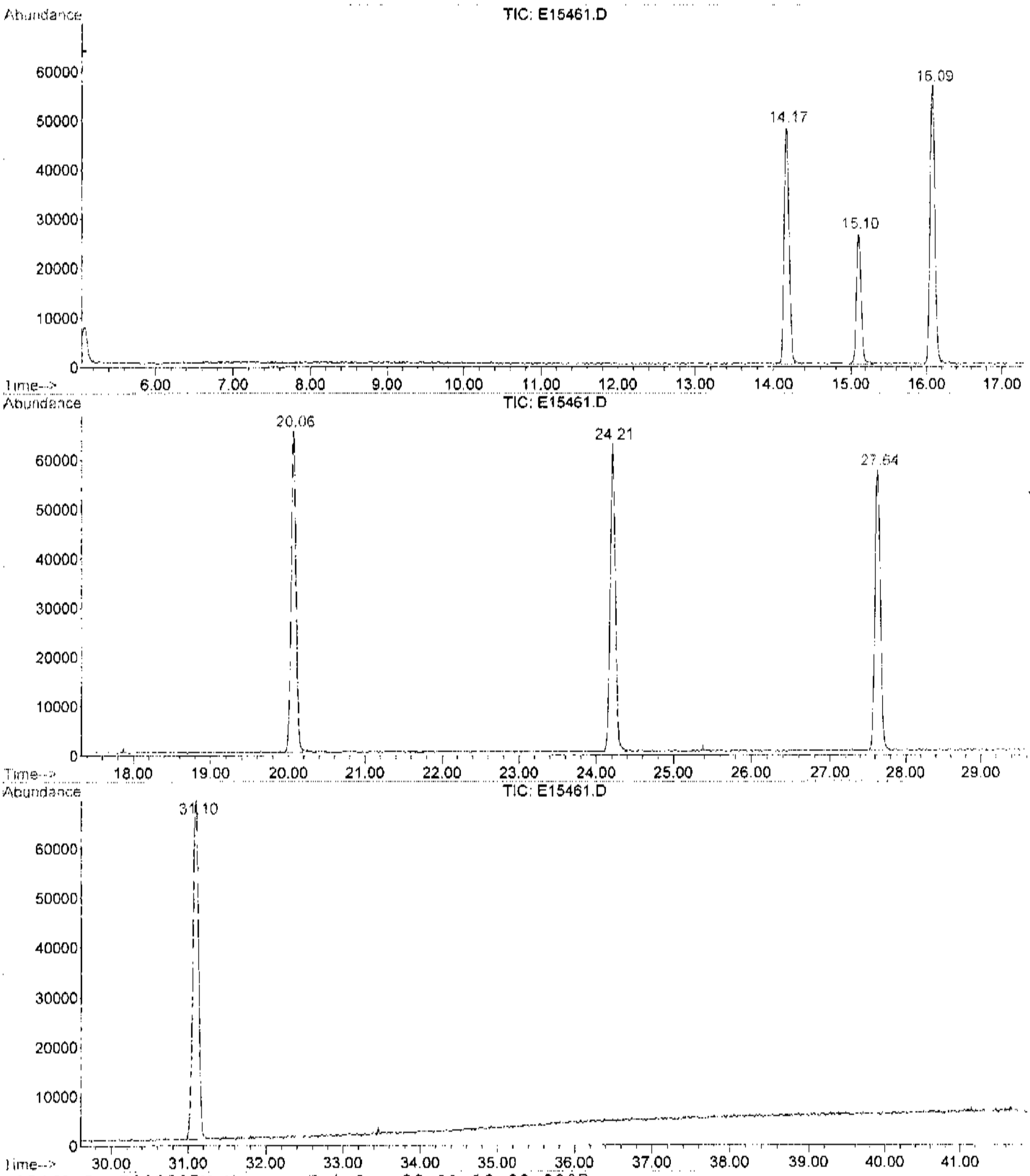
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File   : D:\DATA\E15461.D
Operator   : MG
Acquired   : 28 Sep 2007   5:21 am using AcqMethod E092507W
Instrument :   Voa Instr
Sample Name: U0709313-010H
Misc Info : 5mL
Vial Number: 24
Quant File :E092507W.RES (RTE Integrator)



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E15461.D E092507W.M   Fri Sep 28 11:18:23 2007

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TBA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TBA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TBA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15462.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ____ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15462.D Vial: 25
Acq On : 28 Sep 2007 6:10 am Operator: MG
Sample : U0709313-011A Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 5:52 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	68778	50.00	ug/L	0.00
36) 1,4-Difluorobenzene	16.09	114	104319	50.00	ug/L	0.02
56) Chlorobenzene-d5	24.21	117	95646	50.00	ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	58796	50.00	ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	55050	56.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	113.76%		
50) Toluene-d8	20.06	98	108066	48.77	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.54%		
55) Bromofluorobenzene	27.64	95	56208	50.75	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	101.50%		

Target Compounds Qvalue

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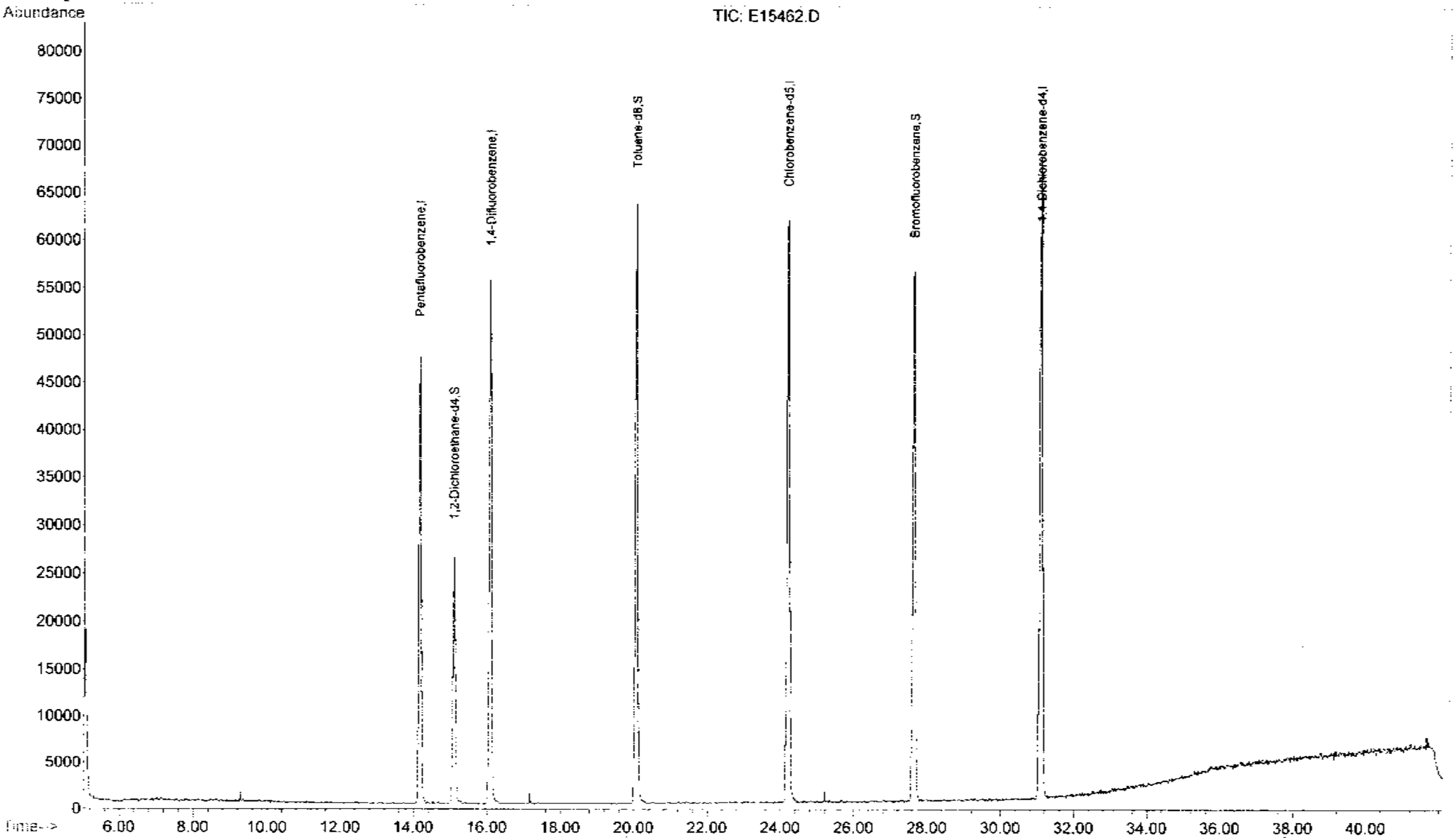
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15462.D
Acq On : 28 Sep 2007 6:10 am
Sample : U0709313-011A
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 5:52 2007

Vial: 25
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

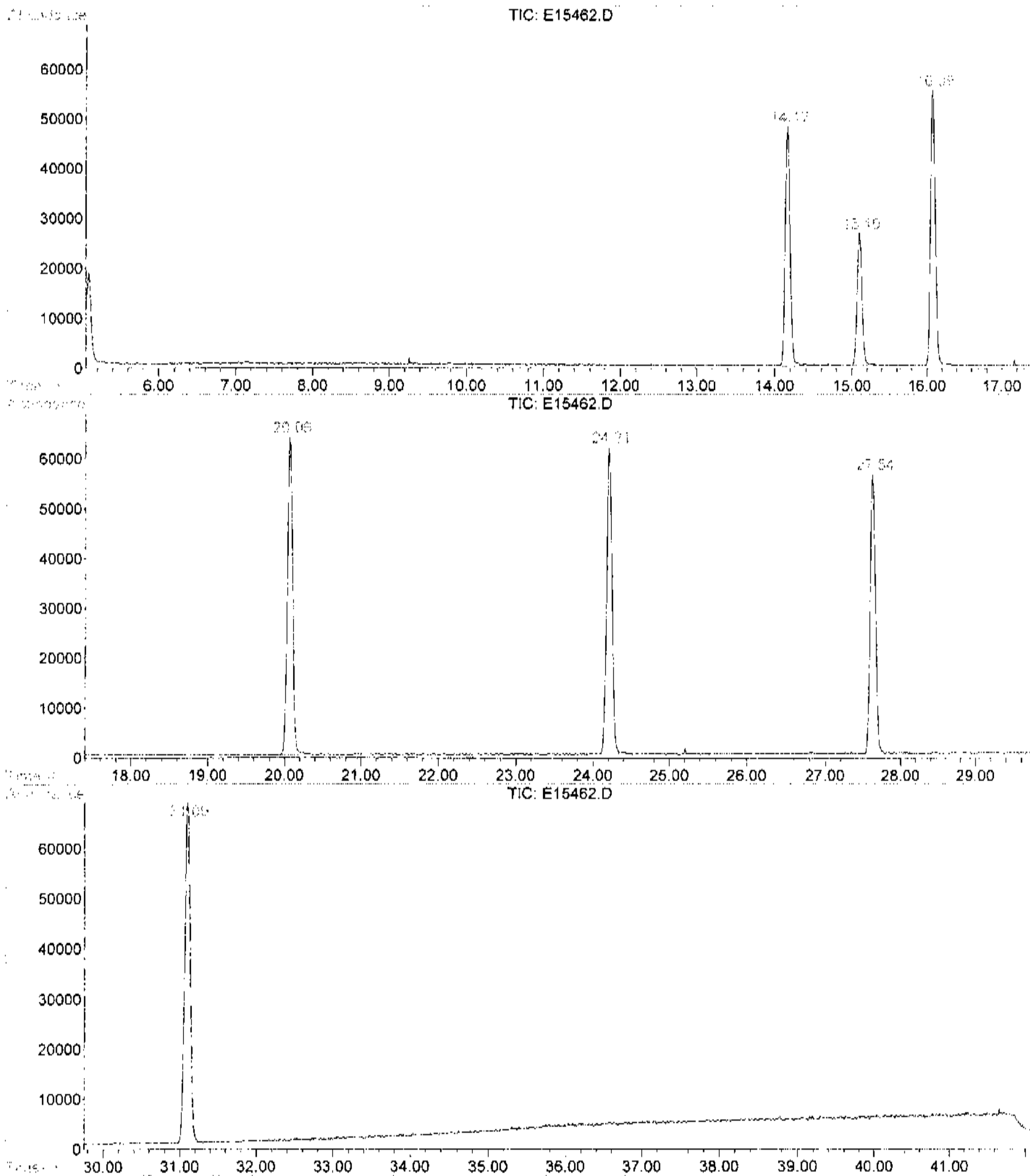
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File   : D:\DATA\E15462.D
Operator   : MG
Acquired   : 28 Sep 2007   6:10 am using AcqMethod E092507W
Instrument :   Voa Instr
Sample Name: U0709313-011A
Misc Info : 5mL
Vial Number: 25
Quant File :E092507W.RES (RTE Integrator)



E15462.D E092507W.M   Fri Sep 28 11:18:28 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK A

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK A

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ________ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15463.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15463.D
Acq On : 28 Sep 2007 6:59 am
Sample : U0709313-012A
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:15 2007

Vial: 26
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	67818	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.08	114	103408	50.00 ug/L	0.01
56) Chlorobenzene-d5	24.21	117	95080	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	58658	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	54132m MM	56.72 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery =	113.44%	
50) Toluene-d8	20.06	98	106789	48.61 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.22%	
55) Bromofluorobenzene	27.63	95	55100	50.19 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	100.38%	

Target Compounds Qvalue

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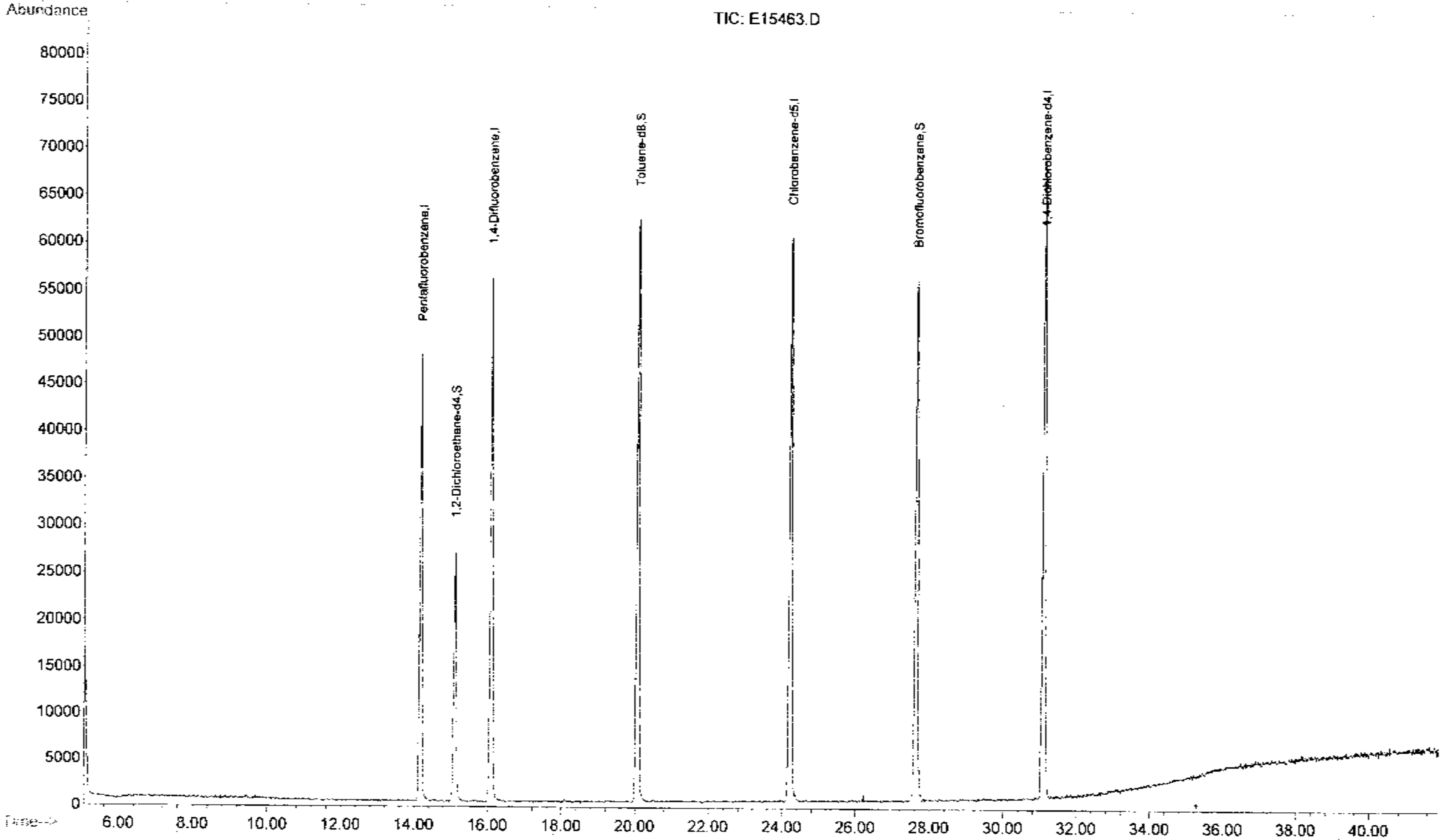
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15463.D
Acq On : 28 Sep 2007 6:59 am
Sample : U0709313-012A
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:15 2007

Vial: 26
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

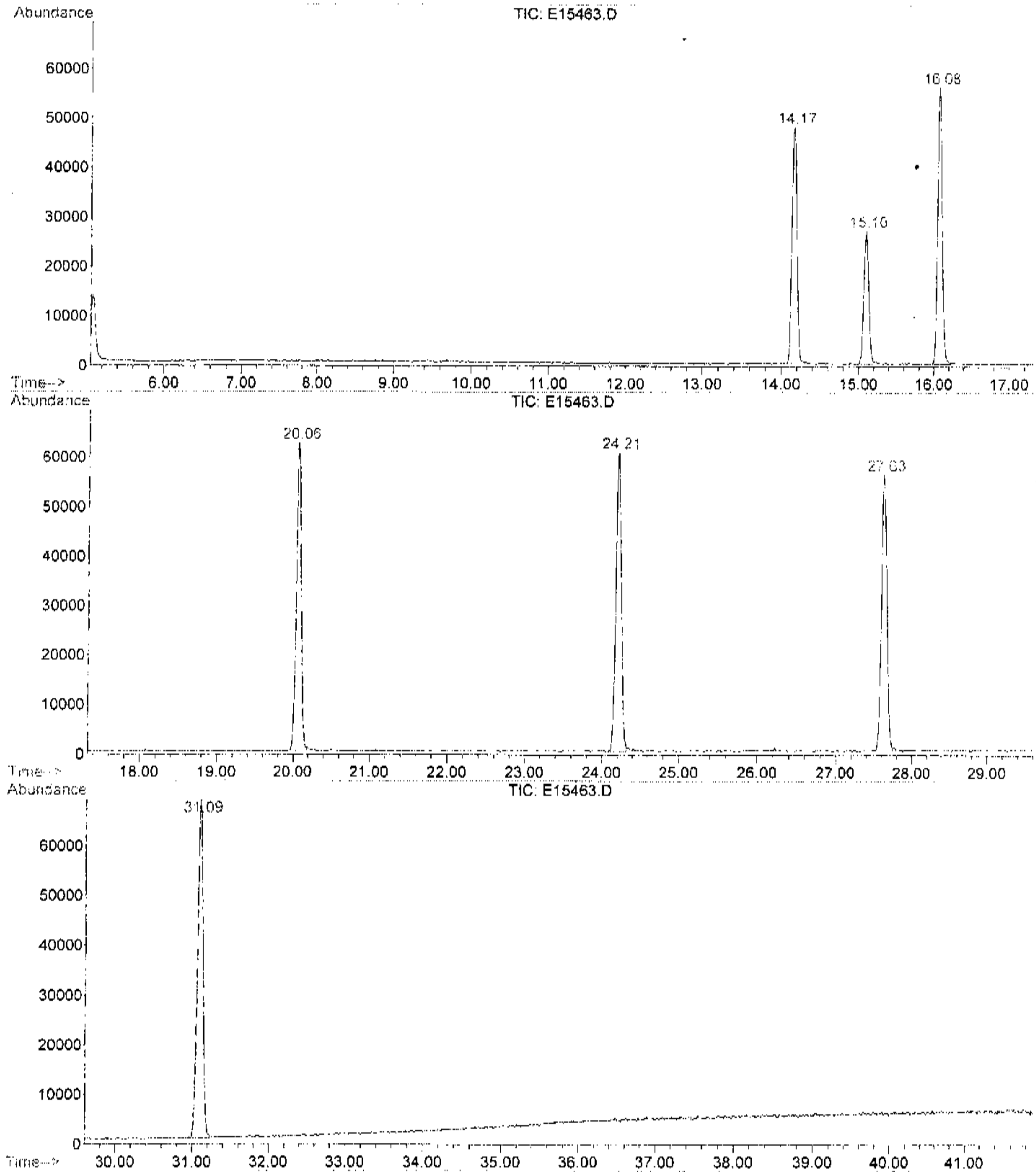
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15463.D
Operator : MG
Acquired : 28 Sep 2007 6:59 am using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-012A
Misc Info : 5mL
Vial Number: 26
Quant File :E092507W.RES (RTE Integrator)



E15463.D E092507W.M Fri Sep 28 11:18:33 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-013H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15464.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15464.D
Acq On : 28 Sep 2007 7:48 am
Sample : U0709313-013H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:16 2007

Vial: 27
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.18	168	67046	50.00	ug/L	0.02
36) 1,4-Difluorobenzene	16.09	114	102287	50.00	ug/L	0.02
56) Chlorobenzene-d5	24.22	117	93848	50.00	ug/L	0.03
87) 1,4-Dichlorobenzene-d4	31.10	152	57785	50.00	ug/L	0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	15.10	65	53595m NM	56.81	ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	113.62%		
50) Toluene-d8	20.06	98	106262	48.90	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.80%		
55) Bromofluorobenzene	27.64	95	54741	50.41	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	100.82%		

Target Compounds Qvalue

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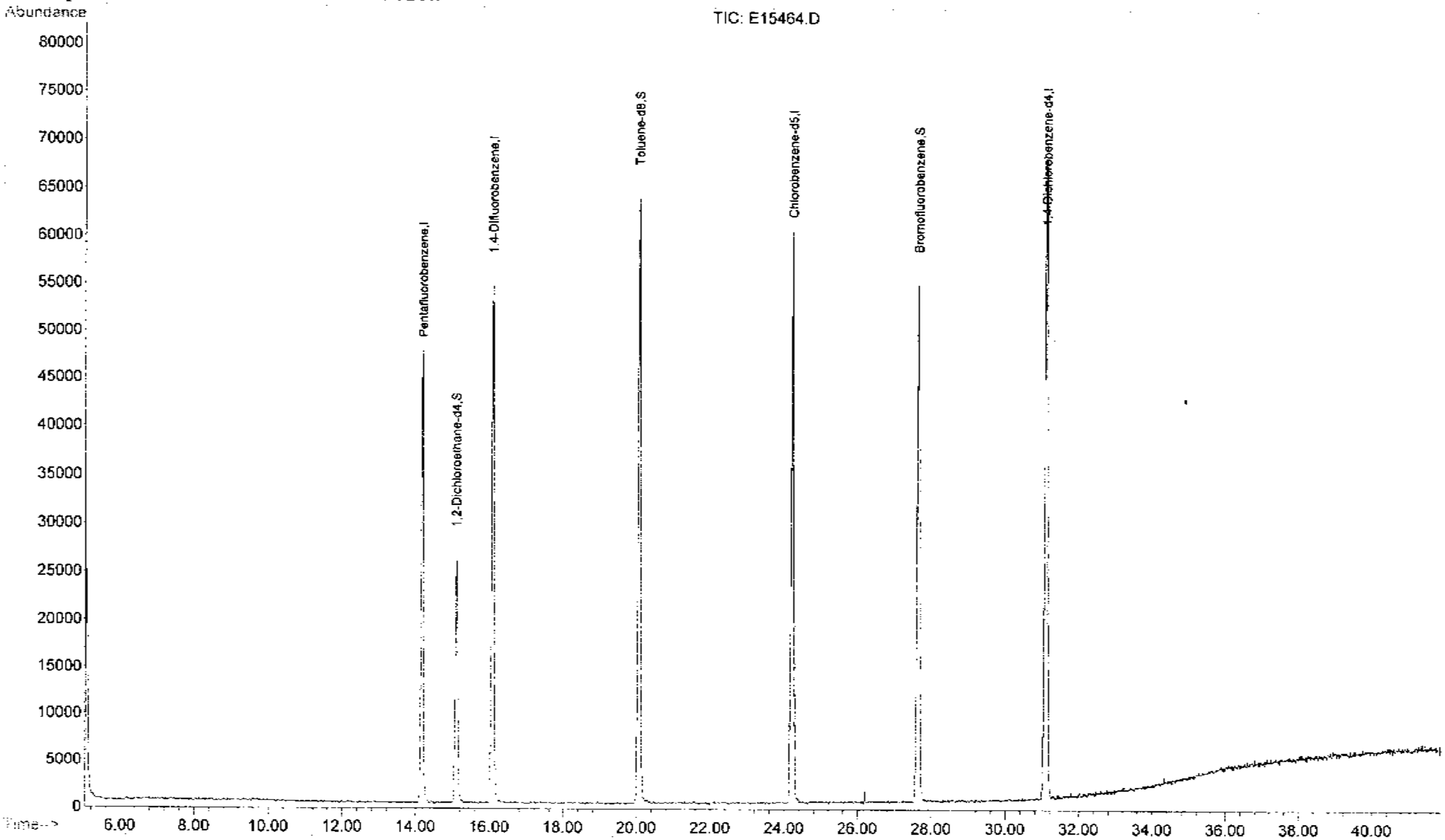
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15464.D
Acq On : 28 Sep 2007 7:48 am
Sample : U0709313-013H
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:16 2007

Vial: 27
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

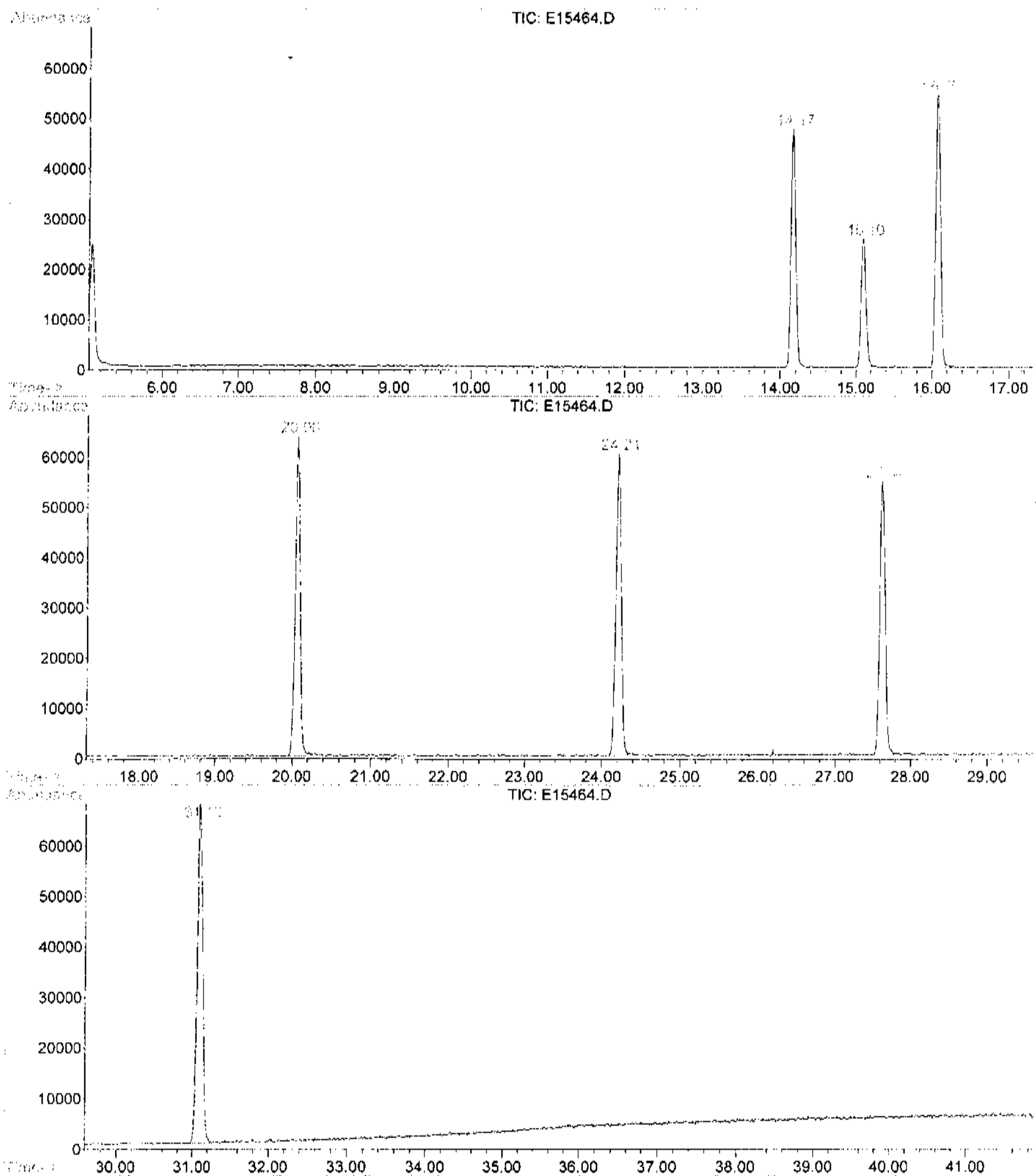
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15464.D
Operator : MG
Acquired : 28 Sep 2007 7:48 am using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-013H
Misc Info : 5mL
Vial Number: 27
Quant File :E092507W.RES (RTE Integrator)



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E15464.D E092507W.M Fri Sep 28 11:18:38 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-014H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19038.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ____ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19038.D
Acq On : 30 Sep 2007 3:29 pm
Sample : U0709313-014H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:10 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	559700	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.01	114	389354	50.00 ug/L	0.04
55) Chlorobenzene-d5	18.53	117	300956	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.18	152	242783	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.14	65	225055	46.17 ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery =	92.34%	
49) Toluene-d8	15.28	98	276084	49.35 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.70%	
54) Bromofluorobenzene	20.95	95	309275	53.06 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	106.12%	

Target Compounds Qvalue

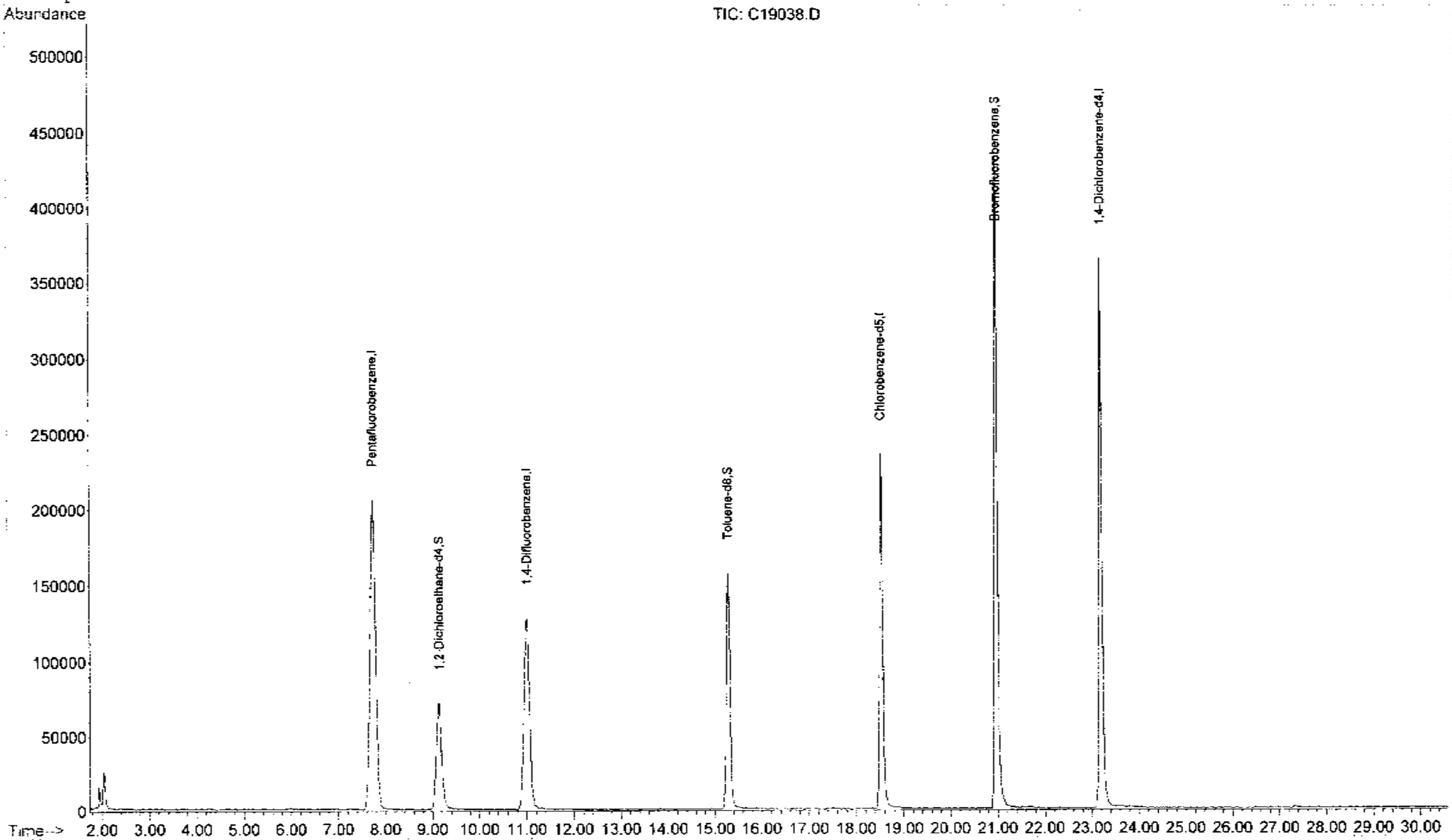
-500-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\DATA\C19038.D		Vial: 7
Acq On : 30 Sep 2007 3:29 pm		Operator: MM
Sample : U0709313-014H		Inst : #12
Misc : 5ML		Multiplr: 1.00
MS Integration Params: rteint.p		
Quant Time: Oct 1 11:10 2007	Quant Results File: TEST925.RES	

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\C19038.D
Operator    : MM
Acquired    : 30 Sep 2007   3:29 pm using AcqMethod TEST925
Instrument  :    #12
Sample Name: U0709313-014H
Misc Info   : 5ML
Vial Number: 7
Quant File :TEST925.RES (RTE Integrator)
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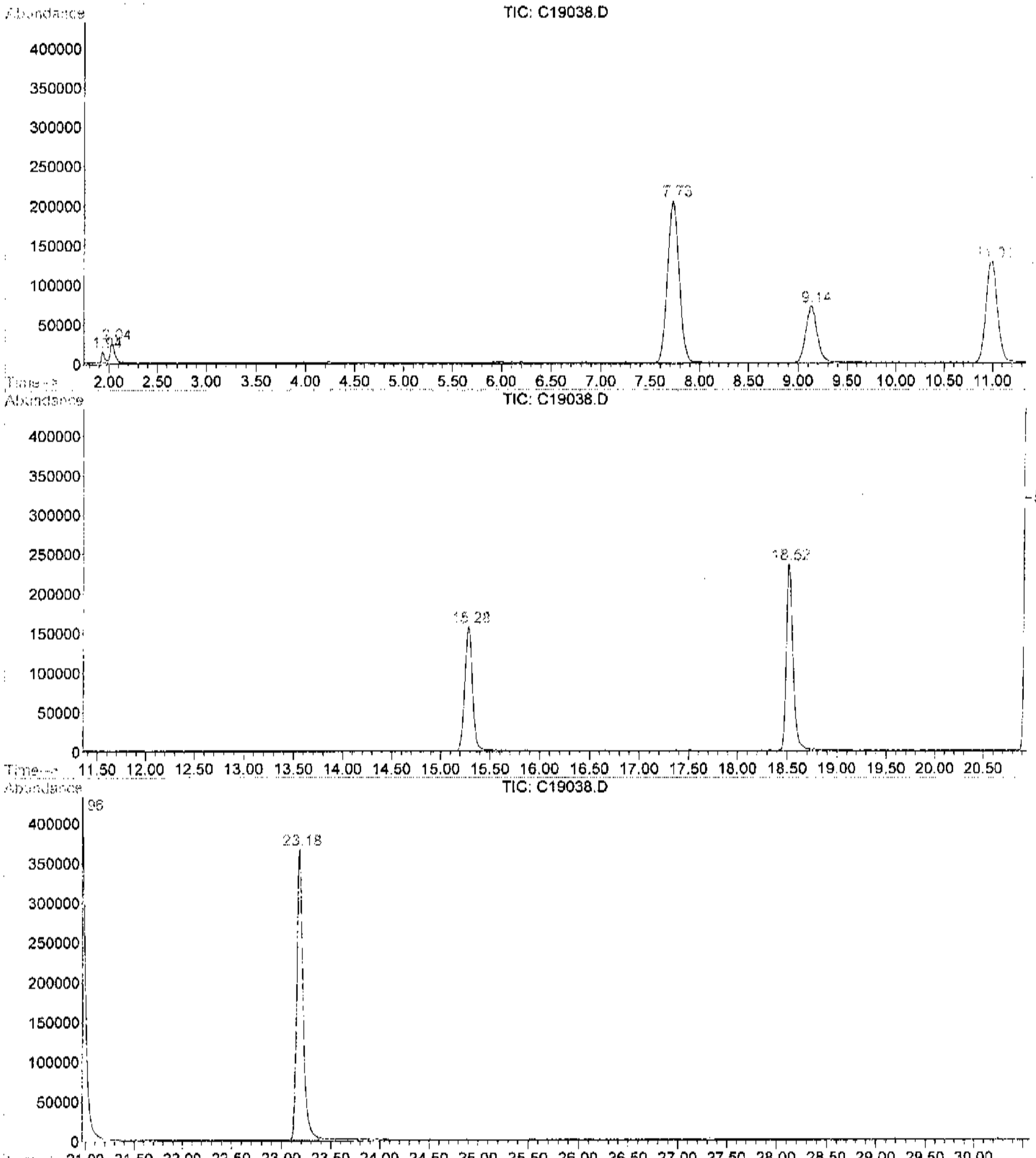

-502-

C19038.D   TEST925.M   Mon Oct 01 11:31:24 2007   12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ____ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-015H

Sample wt/vol: 5.0 ___ (g/ml) ML Lab File ID: C19039.D

Level: (low/med) LOW ___ Date Received: 9/20/2007

% Moisture: not dec. ______ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-505-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19039.D Vial: 8
Acq On : 30 Sep 2007 4:07 pm Operator: MM
Sample : U0709313-015H Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:11 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	505751	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.00	114	365338	50.00 ug/L	0.04
55) Chlorobenzene-d5	18.53	117	274152	50.00 ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.18	152	216875	50.00 ug/L	0.01

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.14	65	209947	47.66 ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery = 95.32%		
49) Toluene-d8	15.29	98	263797	50.25 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.50%		
54) Bromofluorobenzene	20.96	95	279812	51.16 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery = 102.32%		

Target Compounds Qvalue

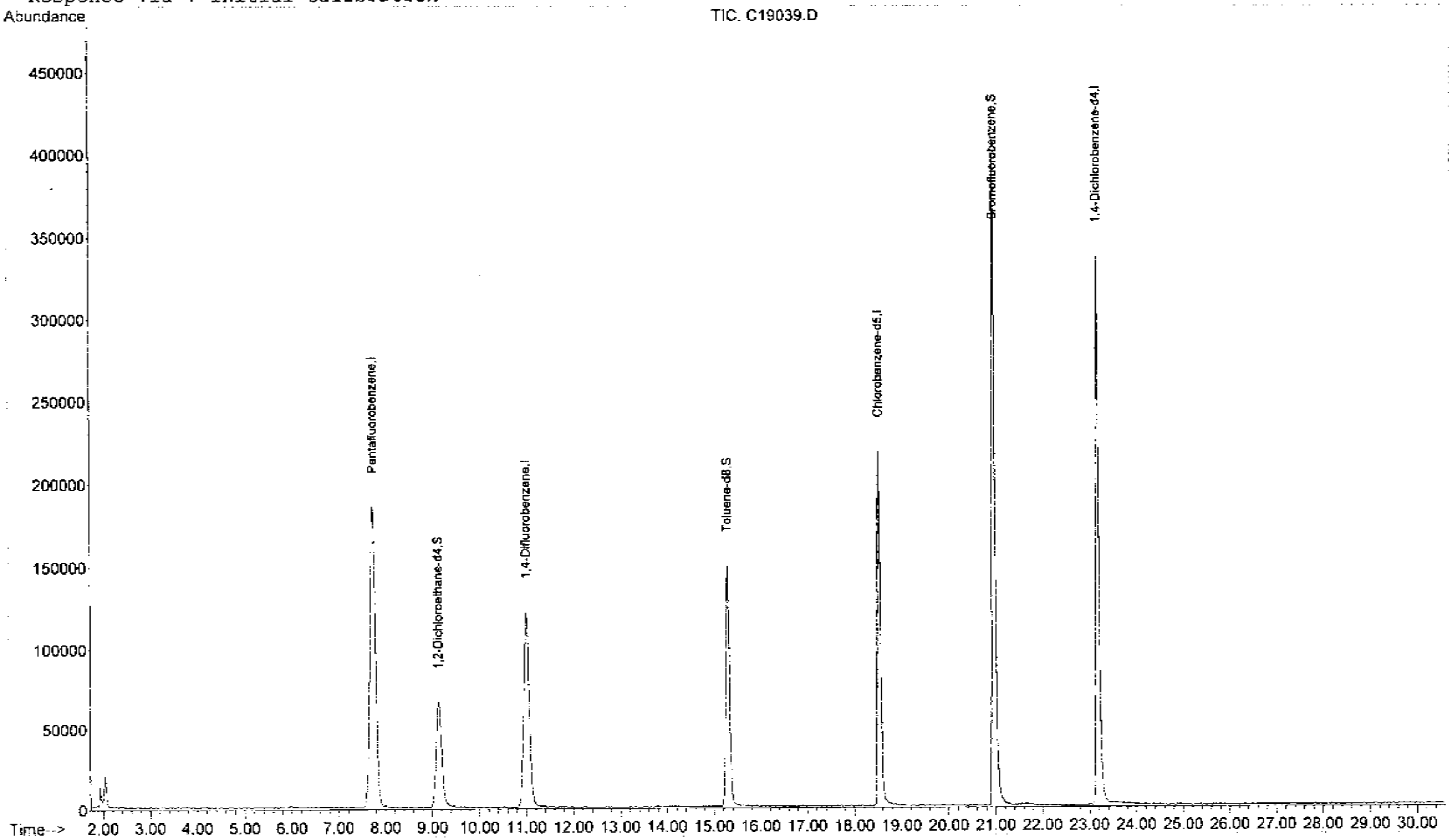
-506-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

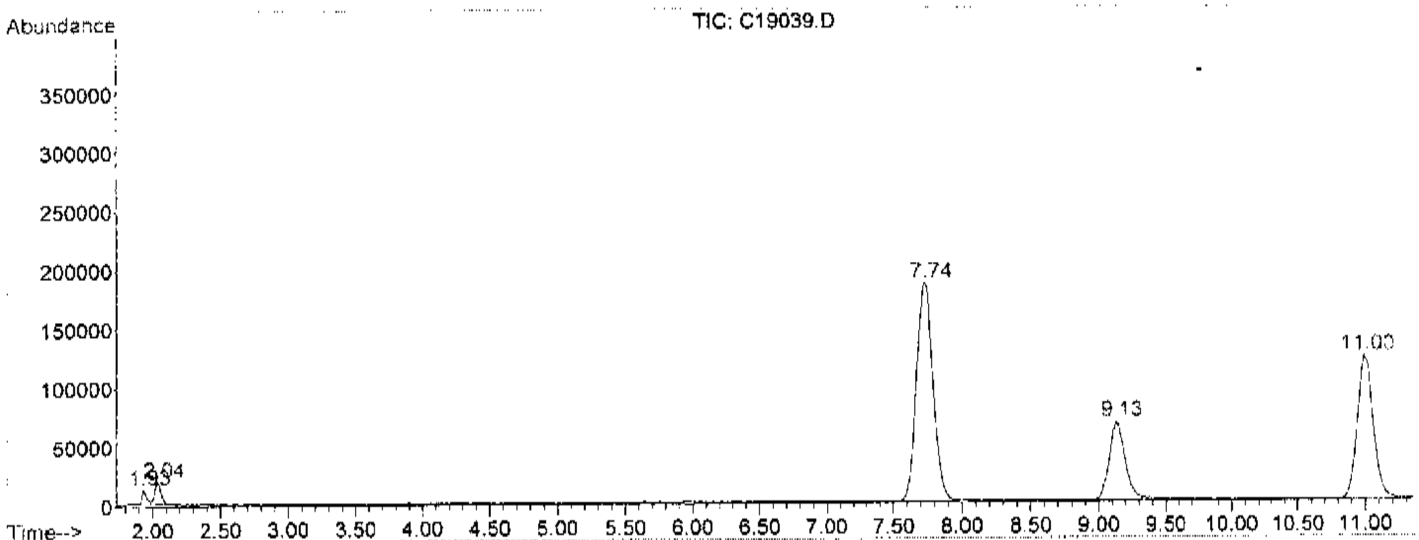
```
Data File : D:\DATA\C19039.D                         Vial: 8
Acq On    : 30 Sep 2007   4:07 pm                Operator: MM
Sample    : U0709313-015H                        Inst    : #12
Misc      : 5ML                                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 11:11 2007           Quant Results File: TEST925.RES

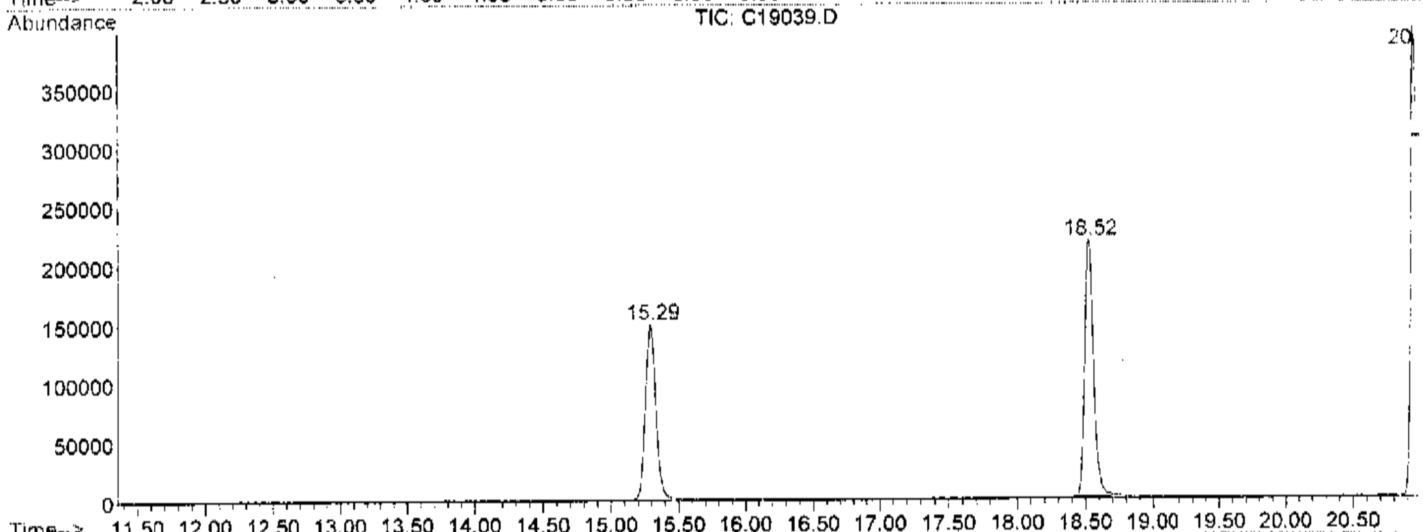
Method        : D:\METHODS\TEST925.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Sun Sep 30 12:46:58 2007
Response via  : Initial Calibration
```

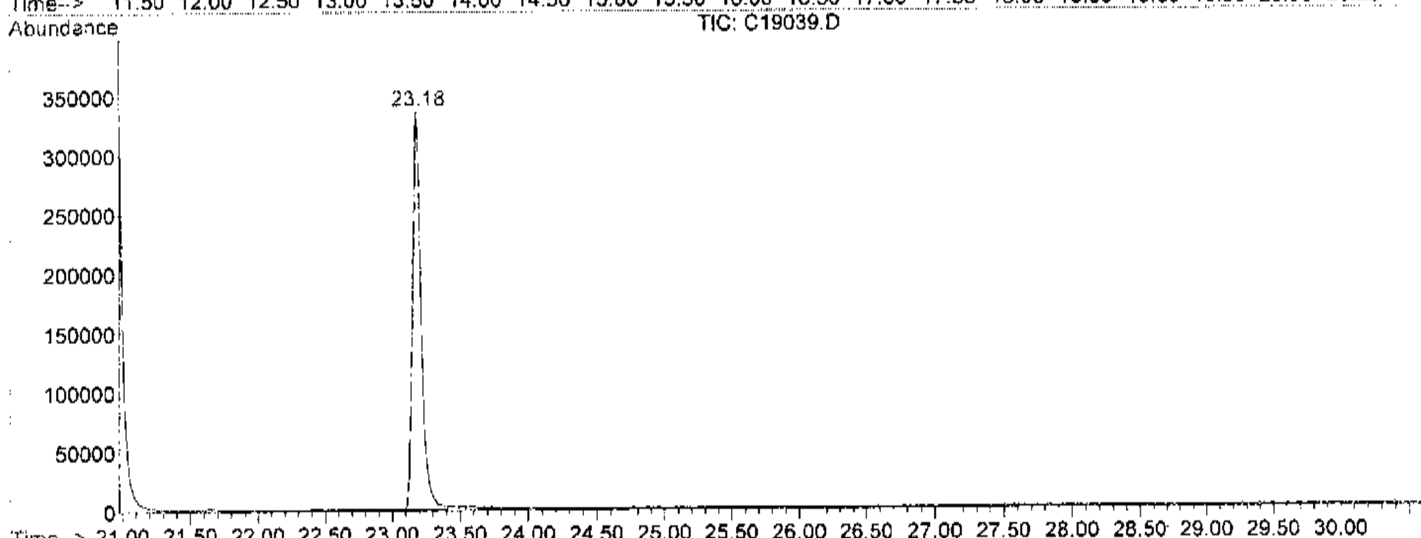


LSC Report - Integrated Chromatogram

File : D:\DATA\C19039.D
Operator : MM
Acquired : 30 Sep 2007 4:07 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-015H
Misc Info : 5ML
Vial Number: 8
Quant File :TEST925.RES (RTE Integrator)







C19039.D TEST925.M Mon Oct 01 11:31:29 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. - Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-016H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19040.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19040.D
Acq On : 30 Sep 2007 4:46 pm
Sample : U0709313-016H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:11 2007

Vial: 9
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.75	168	542745	50.00 ug/L	0.03
35) 1,4-Difluorobenzene	10.99	114	386651	50.00 ug/L	0.03
55) Chlorobenzene-d5	18.52	117	296945	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.18	152	241650	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.13	65	224666	47.53 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	95.06%	
49) Toluene-d8	15.28	98	280282	50.45 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.90%	
54) Bromofluorobenzene	20.96	95	306290	52.92 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	105.84%	

Target Compounds Qvalue

-512-

(#) = qualifier out of range (m) = manual integration

```
Data File : D:\DATA\C19040.D                          Vial: 9
Acq On    : 30 Sep 2007   4:46 pm                 Operator: MM
Sample    : U0709313-016H                             Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 11:11 2007            Quant Results File: TEST925.RES

Method        : D:\METHODS\TEST925.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Sun Sep 30 12:46:58 2007
Response via  : Initial Calibration
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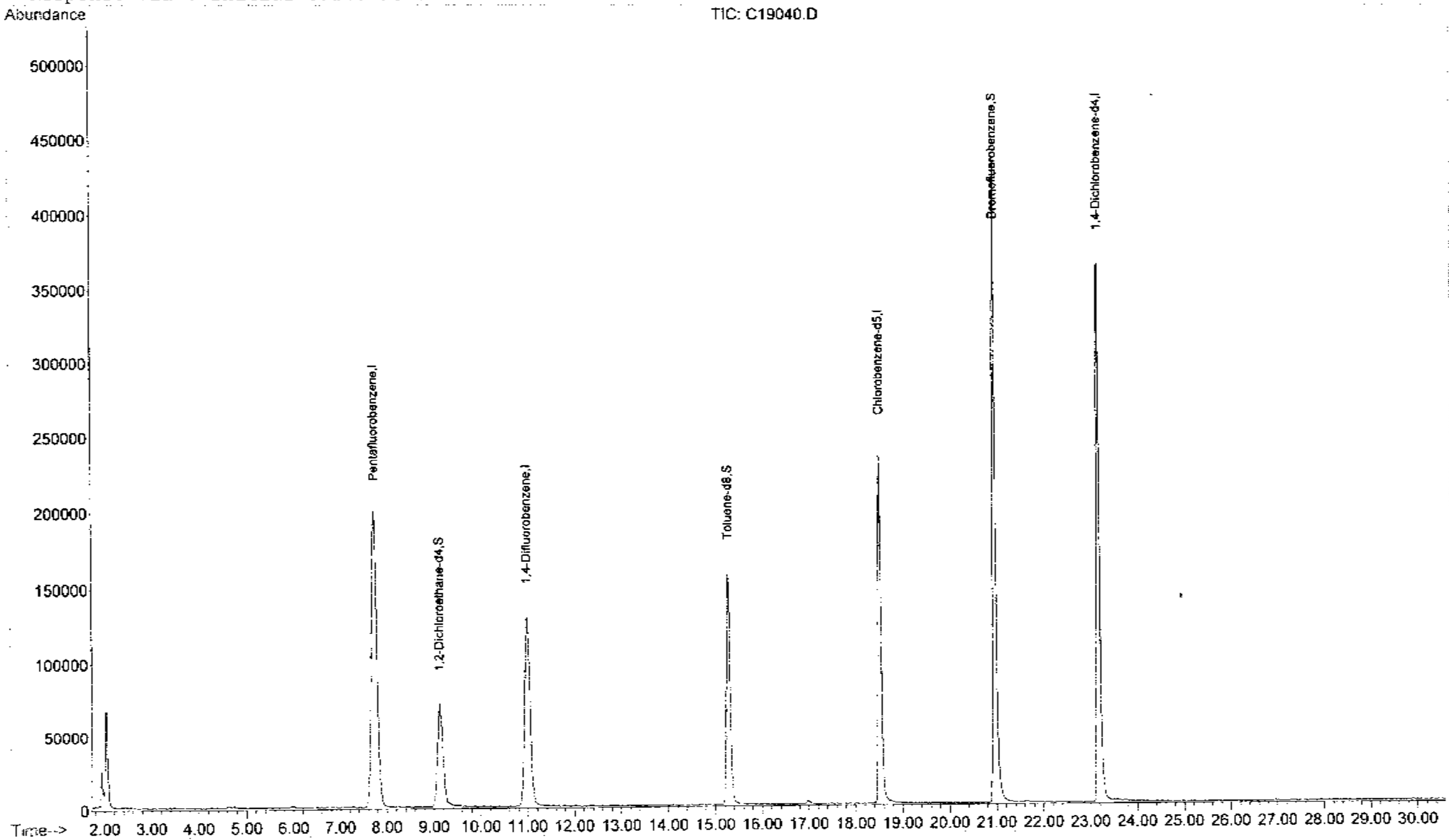
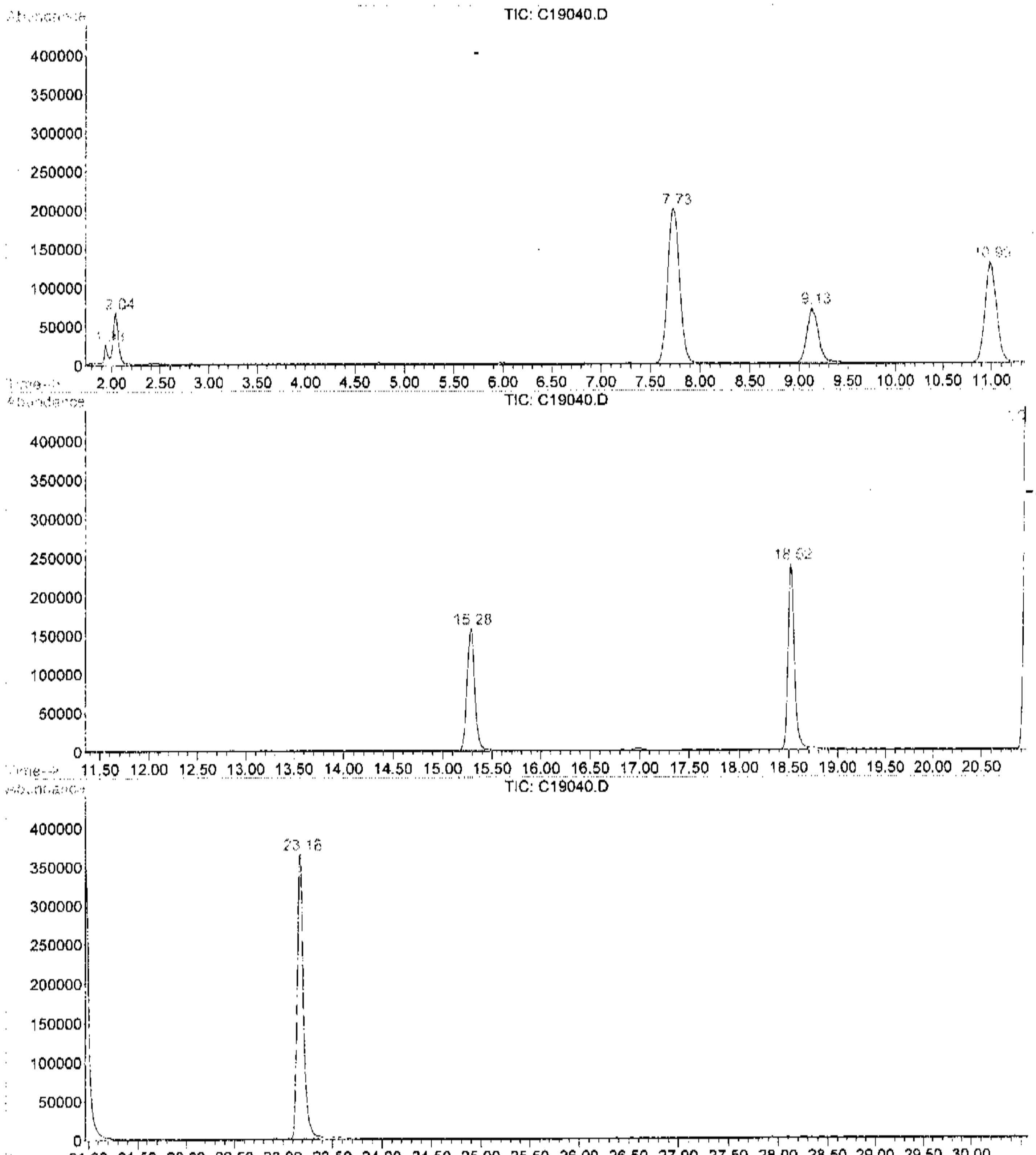


LSC Report - Integrated Chromatogram

File : D:\DATA\C19040.D
Operator : MM
Acquired : 30 Sep 2007 4:46 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-016H
Misc Info : 5ML
Vial Number: 9
Quant File :TEST925.RES (RTE Integrator)



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C19040.D TEST925.M Mon Oct 01 11:31:36 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ______ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-017H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19041.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ____ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Data File : D:\DATA\C19041.D Vial: 10
Acq On : 30 Sep 2007 5:24 pm Operator: MM
Sample : U0709313-017H Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:15 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	553939	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	10.99	114	391627	50.00 ug/L	0.03
55) Chlorobenzene-d5	18.52	117	295256	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.18	152	238314	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.13	65	220173	45.63 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery = 91.26%		
49) Toluene-d8	15.29	98	281879	50.09 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.18%		
54) Bromofluorobenzene	20.96	95	300528	51.26 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery = 102.52%		

Target Compounds Qvalue

-518-

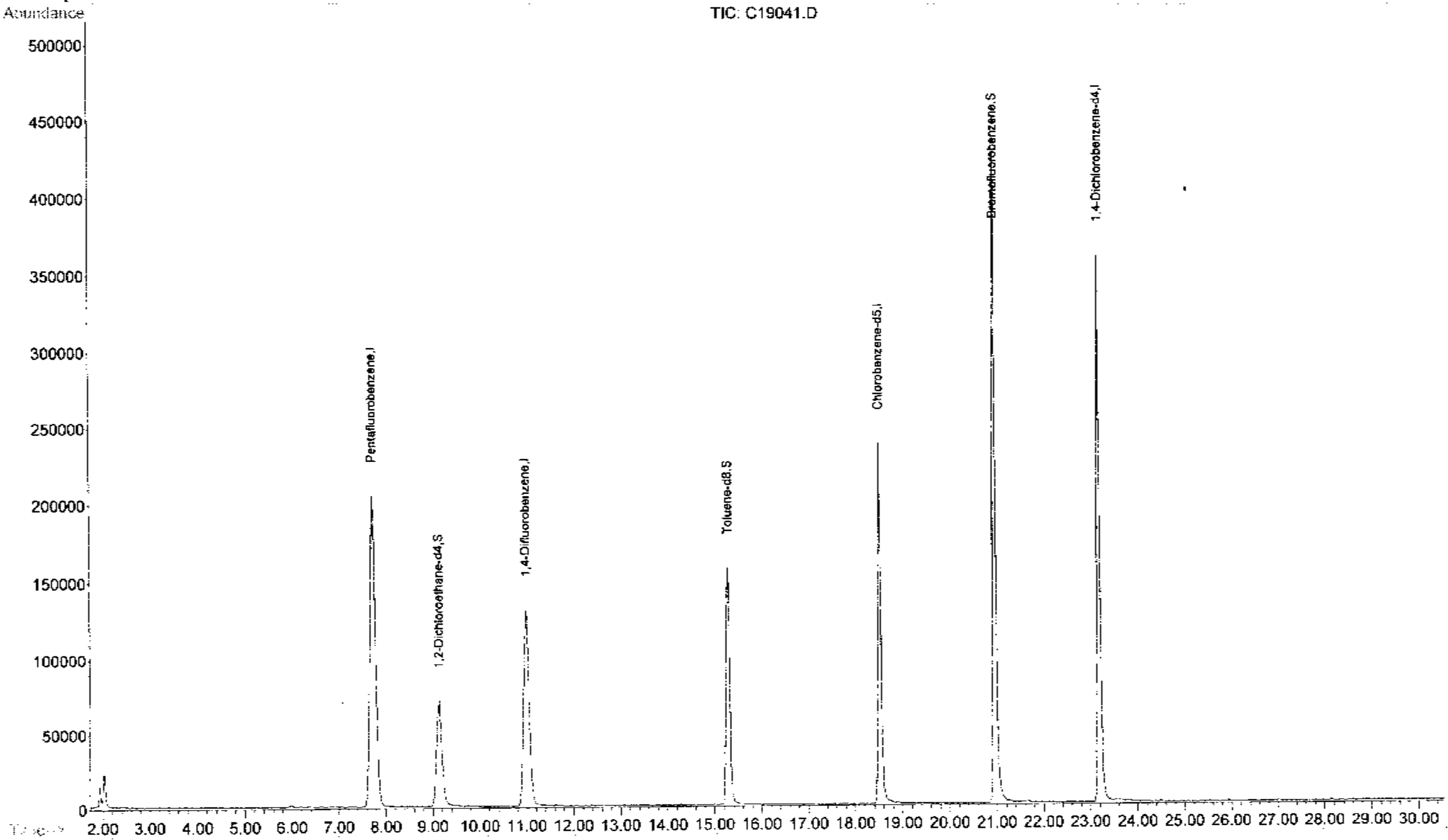
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19041.D
Acq On : 30 Sep 2007 5:24 pm
Sample : U0709313-017H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:15 2007

Vial: 10
Operator: MM
Inst : #12
Multiplr: 1.00

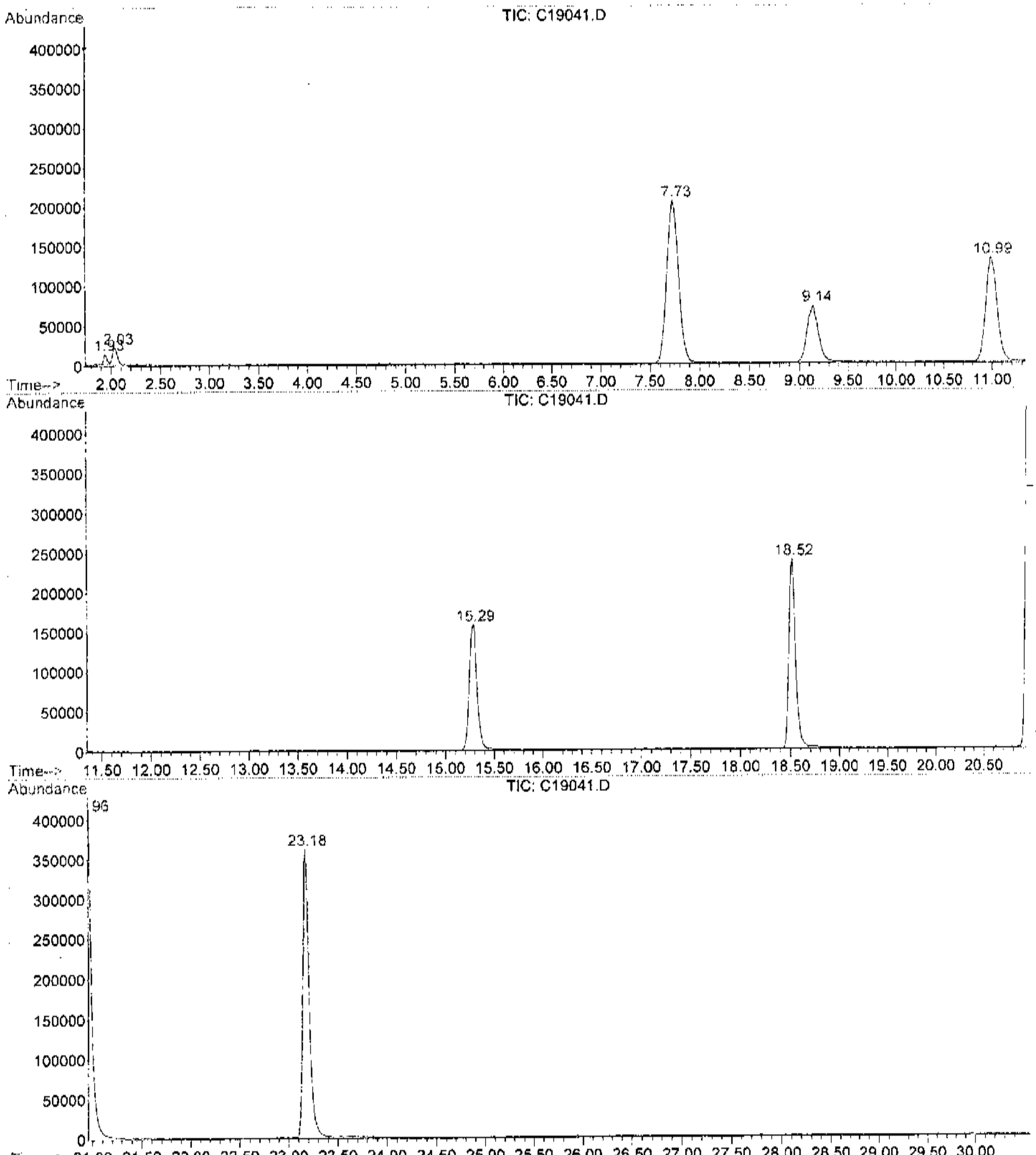
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C19041.D
Operator : MM
Acquired : 30 Sep 2007 5:24 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-017H
Misc Info : 5ML
Vial Number: 10
Quant File :TEST925.RES (RTE Integrator)



C19041.D TEST925.M Mon Oct 01 11:31:40 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ______ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ______ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-018H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19042.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\C19042.D                              Vial: 11
Acq On    : 30 Sep 2007   6:01 pm                     Operator: MM
Sample    : U0709313-018H                             Inst    : #12
Misc      : 5ML                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Oct  1 11:15 2007              Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	549171	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.01	114	391692	50.00 ug/L	0.04
55) Chlorobenzene-d5	18.52	117	299575	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.18	152	238734	50.00 ug/L	0.01

```
System Monitoring Compounds
 33) 1,2-Dichloroethane-d4          9.13    65   222605    46.54 ug/L    0.02
  Spiked Amount     50.000   Range  76 - 114    Recovery   =   93.08%
 49) Toluene-d8                    15.28    98   278488    49.48 ug/L    0.01
  Spiked Amount     50.000   Range  88 - 110    Recovery   =   98.96%
 54) Bromofluorobenzene            20.95    95   304595    51.95 ug/L    0.00
  Spiked Amount     50.000   Range  86 - 115    Recovery   =  103.90%

Target Compounds                                                    Qvalue
```

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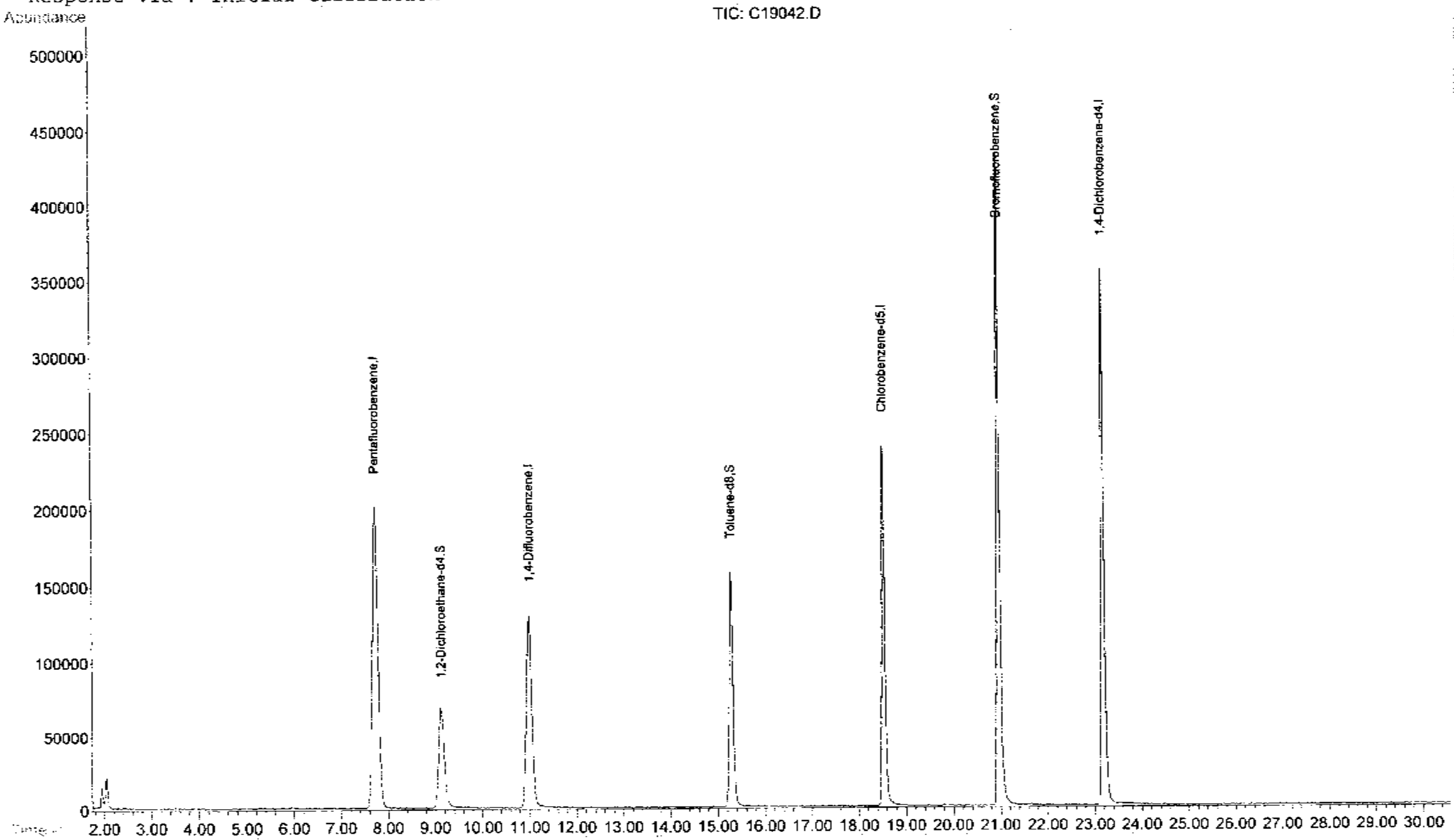
Data File : D:\DATA\C19042.D
Acq On : 30 Sep 2007 6:01 pm
Sample : U0709313-018H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:15 2007

Vial: 11
Operator: MM
Inst : #12
Multiplr: 1.00

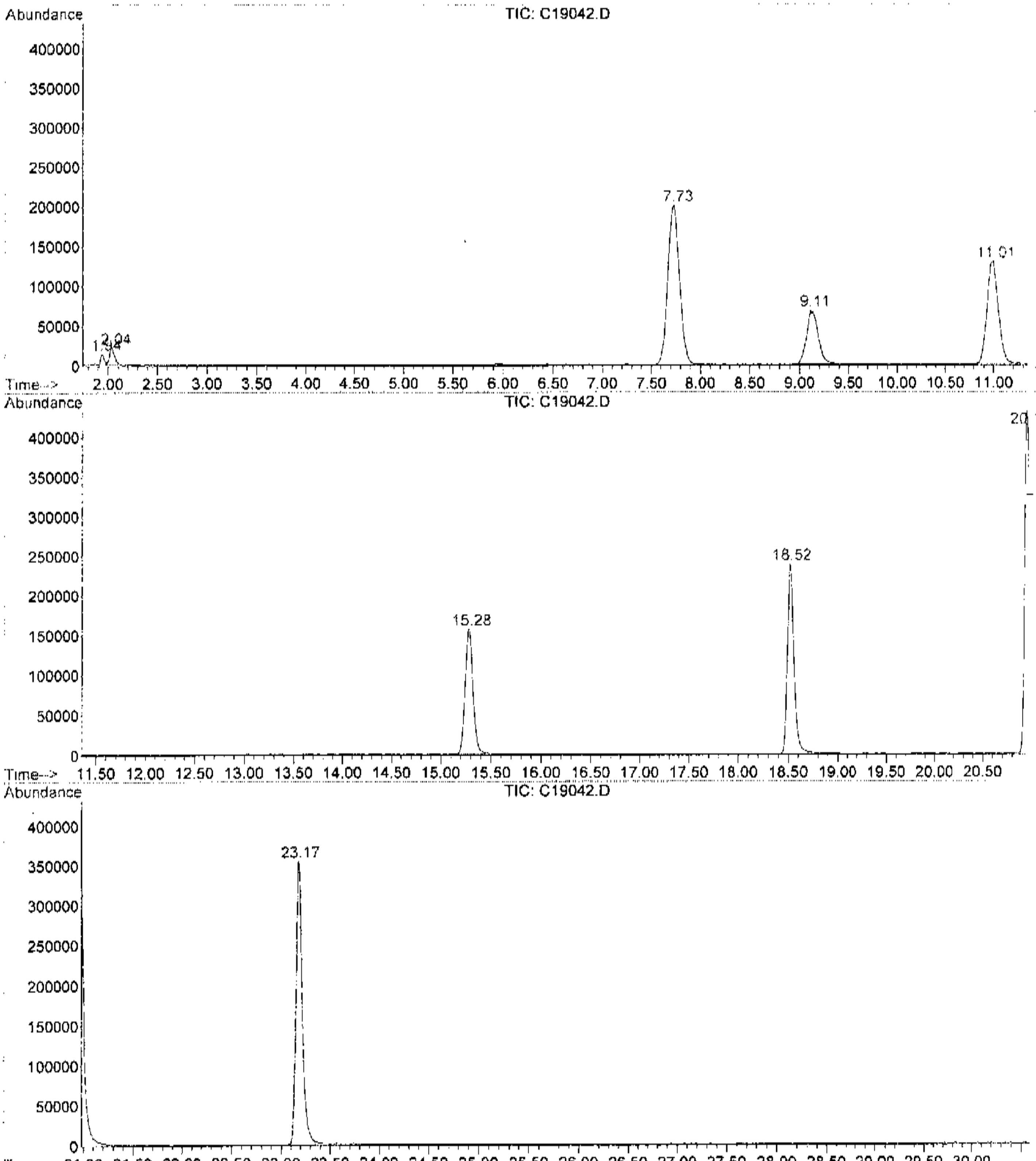
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C19042.D
Operator : MM
Acquired : 30 Sep 2007 6:01 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-018H
Misc Info : 5ML
Vial Number: 11
Quant File :TEST925.RES (RTE Integrator)



C19042.D TEST925.M Mon Oct 01 11:31:46 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI T B
B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI T B
B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULLT B
B

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19043.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19043.D
Acq On : 30 Sep 2007 6:39 pm
Sample : U0709313-019A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:16 2007

Vial: 12
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	549800	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.00	114	394024	50.00 ug/L	0.04
55) Chlorobenzene-d5	18.52	117	293624	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.18	152	240685	50.00 ug/L	0.02
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.13	65	225146	47.02 ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery =	94.04%	
49) Toluene-d8	15.28	98	275399	48.64 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.28%	
54) Bromofluorobenzene	20.95	95	307554	52.14 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	104.28%	

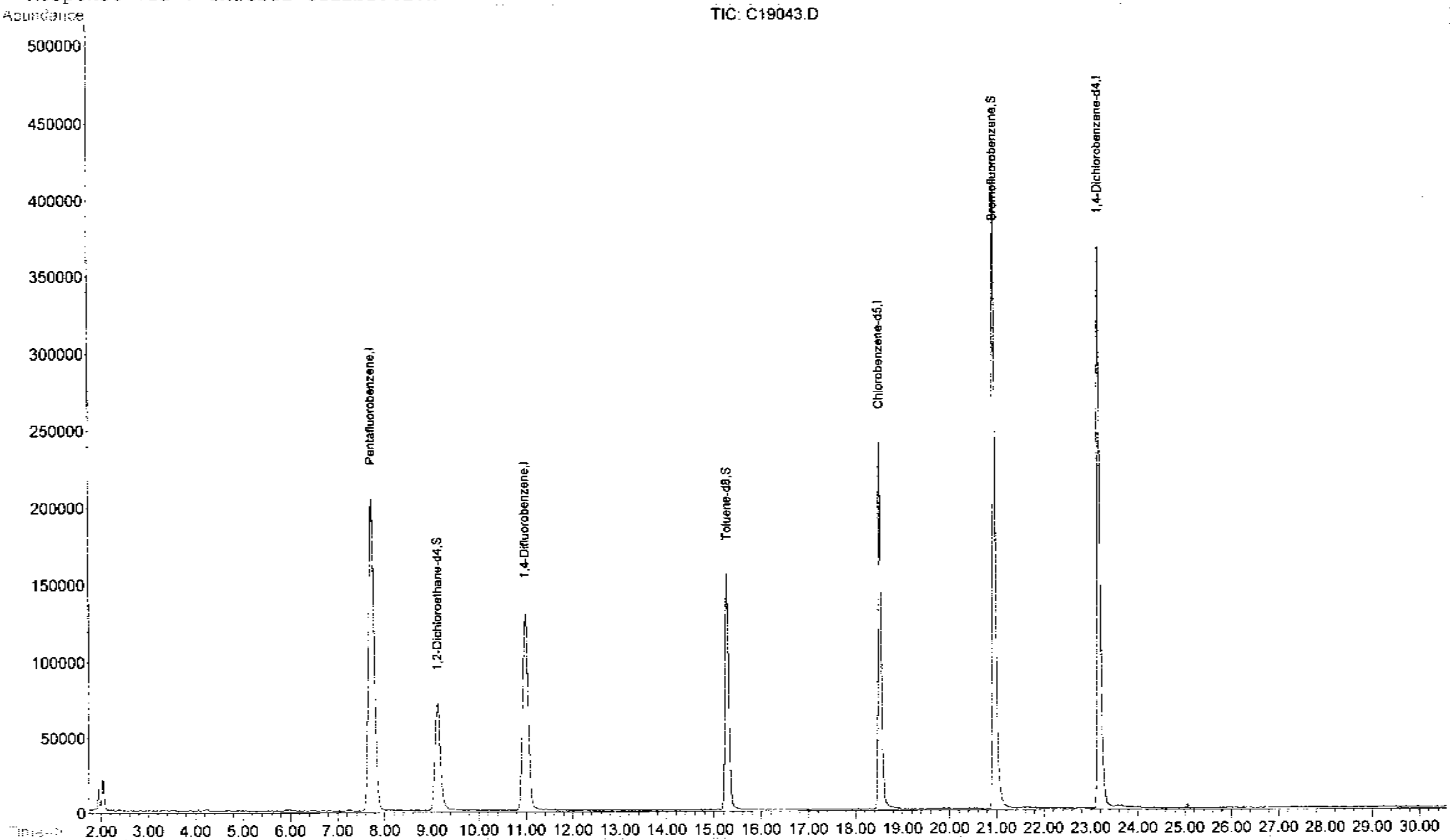
Target Compounds Qvalue

-530-

(#) = qualifier out of range (m) = manual integration

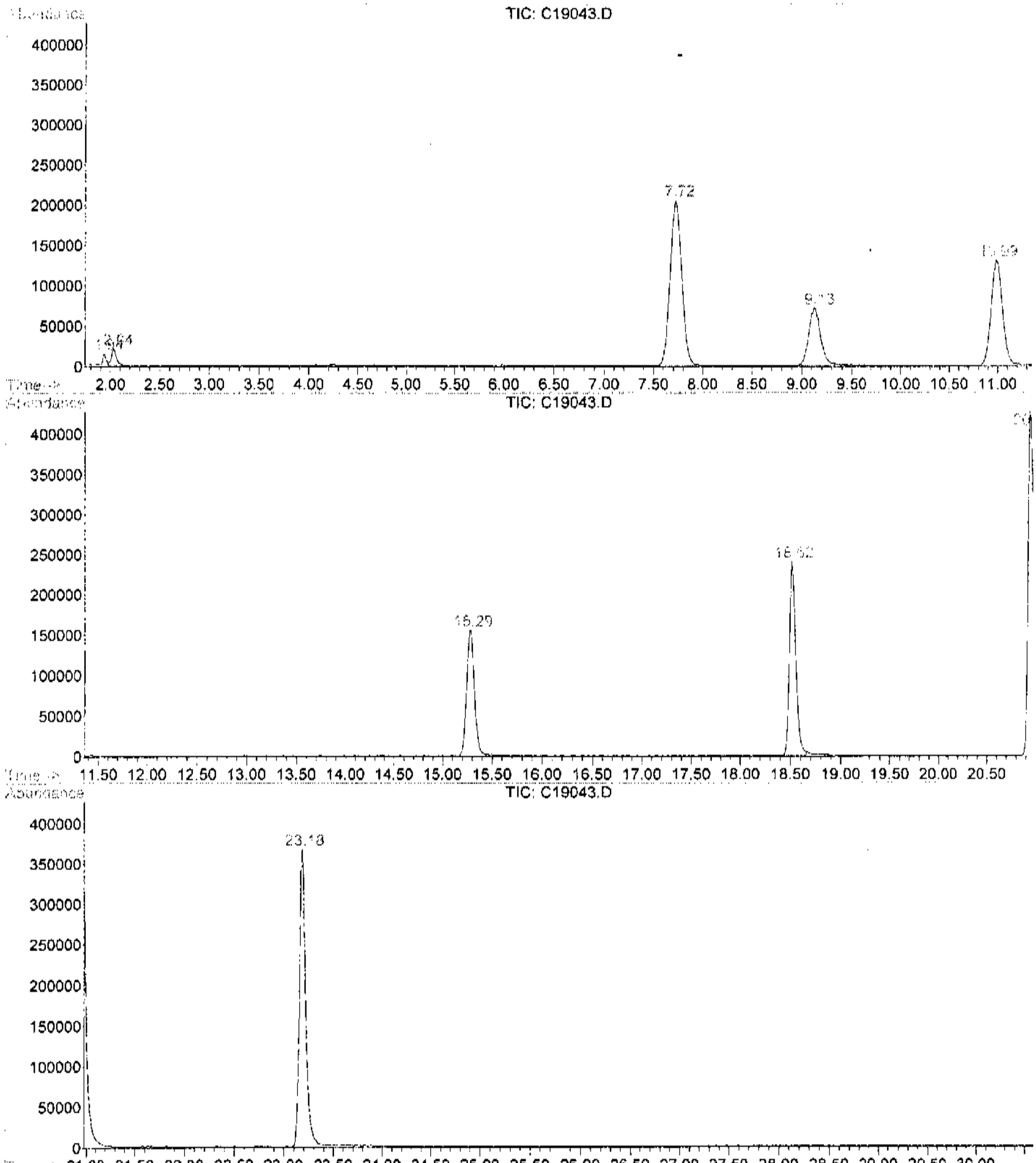
```
Data File : D:\DATA\C19043.D                          Vial: 12
Acq On    : 30 Sep 2007   6:39 pm                 Operator: MM
Sample    : U0709313-019A                         Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 11:16 2007          Quant Results File: TEST925.RES

Method        : D:\METHODS\TEST925.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Sun Sep 30 12:46:58 2007
Response via  : Initial Calibration
```



LSC Report - Integrated Chromatogram

File : D:\DATA\C19043.D
Operator : MM
Acquired : 30 Sep 2007 6:39 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-019A
Misc Info : 5ML
Vial Number: 12
Quant File :TEST925.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19044.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19044.D
Acq On : 30 Sep 2007 7:17 pm
Sample : U0709313-020A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:17 2007

Vial: 13
Operator: MM
Inst : #12
Multiplr: 1.00
Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	554036	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.97	114	391327	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.51	117	298087	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.18	152	235890	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.10	65	223953	46.41 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	92.82%	
49) Toluene-d8	15.27	98	275258	48.95 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.90%	
54) Bromofluorobenzene	20.96	95	309821	52.89 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	105.78%	

Target Compounds Qvalue

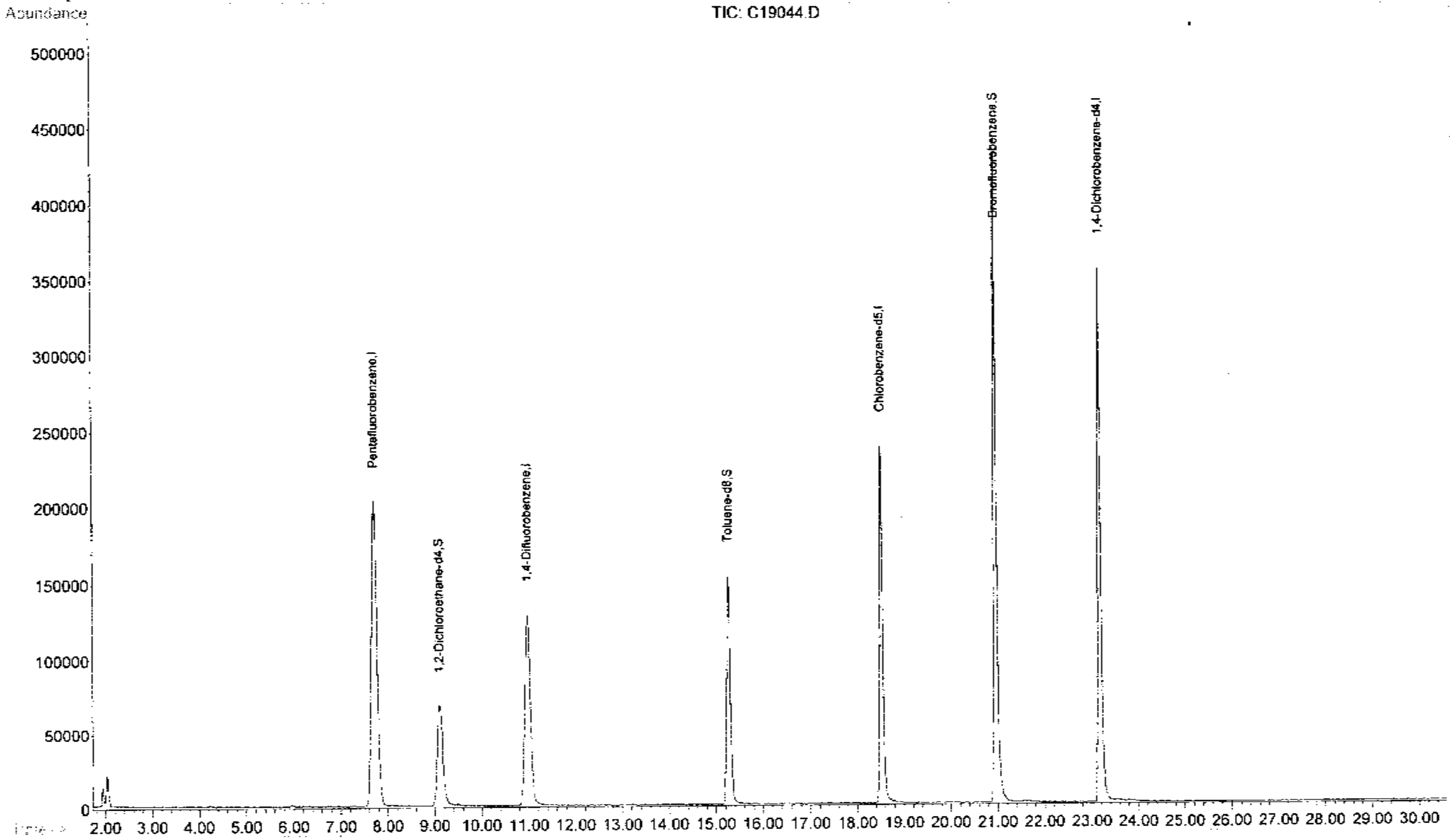
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19044.D
Acq On : 30 Sep 2007 7:17 pm
Sample : U0709313-020A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:17 2007

Vial: 13
Operator: MM
Inst : #12
Multiplr: 1.00

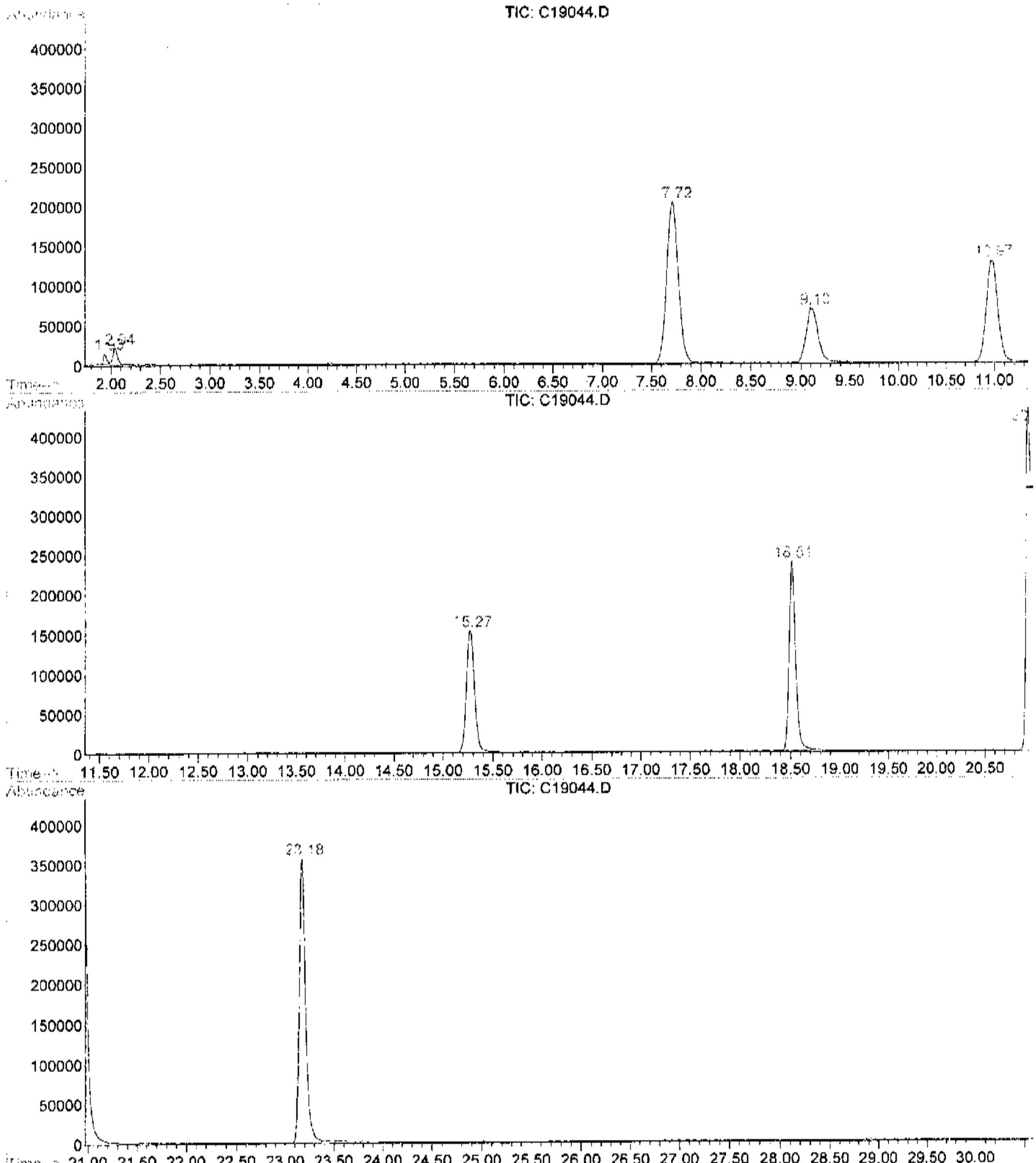
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C19044.D
Operator : MM
Acquired : 30 Sep 2007 7:17 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-020A
Misc Info : 5ML
Vial Number: 13
Quant File :TEST925.RES (RTE Integrator)



-538-

C19044.D TEST925.M Mon Oct 01 11:31:55 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ______ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-021H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19045.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19045.D Vial: 14
Acq On : 30 Sep 2007 7:55 pm Operator: MM
Sample : U0709313-021H Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:18 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	535464	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.98	114	389127	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.51	117	294089	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	234320	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.12	65	224754	48.19 ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery = 96.38%		
49) Toluene-d8	15.27	98	280291	50.13 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.26%		
54) Bromofluorobenzene	20.95	95	302799	51.98 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 103.96%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

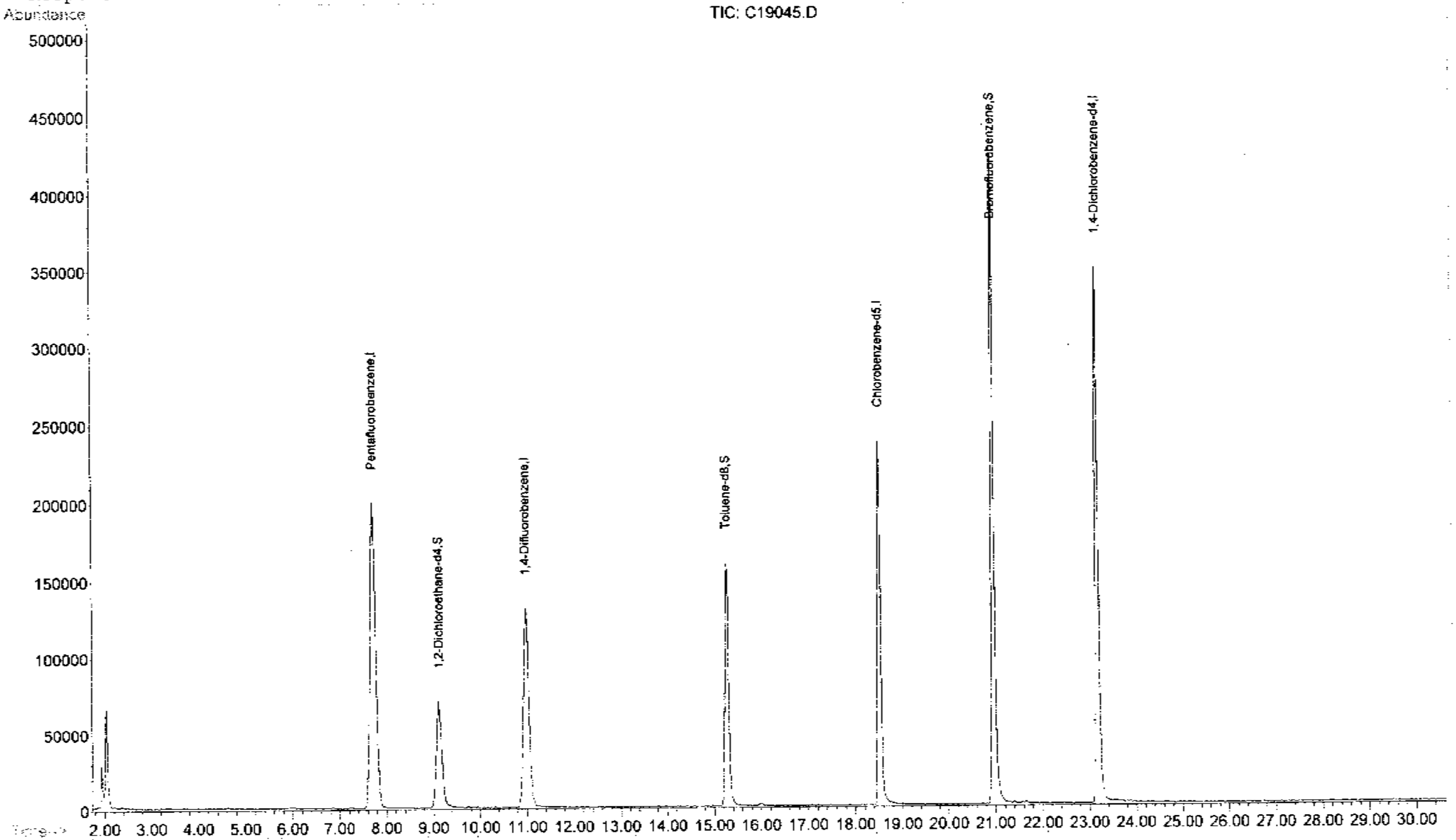
Quantitation Report

Data File : D:\DATA\C19045.D
Acq On : 30 Sep 2007 7:55 pm
Sample : U07C9313-021H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:18 2007

Vial: 14
Operator: MM
Inst : #12
Multiplr: 1.00

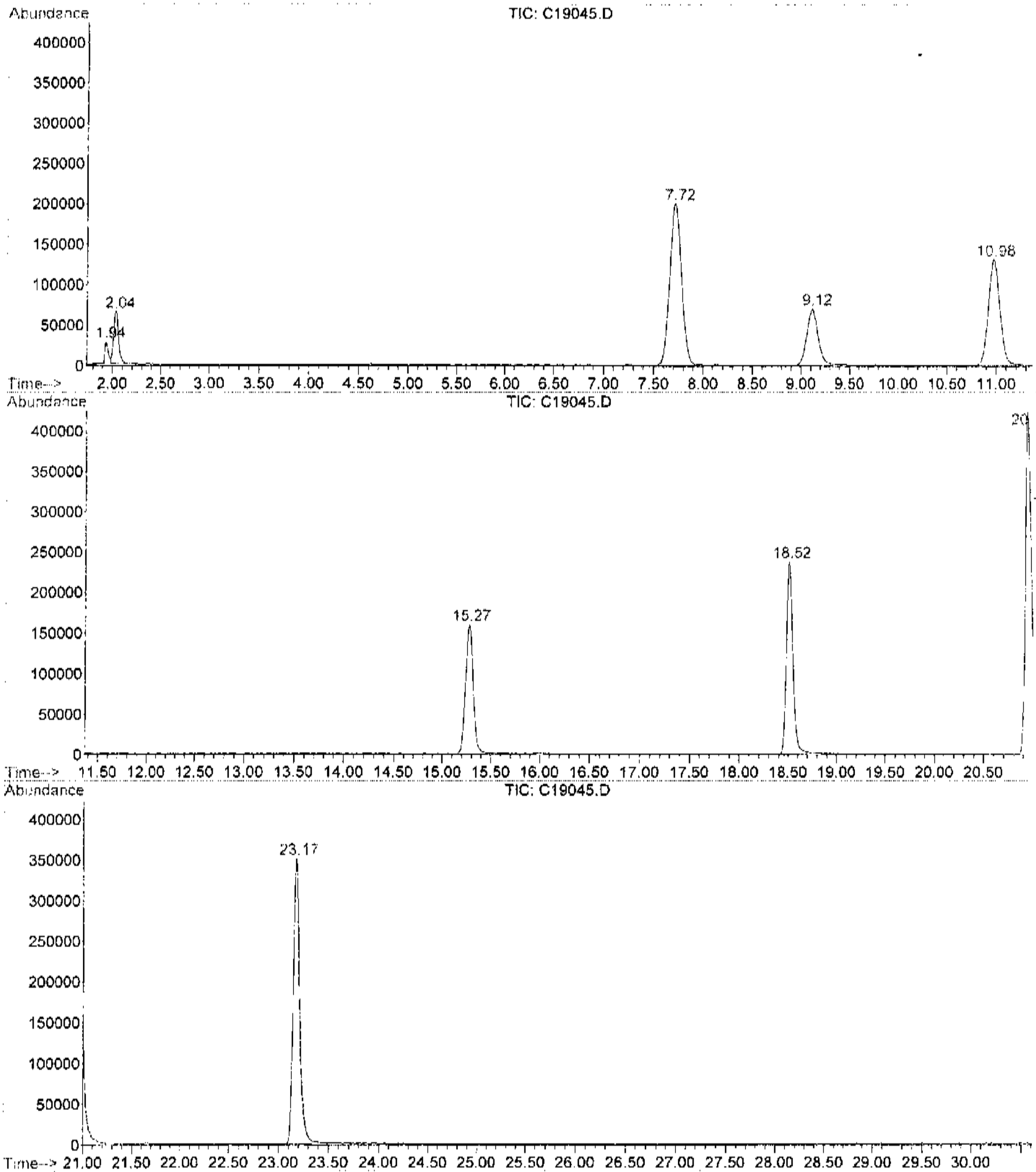
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C19045.D
Operator : MM
Acquired : 30 Sep 2007 7:55 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-021H
Misc Info : 5ML
Vial Number: 14
Quant File :TEST925.RES (RTE Integrator)



C19045.D TEST925.M Mon Oct 01 11:31:59 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-022H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19046.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19046.D
Acq On : 30 Sep 2007 8:33 pm
Sample : U0709313-022H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:19 2007

Vial: 15
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.71	168	562678	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.99	114	386487	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.52	117	294774	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	234505	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.10	65	222747	45.45 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 90.90%		
49) Toluene-d8	15.26	98	273880	49.32 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 98.64%		
54) Bromofluorobenzene	20.95	95	306533	52.98 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 105.96%		

Target Compounds Qvalue

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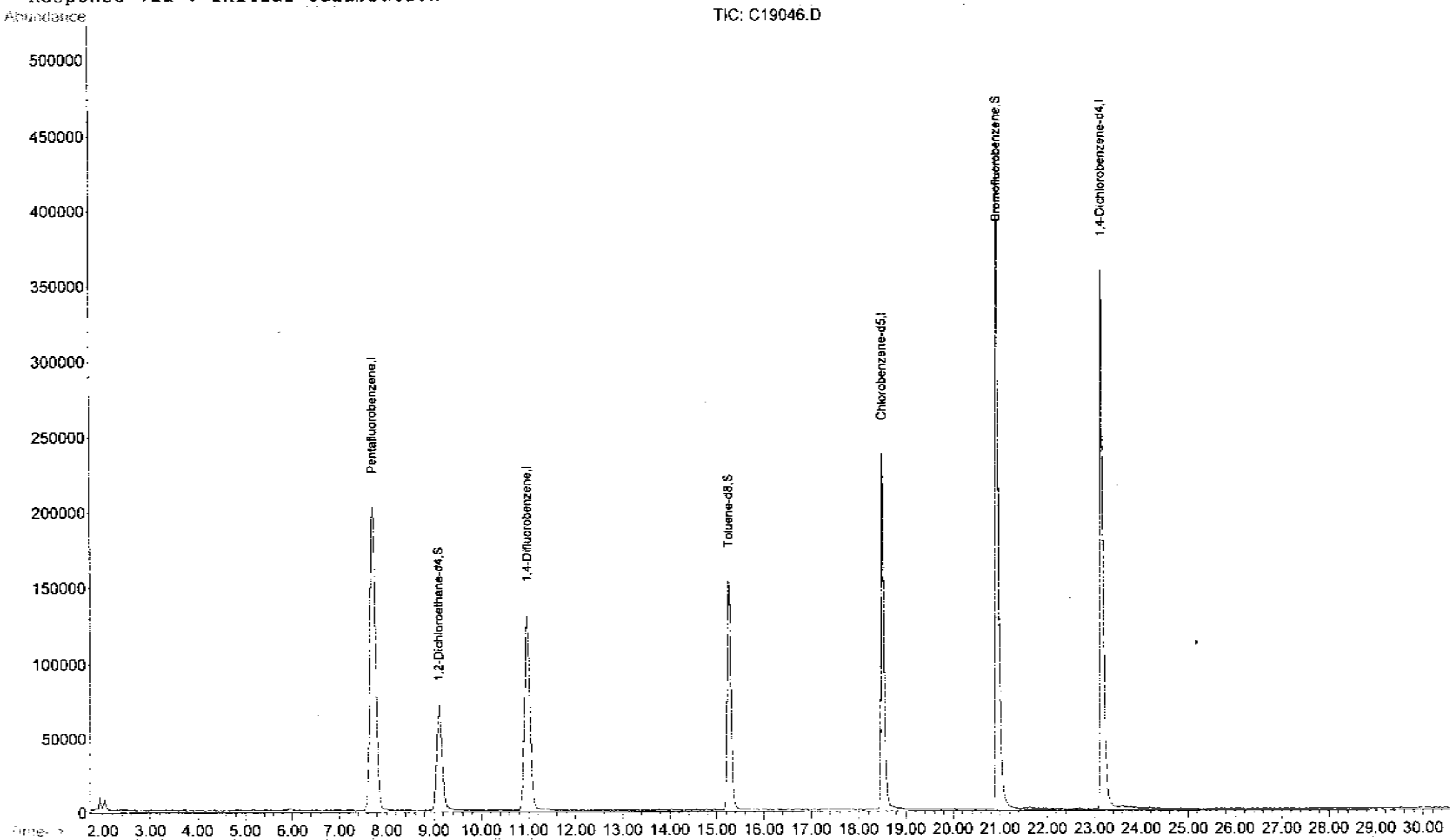
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19046.D
Acq On : 30 Sep 2007 8:33 pm
Sample : U0709313-022H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:19 2007

Vial: 15
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

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File        : D:\DATA\C19046.D
Operator    : MM
Acquired    : 30 Sep 2007   8:33 pm using AcqMethod TEST925
Instrument  :    #12
Sample Name: U0709313-022H
Misc Info   : 5ML
Vial Number: 15
Quant File : TEST925.RES (RTE Integrator)
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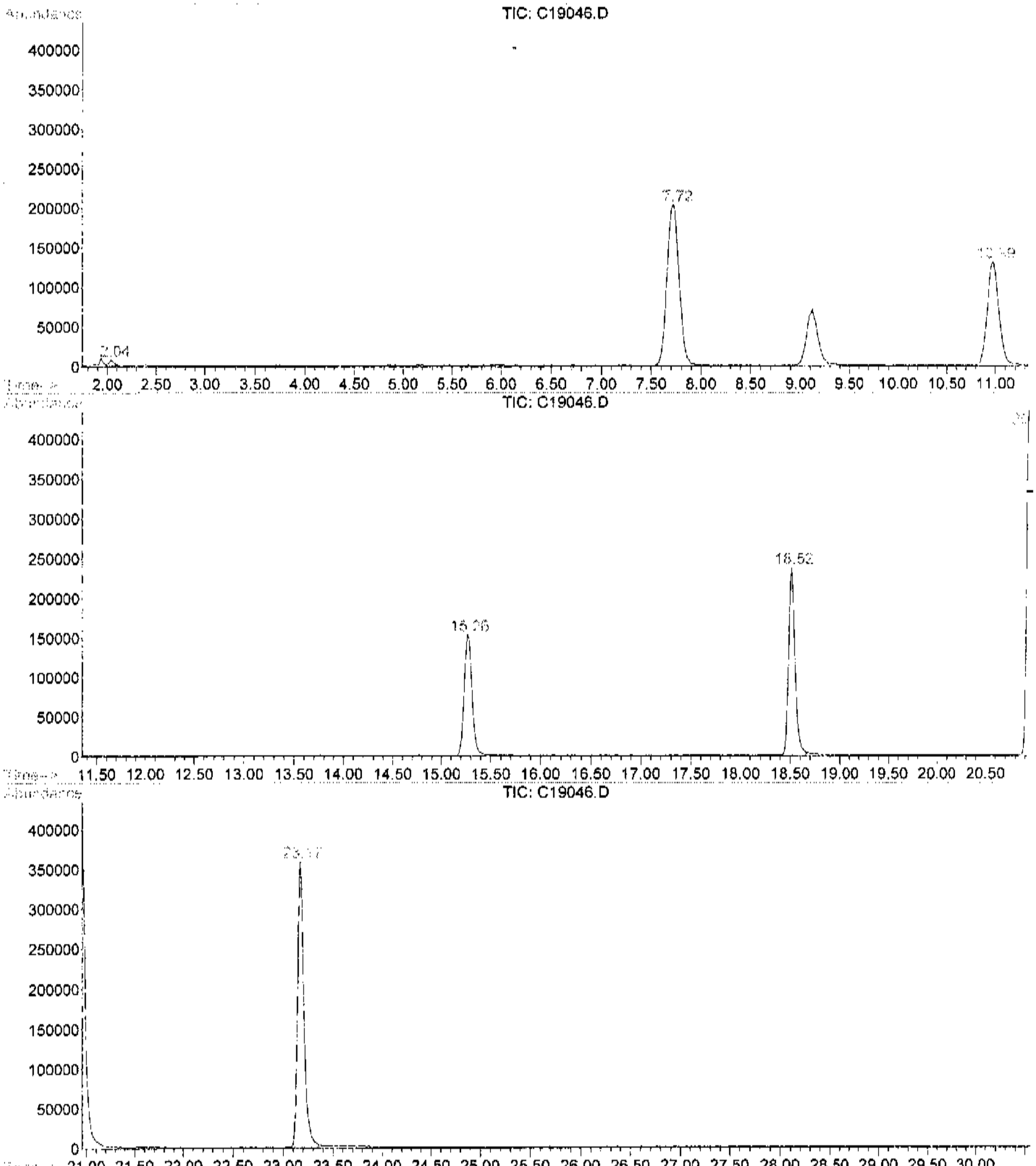

-550-

C19046.D   TEST925.M   Mon Oct 01 11:32:05 2007   12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. - Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. ____ Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-023H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19047.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-553-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19047.D
Acq On : 30 Sep 2007 9:11 pm
Sample : U0709313-023H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:19 2007

Vial: 16
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	537083	50.00	ug/L	0.00
35) 1,4-Difluorobenzene	10.99	114	391141	50.00	ug/L	0.03
55) Chlorobenzene-d5	18.51	117	297994	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	232147	50.00	ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.12	65	219397	46.90	ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery =	93.80%		
49) Toluene-d8	15.27	98	280491	49.91	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.82%		
54) Bromofluorobenzene	20.95	95	302971	51.74	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	103.48%		

Target Compounds Qvalue

-554-

(#) = qualifier out of range (m) = manual integration

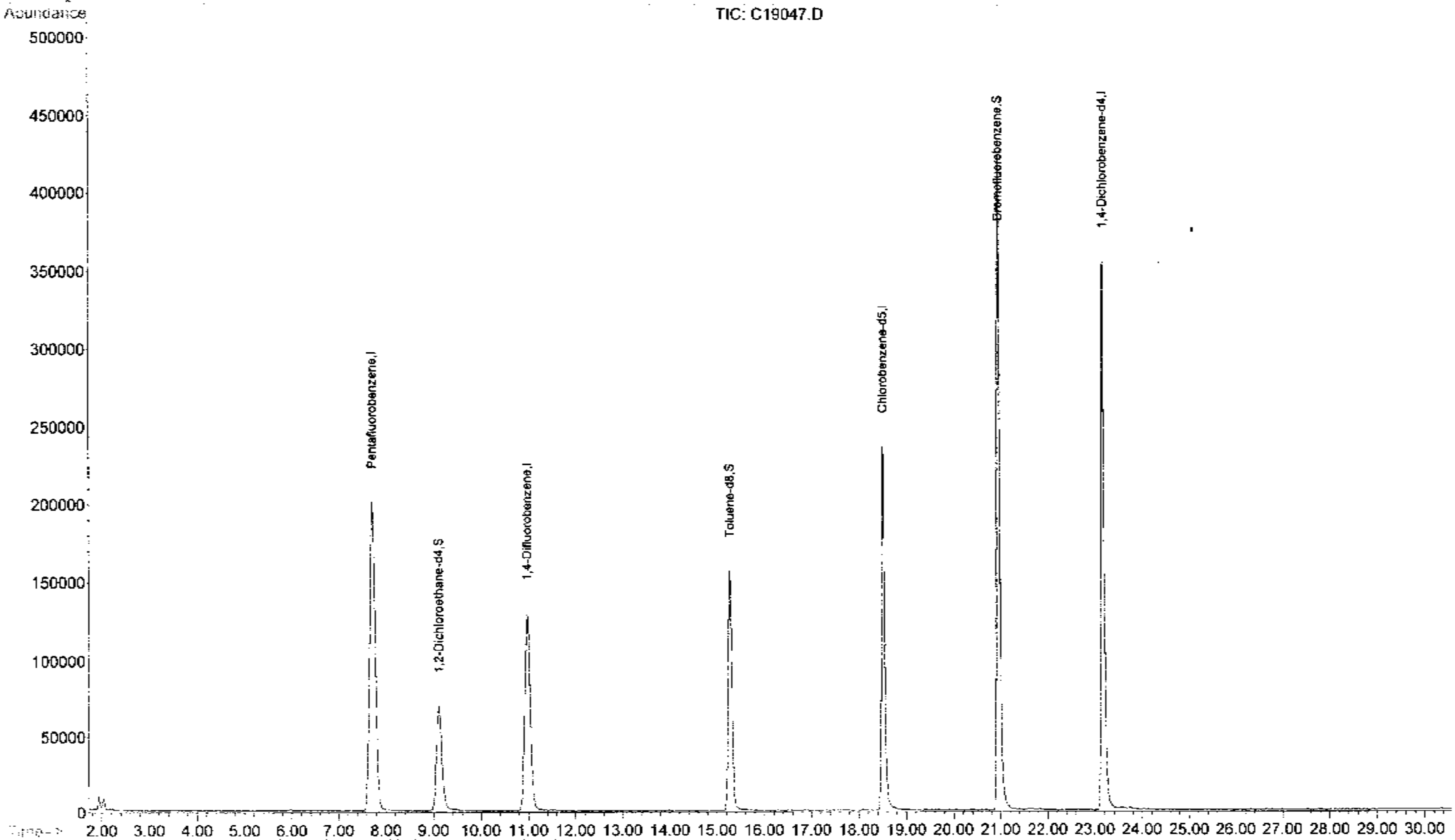
Quantitation Report

Data File : D:\DATA\C19047.D
Acq On : 30 Sep 2007 9:11 pm
Sample : U0709313-023H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:19 2007

Vial: 16
Operator: MM
Inst : #12
Multiplr: 1.00

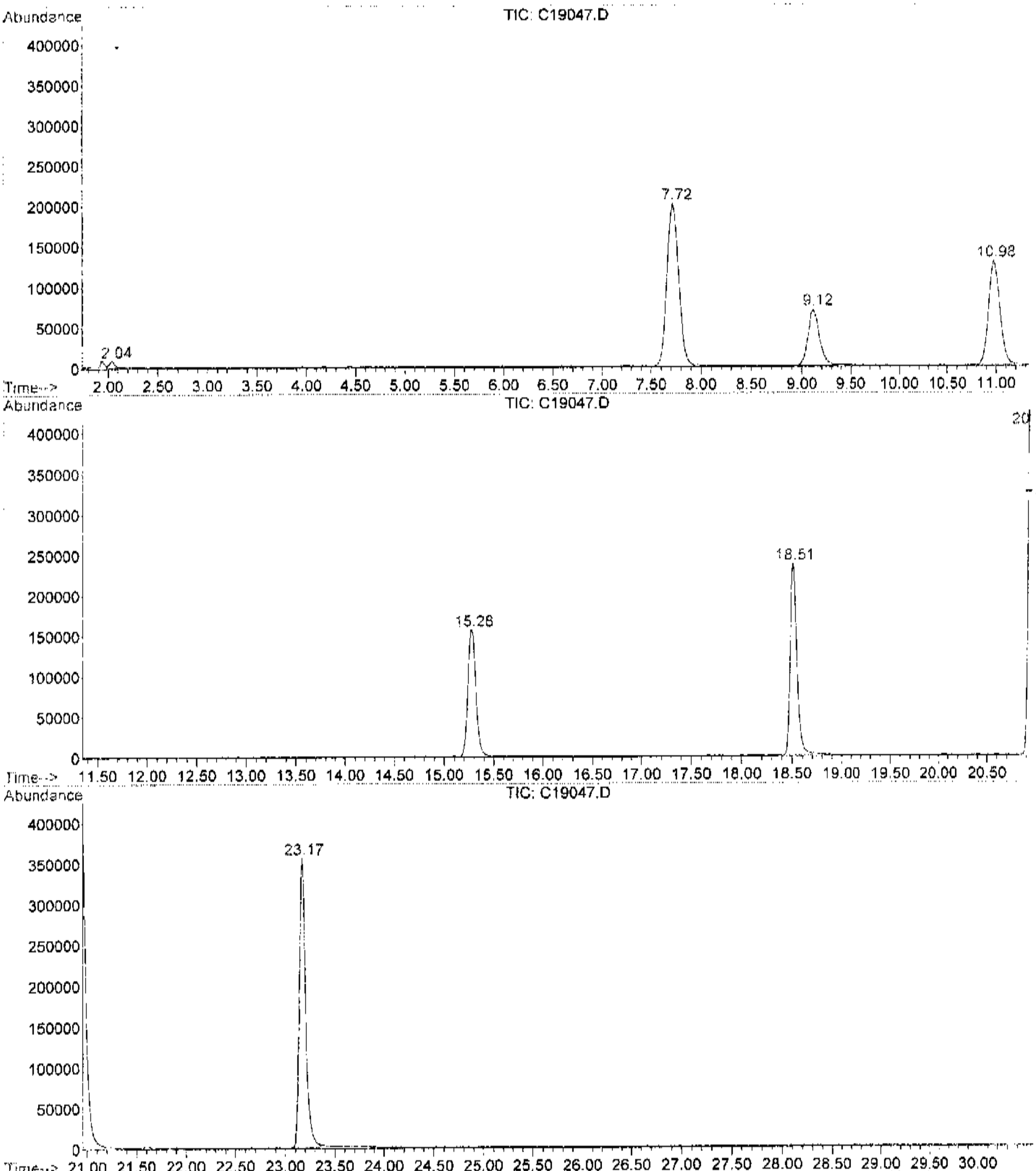
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\C19047.D
Operator    : MM
Acquired    : 30 Sep 2007   9:11 pm using AcqMethod TEST925
Instrument :    #12
Sample Name: U0709313-023H
Misc Info   : 5ML
Vial Number: 16
Quant File :TEST925.RES (RTE Integrator)
```



C19047.D   TEST925.M   Mon Oct 01 11:32:09 2007   12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK
C

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-024A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19048.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-559-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19048.D Vial: 17
Acq On : 30 Sep 2007 9:49 pm Operator: MM
Sample : U0709313-024A Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	548830	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.97	114	386505	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.51	117	296130	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.18	152	242407	50.00 ug/L	0.01

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.10	65	223998	46.86 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	93.72%	
49) Toluene-d8	15.27	98	276676	49.82 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.64%	
54) Bromofluorobenzene	20.95	95	305629	52.82 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	105.64%	

Target Compounds Qvalue

-560-

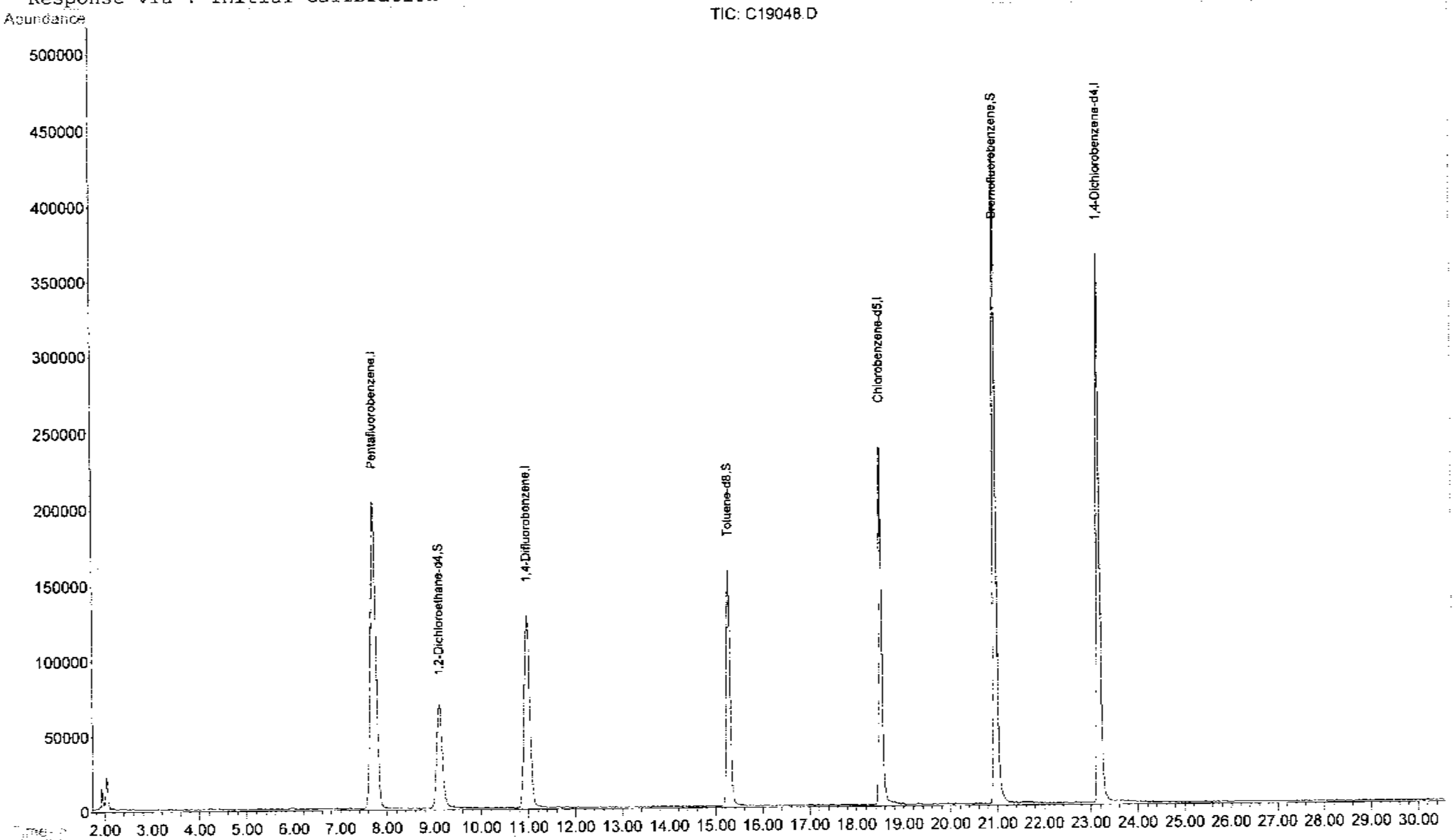
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19048.D
Acq On : 30 Sep 2007 9:49 pm
Sample : U0709313-024A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007

Vial: 17
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

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File        : D:\DATA\C19048.D
Operator    : MM
Acquired    : 30 Sep 2007   9:49 pm using AcqMethod TEST925
Instrument :    #12
Sample Name: U0709313-024A
Misc Info  : 5ML
Vial Number: 17
Quant File :TEST925.RES (RTE Integrator)
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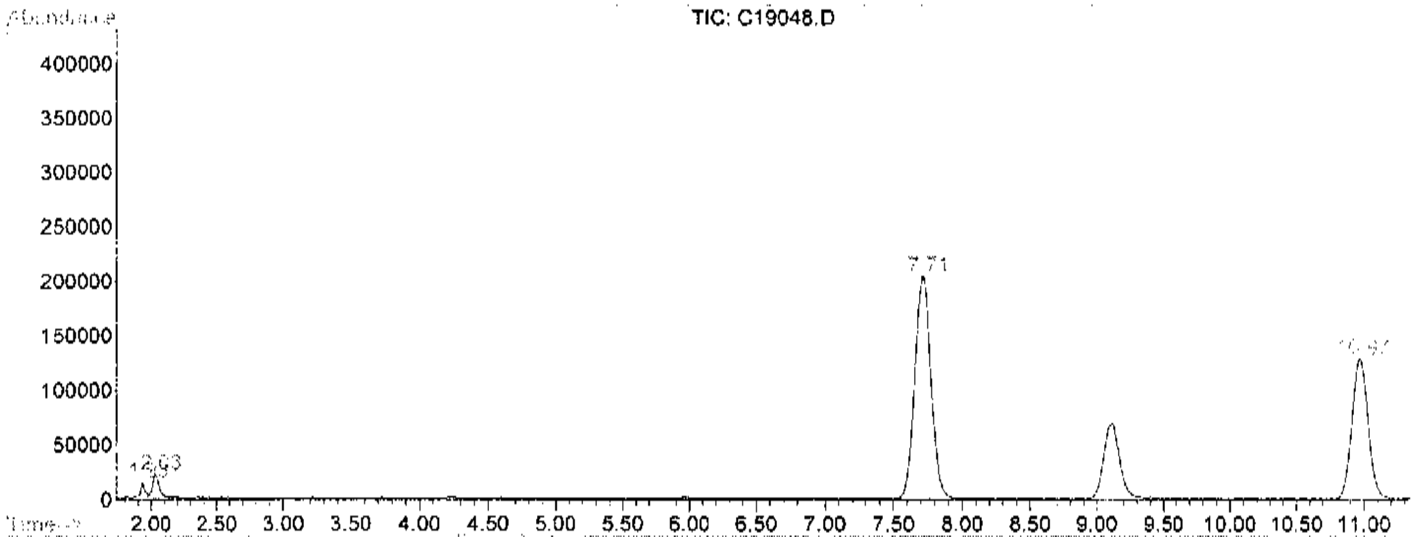
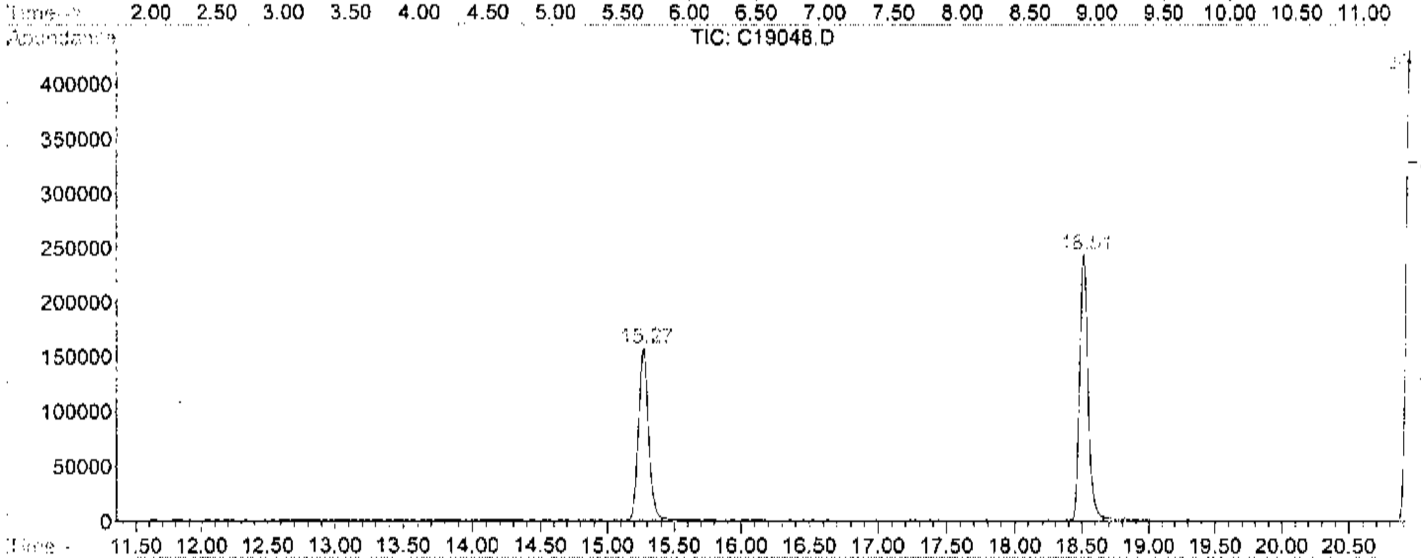
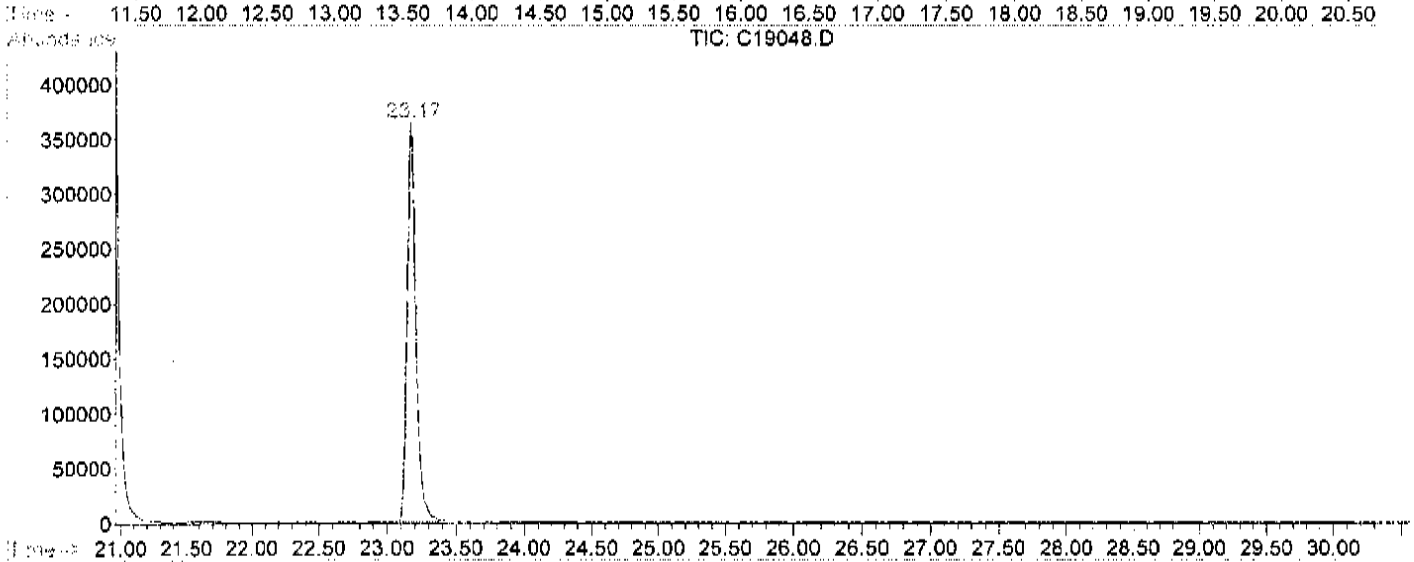




-562-



C19048.D   TEST925.M   Mon Oct 01 11:32:14 2007   12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-025A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19049.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-565-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C19049.D Vial: 18
Acq On : 30 Sep 2007 10:27 pm Operator: MM
Sample : U0709313-025A Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	470837	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.98	114	344048	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.51	117	262060	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.16	152	205568	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.11	65	193550	47.20 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	94.40%	
49) Toluene-d8	15.28	98	245595	49.68 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.36%	
54) Bromofluorobenzene	20.94	95	266314	51.71 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	103.42%	

Target Compounds Qvalue

-566-

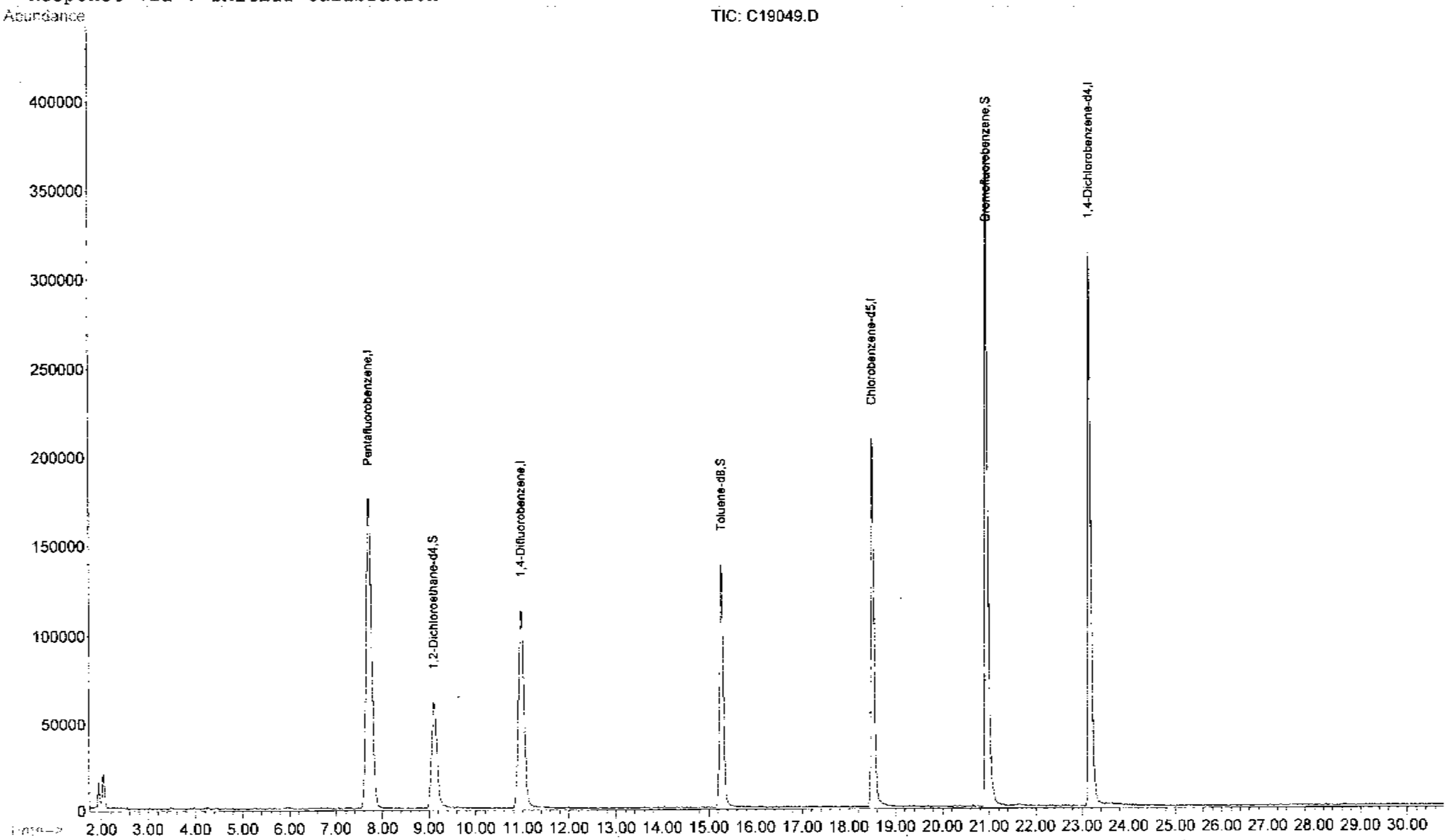
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19049.D
Acq On : 30 Sep 2007 10:27 pm
Sample : U0709313-025A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007

Vial: 18
Operator: MM
Inst : #12
Multiplr: 1.00

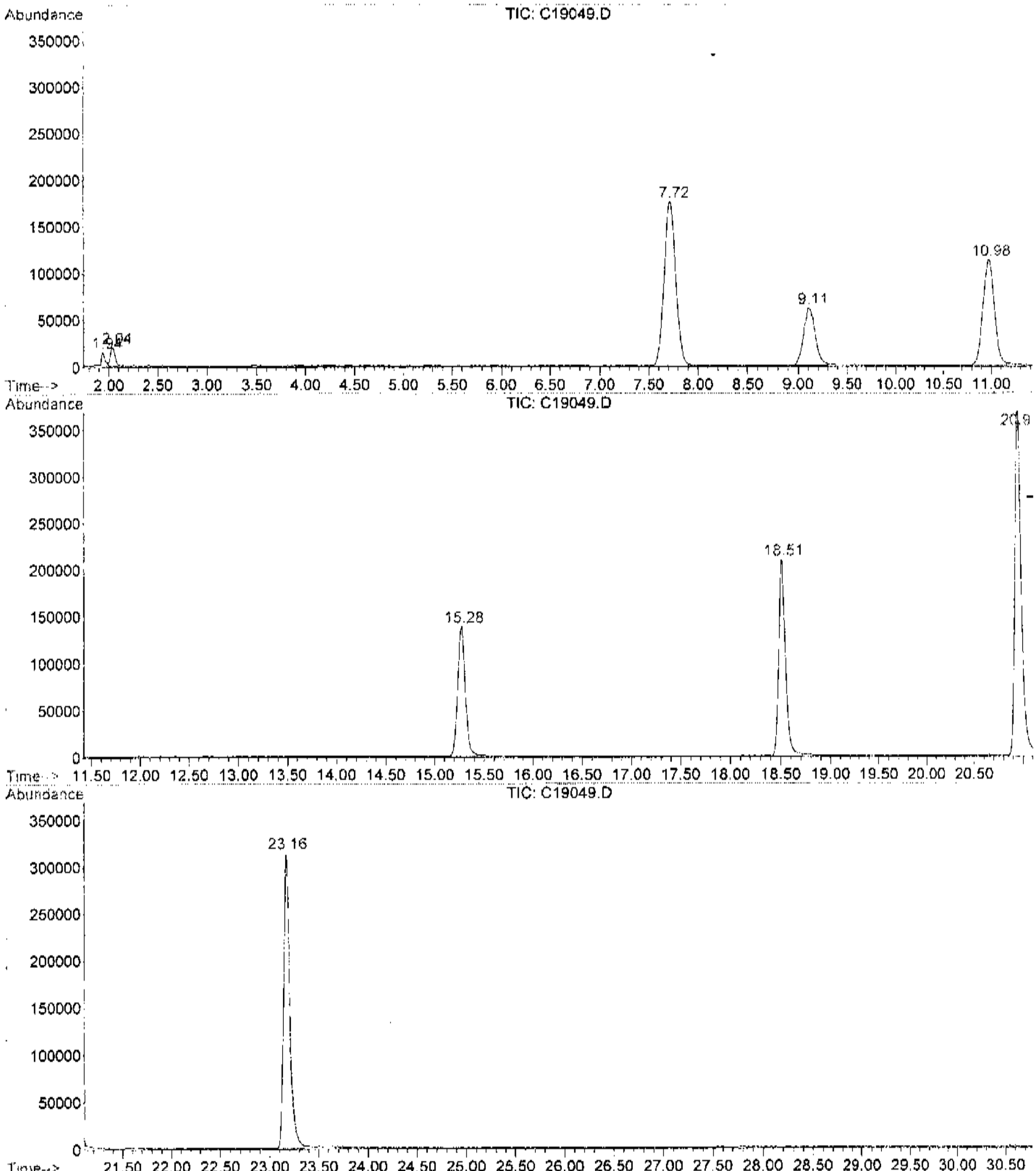
Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA B260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C19049.D
Operator : MM
Acquired : 30 Sep 2007 10:27 pm using AcqMethod TEST925
Instrument : #12
Sample Name: U0709313-025A
Misc Info : 5ML
Vial Number: 18
Quant File :TEST925.RES (RTE Integrator)



-568-

C19049.D TEST925.M Mon Oct 01 11:32:18 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

-569-

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

-570-

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-026H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15526.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-571-

```
Data File : D:\DATA\E15526.D                               Vial: 7
Acq On    :  1 Oct 2007   5:34 pm                      Operator: MG
Sample    : U0709313-026H                              Inst    : Voa Instr
Misc      : 5ML                                        Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Oct  1 18:16 2007              Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                   R.T. QIon  Response  Conc Units Dev(Min)
-----------------------------------------------------------------------------
  1) Pentafluorobenzene              14.09  168    74945    50.00 ug/L   -0.07
 36) 1,4-Difluorobenzene             16.01  114   100369    50.00 ug/L   -0.06
 56) Chlorobenzene-d5                24.12  117    86684    50.00 ug/L   -0.07
 87) 1,4-Dichlorobenzene-d4          31.01  152    54706    50.00 ug/L   -0.07

 System Monitoring Compounds
 33) 1,2-Dichloroethane-d4           15.02   65    54282    51.47 ug/L  -0.07
  Spiked Amount      50.000     Range  76 - 118    Recovery    =  102.94%
 50) Toluene-d8                      19.98   98   101880    47.78 ug/L  -0.07
  Spiked Amount      50.000     Range  88 - 110    Recovery    =   95.56%
 55) Bromofluorobenzene              27.55   95    51160    48.01 ug/L  -0.07
  Spiked Amount      50.000     Range  86 - 115    Recovery    =   96.02%

 Target Compounds                                                     Qvalue
```

-572-

```
Data File : D:\DATA\E15526.D                         Vial: 7
Acq On    :  1 Oct 2007   5:34 pm                 Operator: MG
Sample    : U0709313-026H                         Inst     : Voa Instr
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 18:16 2007          Quant Results File: E092507W.RES

Method       : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
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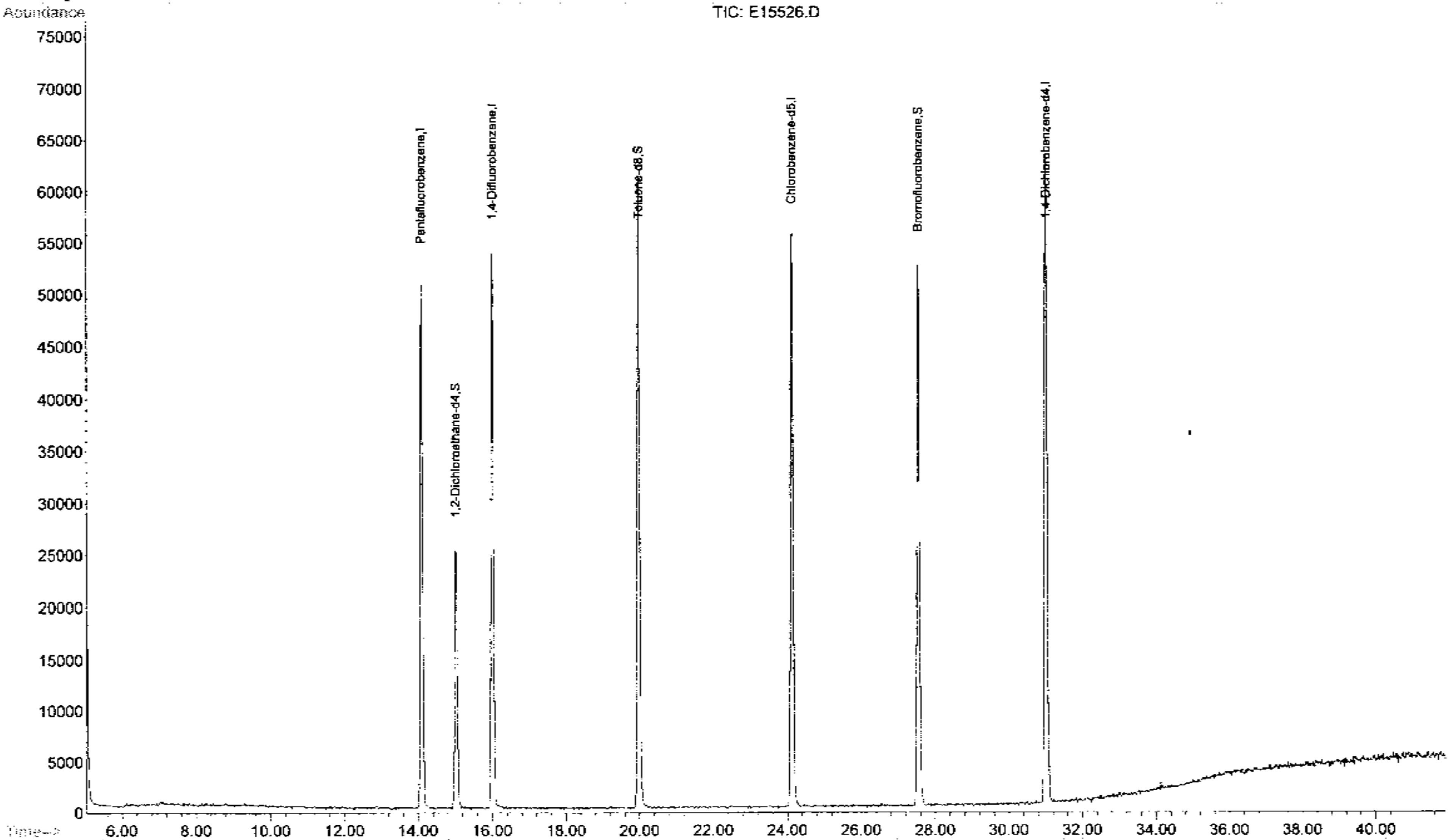
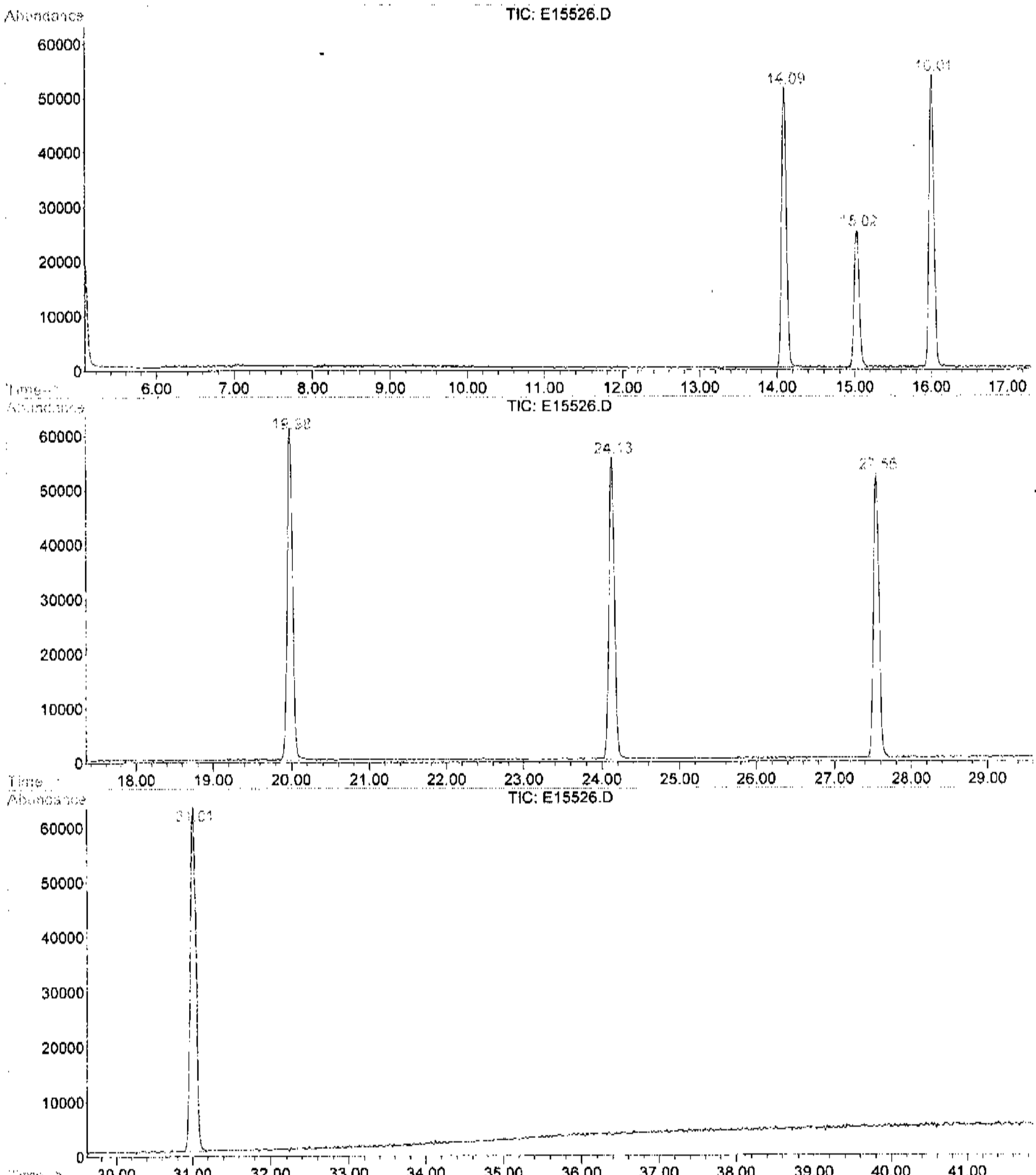


LSC Report - Integrated Chromatogram

File : D:\DATA\E15526.D
Operator : MG
Acquired : 1 Oct 2007 5:34 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-026H
Misc Info : 5ML
Vial Number: 7
Quant File :E092507W.RES (RTE Integrator)



E15526.D E092507W.M Tue Oct 02 10:53:01 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-027H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15527.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-577-

Data File : D:\DATA\E15527.D
Acq On : 1 Oct 2007 6:23 pm
Sample : U0709313-027H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 19:05 2007

Vial: 8
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	68924	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.01	114	92584	50.00 ug/L	-0.06
56) Chlorobenzene-d5	24.13	117	81039	50.00 ug/L	-0.06
87) 1,4-Dichlorobenzene-d4	31.01	152	50286	50.00 ug/L	-0.07

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.02	65	51339	52.93 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery = 105.86%		
50) Toluene-d8	19.97	98	95215	48.41 ug/L	-0.08
Spiked Amount 50.000	Range 88 - 110		Recovery = 96.82%		
55) Bromofluorobenzene	27.55	95	47768	48.60 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery = 97.20%		

Target Compounds Qvalue

-578-

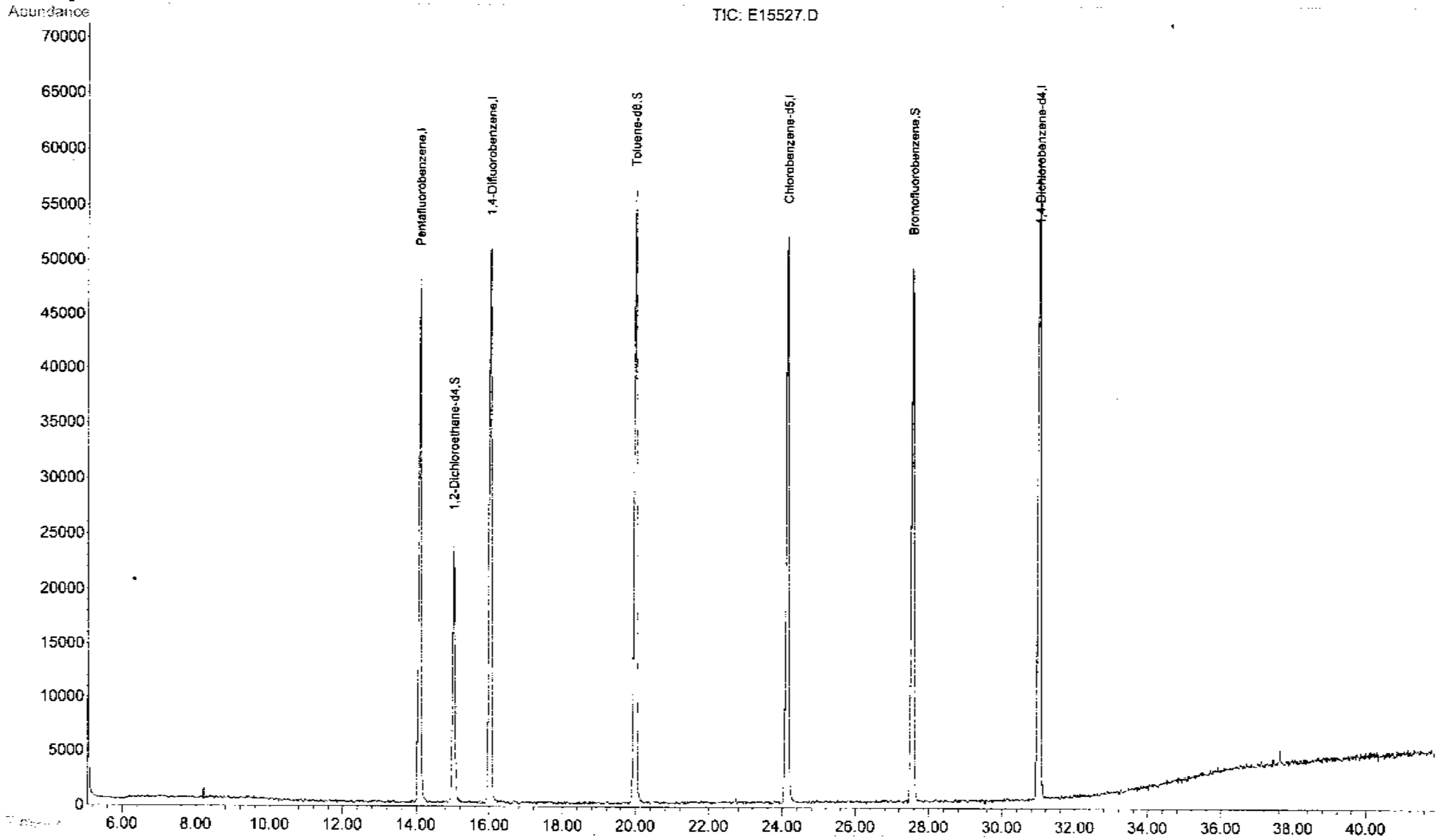
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15527.D
Acq On : 1 Oct 2007 6:23 pm
Sample : U0709313-027H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 19:05 2007

Vial: 8
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\E15527.D
Operator    : MG
Acquired    :  1 Oct 2007   6:23 pm using AcqMethod E092507W
Instrument :   Voa Instr
Sample Name: U0709313-027H
Misc Info   : 5ML
Vial Number: 8
Quant File :E092507W.RES (RTE Integrator)
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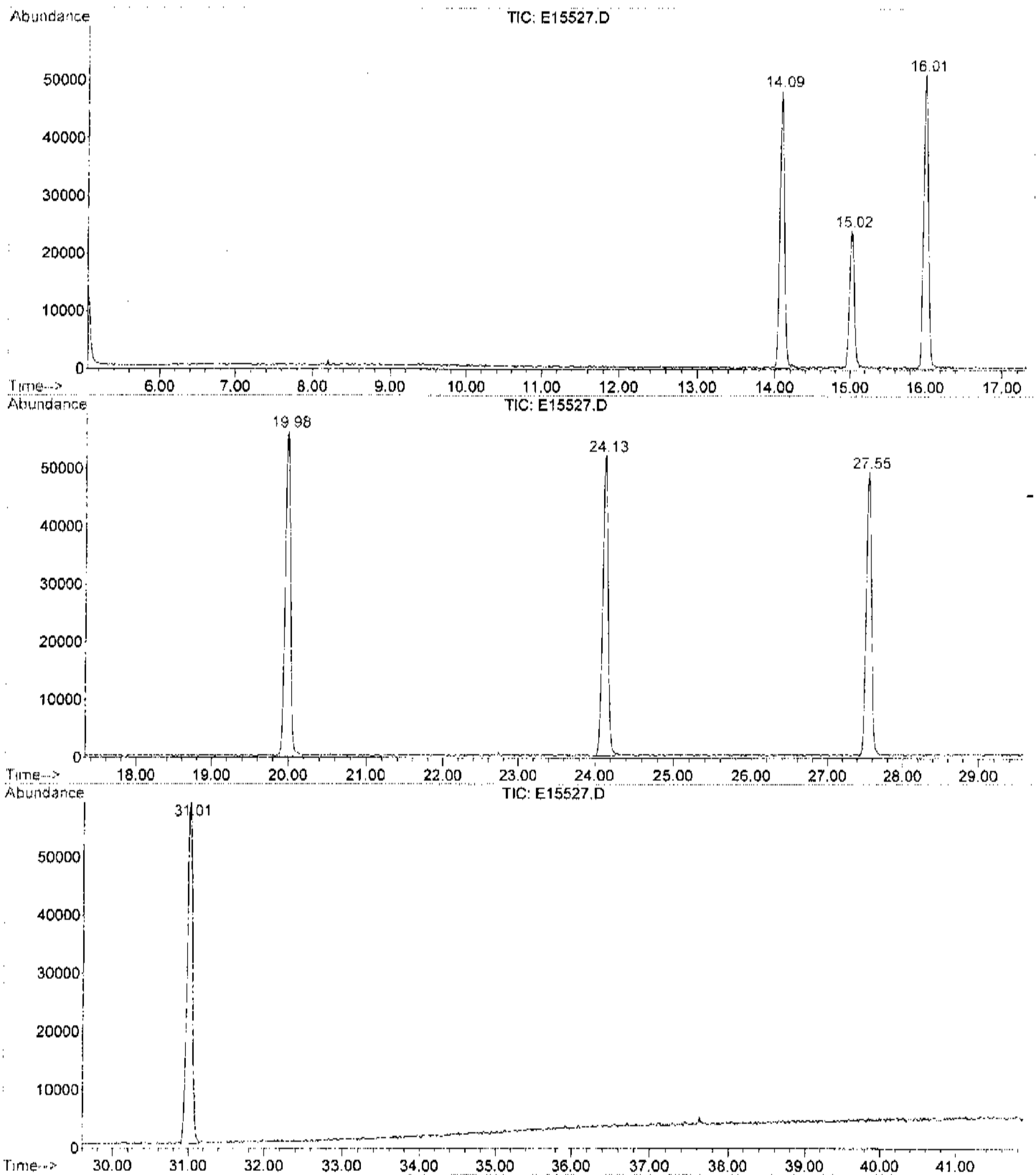


-580-

E15527.D   E092507W.M   Tue Oct 02 10:53:16 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

-581-

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

-582-

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-028H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15528.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15528.D
Acq On : 1 Oct 2007 7:11 pm
Sample : U0709313-028H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 19:53 2007

Vial: 9
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	67251	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	88594	50.00 ug/L	-0.07
56) Chlorobenzene-d5	24.12	117	77905	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.01	152	50079	50.00 ug/L	-0.07
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.02	65	50674	53.55 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery =	107.10%	
50) Toluene-d8	19.98	98	90997	48.35 ug/L	-0.07
Spiked Amount 50.000	Range 88 - 110		Recovery =	96.70%	
55) Bromofluorobenzene	27.55	95	45857	48.76 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	97.52%	

Target Compounds Qvalue

-584-

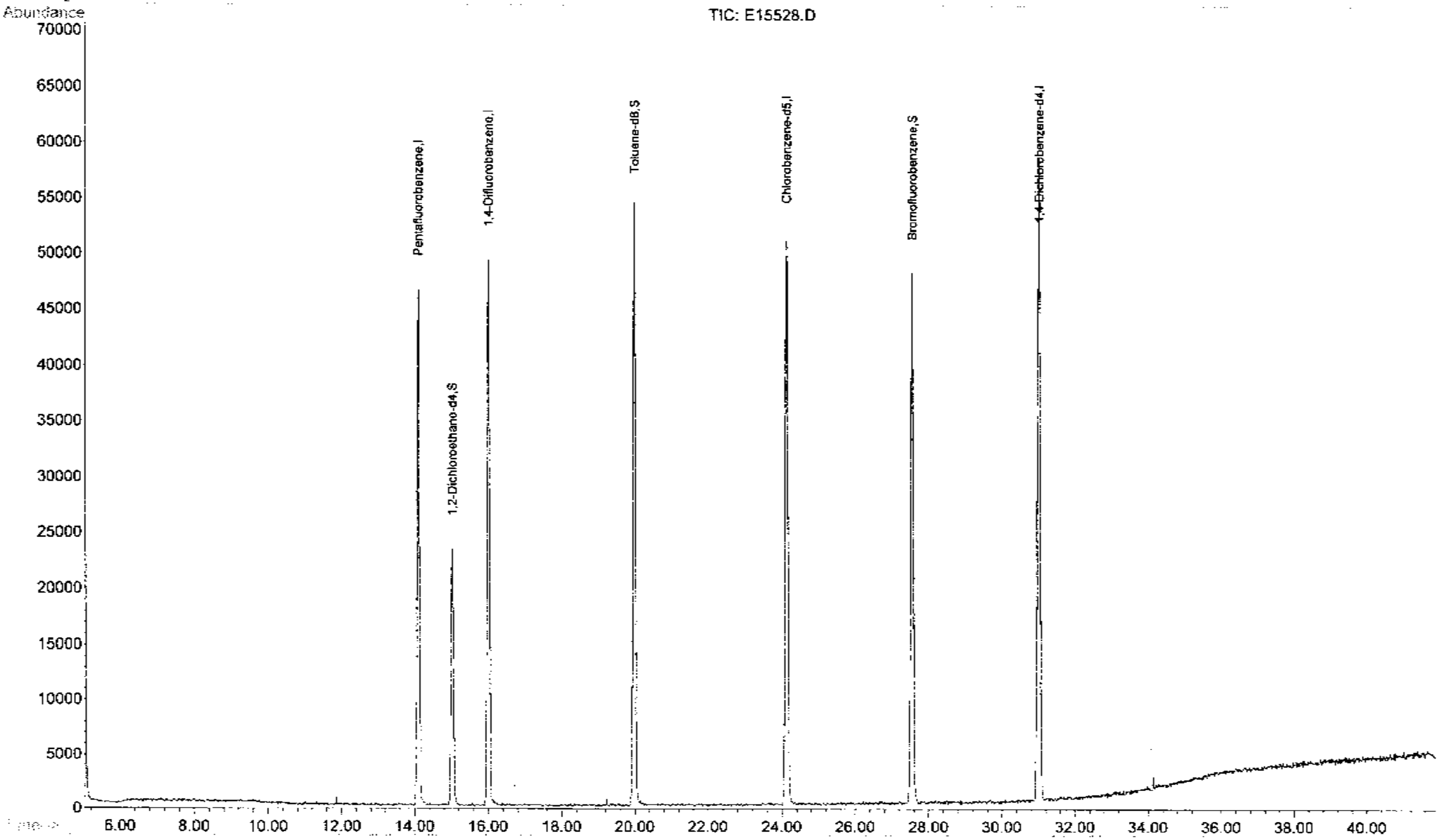
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15528.D
Acq On : 1 Oct 2007 7:11 pm
Sample : U0709313-028H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 19:53 2007

Vial: 9
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

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File        : D:\DATA\E15528.D
Operator    : MG
Acquired    :  1 Oct 2007   7:11 pm using AcqMethod E092507W
Instrument  :   Voa Instr
Sample Name: U0709313-028H
Misc Info   : 5ML
Vial Number: 9
Quant File :E092507W.RES (RTE Integrator)
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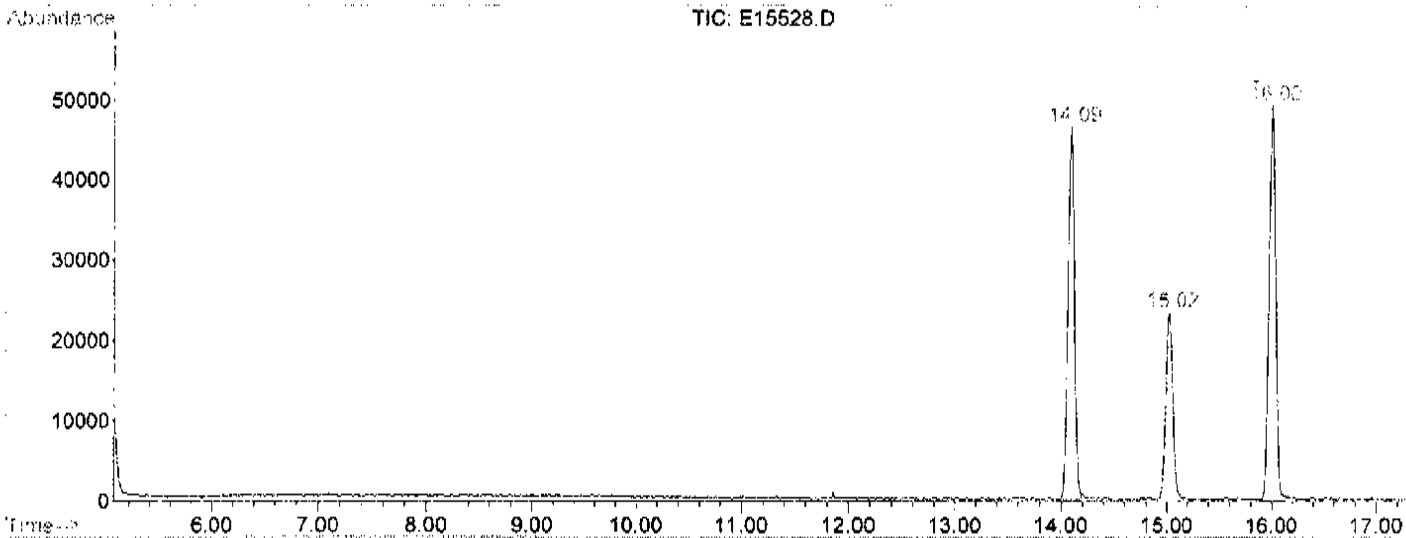
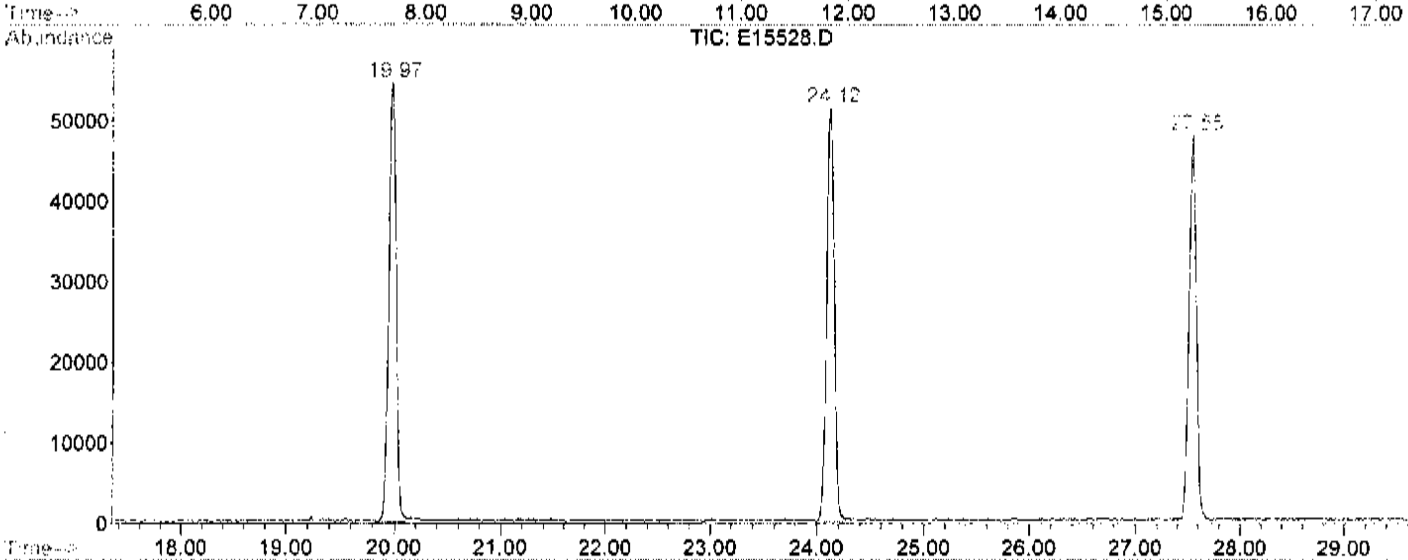
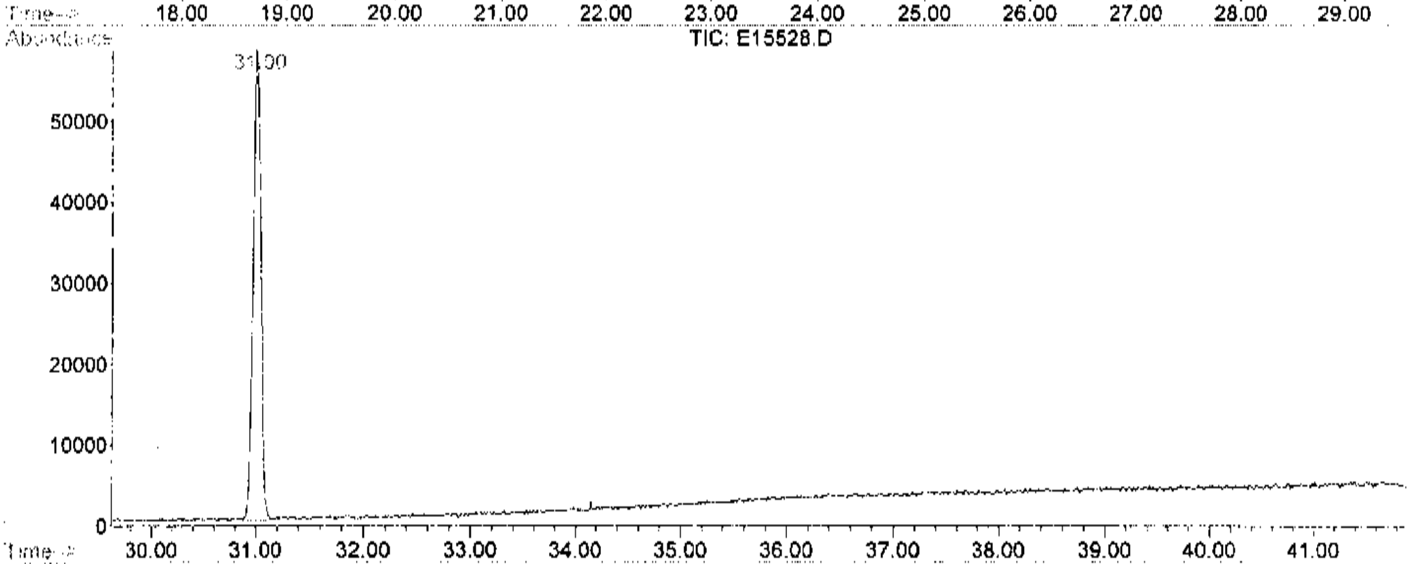




-586-



E15528.D E092507W.M   Tue Oct 02 10:53:37 2007

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ULI TB
D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ____ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15529.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15529.D
Acq On : 1 Oct 2007 8:01 pm
Sample : U0709313-029A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 20:43 2007

Vial: 10
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	63670	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	85027	50.00 ug/L	-0.06
56) Chlorobenzene-d5	24.11	117	74922	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.01	152	47708	50.00 ug/L	-0.07
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.02	65	50466	56.33 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery =	112.66%	
50) Toluene-d8	19.98	98	87373	48.37 ug/L	-0.07
Spiked Amount 50.000	Range 88 - 110		Recovery =	96.74%	
55) Bromofluorobenzene	27.54	95	44471	49.27 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.54%	

Target Compounds Qvalue

-590-

(#) = qualifier out of range (m) = manual integration
E15529.D E092507W.M Tue Oct 02 10:40:56 2007

```
Data File : D:\DATA\E15529.D                          Vial: 10
Acq On    :  1 Oct 2007   8:01 pm                 Operator: MG
Sample    : U0709313-029A                         Inst     : Voa Instr
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 20:43 2007            Quant Results File: E092507W.RES

Method       : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
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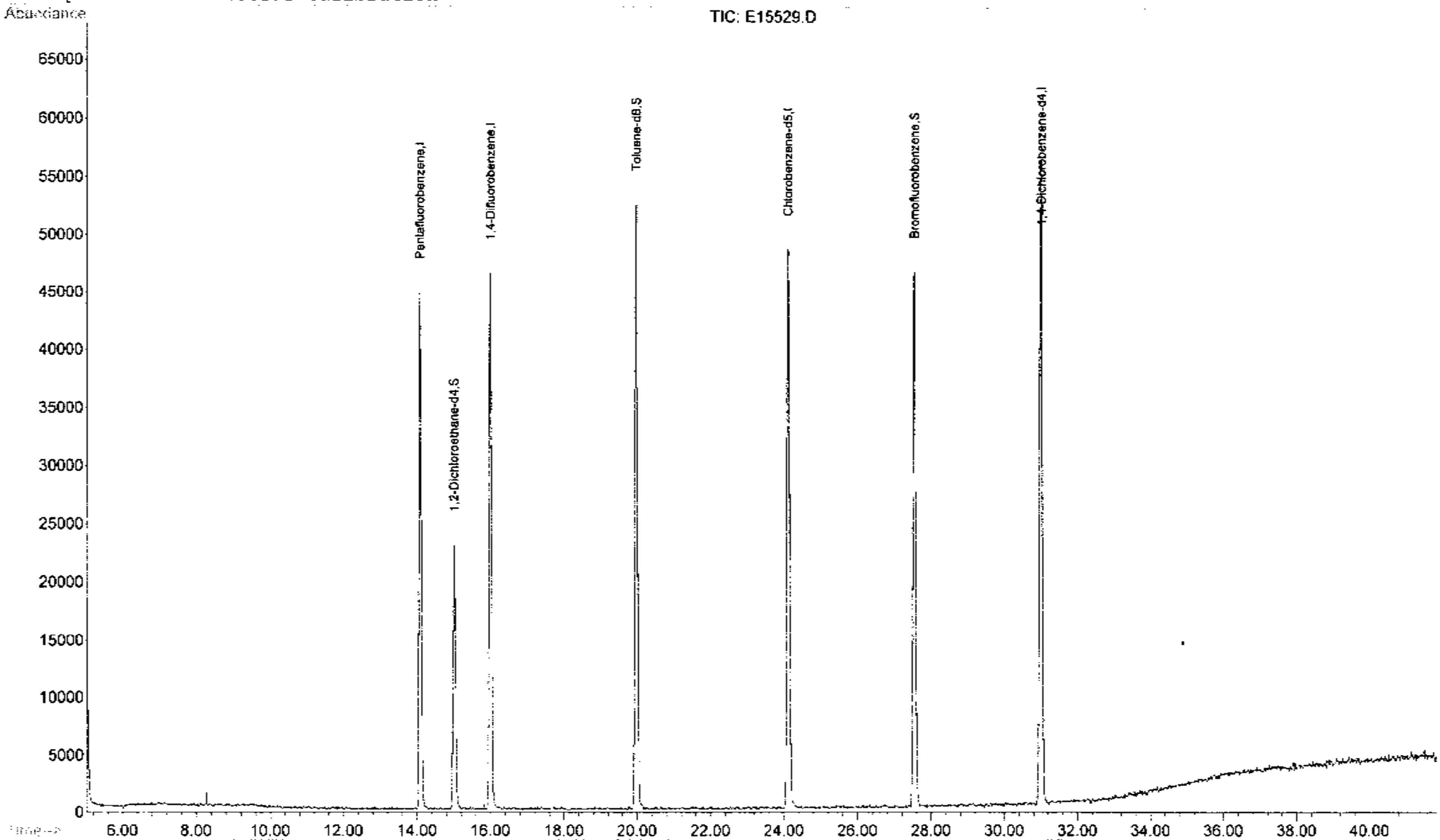
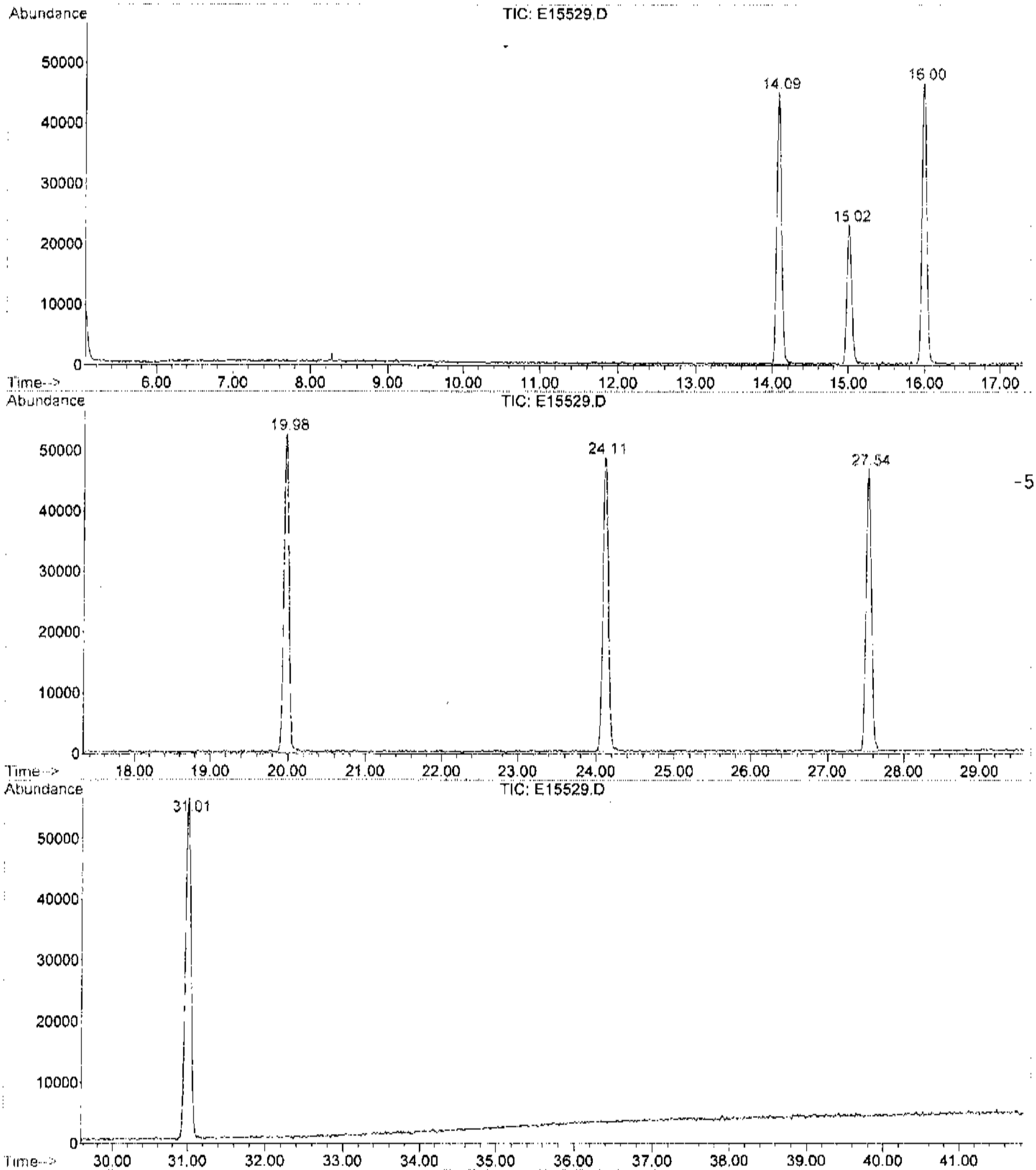


LSC Report - Integrated Chromatogram

File : D:\DATA\E15529.D
Operator : MG
Acquired : 1 Oct 2007 8:01 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-029A
Misc Info : 5ML
Vial Number: 10
Quant File :E092507W.RES (RTE Integrator)



-592-

E15529.D E092507W.M Tue Oct 02 10:53:58 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15530.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-595-

Data File : D:\DATA\E15530.D   Vial: 11
Acq On : 1 Oct 2007 8:50 pm   Operator: MG
Sample : U0709313-030A   Inst : Voa Instr
Misc : 5ML   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 10:34 2007   Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	62642	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	83285	50.00 ug/L	-0.07
56) Chlorobenzene-d5	24.12	117	72657	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.00	152	46407	50.00 ug/L	-0.08
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.02	65	49624	56.29 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery =	112.58%	
50) Toluene-d8	19.97	98	84484	47.75 ug/L	-0.08
Spiked Amount 50.000	Range 88 - 110		Recovery =	95.50%	
55) Bromofluorobenzene	27.53	95	43347	49.03 ug/L	-0.08
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.06%	

Target Compounds   Qvalue

-596-

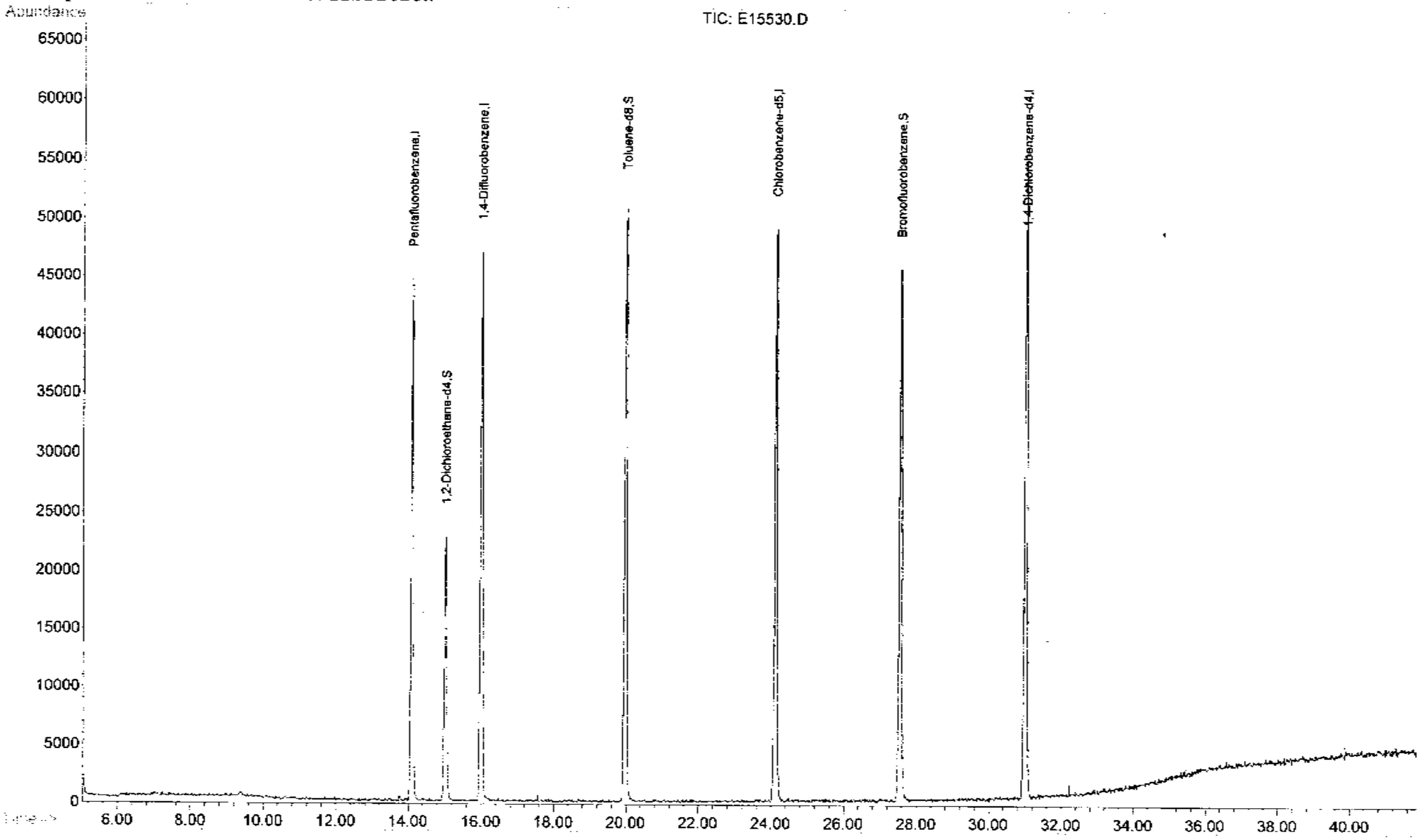
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15530.D
Acq On : 1 Oct 2007 8:50 pm
Sample : U0709313-030A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 10:34 2007

Vial: 11
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

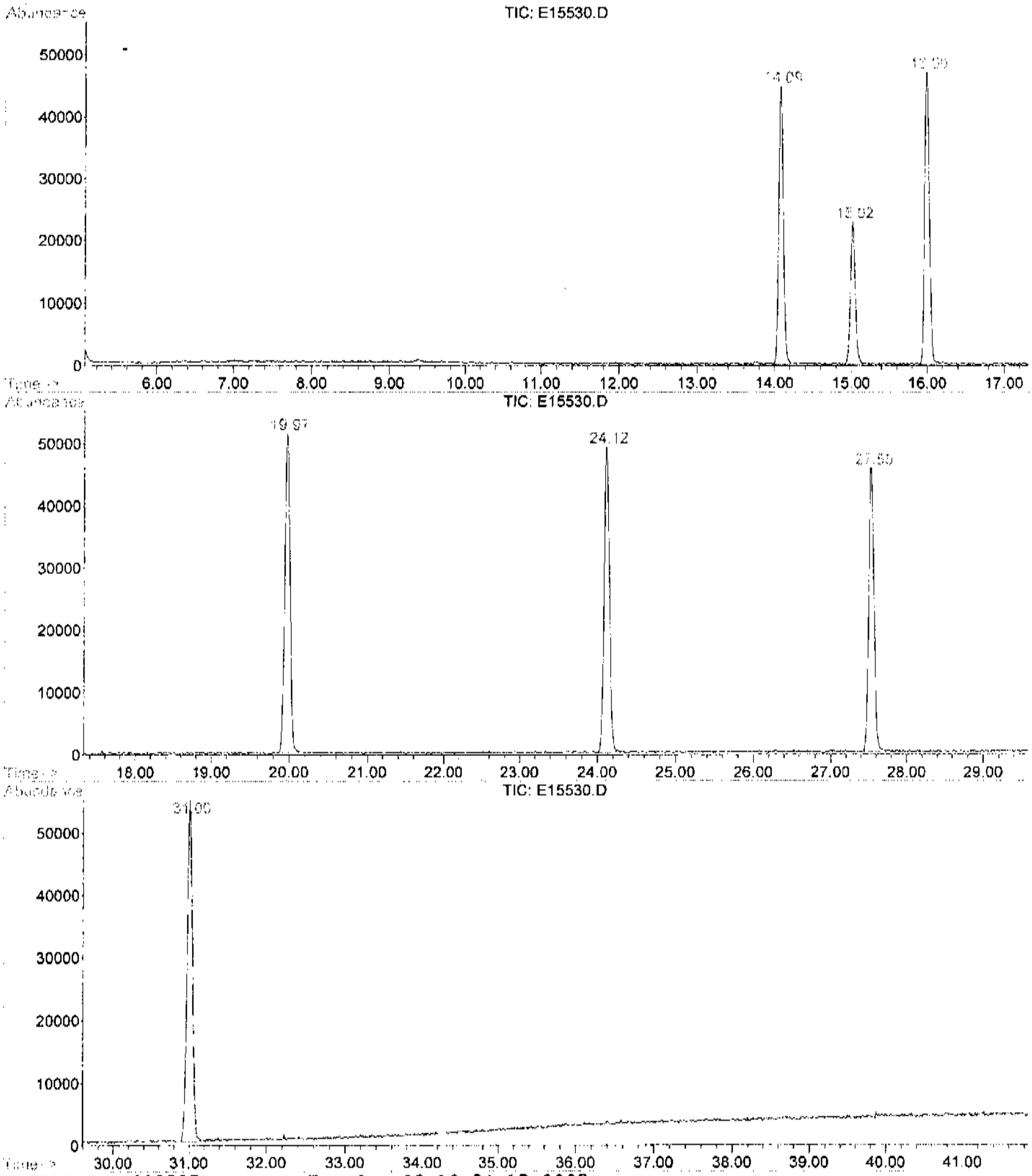
Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15530.D
Operator : MG
Acquired : 1 Oct 2007 8:50 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-030A
Misc Info : 5ML
Vial Number: 11
Quant File :E092507W.RES (RTE Integrator)



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E15530.D E092507W.M Tue Oct 02 10:54:17 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15531.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15531.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

-600-

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ________ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-031H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15531.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ________ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15531.D
Acq On : 1 Oct 2007 9:39 pm
Sample : U0709313-031H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 22:21 2007

Vial: 12
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	60723	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	81026	50.00 ug/L	-0.06
56) Chlorobenzene-d5	24.12	117	71764	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.01	152	45383	50.00 ug/L	-0.07
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.02	65	48188	56.39 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery =	112.78%	
50) Toluene-d8	19.98	98	83695	48.63 ug/L	-0.07
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.26%	
55) Bromofluorobenzene	27.54	95	40612	47.21 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	94.42%	

Target Compounds Qvalue

-602-

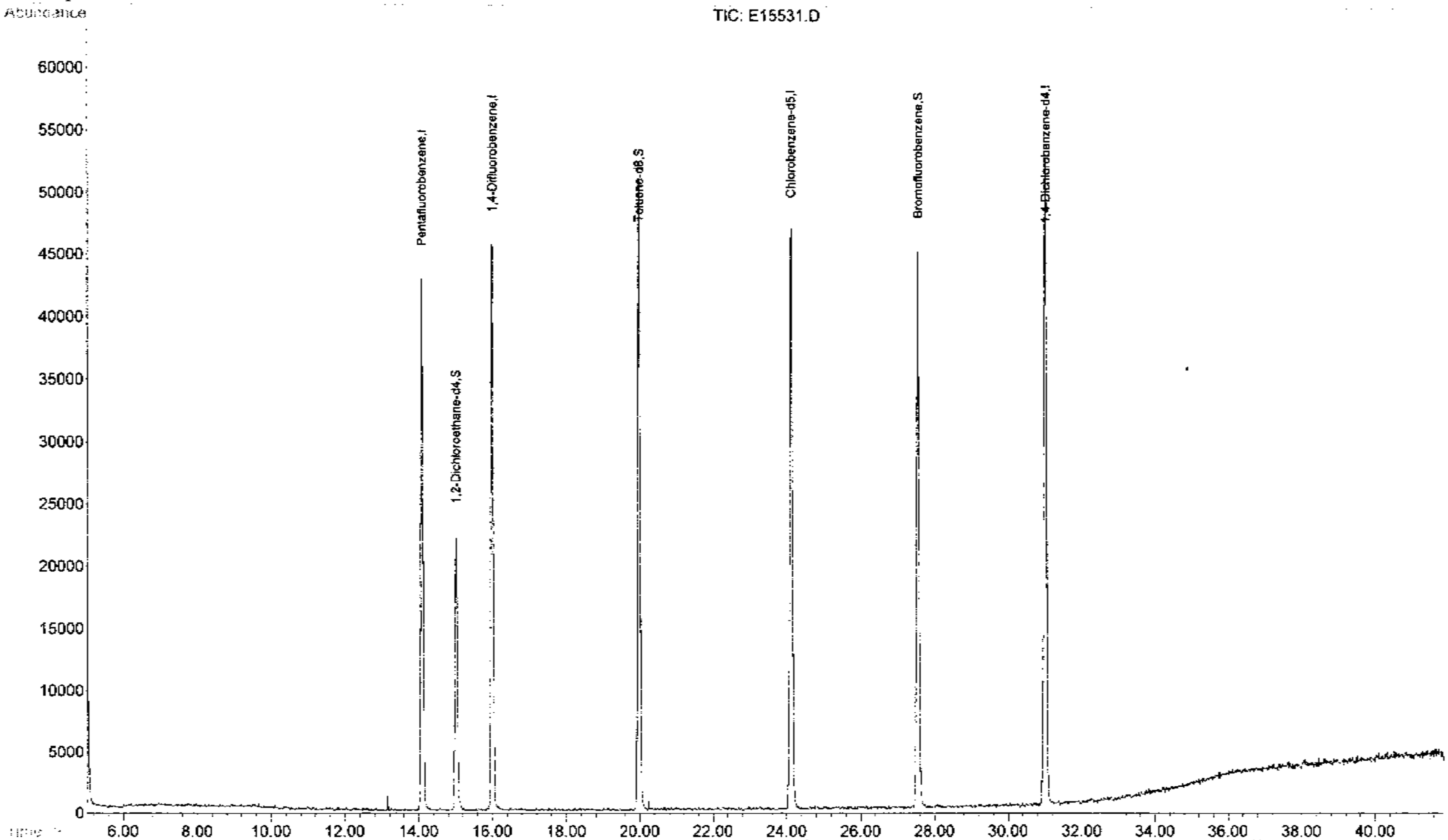
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15531.D
Acq On : 1 Oct 2007 9:39 pm
Sample : U0709313-031H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 22:21 2007

Vial: 12
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

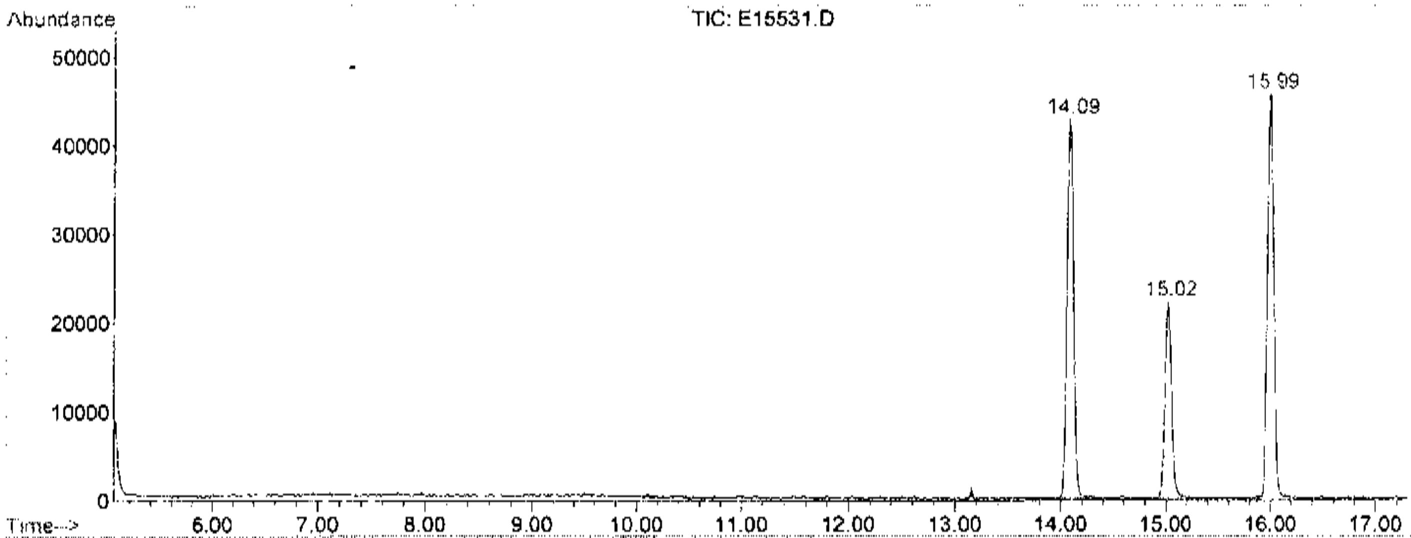
Quant Results File: E092507W.RES

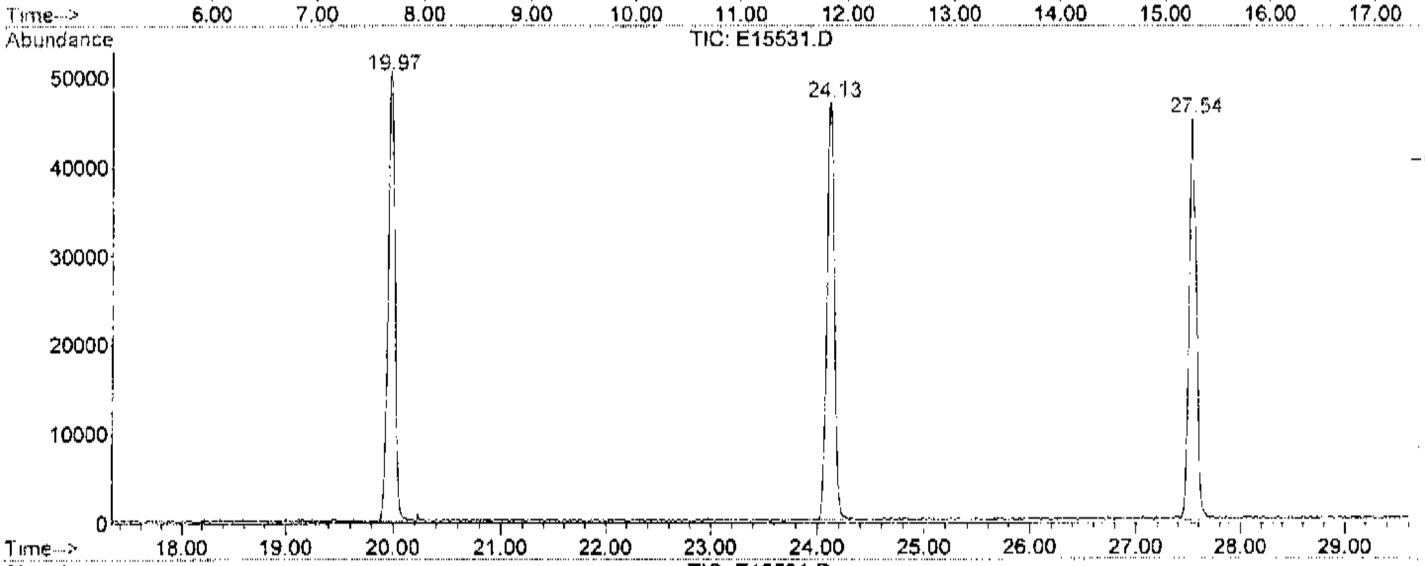
Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



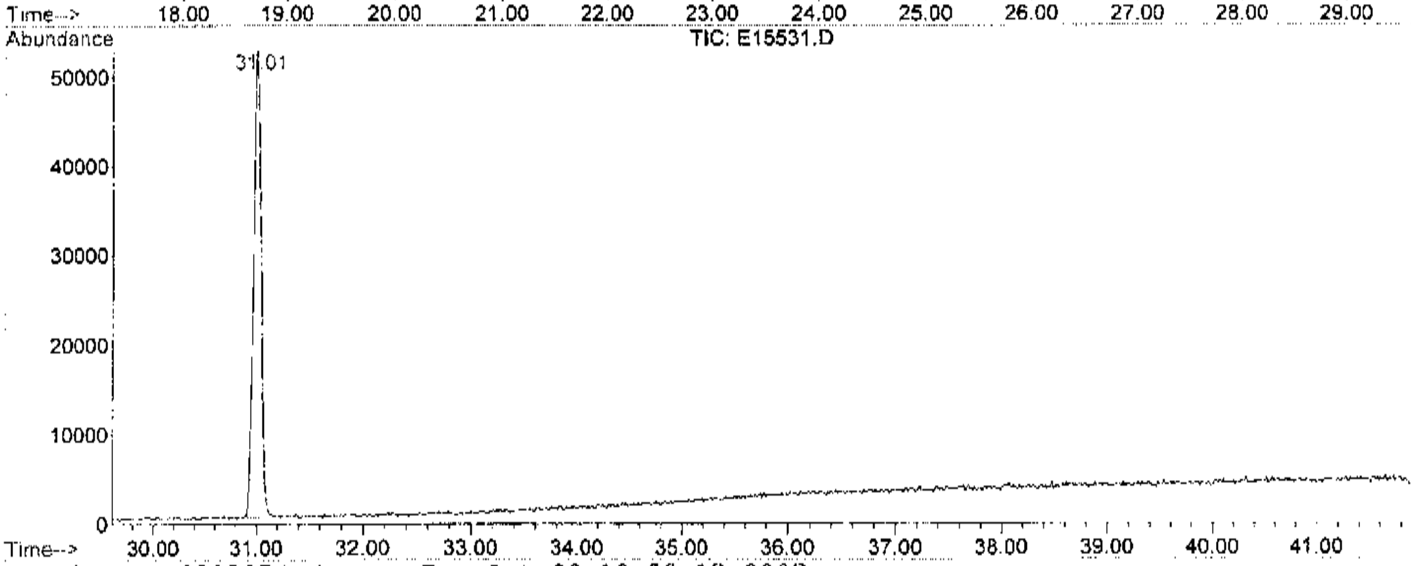
LSC Report - Integrated Chromatogram

File : D:\DATA\E15531.D
Operator : MG
Acquired : 1 Oct 2007 9:39 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-031H
Misc Info : 5ML
Vial Number: 12
Quant File :E092507W.RES (RTE Integrator)





-604-



E15531.D E092507W.M Tue Oct 02 10:55:17 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-032H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15532.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15532.D
Acq On : 1 Oct 2007 10:28 pm
Sample : U0709313-032H
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 23:10 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	60682	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	79694	50.00 ug/L	-0.06
56) Chlorobenzene-d5	24.11	117	70762	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.01	152	44777	50.00 ug/L	-0.07

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.02	65	47999	56.21 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery = 112.42%		
50) Toluene-d8	19.97	98	81701	48.26 ug/L	-0.09
Spiked Amount 50.000	Range 88 - 110		Recovery = 96.52%		
55) Bromofluorobenzene	27.54	95	41814	49.42 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.84%		

Target Compounds Qvalue

-608-

```
Data File : D:\DATA\E15532.D                          Vial: 13
Acq On    :  1 Oct 2007  10:28 pm                 Operator: MG
Sample    : U0709313-032H                         Inst     : Voa Instr
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 23:10 2007             Quant Results File: E092507W.RES

Method         : D:\METHODS\E092507W.M (RTE Integrator)
Title          : VOA 8260 Calibration
Last Update    : Wed Sep 26 10:42:24 2007
Response via   : Initial Calibration
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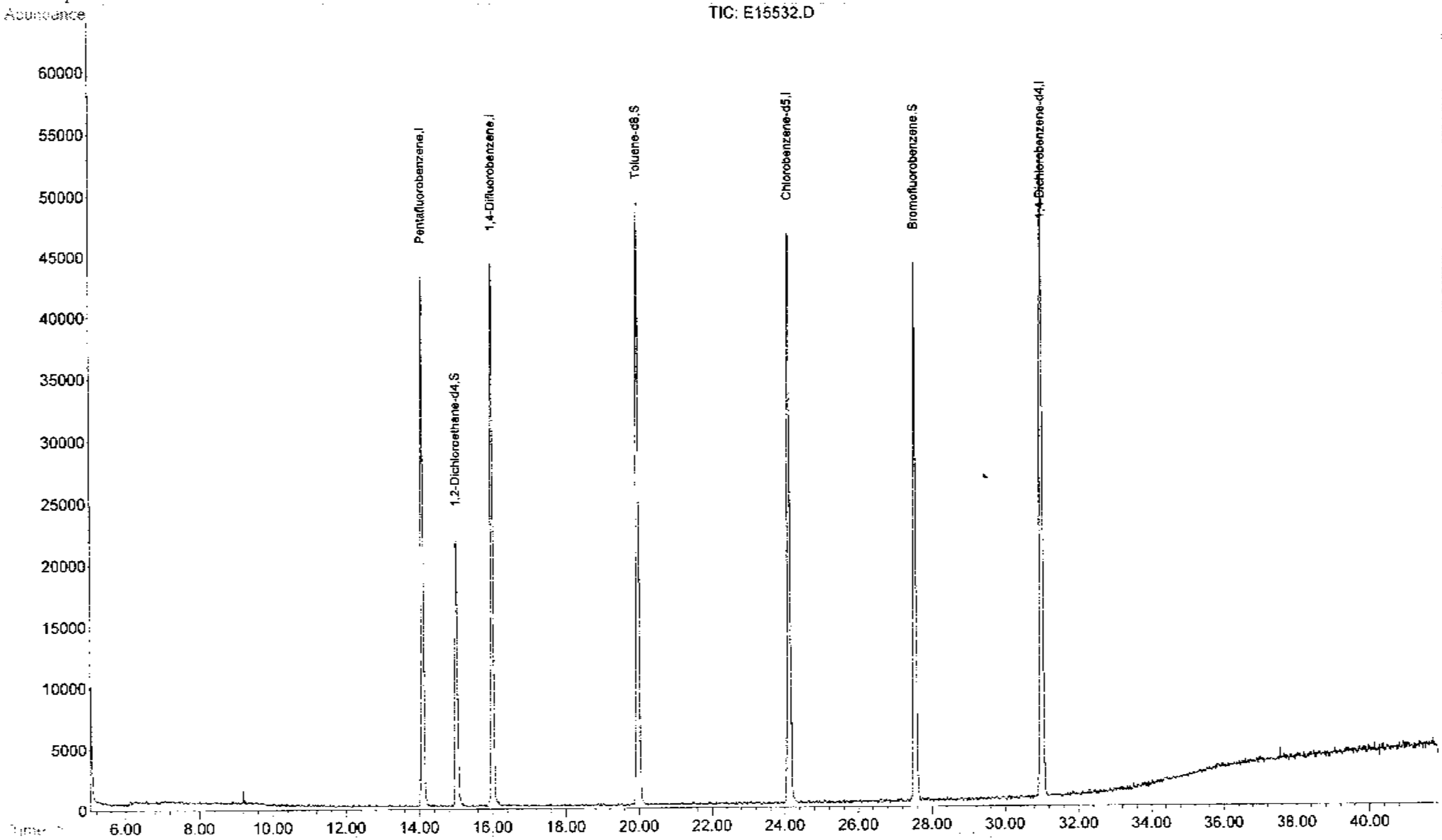
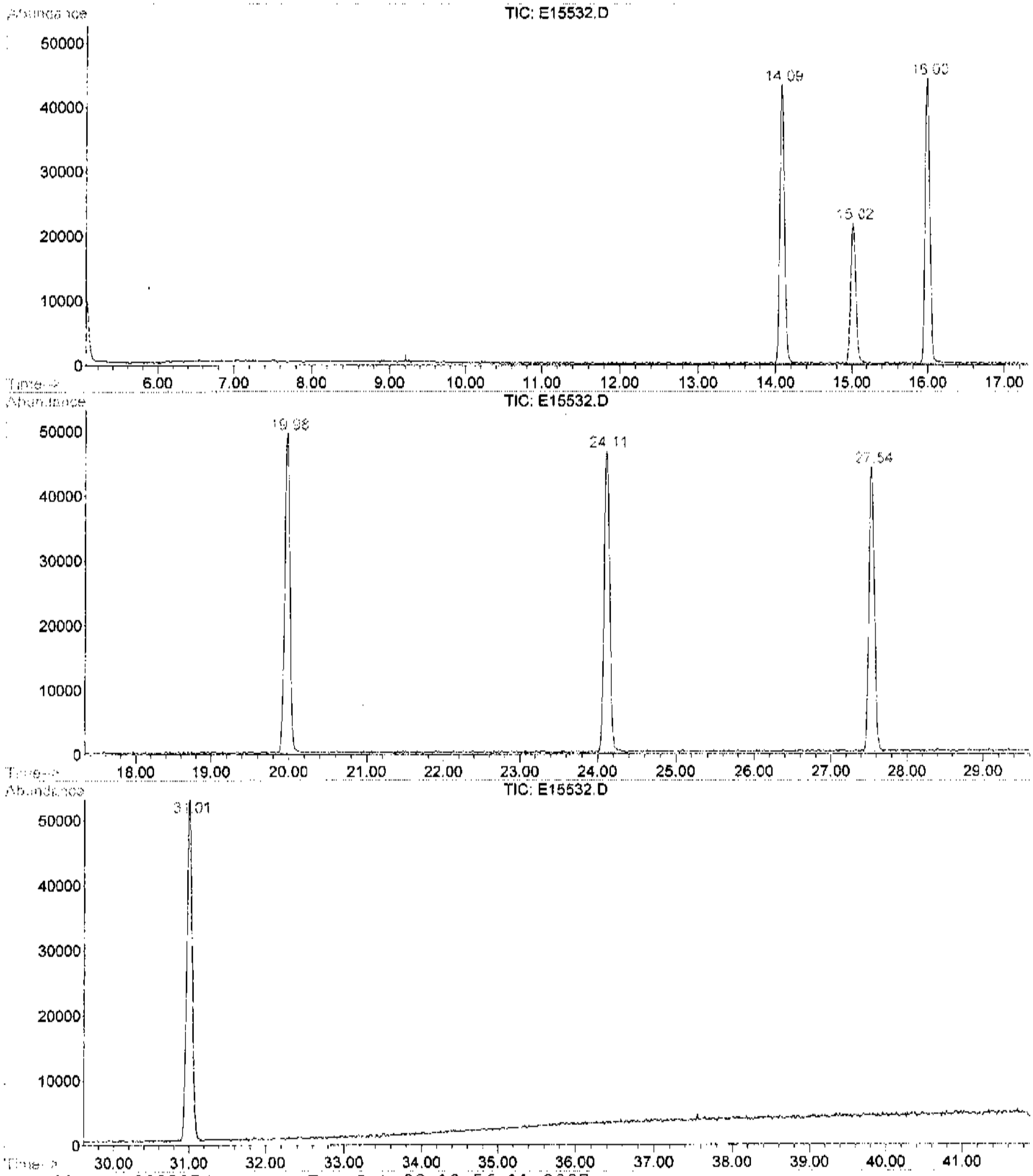


LSC Report - Integrated Chromatogram

```
File        : D:\DATA\E15532.D
Operator    : MG
Acquired    :  1 Oct 2007  10:28 pm using AcqMethod E092507W
Instrument :    Voa Instr
Sample Name: U0709313-032H
Misc Info   : 5ML
Vial Number: 13
Quant File :E092507W.RES (RTE Integrator)
```



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E15532.D   E092507W.M   Tue Oct 02 10:56:11 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	1	J

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-033H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15546.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-613-

Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\E15546.D                          Vial: 13
Acq On    :  3 Oct 2007  12:28 am                 Operator: MG
Sample    : U0709313-033H                         Inst    : Voa Instr
Misc      : 1X ASP_A1                             Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Oct  3  1:10 2007              Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                R.T. QIon  Response  Conc Units Dev(Min)
-----------------------------------------------------------------------------
  1) Pentafluorobenzene            14.13  168    78439    50.00 ug/L   -0.04
 36) 1,4-Difluorobenzene           16.03  114    88326    50.00 ug/L   -0.04
 56) Chlorobenzene-d5              24.15  117    76839    50.00 ug/L   -0.04
 87) 1,4-Dichlorobenzene-d4        31.04  152    52502    50.00 ug/L   -0.04

 System Monitoring Compounds
 33) 1,2-Dichloroethane-d4         15.06   65    44396    40.22 ug/L   -0.04
  Spiked Amount     50.000     Range  76 - 118    Recovery   =   80.44%
 50) Toluene-d8                    20.02   98    90726    48.35 ug/L   -0.04
  Spiked Amount     50.000     Range  88 - 110    Recovery   =   96.70%
 55) Bromofluorobenzene            27.58   95    46967    50.09 ug/L   -0.04
  Spiked Amount     50.000     Range  86 - 115    Recovery   =  100.18%

 Target Compounds                                                     Qvalue
 65) m,p-Xylene                    24.82  106      625     1.09 ug/L #    40
```

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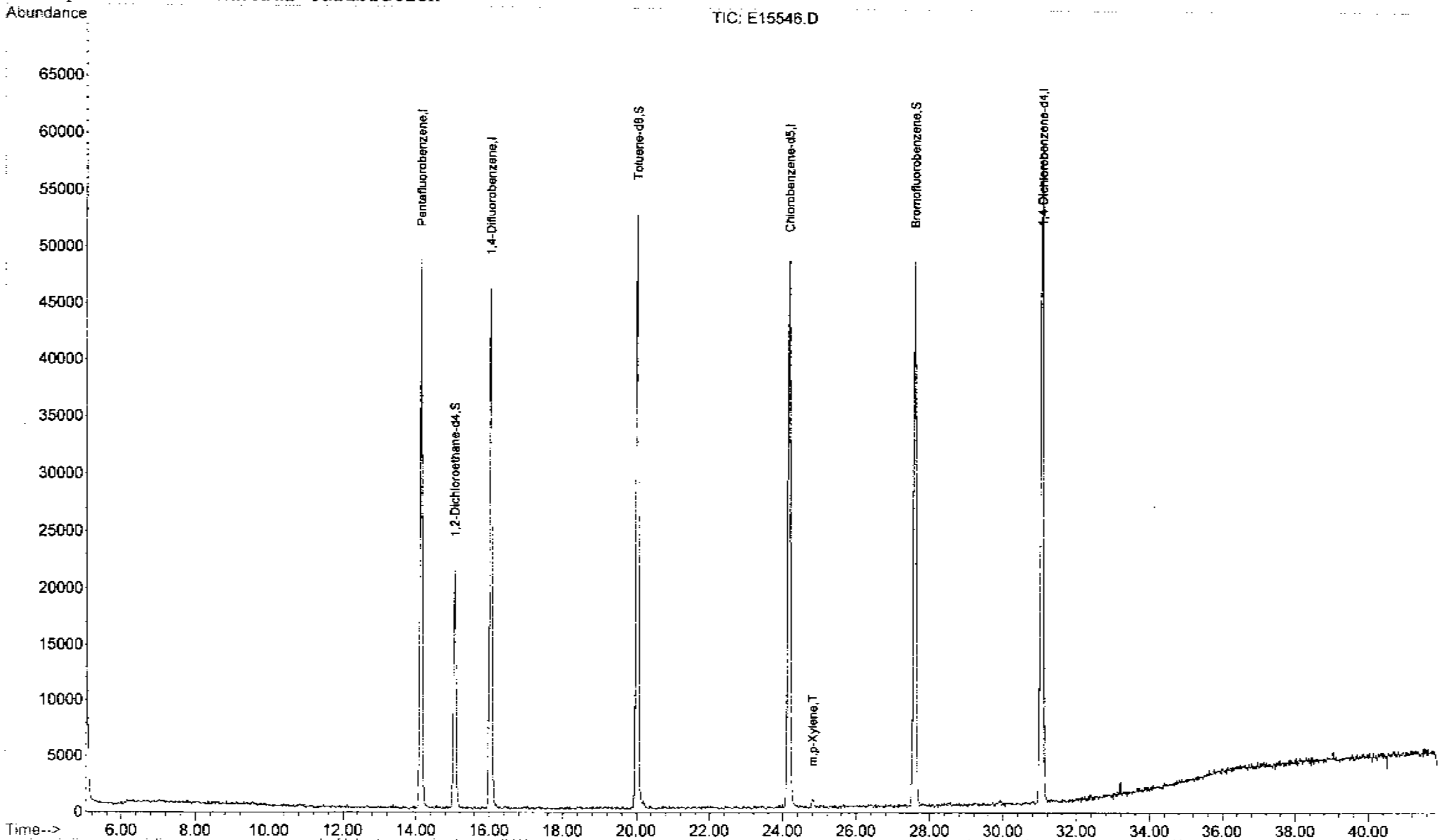
(#) = qualifier out of range (m) = manual integration

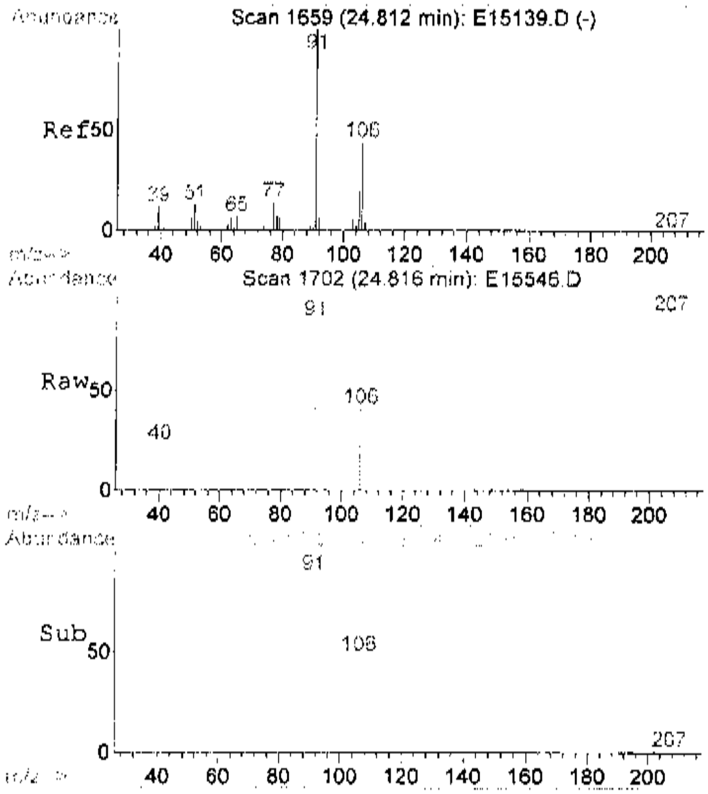
Data File : D:\DATA\E15546.D
Acq On : 3 Oct 2007 12:28 am
Sample : U0709313-033H
Misc : 1X ASP_A1
MS Integration Params: rteint.p
Quant Time: Oct 3 1:10 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration

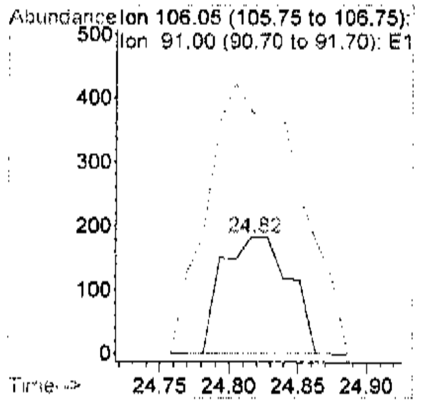




#65
m,p-Xylene
Concen: 1.09 ug/L
RT: 24.82 min Scan# 1702
Delta R.T. -0.04 min
Lab File: E15546.D
Acq: 3 Oct 2007 12:28 am

Tgt Ion:106 Resp: 625

Ion	Ratio	Lower	Upper
106	100		
91	306.7	182.5	242.5#



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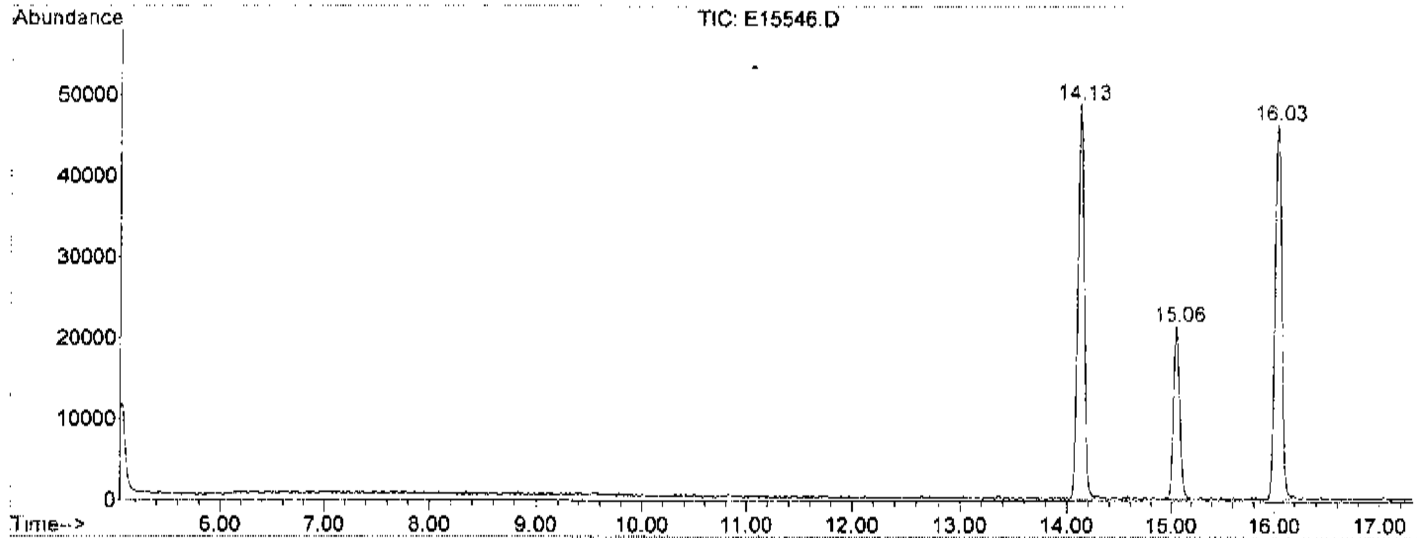
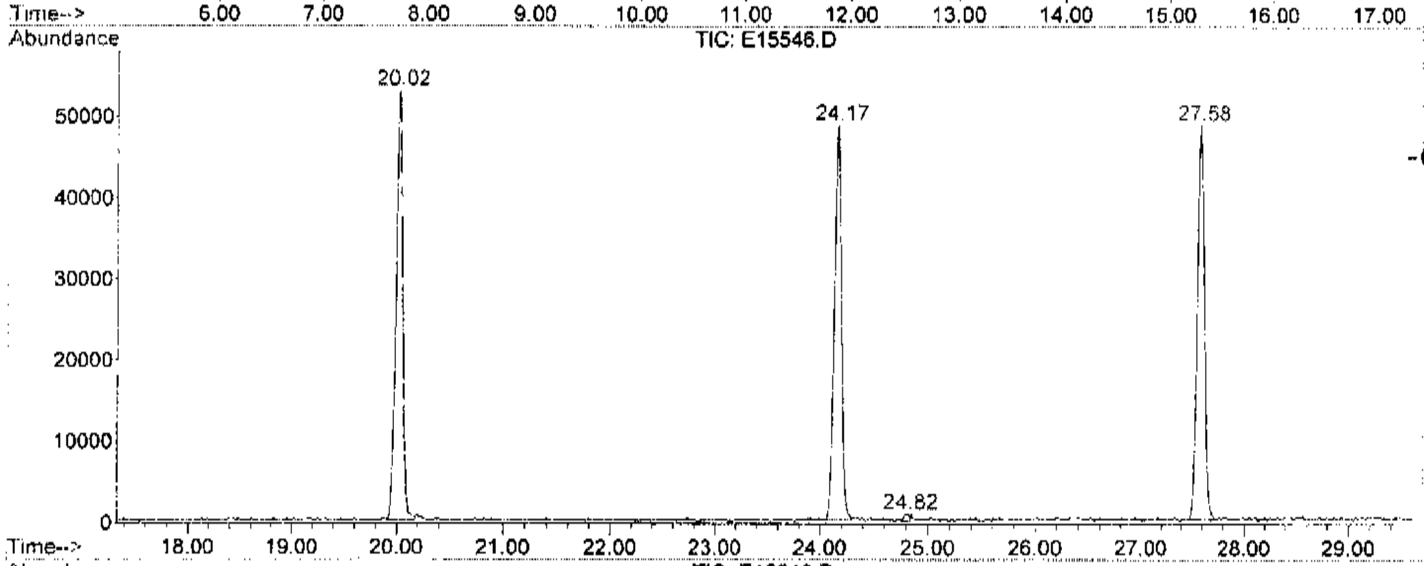
LSC Report - Integrated Chromatogram

File : D:\DATA\E15546.D
Operator : MG
Acquired : 3 Oct 2007 12:28 am using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-033H
Misc Info : 1X ASP_A1
Vial Number: 13
Quant File :E092507W.RES (RTE Integrator)





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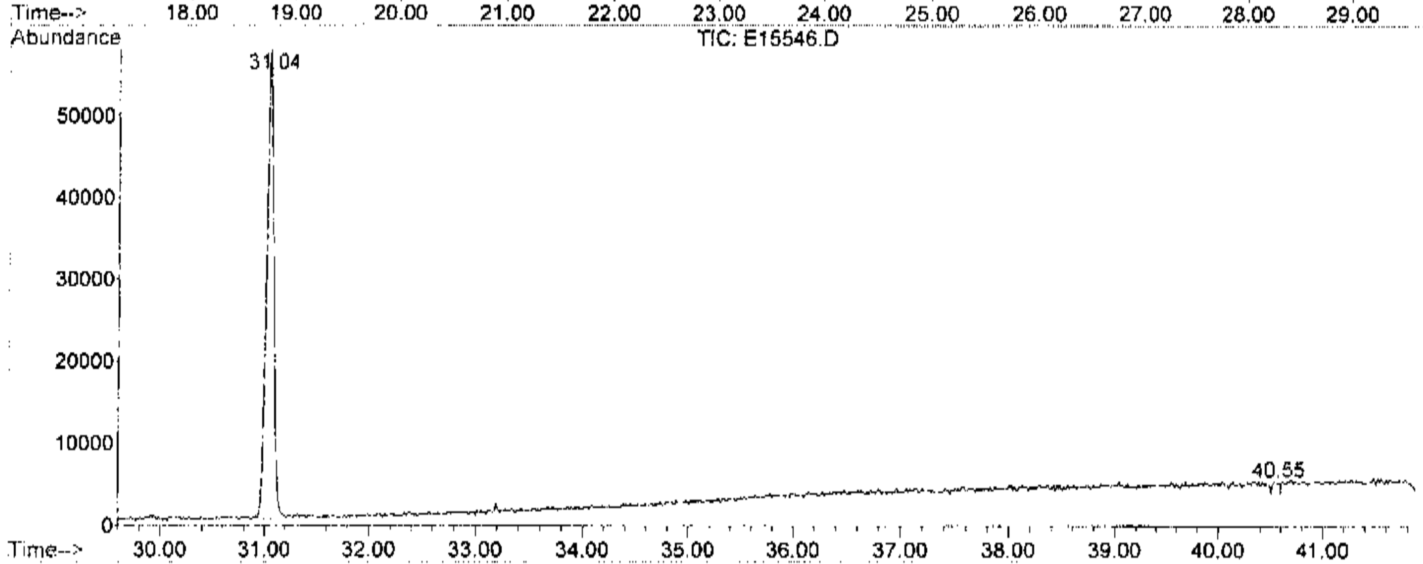

E15546.D E092507W.M Wed Oct 03 09:34:25 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TB E

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULLTB
E

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

-619-

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TB

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: __ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-034H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15547.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. ______ Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-620-

Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\E15547.D                          Vial: 14
Acq On    :  3 Oct 2007   1:18 am                 Operator: MG
Sample    : U0709313-034H                         Inst    : Voa Instr
Misc      : 1X ASP_A1                             Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Oct  3  2:00 2007             Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
  1) Pentafluorobenzene             14.13  168    71235    50.00 ug/L   -0.03
 36) 1,4-Difluorobenzene            16.04  114    80359    50.00 ug/L   -0.03
 56) Chlorobenzene-d5               24.16  117    70342    50.00 ug/L   -0.03
 87) 1,4-Dichlorobenzene-d4         31.04  152    47999    50.00 ug/L   -0.04

System Monitoring Compounds
 33) 1,2-Dichloroethane-d4          15.06   65    42043    41.94 ug/L   -0.03
  Spiked Amount     50.000   Range  76 - 118    Recovery   =   83.88%
 50) Toluene-d8                     20.01   98    83194    48.74 ug/L   -0.04
  Spiked Amount     50.000   Range  88 - 110    Recovery   =   97.48%
 55) Bromofluorobenzene             27.58   95    43157    50.59 ug/L   -0.04
  Spiked Amount     50.000   Range  86 - 115    Recovery   =  101.18%

Target Compounds                                                 Qvalue
```

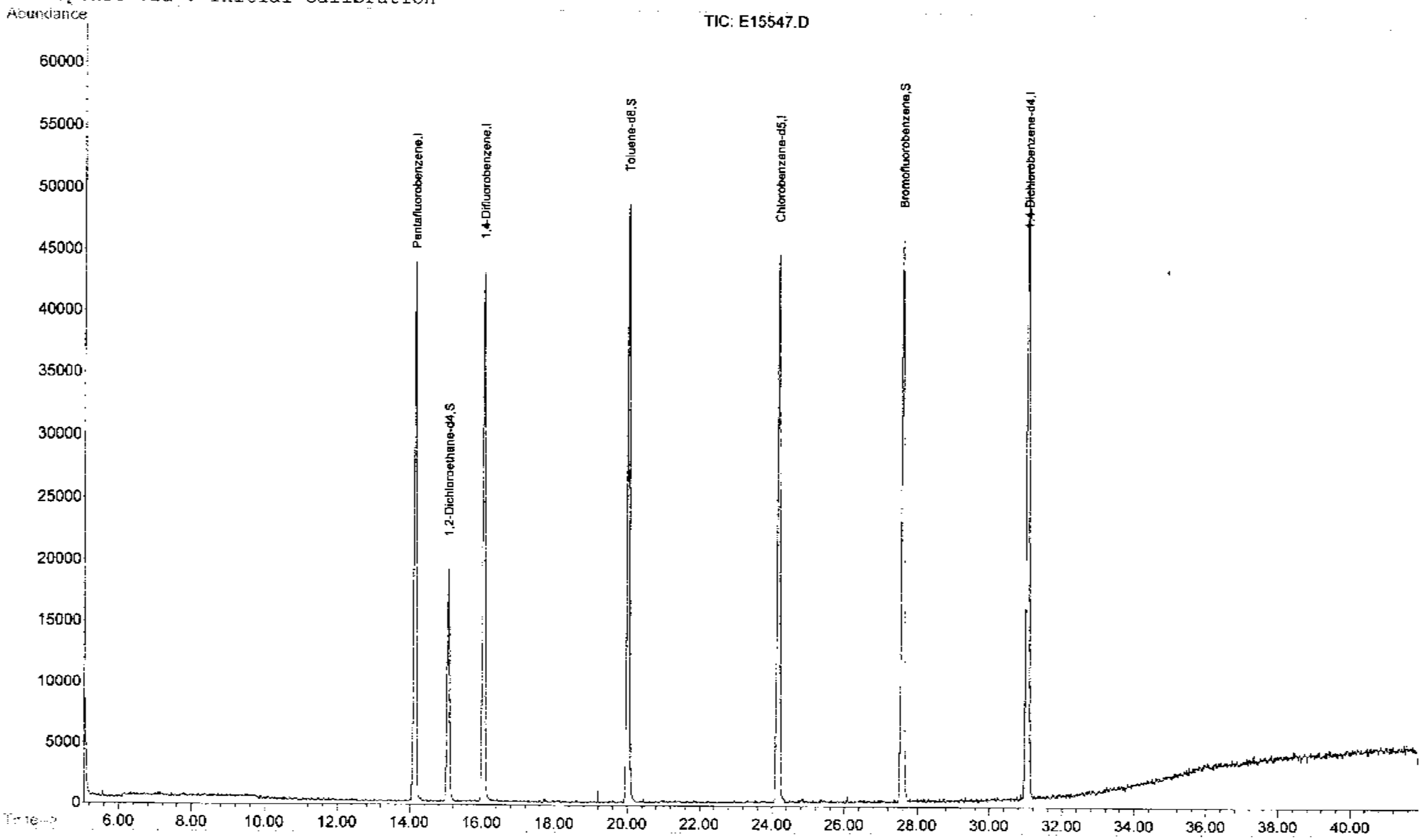
-621-

Data File : D:\DATA\E15547.D
Acq On : 3 Oct 2007 1:18 am
Sample : U0709313-034H
Misc : 1X ASP_A1
MS Integration Params: rteint.p
Quant Time: Oct 3 2:00 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

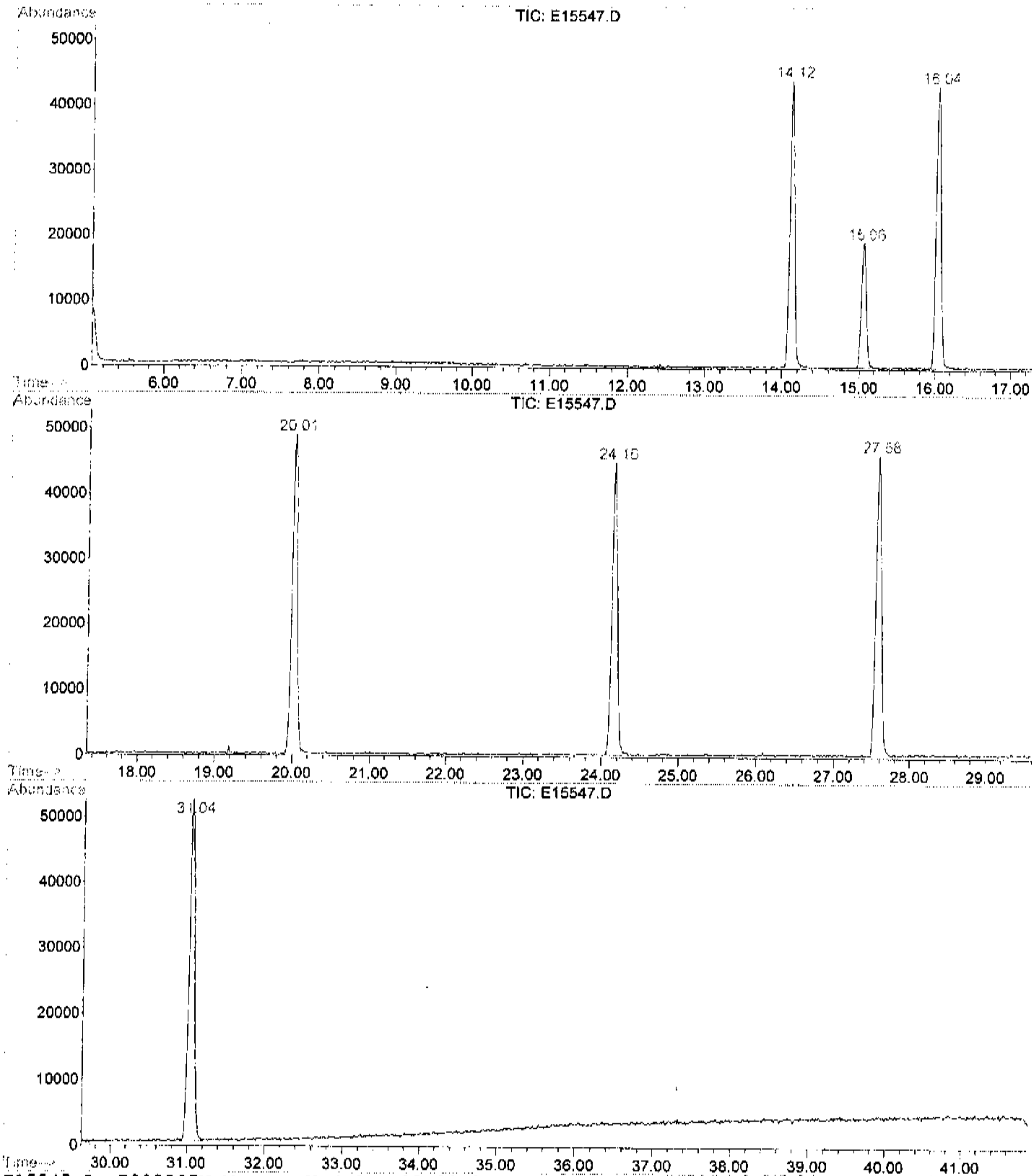
Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15547.D
Operator : MG
Acquired : 3 Oct 2007 1:18 am using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: U0709313-034H
Misc Info : 1X ASP_A1
Vial Number: 14
Quant File :E092507W.RES (RTE Integrator)



-623-

E15547.D E092507W.M Wed Oct 03 09:34:36 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK E

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

-624-

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

-625-

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-035H

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15548.D

Level: (low/med) LOW Date Received: 9/21/07

% Moisture: not dec. Date Analyzed: 10/3/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15548.D
Acq On : 3 Oct 2007 2:07 am
Sample : U0709313-035H
Misc : 1X ASP_A1
MS Integration Params: rteint.p
Quant Time: Oct 3 2:49 2007

Vial: 15
Operator: MG
Inst : Voa Instr
Multiplr: 1.00
Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.12	168	66301	50.00 ug/L	-0.04
36) 1,4-Difluorobenzene	16.04	114	76049	50.00 ug/L	-0.03
56) Chlorobenzene-d5	24.15	117	65658	50.00 ug/L	-0.04
87) 1,4-Dichlorobenzene-d4	31.04	152	46112	50.00 ug/L	-0.04

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.05	65	39908	42.77 ug/L	-0.04
Spiked Amount 50.000	Range 76 - 118		Recovery =	85.54%	
50) Toluene-d8	20.01	98	76999	47.66 ug/L	-0.04
Spiked Amount 50.000	Range 88 - 110		Recovery =	95.32%	
55) Bromofluorobenzene	27.58	95	41305	51.16 ug/L	-0.04
Spiked Amount 50.000	Range 86 - 115		Recovery =	102.32%	

Target Compounds					Qvalue
10) Acetone	9.42	43	954	5.85 ug/L #	55

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(#) = qualifier out of range (m) = manual integration

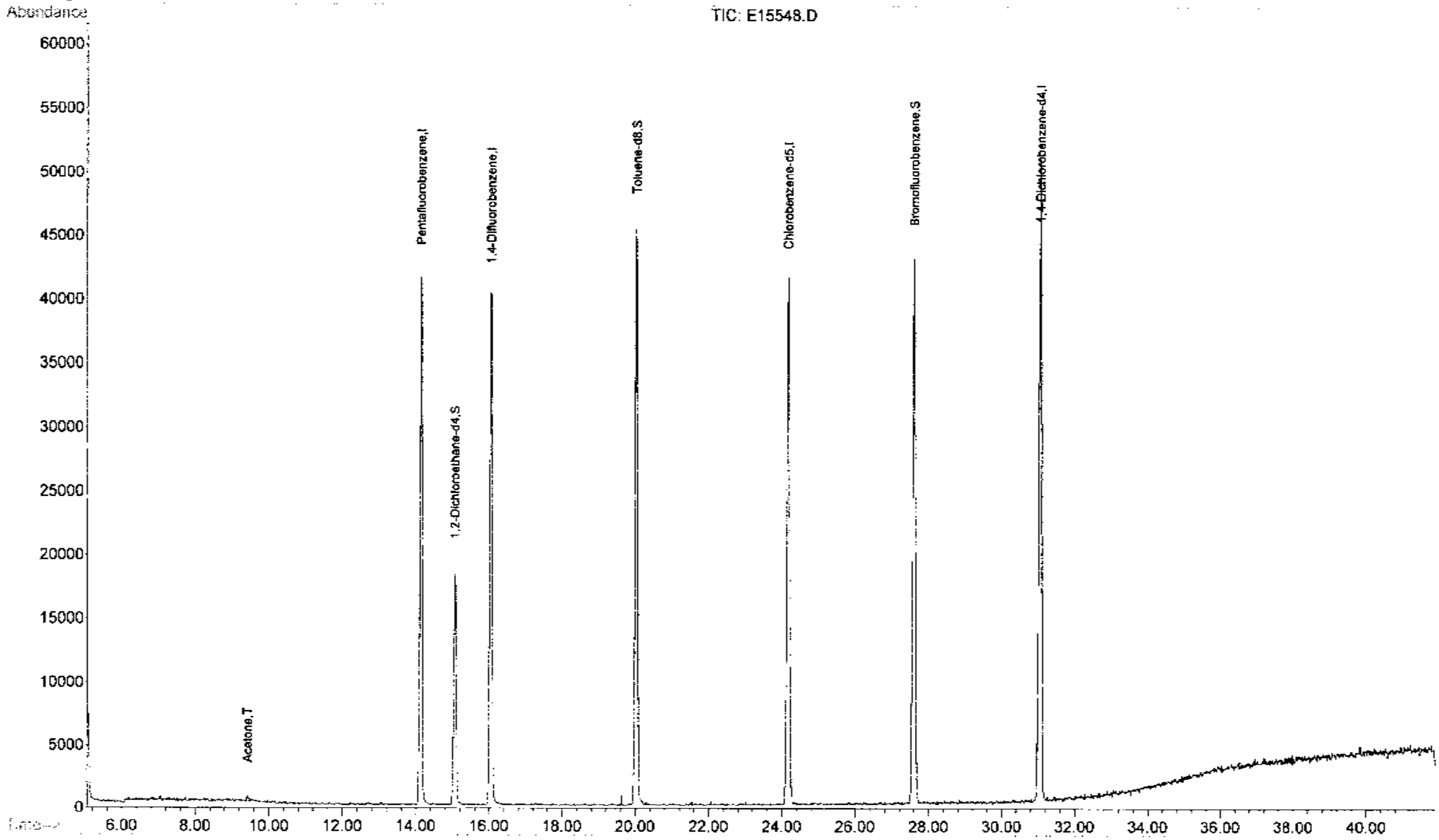
Quantitation Report

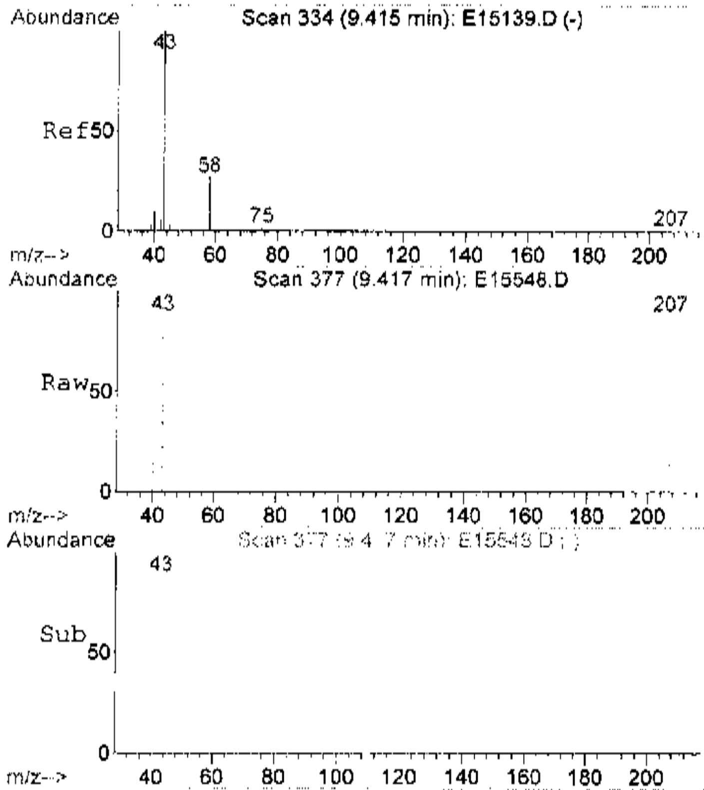
Data File : D:\DATA\E15548.D
Acq On : 3 Oct 2007 2:07 am
Sample : U0709313-035H
Misc : 1X ASP_A1
MS Integration Params: rteint.p
Quant Time: Oct 3 2:49 2007

Vial: 15
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration

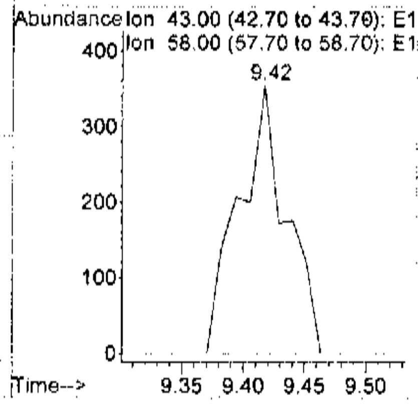




#10
Acetone
Concen: 5.85 ug/L
RT: 9.42 min Scan# 377
Delta R.T. -0.03 min
Lab File: E15548.D
Acq: 3 Oct 2007 2:07 am

Tgt Ion: 43 Resp: 954

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	50.9



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\E15548.D
Operator    : MG
Acquired    :  3 Oct 2007   2:07 am using AcqMethod E092507W
Instrument  :   Voa Instr
Sample Name: U0709313-035H
Misc Info   : 1X ASP_A1
Vial Number: 15
Quant File :E092507W.RES (RTE Integrator)
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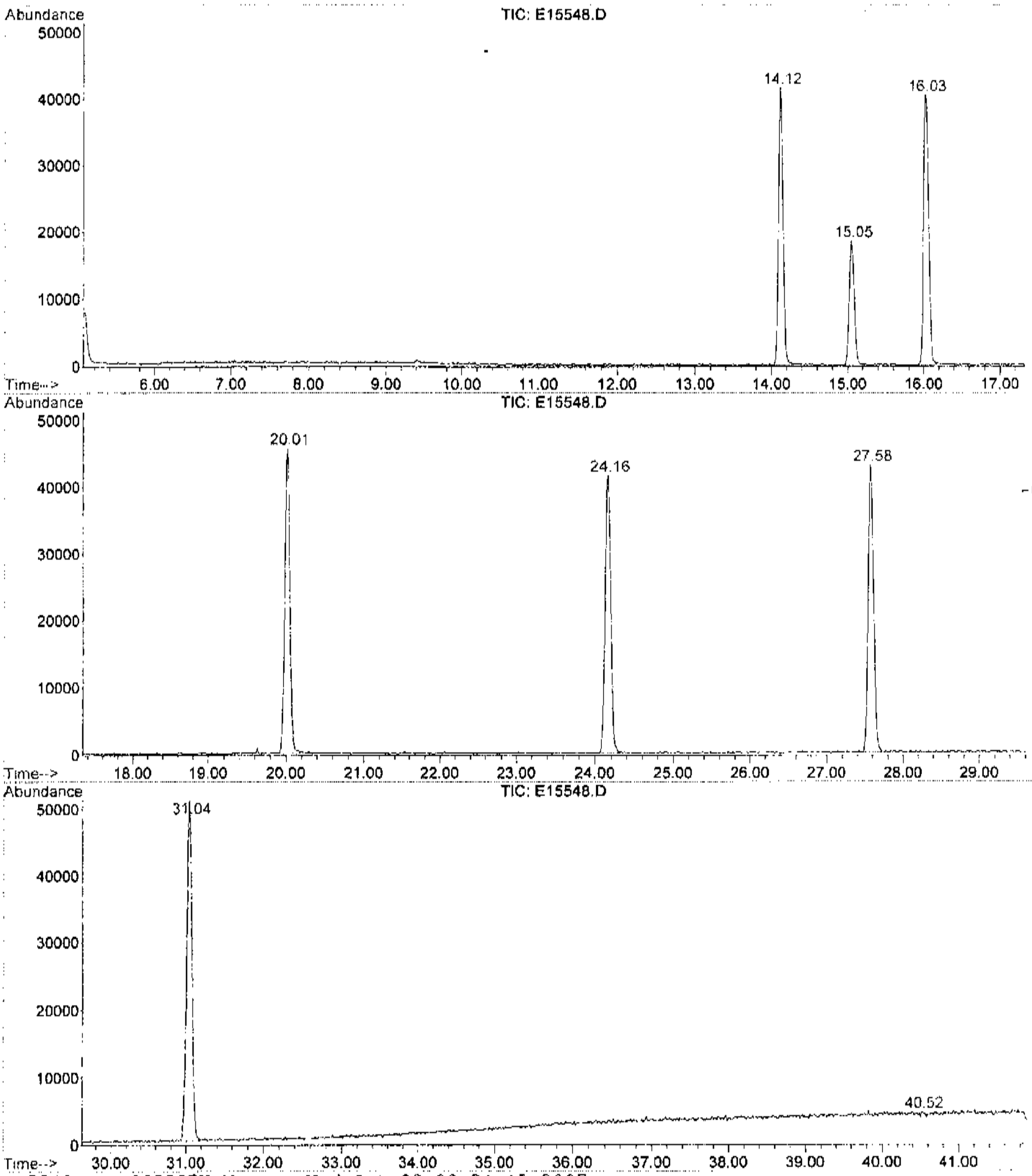

-630-

E15548.D E092507W.M   Wed Oct 03 09:34:45 2007

Standards Data

-631-

Upstate Laboratories, Inc.

Initial Calibration

-632-

Upstate Laboratories, Inc.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA85

Instrument ID: 49 Calibration Date(s): 9/25/07 9/26/07

Heated Purge (Y/N): N Calibration Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

LAB FILE ID: RRF03 = E15411.D RRF10 = E15412.D RRF200 = E15416.D

RRF20 = E15413.D RRF50 = E15414.D RRF100 = E15415.D

COMPOUND	RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane *	0.308	0.307	0.279	0.263	0.264	0.244	0.277	9.4 *
Vinyl Chloride *	0.283	0.295	0.293	0.288	0.294	0.245	0.283	6.8 *
Bromomethane *	0.046	0.071	0.088	0.127	0.160	0.175	0.111	46.0 *
Chloroethane *	0.161	0.177	0.183	0.177	0.178	0.153	0.172	7.0 *
Trichlorofluoromethane *	0.559	0.536	0.542	0.511	0.480	0.374	0.500	13.5 *
Acetone *		0.152	0.132	0.116	0.114	0.101	0.123	15.9 *
1,1-Dichloroethene *	0.258	0.230	0.226	0.210	0.202	0.168	0.216	14.0 *
Iodomethane *	0.095	0.274	0.353	0.419	0.413	0.367	0.320	38.1 *
Carbon Disulfide *	1.237	1.139	1.075	1.065	1.003	0.849	1.061	12.3 *
Methylene Chloride *	0.406	0.385	0.371	0.362	0.349	0.328	0.367	7.5 *
Acrylonitrile *	0.090	0.100	0.106	0.108	0.112	0.111	0.104	7.9 *
trans-1,2-Dichloroethene *	0.378	0.350	0.336	0.317	0.301	0.270	0.326	11.7 *
1,1-Dichloroethane *	0.602	0.667	0.636	0.621	0.589	0.544	0.610	7.0 *
Vinyl Acetate *	0.405	0.469	0.489	0.523	0.542	0.521	0.491	10.1 *
2-Butanone *	0.051	0.137	0.137	0.153	0.157	0.155	0.132	30.8 *
cis-1,2-Dichloroethene *	0.384	0.413	0.378	0.369	0.355	0.338	0.373	6.9 *
Chloroform *	0.759	0.760	0.744	0.745	0.724	0.672	0.734	4.5 *
Bromochloromethane *	0.181	0.208	0.209	0.213	0.206	0.196	0.202	5.9 *
1,1,1-Trichloroethane *	0.608	0.606	0.592	0.572	0.554	0.474	0.568	8.9 *
Carbon Tetrachloride *	0.306	0.290	0.289	0.294	0.285	0.236	0.283	8.5 *
Benzene *	0.898	0.924	0.897	0.913	0.920	0.858	0.902	2.7 *
1,2-Dichloroethane *	0.442	0.472	0.477	0.473	0.464	0.434	0.460	3.9 *
Trichloroethene *	0.257	0.233	0.229	0.235	0.232	0.212	0.233	6.2 *
1,2-Dichloropropane *	0.220	0.237	0.226	0.234	0.235	0.226	0.230	2.8 *
Bromodichloromethane *	0.380	0.411	0.408	0.413	0.419	0.395	0.404	3.5 *
Dibromomethane *	0.146	0.173	0.178	0.177	0.182	0.173	0.171	7.4 *
4-Methyl-2-pentanone *	0.153	0.181	0.192	0.207	0.225	0.228	0.198	14.4 *
cis-1,3-Dichloropropene *	0.458	0.494	0.499	0.522	0.532	0.512	0.503	5.2 *
Toluene *	0.559	0.520	0.517	0.538	0.552	0.517	0.534	3.5 *
trans-1,3-Dichloropropene *	0.457	0.488	0.492	0.519	0.536	0.517	0.502	5.7 *
1,1,2-Trichloroethane *	0.173	0.188	0.191	0.202	0.209	0.200	0.194	6.5 *
2-Hexanone *	0.106	0.142	0.144	0.168	0.182	0.185	0.155	19.3 *
Tetrachloroethene *	0.569	0.411	0.399	0.410	0.419	0.391	0.433	15.5 *
Dibromochloromethane *	0.329	0.352	0.361	0.374	0.375	0.365	0.359	4.8 *
1,2-Dibromoethane *	0.220	0.266	0.264	0.270	0.278	0.275	0.262	8.1 *
Chlorobenzene *	0.771	0.749	0.708	0.724	0.732	0.700	0.731	3.6 *
1,1,1,2-Tetrachloroethane *	0.270	0.304	0.302	0.307	0.310	0.293	0.298	5.0 *
Ethylbenzene *	1.160	0.971	0.937	0.985	1.004	0.940	0.999	8.3 *
m,p-Xylene *	0.416	0.357	0.358	0.375	0.379	0.347	0.372	6.6 *

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date(s): 9/25/07 9/26/07

Heated Purge (Y/N): N Calibration Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

LAB FILE ID: RRF03 = E15411.D RRF10 = E15412.D RRF200 = E15416.D
RRF20 = E15413.D RRF50 = E15414.D RRF100 = E15415.D

COMPOUND		RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD	
o-Xylene	*	0.381	0.385	0.387	0.395	0.409	0.386	0.391	2.7	*
Styrene	*	0.685	0.681	0.703	0.750	0.779	0.738	0.723	5.4	*
Bromoform	*	0.266	0.303	0.314	0.329	0.351	0.344	0.318	9.8	*
1,1,2,2-Tetrachloroethane	*	0.300	0.304	0.319	0.331	0.347	0.340	0.323	5.8	*
1,2,3-Trichloropropane	*	0.423	0.451	0.459	0.473	0.501	0.483	0.465	5.9	*
1,4-Dichloro-2-butene	*		0.045	0.049	0.060	0.067	0.066	0.057	17.5	*
1,3-Dichlorobenzene	*	0.717	0.563	0.555	0.595	0.601	0.559	0.598	10.3	*
1,4-Dichlorobenzene	*	0.699	0.594	0.570	0.608	0.622	0.582	0.612	7.5	*
1,2-Dichlorobenzene	*	0.633	0.577	0.570	0.608	0.627	0.595	0.601	4.3	*
1,2-Dibromo-3-chloro-propane	*	0.075	0.081	0.079	0.080	0.084	0.080	0.080	3.9	*
1,2-Dichloroethane-d4	*	0.725	0.736	0.726	0.709	0.678	0.649	0.704	4.8	*
Toluene-d8	*	1.055	1.068	1.061	1.052	1.070	1.068	1.062	0.7	*
Bromofluorobenzene		0.508	0.525	0.521	0.540	0.550	0.541	0.531	2.9	

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Response Factor Report Voa Instr

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration

water

Calibration Files

10	=E15412.D	20	=E15413.D	50	=E15414.D
100	=E15415.D	200	=E15416.D	03	=E15411.D

		Compound	10	20	50	100	200	03	Avg	%RSD
1)	I	Pentafluorobenzene	------	------	------	ISTD	------	------	------	
2)	T	Dichlorodifluoromet	0.533	0.539	0.526	0.507	0.392	0.706	0.534	18.85
3)	T	Chloromethane	0.307	0.279	0.263	0.264	0.244	0.308	0.277	9.36
4)	TC	Vinyl Chloride	0.295	0.293	0.288	0.294	0.245	0.283	0.283	6.80
5)	T	Bromomethane	0.071	0.088	0.127	0.160	0.175	0.046	0.111	46.03
6)	T	Chloroethane	0.177	0.183	0.177	0.178	0.153	0.161	0.172	6.97
7)	T	Trichlorofluorometh	0.536	0.542	0.511	0.480	0.374	0.559	0.500	13.53
8)	T	Acrolein	0.038	0.036	0.035	0.037	0.036	0.029	0.035#	8.84
9)	T	1,1,2-Trichloro-1,2	0.227	0.217	0.205	0.194	0.153	0.343	0.223	28.81
10)	T	Acetone	0.152	0.132	0.116	0.114	0.101		0.123	15.92
11)	TC	1,1-Dichloroethene	0.230	0.226	0.210	0.202	0.168	0.258	0.216	14.04
12)	T	Acetonitrile	0.031	0.031	0.030	0.031	0.033	0.024	0.030#	10.81
13)	T	Iodomethane	0.274	0.353	0.419	0.413	0.367	0.095	0.320	38.11
14)	T	Methyl Acetate	0.235	0.242	0.244	0.244	0.236	0.223	0.237	3.38
15)	T	Allyl Chloride	0.415	0.355	0.369	0.334	0.288	0.374	0.356	11.93
16)	T	Carbon Disulfide	1.139	1.075	1.065	1.003	0.849	1.237	1.061	12.35
17)	T	Methylene Chloride	0.385	0.371	0.362	0.349	0.328	0.406	0.367	7.50
18)		t-butanol							0.000#	-1.00
19)	T	MTBE	1.264	1.278	1.281	1.277	1.232	1.193	1.254	2.79
20)	T	Acrylonitrile	0.100	0.106	0.108	0.112	0.111	0.090	0.104	7.96
21)	T	trans-1,2-Dichloroe	0.350	0.336	0.317	0.301	0.270	0.378	0.326	11.72
22)	T	1,1-Dichloroethane	0.667	0.636	0.621	0.589	0.543	0.602	0.610	6.96
23)	T	Vinyl Acetate	0.469	0.489	0.523	0.542	0.521	0.405	0.491	10.13
24)	T	Chloroprene	0.521	0.541	0.535	0.517	0.450	0.516	0.513	6.36
25)	T	2-Butanone	0.137	0.137	0.152	0.157	0.155	0.051	0.132	30.77
26)	T	Propionitrile	0.039	0.038	0.041	0.044	0.043	0.028	0.039#	14.73
27)	T	2,2-Dichloropropane	0.505	0.487	0.472	0.443	0.378	0.505	0.465	10.44
28)	T	cis-1,2-Dichloroeth	0.413	0.378	0.369	0.355	0.338	0.384	0.373	6.93
29)	T	Methacrylonitrile	2.227	2.208	2.252	2.278	2.182	1.946	2.182	5.51
30)	TC	Chloroform	0.760	0.744	0.745	0.724	0.672	0.759	0.734	4.54
31)	T	Bromochloromethane	0.208	0.208	0.213	0.206	0.196	0.181	0.202	5.92
32)	T	Isobutyl Alcohol	0.002	0.002	0.002	0.003	0.003	0.002	0.002#	18.01
33)	S	1,2-Dichloroethane-	0.736	0.725	0.709	0.678	0.649	0.725	0.704	4.79
34)	T	1,1,1-Trichloroetha	0.606	0.592	0.572	0.554	0.474	0.608	0.568	8.90
35)	T	Cyclohexane	0.351	0.367	0.367	0.360	0.294	0.419	0.360	11.11
36)	I	1,4-Difluorobenzene	------	------	------	ISTD	------	------	------	
37)	T	1,1-Dichloropropene	0.293	0.285	0.289	0.285	0.243	0.361	0.292	13.09
38)	T	Carbon Tetrachlorid	0.289	0.289	0.294	0.285	0.236	0.305	0.283	8.45
39)	T	Benzene	0.924	0.897	0.913	0.920	0.858	0.898	0.902	2.69
40)	T	1,2-Dichloroethane	0.472	0.477	0.473	0.464	0.434	0.442	0.460	3.87
41)	T	Trichloroethene	0.233	0.229	0.235	0.232	0.212	0.257	0.233	6.16
42)	T	Methylcyclohexane	0.234	0.241	0.247	0.253	0.201	0.346	0.253	19.26
43)	TC	1,2-Dichloropropane	0.237	0.226	0.234	0.235	0.226	0.220	0.230	2.84
44)	T	Methyl Methacrylate	0.060	0.059	0.071	0.074	0.075	0.009	0.058	42.73
45)	T	Bromodichloromethan	0.411	0.408	0.413	0.419	0.395	0.380	0.404	3.49
46)	T	1,4-Dioxane	0.044	0.050	0.054	0.058	0.060		0.053	12.10
47)	T	Dibromomethane	0.173	0.178	0.177	0.182	0.173	0.146	0.171	7.42
48)	T	4-Methyl-2-pentanon	0.181	0.192	0.207	0.225	0.228	0.153	0.198	14.37
49)	T	cis-1,3-Dichloropro	0.494	0.499	0.522	0.532	0.512	0.458	0.503	5.19
50)	S	Toluene-d8	1.068	1.061	1.052	1.070	1.068	1.054	1.062	0.71
51)	TC	Toluene	0.520	0.517	0.538	0.552	0.517	0.559	0.534	3.51

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(#) = Out of Range

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration

Calibration Files
10 =E15412.D 20 =E15413.D 50 =E15414.D
100 =E15415.D 200 =E15416.D 03 =E15411.D

		Compound	10	20	50	100	200	03	Avg	%RSD
52)	T	trans-1,3-Dichlorop	0.488	0.492	0.519	0.536	0.517	0.457	0.502	5.67
53)	T	Ethyl Methacrylate	0.303	0.325	0.358	0.387	0.385	0.257	0.336	15.10
54)	T	1,1,2-Trichloroetha	0.188	0.191	0.202	0.209	0.200	0.173	0.194	6.51
55)	S	Bromofluorobenzene	0.525	0.521	0.540	0.550	0.541	0.508	0.531	2.91
56)	I	Chlorobenzene-d5	----------------			ISTD			----------------	
57)	T	2-Hexanone	0.142	0.144	0.168	0.182	0.185	0.106	0.155	19.35
58)	T	1,3-Dichloropropane	0.492	0.481	0.497	0.507	0.493	0.458	0.488	3.49
59)	T	Tetrachloroethene	0.411	0.399	0.410	0.419	0.391	0.569	0.433	15.51
60)	T	Dibromochloromethan	0.352	0.361	0.374	0.375	0.365	0.329	0.359	4.79
61)	T	1,2-Dibromoethane	0.266	0.264	0.270	0.278	0.275	0.220	0.262	8.13
62)	T	Chlorobenzene	0.749	0.708	0.724	0.732	0.700	0.771	0.731	3.63
63)	T	1,1,1,2-Tetrachloro	0.304	0.302	0.307	0.309	0.293	0.270	0.298	4.97
64)	TC	Ethylbenzene	0.970	0.937	0.985	1.004	0.940	1.160	0.999	8.30
65)	T	m,p-Xylene	0.357	0.358	0.375	0.379	0.347	0.416	0.372	6.62
66)	T	o-Xylene	0.385	0.387	0.395	0.409	0.386	0.381	0.391	2.66
67)	T	Styrene	0.681	0.703	0.750	0.779	0.738	0.685	0.723	5.43
68)	T	Bromoform	0.303	0.314	0.329	0.351	0.344	0.266	0.318	9.77
69)	T	Isopropylbenzene	0.699	0.723	0.767	0.787	0.703	0.862	0.757	8.22
70)	T	1,1,2,2-Tetrachloro	0.304	0.319	0.331	0.347	0.340	0.300	0.323	5.85
71)	T	1,2,3-Trichloroprop	0.451	0.459	0.473	0.501	0.483	0.423	0.465	5.86
72)	T	1,4-Dichloro-2-bute	0.044	0.049	0.060	0.067	0.066		0.057	17.50
73)	T	N-Propylbenzene	0.874	0.857	0.921	0.937	0.843	1.256	0.948	16.36
74)	T	1,3,5-Trimethylbenz	0.628	0.630	0.678	0.701	0.640	0.807	0.681	10.04
75)	T	t-butylbenzene	0.487	0.480	0.528	0.534	0.488	0.633	0.525	10.95
76)	T	1,2,4-Trimethylbenz	0.667	0.680	0.735	0.752	0.702	0.892	0.738	11.11
77)	T	Sec-butylbenzene	0.570	0.564	0.626	0.638	0.568	0.893	0.643	19.66
78)	T	p-isopropyltoluene	0.575	0.557	0.612	0.626	0.565	0.929	0.644	22.08
79)	T	1,3-Dichlorobenzene	0.563	0.555	0.595	0.601	0.559	0.717	0.598	10.25
80)	T	1,4-Dichlorobenzene	0.594	0.570	0.608	0.622	0.582	0.699	0.612	7.55
81)	T	n-butylbenzene	0.458	0.433	0.475	0.481	0.429	0.951	0.538	37.82
82)	T	1,2-Dichlorobenzene	0.577	0.570	0.608	0.627	0.595	0.632	0.601	4.29
83)	T	1,2-Dibromo-3-chlor	0.081	0.079	0.080	0.084	0.080	0.075	0.080	3.87
84)	T	1,2,4-Trichlorobenz	0.292	0.263	0.291	0.308	0.297	0.424	0.312	18.11
85)	T	Naphthalene	0.837	0.836	0.949	1.027	1.006	0.834	0.915	9.90
86)	T	1,2,3-Trichlorobenz	0.264	0.266	0.289	0.308	0.298	0.365	0.298	12.39
87)	I	1,4-Dichlorobenzene-d	----------------			ISTD			----------------	

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15411.D Vial: 12
Acq On : 25 Sep 2007 10:19 pm Operator: MG
Sample : VSTD003 Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 10:42 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	87293	50.00 ug/L	0.02
36) 1,4-Difluorobenzene	16.06	114	133572	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.20	117	119396	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.08	152	72201	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.09	65	63257	56.76 ug/L	0.02
Spiked Amount 50.000	Range 76 - 118		Recovery =	113.52%	
50) Toluene-d8	20.04	98	140846	48.98 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.96%	
55) Bromofluorobenzene	27.61	95	67877	51.13 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	102.26%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.62	85	3697	4.21 ug/L	97
3) Chloromethane	6.20	50	1615	2.90 ug/L	59
4) Vinyl Chloride	6.47	62	1480	2.31 ug/L	76
6) Chloroethane	7.60	64	843	2.13 ug/L	57
7) Trichlorofluoromethane	8.24	101	2929m mb	3.62 ug/L	
8) Acrolein	9.14	56	618	9.16 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.31	101	1798m mb	4.60 ug/L	
10) Acetone	9.43	43	1336	5.84 ug/L #	51
11) 1,1-Dichloroethene	9.37	96	1353m mb	3.12 ug/L	
12) Acetonitrile	10.01	41	1241m mb	16.06 ug/L	
14) Methyl Acetate	10.10	43	1170	2.12 ug/L #	59
15) Allyl Chloride	10.10	39	1957	3.05 ug/L #	57
16) Carbon Disulfide	9.93	76	6481	2.82 ug/L	100
17) Methylene Chloride	10.35	84	2126	2.98 ug/L	93
19) MTBE	10.90	73	6246	2.84 ug/L	95
20) Acrylonitrile	10.86	53	1879	8.48 ug/L	99
21) trans-1,2-Dichloroethene	10.95	96	1982	3.08 ug/L	85
22) 1,1-Dichloroethane	11.85	63	3155	2.66 ug/L	90
23) Vinyl Acetate	11.82	43	2121	1.76 ug/L #	74
24) Chloroprene	12.04	53	2700	2.39 ug/L	89
26) Propionitrile	13.27	54	1469	18.15 ug/L	68
27) 2,2-Dichloropropane	13.17	77	2647	2.74 ug/L	78
28) cis-1,2-Dichloroethene	13.12	96	2012	2.71 ug/L	89
29) Methacrylonitrile	13.62	41	10193	2.34 ug/L	95
30) Chloroform	13.82	83	3976	3.17 ug/L	98
31) Bromochloromethane	13.72	128	946	2.54 ug/L	85
32) Isobutyl Alcohol	14.72	43	813	167.59 ug/L	71
34) 1,1,1-Trichloroethane	14.38	97	3185	3.31 ug/L	82
35) Cyclohexane	14.55	56	2194	2.74 ug/L	88
37) 1,1-Dichloropropene	14.75	75	2895	3.51 ug/L	88
38) Carbon Tetrachloride	14.81	117	2448	3.47 ug/L	97
39) Benzene	15.28	78	7197	2.66 ug/L	100
40) 1,2-Dichloroethane	15.27	62	3543	3.55 ug/L #	78
41) Trichloroethene	16.82	95	2060	3.25 ug/L	94
42) Methylcyclohexane	17.40	83	2773	3.60 ug/L	98
43) 1,2-Dichloropropane	17.42	63	1766	2.58 ug/L #	86
45) Bromodichloromethane	18.07	83	3049	3.17 ug/L #	96

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15411.D
Acq On : 25 Sep 2007 10:19 pm
Sample : VSTD003
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 10:42 2007

Vial: 12
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	Dibromomethane	17.75	93	1173	2.67 ug/L		93
48)	4-Methyl-2-pentanone	19.57	43	1228	2.09 ug/L		66
49)	cis-1,3-Dichloropropene	19.26	75	3669	3.02 ug/L		95
51)	Toluene	20.25	92	4482	2.79 ug/L		98
52)	trans-1,3-Dichloropropene	20.71	75	3660	3.25 ug/L		95
53)	Ethyl Methacrylate	20.84	69	2058	2.30 ug/L		94
54)	1,1,2-Trichloroethane	21.28	83	1390	2.63 ug/L		90
57)	2-Hexanone	21.89	43	760	1.74 ug/L	#	39
58)	1,3-Dichloropropane	21.79	76	3278	2.82 ug/L		96
59)	Tetrachloroethene	21.82	166	4076m Mb	5.02 ug/L		
60)	Dibromochloromethane	22.48	129	2356	2.92 ug/L		96
61)	1,2-Dibromoethane	22.91	107	1577	2.56 ug/L		99
62)	Chlorobenzene	24.28	112	5525	3.04 ug/L		79
63)	1,1,1,2-Tetrachloroethane	24.46	131	1932	2.84 ug/L		74
64)	Ethylbenzene	24.52	91	8312	2.84 ug/L		99
65)	m,p-Xylene	24.85	106	5960	5.46 ug/L		83
66)	o-Xylene	26.06	106	2730	2.43 ug/L		89
67)	Styrene	26.07	104	4909	2.61 ug/L		88
68)	Bromoform	26.71	173	1908	3.76 ug/L	#	92
69)	Isopropylbenzene	27.11	105	6173	2.60 ug/L		98
70)	1,1,2,2-Tetrachloroethane	27.93	83	2152	2.57 ug/L	#	91
71)	1,2,3-Trichloropropane	28.13	75	3027	2.76 ug/L		91
73)	N-Propylbenzene	28.33	91	8997m Mb	2.93 ug/L		
74)	1,3,5-Trimethylbenzene	28.82	105	5782	2.70 ug/L		99
75)	t-butylbenzene	29.83	119	4532	2.61 ug/L		97
76)	1,2,4-Trimethylbenzene	29.97	105	6392	2.89 ug/L		97
77)	Sec-butylbenzene	30.48	105	6394m Mb	2.71 ug/L		
78)	p-isopropyltoluene	30.87	119	6655m Mb	3.02 ug/L		
79)	1,3-Dichlorobenzene	30.91	146	5136	3.30 ug/L		95
80)	1,4-Dichlorobenzene	31.15	146	5007m Mb	3.25 ug/L		
81)	n-butylbenzene	32.09	91	6810m Mb	3.46 ug/L		
82)	1,2-Dichlorobenzene	32.30	146	4531	2.97 ug/L		98
83)	1,2-Dibromo-3-chloropropan	34.56	75	535	2.93 ug/L	#	11
84)	1,2,4-Trichlorobenzene	37.00	180	3038m Mb	3.43 ug/L		
85)	Naphthalene	37.82	128	5977	2.50 ug/L		100
86)	1,2,3-Trichlorobenzene	38.58	180	2613	3.39 ug/L		89

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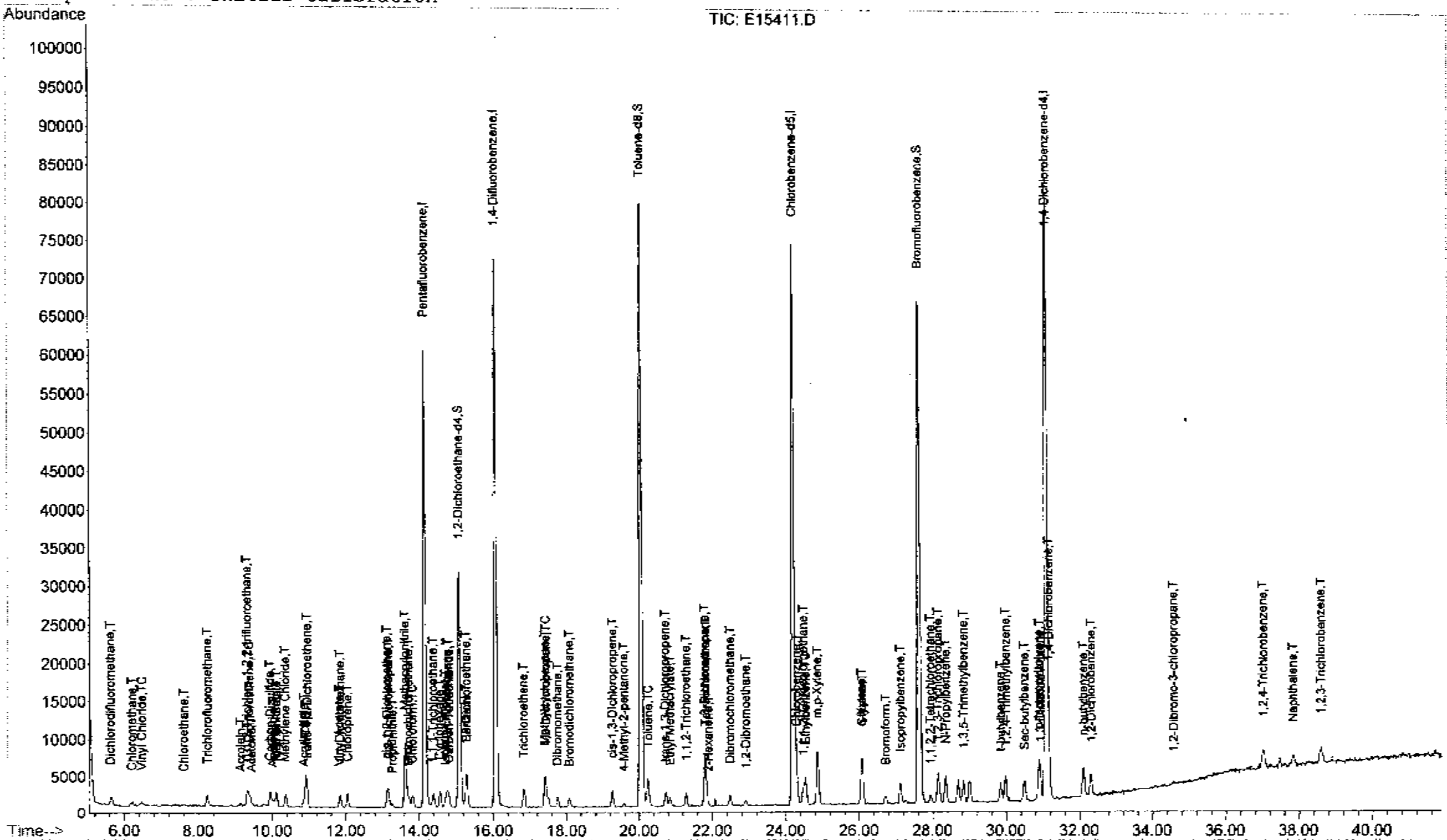
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15411.D
Acq On : 25 Sep 2007 10:19 pm
Sample : VSTD003
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 10:42 2007

Vial: 12
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15412.D
Acq On : 25 Sep 2007 11:08 pm
Sample : VSTD010
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 25 23:50 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	86340	50.00 ug/L	0.02
36) 1,4-Difluorobenzene	16.07	114	131870	50.00 ug/L	0.03
56) Chlorobenzene-d5	24.20	117	118187	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.07	152	74277	50.00 ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	15.09	65	63539	57.64 ug/L	0.02
Spiked Amount 50.000	Range 76 - 118		Recovery	= 115.28%	
50) Toluene-d8	20.05	98	140810	49.60 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.20%	
55) Bromofluorobenzene	27.61	95	69239	52.83 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery	= 105.66%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.63	85	9206	10.59 ug/L	100
3) Chloromethane	6.18	50	5300	9.62 ug/L	92
4) Vinyl Chloride	6.46	62	5100	8.05 ug/L	96
5) Bromomethane	7.38	94	1220	3.29 ug/L	90
6) Chloroethane	7.62	64	3053	7.81 ug/L	96
7) Trichlorofluoromethane	8.23	101	9254	11.58 ug/L	98
8) Acrolein	9.12	56	2656	39.79 ug/L	97
9) 1,1,2-Trichloro-1,2,2-trif	9.31	101	3921	10.15 ug/L	100
10) Acetone	9.43	43	2625	11.60 ug/L	89
11) 1,1-Dichloroethene	9.37	96	3976	9.27 ug/L	95
12) Acetonitrile	10.02	41	5344	69.91 ug/L	79
13) Iodomethane	9.75	142	4728	6.27 ug/L	98
14) Methyl Acetate	10.10	43	4053	7.43 ug/L	95
15) Allyl Chloride	10.10	39	7161	11.27 ug/L #	69
16) Carbon Disulfide	9.94	76	19669	8.64 ug/L	100
17) Methylene Chloride	10.34	84	6648	9.43 ug/L	97
19) MTBE	10.91	73	21821	10.01 ug/L	97
20) Acrylonitrile	10.86	53	6934	31.65 ug/L	98
21) trans-1,2-Dichloroethene	10.94	96	6050	9.50 ug/L	88
22) 1,1-Dichloroethane	11.84	63	11522	9.84 ug/L	96
23) Vinyl Acetate	11.83	43	8102	6.80 ug/L	97
24) Chloroprene	12.04	53	9000	8.06 ug/L	92
25) 2-Butanone	13.10	43	2372	7.72 ug/L #	68
26) Propionitrile	13.25	54	6755	84.37 ug/L	98
27) 2,2-Dichloropropane	13.16	77	8719	9.13 ug/L	96
28) cis-1,2-Dichloroethene	13.13	96	7137	9.70 ug/L	92
29) Methacrylonitrile	13.62	41	38454	8.94 ug/L	97
30) Chloroform	13.82	83	13131	10.58 ug/L	100
31) Bromochloromethane	13.73	128	3596	9.77 ug/L	95
32) Isobutyl Alcohol	14.71	43	3588	747.80 ug/L	84
34) 1,1,1-Trichloroethane	14.38	97	10472	11.01 ug/L	91
35) Cyclohexane	14.56	56	6056	7.64 ug/L	93
37) 1,1-Dichloropropene	14.75	75	7720	9.49 ug/L	97
38) Carbon Tetrachloride	14.81	117	7634	10.97 ug/L	100
39) Benzene	15.29	78	24378	9.11 ug/L	100
40) 1,2-Dichloroethane	15.27	62	12440	12.62 ug/L	92
41) Trichloroethene	16.83	95	6146	9.82 ug/L	98

-640-

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15412.D
Acq On : 25 Sep 2007 11:08 pm
Sample : VSTD010
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 25 23:50 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42)	Methylcyclohexane	17.40	83	6166	8.10 ug/L		99
43)	1,2-Dichloropropane	17.43	63	6242	9.25 ug/L		90
44)	Methyl Methacrylate	17.50	100	1581	9.56 ug/L	#	91
45)	Bromodichloromethane	18.07	83	10849	11.41 ug/L		98
46)	1,4-Dioxane	17.72	88	1155	8.86 ug/L		76
47)	Dibromomethane	17.76	93	4566	10.54 ug/L		98
48)	4-Methyl-2-pentanone	19.58	43	4765	8.21 ug/L		97
49)	cis-1,3-Dichloropropene	19.25	75	13027	10.85 ug/L		100
51)	Toluene	20.23	92	13708	8.63 ug/L		99
52)	trans-1,3-Dichloropropene	20.72	75	12869	11.56 ug/L		98
53)	Ethyl Methacrylate	20.84	69	8004	9.05 ug/L		98
54)	1,1,2-Trichloroethane	21.28	83	4946	9.49 ug/L		96
57)	2-Hexanone	21.89	43	3364	7.80 ug/L		95
58)	1,3-Dichloropropane	21.79	76	11618	10.10 ug/L		100
59)	Tetrachloroethene	21.81	166	9714	12.09 ug/L		99
60)	Dibromochloromethane	22.49	129	8317	10.41 ug/L		98
61)	1,2-Dibromoethane	22.89	107	6292	10.32 ug/L		97
62)	Chlorobenzene	24.29	112	17713	9.84 ug/L		95
63)	1,1,1,2-Tetrachloroethane	24.46	131	7191	10.66 ug/L		96
64)	Ethylbenzene	24.53	91	22939	7.92 ug/L		97
65)	m,p-Xylene	24.85	106	16873	15.60 ug/L		89
66)	o-Xylene	26.05	106	9093	8.17 ug/L		97
67)	Styrene	26.08	104	16098	8.65 ug/L		92
68)	Bromoform	26.71	173	7152	14.23 ug/L		97
69)	Isopropylbenzene	27.11	105	16529	7.04 ug/L		98
70)	1,1,2,2-Tetrachloroethane	27.91	83	7185	8.67 ug/L		99
71)	1,2,3-Trichloropropane	28.12	75	10662	9.82 ug/L		99
72)	1,4-Dichloro-2-butene	28.10	89	1051	8.04 ug/L	#	41
73)	N-Propylbenzene	28.33	91	20658	6.80 ug/L		100
74)	1,3,5-Trimethylbenzene	28.81	105	14852	7.02 ug/L		97
75)	t-butylbenzene	29.83	119	11514	6.71 ug/L		97
76)	1,2,4-Trimethylbenzene	29.96	105	15777	7.19 ug/L		97
77)	Sec-butylbenzene	30.48	105	13467	5.78 ug/L		98
78)	p-isopropyltoluene	30.88	119	13587	6.23 ug/L		99
79)	1,3-Dichlorobenzene	30.91	146	13299	8.64 ug/L		99
80)	1,4-Dichlorobenzene	31.16	146	14044	9.20 ug/L		96
81)	n-butylbenzene	32.09	91	10818	5.55 ug/L		99
82)	1,2-Dichlorobenzene	32.29	146	13627	9.03 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.54	75	1910	10.57 ug/L		81
84)	1,2,4-Trichlorobenzene	37.00	180	6900	7.86 ug/L		95
85)	Naphthalene	37.81	128	19784	8.37 ug/L		100
86)	1,2,3-Trichlorobenzene	38.57	180	6234	8.17 ug/L		98

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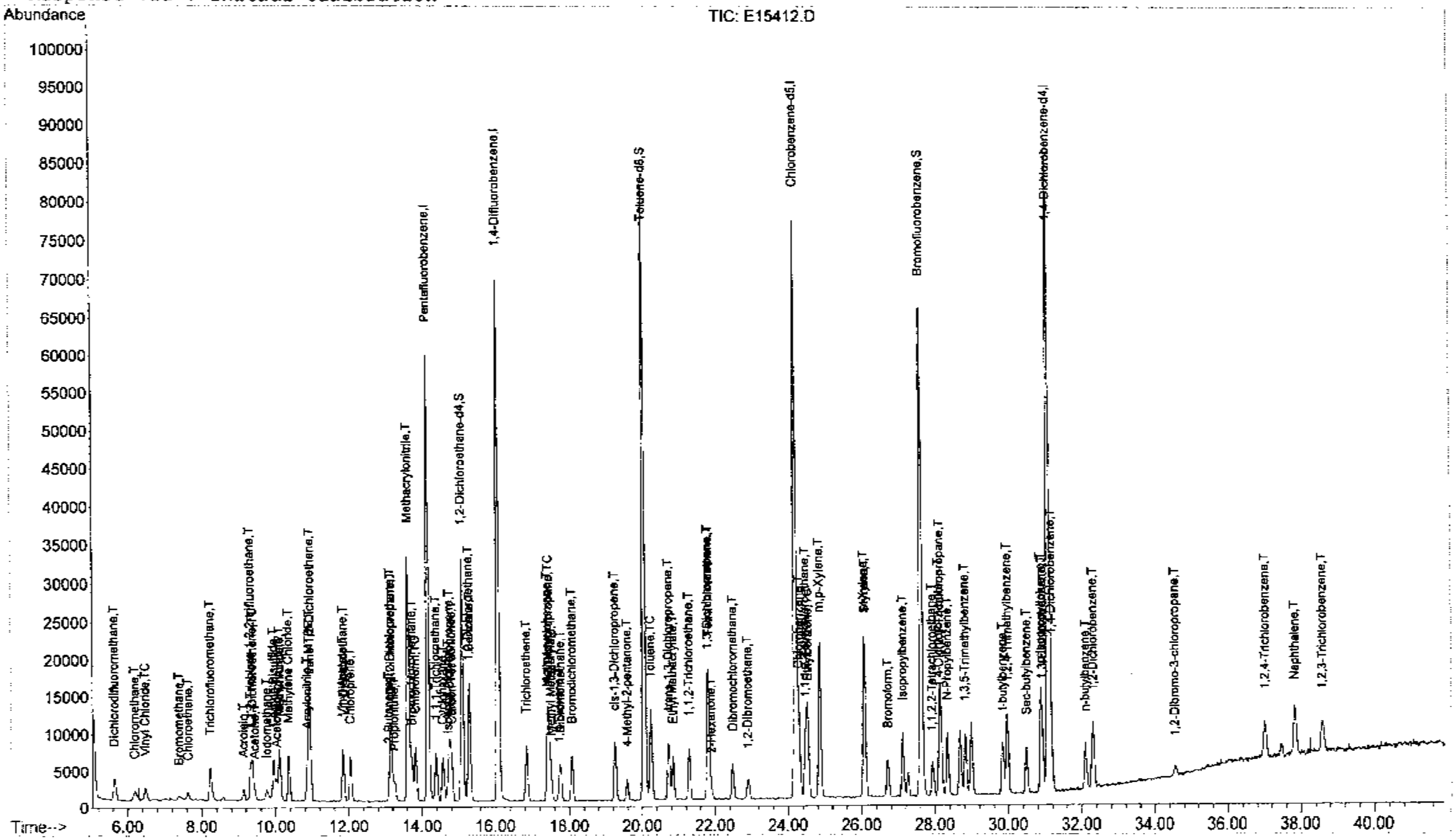
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15412.D
Acq On : 25 Sep 2007 11:08 pm
Sample : VSTD010
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 25 23:50 2007

Vial: 13
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15413.D
Acq On : 25 Sep 2007 11:57 pm
Sample : VSTD020
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 10:14 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	87794	50.00 ug/L	0.03
36) 1,4-Difluorobenzene	16.07	114	135145	50.00 ug/L	0.03
56) Chlorobenzene-d5	24.20	117	121405	50.00 ug/L	0.03
87) 1,4-Dichlorobenzene-d4	31.08	152	77949	50.00 ug/L	0.03

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.09	65	63691	56.82 ug/L	0.03
Spiked Amount 50.000	Range 76 - 118		Recovery =	113.64%	
50) Toluene-d8	20.05	98	143371	49.28 ug/L	0.03
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.56%	
55) Bromofluorobenzene	27.62	95	70389	52.41 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery =	104.82%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	5.63	85	18924	21.41 ug/L	99
3) Chloromethane	6.19	50	9782	17.46 ug/L	98
4) Vinyl Chloride	6.48	62	10295	15.99 ug/L	96
5) Bromomethane	7.36	94	3081	8.17 ug/L #	52
6) Chloroethane	7.62	64	6435	16.19 ug/L	95
7) Trichlorofluoromethane	8.23	101	19048	23.44 ug/L	99
8) Acrolein	9.13	56	5032	74.14 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.31	101	7618	19.40 ug/L	90
10) Acetone	9.44	43	4625	20.10 ug/L	85
11) 1,1-Dichloroethene	9.37	96	7928	18.18 ug/L	99
12) Acetonitrile	10.00	41	10836	139.42 ug/L	87
13) Iodomethane	9.74	142	12409	16.19 ug/L	91
14) Methyl Acetate	10.09	43	8505 MG	15.34 ug/L	99
15) Allyl Chloride	10.10	39	12462m	19.29 ug/L	
16) Carbon Disulfide	9.93	76	37755	16.32 ug/L	100
17) Methylene Chloride	10.35	84	13042	18.19 ug/L	94
19) MTBE	10.91	73	44879	20.26 ug/L	96
20) Acrylonitrile	10.85	53	14850	66.65 ug/L	99
21) trans-1,2-Dichloroethene	10.94	96	11807	18.24 ug/L	93
22) 1,1-Dichloroethane	11.85	63	22338	18.75 ug/L	99
23) Vinyl Acetate	11.82	43	17155	14.17 ug/L	100
24) Chloroprene	12.04	53	18983	16.72 ug/L	94
25) 2-Butanone	13.11	43	4803	15.37 ug/L #	93
26) Propionitrile	13.25	54	13439	165.08 ug/L	97
27) 2,2-Dichloropropane	13.17	77	17119	17.62 ug/L	95
28) cis-1,2-Dichloroethene	13.14	96	13257	17.73 ug/L	98
29) Methacrylonitrile	13.61	41	77543	17.73 ug/L	94
30) Chloroform	13.82	83	26113	20.69 ug/L	99
31) Bromochloromethane	13.72	128	7322	19.57 ug/L	90
32) Isobutyl Alcohol	14.71	43	7436	1524.12 ug/L	84
34) 1,1,1-Trichloroethane	14.38	97	20796	21.50 ug/L	96
35) Cyclohexane	14.57	56	12897	15.99 ug/L	93
37) 1,1-Dichloropropene	14.75	75	15387	18.45 ug/L	97
38) Carbon Tetrachloride	14.81	117	15604	21.87 ug/L	99
39) Benzene	15.30	78	48487	17.69 ug/L	100
40) 1,2-Dichloroethane	15.29	62	25783	25.51 ug/L	93
41) Trichloroethene	16.83	95	12354	19.26 ug/L	98

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15413.D
Acq On : 25 Sep 2007 11:57 pm
Sample : VSTD020
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 10:14 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42)	Methylcyclohexane	17.40	83	13014	16.68 ug/L		96
43)	1,2-Dichloropropane	17.44	63	12213	17.65 ug/L		96
44)	Methyl Methacrylate	17.49	100	3212	18.95 ug/L	#	96
45)	Bromodichloromethane	18.08	83	22066	22.65 ug/L		99
46)	1,4-Dioxane	17.70	88	2724	20.38 ug/L		93
47)	Dibromomethane	17.76	93	9610	21.64 ug/L		97
48)	4-Methyl-2-pentanone	19.59	43	10391	17.47 ug/L		94
49)	cis-1,3-Dichloropropene	19.25	75	26951	21.90 ug/L		98
51)	Toluene	20.24	92	27936	17.16 ug/L		99
52)	trans-1,3-Dichloropropene	20.73	75	26605	23.32 ug/L		99
53)	Ethyl Methacrylate	20.84	69	17594	19.40 ug/L		98
54)	1,1,2-Trichloroethane	21.29	83	10311	19.30 ug/L		97
57)	2-Hexanone	21.89	43	6985	15.77 ug/L		95
58)	1,3-Dichloropropane	21.79	76	23338	19.75 ug/L		99
59)	Tetrachloroethene	21.82	166	19390	23.50 ug/L		99
60)	Dibromochloromethane	22.48	129	17526	21.35 ug/L		98
61)	1,2-Dibromoethane	22.90	107	12823	20.47 ug/L		100
62)	Chlorobenzene	24.28	112	34366	18.59 ug/L		99
63)	1,1,1,2-Tetrachloroethane	24.47	131	14665	21.17 ug/L		96
64)	Ethylbenzene	24.52	91	45500	15.29 ug/L		99
65)	m,p-Xylene	24.86	106	34731	31.26 ug/L		94
66)	o-Xylene	26.05	106	18776	16.42 ug/L		96
67)	Styrene	26.08	104	34156	17.86 ug/L		94
68)	Bromoform	26.71	173	15241	29.53 ug/L		98
69)	Isopropylbenzene	27.10	105	35111	14.56 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.94	83	15484	18.18 ug/L		99
71)	1,2,3-Trichloropropane	28.14	75	22311	20.01 ug/L		96
72)	1,4-Dichloro-2-butene	28.09	89	2383	17.74 ug/L	#	66
73)	N-Propylbenzene	28.34	91	41640	13.34 ug/L		99
74)	1,3,5-Trimethylbenzene	28.81	105	30599	14.07 ug/L		98
75)	t-butylbenzene	29.84	119	23309	13.23 ug/L		96
76)	1,2,4-Trimethylbenzene	29.96	105	33041	14.67 ug/L		98
77)	Sec-butylbenzene	30.49	105	27383	11.43 ug/L		99
78)	p-isopropyltoluene	30.87	119	27071	12.09 ug/L		98
79)	1,3-Dichlorobenzene	30.90	146	26931	17.03 ug/L		99
80)	1,4-Dichlorobenzene	31.15	146	27669	17.64 ug/L		98
81)	n-butylbenzene	32.09	91	21020	10.50 ug/L		98
82)	1,2-Dichlorobenzene	32.30	146	27663	17.84 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.55	75	3834	20.65 ug/L		90
84)	1,2,4-Trichlorobenzene	36.99	180	12794	14.19 ug/L		98
85)	Naphthalene	37.83	128	40575	16.72 ug/L		100
86)	1,2,3-Trichlorobenzene	38.57	180	12918	16.49 ug/L		97

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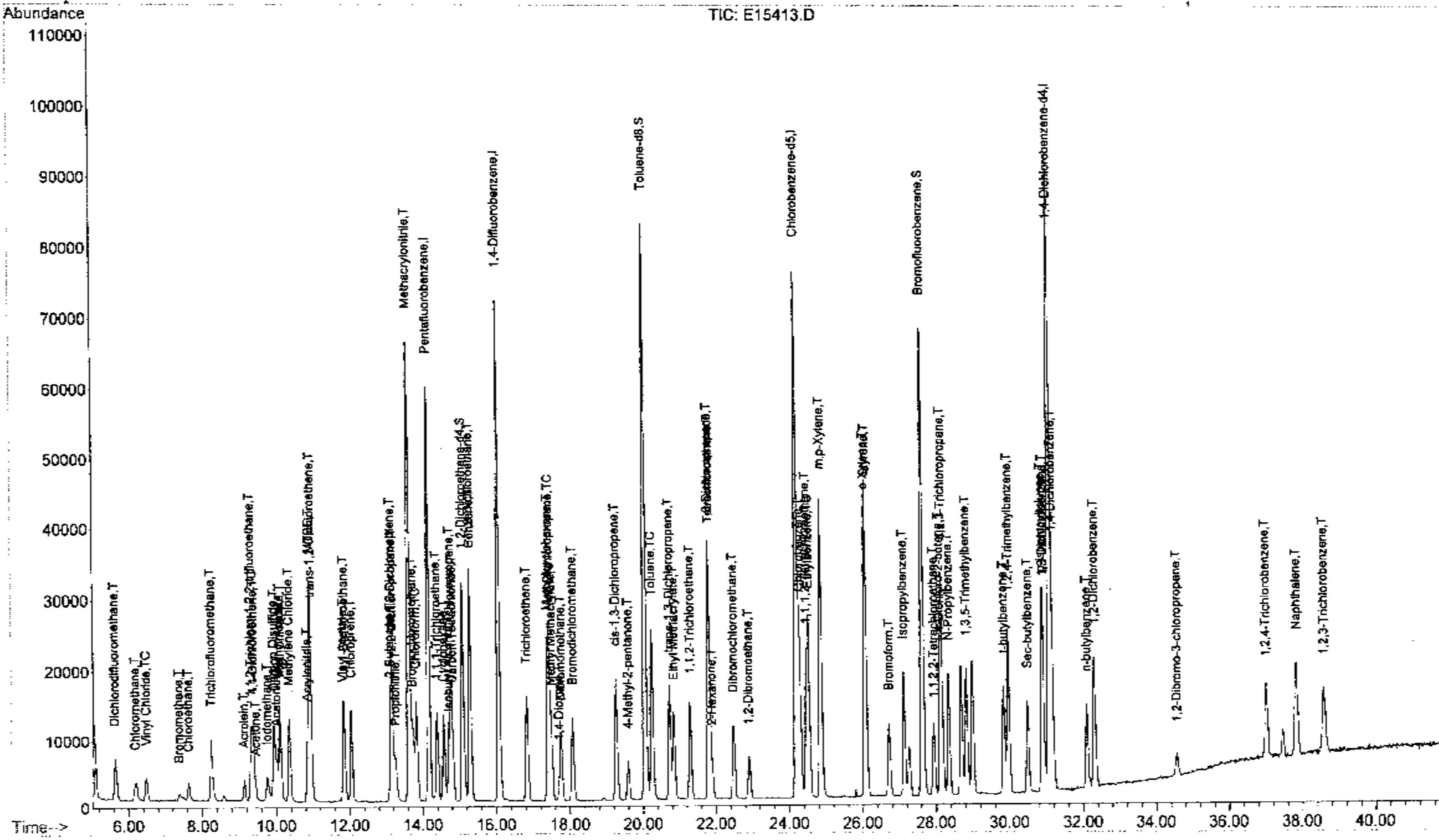
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15413.D
Acq On : 25 Sep 2007 11:57 pm
Sample : VSTD020
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 10:14 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15414.D
Acq On : 26 Sep 2007 12:47 am
Sample : VSTD050
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 1:29 2007

Vial: 15
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	91601	50.00 ug/L	0.03
36) 1,4-Difluorobenzene	16.07	114	139602	50.00 ug/L	0.03
56) Chlorobenzene-d5	24.19	117	127164	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.08	152	84680	50.00 ug/L	0.03

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.09	65	64959	55.54 ug/L	0.03
Spiked Amount 50.000	Range 76 - 118		Recovery	= 111.08%	
50) Toluene-d8	20.05	98	146877	48.87 ug/L	0.03
Spiked Amount 50.000	Range 88 - 110		Recovery	= 97.74%	
55) Bromofluorobenzene	27.62	95	75414	54.36 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery	= 108.72%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	5.63	85	48156	52.21 ug/L	99
3) Chloromethane	6.19	50	24076	41.20 ug/L	99
4) Vinyl Chloride	6.47	62	26394	39.29 ug/L	99
5) Bromomethane	7.37	94	11670	29.65 ug/L	99
6) Chloroethane	7.62	64	16247	39.19 ug/L	97
7) Trichlorofluoromethane	8.23	101	46794	55.18 ug/L	98
8) Acrolein	9.13	56	12925	182.52 ug/L	95
9) 1,1,2-Trichloro-1,2,2-trif	9.32	101	18734	45.72 ug/L	93
10) Acetone	9.44	43	10597	44.14 ug/L	93
11) 1,1-Dichloroethene	9.37	96	19247	42.31 ug/L	92
12) Acetonitrile	10.01	41	27852	343.45 ug/L	97
13) Iodomethane	9.75	142	38402	48.01 ug/L	91
14) Methyl Acetate	10.09	43	22342	38.62 ug/L	96
15) Allyl Chloride	10.09	39	33817	50.17 ug/L #	66
16) Carbon Disulfide	9.93	76	97556	40.41 ug/L	100
17) Methylene Chloride	10.35	84	33152	44.32 ug/L	92
19) MTBE	10.91	73	117304	50.74 ug/L	95
20) Acrylonitrile	10.84	53	39536	170.07 ug/L	96
21) trans-1,2-Dichloroethene	10.94	96	29064	43.03 ug/L	98
22) 1,1-Dichloroethane	11.85	63	56920	45.80 ug/L	100
23) Vinyl Acetate	11.83	43	47918	37.93 ug/L	95
24) Chloroprene	12.05	53	49021	41.38 ug/L	94
25) 2-Butanone	13.10	43	13967	42.84 ug/L	98
26) Propionitrile	13.25	54	37912	446.35 ug/L	94
27) 2,2-Dichloropropane	13.17	77	43245	42.66 ug/L	98
28) cis-1,2-Dichloroethene	13.14	96	33806	43.32 ug/L	98
29) Methacrylonitrile	13.61	41	206254	45.21 ug/L	95
30) Chloroform	13.82	83	68210	51.80 ug/L	100
31) Bromochloromethane	13.72	128	19497	49.95 ug/L	91
32) Isobutyl Alcohol	14.70	43	22127	4346.78 ug/L	95
34) 1,1,1-Trichloroethane	14.38	97	52353	51.87 ug/L	98
35) Cyclohexane	14.57	56	33619	39.95 ug/L	92
37) 1,1-Dichloropropene	14.75	75	40347	46.83 ug/L	99
38) Carbon Tetrachloride	14.81	117	40986	55.62 ug/L	100
39) Benzene	15.29	78	127418	45.00 ug/L	100
40) 1,2-Dichloroethane	15.28	62	66012	63.24 ug/L	95
41) Trichloroethene	16.83	95	32801	49.50 ug/L	99

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15414.D
Acq On : 26 Sep 2007 12:47 am
Sample : VSTD050
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 1:29 2007

Vial: 15
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42)	Methylcyclohexane	17.40	83	34439	42.72 ug/L		96
43)	1,2-Dichloropropane	17.44	63	32688	45.73 ug/L		99
44)	Methyl Methacrylate	17.50	100	9913	56.62 ug/L	#	91
45)	Bromodichloromethane	18.08	83	57593	57.24 ug/L		99
46)	1,4-Dioxane	17.70	88	7469	54.10 ug/L		94
47)	Dibromomethane	17.75	93	24707	53.87 ug/L		94
48)	4-Methyl-2-pentanone	19.58	43	28946	47.12 ug/L		97
49)	cis-1,3-Dichloropropene	19.25	75	72885	57.33 ug/L		98
51)	Toluene	20.24	92	75117	44.66 ug/L		100
52)	trans-1,3-Dichloropropene	20.71	75	72487	61.50 ug/L		99
53)	Ethyl Methacrylate	20.84	69	49990	53.36 ug/L		99
54)	1,1,2-Trichloroethane	21.28	83	28240	51.17 ug/L		97
57)	2-Hexanone	21.89	43	21399	46.12 ug/L		97
58)	1,3-Dichloropropane	21.80	76	63137	51.02 ug/L		99
59)	Tetrachloroethene	21.81	166	52174	60.36 ug/L		98
60)	Dibromochloromethane	22.48	129	47581	55.35 ug/L		96
61)	1,2-Dibromoethane	22.90	107	34372	52.37 ug/L		99
62)	Chlorobenzene	24.28	112	92100	47.56 ug/L		100
63)	1,1,1,2-Tetrachloroethane	24.47	131	39048	53.81 ug/L		98
64)	Ethylbenzene	24.53	91	125244	40.19 ug/L		99
65)	m,p-Xylene	24.85	106	95474	82.05 ug/L		94
66)	o-Xylene	26.06	106	50271	41.98 ug/L		94
67)	Styrene	26.07	104	95388	47.62 ug/L		96
68)	Bromoform	26.71	173	41842	77.39 ug/L		99
69)	Isopropylbenzene	27.11	105	97581	38.64 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.93	83	42051	47.14 ug/L		98
71)	1,2,3-Trichloropropane	28.13	75	60124	51.49 ug/L		96
72)	1,4-Dichloro-2-butene	28.11	89	7604	54.05 ug/L	#	95
73)	N-Propylbenzene	28.34	91	117176	35.83 ug/L		98
74)	1,3,5-Trimethylbenzene	28.83	105	86202	37.84 ug/L		99
75)	t-butylbenzene	29.82	119	67190	36.40 ug/L		97
76)	1,2,4-Trimethylbenzene	29.96	105	93468	39.61 ug/L		100
77)	Sec-butylbenzene	30.48	105	79555	31.71 ug/L		98
78)	p-isopropyltoluene	30.87	119	77767	33.16 ug/L		98
79)	1,3-Dichlorobenzene	30.91	146	75711	45.70 ug/L		99
80)	1,4-Dichlorobenzene	31.15	146	77259	47.03 ug/L		100
81)	n-butylbenzene	32.09	91	60343	28.78 ug/L		98
82)	1,2-Dichlorobenzene	32.29	146	77259	47.56 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.55	75	10111	51.99 ug/L		99
84)	1,2,4-Trichlorobenzene	37.01	180	36998	39.18 ug/L		99
85)	Naphthalene	37.83	128	120638	47.45 ug/L		100
86)	1,2,3-Trichlorobenzene	38.59	180	36803	44.85 ug/L		98

-647-

(#) = qualifier out of range (m) = manual integration

```
Data File : D:\DATA\E15414.D                          Vial: 15
Acq On    : 26 Sep 2007  12:47 am                 Operator: MG
Sample    : VSTD050                               Inst    : Voa Instr
Misc      : 5mL                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26  1:29 2007           Quant Results File: E092507W.RES

Method         : D:\METHODS\E092507W.M (RTE Integrator)
Title          : VOA 8260 Calibration
Last Update    : Wed Sep 26 10:42:24 2007
Response via   : Initial Calibration
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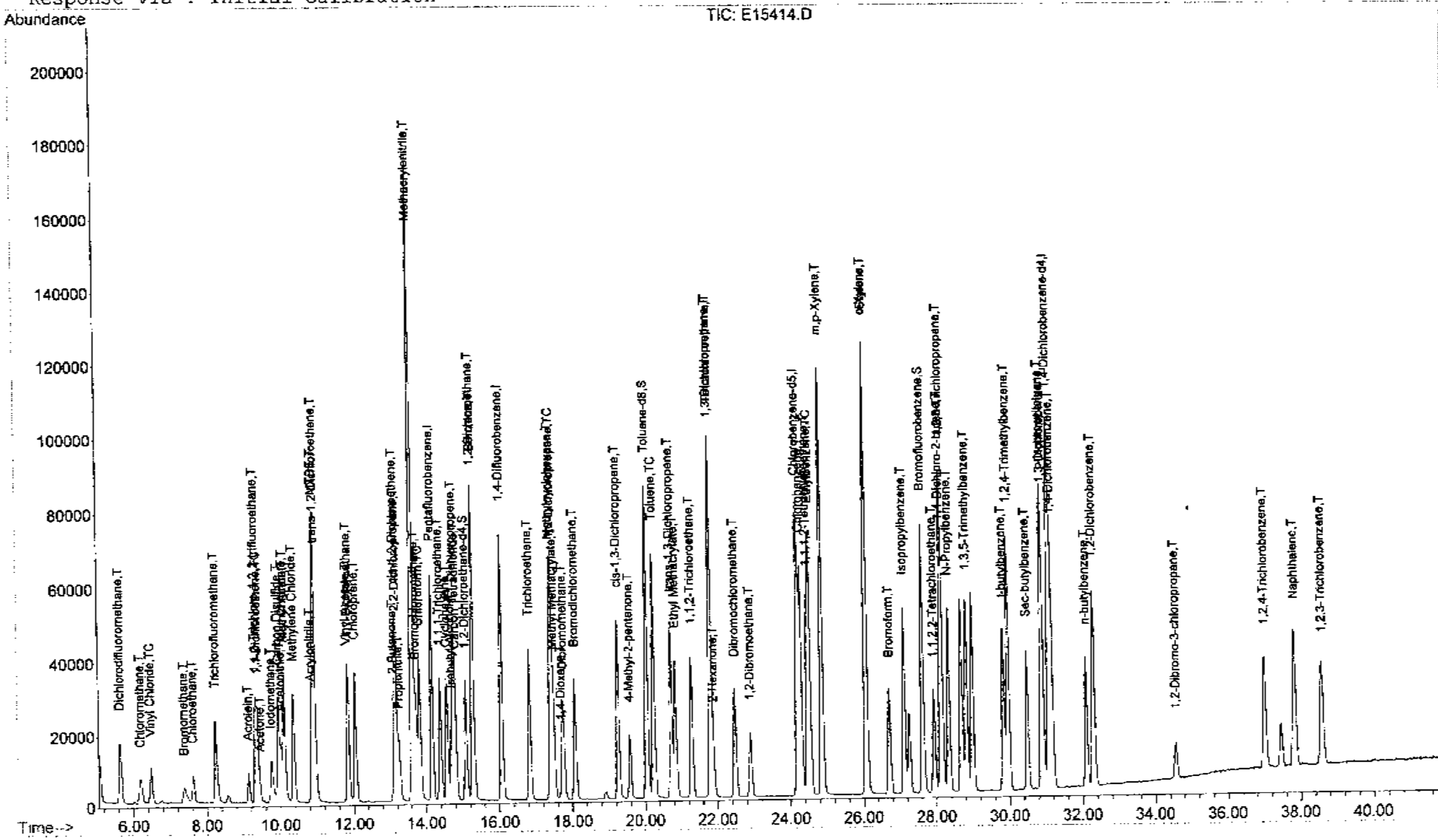


Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15415.D
Acq On : 26 Sep 2007 1:36 am
Sample : VSTD100
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 2:18 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	97783	50.00 ug/L	0.03
36) 1,4-Difluorobenzene	16.07	114	146494	50.00 ug/L	0.03
56) Chlorobenzene-d5	24.20	117	134578	50.00 ug/L	0.03
87) 1,4-Dichlorobenzene-d4	31.08	152	90331	50.00 ug/L	0.03

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.09	65	66279	53.09 ug/L	0.03
Spiked Amount 50.000	Range 76 - 118		Recovery	= 106.18%	
50) Toluene-d8	20.05	98	156738	49.70 ug/L	0.03
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.40%	
55) Bromofluorobenzene	27.62	95	80523	55.31 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery	= 110.62%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	5.63	85	99099	100.65 ug/L	100
3) Chloromethane	6.19	50	51598	82.71 ug/L	99
4) Vinyl Chloride	6.47	62	57471	80.14 ug/L	100
5) Bromomethane	7.38	94	31251	74.38 ug/L	97
6) Chloroethane	7.62	64	34855	78.76 ug/L	98
7) Trichlorofluoromethane	8.22	101	93941	103.77 ug/L	98
8) Acrolein	9.13	56	29313	387.78 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.32	101	37988	86.84 ug/L	91
10) Acetone	9.43	43	22261	86.85 ug/L	94
11) 1,1-Dichloroethene	9.37	96	39525	81.39 ug/L	94
12) Acetonitrile	10.01	41	61555	711.06 ug/L	86
13) Iodomethane	9.75	142	80852	94.70 ug/L	90
14) Methyl Acetate	10.09	43	47802	77.41 ug/L	93
15) Allyl Chloride	10.11	39	65400	90.89 ug/L #	69
16) Carbon Disulfide	9.93	76	196082	76.10 ug/L	100
17) Methylene Chloride	10.35	84	68162	85.36 ug/L	94
19) MTBE	10.91	73	249658	101.17 ug/L	96
20) Acrylonitrile	10.84	53	87259	351.63 ug/L	97
21) trans-1,2-Dichloroethene	10.94	96	58938	81.73 ug/L	98
22) 1,1-Dichloroethane	11.85	63	115199	86.83 ug/L	98
23) Vinyl Acetate	11.83	43	106009	78.61 ug/L	97
24) Chloroprene	12.03	53	101160	79.99 ug/L	95
25) 2-Butanone	13.09	43	30708	88.23 ug/L	96
26) Propionitrile	13.25	54	85241	940.12 ug/L	95
27) 2,2-Dichloropropane	13.17	77	86689	80.11 ug/L	98
28) cis-1,2-Dichloroethene	13.14	96	69366	83.27 ug/L	99
29) Methacrylonitrile	13.62	41	445495	91.47 ug/L	95
30) Chloroform	13.82	83	141506	100.67 ug/L	100
31) Bromochloromethane	13.72	128	40352	96.83 ug/L	98
32) Isobutyl Alcohol	14.70	43	49780	9160.87 ug/L	89
34) 1,1,1-Trichloroethane	14.38	97	108411	100.61 ug/L	98
35) Cyclohexane	14.57	56	70498	78.48 ug/L	90
37) 1,1-Dichloropropene	14.75	75	83369	92.21 ug/L	100
38) Carbon Tetrachloride	14.81	117	83370	107.81 ug/L	99
39) Benzene	15.29	78	269625	90.75 ug/L	100
40) 1,2-Dichloroethane	15.28	62	135898	124.06 ug/L	97
41) Trichloroethene	16.83	95	68051	97.87 ug/L	98

-649-

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15415.D
Acq On : 26 Sep 2007 1:36 am
Sample : VSTD100
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 2:18 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42)	Methylcyclohexane	17.40	83	74075	87.57 ug/L		96
43)	1,2-Dichloropropane	17.44	63	68867	91.82 ug/L		97
44)	Methyl Methacrylate	17.48	100	21665	117.93 ug/L	#	74
45)	Bromodichloromethane	18.07	83	122676	116.18 ug/L		100
46)	1,4-Dioxane	17.71	88	17100	118.02 ug/L		95
47)	Dibromomethane	17.75	93	53250	110.64 ug/L		95
48)	4-Methyl-2-pentanone	19.58	43	65891	102.21 ug/L		100
49)	cis-1,3-Dichloropropene	19.25	75	155740	116.75 ug/L		99
51)	Toluene	20.24	92	161642	91.59 ug/L		99
52)	trans-1,3-Dichloropropene	20.72	75	157080	126.99 ug/L		99
53)	Ethyl Methacrylate	20.84	69	113297	115.25 ug/L		98
54)	1,1,2-Trichloroethane	21.28	83	61143	105.57 ug/L		97
57)	2-Hexanone	21.89	43	49021	99.83 ug/L		98
58)	1,3-Dichloropropane	21.80	76	136461	104.19 ug/L		100
59)	Tetrachloroethene	21.82	166	112878	123.40 ug/L		99
60)	Dibromochloromethane	22.48	129	100966	110.98 ug/L		100
61)	1,2-Dibromoethane	22.90	107	74926	107.88 ug/L		99
62)	Chlorobenzene	24.28	112	196960	96.10 ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.47	131	83302	108.47 ug/L		98
64)	Ethylbenzene	24.53	91	270294	81.96 ug/L		99
65)	m,p-Xylene	24.85	106	203768	165.47 ug/L		95
66)	o-Xylene	26.06	106	110201	86.96 ug/L		96
67)	Styrene	26.07	104	209747	98.93 ug/L		97
68)	Bromoform	26.70	173	94507	165.16 ug/L		99
69)	Isopropylbenzene	27.11	105	211708	79.22 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.93	83	93344	98.88 ug/L		99
71)	1,2,3-Trichloropropane	28.12	75	134923	109.17 ug/L		92
72)	1,4-Dichloro-2-butene	28.09	89	17954	120.59 ug/L	#	81
73)	N-Propylbenzene	28.34	91	252127	72.85 ug/L		99
74)	1,3,5-Trimethylbenzene	28.81	105	188605	78.24 ug/L		98
75)	t-butylbenzene	29.84	119	143672	73.54 ug/L		96
76)	1,2,4-Trimethylbenzene	29.96	105	202503	81.09 ug/L		100
77)	Sec-butylbenzene	30.48	105	171755	64.69 ug/L		98
78)	p-isopropyltoluene	30.87	119	168547	67.90 ug/L		98
79)	1,3-Dichlorobenzene	30.91	146	161662	92.20 ug/L		99
80)	1,4-Dichlorobenzene	31.15	146	167508	96.35 ug/L		99
81)	n-butylbenzene	32.08	91	129587	58.39 ug/L		98
82)	1,2-Dichlorobenzene	32.29	146	168725	98.14 ug/L		98
83)	1,2-Dibromo-3-chloropropan	34.55	75	22670	110.14 ug/L		95
84)	1,2,4-Trichlorobenzene	37.01	180	82828	82.88 ug/L		99
85)	Naphthalene	37.82	128	276531	102.77 ug/L		100
86)	1,2,3-Trichlorobenzene	38.58	180	82857	95.41 ug/L		98

-650-

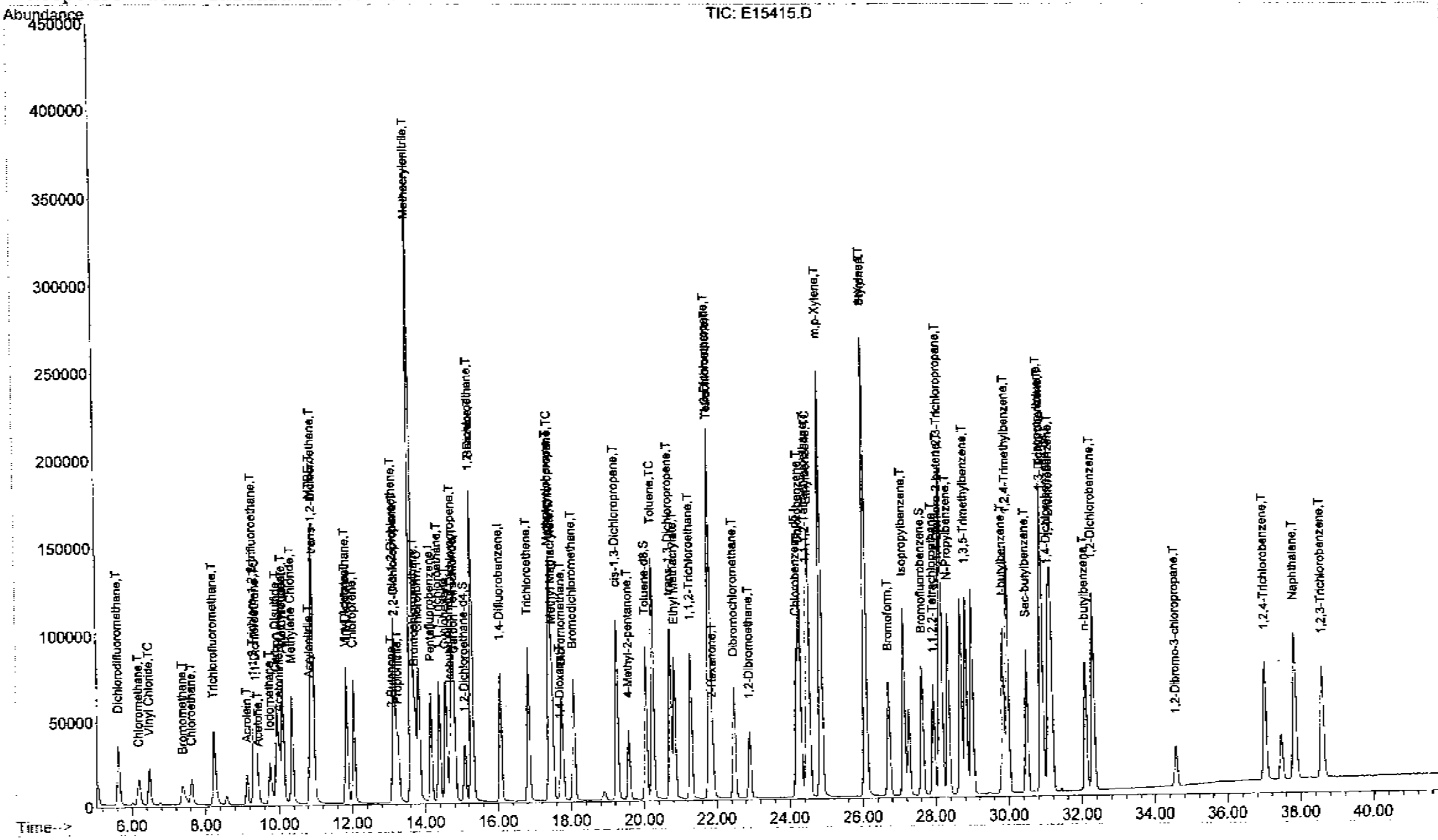
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15415.D
Acq On : 26 Sep 2007 1:36 am
Sample : VSTD100
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 2:18 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\E15416.D                              Vial: 17
Acq On    : 26 Sep 2007   2:25 am                     Operator: MG
Sample    : VSTD200                                   Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 26  3:07 2007              Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	105589	50.00 ug/L	0.02
36) 1,4-Difluorobenzene	16.07	114	159122	50.00 ug/L	0.03
56) Chlorobenzene-d5	24.20	117	146768	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	96672	50.00 ug/L	0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	15.09	65	68488	50.80 ug/L	0.02
Spiked Amount 50.000	Range 76 - 118		Recovery = 101.60%		
50) Toluene-d8	20.05	98	169898	49.59 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.18%		
55) Bromofluorobenzene	27.62	95	86063	54.42 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery = 108.84%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.63	85	165453	155.61 ug/L	100
3) Chloromethane	6.20	50	102870	152.70 ug/L	100
4) Vinyl Chloride	6.48	62	103441	133.59 ug/L	100
5) Bromomethane	7.35	94	73930	162.95 ug/L	96
6) Chloroethane	7.61	64	64452	134.86 ug/L	98
7) Trichlorofluoromethane	8.23	101	158061	161.69 ug/L	100
8) Acrolein	9.13	56	60786	744.68 ug/L	97
9) 1,1,2-Trichloro-1,2,2-trif	9.31	101	64419	136.37 ug/L	94
10) Acetone	9.44	43	42741	154.43 ug/L	95
11) 1,1-Dichloroethene	9.37	96	71080	135.55 ug/L	97
12) Acetonitrile	10.01	41	139448	1491.76 ug/L	93
13) Iodomethane	9.75	142	154827	167.93 ug/L	93
14) Methyl Acetate	10.09	43	99511	149.23 ug/L	92
15) Allyl Chloride	10.10	39	121690	156.62 ug/L #	73
16) Carbon Disulfide	9.93	76	358481	128.83 ug/L	100
17) Methylene Chloride	10.35	84	138329	160.42 ug/L	93
19) MTBE	10.90	73	520495	195.33 ug/L	95
20) Acrylonitrile	10.84	53	188077	701.86 ug/L	99
21) trans-1,2-Dichloroethene	10.94	96	113949	146.34 ug/L	99
22) 1,1-Dichloroethane	11.84	63	229541	160.22 ug/L	98
23) Vinyl Acetate	11.82	43	219886	151.01 ug/L	96
24) Chloroprene	12.04	53	190023	139.14 ug/L	96
25) 2-Butanone	13.10	43	65594	174.53 ug/L	95
26) Propionitrile	13.25	54	182237	1861.29 ug/L	95
27) 2,2-Dichloropropane	13.17	77	159718	136.69 ug/L	100
28) cis-1,2-Dichloroethene	13.13	96	142821	158.78 ug/L	97
29) Methacrylonitrile	13.62	41	921583	175.23 ug/L	95
30) Chloroform	13.83	83	283621	186.85 ug/L	100
31) Bromochloromethane	13.73	128	82605	183.58 ug/L	99
32) Isobutyl Alcohol	14.70	43	111835	19059.17 ug/L	93
34) 1,1,1-Trichloroethane	14.39	97	200053	171.94 ug/L	98
35) Cyclohexane	14.56	56	124237	128.08 ug/L	90
37) 1,1-Dichloropropene	14.75	75	154543	157.37 ug/L	100
38) Carbon Tetrachloride	14.81	117	150494	179.17 ug/L	100
39) Benzene	15.28	78	546011	169.18 ug/L	100
40) 1,2-Dichloroethane	15.27	62	276364	232.26 ug/L	97
41) Trichloroethene	16.83	95	135156	178.96 ug/L	97

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\E15416.D
Acq On : 26 Sep 2007 2:25 am
Sample : VSTD200
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 3:07 2007

Vial: 17
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Sep 13 10:11:47 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Methylcyclohexane	17.40	83	127883	139.18 ug/L	97
43)	1,2-Dichloropropane	17.43	63	143772	176.48 ug/L	97
44)	Methyl Methacrylate	17.49	100	47668	238.87 ug/L #	86
45)	Bromodichloromethane	18.07	83	251502	219.28 ug/L	100
46)	1,4-Dioxane	17.71	88	37995	241.43 ug/L	97
47)	Dibromomethane	17.75	93	109853	210.14 ug/L	93
48)	4-Methyl-2-pentanone	19.57	43	145007	207.08 ug/L	99
49)	cis-1,3-Dichloropropene	19.25	75	325937	224.94 ug/L	100
51)	Toluene	20.25	92	329104	171.68 ug/L	99
52)	trans-1,3-Dichloropropene	20.72	75	329182	245.01 ug/L	99
53)	Ethyl Methacrylate	20.84	69	244737	229.21 ug/L	98
54)	1,1,2-Trichloroethane	21.29	83	127382	202.49 ug/L	95
57)	2-Hexanone	21.88	43	108426	202.47 ug/L	100
58)	1,3-Dichloropropane	21.79	76	289203	202.47 ug/L	99
59)	Tetrachloroethene	21.81	166	229507	230.06 ug/L	97
60)	Dibromochloromethane	22.48	129	214013	215.69 ug/L	100
61)	1,2-Dibromoethane	22.91	107	161370	213.04 ug/L	100
62)	Chlorobenzene	24.29	112	410852	183.81 ug/L	99
63)	1,1,1,2-Tetrachloroethane	24.48	131	171950	205.31 ug/L	98
64)	Ethylbenzene	24.53	91	551754	153.42 ug/L	99
65)	m,p-Xylene	24.86	106	407852	303.69 ug/L	95
66)	o-Xylene	26.07	106	226661	164.01 ug/L	97
67)	Styrene	26.08	104	433516	187.50 ug/L	99
68)	Bromoform	26.71	173	202006	323.71 ug/L	99
69)	Isopropylbenzene	27.11	105	412710	141.60 ug/L	99
70)	1,1,2,2-Tetrachloroethane	27.93	83	199330	193.61 ug/L	99
71)	1,2,3-Trichloropropane	28.12	75	283296	210.19 ug/L	91
72)	1,4-Dichloro-2-butene	28.09	89	38679	238.21 ug/L #	1
73)	N-Propylbenzene	28.33	91	494992	131.14 ug/L	98
74)	1,3,5-Trimethylbenzene	28.82	105	375689	142.90 ug/L	99
75)	t-butylbenzene	29.83	119	286279	134.37 ug/L	98
76)	1,2,4-Trimethylbenzene	29.96	105	411955	151.26 ug/L	99
77)	Sec-butylbenzene	30.48	105	333406	115.15 ug/L	99
78)	p-isopropyltoluene	30.87	119	331587	122.49 ug/L	99
79)	1,3-Dichlorobenzene	30.90	146	328219	171.65 ug/L	99
80)	1,4-Dichlorobenzene	31.16	146	341736	180.23 ug/L	99
81)	n-butylbenzene	32.09	91	252103	104.16 ug/L	98
82)	1,2-Dichlorobenzene	32.30	146	349207	186.25 ug/L	98
83)	1,2-Dibromo-3-chloropropan	34.55	75	46989	209.33 ug/L	90
84)	1,2,4-Trichlorobenzene	37.00	180	174235	159.86 ug/L	99
85)	Naphthalene	37.83	128	590708	201.30 ug/L	100
86)	1,2,3-Trichlorobenzene	38.58	180	174859	184.63 ug/L	98

-653-

(#) = qualifier out of range (m) = manual integration

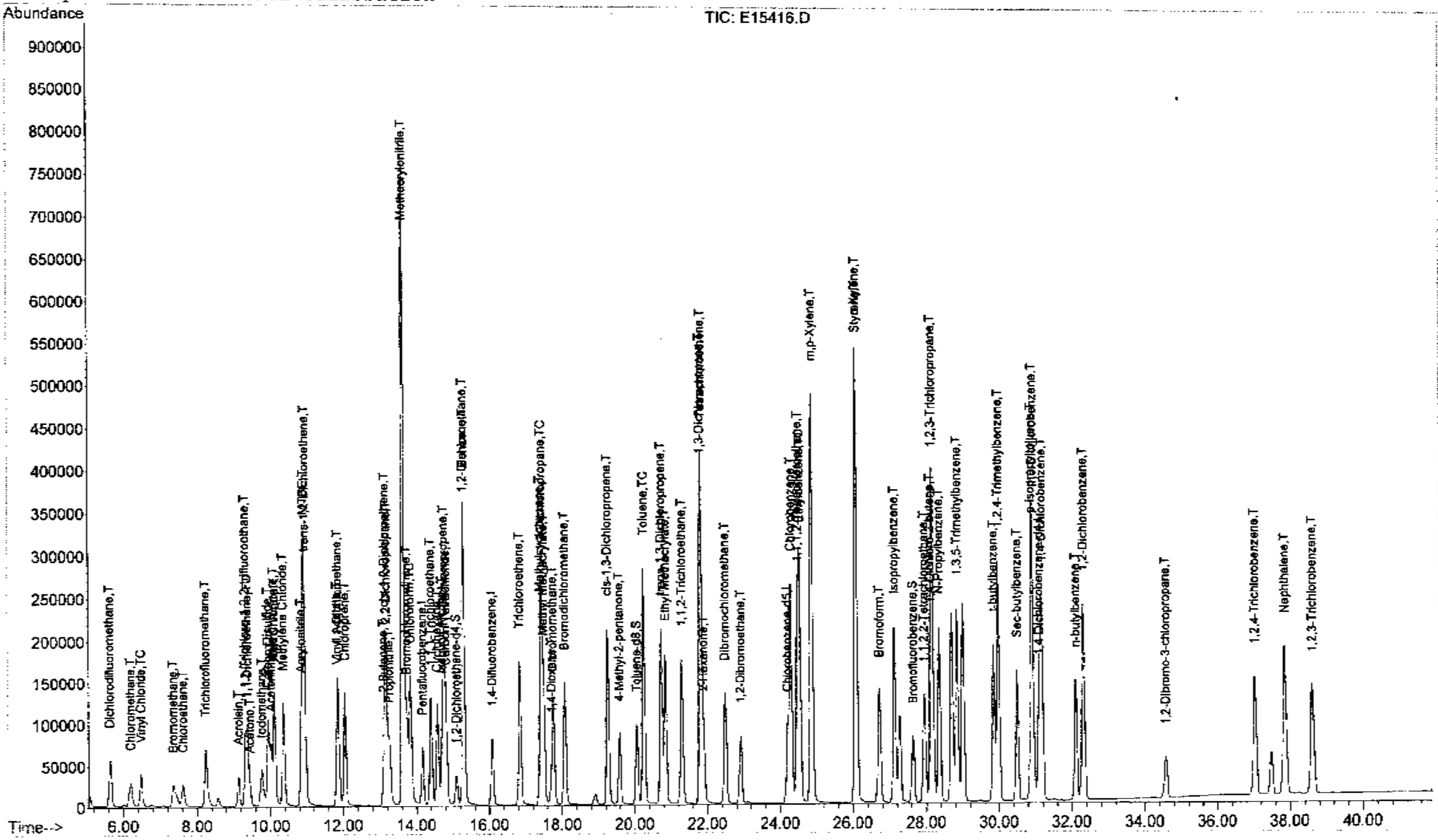
Quantitation Report

Data File : D:\DATA\E15416.D
Acq On : 26 Sep 2007 2:25 am
Sample : VSTD200
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 26 3:07 2007

Vial: 17
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Instrument ID: 12 Calibration Date(s): 9/25/2007 9/25/2007

Heated Purge (Y/N): N Calibration Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

LAB FILE ID: RRF03 = C18960.D RRF10 = C18961.D RRF200 =
RRF20 = C18962.D RRF50 = C18963.D RRF100 = C18964.D C18965.D

COMPOUND		RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	*	0.097	0.106	0.097	0.098	0.095	0.084	0.096	7.3	*
Vinyl Chloride	*	0.111	0.101	0.102	0.097	0.094	0.086	0.099	8.6	*
Bromomethane	*	0.169	0.173	0.180	0.178	0.185	0.180	0.177	3.3	*
Chloroethane	*	0.084	0.069	0.071	0.068	0.068	0.063	0.071	10.1	*
Trichlorofluoromethane	*	0.628	0.615	0.640	0.641	0.613	0.554	0.615	5.2	*
Acetone	*		0.061	0.050	0.053	0.051	0.048	0.053	9.6	*
1,1-Dichloroethene	*	0.138	0.130	0.140	0.138	0.134	0.119	0.133	5.9	*
Iodomethane	*	0.391	0.571	0.649	0.710	0.711	0.664	0.616	19.7	*
Carbon Disulfide	*	0.428	0.425	0.442	0.427	0.429	0.395	0.424	3.7	*
Methylene Chloride	*	0.164	0.154	0.155	0.159	0.155	0.151	0.156	3.0	*
Acrylonitrile	*		0.024	0.025	0.026	0.026	0.026	0.025	3.6	*
trans-1,2-Dichloroethene	*	0.157	0.150	0.164	0.165	0.164	0.150	0.158	4.5	*
1,1-Dichloroethane	*	0.315	0.319	0.316	0.314	0.324	0.308	0.316	1.7	*
Vinyl Acetate	*	0.253	0.245	0.270	0.277	0.286	0.286	0.269	6.4	*
2-Butanone	*		0.066	0.062	0.059	0.057	0.057	0.060	6.0	*
cis-1,2-Dichloroethene	*	0.159	0.179	0.182	0.187	0.188	0.177	0.179	5.9	*
Chloroform	*	0.522	0.520	0.523	0.533	0.529	0.511	0.523	1.4	*
Bromochloromethane	*	0.202	0.204	0.196	0.194	0.194	0.185	0.196	3.4	*
1,1,1-Trichloroethane	*	0.405	0.443	0.482	0.477	0.486	0.455	0.458	6.8	*
Carbon Tetrachloride	*	0.406	0.490	0.537	0.556	0.584	0.556	0.521	12.4	*
Benzene	*	0.440	0.472	0.470	0.463	0.459	0.444	0.458	2.9	*
1,2-Dichloroethane	*	0.523	0.506	0.502	0.516	0.523	0.522	0.515	1.8	*
Trichloroethene	*	0.298	0.316	0.332	0.328	0.334	0.316	0.321	4.2	*
1,2-Dichloropropane	*	0.211	0.225	0.225	0.220	0.217	0.214	0.219	2.8	*
Bromodichloromethane	*	0.832	0.860	0.883	0.881	0.896	0.905	0.876	3.0	*
Dibromomethane	*	0.551	0.557	0.557	0.545	0.553	0.551	0.552	0.8	*
4-Methyl-2-pentanone	*		0.177	0.183	0.188	0.184	0.191	0.185	3.0	*
cis-1,3-Dichloropropene	*	0.403	0.450	0.463	0.466	0.468	0.472	0.454	5.7	*
Toluene	*	0.249	0.257	0.283	0.277	0.287	0.275	0.271	5.6	*
trans-1,3-Dichloropropene	*	0.386	0.422	0.441	0.454	0.472	0.475	0.442	7.6	*
1,1,2-Trichloroethane	*	0.237	0.233	0.232	0.232	0.232	0.231	0.233	0.9	*
2-Hexanone	*		0.168	0.160	0.163	0.181	0.177	0.170	5.3	*
Tetrachloroethene	*	0.539	0.469	0.526	0.541	0.563	0.541	0.530	6.1	*
Dibromochloromethane	*	1.155	1.176	1.248	1.237	1.272	1.268	1.226	4.0	*
1,2-Dibromoethane	*	0.787	0.781	0.808	0.820	0.838	0.830	0.811	2.8	*
Chlorobenzene	*	0.550	0.545	0.616	0.599	0.643	0.627	0.597	6.8	*
1,1,1,2-Tetrachloroethane	*	0.426	0.478	0.541	0.524	0.557	0.555	0.514	10.1	*
Ethylbenzene	*	0.494	0.540	0.634	0.609	0.667	0.658	0.600	11.5	*
m,p-Xylene	*	0.184	0.198	0.226	0.214	0.229	0.231	0.214	8.8	*

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA-85

Instrument ID: 12 Calibration Date(s): 9/25/2007 9/25/2007

Heated Purge (Y/N): N Calibration Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

LAB FILE ID: RRF03 = C18960.D RRF10 = C18961.D RRF200 = C18965.D
RRF20 = C18962.D RRF50 = C18963.D RRF100 = C18964.D

COMPOUND		RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD	
o-Xylene	*	0.185	0.207	0.231	0.224	0.249	0.249	0.224	11.1	*
Styrene	*	0.364	0.390	0.456	0.446	0.481	0.476	0.436	10.9	*
Bromoform	*	1.313	1.429	1.538	1.544	1.585	1.561	1.495	7.0	*
1,1,2,2-Tetrachloroethane	*	0.520	0.566	0.574	0.575	0.593	0.585	0.569	4.5	*
1,2,3-Trichloropropane	*	0.377	0.507	0.423	0.444	0.436	0.423	0.435	9.7	*
1,4-Dichloro-2-butene	*		0.122	0.148	0.161	0.172	0.178	0.156	14.3	*
1,3-Dichlorobenzene	*	0.484	0.447	0.503	0.482	0.529	0.539	0.497	6.8	*
1,4-Dichlorobenzene	*	0.509	0.477	0.506	0.509	0.552	0.570	0.520	6.5	*
1,2-Dichlorobenzene	*	0.476	0.480	0.538	0.512	0.558	0.573	0.523	7.7	*
1,2-Dibromo-3-chloro-propane	*		0.187	0.225	0.221	0.238	0.247	0.223	10.3	*
1,2-Dichloroethane-d4	*	0.424	0.428	0.426	0.439	0.447	0.450	0.435	2.6	*
Toluene-d8	*	0.721	0.717	0.708	0.727	0.711	0.727	0.718	1.1	*
Bromofluorobenzene		0.743	0.743	0.734	0.745	0.756	0.771	0.748	1.7	

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Response Factor Report #12

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Calibration

Calibration Files
200 =C18965.D 100 =C18964.D 50 =C18963.D
20 =C18962.D 10 =C18961.D 03 =C18960.D

		Compound	200	100	50	20	10	03	Avg	%RSD
1)	I	Pentafluorobenzene				ISTD				
2)	T	Dichlorodifluoromet	0.424	0.464	0.491	0.498	0.485	0.516	0.479	6.68
3)	T	Chloromethane	0.084	0.095	0.098	0.097	0.106	0.097	0.096	7.26
4)	TC	Vinyl Chloride	0.086	0.094	0.097	0.102	0.101	0.111	0.099	8.55
5)	T	Bromomethane	0.180	0.185	0.178	0.180	0.173	0.168	0.177	3.28
6)	T	Chloroethane	0.063	0.068	0.068	0.071	0.069	0.084	0.070	10.16
7)	T	Trichlorofluorometh	0.554	0.613	0.641	0.640	0.615	0.628	0.615	5.22
8)	T	Acrolein	0.014	0.014	0.014	0.014	0.013		0.014#	3.28
9)	T	Acetone	0.048	0.051	0.053	0.050	0.061		0.053	9.60
10)	T	1,1,2-Trichloro-1,2	0.299	0.339	0.356	0.364	0.345	0.358	0.344	6.85
11)	TC	1,1-Dichloroethene	0.119	0.134	0.137	0.140	0.130	0.138	0.133	5.87
12)	T	Acetonitrile	0.007	0.007	0.007	0.007	0.007		0.007#	4.05
13)	T	Iodomethane	0.664	0.711	0.710	0.649	0.571	0.391	0.616	19.75
14)	T	Methyl acetate	0.101	0.101	0.103	0.097	0.098	0.093	0.099	3.59
15)	T	Allyl Chloride	0.145	0.157	0.161	0.159	0.162	0.164	0.158	4.37
16)	T	Carbon Disulfide	0.395	0.429	0.427	0.442	0.425	0.428	0.424	3.71
17)	T	Methylene Chloride	0.151	0.155	0.159	0.155	0.154	0.164	0.156	3.01
18)	T	MTBE	0.406	0.406	0.400	0.380	0.371	0.341	0.384	6.64
19)	T	Acrylonitrile	0.026	0.026	0.026	0.025	0.024		0.025#	3.62
20)	T	trans-1,2-Dichloroe	0.150	0.164	0.165	0.164	0.150	0.157	0.158	4.46
21)	T	1,1-Dichloroethane	0.308	0.324	0.314	0.316	0.319	0.315	0.316	1.66
22)	T	Vinyl Acetate	0.286	0.286	0.277	0.269	0.245	0.253	0.269	6.40
23)	T	Chloroprene	0.235	0.251	0.254	0.260	0.253	0.263	0.253	3.88
24)	T	2-Butanone	0.057	0.057	0.058	0.062	0.066		0.060	5.96
25)	T	Propionitrile	0.010	0.010	0.010	0.010	0.009		0.010#	4.82
26)	T	2,2-Dichloropropane	0.313	0.333	0.332	0.316	0.290	0.253	0.306	10.00
27)	T	cis-1,2-Dichloroeth	0.177	0.188	0.187	0.182	0.179	0.159	0.179	5.85
28)	T	Methacrylonitrile	0.661	0.669	0.655	0.631	0.607		0.644	3.96
29)	TC	Chloroform	0.511	0.529	0.533	0.523	0.520	0.522	0.523	1.43
30)	T	Bromochloromethane	0.185	0.194	0.194	0.196	0.204	0.201	0.196	3.44
31)	T	Isobutyl Alcohol	0.001	0.001	0.001	0.001	0.001		0.001#	9.63
32)	T	Cyclohexane	0.105	0.116	0.126	0.130	0.117	0.140	0.122	9.95
33)	S	1,2-Dichloroethane-	0.450	0.447	0.439	0.426	0.427	0.424	0.436	2.62
34)	T	1,1,1-Trichloroetha	0.455	0.486	0.477	0.482	0.442	0.405	0.458	6.77
35)	I	1,4-Difluorobenzene				ISTD				
36)	T	1,1-Dichloropropene	0.281	0.307	0.300	0.310	0.290	0.263	0.292	6.11
37)	T	Carbon Tetrachlorid	0.556	0.583	0.556	0.537	0.490	0.406	0.521	12.38
38)	T	Benzene	0.444	0.459	0.463	0.470	0.472	0.440	0.458	2.91
39)	T	1,2-Dichloroethane	0.522	0.523	0.516	0.502	0.506	0.523	0.515	1.77
40)	T	Trichloroethene	0.316	0.334	0.328	0.332	0.316	0.298	0.321	4.22
41)	TC	1,2-Dichloropropane	0.214	0.217	0.220	0.225	0.225	0.211	0.219	2.78
42)	T	Methylcyclohexane	0.149	0.165	0.176	0.183	0.187	0.185	0.174	8.45
43)	T	Methyl Methacrylate	0.229	0.228	0.225	0.218	0.217		0.223	2.45
44)	T	Bromodichloromethan	0.905	0.896	0.881	0.883	0.860	0.832	0.876	3.03
45)	T	Dibromomethane	0.551	0.553	0.545	0.557	0.557	0.551	0.552	0.83
46)	T	1,4-Dioxane	0.041	0.040	0.040	0.039	0.040		0.040#	2.24
47)	T	4-Methyl-2-pentanon	0.191	0.184	0.188	0.183	0.177		0.185	3.05
48)	T	cis-1,3-Dichloropro	0.472	0.468	0.466	0.463	0.450	0.403	0.454	5.72
49)	S	Toluene-d8	0.727	0.711	0.727	0.708	0.717	0.720	0.718	1.10
50)	TC	Toluene	0.275	0.287	0.277	0.283	0.257	0.249	0.271	5.56
51)	T	trans-1,3-Dichlorop	0.475	0.472	0.454	0.441	0.422	0.386	0.442	7.65

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(#) = Out of Range

Response Factor Report #12

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Calibration

Calibration Files
200 =C18965.D 100 =C18964.D 50 =C18963.D
20 =C18962.D 10 =C18961.D 03 =C18960.D

		Compound	200	100	50	20	10	03	Avg	%RSD
52)	T	Ethyl Methacrylate	0.132	0.132	0.135	0.134	0.126		0.132	2.75
53)	T	1,1,2-Trichloroetha	0.231	0.232	0.232	0.232	0.233	0.237	0.233	0.95
54)	S	Bromofluorobenzene	0.771	0.756	0.745	0.734	0.743	0.743	0.749	1.72
55)	I	Chlorobenzene-d5	-------	-------	-------	ISTD	-------	-------	-------	
56)	T	2-Hexanone	0.177	0.181	0.163	0.160	0.168		0.170	5.34
57)	T	1,3-Dichloropropane	0.490	0.502	0.489	0.495	0.480	0.491	0.491	1.42
58)	T	Tetrachloroethene	0.540	0.563	0.541	0.526	0.469	0.539	0.530	6.09
59)	T	Dibromochloromethan	1.268	1.272	1.237	1.248	1.176	1.155	1.226	4.01
60)	T	1,2-Dibromoethane	0.830	0.838	0.820	0.808	0.781	0.787	0.811	2.82
61)	T	Chlorobenzene	0.628	0.643	0.598	0.616	0.545	0.550	0.597	6.80
62)	T	1,1,1,2-Tetrachloro	0.555	0.557	0.524	0.541	0.478	0.426	0.514	10.11
63)	TC	Ethylbenzene	0.658	0.667	0.609	0.634	0.540	0.494	0.600	11.49
64)	T	m,p-Xylene	0.231	0.229	0.214	0.226	0.198	0.184	0.214	8.86
65)	T	o-Xylene	0.249	0.249	0.224	0.231	0.207	0.185	0.224	11.08
66)	T	Styrene	0.476	0.481	0.445	0.456	0.390	0.364	0.436	10.95
67)	T	Bromoform	1.561	1.585	1.544	1.538	1.429	1.313	1.495	6.96
68)	T	Isopropylbenzene	0.514	0.524	0.479	0.503	0.431	0.430	0.480	8.62
69)	T	1,1,2,2-Tetrachloro	0.585	0.593	0.575	0.574	0.566	0.520	0.569	4.50
70)	T	1,2,3-Trichloroprop	0.423	0.436	0.444	0.423	0.507	0.377	0.435	9.72
71)	T	1,4-Dichloro-2-bute	0.178	0.172	0.161	0.148	0.122		0.156	14.29
72)	T	n-propylbenzene	0.706	0.698	0.620	0.634	0.613	0.583	0.643	7.68
73)	T	1,3,5-Trimethylbenz	0.417	0.419	0.380	0.384	0.362	0.392	0.392	5.64
74)	T	T-butylbenzene	0.072	0.075	0.069	0.074	0.068	0.065	0.070	5.17
75)	T	1,2,4-Trimethylbenz	0.459	0.447	0.399	0.416	0.370	0.389	0.414	8.33
76)	T	sec-butylbenzene	0.403	0.427	0.404	0.407	0.381	0.438	0.410	4.87
77)	T	1,3-Dichlorobenzene	0.539	0.529	0.482	0.503	0.447	0.484	0.497	6.82
78)	T	p-isopropyltoluene	0.104	0.105	0.101	0.106	0.109	0.116	0.107	5.11
79)	T	1,4-Dichlorobenzene	0.570	0.552	0.509	0.506	0.477	0.509	0.520	6.50
80)	T	n-butylbenzene	0.278	0.298	0.278	0.280	0.271	0.357	0.294	10.94
81)	T	1,2-Dichlorobenzene	0.573	0.558	0.511	0.538	0.480	0.476	0.523	7.69
82)	T	1,2-Dibromo-3-chlor	0.247	0.238	0.221	0.225	0.187		0.223	10.30
83)	I	1,4-Dichlorobenzene-d	-------	-------	-------	ISTD	-------	-------	-------	
84)	T	1,2,4 trichlorobenz	0.473	0.451	0.417	0.419	0.438	0.534	0.455	9.60
85)	T	Naphalene	0.786	0.699	0.638	0.595	0.552	0.506	0.630	16.19
86)	T	1,2,3 Trichlorobenz	0.474	0.451	0.412	0.420	0.457	0.519	0.455	8.52

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(#) = Out of Range

Data File : D:\DATA\C18960.D Vial: 2
Acq On : 25 Sep 2007 1:43 pm Operator: MM
Sample : VSTD003 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 8:17 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.67	168	524568	50.00 ug/L	-0.05
35) 1,4-Difluorobenzene	10.94	114	398412	50.00 ug/L	-0.02
55) Chlorobenzene-d5	18.50	117	298362	50.00 ug/L	-0.01
83) 1,4-Dichlorobenzene-d4	23.16	152	233333	50.00 ug/L	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4		9.07	65	222440	48.33 ug/L	-0.04
Spiked Amount	50.000	Range 76 - 114		Recovery =	96.66%	
49) Toluene-d8		15.26	98	287046	49.55 ug/L	-0.01
Spiked Amount	50.000	Range 88 - 110		Recovery =	99.10%	
54) Bromofluorobenzene		20.94	95	295920	49.86 ug/L	0.00
Spiked Amount	50.000	Range 86 - 115		Recovery =	99.72%	

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
2) Dichlorodifluoromethane	2.08	85	16226 MM	3.15 ug/L		99
3) Chloromethane	2.35	50	3057m	2.99 ug/L		
4) Vinyl Chloride	2.35	62	3487	3.41 ug/L		81
5) Bromomethane	2.69	94	5302	2.83 ug/L		100
6) Chloroethane	2.82	64	2644	3.69 ug/L		96
7) Trichlorofluoromethane	3.06	101	19755	2.94 ug/L		100
8) Acrolein	3.40	56	1880	12.75 ug/L		98
9) Acetone	3.46	43	2924	5.25 ug/L		71
10) 1,1,2-Trichloro-1,2,2-trif	3.55	101	11275	3.02 ug/L		98
11) 1,1-Dichloroethene	3.64	96	4340	3.01 ug/L		93
12) Acetonitrile	3.70	41	2376 MM	30.55 ug/L	#	26
13) Iodomethane	3.95	142	12299m	1.65 ug/L		
14) Methyl acetate	4.03	43	2915	2.71 ug/L		86
15) Allyl Chloride	4.08	41	5162m MM	3.09 ug/L		
16) Carbon Disulfide	4.20	76	13482	3.01 ug/L		100
17) Methylene Chloride	4.19	84	5175	3.11 ug/L		98
18) MTBE	4.58	73	10746	2.56 ug/L	#	59
19) Acrylonitrile	4.28	53	2712	9.90 ug/L		89
20) trans-1,2-Dichloroethene	4.70	96	4932	2.86 ug/L		94
21) 1,1-Dichloroethane	5.33	63	9902 MM	3.00 ug/L		84
22) Vinyl Acetate	5.42	43	7952m	2.73 ug/L		
23) Chloroprene	5.59	53	8291	3.11 ug/L		90
24) 2-Butanone	6.20	43	2088m MM	3.40 ug/L		
25) Propionitrile	6.19	54	1741	17.13 ug/L		90
26) 2,2-Dichloropropane	6.58	77	7956m MM	2.28 ug/L		
27) cis-1,2-Dichloroethene	6.56	96	5005	2.56 ug/L		84
28) Methacrylonitrile	6.74	41	19675m MM	2.86 ug/L		
29) Chloroform	6.99	83	16434	2.94 ug/L		99
30) Bromochloromethane	7.29	128	6342 MM	3.12 ug/L	#	64
31) Isobutyl Alcohol	7.25	43	2906m	852.93 ug/L		
32) Cyclohexane	8.45	56	4411m MM	3.35 ug/L		
34) 1,1,1-Trichloroethane	8.22	97	12749	2.55 ug/L	#	38
36) 1,1-Dichloropropene	8.74	75	6282m MM	2.63 ug/L		
37) Carbon Tetrachloride	9.07	117	9702	2.19 ug/L	#	59
38) Benzene	9.51	78	10517	2.85 ug/L		100
39) 1,2-Dichloroethane	9.38	62	12491m MM	3.04 ug/L		
40) Trichloroethene	11.93	95	7130	2.73 ug/L	#	73

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18960.D	Vial: 2
Acq On : 25 Sep 2007 1:43 pm	Operator: MM
Sample : VSTD003	Inst : #12
Misc : 5ML	Multiplr: 1.00
MS Integration Params: rteint.p	
Quant Time: Sep 26 8:17 2007	Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	1,2-Dichloropropane	12.39	63	5032	2.87 ug/L	#	96
42)	Methylcyclohexane	12.42	83	4432m	3.16 ug/L		
43)	Methyl Methacrylate	16.17	41	5956	3.32 ug/L		81
44)	Bromodichloromethane	13.00	83	19895	2.83 ug/L		96
45)	Dibromomethane	12.97	93	13172	3.03 ug/L		98
46)	1,4-Dioxane	13.18	88	690m	2.18 ug/L		
47)	4-Methyl-2-pentanone	14.39	43	4319	2.88 ug/L		79
48)	cis-1,3-Dichloropropene	14.65	75	9636	2.59 ug/L		70
50)	Toluene	15.42	92	5946	2.69 ug/L		100
51)	trans-1,3-Dichloropropene	15.89	75	9221	2.55 ug/L		86
52)	Ethyl Methacrylate	12.96	69	3065m	2.86 ug/L		
53)	1,1,2-Trichloroethane	16.18	83	5668	3.06 ug/L		96
56)	2-Hexanone	16.54	43	3704m	3.81 ug/L		
57)	1,3-Dichloropropane	16.77	76	8793	3.01 ug/L		99
58)	Tetrachloroethene	16.98	166	9646	2.99 ug/L		95
59)	Dibromochloromethane	17.15	129	20670	2.80 ug/L		100
60)	1,2-Dibromoethane	17.58	107	14087	2.88 ug/L		95
61)	Chlorobenzene	18.57	112	9851	2.76 ug/L		90
62)	1,1,1,2-Tetrachloroethane	18.72	131	7618	2.43 ug/L		91
63)	Ethylbenzene	18.83	91	8846	2.43 ug/L		94
64)	m,p-Xylene	19.01	106	6583	5.16 ug/L		89
65)	o-Xylene	19.81	106	3311	2.47 ug/L		89
66)	Styrene	19.86	104	6521	2.45 ug/L		88
67)	Bromoform	20.25	173	23509	2.55 ug/L		96
68)	Isopropylbenzene	20.61	105	7689	2.69 ug/L		92
69)	1,1,2,2-Tetrachloroethane	20.81	83	9314	2.71 ug/L		98
70)	1,2,3-Trichloropropane	21.05	75	6749m	2.55 ug/L		
71)	1,4-Dichloro-2-butene	21.25	75	3765m	3.92 ug/L		
72)	n-propylbenzene	21.69	91	10438	2.82 ug/L		98
73)	1,3,5-Trimethylbenzene	21.71	105	7014	3.09 ug/L		91
74)	T-butylbenzene	22.78	91	1169	2.86 ug/L	#	100
75)	1,2,4-Trimethylbenzene	22.41	105	6960	2.92 ug/L		100
76)	sec-butylbenzene	22.78	105	7847	3.25 ug/L		98
77)	1,3-Dichlorobenzene	23.01	146	8661	3.01 ug/L		98
78)	p-isopropyltoluene	23.06	91	2085	3.47 ug/L		81
79)	1,4-Dichlorobenzene	23.22	146	9111	3.00 ug/L		83
80)	n-butylbenzene	23.80	91	6382	3.85 ug/L		94
81)	1,2-Dichlorobenzene	23.84	146	8518	2.79 ug/L		98
82)	1,2-Dibromo-3-chloro-propa	25.22	75	2920m	2.22 ug/L		
84)	1,2,4 trichlorobenze	26.95	180	7476	3.84 ug/L		97
85)	Naphalene	27.30	128	7081	2.38 ug/L		100
86)	1,2,3 Trichlorobenzene	27.81	180	7263	3.78 ug/L		95

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(#) = qualifier out of range (m) = manual integration

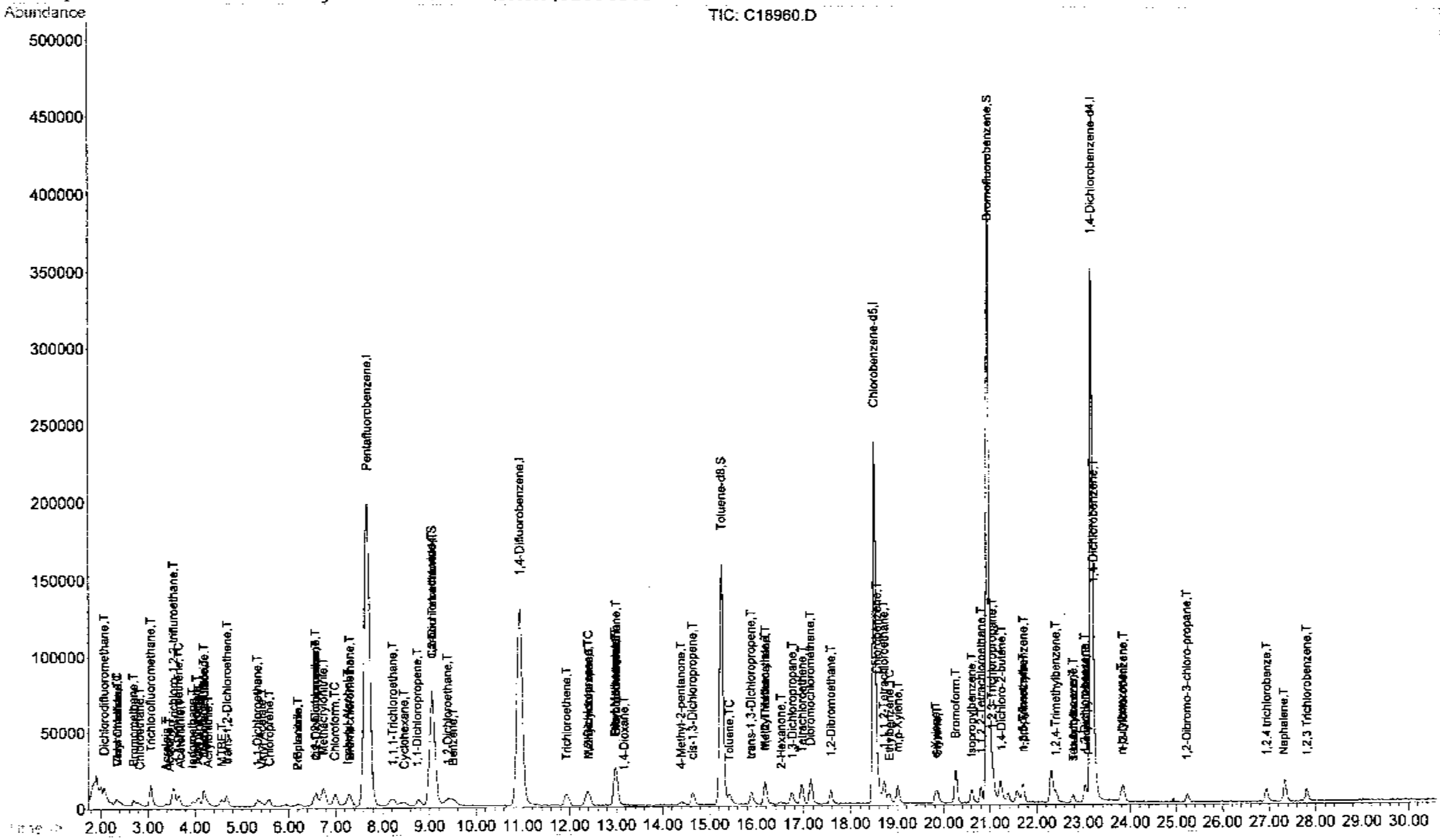
Quantitation Report

Data File : D:\DATA\C18960.D
Acq On : 25 Sep 2007 1:43 pm
Sample : VSTD003
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:17 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Cal File: D:\DATA\C18963.D



C18960.D TEST925.M Wed Sep 26 08:35:35 2007 12.0

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18961.D
Acq On : 25 Sep 2007 2:21 pm
Sample : VSTD010
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:27 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	544081	50.00	ug/L	0.00
35) 1,4-Difluorobenzene	10.98	114	407363	50.00	ug/L	0.02
55) Chlorobenzene-d5	18.51	117	303169	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	238547	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	9.11	65	232592	48.72	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	97.44%		
49) Toluene-d8	15.27	98	292202	49.33	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.66%		
54) Bromofluorobenzene	20.95	95	302624	49.87	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	99.74%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.09	85	52763	9.88	ug/L	99
3) Chloromethane	2.37	50	11553	10.88	ug/L	90
4) Vinyl Chloride	2.36	62	11008	10.38	ug/L	96
5) Bromomethane	2.73	94	18813 MM	9.70	ug/L	99
6) Chloroethane	2.80	64	7487m	10.07	ug/L	
7) Trichlorofluoromethane	3.09	101	66961	9.60	ug/L	100
8) Acrolein	3.41	56	5665	37.05	ug/L	97
9) Acetone	3.49	43	6653	11.51	ug/L	86
10) 1,1,2-Trichloro-1,2,2-trif	3.57	101	37534	9.69	ug/L	92
11) 1,1-Dichloroethene	3.69	96	14190	9.49	ug/L	96
12) Acetonitrile	3.70	41	7540	93.47	ug/L	97
13) Iodomethane	3.98	142	62090	8.04	ug/L	92
14) Methyl acetate	4.06	43	10626 MM	9.51	ug/L	94
15) Allyl Chloride	4.11	41	17651m	10.17	ug/L	
16) Carbon Disulfide	4.23	76	46209	9.94	ug/L	100
17) Methylene Chloride	4.23	84	16785	9.72	ug/L	96
18) MTBE	4.61	73	40339	9.26	ug/L	97
19) Acrylonitrile	4.32	53	10513	37.01	ug/L	93
20) trans-1,2-Dichloroethene	4.71	96	16309	9.10	ug/L	98
21) 1,1-Dichloroethane	5.38	63	34674	10.14	ug/L	98
22) Vinyl Acetate	5.45	43	26645	8.83	ug/L	100
23) Chloroprene	5.62	53	27496	9.95	ug/L	98
24) 2-Butanone	6.26	43	7141	11.22	ug/L	79
25) Propionitrile	6.21	54	9954 MM	94.42	ug/L	78
26) 2,2-Dichloropropane	6.60	77	31539m	8.72	ug/L	
27) cis-1,2-Dichloroethene	6.61	96	19522	9.62	ug/L	95
28) Methacrylonitrile	6.78	41	66025	9.27	ug/L	99
29) Chloroform	7.06	83	56605	9.77	ug/L	100
30) Bromochloromethane	7.35	128	22233 MM	10.55	ug/L	92
31) Isobutyl Alcohol	7.23	43	7940m	2246.85	ug/L	
32) Cyclohexane	8.47	56	12762	9.34	ug/L #	74
34) 1,1,1-Trichloroethane	8.25	97	48151	9.27	ug/L #	76
36) 1,1-Dichloropropene	8.83	75	23592	9.64	ug/L	75
37) Carbon Tetrachloride	9.08	117	39902 MM	8.80	ug/L	99
38) Benzene	9.57	78	38467m	10.19	ug/L	
39) 1,2-Dichloroethane	9.44	62	41213	9.81	ug/L	90
40) Trichloroethene	11.96	95	25715	9.62	ug/L	98

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18961.D Vial: 3
Acq On : 25 Sep 2007 2:21 pm Operator: MM
Sample : VSTD010 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 8:27 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	1,2-Dichloropropane	12.41	63	18355	10.23 ug/L		98
42)	Methylcyclohexane	12.44	83	15233	10.61 ug/L	#	72
43)	Methyl Methacrylate	16.21	41	17720	9.65 ug/L		99
44)	Bromodichloromethane	13.00	83	70030	9.75 ug/L		99
45)	Dibromomethane	13.00	93	45411	10.23 ug/L		99
46)	1,4-Dioxane	13.21	88	3294m	10.18 ug/L		
47)	4-Methyl-2-pentanone	14.41	43	14386	9.39 ug/L		99
48)	cis-1,3-Dichloropropene	14.66	75	36647	9.65 ug/L		99
50)	Toluene	15.45	92	20920	9.26 ug/L		96
51)	trans-1,3-Dichloropropene	15.91	75	34396	9.29 ug/L		99
52)	Ethyl Methacrylate	13.00	69	10229	9.33 ug/L		95
53)	1,1,2-Trichloroethane	16.20	83	18971	10.02 ug/L		94
56)	2-Hexanone	16.52	43	10167	10.28 ug/L		91
57)	1,3-Dichloropropane	16.78	76	29132	9.82 ug/L		100
58)	Tetrachloroethene	16.98	166	28416	8.66 ug/L		97
59)	Dibromochloromethane	17.17	129	71319	9.51 ug/L		100
60)	1,2-Dibromoethane	17.59	107	47378	9.53 ug/L		98
61)	Chlorobenzene	18.57	112	33060	9.11 ug/L		88
62)	1,1,1,2-Tetrachloroethane	18.72	131	29000	9.12 ug/L		96
63)	Ethylbenzene	18.84	91	32742	8.86 ug/L		96
64)	m,p-Xylene	19.01	106	24054	18.55 ug/L		98
65)	o-Xylene	19.82	106	12556	9.23 ug/L		99
66)	Styrene	19.86	104	23665	8.76 ug/L		94
67)	Bromoform	20.27	173	86661	9.26 ug/L		98
68)	Isopropylbenzene	20.60	105	26118	8.99 ug/L		96
69)	1,1,2,2-Tetrachloroethane	20.81	83	34294	9.83 ug/L		98
70)	1,2,3-Trichloropropane	21.06	75	30762m	11.44 ug/L		
71)	1,4-Dichloro-2-butene	21.23	75	7387	7.57 ug/L	#	89
72)	n-propylbenzene	21.70	91	37184	9.89 ug/L		96
73)	1,3,5-Trimethylbenzene	21.72	105	21924	9.51 ug/L		98
74)	T-butylbenzene	22.78	91	4115	9.90 ug/L	#	100
75)	1,2,4-Trimethylbenzene	22.43	105	22445	9.27 ug/L		99
76)	sec-butylbenzene	22.78	105	23128	9.44 ug/L		98
77)	1,3-Dichlorobenzene	23.03	146	27098	9.27 ug/L		98
78)	p-isopropyltoluene	23.07	91	6580	10.78 ug/L		83
79)	1,4-Dichlorobenzene	23.22	146	28940	9.37 ug/L		89
80)	n-butylbenzene	23.82	91	16462	9.77 ug/L		96
81)	1,2-Dichlorobenzene	23.85	146	29119	9.39 ug/L		97
82)	1,2-Dibromo-3-chloro-propa	25.24	75	11314	8.45 ug/L		99
84)	1,2,4 trichlorobenze	26.95	180	20898	10.50 ug/L		99
85)	Naphalene	27.30	128	26357	8.65 ug/L		100
86)	1,2,3 Trichlorobenzene	27.82	180	21805	11.09 ug/L		97

MM MM

-663-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

```
Data File : D:\DATA\C18961.D                          Vial: 3
Acq On    : 25 Sep 2007   2:21 pm                 Operator: MM
Sample    : VSTD010                               Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26  8:27 2007               Quant Results File: TEST925.RES

Method         : D:\METHODS\TEST925.M (RTE Integrator)
Title          : VOA 8260 Calibration
Last Update    : Wed Sep 26 08:28:32 2007
Response via   : Continuing Cal File: D:\DATA\C18963.D
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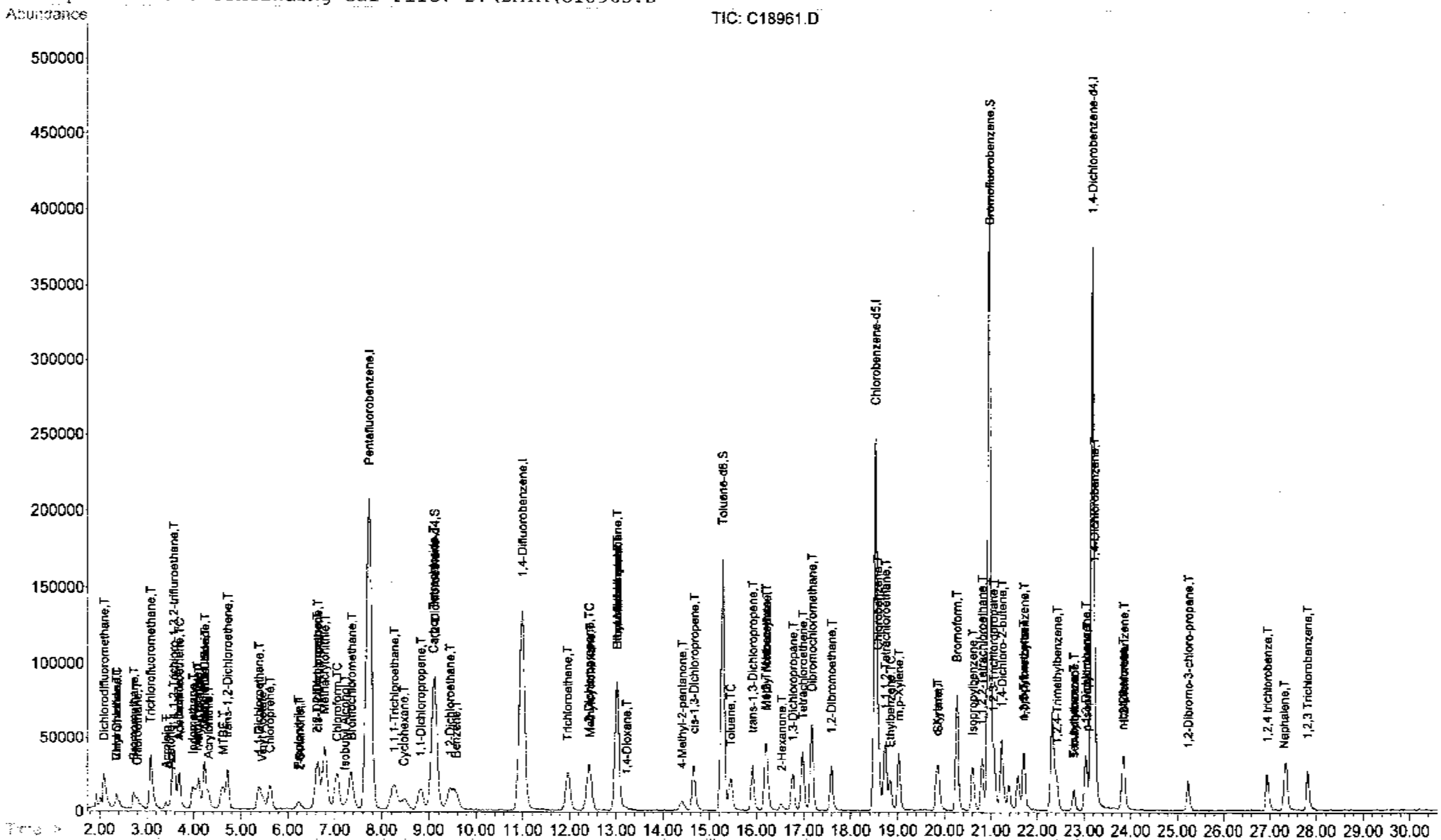

C18961.D TEST925.M   Wed Sep 26 08:35:41 2007   12.0

-664-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18962.D
Acq On : 25 Sep 2007 2:58 pm
Sample : VSTD020
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:21 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00
Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	539364	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.98	114	410476	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.52	117	300982	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	235346	50.00 ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	9.11	65	229526	48.50 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	97.00%	
49) Toluene-d8	15.28	98	290566	48.68 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	97.36%	
54) Bromofluorobenzene	20.94	95	301294	49.27 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.54%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.10	85	107392	20.29 ug/L	99
3) Chloromethane	2.33	50	20848	19.81 ug/L	98
4) Vinyl Chloride	2.35	62	22018	20.95 ug/L	97
5) Bromomethane	2.73	94	38833	20.19 ug/L	94
6) Chloroethane	2.81	64	15337	20.82 ug/L	78
7) Trichlorofluoromethane	3.08	101	138126	19.97 ug/L	99
8) Acrolein	3.41	56	12094	79.78 ug/L	83
9) Acetone	3.49	43	10779	18.81 ug/L	93
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	78536	20.46 ug/L	97
11) 1,1-Dichloroethene	3.68	96	30231	20.39 ug/L	100
12) Acetonitrile	3.70	41	14816	185.27 ug/L	83
13) Iodomethane	3.99	142	139929	18.27 ug/L	90
14) Methyl acetate	4.06	43	21000 MM	18.97 ug/L	95
15) Allyl Chloride	4.10	41	34254m	19.92 ug/L	
16) Carbon Disulfide	4.23	76	95441	20.71 ug/L	100
17) Methylene Chloride	4.23	84	33349	19.48 ug/L	97
18) MTBE	4.61	73	81884	18.96 ug/L	99
19) Acrylonitrile	4.32	53	21425	76.08 ug/L	92
20) trans-1,2-Dichloroethene	4.71	96	35462	19.97 ug/L	97
21) 1,1-Dichloroethane	5.38	63	68223	20.12 ug/L	97
22) Vinyl Acetate	5.45	43	58138	19.44 ug/L	100
23) Chloroprene	5.61	53	56118 MM	20.48 ug/L	63
24) 2-Butanone	6.24	43	13270m	21.03 ug/L	
25) Propionitrile	6.22	54	20672	197.81 ug/L	97
26) 2,2-Dichloropropane	6.62	77	68105	18.99 ug/L	98
27) cis-1,2-Dichloroethene	6.64	96	39229	19.49 ug/L	92
28) Methacrylonitrile	6.78	41	136052	19.26 ug/L	95
29) Chloroform	7.05	83	112735	19.62 ug/L	100
30) Bromochloromethane	7.34	128	42289	20.24 ug/L	97
31) Isobutyl Alcohol	7.23	43	13746	3923.85 ug/L #	62
32) Cyclohexane	8.50	56	28137 MM	20.78 ug/L #	36
34) 1,1,1-Trichloroethane	8.28	97	104049m	20.20 ug/L	
36) 1,1-Dichloropropene	8.82	75	50874	20.64 ug/L	84
37) Carbon Tetrachloride	9.09	117	88176	19.31 ug/L	100
38) Benzene	9.56	78	77146	20.29 ug/L	100
39) 1,2-Dichloroethane	9.44	62	82466	19.49 ug/L	96
40) Trichloroethene	11.97	95	54523	20.24 ug/L	98

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18962.D
Acq On : 25 Sep 2007 2:58 pm
Sample : VSTD020
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:21 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.43	63	37002	20.46 ug/L	97
42) Methylcyclohexane	12.43	83	30024	20.76 ug/L #	63
43) Methyl Methacrylate	16.22	41	35751	19.33 ug/L	97
44) Bromodichloromethane	13.02	83	145024	20.05 ug/L	99
45) Dibromomethane	13.02	93	91411 MM	20.43 ug/L	97
46) 1,4-Dioxane	13.23	88	6333m	19.42 ug/L	
47) 4-Methyl-2-pentanone	14.40	43	29995	19.43 ug/L	98
48) cis-1,3-Dichloropropene	14.66	75	75984	19.86 ug/L	99
50) Toluene	15.45	92	46459	20.41 ug/L	97
51) trans-1,3-Dichloropropene	15.91	75	72443	19.43 ug/L	100
52) Ethyl Methacrylate	12.99	69	22021	19.93 ug/L	99
53) 1,1,2-Trichloroethane	16.18	83	38095	19.97 ug/L	96
56) 2-Hexanone	16.52	43	19248	19.60 ug/L	92
57) 1,3-Dichloropropane	16.76	76	59578	20.23 ug/L	99
58) Tetrachloroethene	16.98	166	63278	19.42 ug/L	99
59) Dibromochloromethane	17.17	129	150209	20.17 ug/L	99
60) 1,2-Dibromoethane	17.59	107	97284	19.71 ug/L	100
61) Chlorobenzene	18.59	112	74196	20.59 ug/L	96
62) 1,1,1,2-Tetrachloroethane	18.74	131	65081	20.62 ug/L	97
63) Ethylbenzene	18.84	91	76289	20.80 ug/L	98
64) m,p-Xylene	19.01	106	54318	42.20 ug/L	99
65) o-Xylene	19.84	106	27811	20.60 ug/L	97
66) Styrene	19.87	104	54869	20.46 ug/L	97
67) Bromoform	20.26	173	185155	19.92 ug/L	99
68) Isopropylbenzene	20.61	105	60532	20.99 ug/L	99
69) 1,1,2,2-Tetrachloroethane	20.81	83	69141	19.97 ug/L	98
70) 1,2,3-Trichloropropane	21.06	75	50963	19.09 ug/L	100
71) 1,4-Dichloro-2-butene	21.25	75	17769	18.34 ug/L	94
72) n-propylbenzene	21.70	91	76362	20.45 ug/L	98
73) 1,3,5-Trimethylbenzene	21.72	105	46284	20.22 ug/L	97
74) T-butylbenzene	22.80	91	8890	21.54 ug/L #	100
75) 1,2,4-Trimethylbenzene	22.42	105	50142	20.87 ug/L	98
76) sec-butylbenzene	22.78	105	48985	20.13 ug/L	99
77) 1,3-Dichlorobenzene	23.03	146	60602	20.88 ug/L	98
78) p-isopropyltoluene	23.07	91	12733	21.02 ug/L	95
79) 1,4-Dichlorobenzene	23.22	146	60894	19.87 ug/L	94
80) n-butylbenzene	23.81	91	33659	20.13 ug/L	98
81) 1,2-Dichlorobenzene	23.85	146	64766	21.04 ug/L	99
82) 1,2-Dibromo-3-chloro-propa	25.24	75	27033	20.34 ug/L	89
84) 1,2,4 trichlorobenze	26.95	180	39478	20.11 ug/L	96
85) Naphalene	27.30	128	56042	18.65 ug/L	100
86) 1,2,3 Trichlorobenzene	27.82	180	39513	20.38 ug/L	96

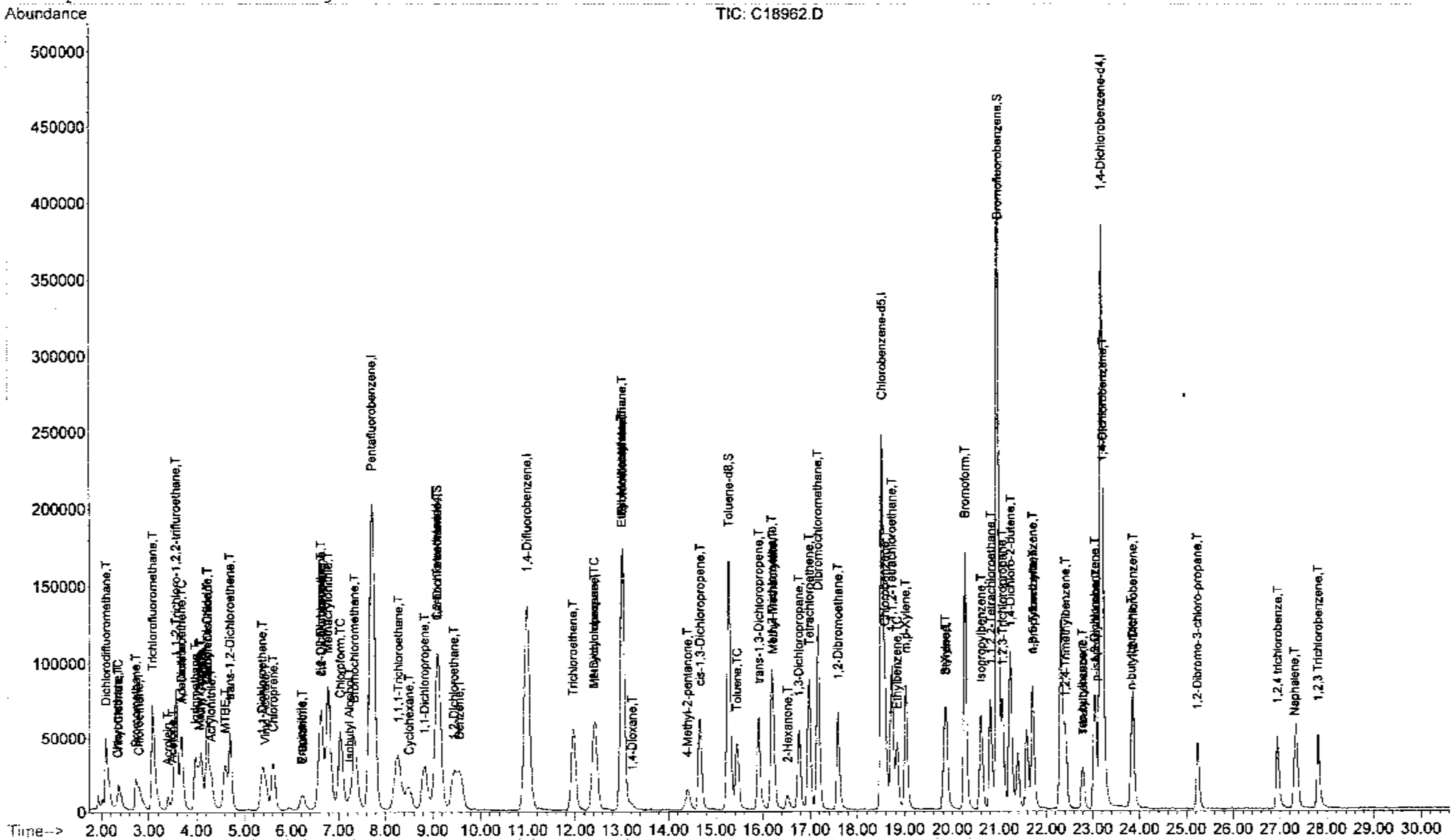
-666-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

```
Data File : D:\DATA\C18962.D                          Vial: 4
Acq On    : 25 Sep 2007   2:58 pm                 Operator: MM
Sample    : VSTD020                               Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26  8:21 2007          Quant Results File: TEST925.RES

Method       : D:\METHODS\TEST925.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 08:28:32 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
```



Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18963.D
Acq On : 25 Sep 2007 3:36 pm
Sample : VSTD050
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:11 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	532375	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.96	114	412033	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.51	117	303202	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	237132	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.11	65	233571	50.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery	= 100.00%	
49) Toluene-d8	15.27	98	299568	50.00 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 100.00%	
54) Bromofluorobenzene	20.95	95	306905	50.00 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery	= 100.00%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.09	85	261196	50.00 ug/L	100
3) Chloromethane	2.34	50	51943	50.00 ug/L	99
4) Vinyl Chloride	2.36	62	51872	50.00 ug/L	99
5) Bromomethane	2.73	94	94921	50.00 ug/L	100
6) Chloroethane	2.81	64	36357	50.00 ug/L	99
7) Trichlorofluoromethane	3.09	101	341291	50.00 ug/L	98
8) Acrolein	3.40	56	29926	200.00 ug/L	96
9) Acetone	3.48	43	28278	50.00 ug/L	98
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	189438	50.00 ug/L	95
11) 1,1-Dichloroethene	3.69	96	73176	50.00 ug/L	97
12) Acetonitrile	3.70	41	39467	500.00 ug/L	76
13) Iodomethane	3.98	142	377893	50.00 ug/L	92
14) Methyl acetate	4.05	43	54640	50.00 ug/L	98
15) Allyl Chloride	4.11	41	85493m MM	50.36 ug/L	
16) Carbon Disulfide	4.23	76	227417	50.00 ug/L	100
17) Methylene Chloride	4.23	84	84495	50.00 ug/L	98
18) MTBE	4.60	73	213109	50.00 ug/L	98
19) Acrylonitrile	4.31	53	55596	200.00 ug/L	97
20) trans-1,2-Dichloroethene	4.71	96	87634	50.00 ug/L	98
21) 1,1-Dichloroethane	5.37	63	167377	50.00 ug/L	99
22) Vinyl Acetate	5.45	43	147626	50.00 ug/L	100
23) Chloroprene	5.61	53	135199	50.00 ug/L	95
24) 2-Butanone	6.26	43	31134	50.00 ug/L	81
25) Propionitrile	6.23	54	51575	500.00 ug/L	92
26) 2,2-Dichloropropane	6.62	77	176950	50.00 ug/L	98
27) cis-1,2-Dichloroethene	6.63	96	99318	50.00 ug/L	96
28) Methacrylonitrile	6.79	41	348626	50.00 ug/L	97
29) Chloroform	7.04	83	283595	50.00 ug/L	99
30) Bromochloromethane	7.34	128	103099	50.00 ug/L	96
31) Isobutyl Alcohol	7.22	43	40616m MM	11746.20 ug/L	
32) Cyclohexane	8.46	56	66832	50.00 ug/L #	34
34) 1,1,1-Trichloroethane	8.24	97	254167	50.00 ug/L	99
36) 1,1-Dichloropropene	8.81	75	123711	50.00 ug/L	99
37) Carbon Tetrachloride	9.09	117	229220	50.00 ug/L	100
38) Benzene	9.56	78	190839	50.00 ug/L	100
39) 1,2-Dichloroethane	9.43	62	212406	50.00 ug/L	97
40) Trichloroethene	11.97	95	135211	50.00 ug/L	99

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18963.D Vial: 5
Acq On : 25 Sep 2007 3:36 pm Operator: MM
Sample : VSTD050 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 8:11 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.39	63	90750	50.00 ug/L	88
42) Methylcyclohexane	12.40	83	72578	50.00 ug/L	97
43) Methyl Methacrylate	16.21	41	92834	50.00 ug/L	95
44) Bromodichloromethane	13.01	83	363104	50.00 ug/L	99
45) Dibromomethane	13.01	93	224520	50.00 ug/L	96
46) 1,4-Dioxane	13.19	88	16368	50.00 ug/L	96
47) 4-Methyl-2-pentanone	14.39	43	77485	50.00 ug/L	98
48) cis-1,3-Dichloropropene	14.65	75	192047	50.00 ug/L	100
50) Toluene	15.46	92	114222	50.00 ug/L	98
51) trans-1,3-Dichloropropene	15.90	75	187172	50.00 ug/L	99
52) Ethyl Methacrylate	12.97	69	55450	50.00 ug/L	95
53) 1,1,2-Trichloroethane	16.19	83	95743	50.00 ug/L	98
56) 2-Hexanone	16.51	43	49458	50.00 ug/L	96
57) 1,3-Dichloropropane	16.76	76	148323	50.00 ug/L	100
58) Tetrachloroethene	16.97	166	164153	50.00 ug/L	97
59) Dibromochloromethane	17.16	129	375154	50.00 ug/L	99
60) 1,2-Dibromoethane	17.59	107	248671	50.00 ug/L	99
61) Chlorobenzene	18.59	112	181465	50.00 ug/L	100
62) 1,1,1,2-Tetrachloroethane	18.73	131	158968	50.00 ug/L	99
63) Ethylbenzene	18.84	91	184769	50.00 ug/L	99
64) m,p-Xylene	19.02	106	129674	100.00 ug/L	99
65) o-Xylene	19.82	106	68001	50.00 ug/L	96
66) Styrene	19.87	104	135073	50.00 ug/L	98
67) Bromoform	20.26	173	468175	50.00 ug/L	99
68) Isopropylbenzene	20.62	105	145239	50.00 ug/L	98
69) 1,1,2,2-Tetrachloroethane	20.80	83	174407	50.00 ug/L	98
70) 1,2,3-Trichloropropane	21.07	75	134493	50.00 ug/L	99
71) 1,4-Dichloro-2-butene	21.25	75	48810	50.00 ug/L #	76
72) n-propylbenzene	21.71	91	188073	50.00 ug/L	99
73) 1,3,5-Trimethylbenzene	21.72	105	115320	50.00 ug/L	98
74) T-butylbenzene	22.78	91	20790	50.00 ug/L #	100
75) 1,2,4-Trimethylbenzene	22.43	105	121039	50.00 ug/L	99
76) sec-butylbenzene	22.78	105	122542	50.00 ug/L	99
77) 1,3-Dichlorobenzene	23.04	146	146162	50.00 ug/L	99
78) p-isopropyltoluene	23.06	91	30518	50.00 ug/L	94
79) 1,4-Dichlorobenzene	23.22	146	154389	50.00 ug/L	98
80) n-butylbenzene	23.81	91	84238	50.00 ug/L	97
81) 1,2-Dichlorobenzene	23.86	146	155079	50.00 ug/L	99
82) 1,2-Dibromo-3-chloro-propa	25.25	75	66940	50.00 ug/L	93
84) 1,2,4 trichlorobenze	26.95	180	98897	50.00 ug/L	99
85) Naphalene	27.31	128	151376	50.00 ug/L	100
86) 1,2,3 Trichlorobenzene	27.82	180	97698	50.00 ug/L	99

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(#) = qualifier out of range (m) = manual integration

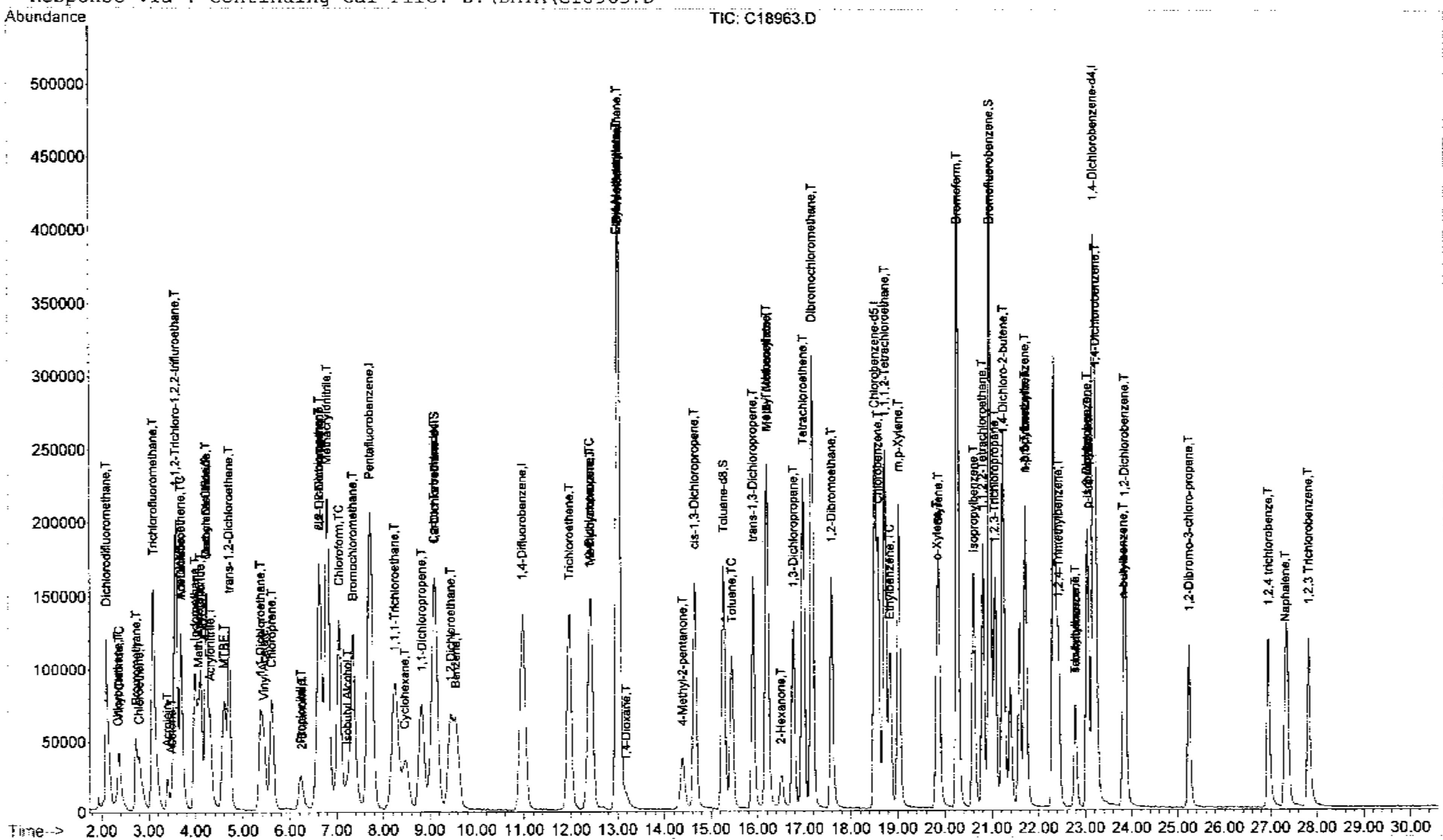
Quantitation Report

Data File : D:\DATA\C18963.D
Acq On : 25 Sep 2007 3:36 pm
Sample : VSTD050
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:11 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Cal File: D:\DATA\C18963.D



C18963.D TEST925.M Wed Sep 26 08:35:57 2007 12.(

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18964.D Vial: 6
Acq On : 25 Sep 2007 4:14 pm Operator: MM
Sample : VSTD100 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 8:22 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	528851	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.96	114	409994	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.52	117	301420	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	236966	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.11	65	236423	50.95 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery	= 101.90%	
49) Toluene-d8	15.27	98	291621	48.92 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 97.84%	
54) Bromofluorobenzene	20.94	95	309960	50.75 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery	= 101.50%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.10	85	490357	94.49 ug/L	100
3) Chloromethane	2.34	50	100232	97.13 ug/L	97
4) Vinyl Chloride	2.35	62	99173	96.23 ug/L	98
5) Bromomethane	2.72	94	195302	103.56 ug/L	99
6) Chloroethane	2.81	64	71928	99.58 ug/L	98
7) Trichlorofluoromethane	3.09	101	648005	95.57 ug/L	99
8) Acrolein	3.40	56	58542	393.85 ug/L	98
9) Acetone	3.49	43	53579	95.37 ug/L	99
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	358528	95.26 ug/L	96
11) 1,1-Dichloroethene	3.69	96	141371	97.24 ug/L	97
12) Acetonitrile	3.69	41	78329	998.95 ug/L	82
13) Iodomethane	3.98	142	751718	100.12 ug/L	92
14) Methyl acetate	4.05	43	106472	98.08 ug/L	99
15) Allyl Chloride	4.11	41	165675m	98.24 ug/L	
16) Carbon Disulfide	4.23	76	453519	100.38 ug/L	100
17) Methylene Chloride	4.22	84	163499	97.40 ug/L	98
18) MTBE	4.61	73	429900	101.54 ug/L	97
19) Acrylonitrile	4.30	53	111550	403.96 ug/L	97
20) trans-1,2-Dichloroethene	4.72	96	173368	99.58 ug/L	98
21) 1,1-Dichloroethane	5.37	63	342760	103.07 ug/L	99
22) Vinyl Acetate	5.45	43	302371	103.09 ug/L	100
23) Chloroprene	5.61	53	265927	99.00 ug/L	95
24) 2-Butanone	6.27	43	60719	98.16 ug/L	84
25) Propionitrile	6.23	54	107055	1044.77 ug/L	94
26) 2,2-Dichloropropane	6.63	77	352727	100.33 ug/L	98
27) cis-1,2-Dichloroethene	6.63	96	198643	100.67 ug/L	96
28) Methacrylonitrile	6.82	41	707564	102.16 ug/L	95
29) Chloroform	7.06	83	559921	99.38 ug/L	100
30) Bromochloromethane	7.36	128	205483	100.32 ug/L	95
31) Isobutyl Alcohol	7.25	43	87008	25330.49 ug/L	97
32) Cyclohexane	8.46	56	122839	92.51 ug/L #	50
34) 1,1,1-Trichloroethane	8.24	97	514206	101.83 ug/L	99
36) 1,1-Dichloropropene	8.82	75	251819	102.28 ug/L	97
37) Carbon Tetrachloride	9.09	117	478459	104.89 ug/L	99
38) Benzene	9.56	78	376522	99.14 ug/L	100
39) 1,2-Dichloroethane	9.43	62	428765	101.43 ug/L	97
40) Trichloroethene	11.96	95	273917	101.80 ug/L	99

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18964.D
Acq On : 25 Sep 2007 4:14 pm
Sample : VSTD100
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:22 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.42	63	178007	98.56 ug/L	89
42) Methylcyclohexane	12.40	83	135156	93.57 ug/L	99
43) Methyl Methacrylate	16.21	41	187029	101.23 ug/L	95
44) Bromodichloromethane	13.01	83	734910	101.70 ug/L	100
45) Dibromomethane	13.01	93	453710	101.54 ug/L	98
46) 1,4-Dioxane	13.20	88	32654	100.25 ug/L #	81
47) 4-Methyl-2-pentanone	14.39	43	150799	97.79 ug/L	99
48) cis-1,3-Dichloropropene	14.66	75	383699	100.39 ug/L	98
50) Toluene	15.45	92	234950	103.36 ug/L	97
51) trans-1,3-Dichloropropene	15.91	75	387234	103.96 ug/L	96
52) Ethyl Methacrylate	12.99	69	108546	98.36 ug/L	88
53) 1,1,2-Trichloroethane	16.18	83	190507	99.98 ug/L	99
56) 2-Hexanone	16.51	43	109318	111.17 ug/L	92
57) 1,3-Dichloropropane	16.76	76	302373	102.53 ug/L	100
58) Tetrachloroethene	16.97	166	339588	104.05 ug/L	99
59) Dibromochloromethane	17.17	129	766957	102.82 ug/L	99
60) 1,2-Dibromoethane	17.58	107	505020	102.14 ug/L	98
61) Chlorobenzene	18.59	112	387339	107.36 ug/L	98
62) 1,1,1,2-Tetrachloroethane	18.73	131	335899	106.27 ug/L	97
63) Ethylbenzene	18.83	91	401804	109.37 ug/L	99
64) m,p-Xylene	19.02	106	275898	214.02 ug/L	95
65) o-Xylene	19.83	106	149981	110.93 ug/L	96
66) Styrene	19.87	104	290091	108.02 ug/L	95
67) Bromoform	20.26	173	955701	102.67 ug/L	99
68) Isopropylbenzene	20.62	105	315907	109.40 ug/L	99
69) 1,1,2,2-Tetrachloroethane	20.81	83	357445	103.08 ug/L	99
70) 1,2,3-Trichloropropane	21.07	75	262775	98.27 ug/L	100
71) 1,4-Dichloro-2-butene	21.24	75	103675	106.83 ug/L #	78
72) n-propylbenzene	21.70	91	421078	112.61 ug/L	97
73) 1,3,5-Trimethylbenzene	21.72	105	252325	110.05 ug/L	98
74) T-butylbenzene	22.79	91	44940	108.72 ug/L #	100
75) 1,2,4-Trimethylbenzene	22.42	105	269761	112.09 ug/L	98
76) sec-butylbenzene	22.78	105	257278	105.60 ug/L	100
77) 1,3-Dichlorobenzene	23.03	146	319028	109.78 ug/L	99
78) p-isopropyltoluene	23.06	91	63228	104.20 ug/L	97
79) 1,4-Dichlorobenzene	23.22	146	332604	108.35 ug/L	98
80) n-butylbenzene	23.81	91	179726	107.31 ug/L	96
81) 1,2-Dichlorobenzene	23.85	146	336112	109.01 ug/L	99
82) 1,2-Dibromo-3-chloro-propa	25.23	75	143448	107.78 ug/L	92
84) 1,2,4 trichlorobenze	26.95	180	213936	108.24 ug/L	97
85) Naphalene	27.30	128	331222	109.48 ug/L	100
86) 1,2,3 Trichlorobenzene	27.82	180	213798	109.49 ug/L	100

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(#) = qualifier out of range (m) = manual integration

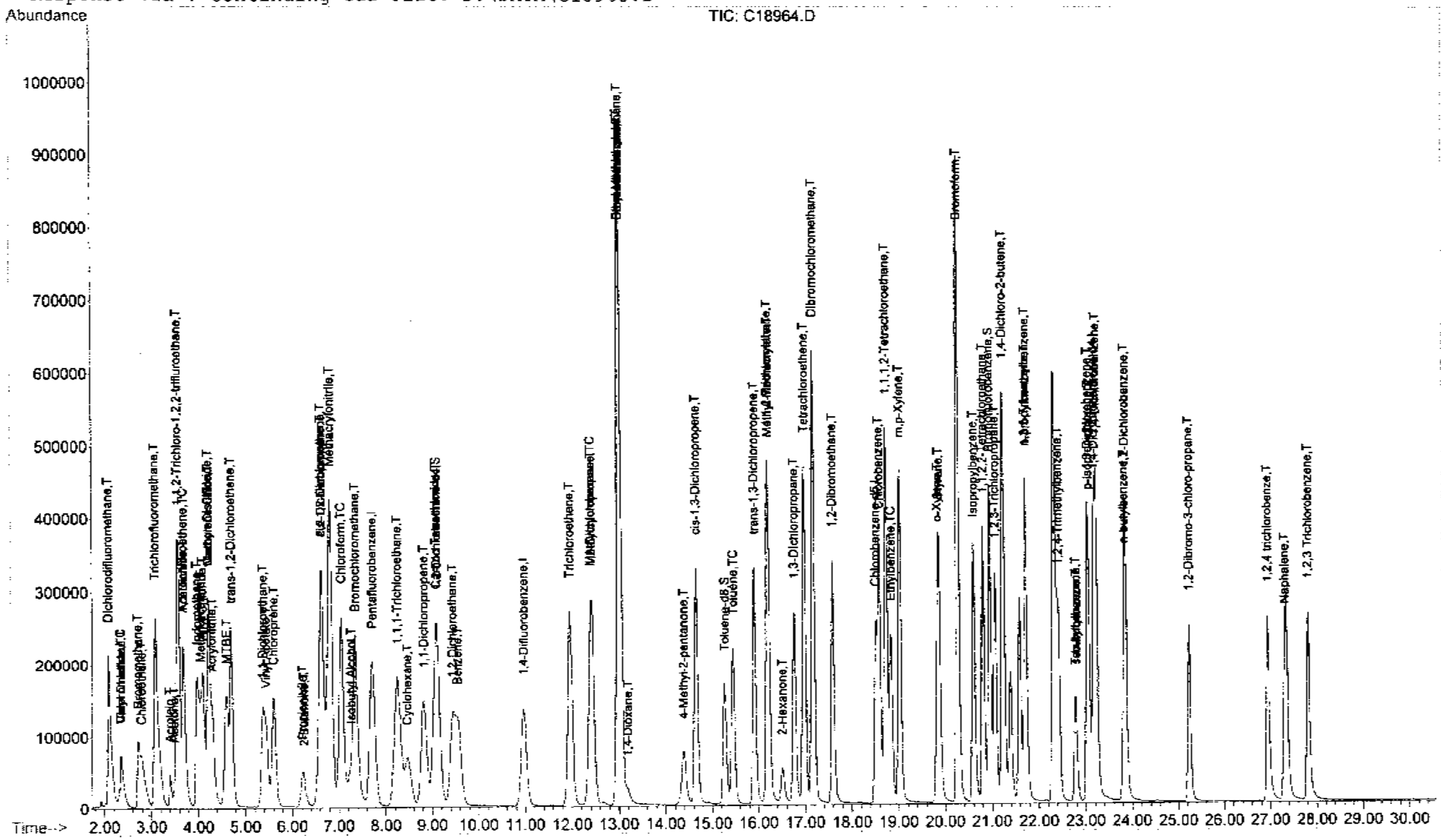
Quantitation Report

Data File : D:\DATA\C18964.D
Acq On : 25 Sep 2007 4:14 pm
Sample : VSTD100
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:22 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Cal File: D:\DATA\C18963.D



C18964.D TEST925.M Wed Sep 26 08:36:04 2007 12.0

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18965.D Vial: 7
Acq On : 25 Sep 2007 4:52 pm Operator: MM
Sample : VSTD200 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 8:24 2007 Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.71	168	531410	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.95	114	409861	50.00 ug/L	-0.01
55) Chlorobenzene-d5	18.51	117	304652	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	233248	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.11	65	239204	51.30 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 102.60%		
49) Toluene-d8	15.26	98	297859	49.98 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.96%		
54) Bromofluorobenzene	20.95	95	315798	51.72 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 103.44%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.09	85	901220	172.83 ug/L	99
3) Chloromethane	2.34	50	179395	173.00 ug/L	99
4) Vinyl Chloride	2.35	62	182456	176.19 ug/L	99
5) Bromomethane	2.72	94	383486	202.37 ug/L	98
6) Chloroethane	2.79	64	133457	183.87 ug/L	96
7) Trichlorofluoromethane	3.08	101	1178548	172.97 ug/L	99
8) Acrolein	3.40	56	119942	803.05 ug/L	96
9) Acetone	3.48	43	102750	182.01 ug/L	99
10) 1,1,2-Trichloro-1,2,2-trif	3.57	101	636205	168.22 ug/L	95
11) 1,1-Dichloroethene	3.68	96	252401	172.77 ug/L	92
12) Acetonitrile	3.70	41	158734	2014.62 ug/L	82
13) Iodomethane	3.98	142	1411576	187.11 ug/L	90
14) Methyl acetate	4.06	43	213632 MM	195.85 ug/L	100
15) Allyl Chloride	4.11	41	307720m	181.60 ug/L	
16) Carbon Disulfide	4.22	76	839337	184.87 ug/L	100
17) Methylene Chloride	4.21	84	320855	190.21 ug/L	99
18) MTBE	4.61	73	862619	202.76 ug/L	97
19) Acrylonitrile	4.31	53	218359	786.95 ug/L	96
20) trans-1,2-Dichloroethene	4.71	96	319087	182.39 ug/L	99
21) 1,1-Dichloroethane	5.38	63	655007	196.02 ug/L	99
22) Vinyl Acetate	5.45	43	607642	206.18 ug/L	100
23) Chloroprene	5.60	53	499917	185.22 ug/L	94
24) 2-Butanone	6.26	43	121406	195.33 ug/L	95
25) Propionitrile	6.23	54	219957	2136.27 ug/L	94
26) 2,2-Dichloropropane	6.61	77	664553	188.12 ug/L	97
27) cis-1,2-Dichloroethene	6.63	96	376113	189.69 ug/L	93
28) Methacrylonitrile	6.86	41	1405373	201.92 ug/L	95
29) Chloroform	7.06	83	1086750	191.95 ug/L	100
30) Bromochloromethane	7.34	128	393386 MM	191.13 ug/L	96
31) Isobutyl Alcohol	7.26	43	169569m	49128.61 ug/L	
32) Cyclohexane	8.46	56	224098	167.96 ug/L #	49
34) 1,1,1-Trichloroethane	8.26	97	967478	190.67 ug/L	99
36) 1,1-Dichloropropene	8.81	75	460914	187.27 ug/L	97
37) Carbon Tetrachloride	9.08	117	910780	199.72 ug/L	99
38) Benzene	9.56	78	728052	191.76 ug/L	100
39) 1,2-Dichloroethane	9.43	62	855876	202.54 ug/L	97
40) Trichloroethene	11.95	95	517504	192.38 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C18965.D
Acq On : 25 Sep 2007 4:52 pm
Sample : VSTD200
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:24 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:10:14 2007
Response via : Continuing Cal File: D:\DATA\C18963.D
DataAcq Meth : TEST925

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.41	63	350329	194.04 ug/L	88
42) Methylcyclohexane	12.41	83	244514	169.34 ug/L	98
43) Methyl Methacrylate	16.21	41	374823	202.95 ug/L	96
44) Bromodichloromethane	13.02	83	1484144	205.45 ug/L	100
45) Dibromomethane	13.01	93	903463	202.27 ug/L	98
46) 1,4-Dioxane	13.17	88	67133	206.16 ug/L	96
47) 4-Methyl-2-pentanone	14.39	43	313801	203.56 ug/L	97
48) cis-1,3-Dichloropropene	14.65	75	774378	202.68 ug/L	100
50) Toluene	15.44	92	451267	198.59 ug/L	97
51) trans-1,3-Dichloropropene	15.91	75	778633	209.10 ug/L	98
52) Ethyl Methacrylate	12.98	69	216461	196.22 ug/L	88
53) 1,1,2-Trichloroethane	16.18	83	378011	198.46 ug/L	98
56) 2-Hexanone	16.52	43	215322	216.65 ug/L	94
57) 1,3-Dichloropropane	16.77	76	596853	200.24 ug/L	98
58) Tetrachloroethene	16.98	166	658635	199.66 ug/L	99
59) Dibromochloromethane	17.17	129	1545656	205.02 ug/L	99
60) 1,2-Dibromoethane	17.59	107	1010869	202.29 ug/L	98
61) Chlorobenzene	18.59	112	764715	209.70 ug/L	98
62) 1,1,1,2-Tetrachloroethane	18.72	131	676635	211.81 ug/L	97
63) Ethylbenzene	18.84	91	801280	215.80 ug/L	100
64) m,p-Xylene	19.02	106	562553	431.76 ug/L	96
65) o-Xylene	19.84	106	303111	221.81 ug/L	96
66) Styrene	19.88	104	580299	213.79 ug/L	93
67) Bromoform	20.26	173	1902083	202.17 ug/L	99
68) Isopropylbenzene	20.62	105	625940	214.46 ug/L	97
69) 1,1,2,2-Tetrachloroethane	20.81	83	712971	203.43 ug/L	99
70) 1,2,3-Trichloropropane	21.07	75	515742	190.82 ug/L	97
71) 1,4-Dichloro-2-butene	21.25	75	216510	220.73 ug/L #	76
72) n-propylbenzene	21.71	91	860847	227.77 ug/L	97
73) 1,3,5-Trimethylbenzene	21.72	105	508236	219.31 ug/L	98
74) T-butylbenzene	22.79	91	87179	208.67 ug/L #	100
75) 1,2,4-Trimethylbenzene	22.43	105	559399	229.98 ug/L	97
76) sec-butylbenzene	22.79	105	491194	199.46 ug/L	99
77) 1,3-Dichlorobenzene	23.03	146	656829	223.62 ug/L	97
78) p-isopropyltoluene	23.07	91	126390	206.09 ug/L	93
79) 1,4-Dichlorobenzene	23.23	146	694091	223.72 ug/L	99
80) n-butylbenzene	23.81	91	338676	200.07 ug/L	97
81) 1,2-Dichlorobenzene	23.85	146	698028	223.98 ug/L	99
82) 1,2-Dibromo-3-chloro-propa	25.24	75	300556	223.43 ug/L	91
84) 1,2,4 trichlorobenze	26.95	180	441061	226.70 ug/L	98
85) Naphalene	27.31	128	733664	246.37 ug/L	100
86) 1,2,3 Trichlorobenzene	27.82	180	441912	229.93 ug/L	100

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(#) = qualifier out of range (m) = manual integration

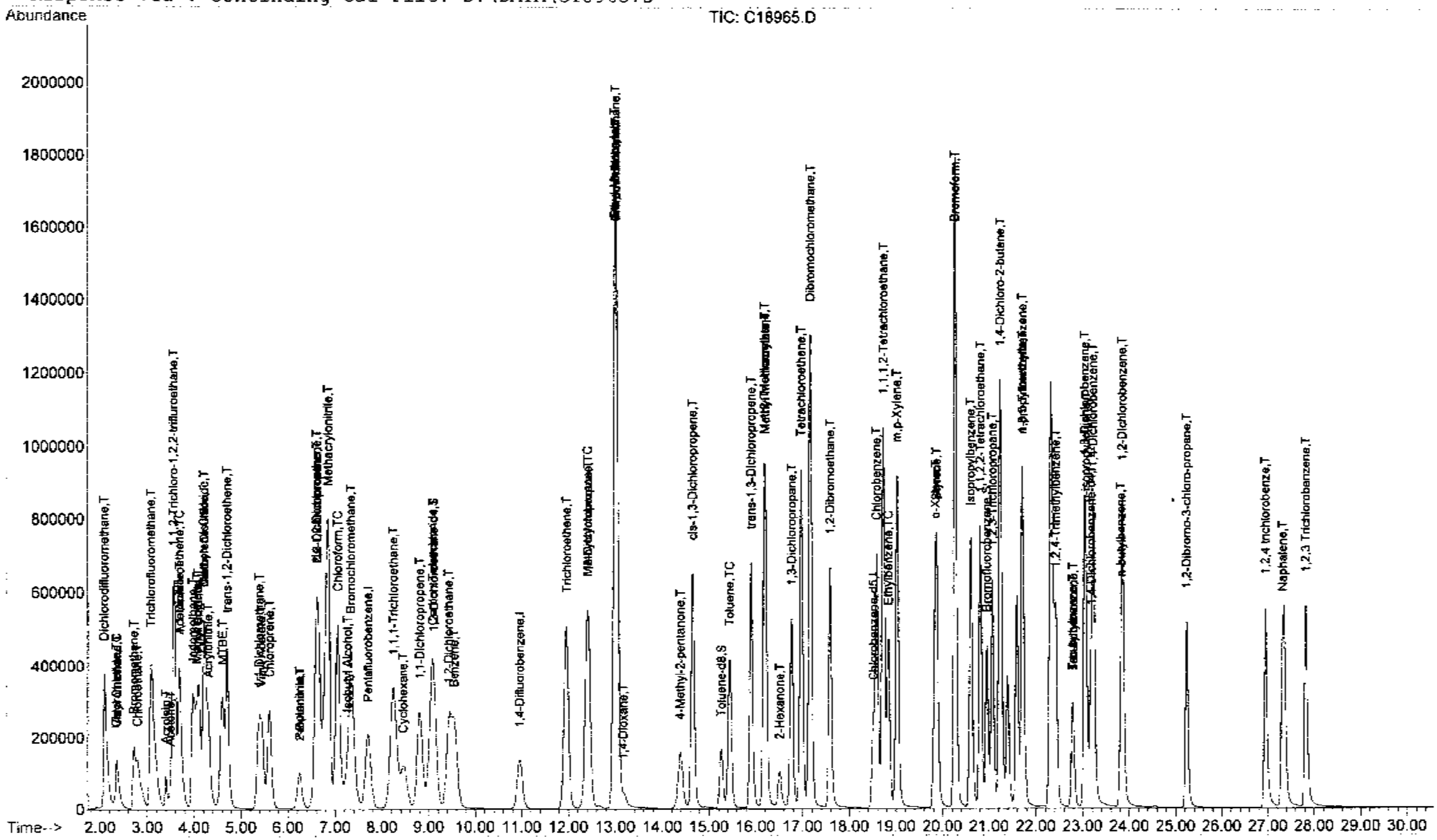
Quantitation Report

Data File : D:\DATA\C18965.D
Acq On : 25 Sep 2007 4:52 pm
Sample : VSTD200
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 26 8:24 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Continuing Cal File: D:\DATA\C18963.D



Continuing Calibration

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Upstate Laboratories, Inc.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 11:18

Lab File ID: E15439.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.224		19.1	
Vinyl Chloride	0.283	0.216	0.100	23.9	25.0
Bromomethane	0.111	0.077	0.100	30.6	25.0
Chloroethane	0.172	0.142		17.0	
Trichlorofluoromethane	0.500	0.451		9.9	
Acetone	0.123	0.094		23.9	
1,1-Dichloroethene	0.216	0.170	0.100	21.2	25.0
Iodomethane	0.320	0.188		41.2	
Carbon Disulfide	1.061	0.781		26.4	
Methylene Chloride	0.367	0.314		14.5	
Acrylonitrile	0.104	0.084		19.4	
trans-1,2-Dichloroethene	0.326	0.261		19.7	
1,1-Dichloroethane	0.610	0.530	0.200	13.2	25.0
Vinyl Acetate	0.491	0.499		-1.6	
2-Butanone	0.132	0.114		13.6	
cis-1,2-Dichloroethene	0.373	0.309		17.1	
Chloroform	0.734	0.684	0.200	6.8	25.0
Bromochloromethane	0.202	0.182		10.0	
1,1,1-Trichloroethane	0.568	0.479	0.100	15.7	25.0
Carbon Tetrachloride	0.283	0.253	0.100	10.7	25.0
Benzene	0.902	0.763	0.500	15.3	25.0
1,2-Dichloroethane	0.460	0.459	0.100	0.2	25.0
Trichloroethene	0.233	0.201	0.300	13.7	25.0
1,2-Dichloropropane	0.230	0.206		10.5	
Bromodichloromethane	0.404	0.399	0.200	1.3	25.0
Dibromomethane	0.171	0.172		-0.1	
4-Methyl-2-pentanone	0.198	0.161		18.7	
cis-1,3-Dichloropropene	0.503	0.488	0.200	3.0	25.0
Toluene	0.534	0.450	0.400	15.8	25.0
trans-1,3-Dichloropropene	0.502	0.504	0.100	-0.6	25.0
1,1,2-Trichloroethane	0.194	0.180	0.100	7.1	25.0
2-Hexanone	0.155	0.125		18.9	
Tetrachloroethene	0.433	0.210	0.200	51.6	25.0
Dibromochloromethane	0.359	0.339	0.200	5.8	25.0
1,2-Dibromoethane	0.262	0.247		5.8	
Chlorobenzene	0.731	0.622	0.500	14.9	25.0
1,1,1,2-Tetrachloroethane	0.298	0.271		8.9	
Ethylbenzene	0.999	0.873	0.100	12.7	25.0
m,p-Xylene	0.372	0.333	0.300	10.4	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 11:18

Lab File ID: E15439.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.356	0.300	9.0	25.0
Styrene	0.723	0.658	0.300	9.0	25.0
Bromoform	0.318	0.311	0.100	2.1	25.0
1,1,2,2-Tetrachloroethane	0.323	0.297✓	0.~~1~~00	8.3	25.0
1,2,3-Trichloropropane	0.465	0.426	.3	8.4	
1,4-Dichloro-2-butene	0.057	0.054		5.8	
1,3-Dichlorobenzene	0.598	0.607	0.600	-1.5	
1,4-Dichlorobenzene	0.612	0.626	0.500	-2.2	
1,2-Dichlorobenzene	0.601	0.612	0.400	-1.8	
1,2-Dibromo-3-chloro-propane	0.080	0.074		7.7	
1,2-Dichloroethane-d4	0.704	0.756		-7.5	
Toluene-d8	1.062	1.062		0.0	
Bromofluorobenzene	0.531	0.585	0.200	-10.3	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15439.D
Acq On : 27 Sep 2007 11:18 am
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	86	-0.01
2	T	Dichlorodifluoromethane	0.534	0.452	15.4	74	-0.01
3	T	Chloromethane	0.277	0.224	19.1	73	-0.01
4	TC	Vinyl Chloride	0.283	0.216	23.7	64	-0.01
5	T	Bromomethane	0.111	0.077	30.6#	52	0.01
6	T	Chloroethane	0.172	0.142	17.4	69	-0.01
7	T	Trichlorofluoromethane	0.500	0.451	9.8	76	-0.01
8	T	Acrolein	0.035	0.034#	2.9	82	-0.01
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.197	11.7	83	-0.01
10	T	Acetone	0.123	0.093	24.4	69	-0.01
11	TC	1,1-Dichloroethene	0.216	0.170	21.3	70	-0.01
12	T	Acetonitrile	0.030	0.026#	13.3	72	0.00
13	T	Iodomethane	0.320	0.188	41.3#	39#	-0.01
14	T	Methyl Acetate	0.237	0.185	21.9	65	-0.01
15	T	Allyl Chloride	0.356	0.322	9.6	75	0.00
16	T	Carbon Disulfide	1.061	0.781	26.4	63	-0.01
17	T	Methylene Chloride	0.367	0.314	14.4	74	-0.01
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	1.052	16.1	71	-0.01
20	T	Acrylonitrile	0.104	0.084	19.2	67	0.00
21	T	trans-1,2-Dichloroethene	0.326	0.261	19.9	71	-0.01
22	T	1,1-Dichloroethane	0.610	0.529	13.3	73	-0.01
23	T	Vinyl Acetate	0.491	0.499	-1.6	82	-0.01
24	T	Chloroprene	0.513	0.000#	100.0#	0#	-12.05#
25	T	2-Butanone	0.132	0.114	13.6	64	-0.02
26	T	Propionitrile	0.039	0.034#	12.8	71	-0.01
27	T	2,2-Dichloropropane	0.465	0.539	-15.9	98	-0.01
28	T	cis-1,2-Dichloroethene	0.373	0.309	17.2	72	-0.01
29	T	Methacrylonitrile	2.182	1.901	12.9	73	0.00
30	TC	Chloroform	0.734	0.684	6.8	79	-0.01
31	T	Bromochloromethane	0.202	0.182	9.9	73	-0.01
32	T	Isobutyl Alcohol	0.002	0.002#	0.0	66	-0.01
33	S	1,2-Dichloroethane-d4	0.704	0.756	-7.4	92	-0.01
34	T	1,1,1-Trichloroethane	0.568	0.479	15.7	72	0.00
35	T	Cyclohexane	0.360	0.302	16.1	71	0.00
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	84	0.00
37	T	1,1-Dichloropropene	0.292	0.235	19.5	68	-0.01
38	T	Carbon Tetrachloride	0.283	0.253	10.6	72	-0.01
39	T	Benzene	0.902	0.763	15.4	70	-0.01
40	T	1,2-Dichloroethane	0.460	0.459	0.2	81	-0.01
41	T	Trichloroethene	0.233	0.201	13.7	72	0.00
42	T	Methylcyclohexane	0.253	0.236	6.7	80	-0.01
43	TC	1,2-Dichloropropane	0.230	0.206	10.4	74	-0.01
44	T	Methyl Methacrylate	0.058	0.060	-3.4	70	-0.01
45	T	Bromodichloromethane	0.404	0.399	1.2	81	-0.01
46	T	1,4-Dioxane	0.053	0.042#	20.8	67	-0.01
47	T	Dibromomethane	0.171	0.172	-0.6	81	-0.01
48	T	4-Methyl-2-pentanone	0.198	0.161	18.7	65	0.00
49	T	cis-1,3-Dichloropropene	0.503	0.488	3.0	78	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15439.D
Acq On : 27 Sep 2007 11:18 am
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.062	0.0	85	-0.01
51	TC	Toluene	0.534	0.450	15.7	70	-0.01
52	T	trans-1,3-Dichloropropene	0.502	0.504	-0.4	81	0.00
53	T	Ethyl Methacrylate	0.336	0.303	9.8	71	-0.01
54	T	1,1,2-Trichloroethane	0.194	0.180	7.2	75	0.00
55	S	Bromofluorobenzene	0.531	0.585	-10.2	91	0.01
56	I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.01
57	T	2-Hexanone	0.155	0.125	19.4	64	-0.01
58	T	1,3-Dichloropropane	0.488	0.436	10.7	76	0.00
59	T	Tetrachloroethene	0.433	0.210	51.5#	44#	0.00
60	T	Dibromochloromethane	0.359	0.339	5.6	78	0.00
61	T	1,2-Dibromoethane	0.262	0.247	5.7	79	-0.01
62	T	Chlorobenzene	0.731	0.622	14.9	74	0.00
63	T	1,1,1,2-Tetrachloroethane	0.298	0.271	9.1	76	0.00
64	TC	Ethylbenzene	0.999	0.873	12.6	77	0.00
65	T	m,p-Xylene	0.372	0.333	10.5	77	0.00
66	T	o-Xylene	0.391	0.355	9.2	78	-0.01
67	T	Styrene	0.723	0.658	9.0	76	0.00
68	T	Bromoform	0.318	0.311	2.2	82	-0.01
69	T	Isopropylbenzene	0.757	0.751	0.8	85	0.00
70	T	1,1,2,2-Tetrachloroethane	0.323	0.297	8.0	78	0.00
71	T	1,2,3-Trichloropropane	0.465	0.426	8.4	78	-0.01
72	T	1,4-Dichloro-2-butene	0.057	0.054	5.3	78	-0.02
73	T	N-Propylbenzene	0.948	0.940	0.8	88	-0.01
74	T	1,3,5-Trimethylbenzene	0.681	0.703	-3.2	90	-0.01
75	T	t-butylbenzene	0.525	0.574	-9.3	94	0.00
76	T	1,2,4-Trimethylbenzene	0.738	0.754	-2.2	89	0.00
77	T	Sec-butylbenzene	0.643	0.717	-11.5	99	0.00
78	T	p-isopropyltoluene	0.644	0.714	-10.9	101	0.00
79	T	1,3-Dichlorobenzene	0.598	0.607	-1.5	88	0.00
80	T	1,4-Dichlorobenzene	0.612	0.626	-2.3	89	0.01
81	T	n-butylbenzene	0.538	0.593	-10.2	108	0.00
82	T	1,2-Dichlorobenzene	0.601	0.612	-1.8	87	0.00
83	T	1,2-Dibromo-3-chloropropane	0.080	0.074	7.5	80	-0.01
84	T	1,2,4-Trichlorobenzene	0.312	0.343	-9.9	102	0.00
85	T	Naphthalene	0.915	0.969	-5.9	88	-0.01
86	T	1,2,3-Trichlorobenzene	0.298	0.328	-10.1	98	-0.01
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
E15439.D E092507W.M Fri Sep 28 10:11:53 2007 12.0

Data File : G:\DATA\E15439.D
Acq On : 27 Sep 2007 11:18 am
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 11:00 2007

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.15	168	78686	50.00 ug/L	-0.01
36) 1,4-Difluorobenzene	16.07	114	117025	50.00 ug/L	0.00
56) Chlorobenzene-d5	24.20	117	109867	50.00 ug/L	0.01
87) 1,4-Dichlorobenzene-d4	31.08	152	75247	50.00 ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	15.08	65	59510	53.74 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 118		Recovery	= 107.48%	
50) Toluene-d8	20.04	98	124295	50.00 ug/L	-0.01
Spiked Amount 50.000	Range 88 - 110		Recovery	= 100.00%	
55) Bromofluorobenzene	27.63	95	68498	55.14 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	= 110.28%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.62	85	35582	42.37 ug/L	99
3) Chloromethane	6.18	50	17655	40.45 ug/L	99
4) Vinyl Chloride	6.46	62	16960	38.08 ug/L	99
5) Bromomethane	7.39	94	6069	34.69 ug/L	97
6) Chloroethane	7.61	64	11195	41.47 ug/L	96
7) Trichlorofluoromethane	8.22	101	35473	45.04 ug/L	100
8) Acrolein	9.12	56	10625	190.63 ug/L	100
9) 1,1,2-Trichloro-1,2,2-trif	9.30	101	15524	44.22 ug/L	99
10) Acetone	9.43	43	7355	38.03 ug/L	92
11) 1,1-Dichloroethene	9.36	96	13386	39.41 ug/L	97
12) Acetonitrile	10.01	41	20170	426.29 ug/L	80
13) Iodomethane	9.73	142	14809	29.38 ug/L	97
14) Methyl Acetate	10.08	43	14584	39.04 ug/L	98
15) Allyl Chloride	10.09	39	25365	45.30 ug/L	94
16) Carbon Disulfide	9.92	76	61457	36.80 ug/L	100
17) Methylene Chloride	10.34	84	24673	42.75 ug/L	98
19) MTBE	10.90	73	82756	41.94 ug/L	99
20) Acrylonitrile	10.84	53	26516	161.35 ug/L	97
21) trans-1,2-Dichloroethene	10.93	96	20568	40.14 ug/L	96
22) 1,1-Dichloroethane	11.84	63	41663	43.40 ug/L	99
23) Vinyl Acetate	11.81	43	39277	50.79 ug/L	98
25) 2-Butanone	13.08	43	8945	43.17 ug/L	97
26) Propionitrile	13.24	54	26912	439.32 ug/L	99
27) 2,2-Dichloropropane	13.16	77	42384	57.89 ug/L	97
28) cis-1,2-Dichloroethene	13.13	96	24308	41.43 ug/L	93
29) Methacrylonitrile	13.62	41	149582	43.56 ug/L	98
30) Chloroform	13.81	83	53813	46.60 ug/L	100
31) Bromochloromethane	13.71	128	14305	44.99 ug/L	98
32) Isobutyl Alcohol	14.68	43	14617	4172.45 ug/L	89
34) 1,1,1-Trichloroethane	14.38	97	37668	42.16 ug/L	98
35) Cyclohexane	14.57	56	23767	41.98 ug/L	97
37) 1,1-Dichloropropene	14.74	75	27460	40.11 ug/L	100
38) Carbon Tetrachloride	14.80	117	29571	44.64 ug/L	99
39) Benzene	15.28	78	89326	42.33 ug/L	100
40) 1,2-Dichloroethane	15.27	62	53757	49.90 ug/L	99
41) Trichloroethene	16.83	95	23530	43.14 ug/L	98
42) Methylcyclohexane	17.39	83	27596	46.51 ug/L	97

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : G:\DATA\E15439.D
Acq On : 27 Sep 2007 11:18 am
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 11:00 2007

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	17.43	63	24053	44.75 ug/L	100
44) Methyl Methacrylate	17.48	100	6970	51.26 ug/L #	94
45) Bromodichloromethane	18.07	83	46732	49.37 ug/L	100
46) 1,4-Dioxane	17.69	88	4971	39.96 ug/L	94
47) Dibromomethane	17.74	93	20085	50.06 ug/L	97
48) 4-Methyl-2-pentanone	19.58	43	18804	40.64 ug/L	95
49) cis-1,3-Dichloropropene	19.24	75	57088	48.52 ug/L	99
51) Toluene	20.23	92	52617	42.12 ug/L	99
52) trans-1,3-Dichloropropene	20.72	75	59031	50.29 ug/L	100
53) Ethyl Methacrylate	20.83	69	35508	45.17 ug/L	99
54) 1,1,2-Trichloroethane	21.28	83	21059	46.43 ug/L	99
57) 2-Hexanone	21.88	43	13773	40.55 ug/L	95
58) 1,3-Dichloropropane	21.80	76	47854	44.66 ug/L	100
59) Tetrachloroethene	21.81	166	23062	24.22 ug/L	97
60) Dibromochloromethane	22.48	129	37194	47.12 ug/L	98
61) 1,2-Dibromoethane	22.89	107	27157	47.11 ug/L	99
62) Chlorobenzene	24.28	112	68284	42.53 ug/L	99
63) 1,1,1,2-Tetrachloroethane	24.47	131	29773	45.54 ug/L	98
64) Ethylbenzene	24.53	91	95891	43.66 ug/L	99
65) m,p-Xylene	24.85	106	73221	89.59 ug/L	99
66) o-Xylene	26.05	106	39057	45.51 ug/L	99
67) Styrene	26.07	104	72314	45.52 ug/L	96
68) Bromoform	26.70	173	34177	48.94 ug/L	97
69) Isopropylbenzene	27.11	105	82526	49.63 ug/L	99
70) 1,1,2,2-Tetrachloroethane	27.93	83	32601	45.88 ug/L	100
71) 1,2,3-Trichloropropane	28.12	75	46767	45.78 ug/L	96
72) 1,4-Dichloro-2-butene	28.08	89	5921	47.12 ug/L #	1
73) N-Propylbenzene	28.33	91	103235	49.55 ug/L	100
74) 1,3,5-Trimethylbenzene	28.81	105	77202	51.62 ug/L	99
75) t-butylbenzene	29.83	119	63019	54.64 ug/L	98
76) 1,2,4-Trimethylbenzene	29.96	105	82892	51.10 ug/L	100
77) Sec-butylbenzene	30.48	105	78749	55.74 ug/L	98
78) p-isopropyltoluene	30.87	119	78429	55.43 ug/L	99
79) 1,3-Dichlorobenzene	30.91	146	66727	50.76 ug/L	99
80) 1,4-Dichlorobenzene	31.16	146	68749	51.08 ug/L	99
81) n-butylbenzene	32.09	91	65116	55.11 ug/L	99
82) 1,2-Dichlorobenzene	32.29	146	67273	50.91 ug/L	99
83) 1,2-Dibromo-3-chloropropan	34.54	75	8087	46.18 ug/L	96
84) 1,2,4-Trichlorobenzene	37.01	180	37645	54.83 ug/L	99
85) Naphthalene	37.82	128	106422	52.94 ug/L	100
86) 1,2,3-Trichlorobenzene	38.58	180	36053	55.01 ug/L	99

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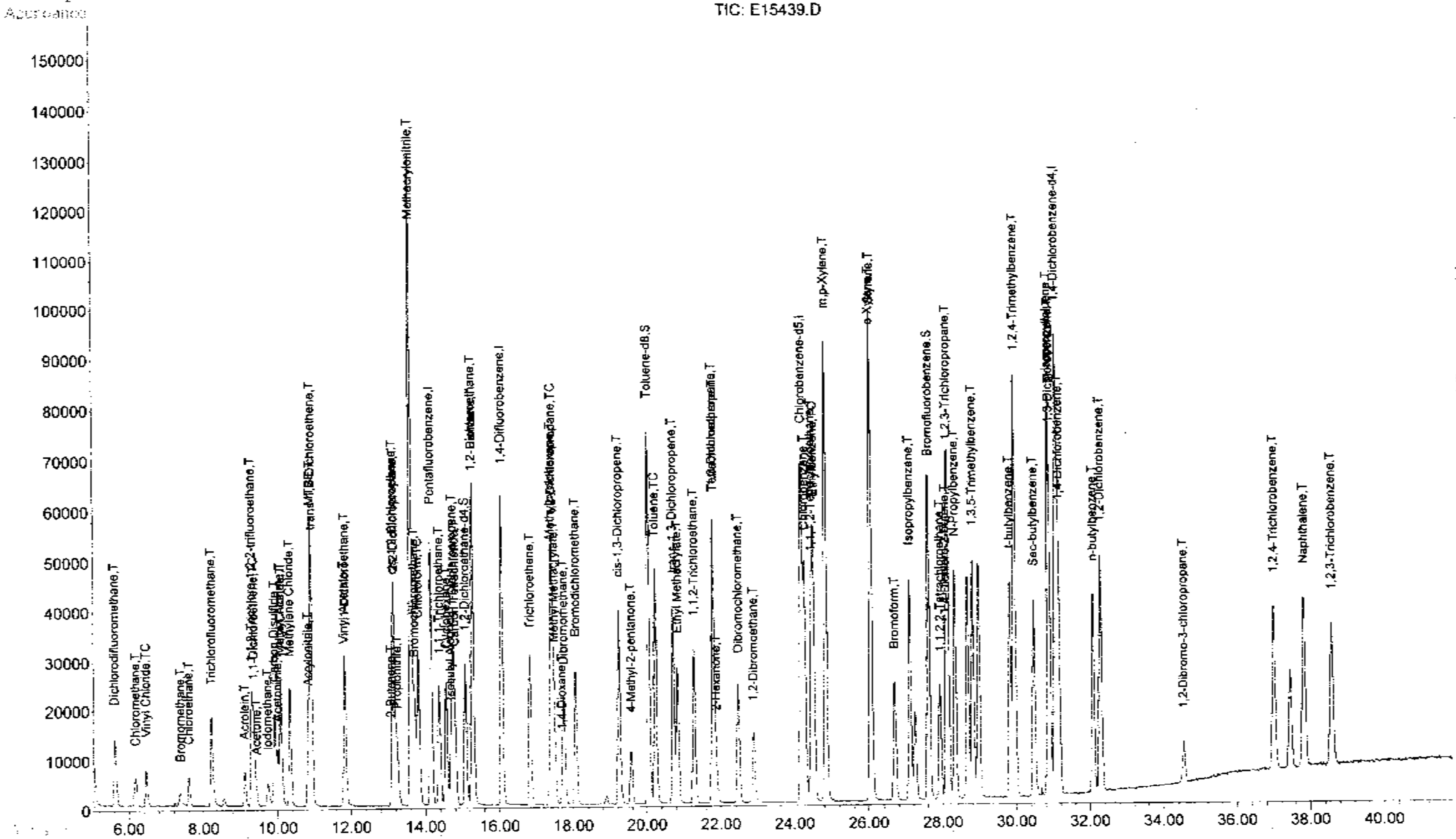
(#) = qualifier out of range (m) = manual integration

```
Data File : G:\DATA\E15439.D                           Vial: 2
Acq On    : 27 Sep 2007  11:18 am                  Operator: MG
Sample    : CCV                                    Inst     : Voa Instr
Misc      : 5mL                                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 11:00 2007            Quant Results File: E092507W.RES

Method        : G:\METHODS\E092507W.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Wed Sep 26 10:42:24 2007
Response via  : Initial Calibration
```



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 21:08

Lab File ID: E15451.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

NA

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.169		39.2	
Vinyl Chloride	0.283	0.164	0.100	41.9	25.0
Bromomethane	0.111	0.092	0.100	17.1	25.0
Chloroethane	0.172	0.114		33.4	
Trichlorofluoromethane	0.500	0.356		28.9	
Acetone	0.123	0.096		22.3	
1,1-Dichloroethene	0.216	0.128	0.100	40.6	25.0
Iodomethane	0.320	0.274		14.5	
Carbon Disulfide	1.061	0.626		41.0	
Methylene Chloride	0.367	0.284		22.6	
Acrylonitrile	0.104	0.081		22.6	
trans-1,2-Dichloroethene	0.326	0.218		32.9	
1,1-Dichloroethane	0.610	0.472	0.200	22.7	25.0
Vinyl Acetate	0.491	0.346		29.5	
2-Butanone	0.132	0.106		19.5	
cis-1,2-Dichloroethene	0.373	0.281		24.7	
Chloroform	0.734	0.620	0.200	15.5	25.0
Bromochloromethane	0.202	0.181		10.6	
1,1,1-Trichloroethane	0.568	0.427	0.100	24.8	25.0
Carbon Tetrachloride	0.283	0.217	0.100	23.3	25.0
Benzene	0.902	0.681	0.500	24.5	25.0
1,2-Dichloroethane	0.460	0.452	0.100	1.9	25.0
Trichloroethene	0.233	0.173	0.300	25.6	25.0
1,2-Dichloropropane	0.230	0.184		19.9	
Bromodichloromethane	0.404	0.375	0.200	7.4	25.0
Dibromomethane	0.171	0.161		6.1	
4-Methyl-2-pentanone	0.198	0.164		17.3	
cis-1,3-Dichloropropene	0.503	0.448	0.200	10.8	25.0
Toluene	0.534	0.412	0.400	22.9	25.0
trans-1,3-Dichloropropene	0.502	0.472	0.100	5.9	25.0
1,1,2-Trichloroethane	0.194	0.177	0.100	8.7	25.0
2-Hexanone	0.155	0.132		14.6	
Tetrachloroethene	0.433	0.334	0.200	22.9	25.0
Dibromochloromethane	0.359	0.344	0.200	4.2	25.0
1,2-Dibromoethane	0.262	0.248		5.3	
Chlorobenzene	0.731	0.613	0.500	16.1	25.0
1,1,1,2-Tetrachloroethane	0.298	0.280		5.9	
Ethylbenzene	0.999	0.855	0.100	14.5	25.0
m,p-Xylene	0.372	0.329	0.300	11.6	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 21:08

Lab File ID: E15451.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.364	0.300	6.8	25.0
Styrene	0.723	0.665	0.300	8.1	25.0
Bromoform	0.318	0.321	0.100	-1.0	25.0
1,1,2,2-Tetrachloroethane	0.323	0.302	0.~~6~~00 3	6.6	25.0
1,2,3-Trichloropropane	0.465	0.443		4.7	
1,4-Dichloro-2-butene	0.057	0.050		13.1	
1,3-Dichlorobenzene	0.598	0.638	0.600	-6.7	
1,4-Dichlorobenzene	0.612	0.665	0.500	-8.5	
1,2-Dichlorobenzene	0.601	0.666	0.400	-10.7	
1,2-Dibromo-3-chloro-propane	0.080	0.084		-5.3	
1,2-Dichloroethane-d4	0.704	0.756		-7.4	
Toluene-d8	1.062	1.045		1.6	
Bromofluorobenzene	0.531	0.574	0.200	-8.1	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15451.D
Acq On : 27 Sep 2007 9:08 pm
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	83	0.01
2	T	Dichlorodifluoromethane	0.534	0.339	36.5#	53	0.01
3	T	Chloromethane	0.277	0.169	39.0#	53	0.00
4	TC	Vinyl Chloride	0.283	0.164	42.0#	47#	0.01
5	T	Bromomethane	0.111	0.092	17.1	60	0.02
6	T	Chloroethane	0.172	0.114	33.7#	53	0.01
7	T	Trichlorofluoromethane	0.500	0.356	28.8	58	0.00
8	T	Acrolein	0.035	0.027#	22.9	64	0.01
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.151	32.3#	61	0.00
10	T	Acetone	0.123	0.095	22.8	68	0.00
11	TC	1,1-Dichloroethene	0.216	0.128	40.7#	50	0.00
12	T	Acetonitrile	0.030	0.021#	30.0	57	0.01
13	T	Iodomethane	0.320	0.274	14.4	54	0.01
14	T	Methyl Acetate	0.237	0.195	17.7	66	0.01
15	T	Allyl Chloride	0.356	0.285	19.9	64	0.01
16	T	Carbon Disulfide	1.061	0.626	41.0#	49#	0.01
17	T	Methylene Chloride	0.367	0.284	22.6	65	0.01
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	1.040	17.1	67	0.01
20	T	Acrylonitrile	0.104	0.081	22.1	62	0.01
21	T	trans-1,2-Dichloroethene	0.326	0.218	33.1#	57	0.01
22	T	1,1-Dichloroethane	0.610	0.472	22.6	63	0.01
23	T	Vinyl Acetate	0.491	0.346	29.5	55	0.01
24	T	Chloroprene	0.513	0.000#	100.0#	0#	-12.05#
25	T	2-Butanone	0.132	0.106	19.7	57	0.00
26	T	Propionitrile	0.039	0.032#	17.9	63	0.00
27	T	2,2-Dichloropropane	0.465	0.371	20.2	65	0.00
28	T	cis-1,2-Dichloroethene	0.373	0.281	24.7	63	0.01
29	T	Methacrylonitrile	2.182	1.847	15.4	68	0.01
30	TC	Chloroform	0.734	0.620	15.5	69	0.01
31	T	Bromochloromethane	0.202	0.181	10.4	70	0.01
32	T	Isobutyl Alcohol	0.002	0.001#	50.0#	51	0.02
33	S	1,2-Dichloroethane-d4	0.704	0.756	-7.4	88	0.01
34	T	1,1,1-Trichloroethane	0.568	0.427	24.8	62	0.01
35	T	Cyclohexane	0.360	0.223	38.1#	50	0.02
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	81	0.02
37	T	1,1-Dichloropropene	0.292	0.197	32.5#	55	0.01
38	T	Carbon Tetrachloride	0.283	0.217	23.3	60	0.01
39	T	Benzene	0.902	0.681	24.5	60	0.02
40	T	1,2-Dichloroethane	0.460	0.452	1.7	77	0.01
41	T	Trichloroethene	0.233	0.173	25.8	59	0.01
42	T	Methylcyclohexane	0.253	0.173	31.6#	56	0.01
43	TC	1,2-Dichloropropane	0.230	0.184	20.0	63	0.01
44	T	Methyl Methacrylate	0.058	0.058	0.0	66	0.01
45	T	Bromodichloromethane	0.404	0.375	7.2	73	0.00
46	T	1,4-Dioxane	0.053	0.032#	39.6#	48#	0.00
47	T	Dibromomethane	0.171	0.161	5.8	73	0.02
48	T	4-Methyl-2-pentanone	0.198	0.164	17.2	64	0.01
49	T	cis-1,3-Dichloropropene	0.503	0.448	10.9	69	0.01

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(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15451.D Vial: 14
Acq On : 27 Sep 2007 9:08 pm Operator: MG
Sample : CC Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.045	1.6	80	0.01
51	TC	Toluene	0.534	0.412	22.8	62	0.02
52	T	trans-1,3-Dichloropropene	0.502	0.472	6.0	73	0.02
53	T	Ethyl Methacrylate	0.336	0.302	10.1	68	0.01
54	T	1,1,2-Trichloroethane	0.194	0.177	8.8	70	0.01
55	S	Bromofluorobenzene	0.531	0.574	-8.1	86	0.01
56	I	Chlorobenzene-d5	1.000	1.000	0.0	81	0.02
57	T	2-Hexanone	0.155	0.132	14.8	63	0.01
58	T	1,3-Dichloropropane	0.488	0.435	10.9	71	0.02
59	T	Tetrachloroethene	0.433	0.334	22.9	66	0.02
60	T	Dibromochloromethane	0.359	0.344	4.2	74	0.01
61	T	1,2-Dibromoethane	0.262	0.248	5.3	74	0.01
62	T	Chlorobenzene	0.731	0.613	16.1	68	0.02
63	T	1,1,1,2-Tetrachloroethane	0.298	0.280	6.0	74	0.01
64	TC	Ethylbenzene	0.999	0.855	14.4	70	0.01
65	T	m,p-Xylene	0.372	0.329	11.6	71	0.02
66	T	o-Xylene	0.391	0.364	6.9	74	0.01
67	T	Styrene	0.723	0.665	8.0	72	0.02
68	T	Bromoform	0.318	0.321	-0.9	79	0.01
69	T	Isopropylbenzene	0.757	0.755	0.3	80	0.02
70	T	1,1,2,2-Tetrachloroethane	0.323	0.302	6.5	74	0.01
71	T	1,2,3-Trichloropropane	0.465	0.443	4.7	76	0.01
72	T	1,4-Dichloro-2-butene	0.057	0.050#	12.3	67	0.01
73	T	N-Propylbenzene	0.948	0.939	0.9	82	0.01
74	T	1,3,5-Trimethylbenzene	0.681	0.745	-9.4	89	0.01
75	T	t-butylbenzene	0.525	0.586	-11.6	90	0.02
76	T	1,2,4-Trimethylbenzene	0.738	0.811	-9.9	89	0.01
77	T	Sec-butylbenzene	0.643	0.737	-14.6	95	0.02
78	T	p-isopropyltoluene	0.644	0.743	-15.4	98	0.01
79	T	1,3-Dichlorobenzene	0.598	0.638	-6.7	87	0.01
80	T	1,4-Dichlorobenzene	0.612	0.665	-8.7	88	0.01
81	T	n-butylbenzene	0.538	0.611	-13.6	104	0.01
82	T	1,2-Dichlorobenzene	0.601	0.666	-10.8	89	0.02
83	T	1,2-Dibromo-3-chloropropane	0.080	0.084	-5.0	85	0.00
84	T	1,2,4-Trichlorobenzene	0.312	0.398	-27.6	111	0.01
85	T	Naphthalene	0.915	1.111	-21.4	95	0.01
86	T	1,2,3-Trichlorobenzene	0.298	0.394	-32.2#	110	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	86	0.01

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(#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15451.D Vial: 14
Acq On : 27 Sep 2007 9:08 pm Operator: MG
Sample : CC Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 20:50 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	75751	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.09	114	112464	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.21	117	102856	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	73099	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.10	65	57270	53.73 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery	= 107.46%	
50) Toluene-d8	20.06	98	117524	49.19 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery	= 98.38%	
55) Bromofluorobenzene	27.63	95	64542	54.06 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	= 108.12%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.64	85	25651	31.73 ug/L	99
3) Chloromethane	6.19	50	12781	30.42 ug/L	99
4) Vinyl Chloride	6.48	62	12446	29.03 ug/L	96
5) Bromomethane	7.40	94	6988	41.49 ug/L	97
6) Chloroethane	7.63	64	8647	33.27 ug/L	98
7) Trichlorofluoromethane	8.23	101	26963	35.56 ug/L	99
8) Acrolein	9.14	56	8279	154.29 ug/L	97
9) 1,1,2-Trichloro-1,2,2-trif	9.32	101	11446	33.86 ug/L	96
10) Acetone	9.44	43	7234	38.86 ug/L	96
11) 1,1-Dichloroethene	9.37	96	9713	29.71 ug/L	91
12) Acetonitrile	10.02	41	15916	349.41 ug/L	87
13) Iodomethane	9.76	142	20731	42.72 ug/L	93
14) Methyl Acetate	10.11	43	14770	41.07 ug/L	99
15) Allyl Chloride	10.11	39	21600	40.07 ug/L	95
16) Carbon Disulfide	9.94	76	47458	29.51 ug/L	100
17) Methylene Chloride	10.36	84	21500	38.70 ug/L	98
19) MTBE	10.92	73	78765	41.46 ug/L	99
20) Acrylonitrile	10.85	53	24471	154.67 ug/L	98
21) trans-1,2-Dichloroethene	10.95	96	16542	33.54 ug/L	95
22) 1,1-Dichloroethane	11.86	63	35727	38.66 ug/L	99
23) Vinyl Acetate	11.84	43	26230	35.23 ug/L	95
25) 2-Butanone	13.10	43	8030	40.26 ug/L	96
26) Propionitrile	13.25	54	24071	408.16 ug/L	98
27) 2,2-Dichloropropane	13.17	77	28101	39.87 ug/L	97
28) cis-1,2-Dichloroethene	13.15	96	21260	37.64 ug/L	96
29) Methacrylonitrile	13.63	41	139890	42.31 ug/L	97
30) Chloroform	13.84	83	46997	42.27 ug/L	100
31) Bromochloromethane	13.73	128	13675	44.68 ug/L	96
32) Isobutyl Alcohol	14.72	43	11192	3318.56 ug/L	71
34) 1,1,1-Trichloroethane	14.39	97	32335	37.59 ug/L	99
35) Cyclohexane	14.59	56	16857	30.93 ug/L	97
37) 1,1-Dichloropropene	14.77	75	22125	33.63 ug/L	99
38) Carbon Tetrachloride	14.82	117	24419	38.36 ug/L	100
39) Benzene	15.31	78	76538	37.74 ug/L	100
40) 1,2-Dichloroethane	15.29	62	50797	49.07 ug/L	98
41) Trichloroethene	16.85	95	19487	37.18 ug/L	97
42) Methylcyclohexane	17.41	83	19454	34.12 ug/L	95

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\E15451.D
Acq On : 27 Sep 2007 9:08 pm
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 20:50 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	17.45	63	20699	40.07 ug/L		100
44)	Methyl Methacrylate	17.51	100	6509	49.81 ug/L	#	72
45)	Bromodichloromethane	18.08	83	42125	46.31 ug/L		100
46)	1,4-Dioxane	17.70	88	3619	30.27 ug/L		93
47)	Dibromomethane	17.77	93	18105	46.95 ug/L		97
48)	4-Methyl-2-pentanone	19.59	43	18388	41.35 ug/L		93
49)	cis-1,3-Dichloropropene	19.26	75	50410	44.58 ug/L		99
51)	Toluene	20.26	92	46308	38.57 ug/L		100
52)	trans-1,3-Dichloropropene	20.74	75	53089	47.06 ug/L		99
53)	Ethyl Methacrylate	20.85	69	33989	44.99 ug/L		100
54)	1,1,2-Trichloroethane	21.30	83	19905	45.66 ug/L		99
57)	2-Hexanone	21.90	43	13572	42.69 ug/L		96
58)	1,3-Dichloropropane	21.82	76	44708	44.57 ug/L		99
59)	Tetrachloroethene	21.83	166	34382	38.57 ug/L		97
60)	Dibromochloromethane	22.49	129	35397	47.90 ug/L		97
61)	1,2-Dibromoethane	22.91	107	25543	47.33 ug/L		100
62)	Chlorobenzene	24.31	112	63079	41.97 ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.48	131	28807	47.06 ug/L		98
64)	Ethylbenzene	24.54	91	87895	42.75 ug/L		99
65)	m,p-Xylene	24.87	106	67656	88.42 ug/L		99
66)	o-Xylene	26.07	106	37438	46.60 ug/L		98
67)	Styrene	26.09	104	68358	45.97 ug/L		95
68)	Bromoform	26.72	173	33018	50.50 ug/L		98
69)	Isopropylbenzene	27.13	105	77637	49.87 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.94	83	31053	46.68 ug/L		99
71)	1,2,3-Trichloropropane	28.14	75	45557	47.63 ug/L		98
72)	1,4-Dichloro-2-butene	28.12	89	5110	43.44 ug/L	#	70
73)	N-Propylbenzene	28.35	91	96625	49.54 ug/L		100
74)	1,3,5-Trimethylbenzene	28.84	105	76637	54.73 ug/L		98
75)	t-butylbenzene	29.85	119	60253	55.80 ug/L		98
76)	1,2,4-Trimethylbenzene	29.98	105	83428	54.94 ug/L		98
77)	Sec-butylbenzene	30.50	105	75810	57.32 ug/L		99
78)	p-isopropyltoluene	30.88	119	76450	57.71 ug/L		98
79)	1,3-Dichlorobenzene	30.92	146	65666	53.36 ug/L		99
80)	1,4-Dichlorobenzene	31.16	146	68358	54.26 ug/L		99
81)	n-butylbenzene	32.10	91	62798	56.77 ug/L		99
82)	1,2-Dichlorobenzene	32.31	146	68457	55.34 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.55	75	8628	52.62 ug/L		97
84)	1,2,4-Trichlorobenzene	37.02	180	40892	63.61 ug/L		100
85)	Naphthalene	37.84	128	114236	60.70 ug/L		100
86)	1,2,3-Trichlorobenzene	38.59	180	40492	65.99 ug/L		99

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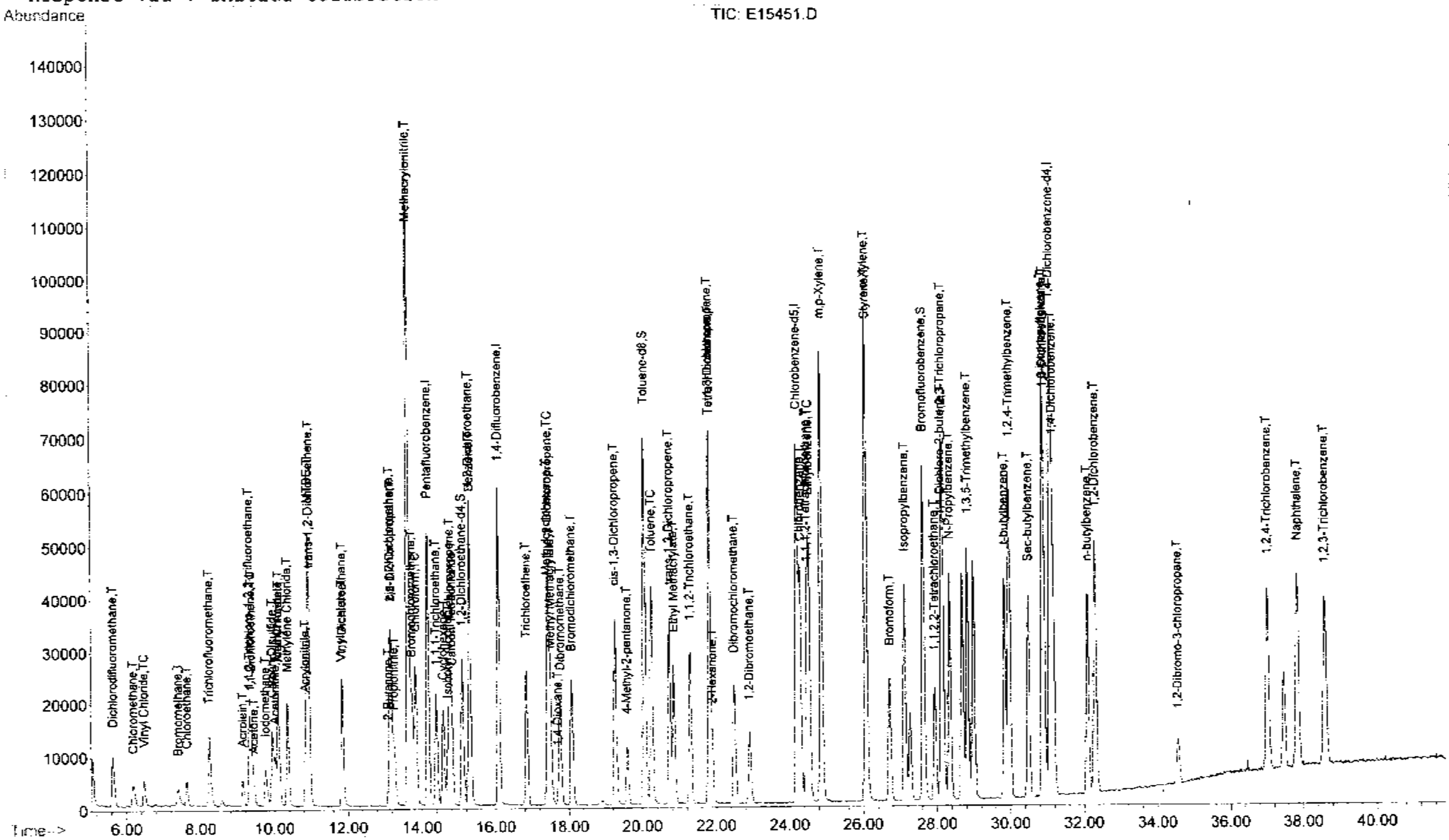
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15451.D   Vial: 14
Acq On   : 27 Sep 2007   9:08 pm   Operator: MG
Sample   : CC   Inst   : Voa Instr
Misc   : 5mL   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 20:50 2007   Quant Results File: E092507W.RES

Method   : G:\METHODS\E092507W.M (RTE Integrator)
Title   : VOA 8260 Calibration
Last Update   : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 22:47

Lab File ID: E15453.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.194		30.1	
Vinyl Chloride	0.283	0.203	0.100	28.4	25.0
Bromomethane	0.111	0.113	0.100	-1.6	25.0
Chloroethane	0.172	0.138		19.3	
Trichlorofluoromethane	0.500	0.445		11.1	
Acetone	0.123	0.100		18.7	
1,1-Dichloroethene	0.216	0.160	0.100	26.1	25.0
Iodomethane	0.320	0.317		1.0	
Carbon Disulfide	1.061	0.732		31.0	
Methylene Chloride	0.367	0.298		18.9	
Acrylonitrile	0.104	0.081		22.3	
trans-1,2-Dichloroethene	0.326	0.247		24.1	
1,1-Dichloroethane	0.610	0.514	0.200	15.7	25.0
Vinyl Acetate	0.491	0.337		31.5	
2-Butanone	0.132	0.115		12.5	
cis-1,2-Dichloroethene	0.373	0.304		18.4	
Chloroform	0.734	0.666	0.200	9.3	25.0
Bromochloromethane	0.202	0.193		4.5	
1,1,1-Trichloroethane	0.568	0.497	0.100	12.5	25.0
Carbon Tetrachloride	0.283	0.268	0.100	5.2	25.0
Benzene	0.902	0.769	0.500	14.7	25.0
1,2-Dichloroethane	0.460	0.465	0.100	-1.1	25.0
Trichloroethene	0.233	0.205	0.300	12.0	25.0
1,2-Dichloropropane	0.230	0.200		13.0	
Bromodichloromethane	0.404	0.394	0.200	2.6	25.0
Dibromomethane	0.171	0.168		1.9	
4-Methyl-2-pentanone	0.198	0.161		18.5	
cis-1,3-Dichloropropene	0.503	0.469	0.200	6.8	25.0
Toluene	0.534	0.474	0.400	11.2	25.0
trans-1,3-Dichloropropene	0.502	0.489	0.100	2.5	25.0
1,1,2-Trichloroethane	0.194	0.180	0.100	6.9	25.0
2-Hexanone	0.155	0.125		19.3	
Tetrachloroethene	0.433	0.366	0.200	15.6	25.0
Dibromochloromethane	0.359	0.348	0.200	3.1	25.0
1,2-Dibromoethane	0.262	0.251		4.4	
Chlorobenzene	0.731	0.674	0.500	7.8	25.0
1,1,1,2-Tetrachloroethane	0.298	0.307		-3.1	
Ethylbenzene	0.999	0.982	0.100	1.7	25.0
m,p-Xylene	0.372	0.372	0.300	-0.1	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/27/07 Time: 22:47

Lab File ID: E15453.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.405	0.300	-3.7	25.0
Styrene	0.723	0.740	0.300	-2.4	25.0
Bromoform	0.318	0.326	0.100	-2.6	25.0
1,1,2,2-Tetrachloroethane	0.323	0.306	0.~~6~~00	5.5	25.0
1,2,3-Trichloropropane	0.465	0.454	300	2.4	
1,4-Dichloro-2-butene	0.057	0.053		7.5	
1,3-Dichlorobenzene	0.598	0.715	0 600	-19.6	
1,4-Dichlorobenzene	0.612	0.735	0 500	-20.0	
1,2-Dichlorobenzene	0.601	0.739	0.400	-23.0	
1,2-Dibromo-3-chloro-propane	0.080	0.088		-10.4	
1,2-Dichloroethane-d4	0.704	0.755		-7.4	
Toluene-d8	1.062	1.046		1.5	
Bromofluorobenzene	0.531	0.579	0 200	-9.1	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15453.D
Acq On : 27 Sep 2007 10:47 pm
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	85	0.01
2	T	Dichlorodifluoromethane	0.534	0.422	21.0	68	0.01
3	T	Chloromethane	0.277	0.194	30.0	62	0.01
4	TC	Vinyl Chloride	0.283	0.203	28.3#	60	0.01
5	T	Bromomethane	0.111	0.113	-1.8	75	0.02
6	T	Chloroethane	0.172	0.138	19.8	66	0.01
7	T	Trichlorofluoromethane	0.500	0.445	11.0	74	0.01
8	T	Acrolein	0.035	0.011#	68.6#	26#	0.01
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.182	18.4	75	0.00
10	T	Acetone	0.123	0.100	18.7	73	0.01
11	TC	1,1-Dichloroethene	0.216	0.160	25.9#	64	0.01
12	T	Acetonitrile	0.030	0.023#	23.3	63	0.02
13	T	Iodomethane	0.320	0.317	0.9	64	0.01
14	T	Methyl Acetate	0.237	0.190	19.8	66	0.01
15	T	Allyl Chloride	0.356	0.364	-2.2	83	0.02
16	T	Carbon Disulfide	1.061	0.732	31.0#	58	0.01
17	T	Methylene Chloride	0.367	0.297	19.1	70	0.01
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	1.054	15.9	70	0.02
20	T	Acrylonitrile	0.104	0.081	22.1	64	0.01
21	T	trans-1,2-Dichloroethene	0.326	0.247	24.2	66	0.01
22	T	1,1-Dichloroethane	0.610	0.514	15.7	70	0.01
23	T	Vinyl Acetate	0.491	0.337	31.4#	55	0.02
24	T	Chloroprene	0.513	0.000#	100.0#	0#	-12.05#
25	T	2-Butanone	0.132	0.115	12.9	64	0.01
26	T	Propionitrile	0.039	0.033#	15.4	67	0.01
27	T	2,2-Dichloropropane	0.465	0.413	11.2	74	0.01
28	T	cis-1,2-Dichloroethene	0.373	0.304	18.5	70	0.01
29	T	Methacrylonitrile	2.182	1.849	15.3	70	0.02
30	TC	Chloroform	0.734	0.666	9.3	76	0.01
31	T	Bromochloromethane	0.202	0.193	4.5	77	0.02
32	T	Isobutyl Alcohol	0.002	0.002#	0.0	60	0.01
33	S	1,2-Dichloroethane-d4	0.704	0.755	-7.2	90	0.01
34	T	1,1,1-Trichloroethane	0.568	0.497	12.5	74	0.02
35	T	Cyclohexane	0.360	0.279	22.5	64	0.01
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	82	0.02
37	T	1,1-Dichloropropene	0.292	0.240	17.8	68	0.01
38	T	Carbon Tetrachloride	0.283	0.268	5.3	75	0.01
39	T	Benzene	0.902	0.769	14.7	69	0.02
40	T	1,2-Dichloroethane	0.460	0.465	-1.1	81	0.01
41	T	Trichloroethene	0.233	0.205	12.0	72	0.02
42	T	Methylcyclohexane	0.253	0.214	15.4	71	0.02
43	TC	1,2-Dichloropropane	0.230	0.200	13.0	70	0.01
44	T	Methyl Methacrylate	0.058	0.057	1.7	66	0.01
45	T	Bromodichloromethane	0.404	0.394	2.5	79	0.01
46	T	1,4-Dioxane	0.053	0.038#	28.3	58	0.02
47	T	Dibromomethane	0.171	0.168	1.8	78	0.02
48	T	4-Methyl-2-pentanone	0.198	0.161	18.7	64	0.02
49	T	cis-1,3-Dichloropropene	0.503	0.469	6.8	74	0.02

(#) = Out of Range

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Evaluate Continuing Calibration Report

Data File : G:\DATA\E15453.D Vial: 16
Acq On : 27 Sep 2007 10:47 pm Operator: MG
Sample : CCV Inst : Voa Instr
Misc : 5mL Multiplr: 1.00
MS Integration Params: rteint.p

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.046	1.5	82	0.01
51	TC	Toluene	0.534	0.474	11.2	73	0.02
52	T	trans-1,3-Dichloropropene	0.502	0.489	2.6	78	0.02
53	T	Ethyl Methacrylate	0.336	0.303	9.8	70	0.01
54	T	1,1,2-Trichloroethane	0.194	0.180	7.2	73	0.02
55	S	Bromofluorobenzene	0.531	0.579	-9.0	88	0.02
56	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.02
57	T	2-Hexanone	0.155	0.125	19.4	63	0.02
58	T	1,3-Dichloropropane	0.488	0.442	9.4	75	0.02
59	T	Tetrachloroethene	0.433	0.366	15.5	75	0.02
60	T	Dibromochloromethane	0.359	0.348	3.1	79	0.02
61	T	1,2-Dibromoethane	0.262	0.251	4.2	78	0.02
62	T	Chlorobenzene	0.731	0.674	7.8	79	0.02
63	T	1,1,1,2-Tetrachloroethane	0.298	0.307	-3.0	85	0.01
64	TC	Ethylbenzene	0.999	0.982	1.7	84	0.02
65	T	m,p-Xylene	0.372	0.372	0.0	84	0.02
66	T	o-Xylene	0.391	0.405	-3.6	87	0.02
67	T	Styrene	0.723	0.740	-2.4	83	0.02
68	T	Bromoform	0.318	0.326	-2.5	84	0.01
69	T	Isopropylbenzene	0.757	0.828	-9.4	91	0.02
70	T	1,1,2,2-Tetrachloroethane	0.323	0.306	5.3	78	0.01
71	T	1,2,3-Trichloropropane	0.465	0.454	2.4	81	0.02
72	T	1,4-Dichloro-2-butene	0.057	0.053	7.0	75	0.01
73	T	N-Propylbenzene	0.948	1.047	-10.4	96	0.01
74	T	1,3,5-Trimethylbenzene	0.681	0.822	-20.7	103	0.01
75	T	t-butylbenzene	0.525	0.638	-21.5	102	0.04
76	T	1,2,4-Trimethylbenzene	0.738	0.908	-23.0	104	0.02
77	T	Sec-butylbenzene	0.643	0.765	-19.0	103	0.02
78	T	p-isopropyltoluene	0.644	0.810	-25.8	112	0.02
79	T	1,3-Dichlorobenzene	0.598	0.715	-19.6	102	0.02
80	T	1,4-Dichlorobenzene	0.612	0.735	-20.1	102	0.02
81	T	n-butylbenzene	0.538	0.650	-20.8	116	0.02
82	T	1,2-Dichlorobenzene	0.601	0.739	-23.0	103	0.02
83	T	1,2-Dibromo-3-chloropropane	0.080	0.088	-10.0	94	0.00
84	T	1,2,4-Trichlorobenzene	0.312	0.466	-49.4#	135	0.01
85	T	Naphthalene	0.915	1.226	-34.0#	109	0.01
86	T	1,2,3-Trichlorobenzene	0.298	0.457	-53.4#	134	0.01
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	0.02

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(#) = Out of Range SPCC's out = 0 CCC's out = 2

```
Data File : G:\DATA\E15453.D                         Vial: 16
Acq On    : 27 Sep 2007  10:47 pm               Operator: MG
Sample    : CCV                                 Inst    : Voa Instr
Misc      : 5mL                                 Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 27 22:29 2007            Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	77539	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.09	114	114978	50.00 ug/L	0.02
56) Chlorobenzene-d5	24.21	117	107539	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.10	152	74392	50.00 ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	15.10	65	58573	53.68 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery =	107.36%	
50) Toluene-d8	20.07	98	120279	49.24 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.48%	
55) Bromofluorobenzene	27.64	95	66587	54.55 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	109.10%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.64	85	32690	39.50 ug/L	100
3) Chloromethane	6.20	50	15033	34.95 ug/L	98
4) Vinyl Chloride	6.48	62	15715	35.81 ug/L	99
5) Bromomethane	7.40	94	8754	50.78 ug/L	98
6) Chloroethane	7.63	64	10735	40.36 ug/L	91
7) Trichlorofluoromethane	8.25	101	34514	44.47 ug/L	98
8) Acrolein	9.14	56	3334	60.70 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.32	101	14080	40.70 ug/L	98
10) Acetone	9.46	43	7743	40.63 ug/L	93
11) 1,1-Dichloroethene	9.39	96	12368	36.96 ug/L	96
12) Acetonitrile	10.04	41	17630	378.12 ug/L	96
13) Iodomethane	9.76	142	24581	49.49 ug/L	94
14) Methyl Acetate	10.11	43	14710	39.96 ug/L	98
15) Allyl Chloride	10.12	39	28201	51.11 ug/L	79
16) Carbon Disulfide	9.94	76	56790	34.50 ug/L	100
17) Methylene Chloride	10.36	84	23065	40.56 ug/L	98
19) MTBE	10.93	73	81740	42.03 ug/L	99
20) Acrylonitrile	10.85	53	25151	155.31 ug/L	99
21) trans-1,2-Dichloroethene	10.96	96	19165	37.96 ug/L	95
22) 1,1-Dichloroethane	11.86	63	39873	42.15 ug/L	98
23) Vinyl Acetate	11.85	43	26117	34.27 ug/L	98
25) 2-Butanone	13.12	43	8936	43.77 ug/L	98
26) Propionitrile	13.27	54	25499	422.41 ug/L	99
27) 2,2-Dichloropropane	13.19	77	32034	44.40 ug/L	97
28) cis-1,2-Dichloroethene	13.15	96	23581	40.79 ug/L	95
29) Methacrylonitrile	13.64	41	143366	42.37 ug/L	98
30) Chloroform	13.84	83	51624	45.36 ug/L	100
31) Bromochloromethane	13.74	128	14961	47.75 ug/L	95
32) Isobutyl Alcohol	14.71	43	13206	3825.44 ug/L	81
34) 1,1,1-Trichloroethane	14.41	97	38528	43.76 ug/L	98
35) Cyclohexane	14.58	56	21627	38.77 ug/L	95
37) 1,1-Dichloropropene	14.77	75	27599	41.03 ug/L	99
38) Carbon Tetrachloride	14.82	117	30852	47.40 ug/L	100
39) Benzene	15.31	78	88466	42.67 ug/L	100
40) 1,2-Dichloroethane	15.29	62	53513	50.56 ug/L	98
41) Trichloroethene	16.86	95	23568	43.98 ug/L	99
42) Methylcyclohexane	17.43	83	24566	42.14 ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15453.D
Acq On : 27 Sep 2007 10:47 pm
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 22:29 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43) 1,2-Dichloropropane	17.45	63	22988	43.53 ug/L		100
44) Methyl Methacrylate	17.51	100	6560	49.10 ug/L	#	94
45) Bromodichloromethane	18.09	83	45263	48.67 ug/L		98
46) 1,4-Dioxane	17.73	88	4363	35.70 ug/L		96
47) Dibromomethane	17.78	93	19342	49.06 ug/L		98
48) 4-Methyl-2-pentanone	19.60	43	18537	40.78 ug/L		96
49) cis-1,3-Dichloropropene	19.28	75	53868	46.60 ug/L		99
51) Toluene	20.26	92	54494	44.40 ug/L		99
52) trans-1,3-Dichloropropene	20.74	75	56217	48.74 ug/L		100
53) Ethyl Methacrylate	20.86	69	34863	45.14 ug/L		98
54) 1,1,2-Trichloroethane	21.31	83	20739	46.54 ug/L		95
57) 2-Hexanone	21.91	43	13414	40.35 ug/L		97
58) 1,3-Dichloropropane	21.82	76	47585	45.37 ug/L		100
59) Tetrachloroethene	21.83	166	39323	42.19 ug/L		97
60) Dibromochloromethane	22.51	129	37434	48.45 ug/L		97
61) 1,2-Dibromoethane	22.92	107	26957	47.78 ug/L		97
62) Chlorobenzene	24.31	112	72450	46.10 ug/L		98
63) 1,1,1,2-Tetrachloroethane	24.48	131	33000	51.56 ug/L		98
64) Ethylbenzene	24.55	91	105604	49.13 ug/L		99
65) m,p-Xylene	24.88	106	80078	100.10 ug/L		97
66) o-Xylene	26.08	106	43531	51.82 ug/L		99
67) Styrene	26.10	104	79573	51.18 ug/L		95
68) Bromoform	26.72	173	35071	51.30 ug/L		99
69) Isopropylbenzene	27.13	105	89021	54.69 ug/L		99
70) 1,1,2,2-Tetrachloroethane	27.94	83	32868	47.26 ug/L		99
71) 1,2,3-Trichloropropane	28.15	75	48791	48.79 ug/L		92
72) 1,4-Dichloro-2-butene	28.12	89	5687	46.24 ug/L	#	72
73) N-Propylbenzene	28.35	91	112567	55.20 ug/L		99
74) 1,3,5-Trimethylbenzene	28.84	105	88430	60.40 ug/L		98
75) t-butylbenzene	29.86	119	68627	60.79 ug/L		99
76) 1,2,4-Trimethylbenzene	29.99	105	97651	61.50 ug/L		99
77) Sec-butylbenzene	30.50	105	82271	59.49 ug/L		100
78) p-isopropyltoluene	30.90	119	87055	62.85 ug/L		99
79) 1,3-Dichlorobenzene	30.93	146	76926	59.79 ug/L		100
80) 1,4-Dichlorobenzene	31.17	146	79016	59.98 ug/L		99
81) n-butylbenzene	32.12	91	69856	60.40 ug/L		99
82) 1,2-Dichlorobenzene	32.31	146	79509	61.48 ug/L		100
83) 1,2-Dibromo-3-chloropropan	34.56	75	9466	55.22 ug/L		98
84) 1,2,4-Trichlorobenzene	37.02	180	50090	74.53 ug/L		100
85) Naphthalene	37.84	128	131825	67.00 ug/L		100
86) 1,2,3-Trichlorobenzene	38.60	180	49180	76.66 ug/L		99

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(#) = qualifier out of range (m) = manual integration

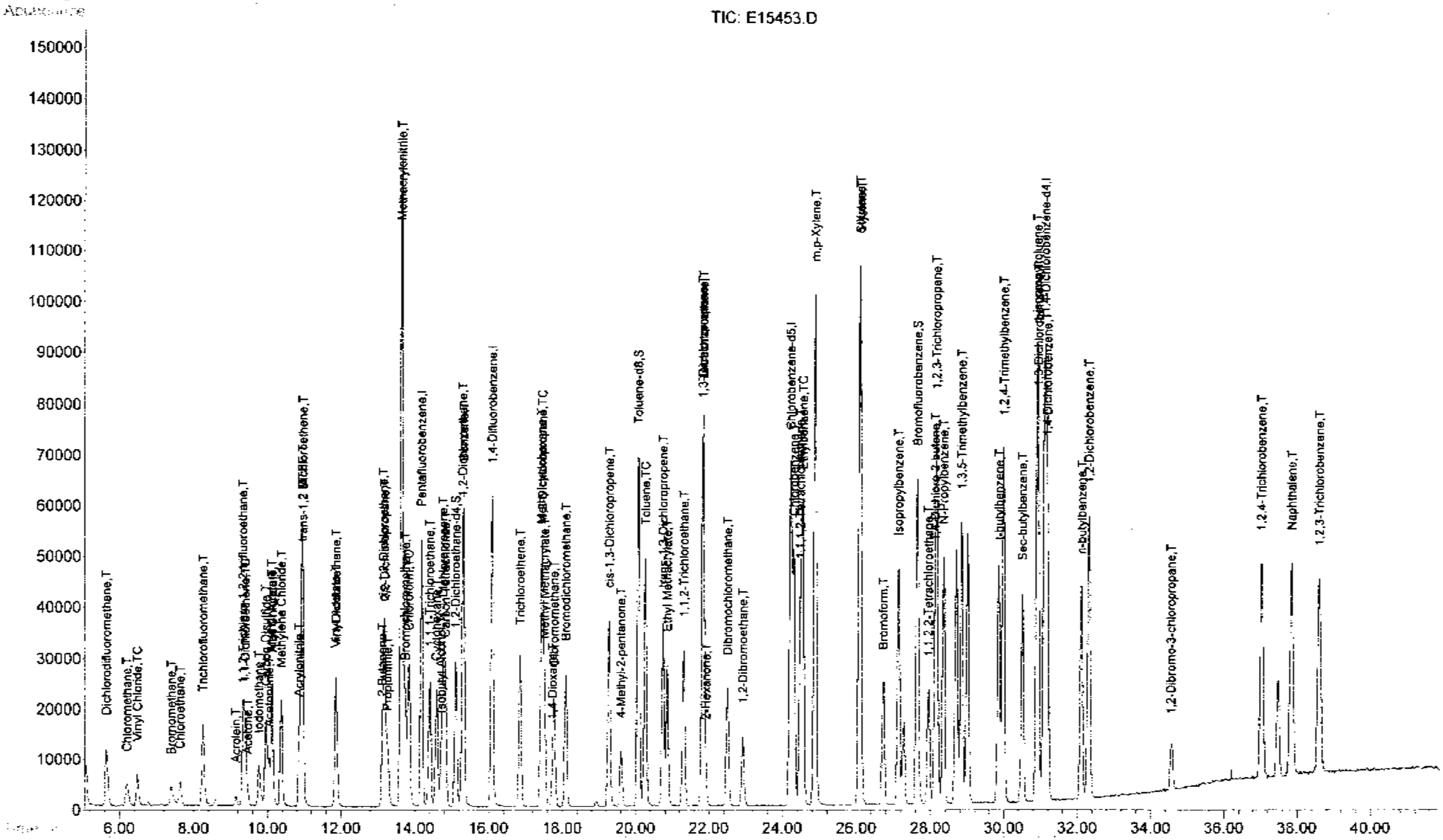
Quantitation Report

Data File : G:\DATA\E15453.D
Acq On : 27 Sep 2007 10:47 pm
Sample : CCV
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 22:29 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/1/07 Time: 13:27

Lab File ID: E15521.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.184		33.7	
Vinyl Chloride	0.283	0.201	0.100	29.0	25.0
Bromomethane	0.111	0.122	0.100	-10.1	25.0
Chloroethane	0.172	0.129		25.0	
Trichlorofluoromethane	0.500	0.401		19.9	
Acetone	0.123	0.099		19.4	
1,1-Dichloroethene	0.216	0.173	0.100	19.8	25.0
Iodomethane	0.320	0.336		-5.0	
Carbon Disulfide	1.061	0.735		30.7	
Methylene Chloride	0.367	0.300		18.2	
Acrylonitrile	0.104	0.079		24.4	
trans-1,2-Dichloroethene	0.326	0.247		24.1	
1,1-Dichloroethane	0.610	0.440	0.200	27.9	25.0
Vinyl Acetate	0.491	0.470		4.5	
2-Butanone	0.132	0.117		11.5	
cis-1,2-Dichloroethene	0.373	0.288		22.7	
Chloroform	0.734	0.580	0.200	20.9	25.0
Bromochloromethane	0.202	0.166		18.1	
1,1,1-Trichloroethane	0.568	0.461	0.100	18.8	25.0
Carbon Tetrachloride	0.283	0.301	0.100	-6.3	25.0
Benzene	0.902	0.818	0.500	9.3	25.0
1,2-Dichloroethane	0.460	0.423	0.100	8.1	25.0
Trichloroethene	0.233	0.213	0.300	8.6	25.0
1,2-Dichloropropane	0.230	0.182		21.0	
Bromodichloromethane	0.404	0.368	0.200	9.0	25.0
Dibromomethane	0.171	0.164		4.1	
4-Methyl-2-pentanone	0.198	0.172		12.9	
cis-1,3-Dichloropropene	0.503	0.419	0.200	16.6	25.0
Toluene	0.534	0.518	0.400	3.0	25.0
trans-1,3-Dichloropropene	0.502	0.413	0.100	17.6	25.0
1,1,2-Trichloroethane	0.194	0.179	0.100	7.7	25.0
2-Hexanone	0.155	0.148		4.0	
Tetrachloroethene	0.433	0.336	0.200	22.6	25.0
Dibromochloromethane	0.359	0.343	0.200	4.6	25.0
1,2-Dibromoethane	0.262	0.254		3.1	
Chlorobenzene	0.731	0.719	0.500	1.5	25.0
1,1,1,2-Tetrachloroethane	0.298	0.303		-1.9	
Ethylbenzene	0.999	1.188	0.100	-18.8	25.0
m,p-Xylene	0.372	0.433	0.300	-16.5	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/1/07 Time: 13:27

Lab File ID: E15521.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.441	0.300	-13.0	25.0
Styrene	0.723	0.803	0.300	-11.1	25.0
Bromoform	0.318	0.255	0.100	19.9	25.0
1,1,2,2-Tetrachloroethane	0.323	0.315	0.300	2.5	25.0
1,2,3-Trichloropropane	0.465	0.383	.300	17.6	
1,4-Dichloro-2-butene	0.057	0.055		4.7	
1,3-Dichlorobenzene	0.598	0.791	0.600	-32.3	
1,4-Dichlorobenzene	0.612	0.823	0.500	-34.3	
1,2-Dichlorobenzene	0.601	0.801	0.400	-33.2	
1,2-Dibromo-3-chloro-propane	0.080	0.077		3.3	
1,2-Dichloroethane-d4	0.704	0.599		14.9	
Toluene-d8	1.062	1.067		-0.4	
Bromofluorobenzene	0.531	0.518	0.200	2.4	

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All other compounds must meet a minimum RRF of 0.010.

```
Data File : D:\DATA\E15521.D                      Vial: 2
Acq On    :  1 Oct 2007   1:27 pm            Operator: MG
Sample    : CCV                              Inst    : Voa Instr
Misc      : 5ML                              Multiplr: 1.00
MS Integration Params: rteint.p

Method        : D:\METHODS\E092507W.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Wed Sep 26 10:42:24 2007
Response via  : Multiple Level Calibration

Min. RRF      :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	114	-0.09
2	T	Dichlorodifluoromethane	0.534	0.391	26.8	85	-0.06
3	T	Chloromethane	0.277	0.184	33.6#	80	-0.06
4	TC	Vinyl Chloride	0.283	0.201	29.0#	80	-0.05
5	T	Bromomethane	0.111	0.122	-9.9	110	-0.06
6	T	Chloroethane	0.172	0.129	25.0	83	-0.05
7	T	Trichlorofluoromethane	0.500	0.401	19.8	90	-0.06
8	T	Acrolein	0.035	0.032#	8.6	104	-0.06
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.000#	100.0#	0#	-9.32#
10	T	Acetone	0.123	0.099	19.5	98	-0.07
11	TC	1,1-Dichloroethene	0.216	0.173	19.9	94	-0.07
12	T	Acetonitrile	0.030	0.021#	30.0	78	-0.06
13	T	Iodomethane	0.320	0.336	-5.0	92	-0.06
14	T	Methyl Acetate	0.237	0.008#	96.6#	4#	-0.06
15	T	Allyl Chloride	0.356	0.252	29.2	78	-0.06
16	T	Carbon Disulfide	1.061	0.735	30.7#	79	-0.06
17	T	Methylene Chloride	0.367	0.300	18.3	95	-0.07
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	1.000	20.3	89	-0.07
20	T	Acrylonitrile	0.104	0.079	24.0	84	-0.06
21	T	trans-1,2-Dichloroethene	0.326	0.247	24.2	89	-0.07
22	T	1,1-Dichloroethane	0.610	0.440	27.9	81	-0.09
23	T	Vinyl Acetate	0.491	0.470	4.3	103	-0.07
24	T	Chloroprene	0.513	0.445	13.3	95	-0.09
25	T	2-Butanone	0.132	0.116	12.1	87	-0.09
26	T	Propionitrile	0.039	0.029#	25.6	79	-0.10
27	T	2,2-Dichloropropane	0.465	0.465	0.0	113	-0.10
28	T	cis-1,2-Dichloroethene	0.373	0.288	22.8	89	-0.09
29	T	Methacrylonitrile	2.182	1.664	23.7	85	-0.09
30	TC	Chloroform	0.734	0.580	21.0	89	-0.09
31	T	Bromochloromethane	0.202	0.165	18.3	89	-0.09
32	T	Isobutyl Alcohol	0.002	0.002#	0.0	76	-0.09
33	S	1,2-Dichloroethane-d4	0.704	0.598	15.1	97	-0.09
34	T	1,1,1-Trichloroethane	0.568	0.461	18.8	92	-0.09
35	T	Cyclohexane	0.360	0.011#	96.9#	3#	0.02
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	99	-0.09
37	T	1,1-Dichloropropene	0.292	0.268	8.2	92	-0.09
38	T	Carbon Tetrachloride	0.283	0.301	-6.4	102	-0.10
39	T	Benzene	0.902	0.818	9.3	89	-0.09
40	T	1,2-Dichloroethane	0.460	0.423	8.0	89	-0.09
41	T	Trichloroethene	0.233	0.213	8.6	90	-0.10
42	T	Methylcyclohexane	0.253	0.000#	100.0#	0#	-17.40#
43	TC	1,2-Dichloropropane	0.230	0.182	20.9	77	-0.10
44	T	Methyl Methacrylate	0.058	0.063	-8.6	88	-0.09
45	T	Bromodichloromethane	0.404	0.368	8.9	89	-0.10
46	T	1,4-Dioxane	0.053	0.049#	7.5	91	-0.07
47	T	Dibromomethane	0.171	0.164	4.1	92	-0.10
48	T	4-Methyl-2-pentanone	0.198	0.172	13.1	82	-0.09
49	T	cis-1,3-Dichloropropene	0.503	0.419	16.7	80	-0.09

-708-

(#) = Out of Range

Data File : D:\DATA\E15521.D
Acq On : 1 Oct 2007 1:27 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.067	-0.5	101	-0.09
51	TC	Toluene	0.534	0.518	3.0	95	-0.09
52	T	trans-1,3-Dichloropropene	0.502	0.413	17.7	79	-0.09
53	T	Ethyl Methacrylate	0.336	0.313	6.8	87	-0.09
54	T	1,1,2-Trichloroethane	0.194	0.179	7.7	88	-0.09
55	S	Bromofluorobenzene	0.531	0.518	2.4	95	-0.09
56	I	Chlorobenzene-d5	1.000	1.000	0.0	95	-0.09
57	T	2-Hexanone	0.155	0.148	4.5	84	-0.09
58	T	1,3-Dichloropropane	0.488	0.460	5.7	88	-0.09
59	T	Tetrachloroethene	0.433	0.335	22.6	78	-0.09
60	T	Dibromochloromethane	0.359	0.343	4.5	87	-0.09
61	T	1,2-Dibromoethane	0.262	0.254	3.1	89	-0.09
62	T	Chlorobenzene	0.731	0.719	1.6	94	-0.09
63	T	1,1,1,2-Tetrachloroethane	0.298	0.303	-1.7	94	-0.09
64	TC	Ethylbenzene	0.999	1.187	-18.8	115	-0.09
65	T	m,p-Xylene	0.372	0.433	-16.4	110	-0.09
66	T	o-Xylene	0.391	0.441	-12.8	106	-0.09
67	T	Styrene	0.723	0.803	-11.1	102	-0.09
68	T	Bromoform	0.318	0.255	19.8	74	-0.10
69	T	Isopropylbenzene	0.757	0.004#	99.5#	0#	-0.07
70	T	1,1,2,2-Tetrachloroethane	0.323	0.315	2.5	91	-0.09
71	T	1,2,3-Trichloropropane	0.465	0.383	17.6	77	-0.10
72	T	1,4-Dichloro-2-butene	0.057	0.054	5.3	87	-0.09
73	T	N-Propylbenzene	0.948	0.005#	99.5#	1#	-0.09
74	T	1,3,5-Trimethylbenzene	0.681	1.028	-51.0#	144	-0.09
75	T	t-butylbenzene	0.525	0.280	46.7#	50	0.04
76	T	1,2,4-Trimethylbenzene	0.738	1.004	-36.0#	130	-0.09
77	T	Sec-butylbenzene	0.643	0.005#	99.2#	1#	-0.09
78	T	p-isopropyltoluene	0.644	0.006#	99.1#	1#	-0.09
79	T	1,3-Dichlorobenzene	0.598	0.791	-32.3#	126	-0.10
80	T	1,4-Dichlorobenzene	0.612	0.823	-34.5#	129	-0.09
81	T	n-butylbenzene	0.538	0.005#	99.1#	1#	-0.09
82	T	1,2-Dichlorobenzene	0.601	0.801	-33.3#	125	-0.07
83	T	1,2-Dibromo-3-chloropropane	0.080	0.077	3.8	92	-0.10
84	T	1,2,4-Trichlorobenzene	0.312	0.000#	100.0#	0#	-37.01#
85	T	Naphthalene	0.915	0.001#	99.9#	0#	-0.07
86	T	1,2,3-Trichlorobenzene	0.298	0.000#	100.0#	0#	-38.59#
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	-0.09

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(#) = Out of Range SPCC's out = 0 CCC's out = 1

Data File : D:\DATA\E15521.D
Acq On : 1 Oct 2007 1:27 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 14:09 2007

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.07	168	104788	50.00	ug/L	-0.09
36) 1,4-Difluorobenzene	15.98	114	138588	50.00	ug/L	-0.09
56) Chlorobenzene-d5	24.10	117	120870	50.00	ug/L	-0.09
87) 1,4-Dichlorobenzene-d4	30.99	152	79692	50.00	ug/L	-0.09

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.00	65	62712	42.53	ug/L	-0.09
Spiked Amount 50.000	Range 76 - 118		Recovery = 85.06%			
50) Toluene-d8	19.97	98	147842	50.22	ug/L	-0.09
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.44%			
55) Bromofluorobenzene	27.53	95	71771	48.78	ug/L	-0.09
Spiked Amount 50.000	Range 86 - 115		Recovery = 97.56%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	5.57	85	40995	36.65	ug/L	100
3) Chloromethane	6.13	50	19271	33.15	ug/L	99
4) Vinyl Chloride	6.42	62	21049	35.49	ug/L	100
5) Bromomethane	7.31	94	12822	55.03	ug/L	91
6) Chloroethane	7.57	64	13477	37.49	ug/L	99
7) Trichlorofluoromethane	8.17	101	42023	40.06	ug/L	99
8) Acrolein	9.07	56	13437	181.03	ug/L	99
10) Acetone	9.37	43	10373	40.28	ug/L	95
11) 1,1-Dichloroethene	9.30	96	18139	40.11	ug/L	90
12) Acetonitrile	9.95	41	21795	345.89	ug/L	99
13) Iodomethane	9.68	142	35237	52.50	ug/L	96
14) Methyl Acetate	10.03	43	823	1.65	ug/L #	69
15) Allyl Chloride	10.03	39	26377	35.37	ug/L	97
16) Carbon Disulfide	9.87	76	77026	34.63	ug/L	100
17) Methylene Chloride	10.27	84	31447	40.92	ug/L	93
19) MTBE	10.83	73	104761	39.86	ug/L	98
20) Acrylonitrile	10.77	53	33063	151.07	ug/L	99
21) trans-1,2-Dichloroethene	10.87	96	25893	37.95	ug/L	93
22) 1,1-Dichloroethane	11.76	63	46095	36.06	ug/L	98
23) Vinyl Acetate	11.75	43	49203	47.78	ug/L	100
24) Chloroprene	11.96	53	46633	43.35	ug/L	96
25) 2-Butanone	13.02	43	12203	44.23	ug/L	99
26) Propionitrile	13.16	54	29964	367.30	ug/L	99
27) 2,2-Dichloropropane	13.08	77	48735	49.99	ug/L	98
28) cis-1,2-Dichloroethene	13.05	96	30212	38.67	ug/L	96
29) Methacrylonitrile	13.53	41	174316	38.12	ug/L	99
30) Chloroform	13.74	83	60797	39.53	ug/L	99
31) Bromochloromethane	13.63	128	17340	40.96	ug/L #	76
32) Isobutyl Alcohol	14.61	43	16731	3586.25	ug/L	85
34) 1,1,1-Trichloroethane	14.30	97	48317	40.61	ug/L	97
35) Cyclohexane	14.59	56	1127	1.49	ug/L #	11
37) 1,1-Dichloropropene	14.67	75	37167	45.84	ug/L	99
38) Carbon Tetrachloride	14.71	117	41693	53.15	ug/L	99
39) Benzene	15.20	78	113399	45.37	ug/L	100
40) 1,2-Dichloroethane	15.19	62	58606	45.94	ug/L	98
41) Trichloroethene	16.74	95	29510	45.69	ug/L	100
43) 1,2-Dichloropropane	17.34	63	25157	39.52	ug/L	98

(#) = qualifier out of range (m) = manual integration

-710-

Data File : D:\DATA\E15521.D
Acq On : 1 Oct 2007 1:27 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 14:09 2007

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44) Methyl Methacrylate	17.41	100	8734	54.24 ug/L	#	78
45) Bromodichloromethane	17.98	83	51028	45.52 ug/L		98
46) 1,4-Dioxane	17.63	88	6764	45.91 ug/L		93
47) Dibromomethane	17.65	93	22788	47.96 ug/L		95
48) 4-Methyl-2-pentanone	19.49	43	23854	43.53 ug/L		97
49) cis-1,3-Dichloropropene	19.16	75	58064	41.67 ug/L		98
51) Toluene	20.15	92	71730	48.48 ug/L		100
52) trans-1,3-Dichloropropene	20.63	75	57294	41.21 ug/L		100
53) Ethyl Methacrylate	20.76	69	43350	46.57 ug/L		96
54) 1,1,2-Trichloroethane	21.20	83	24783	46.14 ug/L		98
57) 2-Hexanone	21.80	43	17938	48.01 ug/L		96
58) 1,3-Dichloropropane	21.71	76	55658	47.22 ug/L		99
59) Tetrachloroethene	21.72	166	40551	38.71 ug/L		96
60) Dibromochloromethane	22.39	129	41430	47.71 ug/L		99
61) 1,2-Dibromoethane	22.81	107	30727	48.46 ug/L		98
62) Chlorobenzene	24.20	112	86948	49.22 ug/L		100
63) 1,1,1,2-Tetrachloroethane	24.38	131	36658	50.96 ug/L		98
64) Ethylbenzene	24.44	91	143531	59.41 ug/L		99
65) m,p-Xylene	24.77	106	104782	116.53 ug/L		96
66) o-Xylene	25.97	106	53325	56.48 ug/L		98
67) Styrene	25.99	104	97035	55.53 ug/L		99
68) Bromoform	26.61	173	30776	40.06 ug/L		95
70) 1,1,2,2-Tetrachloroethane	27.84	83	38113	48.76 ug/L		100
71) 1,2,3-Trichloropropane	28.03	75	46302	41.20 ug/L	#	7
72) 1,4-Dichloro-2-butene	28.02	89	6585	47.64 ug/L	#	1
74) 1,3,5-Trimethylbenzene	28.74	105	124300	75.54 ug/L		97
75) t-butylbenzene	29.87	119	33825	26.66 ug/L		64
76) 1,2,4-Trimethylbenzene	29.88	105	121357	68.01 ug/L		99
79) 1,3-Dichlorobenzene	30.81	146	95661	66.15 ug/L		99
80) 1,4-Dichlorobenzene	31.06	146	99435	67.16 ug/L		98
82) 1,2-Dichlorobenzene	32.21	146	96835	66.62 ug/L		97
83) 1,2-Dibromo-3-chloropropan	34.46	75	9318	48.36 ug/L		91

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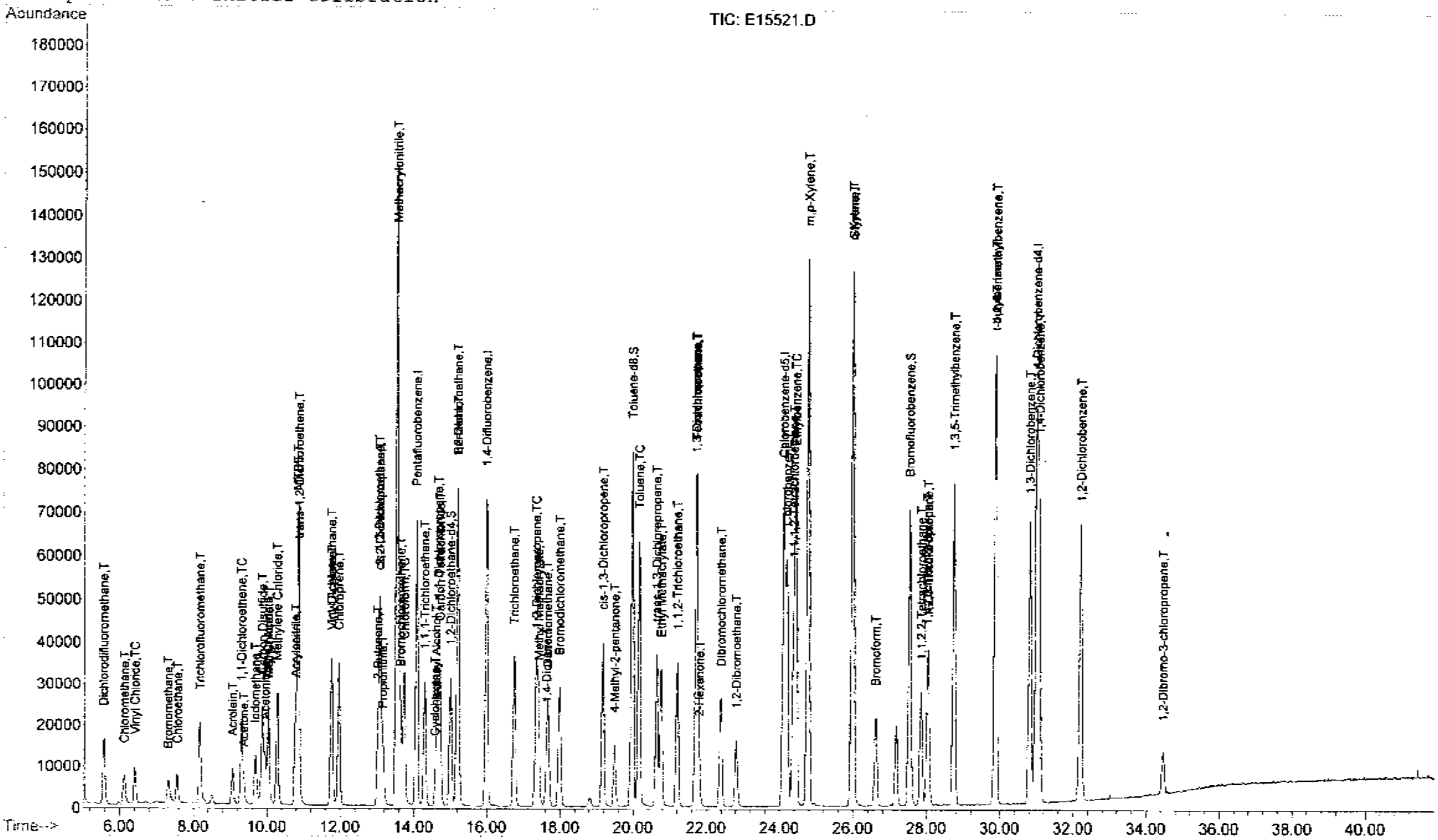
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15521.D
Acq On : 1 Oct 2007 1:27 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 14:09 2007

Vial: 2
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



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7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/28/07 Time: 8:38

Lab File ID: E15465.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

NA

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.194		30.2	
Vinyl Chloride	0.283	0.208	0.100	26.7	25.0
Bromomethane	0.111	0.117	0.100	-4.9	25.0
Chloroethane	0.172	0.135		21.1	
Trichlorofluoromethane	0.500	0.470		6.0	
Acetone	0.123	0.101		17.8	
1,1-Dichloroethene	0.216	0.171	0.100	20.6	25.0
Iodomethane	0.320	0.323		-0.9	
Carbon Disulfide	1.061	0.743		30.0	
Methylene Chloride	0.367	0.303		17.3	
Acrylonitrile	0.104	0.079		24.2	
trans-1,2-Dichloroethene	0.326	0.258		20.7	
1,1-Dichloroethane	0.610	0.524	0.200	14.0	25.0
Vinyl Acetate	0.491	0.259		47.3	
2-Butanone	0.132	0.106		19.2	
cis-1,2-Dichloroethene	0.373	0.303		18.8	
Chloroform	0.734	0.698	0.200	4.9	25.0
Bromochloromethane	0.202	0.195		3.4	
1,1,1-Trichloroethane	0.568	0.522	0.100	8.0	25.0
Carbon Tetrachloride	0.283	0.272	0.100	3.8	25.0
Benzene	0.902	0.755	0.500	16.3	25.0
1,2-Dichloroethane	0.460	0.495	0.100	-7.5	25.0
Trichloroethene	0.233	0.211✓	0.300	9.5	25.0
1,2-Dichloropropane	0.230	0.201		12.7	
Bromodichloromethane	0.404	0.422	0.200	-4.4	25.0
Dibromomethane	0.171	0.174		-1.6	
4-Methyl-2-pentanone	0.198	0.166		16.2	
cis-1,3-Dichloropropene	0.503	0.461	0.200	8.2	25.0
Toluene	0.534	0.477	0.400	10.6	25.0
trans-1,3-Dichloropropene	0.502	0.495	0.100	1.4	25.0
1,1,2-Trichloroethane	0.194	0.186	0.100	4.1	25.0
2-Hexanone	0.155	0.126		18.7	
Tetrachloroethene	0.433	0.420	0.200	3.1	25.0
Dibromochloromethane	0.359	0.356	0.200	0.9	25.0
1,2-Dibromoethane	0.262	0.248		5.3	
Chlorobenzene	0.731	0.666	0.500	8.9	25.0
1,1,1,2-Tetrachloroethane	0.298	0.299		-0.6	
Ethylbenzene	0.999	0.897	0.100	10.2	25.0
m,p-Xylene	0.372	0.335	0.300	10.0	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Instrument ID: 49 Calibration Date: 9/28/07 Time: 8:38

Lab File ID: E15465.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.369	0.300	5.5	25.0
Styrene	0.723	0.700	0.300	3.1	25.0
Bromoform	0.318	0.330	0.100	-3.7	25.0
1,1,2,2-Tetrachloroethane	0.323	0.291	0.~~5~~00	10.0	25.0
1,2,3-Trichloropropane	0.465	0.435	3	6.5	
1,4-Dichloro-2-butene	0.057	0.048		15.7	
1,3-Dichlorobenzene	0.598	0.639	0.600	-6.8	
1,4-Dichlorobenzene	0.612	0.673	0.500	-9.8	
1,2-Dichlorobenzene	0.601	0.654	0.400	-8.7	
1,2-Dibromo-3-chloro-propane	0.080	0.086		-8.0	
1,2-Dichloroethane-d4	0.704	0.769		-9.3	
Toluene-d8	1.062	1.065		-0.2	
Bromofluorobenzene	0.531	0.597	0.200	-12.4	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : G:\DATA\E15465.D
Acq On : 28 Sep 2007 8:38 am
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p

Vial: 28
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	77	0.00
2	T	Dichlorodifluoromethane	0.534	0.457	14.4	67	0.00
3	T	Chloromethane	0.277	0.194	30.0	57	0.00
4	TC	Vinyl Chloride	0.283	0.208	26.5#	55	0.00
5	T	Bromomethane	0.111	0.117	-5.4	70	0.00
6	T	Chloroethane	0.172	0.135	21.5	59	0.00
7	T	Trichlorofluoromethane	0.500	0.470	6.0	71	0.00
8	T	Acrolein	0.035	0.023#	34.3#	50	0.00
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.191	14.3	72	0.00
10	T	Acetone	0.123	0.101	17.9	67	0.00
11	TC	1,1-Dichloroethene	0.216	0.171	20.8	63	0.00
12	T	Acetonitrile	0.030	0.023#	23.3	59	0.02
13	T	Iodomethane	0.320	0.323	-0.9	59	0.00
14	T	Methyl Acetate	0.237	0.200	15.6	63	0.00
15	T	Allyl Chloride	0.356	0.364	-2.2	76	0.02
16	T	Carbon Disulfide	1.061	0.743	30.0	54	0.00
17	T	Methylene Chloride	0.367	0.303	17.4	64	0.00
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	1.071	14.6	64	0.00
20	T	Acrylonitrile	0.104	0.079	24.0	56	0.02
21	T	trans-1,2-Dichloroethene	0.326	0.258	20.9	63	0.00
22	T	1,1-Dichloroethane	0.610	0.524	14.1	65	0.00
23	T	Vinyl Acetate	0.491	0.259	47.3#	38#	0.00
24	T	Chloroprene	0.513	0.000#	100.0#	0#	-12.05#
25	T	2-Butanone	0.132	0.106	19.7	54	0.00
26	T	Propionitrile	0.039	0.031#	20.5	58	0.00
27	T	2,2-Dichloropropane	0.465	0.335	28.0	55	0.00
28	T	cis-1,2-Dichloroethene	0.373	0.303	18.8	63	0.00
29	T	Methacrylonitrile	2.182	1.864	14.6	64	0.00
30	TC	Chloroform	0.734	0.698	4.9	72	0.00
31	T	Bromochloromethane	0.202	0.195	3.5	71	0.00
32	T	Isobutyl Alcohol	0.002	0.002#	0.0	53	0.00
33	S	1,2-Dichloroethane-d4	0.704	0.769	-9.2	83	0.00
34	T	1,1,1-Trichloroethane	0.568	0.522	8.1	70	0.02
35	T	Cyclohexane	0.360	0.285	20.8	60	0.02
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	74	0.00
37	T	1,1-Dichloropropene	0.292	0.239	18.2	61	0.00
38	T	Carbon Tetrachloride	0.283	0.272	3.9	69	0.00
39	T	Benzene	0.902	0.755	16.3	61	0.00
40	T	1,2-Dichloroethane	0.460	0.495	-7.6	77	0.00
41	T	Trichloroethene	0.233	0.211	9.4	66	0.00
42	T	Methylcyclohexane	0.253	0.214	15.4	64	0.00
43	TC	1,2-Dichloropropane	0.230	0.201	12.6	63	0.00
44	T	Methyl Methacrylate	0.058	0.058	0.0	60	0.00
45	T	Bromodichloromethane	0.404	0.422	-4.5	76	0.00
46	T	1,4-Dioxane	0.053	0.039#	26.4	54	0.00
47	T	Dibromomethane	0.171	0.174	-1.8	73	0.00
48	T	4-Methyl-2-pentanone	0.198	0.166	16.2	59	0.02
49	T	cis-1,3-Dichloropropene	0.503	0.461	8.3	65	0.00

(#) = Out of Range

Data File : G:\DATA\E15465.D
Acq On : 28 Sep 2007 8:38 am
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p

Vial: 28
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.065	-0.3	75	0.00
51	TC	Toluene	0.534	0.477	10.7	66	0.00
52	T	trans-1,3-Dichloropropene	0.502	0.495	1.4	71	0.02
53	T	Ethyl Methacrylate	0.336	0.314	6.5	65	0.00
54	T	1,1,2-Trichloroethane	0.194	0.186	4.1	68	0.00
55	S	Bromofluorobenzene	0.531	0.597	-12.4	82	0.02
56	I	Chlorobenzene-d5	1.000	1.000	0.0	78	0.02
57	T	2-Hexanone	0.155	0.126	18.7	58	0.00
58	T	1,3-Dichloropropane	0.488	0.447	8.4	70	0.00
59	T	Tetrachloroethene	0.433	0.420	3.0	80	0.02
60	T	Dibromochloromethane	0.359	0.356	0.8	74	0.00
61	T	1,2-Dibromoethane	0.262	0.248	5.3	72	0.00
62	T	Chlorobenzene	0.731	0.665	9.0	72	0.02
63	T	1,1,1,2-Tetrachloroethane	0.298	0.299	-0.3	76	0.00
64	TC	Ethylbenzene	0.999	0.897	10.2	71	0.00
65	T	m,p-Xylene	0.372	0.335	9.9	70	0.00
66	T	o-Xylene	0.391	0.369	5.6	73	0.00
67	T	Styrene	0.723	0.700	3.2	73	0.02
68	T	Bromoform	0.318	0.330	-3.8	78	0.00
69	T	Isopropylbenzene	0.757	0.716	5.4	73	0.02
70	T	1,1,2,2-Tetrachloroethane	0.323	0.291	9.9	69	0.02
71	T	1,2,3-Trichloropropane	0.465	0.435	6.5	72	0.00
72	T	1,4-Dichloro-2-butene	0.057	0.048#	15.8	63	0.00
73	T	N-Propylbenzene	0.948	0.862	9.1	73	0.00
74	T	1,3,5-Trimethylbenzene	0.681	0.680	0.1	78	0.00
75	T	t-butylbenzene	0.525	0.515	1.9	76	0.02
76	T	1,2,4-Trimethylbenzene	0.738	0.770	-4.3	82	0.00
77	T	Sec-butylbenzene	0.643	0.589	8.4	73	0.02
78	T	p-isopropyltoluene	0.644	0.622	3.4	79	0.00
79	T	1,3-Dichlorobenzene	0.598	0.639	-6.9	84	0.00
80	T	1,4-Dichlorobenzene	0.612	0.672	-9.8	86	0.00
81	T	n-butylbenzene	0.538	0.475	11.7	78	0.00
82	T	1,2-Dichlorobenzene	0.601	0.654	-8.8	84	0.00
83	T	1,2-Dibromo-3-chloropropane	0.080	0.086	-7.5	84	0.00
84	T	1,2,4-Trichlorobenzene	0.312	0.384	-23.1	103	0.00
85	T	Naphthalene	0.915	1.063	-16.2	87	0.00
86	T	1,2,3-Trichlorobenzene	0.298	0.381	-27.9	103	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00

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(#) = Out of Range SPCC's out = 0 CCC's out = 1

Data File : G:\DATA\E15465.D   Vial: 28
Acq On : 28 Sep 2007 8:38 am   Operator: MG
Sample : CC   Inst : Voa Instr
Misc : 5mL   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 8:20 2007   Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	70496	50.00 ug/L	0.00
36) 1,4-Difluorobenzene	16.07	114	103356	50.00 ug/L	0.00
56) Chlorobenzene-d5	24.21	117	99192	50.00 ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	70080	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.10	65	54230	54.67 ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery = 109.34%		
50) Toluene-d8	20.06	98	110041	50.12 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.24%		
55) Bromofluorobenzene	27.64	95	61676	56.21 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery = 112.42%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.64	85	32225	42.83 ug/L	98
3) Chloromethane	6.18	50	13645	34.89 ug/L	100
4) Vinyl Chloride	6.48	62	14630	36.67 ug/L	98
5) Bromomethane	7.38	94	8223	52.46 ug/L	94
6) Chloroethane	7.63	64	9548	39.48 ug/L	97
7) Trichlorofluoromethane	8.24	101	33153	46.98 ug/L	100
8) Acrolein	9.14	56	6475	129.67 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.32	101	13494	42.90 ug/L	99
10) Acetone	9.44	43	7121	41.10 ug/L	93
11) 1,1-Dichloroethene	9.38	96	12086	39.72 ug/L	98
12) Acetonitrile	10.03	41	16337	385.39 ug/L	82
13) Iodomethane	9.75	142	22793	50.48 ug/L	91
14) Methyl Acetate	10.10	43	14092	42.11 ug/L	99
15) Allyl Chloride	10.11	39	25689	51.21 ug/L	73
16) Carbon Disulfide	9.94	76	52410	35.02 ug/L	100
17) Methylene Chloride	10.36	84	21367	41.33 ug/L	99
19) MTBE	10.91	73	75528	42.72 ug/L	99
20) Acrylonitrile	10.86	53	22337	151.71 ug/L	99
21) trans-1,2-Dichloroethene	10.95	96	18201	39.65 ug/L	98
22) 1,1-Dichloroethane	11.86	63	36966	42.99 ug/L	99
23) Vinyl Acetate	11.83	43	18245	26.33 ug/L	96
25) 2-Butanone	13.11	43	7501	40.41 ug/L	98
26) Propionitrile	13.26	54	22154	403.66 ug/L	98
27) 2,2-Dichloropropane	13.17	77	23645	36.05 ug/L	97
28) cis-1,2-Dichloroethene	13.15	96	21342	40.60 ug/L	96
29) Methacrylonitrile	13.62	41	131388	42.71 ug/L	96
30) Chloroform	13.83	83	49176	47.53 ug/L	100
31) Bromochloromethane	13.73	128	13757	48.30 ug/L	96
32) Isobutyl Alcohol	14.70	43	11724	3735.44 ug/L	79
34) 1,1,1-Trichloroethane	14.40	97	36816	46.00 ug/L	99
35) Cyclohexane	14.59	56	20078	39.58 ug/L	98
37) 1,1-Dichloropropene	14.76	75	24705	40.86 ug/L	99
38) Carbon Tetrachloride	14.82	117	28133	48.09 ug/L	99
39) Benzene	15.30	78	77989	41.84 ug/L	100
40) 1,2-Dichloroethane	15.28	62	51122	53.73 ug/L	97
41) Trichloroethene	16.84	95	21792	45.24 ug/L	98
42) Methylcyclohexane	17.41	83	22098	42.17 ug/L	96

(#) = qualifier out of range (m) = manual integration

-703-

Data File : G:\DATA\E15465.D
Acq On : 28 Sep 2007 8:38 am
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 8:20 2007

Vial: 28
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	17.44	63	20723	43.65 ug/L		99
44)	Methyl Methacrylate	17.50	100	5987	49.85 ug/L	#	59
45)	Bromodichloromethane	18.08	83	43636	52.20 ug/L		99
46)	1,4-Dioxane	17.71	88	4044	36.81 ug/L		99
47)	Dibromomethane	17.76	93	17996	50.78 ug/L		98
48)	4-Methyl-2-pentanone	19.59	43	17122	41.90 ug/L		94
49)	cis-1,3-Dichloropropene	19.26	75	47677	45.88 ug/L		99
51)	Toluene	20.25	92	49316	44.70 ug/L		99
52)	trans-1,3-Dichloropropene	20.73	75	51134	49.32 ug/L		98
53)	Ethyl Methacrylate	20.84	69	32449	46.74 ug/L		99
54)	1,1,2-Trichloroethane	21.29	83	19203	47.93 ug/L		96
57)	2-Hexanone	21.90	43	12457	40.63 ug/L		96
58)	1,3-Dichloropropane	21.80	76	44325	45.82 ug/L		99
59)	Tetrachloroethene	21.83	166	41633	48.43 ug/L		98
60)	Dibromochloromethane	22.49	129	35306	49.54 ug/L		97
61)	1,2-Dibromoethane	22.91	107	24631	47.33 ug/L		100
62)	Chlorobenzene	24.30	112	66011	45.54 ug/L		99
63)	1,1,1,2-Tetrachloroethane	24.48	131	29684	50.29 ug/L		98
64)	Ethylbenzene	24.53	91	88993	44.88 ug/L		99
65)	m,p-Xylene	24.86	106	66424	90.02 ug/L		95
66)	o-Xylene	26.07	106	36624	47.27 ug/L		96
67)	Styrene	26.09	104	69470	48.44 ug/L		94
68)	Bromoform	26.71	173	32700	51.86 ug/L		97
69)	Isopropylbenzene	27.12	105	70989	47.28 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.95	83	28878	45.01 ug/L		98
71)	1,2,3-Trichloropropane	28.14	75	43112	46.74 ug/L		92
72)	1,4-Dichloro-2-butene	28.11	89	4779	42.13 ug/L	#	60
73)	N-Propylbenzene	28.34	91	85529	45.47 ug/L		100
74)	1,3,5-Trimethylbenzene	28.82	105	67458	49.96 ug/L		98
75)	t-butylbenzene	29.84	119	51045	49.02 ug/L		98
76)	1,2,4-Trimethylbenzene	29.97	105	76344	52.13 ug/L		99
77)	Sec-butylbenzene	30.49	105	58383	45.77 ug/L		99
78)	p-isopropyltoluene	30.88	119	61714	48.31 ug/L		98
79)	1,3-Dichlorobenzene	30.91	146	63362	53.39 ug/L		99
80)	1,4-Dichlorobenzene	31.16	146	66706	54.90 ug/L		100
81)	n-butylbenzene	32.10	91	47100	44.15 ug/L		99
82)	1,2-Dichlorobenzene	32.30	146	64860	54.37 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.56	75	8537	53.99 ug/L		93
84)	1,2,4-Trichlorobenzene	37.01	180	38048	61.38 ug/L		100
85)	Naphthalene	37.83	128	105404	58.08 ug/L		100
86)	1,2,3-Trichlorobenzene	38.58	180	37820	63.92 ug/L		98

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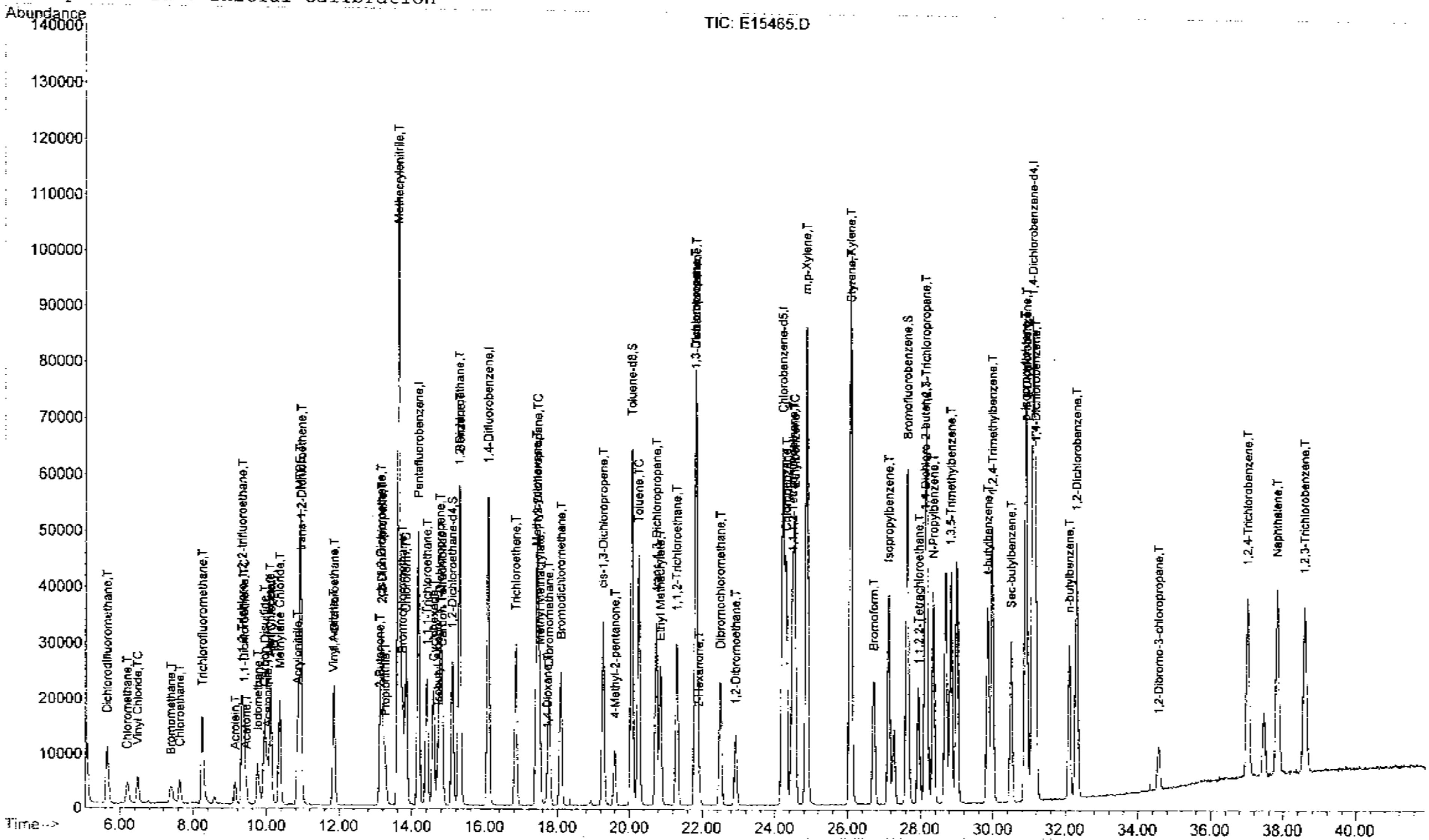
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15465.D
Acq On : 28 Sep 2007 8:38 am
Sample : CC
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 8:20 2007

Vial: 28
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc.   Contract: CHA

Lab Code: 10170   Case No.: ____   SAS No.: ____   SDG No.: CHA85

Instrument ID: 49   Calibration Date: 10/2/07   Time: 8:36

Lab File ID: E15533.D   Init. Calib. Date(s): 9/25/07   9/26/07

Heated Purge: (Y/N) N   Init. Calib. Times: 22:19   2:25

GC Column: DB-624   ID: 0.25 (mm)

NA

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.171		38.2	
Vinyl Chloride	0.283	0.167	0.100	41.1	25.0
Bromomethane	0.111	0.052	0.100	52.9	25.0
Chloroethane	0.172	0.103		40.1	
Trichlorofluoromethane	0.500	0.399		20.4	
Acetone	0.123	0.109		11.5	
1,1-Dichloroethene	0.216	0.138	0.100	36.1	25.0
Iodomethane	0.320	0.116		63.9	
Carbon Disulfide	1.061	0.553		47.9	
Methylene Chloride	0.367	0.242		34.1	
Acrylonitrile	0.104	0.061		41.8	
trans-1,2-Dichloroethene	0.326	0.190		41.8	
1,1-Dichloroethane	0.610	0.382	0.200	37.3	25.0
Vinyl Acetate	0.491	0.277		43.6	
2-Butanone	0.132	0.097		26.7	
cis-1,2-Dichloroethene	0.373	0.223		40.2	
Chloroform	0.734	0.567	0.200	22.7	25.0
Bromochloromethane	0.202	0.159		21.3	
1,1,1-Trichloroethane	0.568	0.455	0.100	19.9	25.0
Carbon Tetrachloride	0.283	0.295	0.100	-4.3	25.0
Benzene	0.902	0.633	0.500	29.8	25.0
1,2-Dichloroethane	0.460	0.481	0.100	-4.6	25.0
Trichloroethene	0.233	0.174	0.300	25.4	25.0
1,2-Dichloropropane	0.230	0.148		35.7	
Bromodichloromethane	0.404	0.375	0.200	7.2	25.0
Dibromomethane	0.171	0.158		7.8	
4-Methyl-2-pentanone	0.198	0.144		27.1	
cis-1,3-Dichloropropene	0.503	0.356	0.200	29.2	25.0
Toluene	0.534	0.397	0.400	25.6	25.0
trans-1,3-Dichloropropene	0.502	0.395	0.100	21.3	25.0
1,1,2-Trichloroethane	0.194	0.162	0.100	16.3	25.0
2-Hexanone	0.155	0.128		17.3	
Tetrachloroethene	0.433	0.380	0.200	12.2	25.0
Dibromochloromethane	0.359	0.360	0.200	-0.3	25.0
1,2-Dibromoethane	0.262	0.247		5.7	
Chlorobenzene	0.731	0.624	0.500	14.6	25.0
1,1,1,2-Tetrachloroethane	0.298	0.303		-1.7	
Ethylbenzene	0.999	0.975	0.100	2.5	25.0
m,p-Xylene	0.372	0.353	0.300	5.2	25.0

-713-

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/2/07 Time: 8:36

Lab File ID: E15533.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.381	0.300	2.4	25.0
Styrene	0.723	0.697	0.300	3.6	25.0
Bromoform	0.318	0.267	0.100	15.9	25.0
1,1,2,2-Tetrachloroethane	0.323	0.286	0.500	11.6	25.0
1,2,3-Trichloropropane	0.465	0.373		19.9	
1,4-Dichloro-2-butene	0.057	0.046		19.1	
1,3-Dichlorobenzene	0.598	0.735		-22.9	
1,4-Dichlorobenzene	0.612	0.765		-24.8	
1,2-Dichlorobenzene	0.601	0.749		-24.6	
1,2-Dibromo-3-chloro-propane	0.080	0.094		-17.4	
1,2-Dichloroethane-d4	0.704	0.751		-6.7	
Toluene-d8	1.062	1.011		4.9	
Bromofluorobenzene	0.531	0.566		-6.5	

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All other compounds must meet a minimum RRF of 0.010.

```
Data File : D:\DATA\E15533.D                         Vial: 14
Acq On    :  2 Oct 2007   8:36 am                Operator: MG
Sample    : CC                                   Inst    : Voa Instr
Misc      : 5ML                                  Multiplr: 1.00
MS Integration Params: rteint.p

Method       : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 150%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	75	-0.07
2	T	Dichlorodifluoromethane	0.534	0.367	31.3#	52	-0.06
3	T	Chloromethane	0.277	0.171	38.3#	49#	-0.09
4	TC	Vinyl Chloride	0.283	0.167	41.0#	43#	-0.05
5	T	Bromomethane	0.111	0.052	53.2#	31#	-0.07
6	T	Chloroethane	0.172	0.103	40.1#	43#	-0.06
7	T	Trichlorofluoromethane	0.500	0.399	20.2	59	-0.06
8	T	Acrolein	0.035	0.000#	100.0#	0#	-9.13#
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.000#	100.0#	0#	-9.32#
10	T	Acetone	0.123	0.109	11.4	70	-0.06
11	TC	1,1-Dichloroethene	0.216	0.138	36.1#	49#	-0.06
12	T	Acetonitrile	0.030	0.013#	56.7#	33#	-0.06
13	T	Iodomethane	0.320	0.116	63.8#	21#	-0.07
14	T	Methyl Acetate	0.237	0.020#	91.6#	6#	-0.06
15	T	Allyl Chloride	0.356	0.277	22.2	56	-0.05
16	T	Carbon Disulfide	1.061	0.553	47.9#	39#	-0.06
17	T	Methylene Chloride	0.367	0.242	34.1#	50	-0.06
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	0.961	23.4	56	-0.06
20	T	Acrylonitrile	0.104	0.061	41.3#	42#	-0.06
21	T	trans-1,2-Dichloroethene	0.326	0.190	41.7#	45#	-0.06
22	T	1,1-Dichloroethane	0.610	0.382	37.4#	46#	-0.07
23	T	Vinyl Acetate	0.491	0.277	43.6#	40#	-0.06
24	T	Chloroprene	0.513	0.368	28.3	52	-0.07
25	T	2-Butanone	0.132	0.096	27.3	47#	-0.07
26	T	Propionitrile	0.039	0.024#	38.5#	43#	-0.09
27	T	2,2-Dichloropropane	0.465	0.339	27.1	54	-0.07
28	T	cis-1,2-Dichloroethene	0.373	0.223	40.2#	45#	-0.09
29	T	Methacrylonitrile	2.182	1.479	32.2#	49#	-0.07
30	TC	Chloroform	0.734	0.567	22.8	57	-0.07
31	T	Bromochloromethane	0.202	0.159	21.3	56	-0.07
32	T	Isobutyl Alcohol	0.002	0.001#	50.0#	38#	-0.06
33	S	1,2-Dichloroethane-d4	0.704	0.751	-6.7	79	-0.09
34	T	1,1,1-Trichloroethane	0.568	0.454	20.1	60	-0.07
35	T	Cyclohexane	0.360	0.011#	96.9#	2#	0.05
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	65	-0.07
37	T	1,1-Dichloropropene	0.292	0.218	25.3	49#	-0.09
38	T	Carbon Tetrachloride	0.283	0.295	-4.2	65	-0.09
39	T	Benzene	0.902	0.633	29.8	45#	-0.07
40	T	1,2-Dichloroethane	0.460	0.481	-4.6	66	-0.09
41	T	Trichloroethene	0.233	0.174	25.3	48#	-0.09
42	T	Methylcyclohexane	0.253	0.000#	100.0#	0#	-17.40#
43	TC	1,2-Dichloropropane	0.230	0.148	35.7#	41#	-0.09
44	T	Methyl Methacrylate	0.058	0.055	5.2	50	-0.07
45	T	Bromodichloromethane	0.404	0.375	7.2	59	-0.09
46	T	1,4-Dioxane	0.053	0.041#	22.6	49#	-0.09
47	T	Dibromomethane	0.171	0.158	7.6	58	-0.09
48	T	4-Methyl-2-pentanone	0.198	0.144	27.3	45#	-0.09
49	T	cis-1,3-Dichloropropene	0.503	0.356	29.2	44#	-0.07

(#) = Out of Range

-715-

```
Data File : D:\DATA\E15533.D                              Vial: 14
Acq On    :  2 Oct 2007   8:36 am                     Operator: MG
Sample    : CC                                         Inst    : Voa Instr
Misc      : 5ML                                        Multiplr: 1.00
MS Integration Params: rteint.p

Method        : D:\METHODS\E092507W.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Wed Sep 26 10:42:24 2007
Response via  : Multiple Level Calibration

Min. RRF      :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%      Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.011	4.8	62	-0.09
51	TC	Toluene	0.534	0.397	25.7#	48#	-0.07
52	T	trans-1,3-Dichloropropene	0.502	0.395	21.3	49#	-0.07
53	T	Ethyl Methacrylate	0.336	0.276	17.9	50#	-0.07
54	T	1,1,2-Trichloroethane	0.194	0.162	16.5	52	-0.07
55	S	Bromofluorobenzene	0.531	0.566	-6.6	68	-0.07
56	I	Chlorobenzene-d5	1.000	1.000	0.0	62	-0.07
57	T	2-Hexanone	0.155	0.128	17.4	47#	-0.09
58	T	1,3-Dichloropropane	0.488	0.428	12.3	53	-0.09
59	T	Tetrachloroethene	0.433	0.380	12.2	57	-0.07
60	T	Dibromochloromethane	0.359	0.360	-0.3	59	-0.09
61	T	1,2-Dibromoethane	0.262	0.247	5.7	56	-0.09
62	T	Chlorobenzene	0.731	0.624	14.6	53	-0.07
63	T	1,1,1,2-Tetrachloroethane	0.298	0.303	-1.7	61	-0.07
64	TC	Ethylbenzene	0.999	0.974	2.5	61	-0.07
65	T	m,p-Xylene	0.372	0.353	5.1	58	-0.07
66	T	o-Xylene	0.391	0.381	2.6	59	-0.09
67	T	Styrene	0.723	0.697	3.6	57	-0.07
68	T	Bromoform	0.318	0.267	16.0	50#	-0.10
69	T	Isopropylbenzene	0.757	0.000#	100.0#	0#	-27.11#
70	T	1,1,2,2-Tetrachloroethane	0.323	0.286	11.5	53	-0.09
71	T	1,2,3-Trichloropropane	0.465	0.372	20.0	48#	-0.09
72	T	1,4-Dichloro-2-butene	0.057	0.046#	19.3	48#	-0.07
73	T	N-Propylbenzene	0.948	0.001#	99.9#	0#	-0.07
74	T	1,3,5-Trimethylbenzene	0.681	0.904	-32.7#	82	-0.09
75	T	t-butylbenzene	0.525	0.189	64.0#	22#	0.05
76	T	1,2,4-Trimethylbenzene	0.738	0.908	-23.0	76	-0.09
77	T	Sec-butylbenzene	0.643	0.001#	99.8#	0#	-0.09
78	T	p-isopropyltoluene	0.644	0.003#	99.5#	0#	-0.05
79	T	1,3-Dichlorobenzene	0.598	0.735	-22.9	76	-0.09
80	T	1,4-Dichlorobenzene	0.612	0.765	-25.0	77	-0.09
81	T	n-butylbenzene	0.538	0.006#	98.9#	1#	-0.09
82	T	1,2-Dichlorobenzene	0.601	0.749	-24.6	76	-0.07
83	T	1,2-Dibromo-3-chloropropane	0.080	0.094	-17.5	72	-0.11
84	T	1,2,4-Trichlorobenzene	0.312	0.000#	100.0#	0#	-37.01#
85	T	Naphthalene	0.915	0.000#	100.0#	0#	-37.83#
86	T	1,2,3-Trichlorobenzene	0.298	0.000#	100.0#	0#	-38.59#
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	66	-0.09

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(#) = Out of Range   SPCC's out = 0 CCC's out = 4

Data File : D:\DATA\E15533.D Vial: 14
Acq On : 2 Oct 2007 8:36 am Operator: MG
Sample : CC Inst : Voa Instr
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 9:18 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	68694	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	15.99	114	90121	50.00 ug/L	-0.07
56) Chlorobenzene-d5	24.12	117	78253	50.00 ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	30.99	152	55929	50.00 ug/L	-0.09
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.00	65	51563	53.34 ug/L	-0.09
Spiked Amount 50.000	Range 76 - 118		Recovery =	106.68%	
50) Toluene-d8	19.97	98	91072	47.57 ug/L	-0.09
Spiked Amount 50.000	Range 88 - 110		Recovery =	95.14%	
55) Bromofluorobenzene	27.54	95	50965	53.27 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	106.54%	

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
2) Dichlorodifluoromethane	5.57	85	25214	34.39 ug/L		100
3) Chloromethane	6.10	50	11776	30.91 ug/L		95
4) Vinyl Chloride	6.42	62	11441	29.43 ug/L		98
5) Bromomethane	7.30	94	3597	23.55 ug/L		89
6) Chloroethane	7.56	64	7060	29.96 ug/L		96
7) Trichlorofluoromethane	8.17	101	27377	39.81 ug/L		100
10) Acetone	9.38	43	7469	44.24 ug/L		89
11) 1,1-Dichloroethene	9.31	96	9475	31.96 ug/L		92
12) Acetonitrile	9.95	41	9108	220.50 ug/L	#	52
13) Iodomethane	9.67	142	7950	18.07 ug/L		93
14) Methyl Acetate	10.03	43	1361	4.17 ug/L	#	64
15) Allyl Chloride	10.04	39	19001	38.87 ug/L	#	63
16) Carbon Disulfide	9.87	76	37963	26.04 ug/L		100
17) Methylene Chloride	10.29	84	16595	32.94 ug/L		98
19) MTBE	10.84	73	65988	38.30 ug/L		97
20) Acrylonitrile	10.78	53	16715	116.50 ug/L		93
21) trans-1,2-Dichloroethene	10.88	96	13026	29.12 ug/L		99
22) 1,1-Dichloroethane	11.77	63	26253	31.33 ug/L		97
23) Vinyl Acetate	11.76	43	19041	28.20 ug/L		99
24) Chloroprene	11.97	53	25265	35.83 ug/L		92
25) 2-Butanone	13.03	43	6628	36.64 ug/L		93
26) Propionitrile	13.17	54	16201	302.94 ug/L		95
27) 2,2-Dichloropropane	13.10	77	23270	36.41 ug/L		94
28) cis-1,2-Dichloroethene	13.05	96	15322	29.91 ug/L		92
29) Methacrylonitrile	13.54	41	101612	33.89 ug/L		92
30) Chloroform	13.75	83	38958	38.64 ug/L		100
31) Bromochloromethane	13.65	128	10921	39.35 ug/L		92
32) Isobutyl Alcohol	14.63	43	8440	2759.65 ug/L		69
34) 1,1,1-Trichloroethane	14.31	97	31218	40.02 ug/L		98
35) Cyclohexane	14.62	56	765	1.55 ug/L	#	11
37) 1,1-Dichloropropene	14.67	75	19642	37.26 ug/L		98
38) Carbon Tetrachloride	14.73	117	26598	52.14 ug/L		98
39) Benzene	15.21	78	57015	35.08 ug/L		100
40) 1,2-Dichloroethane	15.19	62	43383	52.29 ug/L		97
41) Trichloroethene	16.75	95	15671	37.31 ug/L		96
43) 1,2-Dichloropropane	17.35	63	13298	32.12 ug/L		99
44) Methyl Methacrylate	17.42	100	4960	47.37 ug/L	#	84

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(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15533.D
Acq On : 2 Oct 2007 8:36 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 9:18 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	Bromodichloromethane	17.99	83	33807	46.38 ug/L		98
46)	1,4-Dioxane	17.62	88	3680	38.41 ug/L		99
47)	Dibromomethane	17.67	93	14250	46.12 ug/L		97
48)	4-Methyl-2-pentanone	19.49	43	12995	36.47 ug/L		95
49)	cis-1,3-Dichloropropene	19.18	75	32082	35.41 ug/L		99
51)	Toluene	20.16	92	35765	37.17 ug/L		100
52)	trans-1,3-Dichloropropene	20.64	75	35571	39.35 ug/L		99
53)	Ethyl Methacrylate	20.77	69	24896	41.13 ug/L		100
54)	1,1,2-Trichloroethane	21.21	83	14611	41.83 ug/L		96
57)	2-Hexanone	21.80	43	9999	41.34 ug/L		94
58)	1,3-Dichloropropane	21.71	76	33477	43.87 ug/L		100
59)	Tetrachloroethene	21.73	166	29766	43.89 ug/L		99
60)	Dibromochloromethane	22.40	129	28201	50.16 ug/L		98
61)	1,2-Dibromoethane	22.81	107	19362	47.16 ug/L		98
62)	Chlorobenzene	24.21	112	48845	42.71 ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.39	131	23681	50.85 ug/L		97
64)	Ethylbenzene	24.45	91	76255	48.75 ug/L		97
65)	m,p-Xylene	24.78	106	55217	94.85 ug/L		89
66)	o-Xylene	25.97	106	29817	48.78 ug/L		94
67)	Styrene	26.00	104	54541	48.21 ug/L		90
68)	Bromoform	26.61	173	20907	42.03 ug/L		95
70)	1,1,2,2-Tetrachloroethane	27.85	83	22363	44.19 ug/L		97
71)	1,2,3-Trichloropropane	28.04	75	29148	40.06 ug/L	#	7
72)	1,4-Dichloro-2-butene	28.03	89	3620	40.45 ug/L	#	1
74)	1,3,5-Trimethylbenzene	28.74	105	70734	66.40 ug/L		96
75)	t-butylbenzene	29.88	119	14800	18.02 ug/L		80
76)	1,2,4-Trimethylbenzene	29.88	105	71050	61.50 ug/L		96
79)	1,3-Dichlorobenzene	30.82	146	57514	61.43 ug/L		100
80)	1,4-Dichlorobenzene	31.06	146	59834	62.42 ug/L		98
82)	1,2-Dichlorobenzene	32.21	146	58608	62.28 ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.45	75	7328	58.75 ug/L		92

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(#) = qualifier out of range (m) = manual integration

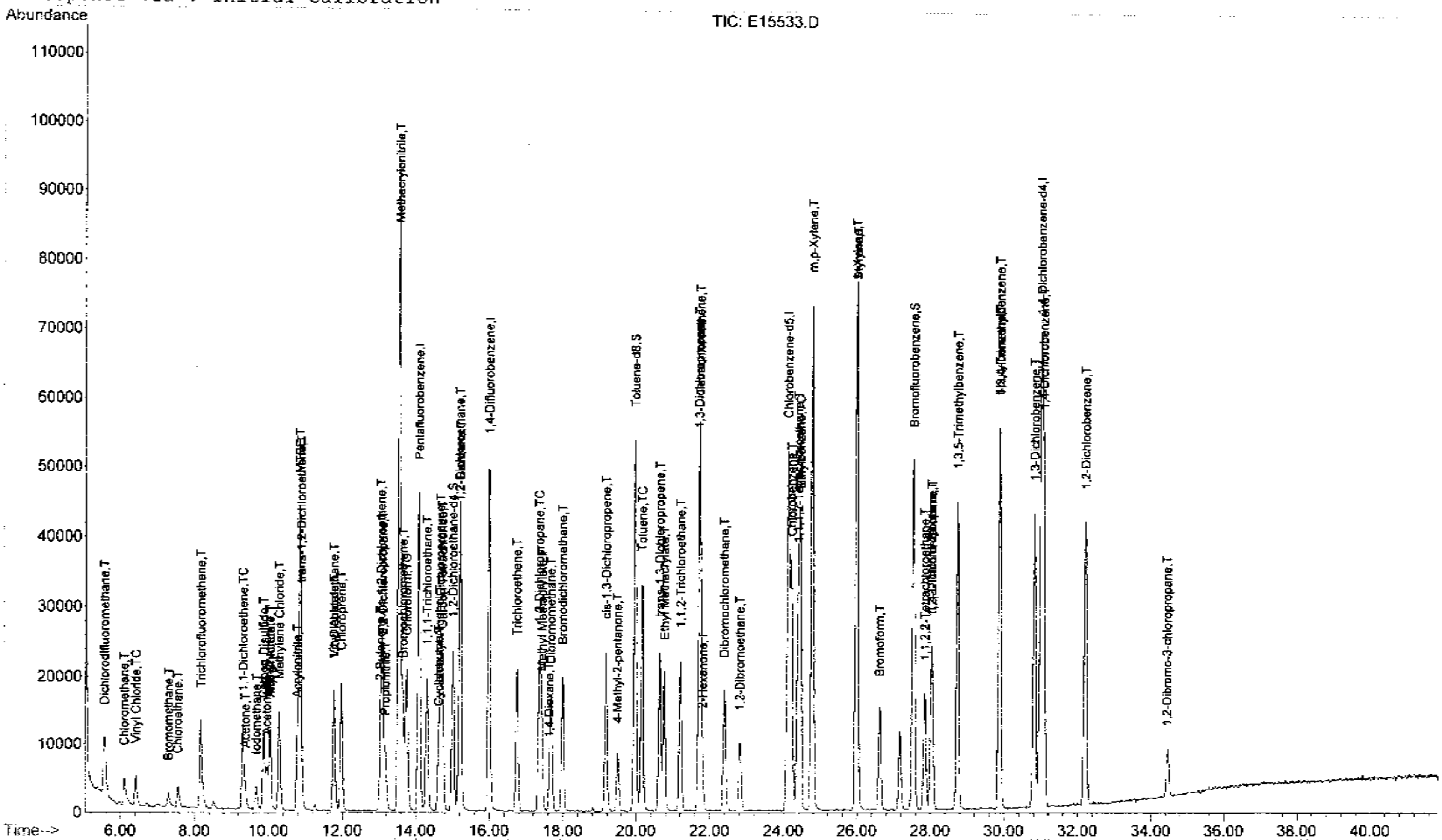
Quantitation Report

Data File : D:\DATA\E15533.D
Acq On : 2 Oct 2007 8:36 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 9:18 2007

Vial: 14
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/2/07 Time: 17:06

Lab File ID: E15537.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.094		66.2	
Vinyl Chloride	0.283	0.144	0.100	49.0	25.0
Bromomethane	0.111	0.164	0.100	-47.6	25.0
Chloroethane	0.172	0.088		48.5	
Trichlorofluoromethane	0.500	0.457		8.6	
Acetone	0.123	0.076		38.4	
1,1-Dichloroethene	0.216	0.137	0.100	36.7	25.0
Iodomethane	0.320	0.352		-9.9	
Carbon Disulfide	1.061	0.582		45.1	
Methylene Chloride	0.367	~~0.204~~		44.4	
Acrylonitrile	0.104	0.042		59.5	
trans-1,2-Dichloroethene	0.326	~~0.192~~		41.2	
1,1-Dichloroethane	0.610	0.325	0.200	46.7	25.0
Vinyl Acetate	0.491	0.298		39.4	
2-Butanone	0.132	0.069		47.7	
cis-1,2-Dichloroethene	0.373	0.212		43.0	
Chloroform	0.734	0.534	0.200	27.3	25.0
Bromochloromethane	0.202	0.138		31.7	
1,1,1-Trichloroethane	0.568	0.469	0.100	17.5	25.0
Carbon Tetrachloride	0.283	0.338	0.100	-19.4	25.0
Benzene	0.902	0.666	0.500	26.1	25.0
1,2-Dichloroethane	0.460	0.482	0.100	-4.7	25.0
Trichloroethene	0.233	0.205	0.300	12.2	25.0
1,2-Dichloropropane	0.230	0.140		39.0	
Bromodichloromethane	0.404	0.432	0.200	-6.9	25.0
Dibromomethane	0.171	0.173		-0.7	
4-Methyl-2-pentanone	0.198	0.131		33.8	
cis-1,3-Dichloropropene	0.503	0.422	0.200	16.1	25.0
Toluene	0.534	0.449	0.400	15.9	25.0
trans-1,3-Dichloropropene	0.502	0.480	0.100	4.4	25.0
1,1,2-Trichloroethane	0.194	0.167	0.100	13.9	25.0
2-Hexanone	0.155	0.110		29.0	
Tetrachloroethene	0.433	0.344	0.200	20.7	25.0
Dibromochloromethane	0.359	0.397	0.200	-10.6	25.0
1,2-Dibromoethane	0.262	0.263		-0.4	
Chlorobenzene	0.731	0.652	0.500	10.7	25.0
1,1,1,2-Tetrachloroethane	0.298	0.341		-14.5	
Ethylbenzene	0.999	0.966	0.100	3.3	25.0
m,p-Xylene	0.372	0.358	0.300	3.7	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/2/07 Time: 17:06

Lab File ID: E15537.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.390	0.300	0.1	25.0
Styrene	0.723	0.722	0.300	0.2	25.0
Bromoform	0.318	0.428	0.100	-34.5	25.0
1,1,2,2-Tetrachloroethane	0.323	0.289	0.500	10.5	25.0
1,2,3-Trichloropropane	0.465	0.442		4.9	
1,4-Dichloro-2-butene	0.057	0.059		-3.3	
1,3-Dichlorobenzene	0.598	0.736	0.600	-23.0	
1,4-Dichlorobenzene	0.612	0.765	0.500	-24.9	
1,2-Dichlorobenzene	0.601	0.768	0.400	-27.8	
1,2-Dibromo-3-chloro-propane	0.080	0.094		-18.4	
1,2-Dichloroethane-d4	0.704	0.610		13.3	
Toluene-d8	1.062	1.030		3.0	
Bromofluorobenzene	0.531	0.604	0.200	-13.7	

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All other compounds must meet a minimum RRF of 0.010.

Data File : D:\DATA\E15537.D Vial: 4
Acq On : 2 Oct 2007 5:06 pm Operator: MG
Sample : CCV Inst : Voa Instr
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	66	-0.05
2	T	Dichlorodifluoromethane	0.534	0.423	20.8	53	-0.04
3	T	Chloromethane	0.277	0.094	66.1#	24#	-0.03
4	TC	Vinyl Chloride	0.283	0.144	49.1#	33#	-0.04
5	T	Bromomethane	0.111	0.164	-47.7#	86	-0.03
6	T	Chloroethane	0.172	0.088	48.8#	33#	-0.04
7	T	Trichlorofluoromethane	0.500	0.457	8.6	59	-0.04
8	T	Acrolein	0.035	0.019#	45.7#	36#	-0.04
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.167	25.1	54	-0.04
10	T	Acetone	0.123	0.076	38.2#	43#	-0.05
11	TC	1,1-Dichloroethene	0.216	0.137	36.6#	43#	-0.04
12	T	Acetonitrile	0.030	0.011#	63.3#	24#	-0.04
13	T	Iodomethane	0.320	0.352	-10.0	56	-0.04
14	T	Methyl Acetate	0.237	0.109	54.0#	30#	-0.04
15	T	Allyl Chloride	0.356	0.237	33.4#	43#	-0.03
16	T	Carbon Disulfide	1.061	0.582	45.1#	36#	-0.04
17	T	Methylene Chloride	0.367	0.204	44.4#	37#	-0.03
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	0.918	26.8	48#	-0.04
20	T	Acrylonitrile	0.104	0.042#	59.6#	26#	-0.04
21	T	trans-1,2-Dichloroethene	0.326	0.192	41.1#	40#	-0.05
22	T	1,1-Dichloroethane	0.610	0.325	46.7#	35#	-0.05
23	T	Vinyl Acetate	0.491	0.298	39.3#	38#	-0.04
24	T	Chloroprene	0.513	0.000#	100.0#	0#	-12.05#
25	T	2-Butanone	0.132	0.069	47.7#	30#	-0.06
26	T	Propionitrile	0.039	0.018#	53.8#	28#	-0.06
27	T	2,2-Dichloropropane	0.465	0.430	7.5	61	-0.06
28	T	cis-1,2-Dichloroethene	0.373	0.212	43.2#	38#	-0.05
29	T	Methacrylonitrile	2.182	1.134	48.0#	33#	-0.05
30	TC	Chloroform	0.734	0.534	27.2#	48#	-0.05
31	T	Bromochloromethane	0.202	0.138	31.7#	43#	-0.05
32	T	Isobutyl Alcohol	0.002	0.001#	50.0#	27#	-0.05
33	S	1,2-Dichloroethane-d4	0.704	0.610	13.4	57	-0.06
34	T	1,1,1-Trichloroethane	0.568	0.469	17.4	54	-0.05
35	T	Cyclohexane	0.360	0.166	53.9#	30#	-0.05
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	48#	-0.04
37	T	1,1-Dichloropropene	0.292	0.243	16.8	41#	-0.05
38	T	Carbon Tetrachloride	0.283	0.338	-19.4	56	-0.06
39	T	Benzene	0.902	0.666	26.2	35#	-0.05
40	T	1,2-Dichloroethane	0.460	0.482	-4.8	49#	-0.05
41	T	Trichloroethene	0.233	0.205	12.0	42#	-0.05
42	T	Methylcyclohexane	0.253	0.200	20.9	39#	-0.05
43	TC	1,2-Dichloropropane	0.230	0.140	39.1#	29#	-0.06
44	T	Methyl Methacrylate	0.058	0.062	-6.9	42#	-0.05
45	T	Bromodichloromethane	0.404	0.432	-6.9	51	-0.06
46	T	1,4-Dioxane	0.053	0.041#	22.6	37#	-0.05
47	T	Dibromomethane	0.171	0.173	-1.2	47#	-0.05
48	T	4-Methyl-2-pentanone	0.198	0.131	33.8#	30#	-0.05
49	T	cis-1,3-Dichloropropene	0.503	0.422	16.1	39#	-0.05

(#) = Out of Range

Data File : D:\DATA\E15537.D
Acq On : 2 Oct 2007 5:06 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.030	3.0	47#	-0.06
51	TC	Toluene	0.534	0.449	15.9	40#	-0.06
52	T	trans-1,3-Dichloropropene	0.502	0.480	4.4	45#	-0.05
53	T	Ethyl Methacrylate	0.336	0.255	24.1	34#	-0.06
54	T	1,1,2-Trichloroethane	0.194	0.167	13.9	40#	-0.06
55	S	Bromofluorobenzene	0.531	0.604	-13.7	54	-0.06
56	I	Chlorobenzene-d5	1.000	1.000	0.0	47#	-0.05
57	T	2-Hexanone	0.155	0.110	29.0	31#	-0.06
58	T	1,3-Dichloropropane	0.488	0.399	18.2	38#	-0.06
59	T	Tetrachloroethene	0.433	0.344	20.6	40#	-0.04
60	T	Dibromochloromethane	0.359	0.397	-10.6	50	-0.06
61	T	1,2-Dibromoethane	0.262	0.263	-0.4	46#	-0.06
62	T	Chlorobenzene	0.731	0.652	10.8	43#	-0.06
63	T	1,1,1,2-Tetrachloroethane	0.298	0.341	-14.4	52	-0.06
64	TC	Ethylbenzene	0.999	0.966	3.3	46#	-0.05
65	T	m,p-Xylene	0.372	0.358	3.8	45#	-0.06
66	T	o-Xylene	0.391	0.390	0.3	47#	-0.06
67	T	Styrene	0.723	0.722	0.1	45#	-0.05
68	T	Bromoform	0.318	0.428	-34.6#	61	-0.05
69	T	Isopropylbenzene	0.757	0.780	-3.0	48#	-0.05
70	T	1,1,2,2-Tetrachloroethane	0.323	0.289	10.5	41#	-0.06
71	T	1,2,3-Trichloropropane	0.465	0.442	4.9	44#	-0.06
72	T	1,4-Dichloro-2-butene	0.057	0.059	-3.5	47#	-0.06
73	T	N-Propylbenzene	0.948	0.939	0.9	48#	-0.06
74	T	1,3,5-Trimethylbenzene	0.681	0.763	-12.0	53	-0.06
75	T	t-butylbenzene	0.525	0.557	-6.1	50#	-0.05
76	T	1,2,4-Trimethylbenzene	0.738	0.843	-14.2	54	-0.06
77	T	Sec-butylbenzene	0.643	0.620	3.6	47#	-0.05
78	T	p-isopropyltoluene	0.644	0.642	0.3	50#	-0.06
79	T	1,3-Dichlorobenzene	0.598	0.736	-23.1	58	-0.06
80	T	1,4-Dichlorobenzene	0.612	0.765	-25.0	59	-0.05
81	T	n-butylbenzene	0.538	0.499	7.2	50#	-0.05
82	T	1,2-Dichlorobenzene	0.601	0.768	-27.8	60	-0.05
83	T	1,2-Dibromo-3-chloropropane	0.080	0.094	-17.5	56	-0.06
84	T	1,2,4-Trichlorobenzene	0.312	0.482	-54.5#	78	-0.07
85	T	Naphthalene	0.915	1.155	-26.2	57	-0.07
86	T	1,2,3-Trichlorobenzene	0.298	0.503	-68.8#	82	-0.07
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	57	-0.06

-723-

(#) = Out of Range SPCC's out = 0 CCC's out = 4
E15537.D E092507W.M Wed Oct 03 09:21:10 2007

Data File : D:\DATA\E15537.D Vial: 4
Acq On : 2 Oct 2007 5:06 pm Operator: MG
Sample : CCV Inst : Voa Instr
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 17:47 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.11	168	60859	50.00 ug/L	-0.05
36) 1,4-Difluorobenzene	16.03	114	67447	50.00 ug/L	-0.04
56) Chlorobenzene-d5	24.14	117	60027	50.00 ug/L	-0.05
87) 1,4-Dichlorobenzene-d4	31.02	152	48237	50.00 ug/L	-0.06
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.03	65	37136	43.36 ug/L	-0.06
Spiked Amount 50.000	Range 76 - 118		Recovery = 86.72%		
50) Toluene-d8	19.99	98	69475	48.49 ug/L	-0.06
Spiked Amount 50.000	Range 88 - 110		Recovery = 96.98%		
55) Bromofluorobenzene	27.55	95	40719	56.87 ug/L	-0.06
Spiked Amount 50.000	Range 86 - 115		Recovery = 113.74%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.59	85	25722	39.60 ug/L	99
3) Chloromethane	6.16	50	5704	16.90 ug/L	96
4) Vinyl Chloride	6.43	62	8781	25.49 ug/L	100
5) Bromomethane	7.35	94	9986	73.80 ug/L	98
6) Chloroethane	7.58	64	5382	25.78 ug/L	100
7) Trichlorofluoromethane	8.20	101	27834	45.69 ug/L	98
8) Acrolein	9.09	56	4617	107.10 ug/L	93
9) 1,1,2-Trichloro-1,2,2-trif	9.28	101	10164	37.43 ug/L	89
10) Acetone	9.39	43	4607	30.80 ug/L	88
11) 1,1-Dichloroethene	9.33	96	8317	31.66 ug/L	98
12) Acetonitrile	9.97	41	6557	179.17 ug/L	89
13) Iodomethane	9.71	142	21421	54.95 ug/L	94
14) Methyl Acetate	10.05	43	6645	23.00 ug/L	98
15) Allyl Chloride	10.07	39	14418	33.29 ug/L #	70
16) Carbon Disulfide	9.89	76	35435	27.43 ug/L	100
17) Methylene Chloride	10.32	84	12410	27.80 ug/L	95
19) MTBE	10.87	73	55845	36.59 ug/L	97
20) Acrylonitrile	10.80	53	10303	81.06 ug/L	96
21) trans-1,2-Dichloroethene	10.89	96	11663	29.43 ug/L	92
22) 1,1-Dichloroethane	11.80	63	19771	26.63 ug/L	95
23) Vinyl Acetate	11.79	43	18128	30.31 ug/L	97
25) 2-Butanone	13.04	43	4187	26.13 ug/L #	90
26) Propionitrile	13.19	54	10721	226.28 ug/L	92
27) 2,2-Dichloropropane	13.11	77	26177	46.23 ug/L	95
28) cis-1,2-Dichloroethene	13.09	96	12926	28.49 ug/L	97
29) Methacrylonitrile	13.56	41	69002	25.98 ug/L	88
30) Chloroform	13.77	83	32482	36.37 ug/L	99
31) Bromochloromethane	13.67	128	8398	34.15 ug/L #	70
32) Isobutyl Alcohol	14.64	43	5994	2212.19 ug/L #	63
34) 1,1,1-Trichloroethane	14.33	97	28513	41.26 ug/L	97
35) Cyclohexane	14.52	56	10109	23.09 ug/L #	72
37) 1,1-Dichloropropene	14.70	75	16410	41.59 ug/L	99
38) Carbon Tetrachloride	14.75	117	22789	59.69 ug/L	100
39) Benzene	15.24	78	44938	36.95 ug/L	100
40) 1,2-Dichloroethane	15.23	62	32499	52.34 ug/L	96
41) Trichloroethene	16.78	95	13803	43.91 ug/L	98
42) Methylcyclohexane	17.35	83	13511	39.51 ug/L	93

(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15537.D
Acq On : 2 Oct 2007 5:06 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 17:47 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	17.38	63	9455	30.52 ug/L		94
44)	Methyl Methacrylate	17.44	100	4173	53.25 ug/L	#	73
45)	Bromodichloromethane	18.01	83	29149	53.43 ug/L		99
46)	1,4-Dioxane	17.65	88	2797	39.01 ug/L		84
47)	Dibromomethane	17.70	93	11651	50.38 ug/L		86
48)	4-Methyl-2-pentanone	19.52	43	8826	33.10 ug/L		87
49)	cis-1,3-Dichloropropene	19.20	75	28430	41.93 ug/L		95
51)	Toluene	20.18	92	30275	42.05 ug/L		100
52)	trans-1,3-Dichloropropene	20.66	75	32345	47.81 ug/L		100
53)	Ethyl Methacrylate	20.78	69	17231	38.04 ug/L		91
54)	1,1,2-Trichloroethane	21.22	83	11252	43.04 ug/L		93
57)	2-Hexanone	21.83	43	6584	35.48 ug/L		88
58)	1,3-Dichloropropane	21.73	76	23958	40.92 ug/L		98
59)	Tetrachloroethene	21.77	166	20620	39.64 ug/L		90
60)	Dibromochloromethane	22.42	129	23841	55.28 ug/L		100
61)	1,2-Dibromoethane	22.84	107	15806	50.19 ug/L		94
62)	Chlorobenzene	24.22	112	39160	44.64 ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.41	131	20453	57.25 ug/L		95
64)	Ethylbenzene	24.47	91	58011	48.35 ug/L		97
65)	m,p-Xylene	24.79	106	43002	96.30 ug/L		85
66)	o-Xylene	26.00	106	23423	49.96 ug/L		88
67)	Styrene	26.02	104	43325	49.92 ug/L		89
68)	Bromoform	26.66	173	25669	67.27 ug/L		98
69)	Isopropylbenzene	27.05	105	46815	51.52 ug/L		96
70)	1,1,2,2-Tetrachloroethane	27.87	83	17374	44.75 ug/L		97
71)	1,2,3-Trichloropropane	28.07	75	26549	47.56 ug/L		94
72)	1,4-Dichloro-2-butene	28.04	89	3548	51.68 ug/L	#	95
73)	N-Propylbenzene	28.27	91	56394	49.54 ug/L		98
74)	1,3,5-Trimethylbenzene	28.76	105	45779	56.02 ug/L		94
75)	t-butylbenzene	29.77	119	33459	53.09 ug/L		92
76)	1,2,4-Trimethylbenzene	29.90	105	50592	57.09 ug/L		93
77)	Sec-butylbenzene	30.42	105	37211	48.21 ug/L		99
78)	p-isopropyltoluene	30.81	119	38511	49.81 ug/L		95
79)	1,3-Dichlorobenzene	30.84	146	44172	61.51 ug/L		99
80)	1,4-Dichlorobenzene	31.10	146	45915	62.44 ug/L		97
81)	n-butylbenzene	32.04	91	29928	46.36 ug/L		100
82)	1,2-Dichlorobenzene	32.24	146	46125	63.89 ug/L		98
83)	1,2-Dibromo-3-chloropropan	34.49	75	5669	59.25 ug/L		92
84)	1,2,4-Trichlorobenzene	36.93	180	28919	77.09 ug/L		98
85)	Naphthalene	37.76	128	69309	63.10 ug/L		100
86)	1,2,3-Trichlorobenzene	38.51	180	30195	84.32 ug/L		97

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(#) = qualifier out of range (m) = manual integration

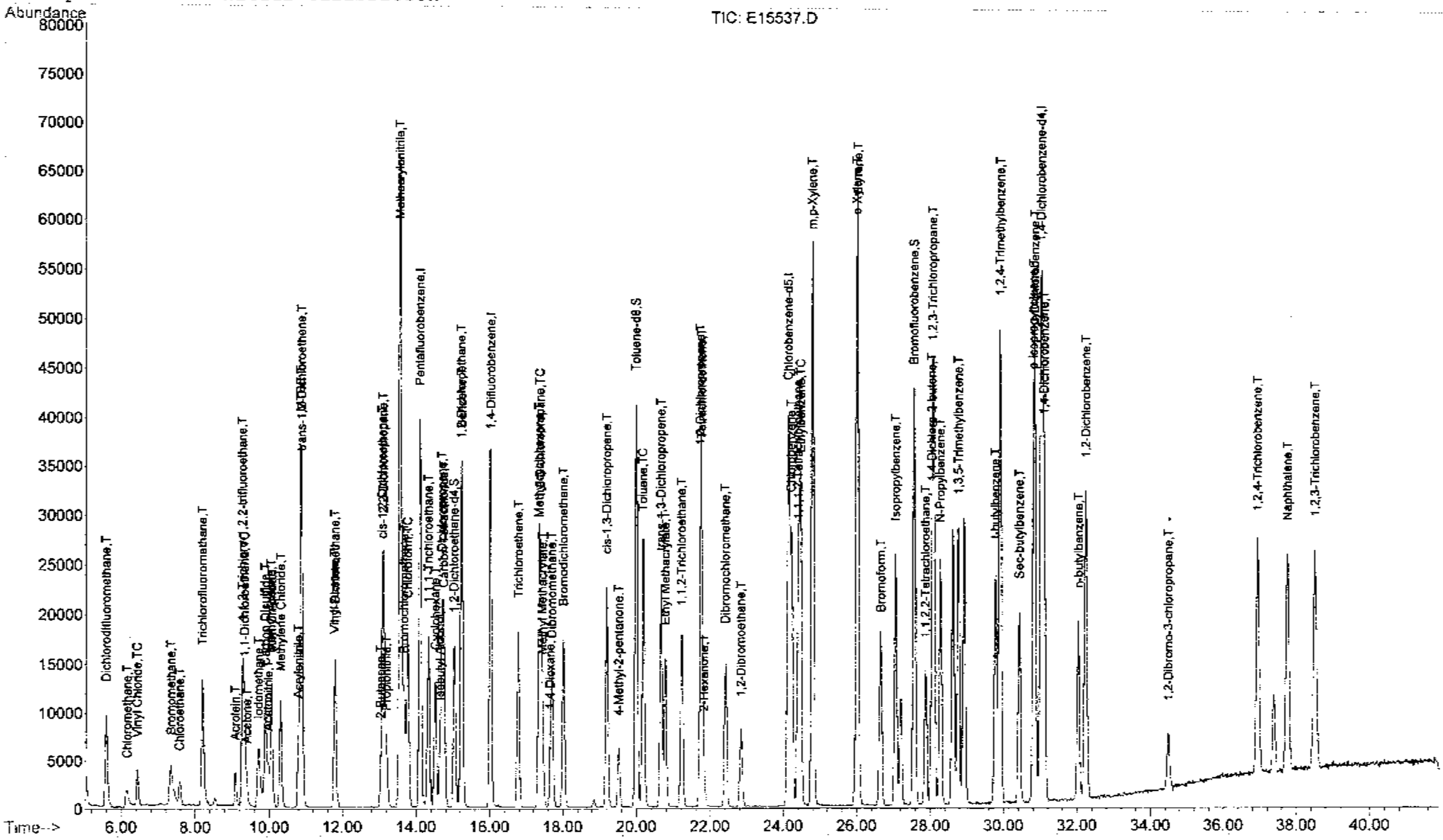
Quantitation Report

Data File : D:\DATA\E15537.D
Acq On : 2 Oct 2007 5:06 pm
Sample : CCV
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 17:47 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/3/07 Time: 2:56

Lab File ID: E15549.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm) NA

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.277	0.077		72.1	
Vinyl Chloride	0.283	0.103	0.100	63.6	25.0
Bromomethane	0.111	0.101	0.100	9.5	25.0
Chloroethane	0.172	0.076		55.9	
Trichlorofluoromethane	0.500	0.291		41.9	
Acetone	0.123	0.070		43.0	
1,1-Dichloroethene	0.216	0.098	0.100	54.8	25.0
Iodomethane	0.320	0.312		2.7	
Carbon Disulfide	1.061	0.441		58.4	
Methylene Chloride	0.367	0.196		46.5	
Acrylonitrile	0.104	0.046		55.8	
trans-1,2-Dichloroethene	0.326	0.158		51.6	
1,1-Dichloroethane	0.610	0.280	0.200	54.2	25.0
Vinyl Acetate	0.491	0.207		57.9	
2-Butanone	0.132	0.067		49.5	
cis-1,2-Dichloroethene	0.373	0.201		46.0	
Chloroform	0.734	0.458	0.200	37.6	25.0
Bromochloromethane	0.202	0.134		33.6	
1,1,1-Trichloroethane	0.568	0.327	0.100	42.5	25.0
Carbon Tetrachloride	0.283	0.204	0.100	27.9	25.0
Benzene	0.902	0.571	0.500	36.7	25.0
1,2-Dichloroethane	0.460	0.448	0.100	2.7	25.0
Trichloroethene	0.233	0.164	0.300	29.7	25.0
1,2-Dichloropropane	0.230	0.138		39.9	
Bromodichloromethane	0.404	0.382	0.200	5.5	25.0
Dibromomethane	0.171	0.175		-2.2	
4-Methyl-2-pentanone	0.198	0.132		33.4	
cis-1,3-Dichloropropene	0.503	0.379	0.200	24.5	25.0
Toluene	0.534	0.342	0.400	35.9	25.0
trans-1,3-Dichloropropene	0.502	0.421	0.100	16.0	25.0
1,1,2-Trichloroethane	0.194	0.162	0.100	16.5	25.0
2-Hexanone	0.155	0.107		31.0	
Tetrachloroethene	0.433	0.360	0.200	17.0	25.0
Dibromochloromethane	0.359	0.351	0.200	2.4	25.0
1,2-Dibromoethane	0.262	0.246		6.3	
Chlorobenzene	0.731	0.505	0.500	30.9	25.0
1,1,1,2-Tetrachloroethane	0.298	0.260		12.7	
Ethylbenzene	0.999	0.670	0.100	32.9	25.0
m,p-Xylene	0.372	0.241	0.300	35.2	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Instrument ID: 49 Calibration Date: 10/3/07 Time: 2:56

Lab File ID: E15549.D Init. Calib. Date(s): 9/25/07 9/26/07

Heated Purge: (Y/N) N Init. Calib. Times: 22:19 2:25

GC Column: DB-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
o-Xylene	0.391	0.268	0.300	31.4	25.0
Styrene	0.723	0.531	0.300	26.5	25.0
Bromoform	0.318	0.390	0.100	-22.6	25.0
1,1,2,2-Tetrachloroethane	0.323	0.263	0.500	18.7	25.0
1,2,3-Trichloropropane	0.465	0.383		17.6	
1,4-Dichloro-2-butene	0.057	0.052		8.6	
1,3-Dichlorobenzene	0.598	0.485		18.9	
1,4-Dichlorobenzene	0.612	0.504		17.7	
1,2-Dichlorobenzene	0.601	0.520		13.6	
1,2-Dibromo-3-chloro-propane	0.080	0.077		4.0	
1,2-Dichloroethane-d4	0.704	0.595		15.5	
Toluene-d8	1.062	1.041		2.0	
Bromofluorobenzene	0.531	0.587		-10.6	

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All other compounds must meet a minimum RRF of 0.010.

Data File : D:\DATA\E15549.D
Acq On : 3 Oct 2007 2:56 am
Sample : CC
Misc : 1X ASP_A1
MS Integration Params: rteint.p

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	74	-0.03
2	T	Dichlorodifluoromethane	0.534	0.247	53.7#	35#	-0.02
3	T	Chloromethane	0.277	0.077	72.2#	22#	-0.02
4	TC	Vinyl Chloride	0.283	0.103	63.6#	27#	-0.02
5	T	Bromomethane	0.111	0.101	9.0	59	0.00
6	T	Chloroethane	0.172	0.076	55.8#	32#	-0.02
7	T	Trichlorofluoromethane	0.500	0.291	41.8#	42#	-0.03
8	T	Acrolein	0.035	0.000#	100.0#	0#	-9.13#
9	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.106	52.5#	39#	-0.02
10	T	Acetone	0.123	0.070	43.1#	45#	-0.03
11	TC	1,1-Dichloroethene	0.216	0.097	55.1#	34#	-0.03
12	T	Acetonitrile	0.030	0.011#	63.3#	28#	-0.02
13	T	Iodomethane	0.320	0.312	2.5	55	-0.02
14	T	Methyl Acetate	0.237	0.119	49.8#	36#	-0.03
15	T	Allyl Chloride	0.356	0.198	44.4#	40#	-0.02
16	T	Carbon Disulfide	1.061	0.441	58.4#	31#	-0.02
17	T	Methylene Chloride	0.367	0.196	46.6#	40#	-0.02
18		t-butanol	0.000	0.000#	0.0	0#	-10.46#
19	T	MTBE	1.254	0.891	28.9	52	-0.02
20	T	Acrylonitrile	0.104	0.046#	55.8#	32#	-0.02
21	T	trans-1,2-Dichloroethene	0.326	0.158	51.5#	37#	-0.03
22	T	1,1-Dichloroethane	0.610	0.279	54.3#	33#	-0.03
23	T	Vinyl Acetate	0.491	0.207	57.8#	29#	-0.02
24	T	Chloroprene	0.513	0.007#	98.6#	1#	-0.04
25	T	2-Butanone	0.132	0.066	50.0#	32#	-0.04
26	T	Propionitrile	0.039	0.018#	53.8#	32#	-0.04
27	T	2,2-Dichloropropane	0.465	0.235	49.5#	37#	-0.03
28	T	cis-1,2-Dichloroethene	0.373	0.201	46.1#	41#	-0.03
29	T	Methacrylonitrile	2.182	1.162	46.7#	38#	-0.03
30	TC	Chloroform	0.734	0.458	37.6#	46#	-0.03
31	T	Bromochloromethane	0.202	0.134	33.7#	47#	-0.03
32	T	Isobutyl Alcohol	0.002	0.001#	50.0#	31#	-0.03
33	S	1,2-Dichloroethane-d4	0.704	0.595	15.5	62	-0.03
34	T	1,1,1-Trichloroethane	0.568	0.327	42.4#	42#	-0.03
35	T	Cyclohexane	0.360	0.111	69.2#	23#	-0.03
36	I	1,4-Difluorobenzene	1.000	1.000	0.0	54	-0.03
37	T	1,1-Dichloropropene	0.292	0.162	44.5#	30#	-0.03
38	T	Carbon Tetrachloride	0.283	0.204	27.9	37#	-0.03
39	T	Benzene	0.902	0.571	36.7#	34#	-0.03
40	T	1,2-Dichloroethane	0.460	0.448	2.6	51	-0.03
41	T	Trichloroethene	0.233	0.164	29.6	38#	-0.04
42	T	Methylcyclohexane	0.253	0.139	45.1#	30#	-0.03
43	TC	1,2-Dichloropropane	0.230	0.138	40.0#	32#	-0.03
44	T	Methyl Methacrylate	0.058	0.062	-6.9	47#	-0.03
45	T	Bromodichloromethane	0.404	0.382	5.4	50#	-0.04
46	T	1,4-Dioxane	0.053	0.043#	18.9	43#	-0.03
47	T	Dibromomethane	0.171	0.175	-2.3	53	-0.03
48	T	4-Methyl-2-pentanone	0.198	0.132	33.3#	34#	-0.03
49	T	cis-1,3-Dichloropropene	0.503	0.379	24.7	39#	-0.03

(#) = Out of Range

-729-

Data File : D:\DATA\E15549.D Vial: 16
Acq On : 3 Oct 2007 2:56 am Operator: MG
Sample : CC Inst : Voa Instr
Misc : 1X ASP_A1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Toluene-d8	1.062	1.041	2.0	53	-0.04
51	TC	Toluene	0.534	0.342	36.0#	34#	-0.03
52	T	trans-1,3-Dichloropropene	0.502	0.421	16.1	44#	-0.03
53	T	Ethyl Methacrylate	0.336	0.262	22.0	39#	-0.04
54	T	1,1,2-Trichloroethane	0.194	0.162	16.5	43#	-0.04
55	S	Bromofluorobenzene	0.531	0.587	-10.5	59	-0.03
56	I	Chlorobenzene-d5	1.000	1.000	0.0	53	-0.03
57	T	2-Hexanone	0.155	0.107	31.0#	33#	-0.04
58	T	1,3-Dichloropropane	0.488	0.385	21.1	41#	-0.03
59	T	Tetrachloroethene	0.433	0.360	16.9	46#	-0.03
60	T	Dibromochloromethane	0.359	0.351	2.2	49#	-0.04
61	T	1,2-Dibromoethane	0.262	0.246	6.1	48#	-0.03
62	T	Chlorobenzene	0.731	0.505	30.9#	37#	-0.04
63	T	1,1,1,2-Tetrachloroethane	0.298	0.260	12.8	45#	-0.04
64	TC	Ethylbenzene	0.999	0.670	32.9#	36#	-0.03
65	T	m,p-Xylene	0.372	0.241	35.2#	34#	-0.04
66	T	o-Xylene	0.391	0.268	31.5#	36#	-0.04
67	T	Styrene	0.723	0.531	26.6	37#	-0.03
68	T	Bromoform	0.318	0.390	-22.6	63	-0.05
69	T	Isopropylbenzene	0.757	0.495	34.6#	34#	-0.03
70	T	1,1,2,2-Tetrachloroethane	0.323	0.263	18.6	42#	-0.04
71	T	1,2,3-Trichloropropane	0.465	0.383	17.6	43#	-0.03
72	T	1,4-Dichloro-2-butene	0.057	0.052	8.8	46#	-0.04
73	T	N-Propylbenzene	0.948	0.588	38.0#	34#	-0.04
74	T	1,3,5-Trimethylbenzene	0.681	0.468	31.3#	36#	-0.04
75	T	t-butylbenzene	0.525	0.338	35.6#	34#	-0.03
76	T	1,2,4-Trimethylbenzene	0.738	0.518	29.8	37#	-0.04
77	T	Sec-butylbenzene	0.643	0.388	39.7#	33#	-0.03
78	T	p-isopropyltoluene	0.644	0.393	39.0#	34#	-0.04
79	T	1,3-Dichlorobenzene	0.598	0.485	18.9	43#	-0.04
80	T	1,4-Dichlorobenzene	0.612	0.504	17.6	44#	-0.04
81	T	n-butylbenzene	0.538	0.310	42.4#	34#	-0.04
82	T	1,2-Dichlorobenzene	0.601	0.519	13.6	45#	-0.04
83	T	1,2-Dibromo-3-chloropropane	0.080	0.077	3.8	51	-0.05
84	T	1,2,4-Trichlorobenzene	0.312	0.278	10.9	50	-0.04
85	T	Naphthalene	0.915	0.755	17.5	42#	-0.05
86	T	1,2,3-Trichlorobenzene	0.298	0.275	7.7	50	-0.05
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	61	-0.04

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(#) = Out of Range SPCC's out = 0 CCC's out = 6
E15549.D E092507W.M Wed Oct 10 16:15:06 2007

Data File : D:\DATA\E15549.D   Vial: 16
Acq On : 3 Oct 2007 2:56 am   Operator: MG
Sample : CC   Inst : Voa Instr
Misc : 1X ASP_A1   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 3 9:16 2007   Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.13	168	68094	50.00 ug/L	-0.03
36) 1,4-Difluorobenzene	16.04	114	75236	50.00 ug/L	-0.03
56) Chlorobenzene-d5	24.16	117	67107	50.00 ug/L	-0.03
87) 1,4-Dichlorobenzene-d4	31.04	152	51447	50.00 ug/L	-0.04

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.06	65	40488	42.25 ug/L	-0.03
Spiked Amount 50.000	Range 76 - 118		Recovery = 84.50%		
50) Toluene-d8	20.01	98	78307	49.00 ug/L	-0.04
Spiked Amount 50.000	Range 88 - 110		Recovery = 98.00%		
55) Bromofluorobenzene	27.59	95	44187	55.32 ug/L	-0.03
Spiked Amount 50.000	Range 86 - 115		Recovery = 110.64%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.62	85	16840	23.17 ug/L	97
3) Chloromethane	6.17	50	5270	13.95 ug/L	97
4) Vinyl Chloride	6.45	62	7015	18.20 ug/L	100
5) Bromomethane	7.37	94	6853	45.26 ug/L	100
6) Chloroethane	7.60	64	5156	22.07 ug/L	95
7) Trichlorofluoromethane	8.21	101	19786	29.03 ug/L	98
9) 1,1,2-Trichloro-1,2,2-trif	9.30	101	7247	23.85 ug/L	90
10) Acetone	9.42	43	4767	28.48 ug/L	84
11) 1,1-Dichloroethene	9.35	96	6637	22.58 ug/L	97
12) Acetonitrile	10.00	41	7696	187.95 ug/L	69
13) Iodomethane	9.73	142	21215	48.64 ug/L	93
14) Methyl Acetate	10.07	43	8077	24.99 ug/L	99
15) Allyl Chloride	10.08	39	13494m	27.85 ug/L	
16) Carbon Disulfide	9.92	76	30027	20.77 ug/L	100
17) Methylene Chloride	10.33	84	13357	26.75 ug/L	94
19) MTBE	10.89	73	60680	35.53 ug/L	96
20) Acrylonitrile	10.82	53	12592	88.54 ug/L	98
21) trans-1,2-Dichloroethene	10.91	96	10731	24.20 ug/L	90
22) 1,1-Dichloroethane	11.82	63	19032	22.91 ug/L	94
23) Vinyl Acetate	11.81	43	14101	21.07 ug/L	99
25) 2-Butanone	13.06	43	4525	25.24 ug/L #	94
26) Propionitrile	13.22	54	12108	228.40 ug/L	87
27) 2,2-Dichloropropane	13.15	77	16008	25.27 ug/L	99
28) cis-1,2-Dichloroethene	13.11	96	13699	26.98 ug/L	91
29) Methacrylonitrile	13.59	41	79152	26.63 ug/L	91
30) Chloroform	13.80	83	31193	31.21 ug/L	99
31) Bromochloromethane	13.69	128	9134	33.20 ug/L #	72
32) Isobutyl Alcohol	14.67	43	6942	2289.85 ug/L	74
34) 1,1,1-Trichloroethane	14.35	97	22245	28.77 ug/L	95
35) Cyclohexane	14.54	56	7591	15.49 ug/L #	79
37) 1,1-Dichloropropene	14.73	75	12216	27.76 ug/L	99
38) Carbon Tetrachloride	14.78	117	15366	36.08 ug/L	97
39) Benzene	15.26	78	42953	31.66 ug/L	100
40) 1,2-Dichloroethane	15.25	62	33692	48.65 ug/L	98
41) Trichloroethene	16.79	95	12315	35.12 ug/L	98
42) Methylcyclohexane	17.38	83	10437	27.36 ug/L	97
43) 1,2-Dichloropropane	17.41	63	10380	30.04 ug/L	98

(#) = qualifier out of range (m) = manual integration

-731-

Data File : D:\DATA\E15549.D Vial: 16
Acq On : 3 Oct 2007 2:56 am Operator: MG
Sample : CC Inst : Voa Instr
Misc : 1X ASP_A1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 3 9:16 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Methyl Methacrylate	17.47	100	4660	53.31	ug/L	#	90
45)	Bromodichloromethane	18.04	83	28747	47.24	ug/L		99
46)	1,4-Dioxane	17.68	88	3214	40.19	ug/L		88
47)	Dibromomethane	17.72	93	13183	51.11	ug/L		87
48)	4-Methyl-2-pentanone	19.55	43	9902	33.29	ug/L		91
49)	cis-1,3-Dichloropropene	19.22	75	28538	37.73	ug/L		98
51)	Toluene	20.21	92	25755	32.07	ug/L		100
52)	trans-1,3-Dichloropropene	20.69	75	31705	42.01	ug/L		100
53)	Ethyl Methacrylate	20.80	69	19688	38.96	ug/L		96
54)	1,1,2-Trichloroethane	21.24	83	12173	41.74	ug/L		93
57)	2-Hexanone	21.85	43	7153	34.48	ug/L		90
58)	1,3-Dichloropropane	21.77	76	25835	39.47	ug/L		98
59)	Tetrachloroethene	21.78	166	24125	41.48	ug/L		93
60)	Dibromochloromethane	22.44	129	23537	48.82	ug/L		98
61)	1,2-Dibromoethane	22.87	107	16492	46.84	ug/L		100
62)	Chlorobenzene	24.24	112	33884	34.55	ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.43	131	17430	43.64	ug/L		95
64)	Ethylbenzene	24.50	91	44982	33.53	ug/L		97
65)	m,p-Xylene	24.81	106	32361	64.82	ug/L		87
66)	o-Xylene	26.02	106	17986	34.31	ug/L		87
67)	Styrene	26.04	104	35650	36.74	ug/L		92
68)	Bromoform	26.66	173	26160	61.33	ug/L		95
69)	Isopropylbenzene	27.08	105	33228	32.71	ug/L		97
70)	1,1,2,2-Tetrachloroethane	27.89	83	17647	40.66	ug/L		99
71)	1,2,3-Trichloropropane	28.10	75	25712	41.20	ug/L		93
72)	1,4-Dichloro-2-butene	28.07	89	3508	45.71	ug/L	#	76
73)	N-Propylbenzene	28.30	91	39479	31.02	ug/L		96
74)	1,3,5-Trimethylbenzene	28.79	105	31394	34.36	ug/L		93
75)	t-butylbenzene	29.80	119	22712	32.24	ug/L		90
76)	1,2,4-Trimethylbenzene	29.93	105	34749	35.07	ug/L		93
77)	Sec-butylbenzene	30.45	105	26025	30.16	ug/L		99
78)	p-isopropyltoluene	30.83	119	26385	30.53	ug/L		96
79)	1,3-Dichlorobenzene	30.87	146	32553	40.55	ug/L		98
80)	1,4-Dichlorobenzene	31.11	146	33838	41.16	ug/L		98
81)	n-butylbenzene	32.05	91	20804	28.82	ug/L		99
82)	1,2-Dichlorobenzene	32.25	146	34861	43.20	ug/L		97
83)	1,2-Dibromo-3-chloropropan	34.50	75	5136	48.01	ug/L		93
84)	1,2,4-Trichlorobenzene	36.97	180	18677	44.53	ug/L		94
85)	Naphthalene	37.78	128	50634	41.24	ug/L		100
86)	1,2,3-Trichlorobenzene	38.54	180	18485	46.18	ug/L		99

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(#) = qualifier out of range (m) = manual integration

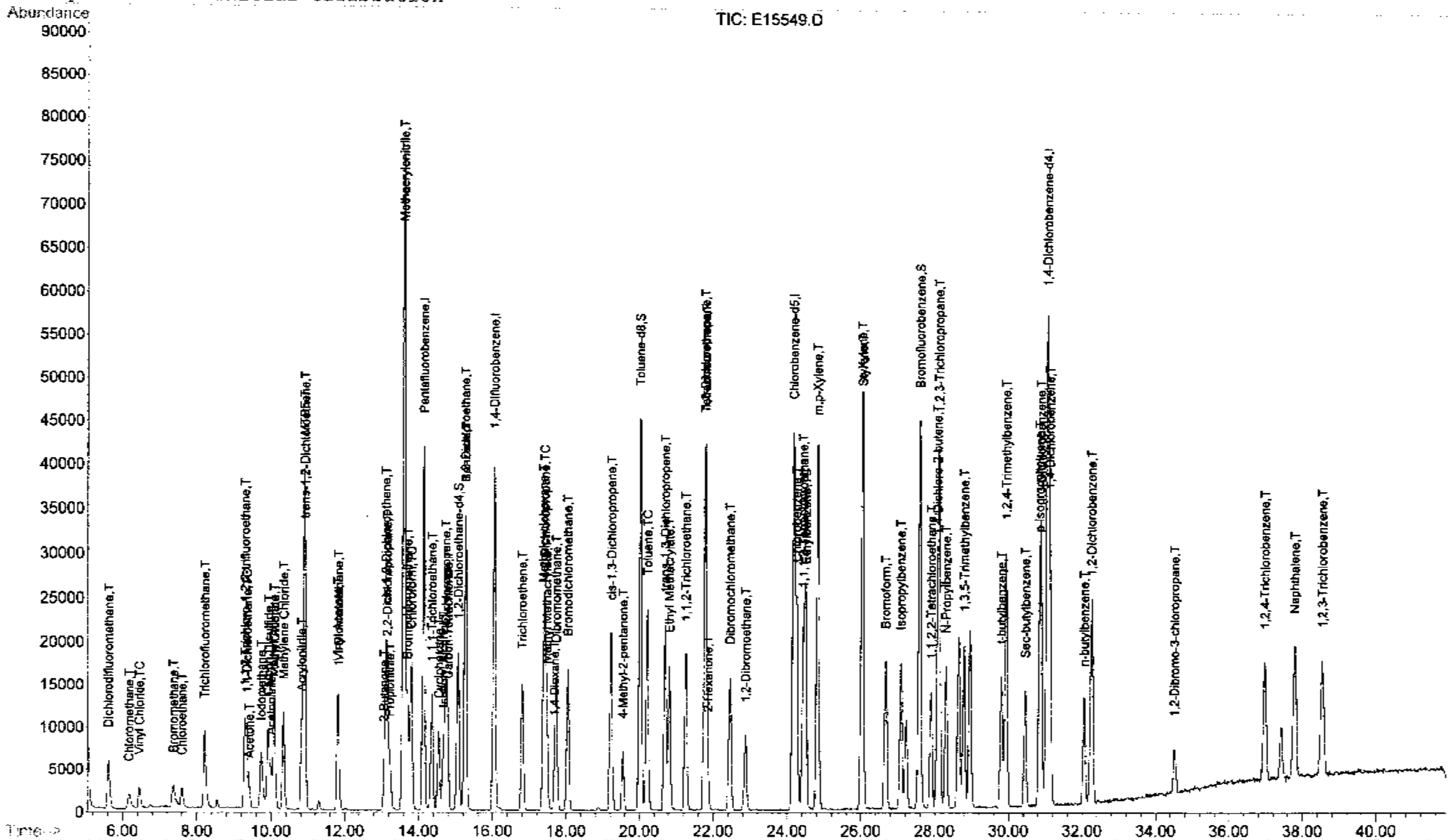
Quantitation Report

Data File : D:\DATA\E15549.D
Acq On : 3 Oct 2007 2:56 am
Sample : CC
Misc : 1X ASP_A1
MS Integration Params: rteint.p
Quant Time: Oct 3 9:16 2007

Vial: 16
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Instrument ID: 12 Calibration Date: 9/30/2007 Time: 12:03

Lab File ID: C19033.D Init. Calib. Date(s): 9/25/2007 9/25/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.096	0.070		27.3	
Vinyl Chloride	0.099	0.073	0.100	26.3	25.0
Bromomethane	0.177	0.139	0.100	21.7	25.0
Chloroethane	0.071	0.051		27.2	
Trichlorofluoromethane	0.615	0.526		14.4	
Acetone	0.053	0.048		9.6	
1,1-Dichloroethene	0.133	0.104	0.100	22.1	25.0
Iodomethane	0.616	0.567		8.0	
Carbon Disulfide	0.424	0.320		24.7	
Methylene Chloride	0.156	0.138		11.7	
Acrylonitrile	0.025	0.021		16.3	
trans-1,2-Dichloroethene	0.158	0.133		16.0	
1,1-Dichloroethane	0.316	0.270	0.200	14.7	25.0
Vinyl Acetate	0.269	0.256		5.1	
2-Butanone	0.060	0.051		14.5	
cis-1,2-Dichloroethene	0.179	0.161		9.8	
Chloroform	0.523	0.485	0.200	7.3	25.0
Bromochloromethane	0.196	0.184		6.2	
1,1,1-Trichloroethane	0.458	0.429	0.100	6.4	25.0
Carbon Tetrachloride	0.521	0.618	0.100	-18.5	25.0
Benzene	0.458	0.398	0.500	13.2	25.0
1,2-Dichloroethane	0.515	0.543	0.100	-5.3	25.0
Trichloroethene	0.321	0.308	0.300	4.1	25.0
1,2-Dichloropropane	0.219	0.197		9.8	
Bromodichloromethane	0.876	0.913	0.200	-4.2	25.0
Dibromomethane	0.552	0.569		-3.0	
4-Methyl-2-pentanone	0.185	0.186		-0.5	
cis-1,3-Dichloropropene	0.454	0.467	0.200	-2.9	25.0
Toluene	0.271	0.281	0.400	-3.6	25.0
trans-1,3-Dichloropropene	0.442	0.465	0.100	-5.1	25.0
1,1,2-Trichloroethane	0.233	0.231	0.100	1.0	25.0
2-Hexanone	0.170	0.169		0.6	
Tetrachloroethene	0.530	0.693	0.200	-30.9	25.0
Dibromochloromethane	1.226	1.403	0.200	-14.4	25.0
1,2-Dibromoethane	0.811	0.830		-2.4	
Chlorobenzene	0.597	0.675	0.500	-13.1	25.0
1,1,1,2-Tetrachloroethane	0.514	0.634		-23.4	
Ethylbenzene	0.600	0.822	0.100	-37.0	25.0

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Instrument ID: 12 Calibration Date: 9/30/2007 Time: 12:03

Lab File ID: C19033.D Init. Calib. Date(s): 9/25/2007 9/25/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
m,p-Xylene	0.214	0.291	0.300	-36.4	25.0
o-Xylene	0.224	0.315	0.300	-40.7	25.0
Styrene	0.436	0.550	0.300	-26.2	25.0
Bromoform	1.495	1.713	0.100	-14.6	25.0
1,1,2,2-Tetrachloroethane	0.569	0.576	0.~~500~~ 300	-1.3	25.0
1,2,3-Trichloropropane	0.435	0.425		2.4	
1,4-Dichloro-2-butene	0.156	0.181		-15.9	
1,3-Dichlorobenzene	0.497	0.846	0.600	-70.1	
1,4-Dichlorobenzene	0.520	0.864	0.500	-66.[illegible]	
1,2-Dichlorobenzene	0.523	0.826	0.400	-58.0	
1,2-Dibromo-3-chloro-propane	0.223	0.263		-18.0	
1,2-Dichloroethane-d4	0.435	0.431		1.1	
Toluene-d8	0.718	0.717		0.3	
Bromofluorobenzene	0.748	0.764	0.200	-2.1	

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All other compounds must meet a minimum RRF of 0.010.

Data File : D:\DATA\C19033.D Vial: 2
Acq On : 30 Sep 2007 12:03 pm Operator: MM
Sample : CC Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	96	0.00
2	T	Dichlorodifluoromethane	0.479	0.389	18.8	76	0.00
3	T	Chloromethane	0.096	0.070	27.1#	69	0.00
4	TC	Vinyl Chloride	0.099	0.073	26.3#	72	0.00
5	T	Bromomethane	0.177	0.139	21.5	75	0.00
6	T	Chloroethane	0.070	0.051	27.1#	72	0.00
7	T	Trichlorofluoromethane	0.615	0.526	14.5	79	0.00
8	T	Acrolein	0.014	0.012#	14.3	83	0.00
9	T	Acetone	0.053	0.048#	9.4	86	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	0.344	0.318	7.6	86	0.00
11	TC	1,1-Dichloroethene	0.133	0.104	21.8	73	0.00
12	T	Acetonitrile	0.007	0.006#	14.3	80	0.00
13	T	Iodomethane	0.616	0.567	8.0	77	0.00
14	T	Methyl acetate	0.099	0.084	15.2	79	0.00
15	T	Allyl Chloride	0.158	0.123	22.2	74	0.00
16	T	Carbon Disulfide	0.424	0.320	24.5	72	0.00
17	T	Methylene Chloride	0.156	0.138	11.5	84	0.00
18	T	MTBE	0.384	0.390	-1.6	94	0.00
19	T	Acrylonitrile	0.025	0.021#	16.0	78	0.00
20	T	trans-1,2-Dichloroethene	0.158	0.133	15.8	78	0.00
21	T	1,1-Dichloroethane	0.316	0.270	14.6	83	0.00
22	T	Vinyl Acetate	0.269	0.256	4.8	89	0.00
23	T	Chloroprene	0.253	0.001#	99.6#	0#	0.00
24	T	2-Butanone	0.060	0.051	15.0	85	0.00
25	T	Propionitrile	0.010	0.008#	20.0	83	0.00
26	T	2,2-Dichloropropane	0.306	0.297	2.9	86	0.00
27	T	cis-1,2-Dichloroethene	0.179	0.161	10.1	83	0.00
28	T	Methacrylonitrile	0.644	0.581	9.8	85	0.00
29	TC	Chloroform	0.523	0.485	7.3	88	0.00
30	T	Bromochloromethane	0.196	0.184	6.1	91	0.00
31	T	Isobutyl Alcohol	0.001	0.001#	0.0	86	0.00
32	T	Cyclohexane	0.122	0.103	15.6	79	0.00
33	S	1,2-Dichloroethane-d4	0.436	0.430	1.4	95	0.00
34	T	1,1,1-Trichloroethane	0.458	0.429	6.3	86	0.00
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
36	T	1,1-Dichloropropene	0.292	0.280	4.1	85	0.00
37	T	Carbon Tetrachloride	0.521	0.618	-18.6	101	0.00
38	T	Benzene	0.458	0.398	13.1	78	0.00
39	T	1,2-Dichloroethane	0.515	0.543	-5.4	96	0.00
40	T	Trichloroethene	0.321	0.308	4.0	85	0.00
41	TC	1,2-Dichloropropane	0.219	0.197	10.0	82	0.00
42	T	Methylcyclohexane	0.174	0.156	10.3	81	0.00
43	T	Methyl Methacrylate	0.223	0.227	-1.8	92	0.00
44	T	Bromodichloromethane	0.876	0.913	-4.2	94	0.00
45	T	Dibromomethane	0.552	0.569	-3.1	95	0.00
46	T	1,4-Dioxane	0.040	0.037#	7.5	85	0.00
47	T	4-Methyl-2-pentanone	0.185	0.186	-0.5	90	0.00
48	T	cis-1,3-Dichloropropene	0.454	0.467	-2.9	91	0.00
49	S	Toluene-d8	0.718	0.717	0.1	90	0.00

(#) = Out of Range

Data File : D:\DATA\C19033.D
Acq On : 30 Sep 2007 12:03 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.271	0.281	-3.7	92	0.00
51	T	trans-1,3-Dichloropropene	0.442	0.464	-5.0	93	0.00
52	T	Ethyl Methacrylate	0.132	0.127	3.8	86	0.00
53	T	1,1,2-Trichloroethane	0.233	0.230	1.3	90	0.00
54	S	Bromofluorobenzene	0.749	0.764	-2.0	94	0.00
55	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
56	T	2-Hexanone	0.170	0.169	0.6	96	0.00
57	T	1,3-Dichloropropane	0.491	0.478	2.6	90	0.00
58	T	Tetrachloroethene	0.530	0.693	-30.8#	118	0.00
59	T	Dibromochloromethane	1.226	1.403	-14.4	105	0.00
60	T	1,2-Dibromoethane	0.811	0.830	-2.3	94	0.00
61	T	Chlorobenzene	0.597	0.675	-13.1	104	0.00
62	T	1,1,1,2-Tetrachloroethane	0.514	0.634	-23.3	112	0.00
63	TC	Ethylbenzene	0.600	0.822	-37.0#	125	0.00
64	T	m,p-Xylene	0.214	0.291	-36.0#	126	0.00
65	T	o-Xylene	0.224	0.315	-40.6#	130	0.00
66	T	Styrene	0.436	0.550	-26.1#	114	0.00
67	T	Bromoform	1.495	1.713	-14.6	103	0.00
68	T	Isopropylbenzene	0.480	0.862	-79.6#	166#	0.00
69	T	1,1,2,2-Tetrachloroethane	0.569	0.576	-1.2	93	0.00
70	T	1,2,3-Trichloropropane	0.435	0.424	2.5	88	0.00
71	T	1,4-Dichloro-2-butene	0.156	0.181	-16.0	104	0.00
72	T	n-propylbenzene	0.643	1.026	-59.6#	153#	0.00
73	T	1,3,5-Trimethylbenzene	0.392	0.767	-95.7#	186#	0.00
74	T	T-butylbenzene	0.070	0.169	-141.4#	228#	0.00
75	T	1,2,4-Trimethylbenzene	0.414	0.802	-93.7#	186#	0.00
76	T	sec-butylbenzene	0.410	0.954	-132.7#	218#	0.00
77	T	1,3-Dichlorobenzene	0.497	0.846	-70.2#	162#	0.00
78	T	p-isopropyltoluene	0.107	0.244	-128.0#	224#	0.00
79	T	1,4-Dichlorobenzene	0.520	0.864	-66.2#	157#	0.00
80	T	n-butylbenzene	0.294	0.711	-141.8#	237#	0.00
81	T	1,2-Dichlorobenzene	0.523	0.826	-57.9#	149	0.00
82	T	1,2-Dibromo-3-chloro-propan	0.223	0.263	-17.9	110	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
84	T	1,2,4 trichlorobenze	0.455	1.124	-147.0#	250#	0.00
85	T	Naphalene	0.630	1.185	-88.1#	172#	0.00
86	T	1,2,3 Trichlorobenzene	0.455	1.096	-140.9#	247#	0.00

-737-

(#) = Out of Range SPCC's out = 0 CCC's out = 2

Data File : D:\DATA\C19033.D
Acq On : 30 Sep 2007 12:03 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 12:46 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	512824	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.98	114	375595	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.54	117	280349	50.00 ug/L	0.03
83) 1,4-Dichlorobenzene-d4	23.21	152	220139	50.00 ug/L	0.05

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.10	65	220759	49.42 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 98.84%		
49) Toluene-d8	15.28	98	269165	49.87 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.74%		
54) Bromofluorobenzene	20.98	95	287099	51.06 ug/L	0.04
Spiked Amount 50.000	Range 86 - 115		Recovery = 102.12%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.11	85	199484	40.57 ug/L	99
3) Chloromethane	2.35	50	35869	36.39 ug/L	98
4) Vinyl Chloride	2.36	62	37243	36.86 ug/L	97
5) Bromomethane	2.74	94	71244	39.15 ug/L	98
6) Chloroethane	2.83	64	26300	36.37 ug/L	95
7) Trichlorofluoromethane	3.09	101	269948	42.78 ug/L	99
8) Acrolein	3.41	56	24744	174.75 ug/L	97
9) Acetone	3.48	43	24396	45.18 ug/L	91
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	162887	46.23 ug/L	98
11) 1,1-Dichloroethene	3.69	96	53118	38.93 ug/L	95
12) Acetonitrile	3.69	41	31723	428.59 ug/L	95
13) Iodomethane	3.99	142	290548	46.01 ug/L	95
14) Methyl acetate	4.05	43	43257 MM	42.78 ug/L	97
15) Allyl Chloride	4.11	41	63224m	39.06 ug/L	
16) Carbon Disulfide	4.23	76	163851	37.65 ug/L	100
17) Methylene Chloride	4.22	84	70713	44.13 ug/L	98
18) MTBE	4.61	73	199881	50.75 ug/L	97
19) Acrylonitrile	4.30	53	43620	167.26 ug/L	96
20) trans-1,2-Dichloroethene	4.71	96	68162	41.99 ug/L	99
21) 1,1-Dichloroethane	5.38	63	138280	42.66 ug/L	99
22) Vinyl Acetate	5.45	43	131037	47.43 ug/L	100
24) 2-Butanone	6.26	43	26314	42.74 ug/L	86
25) Propionitrile	6.21	54	42915	427.95 ug/L	99
26) 2,2-Dichloropropane	6.61	77	152480	48.56 ug/L	98
27) cis-1,2-Dichloroethene	6.63	96	82623	45.11 ug/L	99
28) Methacrylonitrile	6.79	41	298016	45.09 ug/L	96
29) Chloroform	7.05	83	248491	46.32 ug/L	100
30) Bromochloromethane	7.34	128	94132	46.87 ug/L	94
31) Isobutyl Alcohol	7.23	43	34850	4530.38 ug/L	91
32) Cyclohexane	8.48	56	52677	41.93 ug/L	93
34) 1,1,1-Trichloroethane	8.26	97	219787	46.78 ug/L	99
36) 1,1-Dichloropropene	8.83	75	105145	47.97 ug/L	87
37) Carbon Tetrachloride	9.08	117	231999	59.24 ug/L	99
38) Benzene	9.57	78	149358	43.41 ug/L	100
39) 1,2-Dichloroethane	9.44	62	203807	52.66 ug/L	99
40) Trichloroethene	11.96	95	115511	47.96 ug/L	96
41) 1,2-Dichloropropane	12.42	63	74102	45.11 ug/L	92

(#) = qualifier out of range (m) = manual integration

-738-

Data File : D:\DATA\C19033.D
Acq On : 30 Sep 2007 12:03 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 12:46 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42) Methylcyclohexane	12.43	83	58539	44.73 ug/L	97
43) Methyl Methacrylate	16.22	41	85256	50.79 ug/L	99
44) Bromodichloromethane	13.03	83	342951	52.10 ug/L	99
45) Dibromomethane	13.02	93	213708	51.50 ug/L	98
46) 1,4-Dioxane	13.22	88	13953	46.55 ug/L	86
47) 4-Methyl-2-pentanone	14.40	43	69673	50.26 ug/L	95
48) cis-1,3-Dichloropropene	14.66	75	175332	51.45 ug/L	98
50) Toluene	15.45	92	105548	51.80 ug/L	99
51) trans-1,3-Dichloropropene	15.92	75	174462	52.57 ug/L	99
52) Ethyl Methacrylate	13.01	69	47645	48.15 ug/L	93
53) 1,1,2-Trichloroethane	16.20	83	86568	49.49 ug/L	98
56) 2-Hexanone	16.53	43	47324	49.72 ug/L	98
57) 1,3-Dichloropropane	16.78	76	134028	48.67 ug/L	99
58) Tetrachloroethene	16.99	166	194346	65.43 ug/L	98
59) Dibromochloromethane	17.18	129	393286	57.21 ug/L	97
60) 1,2-Dibromoethane	17.60	107	232786	51.22 ug/L	98
61) Chlorobenzene	18.61	112	189143	56.53 ug/L	100
62) 1,1,1,2-Tetrachloroethane	18.76	131	177674	61.71 ug/L	98
63) Ethylbenzene	18.86	91	230535	68.50 ug/L	99
64) m,p-Xylene	19.05	106	163311	136.39 ug/L	95
65) o-Xylene	19.87	106	88402	70.34 ug/L	99
66) Styrene	19.91	104	154140	63.12 ug/L	92
67) Bromoform	20.30	173	480282	57.29 ug/L	99
68) Isopropylbenzene	20.65	105	241598	89.78 ug/L	96
69) 1,1,2,2-Tetrachloroethane	20.85	83	161568	50.65 ug/L	99
70) 1,2,3-Trichloropropane	21.10	75	118997	48.78 ug/L	98
71) 1,4-Dichloro-2-butene	21.28	75	50680	57.94 ug/L #	80
72) n-propylbenzene	21.74	91	287739	79.86 ug/L	90
73) 1,3,5-Trimethylbenzene	21.75	105	214950	97.72 ug/L	98
74) T-butylbenzene	22.82	91	47327	120.11 ug/L #	100
75) 1,2,4-Trimethylbenzene	22.46	105	224705	96.91 ug/L	99
76) sec-butylbenzene	22.82	105	267321	116.25 ug/L	100
77) 1,3-Dichlorobenzene	23.07	146	237271	85.08 ug/L	100
78) p-isopropyltoluene	23.10	91	68357	114.29 ug/L	98
79) 1,4-Dichlorobenzene	23.27	146	242133	82.98 ug/L	98
80) n-butylbenzene	23.85	91	199455	121.17 ug/L	100
81) 1,2-Dichlorobenzene	23.90	146	231466	78.99 ug/L	97
82) 1,2-Dibromo-3-chloro-propa	25.29	75	73845	58.98 ug/L	99
84) 1,2,4 trichlorobenze	26.99	180	247524	123.44 ug/L	99
85) Naphalene	27.35	128	260774	94.09 ug/L	100
86) 1,2,3 Trichlorobenzene	27.85	180	241334	120.37 ug/L	99

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(#) = qualifier out of range (m) = manual integration

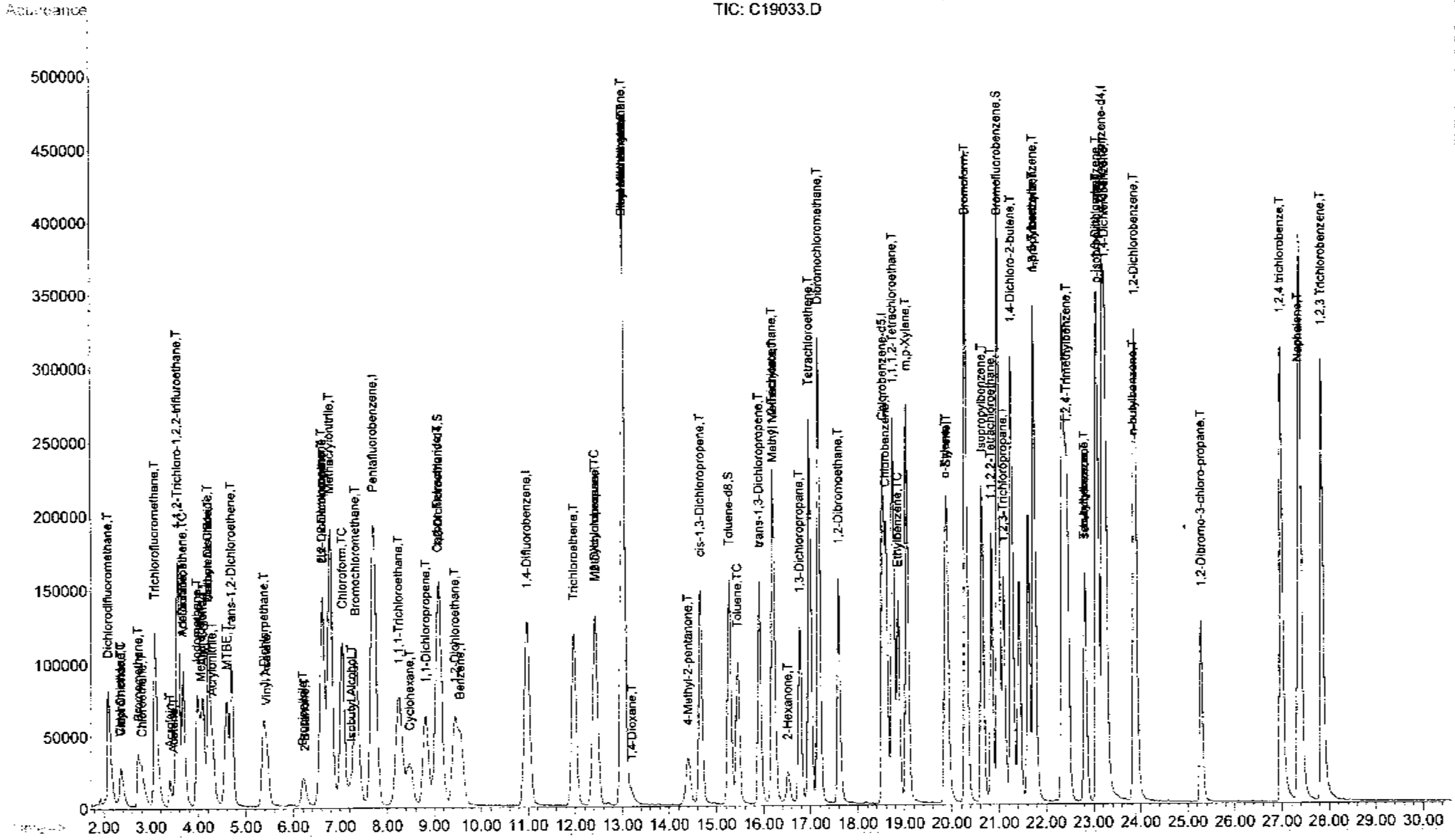
Quantitation Report

Data File : D:\DATA\C19033.D
Acq On : 30 Sep 2007 12:03 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 12:46 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



C19033.D TEST925.M Mon Oct 01 10:55:58 2007 12.

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7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Instrument ID: 12 Calibration Date: 9/30/2007 Time: 23:04

Lab File ID: C19050.D Init. Calib. Date(s): 9/25/2007 9/25/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	0.096	0.068		29.5	
Vinyl Chloride	0.099	0.071	0.100	28.3	25.0
Bromomethane	0.177	0.142	0.100	19.9	25.0
Chloroethane	0.071	0.052		25.8	
Trichlorofluoromethane	0.615	0.487		20.9	
Acetone	0.053	0.049		6.7	
1,1-Dichloroethene	0.133	0.102	0.100	23.4	25.0
Iodomethane	0.616	0.576		6.4	
Carbon Disulfide	0.424	0.318		25.1	
Methylene Chloride	0.156	0.140		10.2	
Acrylonitrile	0.025	0.021		18.2	
trans-1,2-Dichloroethene	0.158	0.127		20.0	
1,1-Dichloroethane	0.316	0.268	0.200	15.2	25.0
Vinyl Acetate	0.269	0.214		20.6	
2-Butanone	0.060	0.051		15.5	
cis-1,2-Dichloroethene	0.179	0.159		10.8	
Chloroform	0.523	0.474	0.200	9.3	25.0
Bromochloromethane	0.196	0.190		3.2	
1,1,1-Trichloroethane	0.458	0.420	0.100	8.2	25.0
Carbon Tetrachloride	0.521	0.580	0.100	-11.2	25.0
Benzene	0.458	0.397	0.500	13.3	25.0
1,2-Dichloroethane	0.515	0.531	0.100	-3.0	25.0
Trichloroethene	0.321	0.314	0.300	2.2	25.0
1,2-Dichloropropane	0.219	0.204		6.6	
Bromodichloromethane	0.876	0.901	0.200	-2.8	25.0
Dibromomethane	0.552	0.565		-2.3	
4-Methyl-2-pentanone	0.185	0.181		1.8	
cis-1,3-Dichloropropene	0.454	0.432	0.200	4.8	25.0
Toluene	0.271	0.271	0.400	0.0	25.0
trans-1,3-Dichloropropene	0.442	0.432	0.100	2.1	25.0
1,1,2-Trichloroethane	0.233	0.226	0.100	3.1	25.0
2-Hexanone	0.170	0.171		-0.5	
Tetrachloroethene	0.530	0.999	0.200	-88.6	25.0
Dibromochloromethane	1.226	1.337	0.200	-9.1	25.0
1,2-Dibromoethane	0.811	0.831		-2.6	
Chlorobenzene	0.597	0.652	0.500	-9.2	25.0
1,1,1,2-Tetrachloroethane	0.514	0.604		-17.6	
Ethylbenzene	0.600	0.790	0.100	-31.6	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Instrument ID: 12 Calibration Date: 9/30/2007 Time: 23:04

Lab File ID: C19050.D Init. Calib. Date(s): 9/25/2007 9/25/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:43 16:52

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
m,p-Xylene	0.214	0.279	0.300	-30.7	25.0
o-Xylene	0.224	0.302	0.300	-34.6	25.0
Styrene	0.436	0.541	0.300	-24.3	25.0
Bromoform	1.495	1.675	0.100	-12.1	25.0
1,1,2,2-Tetrachloroethane	0.569	0.546	0.500	4.1	25.0
1,2,3-Trichloropropane	0.435	0.424		2.5	
1,4-Dichloro-2-butene	0.156	0.165		-5.8	
1,3-Dichlorobenzene	0.497	0.827		-66.3	
1,4-Dichlorobenzene	0.520	0.836		-60.6	
1,2-Dichlorobenzene	0.523	0.838		-60.4	
1,2-Dibromo-3-chloro-propane	0.223	0.254		-13.6	
1,2-Dichloroethane-d4	0.435	0.424		2.6	
Toluene-d8	0.718	0.712		0.9	
Bromofluorobenzene	0.748	0.766		-2.3	

All other compounds must meet a minimum RRF of 0.010.

Data File : D:\DATA\C19050.D
Acq On : 30 Sep 2007 11:04 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	-0.02
2	T	Dichlorodifluoromethane	0.479	0.352	26.5#	71	0.00
3	T	Chloromethane	0.096	0.068	29.2#	69	0.00
4	TC	Vinyl Chloride	0.099	0.071	28.3#	72	0.00
5	T	Bromomethane	0.177	0.142	19.8	79	0.00
6	T	Chloroethane	0.070	0.052	25.7#	76	0.00
7	T	Trichlorofluoromethane	0.615	0.487	20.8	75	0.00
8	T	Acrolein	0.014	0.009#	35.7#	67	0.00
9	T	Acetone	0.053	0.049#	7.5	92	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	0.344	0.291	15.4	81	0.00
11	TC	1,1-Dichloroethene	0.133	0.102	23.3	74	0.00
12	T	Acetonitrile	0.007	0.006#	14.3	82	0.02
13	T	Iodomethane	0.616	0.576	6.5	81	0.00
14	T	Methyl acetate	0.099	0.087	12.1	85	0.00
15	T	Allyl Chloride	0.158	0.123	22.2	76	0.00
16	T	Carbon Disulfide	0.424	0.318	25.0	74	0.00
17	T	Methylene Chloride	0.156	0.140	10.3	88	0.00
18	T	MTBE	0.384	0.384	0.0	95	0.00
19	T	Acrylonitrile	0.025	0.021#	16.0	79	0.00
20	T	trans-1,2-Dichloroethene	0.158	0.127	19.6	76	0.00
21	T	1,1-Dichloroethane	0.316	0.268	15.2	85	0.00
22	T	Vinyl Acetate	0.269	0.214	20.4	77	0.00
23	T	Chloroprene	0.253	0.000#	100.0#	0#	0.00
24	T	2-Butanone	0.060	0.051	15.0	86	-0.02
25	T	Propionitrile	0.010	0.009#	10.0	89	0.00
26	T	2,2-Dichloropropane	0.306	0.217	29.1#	65	0.00
27	T	cis-1,2-Dichloroethene	0.179	0.159	11.2	85	0.00
28	T	Methacrylonitrile	0.644	0.596	7.5	90	0.00
29	TC	Chloroform	0.523	0.474	9.4	89	0.00
30	T	Bromochloromethane	0.196	0.189	3.6	97	0.00
31	T	Isobutyl Alcohol	0.001	0.001#	0.0	88	0.00
32	T	Cyclohexane	0.122	0.094	23.0	75	-0.02
33	S	1,2-Dichloroethane-d4	0.436	0.424	2.8	96	0.00
34	T	1,1,1-Trichloroethane	0.458	0.420	8.3	88	-0.02
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
36	T	1,1-Dichloropropene	0.292	0.275	5.8	86	0.00
37	T	Carbon Tetrachloride	0.521	0.580	-11.3	98	0.00
38	T	Benzene	0.458	0.397	13.3	81	0.00
39	T	1,2-Dichloroethane	0.515	0.531	-3.1	97	0.00
40	T	Trichloroethene	0.321	0.314	2.2	90	0.00
41	TC	1,2-Dichloropropane	0.219	0.204	6.8	87	0.00
42	T	Methylcyclohexane	0.174	0.144	17.2	77	0.00
43	T	Methyl Methacrylate	0.223	0.213	4.5	89	0.00
44	T	Bromodichloromethane	0.876	0.901	-2.9	96	0.00
45	T	Dibromomethane	0.552	0.565	-2.4	98	-0.02
46	T	1,4-Dioxane	0.040	0.035#	12.5	82	0.00
47	T	4-Methyl-2-pentanone	0.185	0.181	2.2	91	-0.02
48	T	cis-1,3-Dichloropropene	0.454	0.432	4.8	87	0.00
49	S	Toluene-d8	0.718	0.712	0.8	92	0.00

(#) = Out of Range

Data File : D:\DATA\C19050.D
Acq On : 30 Sep 2007 11:04 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.271	0.271	0.0	92	0.00
51	T	trans-1,3-Dichloropropene	0.442	0.432	2.3	90	0.00
52	T	Ethyl Methacrylate	0.132	0.126	4.5	88	-0.02
53	T	1,1,2-Trichloroethane	0.233	0.226	3.0	91	-0.02
54	S	Bromofluorobenzene	0.749	0.766	-2.3	97	0.00
55	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
56	T	2-Hexanone	0.170	0.171	-0.6	99	0.00
57	T	1,3-Dichloropropane	0.491	0.490	0.2	95	-0.02
58	T	Tetrachloroethene	0.530	0.999	-88.5#	175#	-0.02
59	T	Dibromochloromethane	1.226	1.337	-9.1	102	-0.02
60	T	1,2-Dibromoethane	0.811	0.831	-2.5	96	-0.02
61	T	Chlorobenzene	0.597	0.652	-9.2	103	0.00
62	T	1,1,1,2-Tetrachloroethane	0.514	0.604	-17.5	109	0.00
63	TC	Ethylbenzene	0.600	0.790	-31.7#	123	0.00
64	T	m,p-Xylene	0.214	0.279	-30.4#	124	0.00
65	T	o-Xylene	0.224	0.302	-34.8#	127	-0.02
66	T	Styrene	0.436	0.541	-24.1	115	0.00
67	T	Bromoform	1.495	1.675	-12.0	103	0.00
68	T	Isopropylbenzene	0.480	0.834	-73.8#	165#	0.00
69	T	1,1,2,2-Tetrachloroethane	0.569	0.546	4.0	90	0.00
70	T	1,2,3-Trichloropropane	0.435	0.424	2.5	90	0.00
71	T	1,4-Dichloro-2-butene	0.156	0.165	-5.8	97	-0.02
72	T	n-propylbenzene	0.643	0.997	-55.1#	152#	0.00
73	T	1,3,5-Trimethylbenzene	0.392	0.746	-90.3#	186#	0.00
74	T	T-butylbenzene	0.070	0.170	-142.9#	234#	0.00
75	T	1,2,4-Trimethylbenzene	0.414	0.787	-90.1#	187#	-0.02
76	T	sec-butylbenzene	0.410	0.909	-121.7#	213#	0.00
77	T	1,3-Dichlorobenzene	0.497	0.827	-66.4#	162#	0.00
78	T	p-isopropyltoluene	0.107	0.240	-124.3#	226#	0.00
79	T	1,4-Dichlorobenzene	0.520	0.836	-60.8#	155#	0.00
80	T	n-butylbenzene	0.294	0.667	-126.9#	227#	0.00
81	T	1,2-Dichlorobenzene	0.523	0.838	-60.2#	155#	0.00
82	T	1,2-Dibromo-3-chloro-propan	0.223	0.254	-13.9	109	-0.02
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
84	T	1,2,4 trichlorobenze	0.455	1.095	-140.7#	254#	0.00
85	T	Naphalene	0.630	1.139	-80.8#	173#	0.00
86	T	1,2,3 Trichlorobenzene	0.455	1.072	-135.6#	252#	0.00

-744-

(#) = Out of Range SPCC's out = 0 CCC's out = 2

```
Data File : D:\DATA\C19050.D                            Vial: 19
Acq On    : 30 Sep 2007  11:04 pm                   Operator: MM
Sample    : CC                                      Inst    : #12
Misc      : 5ML                                     Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Oct  1 11:20 2007              Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.70	168	529448	50.00	ug/L	-0.01
35) 1,4-Difluorobenzene	10.98	114	388028	50.00	ug/L	0.02
55) Chlorobenzene-d5	18.53	117	287017	50.00	ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.20	152	229506	50.00	ug/L	0.04
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.10	65	224530	48.69	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery	= 97.38%		
49) Toluene-d8	15.27	98	276267	49.55	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.10%		
54) Bromofluorobenzene	20.97	95	297150	51.16	ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery	= 102.32%		

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
2) Dichlorodifluoromethane	2.10	85	186435	36.73	ug/L		98
3) Chloromethane	2.35	50	35885	35.26	ug/L		99
4) Vinyl Chloride	2.37	62	37401	35.86	ug/L		97
5) Bromomethane	2.74	94	75224	40.03	ug/L		97
6) Chloroethane	2.83	64	27665	37.06	ug/L		98
7) Trichlorofluoromethane	3.10	101	257674	39.55	ug/L		100
8) Acrolein	3.42	56	19974	136.64	ug/L		98
9) Acetone	3.50	43	26017	46.67	ug/L		99
10) 1,1,2-Trichloro-1,2,2-trif	3.57	101	154083	42.36	ug/L		97
11) 1,1-Dichloroethene	3.69	96	53927	38.28	ug/L		97
12) Acetonitrile	3.71	41	32203	421.42	ug/L		86
13) Iodomethane	3.99	142	305126	46.80	ug/L		97
14) Methyl acetate	4.06	43	46184 MM	44.25	ug/L		99
15) Allyl Chloride	4.11	41	65259m	39.05	ug/L		
16) Carbon Disulfide	4.23	76	168275	37.45	ug/L		100
17) Methylene Chloride	4.23	84	74295	44.90	ug/L		99
18) MTBE	4.61	73	203130	49.95	ug/L		97
19) Acrylonitrile	4.31	53	44001	163.42	ug/L		95
20) trans-1,2-Dichloroethene	4.71	96	67004	39.98	ug/L		96
21) 1,1-Dichloroethane	5.38	63	141964	42.42	ug/L		99
22) Vinyl Acetate	5.45	43	113276	39.72	ug/L		100
24) 2-Butanone	6.24	43	26829	42.21	ug/L	#	82
25) Propionitrile	6.22	54	45769	442.08	ug/L		100
26) 2,2-Dichloropropane	6.61	77	115143	35.52	ug/L		89
27) cis-1,2-Dichloroethene	6.62	96	84352	44.60	ug/L		98
28) Methacrylonitrile	6.79	41	315332	46.21	ug/L		96
29) Chloroform	7.05	83	251164	45.35	ug/L		100
30) Bromochloromethane	7.34	128	100308	48.38	ug/L		93
31) Isobutyl Alcohol	7.23	43	35931	4524.24	ug/L		97
32) Cyclohexane	8.46	56	49922	38.49	ug/L		92
34) 1,1,1-Trichloroethane	8.24	97	222573	45.88	ug/L		98
36) 1,1-Dichloropropene	8.82	75	106756	47.15	ug/L		96
37) Carbon Tetrachloride	9.09	117	224864	55.58	ug/L		99
38) Benzene	9.56	78	154119	43.35	ug/L		100
39) 1,2-Dichloroethane	9.43	62	205946	51.51	ug/L		99
40) Trichloroethene	11.96	95	121668	48.90	ug/L		98
41) 1,2-Dichloropropane	12.42	63	79240	46.69	ug/L		93

(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19050.D　　Vial: 19
Acq On : 30 Sep 2007 11:04 pm　　Operator: MM
Sample : CC　　Inst : #12
Misc : 5ML　　Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007　　Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42)	Methylcyclohexane	12.42	83	55934	41.37 ug/L	#	69
43)	Methyl Methacrylate	16.21	41	82834	47.77 ug/L		98
44)	Bromodichloromethane	13.02	83	349637	51.41 ug/L		100
45)	Dibromomethane	13.00	93	219184	51.13 ug/L		97
46)	1,4-Dioxane	13.21	88	13467	43.49 ug/L	#	32
47)	4-Methyl-2-pentanone	14.38	43	70355	49.13 ug/L		98
48)	cis-1,3-Dichloropropene	14.65	75	167663	47.62 ug/L		99
50)	Toluene	15.44	92	105291	50.02 ug/L		99
51)	trans-1,3-Dichloropropene	15.91	75	167726	48.92 ug/L		99
52)	Ethyl Methacrylate	12.99	69	48725	47.66 ug/L		94
53)	1,1,2-Trichloroethane	16.18	83	87534	48.44 ug/L		97
56)	2-Hexanone	16.52	43	48962	50.25 ug/L		96
57)	1,3-Dichloropropane	16.76	76	140602	49.87 ug/L		98
58)	Tetrachloroethene	16.97	166	286788	94.32 ug/L		98
59)	Dibromochloromethane	17.16	129	383823	54.54 ug/L		97
60)	1,2-Dibromoethane	17.58	107	238626	51.28 ug/L		99
61)	Chlorobenzene	18.61	112	187058	54.61 ug/L		100
62)	1,1,1,2-Tetrachloroethane	18.75	131	173267	58.78 ug/L		99
63)	Ethylbenzene	18.85	91	226768	65.82 ug/L		99
64)	m,p-Xylene	19.04	106	160190	130.68 ug/L		94
65)	o-Xylene	19.85	106	86598	67.31 ug/L		97
66)	Styrene	19.90	104	155388	62.15 ug/L		94
67)	Bromoform	20.29	173	480857	56.03 ug/L		98
68)	Isopropylbenzene	20.64	105	239279	86.85 ug/L		96
69)	1,1,2,2-Tetrachloroethane	20.84	83	156664	47.97 ug/L		98
70)	1,2,3-Trichloropropane	21.09	75	121701	48.73 ug/L		100
71)	1,4-Dichloro-2-butene	21.26	75	47399	52.93 ug/L	#	68
72)	n-propylbenzene	21.73	91	286220	77.59 ug/L		90
73)	1,3,5-Trimethylbenzene	21.74	105	214135	95.09 ug/L		98
74)	T-butylbenzene	22.81	91	48751	120.85 ug/L	#	100
75)	1,2,4-Trimethylbenzene	22.44	105	225863	95.15 ug/L		97
76)	sec-butylbenzene	22.81	105	260757	110.76 ug/L		98
77)	1,3-Dichlorobenzene	23.06	146	237476	83.17 ug/L		99
78)	p-isopropyltoluene	23.09	91	69019	112.72 ug/L		97
79)	1,4-Dichlorobenzene	23.26	146	239818	80.28 ug/L		98
80)	n-butylbenzene	23.84	91	191368	113.56 ug/L		100
81)	1,2-Dichlorobenzene	23.89	146	240601	80.20 ug/L		100
82)	1,2-Dibromo-3-chloro-propa	25.27	75	72793	56.79 ug/L		97
84)	1,2,4 trichlorobenze	26.99	180	251277	120.20 ug/L		97
85)	Naphalene	27.34	128	261372	90.45 ug/L		100
86)	1,2,3 Trichlorobenzene	27.84	180	246144	117.76 ug/L		97

-746-

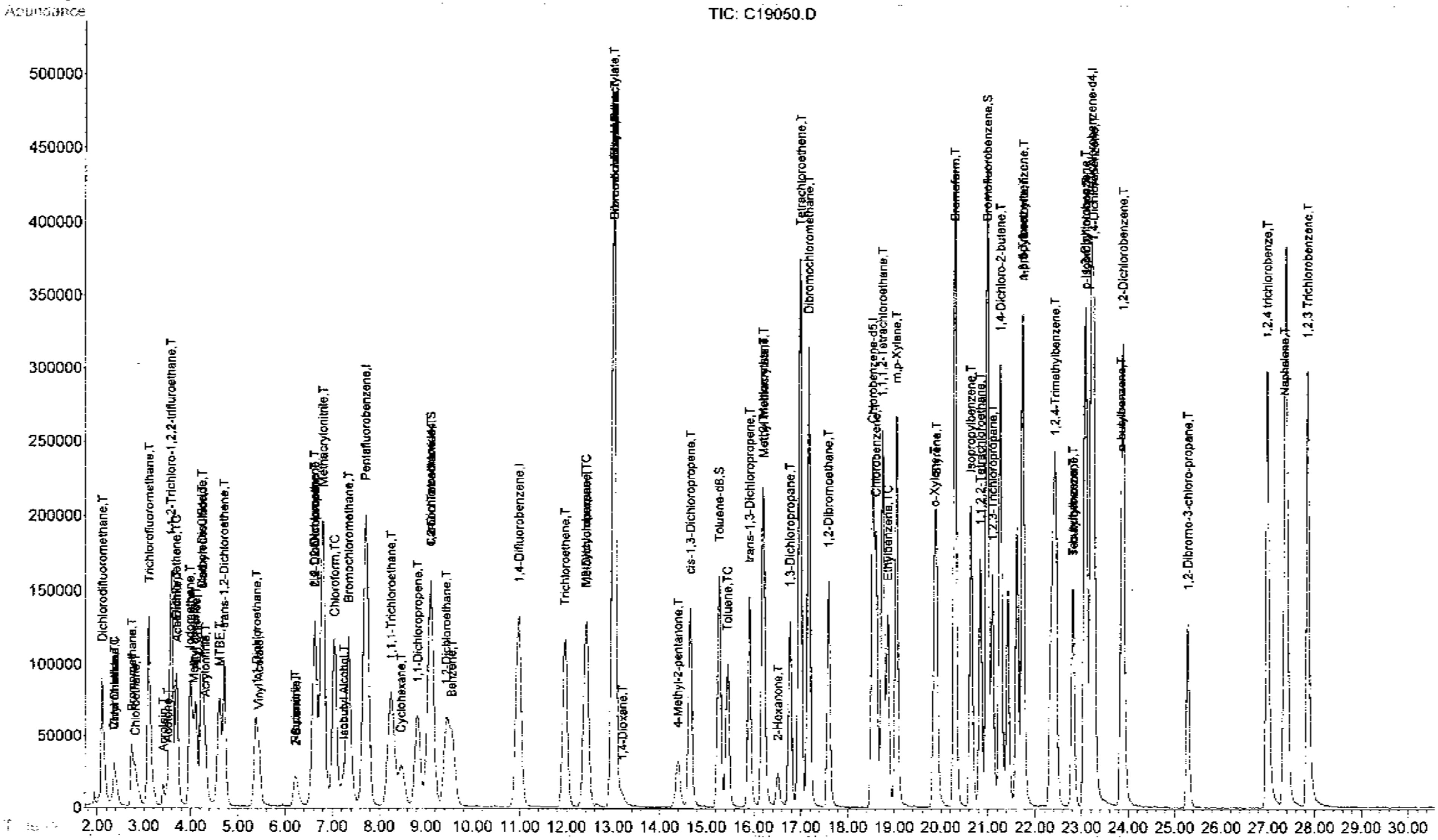
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19050.D
Acq On : 30 Sep 2007 11:04 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 11:20 2007

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



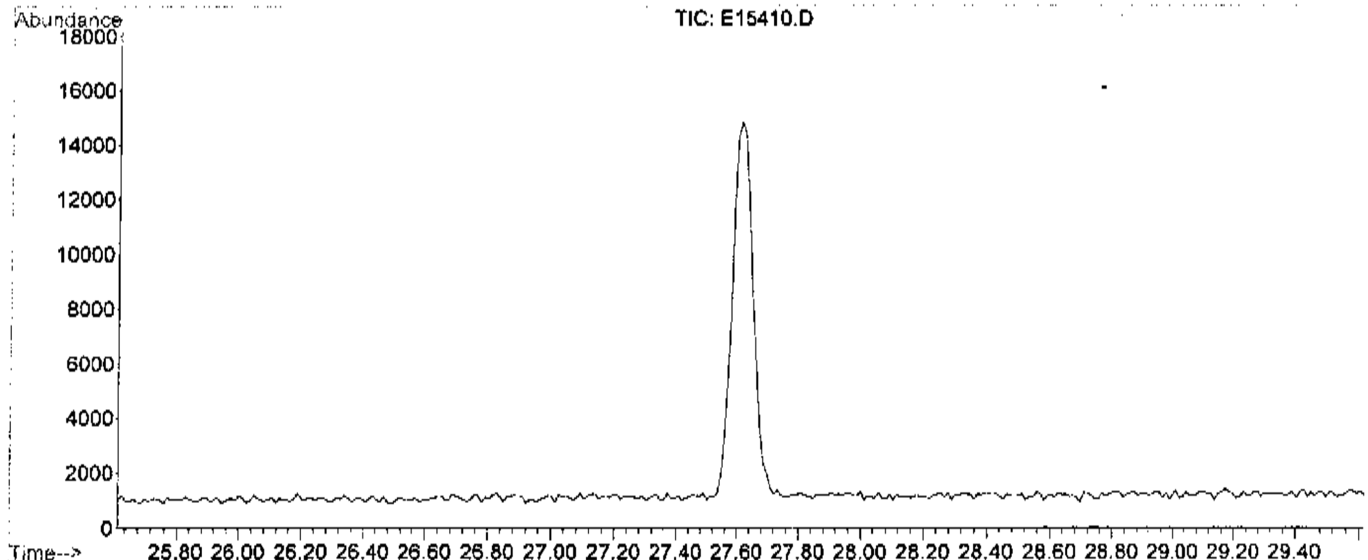
Raw Quality Control Data

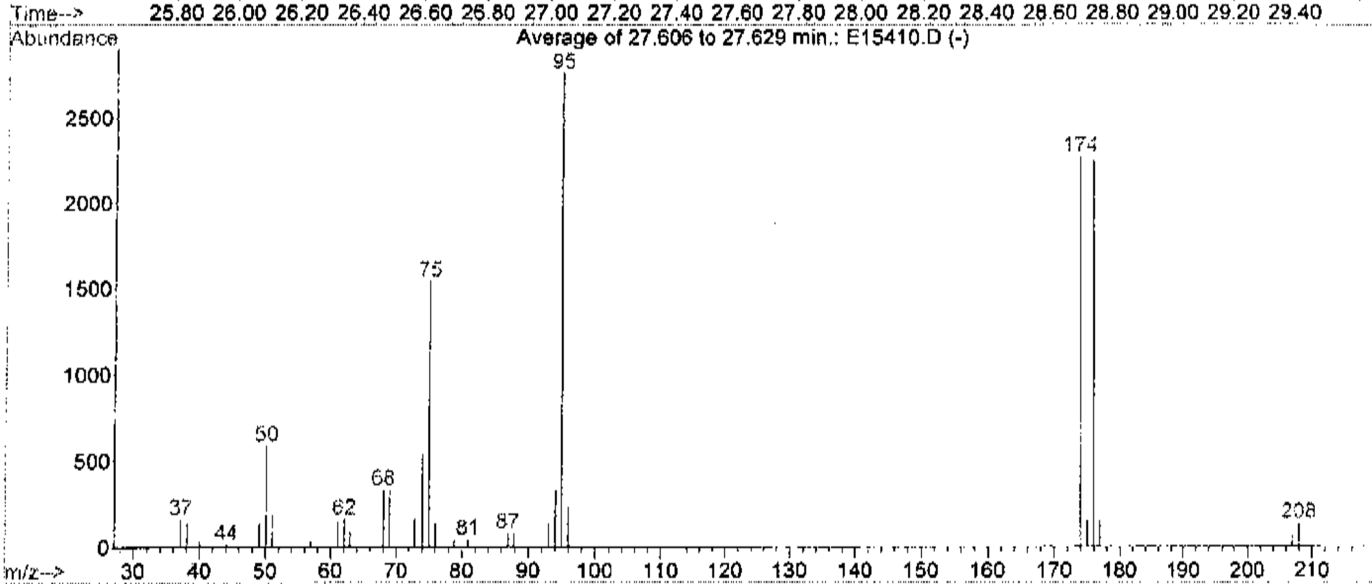
-748-

Upstate Laboratories, Inc.

BFB

```
Data File : D:\DATA\E15410.D                              Vial: 11
Acq On    : 25 Sep 2007   9:30 pm                     Operator: MG
Sample    : BFB                                       Inst     : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
Method    : D:\METHODS\E092507W.M (RTE Integrator)
Title     : VOA 8260 Calibration
```





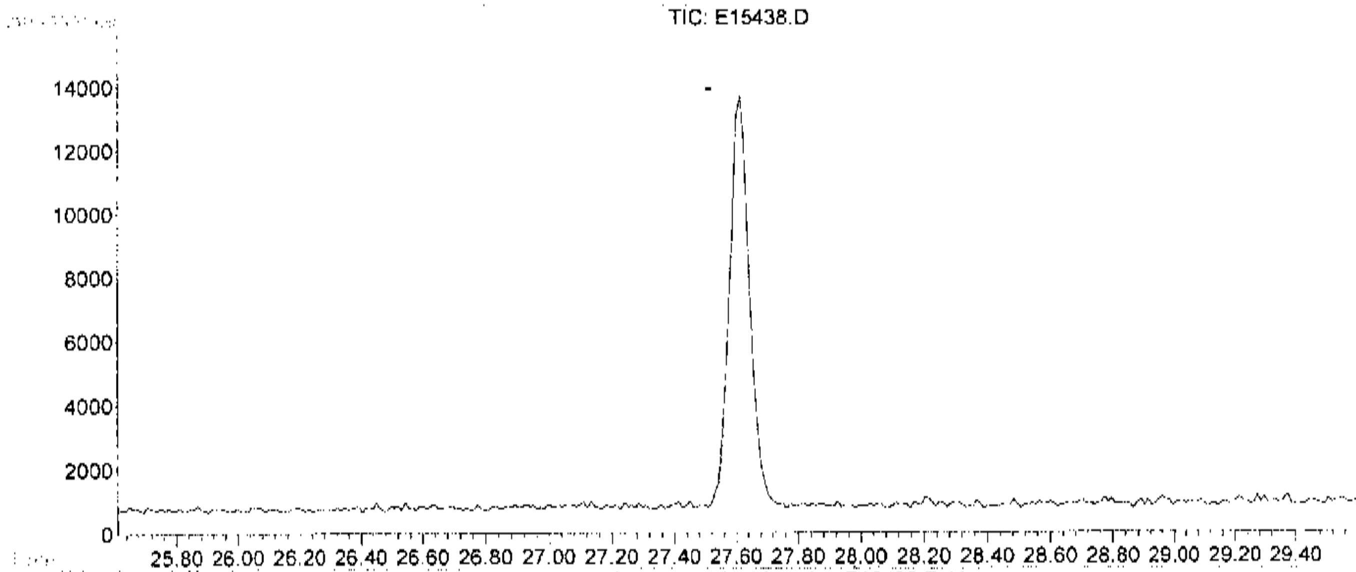
AutoFind: Scans 1942, 1943, 1944; Background Corrected with Scan 1933

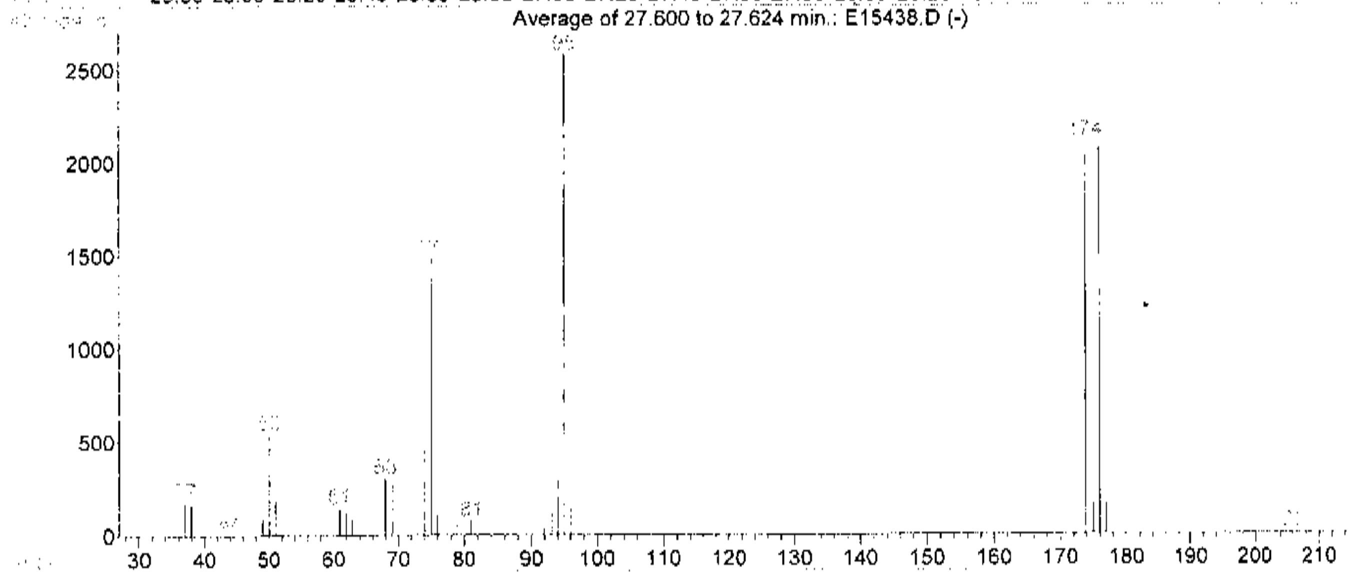
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	590	PASS
75	95	30	60	55.9	1543	PASS
95	95	100	100	100.0	2762	PASS
96	95	5	9	8.4	232	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.2	2271	PASS
175	174	5	9	6.9	156	PASS
176	174	95	101	98.9	2246	PASS
177	176	5	9	7.0	158	PASS

E15410.D E092507W.M Wed Sep 26 11:17:25 2007

Data File : G:\DATA\E15438.D
Acq On : 27 Sep 2007 10:17 am
Sample : BFB
Misc : 5mL
MS Integration Params: rteint.p
Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 1
Operator: MG
Inst : Voa Instr
Multiplr: 1.00



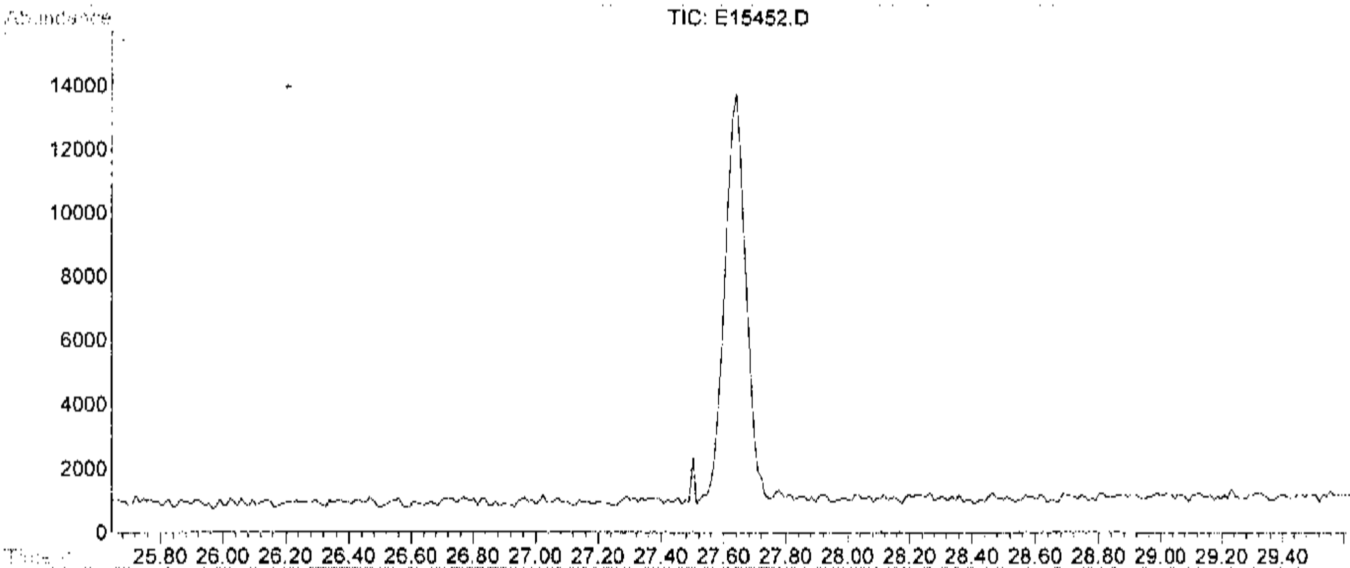


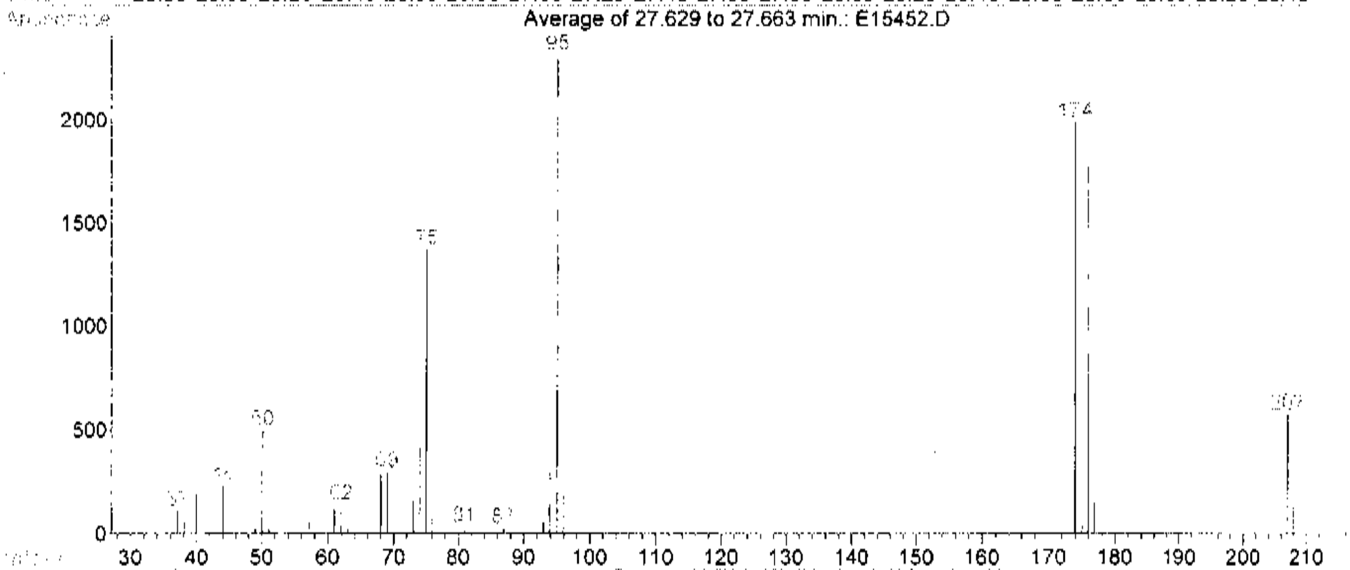
Spectrum Information: Average of 27.600 to 27.624 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	537	PASS
75	95	30	60	57.3	1477	PASS
95	95	100	100	100.0	2578	PASS
96	95	5	9	8.3	213	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	81.8	2109	PASS
175	174	5	9	8.0	168	PASS
176	174	95	101	98.2	2070	PASS
177	176	5	9	7.9	163	PASS

Data File : G:\DATA\E15452.D
Acq On : 27 Sep 2007 9:58 pm
Sample : BFB
Misc : 5mL
MS Integration Params: rteint.p
Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 15
Operator: MG
Inst : Voa Instr
Multiplr: 1.00





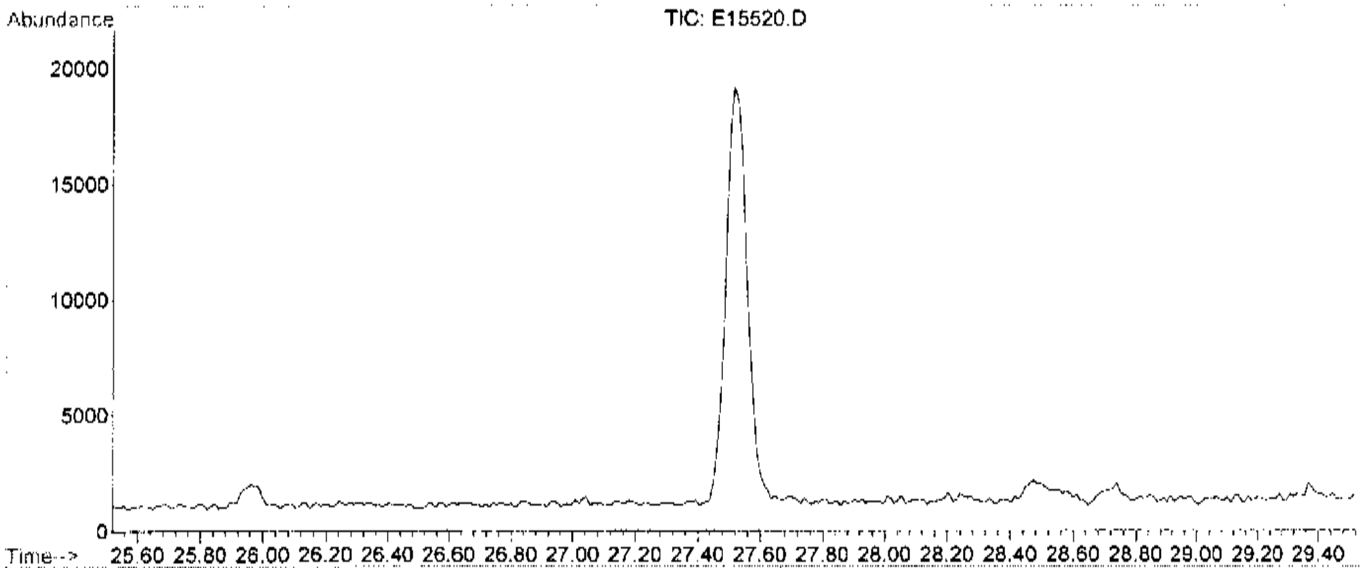
-751-

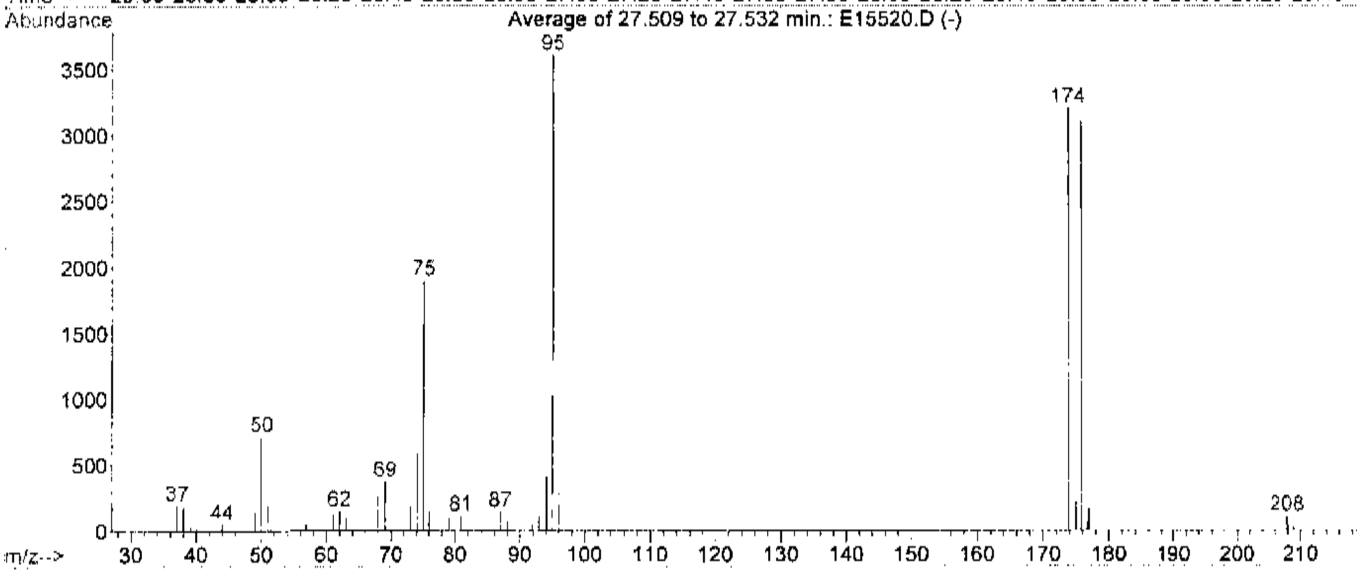
Spectrum Information: Average of 27.629 to 27.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.5	498	PASS
75	95	30	60	59.2	1373	PASS
95	95	100	100	100.0	2318	PASS
96	95	5	9	8.9	206	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.8	1990	PASS
175	174	5	9	5.6	112	PASS
176	174	95	101	96.8	1926	PASS
177	176	5	9	7.9	153	PASS

Data File : D:\DATA\E15520.D
Acq On : 1 Oct 2007 12:14 pm
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 1
Operator: MG
Inst : Voa Instr
Multiplr: 1.00





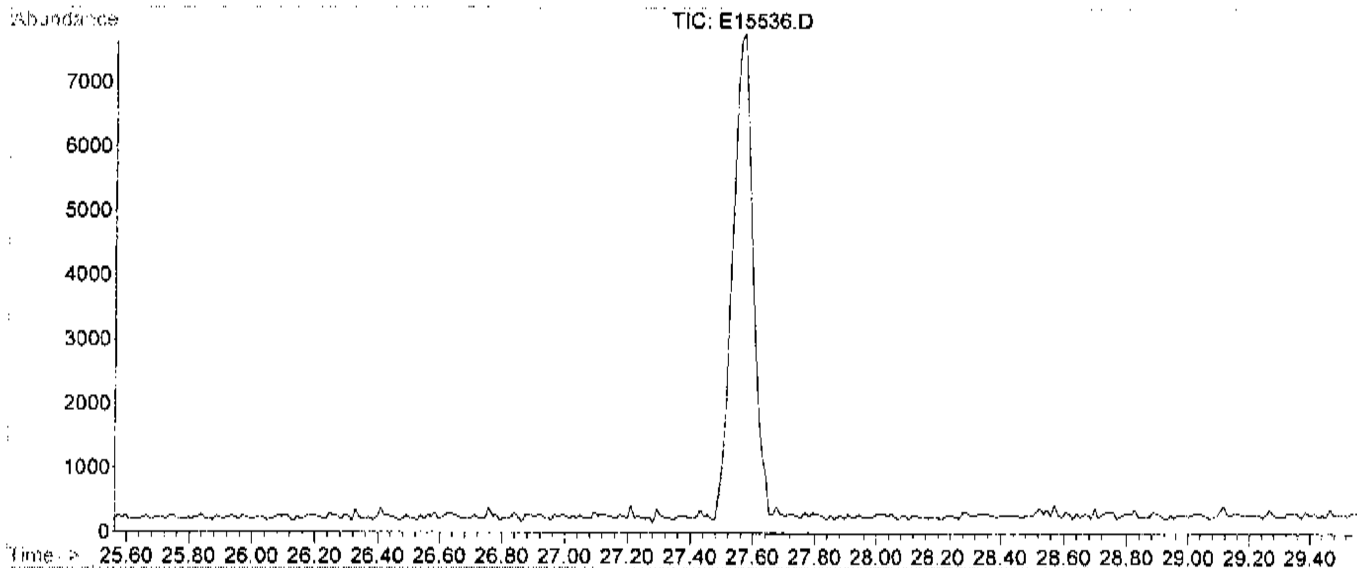
AutoFind: Scans 1934, 1935, 1936; Background Corrected with Scan 1925

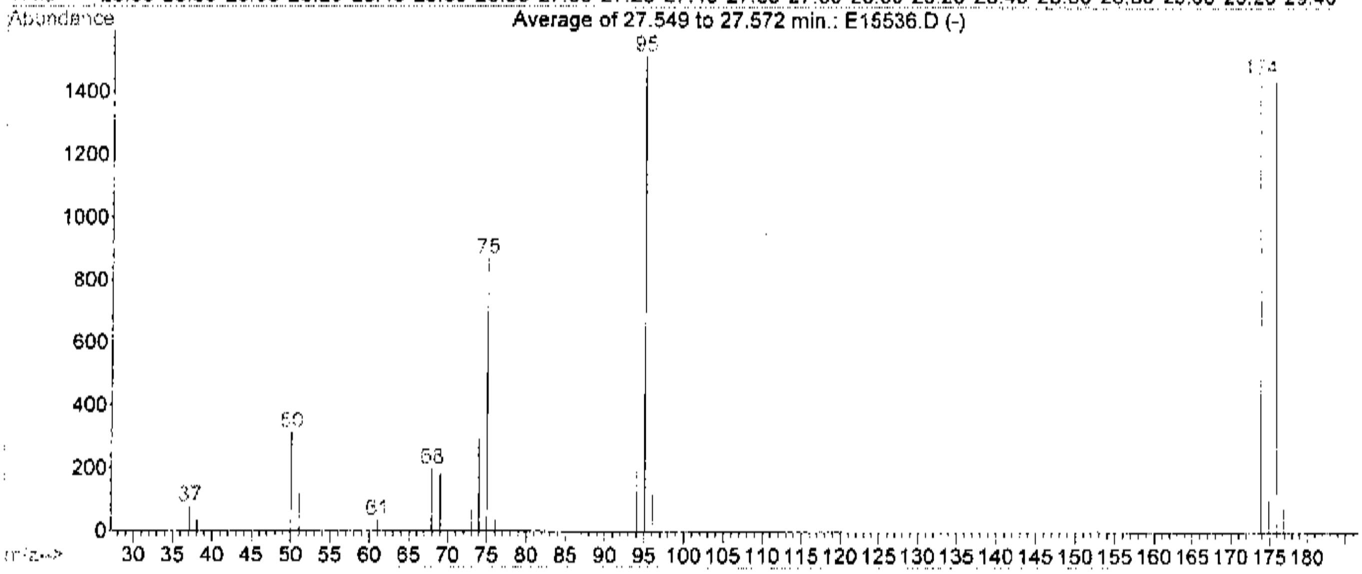
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	719	PASS
75	95	30	60	52.7	1904	PASS
95	95	100	100	100.0	3615	PASS
96	95	5	9	7.9	286	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.7	3207	PASS
175	174	5	9	6.9	220	PASS
176	174	95	101	96.9	3106	PASS
177	176	5	9	5.5	172	PASS

E15520.D E092507W.M Mon Oct 01 12:50:27 2007

Data File : D:\DATA\E15536.D
Acq On : 2 Oct 2007 4:11 pm
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 3
Operator: MG
Inst : Voa Instr
Multiplr: 1.00





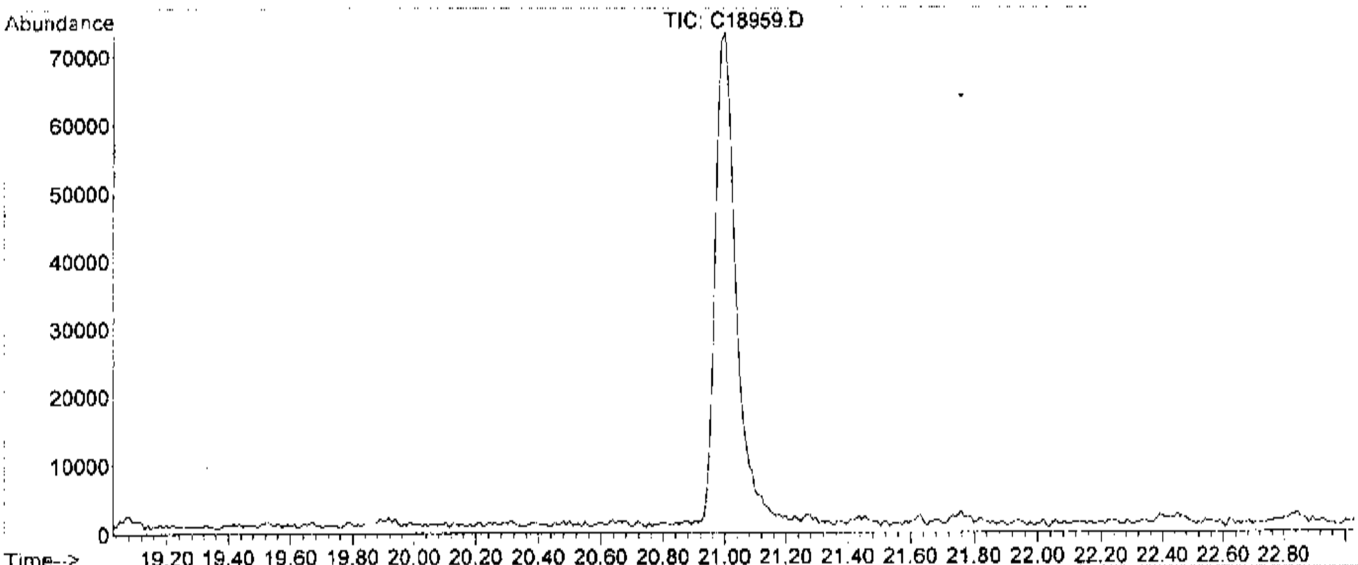
AutoFind: Scans 1937, 1938, 1939; Background Corrected with Scan 1929

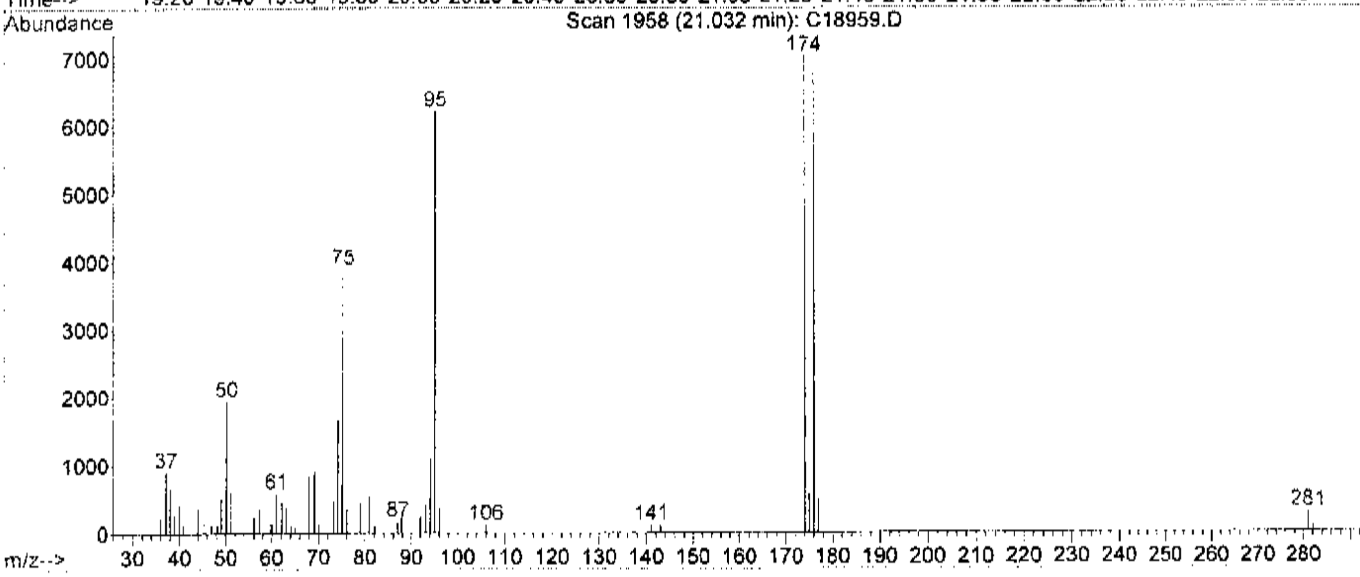
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	313	PASS
75	95	30	60	57.4	871	PASS
95	95	100	100	100.0	1518	PASS
96	95	5	9	8.0	121	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	95.5	1449	PASS
175	174	5	9	7.5	108	PASS
176	174	95	101	99.4	1441	PASS
177	176	5	9	5.3	77	PASS

E15536.D E092507W.M Tue Oct 02 16:46:20 2007

Data File : D:\DATA\C18959.D
Acq On : 25 Sep 2007 11:00 am
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\TEST914.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 1
Operator: MM
Inst : #12
Multiplr: 1.00



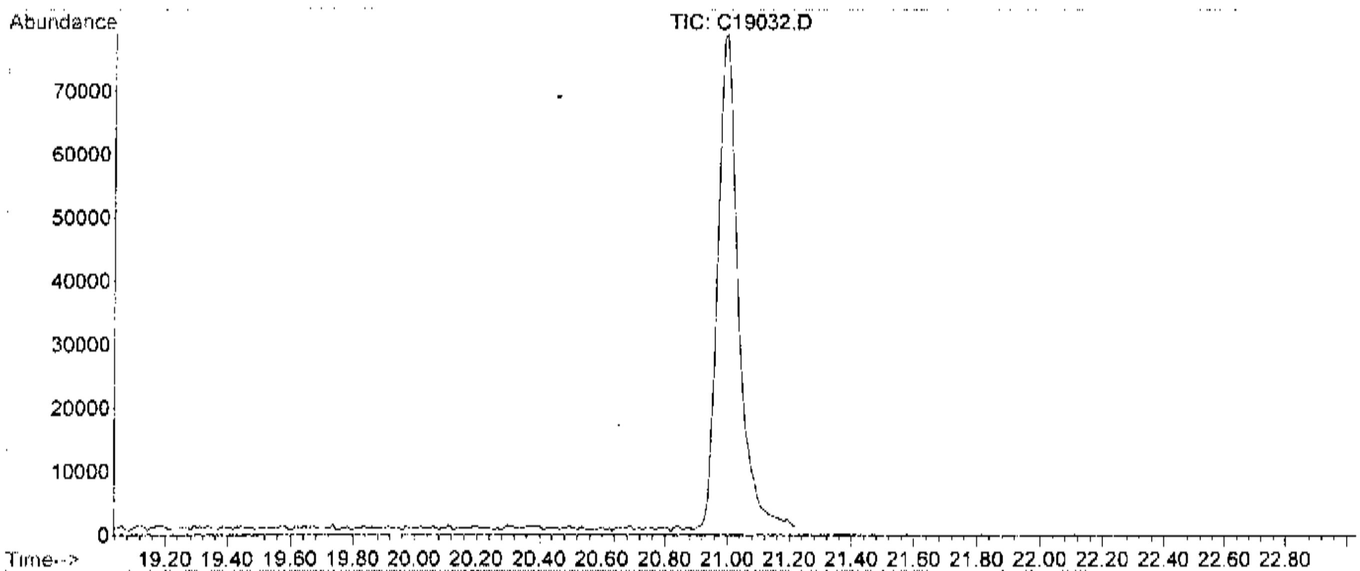


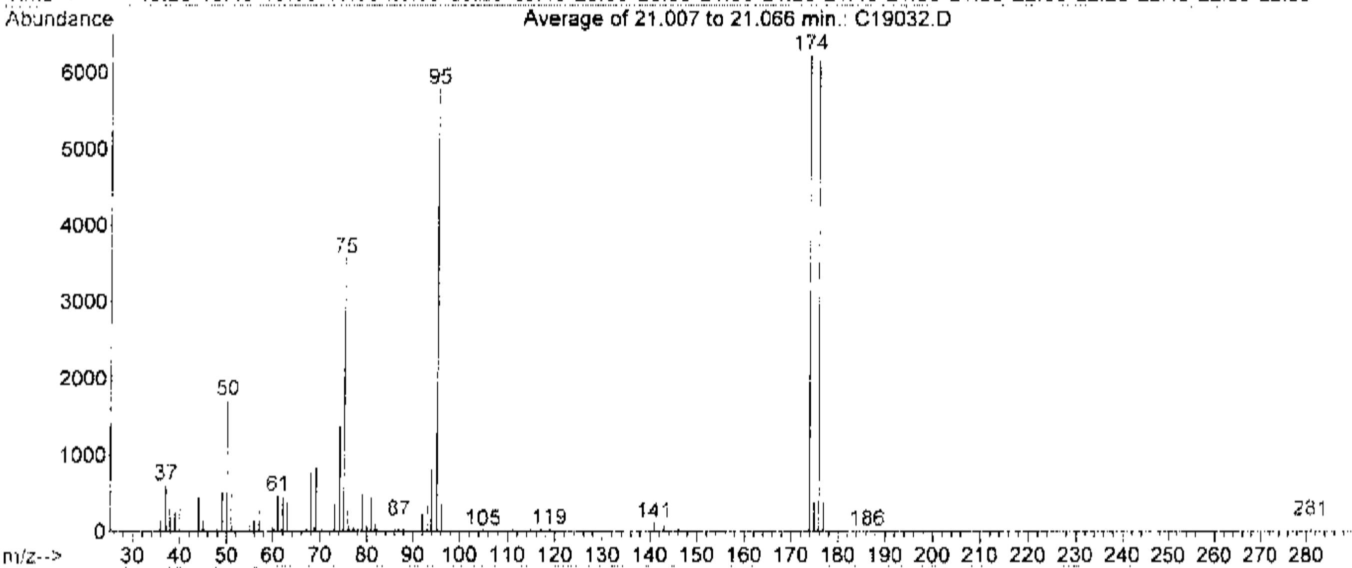
Spectrum Information: Scan 1958

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	31.2	1941	PASS
75	95	30	66	62.6	3891	PASS
95	95	100	100	100.0	6214	PASS
96	95	5	9	5.8	359	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	113.0	7019	PASS
175	174	4	9	8.2	575	PASS
176	174	93	101	96.9	6804	PASS
177	176	5	9	7.2	492	PASS

BFB

```
Data File : D:\DATA\C19032.D                          Vial: 1
Acq On    : 30 Sep 2007  11:23 am                  Operator: MM
Sample    : BFB                                    Inst    : #12
Misc      : 5ML                                    Multiplr: 1.00
MS Integration Params: rteint.p
Method    : D:\METHODS\TEST925.M (RTE Integrator)
Title     : VOA 8260 Calibration
```





Spectrum Information: Average of 21.007 to 21.066 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.7	1717	PASS
75	95	30	66	61.6	3562	PASS
95	95	100	100	100.0	5781	PASS
96	95	5	9	6.0	349	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	107.7	6229	PASS
175	174	4	9	6.1	382	PASS
176	174	93	101	98.7	6151	PASS
177	176	5	9	6.2	379	PASS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15441.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Data File : G:\DATA\E15441.D
Acq On : 27 Sep 2007 12:56 pm
Sample : MB
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:15 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	77720	50.00 ug/L	0.00
36) 1,4-Difluorobenzene	16.08	114	117284	50.00 ug/L	0.01
56) Chlorobenzene-d5	24.20	117	110395	50.00 ug/L	0.01
87) 1,4-Dichlorobenzene-d4	31.09	152	66015	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.09	65	62169m MM	56.84 ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery	= 113.68%	
50) Toluene-d8	20.05	98	123577	49.60 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.20%	
55) Bromofluorobenzene	27.63	95	62747	50.40 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	= 100.80%	

Target Compounds Qvalue

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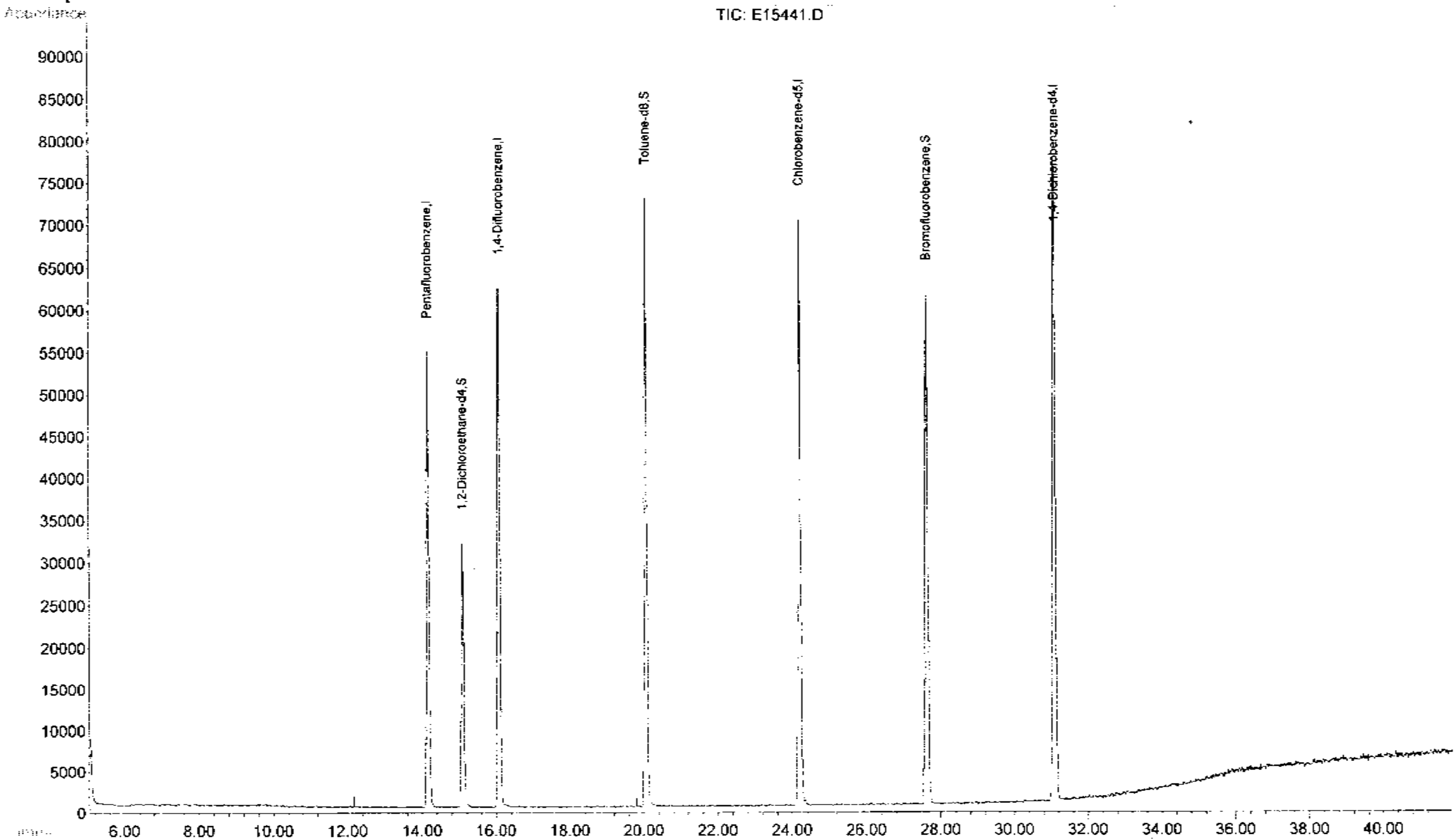
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15441.D
Acq On : 27 Sep 2007 12:56 pm
Sample : MB
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:15 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

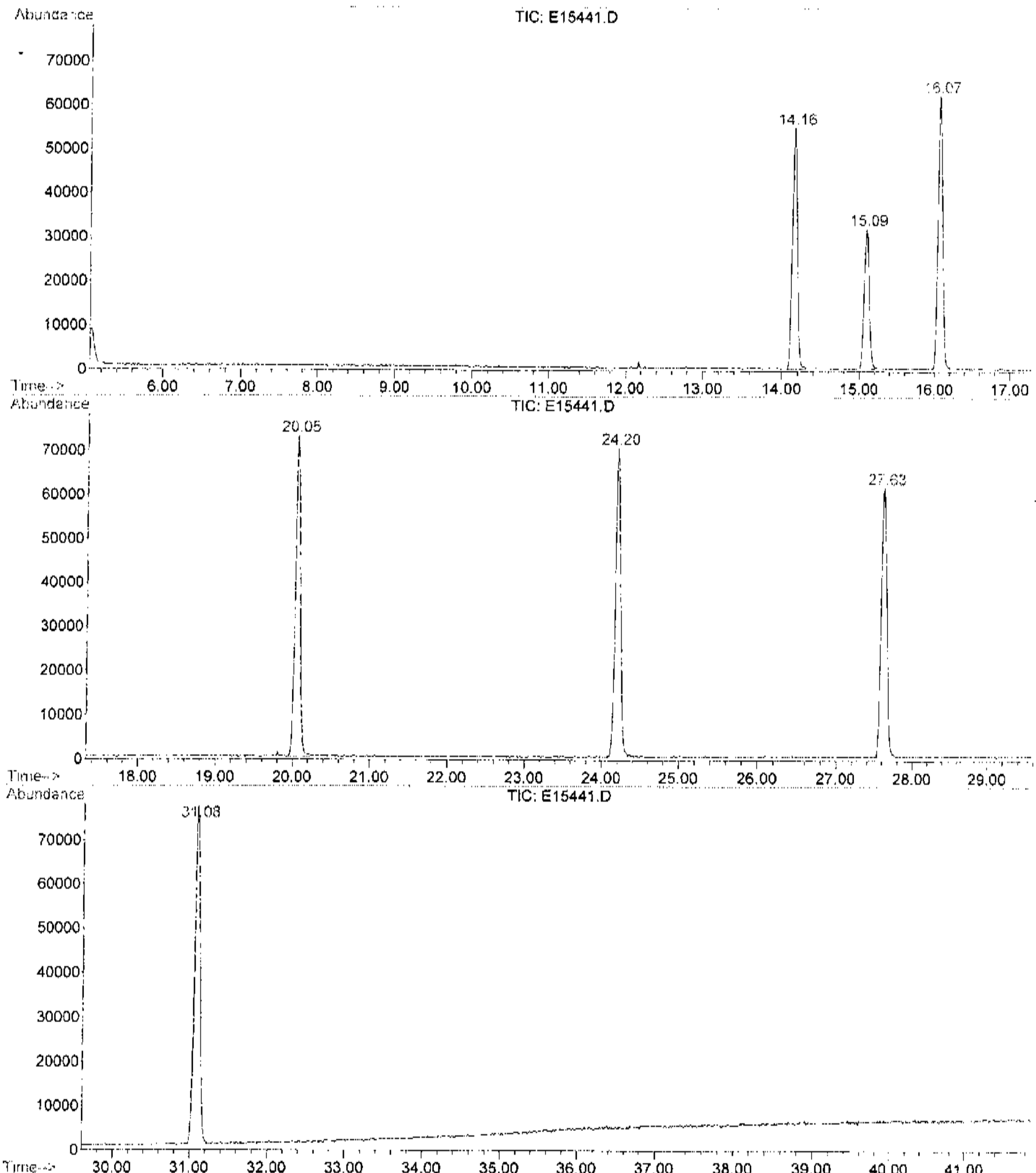
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15441.D
Operator : MG
Acquired : 27 Sep 2007 12:56 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: MB
Misc Info : 5mL
Vial Number: 4
Quant File :E092507W.RES (RTE Integrator)



E15441.D E092507W.M Fri Sep 28 10:31:14 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15455.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-764-

```
Data File : G:\DATA\E15455.D                              Vial: 18
Acq On    : 28 Sep 2007  12:26 am                     Operator: MG
Sample    : MB                                        Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 28 11:09 2007            Quant Results File: E092507W.RES

Quant Method : G:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards                 R.T. QIon  Response  Conc Units Dev(Min)
-----------------------------------------------------------------------------
  1) Pentafluorobenzene            14.18  168    75136    50.00 ug/L    0.02
 36) 1,4-Difluorobenzene           16.08  114   112912    50.00 ug/L    0.02
 56) Chlorobenzene-d5              24.21  117   103818    50.00 ug/L    0.02
 87) 1,4-Dichlorobenzene-d4        31.10  152    62666    50.00 ug/L    0.02

System Monitoring Compounds
 33) 1,2-Dichloroethane-d4         15.11   65    60014m MV 56.76 ug/L   0.02
  Spiked Amount      50.000   Range  76 - 118    Recovery   =  113.52%
 50) Toluene-d8                    20.07   98   116772    48.68 ug/L    0.02
  Spiked Amount      50.000   Range  88 - 110    Recovery   =   97.36%
 55) Bromofluorobenzene            27.63   95    59546    49.68 ug/L    0.02
  Spiked Amount      50.000   Range  86 - 115    Recovery   =   99.36%

Target Compounds                                                   Qvalue
```

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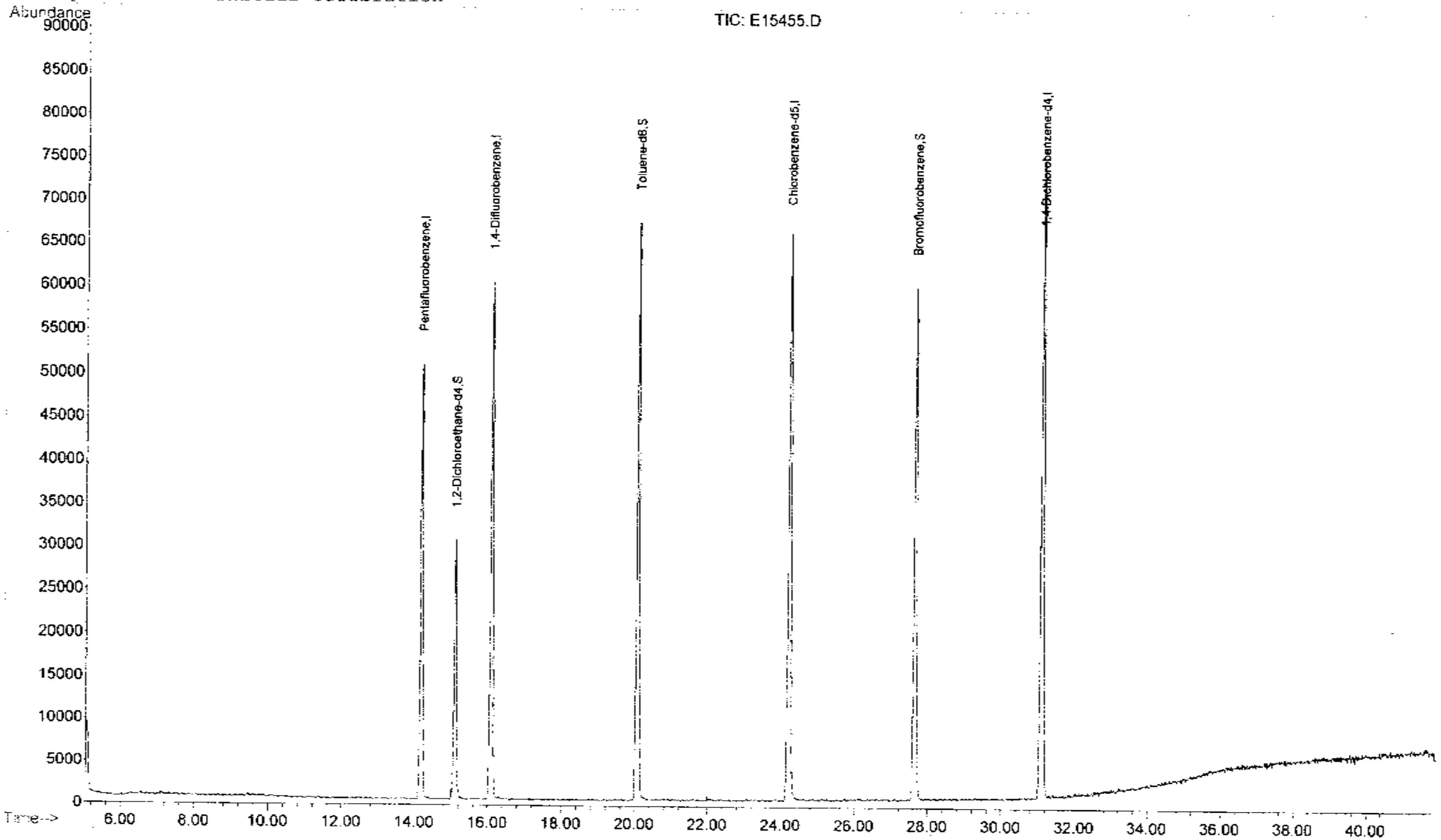
Quantitation Report

Data File : G:\DATA\E15455.D
Acq On : 28 Sep 2007 12:26 am
Sample : MB
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 11:09 2007

Vial: 18
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\E15455.D
Operator    : MG
Acquired    : 28 Sep 2007  12:26 am using AcqMethod E092507W
Instrument  :   Voa Instr
Sample Name: MB
Misc Info   : 5mL
Vial Number: 18
Quant File :E092507W.RES (RTE Integrator)
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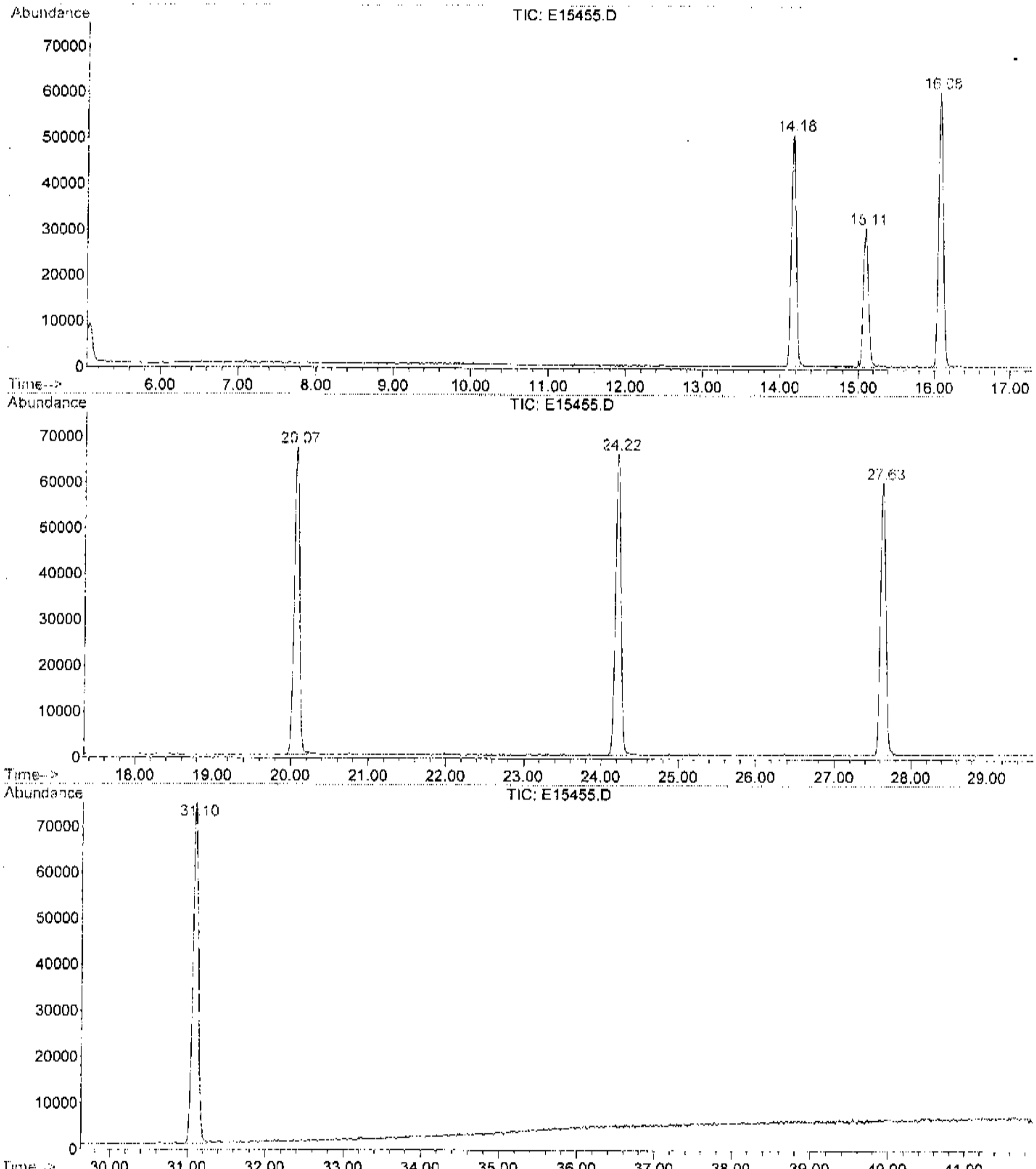

E15455.D E092507W.M   Fri Sep 28 11:18:03 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15523.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-770-

Data File : D:\DATA\E15523.D
Acq On : 1 Oct 2007 3:06 pm
Sample : MB
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 15:48 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	85266	50.00	ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	115709	50.00	ug/L	-0.07
56) Chlorobenzene-d5	24.12	117	98728	50.00	ug/L	-0.07
87) 1,4-Dichlorobenzene-d4	31.00	152	59988	50.00	ug/L	-0.08

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	15.02	65	59757	49.80	ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery =	99.60%		
50) Toluene-d8	19.97	98	117226	47.69	ug/L	-0.08
Spiked Amount 50.000	Range 88 - 110		Recovery =	95.38%		
55) Bromofluorobenzene	27.55	95	56578	46.06	ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.12%		

Target Compounds Qvalue

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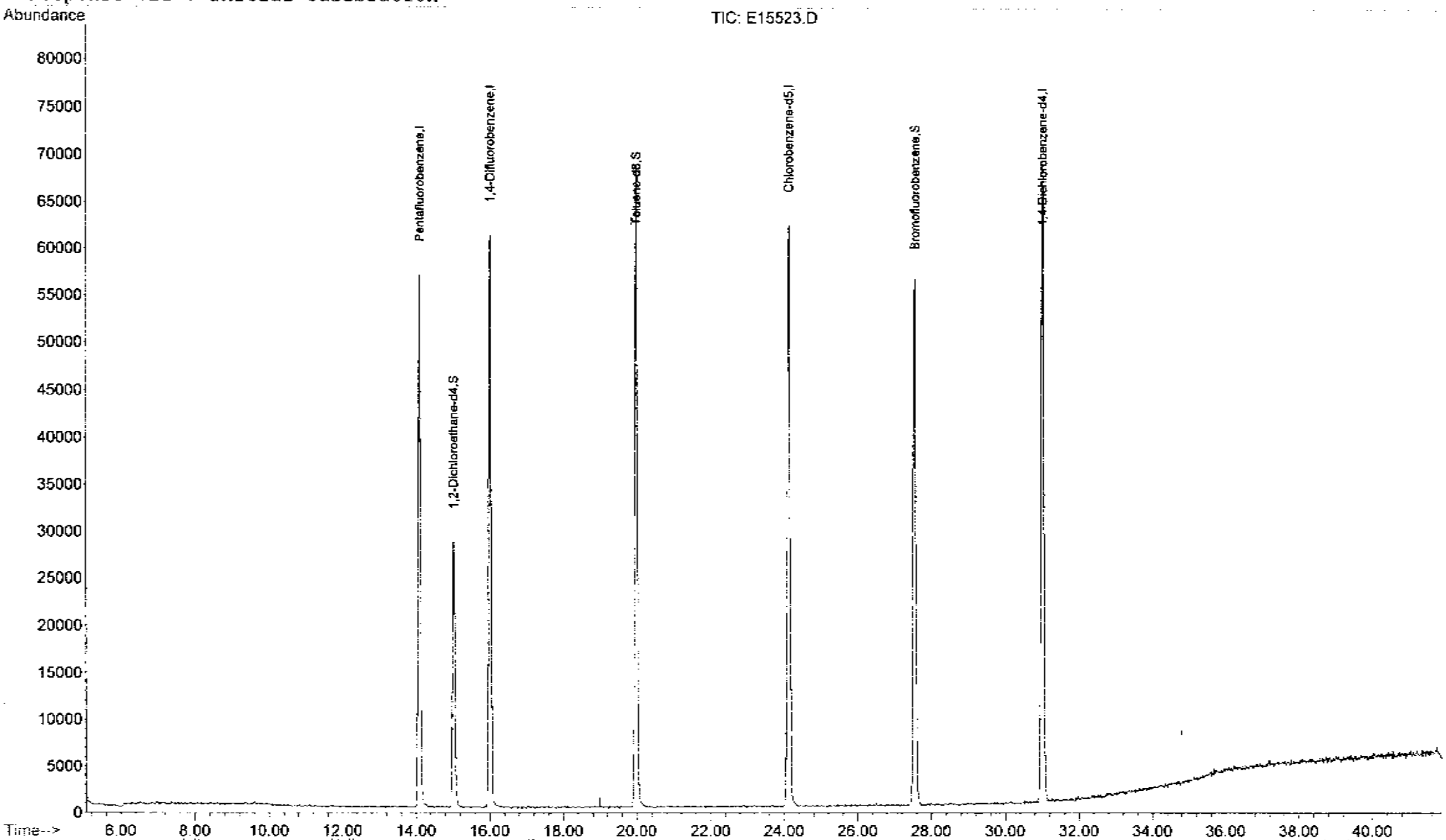
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15523.D
Acq On : 1 Oct 2007 3:06 pm
Sample : MB
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 1 15:48 2007

Vial: 4
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

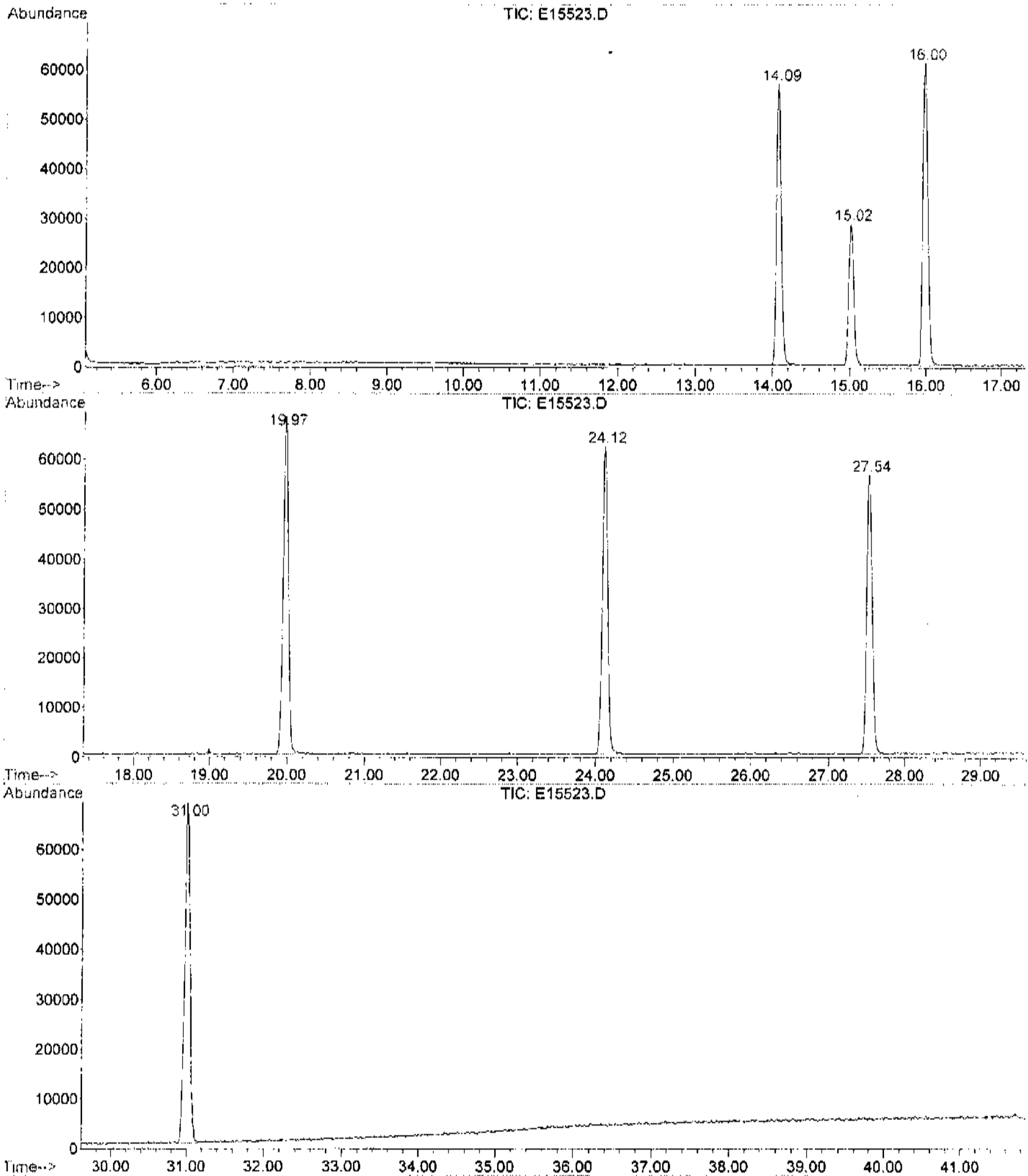
Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15523.D
Operator : MG
Acquired : 1 Oct 2007 3:06 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: MB
Misc Info : 5ML
Vial Number: 4
Quant File :E092507W.RES (RTE Integrator)



-773-

E15523.D E092507W.M Tue Oct 02 10:46:06 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15539.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: - 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Data File : D:\DATA\E15539.D Vial: 6
Acq On : 2 Oct 2007 6:44 pm Operator: MG
Sample : MB Inst : Voa Instr
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 19:25 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.11	168	59090	50.00 ug/L	-0.05
36) 1,4-Difluorobenzene	16.02	114	66300	50.00 ug/L	-0.05
56) Chlorobenzene-d5	24.14	117	57677	50.00 ug/L	-0.05
87) 1,4-Dichlorobenzene-d4	31.03	152	40026	50.00 ug/L	-0.05
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	15.04	65	36923	44.40 ug/L	-0.05
Spiked Amount 50.000	Range 76 - 118		Recovery =	88.80%	
50) Toluene-d8	19.99	98	66885	47.49 ug/L	-0.06
Spiked Amount 50.000	Range 88 - 110		Recovery =	94.98%	
55) Bromofluorobenzene	27.57	95	35778	50.83 ug/L	-0.05
Spiked Amount 50.000	Range 86 - 115		Recovery =	101.66%	

Target Compounds Qvalue

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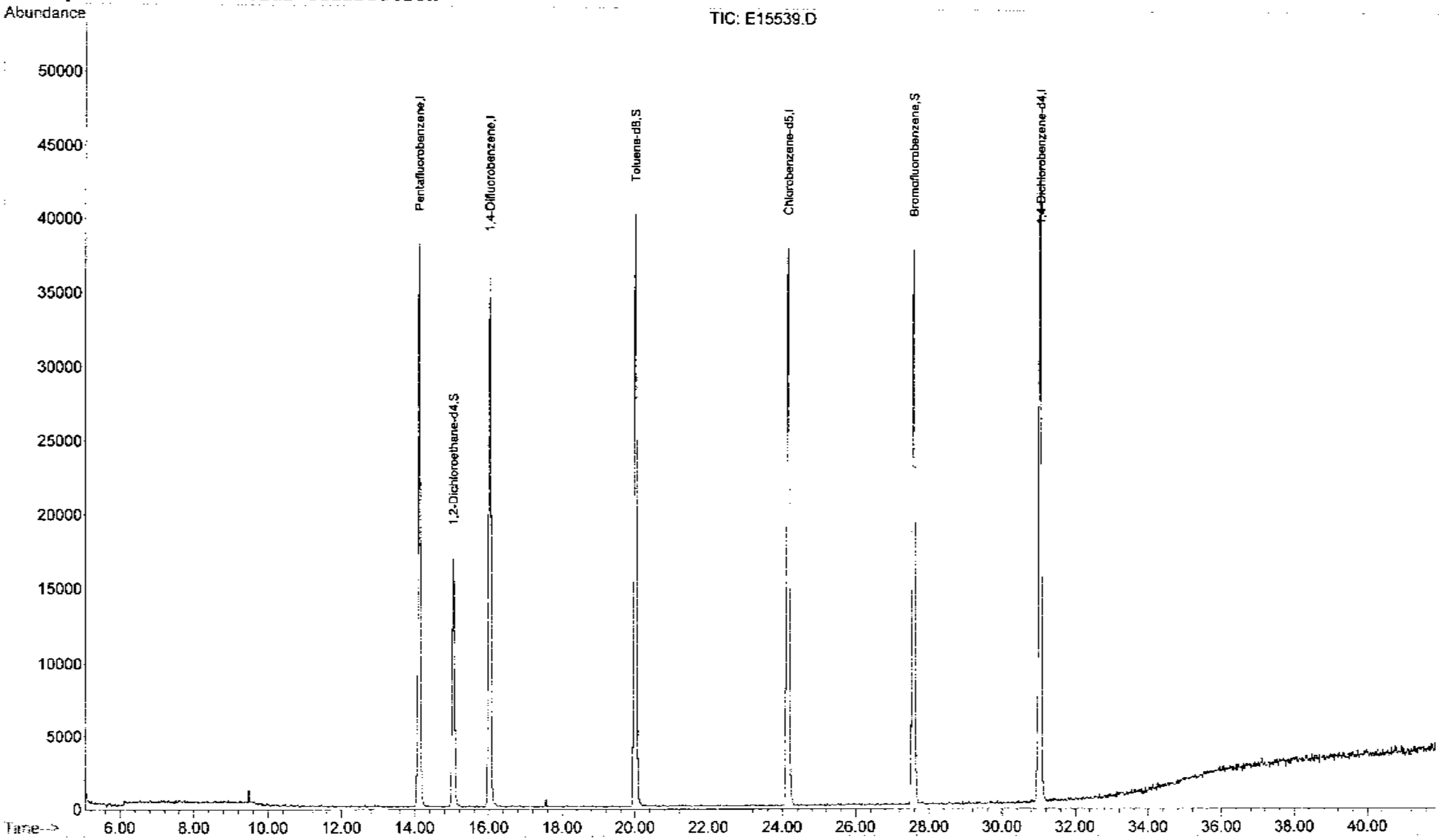
(#) = qualifier out of range (m) = manual integration

Quantitation Report

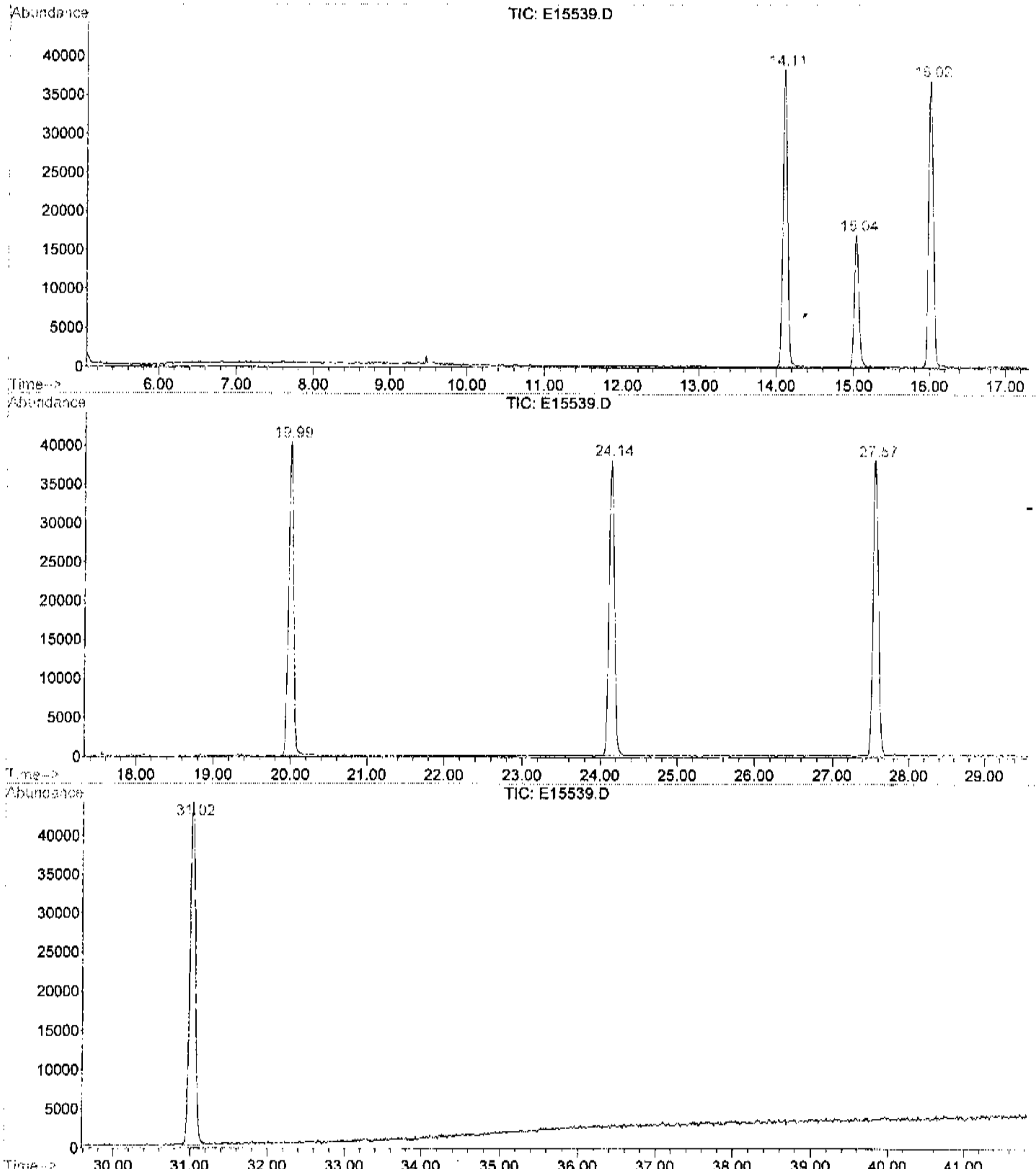
Data File : D:\DATA\E15539.D	Vial: 6
Acq On : 2 Oct 2007 6:44 pm	Operator: MG
Sample : MB	Inst : Voa Instr
Misc : 5ML	Multiplr: 1.00
MS Integration Params: rteint.p	
Quant Time: Oct 2 19:25 2007	Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\E15539.D
Operator : MG
Acquired : 2 Oct 2007 6:44 pm using AcqMethod E092507W
Instrument : Voa Instr
Sample Name: MB
Misc Info : 5ML
Vial Number: 6
Quant File :E092507W.RES (RTE Integrator)



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E15539.D E092507W.M Wed Oct 03 09:34:04 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19035.D

Level: (low/med) LOW Date Received: 9/20/2007

% Moisture: not dec. Date Analyzed: 9/30/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Data File : D:\DATA\C19035.D   Vial: 4
Acq On : 30 Sep 2007 1:36 pm   Operator: MM
Sample : MB   Inst : #12
Misc : 5ML   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 1 10:58 2007   Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.72	168	526196	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	10.99	114	385866	50.00 ug/L	0.03
55) Chlorobenzene-d5	18.52	117	293882	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.17	152	231686	50.00 ug/L	0.00

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.12	65	224090	48.89 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	97.78%	
49) Toluene-d8	15.29	98	278899	50.30 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.60%	
54) Bromofluorobenzene	20.95	95	297818	51.56 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	103.12%	

Target Compounds   Qvalue

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(#) = qualifier out of range (m) = manual integration

```
Data File : D:\DATA\C19035.D                          Vial: 4
Acq On    : 30 Sep 2007   1:36 pm                 Operator: MM
Sample    : MB                                    Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct  1 10:58 2007          Quant Results File: TEST925.RES

Method       : D:\METHODS\TEST925.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration
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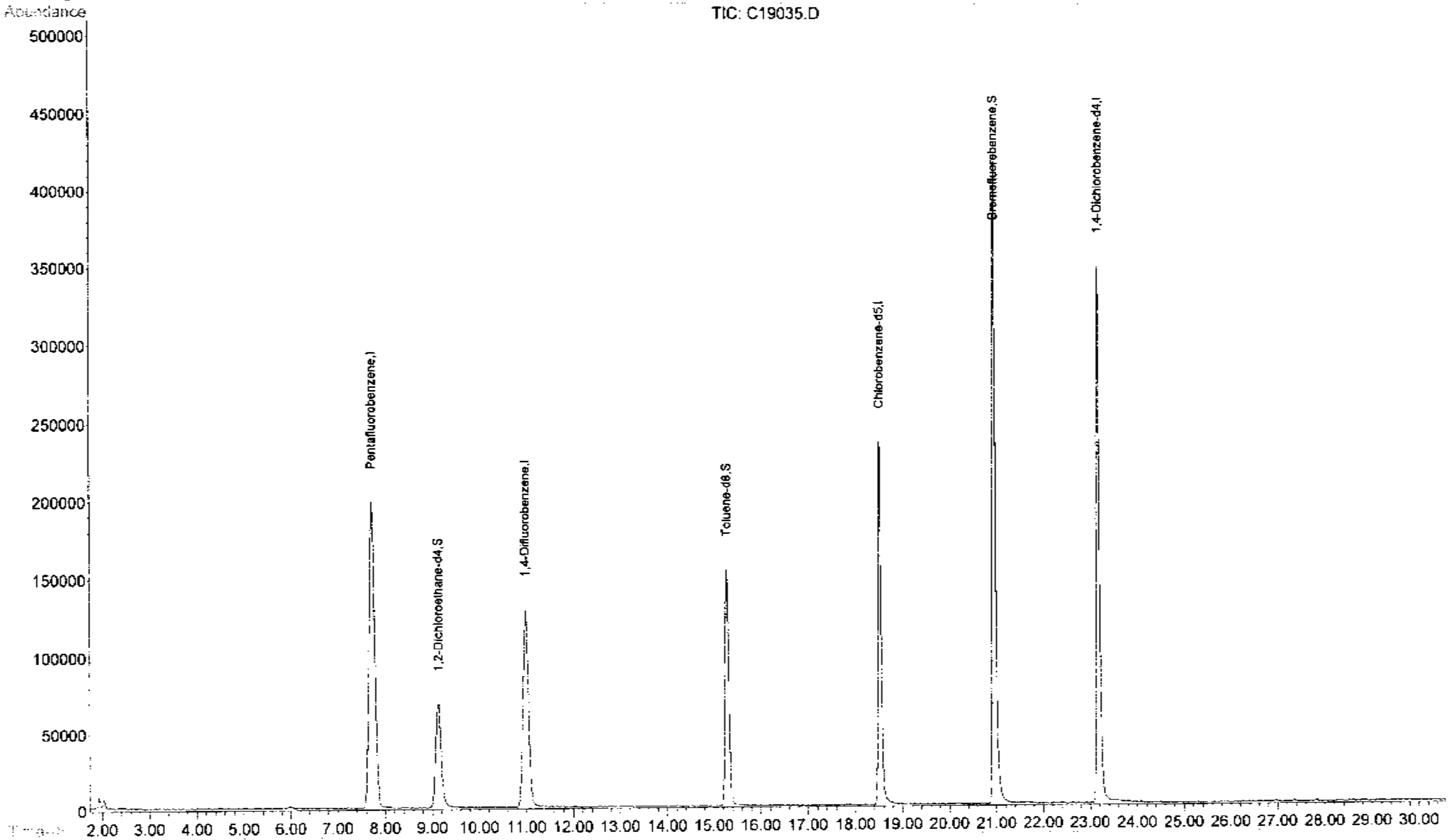

LSC Report - Integrated Chromatogram

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File         : D:\DATA\C19035.D
Operator     : MM
Acquired     : 30 Sep 2007   1:36 pm using AcqMethod TEST925
Instrument :    #12
Sample Name: MB
Misc Info   : 5ML
Vial Number: 4
Quant File :TEST925.RES (RTE Integrator)
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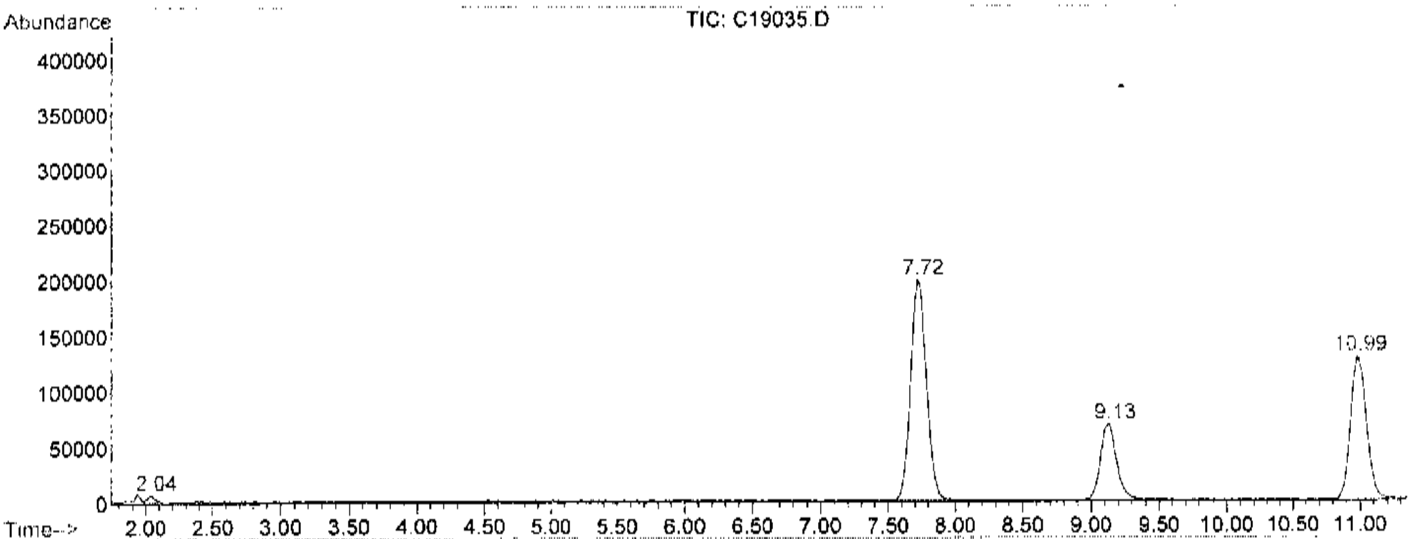
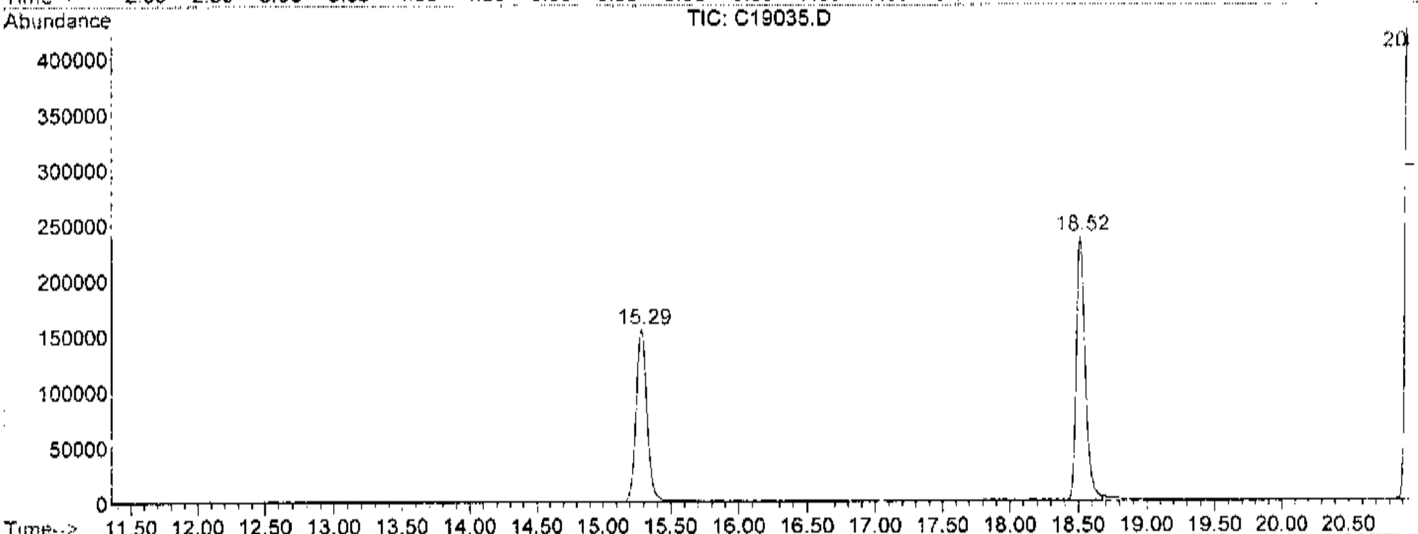
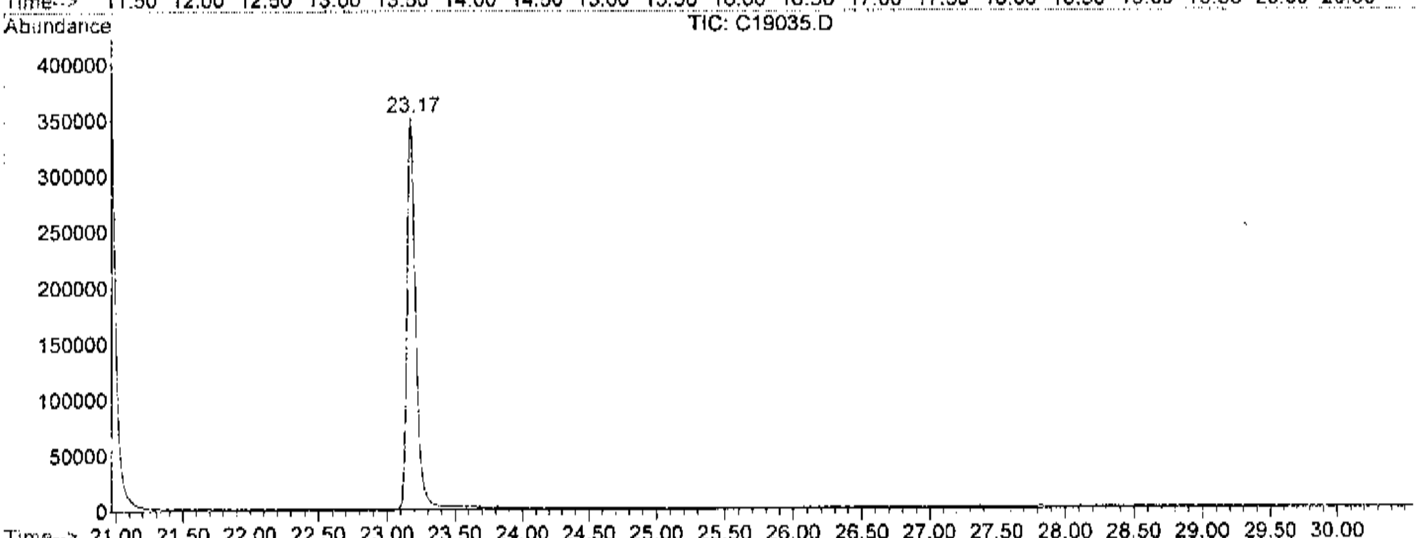




-785-



C19035.D   TEST925.M   Mon Oct 01 11:31:17 2007   12.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ________ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15442.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ________ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	35	
75-1-4	Vinyl Chloride	37	
74-83-9	Bromomethane	43	
75-00-3	Chloroethane	38	
75-69-4	Trichlorofluoromethane	43	
67-64-1	Acetone	38	
75-35-4	1,1-Dichloroethene	38	
74-88-4	Iodomethane	45	
75-15-0	Carbon Disulfide	35	
75-09-2	Methylene Chloride	39	
107-13-1	Acrylonitrile	160	
156-60-5	trans-1,2-Dichloroethene	37	
75-34-33	1,1-Dichloroethane	41	
108-5-4	Vinyl Acetate	47	J
78-93-3	2-Butanone	44	
156-59-2	cis-1,2-Dichloroethene	37	
67-66-3	Chloroform	42	
74-97-5	Bromochloromethane	39	
71-55-6	1,1,1-Trichloroethane	42	
56-23-5	Carbon Tetrachloride	49	
71-43-2	Benzene	40	
107-06-2	1,2-Dichloroethane	47	
97-01-6	Trichloroethene	40	
78-87-5	1,2-Dichloropropane	38	
75-27-4	Bromodichloromethane	44	
74-95-3	Dibromomethane	45	
108-10-1	4-Methyl-2-pentanone	43	
10061-1-5	cis-1,3-Dichloropropene	37	
108-88-3	Toluene	41	
10061-2-6	trans-1,3-Dichloropropene	37	
79-00-5	1,1,2-Trichloroethane	43	
591-78-6	2-Hexanone	43	
127-18-4	Tetrachloroethene	31	
124-48-1	Dibromochloromethane	44	
106-93-4	1,2-Dibromoethane	44	
108-90-7	Chlorobenzene	43	
630-20-6	1,1,1,2-Tetrachloroethane	46	
100-41-4	Ethylbenzene	48	
108-38-3	m,p-Xylene	94	

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VMBS01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15442.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. ______ Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	47	
100-42-5	Styrene	46	
75-25-2	Bromoform	35	
79-34-5	1,1,2,2-Tetrachloroethane	45	
96-18-4	1,2,3-Trichloropropane	46	
110-57-6	1,4-Dichloro-2-butene	56	
541-73-1	1,3-Dichlorobenzene	54	
106-46-7	1,4-Dichlorobenzene	55	
95-50-1	1,2-Dichlorobenzene	54	
96-12-8	1,2-Dibromo-3-chloro-propane	47	

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Data File : G:\DATA\E15442.D
Acq On : 27 Sep 2007 1:45 pm
Sample : LCS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 13:27 2007

Vial: 5
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.16	168	79837	50.00 ug/L	0.00
36) 1,4-Difluorobenzene	16.07	114	118604	50.00 ug/L	0.00
56) Chlorobenzene-d5	24.20	117	109993	50.00 ug/L	0.00
87) 1,4-Dichlorobenzene-d4	31.09	152	76344	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.09	65	59588	53.04 ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	106.08%	
50) Toluene-d8	20.06	98	124467	49.40 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.80%	
55) Bromofluorobenzene	27.62	95	66691	52.97 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	105.94%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.64	85	33838	39.71 ug/L	97
3) Chloromethane	6.20	50	15364	34.69 ug/L	100
4) Vinyl Chloride	6.48	62	16697	36.95 ug/L	100
5) Bromomethane	7.38	94	7703	43.39 ug/L	95
6) Chloroethane	7.63	64	10472	38.23 ug/L	92
7) Trichlorofluoromethane	8.23	101	33977	42.52 ug/L	100
8) Acrolein	9.14	56	1806	31.94 ug/L	97
10) Acetone	9.44	43	7549	38.47 ug/L	90
11) 1,1-Dichloroethene	9.37	96	13129	38.10 ug/L	95
12) Acetonitrile	10.01	41	19052	396.85 ug/L	82
13) Iodomethane	9.74	142	23161	45.29 ug/L	94
14) Methyl Acetate	10.10	43	1769	4.67 ug/L #	71
15) Allyl Chloride	10.11	39	28257	49.73 ug/L	95
16) Carbon Disulfide	9.94	76	58964	34.79 ug/L	100
17) Methylene Chloride	10.36	84	23113	39.47 ug/L	98
20) Acrylonitrile	10.84	53	26450	158.63 ug/L	97
21) trans-1,2-Dichloroethene	10.95	96	19216	36.96 ug/L	98
22) 1,1-Dichloroethane	11.86	63	39564	40.62 ug/L	99
23) Vinyl Acetate	11.83	43	37147	47.34 ug/L	98
25) 2-Butanone	13.10	43	9188	43.71 ug/L	96
26) Propionitrile	13.25	54	24692	397.26 ug/L	99
27) 2,2-Dichloropropane	13.18	77	39891	53.70 ug/L	96
28) cis-1,2-Dichloroethene	13.15	96	22086	37.10 ug/L	91
29) Methacrylonitrile	13.62	41	146413	42.02 ug/L	98
30) Chloroform	13.83	83	48828	41.67 ug/L	100
31) Bromochloromethane	13.73	128	12499	38.75 ug/L #	78
32) Isobutyl Alcohol	14.70	43	13526	3805.36 ug/L	87
34) 1,1,1-Trichloroethane	14.39	97	38292	42.24 ug/L	97
35) Cyclohexane	14.71	56	1125	1.96 ug/L #	11
37) 1,1-Dichloropropene	14.75	75	29266	42.18 ug/L	98
38) Carbon Tetrachloride	14.81	117	33090	49.29 ug/L	99
39) Benzene	15.30	78	86588	40.48 ug/L	100
40) 1,2-Dichloroethane	15.27	62	51258	46.95 ug/L	97
41) Trichloroethene	16.84	95	22185	40.13 ug/L	97
43) 1,2-Dichloropropane	17.43	63	20921	38.40 ug/L	99
44) Methyl Methacrylate	17.49	100	6844	49.66 ug/L #	92
45) Bromodichloromethane	18.07	83	42271	44.07 ug/L	97

-788-

(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15442.D
Acq On : 27 Sep 2007 1:45 pm
Sample : LCS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 27 13:27 2007

Vial: 5
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
46)	1,4-Dioxane	17.70	88	4952	39.28 ug/L	#	78
47)	Dibromomethane	17.76	93	18109	44.53 ug/L		97
48)	4-Methyl-2-pentanone	19.58	43	20270	43.22 ug/L		93
49)	cis-1,3-Dichloropropene	19.26	75	44275	37.13 ug/L		100
51)	Toluene	20.25	92	52404	41.39 ug/L		99
52)	trans-1,3-Dichloropropene	20.72	75	44027	37.01 ug/L		100
53)	Ethyl Methacrylate	20.84	69	36458	45.76 ug/L		99
54)	1,1,2-Trichloroethane	21.29	83	19677	42.80 ug/L		99
57)	2-Hexanone	21.88	43	14542	42.77 ug/L		99
58)	1,3-Dichloropropane	21.80	76	46288	43.15 ug/L		99
59)	Tetrachloroethene	21.83	166	29795	31.26 ug/L		98
60)	Dibromochloromethane	22.49	129	34897	44.16 ug/L		97
61)	1,2-Dibromoethane	22.91	107	25142	43.57 ug/L		98
62)	Chlorobenzene	24.29	112	69461	43.21 ug/L		99
63)	1,1,1,2-Tetrachloroethane	24.46	131	29843	45.59 ug/L		98
64)	Ethylbenzene	24.53	91	105801	48.12 ug/L		99
65)	m,p-Xylene	24.86	106	76631	93.65 ug/L		96
66)	o-Xylene	26.07	106	40340	46.95 ug/L		99
67)	Styrene	26.08	104	73781	46.39 ug/L		96
68)	Bromoform	26.71	173	24300	34.75 ug/L		98
69)	Isopropylbenzene	27.11	105	89328	53.65 ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.94	83	32018	45.01 ug/L		99
71)	1,2,3-Trichloropropane	28.12	75	47255	46.20 ug/L		98
72)	1,4-Dichloro-2-butene	28.10	89	7046	56.01 ug/L	#	69
73)	N-Propylbenzene	28.34	91	124850	59.86 ug/L		100
74)	1,3,5-Trimethylbenzene	28.82	105	94048	62.81 ug/L		98
75)	t-butylbenzene	29.83	119	82924	71.81 ug/L		100
76)	1,2,4-Trimethylbenzene	29.97	105	103318	63.62 ug/L		100
77)	Sec-butylbenzene	30.48	105	111600	78.90 ug/L		100
78)	p-isopropyltoluene	30.88	119	105204	74.26 ug/L		100
79)	1,3-Dichlorobenzene	30.91	146	70877	53.86 ug/L		99
80)	1,4-Dichlorobenzene	31.16	146	73657	54.67 ug/L		99
81)	n-butylbenzene	32.10	91	94948	80.26 ug/L		99
82)	1,2-Dichlorobenzene	32.30	146	72072	54.48 ug/L		98
83)	1,2-Dibromo-3-chloropropan	34.56	75	8306	47.37 ug/L		97
84)	1,2,4-Trichlorobenzene	37.01	180	49346	71.78 ug/L		100
85)	Naphthalene	37.83	128	120831	60.04 ug/L		100
86)	1,2,3-Trichlorobenzene	38.57	180	47074	71.74 ug/L		99

-789-

(#) = qualifier out of range (m) = manual integration

```
Data File : G:\DATA\E15442.D                         Vial: 5
Acq On    : 27 Sep 2007   1:45 pm                Operator: MG
Sample    : LCS                                  Inst    : Voa Instr
Misc      : 5mL                                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 27 13:27 2007              Quant Results File: E092507W.RES

Method       : G:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
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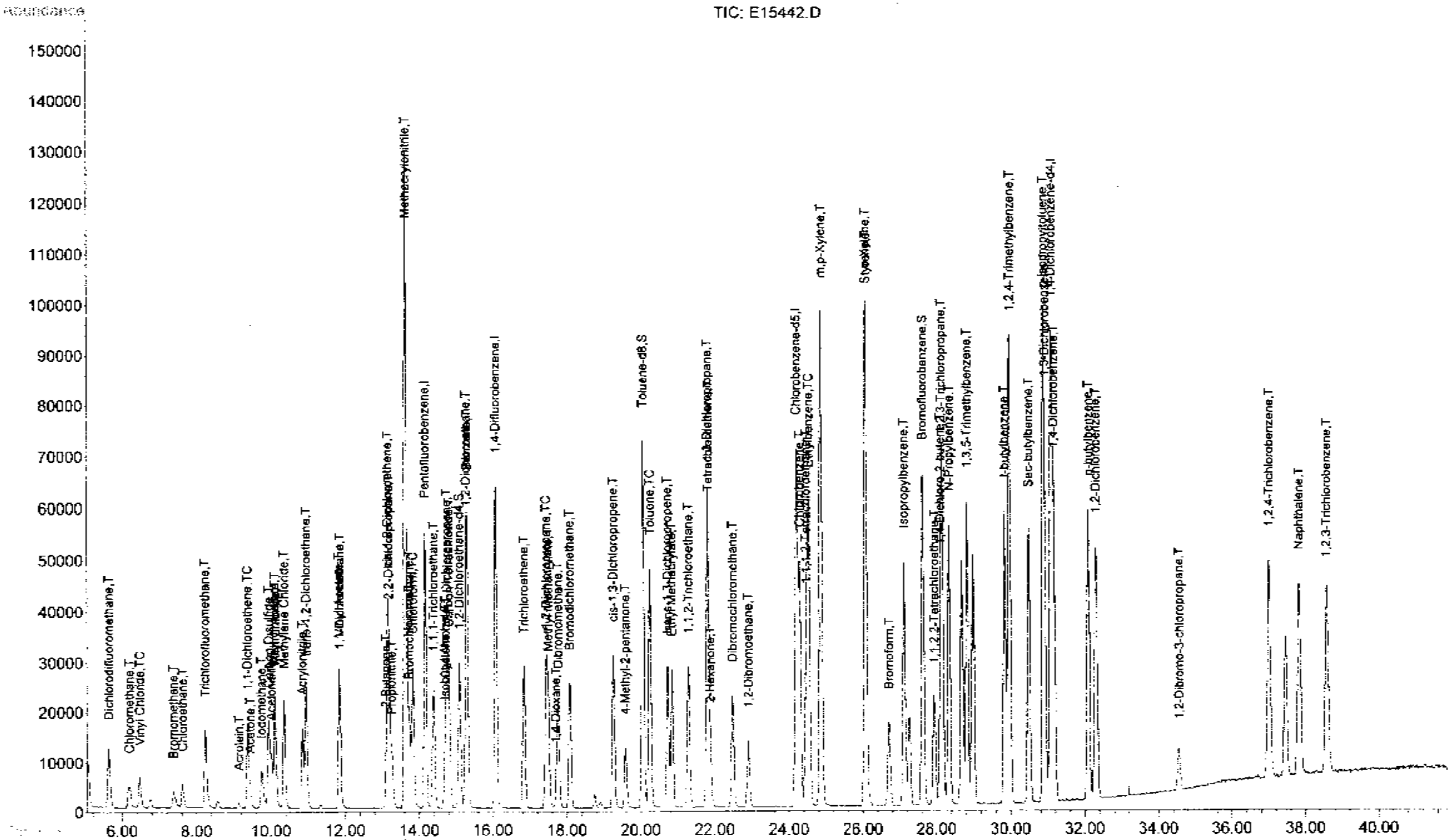

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15456.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	25	
75-1-4	Vinyl Chloride	30	
74-83-9	Bromomethane	37	
75-00-3	Chloroethane	30	
75-69-4	Trichlorofluoromethane	34	
67-64-1	Acetone	33	
75-35-4	1,1-Dichloroethene	31	
74-88-4	Iodomethane	41	
75-15-0	Carbon Disulfide	28	
75-09-2	Methylene Chloride	31	
107-13-1	Acrylonitrile	130	
156-60-5	trans-1,2-Dichloroethene	29	
75-34-33	1,1-Dichloroethane	32	
108-5-4	Vinyl Acetate	29	J
78-93-3	2-Butanone	35	
156-59-2	cis-1,2-Dichloroethene	30	
67-66-3	Chloroform	33	
74-97-5	Bromochloromethane	31	
71-55-6	1,1,1-Trichloroethane	36	
56-23-5	Carbon Tetrachloride	40	
71-43-2	Benzene	31	
107-06-2	1,2-Dichloroethane	38	
97-01-6	Trichloroethene	33	
78-87-5	1,2-Dichloropropane	30	
75-27-4	Bromodichloromethane	36	
74-95-3	Dibromomethane	36	
108-10-1	4-Methyl-2-pentanone	34	
10061-1-5	cis-1,3-Dichloropropene	28	
108-88-3	Toluene	33	
10061-2-6	trans-1,3-Dichloropropene	28	
79-00-5	1,1,2-Trichloroethane	35	
591-78-6	2-Hexanone	34	
127-18-4	Tetrachloroethene	36	
124-48-1	Dibromochloromethane	35	
106-93-4	1,2-Dibromoethane	35	
108-90-7	Chlorobenzene	35	
630-20-6	1,1,1,2-Tetrachloroethane	39	
100-41-4	Ethylbenzene	40	
108-38-3	m,p-Xylene	79	

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15456.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/28/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	39	
100-42-5	Styrene	38	
75-25-2	Bromoform	28	
79-34-5	1,1,2,2-Tetrachloroethane	34	
96-18-4	1,2,3-Trichloropropane	37	
110-57-6	1,4-Dichloro-2-butene	41	
541-73-1	1,3-Dichlorobenzene	44	
106-46-7	1,4-Dichlorobenzene	45	
95-50-1	1,2-Dichlorobenzene	45	
96-12-8	1,2-Dibromo-3-chloro-propane	41	

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Data File : G:\DATA\E15456.D
Acq On : 28 Sep 2007 1:15 am
Sample : LCS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 0:57 2007

Vial: 19
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	75647	50.00 ug/L	0.01
36) 1,4-Difluorobenzene	16.08	114	113414	50.00 ug/L	0.01
56) Chlorobenzene-d5	24.20	117	104796	50.00 ug/L	0.01
87) 1,4-Dichlorobenzene-d4	31.09	152	72542	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.10	65	56362	52.95 ug/L	0.01
Spiked Amount 50.000	Range 76 - 118		Recovery = 105.90%		
50) Toluene-d8	20.07	98	118448	49.16 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 98.32%		
55) Bromofluorobenzene	27.63	95	64744	53.77 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery = 107.54%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.64	85	23853	29.54 ug/L	99
3) Chloromethane	6.19	50	10685	25.46 ug/L	99
4) Vinyl Chloride	6.48	62	12961	30.27 ug/L	98
5) Bromomethane	7.40	94	6220	36.98 ug/L	99
6) Chloroethane	7.62	64	7852	30.26 ug/L	98
7) Trichlorofluoromethane	8.24	101	25473	33.64 ug/L	100
8) Acrolein	9.14	56	1447	27.00 ug/L	85
10) Acetone	9.44	43	6135	33.00 ug/L	86
11) 1,1-Dichloroethene	9.39	96	10136	31.04 ug/L	98
12) Acetonitrile	10.01	41	13628	299.60 ug/L	82
13) Iodomethane	9.76	142	19937	41.14 ug/L	94
14) Methyl Acetate	10.11	43	1159	3.23 ug/L #	57
15) Allyl Chloride	10.12	39	22258	41.35 ug/L	89
16) Carbon Disulfide	9.94	76	44464	27.69 ug/L	100
17) Methylene Chloride	10.36	84	17298	31.18 ug/L	100
20) Acrylonitrile	10.85	53	19985	126.49 ug/L	99
21) trans-1,2-Dichloroethene	10.95	96	14517	29.47 ug/L	97
22) 1,1-Dichloroethane	11.86	63	29743	32.23 ug/L	98
23) Vinyl Acetate	11.84	43	21350	28.72 ug/L	96
25) 2-Butanone	13.10	43	6936	34.82 ug/L	89
26) Propionitrile	13.26	54	18389	312.24 ug/L	98
27) 2,2-Dichloropropane	13.19	77	23383	33.22 ug/L	95
28) cis-1,2-Dichloroethene	13.14	96	16869	29.91 ug/L	96
29) Methacrylonitrile	13.63	41	110164	33.37 ug/L	97
30) Chloroform	13.84	83	37047	33.37 ug/L	100
31) Bromochloromethane	13.73	128	9600	31.41 ug/L #	78
32) Isobutyl Alcohol	14.71	43	10325	3065.70 ug/L	87
34) 1,1,1-Trichloroethane	14.39	97	30581	35.60 ug/L	99
35) Cyclohexane	14.72	56	789	1.45 ug/L #	11
37) 1,1-Dichloropropene	14.77	75	22408	33.77 ug/L	98
38) Carbon Tetrachloride	14.82	117	25857	40.28 ug/L	100
39) Benzene	15.31	78	64032	31.31 ug/L	100
40) 1,2-Dichloroethane	15.29	62	39602	37.93 ug/L	97
41) Trichloroethene	16.85	95	17343	32.81 ug/L	98
43) 1,2-Dichloropropane	17.45	63	15877	30.48 ug/L	99
44) Methyl Methacrylate	17.51	100	5057	38.38 ug/L #	93
45) Bromodichloromethane	18.08	83	32625	35.57 ug/L	97

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(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15456.D
Acq On : 28 Sep 2007 1:15 am
Sample : LCS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 0:57 2007

Vial: 19
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
46) 1,4-Dioxane	17.71	88	3872	32.12 ug/L #	82
47) Dibromomethane	17.76	93	13938	35.84 ug/L	97
48) 4-Methyl-2-pentanone	19.59	43	15165	33.82 ug/L	94
49) cis-1,3-Dichloropropene	19.26	75	31953	28.02 ug/L	100
51) Toluene	20.25	92	40443	33.40 ug/L	99
52) trans-1,3-Dichloropropene	20.74	75	32023	28.15 ug/L	99
53) Ethyl Methacrylate	20.86	69	27062	35.52 ug/L	100
54) 1,1,2-Trichloroethane	21.30	83	15304	34.81 ug/L	99
57) 2-Hexanone	21.89	43	11109	34.29 ug/L	94
58) 1,3-Dichloropropane	21.81	76	34453	33.71 ug/L	100
59) Tetrachloroethene	21.83	166	32625	35.92 ug/L	98
60) Dibromochloromethane	22.49	129	26385	35.04 ug/L	96
61) 1,2-Dibromoethane	22.91	107	19191	34.91 ug/L	99
62) Chlorobenzene	24.29	112	52955	34.58 ug/L	98
63) 1,1,1,2-Tetrachloroethane	24.48	131	24104	38.65 ug/L	96
64) Ethylbenzene	24.54	91	82785	39.52 ug/L	100
65) m,p-Xylene	24.86	106	61836	79.32 ug/L	97
66) o-Xylene	26.07	106	31924	39.00 ug/L	97
67) Styrene	26.10	104	58126	38.36 ug/L	96
68) Bromoform	26.72	173	18917	28.40 ug/L	97
69) Isopropylbenzene	27.13	105	70755	44.61 ug/L	99
70) 1,1,2,2-Tetrachloroethane	27.96	83	23001	33.94 ug/L	99
71) 1,2,3-Trichloropropane	28.14	75	35976	36.92 ug/L	97
72) 1,4-Dichloro-2-butene	28.11	89	4920	41.05 ug/L #	87
73) N-Propylbenzene	28.35	91	95063	47.84 ug/L	99
74) 1,3,5-Trimethylbenzene	28.84	105	72959	51.14 ug/L	98
75) t-butylbenzene	29.85	119	64391	58.53 ug/L	99
76) 1,2,4-Trimethylbenzene	29.98	105	80236	51.86 ug/L	98
77) Sec-butylbenzene	30.50	105	81223	60.27 ug/L	100
78) p-isopropyltoluene	30.88	119	75021	55.58 ug/L	99
79) 1,3-Dichlorobenzene	30.93	146	55140	43.98 ug/L	98
80) 1,4-Dichlorobenzene	31.17	146	57131	44.51 ug/L	98
81) n-butylbenzene	32.10	91	63054	55.94 ug/L	99
82) 1,2-Dichlorobenzene	32.30	146	56659	44.96 ug/L	100
83) 1,2-Dibromo-3-chloropropan	34.56	75	6845	40.98 ug/L	94
84) 1,2,4-Trichlorobenzene	37.03	180	36553	55.81 ug/L	98
85) Naphthalene	37.84	128	96010	50.07 ug/L	100
86) 1,2,3-Trichlorobenzene	38.59	180	36245	57.98 ug/L	99

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(#) = qualifier out of range (m) = manual integration

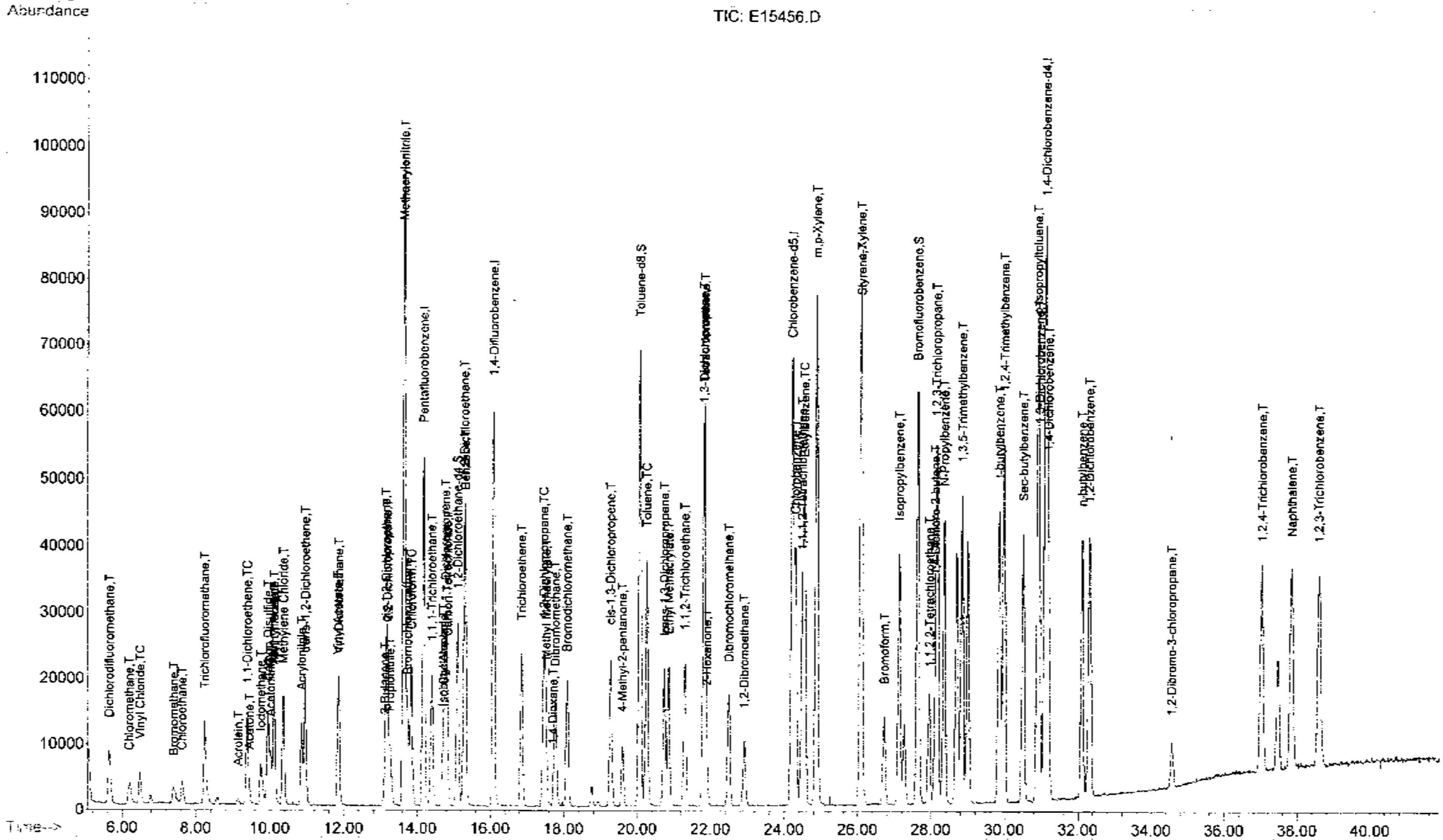
Quantitation Report

Data File : G:\DATA\E15456.D
Acq On : 28 Sep 2007 1:15 am
Sample : LCS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 0:57 2007

Vial: 19
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15524.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	28	
75-1-4	Vinyl Chloride	32	
74-83-9	Bromomethane	55	
75-00-3	Chloroethane	34	
75-69-4	Trichlorofluoromethane	39	
67-64-1	Acetone	33	
75-35-4	1,1-Dichloroethene	37	
74-88-4	Iodomethane	56	
75-15-0	Carbon Disulfide	32	
75-09-2	Methylene Chloride	36	
107-13-1	Acrylonitrile	130	
156-60-5	trans-1,2-Dichloroethene	36	
75-34-33	1,1-Dichloroethane	37	
108-5-4	Vinyl Acetate	43	J
78-93-3	2-Butanone	37	
156-59-2	cis-1,2-Dichloroethene	38	
67-66-3	Chloroform	42	
74-97-5	Bromochloromethane	41	
71-55-6	1,1,1-Trichloroethane	45	
56-23-5	Carbon Tetrachloride	60	
71-43-2	Benzene	44	
107-06-2	1,2-Dichloroethane	51	
97-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	39	
75-27-4	Bromodichloromethane	50	
74-95-3	Dibromomethane	50	
108-10-1	4-Methyl-2-pentanone	42	
10061-1-5	cis-1,3-Dichloropropene	40	
108-88-3	Toluene	47	
10061-2-6	trans-1,3-Dichloropropene	40	
79-00-5	1,1,2-Trichloroethane	45	
591-78-6	2-Hexanone	43	
127-18-4	Tetrachloroethene	40	
124-48-1	Dibromochloromethane	52	
106-93-4	1,2-Dibromoethane	49	
108-90-7	Chlorobenzene	49	
630-20-6	1,1,1,2-Tetrachloroethane	56	
100-41-4	Ethylbenzene	60	
108-38-3	m,p-Xylene	120	

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15524.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/1/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	56	
100-42-5	Styrene	54	
75-25-2	Bromoform	42	
79-34-5	1,1,2,2-Tetrachloroethane	48	
96-18-4	1,2,3-Trichloropropane	50	
110-57-6	1,4-Dichloro-2-butene	61	
541-73-1	1,3-Dichlorobenzene	66	
106-46-7	1,4-Dichlorobenzene	67	
95-50-1	1,2-Dichlorobenzene	66	
96-12-8	1,2-Dibromo-3-chloro-propane	54	

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Data File : D:\DATA\E15524.D Vial: 5
Acq On : 1 Oct 2007 3:55 pm Operator: MG
Sample : LCS Inst : Voa Instr
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 10:31 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.09	168	82875	50.00 ug/L	-0.07
36) 1,4-Difluorobenzene	16.00	114	108758	50.00 ug/L	-0.06
56) Chlorobenzene-d5	24.13	117	97579	50.00 ug/L	-0.06
87) 1,4-Dichlorobenzene-d4	31.01	152	68171	50.00 ug/L	-0.07

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.02	65	56046	48.06 ug/L	-0.07
Spiked Amount 50.000	Range 76 - 118		Recovery	= 96.12%	
50) Toluene-d8	19.98	98	115383	49.94 ug/L	-0.07
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.88%	
55) Bromofluorobenzene	27.54	95	59765	51.76 ug/L	-0.07
Spiked Amount 50.000	Range 86 - 115		Recovery	= 103.52%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	5.58	85	32075	36.26 ug/L	99
3) Chloromethane	6.13	50	12665	27.55 ug/L	97
4) Vinyl Chloride	6.43	62	15209	32.42 ug/L	97
5) Bromomethane	7.34	94	10198	55.34 ug/L	98
6) Chloroethane	7.58	64	9567	33.65 ug/L	95
7) Trichlorofluoromethane	8.18	101	32107	38.70 ug/L	99
8) Acrolein	9.08	56	2250	38.33 ug/L	92
10) Acetone	9.39	43	6761	33.19 ug/L	90
11) 1,1-Dichloroethene	9.32	96	13410	37.49 ug/L	98
12) Acetonitrile	9.96	41	14258	286.11 ug/L	83
13) Iodomethane	9.69	142	29804	56.14 ug/L	95
14) Methyl Acetate	10.04	43	1690	4.30 ug/L #	82
15) Allyl Chloride	10.04	39	28993m MG	49.16 ug/L	
16) Carbon Disulfide	9.88	76	56557	32.15 ug/L	100
17) Methylene Chloride	10.29	84	22145	36.43 ug/L	98
20) Acrylonitrile	10.79	53	21639	125.02 ug/L	99
21) trans-1,2-Dichloroethene	10.88	96	19569	36.26 ug/L	99
22) 1,1-Dichloroethane	11.79	63	37516	37.11 ug/L	98
23) Vinyl Acetate	11.76	43	34958	42.92 ug/L	99
24) Chloroprene	11.98	53	34321	40.34 ug/L	96
25) 2-Butanone	13.03	43	8116	37.19 ug/L	95
26) Propionitrile	13.18	54	21664	335.77 ug/L	97
27) 2,2-Dichloropropane	13.10	77	42139	54.65 ug/L	95
28) cis-1,2-Dichloroethene	13.06	96	23542	38.10 ug/L	98
29) Methacrylonitrile	13.55	41	130740	36.15 ug/L	96
30) Chloroform	13.76	83	50801	41.77 ug/L	100
31) Bromochloromethane	13.65	128	13642	40.74 ug/L	95
32) Isobutyl Alcohol	14.64	43	11782	3193.20 ug/L	77
34) 1,1,1-Trichloroethane	14.32	97	42384	45.04 ug/L	98
35) Cyclohexane	14.63	56	821	1.38 ug/L #	11
37) 1,1-Dichloropropene	14.68	75	30728	48.30 ug/L	99
38) Carbon Tetrachloride	14.74	117	36948	60.02 ug/L	99
39) Benzene	15.23	78	85360	43.52 ug/L	100
40) 1,2-Dichloroethane	15.21	62	51024	50.97 ug/L	99
41) Trichloroethene	16.76	95	24052	47.45 ug/L	97
43) 1,2-Dichloropropane	17.36	63	19586	39.21 ug/L	99
44) Methyl Methacrylate	17.42	100	6712	53.12 ug/L #	83

(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15524.D
Acq On : 1 Oct 2007 3:55 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 10:31 2007

Vial: 5
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	Bromodichloromethane	18.00	83	44273	50.33	ug/L		99
46)	1,4-Dioxane	17.63	88	4925	42.60	ug/L	#	81
47)	Dibromomethane	17.68	93	18612	49.91	ug/L		98
48)	4-Methyl-2-pentanone	19.50	43	18238	42.41	ug/L		94
49)	cis-1,3-Dichloropropene	19.18	75	43634	39.91	ug/L		99
51)	Toluene	20.16	92	54641	47.06	ug/L		99
52)	trans-1,3-Dichloropropene	20.65	75	43724	40.08	ug/L		99
53)	Ethyl Methacrylate	20.77	69	33727	46.17	ug/L		99
54)	1,1,2-Trichloroethane	21.21	83	18783	44.56	ug/L		95
57)	2-Hexanone	21.81	43	12939	42.90	ug/L		97
58)	1,3-Dichloropropane	21.72	76	44287	46.54	ug/L		99
59)	Tetrachloroethene	21.74	166	34208	40.45	ug/L		97
60)	Dibromochloromethane	22.41	129	36216	51.66	ug/L		98
61)	1,2-Dibromoethane	22.83	107	25098	49.03	ug/L		98
62)	Chlorobenzene	24.21	112	69538	48.76	ug/L		98
63)	1,1,1,2-Tetrachloroethane	24.39	131	32257	55.55	ug/L		98
64)	Ethylbenzene	24.45	91	117036	60.00	ug/L		98
65)	m,p-Xylene	24.79	106	83794	115.43	ug/L		95
66)	o-Xylene	25.99	106	42647	55.95	ug/L		97
67)	Styrene	26.01	104	76874	54.49	ug/L		95
68)	Bromoform	26.64	173	25933	41.81	ug/L		97
69)	Isopropylbenzene	27.04	105	100425	67.99	ug/L		99
70)	1,1,2,2-Tetrachloroethane	27.86	83	30139	47.76	ug/L		100
71)	1,2,3-Trichloropropane	28.04	75	45784	50.46	ug/L		93
72)	1,4-Dichloro-2-butene	28.03	89	6762	60.59	ug/L	#	76
73)	N-Propylbenzene	28.26	91	136054	73.53	ug/L		99
74)	1,3,5-Trimethylbenzene	28.75	105	104044	78.32	ug/L		98
75)	t-butylbenzene	29.76	119	90933	88.77	ug/L		97
76)	1,2,4-Trimethylbenzene	29.89	105	112383	78.01	ug/L		98
77)	Sec-butylbenzene	30.41	105	120823	96.29	ug/L		99
78)	p-isopropyltoluene	30.80	119	112064	89.17	ug/L		97
79)	1,3-Dichlorobenzene	30.83	146	77444	66.34	ug/L		99
80)	1,4-Dichlorobenzene	31.08	146	80210	67.10	ug/L		98
81)	n-butylbenzene	32.02	91	99126	94.45	ug/L		98
82)	1,2-Dichlorobenzene	32.21	146	77832	66.32	ug/L		99
83)	1,2-Dibromo-3-chloropropan	34.48	75	8416	54.11	ug/L		99
84)	1,2,4-Trichlorobenzene	36.92	180	54983	90.16	ug/L		99
85)	Naphthalene	37.75	128	125986	70.56	ug/L		100
86)	1,2,3-Trichlorobenzene	38.49	180	52215	89.70	ug/L		99

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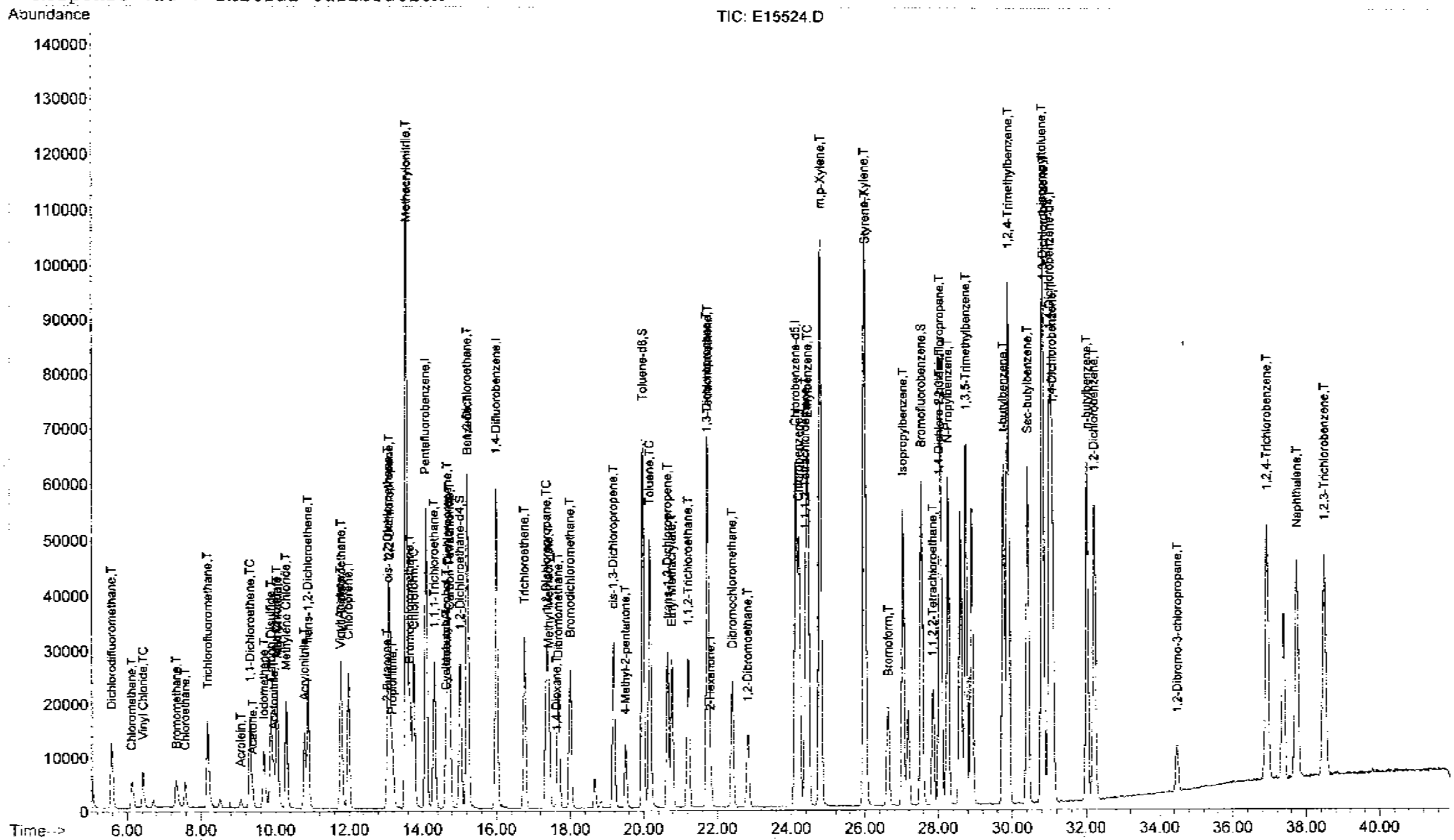
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15524.D
Acq On : 1 Oct 2007 3:55 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Oct 2 10:31 2007

Vial: 5
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15541.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	17	
75-1-4	Vinyl Chloride	25	
74-83-9	Bromomethane	65	
75-00-3	Chloroethane	25	
75-69-4	Trichlorofluoromethane	38	
67-64-1	Acetone	28	
75-35-4	1,1-Dichloroethene	33	
74-88-4	Iodomethane	58	
75-15-0	Carbon Disulfide	23	
75-09-2	Methylene Chloride	28	
107-13-1	Acrylonitrile	79	J
156-60-5	trans-1,2-Dichloroethene	28	
75-34-33	1,1-Dichloroethane	26	
108-5-4	Vinyl Acetate	25	J
78-93-3	2-Butanone	25	
156-59-2	cis-1,2-Dichloroethene	29	
67-66-3	Chloroform	35	
74-97-5	Bromochloromethane	35	
71-55-6	1,1,1-Trichloroethane	38	
56-23-5	Carbon Tetrachloride	56	
71-43-2	Benzene	37	
107-06-2	1,2-Dichloroethane	50	
97-01-6	Trichloroethene	44	
78-87-5	1,2-Dichloropropane	30	
75-27-4	Bromodichloromethane	49	
74-95-3	Dibromomethane	49	
108-10-1	4-Methyl-2-pentanone	33	
10061-1-5	cis-1,3-Dichloropropene	34	
108-88-3	Toluene	42	
10061-2-6	trans-1,3-Dichloropropene	37	
79-00-5	1,1,2-Trichloroethane	40	
591-78-6	2-Hexanone	34	
127-18-4	Tetrachloroethene	46	
124-48-1	Dibromochloromethane	48	
106-93-4	1,2-Dibromoethane	44	
108-90-7	Chlorobenzene	43	
630-20-6	1,1,1,2-Tetrachloroethane	52	
100-41-4	Ethylbenzene	50	
108-38-3	m,p-Xylene	97	

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15541.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 10/2/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	48	
100-42-5	Styrene	48	
75-25-2	Bromoform	46	
79-34-5	1,1,2,2-Tetrachloroethane	41	
96-18-4	1,2,3-Trichloropropane	43	
110-57-6	1,4-Dichloro-2-butene	55	
541-73-1	1,3-Dichlorobenzene	62	
106-46-7	1,4-Dichlorobenzene	63	
95-50-1	1,2-Dichlorobenzene	61	
96-12-8	1,2-Dibromo-3-chloro-propane	48	

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Data File : D:\DATA\E15541.D   Vial: 8
Acq On   : 2 Oct 2007   8:22 pm   Operator: MG
Sample   : LCS   Inst   : Voa Instr
Misc   : 20X TCL   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 3 8:38 2007   Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title   : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	14.11	168	66827	50.00 ug/L	-0.05
36) 1,4-Difluorobenzene	16.02	114	72798	50.00 ug/L	-0.05
56) Chlorobenzene-d5	24.14	117	66145	50.00 ug/L	-0.05
87) 1,4-Dichlorobenzene-d4	31.03	152	51341	50.00 ug/L	-0.05

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	15.04	65	39634	42.15 ug/L	-0.05
Spiked Amount 50.000	Range 76 - 118		Recovery = 84.30%		
50) Toluene-d8	19.99	98	75949	49.11 ug/L	-0.06
Spiked Amount 50.000	Range 88 - 110		Recovery = 98.22%		
55) Bromofluorobenzene	27.57	95	43628	56.45 ug/L	-0.05
Spiked Amount 50.000	Range 86 - 115		Recovery = 112.90%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	5.61	85	24203	33.93 ug/L	98
3) Chloromethane	6.17	50	6273	16.92 ug/L	90
4) Vinyl Chloride	6.43	62	9404	24.86 ug/L	94
5) Bromomethane	7.36	94	9590	64.54 ug/L	96
6) Chloroethane	7.58	64	5785	25.23 ug/L	99
7) Trichlorofluoromethane	8.20	101	25260	37.76 ug/L	97
8) Acrolein	9.11	56	809	17.09 ug/L	89
10) Acetone	9.41	43	4563	27.78 ug/L	83
11) 1,1-Dichloroethene	9.34	96	9411	32.63 ug/L	94
12) Acetonitrile	9.98	41	6247	155.46 ug/L	96
13) Iodomethane	9.71	142	25033	58.48 ug/L	97
14) Methyl Acetate	10.07	43	1060	3.34 ug/L #	57
15) Allyl Chloride	10.07	39	19314m	40.61 ug/L	
16) Carbon Disulfide	9.90	76	32871	23.17 ug/L	100
17) Methylene Chloride	10.31	84	13692	27.94 ug/L	96
20) Acrylonitrile	10.80	53	10994	78.77 ug/L	95
21) trans-1,2-Dichloroethene	10.91	96	12252	28.16 ug/L	93
22) 1,1-Dichloroethane	11.81	63	21233	26.05 ug/L	97
23) Vinyl Acetate	11.79	43	16618	25.30 ug/L	100
25) 2-Butanone	13.06	43	4382	24.90 ug/L #	96
26) Propionitrile	13.21	54	10758	206.78 ug/L	91
27) 2,2-Dichloropropane	13.11	77	24765	39.83 ug/L	97
28) cis-1,2-Dichloroethene	13.09	96	14471	29.04 ug/L	96
29) Methacrylonitrile	13.58	41	74409	25.51 ug/L	90
30) Chloroform	13.78	83	33888	34.55 ug/L	99
31) Bromochloromethane	13.68	128	9541	35.34 ug/L	90
32) Isobutyl Alcohol	14.66	43	6345	2132.60 ug/L	74
34) 1,1,1-Trichloroethane	14.35	97	28596	37.69 ug/L	95
37) 1,1-Dichloropropene	14.71	75	17171	40.32 ug/L	99
38) Carbon Tetrachloride	14.75	117	23033	55.90 ug/L	99
39) Benzene	15.24	78	48720	37.11 ug/L	100
40) 1,2-Dichloroethane	15.23	62	33633	50.19 ug/L	96
41) Trichloroethene	16.79	95	14848	43.76 ug/L	99
43) 1,2-Dichloropropane	17.39	63	9910	29.64 ug/L	99
44) Methyl Methacrylate	17.45	100	4224	49.94 ug/L #	67
45) Bromodichloromethane	18.02	83	29129	49.47 ug/L	98
46) 1,4-Dioxane	17.66	88	2923	37.77 ug/L	76

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(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\E15541.D Vial: 8
Acq On : 2 Oct 2007 8:22 pm Operator: MG
Sample : LCS Inst : Voa Instr
Misc : 20X TCL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 3 8:38 2007 Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	Dibromomethane	17.70	93	12126	48.58 ug/L		89
48)	4-Methyl-2-pentanone	19.53	43	9451	32.83 ug/L		89
49)	cis-1,3-Dichloropropene	19.20	75	25143	34.35 ug/L		97
51)	Toluene	20.19	92	32386	41.67 ug/L		100
52)	trans-1,3-Dichloropropene	20.67	75	26889	36.82 ug/L		98
53)	Ethyl Methacrylate	20.80	69	19268	39.41 ug/L		97
54)	1,1,2-Trichloroethane	21.24	83	11283	39.99 ug/L		90
57)	2-Hexanone	21.83	43	6973	34.10 ug/L		91
58)	1,3-Dichloropropane	21.74	76	25069	38.86 ug/L		100
59)	Tetrachloroethene	21.77	166	26653	46.50 ug/L		92
60)	Dibromochloromethane	22.42	129	22932	48.25 ug/L		98
61)	1,2-Dibromoethane	22.85	107	15289	44.06 ug/L		98
62)	Chlorobenzene	24.24	112	41501	42.93 ug/L		99
63)	1,1,1,2-Tetrachloroethane	24.42	131	20456	51.97 ug/L		96
64)	Ethylbenzene	24.48	91	66298	50.14 ug/L		97
65)	m,p-Xylene	24.80	106	47875	97.29 ug/L		87
66)	o-Xylene	26.01	106	24702	47.81 ug/L		89
67)	Styrene	26.02	104	45892	47.99 ug/L		92
68)	Bromoform	26.66	173	19370	46.07 ug/L		95
69)	Isopropylbenzene	27.07	105	56230	56.16 ug/L		97
70)	1,1,2,2-Tetrachloroethane	27.88	83	17462	40.82 ug/L		97
71)	1,2,3-Trichloropropane	28.08	75	26209	42.61 ug/L		92
72)	1,4-Dichloro-2-butene	28.05	89	4152	54.89 ug/L	#	64
73)	N-Propylbenzene	28.29	91	77050	61.43 ug/L		96
74)	1,3,5-Trimethylbenzene	28.77	105	59247	65.80 ug/L		93
75)	t-butylbenzene	29.78	119	49779	71.68 ug/L		93
76)	1,2,4-Trimethylbenzene	29.92	105	65368	66.94 ug/L		94
77)	Sec-butylbenzene	30.43	105	65557	77.07 ug/L		100
78)	p-isopropyltoluene	30.82	119	61624	72.34 ug/L		95
79)	1,3-Dichlorobenzene	30.85	146	49257	62.24 ug/L		99
80)	1,4-Dichlorobenzene	31.10	146	50686	62.56 ug/L		98
81)	n-butylbenzene	32.04	91	55480	77.99 ug/L		98
82)	1,2-Dichlorobenzene	32.24	146	48513	60.99 ug/L		97
83)	1,2-Dibromo-3-chloropropan	34.48	75	5092	48.29 ug/L		91
84)	1,2,4-Trichlorobenzene	36.95	180	36921	89.31 ug/L		99
85)	Naphthalene	37.76	128	71576	59.14 ug/L		100
86)	1,2,3-Trichlorobenzene	38.53	180	34575	87.63 ug/L		98

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(#) = qualifier out of range (m) = manual integration

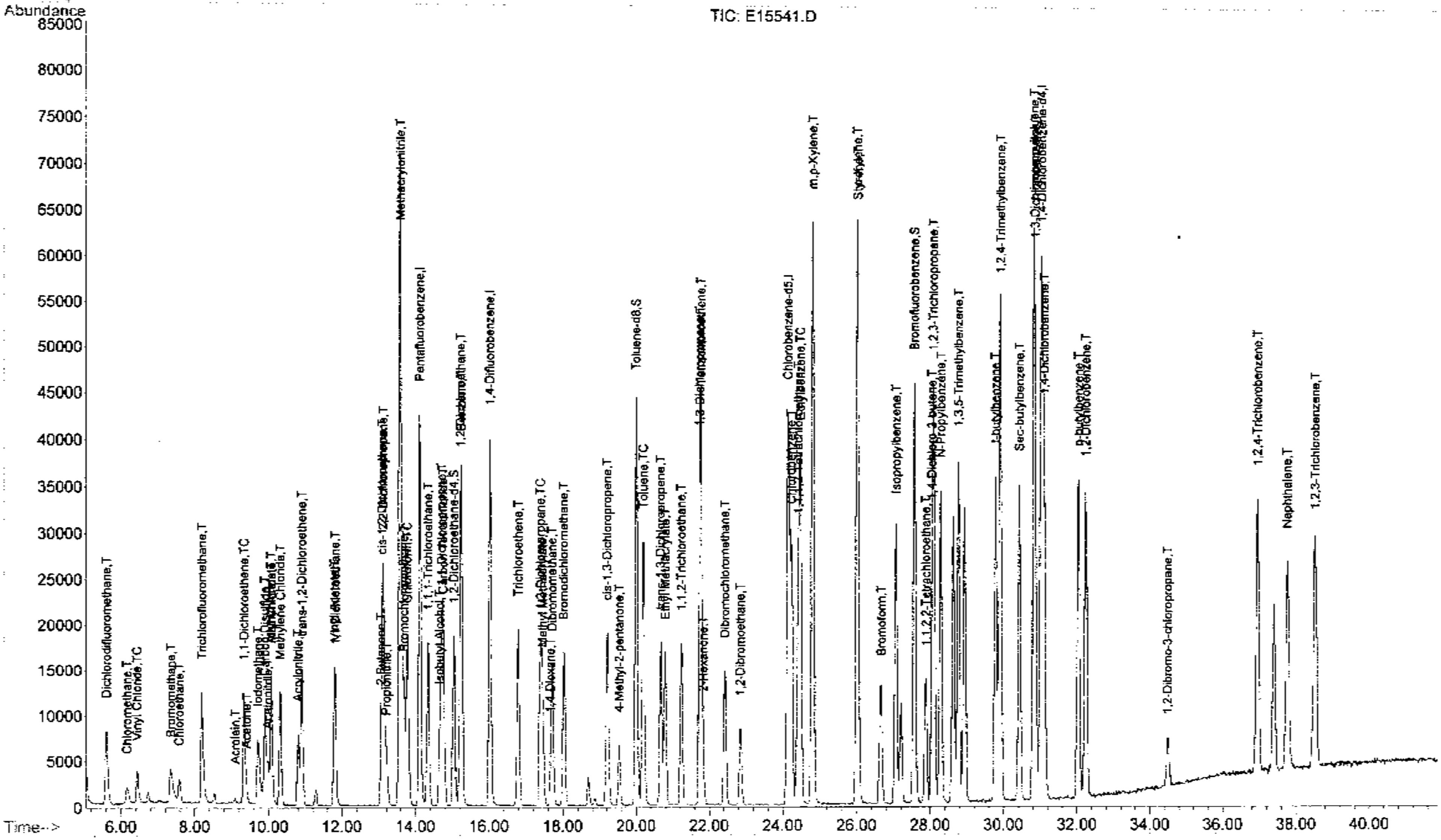
Quantitation Report

Data File : D:\DATA\E15541.D
Acq On : 2 Oct 2007 8:22 pm
Sample : LCS
Misc : 20X TCL
MS Integration Params: rteint.p
Quant Time: Oct 3 8:38 2007

Vial: 8
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19036.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	36	
75-1-4	Vinyl Chloride	37	
74-83-9	Bromomethane	43	
75-00-3	Chloroethane	37	
75-69-4	Trichlorofluoromethane	40	
67-64-1	Acetone	32	
75-35-4	1,1-Dichloroethene	42	
74-88-4	Iodomethane	52	
75-15-0	Carbon Disulfide	39	
75-09-2	Methylene Chloride	44	
107-13-1	Acrylonitrile	160	
156-60-5	trans-1,2-Dichloroethene	43	
75-34-33	1,1-Dichloroethane	43	
108-5-4	Vinyl Acetate	46	J
78-93-3	2-Butanone	38	
156-59-2	cis-1,2-Dichloroethene	46	
67-66-3	Chloroform	46	
74-97-5	Bromochloromethane	41	
71-55-6	1,1,1-Trichloroethane	48	
56-23-5	Carbon Tetrachloride	61	
71-43-2	Benzene	46	
107-06-2	1,2-Dichloroethane	51	
97-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	45	
75-27-4	Bromodichloromethane	50	
74-95-3	Dibromomethane	47	
108-10-1	4-Methyl-2-pentanone	47	
10061-1-5	cis-1,3-Dichloropropene	42	
108-88-3	Toluene	53	
10061-2-6	trans-1,3-Dichloropropene	41	
79-00-5	1,1,2-Trichloroethane	46	
591-78-6	2-Hexanone	46	
127-18-4	Tetrachloroethene	66	
124-48-1	Dibromochloromethane	52	
106-93-4	1,2-Dibromoethane	49	
108-90-7	Chlorobenzene	57	
630-20-6	1,1,1,2-Tetrachloroethane	61	
100-41-4	Ethylbenzene	72	
108-38-3	m,p-Xylene	140	

-806-

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS05

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA-85

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C19036.D

Level: (low/med) LOW Date Received: 9/20/07

% Moisture: not dec. Date Analyzed: 9/30/07

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	67	
100-42-5	Styrene	64	
75-25-2	Bromoform	43	
79-34-5	1,1,2,2-Tetrachloroethane	49	
96-18-4	1,2,3-Trichloropropane	48	
110-57-6	1,4-Dichloro-2-butene	57	
541-73-1	1,3-Dichlorobenzene	82	
106-46-7	1,4-Dichlorobenzene	83	
95-50-1	1,2-Dichlorobenzene	77	
96-12-8	1,2-Dibromo-3-chloro-propane	53	

Data File : D:\DATA\C19036.D
Acq On : 30 Sep 2007 2:14 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 14:44 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.73	168	542366	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	10.98	114	387083	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.52	117	285427	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.18	152	233034	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.11	65	228272	48.32 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	96.64%	
49) Toluene-d8	15.27	98	275642	49.56 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.12%	
54) Bromofluorobenzene	20.96	95	300471	51.85 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	103.70%	

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
2) Dichlorodifluoromethane	2.09	85	197690	38.02 ug/L		99
3) Chloromethane	2.35	50	37751	36.21 ug/L		99
4) Vinyl Chloride	2.36	62	39570	37.03 ug/L		98
5) Bromomethane	2.72	94	82431	42.82 ug/L		98
6) Chloroethane	2.81	64	28171	36.84 ug/L		97
7) Trichlorofluoromethane	3.09	101	269530	40.39 ug/L		99
8) Acrolein	3.41	56	21318	142.36 ug/L		99
9) Acetone	3.50	43	18257	31.97 ug/L		97
10) 1,1,2-Trichloro-1,2,2-trif	3.09	101	269449	72.30 ug/L	#	15
11) 1,1-Dichloroethene	3.70	96	60131	41.67 ug/L		94
12) Acetonitrile	3.71	41	31005	396.07 ug/L		96
13) Iodomethane	3.98	142	349784	52.37 ug/L		98
14) Methyl acetate	4.07	43	7078	6.62 ug/L		79
15) Allyl Chloride	3.71	41	31005	18.11 ug/L		62
16) Carbon Disulfide	4.22	76	178652	38.81 ug/L		100
17) Methylene Chloride	4.23	84	75114	44.32 ug/L		99
19) Acrylonitrile	4.31	53	44466	161.22 ug/L		94
20) trans-1,2-Dichloroethene	4.71	96	73254	42.67 ug/L		97
21) 1,1-Dichloroethane	5.38	63	148472	43.31 ug/L		100
22) Vinyl Acetate	5.46	43	133988	45.86 ug/L		100
24) 2-Butanone	6.27	43	24443	37.54 ug/L		99
25) Propionitrile	6.23	54	41728	393.45 ug/L		95
26) 2,2-Dichloropropane	6.64	77	168213	50.66 ug/L		99
27) cis-1,2-Dichloroethene	6.65	96	89058	45.97 ug/L		99
28) Methacrylonitrile	6.80	41	303481	43.41 ug/L		97
29) Chloroform	7.06	83	260810	45.97 ug/L		99
30) Bromochloromethane	7.36	128	86992	40.96 ug/L		94
31) Isobutyl Alcohol	7.27	43	31925	3924.08 ug/L		95
34) 1,1,1-Trichloroethane	8.26	97	239806	48.26 ug/L		99
36) 1,1-Dichloropropene	8.84	75	118784	52.59 ug/L		97
37) Carbon Tetrachloride	9.12	117	247260	61.26 ug/L		99
38) Benzene	9.57	78	164288	46.33 ug/L		100
39) 1,2-Dichloroethane	9.45	62	202328	50.73 ug/L		99
40) Trichloroethene	11.97	95	124249	50.05 ug/L		99
41) 1,2-Dichloropropane	12.41	63	75586	44.64 ug/L		98
42) Methylcyclohexane	11.99	83	1700	1.26 ug/L	#	16
43) Methyl Methacrylate	16.22	41	83230	48.11 ug/L		96

(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19036.D
Acq On : 30 Sep 2007 2:14 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 14:44 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Quant Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 08:28:32 2007
Response via : Initial Calibration
DataAcq Meth : TEST925

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	Bromodichloromethane	13.02	83	337475	49.75 ug/L	99
45)	Dibromomethane	13.01	93	202079	47.25 ug/L	97
46)	1,4-Dioxane	13.19	88	13286	43.01 ug/L	94
47)	4-Methyl-2-pentanone	14.39	43	66494	46.55 ug/L	99
48)	cis-1,3-Dichloropropene	14.66	75	149162	42.47 ug/L	99
50)	Toluene	15.45	92	110442	52.59 ug/L	99
51)	trans-1,3-Dichloropropene	15.92	75	141671	41.42 ug/L	99
52)	Ethyl Methacrylate	12.99	69	46317	45.42 ug/L	93
53)	1,1,2-Trichloroethane	16.20	83	83190	46.14 ug/L	97
56)	2-Hexanone	16.53	43	44388	45.81 ug/L	94
57)	1,3-Dichloropropane	16.78	76	134972	48.14 ug/L	99
58)	Tetrachloroethene	16.99	166	198196	65.54 ug/L	98
59)	Dibromochloromethane	17.17	129	366127	52.31 ug/L	98
60)	1,2-Dibromoethane	17.60	107	229017	49.49 ug/L	99
61)	Chlorobenzene	18.59	112	192991	56.65 ug/L	100
62)	1,1,1,2-Tetrachloroethane	18.73	131	179925	61.38 ug/L	98
63)	Ethylbenzene	18.84	91	246748	72.02 ug/L	100
64)	m,p-Xylene	19.03	106	171352	140.56 ug/L	97
65)	o-Xylene	19.84	106	86005	67.22 ug/L	95
66)	Styrene	19.89	104	160376	64.50 ug/L	96
67)	Bromoform	20.27	173	366698	42.96 ug/L	99
68)	Isopropylbenzene	20.62	105	237842	86.81 ug/L	95
69)	1,1,2,2-Tetrachloroethane	20.82	83	158290	48.74 ug/L	99
70)	1,2,3-Trichloropropane	21.08	75	119088	47.95 ug/L	100
71)	1,4-Dichloro-2-butene	21.26	75	50396	56.59 ug/L #	82
72)	n-propylbenzene	21.72	91	290731	79.25 ug/L	87
73)	1,3,5-Trimethylbenzene	21.73	105	224410	100.21 ug/L	99
74)	T-butylbenzene	22.80	91	50485	125.84 ug/L #	100
75)	1,2,4-Trimethylbenzene	22.43	105	240810	102.01 ug/L	99
76)	sec-butylbenzene	22.79	105	282042	120.47 ug/L	100
77)	1,3-Dichlorobenzene	23.04	146	233731	82.32 ug/L	100
78)	p-isopropyltoluene	23.08	91	69954	114.88 ug/L	100
79)	1,4-Dichlorobenzene	23.24	146	245137	82.51 ug/L	97
80)	n-butylbenzene	23.82	91	214148	127.78 ug/L	99
81)	1,2-Dichlorobenzene	23.86	146	230400	77.22 ug/L	98
82)	1,2-Dibromo-3-chloro-propa	25.24	75	67923	53.28 ug/L	99
84)	1,2,4 trichlorobenze	26.95	180	244515	115.19 ug/L	99
85)	Naphalene	27.31	128	243124	82.86 ug/L	100
86)	1,2,3 Trichlorobenzene	27.82	180	229823	108.28 ug/L	99

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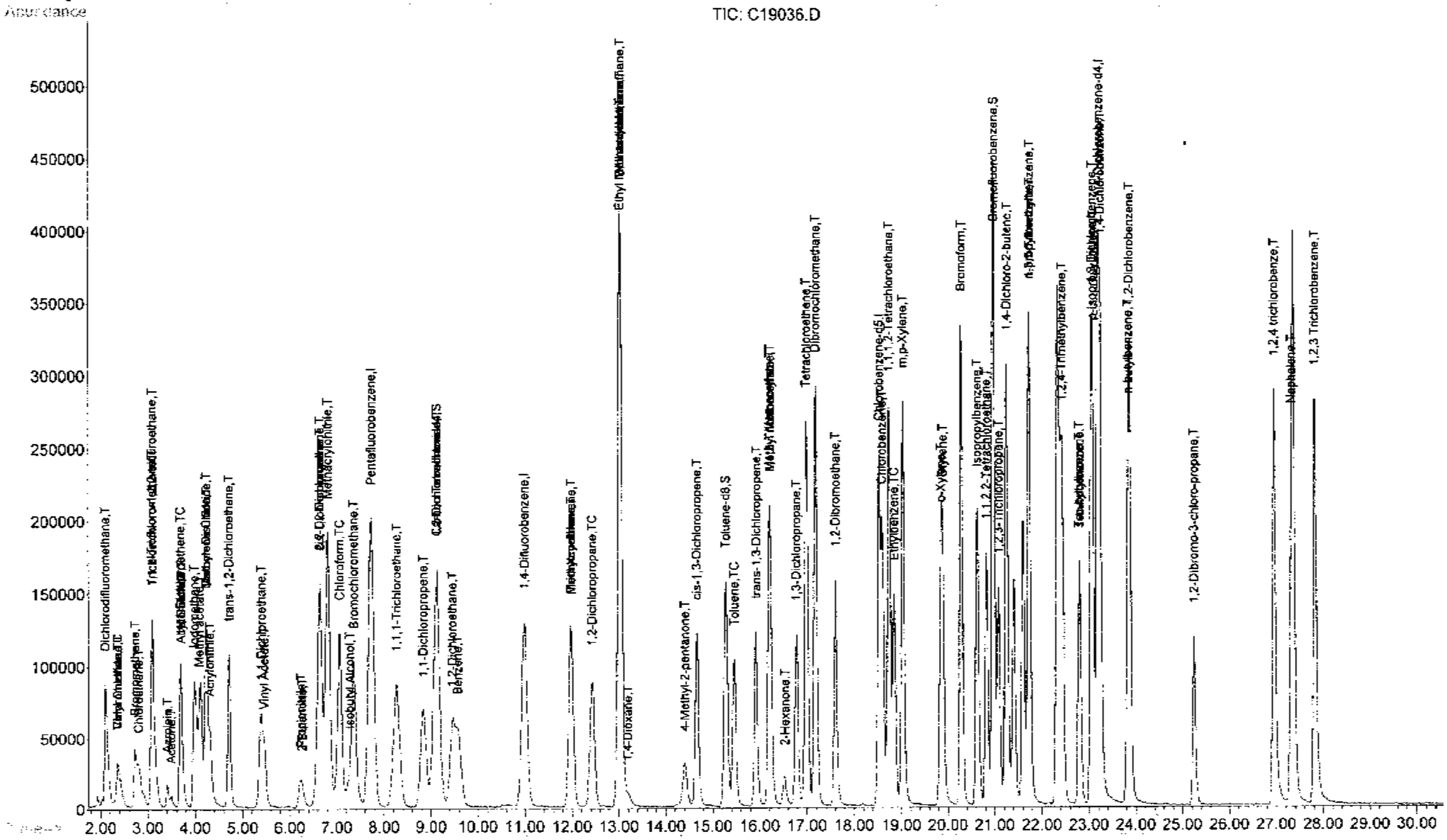
(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C19036.D
Acq On : 30 Sep 2007 2:14 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Sep 30 14:44 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST925.RES

Method : D:\METHODS\TEST925.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Sun Sep 30 12:46:58 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101MS

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009HMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15443.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	68	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	56	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	59	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	59	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	58	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101MS

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009HMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15443.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Data File : G:\DATA\E15443.D                              Vial: 6
Acq On    : 27 Sep 2007   2:35 pm                     Operator: MG
Sample    : U0709313-009HMS                           Inst    : Voa Instr
Misc      : 5mL                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Sep 28 10:19 2007           Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

 Internal Standards              R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------
  1) Pentafluorobenzene         14.17  168    81818    50.00 ug/L    0.00
 36) 1,4-Difluorobenzene        16.07  114   122937    50.00 ug/L    0.00
 56) Chlorobenzene-d5           24.21  117   112188    50.00 ug/L    0.02
 87) 1,4-Dichlorobenzene-d4     31.09  152    67754    50.00 ug/L    0.00

 System Monitoring Compounds
 33) 1,2-Dichloroethane-d4      15.10   65    60838    52.84 ug/L    0.00
  Spiked Amount     50.000   Range  76 - 118    Recovery   =  105.68%
 50) Toluene-d8                 20.06   98   128621    49.25 ug/L    0.00
  Spiked Amount     50.000   Range  88 - 110    Recovery   =   98.50%
 55) Bromofluorobenzene         27.62   95    63271    48.48 ug/L    0.00
  Spiked Amount     50.000   Range  86 - 115    Recovery   =   96.96%

 Target Compounds                                                Qvalue
 11) 1,1-Dichloroethene          9.37   96    24048    68.10 ug/L     96
 39) Benzene                    15.29   78   123665    55.78 ug/L    100
 41) Trichloroethene            16.84   95    34075    59.47 ug/L     98
 51) Toluene                    20.24   92    77953    59.40 ug/L     99
 62) Chlorobenzene              24.30  112    94658    57.74 ug/L     99
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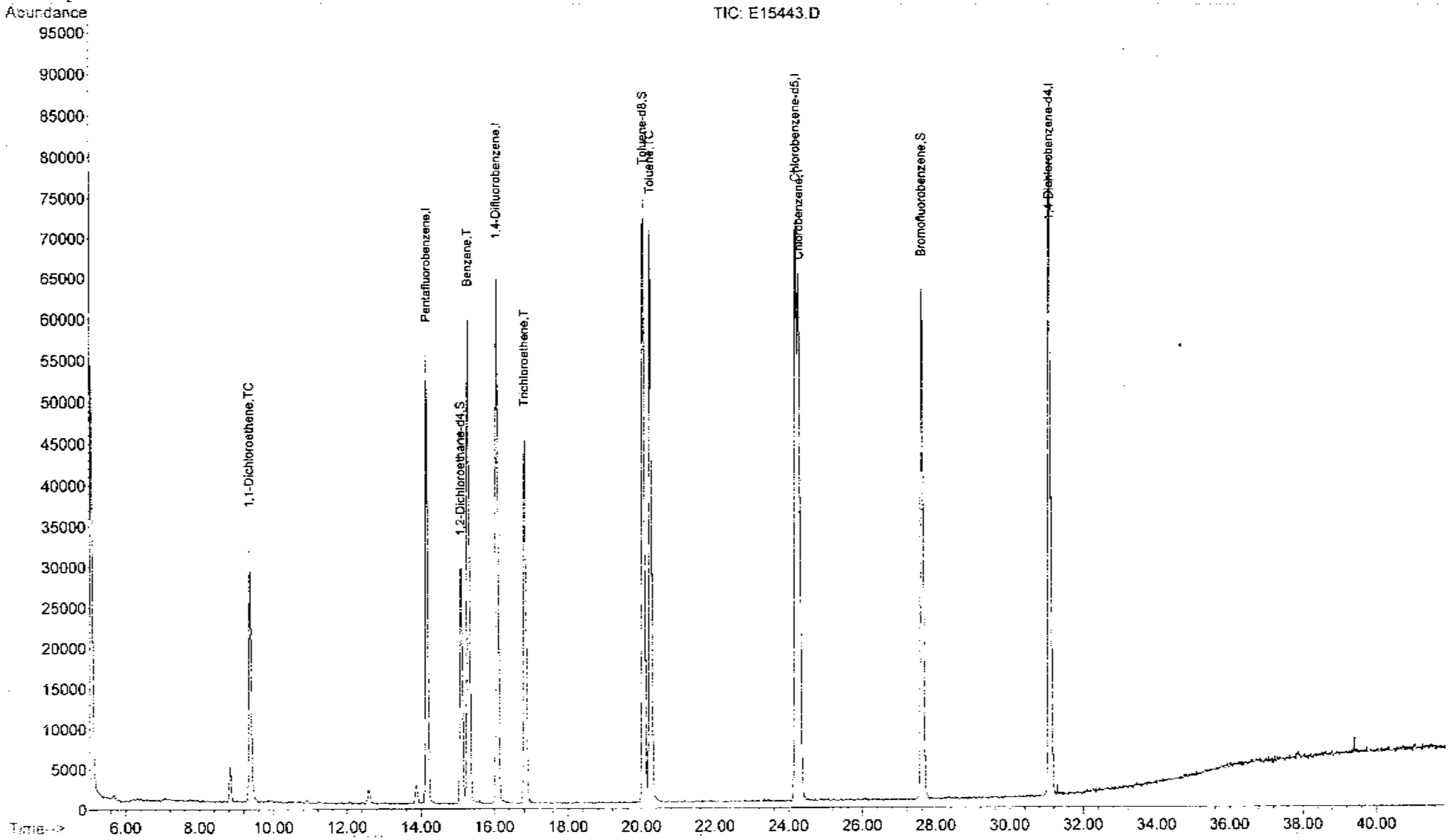
Data File : G:\DATA\E15443.D
Acq On : 27 Sep 2007 2:35 pm
Sample : U0709313-009HMS
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:19 2007

Vial: 6
Operator: MG
Inst : Voa Instr
Multiplr: 1.00
Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101MSD

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009HMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15444.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	66	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	55	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	59	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	59	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	56	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-101MSD

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA85

Matrix: (soil/water) WATER Lab Sample ID: U0709313-009HMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E15444.D

Level: (low/med) LOW Date Received: 9/19/07

% Moisture: not dec. Date Analyzed: 9/27/07

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Data File : G:\DATA\E15444.D
Acq On : 27 Sep 2007 3:24 pm
Sample : U0709313-009HMSD
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:20 2007

Vial: 7
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Quant Method : D:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration
DataAcq Meth : E092507W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	14.17	168	78615	50.00	ug/L	0.00
36) 1,4-Difluorobenzene	16.07	114	119326	50.00	ug/L	0.00
56) Chlorobenzene-d5	24.21	117	110369	50.00	ug/L	0.02
87) 1,4-Dichlorobenzene-d4	31.09	152	65962	50.00	ug/L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	15.10	65	60448	54.64	ug/L	0.00
Spiked Amount 50.000	Range 76 - 118		Recovery =	109.28%		
50) Toluene-d8	20.06	98	124912	49.28	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.56%		
55) Bromofluorobenzene	27.62	95	62119	49.04	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.08%		
Target Compounds						Qvalue
11) 1,1-Dichloroethene	9.38	96	22354	65.88	ug/L	97
39) Benzene	15.30	78	118842	55.23	ug/L	100
41) Trichloroethene	16.84	95	32892	59.14	ug/L	97
51) Toluene	20.25	92	75161	59.00	ug/L	99
62) Chlorobenzene	24.30	112	91128	56.50	ug/L	99

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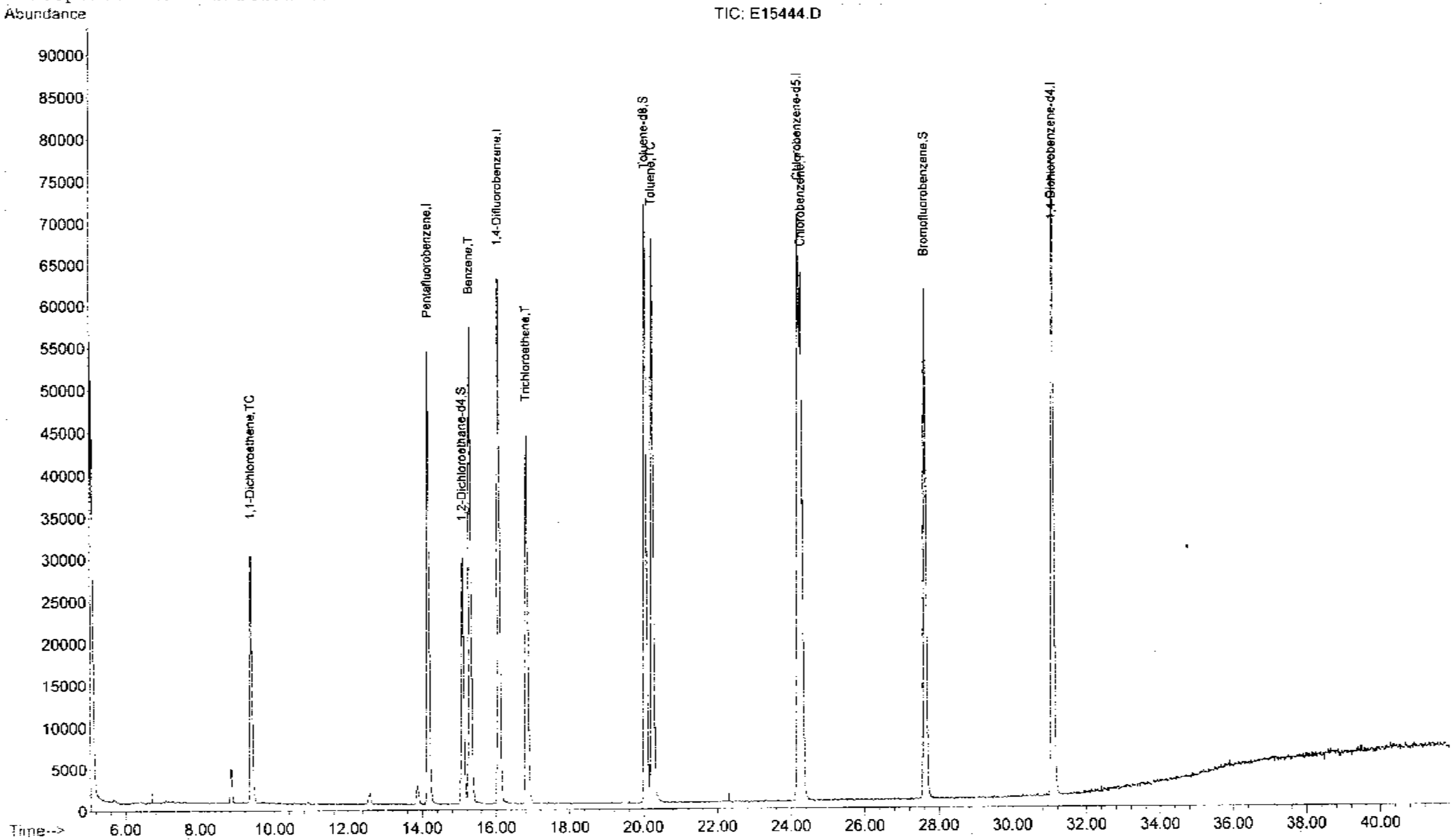
(#) = qualifier out of range (m) = manual integration

Data File : G:\DATA\E15444.D
Acq On : 27 Sep 2007 3:24 pm
Sample : J0709313-009HMSD
Misc : 5mL
MS Integration Params: rteint.p
Quant Time: Sep 28 10:20 2007

Vial: 7
Operator: MG
Inst : Voa Instr
Multiplr: 1.00

Quant Results File: E092507W.RES

Method : G:\METHODS\E092507W.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Wed Sep 26 10:42:24 2007
Response via : Initial Calibration



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Copy of Calculations

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11.1.2.4 Guidelines for making tentative identification:

- Relative intensities of major ions in the reference spectrum (ions greater than 10.0 percent of the most abundant ion) should be present in the sample spectrum.

- The relative intensities of the major ions should agree within ±20.0 percent. (Example: For an ion with an abundance of 50.0 percent of the standard spectra, the corresponding sample ion abundance must be between 30.0 and 70.0 percent.)

- Molecular ions present in reference spectrum should be present in sample spectrum.

- Ions present in the sample spectrum but not in the reference spectrum should be reviewed for possible background contamination or presence of co-eluting compounds.

- Ions present in the reference spectrum but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or co-eluting compounds. Data system library reduction programs can sometimes create these discrepancies.

11.1.2.5 If, in the technical judgment of the mass spectral interpretation specialist, no valid tentative identification can be made, the compound should be reported as unknown. The mass spectral specialist should give additional classification of the unknown compound, if possible (i.e., unknown aromatic, unknown hydrocarbon, unknown acid type, unknown chlorinated compound). If probable molecular weights can be distinguished, include them. -820-

11.2 Calculations

11.2.1 Target Compounds

11.2.1.1 Target compounds identified shall be quantified by the internal standard method using the equations below. The internal standard used shall be that which is assigned in Table 3. The relative response factor (RRF) from the continuing calibration standard is calculate the concentration in the sample.

11.2.1.2 Water

Equation 5

$$\text{Concentration } \mu g/L = \frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)\,V_o}$$

Where,

A_x = Area of the characteristic ion (EICP) for the compound to be measured (see Table 2)

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard (see Tables 3 and 4)

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor from the ambient temperature purge of the calibration standard.

V_o = Volume of water purged in milliliters (mL)

Df = Dilution factor. The dilution factor for analysis of water samples for volatiles by this method is defined as the ratio of the number of milliliters (mL) of water purged (i.e., Vo above) to the number of mL of the original water sample used for purging. For example, if 2.0 mL of sample is diluted to 5 mL with reagent water and purged, Df = 5 mL/2.0 mL = 2.5. If no dilution is performed, Df = 1.

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11.2.1.3 Low Soil/Sediment

Equation 6

$$\text{Concentration } \mu g/Kg \text{ (dry weight basis)} = \frac{(A_x)(I_s)}{(A_{is})(RRF)(W_s)(D)}$$

Where,

A_x, I_s, A_{is} are as given for water.

RRF = Relative response factor from the heated purge of the calibration standard.

$$D = \frac{100 - \%\ \text{moisture}}{100}$$

W_s = Weight of sample added to the purge tube, in grams (g).

11.2.1.4 Medium Soil/Sediment

Equation 7

$$\text{Concentration } \mu g/Kg \text{ (Dry weight basis)} = \frac{(A_x)(I_s)(V_t)(1000)(Df)}{(A_{is})(RRT)(V_a)(W_s)(D)}$$

Where,

A_x, I_s, A_{is} are as given for water.

RRF = Relative response factor from the ambient temperature purge of the calibration standard.

V_t = Total volume of the methanol extract in milliliters (mL). NOTE: This volume is typically 10 mL, even though only 1 mL is transferred to the vial in Section 10.1.5.6.

V_a = Volume of the aliquot of the sample methanol extract (i.e., sample extract not including the methanol added to equal 100 µL) in microliters (µL) added to reagent water for purging.

W_s = Weight of soil/sediment extracted, in grams (g).

$$D = \frac{100 - \%\ \text{moisture}}{100}$$

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Df = Dilution factor. The dilution factor for analysis of soil/sediment samples for volatiles by the medium level method is defined as:

$$\frac{\mu L \text{ most conc. extract used to make dilution} + \mu L \text{ clean solvent}}{\mu L \text{ most conc. extract used to make dilution}}$$

The dilution factor is equal to 1.0 in all cases other than those requiring dilution of the sample methanol extract (V_t). Dilution of the extract is required when the X factor (Section 10.1.5.7) is ≥12.5. The factor of 1,000 in the numerator converts the value of V_t from mL to µL.

11.2.1.5 For water, low level and medium level soil/sediment samples, xylenes (o-,m- and p-isomers) are to be reported as xylenes (total). Because the o- and p-xylene isomers co-elute on packed columns, and the m- and p-xylene isomers co-elute on capillary columns, special attention must be given to the quantitation of the xylenes. The relative

11.2.2 Non-Target Compounds

11.2.2.1 An estimated concentration for non-target compounds tentatively identified shall be determined by the internal standard method. For quantitation, the nearest internal standard free of interferences shall be used.

11.2.2.2 The formulas for calculating concentrations are the same as in Sections 11.2.1.2, 11.2.1.3, and 11.2.1.4. Total area counts (or peak heights) from the total ion chromatograms are to be used for both the compound to be measured and the internal standard. A relative response factor (RRF) of one (1) is to be assumed. The resulting concentration shall be qualified as "J" (estimated, due to lack of a compound-specific response factor), and "N" (presumptive evidence of presence), indicating the quantitative and qualitative uncertainties associated with this non-target component. An estimated concentration must be calculated for all tentatively identified compounds as well as those identified as unknowns.

11.2.3 CRQL Calculations

NOTE: If the adjusted CRQL is less than the CRQL listed in Exhibit C (Volatiles), report the CRQL listed in Exhibit C (Volatiles).

11.2.3.1 Water

Equation 8

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$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{V_x}{V_o} \times Df$$

Where,

V_o and Df are as given in Equation 5

V_x = Contract Sample Volume (5 mL)

11.2.3.2 Low Level Soil/Sediment

Equation 9

$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{(W_x)}{(W_s)\ (D)}$$

Where,

W_s and D are as given in Equation 6

W_x = Contract Sample Weight (5 g)

11.2.3.3 Medium Level Soil/Sediment

Equation 10

$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{(W_x)\ (V_t)\ (V_y)\ (Df)}{(W_s)\ (V_c)\ (V_a)\ (D)}$$

Where,

V_t, Df, W_s, V_a, and D are as given in Equation 7

W_x = Contract Sample Weight (4 g)

V_y = Contract Soil Aliquot Volume from soil methanol extract (100 µL)

V_c = Contract Soil Methanol Extract Volume (10,000 µL) -824-

11.2.4 System Monitoring Compound Recoveries

11.2.4.1 Calculate the recovery of each system monitoring compound in all samples, blanks, matrix spikes, matrix spike duplicates, and matrix spike blanks. Determine if the recovery is within limits (see Table 7), and report on appropriate form.

11.2.4.2 Calculate the concentrations of the system monitoring compounds using the same equations as used for target compounds

11.2.4.3 Calculate the recovery of each System monitoring compound as follows:

Equation 11

$$\%\text{Recovery} = \frac{\text{Concentration (amount) found}}{\text{Concentration (amount) spiked}} \times 100$$

9.3.3 Procedure for Initial Calibration

9.3.3.1 Assemble a purge and trap device that meets the specifications in Section 6.4. Condition the device as described in Section 9.1.1.

9.3.3.2 Connect the purge and trap device to the gas chromatograph. The gas chromatograph must be operated using temperature and flow rate parameters equivalent to those in 9.1.2.

9.3.3.3 Add 10 µL of the internal standard solution (Section 7.2.4.3) to each of the five aqueous calibration standard solutions containing the system monitoring compounds (Section 7.2.4.6) for a concentration of 50 µg/L at time of purge. Analyze each calibration standard according to Section 10.

9.3.3.4 Separate initial and continuing calibrations must be performed for water samples and low level soil/sediment samples (unheated purge vs. heated purge). Extracts of medium level soil/sediment samples may be analyzed using the calibrations of water samples.

9.3.4 Calculations for Initial Calibration

9.3.4.1 Calculate the relative response factor (RRF) for each volatile target and system monitoring compound using Equation 1. The primary characteristic ions used for quantitation are listed in Table 2 and Table 4. Assign the target compounds, and system monitoring compound to an internal standard according to Table 3. If an interference prevents the use of a primary ion for a given internal standard, use a secondary ion listed in Table 4. NOTE: Unless otherwise stated, the area response of the primary characteristic ion is the quantitation ion. -825-

Equation 1.

$$RRF = \frac{A_x}{A_{is}} \times \frac{C_{is}}{C_x}$$

Where:

A_x = Area of the characteristic ion (EICP) for the compound to be measured (see Table 2).

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard (see Tables 3 and 4).

C_{is} = Concentration of the internal standard (µg/mL).

C_x = Concentration of the compound to be measured (µg/mL).

9.3.4.2 Calculating the relative response factor of the xylenes and the cis- and trans- isomers of 1,2-dichloroethene requires special attention. On packed columns, o- and p-xylene isomers co-elute. On capillary columns, the m- and p-xylene isomers co-elute. Therefore, when calculating the relative response factor in the equation above, use the area response (A_x) and concentration (C_x) of the peak that represents the single isomer on the GC column used for analysis.

9.3.4.3 For the cis- and trans- isomers of 1,2-dichloroethene which may co-elute on packed columns but not on capillary columns, both isomers must be present in the standards. If the two isomers co-elute, use the area of the co-eluting peak and the total concentration of the two isomers in the standard to determine the relative response factor. If the two isomers do not co-elute, sum the areas of the two peaks and the concentrations of the two isomers in the standard to determine the relative response factor.

9.3.4.4 The mean relative response factor ($\overline{RRF}$) must be calculated for all compounds.

9.3.4.5 Calculate the % Relative Standard Deviation (%RSD) of the RRF values over the working range of the curve.

Equation 2

$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

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Where:

$$\text{Standard Deviation} = \sqrt{\frac{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2}{(n - 1)}}$$

Where:

x_i = each individual value used to calculate the mean

$\bar{x}$ = the mean of n values

n = the total number of values

Injection Log

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Sample List for Group: VOA_Oct_11_2007

Printing Date Oct-11-2007

Lab File ID	EPA SAMPLE NO.	Lab Sample ID	Date Acq.		Date Rec.	Date Due
E15410.D	VTUN01	BFB	9/25/07	21:30	9/19/07	10/12/00
E15411.D	VSTD003	VSTD003	9/25/07	22:19	9/19/07	10/12/00
E15412.D	VSTD010	VSTD010	9/25/07	23:08	9/19/07	10/12/00
E15413.D	VSTD020	VSTD020	9/25/07	23:57	9/19/07	10/12/00
E15414.D	VSTD050	VSTD050	9/26/07	0:47	9/19/07	10/12/00
E15415.D	VSTD100	VSTD100	9/26/07	1:36	9/19/07	10/12/00
E15416.D	VSTD200	VSTD200	9/26/07	2:25	9/19/07	10/12/00
E15438.D	VTUN02	BFB	9/27/07	10:17	9/19/07	10/12/00
E15439.D	VSTD050CC01	CCV	9/27/07	11:18	9/19/07	10/12/00
E15441.D	VBLK01	MB	9/27/07	12:56	9/19/07	10/12/00
E15442.D	VMBS01	LCS	9/27/07	13:45	9/19/07	10/12/00
E15443.D	MW-101MS	U0709313-009HMS	9/27/07	14:35	9/19/07	10/12/00
E15444.D	MW-101MSD	U0709313-009HMS	9/27/07	15:24	9/19/07	10/12/00
E15445.D	MW-101	U0709313-009H	9/27/07	16:13	9/19/07	10/12/00
E15446.D	MW-9S	U0709313-001H	9/27/07	17:02	9/19/07	10/12/00
E15447.D	MW-91	U0709313-002H	9/27/07	17:52	9/19/07	10/12/00
E15448.D	MW-9D	U0709313-003H	9/27/07	18:40	9/19/07	10/12/00
E15449.D	MW-12S	U0709313-004H	9/27/07	19:30	9/19/07	10/12/00
E15450.D	CHA-1	U0709313-005H	9/27/07	20:19	9/19/07	10/12/00
E15451.D	VSTD050CC02	CC	9/27/07	21:08	9/19/07	10/12/00
E15452.D	VTUN03	BFB	9/27/07	21:58	9/19/07	10/12/00
E15453.D	VSTD050CC03	CCV	9/27/07	22:47	9/19/07	10/12/00
E15455.D	VBLK02	MB	9/28/07	0:26	9/19/07	10/12/00
E15456.D	VMBS02	LCS	9/28/07	1:15	9/19/07	10/12/00
E15458.D	MW-12I	U0709313-006H	9/28/07	2:53	9/19/07	10/12/00
E15459.D	MW-12D	U0709313-007H	9/28/07	3:42	9/19/07	10/12/00
E15460.D	MW-10S	U0709313-008H	9/28/07	4:32	9/19/07	10/12/00
E15461.D	MW-10D	U0709313-010H	9/28/07	5:21	9/19/07	10/12/00
E15462.D	ULI TB	U0709313-011A	9/28/07	6:10	9/19/07	10/12/00
E15463.D	HOLDING BLA	U0709313-012A	9/28/07	6:59	9/19/07	10/12/00
E15464.D	MW-1S	U0709313-013H	9/28/07	7:48	9/20/07	10/12/00
E15465.D	VSTD050CC04	CC	9/28/07	8:38	9/19/07	10/12/00
E15520.D	VTUN04	BFB	10/1/07	12:14	9/19/07	10/12/00
E15521.D	VSTD050CC05	CCV	10/1/07	13:27	9/19/07	10/12/00
E15523.D	VBLK03	MB	10/1/07	15:06	9/19/07	10/12/00
E15524.D	VMBS03	LCS	10/1/07	15:55	9/19/07	10/12/00
E15526.D	MW-15S	U0709313-026H	10/1/07	17:34	9/20/07	10/12/00
E15527.D	MW-15I	U0709313-027H	10/1/07	18:23	9/20/07	10/12/00
E15528.D	MW-15D	U0709313-028H	10/1/07	19:11	9/20/07	10/12/00
E15529.D	ULI T.B.	U0709313-029A	10/1/07	20:01	9/20/07	10/12/00
E15530.D	HOLDING BLA	U0709313-030A	10/1/07	20:50	9/20/07	10/12/00
E15531.D	MW-14S	U0709313-031H	10/1/07	21:39	9/21/07	10/12/00
E15532.D	MW-14I	U0709313-032H	10/1/07	22:28	9/21/07	10/12/00

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Sample List for Group: VOA_Oct_11_2007

Printing Date Oct-11-2007

Lab File ID	EPA SAMPLE NO.	Lab Sample ID	Date Acq.		Date Rec.	Date Due
E15533.D	VSTD050CC06	CC	10/2/07	8:36	9/19/07	10/12/00
E15536.D	VTUN05	BFB	10/2/07	16:11	9/19/07	10/12/00
E15537.D	VSTD050CC07	CCV	10/2/07	17:06	9/19/07	10/12/00
E15539.D	VBLK04	MB	10/2/07	18:44	9/19/07	10/12/00
E15541.D	VMBS04	LCS	10/2/07	20:22	9/19/07	10/12/00
E15546.D	MW-14D	U0709313-033H	10/3/07	0:28	9/21/07	10/12/00
E15547.D	ULI T B	U0709313-034H	10/3/07	1:18	9/21/07	10/12/00
E15548.D	HOLDING BLA	U0709313-035H	10/3/07	2:07	9/21/07	10/12/00
E15549.D	VSTD050CC08	CC	10/3/07	2:56	9/19/07	10/12/00

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Sample List for Group: VOA_Oct_11_2007

Printing Date Oct-11-2007

Lab File ID	EPA SAMPLE NO.	Lab Sample ID	Date Acq.		Date Rec.	Date Due
C18959.D	VTUN06	BFB	9/25/07	11:00	9/20/07	10/12/07
C18960.D	VSTD003	VSTD003	9/25/07	13:43	9/20/07	10/12/07
C18961.D	VSTD010	VSTD010	9/25/07	14:21	9/20/07	10/12/07
C18962.D	VSTD020	VSTD020	9/25/07	14:58	9/20/07	10/12/07
C18963.D	VSTD050	VSTD050	9/25/07	15:36	9/20/07	10/12/07
C18964.D	VSTD100	VSTD100	9/25/07	16:14	9/20/07	10/12/07
C18965.D	VSTD200	VSTD200	9/25/07	16:52	9/20/07	10/12/07
C19032.D	VTUN07	BFB	9/30/07	11:23	9/20/07	10/12/07
C19033.D	VSTD050CC00	CC	9/30/07	12:03	9/20/07	10/12/07
C19035.D	VBLK05	MB	9/30/07	13:36	9/20/07	10/12/07
C19036.D	VMBS05	LCS	9/30/07	14:14	9/20/07	10/12/07
C19038.D	MW-1I	U0709313-014H	9/30/07	15:29	9/20/07	10/12/07
C19039.D	MW-1D	U0709313-015H	9/30/07	16:07	9/20/07	10/12/07
C19040.D	MW-2S	U0709313-016H	9/30/07	16:46	9/20/07	10/12/07
C19041.D	MW-2I	U0709313-017H	9/30/07	17:24	9/20/07	10/12/07
C19042.D	MW-2D	U0709313-018H	9/30/07	18:01	9/20/07	10/12/07
C19043.D	ULI T B	U0709313-019A	9/30/07	18:39	9/20/07	10/12/07
C19044.D	HOLDING BLA	U0709313-020A	9/30/07	19:17	9/20/07	10/12/07
C19045.D	MW-7S	U0709313-021H	9/30/07	19:55	9/20/07	10/12/07
C19046.D	MW-7I	U0709313-022H	9/30/07	20:33	9/20/07	10/12/07
C19047.D	MW-7D	U0709313-023H	9/30/07	21:11	9/20/07	10/12/07
C19048.D	ULI TRIP BLA	U0709313-024A	9/30/07	21:49	9/20/07	10/12/07
C19049.D	HOLDING BLA	U0709313-025A	9/30/07	22:27	9/20/07	10/12/07
C19050.D	VSTD050CC01	CC	9/30/07	23:04	9/20/07	10/12/07

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SDG Sequence Summary

Instrument Name: 49

Sample List Name: VOA_Oct_11_2007

	Continuing Calibration/Tune Date	Tim	File Name	Calibration File Name	Sample File Name	Ref. Blank File Name	Misc.	Acquisition Date	Tim
1	9/25/07	21:30	E15410.D				TUN	9/25/07	21:30
2				E15411.D			STD	9/25/07	22:19
3				E15412.D			STD	9/25/07	23:08
4				E15413.D			STD	9/25/07	23:57
5	9/26/07	0:47	E15414.D				ICCAL	9/26/07	0:47
6				E15415.D			STD	9/26/07	1:36
7				E15416.D			STD	9/26/07	2:25
8	9/27/07	10:17	E15438.D				TUN	9/27/07	10:17
9	9/27/07	11:18	E15439.D				CCAL	9/27/07	11:18
10					E15441.D		MBLK	9/27/07	12:56
11					E15442.D	E15441.D	SMP	9/27/07	13:45
12					E15443.D	E15441.D	MS	9/27/07	14:35
13					E15444.D	E15441.D	MSD	9/27/07	15:24
14					E15445.D	E15441.D	SMP	9/27/07	16:13
15					E15446.D	E15441.D	SMP	9/27/07	17:02
16					E15447.D	E15441.D	SMP	9/27/07	17:52
17					E15448.D	E15441.D	SMP	9/27/07	18:40
18					E15449.D	E15441.D	SMP	9/27/07	19:30
19					E15450.D	E15441.D	SMP	9/27/07	20:19
20	9/27/07	21:08	E15451.D				CCAL	9/27/07	21:08
21	9/27/07	21:58	E15452.D				TUN	9/27/07	21:58
22	9/27/07	22:47	E15453.D				CCAL	9/27/07	22:47
23					E15455.D		MBLK	9/28/07	0:26
24					E15456.D	E15455.D	SMP	9/28/07	1:15
25					E15458.D	E15455.D	SMP	9/28/07	2:53
26					E15459.D	E15455.D	SMP	9/28/07	3:42
27					E15460.D	E15455.D	SMP	9/28/07	4:32
28					E15461.D	E15455.D	SMP	9/28/07	5:21
29					E15462.D	E15455.D	SMP	9/28/07	6:10
30					E15463.D	E15455.D	SMP	9/28/07	6:59
31					E15464.D	E15455.D	SMP	9/28/07	7:48
32	9/28/07	8:38	E15465.D				CCAL	9/28/07	8:38
33	10/1/07	12:14	E15520.D				TUN	10/1/07	12:14
34	10/1/07	13:27	E15521.D				CCAL	10/1/07	13:27
35					E15523.D		MBLK	10/1/07	15:06
36					E15524.D	E15523.D	SMP	10/1/07	15:55
37					E15526.D	E15523.D	SMP	10/1/07	17:34

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SDG Sequence Summary

Instrument Name: 49

Sample List Name: VOA_Oct_11_2007

	Continuing Calibration/Tune Date	Tim	File Name	Calibration File Name	Sample File Name	Ref. Blank File Name	Misc.	Acquisition Date	Tim
38					E15527.D	E15523.D	SMP	10/1/07	18:23
39					E15528.D	E15523.D	SMP	10/1/07	19:11
40					E15529.D	E15523.D	SMP	10/1/07	20:01
41					E15530.D	E15523.D	SMP	10/1/07	20:50
42					E15531.D	E15523.D	SMP	10/1/07	21:39
43					E15532.D	E15523.D	SMP	10/1/07	22:28
44	10/2/07	8:36	E15533.D				CCAL	10/2/07	8:36
45	10/2/07	16:11	E15536.D				TUN	10/2/07	16:11
46	10/2/07	17:06	E15537.D				CCAL	10/2/07	17:06
47					E15539.D		MBLK	10/2/07	18:44
48					E15541.D	E15539.D	SMP	10/2/07	20:22
49					E15546.D	E15539.D	SMP	10/3/07	0:28
50					E15547.D	E15539.D	SMP	10/3/07	1:18
51					E15548.D	E15539.D	SMP	10/3/07	2:07
52	10/3/07	2:56	E15549.D				CCAL	10/3/07	2:56

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SDG Sequence Summary

Instrument Name: 12

Sample List Name: VOA_Oct_11_2007

	Continuing Calibration/Tune Date	Tim	File Name	Calibration File Name	Sample File Name	Ref. Blank File Name	Misc.	Acquisition Date	Tim
1	9/25/07	11:00	C18959.D				TUN	9/25/07	11:00
2				C18960.D			STD	9/25/07	13:43
3				C18961.D			STD	9/25/07	14:21
4				C18962.D			STD	9/25/07	14:58
5	9/25/07	15:36	C18963.D				ICCAL	9/25/07	15:36
6				C18964.D			STD	9/25/07	16:14
7				C18965.D			STD	9/25/07	16:52
8	9/30/07	11:23	C19032.D				TUN	9/30/07	11:23
9	9/30/07	12:03	C19033.D				CCAL	9/30/07	12:03
10					C19035.D		MBLK	9/30/07	13:36
11					C19036.D	C19035.D	SMP	9/30/07	14:14
12					C19038.D	C19035.D	SMP	9/30/07	15:29
13					C19039.D	C19035.D	SMP	9/30/07	16:07
14					C19040.D	C19035.D	SMP	9/30/07	16:46
15					C19041.D	C19035.D	SMP	9/30/07	17:24
16					C19042.D	C19035.D	SMP	9/30/07	18:01
17					C19043.D	C19035.D	SMP	9/30/07	18:39
18					C19044.D	C19035.D	SMP	9/30/07	19:17
19					C19045.D	C19035.D	SMP	9/30/07	19:55
20					C19046.D	C19035.D	SMP	9/30/07	20:33
21					C19047.D	C19035.D	SMP	9/30/07	21:11
22					C19048.D	C19035.D	SMP	9/30/07	21:49
23					C19049.D	C19035.D	SMP	9/30/07	22:27
24	9/30/07	23:04	C19050.D				CCAL	9/30/07	23:04

Volatile GC/MS Injection Log

Instrument: HP5972 #49.0	Client Name
GC Column: DB-624	1) QA/QC
60m x 0.25mmID	2)
* Init Cal Date 1:	3)
+ Init Cal Date 2:	4)

Client Name
5)
6)
7)
8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	E092507W	5mL	8260	A2	E15410	9/25/07	2130		
2		USTD003		75uL			E15411		2219		
3		USTD010		250uL			E15412		2308		
4		USTD 020		500uL			E15413		2357		
5		USTD 050		1.25mL			E15414	9/26/07	0047		
6		USTD 100		2.5mL			E15415		0136		
7		USTD 200		5mL			E15416		0225		
8		Blank		5mL			E15417		0314		
9		USTD003		75uL			E15418		0403		
10											
11											
12											
13											
14											
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29											

Comments:

Method	Source	Date
624	Fed Reg.Vol 49, #209	10/26/84
8240	USEPA SW846, Rev 2	09/01/94
8260	USEPA SW846, Rev 2	09/01/94
TCLP	8240 w/Mtd extraction	09/01/94
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MG

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	~	—	—	—	—	✓					
87293	133572	119396	72201	113	98	102						1
86340	131870	118187	74277	115	98	106						2
87794	135145	121405	77949	113	99	105						3
91601	139602	127164	84680	111	97	108						4
97783	146494	134578	90331	106	99	111						5
105589	159122	146768	96672	102	99	109						6
102616	152245	135640	78042	104	98	98						7
95774	145701	130620	78249	109	97	102						8
												9
												10
												11
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												29

IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #2 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: MG

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Volatile GC/MS Injection Log

Instrument: HP5972 #49.0	
GC Column: DB-624	
60m x 0.25mmID	
* Init Cal Date 1: 9/25/07	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	E092507W	5ml	8260	V09	E15438	9/27/07	1017	ND	
2		CCV					E15439		1118		
3		Blank					E15440		1207		
4		MB					E15441		1256		
5		LCS					E15442		1345		
6		V0709313-009HMS					E15443		1435		
7		-009HMSD					E15444		1524		
8		-009H					E15445		1613		
9		-001H					E15446		1702		
10		-002H					E15447		1752		
11		-003H					E15448		1840		
12		-004H					E15449		1930		
13		-005H					E15450		2019		
14	CC						E15451		2108		
15											
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Comments:

Method	Source	Date
624	Fed Reg, Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

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Analyzed by: MM

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Volatile GC/MS Injection Log

Pre-run maintenance
X Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

CCCChk Internal Std Limits

				High limit
				Low limit

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
–	–	–	–	–	–	–	X		28498			1
78686	117025	109867	75247	107	100	110						2
–	–	–	–	–	–	–						3
77720	117284	110395	66015	114	99	101						4
79837	118604	109993	76344	106	99	106						5
81818	122937	112188	67754	106	99	97						6
78615	119326	110369	65962	109	99	98						7
76956	114267	105115	63102	109	99	99						8
75660	114391	104494	62734	108	97	97						9
74465	112961	103702	62332	109	98	99						10
73913	110745	103183	62034	111	99	100						11
72311	110350	101226	61928	111	97	99						12
70859	109396	100796	60341	114	98	98						13
75751	112464	102856	73099	107	93	108						14
												15
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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #1 % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: MM

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Volatile GC/MS Injection Log

Instrument: HP5972 #49.0	
GC Column: DB-624	
60m x 0.25mmID	
* Init Cal Date 1: 9/25/07	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	E092807W	5ml	8260	Voa	E15452	9/27	2158	ND	
2		CCV					E15453		2247		
3		Blank					E15454		2336		
4		MB					E15455	9/28	2426		
5		LCS					E15456		115		
6	V07	09264-001C					E15457		204		
7	V07	09313-006H					E15458		253		
8		-007H					E15459		342		
9		-008H					E15460		432		
10		-010H					E15461		521		
11		-011A					E15462		610		
12		-012A					E15463		659		
13		-013H					E15464		748		
14	CC						E15465		838		
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Comments:

Method	Source	Date
624	Fed Reg.Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MM

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance
X Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
							X		28501			1
77539	114978	101539	74392	107	98	109						2
												3
75136	112912	103818	62666	114	97	99						4
75647	113414	104796	72542	106	98	108						5
76708	114680	105213	64154	107	98	99						6
72715	110174	101275	61620	111	99	100						7
72281	107883	100900	60166	111	99	101						8
69827	104933	97576	59611	112	98	102						9
69498	104755	95975	58878	112	98	101						10
68778	104319	95646	58796	114	98	102						11
67818	103408	95080	58658	113	97	100						12
67046	102287	93848	57785	114	98	101						13
70496	103356	99192	70080	109	100	112						14
												15
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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #1 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: MM

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Instrument: HP5972 #49.0
GC Column: DB-624
60m x 0.25mmID
* Init Cal Date 1: ____
+ Init Cal Date 2: ____

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	E092507W	5mL	8260	ASPA1	E15520	10/1/07	1214		
2		CCV					21		1329		
3		Blank					22		1416		
4		MB					23		1506		
5		LCS					24		1555		
6		U0709339-002B		10g in 10mL MeOH/100uL		TCL	25		1644	83	
7		U0709313-026H		5mL		ASPA1	26		1734		
8		-027H					27		1823		
9		-028H					28		1911		
10		-029H					29		2001		
11		-030H					30		2050		
12		-031H					31		2139		
13		-032H					32		2228		
14		CC					33	10/2/07	0836		
15											
16											
17											
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Comments: ____

Method	Source	Date
624	Fed Reg.Vol 49, #209	10/26/84
8240	USEPA SW846, Rev 2	09/01/94
8260	USEPA SW846, Rev 2	09/01/94
TCLP	8240 w/Mtd extraction	09/01/94
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

Analyzed by: MG

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INJLOGV.XLS

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—						
104788	138588	120870	79692	85	100	98			28569			1
94951	126170	108277	65032	91	99	91						2
85266	115709	98728	59988	100	95	92						3
82875	108758	97579	68171	96	99	104						4
75100	100748	87724	55717	98	98	95						5
74945	100369	86684	54706	103	96	96		x				6
68924	92584	81039	50286	106	97	97	x					7
67251	88594	77905	50079	107	97	98						8
63670	85627	74922	47708	113	97	97						9
62642	83285	72657	46407	113	96	98						10
60723	81026	71764	45383	113	97	94						11
60682	79694	70762	44777	112	97	99						12
68694	90121	78253	55929	107	95	107						13
												14
												-841-
												16
												17
												18
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												29

IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #~~1~~ % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: MG

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Volatile GC/MS Injection Log

Instrument: HP5972 #49.0	
GC Column: DB-624	
60m x 0.25mmID	
* Init Cal Date 1:	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	E092507W	5mL	8260	ASPA1	E15534	10/2/07			
2		BFB					35				
3		BFB					36		1611		
4		CCV					37		1706		
5		Blank					38		1754		
6		MB					39		1844		
7		CCV					40		1933		
8		LCS					41		2022		
9		U0709469-002A		250uL		TCL	42		2111	20	
10		-004A		250uL			43		2207	20	
11		-001A		100uL			44		2249	50	
12		-003A		100uL			45		2339	50	
13		U0709313-033H		5mL		ASPA1	46	10/3/07	0028		
14		-034H					47		0118		
15		-035H					48		0207		
16		CC					49		0256		
17											
18											
19											
20											
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26											
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Comments:

Method	Source	Date
624	Fed Reg.Vol 49, #209	10/26/84
8240	USEPA SW846, Rev 2	09/01/94
8260	USEPA SW846, Rev 2	09/01/94
TCLP	8240 w/Mtd extraction	09/01/94
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MG

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance
- ___Purge & Bake system
- ___Change trap
- ___Change column
- ___Cleans source
- ___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #
—	—	—	—	—	—	—	X		28591	Fail	1
—	—	—	—	—	—	—				Fail	2
—	—	—	—	—	—	—					
60589	67447	60027	48237	87	97	114					3
61950	68584	59405	40519	85	95	99					4
59090	66300	57677	40026	89	95	102					5
64231	69667	62520	48973	87	98	111					6
66827	72798	86145	51341	84	98	113				not used	7
66732	76817	67163	49165	87	96	106					8
72673	81822	70743	53904	82	97	106					9
73828	83182	73229	54148	83	99	106					10
77891	89124	77593	56317	81	96	103					11
78439	88326	76839	52502	80	97	100					12
71235	80359	70342	47999	84	97	101					13
66301	76649	65658	46112	86	95	102					14
68094	75236	67102	51447	85	98	111					15
											16
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											29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #2 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: MG

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Volatile GC/MS Injection Log

Instrument: HP5971 #12.0
GC Column: RTX-VOLATILE
60m x 0.53mmID
* Init Cal Date 1: 9/25/07
\+ Init Cal Date 2: ____

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Data File Number	Date	Time	Dil. Factor	IS
1		BFB	Test914	5ml	8260	Voa	C18959	9/25/07	1100	ND	
2		VSTD003	Test925				C18960		1343		
3		VSTD010					C18961		1421		
4		VSTD020					C18962		1458		
5		VSTD050					C18963		1536		
6		VSTD100					C18964		1614		
7		VSTD200					C18965		1652		
8		Blank					C18966		–		
9		VSTD003					C18967		–		
10		VSTD010					C18968		–		
11		BFB					C18969		1924		
12		CC					C18970		2002		
13		Blank					C18971		–		
14		MB					C18972		2118		
15		LCS					C18973		2155		
16	V0709249-006A			500ul			C18974		2234	10X	
17	V0709297-027A			5ml			C18975		2312	ND	
18		-028A					C18976		2350		
19		-029A					C18977	9/26/07	2428		
20		-030A					C18978		106		
21		-031A					C18979		145		
22		-032A					C18980		223		
23		-033A					C18981		301		
24		-050H					C18982		339		
25		-067H					C18983		417		
26		-068H					C18984		455		
27		-069H					C18985		532		
28		-070H					C18986		610		
29	CC						C18987		822		

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Comments: ____

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MM

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

- ___Purge & Bake system
- ___Change trap
- ___Change column
- ___Cleans source
- ___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
-	-	-	-	-	-	-	X		28432			1
524568	398412	298362	233333	97	99	100						2
544081	407362	303169	238547	97	99	100						3
539364	410476	300982	235346	97	97	99						4
532375	412033	303202	237132	100	100	100						5
528851	409994	301420	236966	102	98	102						6
531410	409861	304652	233248	103	100	103						7
-	-	-	-	-	-	-						8
-	-	-	-	-	-	-				Not		9
-	-	-	-	-	-	-				used		10
-	-	-	-	-	-	-						11
556216	428569	314242	243801	98	99	98						12
-	-	-	-	-	-	-						13
554501	422580	315783	241489	100	100	107						14
543776	420900	314266	229473	103	100	104						15
548995	413214	291977	231173	96	99	96						16
531106	414189	315922	242376	98	101	103						17
442616	379928	308002	241325	112	107	110						18
521089	409084	292883	214128	100	102	97						19
491459	398978	302052	212703	107	102	99						20
521620	409611	287728	213553	101	98	96						21
512352	408217	290818	219759	103	101	97						22
534013	410660	278887	227561	101	94	97						23
534653	406544	274546	219176	100	94	97						24
526785	380160	291083	223945	99	100	108						25
501957	369286	361632	233404	100	104	110						26
533178	412994	289984	231503	100	96	98						27
533155	409059	279523	221516	99	96	96						28
472389	386539	295329	218418	108	102	103				run over 12hr window		29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #1 % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: MM

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Volatile GC/MS Injection Log

Instrument: HP5971 #12.0	
GC Column: RTX-VOLATILE	
60m x 0.53mmID	
* Init Cal Date 1: Test925	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp. Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1	,	BFB	Test925	5ml	8260	Voa	C19032	9/30	1123	ND	
2		CC					C19033		1203		
3		Blank					C19034		1258		
4		MB					C19035		1336		
5		LCS					C19036		1414		
6		Blank					C19037		1451		
7		V0709313-014H					C19038		1529		
8		-015H					C19039		1607		
9		-016H					C19040		1646		
10		-017H					C19041		1724		
11		-018H					C19042		1801		
12		-019A					C19043		1839		
13		-020A					C19044		1917		
14		-021H					C19045		1955		
15		-022H					C19046		2033		
16		-023H					C19047		2111		
17		-024A					C19048		2149		
18		-025A					C19049		2227		
19	CC						C19050		2304		
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											

Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MM

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

X Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #
—	—	—	—	—	—	—	X		28542		
512824	375595	280349	220139	99	100	102					1
—	—	—	—	—	—	—					2
526196	385866	293882	231686	98	101	103					3
542366	387083	285427	233034	97	99	104					4
536366	391645	292874	236693	97	99	102					5
559700	389354	300956	242783	92	99	106					6
505751	365338	274152	216875	95	101	102					7
542745	386651	296945	241650	95	101	106					8
553439	391627	295256	238314	91	100	103					9
549171	391692	299575	238734	93	99	104					10
549600	394024	293624	240685	94	97	104					11
552636	391327	298087	235890	93	98	106					12
535464	389127	294089	234320	96	100	104					13
562678	386487	294774	234505	91	99	106					14
537083	391141	297994	232147	94	100	103					15
548830	386505	296130	242407	94	100	106					16
470837	344048	262060	205568	94	99	103					17
529448	388028	287017	229506	97	99	102					18
											19
											20
											21
											22
											23
											24
											25
											26
											27
											28
											29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #1 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: MM

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Upstate Laboratories, Inc.
Sample Preservation Log for VOCs
SR-10-08 Revised 11/97

ULI No.	pH	ULI No.	pH	ULI No.	pH
U0709073-001	<2	U0709073-036A	<2	-008H	<2
-002		-037A		-009H	
-003		-038A		-010H	
-004		U0709248-005A	<2	-011H	
-005		U0708078-002A	<2	-012H	
-006		-004A		-013H	
-007		-006A		-014H	
-008		-008A		-015H	
-009		-011A		-016H	
-010		-012A		-017H	
-011		-013A		-018H	
-012		U0709302-001	<2	-019H	
-013		-002		-020H	
-014		-003		-021H	
-015		-004		-022H	
-016		U0709313-013H	<2	-023H	
-017		-012A		-024H	
-018		-011A		-025H	
-019		-010A		-026H	
-020		-008A		-027H	
-021		-007A		-028H	
-022		-006H		U0709477-004A	<2
-023		-005H		-001A	
-024		-004H		-002A	
-025		-003H		-003A	
-026		-002H		-005A	
-027		-001H		-009A	
-028		-009H		-013A	
-029		U0709290-001H	<2	-012A	
-030		-002H		-014A	
-031		-003H		-006A	
-032		-004H		-007A	
-033		-005H		-008A	
-034		-006H		-	
-035		-007H			

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ULI No.	pH	ULI No.	pH	ULI No.	pH
U0109313-014	<2				
-015					
-016					
-017					
-018					
-019					
-020					
-021					
-022					
-023					
-024					
-025					

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Upstate Laboratories, Inc.
Sample Preservation Log for VOCs
SR—10—08 Revised 11/97

ULI No.	pH
U0709477-010A	<2
-011A	
-015A	
-016A	
U0709313-026H	<2
-027H	
-028H	
-029H	
-030H	
-031H	
-032H	
U0709297-027A	<2
-028A	
-029A	
-030A	
-031A	
-032A	
-033A	
-050A	
-067A	
-068A	
-069	
-070	
-071	
-072	
U0709469-001A	<2
-002A	
-003A	
-004A	
U0709313-033H	
-034A	
-035A	
U0709442-001A	<2
-002A	

ULI No.	pH
U0709442-004A	<2
-005A	
-006A	
-007A	<2
-008A	
-009A	
-010A	
-011A	
U0709442-012A	<2
-013A	
-014A	
-015A	
-029H	
U0709459-001L	
-002A	
-003A	
U0709238-001A	<2
002A	
003A	
004A	
005A	
006A	
007A	
008A	
009A	
010A	
011A	
012A	
013A	
014A	
015A	
016A	
017A	
018A	

ULI No.	pH
U0709238-020A	<2
021A	
022A	
023A	
024A	
025A	
026A	
027A	
028A	
029A	
030A	
031A	
032A	
033A	
034A	
035A	
036A	
037A	
038A	
039A	
040A	
041A	
042A	
043A	
044A	
045A	
046A	
047A	
048A	
049A	
050A	
051A	
052A	
053A	

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Package

Trace Metals Data
Volume 3 of 4

SDG No. CHA-89

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

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Samples Collected:

December 4, 2007
December 5, 2007
December 6, 2007
December 7, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-1S	U0712180-001	8260	-	-	-	-	-
MW-1I	U0712180-002	8260	-	-	-	-	-
MW-1D	U0712180-003	8260	-	-	-	-	-
MW-2S	U0712180-004	8260	-	-	-	-	-
MW-2I	U0712180-005	8260	-	-	-	-	-
MW-2D	U0712180-006	8260	-	-	-	-	-
MW-9S	U0712180-007	8260	-	-	-	-	-
MW-9I	U0712180-008	8260	-	-	-	-	-
MW-9D	U0712180-009	8260	-	-	-	-	-
MW-10S	U0712180-010	8260	-	-	-	-	-
MW-10I	U0712180-011	8260	-	-	-	-	-
MW-10I MS	U0712180-011MS	8260	-	-	-	-	-
MW-10I MSD	U0712180-011MSD	8260	-	-	-	-	-
MW-10D	U0712180-012	8260	-	-	-	-	-
MW-12S	U0712180-013	8260	-	-	-	-	-
CHA-1	U0712180-014	8260	-	-	-	-	-
MW-12I	U0712180-015	8260	-	-	-	-	-
MW-12D	U0712180-016	8260	-	-	-	-	-
MW-7S	U0712180-017	8260	-	-	-	-	-
MW-7I	U0712180-018	8260	-	-	-	-	-
MW-7D	U0712180-019	8260	-	-	-	-	-
ULI Trip Blank	U0712180-020	8260	-	-	-	-	-
MW-14S	U0712180-021	8260	-	-	-	Baseline (1993)	TDS
MW-14I	U0712180-022	8260	-	-	-	Baseline (1993)	TDS
MW-14D	U0712180-023	8260	-	-	-	Baseline (1993)	TDS
MW-15S	U0712180-024	8260	-	-	-	Baseline (1993)	TDS
MW-15I	U0712180-025	8260	-	-	-	Baseline (1993)	TDS
MW-15D	U0712180-026	8260	-	-	-	Baseline (1993)	TDS
ULI Trip Blank	U0712180-027	8260	-	-	-	-	-
ULI Trip Blank	U0712180-028	8260	-	-	-	-	-
ULI Trip Blank	U0712180-029	8260	-	-	-	-	-
Holding Blank	U0712180-030	8260	-	-	-	-	-

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Inorganics

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Upstate Laboratories, Inc.

Sample Data

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Upstate Laboratories, Inc.

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-14S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-021

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1370			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	18400			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	62000			P
7439-89-6	Iron	8190			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3920	B		P
7439-96-5	Manganese	175			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	2680	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	56.7			P

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Color Before: YELLOW Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:
Light Brown Sediement

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-14I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-022

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	133	B		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	67.5	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	59000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	180000			P
7439-89-6	Iron	681			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8020			P
7439-96-5	Manganese	143			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	4320	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	24.2			P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-14D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-023

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	19900			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	65300			P
7439-89-6	Iron	155			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3810	B		P
7439-96-5	Manganese	35.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	15500			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	10.8	B		P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-15S

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Matrix (soil/water): WATER   Lab Sample ID: U0712180-024

Level (low/med): LOW   Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	67.1	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	51100			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	12.5	B		P
471-34-1	Hardness, T	181000			P
7439-89-6	Iron	8840			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	12900			P
7439-96-5	Manganese	695			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3240	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	51800			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	12.4	B		P

Color Before: YELLOW   Clarity Before: CLEAR   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts:

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-15I

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Matrix (soil/water): WATER   Lab Sample ID: U0712180-025

Level (low/med): LOW   Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	243			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	128	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	64800			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	198000			P
7439-89-6	Iron	996			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8910			P
7439-96-5	Manganese	201			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	9680			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	12.1	B		P

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Color Before: COLORLESS   Clarity Before: CLOUDY   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts: YES

Comments:

Light Brown Sediment

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-15D

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Matrix (soil/water): WATER   Lab Sample ID: U0712180-026

Level (low/med): LOW   Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2550			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	13.6			P
7440-39-3	Barium	61.1	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	42500			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	143000			P
7439-89-6	Iron	5410			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8870			P
7439-96-5	Manganese	244			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1020	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	13000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	24.4			P

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Color Before: COLORLESS   Clarity Before: CLOUDY   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts: YES

Comments:
Light Brown Sediment

Quality Control Summary

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Upstate Laboratories, Inc.

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum	10000.0	10376.10	103.8	16000.0	16078.50	100.5			P
Antimony	2500.0	2715.45	108.6	4800.0	4709.08	98.1			P
Arsenic	500.0	522.44	104.5	2000.0	2110.43	105.5			P
Barium	10000.0	10707.82	107.1	16000.0	16136.47	100.9			P
Beryllium	250.0	263.08	105.2	400.0	403.16	100.8			P
Cadmium	250.0	264.19	105.7	1000.0	1073.73	107.4			P
Calcium	25000.0	26073.67	104.3	40000.0	40354.55	100.9			P
Chromium	500.0	522.01	104.4	800.0	803.96	100.5			P
Cobalt	2500.0	2658.80	106.4	4000.0	4050.88	101.3			P
Copper	1250.0	1320.22	105.6	2000.0	2027.30	101.4			P
Iron	5000.0	5327.65	106.6	8000.0	8097.49	101.2			P
Lead	250.0	264.75	105.9	2000.0	2130.93	106.5			P
Magnesium	25000.0	26299.87	105.2	40000.0	41273.03	103.2			P
Manganese	750.0	781.30	104.2	1200.0	1199.50	100.0			P
Nickel	2000.0	2114.57	105.7	3200.0	3249.05	101.5			P
Potassium	25000.0	24090.20	96.4	40000.0	39769.14	99.4			P
Silver	500.0	526.36	105.3	800.0	834.79	104.3			P
Sodium	25000.0	25312.92	101.3	40000.0	40860.18	102.2			P
Thallium	500.0	529.93	106.0	2000.0	2053.26	102.7			P
Vanadium	2500.0	2612.11	104.5	4000.0	3999.33	100.0			P
Zinc	1000.0	1052.86	105.3	1600.0	1609.07	100.6			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Selenium	250.0	265.56	106.2	2000.0	2139.10	107.0			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Potassium	25000.0	23502.14	94.0	40000.0	38060.32	95.2			P
Sodium	25000.0	24820.87	99.3	40000.0	40992.15	102.5			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Boron	10000.0	10205.50	102.1	5000.0	5699.69	114.0 NA			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

end of run

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Mercury	2.0	1.81	90.5	4.0	3.73	93.3	3.70	92.4	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				4.0	3.63	90.8	3.68	92.1	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				0.0	22.57	0.0	15.63	0.0
Antimony				120.0	120.69	100.6	121.94	101.6
Arsenic				20.0	19.66	98.3	18.16	90.8
Barium				0.0	0.62	0.0	0.50	0.0
Beryllium				10.0	9.97	99.7	10.02	100.2
Cadmium				10.0	10.20	102.0	10.38	103.8
Calcium				0.0	209.14	0.0	252.61	0.0
Chromium				20.0	20.60	103.0	20.81	104.0
Cobalt				100.0	105.91	105.9	107.04	107.0
Copper				50.0	52.29	104.6	52.02	104.0
Iron				0.0	15.63	0.0	12.40	0.0
Lead				6.0	6.41	106.9	6.04	100.7
Magnesium				0.0	12.46	0.0	5.21	0.0
Manganese				30.0	31.72	105.7	31.82	106.1
Nickel				80.0	85.97	107.5	86.86	108.6
Potassium				0.0	4.36	0.0	5.15	0.0
Silver				20.0	20.26	101.3	20.37	101.9
Sodium				0.0	157.24	0.0	148.26	0.0
Thallium				20.0	23.62	118.1	21.70	108.5
Vanadium				100.0	99.35	99.3	100.08	100.1
Zinc				40.0	49.53	123.8	50.03	125.1

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Selenium				10.0	8.76	87.6	12.10	121.0

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Potassium				0.0	2.29	0.0	0.13	0.0
Sodium				0.0	77.81	0.0	95.08	0.0

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Boron				500.0	670.54	134.1	517.82	103.6

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U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.20	100.3					

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30413 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Prepa-ration Blank	C	M
Aluminum	100.0	U	100.0	U					100.000	U	P
Antimony	15.0	U	15.0	U					15.000	U	P
Arsenic	10.0	U	10.0	U					10.000	U	P
Barium	50.0	U	50.0	U					50.000	U	P
Beryllium	3.0	U	3.0	U					3.000	U	P
Cadmium	5.0	U	5.0	U					5.000	U	P
Calcium	1000.0	U	1000.0	U					1000.000	U	P
Chromium	5.0	U	5.0	U					5.000	U	P
Cobalt	20.0	U	20.0	U					20.000	U	P
Copper	10.0	U	10.0	U					10.000	U	P
Iron	60.0	U	60.0	U					60.000	U	P
Lead	3.0	U	3.0	U					3.000	U	P
Magnesium	1000.0	U	1000.0	U					1000.000	U	P
Manganese	10.0	U	10.0	U					10.000	U	P
Nickel	30.0	U	30.0	U					30.000	U	P
Potassium	1000.0	U	1000.0	U					1000.000	U	P
Silver	10.0	U	10.0	U					10.000	U	P
Sodium	1000.0	U	1000.0	U					1000.000	U	P
Thallium	10.0	U	10.0	U					10.000	U	P
Vanadium	30.0	U	30.0	U					30.000	U	P
Zinc	10.0	U	10.0	U					10.000	U	P

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30416 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Prepa-ration Blank	C		M
Selenium	5.0	U	5.0	U					5.000	U		P

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3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): NA

Preparation Blank Concentration Units (ug/L or mg/kg): NA

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30418 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Potassium	1000.0	U	1000.0	U							P

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30418 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Sodium	1000.0	U	1000.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30415 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Prepa-ration Blank	C	M
Boron	500.0	U	500.0	U					500.000	U	P

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3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30301 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12452 Prepa-ration Blank	C	M
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV

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3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30301 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12452 Prepa-ration Blank	C	M
Mercury			0.2	U							CV

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4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	497686	495667.1	99.1	500025	493804.5	98.8
Antimony	0	0	30	28.1		22	22.7	0.0
Arsenic	0	0	-28	-31.4		-28	-28.2	0.0
Barium	0	500	13	489.5	97.9	12	485.7	97.1
Beryllium	0	500	0	474.3	94.9	0	473.2	94.6
Cadmium	0	1000	7	925.5	92.6	7	920.2	92.0
Calcium	500000	500000	498797	498154.9	99.6	499884	496316.0	99.3
Chromium	0	500	4	475.1	95.0	3	471.9	94.4
Cobalt	0	500	4	451.4	90.3	5	448.3	89.7
Copper	0	500	-1	492.3	98.5	-3	490.1	98.0
Iron	200000	200000	177413	176900.7	88.5	177745	175921.3	88.0
Lead	0	1000	-54	886.0	88.6	-59	872.1	87.2
Magnesium	500000	500000	500071	496125.7	99.2	502147	495443.0	99.1
Manganese	0	500	11	479.2	95.8	11	477.2	95.4
Nickel	0	1000	4	917.9	91.8	3	903.4	90.3
Potassium	0	0	9	36.4		7	35.4	0.0
Silver	0	1000	4	892.3	89.2	5	898.0	89.8
Sodium	0	0	-1308	-1077.4		-1270	-1024.6	0.0
Thallium	0	0	-30	-22.3		-23	-16.3	0.0
Vanadium	0	500	2	472.3	94.5	2	468.4	93.7
Zinc	0	1000	13	902.9	90.3	13	894.4	89.4

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U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Selenium	0	0	-62	-92.0		-90	-71.1	0.0

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Boron	0	1000	101	1047.8	104.8	14	1029.8	103.0

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Solid LCS Source: ERA

Aqueous LCS Source: CPI

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Aluminum	12000.0	11951.23	99.6					
Antimony	1000.0	928.63	92.9					
Arsenic	1000.0	949.70	95.0					
Barium	12000.0	11370.82	94.8					
Beryllium	1000.0	941.70	94.2					
Boron	2000.0	2330.01	116.5					
Cadmium	1000.0	972.81	97.3					
Calcium	21000.0	18640.27	88.8					
Chromium	1000.0	939.20	93.9					
Cobalt	1000.0	962.17	96.2					
Copper	1000.0	963.39	96.3					
Iron	21000.0	19918.85	94.9					
Lead	1000.0	975.01	97.5					
Magnesium	21000.0	20206.93	96.2					
Manganese	1000.0	949.32	94.9					
Nickel	1000.0	983.63	98.4					
Potassium	20000.0	17952.20	89.8					
Selenium	1000.0	1024.78	102.5					
Silver	2000.0	2077.03	103.9					
Sodium	22000.0	19875.09	90.3					
Thallium	1000.0	930.58	93.1					
Vanadium	1000.0	911.49	91.1					
Zinc	1000.0	984.07	98.4					

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U.S. EPA - CLP

9
ICP SERIAL DILUTIONS

MW-15D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Aluminum	2554.91		2721.29		6.5		P
Antimony	15.00	U	75.00	U			P
Arsenic	13.65		50.00	U	0.0		P
Barium	61.07	B	250.00	U	0.0		P
Beryllium	3.00	U	15.00	U			P
Boron	500.00	U	2500.00	U			P
Cadmium	5.00	U	25.00	U			P
Calcium	42529.92		45342.32		6.6		P
Chromium	5.00	U	25.00	U			P
Cobalt	20.00	U	100.00	U			P
Copper	10.00	U	50.00	U			P
Iron	5409.25		5723.50		5.8		P
Lead	3.00	U	15.00	U			P
Magnesium	8873.96		9543.32		7.5		P
Manganese	243.62		312.41		28.2	NA	P
Nickel	30.00	U	150.00	U			P
Potassium	1019.50	B	5000.00	U	0.0		P
Selenium	5.00	U	26.43				P
Silver	10.00	U	50.00	U			P
Sodium	12980.01		16049.24		23.6	NA	P
Thallium	10.00	U	50.00	U			P
Vanadium	30.00	U	150.00	U			P
Zinc	24.39		118.85		387.2	NA	P

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Verification of Instrument Parameters

Upstate Laboratories, Inc.

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Upstate Laboratories, Inc. Contract: 4441/03-238

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 Date: 10/30/07

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200.0	100.0	P
Antimony	206.83		120.0	15.0	P
Arsenic	188.98		10.0	10.0	P
Barium	233.53		200.0	50.0	P
Beryllium	313.11		5.0	3.0	P
Boron	249.77			500.0	P
Cadmium	226.50		5.0	5.0	P
Calcium	227.55		5000.0	1000.0	P
Chromium	267.72		10.0	5.0	P
Cobalt	228.62		50.0	20.0	P
Copper	324.75		25.0	10.0	P
Hardness,	0.00		7.0	7.0	P
Iron	273.95		100.0	60.0	P
Lead	220.35		3.0	3.0	P
Magnesium	279.08		5000.0	1000.0	P
Manganese	257.61		15.0	10.0	P
Nickel	231.60		40.0	30.0	P
Potassium	766.49		5000.0	1000.0	P
Selenium	196.03		5.0	5.0	P
Silver	338.29		10.0	10.0	P
Sodium	330.24		5000.0	1000.0	P
Thallium	190.80		10.0	10.0	P
Vanadium	292.40		50.0	30.0	P
Zinc	206.20		20.0	10.0	P

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Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Upstate Laboratories, Inc. Contract: 4441/03-238

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: Date: 10/30/07

Flame AA ID Number: 21.0

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Mercury	0.00		0.2	0.2	CV

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Comments:

ENVIROFORMS/INORGANIC CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (Annually)

ab Name: UPSTATE LABS INC.

Contract:

ab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

P ID Number: X-001

Date: 10/30/07

nalyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	CO
luminum	308.22		0.0079000	0.0029000	0.0117000	-5.5540000
ntimony	206.83	0.0046000	0.0047000	0.0072000	0.0022000	-0.0004000
rsenic	188.98	-0.0005000	-0.0056000	-0.0088000	0.0013000	-0.0070000
arium	233.53	0.0028000	0.0043000	0.0142000	0.0019000	-0.0110000
eryllium	313.11	0.0000000	-0.0001000	0.0001000	0.0000000	-0.0001000
admium	226.51	-0.0013000	0.0003000	0.0048000	0.0002000	0.0014000
alcium	430.25	0.0342000		-0.9650000	0.1706000	43.7180000
romium	267.72	0.0007000	0.0002000	-0.0010000	-0.0029000	0.0007000
obalt	228.62	-0.0023000	-0.0010000	0.0029000	0.0002000	
opper	324.75	0.0051000	0.0041000	-0.0166000	0.0052000	-0.0250000
ron	273.96	0.0202000	0.0250000		0.0571000	0.0945000
ad	220.35	-0.0147000	0.0185000	0.0079000	0.0030000	0.0120000
gnesium	279.08	0.0209000	0.0638000	0.2132000		-0.0120000
ganese	257.61	0.0007000	0.0009000	0.0007000	0.0036000	0.0002000
rcury						
ckel	231.60	0.0006000	0.0012000	-0.0026000	0.0014000	-0.0480000
tassium	766.49	0.0326000	0.0467000	0.0510000	0.0235000	0.0200000
lenium	196.03	0.0033000	0.0068000	-0.0434000	-0.0009000	-0.1300000
lver	338.29	0.0006000	0.0013000	0.0014000	0.0007000	-0.0050000
dium	330.24	0.0325000	-0.0354000	-1.2745000	0.0225000	-0.2170000
allium	190.80	-0.0042000	0.0246000	-0.0042000	-0.0147000	0.1888000
nadium	292.40	-0.0003000	-0.0001000	-0.0001000	0.0001000	0.0005000
nc	206.20	0.0059000	0.0075000	0.0102000	0.0098000	0.0111000
	189.93	0.0034000	-0.0178000	0.0042000	0.0016000	0.0033000

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ents:

ENVIROFORMS/INORGANIC CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (Annually)

ab Name: UPSTATE LABS INC.   Contract:

ab Code: 10170   Case No.:   SAS No.:   SDG No.: CHA89

P ID Number: X-001   Date: 10/30/07

nalyte	Wave-length (nm)	Interelement Correction Factors for: CU	CD	CR	V	NI
luminum	308.22	0.0179000	0.0055000	0.0371000	4.5216000	0.0350000
ntimony	206.83	0.0035000	0.0001000	0.6945000	-0.1990000	-0.1120000
rsenic	188.98	0.0017000	0.0033000	-0.7070000	0.0194000	0.0005000
arium	233.53	0.0005000	-0.0005000	-0.0240000	0.0412000	-0.0030000
eryllium	313.11	-0.0003000	0.0000000	-0.0150000	0.0008000	-0.0001000
admium	226.50	0.0008000		0.0324000	0.0128000	-0.1440000
alcium	430.25	1.4480000	-0.8720000	-4.8600000	8.0361000	10.8410000
hromium	267.72	-0.0003000	0.0046000		0.0493000	0.0135000
obalt	228.62	0.0340000	0.0199000	0.0382000	0.0035000	0.0026000
opper	324.75		0.1080000	0.0744000	0.0244000	0.0173000
ron	273.96	0.0012000	0.0007000	-4.6690000	10.0020000	-0.0030000
ead	220.35	0.0299000	0.0003000	0.0118000	-0.0170000	0.0246000
gnesium	279.08	0.0057000	0.0050000	-0.1270000	0.0332000	0.0090000
nganese	257.61	0.0005000	0.0001000	0.0007000	-0.0040000	0.0007000
rcury						
ckel	231.60	0.0004000	0.0057000	0.0027000	0.0000000	
tassium	799.49	0.0818000	0.0119000	0.0582000	0.0095000	0.0165000
lenium	196.03	0.0031000	0.0060000	-0.0008000	-0.0580000	0.0028000
lver	338.29	0.0009000	0.0015000	0.1075000	0.0016000	0.0019000
dium	330.24	-0.1300000	0.0071000	-1.1270000	0.1817000	0.0280000
allium	190.80	0.0012000	-0.0005000	0.0409000	0.1837000	0.0016000
nadium	292.40	-0.0060000	-0.0006000	-0.9280000		0.0437000
nc	213.86	0.0007000	0.0017000	-0.5300000	0.0022000	0.0043000
i	199.93	0.0014000	0.0029000	-0.0040000	0.0052000	-0.0040000

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ents:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

ab Name: UPSTATE LABS INC.

Contract:

ab Code: 10170 Case No.: SAS No.: SDG No.: CHA 89

CP ID Number: X-001

Date: 10/30/07

nalyte	Wave-length (nm)	Interelement Correction Factors for: MN	TL	BA	NA	K
luminum	308.22	-0.3450000	0.0076000	0.0019000	0.0073000	-0.0005000
ntimony	206.83	-0.0010000	0.0011000	0.0075000	0.0005000	-0.0001000
rsenic	188.98	0.0042000	0.0013000	0.0092000	0.0008000	0.0008000
arium	233.53	-0.0020000	0.0005000		0.0413000	0.0172000
eryllium	313.11	0.0001000	0.0000000	0.0000000	0.0000000	0.0000000
admium	226.50	0.0032000	0.0016000	0.0001000	0.0005000	0.0003000
alcium	430.25	0.5021000	0.1982000	0.0742000	0.1681000	0.2249000
hromium	267.72	0.0594000	0.0035000	0.0023000	0.0012000	0.0008000
obalt	228.62	0.0012000	0.0009000	0.0007000	0.0005000	0.0005000
opper	324.75	0.0080000	0.0155000	0.0058000	0.0085000	0.0044000
ron	273.96	0.0509000	-0.0020000	-0.0030000	-0.0050000	-0.0060000
ead	220.35	0.0244000	0.0033000	0.0013000	0.0015000	0.0016000
agnesium	279.08	0.0077000	0.0040000	0.0039000	0.0036000	0.0029000
anganese	257.61		0.0443000	0.0299000	0.0137000	0.0085000
ercury						
ckel	231.60	0.0382000	0.0526000	0.0215000	0.0061000	0.0033000
tassium	766.49	0.0153000	0.0136000	0.0165000	0.0568000	
lenium	196.03	0.0864000	0.0012000	0.0022000	0.0065000	0.0028000
lver	338.29	0.0012000	0.0021000	0.0017000	0.0014000	0.0017000
dium	330.24	-0.0170000	-0.0180000	-0.0270000		0.1528000
allium	190.80	-0.5750000		0.0243000	0.0111000	0.0065000
nadium	292.40	0.0086000	0.0097000	0.0039000	0.0015000	0.0043000
nc	206.20	0.0054000	0.0022000	0.0036000	0.0063000	0.0057000
n	189.93	-0.0030000	0.0075000	0.0042000	0.0032000	0.0056000

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ents:

U.S. EPA - CLP

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Upstate Laboratories, Inc.   Contract: 4441/03-23B

Lab Code: --40170   Case No.   SAS No.:   SDG No.: CHA89

ICP ID Number: 58.0   Date: 10/30/07

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum		340000	P
Antimony		120000	P
Arsenic		85000	P
Barium		100000	P
Beryllium		3000	P
Boron		120000	P
Cadmium		80000	P
Calcium		800000	P
Chromium		150000	P
Cobalt		140000	P
Copper		100000	P
Iron		400000	P
Lead		150000	P
Magnesium		900000	P
Manganese		20000	P
Molybdenum		50000	P
Nickel		120000	P
Potassium		40000	P
Selenium		60000	P
Silver		80000	P
Sodium		600000	P
Thallium		50000	P
Vanadium		140000	P
Zinc		130000	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW	12/14/2007		100
MW-14D	12/14/2007		100
MW-14I	12/14/2007		100
MW-14S	12/14/2007		100
MW-15D	12/14/2007		100
MW-15DL	12/14/2007		100
MW-15I	12/14/2007		100
MW-15S	12/14/2007		100
PBW	12/14/2007		100

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U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
MW-14D	12/14/2007		100
MW-14I	12/14/2007		100
MW-14S	12/14/2007		100
MW-15D	12/14/2007		100
MW-15I	12/14/2007		100
MW-15S	12/14/2007		100
PBW	12/14/2007		100

Raw Data

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Upstate Laboratories, Inc.

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Instrument ID Number: 58.0 Method: P

Start Date: 12/18/2007 End Date: 12/18/2007

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1335		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
ICB	1.00	1339		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
ICSA	1.00	1342		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
ICSAB	1.00	1346		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
CRI	1.00	1352		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
PBW	1.00	1356		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
LCSW	1.00	1359		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X			X		X	X	X	
MW-14S	1.00	1402		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-14I	1.00	1406		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-14D	1.00	1409		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-15S	1.00	1413		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-15I	1.00	1416		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-15D	1.00	1420		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
MW-15DL	5.00	1423		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
ICSA	1.00	1430		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
ICSAB	1.00	1433		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
CRI	1.00	1440		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
CCV	1.00	1444		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	
CCB	1.00	1447		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	

Trace Metals
UPSTATE LABORATORIES, INC.
Analysis Run Log
Instrument Batch/File No. ME 8142 | 30413

S45-0-70 Revised 1/04

Instrument No. : X-001
Date Analyzed: 12/18/07
Calibration Stock Solutions:

	Stk No.	ml		ppb		into ml		ppb
Calib	M0737	1	ml of	5,000,000 / 150,000	ppb into	100	ml=	50,000 / 1,500 ppb
ICV:	M0738	0.5	ml of	5,000,000 / 150,000	ppb into	100	ml=	2,500 / 750 ppb
CCV:	M0739	0.8	ml of	5,000,000 / 150,000	ppb into	100	ml=	40,000 / 1,200 ppb

Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Ni | K | ~~Se~~ | Ag | Na | Tl | V | Zn | | | | | | | | B | Mo | Sn

Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.
17	CHA-89		47			77		
18			48			78		
19	12448		49			79		
20			50			80		
21			51			81		
22			52			82		
23	RRLCS for		53			83		
24	K, Na		54			84		
25	RR all for Se		55			85		
26			56			86		
27	See C.A.R. 5151.		57			87		
28			58			88		
29			59			89		
30			60			90		
31			61			91		
32			62			92		
33			63			93		
34			64			94		
35			65			95		
36			66			96		
37			67			97		
38			68			98		
39			69			99		
40			70			100		
41			71			101		
42			72			102		
43			73			103		
44			74			104		
45			75			105		
46			76			106		

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Prepared by: (initials) Date: 12/18/07

Method: LIMSASP-II IEC: MELISSA.IEC MSF:
Results: ME8142 Spectra Stored: Yes Method Stored: Yes
Sample Info: cha User: User1 Date: 12/18/07 1:25:02 PM
Method Description: with 2ppm Y internal standard

Replicate Data
ID: IS Init Date: 12/18/07 1:26:46 PM

Repl#	Element	Net Intensity	Corrected Intensity
1	Y 360.073	1487827.6	1487827.6
2	Y 360.073	1434026.1	1434026.1

Mean Data
ID: IS Init Seq. No.: 1 A/S Pos: 1
Data: Original Date: 12/18/07 1:26:46 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	1460926.8	38043.40	2.60%

Replicate Data
ID: Calib Blank 1 Date: 12/18/07 1:27:29 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1435621.1	1435621.1		
1	Silver	209.5	213.2	0	µg/L
1	Aluminum	4459.6	4538.2	0	µg/L
1	Arsenic	-36.8	-37.4	0	µg/L
1	Copper	4885.1	4971.2	0	µg/L
1	Lead	-115.9	-118.0	0	µg/L
1	Selenium	-71.0	-72.2	0	µg/L
1	Thallium	-81.0	-82.4	0	µg/L
1	Zinc	-344.0	-350.0	0	µg/L
1	Barium	-929.2	-945.6	0	µg/L
1	Beryllium	18720.3	19050.2	0	µg/L
1	Calcium	-173.3	-176.3	0	µg/L
1	Cadmium	-471.9	-480.2	0	µg/L
1	Cobalt	936.6	953.1	0	µg/L
1	Chromium	488.5	497.1	0	µg/L
1	Iron	-6517.8	-6632.7	0	µg/L
1	Potassium	-449.7	-457.6	0	µg/L
1	Magnesium	-1853.4	-1886.1	0	µg/L
1	Manganese	-2474.7	-2518.3	0	µg/L
1	Sodium	-1685.3	-1715.0	0	µg/L
1	Nickel	-348.2	-354.3	0	µg/L
1	Antimony	238.4	242.6	0	µg/L
1	Vanadium	1549.8	1577.1	0	µg/L
2	Y 360.073	1428181.0	1428181.0		
2	Silver	255.9	261.8	0	µg/L
2	Aluminum	4550.6	4654.9	0	µg/L
2	Arsenic	-36.8	-37.6	0	µg/L
2	Copper	4876.5	4988.3	0	µg/L
2	Lead	-99.8	-102.1	0	µg/L
2	Selenium	-85.9	-87.8	0	µg/L
2	Thallium	-99.1	-101.4	0	µg/L
2	Zinc	-327.3	-334.9	0	µg/L
2	Barium	-940.4	-961.9	0	µg/L
2	Beryllium	18720.3	19149.6	0	µg/L
2	Calcium	-145.4	-148.7	0	µg/L
2	Cadmium	-487.6	-498.8	0	µg/L
2	Cobalt	936.2	957.7	0	µg/L
2	Chromium	510.8	522.5	0	µg/L
2	Iron	-6600.7	-6752.0	0	µg/L
2	Potassium	-394.6	-403.6	0	µg/L

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2	Magnesium	-1852.8	-1895.3	0 µg/L
2	Manganese	-2475.8	-2532.5	0 µg/L
2	Sodium	-1738.5	-1778.4	0 µg/L
2	Nickel	-332.8	-340.4	0 µg/L
2	Antimony	244.1	249.7	0 µg/L
2	Vanadium	1551.2	1586.8	0 µg/L

Mean Data

ID: Calib Blank 1 Seq. No.: 2 A/S Pos: 1

Data: Original Date: 12/18/07 1:27:29 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1431901.0	5260.98	0.37%		
Silver	237.5	34.36	14.47%	0	µg/L
Aluminum	4596.5	82.53	1.80%	0	µg/L
Arsenic	-37.5	0.16	0.42%	0	µg/L
Copper	4979.7	12.11	0.24%	0	µg/L
Lead	-110.0	11.23	10.20%	0	µg/L
Selenium	-80.0	11.03	13.79%	0	µg/L
Thallium	-91.9	13.42	14.60%	0	µg/L
Zinc	-342.4	10.73	3.13%	0	µg/L
Barium	-953.8	11.54	1.21%	0	µg/L
Beryllium	19099.9	70.22	0.37%	0	µg/L
Calcium	-162.5	19.52	12.01%	0	µg/L
Cadmium	-489.5	13.14	2.68%	0	µg/L
Cobalt	955.4	3.26	0.34%	0	µg/L
Chromium	509.8	17.97	3.53%	0	µg/L
Iron	-6692.4	84.39	1.26%	0	µg/L
Potassium	-430.6	38.20	8.87%	0	µg/L
Magnesium	-1890.7	6.52	0.34%	0	µg/L
Manganese	-2525.4	10.06	0.40%	0	µg/L
Sodium	-1746.7	44.79	2.56%	0	µg/L
Nickel	-347.3	9.85	2.83%	0	µg/L
Antimony	246.2	5.00	2.03%	0	µg/L
Vanadium	1582.0	6.84	0.43%	0	µg/L

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Replicate Data

ID: Calib Std 1 Date: 12/18/07 1:31:17 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1406477.2	1406477.2		
1	Silver	134198.0	139393.3	1000	µg/L
1	Aluminum	1340820.3	1392728.1	20000	µg/L
1	Arsenic	1956.2	2031.9	1000	µg/L
1	Copper	1039741.6	1079993.7	2500	µg/L
1	Lead	4685.5	4866.9	500	µg/L
1	Selenium	791.7	822.4	500	µg/L
1	Thallium	4304.4	4471.1	1000	µg/L
1	Zinc	78928.4	81984.0	2000	µg/L
1	Barium	3867152.1	4016863.0	20000	µg/L
1	Beryllium	3674630.5	3816888.2	500	µg/L
1	Calcium	30770.4	31961.7	50000	µg/L
1	Cadmium	75633.1	78561.2	500	µg/L
1	Cobalt	559025.7	580667.6	5000	µg/L
1	Chromium	101806.9	105748.2	1000	µg/L
1	Iron	735348.1	763816.0	10000	µg/L
1	Potassium	5919529.7	6148695.2	50000	µg/L
1	Magnesium	829796.3	861920.6	50000	µg/L
1	Manganese	1481095.8	1538434.2	1500	µg/L
1	Sodium	57543.3	59771.0	50000	µg/L
1	Nickel	177783.8	184666.4	4000	µg/L
1	Antimony	26218.4	27233.4	5000	µg/L
1	Vanadium	899544.4	934368.9	5000	µg/L
2	Y 360.073	1408343.3	1408343.3		
2	Silver	135598.0	140660.9	1000	µg/L
2	Aluminum	1340307.5	1390350.9	20000	µg/L
2	Arsenic	1965.1	2038.5	1000	µg/L
2	Copper	1040064.6	1078897.7	2500	µg/L

2	Lead	4723.6	4900.0	500 µg/L
2	Selenium	791.8	821.3	500 µg/L
2	Thallium	4311.4	4472.4	1000 µg/L
2	Zinc	79600.1	82572.1	2000 µg/L
2	Barium	3876799.7	4021548.5	20000 µg/L
2	Beryllium	3680169.7	3817577.0	500 µg/L
2	Calcium	31088.7	32249.4	50000 µg/L
2	Cadmium	76418.4	79271.6	500 µg/L
2	Cobalt	559524.9	580416.0	5000 µg/L
2	Chromium	102633.7	106465.8	1000 µg/L
2	Iron	742253.8	769967.5	10000 µg/L
2	Potassium	5952488.6	6174737.9	50000 µg/L
2	Magnesium	831033.8	862062.3	50000 µg/L
2	Manganese	1483537.0	1538928.1	1500 µg/L
2	Sodium	58492.4	60676.3	50000 µg/L
2	Nickel	179654.7	186362.5	4000 µg/L
2	Antimony	26456.4	27444.2	5000 µg/L
2	Vanadium	901614.3	935278.0	5000 µg/L

Mean Data --

ID: Calib Std 1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 12/18/07 1:31:17 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1407410.2	1319.48	0.09%		
Silver	140027.1	896.28	0.64%	1000	µg/L
Aluminum	1391539.5	1680.98	0.12%	20000	µg/L
Arsenic	2035.2	4.64	0.23%	1000	µg/L
Copper	1079445.7	774.94	0.07%	2500	µg/L
Lead	4883.4	23.41	0.48%	500	µg/L
Selenium	821.8	0.73	0.09%	500	µg/L
Thallium	4471.7	0.90	0.02%	1000	µg/L
Zinc	82278.1	415.86	0.51%	2000	µg/L
Barium	4019205.8	3313.18	0.08%	20000	µg/L
Beryllium	3817232.6	487.05	0.01%	500	µg/L
Calcium	32105.5	203.49	0.63%	50000	µg/L
Cadmium	78916.4	502.36	0.64%	500	µg/L
Cobalt	580541.8	177.90	0.03%	5000	µg/L
Chromium	106107.0	507.38	0.48%	1000	µg/L
Iron	766891.7	4349.77	0.57%	10000	µg/L
Potassium	6161716.5	18414.96	0.30%	50000	µg/L
Magnesium	861991.5	100.22	0.01%	50000	µg/L
Manganese	1538681.1	349.27	0.02%	1500	µg/L
Sodium	60223.6	640.18	1.06%	50000	µg/L
Nickel	185514.4	1199.28	0.65%	4000	µg/L
Antimony	27338.8	149.11	0.55%	5000	µg/L
Vanadium	934823.5	642.86	0.07%	5000	µg/L

Replicate Data --

ID: ICV Date: 12/18/07 1:35:13 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	1404645.2	1404645.2				
1	Silver	71081.2	73929.4	527.2	µg/L		
1	Aluminum	698063.3	726033.5	10403	µg/L		
1	Arsenic	1007.2	1047.6	523.5	µg/L		
1	Copper	551538.8	573638.0	1323.1	µg/L		
1	Lead	2450.3	2548.4	266.2	µg/L		
1	Selenium	387.0	402.5	267.5	µg/L		
1	Thallium	2245.3	2335.3	531.9	µg/L		
1	Zinc	41616.7	43284.2	1056.1	µg/L		
1	Barium	2075250.2	2158401.9	10743	µg/L		
1	Beryllium	1945340.1	2023286.6	263.8	µg/L		
1	Calcium	16039.9	16682.6	26102	µg/L		
1	Cadmium	40017.8	41621.3	265.2	µg/L		
1	Cobalt	298221.0	310170.2	2667.5	µg/L		
1	Chromium	53640.9	55790.2	523.5	µg/L		
1	Iron	390929.3	406593.1	5342.5	µg/L		
1	Potassium	2878631.7	2993973.5	24297	µg/L		

1 Magnesium	436432.9	453920.0	26382	µg/L
1 Manganese	771999.3	802932.0	783.9	µg/L
1 Sodium	28486.7	29628.1	25314	µg/L
1 Nickel	94442.3	98226.4	2121.4	µg/L
1 Antimony	14458.5	15037.9	2729.8	µg/L
1 Vanadium	471568.0	490462.9	2619.3	µg/L
2 Y 360.073	1425817.9	1425817.9		
2 Silver	71934.9	73706.2	525.6	µg/L
2 Aluminum	704907.9	722265.4	10349	µg/L
2 Arsenic	1018.1	1043.1	521.4	µg/L
2 Copper	557424.7	571150.6	1317.3	µg/L
2 Lead	2459.0	2519.6	263.3	µg/L
2 Selenium	406.5	416.5	275.3	µg/L
2 Thallium	2262.1	2317.8	528.0	µg/L
2 Zinc	41985.1	43018.9	1049.7	µg/L
2 Barium	2092869.5	2144403.7	10673	µg/L
2 Beryllium	1963478.0	2011826.1	262.3	µg/L
2 Calcium	16246.2	16646.2	26045	µg/L
2 Cadmium	40318.8	41311.6	263.2	µg/L
2 Cobalt	300736.6	308141.9	2650.0	µg/L
2 Chromium	54142.8	55475.9	520.5	µg/L
2 Iron	394583.1	404299.2	5312.8	µg/L
2 Potassium	2872330.9	2943058.3	23884	µg/L
2 Magnesium	440257.3	451098.1	26218	µg/L
2 Manganese	778386.2	797553.0	778.7	µg/L
2 Sodium	28912.6	29624.5	25311	µg/L
2 Nickel	95243.0	97588.2	2107.7	µg/L
2 Antimony	14524.3	14881.9	2701.1	µg/L
2 Vanadium	476070.9	487793.5	2605.0	µg/L

Mean Data ---

ID: ICV Seq. No.: 4 Sample No.: 1 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 : 1.0
Data: Original Date: 12/18/07 1:35:13 PM

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Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1415231.5							1.06%
Silver	73817.8	526.4	1.13	µg/L				0.21%
Aluminum	724149.4	10376	38.4	µg/L				0.37%
Arsenic	1045.3	522.4	1.51	µg/L				0.29%
Copper	572394.3	1320.2	4.09	µg/L				0.31%
Lead	2534.0	264.7	2.04	µg/L				0.77%
Selenium	409.5	271.4	5.46	µg/L				2.01%
Thallium	2326.5	529.9	2.71	µg/L				0.51%
Zinc	43151.5	1052.9	4.54	µg/L				0.43%
Barium	2151402.8	10708	49.2	µg/L				0.46%
Beryllium	2017556.3	263.1	1.07	µg/L				0.41%
Calcium	16664.4	26074	39.9	µg/L				0.15%
Cadmium	41466.4	264.2	1.38	µg/L				0.52%
Cobalt	309156.0	2658.8	12.37	µg/L				0.47%
Chromium	55633.1	522.0	2.10	µg/L				0.40%
Iron	405446.2	5327.7	20.97	µg/L				0.39%
Potassium	2968515.9	24090	292.1	µg/L				1.21%
Magnesium	452509.0	26300	115.5	µg/L				0.44%
Manganese	800242.5	781.3	3.70	µg/L				0.47%
Sodium	29626.3	25313	2.0	µg/L				0.01%
Nickel	97907.3	2114.6	9.71	µg/L				0.46%
Antimony	14959.9	2715.4	20.36	µg/L				0.75%
Vanadium	489128.2	2612.1	10.11	µg/L				0.39%

Replicate Data ---

ID: ICB Date: 12/18/07 1:38:46 PM

Repl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1 Y 360.073	1431730.7	1431730.7				
1 Silver	189.8	193.7	-0.3	µg/L		
1 Aluminum	4622.5	4716.7	1.7	µg/L		
1 Arsenic	-40.9	-41.7	-2.0	µg/L		

1 Copper	6008.0	6130.5	2.7	µg/L
1 Lead	-108.3	-110.5	0.0	µg/L
1 Selenium	-75.0	-76.5	1.9	µg/L
1 Thallium	-71.6	-73.0	4.1	µg/L
1 Zinc	-320.9	-327.4	0.4	µg/L
1 Barium	-706.4	-720.8	1.2	µg/L
1 Beryllium	19089.6	19478.9	0.0	µg/L
1 Calcium	-119.5	-121.9	63.0	µg/L
1 Cadmium	-455.3	-464.5	0.2	µg/L
1 Cobalt	966.2	985.9	0.3	µg/L
1 Chromium	503.5	513.8	0.0	µg/L
1 Iron	-6393.6	-6524.0	2.2	µg/L
1 Potassium	123.9	126.5	4.5	µg/L
1 Magnesium	-1792.4	-1829.0	3.6	µg/L
1 Manganese	-2337.3	-2384.9	0.1	µg/L
1 Sodium	-1673.3	-1707.4	31.7	µg/L
1 Nickel	-324.8	-331.4	0.3	µg/L
1 Antimony	256.8	262.0	2.9	µg/L
1 Vanadium	1623.7	1656.8	0.4	µg/L
2 Y 360.073	1424719.3	1424719.3		
2 Silver	228.7	234.5	0.0	µg/L
2 Aluminum	4468.2	4581.7	-0.2	µg/L
2 Arsenic	-35.5	-36.4	0.6	µg/L
2 Copper	5910.5	6060.7	2.5	µg/L
2 Lead	-100.7	-103.2	0.7	µg/L
2 Selenium	-80.2	-82.2	-1.2	µg/L
2 Thallium	-80.0	-82.0	2.2	µg/L
2 Zinc	-322.3	-330.5	0.3	µg/L
2 Barium	-841.8	-863.2	0.5	µg/L
2 Beryllium	19012.2	19495.3	0.1	µg/L
2 Calcium	-140.5	-144.1	28.6	µg/L
2 Cadmium	-473.7	-485.7	0.0	µg/L
2 Cobalt	945.4	969.5	0.1	µg/L
2 Chromium	505.7	518.6	0.1	µg/L
2 Iron	-6416.1	-6579.2	1.5	µg/L
2 Potassium	-193.3	-198.2	1.9	µg/L
2 Magnesium	-1817.2	-1863.4	1.6	µg/L
2 Manganese	-2437.7	-2499.7	0.0	µg/L
2 Sodium	-1650.3	-1692.3	43.9	µg/L
2 Nickel	-346.3	-355.1	-0.2	µg/L
2 Antimony	243.3	249.5	0.6	µg/L
2 Vanadium	1624.5	1665.8	0.4	µg/L

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Mean Data --

ID: ICB Seq. No.: 5 Sample No.: 2 A/S Pos: 4
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 1:38:46 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1428225.0							0.35%
Silver	214.1	-0.2	0.21	µg/L				123.67%
Aluminum	4649.2	0.8	1.38	µg/L				181.27%
Arsenic	-39.1	-0.7	1.83	µg/L				246.75%
Copper	6095.6	2.6	0.11	µg/L				4.43%
Lead	-106.9	0.3	0.51	µg/L				162.28%
Selenium	-79.4	0.4	2.23	µg/L				625.39%
Thallium	-77.5	3.2	1.39	µg/L				44.09%
Zinc	-329.0	0.3	0.05	µg/L				16.27%
Barium	-792.0	0.8	0.50	µg/L				62.22%
Beryllium	19487.1	0.1	0.00	µg/L				3.00%
Calcium	-133.0	45.8	24.29	µg/L				53.05%
Cadmium	-475.1	0.1	0.09	µg/L				104.16%
Cobalt	977.7	0.2	0.10	µg/L				51.99%
Chromium	516.2	0.1	0.03	µg/L				53.26%
Iron	-6551.6	1.8	0.50	µg/L				27.73%
Potassium	-35.9	3.2	1.86	µg/L				58.15%
Magnesium	-1846.2	2.6	1.41	µg/L				54.72%
Manganese	-2442.3	0.1	0.08	µg/L				97.62%
Sodium	-1699.9	37.8	8.63	µg/L				22.85%
Nickel	-343.3	0.1	0.36	µg/L				409.63%

Antimony	255.7	1.8	1.63 µg/L	92.16%
Vanadium	1661.3	0.4	0.03 µg/L	8.02%

Replicate Data --

IDs: ICSA Date: 12/18/07 1:42:10 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1301353.4	1301353.4				
1	Silver	757.4	850.3	4.4	µg/L		
1	Aluminum	30865721.4	34650511.8	499600	µg/L		
1	Arsenic	-96.2	-108.1	-34.0	µg/L		
1	Copper	4146.9	4655.4	-0.8	µg/L		
1	Lead	-577.6	-648.4	-53.9	µg/L		
1	Selenium	-228.4	-256.4	-97.8	µg/L		
1	Thallium	-206.7	-232.1	-30.7	µg/L		
1	Zinc	182.5	204.8	13.2	µg/L		
1	Barium	1464.7	1644.3	12.9	µg/L		
1	Beryllium	17036.6	19125.6	0.0	µg/L		
1	Calcium	287957.3	323267.0	501160	µg/L		
1	Cadmium	617.1	692.8	7.4	µg/L		
1	Cobalt	1328.9	1491.8	4.6	µg/L		
1	Chromium	830.3	932.1	4.0	µg/L		
1	Iron	12273792.3	13778818.8	178200	µg/L		
1	Potassium	527.2	591.8	8.3	µg/L		
1	Magnesium	7725225.6	8672501.7	502060	µg/L		
1	Manganese	7919.1	8890.2	11.1	µg/L		
1	Sodium	-2980.6	-3346.0	-1290.4	µg/L		
1	Nickel	-131.4	-147.5	4.3	µg/L		
1	Antimony	368.7	413.9	31.0	µg/L		
1	Vanadium	1786.1	2005.1	2.3	µg/L		
2	Y 360.073	1317937.8	1317937.8				
2	Silver	754.4	836.2	4.3	µg/L		
2	Aluminum	31019406.0	34384842.6	495770	µg/L		
2	Arsenic	-74.8	-82.9	-21.9	µg/L		
2	Copper	4180.4	4633.9	-0.8	µg/L		
2	Lead	-592.3	-656.6	-54.7	µg/L		
2	Selenium	-220.9	-244.9	-91.4	µg/L		
2	Thallium	-200.5	-222.2	-28.6	µg/L		
2	Zinc	198.7	220.2	13.6	µg/L		
2	Barium	1404.7	1557.1	12.5	µg/L		
2	Beryllium	17075.3	18927.9	0.0	µg/L		
2	Calcium	288875.4	320216.8	496430	µg/L		
2	Cadmium	621.5	689.0	7.4	µg/L		
2	Cobalt	1306.1	1447.8	4.2	µg/L		
2	Chromium	760.2	842.6	3.2	µg/L		
2	Iron	12319970.6	13656620.4	176620	µg/L		
2	Potassium	588.9	652.8	8.8	µg/L		
2	Magnesium	7761709.5	8603812.8	498080	µg/L		
2	Manganese	7953.1	8816.0	11.0	µg/L		
2	Sodium	-3058.6	-3390.4	-1326.2	µg/L		
2	Nickel	-172.7	-191.5	3.4	µg/L		
2	Antimony	368.1	408.0	29.9	µg/L		
2	Vanadium	1820.2	2017.7	2.3	µg/L		

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Mean Data --

ID: ICSA Seq. No.: 6 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 1:42:10 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	1309645.6							0.90%
Silver	843.3	4.3	0.07	µg/L				1.65%
Aluminum	34517677.2	497690	2708.9	µg/L				0.54%
Arsenic	-95.5	-28.0	8.57	µg/L				30.64%
Copper	4644.6	-0.8	0.04	µg/L				4.53%
Lead	-652.5	-54.3	0.58	µg/L				1.07%
Selenium	-250.6	-94.6	4.52	µg/L				4.78%
Thallium	-227.2	-29.6	1.53	µg/L				5.15%

Zinc	212.5	13.4	0.26 µg/L	1.96%
Barium	1600.7	12.7	0.31 µg/L	2.41%
Beryllium	19026.8	0.0	0.02 µg/L	191.18%
Calcium	321741.9	498800	3342.0 µg/L	0.67%
Cadmium	690.9	7.4	0.02 µg/L	0.23%
Cobalt	1469.8	4.4	0.27 µg/L	6.08%
Chromium	887.4	3.6	0.60 µg/L	16.76%
Iron	13717719.6	177410	1117.0 µg/L	0.63%
Potassium	622.3	8.5	0.35 µg/L	2.10%
Magnesium	8638157.2	500070	2811.2 µg/L	0.56%
Manganese	8853.1	11.1	0.05 µg/L	0.46%
Sodium	-3368.2	-1308.3	25.31 µg/L	1.93%
Nickel	-169.5	3.8	0.67 µg/L	17.49%
Antimony	410.9	30.4	0.77 µg/L	2.53%
Vanadium	2011.4	2.3	0.05 µg/L	2.07%

Replicate Data --

ID: ICSAB Date: 12/18/07 1:45:35 PM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1322499.4	1322499.4				
1	Silver	112755.1	124557.3	889.3	µg/L		
1	Aluminum	31109756.1	34366047.6	495500	µg/L		
1	Arsenic	-111.8	-123.6	-41.5	µg/L		
1	Copper	195922.0	216429.4	492.0	µg/L		
1	Lead	7967.2	8801.2	892.3	µg/L		
1	Selenium	-258.3	-285.3	-113.8	µg/L		
1	Thallium	-172.9	-190.9	-21.7	µg/L		
1	Zinc	33606.9	37124.5	907.0	µg/L		
1	Barium	88231.2	97466.4	489.6	µg/L		
1	Beryllium	3280713.1	3624108.9	474.6	µg/L		
1	Calcium	290670.7	321095.6	497800	µg/L		
1	Cadmium	132594.6	146473.5	925.4	µg/L		
1	Cobalt	48223.9	53271.6	451.3	µg/L		
1	Chromium	45861.3	50661.7	474.9	µg/L		
1	Iron	12381618.4	13677615.7	176890	µg/L		
1	Potassium	3684.7	4070.4	36.5	µg/L		
1	Magnesium	7761173.6	8573543.9	496330	µg/L		
1	Manganese	443670.6	490110.1	479.5	µg/L		
1	Sodium	-2798.1	-3090.9	-1084.6	µg/L		
1	Nickel	38497.3	42526.8	922.7	µg/L		
1	Antimony	341.8	377.6	24.3	µg/L		
1	Vanadium	81228.2	89730.4	472.3	µg/L		
2	Y 360.073	1330180.1	1330180.1				
2	Silver	114166.3	125388.0	895.3	µg/L		
2	Aluminum	31311640.2	34389339.0	495830	µg/L		
2	Arsenic	-74.4	-81.7	-21.3	µg/L		
2	Copper	197329.3	216725.2	492.7	µg/L		
2	Lead	7899.3	8675.8	879.7	µg/L		
2	Selenium	-251.2	-275.9	-108.6	µg/L		
2	Thallium	-178.8	-196.4	-22.9	µg/L		
2	Zinc	33499.7	36792.4	898.9	µg/L		
2	Barium	88697.3	97415.6	489.4	µg/L		
2	Beryllium	3295539.4	3619466.1	474.0	µg/L		
2	Calcium	292781.2	321559.4	498510	µg/L		
2	Cadmium	133398.7	146510.8	925.6	µg/L		
2	Cobalt	48513.5	53282.1	451.4	µg/L		
2	Chromium	46161.5	50698.8	475.3	µg/L		
2	Iron	12454348.4	13678517.1	176910	µg/L		
2	Potassium	3677.7	4039.2	36.3	µg/L		
2	Magnesium	7799781.1	8566440.9	495920	µg/L		
2	Manganese	445693.1	489501.3	478.9	µg/L		
2	Sodium	-2798.1	-3073.1	-1070.2	µg/L		
2	Nickel	38317.2	42083.5	913.2	µg/L		
2	Antimony	382.2	419.7	32.0	µg/L		
2	Vanadium	81724.6	89757.5	472.4	µg/L		

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ean Data --

D: ICSAB Seq. No.: 7 Sample No.: 4 A/S Pos: 6

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 1:45:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1326339.8							0.41%
Silver	124972.6	892.3	4.20	µg/L				0.47%
Aluminum	34377693.3	495670	237.5	µg/L				0.05%
Arsenic	-102.6	-31.4	14.28	µg/L				45.45%
Copper	216577.3	492.3	0.49	µg/L				0.10%
Lead	8738.5	886.0	8.88	µg/L				1.00%
Selenium	-280.6	-111.2	3.68	µg/L				3.31%
Thallium	-193.7	-22.3	0.84	µg/L				3.76%
Zinc	36958.5	902.9	5.68	µg/L				0.63%
Barium	97441.0	489.5	0.18	µg/L				0.04%
Beryllium	3621787.5	474.3	0.43	µg/L				0.09%
Calcium	321327.5	498150	508.2	µg/L				0.10%
Cadmium	146492.1	925.5	0.17	µg/L				0.02%
Cobalt	53276.8	451.4	0.06	µg/L				0.01%
Chromium	50680.2	475.1	0.25	µg/L				0.05%
Iron	13678066.4	176900	8.2	µg/L				0.00%
Potassium	4054.8	36.4	0.18	µg/L				0.49%
Magnesium	8569992.4	496130	290.7	µg/L				0.06%
Manganese	489805.7	479.2	0.42	µg/L				0.09%
Sodium	-3082.0	-1077.4	10.18	µg/L				0.95%
Nickel	42305.1	917.9	6.75	µg/L				0.74%
Antimony	398.7	28.1	5.50	µg/L				19.53%
Vanadium	89744.0	472.3	0.10	µg/L				0.02%

Replicate Data

ID: BLANK Date: 12/18/07 1:48:59 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1429466.9	1429466.9				
1	Silver	230.2	235.3	0.0	µg/L		
1	Aluminum	9470.6	9679.0	73.3	µg/L		
1	Arsenic	-34.7	-35.4	1.0	µg/L		
1	Copper	5622.8	5746.5	1.8	µg/L		
1	Lead	-110.9	-113.4	-0.3	µg/L		
1	Selenium	-76.7	-78.4	0.9	µg/L		
1	Thallium	-77.3	-79.0	2.8	µg/L		
1	Zinc	-304.7	-311.4	0.8	µg/L		
1	Barium	-905.3	-925.2	0.1	µg/L		
1	Beryllium	19439.4	19867.2	0.1	µg/L		
1	Calcium	-72.3	-73.9	137.4	µg/L		
1	Cadmium	-438.9	-448.5	0.3	µg/L		
1	Cobalt	944.9	965.7	0.1	µg/L		
1	Chromium	529.6	541.3	0.3	µg/L		
1	Iron	-3850.6	-3935.3	35.6	µg/L		
1	Potassium	-538.3	-550.2	-1.0	µg/L		
1	Magnesium	-442.0	-451.7	83.3	µg/L		
1	Manganese	-2401.2	-2454.1	0.1	µg/L		
1	Sodium	-1719.9	-1757.7	-8.9	µg/L		
1	Nickel	-335.9	-343.3	0.1	µg/L		
1	Antimony	244.4	249.7	0.7	µg/L		
1	Vanadium	1611.7	1647.2	0.3	µg/L		
2	Y 360.073	1426497.6	1426497.6				
2	Silver	229.7	235.3	0.0	µg/L		
2	Aluminum	10499.9	10753.3	88.8	µg/L		
2	Arsenic	-39.1	-40.0	-1.2	µg/L		
2	Copper	5716.7	5854.6	2.0	µg/L		
2	Lead	-111.1	-113.8	-0.4	µg/L		
2	Selenium	-72.6	-74.3	3.2	µg/L		
2	Thallium	-69.9	-71.5	4.5	µg/L		
2	Zinc	-308.2	-315.6	0.6	µg/L		
2	Barium	-906.7	-928.5	0.1	µg/L		
2	Beryllium	19462.5	19932.3	0.1	µg/L		
2	Calcium	-70.1	-71.8	140.6	µg/L		
2	Cadmium	-453.2	-464.1	0.2	µg/L		

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Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
2	Cobalt	937.4	960.0	0.0	µg/L
2	Chromium	512.6	525.0	0.1	µg/L
2	Iron	-4455.8	-4563.3	27.5	µg/L
2	Potassium	-675.9	-692.2	-2.1	µg/L
2	Magnesium	-789.4	-808.5	62.6	µg/L
2	Manganese	-2439.9	-2498.8	0.0	µg/L
2	Sodium	-1668.7	-1709.0	30.4	µg/L
2	Nickel	-329.8	-337.8	0.2	µg/L
2	Antimony	241.4	247.2	0.2	µg/L
2	Vanadium	1566.5	1604.3	0.1	µg/L

Mean Data ---

ID: BLANK Seq. No.: 8 Sample No.: 5 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0
Data: Original Date: 12/18/07 1:48:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1427982.2							0.15%
Silver	235.3	0.0	0.00	µg/L				1.29%
Aluminum	10216.2	81.0	10.95	µg/L				13.52%
Arsenic	-37.7	-0.1	1.56	µg/L				999.9%
Copper	5800.6	1.9	0.18	µg/L				9.31%
Lead	-113.6	-0.4	0.03	µg/L				7.65%
Selenium	-76.3	2.0	1.58	µg/L				77.33%
Thallium	-75.3	3.6	1.15	µg/L				31.66%
Zinc	-313.5	0.7	0.07	µg/L				10.28%
Barium	-926.9	0.1	0.01	µg/L				8.86%
Beryllium	19899.7	0.1	0.01	µg/L				5.75%
Calcium	-72.8	139.0	2.29	µg/L				1.65%
Cadmium	-456.3	0.2	0.07	µg/L				33.17%
Cobalt	962.8	0.1	0.03	µg/L				53.75%
Chromium	533.1	0.2	0.11	µg/L				49.34%
Iron	-4249.3	31.6	5.74	µg/L				18.18%
Potassium	-621.2	-1.5	0.82	µg/L				52.71%
Magnesium	-630.1	73.0	14.60	µg/L				20.01%
Manganese	-2476.4	0.0	0.03	µg/L				64.57%
Sodium	-1733.4	10.8	27.82	µg/L				258.34%
Nickel	-340.6	0.1	0.08	µg/L				57.11%
Antimony	248.5	0.4	0.32	µg/L				75.25%
Vanadium	1625.8	0.2	0.16	µg/L				69.29%

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Replicate Data --

ID: CRII Date: 12/18/07 1:52:24 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1432672.2	1432672.2				
1	Silver	3038.7	3098.6	20.5	µg/L		
1	Aluminum	6331.8	6456.7	26.8	µg/L		
1	Arsenic	6.9	7.0	21.5	µg/L		
1	Copper	27028.2	27561.3	52.5	µg/L		
1	Lead	-47.4	-48.3	6.2	µg/L		
1	Selenium	-62.3	-63.5	9.1	µg/L		
1	Thallium	18.5	18.9	24.3	µg/L		
1	Zinc	1662.9	1695.7	49.3	µg/L		
1	Barium	-810.4	-826.3	0.6	µg/L		
1	Beryllium	93346.3	95187.3	10.0	µg/L		
1	Calcium	17.8	18.1	280.0	µg/L		
1	Cadmium	1100.8	1122.5	10.2	µg/L		
1	Cobalt	12941.0	13196.2	105.6	µg/L		
1	Chromium	2627.5	2679.3	20.5	µg/L		
1	Iron	-5278.0	-5382.1	16.9	µg/L		
1	Potassium	214.2	218.5	5.3	µg/L		
1	Magnesium	-1609.2	-1640.9	14.5	µg/L		
1	Manganese	29641.5	30226.1	31.9	µg/L		
1	Sodium	-1480.7	-1509.9	191.1	µg/L		
1	Nickel	3551.7	3621.8	85.4	µg/L		
1	Antimony	871.1	888.3	118.5	µg/L		
1	Vanadium	19795.4	20185.8	99.7	µg/L		

2	Y 360.073	1422402.7	1422402.7				
2	Silver	2960.6	3040.8	20.1	µg/L		
2	Aluminum	5712.3	5867.0	18.3	µg/L		
2	Arsenic	-0.5	-0.5	17.8	µg/L		
2	Copper	26625.6	27346.7	52.0	µg/L		
2	Lead	-42.6	-43.7	6.6	µg/L		
2	Selenium	-51.3	-52.7	15.2	µg/L		
2	Thallium	12.5	12.9	23.0	µg/L		
2	Zinc	1666.4	1711.5	49.7	µg/L		
2	Barium	-811.1	-833.1	0.6	µg/L		
2	Beryllium	92017.0	94509.1	9.9	µg/L		
2	Calcium	-71.3	-73.3	138.3	µg/L		
2	Cadmium	1109.7	1139.8	10.3	µg/L		
2	Cobalt	12918.2	13268.1	106.2	µg/L		
2	Chromium	2619.4	2690.4	20.7	µg/L		
2	Iron	-5437.1	-5584.4	14.3	µg/L		
2	Potassium	-5.7	-5.8	3.4	µg/L		
2	Magnesium	-1664.8	-1709.9	10.5	µg/L		
2	Manganese	29107.4	29895.8	31.6	µg/L		
2	Sodium	-1551.7	-1593.7	123.4	µg/L		
2	Nickel	3575.8	3672.6	86.5	µg/L		
2	Antimony	887.8	911.9	122.9	µg/L		
2	Vanadium	19535.1	20064.2	99.0	µg/L		

Mean Data

ID: CRI1 Seq. No.: 9 Sample No.: 6 A/S Pos: 8
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 1:52:24 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1427537.5							0.51%
Silver	3069.7	20.3	0.29	µg/L				1.44%
Aluminum	6161.9	22.6	6.01	µg/L				26.64%
Arsenic	3.2	19.7	2.58	µg/L				13.10%
Copper	27454.0	52.3	0.35	µg/L				0.68%
Lead	-46.0	6.4	0.32	µg/L				5.05%
Selenium	-58.1	12.2	4.27	µg/L				35.12%
Thallium	15.9	23.6	0.93	µg/L				3.92%
Zinc	1703.6	49.5	0.27	µg/L				0.55%
Barium	-829.7	0.6	0.02	µg/L				3.85%
Beryllium	94848.2	10.0	0.06	µg/L				0.63%
Calcium	-27.6	209.1	100.16	µg/L				47.89%
Cadmium	1131.1	10.2	0.08	µg/L				0.75%
Cobalt	13232.1	105.9	0.44	µg/L				0.41%
Chromium	2684.9	20.6	0.07	µg/L				0.36%
Iron	-5483.2	15.6	1.85	µg/L				11.83%
Potassium	106.3	4.4	1.29	µg/L				29.54%
Magnesium	-1675.4	12.5	2.82	µg/L				22.65%
Manganese	30060.9	31.7	0.23	µg/L				0.72%
Sodium	-1551.8	157.2	47.83	µg/L				30.42%
Nickel	3647.2	86.0	0.77	µg/L				0.90%
Antimony	900.1	120.7	3.07	µg/L				2.55%
Vanadium	20125.0	99.3	0.46	µg/L				0.46%

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Replicate Data

ID: MBLK Date: 12/18/07 1:55:47 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1416469.3	1416469.3				
1	Silver	167.6	172.8	-0.5	µg/L		
1	Aluminum	5131.5	5292.5	10.0	µg/L		
1	Arsenic	-37.2	-38.4	-0.4	µg/L		
1	Copper	5217.1	5380.9	0.9	µg/L		
1	Lead	-104.7	-108.0	0.2	µg/L		
1	Selenium	-69.4	-71.6	4.7	µg/L		
1	Thallium	-78.8	-81.3	2.3	µg/L		
1	Zinc	-256.3	-264.4	1.9	µg/L		
1	Barium	-910.4	-939.0	0.1	µg/L		
1	Beryllium	18629.5	19214.2	0.0	µg/L		

1	Calcium	-134.0	-138.2	37.7 µg/L
1	Cadmium	-491.3	-506.7	-0.1 µg/L
1	Cobalt	948.6	978.3	0.2 µg/L
1	Chromium	514.3	530.5	0.2 µg/L
1	Iron	-6281.7	-6478.9	2.8 µg/L
1	Potassium	691.1	712.8	9.3 µg/L
1	Magnesium	-1739.7	-1794.3	5.6 µg/L
1	Manganese	-2412.6	-2488.4	0.0 µg/L
1	Sodium	-1668.6	-1720.9	20.8 µg/L
1	Nickel	-333.3	-343.8	0.1 µg/L
1	Antimony	255.2	263.2	3.2 µg/L
1	Vanadium	1568.7	1618.0	0.2 µg/L
2	Y 360.073	1396465.0	1396465.0	
2	Silver	109.5	114.6	-0.9 µg/L
2	Aluminum	4832.2	5055.3	6.6 µg/L
2	Arsenic	-33.0	-34.5	1.4 µg/L
2	Copper	5079.5	5313.9	0.8 µg/L
2	Lead	-108.4	-113.4	-0.3 µg/L
2	Selenium	-86.9	-90.9	-6.1 µg/L
2	Thallium	-83.4	-87.3	1.0 µg/L
2	Zinc	-243.1	-254.4	2.1 µg/L
2	Barium	-922.6	-965.2	-0.1 µg/L
2	Beryllium	18473.3	19326.1	0.0 µg/L
2	Calcium	-176.9	-185.1	-34.9 µg/L
2	Cadmium	-466.3	-487.9	0.0 µg/L
2	Cobalt	935.4	978.5	0.2 µg/L
2	Chromium	496.0	518.9	0.1 µg/L
2	Iron	-6403.5	-6699.1	-0.1 µg/L
2	Potassium	712.2	745.1	9.5 µg/L
2	Magnesium	-1800.9	-1884.0	0.4 µg/L
2	Manganese	-2433.5	-2545.8	0.0 µg/L
2	Sodium	-1643.7	-1719.6	21.9 µg/L
2	Nickel	-352.5	-368.8	-0.5 µg/L
2	Antimony	247.7	259.1	2.4 µg/L
2	Vanadium	1620.6	1695.4	0.6 µg/L

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Mean Data --

ID: MBLK

Sample Qty: 1.0000 g Seq. No.: 10 Sample No.: 7 A/S Pos: 9
Prep. Vol.: 1.0 L Dilution: 1.0
Data: Original Date: 12/18/07 1:55:47 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1406467.2							1.01%
Silver	143.7	-0.7	0.29	µg/L				43.95%
Aluminum	5173.9	8.3	2.42	µg/L				29.06%
Arsenic	-36.5	0.5	1.32	µg/L				262.17%
Copper	5347.4	0.9	0.11	µg/L				12.88%
Lead	-110.7	-0.1	0.38	µg/L				550.05%
Selenium	-81.3	-0.7	7.58	µg/L				>999.9%
Thallium	-84.3	1.7	0.93	µg/L				55.91%
Zinc	-259.4	2.0	0.17	µg/L				8.51%
Barium	-952.1	0.0	0.09	µg/L				>999.9%
Beryllium	19270.2	0.0	0.01	µg/L				46.47%
Calcium	-161.6	1.4	51.39	µg/L				>999.9%
Cadmium	-497.3	0.0	0.08	µg/L				171.58%
Cobalt	978.4	0.2	0.00	µg/L				0.59%
Chromium	524.7	0.1	0.08	µg/L				54.57%
Iron	-6589.0	1.3	2.01	µg/L				150.65%
Potassium	728.9	9.4	0.19	µg/L				1.97%
Magnesium	-1839.2	3.0	3.67	µg/L				123.19%
Manganese	-2517.1	0.0	0.04	µg/L				487.96%
Sodium	-1720.3	21.3	0.78	µg/L				3.66%
Nickel	-356.3	-0.2	0.38	µg/L				197.34%
Antimony	261.2	2.8	0.54	µg/L				19.58%
Vanadium	1656.7	0.4	0.29	µg/L				73.33%

Replicate Data --

ID: LCS Date: 12/18/07 1:59:11 PM

	Net	Corrected	Calib	Sample

Repl#	Element	Intensity	Intensity	Conc.	Units	Conc.	Units
1	Y 360.073	1420322.2	1420322.2				
1	Silver	283075.4	291168.1	2081.2	µg/L		
1	Aluminum	810422.4	833591.1	11954	µg/L		
1	Arsenic	1901.9	1956.2	961.9	µg/L		
1	Copper	407606.0	419258.8	963.9	µg/L		
1	Lead	9393.8	9662.3	978.5	µg/L		
1	Selenium	1679.0	1727.0	1001.8	µg/L		
1	Thallium	4047.9	4163.7	932.5	µg/L		
1	Zinc	39301.7	40425.3	986.9	µg/L		
1	Barium	2219467.1	2282918.0	11362	µg/L		
1	Beryllium	7004550.8	7204799.3	946.0	µg/L		
1	Calcium	11532.8	11862.5	18633	µg/L		
1	Cadmium	149695.9	153975.4	972.6	µg/L		
1	Cobalt	109407.7	112535.5	962.6	µg/L		
1	Chromium	96808.5	99576.1	938.2	µg/L		
1	Iron	1492413.7	1535079.4	19930	µg/L		
1	Potassium	3929888.0	4042237.0	32802	µg/L		
1	Magnesium	338443.6	348119.1	20258	µg/L		
1	Manganese	946553.9	973614.3	950.0	µg/L		
1	Sodium	-186.9	-192.3	1254.2	µg/L		
1	Nickel	44159.3	45421.8	985.0	µg/L		
1	Antimony	5173.9	5321.8	936.7	µg/L		
1	Vanadium	166743.2	171510.1	910.4	µg/L		
2	Y 360.073	1426031.0	1426031.0				
2	Silver	283074.4	290001.4	2072.9	µg/L		
2	Aluminum	813268.6	833169.7	11948	µg/L		
2	Arsenic	1860.1	1905.6	937.5	µg/L		
2	Copper	408797.1	418800.6	962.9	µg/L		
2	Lead	9363.1	9592.3	971.5	µg/L		
2	Selenium	1672.7	1713.6	994.4	µg/L		
2	Thallium	4047.1	4146.2	928.7	µg/L		
2	Zinc	39234.2	40194.3	981.3	µg/L		
2	Barium	2231809.9	2286423.7	11380	µg/L		
2	Beryllium	6969672.1	7140224.3	937.5	µg/L		
2	Calcium	11588.3	11871.9	18648	µg/L		
2	Cadmium	150353.1	154032.4	973.0	µg/L		
2	Cobalt	109754.8	112440.5	961.8	µg/L		
2	Chromium	97413.2	99796.9	940.2	µg/L		
2	Iron	1496692.1	1533317.1	19907	µg/L		
2	Potassium	3905503.9	4001074.0	32468	µg/L		
2	Magnesium	338082.8	346355.9	20156	µg/L		
2	Manganese	948916.7	972137.2	948.6	µg/L		
2	Sodium	-135.8	-139.1	1297.1	µg/L		
2	Nickel	44210.9	45292.8	982.2	µg/L		
2	Antimony	5109.1	5234.1	920.5	µg/L		
2	Vanadium	167804.8	171911.1	912.6	µg/L		

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Mean Data

ID: LCS Seq. No.: 11 Sample No.: 8 A/S Pos: 10
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0
Data: Original Date: 12/18/07 1:59:11 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1423176.6							0.28%
Silver	290584.8	2077.0	5.90	µg/L				0.28%
Aluminum	833380.4	11951	4.3	µg/L				0.04%
Arsenic	1930.9	949.7	17.28	µg/L				1.82%
Copper	419029.7	963.4	0.75	µg/L				0.08%
Lead	9627.3	975.0	4.96	µg/L				0.51%
Selenium	1720.3	998.1	5.25	µg/L				0.53%
Thallium	4154.9	930.6	2.71	µg/L				0.29%
Zinc	40309.8	984.1	3.95	µg/L				0.40%
Barium	2284670.9	11371	12.3	µg/L				0.11%
Beryllium	7172511.8	941.7	6.01	µg/L				0.64%
Calcium	11867.2	18640	10.3	µg/L				0.06%
Cadmium	154003.9	972.8	0.25	µg/L				0.03%
Cobalt	112488.0	962.2	0.58	µg/L				0.06%
Chromium	99686.5	939.2	1.48	µg/L				0.16%

Iron	1534198.2	19919	16.1 µg/L	0.08%
Potassium	4021655.5	32635	236.2 µg/L	0.72%
*QC exceeds upper limit for Potassium Recovery = 163.18% Action = Continue				
Magnesium	347237.5	20207	72.2 µg/L	0.36%
Manganese	972875.8	949.3	1.02 µg/L	0.11%
Sodium	-165.7	1275.6	30.35 µg/L	2.38%
*QC exceeds lower limit for Sodium Recovery = 5.80% Action = Continue				
Nickel	45357.3	983.6	1.96 µg/L	0.20%
Antimony	5277.9	928.6	11.44 µg/L	1.23%
Vanadium	171710.6	911.5	1.52 µg/L	0.17%

Replicate Data --

ID: U0712180-021B Date: 12/18/07 2:02:30 PM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1442960.3	1442960.3				
1	Silver	209.0	211.6	-0.2	µg/L	-0.2	µg/L
1	Aluminum	98442.1	99667.9	1370.9	µg/L	1370.9	µg/L
1	Arsenic	-22.6	-22.9	7.0	µg/L	7.0	µg/L
1	Copper	8618.8	8726.1	8.7	µg/L	8.7	µg/L
1	Lead	-99.9	-101.1	0.9	µg/L	0.9	µg/L
1	Selenium	-57.1	-57.8	12.3	µg/L	12.3	µg/L
1	Thallium	-74.1	-75.0	3.7	µg/L	3.7	µg/L
1	Zinc	1993.2	2018.0	57.1	µg/L	57.1	µg/L
1	Barium	5417.8	5485.2	32.0	µg/L	32.0	µg/L
1	Beryllium	19620.6	19864.9	0.1	µg/L	0.1	µg/L
1	Calcium	11612.1	11756.6	18469	µg/L	18469	µg/L
1	Cadmium	-388.4	-393.2	0.6	µg/L	0.6	µg/L
1	Cobalt	2585.8	2618.0	14.3	µg/L	14.3	µg/L
1	Chromium	806.9	816.9	2.9	µg/L	2.9	µg/L
1	Iron	619603.6	627318.4	8195.8	µg/L	8195.8	µg/L
1	Potassium	61127.8	61888.9	505.7	µg/L	505.7	µg/L
1	Magnesium	65067.1	65877.3	3922.3	µg/L	3922.3	µg/L
1	Manganese	175675.0	177862.3	175.6	µg/L	175.6	µg/L
1	Sodium	1536.6	1555.7	2664.5	µg/L	2664.5	µg/L
1	Nickel	583.1	590.4	20.2	µg/L	20.2	µg/L
1	Antimony	247.8	250.9	0.9	µg/L	0.9	µg/L
1	Vanadium	2643.8	2676.7	5.9	µg/L	5.9	µg/L
2	Y 360.073	1454975.3	1454975.3				
2	Silver	309.6	310.8	0.5	µg/L	0.5	µg/L
2	Aluminum	99577.6	99984.9	1375.5	µg/L	1375.5	µg/L
2	Arsenic	-24.8	-24.9	6.1	µg/L	6.1	µg/L
2	Copper	8559.2	8594.2	8.4	µg/L	8.4	µg/L
2	Lead	-106.9	-107.3	0.3	µg/L	0.3	µg/L
2	Selenium	-64.9	-65.2	8.2	µg/L	8.2	µg/L
2	Thallium	-78.0	-78.3	3.0	µg/L	3.0	µg/L
2	Zinc	1970.3	1978.4	56.2	µg/L	56.2	µg/L
2	Barium	5413.5	5435.7	31.8	µg/L	31.8	µg/L
2	Beryllium	19477.4	19557.1	0.1	µg/L	0.1	µg/L
2	Calcium	11587.3	11634.7	18280	µg/L	18280	µg/L
2	Cadmium	-378.1	-379.6	0.7	µg/L	0.7	µg/L
2	Cobalt	2588.2	2598.8	14.2	µg/L	14.2	µg/L
2	Chromium	830.1	833.5	3.1	µg/L	3.1	µg/L
2	Iron	624637.5	627192.6	8194.1	µg/L	8194.1	µg/L
2	Potassium	61286.7	61537.4	502.8	µg/L	502.8	µg/L
2	Magnesium	65493.8	65761.7	3915.6	µg/L	3915.6	µg/L
2	Manganese	176812.5	177535.8	175.2	µg/L	175.2	µg/L
2	Sodium	1583.9	1590.4	2692.5	µg/L	2692.5	µg/L
2	Nickel	577.8	580.1	20.0	µg/L	20.0	µg/L
2	Antimony	233.7	234.6	-2.1	µg/L	-2.1	µg/L
2	Vanadium	2761.0	2772.3	6.4	µg/L	6.4	µg/L

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Mean Data --

ID: U0712180-021B Seq. No.: 12 Sample No.: 1 A/S Pos: 17

Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0

Data: Original Date: 12/18/07 2:02:30 PM

Element	Mean Corr. Intensity	Mean Calib Conc.	Calib Std.Dev.	Calib Units	Mean Sample Conc.	Sample Std.Dev.	Sample Units	RSD

Y 360.073	1448967.8					0.59%
Silver	261.2	0.2	0.50 µg/L	0.2	0.50 µg/L	295.22%
Aluminum	99826.4	1373.2	3.23 µg/L	1373.2	3.23 µg/L	0.24%
Arsenic	-23.9	6.6	0.69 µg/L	6.6	0.69 µg/L	10.45%
Copper	8660.1	8.6	0.22 µg/L	8.6	0.22 µg/L	2.53%
Lead	-104.2	0.6	0.44 µg/L	0.6	0.44 µg/L	75.07%
Selenium	-61.5	10.3	2.89 µg/L	10.3	2.89 µg/L	28.07%
Thallium	-76.7	3.3	0.51 µg/L	3.3	0.51 µg/L	15.14%
Zinc	1998.2	56.7	0.68 µg/L	56.7	0.68 µg/L	1.20%
Barium	5460.5	31.9	0.17 µg/L	31.9	0.17 µg/L	0.55%
Beryllium	19711.0	0.1	0.03 µg/L	0.1	0.03 µg/L	35.61%
Calcium	11695.7	18375	133.6 µg/L	18375	133.6 µg/L	0.73%
Cadmium	-386.4	0.6	0.06 µg/L	0.6	0.06 µg/L	9.33%
Cobalt	2608.4	14.3	0.12 µg/L	14.3	0.12 µg/L	0.82%
Chromium	825.2	3.0	0.11 µg/L	3.0	0.11 µg/L	3.73%
Iron	627255.5	8194.9	1.15 µg/L	8194.9	1.15 µg/L	0.01%
Potassium	61713.1	504.2	2.02 µg/L	504.2	2.02 µg/L	0.40%
Magnesium	65819.5	3918.9	4.73 µg/L	3918.9	4.73 µg/L	0.12%
Manganese	177699.1	175.4	0.22 µg/L	175.4	0.22 µg/L	0.13%
Sodium	1573.0	2678.5	19.77 µg/L	2678.5	19.77 µg/L	0.74%
Nickel	585.2	20.1	0.16 µg/L	20.1	0.16 µg/L	0.77%
Antimony	242.7	-0.6	2.12 µg/L	-0.6	2.12 µg/L	335.14%
Vanadium	2724.5	6.1	0.36 µg/L	6.1	0.36 µg/L	5.92%

Replicate Data --

ID: U0712180-022B Date: 12/18/07 2:05:52 PM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1427151.3	1427151.3				
1	Silver	151.5	155.0	-0.6	µg/L	-0.6	µg/L
1	Aluminum	13382.6	13699.4	131.3	µg/L	131.3	µg/L
1	Arsenic	-25.1	-25.7	5.7	µg/L	5.7	µg/L
1	Copper	6548.8	6703.8	4.0	µg/L	4.0	µg/L
1	Lead	-132.2	-135.4	-2.5	µg/L	-2.5	µg/L
1	Selenium	-28.5	-29.2	28.2	µg/L	28.2	µg/L
1	Thallium	-50.7	-51.9	8.8	µg/L	8.8	µg/L
1	Zinc	641.8	657.0	24.2	µg/L	24.2	µg/L
1	Barium	12309.8	12601.2	67.4	µg/L	67.4	µg/L
1	Beryllium	18934.2	19382.3	0.0	µg/L	0.0	µg/L
1	Calcium	36844.4	37716.3	58694	µg/L	58694	µg/L
1	Cadmium	-443.3	-453.8	0.2	µg/L	0.2	µg/L
1	Cobalt	960.9	983.6	0.2	µg/L	0.2	µg/L
1	Chromium	577.3	591.0	0.8	µg/L	0.8	µg/L
1	Iron	44621.0	45677.0	677.0	µg/L	677.0	µg/L
1	Potassium	47191.1	48308.0	395.5	µg/L	395.5	µg/L
1	Magnesium	132992.5	136140.0	7989.0	µg/L	7989.0	µg/L
1	Manganese	139460.0	142760.6	141.4	µg/L	141.4	µg/L
1	Sodium	3433.7	3515.0	4245.3	µg/L	4245.3	µg/L
1	Nickel	-264.4	-270.7	1.7	µg/L	1.7	µg/L
1	Antimony	233.7	239.2	-1.3	µg/L	-1.3	µg/L
1	Vanadium	1643.3	1682.2	0.5	µg/L	0.5	µg/L
2	Y 360.073	1432157.9	1432157.9				
2	Silver	171.7	175.1	-0.4	µg/L	-0.4	µg/L
2	Aluminum	13720.1	13995.8	135.5	µg/L	135.5	µg/L
2	Arsenic	-30.6	-31.2	3.0	µg/L	3.0	µg/L
2	Copper	6571.2	6703.2	4.0	µg/L	4.0	µg/L
2	Lead	-104.3	-106.4	0.4	µg/L	0.4	µg/L
2	Selenium	-27.6	-28.1	28.8	µg/L	28.8	µg/L
2	Thallium	-64.7	-66.0	5.7	µg/L	5.7	µg/L
2	Zinc	645.0	657.9	24.2	µg/L	24.2	µg/L
2	Barium	12387.3	12636.2	67.6	µg/L	67.6	µg/L
2	Beryllium	19076.8	19460.0	0.0	µg/L	0.0	µg/L
2	Calcium	37363.7	38114.2	59311	µg/L	59311	µg/L
2	Cadmium	-439.2	-448.0	0.3	µg/L	0.3	µg/L
2	Cobalt	947.5	966.5	0.1	µg/L	0.1	µg/L
2	Chromium	601.8	613.9	1.0	µg/L	1.0	µg/L
2	Iron	45437.4	46350.1	685.7	µg/L	685.7	µg/L
2	Potassium	47850.7	48811.9	399.6	µg/L	399.6	µg/L
2	Magnesium	134656.7	137361.7	8059.7	µg/L	8059.7	µg/L

2	Manganese	142298.8	145157.3	143.7 µg/L	143.7	µg/L
2	Sodium	3625.1	3697.9	4392.9 µg/L	4392.9	µg/L
2	Nickel	-263.6	-268.9	1.7 µg/L	1.7	µg/L
2	Antimony	240.2	245.1	-0.2 µg/L	-0.2	µg/L
2	Vanadium	1649.2	1682.3	0.5 µg/L	0.5	µg/L

Mean Data ---

ID: U0712180-022B Seq. No.: 13 Sample No.: 2 A/S Pos: 18

Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0 [illegible] 1.0

Data: Original Date: 12/18/07 2:05:52 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1429654.6							0.25%
Silver	165.1	-0.5	0.10	µg/L	-0.5	0.10	µg/L	19.60%
Aluminum	13847.6	133.4	3.02	µg/L	133.4	3.02	µg/L	2.27%
Arsenic	-28.5	4.4	1.89	µg/L	4.4	1.89	µg/L	43.30%
Copper	6703.5	4.0	0.00	µg/L	4.0	0.00	µg/L	0.03%
Lead	-120.9	-1.1	2.05	µg/L	-1.1	2.05	µg/L	188.94%
Selenium	-28.7	28.5	0.42	µg/L	28.5	0.42	µg/L	1.48%
Thallium	-59.0	7.2	2.18	µg/L	7.2	2.18	µg/L	30.17%
Zinc	657.5	24.2	0.02	µg/L	24.2	0.02	µg/L	0.09%
Barium	12618.7	67.5	0.12	µg/L	67.5	0.12	µg/L	0.18%
Beryllium	19421.1	0.0	0.01	µg/L	0.0	0.01	µg/L	17.10%
Calcium	37915.3	59002	435.9	µg/L	59002	435.9	µg/L	0.74%
Cadmium	-450.9	0.2	0.03	µg/L	0.2	0.03	µg/L	10.67%
Cobalt	975.1	0.2	0.10	µg/L	0.2	0.10	µg/L	61.57%
Chromium	602.4	0.9	0.15	µg/L	0.9	0.15	µg/L	17.50%
Iron	46013.6	681.3	6.15	µg/L	681.3	6.15	µg/L	0.90%
Potassium	48560.0	397.5	2.89	µg/L	397.5	2.89	µg/L	0.73%
Magnesium	136750.8	8024.3	50.00	µg/L	8024.3	50.00	µg/L	0.62%
Manganese	143958.9	142.6	1.65	µg/L	142.6	1.65	µg/L	1.16%
Sodium	3606.5	4319.1	104.39	µg/L	4319.1	104.39	µg/L	2.42%
Nickel	-269.8	1.7	0.03	µg/L	1.7	0.03	µg/L	1.65%
Antimony	242.1	-0.7	0.76	µg/L	-0.7	0.76	µg/L	103.09%
Vanadium	1682.2	0.5	0.00	µg/L	0.5	0.00	µg/L	0.08%

Replicate Data ---

ID: U0712180-023B Date: 12/18/07 2:09:16 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1422491.0	1422491.0				
1	Silver	258.4	265.4	0.2	µg/L	0.2	µg/L
1	Aluminum	9053.9	9298.5	67.8	µg/L	67.8	µg/L
1	Arsenic	-30.6	-31.4	2.9	µg/L	2.9	µg/L
1	Copper	6397.5	6570.4	3.7	µg/L	3.7	µg/L
1	Lead	-103.0	-105.7	0.4	µg/L	0.4	µg/L
1	Selenium	-53.8	-55.3	13.7	µg/L	13.7	µg/L
1	Thallium	-66.6	-68.4	5.2	µg/L	5.2	µg/L
1	Zinc	113.6	116.6	11.1	µg/L	11.1	µg/L
1	Barium	1983.2	2036.7	14.9	µg/L	14.9	µg/L
1	Beryllium	18416.0	18913.6	0.0	µg/L	0.0	µg/L
1	Calcium	12386.2	12720.9	19963	µg/L	19963	µg/L
1	Cadmium	-457.8	-470.1	0.1	µg/L	0.1	µg/L
1	Cobalt	935.7	961.0	0.0	µg/L	0.0	µg/L
1	Chromium	566.8	582.1	0.7	µg/L	0.7	µg/L
1	Iron	5172.5	5312.3	155.2	µg/L	155.2	µg/L
1	Potassium	49929.1	51278.2	419.6	µg/L	419.6	µg/L
1	Magnesium	62173.8	63853.8	3805.2	µg/L	3805.2	µg/L
1	Manganese	32905.8	33794.9	35.3	µg/L	35.3	µg/L
1	Sodium	16956.9	17415.0	15460	µg/L	15460	µg/L
1	Nickel	-303.0	-311.1	0.8	µg/L	0.8	µg/L
1	Antimony	240.6	247.1	0.2	µg/L	0.2	µg/L
1	Vanadium	1584.5	1627.3	0.2	µg/L	0.2	µg/L
2	Y 360.073	1448179.9	1448179.9				
2	Silver	109.1	110.0	-0.9	µg/L	-0.9	µg/L
2	Aluminum	9053.8	9133.5	65.4	µg/L	65.4	µg/L
2	Arsenic	-31.7	-32.0	2.7	µg/L	2.7	µg/L
2	Copper	6539.4	6597.0	3.8	µg/L	3.8	µg/L

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
2	Lead	-104.1	-105.0	0.5	µg/L	0.5	µg/L
2	Selenium	-55.0	-55.5	13.6	µg/L	13.6	µg/L
2	Thallium	-84.9	-85.6	1.4	µg/L	1.4	µg/L
2	Zinc	93.0	93.8	10.6	µg/L	10.6	µg/L
2	Barium	2012.7	2030.4	14.8	µg/L	14.8	µg/L
2	Beryllium	18520.0	18683.0	-0.1	µg/L	-0.1	µg/L
2	Calcium	12471.8	12581.6	19747	µg/L	19747	µg/L
2	Cadmium	-476.0	-480.2	0.1	µg/L	0.1	µg/L
2	Cobalt	939.1	947.4	-0.1	µg/L	-0.1	µg/L
2	Chromium	547.4	552.2	0.4	µg/L	0.4	µg/L
2	Iron	5251.8	5298.1	155.0	µg/L	155.0	µg/L
2	Potassium	51194.4	51645.0	422.5	µg/L	422.5	µg/L
2	Magnesium	63380.7	63938.6	3810.1	µg/L	3810.1	µg/L
2	Manganese	33864.5	34162.6	35.7	µg/L	35.7	µg/L
2	Sodium	17341.3	17494.0	15524	µg/L	15524	µg/L
2	Nickel	-294.1	-296.7	1.1	µg/L	1.1	µg/L
2	Antimony	245.5	247.6	0.3	µg/L	0.3	µg/L
2	Vanadium	1642.5	1656.9	0.4	µg/L	0.4	µg/L

Mean Data --

ID: U0712180-023B Seq. No.: 14 Sample No.: 3 A/S Pos: 19
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0
Data: Original Date: 12/18/07 2:09:16 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1435335.5							1.27%
Silver	187.7	-0.4	0.79	µg/L	-0.4	0.79	µg/L	220.89%
Aluminum	9216.0	66.6	1.68	µg/L	66.6	1.68	µg/L	2.53%
Arsenic	-31.7	2.8	0.19	µg/L	2.8	0.19	µg/L	6.81%
Copper	6583.7	3.7	0.04	µg/L	3.7	0.04	µg/L	1.17%
Lead	-105.4	0.5	0.05	µg/L	0.5	0.05	µg/L	11.67%
Selenium	-55.4	13.7	0.08	µg/L	13.7	0.08	µg/L	0.58%
Thallium	-77.0	3.3	2.68	µg/L	3.3	2.68	µg/L	81.88%
Zinc	105.2	10.8	0.39	µg/L	10.8	0.39	µg/L	3.60%
Barium	2033.6	14.9	0.02	µg/L	14.9	0.02	µg/L	0.15%
Beryllium	18798.3	0.0	0.02	µg/L	0.0	0.02	µg/L	54.07%
Calcium	12651.2	19855	152.5	µg/L	19855	152.5	µg/L	0.77%
Cadmium	-475.2	0.1	0.04	µg/L	0.1	0.04	µg/L	49.84%
Cobalt	954.2	0.0	0.08	µg/L	0.0	0.08	µg/L	797.88%
Chromium	567.1	0.5	0.20	µg/L	0.5	0.20	µg/L	36.80%
Iron	5305.2	155.1	0.13	µg/L	155.1	0.13	µg/L	0.08%
Potassium	51461.6	421.1	2.10	µg/L	421.1	2.10	µg/L	0.50%
Magnesium	63896.2	3807.6	3.47	µg/L	3807.6	3.47	µg/L	0.09%
Manganese	33978.8	35.5	0.25	µg/L	35.5	0.25	µg/L	0.71%
Sodium	17454.5	15492	45.0	µg/L	15492	45.0	µg/L	0.29%
Nickel	-303.9	0.9	0.22	µg/L	0.9	0.22	µg/L	23.47%
Antimony	247.4	0.2	0.07	µg/L	0.2	0.07	µg/L	30.95%
Vanadium	1642.1	0.3	0.11	µg/L	0.3	0.11	µg/L	34.88%

Replicate Data ---

ID: U0712180-024B Date: 12/18/07 2:12:43 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	1445379.8	1445379.8				
1	Silver	57.6	58.2	-1.3	µg/L	-1.3	µg/L
1	Aluminum	9847.1	9953.1	77.2	µg/L	77.2	µg/L
1	Arsenic	-29.3	-29.6	3.8	µg/L	3.8	µg/L
1	Copper	10199.2	10308.9	12.4	µg/L	12.4	µg/L
1	Lead	-122.3	-123.6	-1.4	µg/L	-1.4	µg/L
1	Selenium	-40.3	-40.7	21.8	µg/L	21.8	µg/L
1	Thallium	-88.7	-89.6	0.5	µg/L	0.5	µg/L
1	Zinc	161.6	163.3	12.2	µg/L	12.2	µg/L
1	Barium	12395.3	12528.7	67.1	µg/L	67.1	µg/L
1	Beryllium	18995.6	19200.0	0.0	µg/L	0.0	µg/L
1	Calcium	32361.6	32709.7	50936	µg/L	50936	µg/L
1	Cadmium	-385.6	-389.7	0.6	µg/L	0.6	µg/L
1	Cobalt	962.8	973.1	0.2	µg/L	0.2	µg/L
1	Chromium	649.2	656.1	1.4	µg/L	1.4	µg/L
1	Iron	666343.5	673510.9	8792.9	µg/L	8792.9	µg/L

1	Potassium	391970.2	396186.4	3218.2	µg/L	3218.2	µg/L
1	Magnesium	218078.2	220423.9	12867	µg/L	12867	µg/L
1	Manganese	701129.3	708670.9	692.2	µg/L	692.2	µg/L
1	Sodium	61540.3	62202.2	51596	µg/L	51596	µg/L
1	Nickel	-244.5	-247.1	2.2	µg/L	2.2	µg/L
1	Antimony	237.0	239.5	-1.2	µg/L	-1.2	µg/L
1	Vanadium	2195.8	2219.4	3.4	µg/L	3.4	µg/L
2	Y 360.073	1446317.2	1446317.2				
2	Silver	210.8	212.9	-0.2	µg/L	-0.2	µg/L
2	Aluminum	9957.9	10058.5	78.8	µg/L	78.8	µg/L
2	Arsenic	-34.1	-34.4	1.5	µg/L	1.5	µg/L
2	Copper	10299.5	10403.6	12.6	µg/L	12.6	µg/L
2	Lead	-126.4	-127.7	-1.8	µg/L	-1.8	µg/L
2	Selenium	-41.0	-41.4	21.4	µg/L	21.4	µg/L
2	Thallium	-84.9	-85.8	1.3	µg/L	1.3	µg/L
2	Zinc	177.1	178.9	12.6	µg/L	12.6	µg/L
2	Barium	12415.8	12541.2	67.1	µg/L	67.1	µg/L
2	Beryllium	18995.6	19187.5	0.0	µg/L	0.0	µg/L
2	Calcium	32618.9	32948.4	51306	µg/L	51306	µg/L
2	Cadmium	-377.9	-381.7	0.7	µg/L	0.7	µg/L
2	Cobalt	957.8	967.5	0.1	µg/L	0.1	µg/L
2	Chromium	635.5	641.9	1.3	µg/L	1.3	µg/L
2	Iron	673702.5	680507.8	8883.3	µg/L	8883.3	µg/L
2	Potassium	398757.2	402785.2	3271.7	µg/L	3271.7	µg/L
2	Magnesium	220215.0	222439.5	12984	µg/L	12984	µg/L
2	Manganese	708171.4	715324.8	698.7	µg/L	698.7	µg/L
2	Sodium	62118.6	62746.0	52035	µg/L	52035	µg/L
2	Nickel	-256.0	-258.6	1.9	µg/L	1.9	µg/L
2	Antimony	242.4	244.8	-0.2	µg/L	-0.2	µg/L
2	Vanadium	2245.9	2268.5	3.7	µg/L	3.7	µg/L

Mean Data --

ID: U0712180-024B Seq. No.: 15 Sample No.: 4 A/S Pos: 20

Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0

Data: Original Date: 12/18/07 2:12:43 PM -660-

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1445848.5							0.05%
Silver	135.5	-0.7	0.78	µg/L	-0.7	0.78	µg/L	107.31%
Aluminum	10005.8	78.0	1.08	µg/L	78.0	1.08	µg/L	1.38%
Arsenic	-32.0	2.6	1.62	µg/L	2.6	1.62	µg/L	61.23%
Copper	10356.2	12.5	0.16	µg/L	12.5	0.16	µg/L	1.24%
Lead	-125.6	-1.6	0.29	µg/L	-1.6	0.29	µg/L	18.65%
Selenium	-41.0	21.6	0.28	µg/L	21.6	0.28	µg/L	1.27%
Thallium	-87.7	0.9	0.59	µg/L	0.9	0.59	µg/L	64.21%
Zinc	171.1	12.4	0.27	µg/L	12.4	0.27	µg/L	2.15%
Barium	12534.9	67.1	0.04	µg/L	67.1	0.04	µg/L	0.07%
Beryllium	19193.7	0.0	0.00	µg/L	0.0	0.00	µg/L	9.43%
Calcium	32829.0	51121	261.6	µg/L	51121	261.6	µg/L	0.51%
Cadmium	-385.7	0.7	0.04	µg/L	0.7	0.04	µg/L	5.47%
Cobalt	970.3	0.1	0.03	µg/L	0.1	0.03	µg/L	26.66%
Chromium	649.0	1.3	0.10	µg/L	1.3	0.10	µg/L	7.22%
Iron	677009.4	8838.1	63.96	µg/L	8838.1	63.96	µg/L	0.72%
Potassium	399485.8	3244.9	37.86	µg/L	3244.9	37.86	µg/L	1.17%
Magnesium	221431.7	12926	82.5	µg/L	12926	82.5	µg/L	0.64%
Manganese	711997.8	695.4	4.58	µg/L	695.4	4.58	µg/L	0.66%
Sodium	62474.1	51816	310.3	µg/L	51816	310.3	µg/L	0.60%
Nickel	-252.9	2.0	0.17	µg/L	2.0	0.17	µg/L	8.56%
Antimony	242.2	-0.7	0.69	µg/L	-0.7	0.69	µg/L	93.74%
Vanadium	2244.0	3.5	0.19	µg/L	3.5	0.19	µg/L	5.25%

Replicate Data --

ID: U0712180-025B Date: 12/18/07 2:16:09 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1439327.6	1439327.6				
1	Silver	111.6	113.3	-0.9	µg/L	-0.9	µg/L
1	Aluminum	21101.0	21417.7	242.6	µg/L	242.6	µg/L

1 Arsenic	-19.9	-20.2	8.3	µg/L	8.3	µg/L
1 Copper	6687.5	6787.8	4.2	µg/L	4.2	µg/L
1 Lead	-115.7	-117.4	-0.7	µg/L	-0.7	µg/L
1 Selenium	-44.1	-44.7	19.6	µg/L	19.6	µg/L
1 Thallium	-76.7	-77.8	3.1	µg/L	3.1	µg/L
1 Zinc	154.6	157.0	12.1	µg/L	12.1	µg/L
1 Barium	24412.9	24779.2	128.0	µg/L	128.0	µg/L
1 Beryllium	18613.5	18892.8	0.0	µg/L	0.0	µg/L
1 Calcium	40918.3	41532.4	64607	µg/L	64607	µg/L
1 Cadmium	-450.4	-457.2	0.2	µg/L	0.2	µg/L
1 Cobalt	949.9	964.2	0.1	µg/L	0.1	µg/L
1 Chromium	613.6	622.8	1.1	µg/L	1.1	µg/L
1 Iron	68971.7	70006.8	991.5	µg/L	991.5	µg/L
1 Potassium	69256.7	70296.0	573.9	µg/L	573.9	µg/L
1 Magnesium	149184.6	151423.4	8873.5	µg/L	8873.5	µg/L
1 Manganese	200200.4	203204.7	200.2	µg/L	200.2	µg/L
1 Sodium	10120.5	10272.4	9697.4	µg/L	9697.4	µg/L
1 Nickel	-263.3	-267.2	1.7	µg/L	1.7	µg/L
1 Antimony	242.9	246.5	0.1	µg/L	0.1	µg/L
1 Vanadium	1709.0	1734.6	0.8	µg/L	0.8	µg/L

2 Y 360.073	1425933.9	1425933.9				
2 Silver	60.1	61.6	-1.3	µg/L	-1.3	µg/L
2 Aluminum	20968.0	21482.6	243.5	µg/L	243.5	µg/L
2 Arsenic	-25.7	-26.4	5.4	µg/L	5.4	µg/L
2 Copper	6637.4	6800.2	4.2	µg/L	4.2	µg/L
2 Lead	-107.7	-110.3	0.0	µg/L	0.0	µg/L
2 Selenium	-26.1	-26.7	29.6	µg/L	29.6	µg/L
2 Thallium	-72.7	-74.5	3.8	µg/L	3.8	µg/L
2 Zinc	151.5	155.3	12.0	µg/L	12.0	µg/L
2 Barium	24339.3	24936.6	128.8	µg/L	128.8	µg/L
2 Beryllium	18358.9	18809.4	0.0	µg/L	0.0	µg/L
2 Calcium	40761.0	41761.3	64962	µg/L	64962	µg/L
2 Cadmium	-441.7	-452.5	0.2	µg/L	0.2	µg/L
2 Cobalt	953.4	976.8	0.2	µg/L	0.2	µg/L
2 Chromium	579.0	593.2	0.8	µg/L	0.8	µg/L
2 Iron	68964.8	70657.2	999.9	µg/L	999.9	µg/L
2 Potassium	68919.1	70610.4	576.4	µg/L	576.4	µg/L
2 Magnesium	149184.6	152845.7	8955.9	µg/L	8955.9	µg/L
2 Manganese	200258.3	205172.7	202.1	µg/L	202.1	µg/L
2 Sodium	9973.7	10218.5	9653.9	µg/L	9653.9	µg/L
2 Nickel	-264.8	-271.3	1.6	µg/L	1.6	µg/L
2 Antimony	233.5	239.3	-1.3	µg/L	-1.3	µg/L
2 Vanadium	1677.6	1718.8	0.7	µg/L	0.7	µg/L

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Mean Data
ID: 0712180-025B   Seq. No.: 16   Sample No.: 5   A/S Pos: 21
Sample Qty: 1.0000 µL   Prep. Vol.: 1.0 µL   Dilution: 1.0:1.0
Data: Original   Date: 12/18/07 2:16:09 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1432630.7							0.66%
Silver	87.4	-1.1	0.26	µg/L	-1.1	0.26	µg/L	24.35%
Aluminum	21450.2	243.0	0.66	µg/L	243.0	0.66	µg/L	0.27%
Arsenic	-23.3	6.9	2.10	µg/L	6.9	2.10	µg/L	30.59%
Copper	6794.0	4.2	0.02	µg/L	4.2	0.02	µg/L	0.48%
Lead	-113.9	-0.4	0.50	µg/L	-0.4	0.50	µg/L	130.95%
Selenium	-35.7	24.6	7.07	µg/L	24.6	7.07	µg/L	28.79%
Thallium	-76.2	3.5	0.51	µg/L	3.5	0.51	µg/L	14.84%
Zinc	156.1	12.1	0.03	µg/L	12.1	0.03	µg/L	0.24%
Barium	24857.9	128.4	0.55	µg/L	128.4	0.55	µg/L	0.43%
Beryllium	18851.1	0.0	0.01	µg/L	0.0	0.01	µg/L	23.69%
Calcium	41646.8	64784	250.9	µg/L	64784	250.9	µg/L	0.39%
Cadmium	-454.8	0.2	0.02	µg/L	0.2	0.02	µg/L	9.59%
Cobalt	970.5	0.1	0.08	µg/L	0.1	0.08	µg/L	59.11%
Chromium	608.0	0.9	0.20	µg/L	0.9	0.20	µg/L	21.32%
Iron	70332.0	995.7	5.95	µg/L	995.7	5.95	µg/L	0.60%
Potassium	70453.2	575.2	1.80	µg/L	575.2	1.80	µg/L	0.31%
Magnesium	152134.5	8914.7	58.21	µg/L	8914.7	58.21	µg/L	0.65%
Manganese	204188.7	201.2	1.35	µg/L	201.2	1.35	µg/L	0.67%
Sodium	10245.4	9675.7	30.75	µg/L	9675.7	30.75	µg/L	0.32%

Nickel	-269.3	1.7	0.06 µg/L	1.7	0.06 µg/L	3.64%
Antimony	242.9	-0.6	0.94 µg/L	-0.6	0.94 µg/L	156.50%
Vanadium	1726.7	0.8	0.06 µg/L	0.8	0.06 µg/L	7.72%

Replicate Data

ID: U0712180-026B Date: 12/18/07 2:19:35 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1444837.7	1444837.7				
1	Silver	-29.4	-29.8	-1.9	µg/L	-1.9	µg/L
1	Aluminum	181086.8	183103.4	2574.1	µg/L	2574.1	µg/L
1	Arsenic	-4.9	-5.0	15.7	µg/L	15.7	µg/L
1	Copper	8261.6	8353.6	7.9	µg/L	7.9	µg/L
1	Lead	-100.0	-101.1	0.9	µg/L	0.9	µg/L
1	Selenium	-29.9	-30.3	27.6	µg/L	27.6	µg/L
1	Thallium	-89.4	-90.4	0.3	µg/L	0.3	µg/L
1	Zinc	664.9	672.3	24.6	µg/L	24.6	µg/L
1	Barium	11277.6	11403.1	61.5	µg/L	61.5	µg/L
1	Beryllium	19564.6	19782.4	0.1	µg/L	0.1	µg/L
1	Calcium	27235.3	27538.6	42923	µg/L	42923	µg/L
1	Cadmium	-411.2	-415.8	0.5	µg/L	0.5	µg/L
1	Cobalt	1209.4	1222.8	2.3	µg/L	2.3	µg/L
1	Chromium	886.6	896.5	3.7	µg/L	3.7	µg/L
1	Iron	410399.1	414969.2	5450.8	µg/L	5450.8	µg/L
1	Potassium	124479.9	125866.0	1024.8	µg/L	1024.8	µg/L
1	Magnesium	150926.4	152607.0	8942.1	µg/L	8942.1	µg/L
1	Manganese	246921.8	249671.4	245.5	µg/L	245.5	µg/L
1	Sodium	14257.0	14415.8	13040	µg/L	13040	µg/L
1	Nickel	-114.7	-116.0	5.0	µg/L	5.0	µg/L
1	Antimony	237.5	240.1	-1.1	µg/L	-1.1	µg/L
1	Vanadium	2803.4	2834.6	6.7	µg/L	6.7	µg/L
2	Y 360.073	1466903.8	1466903.8				
2	Silver	69.1	68.8	-1.2	µg/L	-1.2	µg/L
2	Aluminum	181179.2	180441.0	2535.7	µg/L	2535.7	µg/L
2	Arsenic	-13.5	-13.5	11.6	µg/L	11.6	µg/L
2	Copper	8319.9	8286.0	7.7	µg/L	7.7	µg/L
2	Lead	-94.1	-93.7	1.6	µg/L	1.6	µg/L
2	Selenium	-46.9	-46.7	18.5	µg/L	18.5	µg/L
2	Thallium	-78.2	-77.9	3.1	µg/L	3.1	µg/L
2	Zinc	660.9	658.2	24.2	µg/L	24.2	µg/L
2	Barium	11284.7	11238.7	60.7	µg/L	60.7	µg/L
2	Beryllium	19600.2	19520.3	0.1	µg/L	0.1	µg/L
2	Calcium	27141.3	27030.7	42136	µg/L	42136	µg/L
2	Cadmium	-393.5	-391.9	0.6	µg/L	0.6	µg/L
2	Cobalt	1210.4	1205.5	2.2	µg/L	2.2	µg/L
2	Chromium	883.3	879.7	3.5	µg/L	3.5	µg/L
2	Iron	410220.1	408548.6	5367.8	µg/L	5367.8	µg/L
2	Potassium	125075.4	124565.8	1014.2	µg/L	1014.2	µg/L
2	Magnesium	150868.5	150253.8	8805.9	µg/L	8805.9	µg/L
2	Manganese	246903.1	245897.1	241.8	µg/L	241.8	µg/L
2	Sodium	14324.2	14265.9	12920	µg/L	12920	µg/L
2	Nickel	-116.1	-115.6	5.0	µg/L	5.0	µg/L
2	Antimony	245.4	244.4	-0.3	µg/L	-0.3	µg/L
2	Vanadium	2779.2	2767.8	6.4	µg/L	6.4	µg/L

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Mean Data

ID: U0712180-026B Seq. No.: 17 Sample No.: 6 A/S Pos: 22

Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0

Data: Original Date: 12/18/07 2:19:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1455870.7							1.07%
Silver	19.5	-1.6	0.50	µg/L	-1.6	0.50	µg/L	31.98%
Aluminum	181772.2	2554.9	27.15	µg/L	2554.9	27.15	µg/L	1.06%
Arsenic	-9.2	13.6	2.89	µg/L	13.6	2.89	µg/L	21.19%
Copper	8319.8	7.8	0.11	µg/L	7.8	0.11	µg/L	1.43%
Lead	-97.4	1.3	0.52	µg/L	1.3	0.52	µg/L	41.58%
Selenium	-38.5	23.0	6.45	µg/L	23.0	6.45	µg/L	28.03%

Thallium	-84.2	1.7	1.94 µg/L	1.7	1.94 µg/L	114.15%
Zinc	665.3	24.4	0.24 µg/L	24.4	0.24 µg/L	0.99%
Barium	11320.9	61.1	0.58 µg/L	61.1	0.58 µg/L	0.95%
Beryllium	19651.4	0.1	0.02 µg/L	0.1	0.02 µg/L	33.61%
Calcium	27284.6	42530	556.5 µg/L	42530	556.5 µg/L	1.31%
Cadmium	-403.8	0.5	0.11 µg/L	0.5	0.11 µg/L	19.71%
Cobalt	1214.2	2.2	0.11 µg/L	2.2	0.11 µg/L	4.73%
Chromium	888.1	3.6	0.11 µg/L	3.6	0.11 µg/L	[illegible].14%
Iron	411758.9	5409.3	58.69 µg/L	5409.3	58.69 µg/L	1.08%
Potassium	125215.9	1019.5	7.46 µg/L	1019.5	7.46 µg/L	30.73%
Magnesium	151430.4	8874.0	96.31 µg/L	8874.0	96.31 µg/L	1.09%
Manganese	247784.3	243.6	2.60 µg/L	243.6	2.60 µg/L	21.07%
Sodium	14340.8	12980	85.5 µg/L	12980	85.5 µg/L	0.66%
Nickel	-115.8	5.0	0.01 µg/L	5.0	0.01 µg/L	40.11%
Antimony	242.3	-0.7	0.56 µg/L	-0.7	0.56 µg/L	27.69%
Vanadium	2801.2	6.5	0.25 µg/L	6.5	0.25 µg/L	3.87%

Replicate Data --

ID: U0712180-026BSD Date: 12/18/07 2:23:01 PM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1446128.4	1446128.4				
1	Silver	209.5	211.6	-0.2	µg/L	-0.2	µg/L
1	Aluminum	41805.4	42233.2	542.7	µg/L	542.7	µg/L
1	Arsenic	-32.2	-32.5	2.4	µg/L	2.4	µg/L
1	Copper	6781.9	6851.3	4.4	µg/L	4.4	µg/L
1	Lead	-108.3	-109.5	0.1	µg/L	0.1	µg/L
1	Selenium	-56.5	-57.1	12.7	µg/L	12.7	µg/L
1	Thallium	-89.5	-90.4	0.3	µg/L	0.3	µg/L
1	Zinc	630.4	636.8	23.7	µg/L	23.7	µg/L
1	Barium	1705.2	1722.7	13.3	µg/L	13.3	µg/L
1	Beryllium	19153.1	19349.1	0.0	µg/L	0.0	µg/L
1	Calcium	5607.8	5665.2	9030.1	µg/L	9030.1	µg/L
1	Cadmium	-450.0	-454.6	0.2	µg/L	0.2	µg/L
1	Cobalt	1006.0	1016.3	0.5	µg/L	0.5	µg/L
1	Chromium	585.5	591.5	0.8	µg/L	0.8	µg/L
1	Iron	81009.6	81838.6	1144.4	µg/L	1144.4	µg/L
1	Potassium	25669.0	25931.6	213.9	µg/L	213.9	µg/L
1	Magnesium	30873.0	31188.9	1914.6	µg/L	1914.6	µg/L
1	Manganese	61148.0	61773.7	62.6	µg/L	62.6	µg/L
1	Sodium	2142.0	2164.0	3155.3	µg/L	3155.3	µg/L
1	Nickel	-260.0	-262.7	1.8	µg/L	1.8	µg/L
1	Antimony	232.7	235.0	-2.1	µg/L	-2.1	µg/L
1	Vanadium	1839.4	1858.2	1.5	µg/L	1.5	µg/L
2	Y 360.073	1450994.1	1450994.1				
2	Silver	156.7	157.8	-0.6	µg/L	-0.6	µg/L
2	Aluminum	42156.8	42445.4	545.8	µg/L	545.8	µg/L
2	Arsenic	-32.9	-33.1	2.1	µg/L	2.1	µg/L
2	Copper	6734.6	6780.7	4.2	µg/L	4.2	µg/L
2	Lead	-116.1	-116.9	-0.7	µg/L	-0.7	µg/L
2	Selenium	-75.9	-76.4	2.0	µg/L	2.0	µg/L
2	Thallium	-79.4	-79.9	2.6	µg/L	2.6	µg/L
2	Zinc	637.8	642.1	23.8	µg/L	23.8	µg/L
2	Barium	1712.8	1724.5	13.3	µg/L	13.3	µg/L
2	Beryllium	19106.9	19237.7	0.0	µg/L	0.0	µg/L
2	Calcium	5675.8	5714.6	9106.8	µg/L	9106.8	µg/L
2	Cadmium	-457.2	-460.3	0.2	µg/L	0.2	µg/L
2	Cobalt	996.1	1002.9	0.4	µg/L	0.4	µg/L
2	Chromium	567.1	571.0	0.6	µg/L	0.6	µg/L
2	Iron	81324.3	81881.0	1145.0	µg/L	1145.0	µg/L
2	Potassium	25760.7	25937.1	213.9	µg/L	213.9	µg/L
2	Magnesium	30773.5	30984.2	1902.7	µg/L	1902.7	µg/L
2	Manganese	61153.7	61572.3	62.4	µg/L	62.4	µg/L
2	Sodium	2283.6	2299.3	3264.4	µg/L	3264.4	µg/L
2	Nickel	-272.0	-273.8	1.6	µg/L	1.6	µg/L
2	Antimony	234.8	236.4	-1.8	µg/L	-1.8	µg/L
2	Vanadium	1818.4	1830.9	1.3	µg/L	1.3	µg/L

Mean Data --

-663-

ID: U0712180-026BSD Seq. No.: 18 Sample No.: 7 A/S Pos: 23
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 2:23:01 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1448561.2							0.24%
Silver	184.7	-0.4	0.27	µg/L	-0.4	0.27	µg/L	72.14%
Aluminum	42339.3	544.3	2.16	µg/L	544.3	2.16	µg/L	0.40%
Arsenic	-32.8	2.3	0.22	µg/L	2.3	0.22	µg/L	9.52%
Copper	6816.0	4.3	0.12	µg/L	4.3	0.12	µg/L	2.72%
Lead	-113.2	-0.3	0.53	µg/L	-0.3	0.53	µg/L	167.52%
Selenium	-66.7	7.4	7.54	µg/L	7.4	7.54	µg/L	102.51%
Thallium	-85.2	1.5	1.63	µg/L	1.5	1.63	µg/L	110.38%
Zinc	639.5	23.8	0.09	µg/L	23.8	0.09	µg/L	0.38%
Barium	1723.6	13.3	0.01	µg/L	13.3	0.01	µg/L	0.05%
Beryllium	19293.4	0.0	0.01	µg/L	0.0	0.01	µg/L	40.73%
Calcium	5689.9	9068.5	54.21	µg/L	9068.5	54.21	µg/L	0.60%
Cadmium	-457.4	0.2	0.03	µg/L	0.2	0.03	µg/L	12.64%
Cobalt	1009.6	0.5	0.08	µg/L	0.5	0.08	µg/L	17.50%
Chromium	581.3	0.7	0.14	µg/L	0.7	0.14	µg/L	20.29%
Iron	81859.8	1144.7	0.39	µg/L	1144.7	0.39	µg/L	0.03%
Potassium	25934.4	213.9	0.03	µg/L	213.9	0.03	µg/L	0.01%
Magnesium	31086.5	1908.7	8.38	µg/L	1908.7	8.38	µg/L	0.44%
Manganese	61673.0	62.5	0.14	µg/L	62.5	0.14	µg/L	0.22%
Sodium	2231.6	3209.8	77.19	µg/L	3209.8	77.19	µg/L	2.40%
Nickel	-268.3	1.7	0.17	µg/L	1.7	0.17	µg/L	9.95%
Antimony	235.7	-1.9	0.18	µg/L	-1.9	0.18	µg/L	9.31%
Vanadium	1844.6	1.4	0.10	µg/L	1.4	0.10	µg/L	7.37%

Matrix Check Sample: U0712180-026BSD

Element	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Diff.
Y 360.073			0.000		
Silver	-0.3	-0.4	0.272	µg/L	-20.998
Aluminum	511.0	544.3	2.164	µg/L	6.512
Arsenic	2.7	2.3	0.217	µg/L	16.594
Copper	1.6	4.3	0.116	µg/L	174.885
Lead	0.3	-0.3	0.529	µg/L	225.140
Selenium	4.6	7.4	7.544	µg/L	59.851
Thallium	0.3	1.5	1.626	µg/L	333.790
Zinc	4.9	23.8	0.091	µg/L	387.205
Barium	12.2	13.3	0.006	µg/L	9.059
Beryllium	0.0	0.0	0.010	µg/L	75.455
Calcium	8506.0	9068.5	54.207	µg/L	6.613
Cadmium	0.1	0.2	0.026	µg/L	87.180
Cobalt	0.4	0.5	0.082	µg/L	4.722
Chromium	0.7	0.7	0.137	µg/L	5.522
Iron	1081.9	1144.7	0.388	µg/L	5.809
Potassium	203.9	213.9	0.031	µg/L	4.917
Magnesium	1774.8	1908.7	8.380	µg/L	7.543
Manganese	48.7	62.5	0.139	µg/L	28.238
Sodium	2596.0	3209.8	77.190	µg/L	23.646
Nickel	1.0	1.7	0.169	µg/L	70.795
Antimony	-0.1	-1.9	0.179	µg/L	-1244.518
Vanadium	1.3	1.4	0.104	µg/L	7.678

-664-

Replicate Data

ID: BLANK Date: 12/18/07 2:26:25 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1403622.5	1403622.5				
1	Silver	149.9	156.0	-0.6	µg/L	-0.6	µg/L
1	Aluminum	4546.7	4732.3	2.0	µg/L	2.0	µg/L
1	Arsenic	-28.8	-30.0	3.6	µg/L	3.6	µg/L
1	Copper	4962.8	5165.4	0.4	µg/L	0.4	µg/L
1	Lead	-103.5	-107.8	0.2	µg/L	0.2	µg/L
1	Selenium	-75.7	-78.8	0.7	µg/L	0.7	µg/L

1	Thallium	-83.3	-86.7	1.1	µg/L	1.1	µg/L
1	Zinc	-325.1	-338.3	0.1	µg/L	0.1	µg/L
1	Barium	-918.5	-956.0	0.0	µg/L	0.0	µg/L
1	Beryllium	18752.7	19518.3	0.1	µg/L	0.1	µg/L
1	Calcium	-102.5	-106.7	86.6	µg/L	86.6	µg/L
1	Cadmium	-463.7	-482.7	0.0	µg/L	0.0	µg/L
1	Cobalt	931.6	969.7	0.1	µg/L	0.1	µg/L
1	Chromium	525.3	546.8	0.4	µg/L	0.4	µg/L
1	Iron	-6522.8	-6789.1	-1.3	µg/L	-1.3	µg/L
1	Potassium	-637.2	-663.2	-1.9	µg/L	-1.9	µg/L
1	Magnesium	-1862.7	-1938.8	-2.8	µg/L	-2.8	µg/L
1	Manganese	-2464.0	-2564.6	0.0	µg/L	0.0	µg/L
1	Sodium	-1717.9	-1788.1	-33.4	µg/L	-33.4	µg/L
1	Nickel	-341.4	-355.3	-0.2	µg/L	-0.2	µg/L
1	Antimony	243.9	253.8	1.4	µg/L	1.4	µg/L
1	Vanadium	1585.6	1650.3	0.4	µg/L	0.4	µg/L
2	Y 360.073	1425723.5	1425723.5				
2	Silver	208.5	213.7	-0.2	µg/L	-0.2	µg/L
2	Aluminum	4686.9	4802.6	3.0	µg/L	3.0	µg/L
2	Arsenic	-36.9	-37.9	-0.2	µg/L	-0.2	µg/L
2	Copper	4920.0	5041.5	0.1	µg/L	0.1	µg/L
2	Lead	-108.5	-111.2	-0.1	µg/L	-0.1	µg/L
2	Selenium	-63.2	-64.7	8.5	µg/L	8.5	µg/L
2	Thallium	-67.8	-69.5	4.9	µg/L	4.9	µg/L
2	Zinc	-332.7	-340.9	0.0	µg/L	0.0	µg/L
2	Barium	-940.0	-963.2	0.0	µg/L	0.0	µg/L
2	Beryllium	18693.6	19155.2	0.0	µg/L	0.0	µg/L
2	Calcium	-182.7	-187.2	-38.2	µg/L	-38.2	µg/L
2	Cadmium	-471.8	-483.5	0.0	µg/L	0.0	µg/L
2	Cobalt	945.1	968.4	0.1	µg/L	0.1	µg/L
2	Chromium	517.3	530.1	0.2	µg/L	0.2	µg/L
2	Iron	-6530.3	-6691.5	0.0	µg/L	0.0	µg/L
2	Potassium	-617.8	-633.0	-1.6	µg/L	-1.6	µg/L
2	Magnesium	-1826.2	-1871.3	1.1	µg/L	1.1	µg/L
2	Manganese	-2454.6	-2515.2	0.0	µg/L	0.0	µg/L
2	Sodium	-1664.2	-1705.3	33.4	µg/L	33.4	µg/L
2	Nickel	-338.7	-347.0	0.0	µg/L	0.0	µg/L
2	Antimony	247.6	253.7	1.4	µg/L	1.4	µg/L
2	Vanadium	1600.4	1639.9	0.3	µg/L	0.3	µg/L

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Mean Data

ID: BLANK   Seq. No.: 19   Sample No.: 8   A/S Pos: 24

Sample Qty: 1.0000 µL   Prep. Vol.: 1.0 µL   Dilution: 1.0

Data: Original   Date: 12/18/07 2:26:25 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1414673.0							1.10%
Silver	184.8	-0.4	0.29	µg/L	-0.4	0.29	µg/L	77.43%
Aluminum	4767.5	2.5	0.72	µg/L	2.5	0.72	µg/L	29.07%
Arsenic	-33.9	1.7	2.69	µg/L	1.7	2.69	µg/L	154.62%
Copper	5103.4	0.3	0.20	µg/L	0.3	0.20	µg/L	70.84%
Lead	-109.5	0.1	0.24	µg/L	0.1	0.24	µg/L	428.45%
Selenium	-71.8	4.6	5.53	µg/L	4.6	5.53	µg/L	120.93%
Thallium	-78.1	3.0	2.66	µg/L	3.0	2.66	µg/L	87.97%
Zinc	-339.6	0.1	0.04	µg/L	0.1	0.04	µg/L	63.61%
Barium	-959.6	0.0	0.03	µg/L	0.0	0.03	µg/L	87.96%
Beryllium	19336.7	0.0	0.03	µg/L	0.0	0.03	µg/L	108.42%
Calcium	-146.9	24.2	88.24	µg/L	24.2	88.24	µg/L	365.05%
Cadmium	-483.1	0.0	0.00	µg/L	0.0	0.00	µg/L	8.71%
Cobalt	969.0	0.1	0.01	µg/L	0.1	0.01	µg/L	6.38%
Chromium	538.4	0.3	0.11	µg/L	0.3	0.11	µg/L	41.09%
Iron	-6740.3	-0.6	0.89	µg/L	-0.6	0.89	µg/L	143.99%
Potassium	-648.1	-1.8	0.17	µg/L	-1.8	0.17	µg/L	9.81%
Magnesium	-1905.0	-0.8	2.76	µg/L	-0.8	2.76	µg/L	331.68%
Manganese	-2539.9	0.0	0.03	µg/L	0.0	0.03	µg/L	241.33%
Sodium	-1746.7	0.0	47.20	µg/L	0.0	47.20	µg/L	>999.9%
Nickel	-351.2	-0.1	0.13	µg/L	-0.1	0.13	µg/L	153.55%
Antimony	253.8	1.4	0.01	µg/L	1.4	0.01	µg/L	0.86%
Vanadium	1645.1	0.3	0.04	µg/L	0.3	0.04	µg/L	11.67%

Replicate Data
ID: ICSA Date: 12/18/07 2:29:49 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1298582.7	1298582.7				
1	Silver	835.7	940.2	5.0	µg/L		
1	Aluminum	30887877.4	34749368.5	501030	µg/L		
1	Arsenic	-67.8	-76.3	-18.7	µg/L		
1	Copper	3421.5	3849.3	-2.6	µg/L		
1	Lead	-638.0	-717.8	-60.9	µg/L		
1	Selenium	-249.2	-280.3	-111.0	µg/L		
1	Thallium	-169.5	-190.6	-21.6	µg/L		
1	Zinc	178.2	200.4	13.1	µg/L		
1	Barium	1352.1	1521.2	12.3	µg/L		
1	Beryllium	16980.1	19102.9	0.0	µg/L		
1	Calcium	287001.6	322881.5	500560	µg/L		
1	Cadmium	590.9	664.8	7.3	µg/L		
1	Cobalt	1339.2	1506.6	4.8	µg/L		
1	Chromium	752.4	846.4	3.2	µg/L		
1	Iron	12263073.4	13796158.6	178430	µg/L		
1	Potassium	325.3	366.0	6.5	µg/L		
1	Magnesium	7739489.9	8707053.0	504060	µg/L		
1	Manganese	7988.6	8987.3	11.2	µg/L		
1	Sodium	-3041.8	-3422.1	-1351.8	µg/L		
1	Nickel	-212.3	-238.9	2.3	µg/L		
1	Antimony	330.5	371.8	23.2	µg/L		
1	Vanadium	1727.7	1943.6	1.9	µg/L		
2	Y 360.073	1326298.1	1326298.1				
2	Silver	856.9	943.9	5.1	µg/L		
2	Aluminum	31420927.6	34610376.0	499020	µg/L		
2	Arsenic	-104.1	-114.7	-37.2	µg/L		
2	Copper	3488.5	3842.7	-2.6	µg/L		
2	Lead	-614.3	-676.6	-56.7	µg/L		
2	Selenium	-234.3	-258.1	-98.7	µg/L		
2	Thallium	-182.7	-201.3	-24.0	µg/L		
2	Zinc	205.5	226.4	13.8	µg/L		
2	Barium	1445.9	1592.7	12.7	µg/L		
2	Beryllium	16993.9	18718.9	-0.1	µg/L		
2	Calcium	292331.2	322004.9	499200	µg/L		
2	Cadmium	602.1	663.2	7.3	µg/L		
2	Cobalt	1343.1	1479.5	4.5	µg/L		
2	Chromium	768.0	846.0	3.2	µg/L		
2	Iron	12428995.6	13690627.3	177060	µg/L		
2	Potassium	364.0	401.0	6.7	µg/L		
2	Magnesium	7844715.4	8641010.0	500240	µg/L		
2	Manganese	7966.4	8775.0	11.0	µg/L		
2	Sodium	-2922.5	-3219.2	-1188.0	µg/L		
2	Nickel	-198.8	-219.0	2.8	µg/L		
2	Antimony	327.3	360.5	21.1	µg/L		
2	Vanadium	1754.2	1932.3	1.9	µg/L		

Mean Data
ID: ICSA Seq. No.: 20 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0
Data: Original Date: 12/18/07 2:29:49 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1312440.4							1.49%
Silver	942.1	5.0	0.02	µg/L				0.37%
Aluminum	34679872.3	500020	1417.3	µg/L				0.28%
Arsenic	-95.5	-28.0	13.08	µg/L				46.76%
Copper	3846.0	-2.6	0.01	µg/L				0.41%
Lead	-697.2	-58.8	2.91	µg/L				4.95%
Selenium	-269.2	-104.9	8.72	µg/L				8.32%
Thallium	-196.0	-22.8	1.65	µg/L				7.23%
Zinc	213.4	13.5	0.44	µg/L				3.30%
Barium	1556.9	12.5	0.25	µg/L				2.01%
Beryllium	18910.9	0.0	0.04	µg/L				143.64%

Calcium	322443.2	499880	960.4 µg/L	0.19%
Cadmium	664.0	7.3	0.01 µg/L	0.10%
Cobalt	1493.0	4.6	0.17 µg/L	3.56%
Chromium	846.2	3.2	0.00 µg/L	0.09%
Iron	13743393.0	177750	964.6 µg/L	0.54%
Potassium	383.5	6.6	0.20 µg/L	3.04%
Magnesium	8674031.5	502150	2702.9 µg/L	0.54%
Manganese	8881.1	11.1	0.15 µg/L	1.32%
Sodium	-3320.6	-1269.9	115.76 µg/L	45.12%
Nickel	-228.9	2.5	0.30 µg/L	12.86%
Antimony	366.2	22.1	1.48 µg/L	6.67%
Vanadium	1938.0	1.9	0.04 µg/L	2.26%

Replicate Data ---

ID: ICSAB Date: 12/18/07 2:33:16 PM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1328194.3	1328194.3				
1	Silver	114666.0	126125.2	900.6	µg/L		
1	Aluminum	31151243.1	34264330.5	494030	µg/L		
1	Arsenic	-76.2	-83.8	-22.4	µg/L		
1	Copper	195529.1	215069.2	488.8	µg/L		
1	Lead	7809.2	8589.6	871.1	µg/L		
1	Selenium	-254.8	-280.3	-111.0	µg/L		
1	Thallium	-153.1	-168.3	-16.8	µg/L		
1	Zinc	33332.4	36663.4	895.8	µg/L		
1	Barium	87629.7	96387.0	484.3	µg/L		
1	Beryllium	3276667.5	3604120.0	471.9	µg/L		
1	Calcium	290269.3	319277.2	494980	µg/L		
1	Cadmium	132092.1	145292.7	918.0	µg/L		
1	Cobalt	48012.5	52810.6	447.3	µg/L		
1	Chromium	45660.2	50223.2	470.8	µg/L		
1	Iron	12374153.0	13610759.2	176030	µg/L		
1	Potassium	3493.0	3842.1	34.7	µg/L		
1	Magnesium	7783376.3	8561205.0	495620	µg/L		
1	Manganese	442335.7	486540.3	476.0	µg/L		
1	Sodium	-2697.8	-2967.4	-984.9	µg/L		
1	Nickel	37978.0	41773.3	906.5	µg/L		
1	Antimony	341.5	375.6	23.9	µg/L		
1	Vanadium	80720.8	88787.6	467.2	µg/L		
2	Y 360.073	1333465.4	1333465.4				
2	Silver	114464.0	125405.2	895.4	µg/L		
2	Aluminum	31246030.6	34232731.9	493580	µg/L		
2	Arsenic	-98.8	-108.2	-34.1	µg/L		
2	Copper	197327.2	216189.0	491.4	µg/L		
2	Lead	7859.1	8610.3	873.2	µg/L		
2	Selenium	-236.6	-259.2	-99.3	µg/L		
2	Thallium	-149.7	-164.1	-15.8	µg/L		
2	Zinc	33359.8	36548.5	893.0	µg/L		
2	Barium	88496.6	96955.7	487.1	µg/L		
2	Beryllium	3306904.5	3623000.2	474.4	µg/L		
2	Calcium	292997.6	321004.2	497650	µg/L		
2	Cadmium	133280.9	146020.8	922.5	µg/L		
2	Cobalt	48413.3	53041.0	449.3	µg/L		
2	Chromium	46060.6	50463.4	473.1	µg/L		
2	Iron	12407820.2	13593841.3	175810	µg/L		
2	Potassium	3665.9	4016.3	36.1	µg/L		
2	Magnesium	7808774.4	8555188.4	495270	µg/L		
2	Manganese	446303.3	488963.9	478.3	µg/L		
2	Sodium	-2798.3	-3065.8	-1064.3	µg/L		
2	Nickel	37862.4	41481.5	900.2	µg/L		
2	Antimony	331.3	363.0	21.6	µg/L		
2	Vanadium	81428.7	89212.1	469.5	µg/L		

Mean Data ---

ID: ICSAB Seq. No.: 21 Sample No.: 4 A/S Pos: 6

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0

Data: Original Date: 12/18/07 2:33:16 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1330829.9							0.28%
Silver	125765.2	898.0	3.64	µg/L				0.41%
Aluminum	34248531.2	493800	322.2	µg/L				0.07%
Arsenic	-96.0	-28.2	8.31	µg/L				29.43%
Copper	215629.1	490.1	1.84	µg/L				0.38%
Lead	8600.0	872.1	1.46	µg/L				0.17%
Selenium	-269.7	-105.2	8.27	µg/L				7.86%
Thallium	-166.2	-16.3	0.67	µg/L				4.09%
Zinc	36606.0	894.4	1.97	µg/L				0.22%
Barium	96671.3	485.7	2.00	µg/L				0.41%
Beryllium	3613560.1	473.2	1.76	µg/L				0.37%
Calcium	320140.7	496320	1892.2	µg/L				0.38%
Cadmium	145656.7	920.2	3.24	µg/L				0.35%
Cobalt	52925.8	448.3	1.41	µg/L				0.31%
Chromium	50343.3	471.9	1.61	µg/L				0.34%
Iron	13602300.3	175920	154.6	µg/L				0.09%
Potassium	3929.2	35.4	1.00	µg/L				2.83%
Magnesium	8558196.7	495440	246.2	µg/L				0.05%
Manganese	487752.1	477.2	1.67	µg/L				0.35%
Sodium	-3016.6	-1024.6	56.11	µg/L				5.48%
Nickel	41627.4	903.4	4.44	µg/L				0.49%
Antimony	369.3	22.7	1.65	µg/L				7.24%
Vanadium	88999.9	468.4	1.61	µg/L				0.34%

Replicate Data

ID: BLANK Date: 12/18/07 2:36:41 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1434712.0	1434712.0				
1	Silver	209.5	213.4	-0.2	µg/L		
1	Aluminum	9061.4	9226.9	66.8	µg/L		
1	Arsenic	-38.4	-39.1	-0.8	µg/L		
1	Copper	5181.4	5276.1	0.7	µg/L		
1	Lead	-103.1	-105.0	0.5	µg/L		
1	Selenium	-67.4	-68.7	6.3	µg/L		
1	Thallium	-78.8	-80.3	2.6	µg/L		
1	Zinc	-303.4	-309.0	0.8	µg/L		
1	Barium	-935.6	-952.7	0.0	µg/L		
1	Beryllium	19279.0	19631.3	0.1	µg/L		
1	Calcium	-89.1	-90.7	111.2	µg/L		
1	Cadmium	-477.5	-486.3	0.0	µg/L		
1	Cobalt	922.2	939.0	-0.1	µg/L		
1	Chromium	512.5	521.9	0.1	µg/L		
1	Iron	-4525.0	-4607.7	26.9	µg/L		
1	Potassium	-729.0	-742.3	-2.5	µg/L		
1	Magnesium	-848.5	-864.0	59.4	µg/L		
1	Manganese	-2424.5	-2468.8	0.1	µg/L		
1	Sodium	-1639.1	-1669.1	62.6	µg/L		
1	Nickel	-328.1	-334.1	0.3	µg/L		
1	Antimony	237.0	241.3	-0.9	µg/L		
1	Vanadium	1599.6	1628.8	0.3	µg/L		
2	Y 360.073	1425592.8	1425592.8				
2	Silver	185.7	190.4	-0.3	µg/L		
2	Aluminum	9371.8	9604.1	72.2	µg/L		
2	Arsenic	-41.6	-42.6	-2.4	µg/L		
2	Copper	5242.0	5371.9	0.9	µg/L		
2	Lead	-111.9	-114.7	-0.5	µg/L		
2	Selenium	-70.0	-71.7	4.6	µg/L		
2	Thallium	-76.9	-78.8	2.9	µg/L		
2	Zinc	-312.4	-320.1	0.5	µg/L		
2	Barium	-929.0	-952.1	0.0	µg/L		
2	Beryllium	19120.6	19594.5	0.1	µg/L		
2	Calcium	-112.5	-115.3	73.2	µg/L		
2	Cadmium	-447.6	-458.7	0.2	µg/L		
2	Cobalt	957.8	981.5	0.2	µg/L		
2	Chromium	521.2	534.1	0.2	µg/L		
2	Iron	-4371.4	-4479.8	28.6	µg/L		

2	Potassium	-567.0	-581.1	-1.2	µg/L
2	Magnesium	-762.1	-781.0	64.2	µg/L
2	Manganese	-2401.0	-2460.5	0.1	µg/L
2	Sodium	-1691.6	-1733.6	10.6	µg/L
2	Nickel	-334.6	-342.8	0.1	µg/L
2	Antimony	237.9	243.8	-0.4	µg/L
2	Vanadium	1605.4	1645.2	0.3	µg/L

Mean Data ---

ID: BLANK Seq. No.: 22 Sample No.: 5 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0:1.0
Data: Original Date: 12/18/07 2:36:41 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1430152.4							0.45%
Silver	201.9	-0.3	0.12	µg/L				45.66%
Aluminum	9415.5	69.5	3.85	µg/L				5.53%
Arsenic	-40.9	-1.6	1.18	µg/L				72.66%
Copper	5324.0	0.8	0.16	µg/L				19.69%
Lead	-109.8	0.0	0.69	µg/L				999.9%
Selenium	-70.2	5.5	1.19	µg/L				21.90%
Thallium	-79.5	2.7	0.23	µg/L				8.32%
Zinc	-314.6	0.7	0.19	µg/L				28.34%
Barium	-952.4	0.0	0.00	µg/L				35.24%
Beryllium	19612.9	0.1	0.00	µg/L				5.06%
Calcium	-103.0	92.2	26.87	µg/L				29.13%
Cadmium	-472.5	0.1	0.12	µg/L				114.37%
Cobalt	960.3	0.0	0.26	µg/L				614.63%
Chromium	528.0	0.2	0.08	µg/L				47.46%
Iron	-4543.7	27.8	1.17	µg/L				4.21%
Potassium	-661.7	-1.9	0.92	µg/L				49.32%
Magnesium	-822.5	61.8	3.40	µg/L				5.50%
Manganese	-2464.6	0.1	0.01	µg/L				9.70%
Sodium	-1701.3	36.6	36.80	µg/L				100.53%
Nickel	-338.5	0.2	0.13	µg/L				69.66%
Antimony	242.6	-0.7	0.33	µg/L				49.87%
Vanadium	1637.0	0.3	0.06	µg/L				21.03%

-669-

Replicate Data --

ID: CRI1 Date: 12/18/07 2:40:07 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1417400.6	1417400.6				
1	Silver	2960.4	3051.3	20.1	µg/L		
1	Aluminum	5593.7	5765.4	16.9	µg/L		
1	Arsenic	1.0	1.0	18.6	µg/L		
1	Copper	26547.3	27362.5	52.1	µg/L		
1	Lead	-47.5	-49.0	6.1	µg/L		
1	Selenium	-45.8	-47.2	18.2	µg/L		
1	Thallium	9.1	9.4	22.2	µg/L		
1	Zinc	1666.7	1717.9	49.9	µg/L		
1	Barium	-834.4	-860.1	0.5	µg/L		
1	Beryllium	92464.6	95304.0	10.0	µg/L		
1	Calcium	-18.5	-19.0	222.3	µg/L		
1	Cadmium	1126.7	1161.3	10.4	µg/L		
1	Cobalt	12931.7	13328.8	106.7	µg/L		
1	Chromium	2602.1	2682.0	20.6	µg/L		
1	Iron	-5519.8	-5689.3	13.0	µg/L		
1	Potassium	217.0	223.6	5.3	µg/L		
1	Magnesium	-1744.7	-1798.3	5.3	µg/L		
1	Manganese	29319.4	30219.8	31.9	µg/L		
1	Sodium	-1487.2	-1532.9	172.5	µg/L		
1	Nickel	3564.1	3673.6	86.5	µg/L		
1	Antimony	883.5	910.7	122.6	µg/L		
1	Vanadium	19674.6	20278.7	100.2	µg/L		
2	Y 360.073	1413966.9	1413966.9				
2	Silver	3019.1	3119.3	20.6	µg/L		
2	Aluminum	5415.1	5595.0	14.4	µg/L		

2	Arsenic	-0.7	-0.7	17.7 µg/L
2	Copper	26438.0	27316.1	52.0 µg/L
2	Lead	-48.9	-50.5	6.0 µg/L
2	Selenium	-52.3	-54.0	14.4 µg/L
2	Thallium	4.7	4.9	21.2 µg/L
2	Zinc	1675.0	1730.6	50.2 µg/L
2	Barium	-817.9	-845.0	0.5 µg/L
2	Beryllium	92055.3	95112.6	10.0 µg/L
2	Calcium	19.4	20.0	282.9 µg/L
2	Cadmium	1118.6	1155.7	10.4 µg/L
2	Cobalt	12967.7	13398.3	107.3 µg/L
2	Chromium	2644.3	2732.1	21.0 µg/L
2	Iron	-5590.9	-5776.6	11.8 µg/L
2	Potassium	178.7	184.7	5.0 µg/L
2	Magnesium	-1744.9	-1802.9	5.1 µg/L
2	Manganese	29153.7	30121.9	31.8 µg/L
2	Sodium	-1541.8	-1593.0	124.0 µg/L
2	Nickel	3584.7	3703.7	87.2 µg/L
2	Antimony	874.1	903.2	121.2 µg/L
2	Vanadium	19593.1	20243.8	100.0 µg/L

Mean Data --

ID: CRI1 Seq. No.: 23 Sample No.: 6 A/S Pos: 8
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 : 1.0
Data: Original Date: 12/18/07 2:40:07 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1415683.8							0.17%
Silver	3085.3	20.4	0.34	µg/L				1.69%
Aluminum	5680.2	15.6	1.74	µg/L				11.12%
Arsenic	0.1	18.2	0.59	µg/L				3.25%
Copper	27339.3	52.0	0.08	µg/L				0.15%
Lead	-49.7	6.0	0.11	µg/L				1.77%
Selenium	-50.6	16.3	2.66	µg/L				16.32%

*QC exceeds upper limit for Selenium Recovery = 163.06% Action = Continue -670-

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Thallium	7.1	21.7	0.69	µg/L				3.20%
Zinc	1724.2	50.0	0.22	µg/L				0.43%
Barium	-852.5	0.5	0.05	µg/L				10.52%
Beryllium	95208.3	10.0	0.02	µg/L				0.18%
Calcium	0.5	252.6	42.80	µg/L				16.94%
Cadmium	1158.5	10.4	0.02	µg/L				0.24%
Cobalt	13363.6	107.0	0.42	µg/L				0.40%
Chromium	2707.1	20.8	0.34	µg/L				1.61%
Iron	-5733.0	12.4	0.80	µg/L				6.43%
Potassium	204.2	5.2	0.22	µg/L				4.34%
Magnesium	-1800.6	5.2	0.19	µg/L				3.59%
Manganese	30170.8	31.8	0.07	µg/L				0.21%
Sodium	-1562.9	148.3	34.30	µg/L				23.13%
Nickel	3688.7	86.9	0.46	µg/L				0.53%
Antimony	906.9	121.9	0.98	µg/L				0.81%
Vanadium	20261.3	100.1	0.13	µg/L				0.13%

Replicate Data --

ID: CCV1 Date: 12/18/07 2:43:39 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1414846.7	1414846.7				
1	Silver	113353.4	117045.2	835.6	µg/L		
1	Aluminum	1084292.3	1119606.6	16079	µg/L		
1	Arsenic	4211.2	4348.3	2116.0	µg/L		
1	Copper	848946.5	876595.8	2028.0	µg/L		
1	Lead	20586.7	21257.2	2139.5	µg/L		
1	Selenium	3671.1	3790.6	2145.9	µg/L		
1	Thallium	9018.8	9312.6	2060.7	µg/L		
1	Zinc	64040.3	66126.1	1609.0	µg/L		
1	Barium	3141947.6	3244277.6	16145	µg/L		
1	Beryllium	2985885.1	3083132.3	403.4	µg/L		
1	Calcium	25195.8	26016.4	40565	µg/L		
1	Cadmium	164788.2	170155.2	1074.5	µg/L		

1	Cobalt	456122.2	470977.6	4054.8	µg/L
1	Chromium	82752.3	85447.5	804.4	µg/L
1	Iron	600246.7	619796.1	8098.5	µg/L
1	Potassium	4771403.3	4926803.0	39980	µg/L
1	Magnesium	689187.1	711633.2	41298	µg/L
1	Manganese	1191737.5	1230551.2	1200.1	µg/L
1	Sodium	47362.3	48904.9	40868	µg/L
1	Nickel	146106.1	150864.6	3254.3	µg/L
1	Antimony	25076.2	25892.9	4733.2	µg/L
1	Vanadium	724842.3	748449.6	4001.5	µg/L
2	Y 360.073	1421379.4	1421379.4		
2	Silver	113658.1	116820.5	834.0	µg/L
2	Aluminum	1089275.5	1119582.8	16078	µg/L
2	Arsenic	4208.1	4325.2	2104.8	µg/L
2	Copper	852259.2	875971.8	2026.6	µg/L
2	Lead	20514.9	21085.7	2122.3	µg/L
2	Selenium	3648.0	3749.5	2123.1	µg/L
2	Thallium	8994.0	9244.3	2045.8	µg/L
2	Zinc	64341.1	66131.2	1609.1	µg/L
2	Barium	3153199.4	3240931.7	16128	µg/L
2	Beryllium	2996733.2	3080112.1	403.0	µg/L
2	Calcium	25048.1	25745.0	40144	µg/L
2	Cadmium	165308.6	169908.1	1073.0	µg/L
2	Cobalt	457342.1	470066.8	4046.9	µg/L
2	Chromium	83053.4	85364.2	803.6	µg/L
2	Iron	602863.6	619637.3	8096.5	µg/L
2	Potassium	4742903.3	4874866.4	39558	µg/L
2	Magnesium	691545.7	710786.8	41249	µg/L
2	Manganese	1196020.4	1229297.6	1198.9	µg/L
2	Sodium	47563.1	48886.5	40853	µg/L
2	Nickel	146307.2	150377.9	3243.8	µg/L
2	Antimony	24938.1	25631.9	4685.0	µg/L
2	Vanadium	727412.2	747651.2	3997.2	µg/L

Mean Data -671-

ID: CCV1 Seq. No.: 24 Sample No.: 9 A/S Pos: 11
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 2:43:39 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1418113.1							0.33%
Silver	116932.8	834.8	1.14	µg/L				0.14%
Aluminum	1119594.7	16079	0.2	µg/L				0.00%
Arsenic	4336.8	2110.4	7.90	µg/L				0.37%
Copper	876283.8	2027.3	1.03	µg/L				0.05%
Lead	21171.4	2130.9	12.14	µg/L				0.57%
Selenium	3770.1	2134.5	16.14	µg/L				0.76%
Thallium	9278.4	2053.3	10.58	µg/L				0.52%
Zinc	66128.7	1609.1	0.09	µg/L				0.01%
Barium	3242604.7	16136	11.8	µg/L				0.07%
Beryllium	3081622.2	403.2	0.28	µg/L				0.07%
Calcium	25880.7	40355	297.4	µg/L				0.74%
Cadmium	170031.6	1073.7	1.10	µg/L				0.10%
Cobalt	470522.2	4050.9	5.56	µg/L				0.14%
Chromium	85405.8	804.0	0.56	µg/L				0.07%
Iron	619716.7	8097.5	1.45	µg/L				0.02%
Potassium	4900834.7	39769	298.0	µg/L				0.75%
Magnesium	711210.0	41273	34.6	µg/L				0.08%
Manganese	1229924.4	1199.5	0.86	µg/L				0.07%
Sodium	48895.7	40860	10.5	µg/L				0.03%
Nickel	150621.3	3249.1	7.41	µg/L				0.23%
Antimony	25762.4	4709.1	34.06	µg/L				0.72%
Vanadium	748050.4	3999.3	3.02	µg/L				0.08%

Replicate Data

ID: CCB1 Date: 12/18/07 2:47:02 PM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units

1 Y 360.073	1442328.7	1442328.7	
1 Silver	270.2	273.6	0.3 µg/L
1 Aluminum	4707.7	4768.4	2.5 µg/L
1 Arsenic	-40.0	-40.5	-1.5 µg/L
1 Copper	5767.6	5841.9	2.0 µg/L
1 Lead	-103.4	-104.7	0.5 µg/L
1 Selenium	-68.9	-69.8	5.7 µg/L
1 Thallium	-79.3	-80.3	2.5 µg/L
1 Zinc	59.2	60.0	9.7 µg/L
1 Barium	-285.4	-289.1	3.3 µg/L
1 Beryllium	19169.1	19416.2	0.0 µg/L
1 Calcium	-157.0	-159.0	5.4 µg/L
1 Cadmium	-424.3	-429.8	0.4 µg/L
1 Cobalt	1019.8	1032.9	0.7 µg/L
1 Chromium	529.2	536.0	0.2 µg/L
1 Iron	-6365.6	-6447.7	3.2 µg/L
1 Potassium	2151.9	2179.6	21.2 µg/L
1 Magnesium	-1671.6	-1693.1	11.4 µg/L
1 Manganese	-2073.5	-2100.2	0.4 µg/L
1 Sodium	-1557.8	-1577.9	136.2 µg/L
1 Nickel	-296.2	-300.1	1.0 µg/L
1 Antimony	265.1	268.6	4.1 µg/L
1 Vanadium	1733.8	1756.2	0.9 µg/L
2 Y 360.073	1432076.4	1432076.4	
2 Silver	148.9	151.9	-0.6 µg/L
2 Aluminum	5219.5	5324.7	10.5 µg/L
2 Arsenic	-33.0	-33.7	1.8 µg/L
2 Copper	5726.0	5841.4	2.0 µg/L
2 Lead	-118.6	-121.0	-1.1 µg/L
2 Selenium	-77.3	-78.9	0.6 µg/L
2 Thallium	-70.6	-72.0	4.4 µg/L
2 Zinc	64.0	65.3	9.9 µg/L
2 Barium	-277.7	-283.3	3.3 µg/L
2 Beryllium	19451.6	19843.5	0.1 µg/L
2 Calcium	-105.2	-107.3	85.6 µg/L
2 Cadmium	-444.6	-453.5	0.2 µg/L
2 Cobalt	1021.8	1042.4	0.8 µg/L
2 Chromium	525.8	536.4	0.3 µg/L
2 Iron	-6336.4	-6464.0	3.0 µg/L
2 Potassium	1954.7	1994.1	19.7 µg/L
2 Magnesium	-1643.6	-1676.7	12.4 µg/L
2 Manganese	-2054.8	-2096.2	0.4 µg/L
2 Sodium	-1664.5	-1698.0	39.3 µg/L
2 Nickel	-283.8	-289.6	1.2 µg/L
2 Antimony	249.9	254.9	1.6 µg/L
2 Vanadium	1704.0	1738.3	0.8 µg/L

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Mean Data:
ID: CCB1 Seq. No.: 25 Sample No.: 10 A/S Pos: 12
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/18/07 2:47:02 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1437202.5							0.50%
Silver	212.8	-0.2	0.62	µg/L				348.50%
Aluminum	5046.5	6.5	5.67	µg/L				87.41%
Arsenic	-37.1	0.2	2.33	µg/L				>999.9%
Copper	5841.6	2.0	0.00	µg/L				0.05%
Lead	-112.9	-0.3	1.15	µg/L				407.73%
Selenium	-74.3	3.2	3.58	µg/L				112.93%
Thallium	-76.2	3.4	1.29	µg/L				37.43%
Zinc	62.7	9.8	0.09	µg/L				0.93%
Barium	-286.2	3.3	0.02	µg/L				0.62%
Beryllium	19629.9	0.1	0.04	µg/L				57.01%
Calcium	-133.2	45.5	56.68	µg/L				124.54%
Cadmium	-441.7	0.3	0.11	µg/L				35.08%
Cobalt	1037.7	0.7	0.06	µg/L				8.16%
Chromium	536.2	0.3	0.00	µg/L				1.03%
Iron	-6455.9	3.1	0.15	µg/L				4.89%
Potassium	2086.9	20.4	1.06	µg/L				5.21%

Magnesium	-1684.9	11.9	0.67 µg/L
Manganese	-2098.2	0.4	0.00 µg/L
Sodium	-1638.0	87.7	68.51 µg/L
Nickel	-294.8	1.1	0.16 µg/L
Antimony	261.7	2.9	1.78 µg/L
Vanadium	1747.3	0.9	0.07 µg/L

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Instrument ID Number: 58.0 Method: P

Start Date: 12/19/2007 End Date: 12/19/2007

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	0924																			X						
ICB	1.00	0927																			X						
ICSA	1.00	0930																			X						
ICSAB	1.00	0933																			X						
CRI	1.00	0939																			X						
PBW	1.00	0943																			X						
LCSW	1.00	0946																			X						
MW-14S	1.00	0949																			X						
MW-14I	1.00	0953																			X						
MW-14D	1.00	0956																			X						
MW-15S	1.00	0959																			X						
MW-15I	1.00	1003																			X						
MW-15D	1.00	1006																			X						
MW-15DL	5.00	1009																			X						
ICSA	1.00	1015																			X						
ICSAB	1.00	1018																			X						
CRI	1.00	1025																			X						
CCV	1.00	1028																			X						
CCB	1.00	1031																			X						

Trace Metals
UPSTATE LABORATORIES, INC.
Analysis Run Log

Instrument Batch/File No. ME8144 / 30416

S45-0-70 Revised 1/04

Instrument. No.: X-001
Date Analyzed: 12/19/07
Calibration Stock Solutions:

Calib	Stk No. M0737	1	ml of	5,000,000 / 150,000	ppb into	100	ml=	50,000 / 1,500	ppb
ICV:	Stk No. M0738	0.5	ml of	5,000,000 / 150,000	ppb into	100	ml=	2,500 / 750	ppb
CCV:	Stk No. M0739	0.8	ml of	5,000,000 / 150,000	ppb into	100	ml=	40,000 / 1,200	ppb

Al Sb As Ba Be Cd Ca Cr Co Cu Fe Pb Mg Mn Ni K Se Ag Na Tl V Zn B Mo Sn

Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.
17	CHA89		47			77		
18			48			78		
19	12448		49			79		
20			50			80		
21			51			81		
22			52			82		
23			53			83		
24			54			84		
25			55			85		
26	Excursion:		56			86		
27	Final CRI ran		57			87		
28	slightly bias		58			88		
29	high use replicate		59			89		
30	data 1 and CRI		60			90		
31	works set well, sample		61			91		
32	ran less than.		62			92		
33			63			93		
34	See C.AR. 5152		64			94		
35			65			95		
36			66			96		
37			67			97		
38			68			98		
39			69			99		
40			70			100		
41			71			101		
42			72			102		
43			73			103		
44			74			104		
45			75			105		
46			76			106		

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Prepared by: Date: 12/19/07

Method: selenium
Results: ME8144
Sample Info: cha
Method Description: with 2ppm Y internal standard

IEC: HEIDI.IEC
Spectra Stored: Yes
User: User1

MSF:
Method Stored: Yes
Date: 12/19/07 9:15:05 AM

Replicate Data

ID: IS Init Date: 12/19/07 9:16:31 AM

Repl#	Element	Net Intensity	Corrected Intensity
1	Y 360.073	1393456.7	1393456.7
2	Y 360.073	1382012.5	1382012.5

Mean Data

ID: IS Init Seq. No.: 1 Data: Original A/S Pos: 1 Date: 12/19/07 9:16:31 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	1387734.6	8092.30	0.58%

Replicate Data

ID: Calib Blank 1 Date: 12/19/07 9:17:08 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1373145.7	1373145.7		
1	Selenium	-57.6	-58.2	0	µg/L
2	Y 360.073	1385784.2	1385784.2		
2	Selenium	-67.9	-68.0	0	µg/L

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Mean Data

ID: Calib Blank 1 Seq. No.: 2 Data: Original A/S Pos: 1 Date: 12/19/07 9:17:08 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1379464.9	8936.77	0.65%		
Selenium	-63.1	6.90	10.94%	0	µg/L

Replicate Data

ID: Calib Std 1 Date: 12/19/07 9:20:26 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1327628.8	1327628.8		
1	Selenium	649.8	679.2	500	µg/L
2	Y 360.073	1334376.9	1334376.9		
2	Selenium	643.1	668.8	500	µg/L

Mean Data

ID: Calib Std 1 Seq. No.: 3 Data: Original A/S Pos: 2 Date: 12/19/07 9:20:26 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1331002.9	4771.64	0.36%		
Selenium	674.0	7.39	1.10%	500	µg/L

Replicate Data

ID: ICV Date: 12/19/07 9:23:44 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units

1	Y 360.073	1351892.5	1351892.5		
1	Selenium	324.4	333.0	268.7	µg/L
2	Y 360.073	1366727.1	1366727.1		
2	Selenium	318.9	323.8	262.5	µg/L

Mean Data ---
ID: ICV
Sample Qty: 1.0000 g Seq. No.: 4 Sample No.: 1 A/S Pos: 3
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 9:23:44 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1359309.8							0.77%
Selenium	328.4	265.6	4.38	µg/L				1.65%

Replicate Data ---
ID: ICB Date: 12/19/07 9:27:04 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1383929.3	1383929.3				
1	Selenium	-67.5	-67.7	-3.1	µg/L		
2	Y 360.073	1393558.4	1393558.4				
2	Selenium	-60.2	-59.9	2.1	µg/L		

Mean Data ---
ID: ICB
Sample Qty: 1.0000 g Seq. No.: 5 Sample No.: 2 A/S Pos: 4
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 9:27:04 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1388743.8							0.49%
Selenium	-63.8	-0.5	3.72	µg/L				749.21%

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Replicate Data ---
ID: ICSA Date: 12/19/07 9:30:09 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1279013.3	1279013.3				
1	Selenium	-148.1	-160.7	-66.2	µg/L		
2	Y 360.073	1287285.3	1287285.3				
2	Selenium	-137.2	-147.9	-57.5	µg/L		

Mean Data ---
ID: ICSA
Sample Qty: 1.0000 g Seq. No.: 6 Sample No.: 3 A/S Pos: 5
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 9:30:09 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1283149.3							0.46%
Selenium	-154.3	-61.9	6.13	µg/L				9.91%

Replicate Data ---
ID: ICSAB Date: 12/19/07 9:32:59 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1266734.5	1266734.5				
1	Selenium	-197.0	-215.8	-103.6	µg/L		
2	Y 360.073	1275571.7	1275571.7				
2	Selenium	-166.9	-181.6	-80.4	µg/L		

Mean Data
ID: ICSAB
Sample Qty: 1.0000 g | Seq. No.: 7 | Sample No.: 4 | A/S Pos: 6
Prep. Vol.: 1.0 L | Dilution: 1.0: 1.0
Data: Original | Date: 12/19/07 9:32:59 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1271153.1							0.49%
Selenium	-198.7	-92.0	16.44	µg/L				17.87%

Replicate Data
ID: BLANK | Date: 12/19/07 9:36:07 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1378729.3	1378729.3				
1	Selenium	-54.9	-55.2	5.3	µg/L		
2	Y 360.073	1392099.4	1392099.4				
2	Selenium	-60.6	-60.4	1.8	µg/L		

Mean Data
ID: BLANK
Sample Qty: 1.0000 g | Seq. No.: 8 | Sample No.: 5 | A/S Pos: 7
Prep. Vol.: 1.0 L | Dilution: 1.0: 1.0
Data: Original | Date: 12/19/07 9:36:07 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1385414.4							0.68%
Selenium	-57.8	3.6	2.50	µg/L				70.14%

Replicate Data
ID: CRI1 | Date: 12/19/07 9:39:29 AM

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Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1362866.6	1362866.6				
1	Selenium	-49.5	-50.5	8.6	µg/L		
2	Y 360.073	1362257.8	1362257.8				
2	Selenium	-49.0	-49.9	8.9	µg/L		

Mean Data
ID: CRI1
Sample Qty: 1.0000 g | Seq. No.: 9 | Sample No.: 6 | A/S Pos: 8
Prep. Vol.: 1.0 L | Dilution: 1.0: 1.0
Data: Original | Date: 12/19/07 9:39:29 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1362562.2							0.03%
Selenium	-50.2	8.8	0.27	µg/L				3.05%

Replicate Data
ID: MBLK | Date: 12/19/07 9:42:49 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1433086.7	1433086.7				
1	Selenium	-62.3	-60.4	1.8	µg/L		
2	Y 360.073	1375833.6	1375833.6				
2	Selenium	-64.5	-65.1	-1.4	µg/L		

Mean Data
ID: MBLK
Sample Qty: 1.0000 g | Seq. No.: 10 | Sample No.: 7 | A/S Pos: 9
Prep. Vol.: 1.0 L | Dilution: 1.0: 1.0
Data: Original | Date: 12/19/07 9:42:49 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1404460.1							2.88%
Selenium	-62.7	0.2	2.27	µg/L				925.15%

Replicate Data
ID: LCS Date: 12/19/07 9:46:09 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1368569.3	1368569.3				
1	Selenium	1413.3	1433.1	1014.9	µg/L		
2	Y 360.073	1375151.7	1375151.7				
2	Selenium	1449.0	1462.2	1034.7	µg/L		

Mean Data
ID: LCS Seq. No.: 11 Sample No.: 8 A/S Pos: 10
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/19/07 9:46:09 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1371860.5							0.34%
Selenium	1447.7	1024.8	13.99	µg/L				1.37%

Replicate Data
ID: U0712180-021B Date: 12/19/07 9:49:27 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1378426.3	1378426.3				
1	Selenium	-50.2	-50.5	8.5	µg/L	8.5	µg/L
2	Y 360.073	1368052.2	1368052.2				
2	Selenium	-66.0	-66.9	-2.6	µg/L	-2.6	µg/L

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Mean Data
ID: U0712180-021B Seq. No.: 12 Sample No.: 1 A/S Pos: 17
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0 1.0
Data: Original Date: 12/19/07 9:49:27 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1373239.3							0.53%
Selenium	-58.7	3.0	7.86	µg/L	3.0	7.86	µg/L	264.85%

Replicate Data
ID: U0712180-022B Date: 12/19/07 9:52:45 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1397470.7	1397470.7				
1	Selenium	-52.6	-52.2	7.4	µg/L	7.4	µg/L
2	Y 360.073	1386373.6	1386373.6				
2	Selenium	-67.3	-67.3	-2.9	µg/L	-2.9	µg/L

Mean Data
ID: U0712180-022B Seq. No.: 13 Sample No.: 2 A/S Pos: 18
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0 1.0
Data: Original Date: 12/19/07 9:52:45 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1391922.1							0.56%
Selenium	-59.8	2.3	7.27	µg/L	2.3	7.27	µg/L	322.55%

Replicate Data

ID: U0712180-023B Date: 12/19/07 9:56:03 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc. Units
1 Y 360.073	1388538.8	1388538.8		
1 Selenium	-67.4	-67.3	-2.9 µg/L	-2.9 µg/L
2 Y 360.073	1367350.3	1367350.3		
2 Selenium	-64.5	-65.5	-1.6 µg/L	-1.6 µg/L

Mean Data

ID: U0712180-023B Seq. No.: 14 Sample No.: 3 A/S Pos: 19
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 9:56:03 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev. Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 360.073	1377944.6					1.09%
Selenium	-66.4	-2.3	0.89 µg/L	-2.3	0.89 µg/L	39.42%

Replicate Data

ID: U0712180-024B Date: 12/19/07 9:59:23 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc. Units
1 Y 360.073	1381107.9	1381107.9		
1 Selenium	-60.1	-60.3	1.9 µg/L	1.9 µg/L
2 Y 360.073	1358393.4	1358393.4		
2 Selenium	-62.7	-64.0	-0.6 µg/L	-0.6 µg/L

Mean Data

ID: U0712180-024B Seq. No.: 15 Sample No.: 4 A/S Pos: 20
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 9:59:23 AM

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Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev. Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 360.073	1369750.7					1.17%
Selenium	-62.2	0.6	1.77 µg/L	0.6	1.77 µg/L	290.40%

Replicate Data

ID: U0712180-025B Date: 12/19/07 10:02:41 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc. Units
1 Y 360.073	1392008.4	1392008.4		
1 Selenium	-63.6	-63.4	-0.2 µg/L	-0.2 µg/L
2 Y 360.073	1381327.4	1381327.4		
2 Selenium	-62.1	-62.4	0.5 µg/L	0.5 µg/L

Mean Data

ID: U0712180-025B Seq. No.: 16 Sample No.: 5 A/S Pos: 21
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:02:41 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev. Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 360.073	1386667.9					0.54%
Selenium	-62.9	0.1	0.49 µg/L	0.1	0.49 µg/L	371.78%

Replicate Data

ID: U0712180-026B Date: 12/19/07 10:06:00 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc. Units
1 Y 360.073	1385740.6	1385740.6		
1 Selenium				
2 Y 360.073				
2 Selenium				

1	Selenium	-63.9	-64.0	-0.6 µg/L	-0.6	µg/L
2	Y 360.073	1384812.8	1384812.8			
2	Selenium	-62.3	-62.5	0.4 µg/L	0.4	µg/L

Mean Data --

ID: U0712180-026B Seq. No.: 17 Sample No.: 6 A/S Pos: 22
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:06:00 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1385276.7							0.05%
Selenium	-63.2	-0.1	0.71	µg/L	-0.1	0.71	µg/L	806.07%

Replicate Data --

ID: U0712180-026BSD Date: 12/19/07 10:09:21 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc.	Units
1	Y 360.073	1373043.1	1373043.1			
1	Selenium	-57.3	-57.9	3.5 µg/L	3.5	µg/L
2	Y 360.073	1383834.3	1383834.3			
2	Selenium	-52.5	-52.7	7.1 µg/L	7.1	µg/L

Mean Data --

ID: U0712180-026BSD Seq. No.: 18 Sample No.: 7 A/S Pos: 23
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:09:21 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1378438.7							0.55%
Selenium	-55.3	5.3	2.53	µg/L	5.3	2.53	µg/L	47.82%

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Matrix Check Sample: U0712180-026BSD

Element	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Diff.
Y 360.073			0.000		
Selenium	0.0	5.3	2.527	µg/L	-29955.516

Replicate Data --

ID: BLANK Date: 12/19/07 10:12:41 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc.	Units
1	Y 360.073	1362097.7	1362097.7			
1	Selenium	-62.6	-63.8	-0.5 µg/L	-0.5	µg/L
2	Y 360.073	1377186.6	1377186.6			
2	Selenium	-58.6	-59.1	2.7 µg/L	2.7	µg/L

Mean Data --

ID: BLANK Seq. No.: 19 Sample No.: 8 A/S Pos: 24
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:12:41 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1369642.1							0.78%
Selenium	-61.4	1.1	2.24	µg/L	1.1	2.24	µg/L	198.29%

Replicate Data --

ID: ICSA Date: 12/19/07 10:15:46 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc. Units	Sample Conc.	Units

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1273962.6	1273962.6		
1	Selenium	-204.2	-222.5	-108.1	µg/L
2	Y 360.073	1269602.3	1269602.3		
2	Selenium	-154.9	-169.3	-72.0	µg/L

Mean Data --
ID: ICSA Seq. No.: 20 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0:1.0
Data: Original Date: 12/19/07 10:15:46 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1271782.4							0.24%
Selenium	-195.9	-90.1	25.52	µg/L				28.33%

Replicate Data --
ID: ICSAB Date: 12/19/07 10:18:37 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1265589.2	1265589.2				
1	Selenium	-148.7	-163.1	-67.8	µg/L		
2	Y 360.073	1270420.5	1270420.5				
2	Selenium	-158.1	-172.7	-74.3	µg/L		

Mean Data --
ID: ICSAB Seq. No.: 21 Sample No.: 4 A/S Pos: 6
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0:1.0
Data: Original Date: 12/19/07 10:18:37 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1268004.8							0.27%
Selenium	-167.9	-71.1	4.59	µg/L				6.45%

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Replicate Data --
ID: BLANK Date: 12/19/07 10:21:43 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1360707.2	1360707.2				
1	Selenium	-54.5	-55.6	5.1	µg/L		
2	Y 360.073	1382277.4	1382277.4				
2	Selenium	-66.8	-67.0	-2.7	µg/L		

Mean Data --
ID: BLANK Seq. No.: 22 Sample No.: 5 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0:1.0
Data: Original Date: 12/19/07 10:21:43 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1371492.3							1.11%
Selenium	-61.3	1.2	5.49	µg/L				456.44%

Replicate Data --
ID: CRI Date: 12/19/07 10:25:05 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1373688.4	1373688.4				
1	Selenium	-44.8	-45.2	12.1	µg/L		
2	Y 360.073	1363756.1	1363756.1				
2	Selenium	-37.1	-37.7	17.2	µg/L		

Use replicate data set 1 (initials)

Mean Data
ID: CRI1 Seq. No.: 23 Sample No.: 6 A/S Pos: 8
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:25:05 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1368722.2							0.51%
Selenium	-41.5	14.7	3.59	µg/L				24.51%

*QC exceeds upper limit for Selenium Recovery = 146.61% Action = Continue

Replicate Data
ID: CCV1 Date: 12/19/07 10:28:12 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1359493.2	1359493.2				
1	Selenium	3037.9	3101.0	2146.3	µg/L		
2	Y 360.073	1355118.9	1355118.9				
2	Selenium	3007.4	3079.8	2131.9	µg/L		

Mean Data
ID: CCV1 Seq. No.: 24 Sample No.: 9 A/S Pos: 11
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:28:12 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1357306.0							0.23%
Selenium	3090.4	2139.1	10.18	µg/L				0.48%

Replicate Data
ID: CCB1 Date: 12/19/07 10:31:17 AM -683-

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	1352173.0	1352173.0				
1	Selenium	-56.4	-57.9	3.5	µg/L		
2	Y 360.073	1392931.9	1392931.9				
2	Selenium	-57.8	-57.6	3.7	µg/L		

Mean Data
ID: CCB1 Seq. No.: 25 Sample No.: 10 A/S Pos: 12
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:31:17 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1372552.5							2.10%
Selenium	-57.7	3.6	0.15	µg/L				4.19%

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Instrument ID Number: 58.0 Method: P

Start Date: 12/19/2007 End Date: 12/19/2007

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1056																		X			X				
ICB	1.00	1100																		X			X				
CRI	1.00	1103																		X			X				
LCSW	1.00	1107																		X			X				
CRI	1.00	1113																		X			X				
CCV	1.00	1117																		X			X				
CCB	1.00	1120																		X			X				

Trace Metals
UPSTATE LABORATORIES, INC.
Analysis Run Log

Instrument Batch/File No. ME8146/30418

S45-0-70 Revised 1/04

Instrument. No.: X-001
Date Analyzed: 12/19/07
Calibration Stock Solutions:

Calib	Stk No. M0737	1	ml of	5,000,000 / 150,000	ppb into	100	ml=	50,000 / 1,500	ppb
ICV:	Stk No. M0738	0.5	ml of	5,000,000 / 150,000	ppb into	100	ml=	2,500 / 750	ppb
CCV:	Stk No. M0739	0.8	ml of	5,000,000 / 150,000	ppb into	100	ml=	40,000 / 1,200	ppb

Al Sb As Ba Be Cd Ca Cr Co Cu Fe Pb Mg Mn Ni K Se Ag Na Tl V Zn B Mo Sn

Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.
17	CHA 89		47			77		
18			48			78		
19	12448		49			79		
20	LCS RR K,Na		50			80		
21			51			81		
22			52			82		
23			53			83		
24			54			84		
25			55			85		
26			56			86		
27			57			87		
28			58			88		
29			59			89		
30			60			90		
31			61			91		
32			62			92		
33			63			93		
34			64			94		
35			65			95		
36			66			96		
37			67			97		
38			68			98		
39			69			99		
40			70			100		
41			71			101		
42			72			102		
43			73			103		
44			74			104		
45			75			105		
46			76			106		

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Prepared by: [illegible] Date: 12/19/07

Method: LIMSASP-II
Results: ME8145
Sample Info: cha
Method Description: with 2ppm Y internal standard

IEC: MELISSA.IEC
Spectra Stored: Yes
User: User1

MSF:
Method Stored: Yes
Date: 12/19/07 10:46:05 AM

Replicate Data
ID: IS Init Date: 12/19/07 10:47:47 AM

Repl#	Element	Net Intensity	Corrected Intensity
1	Y 360.073	1394941.0	1394941.0
2	Y 360.073	1419965.8	1419965.8

Mean Data
ID: IS Init
Seq. No.: 1
Data: Original
A/S Pos: 1
Date: 12/19/07 10:47:47 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	1407453.4	17695.24	1.26%

Replicate Data
ID: Calib Blank 1 Date: 12/19/07 10:48:27 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1412254.0	1412254.0		
1	Silver	158.0	157.5	0	µg/L
1	Aluminum	6393.6	6371.9	0	µg/L
1	Arsenic	-34.2	-34.1	0	µg/L
1	Copper	4447.2	4432.1	0	µg/L
1	Lead	-105.5	-105.1	0	µg/L
1	Selenium	-81.5	-81.2	0	µg/L
1	Thallium	-82.3	-82.0	0	µg/L
1	Zinc	-322.6	-321.5	0	µg/L
1	Barium	-955.1	-951.9	0	µg/L
1	Beryllium	15804.8	15751.1	0	µg/L
1	Calcium	-113.1	-112.8	0	µg/L
1	Cadmium	-466.5	-465.0	0	µg/L
1	Cobalt	914.8	911.7	0	µg/L
1	Chromium	527.8	526.0	0	µg/L
1	Iron	-6368.1	-6346.4	0	µg/L
1	Potassium	-647.5	-645.3	0	µg/L
1	Magnesium	-1799.8	-1793.7	0	µg/L
1	Manganese	-2440.4	-2432.1	0	µg/L
1	Sodium	-1531.3	-1526.1	0	µg/L
1	Nickel	-372.9	-371.6	0	µg/L
1	Antimony	247.4	246.5	0	µg/L
1	Vanadium	1525.5	1520.3	0	µg/L
2	Y 360.073	1419877.2	1419877.2		
2	Silver	56.3	55.8	0	µg/L
2	Aluminum	6453.0	6396.5	0	µg/L
2	Arsenic	-36.8	-36.5	0	µg/L
2	Copper	4444.3	4405.4	0	µg/L
2	Lead	-100.7	-99.8	0	µg/L
2	Selenium	-57.3	-56.8	0	µg/L
2	Thallium	-69.6	-69.0	0	µg/L
2	Zinc	-322.9	-320.1	0	µg/L
2	Barium	-952.4	-944.1	0	µg/L
2	Beryllium	15808.7	15670.3	0	µg/L
2	Calcium	-122.8	-121.8	0	µg/L
2	Cadmium	-467.8	-463.7	0	µg/L
2	Cobalt	922.9	914.8	0	µg/L
2	Chromium	521.7	517.1	0	µg/L
2	Iron	-6413.7	-6357.6	0	µg/L
2	Potassium	-559.2	-554.3	0	µg/L

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2	Magnesium	-1810.1	-1794.3	0 µg/L
2	Manganese	-2435.4	-2414.1	0 µg/L
2	Sodium	-1506.6	-1493.5	0 µg/L
2	Nickel	-374.8	-371.5	0 µg/L
2	Antimony	254.7	252.5	0 µg/L
2	Vanadium	1511.7	1498.5	0 µg/L

Mean Data ---

ID: Calib Blank 1 Seq. No.: 2 A/S Pos: 1

Data: Original Date: 12/19/07 10:48:27 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1416065.6	5390.46	0.38%		
Silver	106.6	71.86	67.39%	0	µg/L
Aluminum	6384.2	17.43	0.27%	0	µg/L
Arsenic	-35.3	1.67	4.74%	0	µg/L
Copper	4418.7	18.86	0.43%	0	µg/L
Lead	-102.5	3.77	3.68%	0	µg/L
Selenium	-69.0	17.25	25.00%	0	µg/L
Thallium	-75.5	9.21	12.19%	0	µg/L
Zinc	-320.8	0.98	0.31%	0	µg/L
Barium	-948.0	5.54	0.58%	0	µg/L
Beryllium	15710.7	57.09	0.36%	0	µg/L
Calcium	-117.3	6.38	5.44%	0	µg/L
Cadmium	-464.3	0.90	0.19%	0	µg/L
Cobalt	913.3	2.22	0.24%	0	µg/L
Chromium	521.5	6.27	1.20%	0	µg/L
Iron	-6352.0	7.89	0.12%	0	µg/L
Potassium	-599.8	64.34	10.73%	0	µg/L
Magnesium	-1794.0	0.40	0.02%	0	µg/L
Manganese	-2423.1	12.72	0.53%	0	µg/L
Sodium	-1509.8	23.05	1.53%	0	µg/L
Nickel	-371.6	0.12	0.03%	0	µg/L
Antimony	249.5	4.20	1.68%	0	µg/L
Vanadium	1509.4	15.43	1.02%	0	µg/L

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Replicate Data --

ID: Calib Std 1 Date: 12/19/07 10:52:15 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1325730.5	1325730.5		
1	Silver	140886.6	149571.3	1000	µg/L
1	Aluminum	1347876.2	1430964.3	20000	µg/L
1	Arsenic	1746.4	1854.1	1000	µg/L
1	Copper	1079254.1	1145783.2	2500	µg/L
1	Lead	4431.1	4704.2	500	µg/L
1	Selenium	730.7	775.7	500	µg/L
1	Thallium	4139.2	4394.3	1000	µg/L
1	Zinc	86452.5	91781.7	2000	µg/L
1	Barium	3602257.5	3824313.8	20000	µg/L
1	Beryllium	3873052.5	4111801.6	500	µg/L
1	Calcium	30372.6	32244.8	50000	µg/L
1	Cadmium	72705.2	77187.0	500	µg/L
1	Cobalt	579105.4	614803.5	5000	µg/L
1	Chromium	93194.2	98939.0	1000	µg/L
1	Iron	748970.9	795140.2	10000	µg/L
1	Potassium	5997781.2	6367506.4	50000	µg/L
1	Magnesium	898783.3	954187.6	50000	µg/L
1	Manganese	1508605.6	1601601.6	1500	µg/L
1	Sodium	58624.5	62238.3	50000	µg/L
1	Nickel	183270.0	194567.5	4000	µg/L
1	Antimony	21322.1	22636.5	5000	µg/L
1	Vanadium	833542.0	884924.6	5000	µg/L
2	Y 360.073	1381523.5	1381523.5		
2	Silver	140031.3	142659.5	1000	µg/L
2	Aluminum	1317387.9	1342114.1	20000	µg/L
2	Arsenic	1744.4	1777.1	1000	µg/L
2	Copper	1057537.4	1077386.4	2500	µg/L

2 Lead	4422.7	4505.7	500 µg/L
2 Selenium	733.0	746.8	500 µg/L
2 Thallium	4133.8	4211.4	1000 µg/L
2 Zinc	86422.5	88044.6	2000 µg/L
2 Barium	3541903.1	3608381.4	20000 µg/L
2 Beryllium	3802349.4	3873716.0	500 µg/L
2 Calcium	30264.6	30832.6	50000 µg/L
2 Cadmium	72212.2	73567.6	500 µg/L
2 Cobalt	569316.9	580002.5	5000 µg/L
2 Chromium	92510.5	94246.9	1000 µg/L
2 Iron	734973.2	748768.0	10000 µg/L
2 Potassium	6013493.5	6126361.2	50000 µg/L
2 Magnesium	882966.4	899538.9	50000 µg/L
2 Manganese	1481747.8	1509558.9	1500 µg/L
2 Sodium	58013.2	59102.0	50000 µg/L
2 Nickel	182585.2	186012.2	4000 µg/L
2 Antimony	21289.3	21688.9	5000 µg/L
2 Vanadium	818586.9	833951.0	5000 µg/L

Mean Data --

ID: Calib Std 1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 12/19/07 10:52:15 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1353627.0	39451.58	2.91%		
Silver	146115.4	4887.38	3.34%	1000	µg/L
Aluminum	1386539.2	62826.57	4.53%	20000	µg/L
Arsenic	1815.6	54.43	3.00%	1000	µg/L
Copper	1111584.8	48363.87	4.35%	2500	µg/L
Lead	4605.0	140.35	3.05%	500	µg/L
Selenium	761.2	20.47	2.69%	500	µg/L
Thallium	4302.8	129.35	3.01%	1000	µg/L
Zinc	89913.2	2642.52	2.94%	2000	µg/L
Barium	3716347.6	152687.29	4.11%	20000	µg/L
Beryllium	3992758.8	168351.99	4.22%	500	µg/L
Calcium	31538.7	998.57	3.17%	50000	µg/L
Cadmium	75377.3	2559.28	3.40%	500	µg/L
Cobalt	597403.0	24608.05	4.12%	5000	µg/L
Chromium	96593.0	3317.86	3.43%	1000	µg/L
Iron	771954.1	32790.07	4.25%	10000	µg/L
Potassium	6246933.8	170515.38	2.73%	50000	µg/L
Magnesium	926863.3	38642.53	4.17%	50000	µg/L
Manganese	1555580.2	65084.03	4.18%	1500	µg/L
Sodium	60670.2	2217.69	3.66%	50000	µg/L
Nickel	190289.8	6049.51	3.18%	4000	µg/L
Antimony	22162.7	670.03	3.02%	5000	µg/L
Vanadium	859437.8	36043.75	4.19%	5000	µg/L

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Replicate Data --

ID: ICV Date: 12/19/07 10:56:13 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1384174.2	1384174.2				
1	Silver	73700.1	74939.6	512.5	µg/L		
1	Aluminum	687211.4	698769.0	10033	µg/L		
1	Arsenic	902.0	917.2	514.6	µg/L		
1	Copper	558944.5	568344.9	1273.4	µg/L		
1	Lead	2316.6	2355.5	261.1	µg/L		
1	Selenium	355.1	361.1	259.0	µg/L		
1	Thallium	2187.1	2223.9	525.2	µg/L		
1	Zinc	45718.5	46487.4	1037.5	µg/L		
1	Barium	1893128.1	1924966.9	10362	µg/L		
1	Beryllium	2000275.1	2033916.0	253.7	µg/L		
1	Calcium	15986.7	16255.6	25861	µg/L		
1	Cadmium	38303.4	38947.6	259.8	µg/L		
1	Cobalt	301955.4	307033.7	2566.0	µg/L		
1	Chromium	48669.0	49487.5	509.7	µg/L		
1	Iron	385244.6	391723.7	5114.6	µg/L		
1	Potassium	2900864.6	2949651.6	23611	µg/L		

1	Magnesium	463849.1	471650.2	25491 µg/L
1	Manganese	771205.5	784175.7	757.3 µg/L
1	Sodium	28927.1	29413.6	24866 µg/L
1	Nickel	96881.9	98511.3	2074.5 µg/L
1	Antimony	11570.2	11764.7	2627.5 µg/L
1	Vanadium	428353.0	435557.0	2529.6 µg/L
2	Y 360.073	1402539.4	1402539.4	
2	Silver	74857.8	75120.0	513.8 µg/L
2	Aluminum	694442.4	696875.5	10006 µg/L
2	Arsenic	897.0	900.1	505.4 µg/L
2	Copper	566358.7	568343.0	1273.4 µg/L
2	Lead	2317.0	2325.1	257.8 µg/L
2	Selenium	357.2	358.5	257.4 µg/L
2	Thallium	2185.3	2193.0	518.1 µg/L
2	Zinc	46370.7	46533.2	1038.5 µg/L
2	Barium	1911472.0	1918169.1	10325 µg/L
2	Beryllium	2027839.0	2034943.8	253.9 µg/L
2	Calcium	15871.2	15926.8	25341 µg/L
2	Cadmium	38754.8	38890.6	259.5 µg/L
2	Cobalt	305993.0	307065.1	2566.3 µg/L
2	Chromium	49271.1	49443.8	509.2 µg/L
2	Iron	389554.9	390919.8	5104.3 µg/L
2	Potassium	2912163.2	2922366.4	23393 µg/L
2	Magnesium	469756.2	471402.0	25477 µg/L
2	Manganese	780391.2	783125.4	756.3 µg/L
2	Sodium	29199.0	29301.3	24776 µg/L
2	Nickel	98086.1	98429.8	2072.8 µg/L
2	Antimony	11528.0	11568.4	2582.7 µg/L
2	Vanadium	432744.5	434260.7	2522.1 µg/L

Mean Data

ID: ICV Seq. No.: 4 Sample No.: 1 A/S Pos: 3

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 12/19/07 10:56:13 AM

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Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1393356.8							0.93%
Silver	75029.8	513.1	0.87	µg/L				0.17%
Aluminum	697822.2	10020	19.4	µg/L				0.19%
Arsenic	908.7	510.0	6.52	µg/L				1.28%
Copper	568344.0	1273.4	0.00	µg/L				0.00%
Lead	2340.3	259.5	2.28	µg/L				0.88%
Selenium	359.8	258.2	1.11	µg/L				0.43%
Thallium	2208.5	521.7	5.00	µg/L				0.96%
Zinc	46510.3	1038.0	0.72	µg/L				0.07%
Barium	1921568.0	10344	25.9	µg/L				0.25%
Beryllium	2034429.9	253.8	0.09	µg/L				0.04%
Calcium	16091.2	25601	367.2	µg/L				1.43%
Cadmium	38919.1	259.6	0.27	µg/L				0.10%
Cobalt	307049.4	2566.1	0.19	µg/L				0.01%
Chromium	49465.6	509.5	0.32	µg/L				0.06%
Iron	391321.7	5109.5	7.30	µg/L				0.14%
Potassium	2936009.0	23502	154.4	µg/L				0.66%
Magnesium	471526.1	25484	9.4	µg/L				0.04%
Manganese	783650.5	756.8	0.71	µg/L				0.09%
Sodium	29357.4	24821	63.8	µg/L				0.26%
Nickel	98470.5	2073.7	1.21	µg/L				0.06%
Antimony	11666.6	2605.1	31.69	µg/L				1.22%
Vanadium	434908.9	2525.8	5.34	µg/L				0.21%

Replicate Data

ID: ICB Date: 12/19/07 10:59:45 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1452089.8	1452089.8				
1	Silver	312.6	303.0	1.3	µg/L		
1	Aluminum	7855.2	7613.8	17.8	µg/L		
1	Arsenic	-39.7	-38.5	-1.7	µg/L		

1 Copper	5886.8	5705.8	2.9 µg/L
1 Lead	-104.6	-101.4	0.1 µg/L
1 Selenium	-54.9	-53.2	9.5 µg/L
1 Thallium	-72.1	-69.9	1.3 µg/L
1 Zinc	-305.6	-296.2	0.5 µg/L
1 Barium	-541.7	-525.0	2.3 µg/L
1 Beryllium	17244.8	16714.7	0.1 µg/L
1 Calcium	-111.1	-107.7	15.1 µg/L
1 Cadmium	-459.0	-444.9	0.1 µg/L
1 Cobalt	983.0	952.8	0.3 µg/L
1 Chromium	552.8	535.8	0.1 µg/L
1 Iron	-6296.9	-6103.4	3.2 µg/L
1 Potassium	1252.5	1214.0	14.5 µg/L
1 Magnesium	-1690.8	-1638.8	8.4 µg/L
1 Manganese	-2278.9	-2208.8	0.2 µg/L
1 Sodium	-1441.5	-1397.1	90.5 µg/L
1 Nickel	-342.5	-332.0	0.8 µg/L
1 Antimony	267.5	259.3	2.2 µg/L
1 Vanadium	1626.5	1576.6	0.4 µg/L
2 Y 360.073	1435715.9	1435715.9	
2 Silver	288.3	282.6	1.2 µg/L
2 Aluminum	6175.6	6054.0	-4.8 µg/L
2 Arsenic	-38.2	-37.5	-1.2 µg/L
2 Copper	5587.0	5477.0	2.4 µg/L
2 Lead	-107.9	-105.7	-0.3 µg/L
2 Selenium	-52.4	-51.4	10.6 µg/L
2 Thallium	-82.6	-80.9	-1.2 µg/L
2 Zinc	-318.2	-311.9	0.2 µg/L
2 Barium	-777.0	-761.7	1.0 µg/L
2 Beryllium	16200.9	15882.0	0.0 µg/L
2 Calcium	-117.6	-115.3	3.1 µg/L
2 Cadmium	-470.4	-461.1	0.0 µg/L
2 Cobalt	942.9	924.3	0.1 µg/L
2 Chromium	526.4	516.1	-0.1 µg/L
2 Iron	-6412.8	-6286.6	0.8 µg/L
2 Potassium	-119.9	-117.6	3.9 µg/L
2 Magnesium	-1761.1	-1726.5	3.6 µg/L
2 Manganese	-2393.5	-2346.4	0.1 µg/L
2 Sodium	-1518.7	-1488.8	16.9 µg/L
2 Nickel	-355.7	-348.7	0.5 µg/L
2 Antimony	266.0	260.8	2.6 µg/L
2 Vanadium	1579.9	1548.8	0.2 µg/L

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Mean Data --

ID: ICB Seq. No.: 5 Sample No.: 2 A/S Pos: 4
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 10:59:45 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1443902.9							0.80%
Silver	292.8	1.3	0.10	µg/L				7.73%
Aluminum	6833.9	6.5	15.98	µg/L				245.27%
Arsenic	-38.0	-1.5	0.38	µg/L				25.95%
Copper	5591.4	2.6	0.37	µg/L				13.80%
Lead	-103.6	-0.1	0.32	µg/L				275.98%
Selenium	-52.3	10.0	0.78	µg/L				7.82%
QC exceeds upper limit for Selenium Action = Continue								
Thallium	-75.4	0.0	1.79	µg/L				>999.9%
Zinc	-304.0	0.4	0.25	µg/L				66.36%
Barium	-643.4	1.6	0.90	µg/L				54.94%
Beryllium	16298.4	0.1	0.07	µg/L				100.19%
Calcium	-111.5	9.1	8.51	µg/L				93.26%
Cadmium	-453.0	0.1	0.08	µg/L				101.49%
Cobalt	938.5	0.2	0.17	µg/L				79.60%
Chromium	525.9	0.0	0.14	µg/L				316.34%
Iron	-6195.0	2.0	1.66	µg/L				82.53%
Potassium	548.2	9.2	7.54	µg/L				82.02%
Magnesium	-1682.6	6.0	3.34	µg/L				55.66%
Manganese	-2277.6	0.1	0.09	µg/L				66.84%
Sodium	-1443.0	53.7	52.10	µg/L				97.00%

Nickel	-340.4	0.7	0.25 µg/L	37.97%
Antimony	260.0	2.4	0.23 µg/L	9.80%
Vanadium	1562.7	0.3	0.11 µg/L	36.80%

Replicate Data

ID: CRI1 Date: 12/19/07 11:03:12 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1395786.0	1395786.0				
1	Silver	3121.8	3147.9	20.8	µg/L		
1	Aluminum	7052.2	7111.1	10.5	µg/L		
1	Arsenic	-3.0	-3.0	17.5	µg/L		
1	Copper	27150.9	27377.9	51.8	µg/L		
1	Lead	-38.6	-38.9	6.8	µg/L		
1	Selenium	-42.1	-42.5	16.0	µg/L		
1	Thallium	11.2	11.3	19.8	µg/L		
1	Zinc	1755.4	1770.0	46.3	µg/L		
1	Barium	-768.3	-774.7	0.9	µg/L		
1	Beryllium	89190.9	89936.5	9.3	µg/L		
1	Calcium	-83.8	-84.5	51.8	µg/L		
1	Cadmium	1003.9	1012.3	9.7	µg/L		
1	Cobalt	12612.9	12718.3	99.0	µg/L		
1	Chromium	2398.7	2418.8	19.7	µg/L		
1	Iron	-5460.2	-5505.9	10.9	µg/L		
1	Potassium	-286.8	-289.2	2.5	µg/L		
1	Magnesium	-1656.8	-1670.6	6.6	µg/L		
1	Manganese	28157.3	28392.7	29.7	µg/L		
1	Sodium	-1423.7	-1435.6	59.6	µg/L		
1	Nickel	3454.8	3483.7	80.9	µg/L		
1	Antimony	798.0	804.6	126.7	µg/L		
1	Vanadium	17476.5	17622.6	93.9	µg/L		
2	Y 360.073	1403783.5	1403783.5				
2	Silver	3070.4	3078.4	20.4	µg/L		
2	Aluminum	6508.7	6525.7	2.1	µg/L		
2	Arsenic	-5.9	-5.9	15.9	µg/L		
2	Copper	27257.2	27328.5	51.7	µg/L		
2	Lead	-37.2	-37.3	6.9	µg/L		
2	Selenium	-58.7	-58.9	6.1	µg/L		
2	Thallium	20.0	20.0	21.8	µg/L		
2	Zinc	1763.5	1768.1	46.3	µg/L		
2	Barium	-809.0	-811.2	0.7	µg/L		
2	Beryllium	89086.1	89319.0	9.3	µg/L		
2	Calcium	-89.3	-89.5	43.8	µg/L		
2	Cadmium	1019.9	1022.6	9.8	µg/L		
2	Cobalt	12615.4	12648.4	98.4	µg/L		
2	Chromium	2396.1	2402.3	19.6	µg/L		
2	Iron	-5538.3	-5552.8	10.3	µg/L		
2	Potassium	-336.8	-337.7	2.1	µg/L		
2	Magnesium	-1759.6	-1764.2	1.6	µg/L		
2	Manganese	28251.8	28325.7	29.6	µg/L		
2	Sodium	-1386.7	-1390.3	96.0	µg/L		
2	Nickel	3449.1	3458.1	80.3	µg/L		
2	Antimony	787.7	789.7	123.3	µg/L		
2	Vanadium	17524.0	17569.8	93.6	µg/L		

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Mean Data

ID: CRI1 Seq. No.: 6 Sample No.: 6 A/S Pos: 8

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 12/19/07 11:03:12 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1399784.8							0.40%
Silver	3113.2	20.6	0.34	µg/L				1.64%
Aluminum	6818.4	6.3	6.00	µg/L				95.34%
Arsenic	-4.5	16.7	1.13	µg/L				6.76%
Copper	27353.2	51.8	0.08	µg/L				0.15%
Lead	-38.1	6.8	0.12	µg/L				1.73%
Selenium	-50.7	11.0	7.00	µg/L				63.47%

Thallium	15.7	20.8	1.41 µg/L	6.75%
Zinc	1769.1	46.3	0.03 µg/L	0.06%
Barium	-792.9	0.8	0.14 µg/L	16.62%
Beryllium	89627.8	9.3	0.05 µg/L	0.59%
Calcium	-87.0	47.8	5.64 µg/L	11.81%
Cadmium	1017.4	9.8	0.05 µg/L	0.49%
Cobalt	12683.3	98.7	0.41 µg/L	0.42%
Chromium	2410.5	19.7	0.12 µg/L	0.62%
Iron	-5529.3	10.6	0.43 µg/L	4.03%
Potassium	-313.4	2.3	0.27 µg/L	11.97%
Magnesium	-1717.4	4.1	3.56 µg/L	86.42%
Manganese	28359.2	29.6	0.05 µg/L	0.15%
Sodium	-1413.0	77.8	25.75 µg/L	33.09%
Nickel	3470.9	80.6	0.38 µg/L	0.47%
Antimony	797.2	125.0	2.40 µg/L	1.92%
Vanadium	17596.2	93.8	0.22 µg/L	0.23%

Replicate Data ---

ID: LCS-12448 Date: 12/19/07 11:06:38 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1426422.2	1426422.2				
1	Silver	310840.2	306706.5	2099.9	µg/L	2099.9	µg/L
1	Aluminum	794388.6	783824.7	11266	µg/L	11266	µg/L
1	Arsenic	1777.1	1753.4	966.4	µg/L	966.4	µg/L
1	Copper	435941.3	430144.1	961.3	µg/L	961.3	µg/L
1	Lead	9196.0	9073.7	974.6	µg/L	974.6	µg/L
1	Selenium	1605.9	1584.5	995.8	µg/L	995.8	µg/L
1	Thallium	4014.3	3961.0	921.9	µg/L	921.9	µg/L
1	Zinc	44070.9	43484.9	970.9	µg/L	970.9	µg/L
1	Barium	2201112.9	2171842.1	11690	µg/L	11690	µg/L
1	Beryllium	7497388.9	7397687.5	928.1	µg/L	928.1	µg/L
1	Calcium	11857.0	11699.3	18664	µg/L	18664	µg/L
1	Cadmium	151658.5	149641.7	989.6	µg/L	989.6	µg/L
1	Cobalt	116215.0	114669.6	953.5	µg/L	953.5	µg/L
1	Chromium	93634.7	92389.6	956.2	µg/L	956.2	µg/L
1	Iron	1557640.6	1536926.8	19829	µg/L	19829	µg/L
1	Potassium	2262842.0	2232750.3	17874	µg/L	17874	µg/L
1	Magnesium	378699.6	373663.6	20215	µg/L	20215	µg/L
1	Manganese	999837.8	986541.8	952.1	µg/L	952.1	µg/L
1	Sodium	23565.3	23251.9	19911	µg/L	19911	µg/L
1	Nickel	47395.2	46765.0	988.9	µg/L	988.9	µg/L
1	Antimony	4848.8	4784.3	1034.7	µg/L	1034.7	µg/L
1	Vanadium	161973.7	159819.8	922.6	µg/L	922.6	µg/L
2	Y 360.073	1418021.5	1418021.5				
2	Silver	308179.1	305882.4	2094.2	µg/L	2094.2	µg/L
2	Aluminum	787438.6	781570.0	11233	µg/L	11233	µg/L
2	Arsenic	1816.4	1802.8	993.1	µg/L	993.1	µg/L
2	Copper	431751.2	428533.5	957.7	µg/L	957.7	µg/L
2	Lead	9250.5	9181.6	986.1	µg/L	986.1	µg/L
2	Selenium	1624.9	1612.8	1012.8	µg/L	1012.8	µg/L
2	Thallium	4132.5	4101.7	954.1	µg/L	954.1	µg/L
2	Zinc	44312.9	43982.6	982.0	µg/L	982.0	µg/L
2	Barium	2189469.6	2173152.1	11697	µg/L	11697	µg/L
2	Beryllium	7521166.2	7465113.3	936.5	µg/L	936.5	µg/L
2	Calcium	12050.4	11960.6	19077	µg/L	19077	µg/L
2	Cadmium	150959.8	149834.8	990.9	µg/L	990.9	µg/L
2	Cobalt	115609.8	114748.2	954.2	µg/L	954.2	µg/L
2	Chromium	93080.7	92387.0	956.2	µg/L	956.2	µg/L
2	Iron	1547123.7	1535593.5	19812	µg/L	19812	µg/L
2	Potassium	2269242.2	2252330.3	18031	µg/L	18031	µg/L
2	Magnesium	376332.3	373527.6	20208	µg/L	20208	µg/L
2	Manganese	992973.5	985573.2	951.2	µg/L	951.2	µg/L
2	Sodium	23335.7	23161.8	19839	µg/L	19839	µg/L
2	Nickel	47091.1	46740.1	988.4	µg/L	988.4	µg/L
2	Antimony	4926.8	4890.1	1058.9	µg/L	1058.9	µg/L
2	Vanadium	161015.1	159815.1	922.6	µg/L	922.6	µg/L

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Mean Data ---

ID: LCS12448 Seq. No.: 7 Sample No.: 1 A/S Pos: 17
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 11:06:38 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1422221.8							0.42%
Silver	306294.4	2097.1	3.99	µg/L	2097.1	3.99	µg/L	0.19%
Aluminum	782697.4	11250	23.1	µg/L	11250	23.1	µg/L	0.21%
Arsenic	1778.1	979.8	18.87	µg/L	979.8	18.87	µg/L	1.93%
Copper	429338.8	959.5	2.57	µg/L	959.5	2.57	µg/L	0.27%
Lead	9127.6	980.4	8.10	µg/L	980.4	8.10	µg/L	0.83%
Selenium	1598.6	1004.3	12.03	µg/L	1004.3	12.03	µg/L	1.20%
Thallium	4031.3	938.0	22.73	µg/L	938.0	22.73	µg/L	2.42%
Zinc	43733.7	976.5	7.80	µg/L	976.5	7.80	µg/L	0.80%
Barium	2172497.1	11694	5.0	µg/L	11694	5.0	µg/L	0.04%
Beryllium	7431400.4	932.3	5.99	µg/L	932.3	5.99	µg/L	0.64%
Calcium	11830.0	18870	291.8	µg/L	18870	291.8	µg/L	1.55%
Cadmium	149738.3	990.2	0.90	µg/L	990.2	0.90	µg/L	0.09%
Cobalt	114708.9	953.9	0.47	µg/L	953.9	0.47	µg/L	0.05%
Chromium	92388.3	956.2	0.02	µg/L	956.2	0.02	µg/L	0.00%
Iron	1536260.1	19820	12.1	µg/L	19820	12.1	µg/L	0.06%
Potassium	2242540.3	17952	110.8	µg/L	17952	110.8	µg/L	0.62%
Magnesium	373595.6	20211	5.2	µg/L	20211	5.2	µg/L	0.03%
Manganese	986057.5	951.7	0.66	µg/L	951.7	0.66	µg/L	0.07%
Sodium	23206.9	19875	51.2	µg/L	19875	51.2	µg/L	0.26%
Nickel	46752.5	988.6	0.37	µg/L	988.6	0.37	µg/L	0.04%
Antimony	4837.2	1046.8	17.07	µg/L	1046.8	17.07	µg/L	1.63%
Vanadium	159817.4	922.6	0.02	µg/L	922.6	0.02	µg/L	0.00%

Replicate Data

ID: BLANK Date: 12/19/07 11:09:57 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	2225132.3	2225132.3				
1	Silver	411.7	260.4	1.1	µg/L	1.1	µg/L
1	Aluminum	3006.2	1901.5	-65.0	µg/L	-65.0	µg/L
1	Arsenic	-36.3	-22.9	6.7	µg/L	6.7	µg/L
1	Copper	3692.7	2335.7	-4.7	µg/L	-4.7	µg/L
1	Lead	-86.2	-54.5	5.1	µg/L	5.1	µg/L
1	Selenium	-76.1	-48.1	12.6	µg/L	12.6	µg/L
1	Thallium	-81.4	-51.5	5.5	µg/L	5.5	µg/L
1	Zinc	-309.7	-195.9	2.8	µg/L	2.8	µg/L
1	Barium	-905.7	-572.9	2.0	µg/L	2.0	µg/L
1	Beryllium	13125.7	8302.3	-0.9	µg/L	-0.9	µg/L
1	Calcium	-85.2	-53.9	100.1	µg/L	100.1	µg/L
1	Cadmium	-537.1	-339.7	0.8	µg/L	0.8	µg/L
1	Cobalt	974.0	616.1	-2.5	µg/L	-2.5	µg/L
1	Chromium	612.7	387.6	-1.4	µg/L	-1.4	µg/L
1	Iron	-6529.8	-4130.2	28.5	µg/L	28.5	µg/L
1	Potassium	-142.3	-90.0	4.1	µg/L	4.1	µg/L
1	Magnesium	-1898.8	-1201.1	31.9	µg/L	31.9	µg/L
1	Manganese	-2467.3	-1560.6	0.8	µg/L	0.8	µg/L
1	Sodium	-1214.8	-768.4	596.1	µg/L	596.1	µg/L
1	Nickel	-421.3	-266.5	2.2	µg/L	2.2	µg/L
1	Antimony	311.0	196.7	-12.0	µg/L	-12.0	µg/L
1	Vanadium	1692.5	1070.5	-2.6	µg/L	-2.6	µg/L
2	Y 360.073	1843585.9	1843585.9				
2	Silver	210.8	160.9	0.4	µg/L	0.4	µg/L
2	Aluminum	3679.0	2808.6	-51.8	µg/L	-51.8	µg/L
2	Arsenic	-38.8	-29.6	3.1	µg/L	3.1	µg/L
2	Copper	3550.6	2710.6	-3.9	µg/L	-3.9	µg/L
2	Lead	-113.5	-86.7	1.7	µg/L	1.7	µg/L
2	Selenium	-69.3	-52.9	9.7	µg/L	9.7	µg/L
2	Thallium	-87.5	-66.8	2.0	µg/L	2.0	µg/L
2	Zinc	-298.3	-227.7	2.1	µg/L	2.1	µg/L
2	Barium	-829.6	-633.3	1.7	µg/L	1.7	µg/L
2	Beryllium	13164.3	10050.0	-0.7	µg/L	-0.7	µg/L
2	Calcium	-103.5	-79.1	60.4	µg/L	60.4	µg/L

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Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
2	Cadmium	-534.0	-407.7	0.4	µg/L	0.4	µg/L
2	Cobalt	985.5	752.3	-1.3	µg/L	-1.3	µg/L
2	Chromium	606.1	462.7	-0.6	µg/L	-0.6	µg/L
2	Iron	-6361.6	-4856.7	19.2	µg/L	19.2	µg/L
2	Potassium	-296.1	-226.1	3.0	µg/L	3.0	µg/L
2	Magnesium	-1846.7	-1409.9	20.7	µg/L	20.7	µg/L
2	Manganese	-2454.2	-1873.6	0.5	µg/L	0.5	µg/L
2	Sodium	-1109.0	-846.6	533.2	µg/L	533.2	µg/L
2	Nickel	-420.7	-321.1	1.1	µg/L	1.1	µg/L
2	Antimony	319.1	243.6	-1.3	µg/L	-1.3	µg/L
2	Vanadium	1745.2	1332.3	-1.0	µg/L	-1.0	µg/L

Mean Data

ID: BLANK Seq. No.: 8 Sample No.: 2 A/S Pos: 24
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 11:09:57 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	2034359.1							13.26%
Silver	210.7	0.7	0.48	µg/L	0.7	0.48	µg/L	67.61%
Aluminum	2355.1	-58.4	9.30	µg/L	-58.4	9.30	µg/L	15.92%
Arsenic	-26.3	4.9	2.54	µg/L	4.9	2.54	µg/L	52.12%
Copper	2523.2	-4.3	0.60	µg/L	-4.3	0.60	µg/L	13.99%
Lead	-70.6	3.4	2.41	µg/L	3.4	2.41	µg/L	71.32%
Selenium	-50.5	11.1	2.04	µg/L	11.1	2.04	µg/L	18.37%
Thallium	-59.1	3.7	2.47	µg/L	3.7	2.47	µg/L	65.96%
Zinc	-211.8	2.4	0.50	µg/L	2.4	0.50	µg/L	20.64%
Barium	-603.1	1.9	0.23	µg/L	1.9	0.23	µg/L	12.39%
Beryllium	9176.2	-0.8	0.16	µg/L	-0.8	0.16	µg/L	18.91%
Calcium	-66.5	80.2	28.10	µg/L	80.2	28.10	µg/L	35.03%
Cadmium	-373.7	0.6	0.32	µg/L	0.6	0.32	µg/L	53.01%
Cobalt	684.2	-1.9	0.81	µg/L	-1.9	0.81	µg/L	42.06%
Chromium	425.1	-1.0	0.55	µg/L	-1.0	0.55	µg/L	55.69%
Iron	-4493.5	23.9	6.60	µg/L	23.9	6.60	µg/L	27.64%
Potassium	-158.0	3.5	0.77	µg/L	3.5	0.77	µg/L	21.78%
Magnesium	-1305.5	26.3	7.95	µg/L	26.3	7.95	µg/L	30.22%
Manganese	-1717.1	0.7	0.21	µg/L	0.7	0.21	µg/L	31.35%
Sodium	-807.5	564.7	44.49	µg/L	564.7	44.49	µg/L	7.88%
Nickel	-293.8	1.6	0.81	µg/L	1.6	0.81	µg/L	49.71%
Antimony	220.2	-6.7	7.57	µg/L	-6.7	7.57	µg/L	113.09%
Vanadium	1201.4	-1.8	1.08	µg/L	-1.8	1.08	µg/L	60.11%

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Replicate Data

ID: CRI1 Date: 12/19/07 11:13:23 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1396394.8	1396394.8				
1	Silver	3057.0	3081.2	20.4	µg/L		
1	Aluminum	6513.7	6565.3	2.6	µg/L		
1	Arsenic	-9.4	-9.5	13.9	µg/L		
1	Copper	26811.0	27023.4	51.0	µg/L		
1	Lead	-46.1	-46.4	6.0	µg/L		
1	Selenium	-45.4	-45.8	14.0	µg/L		
1	Thallium	0.3	0.3	17.3	µg/L		
1	Zinc	1762.7	1776.6	46.5	µg/L		
1	Barium	-773.0	-779.1	0.9	µg/L		
1	Beryllium	89400.5	90108.5	9.4	µg/L		
1	Calcium	-32.1	-32.4	134.0	µg/L		
1	Cadmium	1032.9	1041.0	9.9	µg/L		
1	Cobalt	12627.6	12727.6	99.0	µg/L		
1	Chromium	2397.3	2416.3	19.7	µg/L		
1	Iron	-5524.0	-5567.7	10.1	µg/L		
1	Potassium	-564.9	-569.4	0.2	µg/L		
1	Magnesium	-1719.4	-1733.1	3.3	µg/L		
1	Manganese	28201.8	28425.1	29.7	µg/L		
1	Sodium	-1415.9	-1427.1	66.5	µg/L		
1	Nickel	3482.0	3509.6	81.4	µg/L		
1	Antimony	784.8	791.0	123.6	µg/L		
1	Vanadium	17498.3	17636.8	94.0	µg/L		

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units
2	Y 360.073	1383010.0	1383010.0		
2	Silver	3056.6	3110.6	20.6	µg/L
2	Aluminum	6895.3	7017.2	9.2	µg/L
2	Arsenic	8.4	8.5	23.7	µg/L
2	Copper	26448.2	26915.6	50.8	µg/L
2	Lead	-42.2	-43.0	6.3	µg/L
2	Selenium	-43.8	-44.6	14.7	µg/L
2	Thallium	-2.9	-2.9	16.6	µg/L
2	Zinc	1793.4	1825.1	47.6	µg/L
2	Barium	-399.0	-406.1	2.9	µg/L
2	Beryllium	88475.3	90039.1	9.3	µg/L
2	Calcium	-81.6	-83.1	54.0	µg/L
2	Cadmium	1025.0	1043.1	9.9	µg/L
2	Cobalt	12699.3	12923.7	100.7	µg/L
2	Chromium	2408.9	2451.5	20.1	µg/L
2	Iron	-4286.4	-4362.1	25.6	µg/L
2	Potassium	-587.6	-597.9	0.0	µg/L
2	Magnesium	-1027.2	-1045.3	40.3	µg/L
2	Manganese	27781.3	28272.3	29.6	µg/L
2	Sodium	-1332.4	-1355.9	123.7	µg/L
2	Nickel	3490.6	3552.3	82.3	µg/L
2	Antimony	793.5	807.6	127.3	µg/L
2	Vanadium	17355.4	17662.1	94.1	µg/L

Mean Data --

ID: CRI1 Seq. No.: 9 Sample No.: 6 A/S Pos: 8

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 12/19/07 11:13:23 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1389702.4							0.68%
Silver	3095.9	20.5	0.14	µg/L				0.70%
Aluminum	6791.3	5.9	4.63	µg/L				78.50%
Arsenic	-0.5	18.8	6.88	µg/L				36.61%
Copper	26969.5	50.9	0.17	µg/L				0.34%
Lead	-44.7	6.1	0.26	µg/L				4.20%
Selenium	-45.2	14.3	0.49	µg/L				3.45%
*QC exceeds upper limit for Selenium Recovery = 143.26% Action = Continue								
Thallium	-1.3	16.9	0.52	µg/L				3.06%
Zinc	1800.9	47.0	0.76	µg/L				1.62%
Barium	-592.6	1.9	1.42	µg/L				74.24%
Beryllium	90073.8	9.3	0.01	µg/L				0.07%
Calcium	-57.7	94.0	56.58	µg/L				60.17%
Cadmium	1042.1	9.9	0.01	µg/L				0.10%
Cobalt	12825.6	99.9	1.16	µg/L				1.16%
Chromium	2433.9	19.9	0.26	µg/L				1.30%
Iron	-4964.9	17.8	10.95	µg/L				61.46%
Potassium	-583.7	0.1	0.16	µg/L				125.38%
Magnesium	-1389.2	21.8	26.18	µg/L				120.14%
Manganese	28348.7	29.6	0.10	µg/L				0.35%
Sodium	-1391.5	95.1	40.46	µg/L				42.56%
Nickel	3531.0	81.9	0.63	µg/L				0.77%
Antimony	799.3	125.4	2.67	µg/L				2.13%
Vanadium	17649.5	94.1	0.10	µg/L				0.11%

Replicate Data --

ID: CCV1 Date: 12/19/07 11:16:49 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1401050.5	1401050.5				
1	Silver	122224.4	122783.0	840.2	µg/L		
1	Aluminum	1101806.4	1106841.7	15947	µg/L		
1	Arsenic	3887.6	3905.3	2129.1	µg/L		
1	Copper	881525.1	885553.7	1989.6	µg/L		
1	Lead	19446.4	19535.3	2085.8	µg/L		
1	Selenium	3460.3	3476.1	2135.0	µg/L		
1	Thallium	8764.2	8804.2	2028.1	µg/L		
1	Zinc	72386.7	72717.5	1618.9	µg/L		

1	Barium	2939906.0	2953341.6	15895 µg/L
1	Beryllium	3146297.9	3160676.7	395.4 µg/L
1	Calcium	25102.6	25217.3	40015 µg/L
1	Cadmium	159329.6	160057.7	1058.3 µg/L
1	Cobalt	473625.8	475790.3	3980.6 µg/L
1	Chromium	77375.0	77728.6	803.6 µg/L
1	Iron	606903.7	609677.3	7915.0 µg/L
1	Potassium	4717592.9	4739152.6	37933 µg/L
1	Magnesium	748627.0	752048.3	40588 µg/L
1	Manganese	1217897.7	1223463.5	1180.2 µg/L
1	Sodium	49500.2	49726.4	41200 µg/L
1	Nickel	153927.1	154630.5	3251.9 µg/L
1	Antimony	23052.7	23158.1	5227.1 µg/L
1	Vanadium	676780.5	679873.5	3953.5 µg/L
2	Y 360.073	1396923.2	1396923.2	
2	Silver	120757.5	121667.7	832.6 µg/L
2	Aluminum	1086092.1	1094279.2	15765 µg/L
2	Arsenic	3916.5	3946.1	2151.1 µg/L
2	Copper	870713.0	877276.5	1970.9 µg/L
2	Lead	19511.0	19658.1	2098.9 µg/L
2	Selenium	3476.7	3502.9	2151.1 µg/L
2	Thallium	8811.8	8878.2	2045.0 µg/L
2	Zinc	71733.2	72273.9	1609.0 µg/L
2	Barium	2941728.6	2963903.7	15952 µg/L
2	Beryllium	3150688.1	3174438.4	397.1 µg/L
2	Calcium	25186.5	25376.4	40267 µg/L
2	Cadmium	157517.0	158704.4	1049.3 µg/L
2	Cobalt	468351.0	471881.5	3947.8 µg/L
2	Chromium	76318.6	76893.9	795.0 µg/L
2	Iron	599330.8	603848.6	7840.1 µg/L
2	Potassium	4735277.5	4770972.7	38188 µg/L
2	Magnesium	740381.3	745962.4	40260 µg/L
2	Manganese	1203412.2	1212483.7	1169.7 µg/L
2	Sodium	48841.5	49209.7	40784 µg/L
2	Nickel	152153.8	153300.7	3224.0 µg/L
2	Antimony	23118.1	23292.4	5257.8 µg/L
2	Vanadium	667330.2	672360.6	3909.7 µg/L

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Mean Data

ID: CCV1 Seq. No.: 10 Sample No.: 9 A/S Pos: 11

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 12/19/07 11:16:49 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1398986.8							0.21%
Silver	122225.4	836.4	5.40	µg/L				0.65%
Aluminum	1100560.5	15856	128.7	µg/L				0.81%
Arsenic	3925.7	2140.1	15.56	µg/L				0.73%
Copper	881415.1	1980.3	13.22	µg/L				0.67%
Lead	19596.7	2092.3	9.22	µg/L				0.44%
Selenium	3489.5	2143.1	11.39	µg/L				0.53%
Thallium	8841.2	2036.6	11.95	µg/L				0.59%
Zinc	72495.7	1613.9	6.95	µg/L				0.43%
Barium	2958622.6	15923	40.2	µg/L				0.25%
Beryllium	3167557.6	396.3	1.22	µg/L				0.31%
Calcium	25296.8	40141	177.7	µg/L				0.44%
Cadmium	159381.1	1053.8	6.31	µg/L				0.60%
Cobalt	473835.9	3964.2	23.17	µg/L				0.58%
Chromium	77311.3	799.3	6.14	µg/L				0.77%
Iron	606763.0	7877.6	52.95	µg/L				0.67%
Potassium	4755062.6	38060	180.1	µg/L				0.47%
Magnesium	749005.3	40424	231.7	µg/L				0.57%
Manganese	1217973.6	1175.0	7.47	µg/L				0.64%
Sodium	49468.0	40992	293.8	µg/L				0.72%
Nickel	153965.6	3237.9	19.73	µg/L				0.61%
Antimony	23225.2	5242.4	21.67	µg/L				0.41%
Vanadium	676117.0	3931.6	30.96	µg/L				0.79%

Replicate Data

ID: CCB1 Date: 12/19/07 11:20:08 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	1434247.9	1434247.9				
1	Silver	351.5	344.9	1.6	µg/L		
1	Aluminum	11955.4	11732.0	77.5	µg/L		
1	Arsenic	-38.3	-37.6	-1.3	µg/L		
1	Copper	5630.0	5524.8	2.5	µg/L		
1	Lead	-94.1	-92.3	1.1	µg/L		
1	Selenium	-68.1	-66.8	1.3	µg/L		
1	Thallium	-65.8	-64.6	2.5	µg/L		
1	Zinc	-254.5	-249.8	1.6	µg/L		
1	Barium	957.9	940.0	10.2	µg/L		
1	Beryllium	19155.7	18797.9	0.4	µg/L		
1	Calcium	-49.6	-48.7	108.3	µg/L		
1	Cadmium	-365.3	-358.5	0.7	µg/L		
1	Cobalt	1207.1	1184.6	2.3	µg/L		
1	Chromium	564.2	553.7	0.3	µg/L		
1	Iron	-4007.3	-3932.4	31.1	µg/L		
1	Potassium	2019.6	1981.9	20.7	µg/L		
1	Magnesium	-198.6	-194.9	86.1	µg/L		
1	Manganese	-1501.0	-1473.0	0.9	µg/L		
1	Sodium	-1486.0	-1458.2	41.4	µg/L		
1	Nickel	-278.2	-273.0	2.1	µg/L		
1	Antimony	271.9	266.9	4.0	µg/L		
1	Vanadium	1945.8	1909.5	2.3	µg/L		
2	Y 360.073	1417040.4	1417040.4				
2	Silver	172.1	171.0	0.4	µg/L		
2	Aluminum	9091.2	9029.7	38.3	µg/L		
2	Arsenic	-39.8	-39.5	-2.3	µg/L		
2	Copper	5249.5	5214.0	1.8	µg/L		
2	Lead	-89.7	-89.1	1.4	µg/L		
2	Selenium	-64.6	-64.2	2.9	µg/L		
2	Thallium	-77.6	-77.0	-0.3	µg/L		
2	Zinc	-310.8	-308.7	0.3	µg/L		
2	Barium	-639.6	-635.3	1.7	µg/L		
2	Beryllium	17563.6	17444.7	0.2	µg/L		
2	Calcium	-116.6	-115.8	2.3	µg/L		
2	Cadmium	-448.9	-445.8	0.1	µg/L		
2	Cobalt	995.7	988.9	0.6	µg/L		
2	Chromium	539.9	536.3	0.2	µg/L		
2	Iron	-6199.5	-6157.5	2.5	µg/L		
2	Potassium	556.8	553.1	9.2	µg/L		
2	Magnesium	-1683.8	-1672.4	6.5	µg/L		
2	Manganese	-2313.5	-2297.8	0.1	µg/L		
2	Sodium	-1509.5	-1499.3	8.4	µg/L		
2	Nickel	-339.5	-337.2	0.7	µg/L		
2	Antimony	262.4	260.7	2.5	µg/L		
2	Vanadium	1629.0	1617.9	0.6	µg/L		

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Mean Data

ID: CCB1 Seq. No.: 11 Sample No.: 10 A/S Pos: 12
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/19/07 11:20:08 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1425644.2							0.85%
Silver	257.9	1.0	0.84	µg/L				81.29%
Aluminum	10380.9	57.9	27.69	µg/L				47.81%
Arsenic	-38.6	-1.8	0.73	µg/L				41.10%
Copper	5369.4	2.1	0.50	µg/L				23.12%
Lead	-90.7	1.3	0.24	µg/L				19.40%
Selenium	-65.5	2.1	1.10	µg/L				52.51%
Thallium	-70.8	1.1	2.01	µg/L				187.48%
Zinc	-279.2	0.9	0.92	µg/L				100.46%
Barium	152.4	5.9	5.99	µg/L				101.24%
Beryllium	18121.3	0.3	0.12	µg/L				39.69%
Calcium	-82.3	55.3	74.98	µg/L				135.65%
Cadmium	-402.2	0.4	0.41	µg/L				99.35%

Cobalt	1086.8	1.5	1.16 µg/L	79.74%
Chromium	545.0	0.2	0.13 µg/L	52.39%
Iron	-5045.0	16.8	20.22 µg/L	120.38%
Potassium	1267.5	14.9	8.09 µg/L	54.11%
Magnesium	-933.6	46.3	56.25 µg/L	121.44%
Manganese	-1885.4	0.5	0.56 µg/L	108.47%
Sodium	-1478.7	24.9	23.34 µg/L	93.64%
Nickel	-305.1	1.4	0.95 µg/L	68.38%
Antimony	263.8	3.2	1.00 µg/L	30.78%
Vanadium	1763.7	1.5	1.20 µg/L	81.06%

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Instrument ID Number: 58.0 Method: P

Start Date: 12/20/2007 End Date: 12/20/2007

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	B	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	0751																		X							
ICB	1.00	0754																		X							
ICSA	1.00	0757																		X							
ICSAB	1.00	0800																		X							
CRI	1.00	0805																		X							
PBW	1.00	0808																		X							
LCSW	1.00	0811																		X							
MW-14S	1.00	0814																		X							
MW-14I	1.00	0817																		X							
MW-14D	1.00	0820																		X							
MW-15S	1.00	0823																		X							
MW-15I	1.00	0826																		X							
MW-15D	1.00	0829																		X							
MW-15DL	5.00	0831																		X							
ICSA	1.00	0837																		X							
ICSAB	1.00	0840																		X							
CRI	1.00	0846																		X							
CCV	1.00	0848																		X							
CCB	1.00	0851																		X							

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Trace Metals

UPSTATE LABORATORIES, INC.
Analysis Run Log

Instrument Batch/File No. ME8143/30415

S45-0-70 Revised 1/04

Instrument. No.: X-001
Date Analyzed: 12/20/07
Calibration Stock Solutions:

	Stk No.							
Calib	M0736	1	ml of	5,000,000 / 150,000	ppb into	100	ml=	50,000 / 1,500 ppb
ICV:	M0736	0.5	ml of	5,000,000 / 150,000	ppb into	100	ml=	2,500 / 750 ppb
CCV:	M0740	0.8	ml of	5,000,000 / 150,000	ppb into	100	ml=	40,000 / 1,200 ppb

Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Ni | K | Se | Ag | Na | Tl | V | Zn | | | | | | | | B | Mo | Sn

Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.	Run No.	Calibr. Std., ULI ID No. or QC Sample	Dilu. Fac.
17	CHA 89		47			77		
18			48			78		
19	12448		49			79		
20			50			80		
21			51			81		
22			52			82		
23	Excursion:		53			83		
24	CCV ran slightly		54			84		
25	high Samples		55			85		
26	ran less than.		56			86		
27			57			87		
28	See C.A.R 5153.		58			88		
29			59			89		
30			60			90		
31			61			91		
32			62			92		
33			63			93		
34			64			94		
35			65			95		
36			66			96		
37			67			97		
38			68			98		
39			69			99		
40			70			100		
41			71			101		
42			72			102		
43			73			103		
44			74			104		
45			75			105		
46			76			106		

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Prepared by: EN

Date: 12/20/07

Method: LIMSASPBORON
IEC:
MSF:
Results: ME8143
Spectra Stored: Yes
Method Stored: Yes
Sample Info: aspboron
User: User1
Date: 12/20/07 7:43:30 AM
Method Description: with 2ppm Y internal standard

Replicate Data
ID: IS Init
Date: 12/20/07 7:45:16 AM

Repl#	Element	Net Intensity	Corrected Intensity
1	Y 360.073	1081663.5	1081663.5
2	Y 360.073	1080454.9	1080454.9

Mean Data
ID: IS Init
Seq. No.: 1
Data: Original
A/S Pos: 1
Date: 12/20/07 7:45:16 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	1081059.2	854.62	0.08%

Replicate Data
ID: Calib Blank 1
Date: 12/20/07 7:45:43 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1011071.2	1011071.2		
1	Boron	2880.7	3080.1		0 µg/L
2	Y 360.073	1077695.5	1077695.5		
2	Boron	2958.1	2967.3		0 µg/L

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Mean Data
ID: Calib Blank 1
Seq. No.: 2
Data: Original
A/S Pos: 1
Date: 12/20/07 7:45:43 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1044383.4	47110.47	4.51%		
Boron	3023.7	79.74	2.64%		0 µg/L

Replicate Data
ID: Calib Std 1
Date: 12/20/07 7:48:36 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	1056829.8	1056829.8		
1	Boron	1795959.5	1837134.6		10000 µg/L
2	Y 360.073	1051115.7	1051115.7		
2	Boron	1787473.3	1838393.6		10000 µg/L

Mean Data
ID: Calib Std 1
Seq. No.: 3
Data: Original
A/S Pos: 2
Date: 12/20/07 7:48:36 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1053972.7	4040.48	0.38%		
Boron	1837764.1	890.30	0.05%		10000 µg/L

Replicate Data
ID: ICV
Date: 12/20/07 7:51:27 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Sample Units

1 Y 360.073	1045205.9	1045205.9		
1 Boron	1812536.3	1874710.9	10201	µg/L
2 Y 360.073	1040809.4	1040809.4		
2 Boron	1806371.1	1876226.5	10210	µg/L

Mean Data --
ID: ICV Seq. No.: 4 Sample No.: 1 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 7:51:27 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1043007.7							0.30%
Boron	1875468.7	10206	5.8	µg/L				0.06%

Replicate Data --
ID: ICB Date: 12/20/07 7:54:18 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1 Y 360.073	1017134.6	1017134.6				
1 Boron	26002.7	27636.9	134.15	µg/L		
2 Y 360.073	1013104.3	1013104.3				
2 Boron	25338.2	27037.8	130.89	µg/L		

Mean Data --
ID: ICB Seq. No.: 5 Sample No.: 2 A/S Pos: 4
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 7:54:18 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1015119.4							0.28%
Boron	27337.3	132.52	2.309	µg/L				1.74%

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Replicate Data --
ID: ICSA Date: 12/20/07 7:57:11 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1 Y 360.073	1016408.8	1016408.8				
1 Boron	20161.0	21443.4	100.39	µg/L		
2 Y 360.073	996273.1	996273.1				
2 Boron	19984.5	21685.2	101.71	µg/L		

Mean Data --
ID: ICSA Seq. No.: 6 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 7:57:11 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1006340.9							1.41%
Boron	21564.3	101.05	0.932	µg/L				0.92%

Replicate Data --
ID: ICSAB Date: 12/20/07 7:59:59 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1 Y 360.073	1016877.8	1016877.8				
1 Boron	183301.7	194871.0	1045.6	µg/L		
2 Y 360.073	1019379.9	1019379.9				
2 Boron	184509.8	195673.9	1050.0	µg/L		

Mean Data

ID: ICSAB		Seq. No.: 7	Sample No.: 4	A/S Pos: 6		
Sample Qty:	1.0000 g	Prep. Vol.:	1.0 L	Dilution:	1.0	1.0
		Data: Original		Date: 12/20/07	7:59:59 AM	

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1018128.8							0.17%
Boron	195272.5	1047.8	3.09	µg/L				0.30%

Replicate Data

ID: BLANK Date: 12/20/07 8:02:50 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1001958.7	1001958.7				
1	Boron	15011.1	16196.2	71.795	µg/L		
2	Y 360.073	997148.1	997148.1				
2	Boron	14848.6	16098.1	71.260	µg/L		

Mean Data

ID: BLANK		Seq. No.: 8	Sample No.: 5	A/S Pos: 7		
Sample Qty:	1.0000 g	Prep. Vol.:	1.0 L	Dilution:	1.0	1.0
		Data: Original		Date: 12/20/07	8:02:50 AM	

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	999553.4							0.34%
Boron	16147.1	71.527	0.3779	µg/L				0.53%

Replicate Data

ID: CRI Date: 12/20/07 8:05:46 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1007369.7	1007369.7				
1	Boron	116039.1	124527.4	662.24	µg/L		
2	Y 360.073	995851.2	995851.2				
2	Boron	117516.9	127572.0	678.83	µg/L		

Mean Data

ID: CRI		Seq. No.: 9	Sample No.: 6	A/S Pos: 8		
Sample Qty:	1.0000 g	Prep. Vol.:	1.0 L	Dilution:	1.0	1.0
		Data: Original		Date: 12/20/07	8:05:46 AM	

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1001610.4							0.81%
Boron	126049.7	670.54	11.734	µg/L				1.75%

Replicate Data

ID: MBLK Date: 12/20/07 8:08:41 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	997249.0	997249.0				
1	Boron	11961.4	12966.6	54.192	µg/L		
2	Y 360.073	1010548.3	1010548.3				
2	Boron	11678.6	12493.5	51.614	µg/L		

Mean Data

ID: MBLK		Seq. No.: 10	Sample No.: 7	A/S Pos: 9		
Sample Qty:	1.0000 g	Prep. Vol.:	1.0 L	Dilution:	1.0	1.0
		Data: Original		Date: 12/20/07	8:08:41 AM	

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1003898.6							0.94%
Boron	12730.0	52.903	1.8234	µg/L				3.45%

Replicate Data --
ID: LCS Date: 12/20/07 8:11:31 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	949092.9	949092.9				
1	Boron	376949.2	429361.9	2323.7	µg/L		
2	Y 360.073	965110.0	965110.0				
2	Boron	385379.0	431678.8	2336.3	µg/L		

Mean Data --
ID: LCS Seq. No.: 11 Sample No.: 8 A/S Pos: 10
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:11:31 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	957101.4							1.18%
Boron	430520.4	2330.0	8.93	µg/L				0.38%

Replicate Data --
ID: U0712180-021B Date: 12/20/07 8:14:17 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	990339.2	990339.2				
1	Boron	26405.6	28824.4	140.62	µg/L	140.62	µg/L
2	Y 360.073	986949.3	986949.3				
2	Boron	25922.2	28394.0	138.28	µg/L	138.28	µg/L

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Mean Data --
ID: U0712180-021B Seq. No.: 12 Sample No.: 1 A/S Pos: 17
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:14:17 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	988644.3							0.24%
Boron	28609.2	139.45	1.659	µg/L	139.45	1.659	µg/L	1.19%

Replicate Data --
ID: U0712180-022B Date: 12/20/07 8:17:10 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	983845.4	983845.4				
1	Boron	14525.0	15960.2	70.508	µg/L	70.508	µg/L
2	Y 360.073	993075.3	993075.3				
2	Boron	14332.1	15601.9	68.555	µg/L	68.555	µg/L

Mean Data --
ID: U0712180-022B Seq. No.: 13 Sample No.: 2 A/S Pos: 18
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:17:10 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	988460.3							0.66%
Boron	15781.0	69.532	1.3809	µg/L	69.532	1.3809	µg/L	1.99%

Replicate Data --

ID: U0712180-023B Date: 12/20/07 8:20:04 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	997276.9	997276.9				
1	Boron	16093.4	17445.4	78.603	µg/L	78.603	µg/L
2	Y 360.073	972514.2	972514.2				
2	Boron	16060.5	17853.1	80.825	µg/L	80.825	µg/L

Mean Data

ID: U0712180-023B Seq. No.: 14 Sample No.: 3 A/S Pos: 19
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:20:04 AM

Element	Mean Corr. Intensity	Calib Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	984895.5							1.78%
Boron	17649.2	79.714	1.5713	µg/L	79.714	1.5713	µg/L	1.97%

Replicate Data

ID: U0712180-024B Date: 12/20/07 8:23:00 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	975838.2	975838.2				
1	Boron	33169.2	36745.7	183.80	µg/L	183.80	µg/L
2	Y 360.073	978399.1	978399.1				
2	Boron	33448.9	36958.6	184.96	µg/L	184.96	µg/L

Mean Data

ID: U0712180-024B Seq. No.: 15 Sample No.: 4 A/S Pos: 20
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:23:00 AM

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Element	Mean Corr. Intensity	Calib Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	977118.6							0.19%
Boron	36852.2	184.38	0.820	µg/L	184.38	0.820	µg/L	0.44%

Replicate Data

ID: U0712180-025B Date: 12/20/07 8:25:55 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	971769.8	971769.8				
1	Boron	11230.8	12493.9	51.616	µg/L	51.616	µg/L
2	Y 360.073	979597.9	979597.9				
2	Boron	11448.4	12634.2	52.380	µg/L	52.380	µg/L

Mean Data

ID: U0712180-025B Seq. No.: 16 Sample No.: 5 A/S Pos: 21
Sample Qty: 1.0000 µL Prep. Vol.: 1.0 µL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:25:55 AM

Element	Mean Corr. Intensity	Calib Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	975683.9							0.57%
Boron	12564.0	51.998	0.5408	µg/L	51.998	0.5408	µg/L	1.04%

Replicate Data

ID: U0712180-026B Date: 12/20/07 8:28:50 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	998289.1	998289.1				

Repl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1 Boron	20023.7	21683.9	101.70	μg/L	101.70	μg/L
2 Y 360.073	1007578.7	1007578.7				
2 Boron	19784.7	21227.6	99.218	μg/L	99.218	μg/L

Mean Data --
ID: U0712180-026B Seq. No.: 17 Sample No.: 6 A/S Pos: 22
Sample Qty: 1.0000 μL Prep. Vol.: 1.0 μL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:28:50 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1002933.9							0.65%
Boron	21455.7	100.46	1.758	μg/L	100.46	1.758	μg/L	1.75%

Replicate Data --
ID: U0712180-026BSD Date: 12/20/07 8:31:47 AM

Repl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1 Y 360.073	1021674.3	1021674.3				
1 Boron	8495.5	8989.3	32.514	μg/L	32.514	μg/L
2 Y 360.073	1000418.8	1000418.8				
2 Boron	8495.1	9179.9	33.553	μg/L	33.553	μg/L

Mean Data --
ID: U0712180-026BSD Seq. No.: 18 Sample No.: 7 A/S Pos: 23
Sample Qty: 1.0000 μL Prep. Vol.: 1.0 μL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:31:47 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1011046.5							1.49%
Boron	9084.6	33.034	0.7347	μg/L	33.034	0.7347	μg/L	2.22%

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Matrix Check Sample: U0712180-026BSD

Element	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Diff.
Y 360.073			0.000		
Boron	20.092	33.034	0.735	μg/L	64.411

Replicate Data --
ID: BLANK Date: 12/20/07 8:34:39 AM

Repl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1 Y 360.073	996787.0	996787.0				
1 Boron	5285.1	5731.9	14.761	μg/L	14.761	μg/L
2 Y 360.073	990008.7	990008.7				
2 Boron	5268.8	5753.4	14.878	μg/L	14.878	μg/L

Mean Data --
ID: BLANK Seq. No.: 19 Sample No.: 8 A/S Pos: 24
Sample Qty: 1.0000 μL Prep. Vol.: 1.0 μL Dilution: 1.0: 1.0
Data: Original Date: 12/20/07 8:34:39 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	993397.8							0.48%
Boron	5742.7	14.819	0.0829	μg/L	14.819	0.0829	μg/L	0.56%

Replicate Data --
ID: ICSA Date: 12/20/07 8:37:30 AM

Repl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	987546.0	987546.0		
1	Boron	5073.3	5553.7	13.789	µg/L
2	Y 360.073	988334.8	988334.8		
2	Boron	5183.9	5670.2	14.424	µg/L

Mean Data ---

ID: ICSA Seq. No.: 20 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:37:30 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	987940.4							0.06%
Boron	5611.9	14.107	0.4491	µg/L				3.18%

Replicate Data ---

ID: ICSAB Date: 12/20/07 8:40:21 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	992539.4	992539.4				
1	Boron	176197.7	191911.9	1029.5	µg/L		
2	Y 360.073	989910.8	989910.8				
2	Boron	175823.5	192012.9	1030.1	µg/L		

Mean Data ---

ID: ICSAB Seq. No.: 21 Sample No.: 4 A/S Pos: 6
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:40:21 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	991225.1							0.19%
Boron	191962.4	1029.8	0.39	µg/L				0.04%

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Replicate Data ---

ID: BLANK Date: 12/20/07 8:43:10 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	1002892.6	1002892.6				
1	Boron	5674.6	6116.8	16.859	µg/L		
2	Y 360.073	1005378.7	1005378.7				
2	Boron	5604.3	6026.2	16.364	µg/L		

Mean Data ---

ID: BLANK Seq. No.: 22 Sample No.: 5 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:43:10 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Sample Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	1004135.6							0.18%
Boron	6071.5	16.612	0.3494	µg/L				2.10%

Replicate Data ---

ID: CRI Date: 12/20/07 8:45:59 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	982832.7	982832.7				
1	Boron	88940.9	97829.8	516.73	µg/L		
2	Y 360.073	992834.5	992834.5				
2	Boron	90213.5	98230.0	518.91	µg/L		

Mean Data --------------------------------
ID: CRI Seq. No.: 23 Sample No.: 6 A/S Pos: 8
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:45:59 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	987833.6							0.72%
Boron	98029.9	517.82	1.542	µg/L				0.30%

Replicate Data --------------------------------
ID: CCV1 Date: 12/20/07 8:48:45 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	964439.5	964439.5				
1	Boron	915606.8	1026321.6	5577.3	µg/L		
2	Y 360.073	942917.4	942917.4				
2	Boron	934332.4	1071216.4	5822.0	µg/L		

Mean Data --------------------------------
ID: CCV1 Seq. No.: 24 Sample No.: 9 A/S Pos: 11
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:48:45 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	953678.5							1.60%
Boron	1048769.0	5699.7	173.02	µg/L				3.04%

*QC exceeds upper limit for Boron Recovery = 113.99% Action = Continue

Replicate Data --------------------------------
ID: CCB1 Date: 12/20/07 8:51:32 AM -708-

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Y 360.073	1003230.8	1003230.8				
1	Boron	12378.2	13338.4	56.219	µg/L		
2	Y 360.073	988192.4	988192.4				
2	Boron	12216.3	13364.3	56.360	µg/L		

Mean Data --------------------------------
ID: CCB1 Seq. No.: 25 Sample No.: 10 A/S Pos: 12
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0 1.0
Data: Original Date: 12/20/07 8:51:32 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	995711.6							1.07%
Boron	13351.4	56.289	0.0997	µg/L				0.18%

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: Upstate Laboratories, Inc.　　Contract:

Lab Code: 10170　　Case No.　　SAS No.:　　SDG No.: CHA89

Instrument ID Number: 17.0　　Method: CV

Start Date: 12/14/2007　　End Date: 12/14/2007

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1342																X									
ICB	1.00	1343																X									
CRA	1.00	1344																X									
CCV	1.00	1346																X									
CCB	1.00	1347																X									
PBW	1.00	1348																X									
MW-14S	1.00	1349																X									
MW-14I	1.00	1351																X									
MW-14D	1.00	1352																X									
MW-15S	1.00	1353																X									
MW-15I	1.00	1354																X									
MW-15D	1.00	1355																X									
CCV	1.00	1357																X									
CCB	1.00	1358																X									
CCV	1.00	1414																X									
CCB	1.00	1415																X									
CCV	1.00	1441																X									
CCB	1.00	1443																X									

STD: MP0240
Ref: MP0241

Mercury Prep Log (Water)
UPSTATE LABORATORIES, INC.

1 of 1

Instrument Batch/File No. MB8840/30301

S45-0-70 7/2000

Instr. No.: 21.0

Date Prepped: 12/14/07

Digestion Batches: (245.2WTASP) (245.2WT)

Date Analyzed: 12/14/07

Stock Solutions: KMnO4: Stk. No. KPSO4: Stk. No.

Run #	Sample ID	Client	Gram Wt	Volume	Dilution Factor	Matrix
1	MB-12452	CHA ASPB		100 mL		ASP H_2O
2	U0712180-21B					
3	22					
4	23					
5	24					
6	25					
7	26					
8	MB-12453					H_2O
9	U0712057-13C					
10	13 Dup					
11	13 MS					
12	15					
13	082-5C					
14	172-1F					
15	199-2A					
16	204-1C					
17	208-1C					
18	3C					
19	5C					
20	7C					
21	225-1B					
22	226-1B					
23	242-1D					
24	263-1A					
25	220-1A					
26	225-1B	RR to confirm results (EW)				
27	220-1A					
28	Blank					
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						

Prepared by: EW

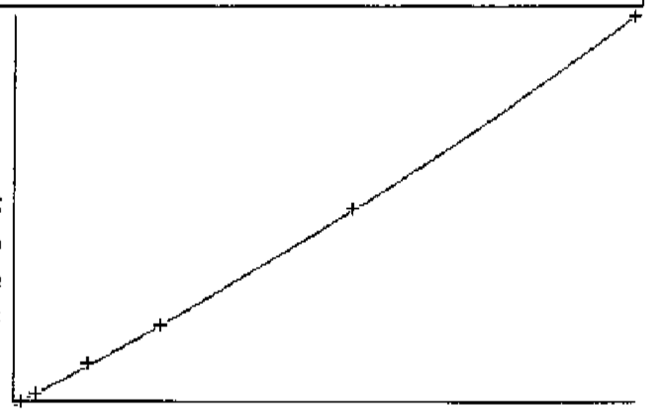
Date: 12/14/07

RunProt: HGPPB | Err: hardware inoperable | Mode: Analyze
RunFold: MB8840 | Seq: 6 | Batch: | RunPrep: prp7471
Prnt: R/T On | Pump: On
Rev: 4.2 | 13:40:41 14 Dec 2007 | Xmit: Off | Gas: 0.70 LPM
Idle None | User: | A/S: On

CALIBRATION: Line | proto: HGPPB

	Hg Conc.	Calc.	Dev.	Accepted liNear
S1	.000	.010	.010	->quadratic
S2	.200	.213	.013	Wtdlinear
S3	1.00	.959	-.041	C
S4	2.00	2.02	.015	Accept o
S5	5.00	5.00	.004	n
S6	10.0	10.0	-.001	c

A 8.5852e-13 r .999986
B 6.31347e-6 C -1.04584e-1



Relative Absorbance

	Mean		
S1	18109	0 SD	18109
S2	49954	0 %RSD	49954
S3	164809	0 %RSD	164809
S4	321676	0 %RSD	321676
S5	735595	0 %RSD	735595
S6	1351766	0 %RSD	1351766

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 13:33:38 14 Dec 2007 HG

Hg .000 PPB 18109

*** Standard: 2 Rep: 1 Seq: 1 13:35:12 14 Dec 2007 HG

Hg .200 PPB 49954

*** Standard: 3 Rep: 1 Seq: 2 13:36:13 14 Dec 2007 HG

Hg 1.00 PPB 164809

*** Standard: 4 Rep: 1 Seq: 3 13:37:54 14 Dec 2007 HG

Hg 2.00 PPB 321676

*** Standard: 5 Rep: 1 Seq: 4 13:38:56 14 Dec 2007 HG

Hg 5.00 PPB 735595

*** Standard: 6 Rep: 1 Seq: 5 13:40:00 14 Dec 2007 HG

Hg 10.0 PPB 1351766

*** Check Standard: 2 Ck2ICV Seq: 6 13:42:09 14 Dec 2007 HG -712-

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		90.5	1.81	2.00	PPB	.000

*** Check Standard: 1 Ck1ICB/CCB Seq: 7 13:43:38 14 Dec 2007 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.032	.200	PPB	.000

*** Check Standard: 3 Ck3CRA Seq: 8 13:44:36 14 Dec 2007 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		100.	.201	.200	PPB	.000

*** Check Standard: 4 Ck4CCV Seq: 9 13:46:06 14 Dec 2007 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		93.3	3.73	4.00	PPB	.000

*** Check Standard: 1 Ck1ICB/CCB Seq: 10 13:47:08 14 Dec 2007 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.081	.200	PPB	.000

*** Sample ID: MBLK Seq: 11 13:48:18 14 Dec 2007 HG

MB-12452

Hg .026 PPB .000 .026

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: SAMP Seq: 12 13:49:15 14 Dec 2007 HG
U0712180-021B

Hg	.066	PPB	.000	.066

*** Sample ID: SAMP Seq: 13 13:51:03 14 Dec 2007 HG
U0712180-022B

Hg	.013	PPB	.000	.013

*** Sample ID: SAMP Seq: 14 13:52:13 14 Dec 2007 HG
U0712180-023B

Hg	-.013	PPB	.000	-.013

*** Sample ID: SAMP Seq: 15 13:53:21 14 Dec 2007 HG
U0712180-024B

Hg	.027	PPB	.000	.027

*** Sample ID: SAMP Seq: 16 13:54:43 14 Dec 2007 HG
U0712180-025B

Hg	-.060	PPB	.000	-.060

*** Sample ID: SAMP Seq: 17 13:55:46 14 Dec 2007 HG
U0712180-026B

Hg	-.098	PPB	.000	-.098

*** Check Standard: 4 Ck4CCV Seq: 18 13:57:07 14 Dec 2007 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		92.4	3.70	4.00	PPB	.000

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*** Check Standard: 1 Ck1ICB/CCB Seq: 19 13:58:11 14 Dec 2007 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.097	.200	PPB	.000

*** Sample ID: MBLK Seq: 20 13:59:12 14 Dec 2007 HG
MB-12453

Hg	.023	PPB	.000	.023

*** Sample ID: SAMP Seq: 21 14:02:07 14 Dec 2007 HG
U0712057-013C

Hg	.083	PPB	.000	.083

*** Sample ID: DUP Seq: 22 14:03:25 14 Dec 2007 HG
U0712057-013C

Hg	.022	PPB	.000	.022

*** Sample ID: MS Seq: 23 14:04:35 14 Dec 2007 HG
U0712057-013C

Hg	3.24	PPB	.000	3.24

POST-RUN REPORT

```
Line   Conc.  Units      SD/RSD       1         2         3         4         5
----------------------------------------------------------------------------------

*** Sample ID: SAMP                       Seq:  24     14:05:43 14 Dec 2007 HG
                             U0712057-015C
Hg     .055     PPB       .000        .055

*** Sample ID: SAMP                       Seq:  25     14:06:43 14 Dec 2007 HG
                             U0712082-005C
Hg     .004     PPB       .000        .004

*** Sample ID: SAMP                       Seq:  26     14:09:34 14 Dec 2007 HG
                             U0712172-001F
Hg     .073     PPB       .000        .073

*** Sample ID: SAMP                       Seq:  27     14:10:42 14 Dec 2007 HG
                             U0712199-002A
Hg     .082     PPB       .000        .082

*** Sample ID: SAMP                       Seq:  28     14:11:53 14 Dec 2007 HG
                             U0712204-001C
Hg     .009     PPB       .000        .009

*** Sample ID: SAMP                       Seq:  29     14:13:31 14 Dec 2007 HG
                             U0712208-001C
Hg     .121     PPB       .000        .121

*** Check Standard: 4  Ck4CCV        Seq:  30     14:14:29 14 Dec 2007 HG
Line   Flag  %Rcv.   Found    True   Units       SD/RSD
Hg           90.8     3.63    4.00    PPB          .000

*** Check Standard: 1  Ck1ICB/CCB    Seq:  31     14:15:31 14 Dec 2007 HG
Line  Flag  Found Range(+/-) Units        SD/RSD
Hg          ~.083     .200     PPB          .000

*** Sample ID: SAMP                       Seq:  32     14:16:40 14 Dec 2007 HG
                             U0712208-003C
Hg     .048     PPB       .000        .048

*** Sample ID: SAMP                       Seq:  33     14:17:49 14 Dec 2007 HG
                             U0712208-005C
Hg     .115     PPB       .000        .115

*** Sample ID: SAMP                       Seq:  34     14:19:00 14 Dec 2007 HG
                             U0712208-007C
Hg    -.007     PPB       .000       -.007

*** Sample ID: SAMP                       Seq:  35     14:21:19 14 Dec 2007 HG
                             U0712225-001B
Hg     4.68     PPB       .000        4.68
```

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POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: SAMP U0712226-001B				Seq: 36	14:22:30 14 Dec 2007 HG			
Hg	-.044	PPB	.000	-.044				
*** Sample ID: SAMP U0712242-001D				Seq: 37	14:23:33 14 Dec 2007 HG			
Hg	.006	PPB	.000	.006				
*** Sample ID: SAMP U0712263-001A				Seq: 38	14:24:33 14 Dec 2007 HG			
Hg	.057	PPB	.000	.057				
*** Sample ID: SAMP U0712220-001A				Seq: 39	14:25:42 14 Dec 2007 HG			
Hg	7.36	PPB	.000	7.36				

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: SAMP Seq: 40 14:38:10 14 Dec 2007 HG
U0712225-001B

Hg	4.90	PPB	.000	4.90

*** Sample ID: SAMP Seq: 41 14:39:21 14 Dec 2007 HG
U0712220-001A

Hg	7.25	PPB	.000	7.25

*** Sample ID: BLANK Seq: 42 14:40:35 14 Dec 2007 HG

Hg	.010	PPB	.000	.010

*** Check Standard: 4 Ck4CCV Seq: 43 14:41:53 14 Dec 2007 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		92.1	3.68	4.00	PPB	.000

*** Check Standard: 1 Ck1ICB/CCB Seq: 44 14:43:04 14 Dec 2007 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.026	.200	PPB	.000

Digestion Log

-717-

Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

PREP BATCH REPORT

Prep Start Date: **12/14/2007 7:40:54**
Prep End Date: **12/14/2007 1:00:00**

Prep Batch **12448** Prep Code: **200.7TPRASP** Technician: **SHANE QUINN**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
MB-12448	Aqueous		100	0	0	100	1.000	12/14/2007	12/14/2007
LCS-12448	Aqueous		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-021B yellow	Groundwater	light Brown Sed.	100	cloudy 0	colorless 0	clear 100	1.000	12/14/2007	12/14/2007
U0712180-022B colorless	Groundwater		100	clear 0	0	100	1.000	12/14/2007	12/14/2007
U0712180-023B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-024B yellow	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-025B colorless	Groundwater	light Brown sed.	100	cloudy 0	0	100	1.000	12/14/2007	12/14/2007
U0712180-026B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007

Number	Reagent Name
398	Hydrochloric Acid
399	Nitric Acid

Spk ID	Spike Name	SampType	AmtAdd
MP0189	QC-1 100MG/L	LCS	1
MP0190	QC-2	LCS	2
MP0221	Aluminium (Al) 1000ug/Ml	LCS	1
MP0222	Barium (Ba) 1000ug/mL	LCS	1
MP0242	ASP LCS SPIKE	LCS	2

Upstate Laboratories, Inc.

PREP BATCH REPORT

Prep Start Date: **12/14/2007 9:32:11**
Prep End Date: **12/14/2007 12:30:0**

Prep Batch **12452** Prep Code: **245.2TPRASP** Technician: **ERIN AYLESWORT**

Prep Factor Units: mL / mL

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
MB-12452	Aqueous		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-021B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-022B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-023B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-024B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-025B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007
U0712180-026B	Groundwater		100	0	0	100	1.000	12/14/2007	12/14/2007

Number	Reagent Name
256	Potassium Persulfate
262	Hydroxylamine Hydrochloride
292	Potassium Permanganate
399	Nitric Acid
400	Sulfuric Acid

Spk ID	Spike Name	SampType	AmtAdd
MP0120	HG 0.2PPB STD	ICAL	0.2
MP0121	HG 1PPB STD	ICAL	1
MP0122	HG 2PPB STD	ICAL	2
MP0123	HG 5PPB STD	ICAL	5
MP0124	HG 10PPB STD	ICAL	10
MP0125	HG 2.0PPB ICV	ICAL	2
MP0126	HG 0.2PPB CRA	ICAL	0.2
MP0127	HG 4PPB CCV	ICAL	4

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Package

Case Narrative, Chain of Custody Documentation, Field Data and VOC Data
Volume 2 of 4

SDG No. CHA-89

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

Samples Collected:

December 4, 2007
December 5, 2007
December 6, 2007
December 7, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-1S	U0712180-001	8260	-	-	-	-	-
MW-1I	U0712180-002	8260	-	-	-	-	-
MW-1D	U0712180-003	8260	-	-	-	-	-
MW-2S	U0712180-004	8260	-	-	-	-	-
MW-2I	U0712180-005	8260	-	-	-	-	-
MW-2D	U0712180-006	8260	-	-	-	-	-
MW-9S	U0712180-007	8260	-	-	-	-	-
MW-9I	U0712180-008	8260	-	-	-	-	-
MW-9D	U0712180-009	8260	-	-	-	-	-
MW-10S	U0712180-010	8260	-	-	-	-	-
MW-10I	U0712180-011	8260	-	-	-	-	-
MW-10I MS	U0712180-011MS	8260	-	-	-	-	-
MW-10I MSD	U0712180-011MSD	8260	-	-	-	-	-
MW-10D	U0712180-012	8260	-	-	-	-	-
MW-12S	U0712180-013	8260	-	-	-	-	-
CHA-1	U0712180-014	8260	-	-	-	-	-
MW-12I	U0712180-015	8260	-	-	-	-	-
MW-12D	U0712180-016	8260	-	-	-	-	-
MW-7S	U0712180-017	8260	-	-	-	-	-
MW-7I	U0712180-018	8260	-	-	-	-	-
MW-7D	U0712180-019	8260	-	-	-	-	-
ULI Trip Blank	U0712180-020	8260	-	-	-	-	-
MW-14S	U0712180-021	8260	-	-	-	Baseline (1993)	TDS
MW-14I	U0712180-022	8260	-	-	-	Baseline (1993)	TDS
MW-14D	U0712180-023	8260	-	-	-	Baseline (1993)	TDS
MW-15S	U0712180-024	8260	-	-	-	Baseline (1993)	TDS
MW-15I	U0712180-025	8260	-	-	-	Baseline (1993)	TDS
MW-15D	U0712180-026	8260	-	-	-	Baseline (1993)	TDS
ULI Trip Blank	U0712180-027	8260	-	-	-	-	-
ULI Trip Blank	U0712180-028	8260	-	-	-	-	-
ULI Trip Blank	U0712180-029	8260	-	-	-	-	-
Holding Blank	U0712180-030	8260	-	-	-	-	-

Narrative

1.0 Summary

This report presents the sample test results and quality control results for twenty five water sample locations for the City of Albany Interim Landfill Project, Albany, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and four volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-4) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples was collected by Upstate Laboratories, Inc. personnel on December 4, 5, 6, and 7, 2007, and were then delivered to Upstate Laboratories, Inc., Syracuse, New York, via Velocity. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Volatile Organics	8260	(1)
Aluminum	200.7	(1)
Antimony	200.7	(1)
Arsenic	200.7	(1)
Barium	200.7	(1)
Beryllium	200.7	(1)
Boron	200.7	(1)
Cadmium	200.7	(1)
Calcium	200.7	(1)
Chromium	200.7	(1)
Cobalt	200.7	(1)
Copper	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Mercury	245.2	(1)
Nickel	200.7	(1)
Potassium	200.7	(1)
Selenium	200.7	(1)
Silver	200.7	(1)
Sodium	200.7	(1)
Thallium	200.7	(1)
Vanadium	200.7	(1)
Zinc		
	200.7	(1)
TDS	160.1	(1)

The total number of pages in this Data Package is: 233.

(1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 10/95 Revision

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

Holding Time	: Criteria were satisfied.
Calibration	: 1,3-Dichlorobenzene did not meet the minimum RRF requirements for the IC and the CC lab files C20119.D and D19846.D. Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.
Method Blank	: Criteria were satisfied.
MSB	: Criteria were satisfied.
MS/MSD	: Criteria were satisfied.
Surrogates	: Criteria were satisfied.
Internal Stds	: Criteria were satisfied.

Trace Metals Data

Holding Time	: Criteria were satisfied.
Calibration	: The CCV and the initial CRDL %recoveries for Boron were greater than QC acceptance limits. All other criteria were satisfied.
Method Blanks	: Criteria were satisfied.
Ref. Samples	: Criteria were satisfied.
Matrix Spikes	: An MS was not submitted and / or designated for trace metals analysis for ULI SDG No. CHA-89.
Duplicates	: A Duplicate analysis was not submitted and /or designated for trace metals analysis for ULI SDG No. CHA-89.

Wet Chemistry Data

Holding Time	: Criteria were satisfied.
Calibration	: Criteria were satisfied.
Method Blanks	: Criteria were satisfied.
Ref. Samples	: Criteria were satisfied.

Matrix Spikes	: An MS was not submitted and / or designated for wet chemistry analysis for ULI SDG No. CHA-89.
Duplicates	: A Duplicate analysis was not submitted and /or designated for wet chemistry analysis for ULI SDG No. CHA-89.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved Anthony J. Scala

Anthony J. Scala, Director

CHA89BALB.INT.doc

Chain of Custody

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Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0712180	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-1S	12/4/07	9:40A	GW	GRAB	-1	2								X			NYS PART 360
MW-1I	12/4/07	9:54A	GW	GRAB	-2	2								X			BASELINE 1993
MW-1D	12/4/07	9:47A	GW	GRAB	-3	2								X			ASP CAT. B
MW-2S	12/4/07	10:55A	GW	GRAB	-4	2								X			
MW-2I	12/4/07	11:21A	GW	GRAB	-5	2								X			
MW-2D	12/4/07	11:28A	GW	GRAB	-6	2								X			
MW-9S	12/4/07	1:37P	GW	GRAB	-7	2								X			
MW-9I	12/4/07	1:46P	GW	GRAB	-8	2								X			
MW-9D	12/4/07	1:55P	GW	GRAB	-9	2								X			
MW-10S	12/4/07	2:24P	GW	GRAB	-10	2								X			
MW-10I MS/MSD	12/4/07	3:11P	GW	GRAB	-11	3								X			
MW-10D	12/4/07	2:51P	GW	GRAB	-12	2								X			
MW-12S	12/5/07	2:32P	GW	GRAB	-13	2								X			
CHA-1	12/5/07	2:40P	GW	GRAB	-14	2								X			
MW-12I	12/5/07	3:36P	GW	GRAB	-15	2								X			
MW-12D	12/5/07	2:58P	GW	GRAB	-16	2								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) ~~Rob Hall~~ M. Baker
Company: ~~CHA~~ CH

Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
[signature]	12/6/07	5:00	
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 1000	Rec'd for Lab by: K Camp

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CHA

Project #/ Project Name: C/O ALBANY INTERIM LANDFILL

Client Contact: KEITH COWAN

Phone #: 453-4500

Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0712180	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-7S	12/7/07	9:25A	GW	GRAB	-17	2								X			NYS PART 360
MW-7I	12/7/07	10:21A	GW	GRAB	-18	2								X			BASELINE 1993
MW-7D	12/7/07	10:09A	GW	GRAB	-19	2								X			ASP CAT. B
ULI TRIP BLANK	12/7/07	N/A	WATER	GRAB	-20	1								X			

Parameter and Method	Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) MAT BROKER
Company: ULI

Name of Courier

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 1:09	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 3:30	Rec'd for Lab by: K Chump

Syracuse Rochester Buffalo **Albany** Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

ULI Computer ... Form

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-14S	12/6/07	3:40P	GW	GRAB	-21	4	X	X	X	X							NYS PART 360
MW-14I	12/6/07	3:21P	GW	GRAB	-22	4	X	X	X	X							BASELINE 1993
MW-14D	12/6/07	3:52P	GW	GRAB	-23	4	X	X	X	X							ASP CAT. B
MW-15S	12/6/07	12:04P	GW	GRAB	-24	4	X	X	X	X							
MW-15I	12/6/07	11:44A	GW	GRAB	-25	4	X	X	X	X							
MW-15D	12/6/07	12:16P	GW	GRAB	-26	4	X	X	X	X							
ULI TRIP BLANK	12/4/07	N/A	WATER	GRAB	-27	1				X							
ULI TRIP BLANK	12/5/07	N/A	WATER	GRAB	-28	1				X							
ULI TRIP BLANK	12/6/07	N/A	WATER	GRAB	-29	1				X							
(Holding Blank)	(12-10-07)	(1625)	(Water)	(Grab)	-30	1				(X)							

Parameter and Method	Sample bottle: Type	Size	Preservative
1) TDS	P	250ml	NONE
2) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
3) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
4) BASELINE 8260	G	40ML	1:1 HCL
5)			
6)			
7)			
8)			
9)			
10)			

Sampled by (Print) Matt Broker
Company: ULI

Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
Matt Broker	12/6/07	5	
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 1000	Rec'd for Lab by: K Chinf

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.
Internal Laboratory Sign–Out Log
SR–10–03 Revised 3/98

Project: CHA
SDG No.:
ULI ID No.: U0712180

ULI Number or Range of ULI Numbers	Date/Time Sample(s) Taken	Purpose	S.Custodian Initials	Analyst Initials	Date/Time Sample(s) Returned	S.Custodian Initials	Analyst Initials
21A-26A	12/10/07 1:00pm	TDS		DY	12/10/07 3:00pm		DY
1-15	12/11/07 9am	8260		MM	12/11/07 4PM		MM
16-20	12/12/07 ~~1~~600	8260		AF	12/12/07 ~~1~~630		AF
21-30	12/13/07 1030	8260		AF	12/13/07 1200		AF
21B-26B	12/14/07 9Am	200.7 Hg		SBG	4pm		SBG
27-30	12/15/07 1200	~~600~~ 8260		AF	12/15/07 1200		ADT

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client name: CHA-ALBANY

Date and Time Receive: 12/7/2007

Work Order Numbe: U0712180

Received by: TC

Checklist completed by: KCamp (Signature) 12/10/07 (Date)

Reviewed by: PH (Initials) 12/11/07 (Date)

Matrix:

Carrier name: ULI

Shipping container/cooler in good condition?	Yes ✔	No	Not Presen
Custody seals intact on shipping container/cooler?	Yes	No	Not Presen ✔
Custody seals intact on sample bottles?	Yes	No	Not Presen ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes ✔	No	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ✔	No	
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes ✔	No
Water - pH acceptable upon receipt?	Yes ✔	No	

Adjusted? ______ Checked by ______

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ______ Date contacted: ______ Person contacted ______

Contacted by: ______ Regarding: ______

Comments: ______

Corrective Action ______

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GC/MS Volatiles

Upstate Laboratories, Inc.

Quality Control Data

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Upstate Laboratories, Inc.

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	104	101	102	0
02	VMBS01	109	100	103	0
03	MW-1S	102	101	100	0
04	MW-1I	104	102	101	0
05	MW-1D	102	101	100	0
06	VBLK02	101	99	94	0
07	VMBS02	97	99	92	0
08	MW-10IMS	98	101	93	0
09	MW-10IMSD	97	99	93	0
10	MW-10I	98	100	93	0
11	MW-2S	99	100	94	0
12	MW-2I	99	100	93	0
13	MW-2D	97	100	93	0
14	MW-9S	96	100	92	0
15	MW-9I	99	100	93	0
16	MW-9D	101	99	93	0
17	MW-10S	96	99	92	0
18	MW-10D	97	99	91	0
19	MW-12S	92	99	91	0
20	CHA-1	96	99	91	0
21	MW-12I	97	100	92	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK03	104	101	94	0
02	VMBS03	106	102	93	0
03	MW-12D	106	101	96	0
04	MW-7S	103	102	98	0
05	MW-71	103	102	96	0
06	MW-7D	103	101	97	0
07	ULI TRIP BLAN	107	103	96	0
08	VBLK04	103	100	93	0
09	VMBS04	104	102	98	0
10	MW-14S	106	103	95	0
11	MW-14I	99	105	100	0
12	MW-14D	102	104	98	0
13	MW-15S	102	104	101	0
14	MW-15I	92	108	104	0
15	MW-15D	102	104	100	0
16	ULI TRIP BLAN	103	100	95	0
17	ULI TRIP LANK	103	103	97	0
18	ULI TRIP BLAN	101	102	95	0
19	HOLDING BLAN	103	104	98	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix Spike - EPA Sample No MW-10I

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	68	136	61 - 145
Benzene	50	0.0	57	114	76 - 127
Trichloroethene	50	0.0	58	116	71 - 120
Toluene	50	0.0	55	110	76 - 125
Chlorobenzene	50	0.0	58	116	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	67	134	1	14	61 - 145
Benzene	50	56	112	2	11	76 - 127
Trichloroethene	50	56	112	4	14	71 - 120
Toluene	50	53	106	4	13	76 - 125
Chlorobenzene	50	56	112	4	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK01 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	63	126	61-145
Benzene	50	0	48	96	76-127
Trichloroethene	50	0	49	98	71-120
Toluene	50	0	47	94	76-125
Chlorobenzene	50	0	47	94	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK02 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	70	140	61-145
Benzene	50	0	53	106	76-127
Trichloroethene	50	0	54	108	71-120
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	55	110	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK03 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	52	104	61-145
Benzene	50	0	50	100	76-127
Trichloroethene	50	0	50	100	71-120
Toluene	50	0	53	106	76-125
Chlorobenzene	50	0	55	110	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK04 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	47	94	61-145
Benzene	50	0	46	92	76-127
Trichloroethene	50	0	47	94	71-120
Toluene	50	0	49	98	76-125
Chlorobenzene	50	0	51	102	75-130

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20084.D Lab Sample ID: MB

Date Analyzed: 12/11/2007 Time Analyzed: 14:47

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS01	LCS	C20085.D	15:25
02	MW-1S	U0712180-001A	C20097.D	23:01
03	MW-1I	U0712180-002A	C20098.D	23:39
04	MW-1D	U0712180-003A	C20099.D	0:17

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	2	J
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20103.D Lab Sample ID: MB

Date Analyzed: 12/12/2007 Time Analyzed: 15:00

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS02	LCS	C20104.D	15:39
02	MW-10IMS	U0712180-011AMS	C20105.D	16:16
03	MW-10IMSD	U0712180-011AMSD	C20106.D	16:54
04	MW-10I	U0712180-011A	C20107.D	17:32
05	MW-2S	U0712180-004A	C20108.D	18:09
06	MW-2I	U0712180-005A	C20109.D	18:47
07	MW-2D	U0712180-006A	C20110.D	19:24
08	MW-9S	U0712180-007A	C20111.D	20:02
09	MW-9I	U0712180-008A	C20112.D	20:39
10	MW-9D	U0712180-009A	C20113.D	21:17
11	MW-10S	U0712180-010A	C20114.D	21:54
12	MW-10D	U0712180-012A	C20115.D	22:31
13	MW-12S	U0712180-013A	C20116.D	23:09
14	CHA-1	U0712180-014A	C20117.D	23:47
15	MW-12I	U0712180-015A	C20118.D	0:24

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ___ SAS No.: ___ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ___ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ___ (uL) Soil Aliquot Volume: ___ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19832.D Lab Sample ID: MB

Date Analyzed: 12/12/2007 Time Analyzed: 21:44

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS03	LCS	D19833.D	22:35
02	MW-12D	U0712180-016A	D19839.D	3:38
03	MW-7S	U0712180-017A	D19840.D	4:29
04	MW-71	U0712180-018A	D19841.D	5:19
05	MW-7D	U0712180-019A	D19842.D	6:10
06	ULI TRIP BLANK	U0712180-020A	D19843.D	7:00

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19847.D Lab Sample ID: MB

Date Analyzed: 12/13/2007 Time Analyzed: 10:47

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS04	LCS	D19848.D	11:38
02	MW-14S	U0712180-021C	D19849.D	12:29
03	MW-14I	U0712180-022C	D19850.D	13:20
04	MW-14D	U0712180-023C	D19851.D	14:11
05	MW-15S	U0712180-024C	D19852.D	15:01
06	MW-15I	U0712180-025C	D19853.D	15:52
07	MW-15D	U0712180-026C	D19854.D	16:43
08	ULI TRIP BLANK	U0712180-027A	D19855.D	17:34
09	ULI TRIP LANK	U0712180-028A	D19856.D	18:24
10	ULI TRIP BLANK	U0712180-029A	D19857.D	19:15
11	HOLDING BLANK	U0712180-030A	D19858.D	20:05

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20053.D BFB Injection Date: 12/10/2007

Instrument ID: 12 BFB Injection Time: 10:21

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	29.7
75	30.0 - 66.0% of mass 95	56.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	52.5
175	4.0 - 9.0% of mass 174	3.6 (6.9)1
176	93.0 - 101.0% of mass 174	50.4 (96.0)1
177	5.0 - 9.0% of mass 176	3.0 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	C20054.D	12/10/2007	11:06
02	VSTD010	VSTD010	C20055.D	12/10/2007	11:44
03	VSTD020	VSTD020	C20056.D	12/10/2007	12:21
04	VSTD050	VSTD050	C20057.D	12/10/2007	12:59
05	VSTD100	VSTD100	C20058.D	12/10/2007	13:37
06	VSTD200	VSTD200	C20059.D	12/10/2007	14:15

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Lab File ID: C20082.D BFB Injection Date: 12/11/2007

Instrument ID: 12 BFB Injection Time: 13:09

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	32.6
75	30.0 - 66.0% of mass 95	57.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	51.4
175	4.0 - 9.0% of mass 174	3.6 (7.0)1
176	93.0 - 101.0% of mass 174	51.7 (100.6)1
177	5.0 - 9.0% of mass 176	3.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC01	CC	C20083.D	12/11/2007	13:54
02	VBLK01	MB	C20084.D	12/11/2007	14:47
03	VMBS01	LCS	C20085.D	12/11/2007	15:25
04	MW-1S	U0712180-001A	C20097.D	12/11/2007	23:01
05	MW-1I	U0712180-002A	C20098.D	12/11/2007	23:39
06	MW-1D	U0712180-003A	C20099.D	12/12/2007	0:17
07	VSTD050CC02	CC	C20100.D	12/12/2007	0:55

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20101.D BFB Injection Date: 12/12/2007

Instrument ID: 12 BFB Injection Time: 13:31

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.1
75	30.0 - 66.0% of mass 95	58.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	53.7
175	4.0 - 9.0% of mass 174	4.2 (7.8)1
176	93.0 - 101.0% of mass 174	52.3 (97.4)1
177	5.0 - 9.0% of mass 176	3.4 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC03	CC	C20102.D	12/12/2007	14:18
02	VBLK02	MB	C20103.D	12/12/2007	15:00
03	VMBS02	LCS	C20104.D	12/12/2007	15:39
04	MW-10IMS	U0712180-011AMS	C20105.D	12/12/2007	16:16
05	MW-10IMSD	U0712180-011AMSD	C20106.D	12/12/2007	16:54
06	MW-10I	U0712180-011A	C20107.D	12/12/2007	17:32
07	MW-2S	U0712180-004A	C20108.D	12/12/2007	18:09
08	MW-2I	U0712180-005A	C20109.D	12/12/2007	18:47
09	MW-2D	U0712180-006A	C20110.D	12/12/2007	19:24
10	MW-9S	U0712180-007A	C20111.D	12/12/2007	20:02
11	MW-9I	U0712180-008A	C20112.D	12/12/2007	20:39
12	MW-9D	U0712180-009A	C20113.D	12/12/2007	21:17
13	MW-10S	U0712180-010A	C20114.D	12/12/2007	21:54
14	MW-10D	U0712180-012A	C20115.D	12/12/2007	22:31
15	MW-12S	U0712180-013A	C20116.D	12/12/2007	23:09
16	CHA-1	U0712180-014A	C20117.D	12/12/2007	23:47
17	MW-12I	U0712180-015A	C20118.D	12/13/2007	0:24
18	VSTD050CC04	CC	C20119.D	12/13/2007	1:02

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Lab File ID: D19717.D BFB Injection Date: 12/3/2007

Instrument ID: 13 BFB Injection Time: 10:36

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	24.2
75	30.0 - 66.0% of mass 95	48.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	54.2
175	4.0 - 9.0% of mass 174	4.4 (8.2)1
176	93.0 - 101.0% of mass 174	52.3 (96.5)1
177	5.0 - 9.0% of mass 176	2.9 (5.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-216-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	D19718.D	12/3/2007	13:11
02	VSTD200	VSTD200	D19719.D	12/3/2007	14:11
03	VSTD100	VSTD100	D19720.D	12/3/2007	15:01
04	VSTD020	VSTD020	D19721.D	12/3/2007	15:52
05	VSTD010	VSTD010	D19722.D	12/3/2007	16:44
06	VSTD003	VSTD003	D19723.D	12/3/2007	17:34

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19817.D BFB Injection Date: 12/12/2007

Instrument ID: 13 BFB Injection Time: 9:03

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.3
75	30.0 - 66.0% of mass 95	48.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	50.0 - 120.0% of mass 95	56.1
175	4.0 - 9.0% of mass 174	4.2 (7.4)1
176	93.0 - 101.0% of mass 174	56.2 (100.2)1
177	5.0 - 9.0% of mass 176	4.4 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-217-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC05	CC	D19831.D	12/12/2007	20:53
02	VBLK03	MB	D19832.D	12/12/2007	21:44
03	VMBS03	LCS	D19833.D	12/12/2007	22:35
04	MW-12D	U0712180-016A	D19839.D	12/13/2007	3:38
05	MW-7S	U0712180-017A	D19840.D	12/13/2007	4:29
06	MW-71	U0712180-018A	D19841.D	12/13/2007	5:19
07	MW-7D	U0712180-019A	D19842.D	12/13/2007	6:10
08	ULI TRIP BLANK	U0712180-020A	D19843.D	12/13/2007	7:00
09	VSTD050CC06	CC	D19844.D	12/13/2007	7:50

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Lab File ID: D19845.D BFB Injection Date: 12/13/2007

Instrument ID: 13 BFB Injection Time: 9:06

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.3
75	30.0 - 66.0% of mass 95	47.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	53.6
175	4.0 - 9.0% of mass 174	3.3 (6.1)1
176	93.0 - 101.0% of mass 174	50.3 (94.0)1
177	5.0 - 9.0% of mass 176	2.7 (5.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC07	CC	D19846.D	12/13/2007	9:56
02	VBLK04	MB	D19847.D	12/13/2007	10:47
03	VMBS04	LCS	D19848.D	12/13/2007	11:38
04	MW-14S	U0712180-021C	D19849.D	12/13/2007	12:29
05	MW-14I	U0712180-022C	D19850.D	12/13/2007	13:20
06	MW-14D	U0712180-023C	D19851.D	12/13/2007	14:11
07	MW-15S	U0712180-024C	D19852.D	12/13/2007	15:01
08	MW-15I	U0712180-025C	D19853.D	12/13/2007	15:52
09	MW-15D	U0712180-026C	D19854.D	12/13/2007	16:43
10	ULI TRIP BLANK	U0712180-027A	D19855.D	12/13/2007	17:34
11	ULI TRIP LANK	U0712180-028A	D19856.D	12/13/2007	18:24
12	ULI TRIP BLANK	U0712180-029A	D19857.D	12/13/2007	19:15
13	HOLDING BLANK	U0712180-030A	D19858.D	12/13/2007	20:05
14	VSTD050CC08	CC	D19859.D	12/13/2007	20:55

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20083.D Date Analyzed: 12/11/2007

Instrument ID: 12 Time Analyzed: 13:54

GC Column: RTX-VOLAT ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	297150	7.84	406770	11.18	278079	18.68
	UPPER LIMIT	594300	8.34	813540	11.68	556158	19.18
	LOWER LIMIT	148575	7.34	203385	10.68	139040	18.18
	EPA SAMPLE NO.						
01	VBLK01	311161	7.84	421380	11.17	298669	18.65
02	VMBS01	208486	7.87	283916	11.19	201496	18.65
03	MW-1S	284435	7.87	388267	11.20	272066	18.65
04	MW-1I	274894	7.87	374021	11.19	263097	18.65
05	MW-1D	275692	7.87	378079	11.19	265597	18.65

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20083.D Date Analyzed: 12/11/07

Instrument ID: 12 Time Analyzed: 13:54

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	144343	23.35				
	UPPER LIMIT	288686	22.85				
	LOWER LIMIT	72172	23.85				
	EPA SAMPLE NO.						
01	VBLK01	151985	23.32				
02	VMBS01	103802	23.32				
03	MW-1S	137141	23.32				
04	MW-1I	132157	23.31				
05	MW-1D	133328	23.32				

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20102.D Date Analyzed: 12/12/2007

Instrument ID: 12 Time Analyzed: 14:18

GC Column: RTX-VOLAT ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	302658	7.84	412102	11.17	268685	18.67
	UPPER LIMIT	605316	8.34	824204	11.67	537370	19.17
	LOWER LIMIT	151329	7.34	206051	10.67	134343	18.17
	EPA SAMPLE NO.						
01	VBLK02	311030	7.85	418746	11.17	282920	18.64
02	VMBS02	312382	7.87	425168	11.19	284090	18.64
03	MW-10IMS	297369	7.88	398798	11.20	268574	18.65
04	MW-10IMSD	298019	7.88	405212	11.19	269894	18.65
05	MW-10I	302783	7.87	416544	11.19	276410	18.64
06	MW-2S	294395	7.87	403496	11.19	270246	18.66
07	MW-2I	302340	7.88	411486	11.21	273832	18.65
08	MW-2D	295141	7.89	399421	11.21	266471	18.66
09	MW-9S	291481	7.89	398986	11.20	265357	18.65
10	MW-9I	315709	7.90	436517	11.21	293485	18.66
11	MW-9D	294968	7.89	402357	11.21	270432	18.65
12	MW-10S	290985	7.89	393330	11.20	262594	18.66
13	MW-10D	289567	7.88	392639	11.20	260982	18.64
14	MW-12S	300559	7.88	396523	11.20	264830	18.64
15	CHA-1	300401	7.87	408718	11.19	270691	18.64
16	MW-12I	293876	7.89	401017	11.20	268213	18.65

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20102.D Date Analyzed: 12/12/07

Instrument ID: 12 Time Analyzed: 14:18

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	137726		23.31									
	UPPER LIMIT	275452		22.81									
	LOWER LIMIT	68863		23.81									
	EPA SAMPLE NO.												
01	VBLK02	139425		23.31									
02	VMBS02	139622		23.31									
03	MW-10IMS	131772		23.32									
04	MW-10IMSD	134119		23.32									
05	MW-10I	136199		23.31									
06	MW-2S	133250		23.31									
07	MW-2I	133991		23.32									
08	MW-2D	129398		23.33									
09	MW-9S	129692		23.33									
10	MW-9I	142541		23.33									
11	MW-9D	132880		23.31									
12	MW-10S	127613		23.32									
13	MW-10D	126367		23.31									
14	MW-12S	128552		23.31									
15	CHA-1	132494		23.30									
16	MW-12I	131054		23.32									

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19831.D Date Analyzed: 12/12/2007

Instrument ID: 13 Time Analyzed: 20:53

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	418828	17.21	543674	19.28	415935	27.81
	UPPER LIMIT	837656	17.71	1087348	19.78	831870	28.31
	LOWER LIMIT	209414	16.71	271837	18.78	207968	27.31
	EPA SAMPLE NO.						
01	VBLK03	425901	17.23	547673	19.29	420507	27.82
02	VMBS03	418354	17.20	547859	19.28	416293	27.81
03	MW-12D	414889	17.22	539952	19.26	414058	27.82
04	MW-7S	411922	17.22	530433	19.25	416378	27.82
05	MW-71	415930	17.24	545204	19.28	419086	27.84
06	MW-7D	406206	17.25	526109	19.29	408034	27.84
07	ULI TRIP BLANK	401203	17.30	523606	19.35	412879	27.92

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19831.D Date Analyzed: 12/12/07

Instrument ID: 13 Time Analyzed: 20:53

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	214601		35.28									
	UPPER LIMIT	429202		34.78									
	LOWER LIMIT	107301		35.78									
	EPA SAMPLE NO.												
01	VBLK03	196659		35.29									
02	VMBS03	201630		35.27									
03	MW-12D	197439		35.31									
04	MW-7S	194309		35.32									
05	MW-71	202784		35.34									
06	MW-7D	202503		35.36									
07	ULI TRIP BLA	194790		35.42									

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19846.D Date Analyzed: 12/13/2007

Instrument ID: 13 Time Analyzed: 9:56

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	426090	17.38	557117	19.40	416925	27.99
	UPPER LIMIT	852180	17.88	1114234	19.90	833850	28.49
	LOWER LIMIT	213045	16.88	278559	18.90	208463	27.49
	EPA SAMPLE NO.						
01	VBLK04	417497	17.44	545786	19.49	415082	28.11
02	VMBS04	407667	17.40	531436	19.43	415052	28.07
03	MW-14S	413471	17.50	536529	19.53	418838	28.15
04	MW-14I	402763	17.47	512711	19.49	420756	28.11
05	MW-14D	406667	17.52	529626	19.55	418541	28.15
06	MW-15S	411328	17.50	528736	19.53	419700	28.17
07	MW-15I	391140	17.50	488763	19.50	411161	28.11
08	MW-15D	406356	17.48	525600	19.51	418005	28.10
09	ULI TRIP BLANK	407347	17.51	541376	19.54	420335	28.15
10	ULI TRIP LANK	425848	17.52	545944	19.56	425609	28.14
11	ULI TRIP BLANK	426728	17.54	548397	19.56	423526	28.18
12	HOLDING BLANK	418206	17.53	540650	19.57	419520	28.17

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19846.D Date Analyzed: 12/13/07

Instrument ID: 13 Time Analyzed: 09:56

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	215308	35.55				
	UPPER LIMIT	430616	35.05				
	LOWER LIMIT	107654	36.05				
	EPA SAMPLE NO.						
01	VBLK04	198632	35.67				
02	VMBS04	203558	35.64				
03	MW-14S	199253	35.71				
04	MW-14I	199695	35.68				
05	MW-14D	208059	35.72				
06	MW-15S	206437	35.75				
07	MW-15I	206050	35.67				
08	MW-15D	206610	35.67				
09	ULI TRIP BLA	202942	35.71				
10	ULI TRIP LAN	197693	35.69				
11	ULI TRIP BLA	204429	35.75				
12	HOLDING BL	204525	35.74				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sample Data

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Upstate Laboratories, Inc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20097.D
Acq On : 11 Dec 2007 11:01 pm
Sample : U0712180-001A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:46 2007

Vial: 16
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	284435	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.20	114	388267	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.65	117	272066	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.32	152	137141	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.31	65	167456	51.03 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	102.06%	
49) Toluene-d8	15.43	98	315790	50.34 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.68%	
54) Bromofluorobenzene	21.10	95	300522	50.12 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	100.24%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

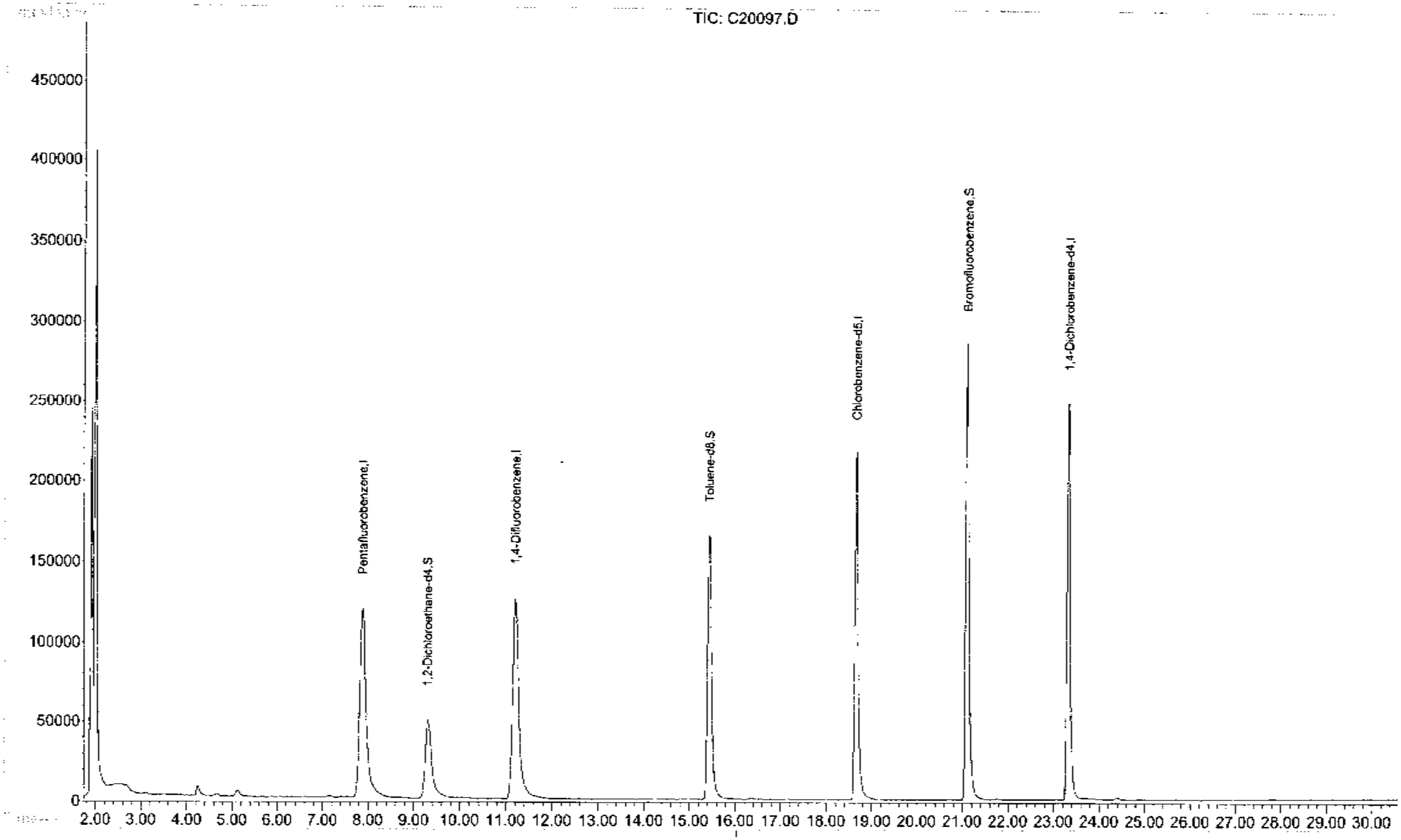
Quantitation Report

Data File : D:\DATA\C20097.D
Acq On : 11 Dec 2007 11:01 pm
Sample : U0712180-001A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:46 2007

Vial: 16
Operator: MM
Inst : #12
Multiplr: 1.00

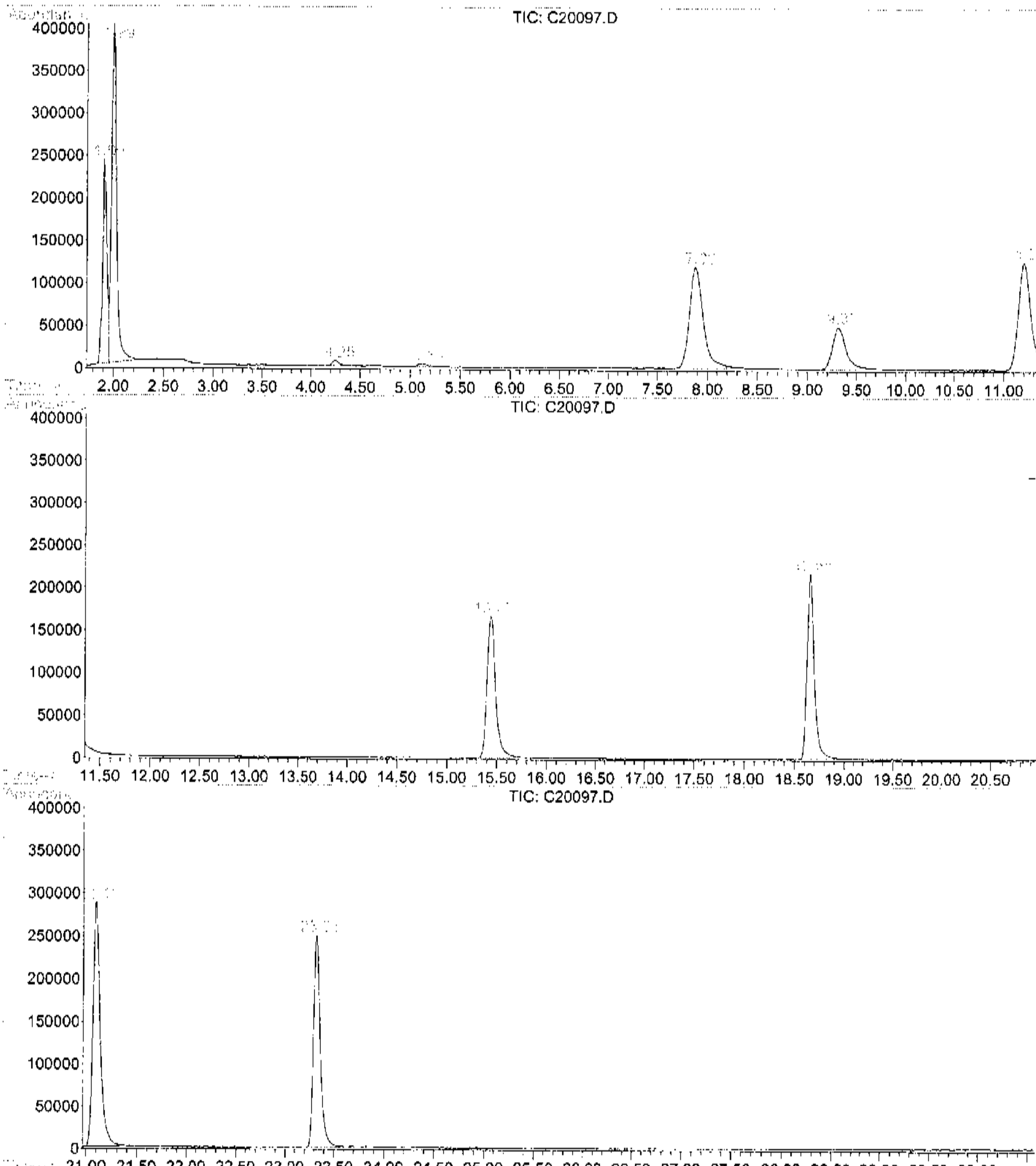
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20097.D
Operator : MM
Acquired : 11 Dec 2007 11:01 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-001A
Misc Info : 5ML
Vial Number: 16
Quant File :TEST1210.RES (RTE Integrator)



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C20097.D TEST1210.M Wed Dec 12 09:15:55 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	2	J
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20098.D
Acq On : 11 Dec 2007 11:39 pm
Sample : U0712180-002A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:47 2007

Vial: 17
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	274894	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.19	114	374021	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.65	117	263097	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	132157	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.30	65	164194	51.78 ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery =	103.56%	
49) Toluene-d8	15.43	98	306946	50.80 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	101.60%	
54) Bromofluorobenzene	21.08	95	291007	50.39 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	100.78%	
Target Compounds					Qvalue
16) Carbon Disulfide	4.24	76	13424	1.97 ug/L	100

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(#) = qualifier out of range (m) = manual integration
C20098.D TEST1210.M Wed Dec 12 08:52:37 2007 12.0

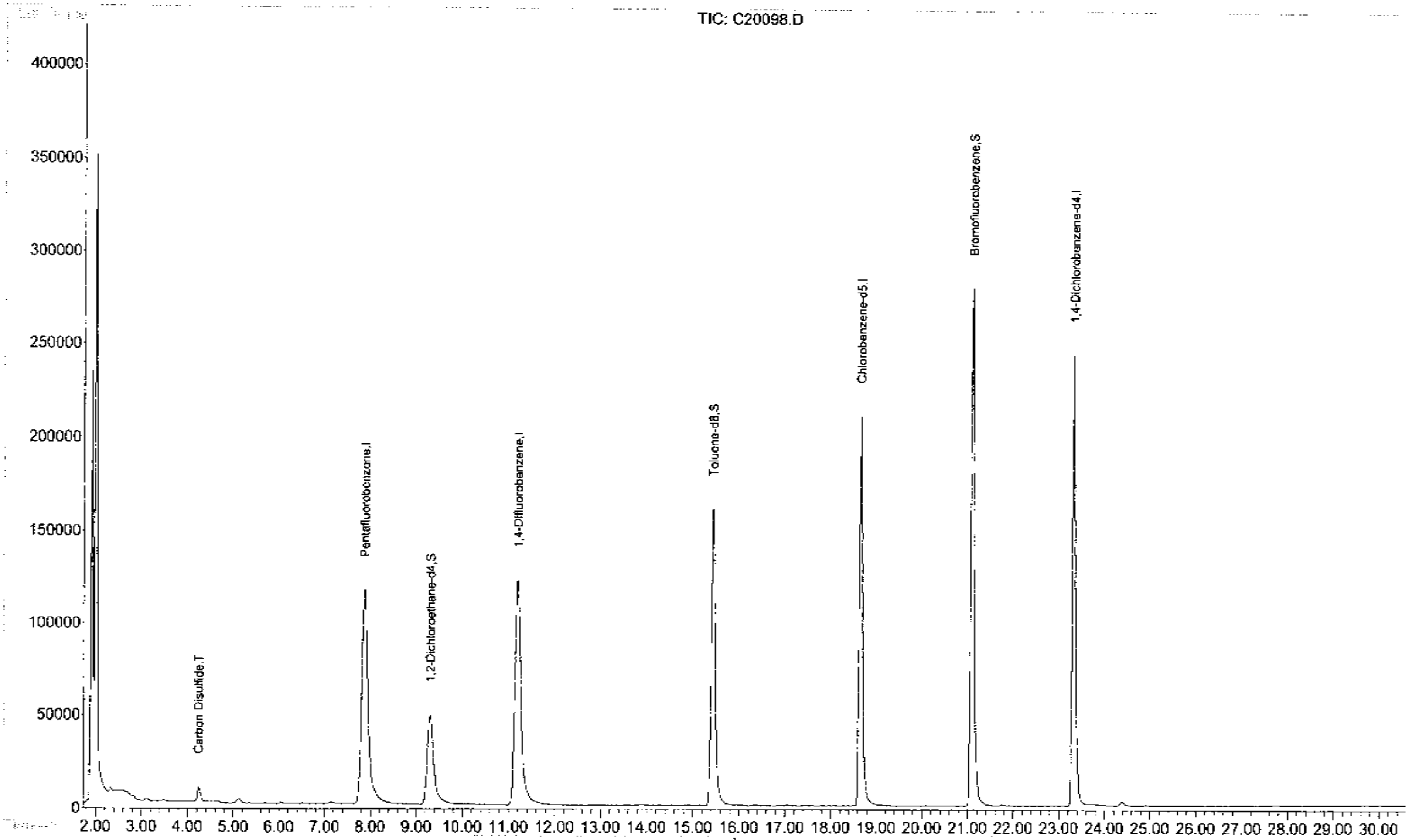
Quantitation Report

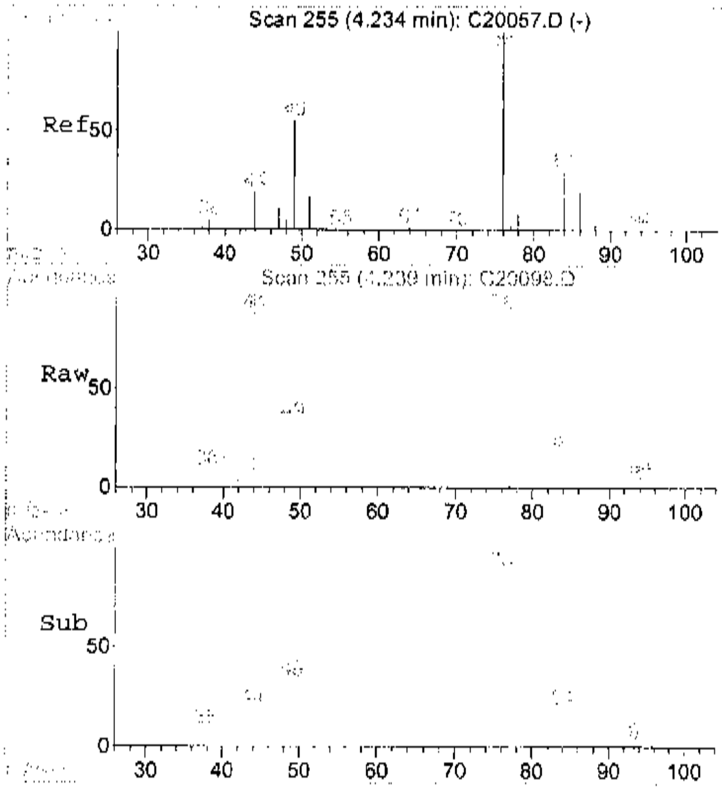
Data File : D:\DATA\C20098.D
Acq On : 11 Dec 2007 11:39 pm
Sample : U0712180-002A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:47 2007

Vial: 17
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

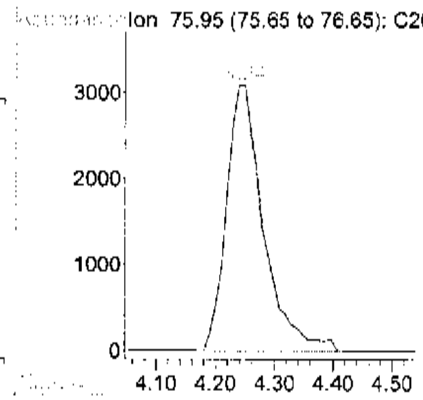
Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration





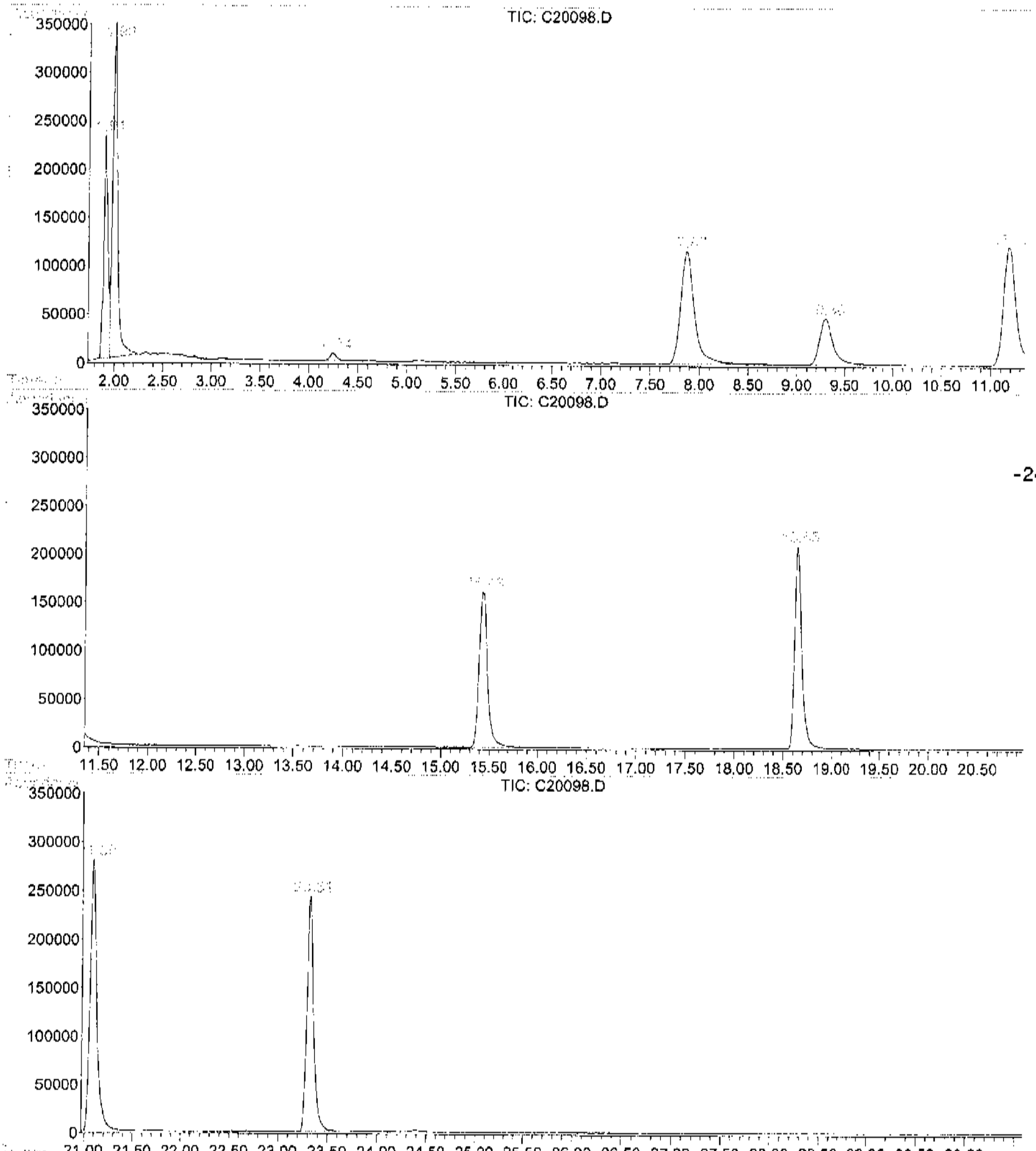
#16
Carbon Disulfide
Concen: 1.97 ug/L
RT: 4.24 min Scan# 255
Delta R.T. 0.01 min
Lab File: C20098.D
Acq: 11 Dec 2007 11:39 pm

Tgt Ion: 76 Resp: 13424



LSC Report - Integrated Chromatogram

File : D:\DATA\C20098.D
Operator : MM
Acquired : 11 Dec 2007 11:39 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-002A
Misc Info : 5ML
Vial Number: 17
Quant File :TEST1210.RES (RTE Integrator)



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C20098.D TEST1210.M Wed Dec 12 09:16:09 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20099.D
Acq On : 12 Dec 2007 12:17 am
Sample : U0712180-003A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:48 2007

Vial: 18
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	275692	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.19	114	378079	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.65	117	265597	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.32	152	133328	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.29	65	162050	50.95 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 101.90%		
49) Toluene-d8	15.43	98	307763	50.39 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.78%		
54) Bromofluorobenzene	21.08	95	293262	50.23 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 100.46%		

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

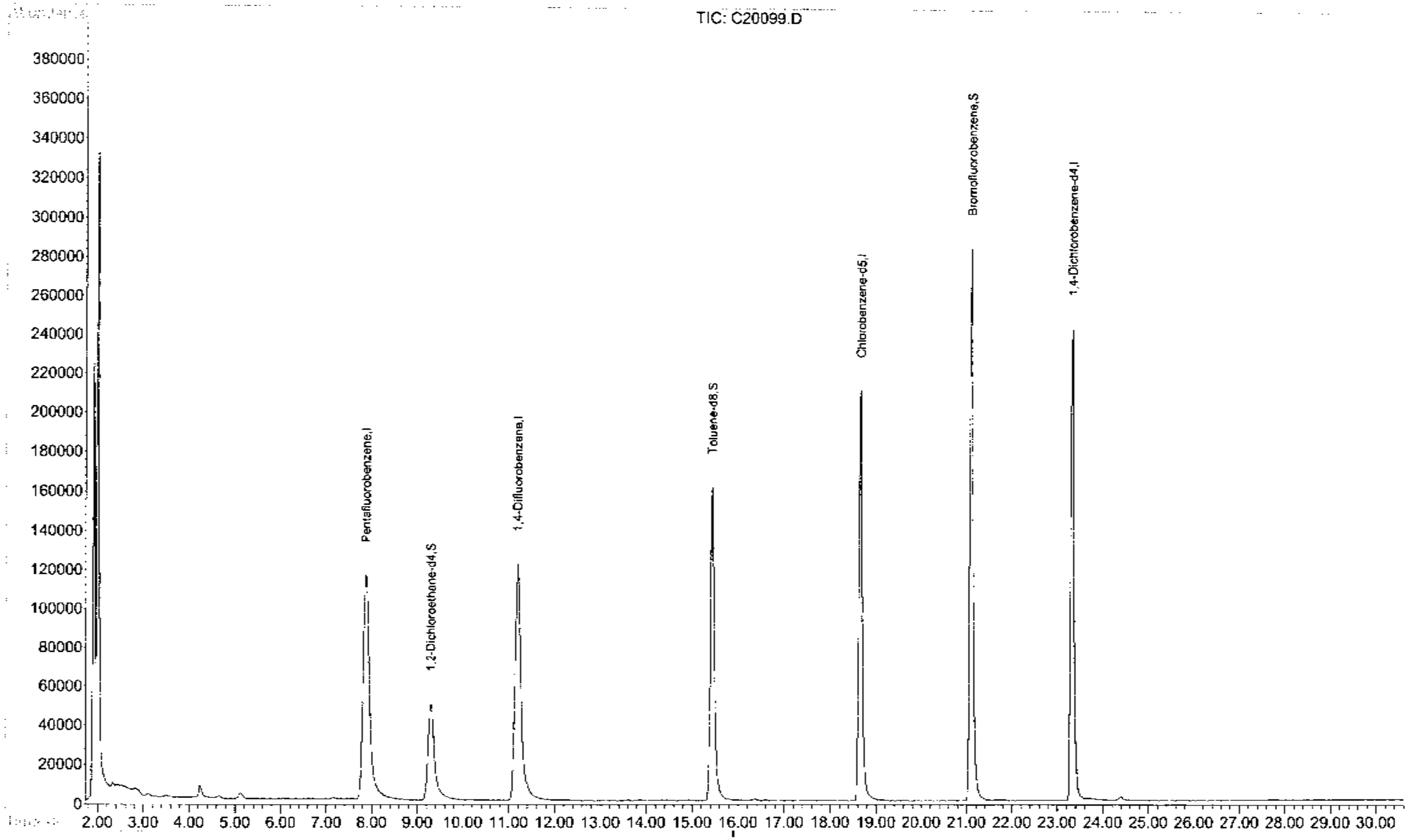
Quantitation Report

Data File : D:\DATA\C20099.D
Acq On : 12 Dec 2007 12:17 am
Sample : U0712180-003A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:48 2007

Vial: 18
Operator: MM
Inst : #12
Multiplr: 1.00

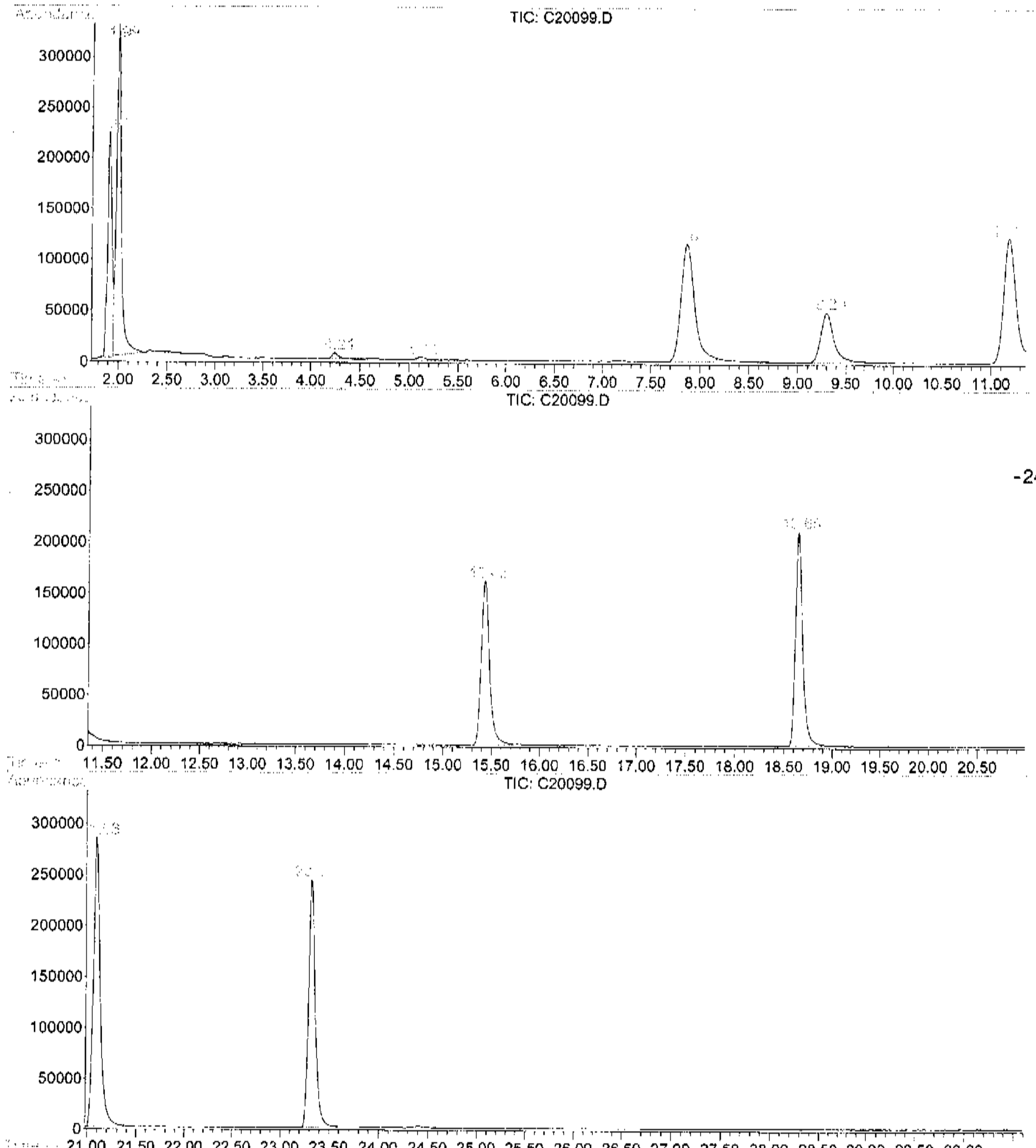
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20099.D
Operator : MM
Acquired : 12 Dec 2007 12:17 am using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-003A
Misc Info : 5ML
Vial Number: 18
Quant File :TEST1210.RES (RTE Integrator)



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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ____ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20108.D
Acq On : 12 Dec 2007 6:09 pm
Sample : U0712180-004A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:20 2007

Vial: 8
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	294395	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.19	114	403496	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.66	117	270246	50.00 ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.31	152	133250	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.31	65	167567	49.34 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	98.68%	
49) Toluene-d8	15.44	98	324595	49.79 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.58%	
54) Bromofluorobenzene	21.09	95	292843	47.00 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	94.00%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

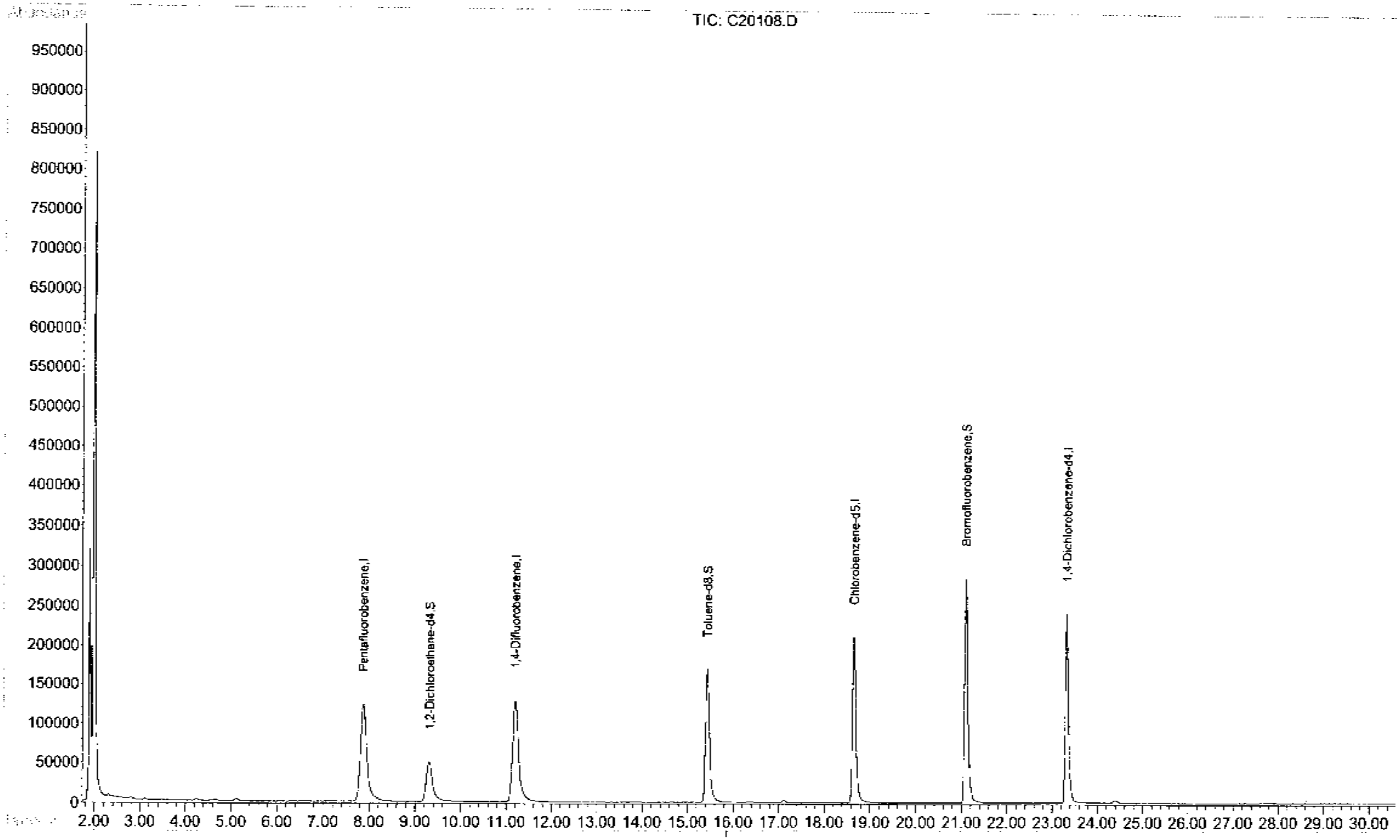
Quantitation Report

Data File : D:\DATA\C20108.D
Acq On : 12 Dec 2007 6:09 pm
Sample : U0712180-004A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:20 2007

Vial: 8
Operator: MM
Inst : #12
Multiplr: 1.00

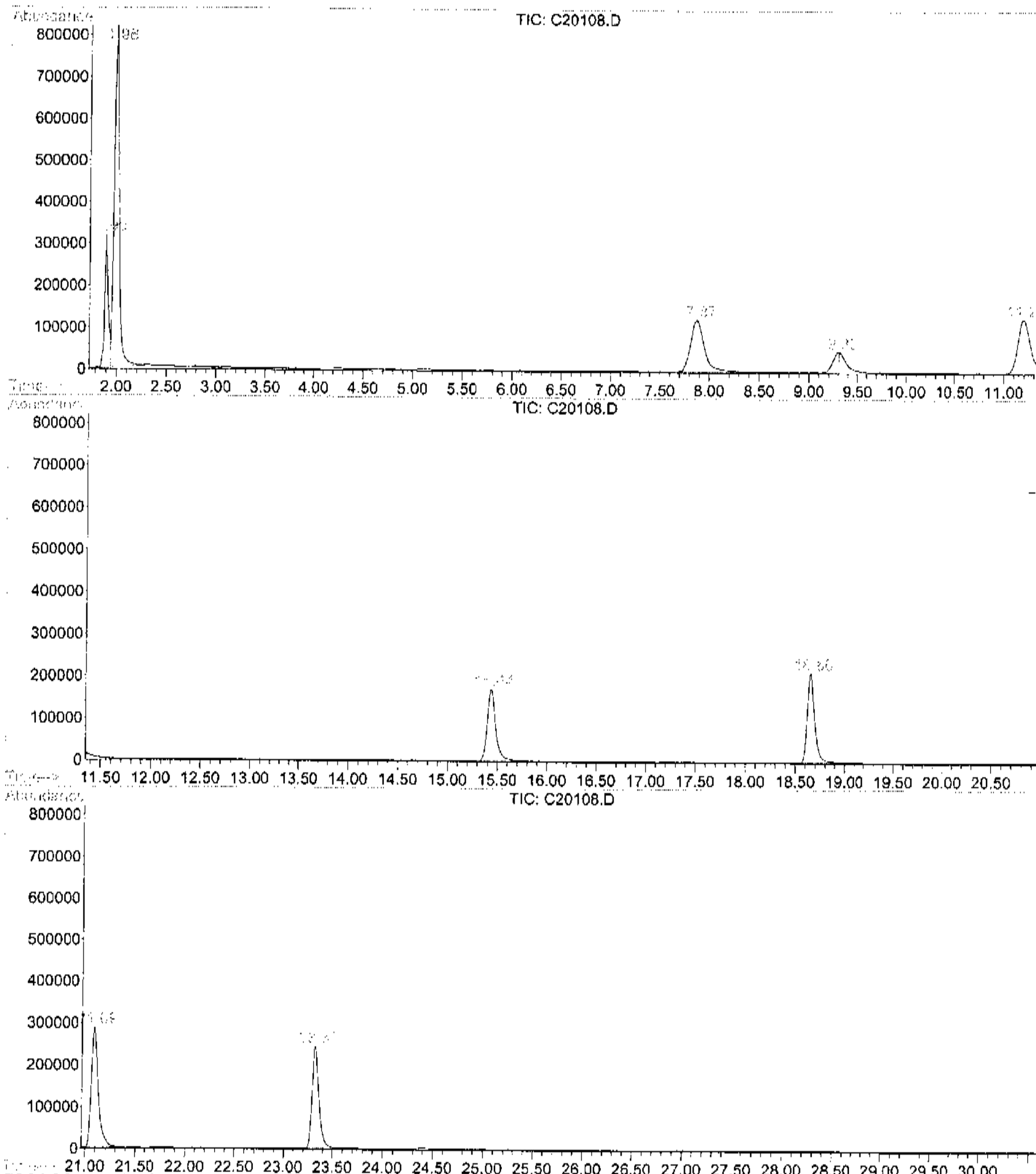
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20108.D
Operator : MM
Acquired : 12 Dec 2007 6:09 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-004A
Misc Info : 5ML
Vial Number: 8
Quant File :TEST1210.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20109.D
Acq On : 12 Dec 2007 6:47 pm
Sample : U0712180-005A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:21 2007

Vial: 9
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	302340	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.21	114	411486	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.65	117	273832	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.32	152	133991	50.00 ug/L	0.01

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.32	65	172329	49.41 ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery =	98.82%	
49) Toluene-d8	15.44	98	332059	49.95 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.90%	
54) Bromofluorobenzene	21.09	95	295799	46.55 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	93.10%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

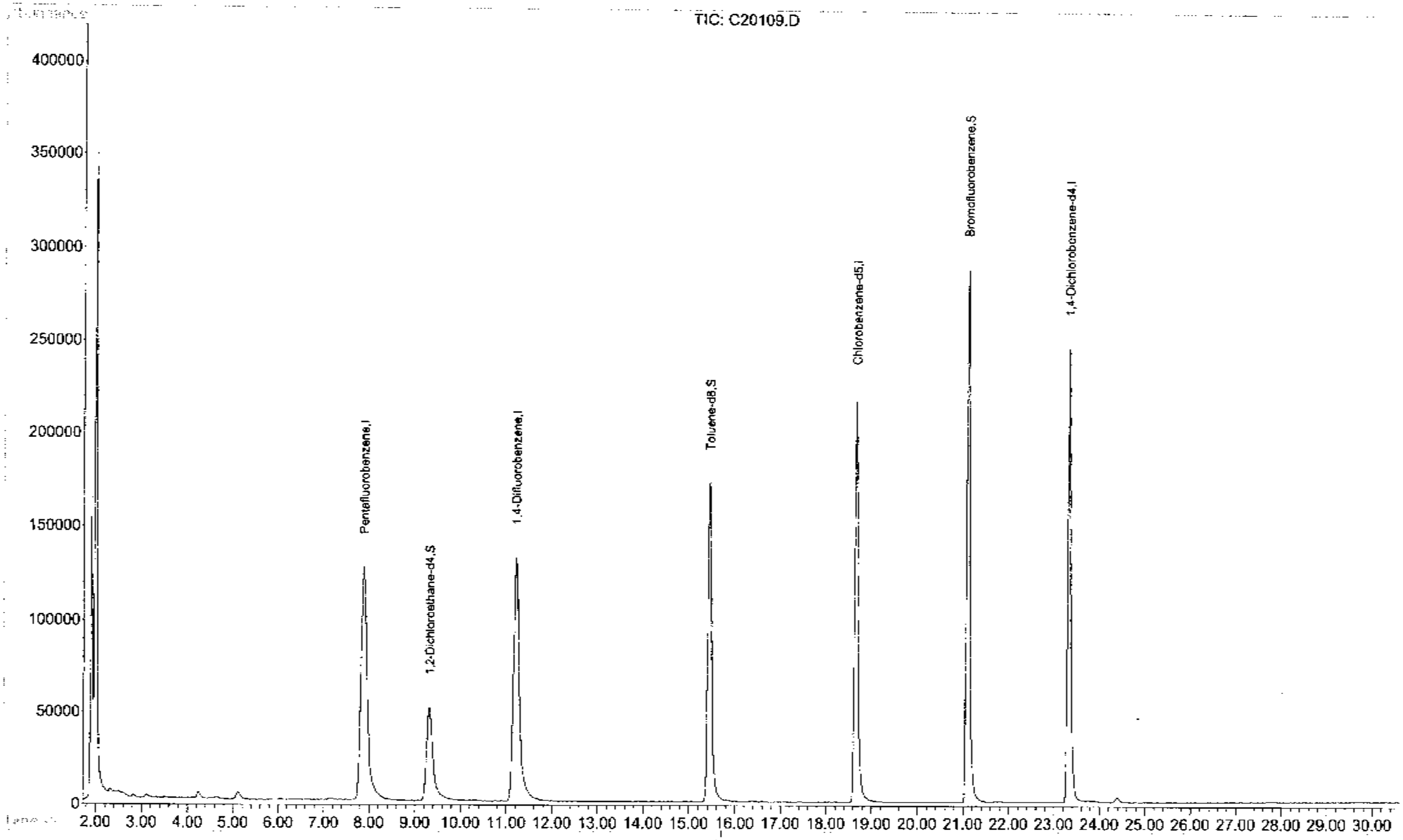
Quantitation Report

Data File : D:\DATA\C20109.D
Acq On : 12 Dec 2007 6:47 pm
Sample : U0712180-005A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:21 2007

Vial: 9
Operator: MM
Inst : #12
Multiplr: 1.00

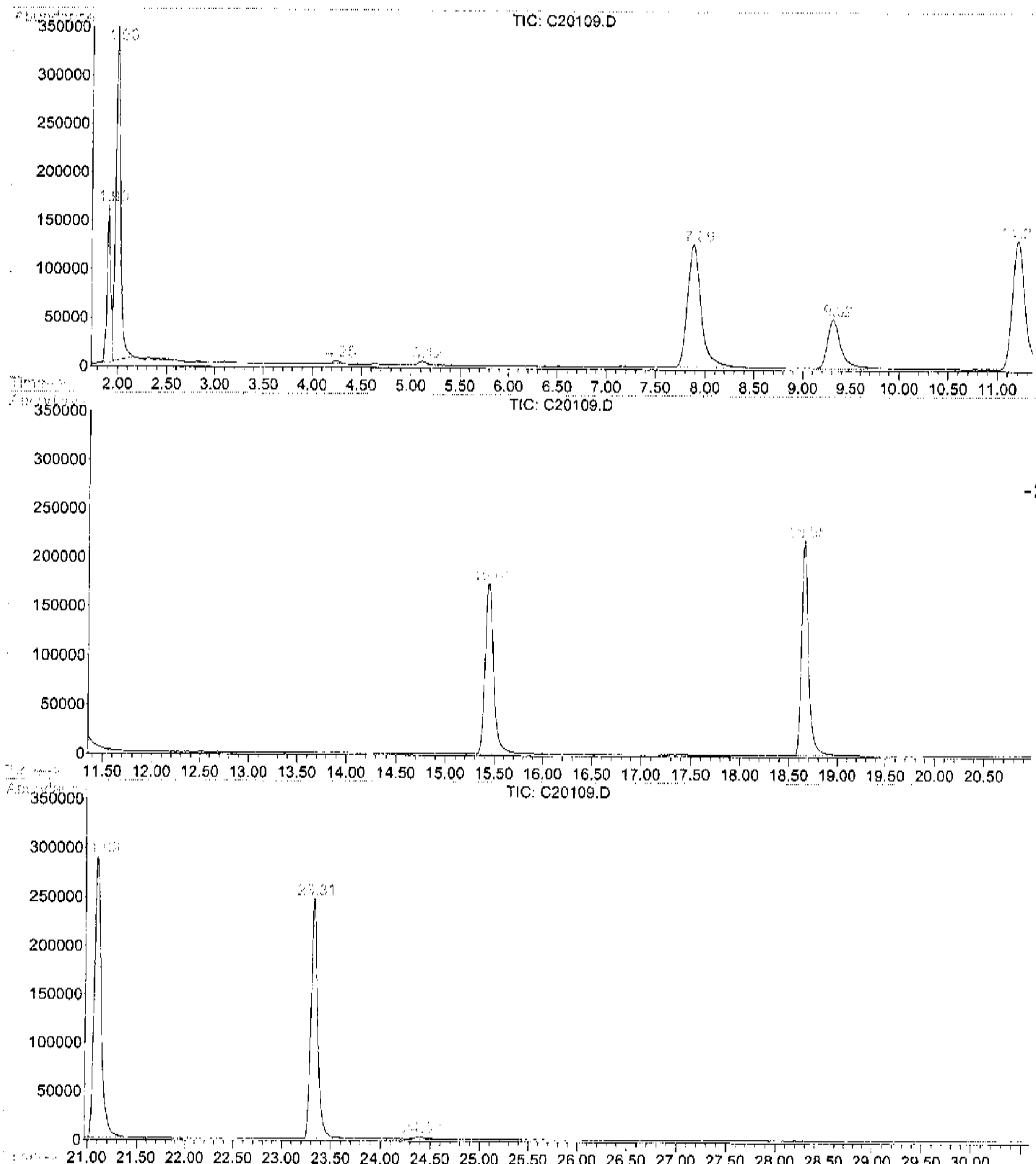
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20109.D
Operator : MM
Acquired : 12 Dec 2007 6:47 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-005A
Misc Info : 5ML
Vial Number: 9
Quant File :TEST1210.RES (RTE Integrator)



C20109.D TEST1210.M Thu Dec 13 13:18:21 2007 12.0

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20110.D
Acq On : 12 Dec 2007 7:24 pm
Sample : U0712180-006A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:22 2007

Vial: 10
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	295141	50.00 ug/L	0.03
35) 1,4-Difluorobenzene	11.21	114	399421	50.00 ug/L	0.03
55) Chlorobenzene-d5	18.66	117	266471	50.00 ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.33	152	129398	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.32	65	165820	48.70 ug/L	0.04
Spiked Amount 50.000	Range 76 - 114		Recovery = 97.40%		
49) Toluene-d8	15.45	98	323345	50.11 ug/L	0.03
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.22%		
54) Bromofluorobenzene	21.10	95	286131	46.39 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery = 92.78%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
C20110.D TEST1210.M Thu Dec 13 13:11:38 2007 12.0

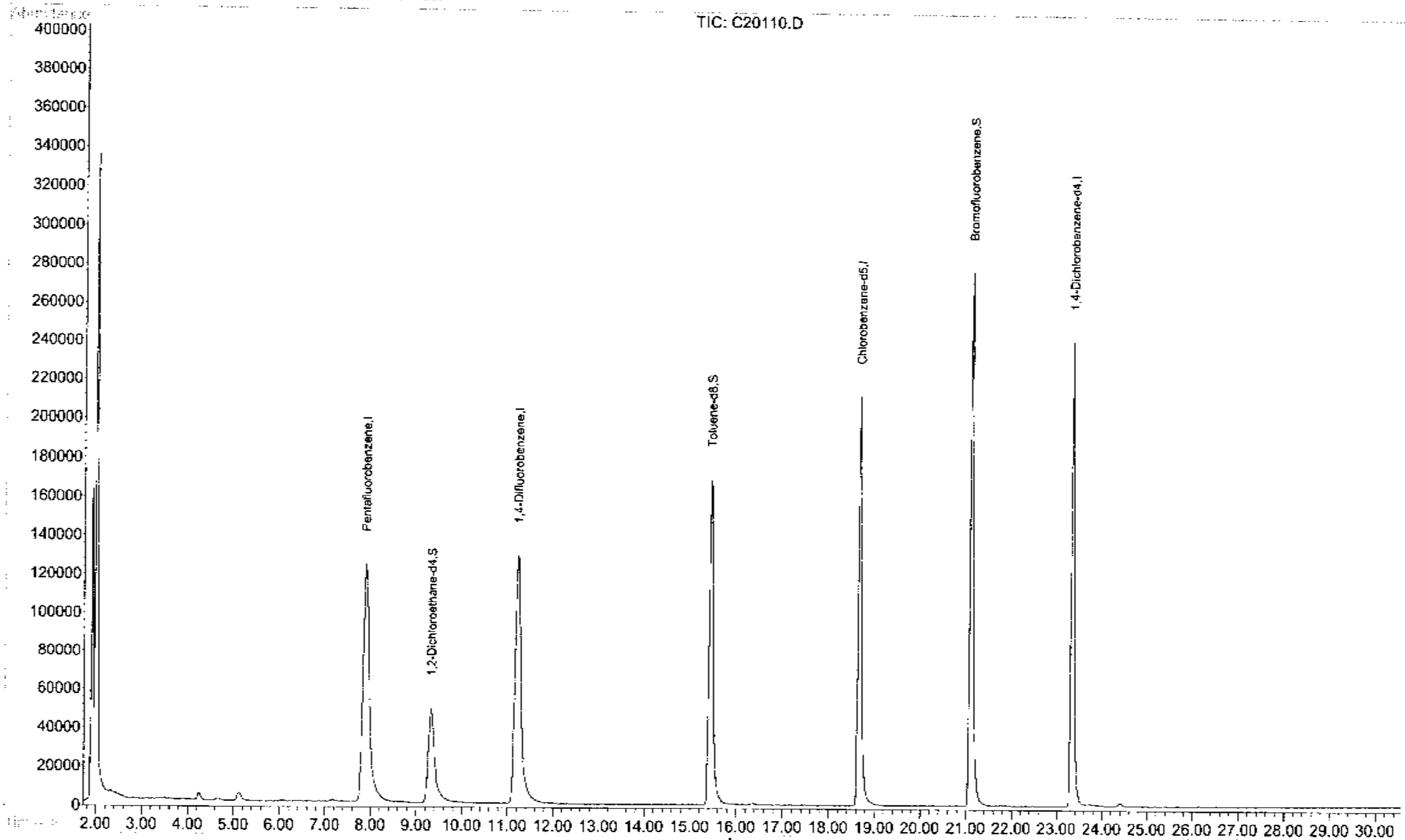
Quantitation Report

Data File : D:\DATA\C20110.D
Acq On : 12 Dec 2007 7:24 pm
Sample : U0712180-006A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:22 2007

Vial: 10
Operator: MM
Inst : #12
Multiplr: 1.00

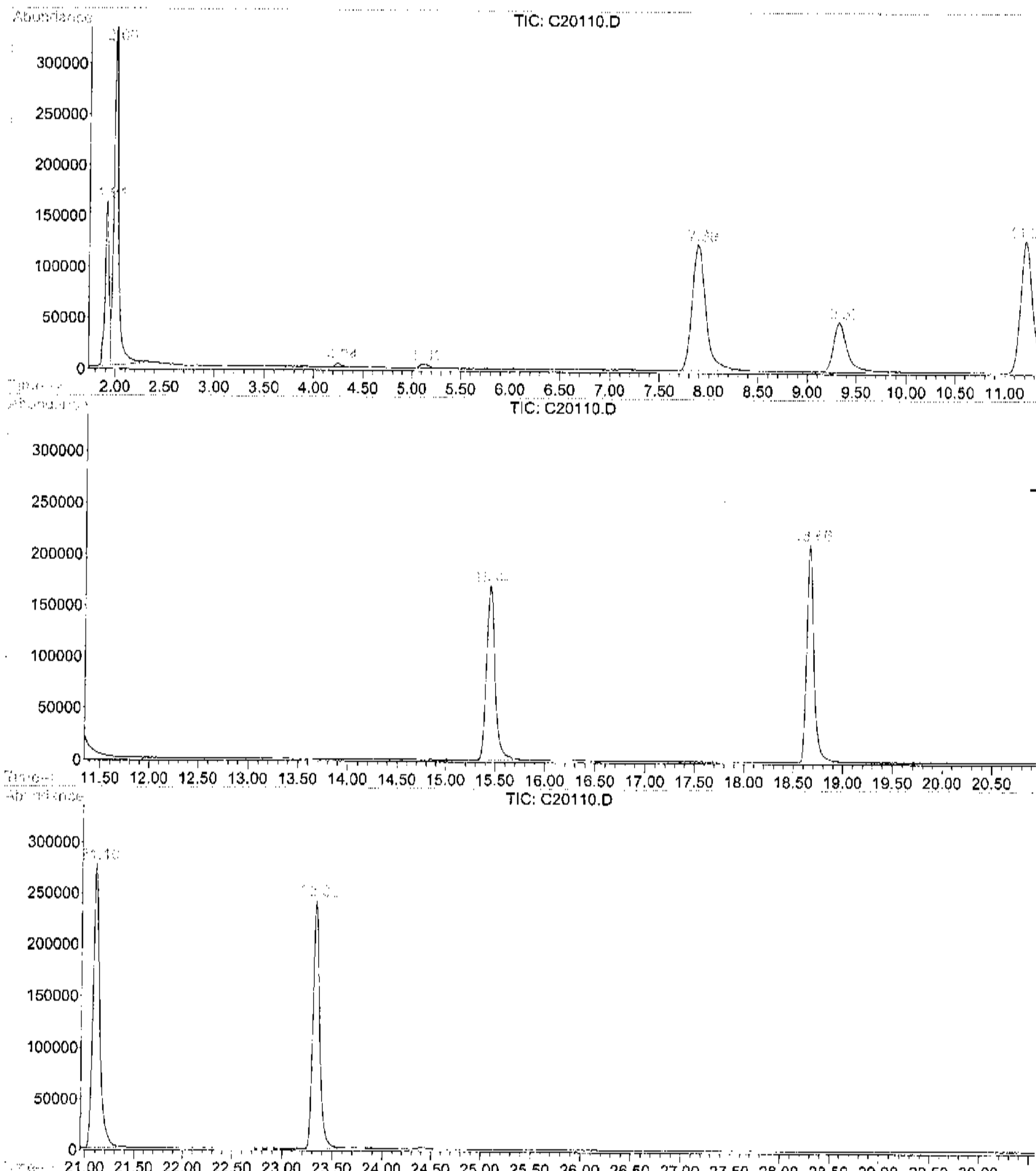
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20110.D
Operator : MM
Acquired : 12 Dec 2007 7:24 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-006A
Misc Info : 5ML
Vial Number: 10
Quant File :TEST1210.RES (RTE Integrator)



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C20110.D TEST1210.M Thu Dec 13 13:18:35 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20111.D
Acq On : 12 Dec 2007 8:02 pm
Sample : U0712180-007A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:22 2007

Vial: 11
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	291481	50.00 ug/L	0.03
35) 1,4-Difluorobenzene	11.20	114	398986	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.65	117	265357	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.33	152	129692	50.00 ug/L	0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.32	65	161771	48.11 ug/L	0.04
Spiked Amount 50.000	Range 76 - 114		Recovery = 96.22%		
49) Toluene-d8	15.44	98	320712	49.75 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.50%		
54) Bromofluorobenzene	21.09	95	282643	45.87 ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery = 91.74%		

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

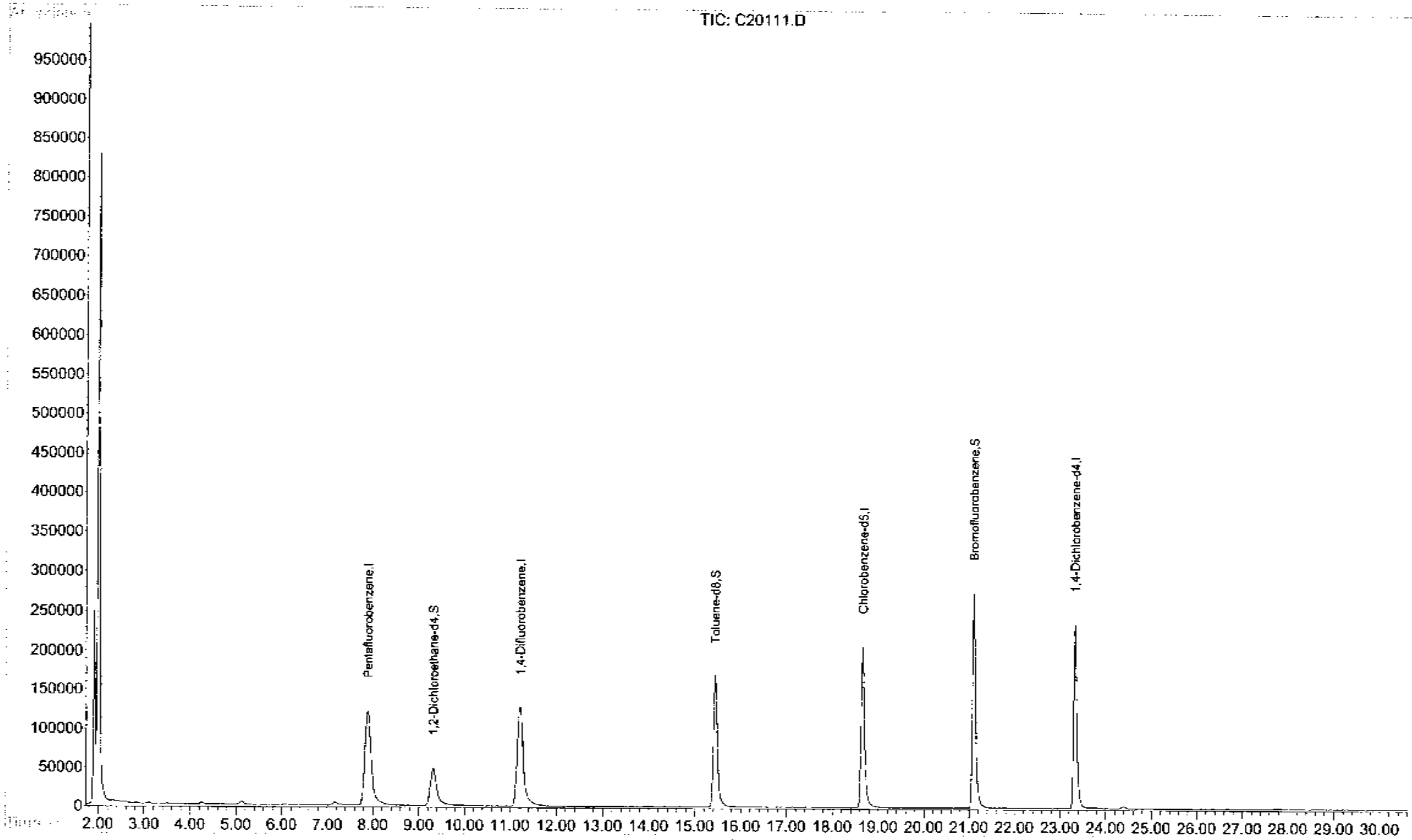
Quantitation Report

Data File : D:\DATA\C20111.D
Acq On : 12 Dec 2007 8:02 pm
Sample : U0712180-007A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:22 2007

Vial: 11
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\C20111.D
Operator    : MM
Acquired    : 12 Dec 2007   8:02 pm using AcqMethod TEST1210
Instrument  :    #12
Sample Name: U0712180-007A
Misc Info   : 5ML
Vial Number: 11
Quant File :TEST1210.RES (RTE Integrator)
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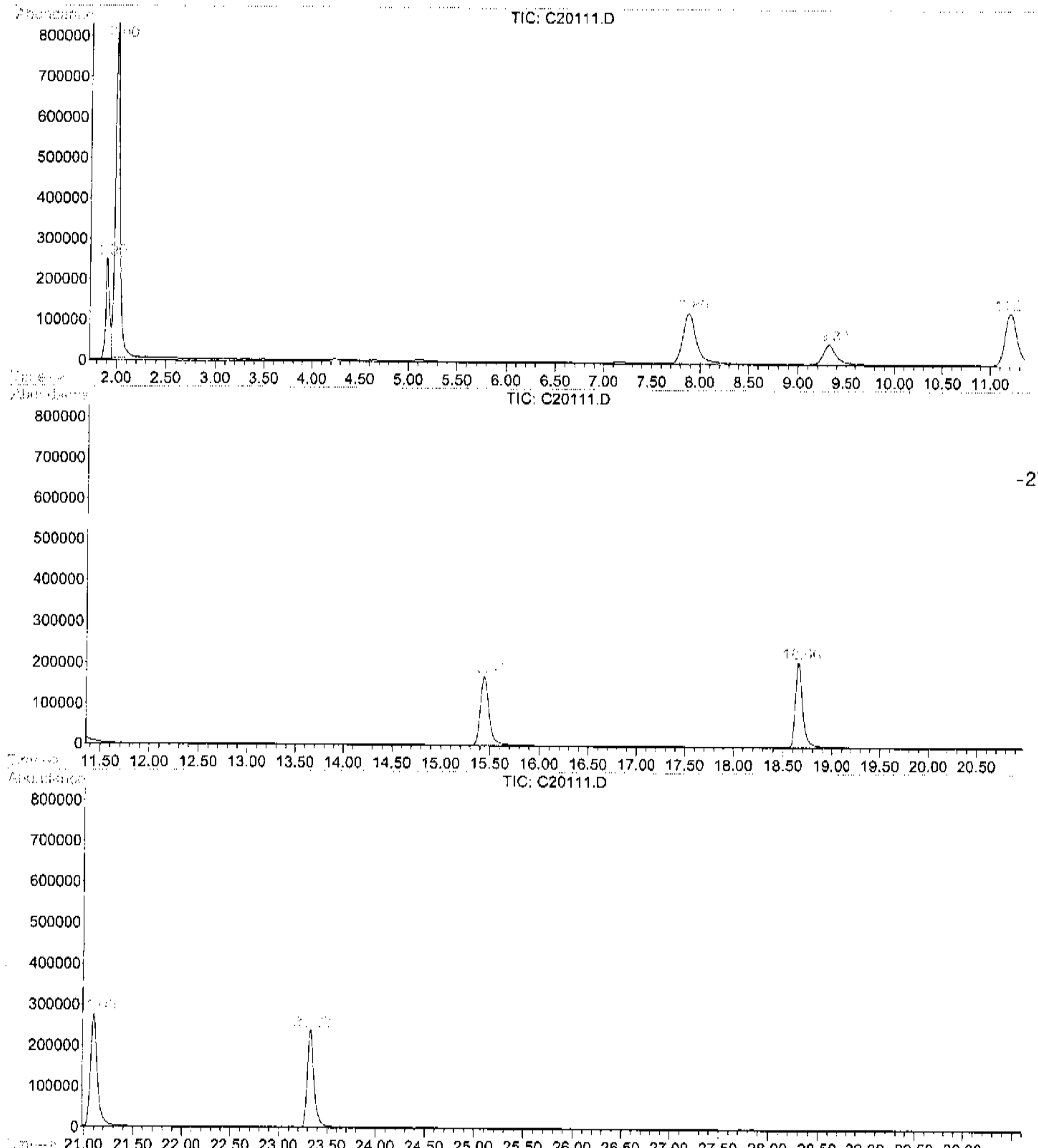

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	2	J
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	2	J
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	3.39	7	JN

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20112.D
Acq On : 12 Dec 2007 8:39 pm
Sample : U0712180-008A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:23 2007

Vial: 12
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.90	168	315709	50.00	ug/L	0.04
35) 1,4-Difluorobenzene	11.21	114	436517	50.00	ug/L	0.03
55) Chlorobenzene-d5	18.66	117	293485	50.00	ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.33	152	142541	50.00	ug/L	0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.32	65	180863	49.66	ug/L	0.04
Spiked Amount 50.000	Range 76 - 114		Recovery =	99.32%		
49) Toluene-d8	15.44	98	352968	50.05	ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.10%		
54) Bromofluorobenzene	21.09	95	311894	46.27	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.54%		
Target Compounds						Qvalue
21) 1,1-Dichloroethane	5.45	63	13988	2.48	ug/L	90
38) Benzene	9.79	78	16716	2.23	ug/L	100

(#) = qualifier out of range (m) = manual integration

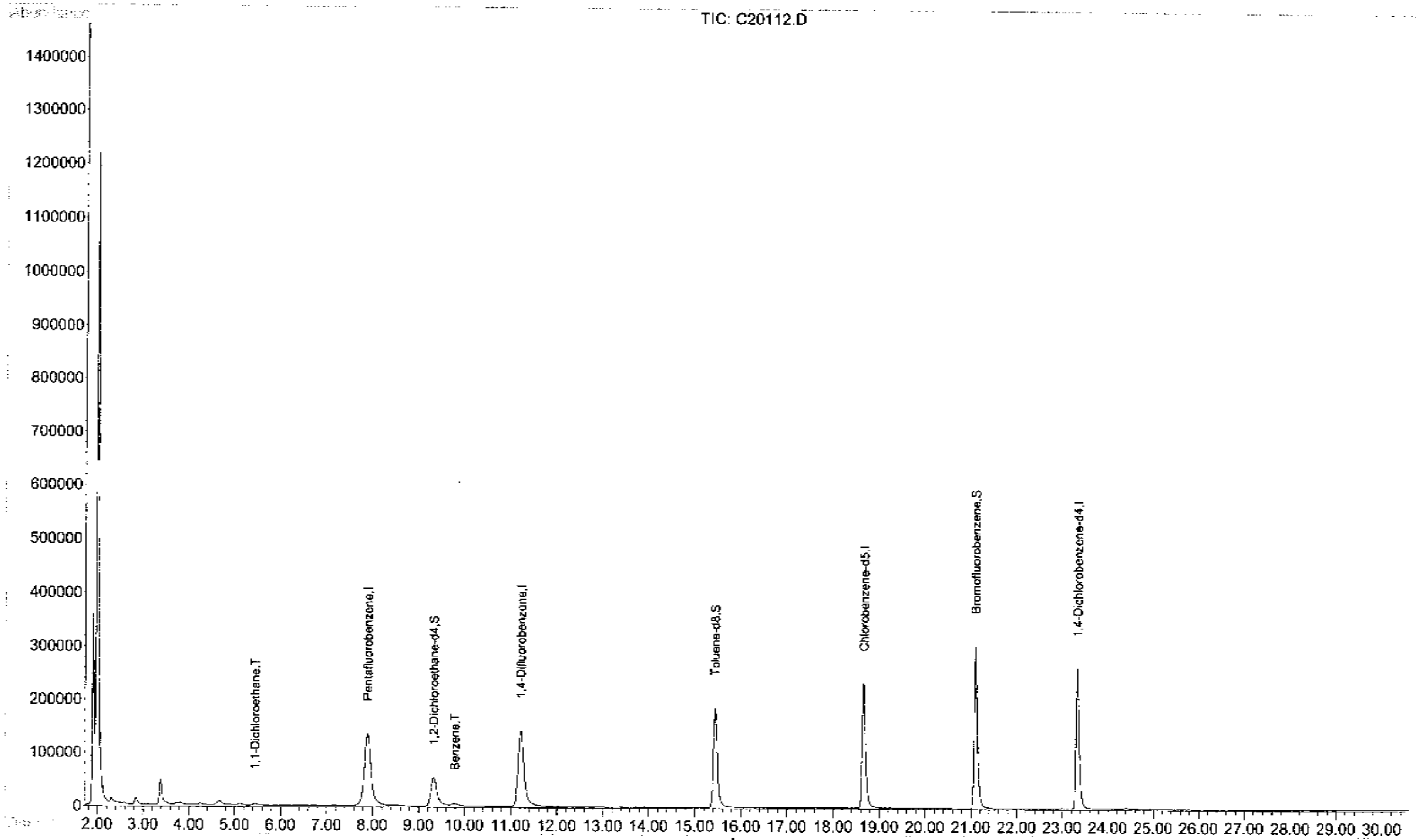
Quantitation Report

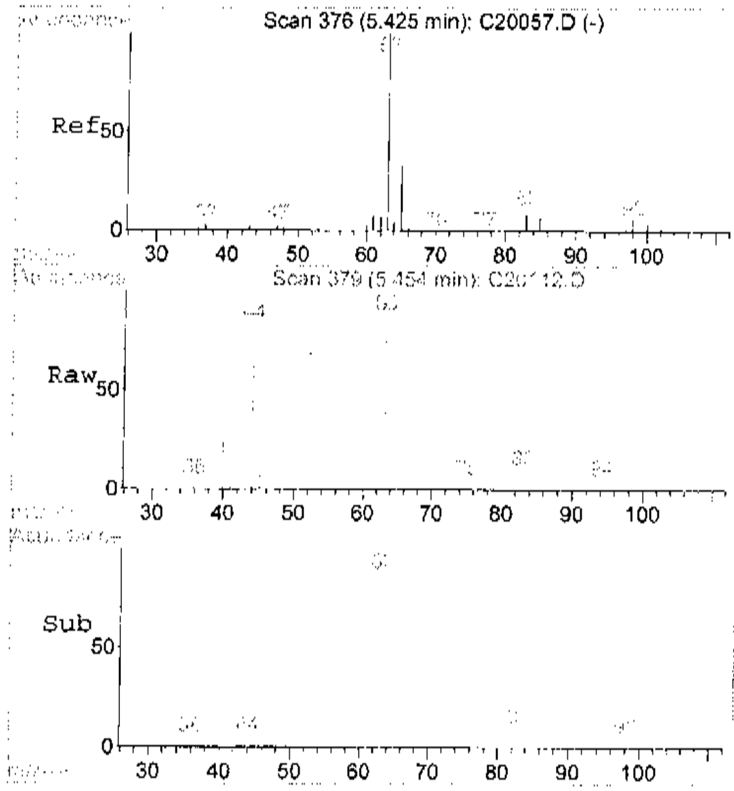
Data File : D:\DATA\C20112.D
Acq On : 12 Dec 2007 8:39 pm
Sample : U0712180-008A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:23 2007

Vial: 12
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration

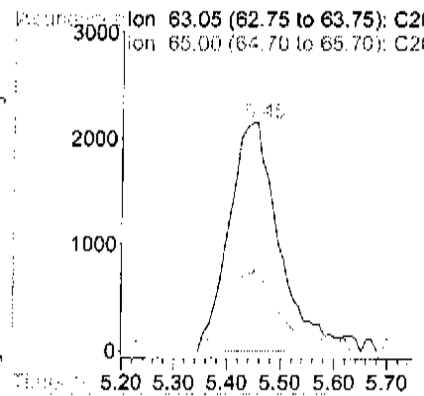


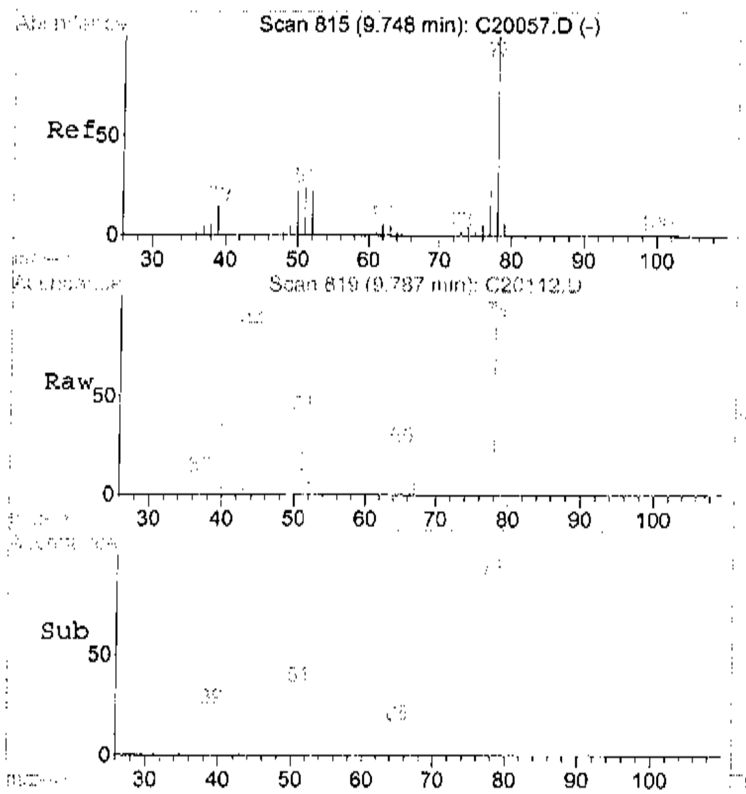


#21
1,1-Dichloroethane
Concen: 2.48 ug/L
RT: 5.45 min Scan# 379
Delta R.T. 0.03 min
Lab File: C20112.D
Acq: 12 Dec 2007 8:39 pm

Tgt Ion: 63 Resp: 13988

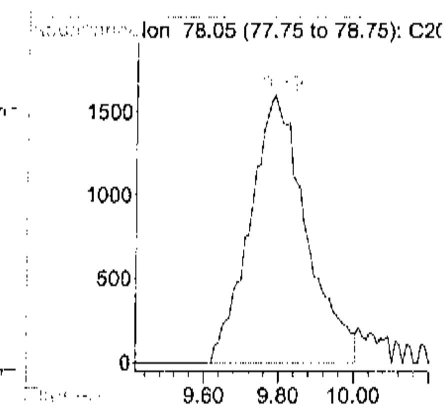
Ion	Ratio	Lower	Upper
63	100		
65	38.2	2.1	62.1
83	8.7	0.0	40.8





#38
Benzene
Concen: 2.23 ug/L
RT: 9.79 min Scan# 819
Delta R.T. 0.04 min
Lab File: C20112.D
Acq: 12 Dec 2007 8:39 pm

Tgt Ion: 78 Resp: 16716



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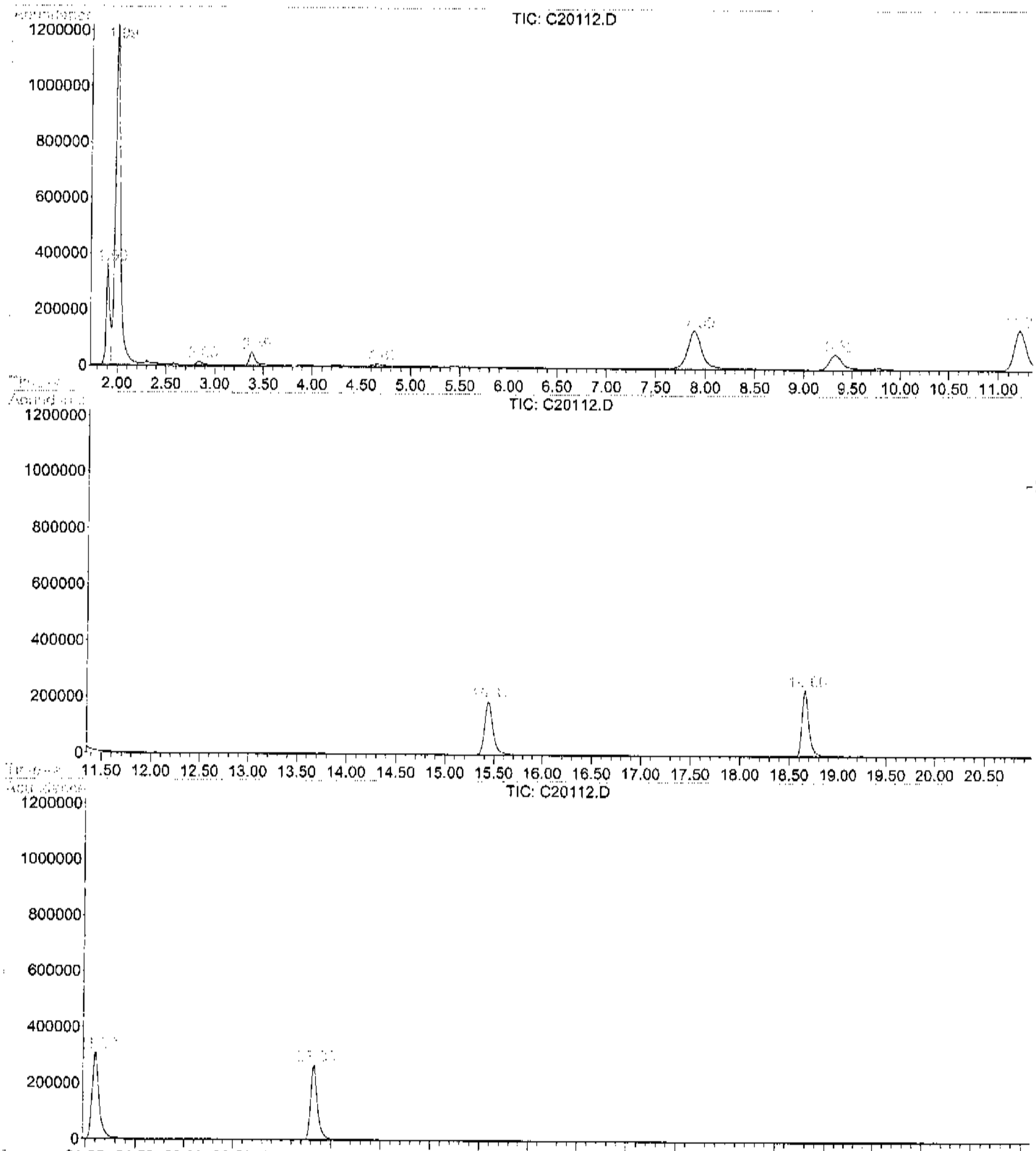
LSC Report - Integrated Chromatogram

File : D:\DATA\C20112.D
Operator : MM
Acquired : 12 Dec 2007 8:39 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-008A
Misc Info : 5ML
Vial Number: 12
Quant File :TEST1210.RES (RTE Integrator)



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Library Search Compound Report

Data File : D:\DATA\C20112.D
Acq On : 12 Dec 2007 8:39 pm
Sample : U0712180-008A
Misc : 5ML
MS Integration Params: LSCINT.P

Vial: 12
Operator: MM
Inst : #12
Multiplr: 1.00

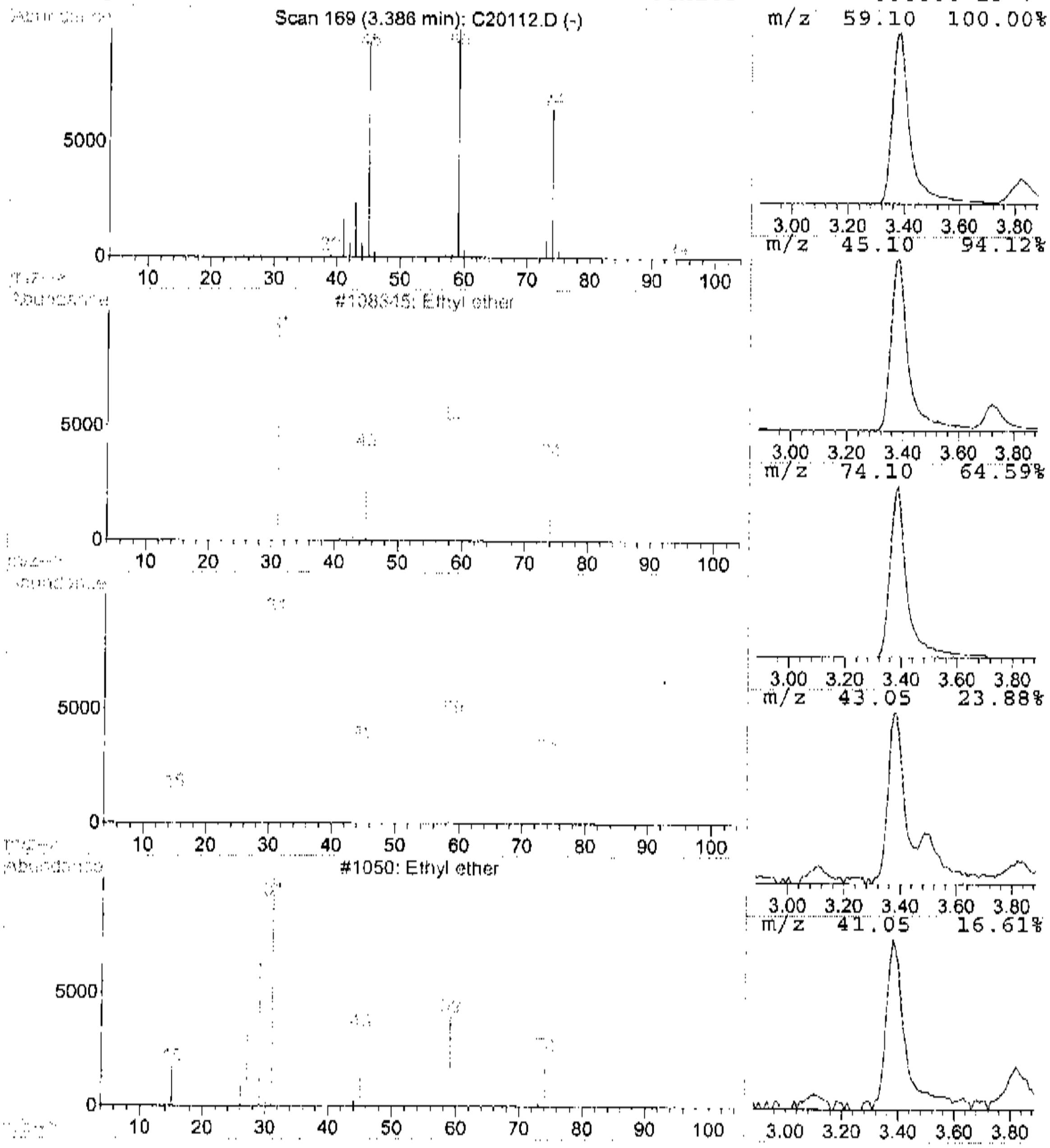
Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Ethyl ether   Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.39	6.91 ug/L	185376	Pentafluorobenzene	7.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyl ether	74	C4H10O	000060-29-7	90
2	Ethyl ether	74	C4H10O	000060-29-7	90
3	Ethyl ether	74	C4H10O	000060-29-7	90
4	Ethyl ether	74	C4H10O	000060-29-7	90



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20113.D
Acq On : 12 Dec 2007 9:17 pm
Sample : U0712180-009A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:23 2007

Vial: 13
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	294968	50.00 ug/L	0.03
35) 1,4-Difluorobenzene	11.21	114	402357	50.00 ug/L	0.02
55) Chlorobenzene-d5	18.65	117	270432	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.31	152	132880	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.32	65	171029	50.26 ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery = 100.52%		
49) Toluene-d8	15.43	98	322082	49.55 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.10%		
54) Bromofluorobenzene	21.08	95	288695	46.46 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery = 92.92%		

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

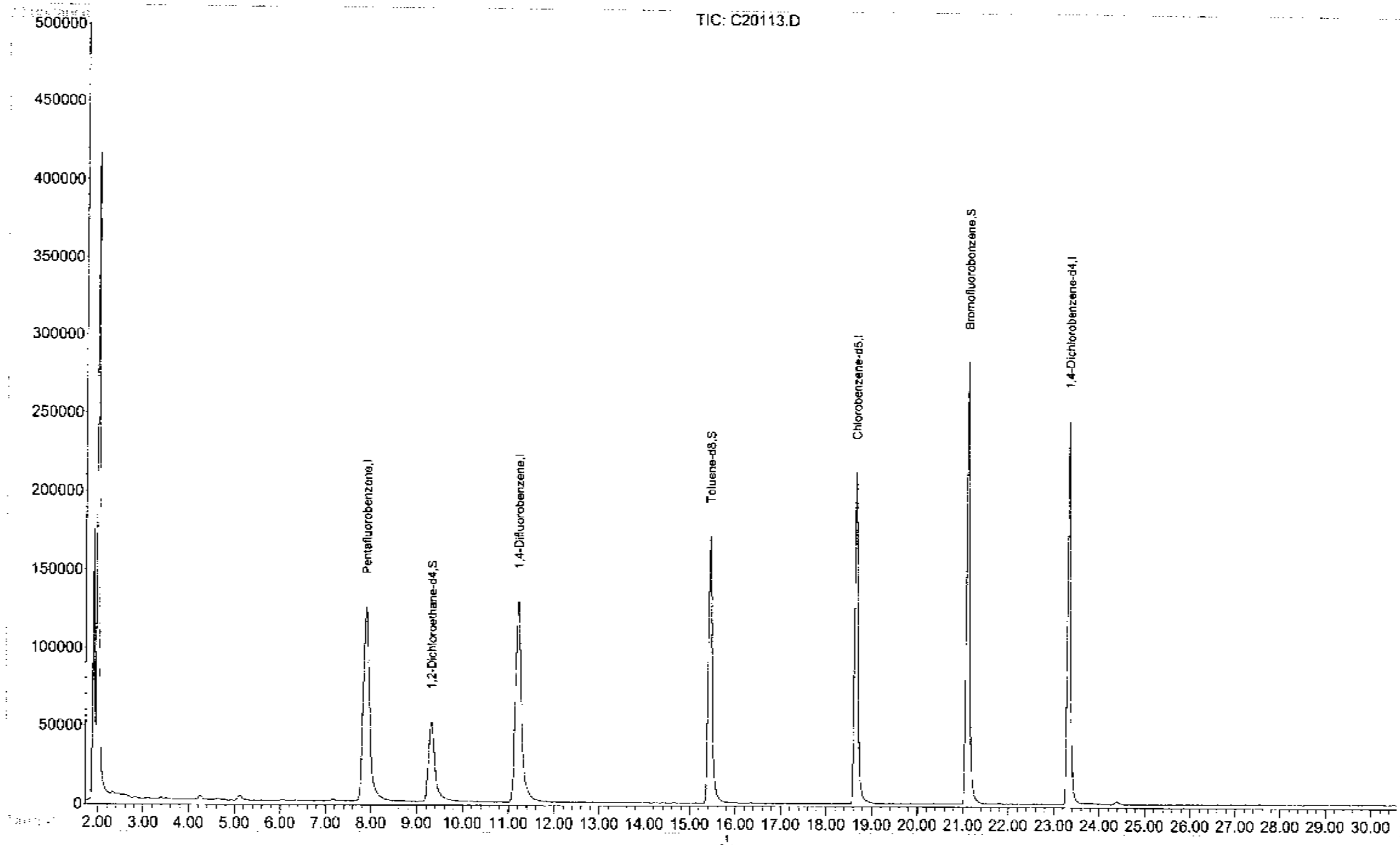
Quantitation Report

Data File : D:\DATA\C20113.D
Acq On : 12 Dec 2007 9:17 pm
Sample : U0712180-009A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:23 2007

Vial: 13
Operator: MM
Inst : #12
Multiplr: 1.00

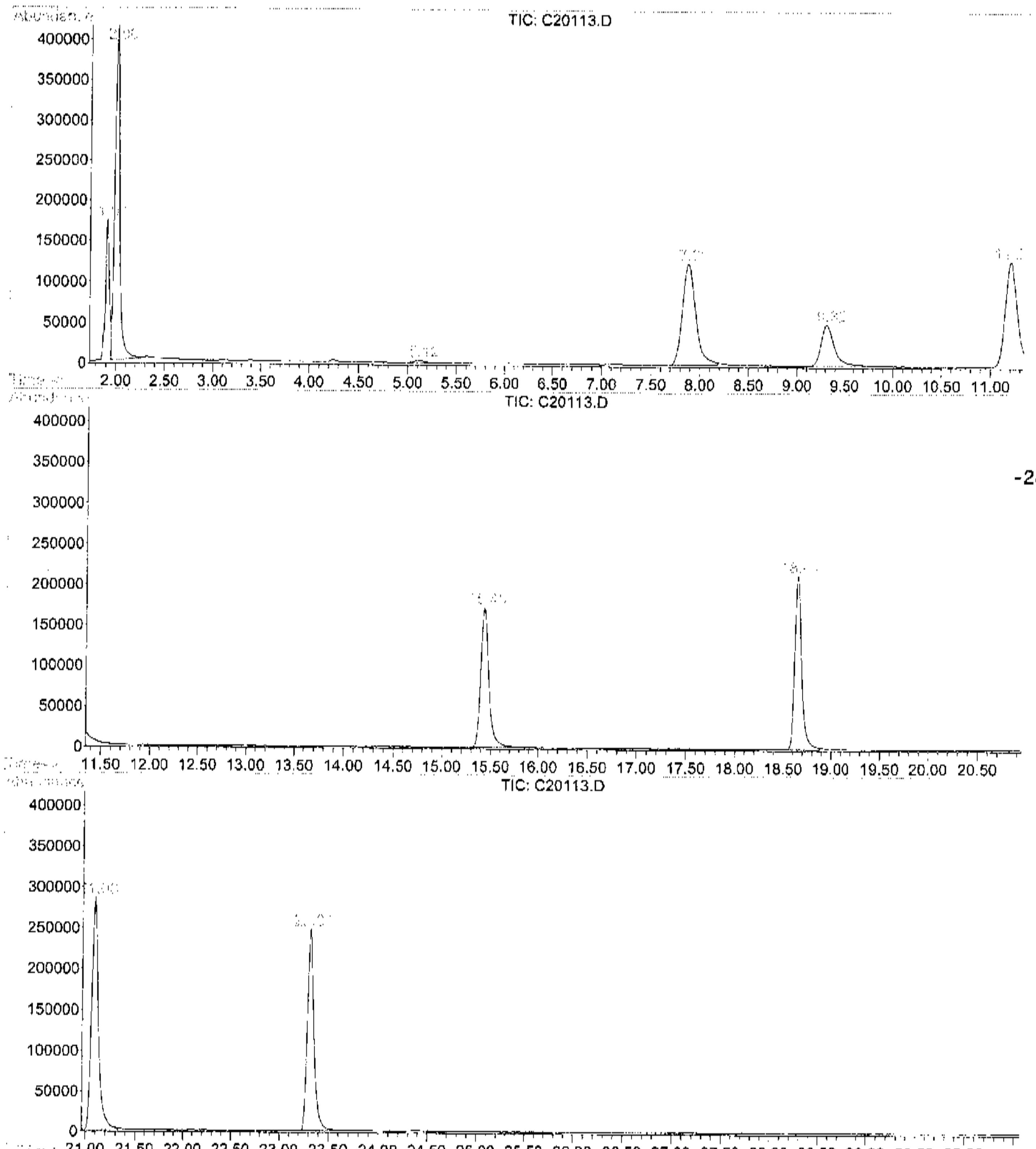
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File   : D:\DATA\C20113.D
Operator   : MM
Acquired   : 12 Dec 2007   9:17 pm using AcqMethod TEST1210
Instrument :   #12
Sample Name: U0712180-009A
Misc Info : 5ML
Vial Number: 13
Quant File :TEST1210.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ____ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20114.D
Acq On : 12 Dec 2007 9:54 pm
Sample : U0712180-010A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:24 2007

Vial: 14
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	290985	50.00	ug/L	0.03
35) 1,4-Difluorobenzene	11.20	114	393330	50.00	ug/L	0.02
55) Chlorobenzene-d5	18.66	117	262594	50.00	ug/L	0.02
83) 1,4-Dichlorobenzene-d4	23.32	152	127613	50.00	ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.31	65	161268	48.04	ug/L	0.03
Spiked Amount 50.000	Range 76 - 114		Recovery =	96.08%		
49) Toluene-d8	15.44	98	314362	49.47	ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.94%		
54) Bromofluorobenzene	21.09	95	280125	46.12	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.24%		

Target Compounds Qvalue

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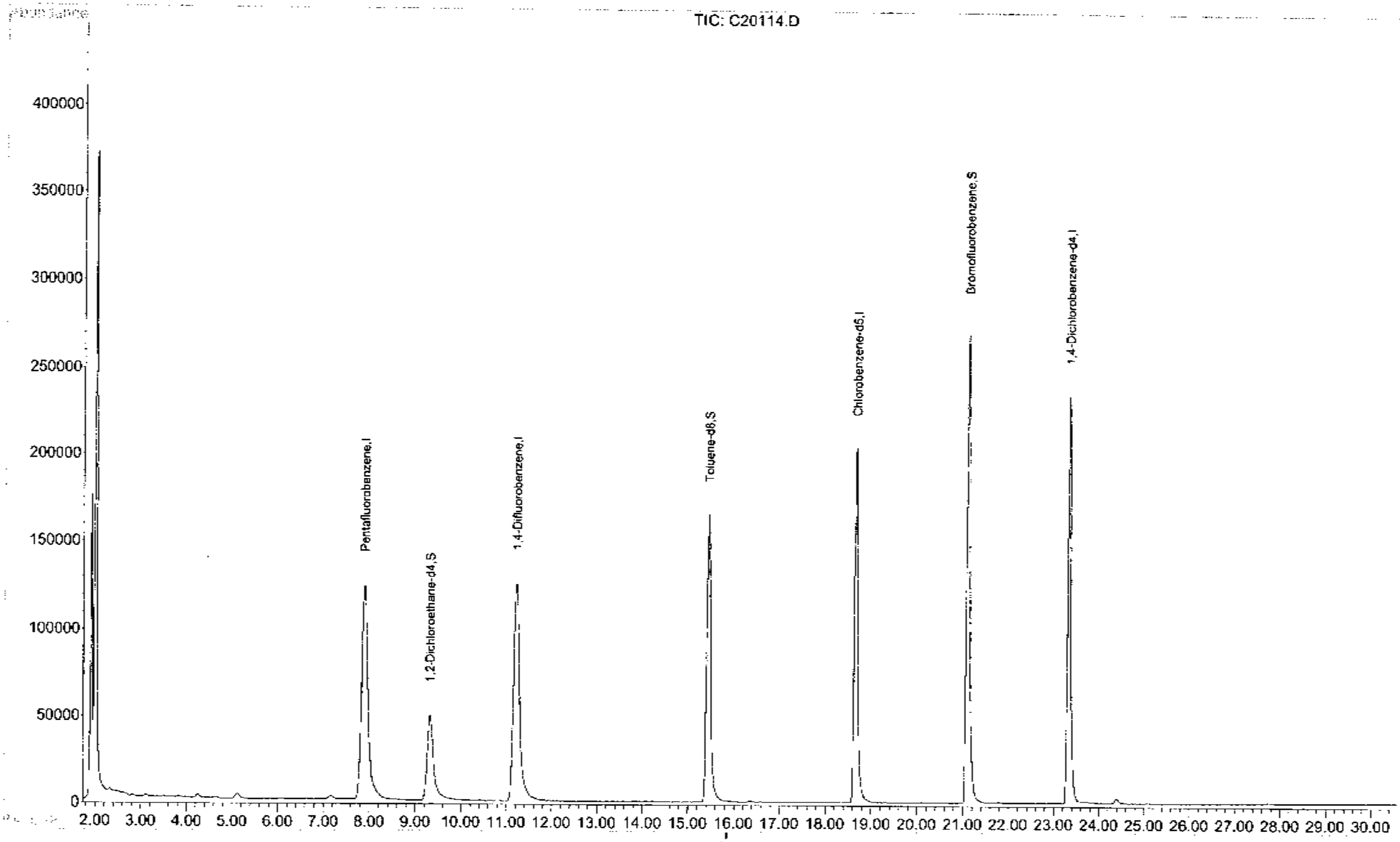
Quantitation Report

Data File : D:\DATA\C20114.D
Acq On : 12 Dec 2007 9:54 pm
Sample : U0712180-010A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:24 2007

Vial: 14
Operator: MM
Inst : #12
Multiplr: 1.00

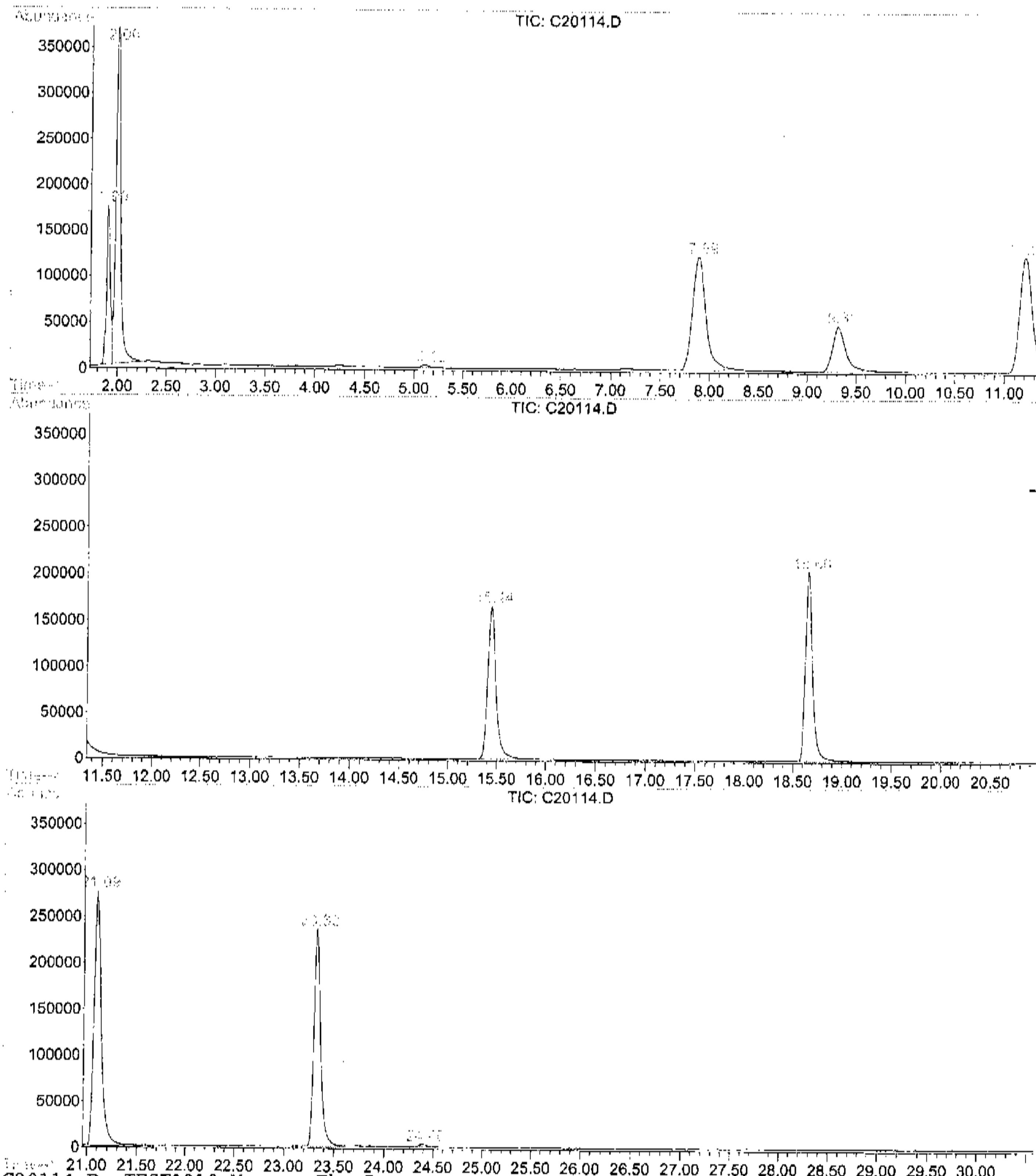
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File        : D:\DATA\C20114.D
Operator    : MM
Acquired    : 12 Dec 2007   9:54 pm using AcqMethod TEST1210
Instrument  :    #12
Sample Name: U0712180-010A
Misc Info   : 5ML
Vial Number: 14
Quant File :TEST1210.RES (RTE Integrator)
```



C20114.D   TEST1210.M   Thu Dec 13 13:19:35 2007   12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	3.38	4	JN

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20107.D
Acq On : 12 Dec 2007 5:32 pm
Sample : U0712180-011A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:20 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	302783	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.19	114	416544	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.64	117	276410	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	136199	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.31	65	171926	49.22 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	98.44%	
49) Toluene-d8	15.43	98	334921	49.77 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.54%	
54) Bromofluorobenzene	21.09	95	298096	46.34 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.68%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

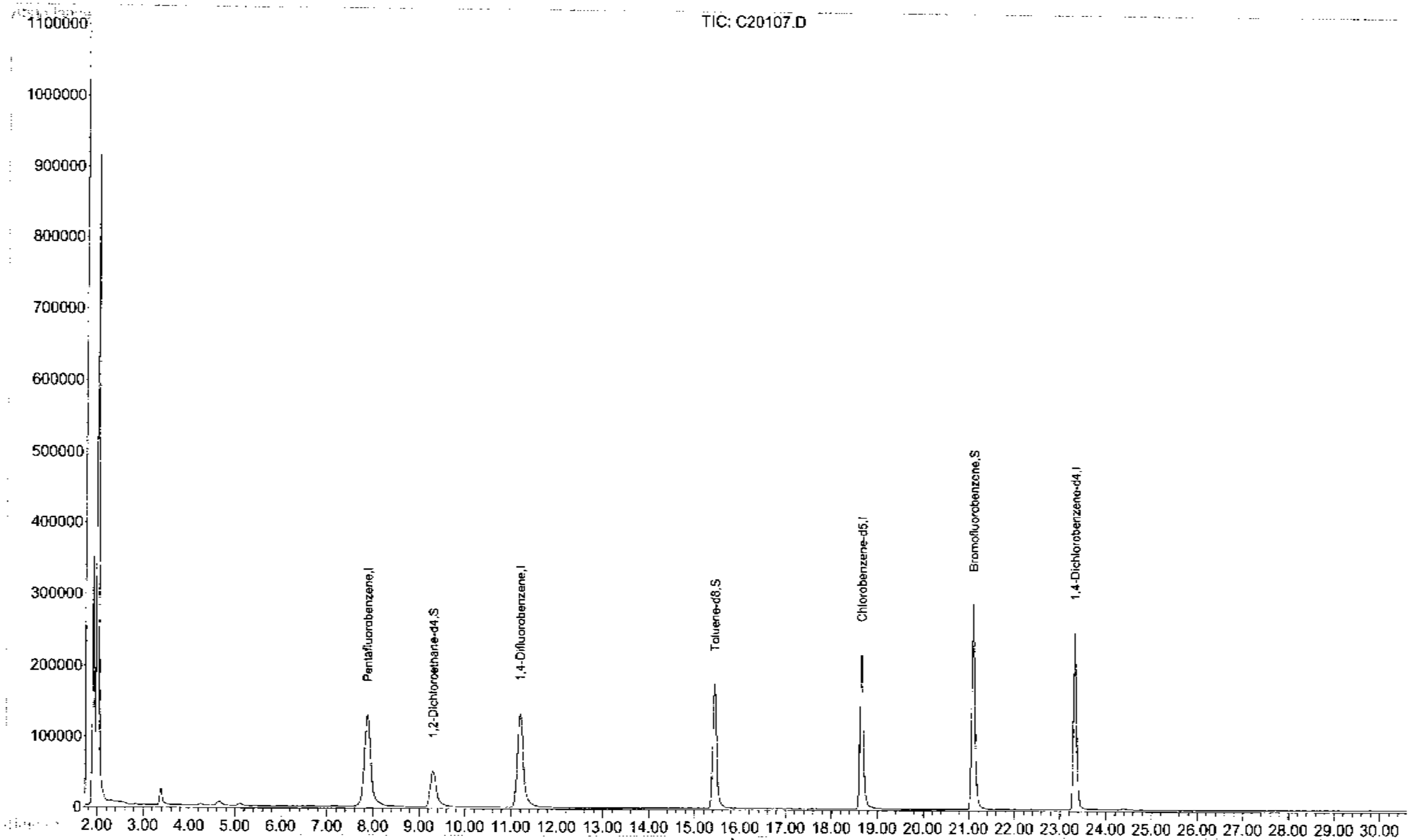
Quantitation Report

Data File : D:\DATA\C20107.D
Acq On : 12 Dec 2007 5:32 pm
Sample : U0712180-011A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:20 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

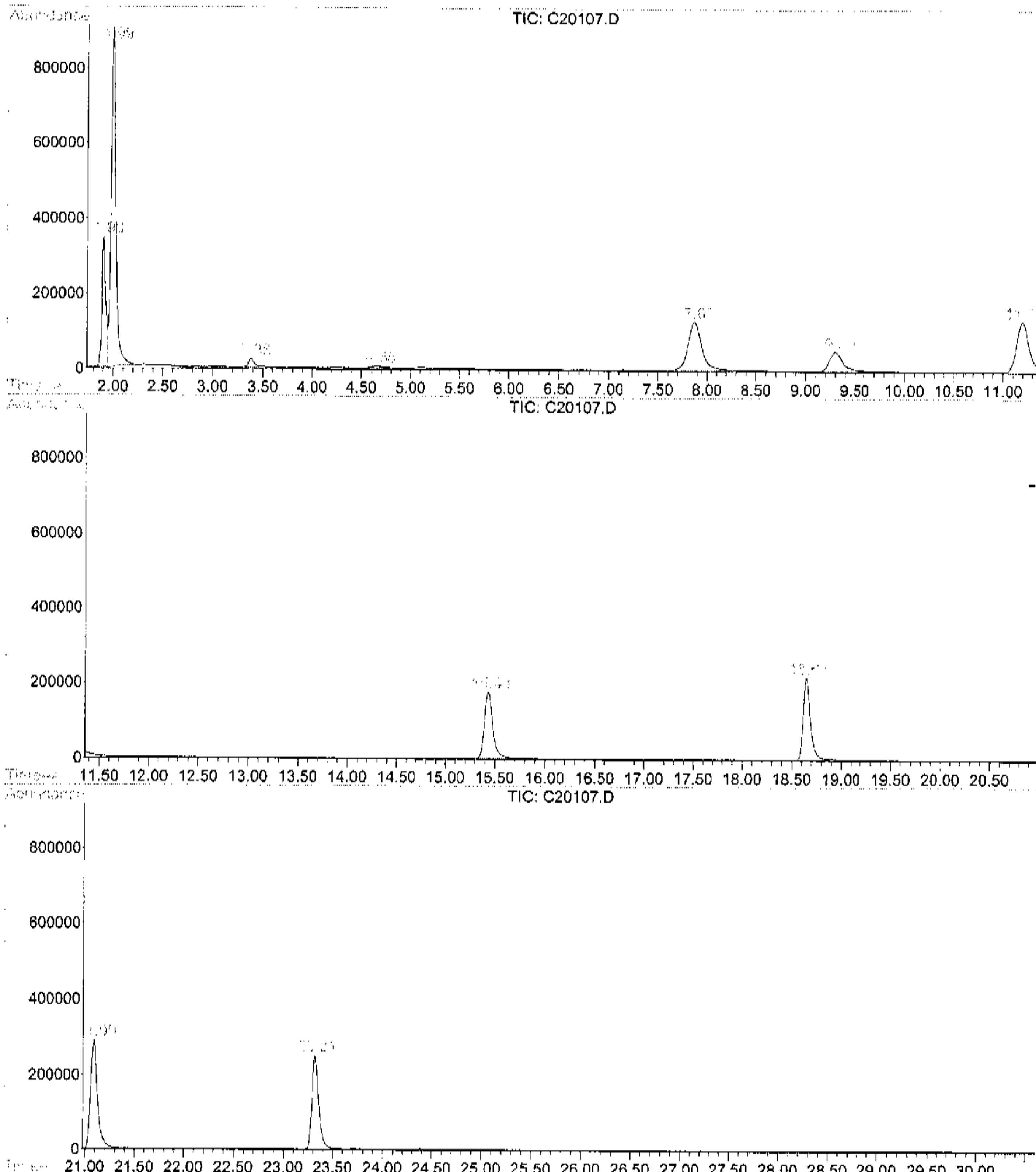
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20107.D
Operator : MM
Acquired : 12 Dec 2007 5:32 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-011A
Misc Info : 5ML
Vial Number: 7
Quant File :TEST1210.RES (RTE Integrator)



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C20107.D TEST1210.M Thu Dec 13 13:17:49 2007 12.0

Library Search Compound Report

Data File : D:\DATA\C20107.D
Acq On : 12 Dec 2007 5:32 pm
Sample : U0712180-011A
Misc : 5ML
MS Integration Params: LSCINT.P

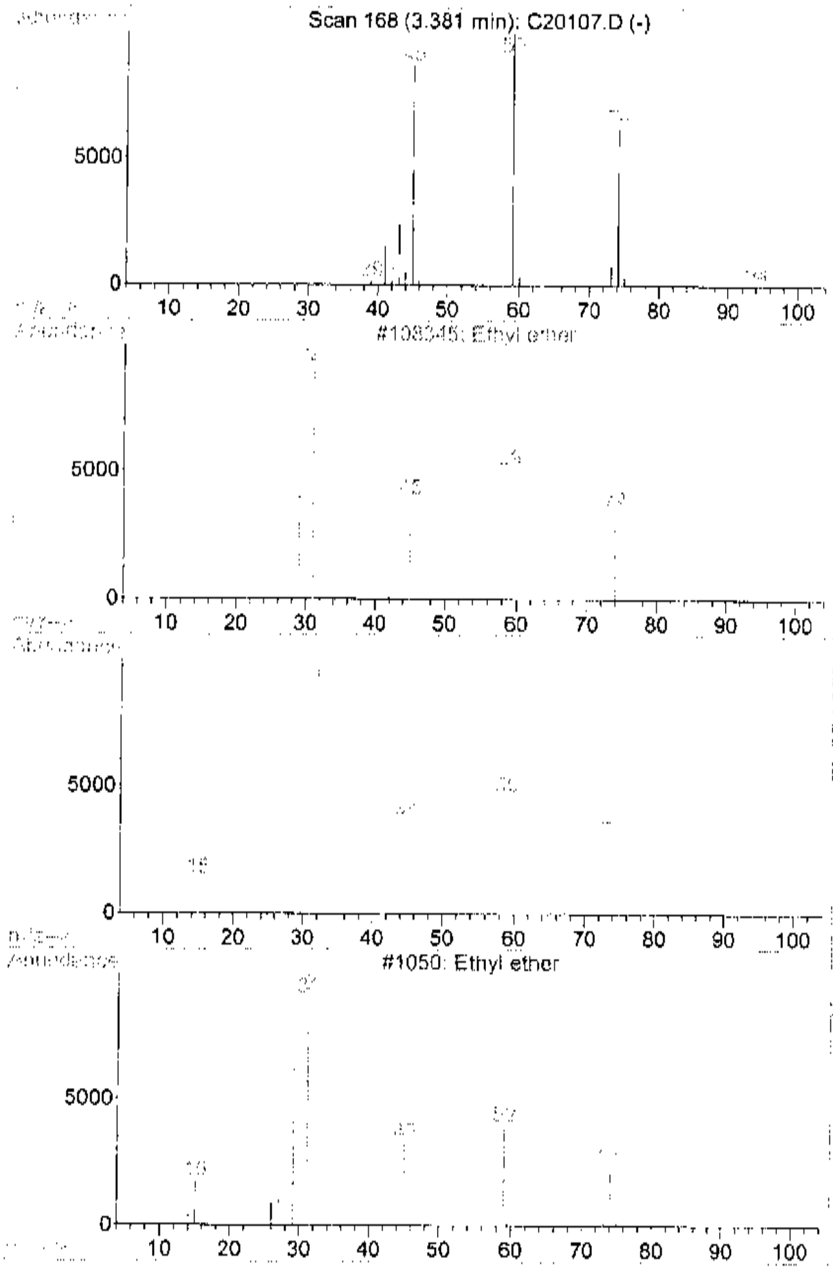
Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

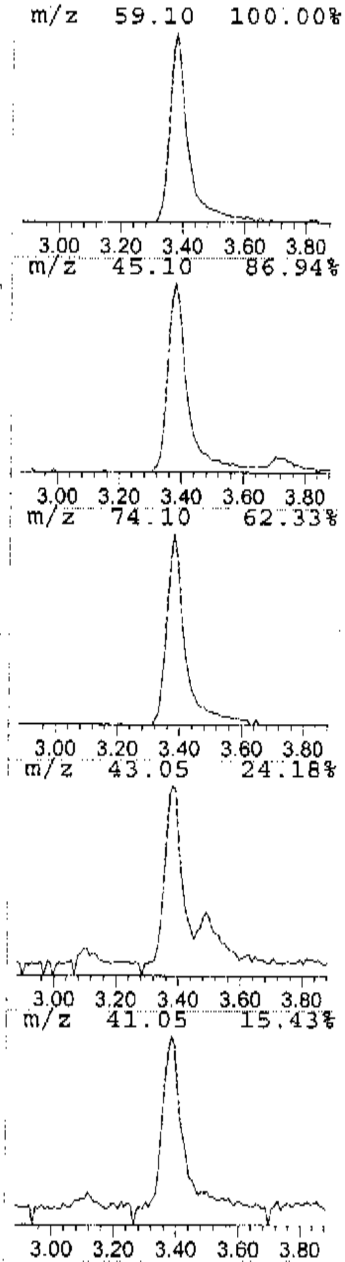
Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Library : C:\DATABASE\NIST98.L

Peak Number 3 Ethyl ether Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.38	3.53 ug/L	91649	Pentafluorobenzene	7.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyl ether	74	C4H10O	000060-29-7	90
2	Ethyl ether	74	C4H10O	000060-29-7	90
3	Ethyl ether	74	C4H10O	000060-29-7	90
4	Ethyl ether	74	C4H10O	000060-29-7	90





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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ___ SAS No.: ___ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ___ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ___ (uL) Soil Aliquot Volume: ___ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-300-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20115.D
Acq On : 12 Dec 2007 10:31 pm
Sample : U0712180-012A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 13:47 2007

Vial: 15
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	289567	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.20	114	392639	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.64	117	260982	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	126367	50.00 ug/L	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.30	65	161289	48.28 ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery =	96.56%	
49) Toluene-d8	15.43	98	315106	49.68 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.36%	
54) Bromofluorobenzene	21.09	95	276442	45.59 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery =	91.18%	

Target Compounds Qvalue

-301-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

```
Data File : D:\DATA\C20115.D                          Vial: 15
Acq On    : 12 Dec 2007  10:31 pm                 Operator: MM
Sample    : U0712180-012A                         Inst    : #12
Misc      : 5ML                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 13:47 2007           Quant Results File: TEST1210.RES

Method         : D:\METHODS\TEST1210.M (RTE Integrator)
Title          : VOA 8260 Calibration
Last Update    : Mon Dec 10 14:48:15 2007
Response via   : Initial Calibration
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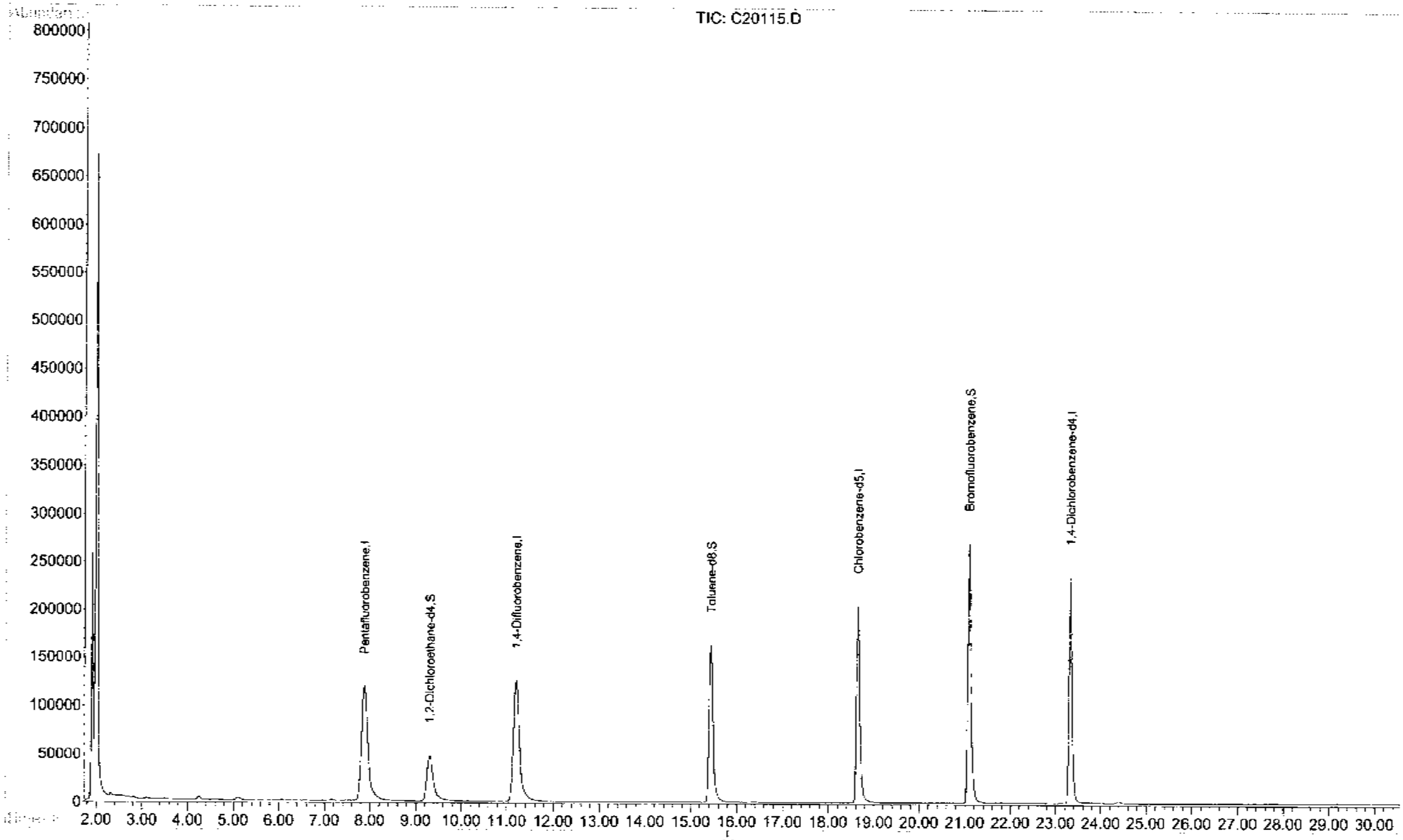
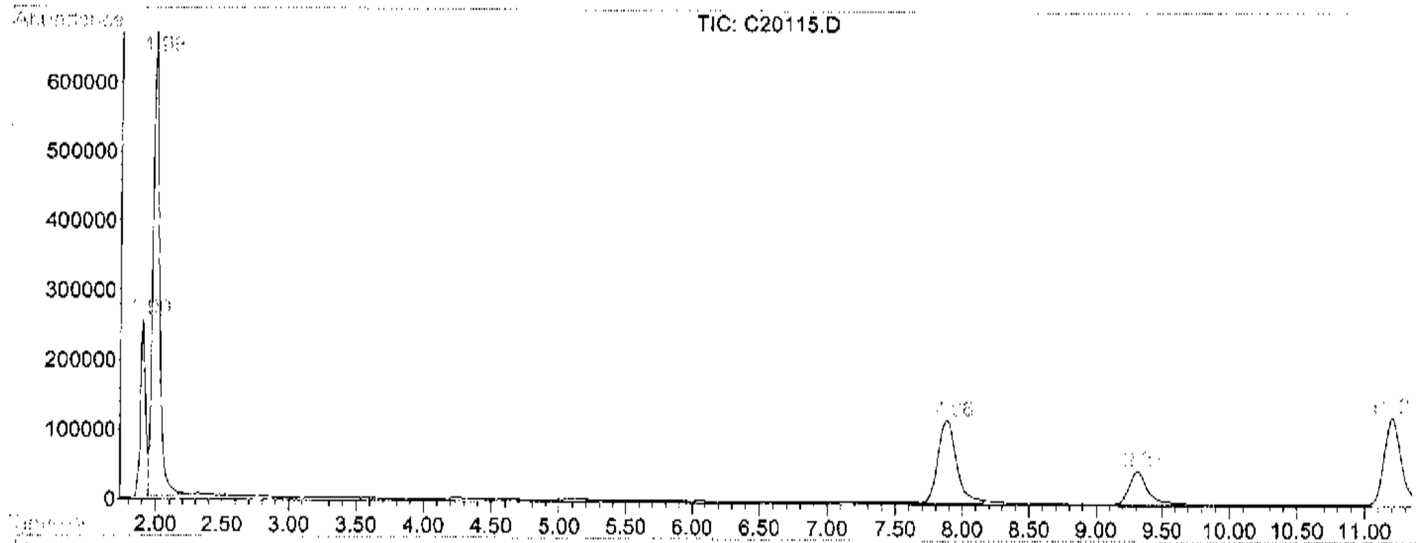
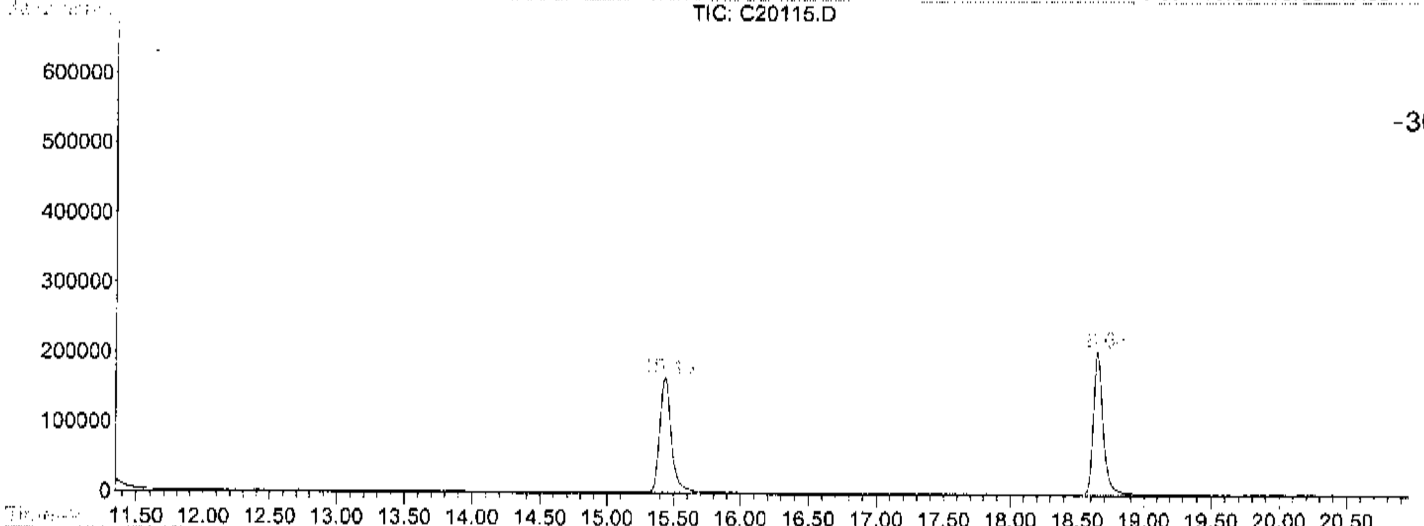


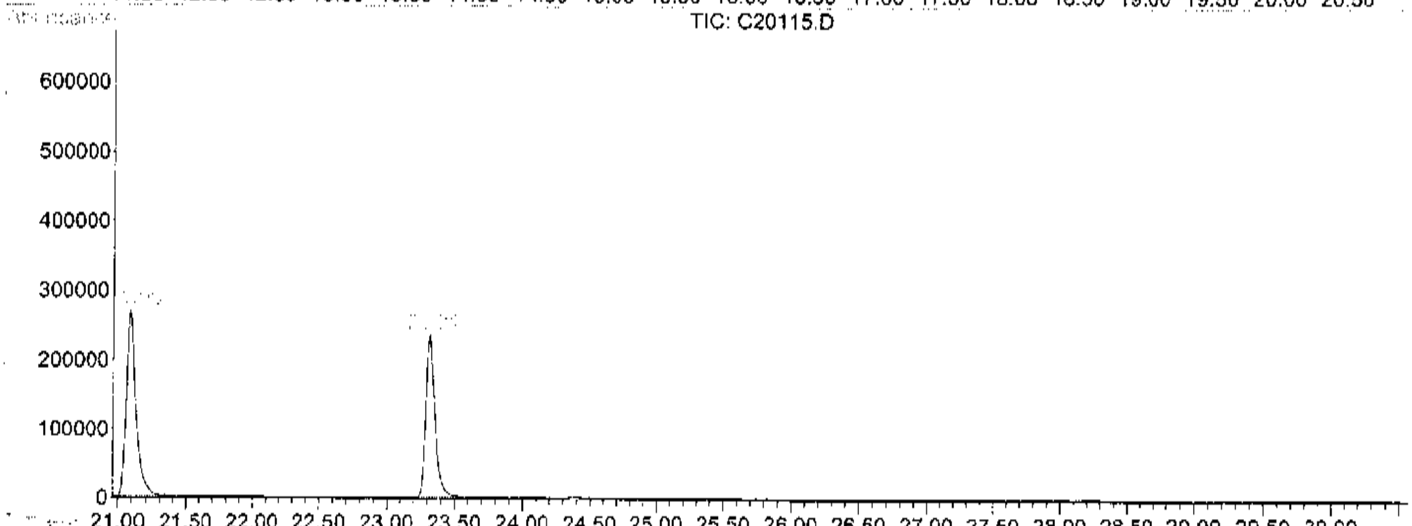
LSC Report - Integrated Chromatogram

File : D:\DATA\C20115.D
Operator : MM
Acquired : 12 Dec 2007 10:31 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-012A
Misc Info : 5ML
Vial Number: 15
Quant File :TEST1210.RES (RTE Integrator)





-303-



C20115.D TEST1210.M Thu Dec 13 13:19:49 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20116.D	Vial: 16
Acq On : 12 Dec 2007 11:09 pm	Operator: MM
Sample : U0712180-013A	Inst : #12
Misc : 5ML	Multiplr: 1.00
MS Integration Params: rteint.p	
Quant Time: Dec 13 8:27 2007	Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	300559	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.20	114	396523	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.64	117	264830	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	128552	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.30	65	159317	45.95 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	91.90%	
49) Toluene-d8	15.42	98	316018	49.33 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.66%	
54) Bromofluorobenzene	21.08	95	279420	45.63 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	91.26%	

Target Compounds Qvalue

-307-

(#) = qualifier out of range (m) = manual integration

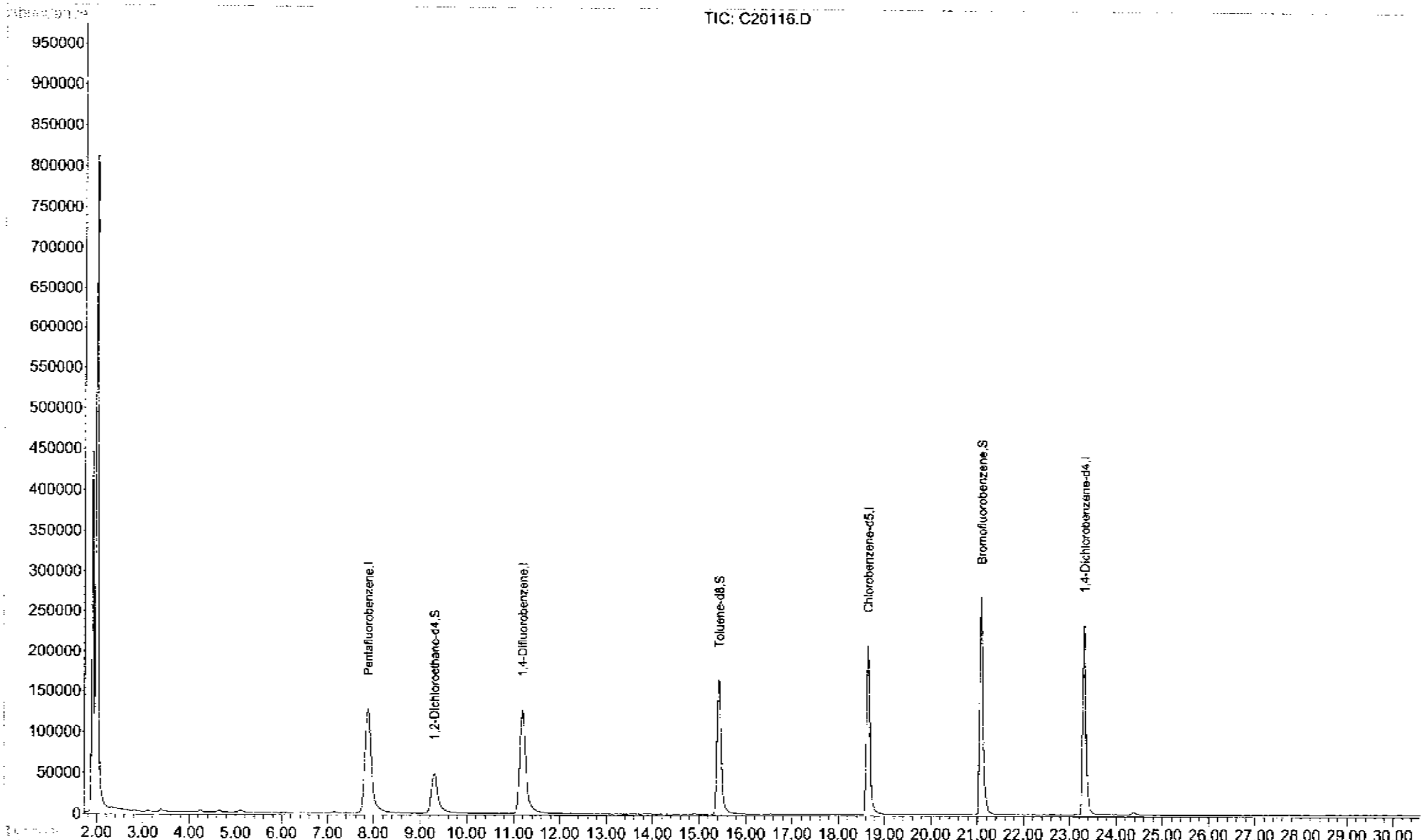
Quantitation Report

Data File : D:\DATA\C20116.D
Acq On : 12 Dec 2007 11:09 pm
Sample : U0712180-013A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:27 2007

Vial: 16
Operator: MM
Inst : #12
Multiplr: 1.00

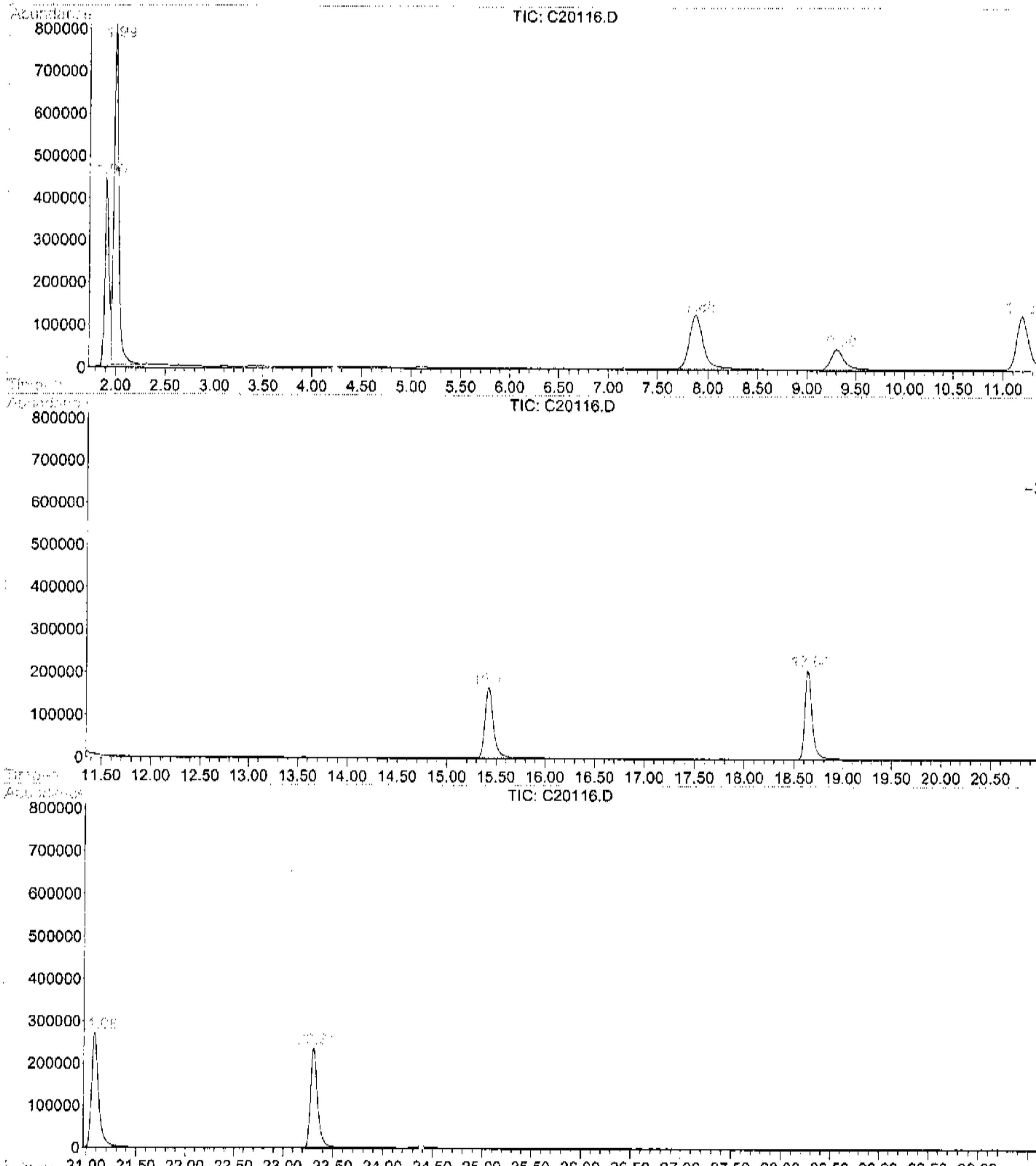
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20116.D
Operator : MM
Acquired : 12 Dec 2007 11:09 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-013A
Misc Info : 5ML
Vial Number: 16
Quant File :TEST1210.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ___ SAS No.: ___ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ___ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ___ (uL) Soil Aliquot Volume: ___ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-312-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20117.D
Acq On : 12 Dec 2007 11:47 pm
Sample : U0712180-014A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:27 2007

Vial: 17
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	300401	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.19	114	408718	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.64	117	270691	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.30	152	132494	50.00 ug/L	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.30	65	166129	47.94 ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery =	95.88%	
49) Toluene-d8	15.42	98	328147	49.70 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.40%	
54) Bromofluorobenzene	21.07	95	288701	45.74 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	91.48%	

Target Compounds Qvalue

-313-

(#) = qualifier out of range (m) = manual integration

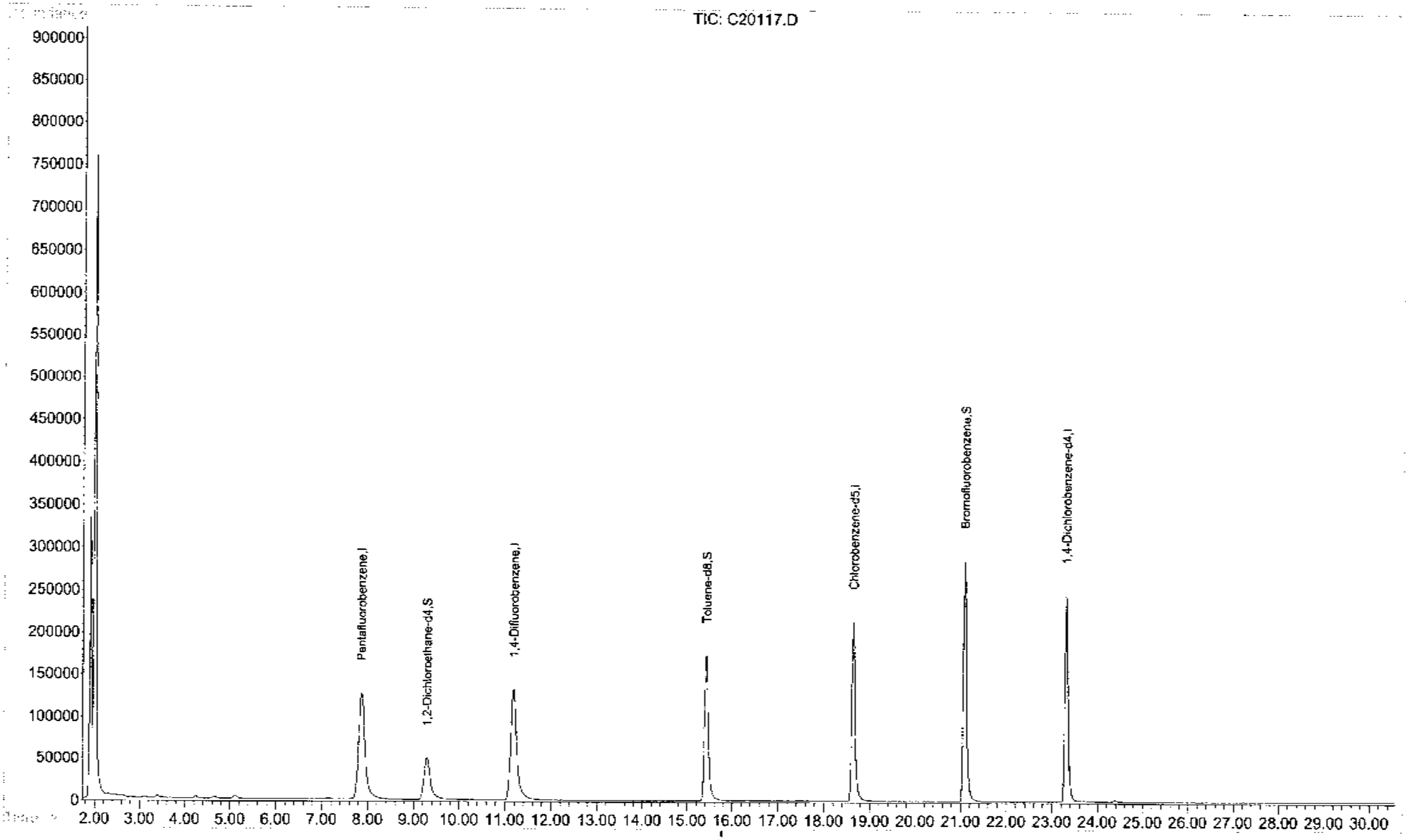
Quantitation Report

Data File : D:\DATA\C20117.D
Acq On : 12 Dec 2007 11:47 pm
Sample : U0712180-014A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:27 2007

Vial: 17
Operator: MM
Inst : #12
Multiplr: 1.00

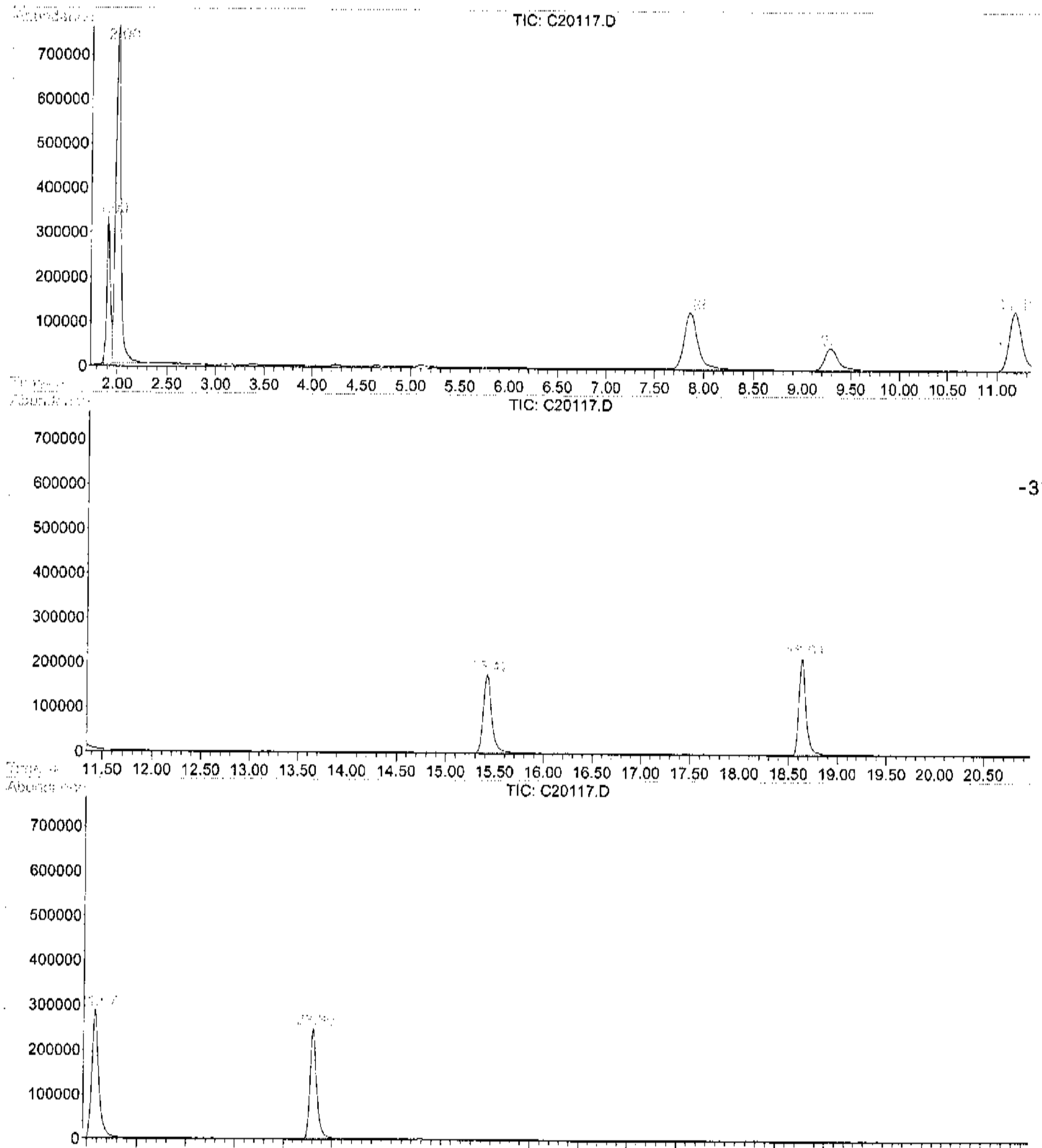
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20117.D
Operator : MM
Acquired : 12 Dec 2007 11:47 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-014A
Misc Info : 5ML
Vial Number: 17
Quant File :TEST1210.RES (RTE Integrator)



C20117.D TEST1210.M Thu Dec 13 13:20:17 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20118.D
Acq On : 13 Dec 2007 12:24 am
Sample : U0712180-015A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:28 2007

Vial: 18
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	293876	50.00	ug/L	0.03
35) 1,4-Difluorobenzene	11.20	114	401017	50.00	ug/L	0.02
55) Chlorobenzene-d5	18.65	117	268213	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.32	152	131054	50.00	ug/L	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.30	65	163849	48.33	ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	96.66%		
49) Toluene-d8	15.43	98	324557	50.10	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.20%		
54) Bromofluorobenzene	21.08	95	284026	45.87	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	91.74%		

Target Compounds Qvalue

-319-

(#) = qualifier out of range (m) = manual integration

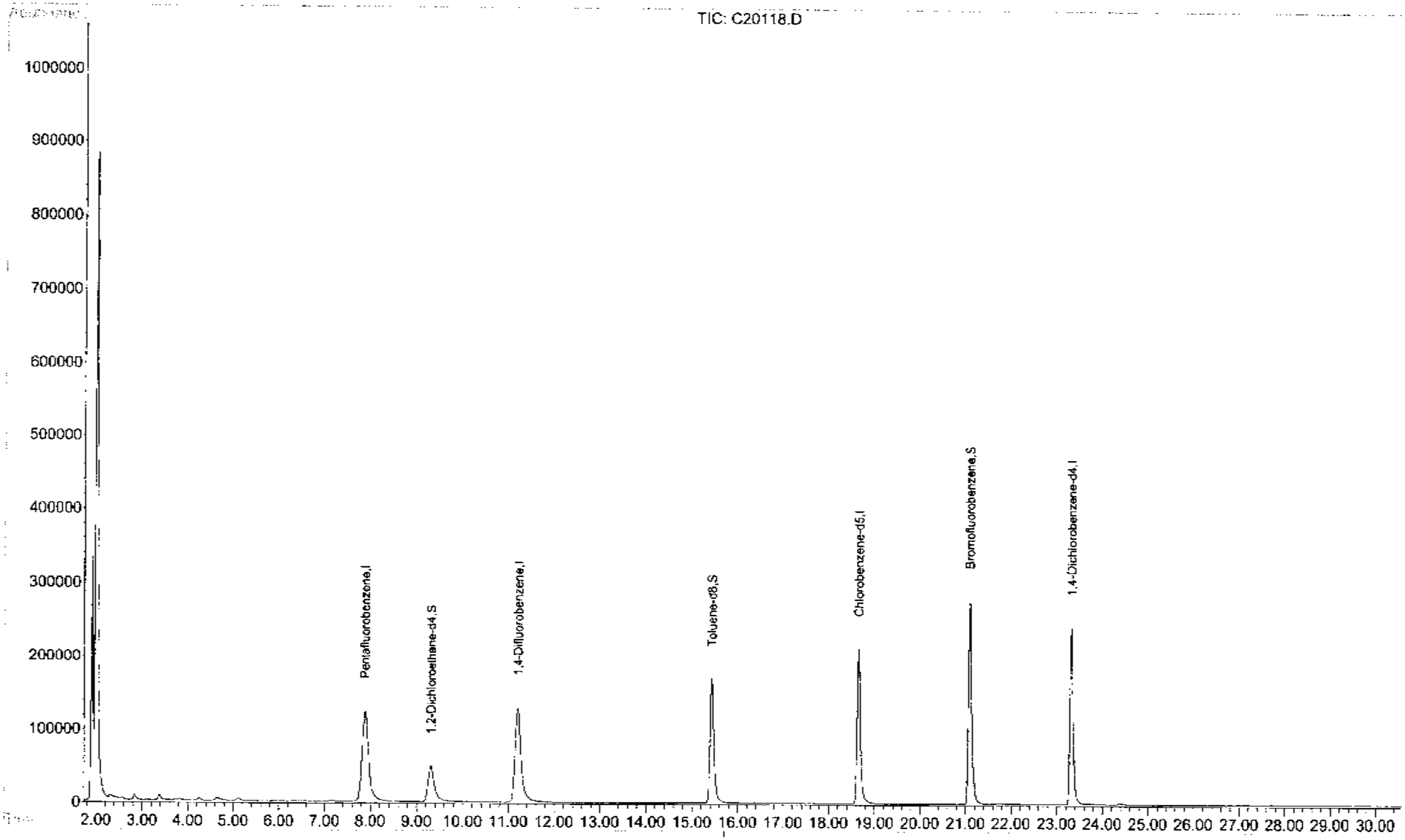
Quantitation Report

Data File : D:\DATA\C20118.D
Acq On : 13 Dec 2007 12:24 am
Sample : U0712180-015A
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:28 2007

Vial: 18
Operator: MM
Inst : #12
Multiplr: 1.00

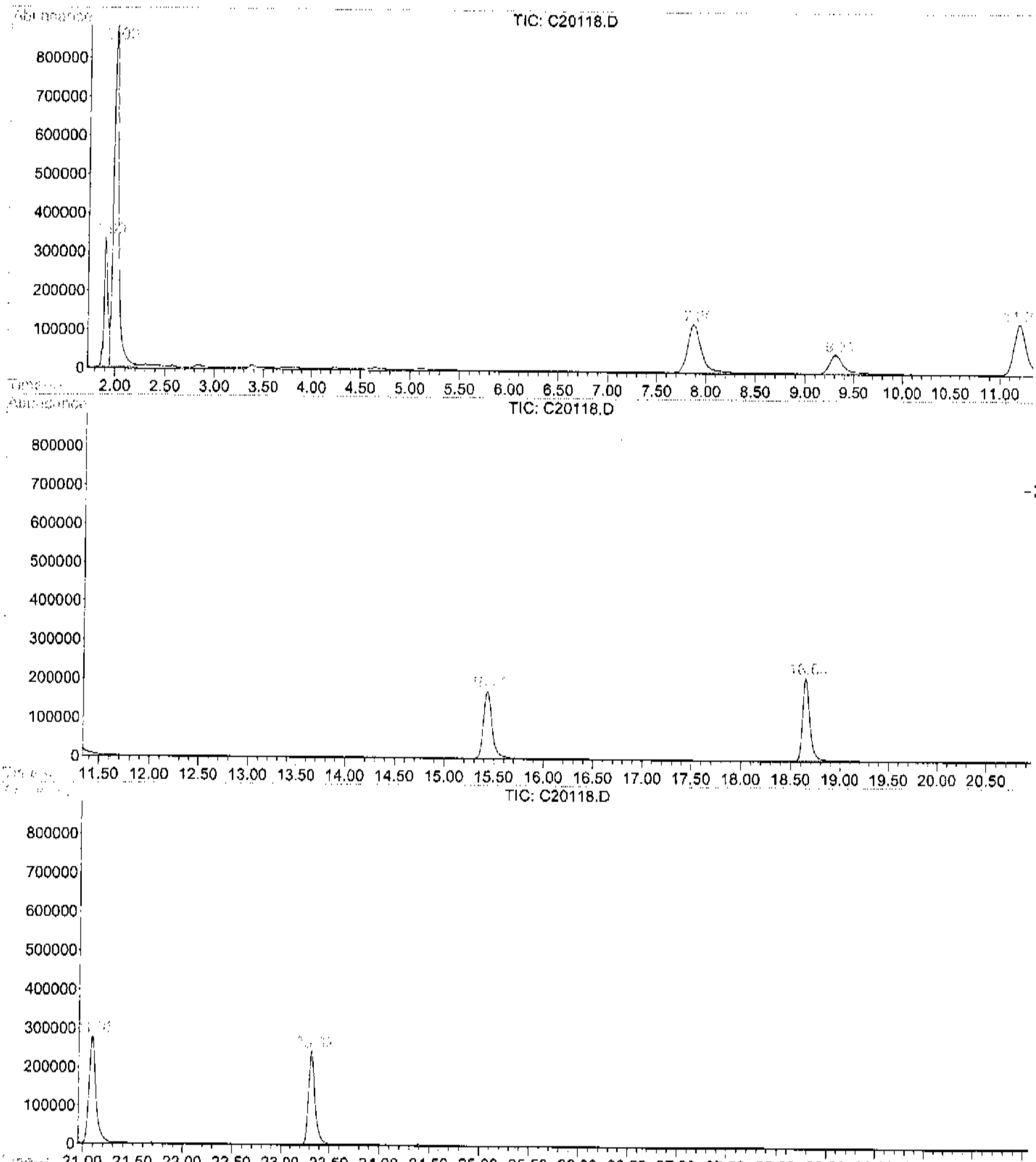
Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\C20118.D
Operator : MM
Acquired : 13 Dec 2007 12:24 am using AcqMethod TEST1210
Instrument : #12
Sample Name: U0712180-015A
Misc Info : 5ML
Vial Number: 18
Quant File :TEST1210.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ________ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ________ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19839.D
Acq On : 13 Dec 2007 3:38 am
Sample : U0712180-016A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:36 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.22	168	414889	50.00	ug/L	0.02
33) 1,4-Difluorobenzene	19.26	114	539952	50.00	ug/L	-0.01
51) Chlorobenzene-d5	27.82	117	414058m	50.00	ug/L	0.02
73) 1,4-Dichlorobenzene-d4	35.31	152	197439	50.00	ug/L	0.03

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.28	65	221598	52.81	ug/L	0.03
Spiked Amount 50.000	Range 86 - 118		Recovery =	105.62%		
45) Toluene-d8	23.45	98	553759m	50.32	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.64%		
50) Bromofluorobenzene	31.44	95	365172m	47.98	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.96%		

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

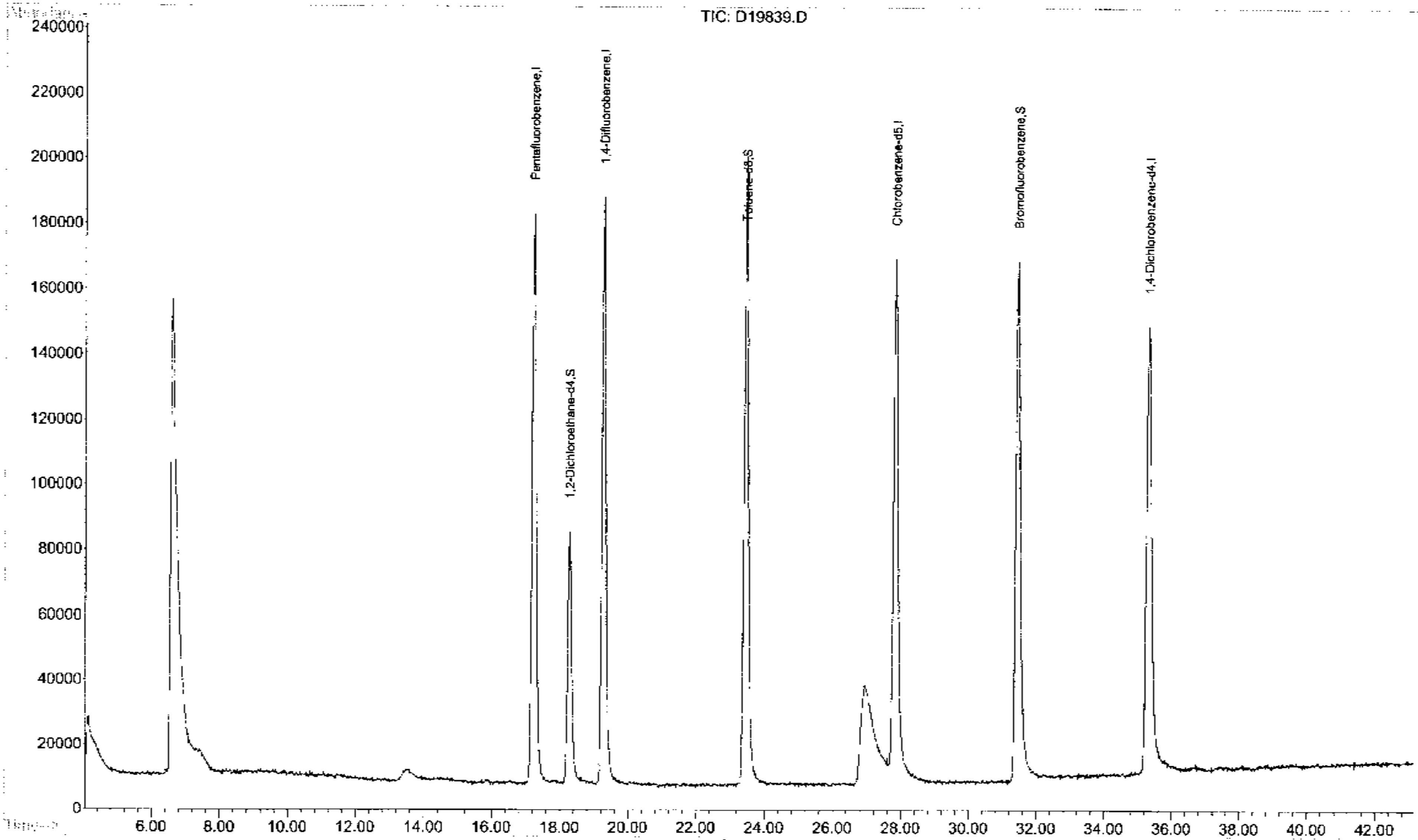
Quantitation Report

Data File : D:\DATA\D19839.D
Acq On : 13 Dec 2007 3:38 am
Sample : U0712180-016A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:36 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

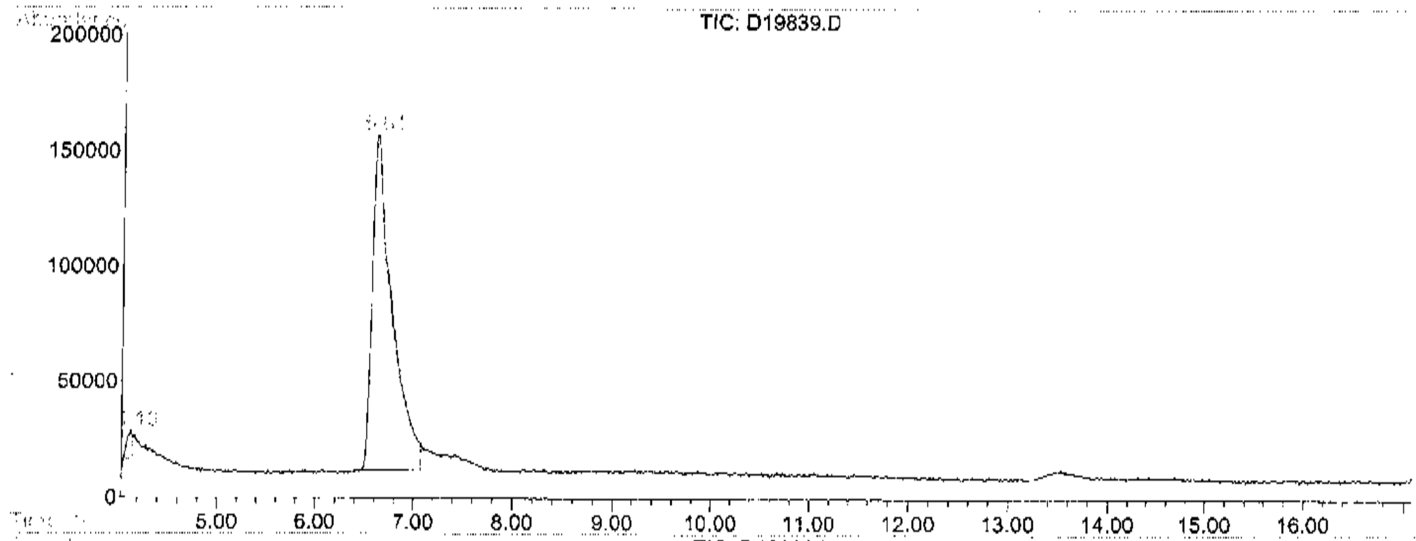
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration

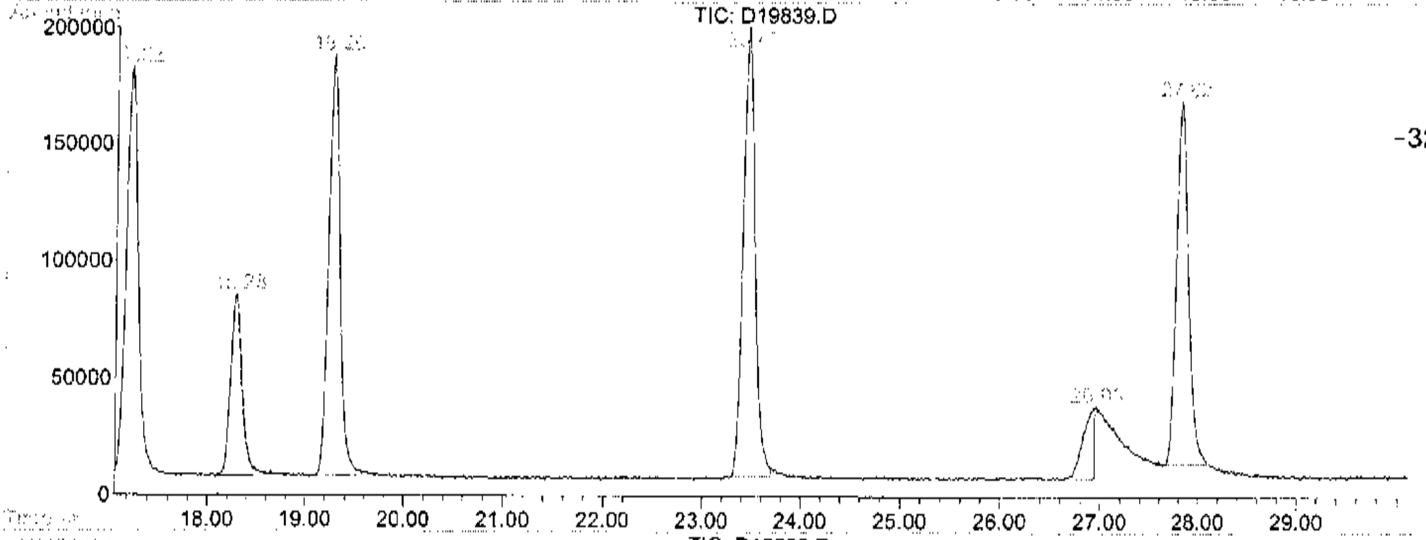


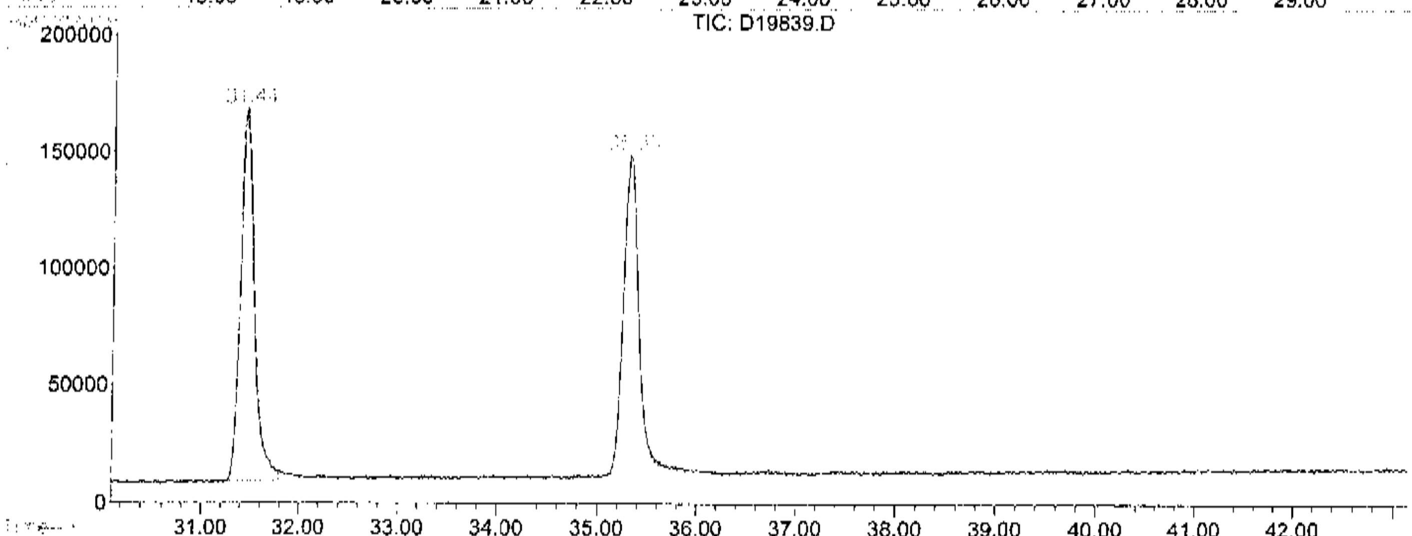
LSC Report - Integrated Chromatogram

File : D:\DATA\D19839.D
Operator : ART
Acquired : 13 Dec 2007 3:38 am using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-016A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



-327-





D19839.D D120360X.M Thu Dec 13 09:12:49 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19840.D
Acq On : 13 Dec 2007 4:29 am
Sample : U0712180-017A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:36 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.22	168	411922	50.00	ug/L	0.00
33) 1,4-Difluorobenzene	19.25	114	530433	50.00	ug/L	-0.02
51) Chlorobenzene-d5	27.82	117	416378m	50.00	ug/L	0.02
73) 1,4-Dichlorobenzene-d4	35.32	152	194309	50.00	ug/L	0.04

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.26	65	214565	51.50	ug/L	0.00
Spiked Amount 50.000	Range 86 - 118		Recovery = 103.00%			
45) Toluene-d8	23.44	98	553623	51.21	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 102.42%			
50) Bromofluorobenzene	31.45	95	364679m	48.78	ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery = 97.56%			

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

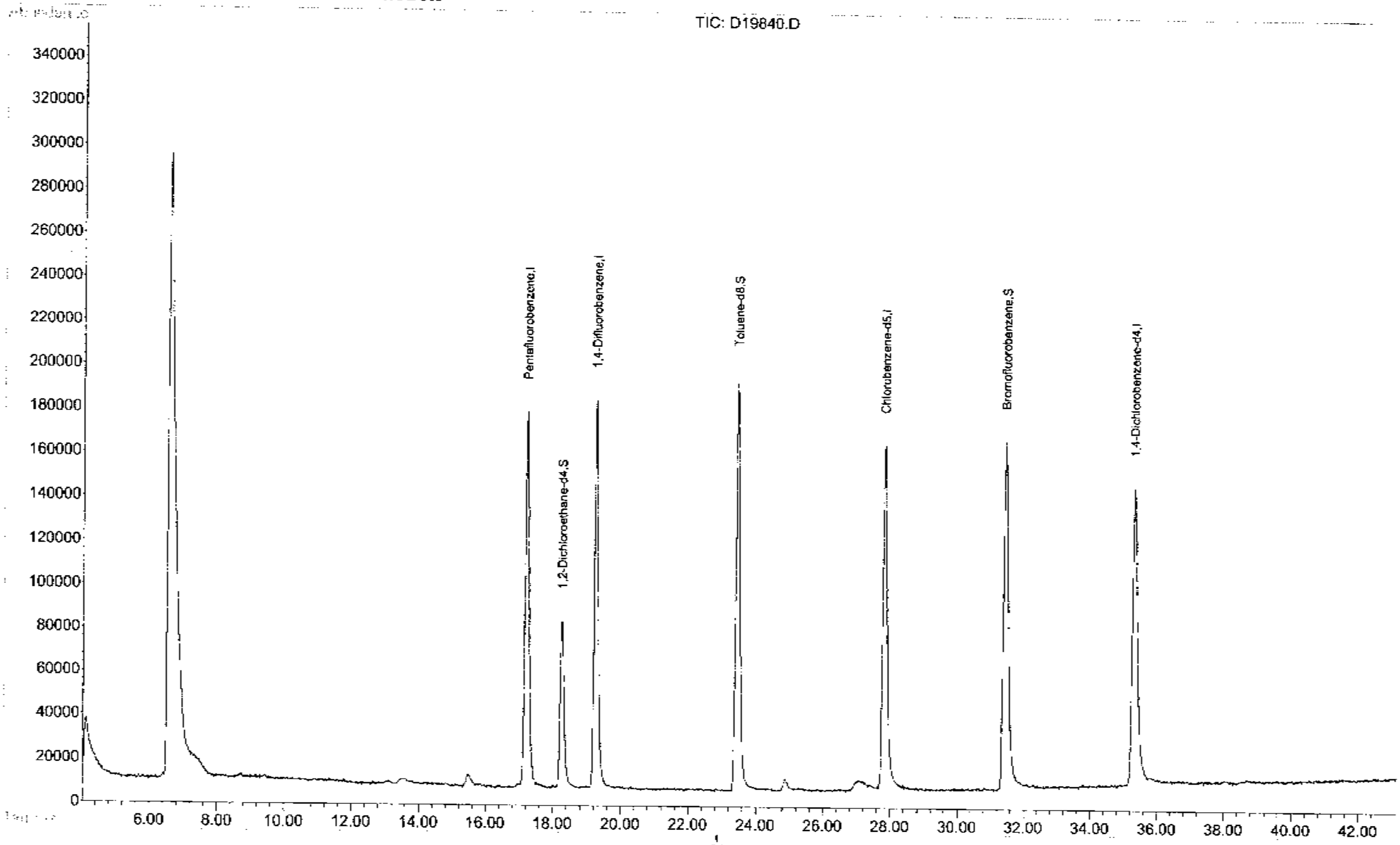
Quantitation Report

Data File : D:\DATA\D19840.D
Acq On : 13 Dec 2007 4:29 am
Sample : U0712180-017A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:36 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

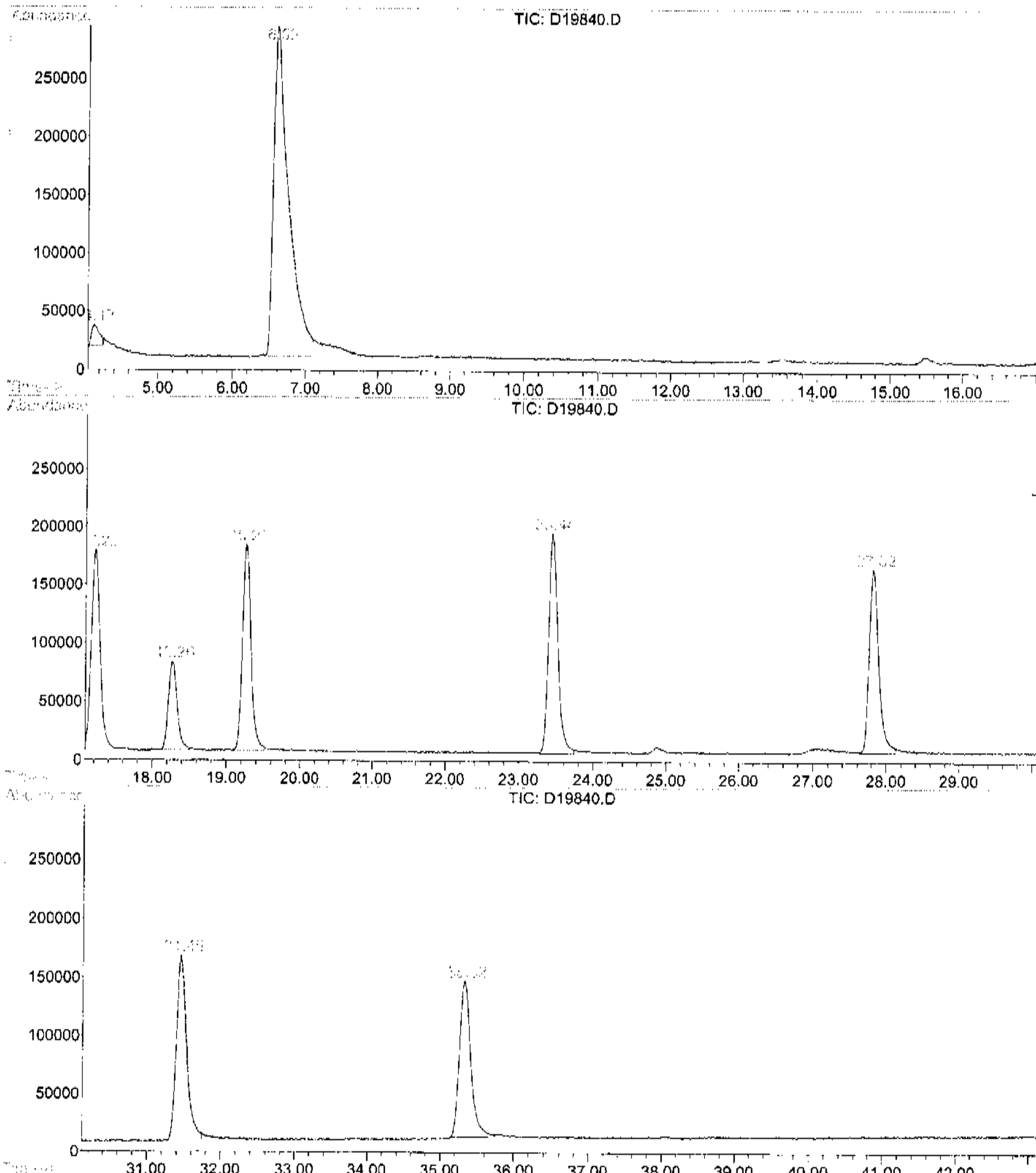
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19840.D
Operator : ART
Acquired : 13 Dec 2007 4:29 am using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-017A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



D19840.D D120360X.M Thu Dec 13 09:13:03 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19841.D
Acq On : 13 Dec 2007 5:19 am
Sample : U0712180-018A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:37 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.24	168	415930	50.00	ug/L	0.03
33) 1,4-Difluorobenzene	19.28	114	545204	50.00	ug/L	0.00
51) Chlorobenzene-d5	27.84	117	419086m	50.00	ug/L	0.04
73) 1,4-Dichlorobenzene-d4	35.34	152	202784	50.00	ug/L	0.06

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.29	65	217047	51.60	ug/L	0.04
Spiked Amount 50.000	Range 86 - 118		Recovery = 103.20%			
45) Toluene-d8	23.47	98	564056	50.77	ug/L	0.03
Spiked Amount 50.000	Range 88 - 110		Recovery = 101.54%			
50) Bromofluorobenzene	31.47	95	367029m	47.76	ug/L	0.05
Spiked Amount 50.000	Range 86 - 115		Recovery = 95.52%			

Target Compounds Qvalue

-337-

(#) = qualifier out of range (m) = manual integration

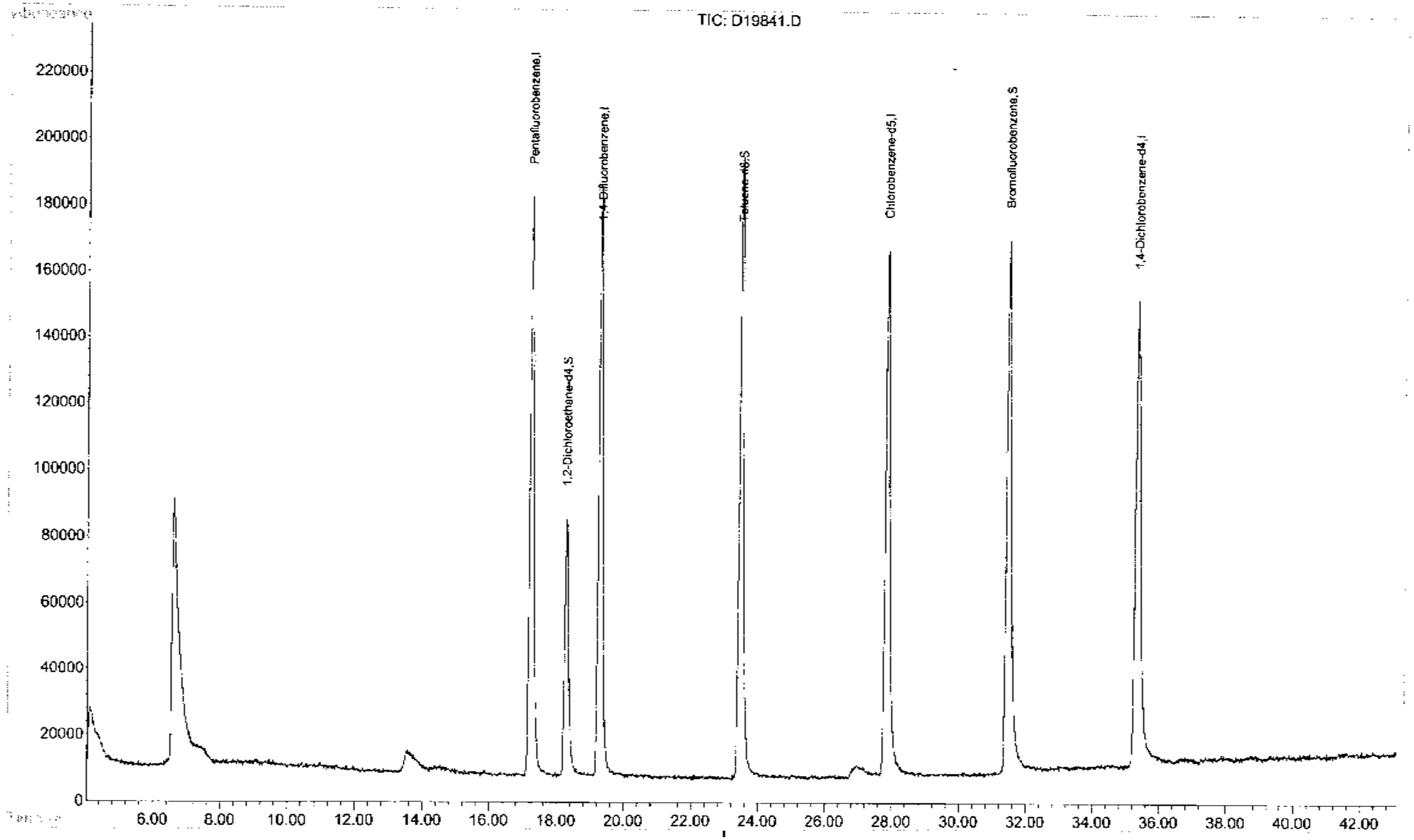
Quantitation Report

Data File : D:\DATA\D19841.D
Acq On : 13 Dec 2007 5:19 am
Sample : U0712180-018A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:37 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

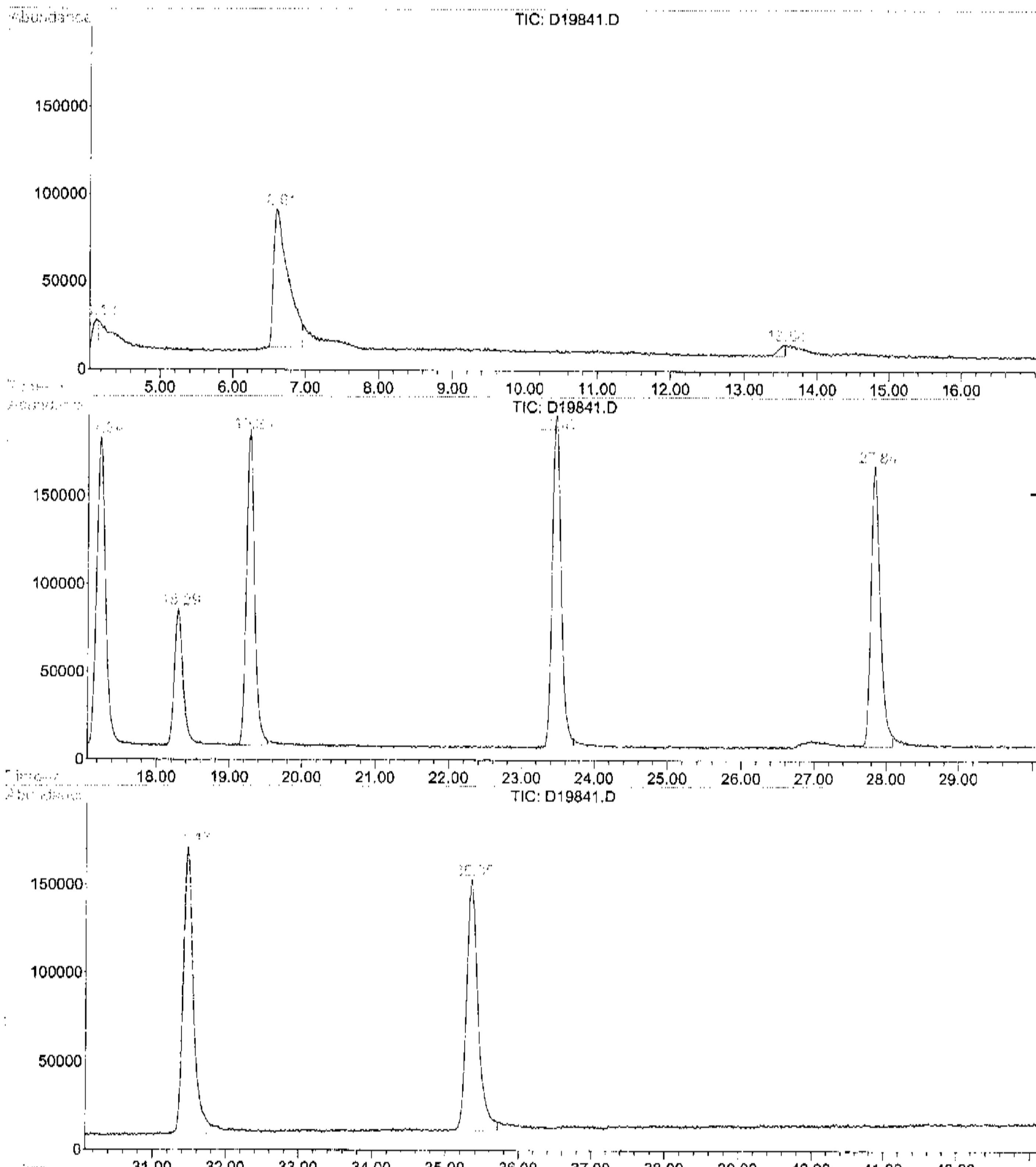
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19841.D
Operator : ART
Acquired : 13 Dec 2007 5:19 am using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-018A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19842.D
Acq On : 13 Dec 2007 6:10 am
Sample : U0712180-019A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:38 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.25	168	406206	50.00 ug/L	0.04
33) 1,4-Difluorobenzene	19.29	114	526109	50.00 ug/L	0.00
51) Chlorobenzene-d5	27.84	117	408034m	50.00 ug/L	0.04
73) 1,4-Dichlorobenzene-d4	35.36	152	202503m	50.00 ug/L	0.08
System Monitoring Compounds					
31) 1,2-Dichloroethane-d4	18.29	65	211134	51.39 ug/L	0.04
Spiked Amount 50.000	Range 86 - 118		Recovery =	102.78%	
45) Toluene-d8	23.48	98	543731	50.71 ug/L	0.04
Spiked Amount 50.000	Range 88 - 110		Recovery =	101.42%	
50) Bromofluorobenzene	31.47	95	361047m	48.69 ug/L	0.05
Spiked Amount 50.000	Range 86 - 115		Recovery =	97.38%	

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

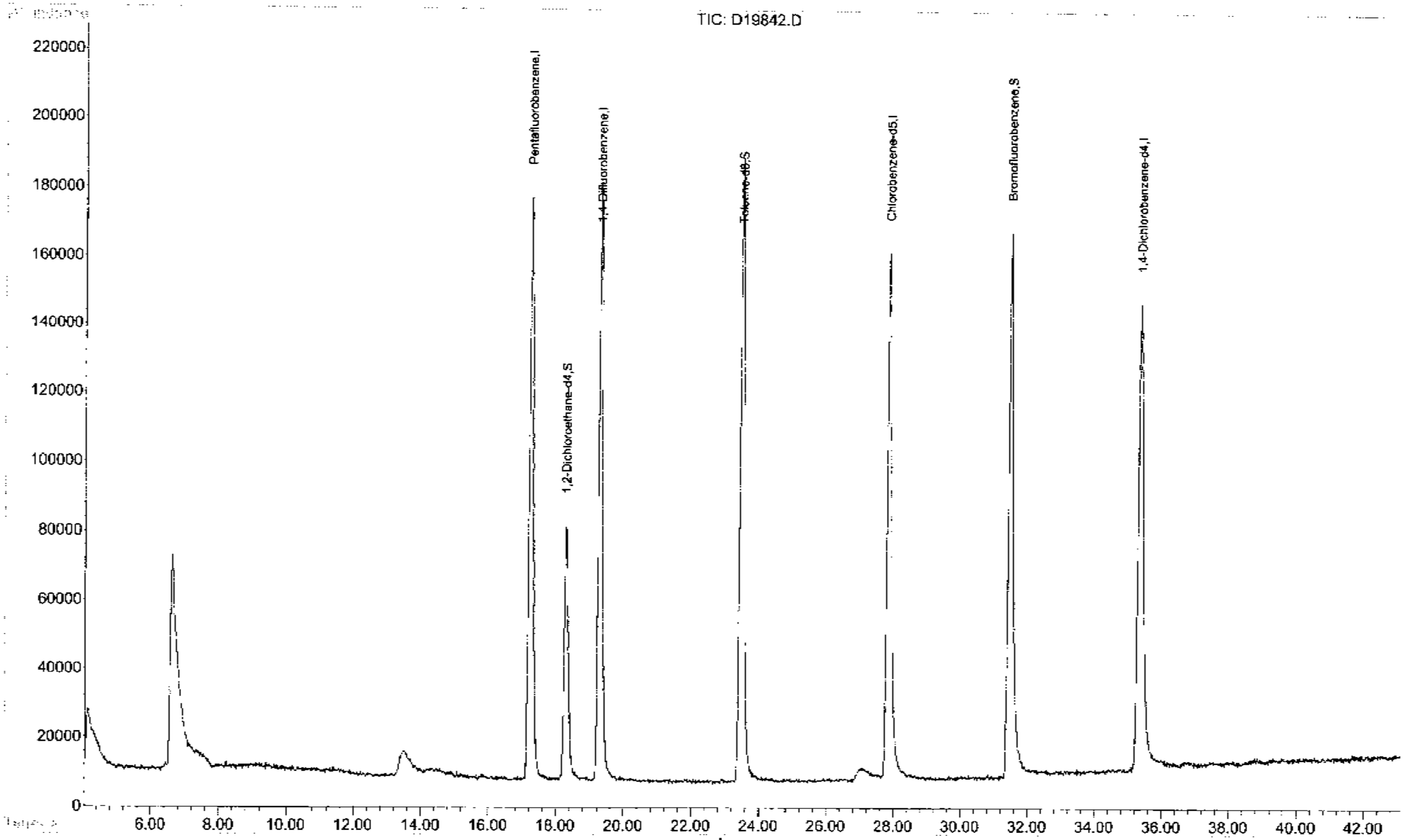
Quantitation Report

Data File : D:\DATA\D19842.D
Acq On : 13 Dec 2007 6:10 am
Sample : U0712180-019A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:38 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

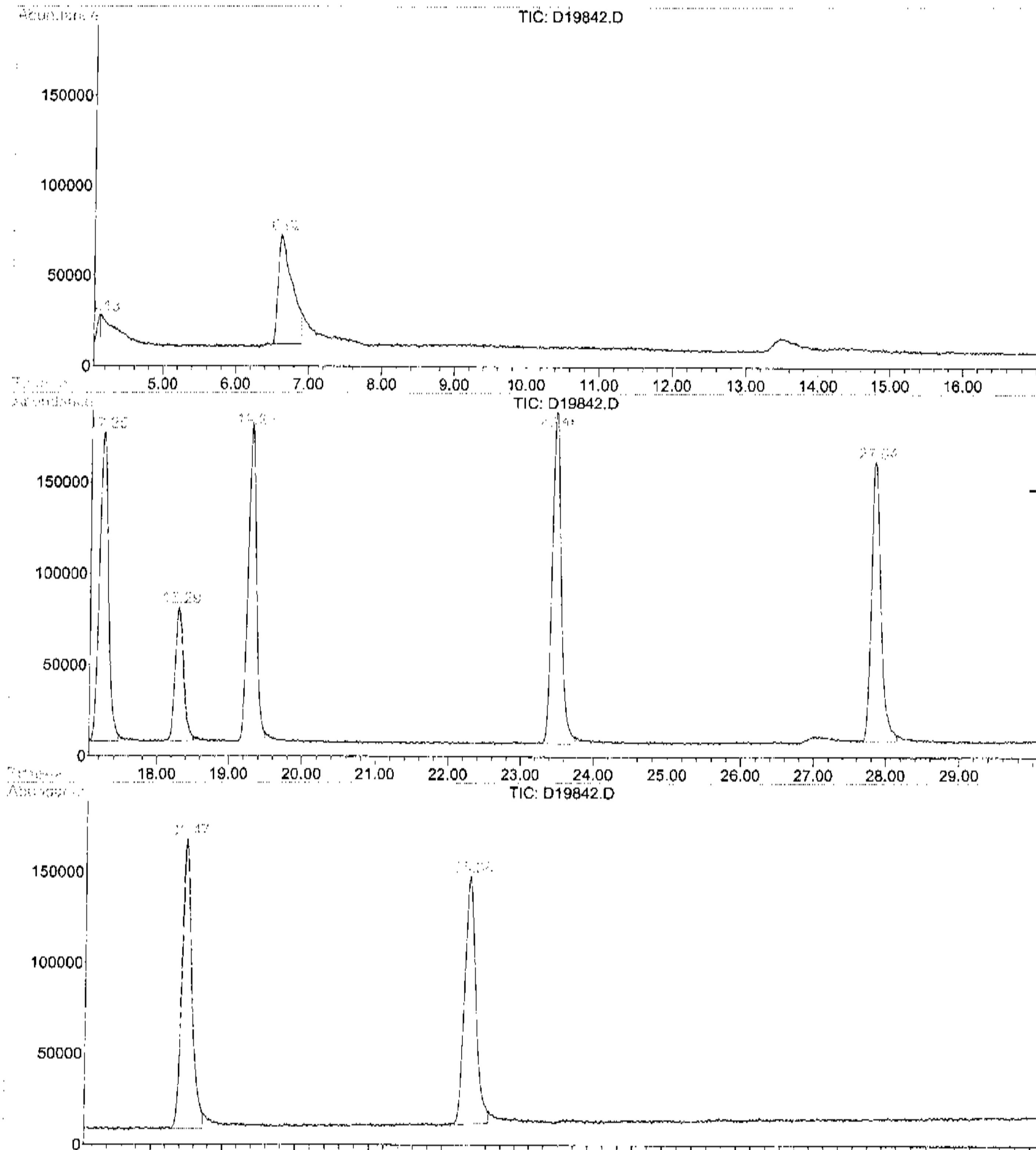
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19842.D
Operator : ART
Acquired : 13 Dec 2007 6:10 am using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-019A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19842.D D120360X.M Thu Dec 13 09:13:26 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19843.D
Acq On : 13 Dec 2007 7:00 am
Sample : U0712180-020A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:38 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.30	168	401203	50.00 ug/L	0.09
33) 1,4-Difluorobenzene	19.35	114	523606	50.00 ug/L	0.07
51) Chlorobenzene-d5	27.92	117	412879m	50.00 ug/L	0.11
73) 1,4-Dichlorobenzene-d4	35.42	152	194790	50.00 ug/L	0.14
System Monitoring Compounds					
31) 1,2-Dichloroethane-d4	18.35	65	217320	53.56 ug/L	0.10
Spiked Amount 50.000	Range 86 - 118		Recovery =	107.12%	
45) Toluene-d8	23.52	98	550265	51.57 ug/L	0.08
Spiked Amount 50.000	Range 88 - 110		Recovery =	103.14%	
50) Bromofluorobenzene	31.54	95	353069	47.84 ug/L	0.12
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.68%	

Target Compounds Qvalue

-349-

(#) = qualifier out of range (m) = manual integration

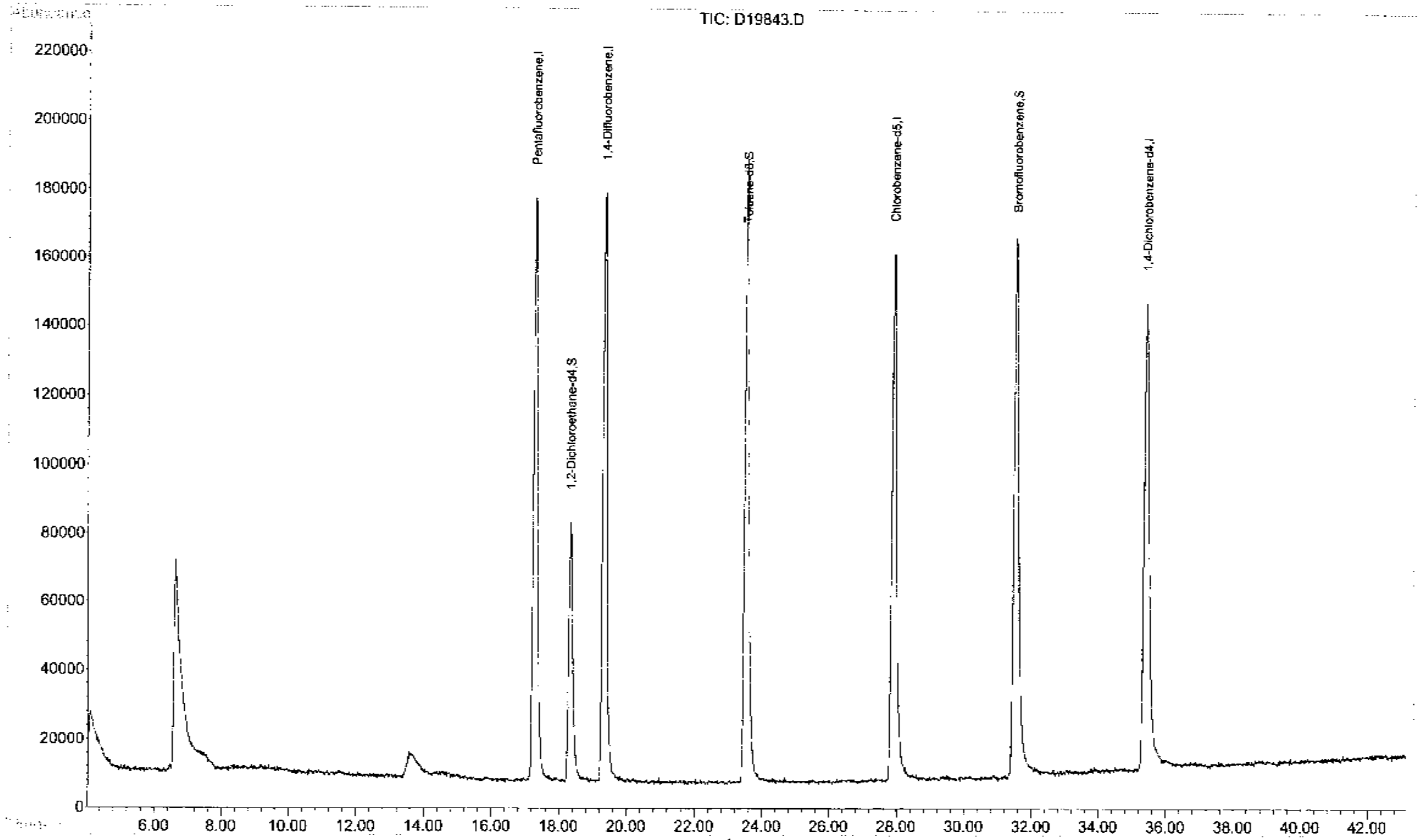
Quantitation Report

Data File : D:\DATA\D19843.D
Acq On : 13 Dec 2007 7:00 am
Sample : U0712180-020A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:38 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

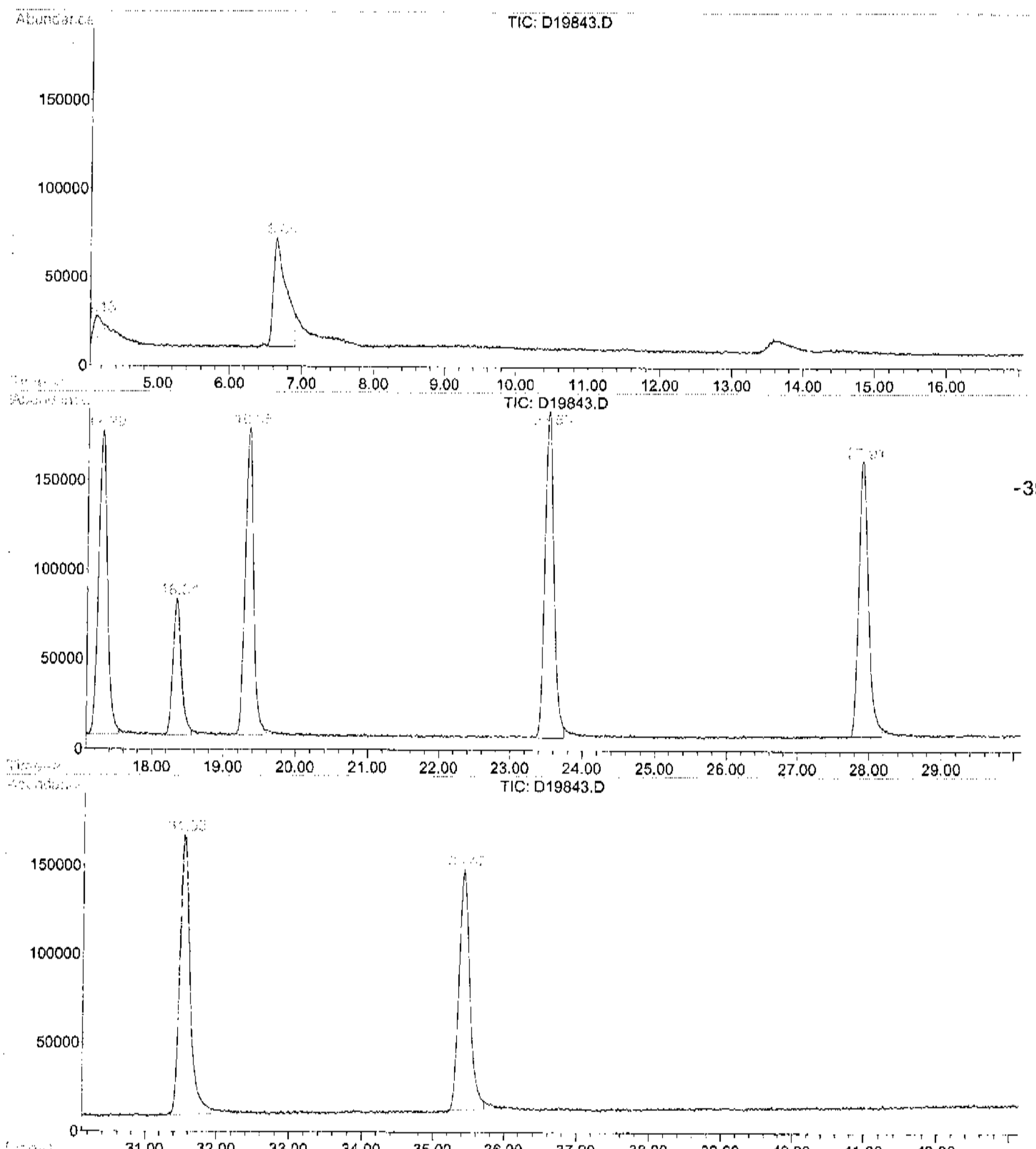
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19843.D
Operator : ART
Acquired : 13 Dec 2007 7:00 am using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-020A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19843.D D120360X.M Thu Dec 13 09:13:37 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Data File : D:\DATA\D19849.D
Acq On : 13 Dec 2007 12:29 pm
Sample : U0712180-021C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:04 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.50	168	413471m AQ	50.00	ug/L	0.12
33) 1,4-Difluorobenzene	19.53	114	536529	50.00	ug/L	0.13
51) Chlorobenzene-d5	28.15	117	418838m AQ	50.00	ug/L	0.16
73) 1,4-Dichlorobenzene-d4	35.71	152	199253	50.00	ug/L	0.16

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.52	65	221356m AQ	52.93	ug/L	0.14
Spiked Amount 50.000	Range 86 - 118		Recovery =	105.86%		
45) Toluene-d8	23.75	98	564075	51.59	ug/L	0.14
Spiked Amount 50.000	Range 88 - 110		Recovery =	103.18%		
50) Bromofluorobenzene	31.79	95	360418	47.66	ug/L	0.16
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.32%		

Target Compounds Qvalue

-355-

(#) = qualifier out of range (m) = manual integration
D19849.D D120360X.M Fri Dec 14 09:36:05 2007

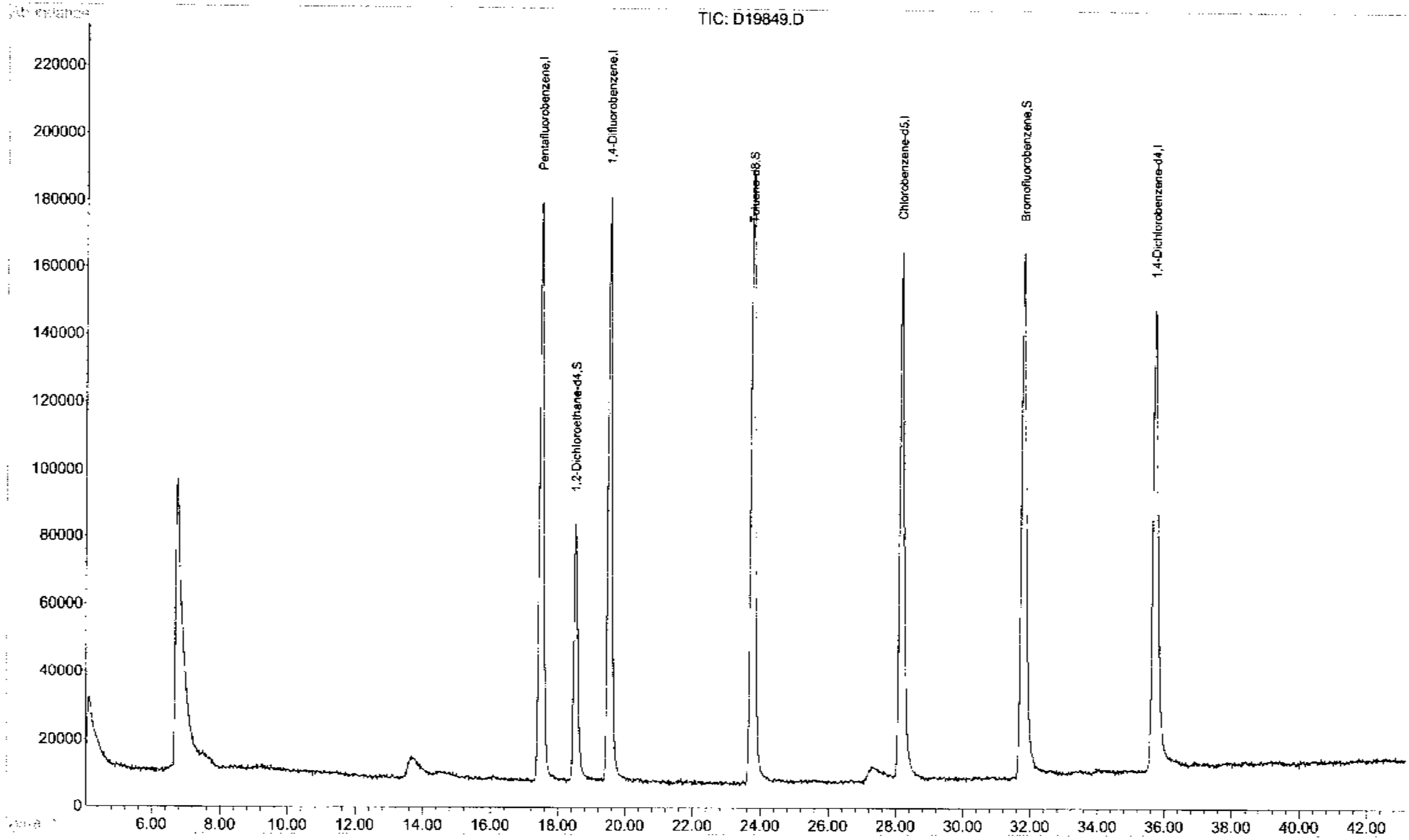
Quantitation Report

Data File : D:\DATA\D19849.D
Acq On : 13 Dec 2007 12:29 pm
Sample : U0712180-021C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:04 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

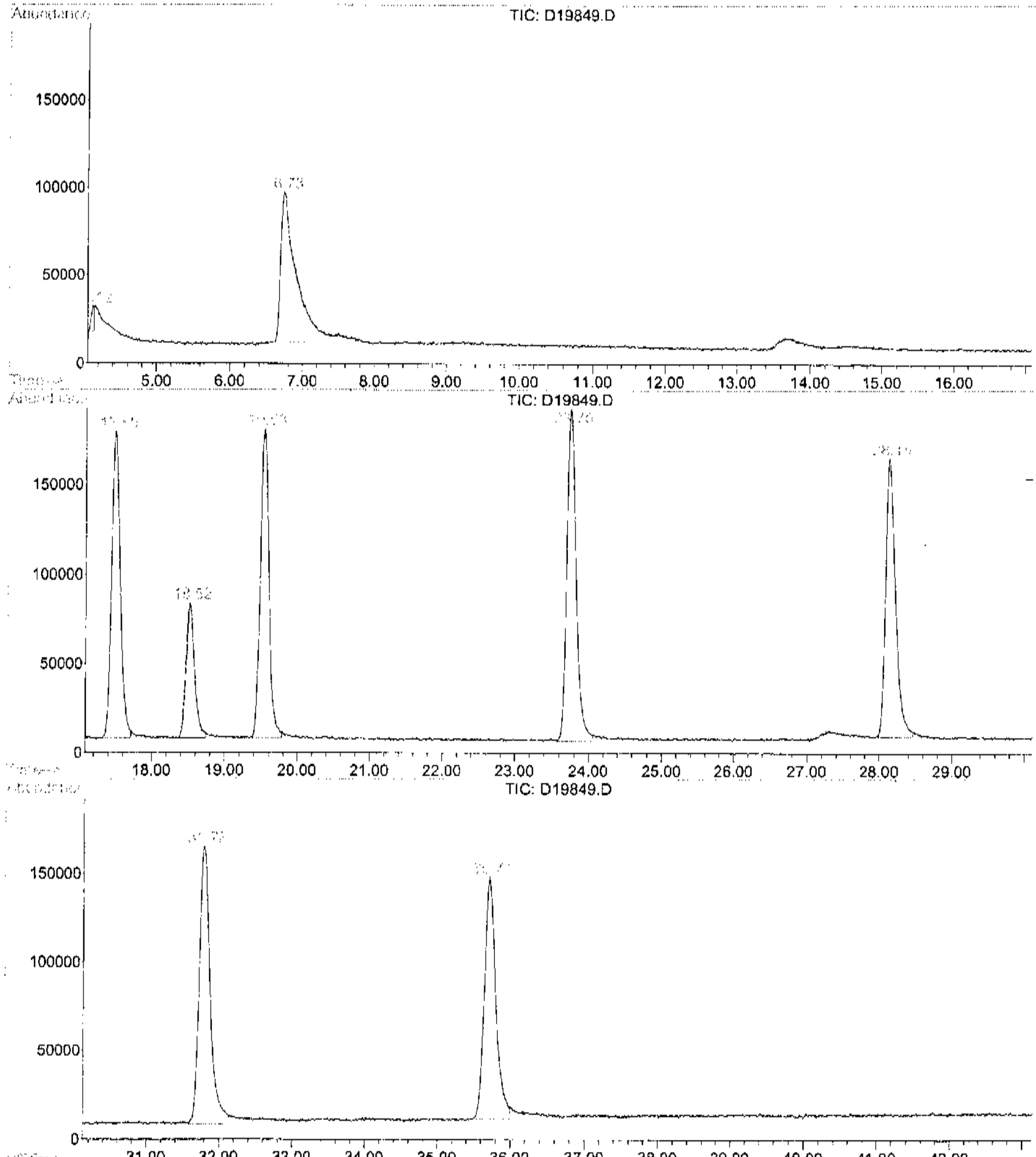
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19849.D
Operator : ART
Acquired : 13 Dec 2007 12:29 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-021C
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



D19849.D D120360X.M Fri Dec 14 09:56:44 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19850.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19850.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19850.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19850.D Vial: 100
Acq On : 13 Dec 2007 1:20 pm Operator: ART
Sample : U0712180-022C Inst : #13
Misc : 5MLS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:05 2007 Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.47	168	402763m AQ\	50.00	ug/L	0.10
33) 1,4-Difluorobenzene	19.49	114	512711	50.00	ug/L	0.10
51) Chlorobenzene-d5	28.11	117	420756mAQ\	50.00	ug/L	0.12
73) 1,4-Dichlorobenzene-d4	35.68	152	199695	50.00	ug/L	0.12
System Monitoring Compounds						
31) 1,2-Dichloroethane-d4	18.50	65	201193	49.39	ug/L	0.11
Spiked Amount 50.000	Range 86 - 118		Recovery = 98.78%			
45) Toluene-d8	23.72	98	550986	52.73	ug/L	0.11
Spiked Amount 50.000	Range 88 - 110		Recovery = 105.46%			
50) Bromofluorobenzene	31.74	95	359772	49.78	ug/L	0.11
Spiked Amount 50.000	Range 86 - 115		Recovery = 99.56%			

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

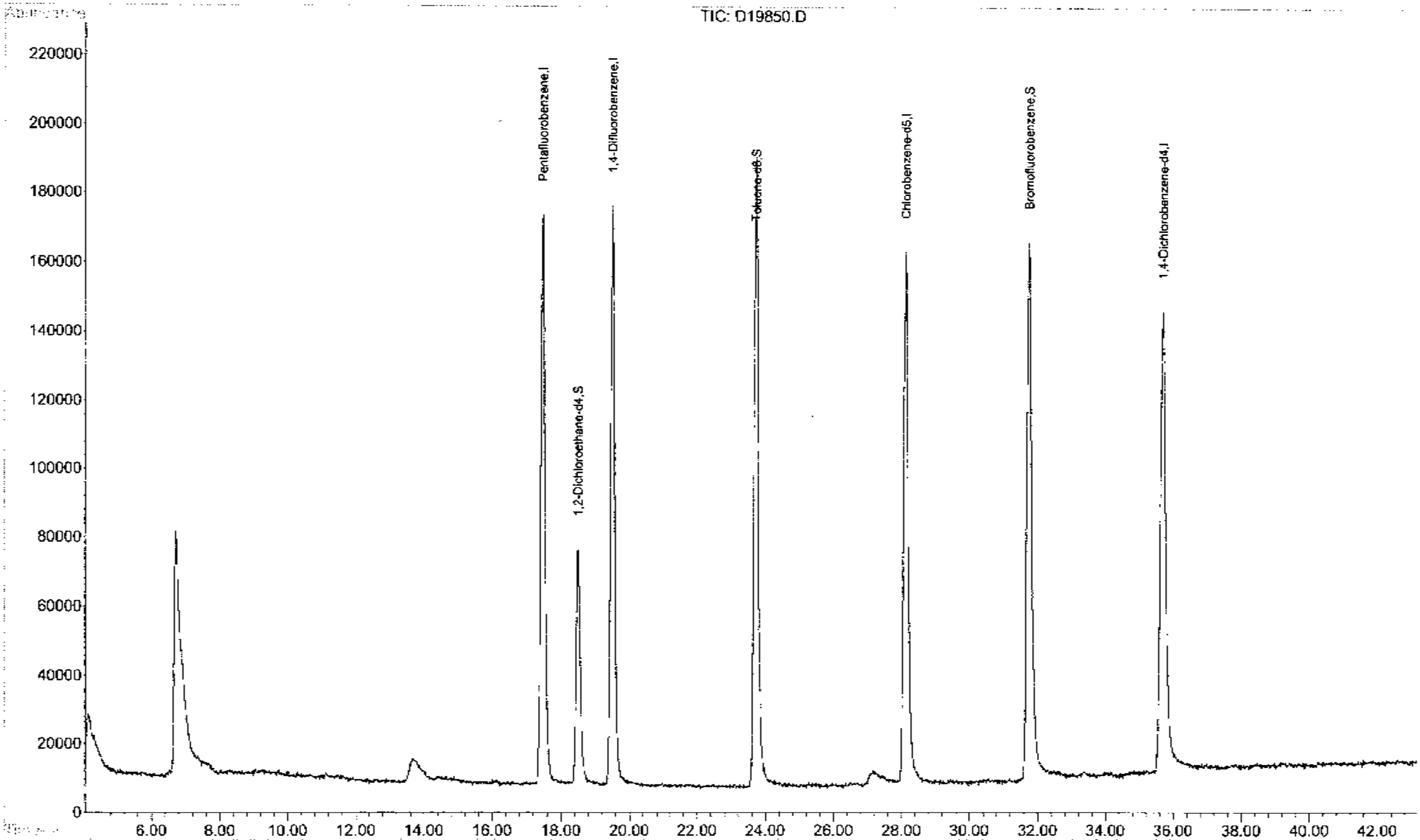
Quantitation Report

Data File : D:\DATA\D19850.D
Acq On : 13 Dec 2007 1:20 pm
Sample : U0712180-022C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:05 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

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File         : D:\DATA\D19850.D
Operator     : ART
Acquired     : 13 Dec 2007   1:20 pm using AcqMethod D120360X
Instrument :    #13
Sample Name: U0712180-022C
Misc Info  : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)
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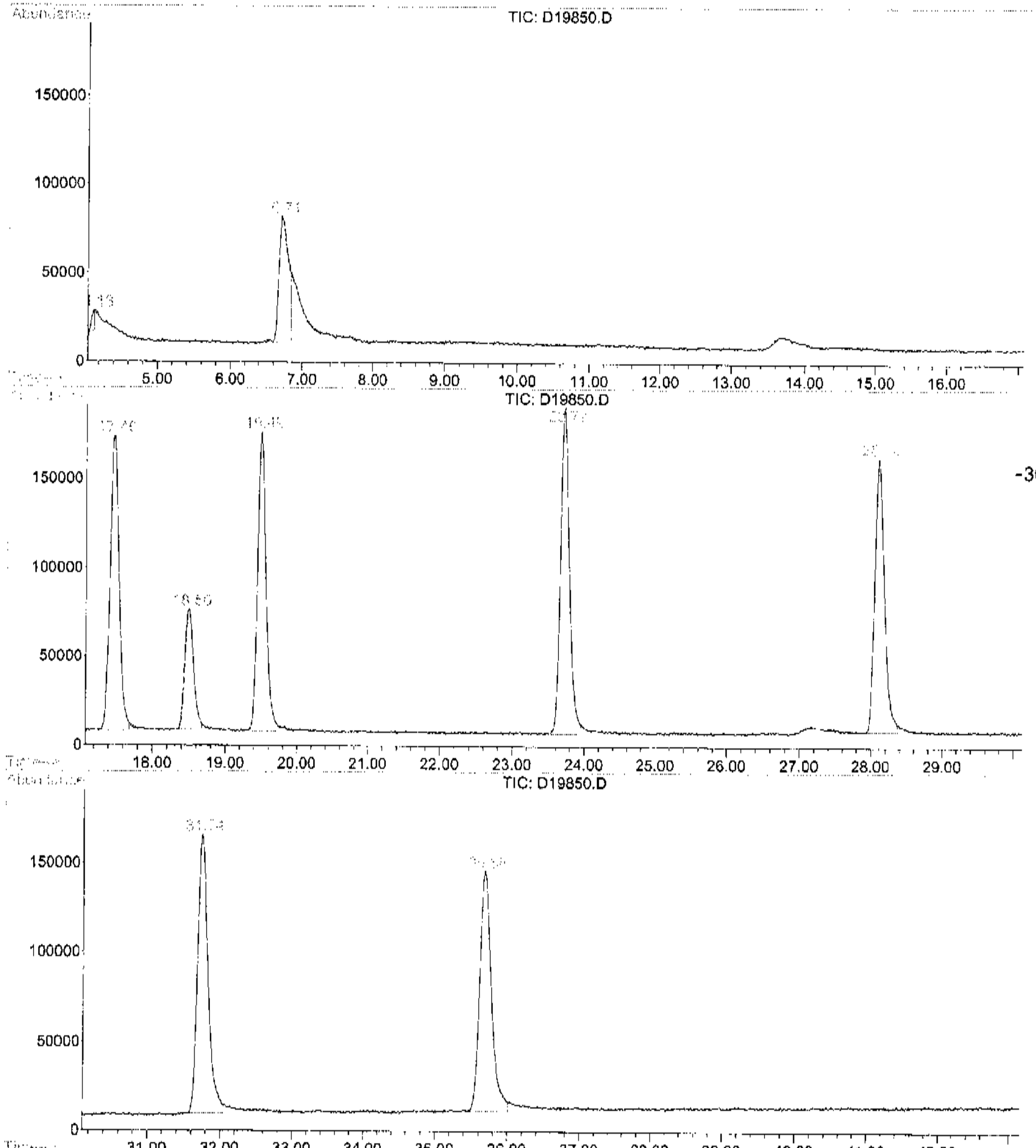

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D19850.D D120360X.M Fri Dec 14 09:56:55 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19851.D
Acq On : 13 Dec 2007 2:11 pm
Sample : U0712180-023C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:05 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.52	168	406667	50.00	ug/L	0.14
33) 1,4-Difluorobenzene	19.55	114	529626	50.00	ug/L	0.15
51) Chlorobenzene-d5	28.15	117	418541m ARX	50.00	ug/L	0.17
73) 1,4-Dichlorobenzene-d4	35.72	152	208059m AR	50.00	ug/L	0.17

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.55	65	210231	51.12	ug/L	0.17
Spiked Amount 50.000	Range 86 - 118		Recovery = 102.24%			
45) Toluene-d8	23.75	98	562916	52.15	ug/L	0.14
Spiked Amount 50.000	Range 88 - 110		Recovery = 104.30%			
50) Bromofluorobenzene	31.79	95	366114	49.04	ug/L	0.16
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.08%			

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration

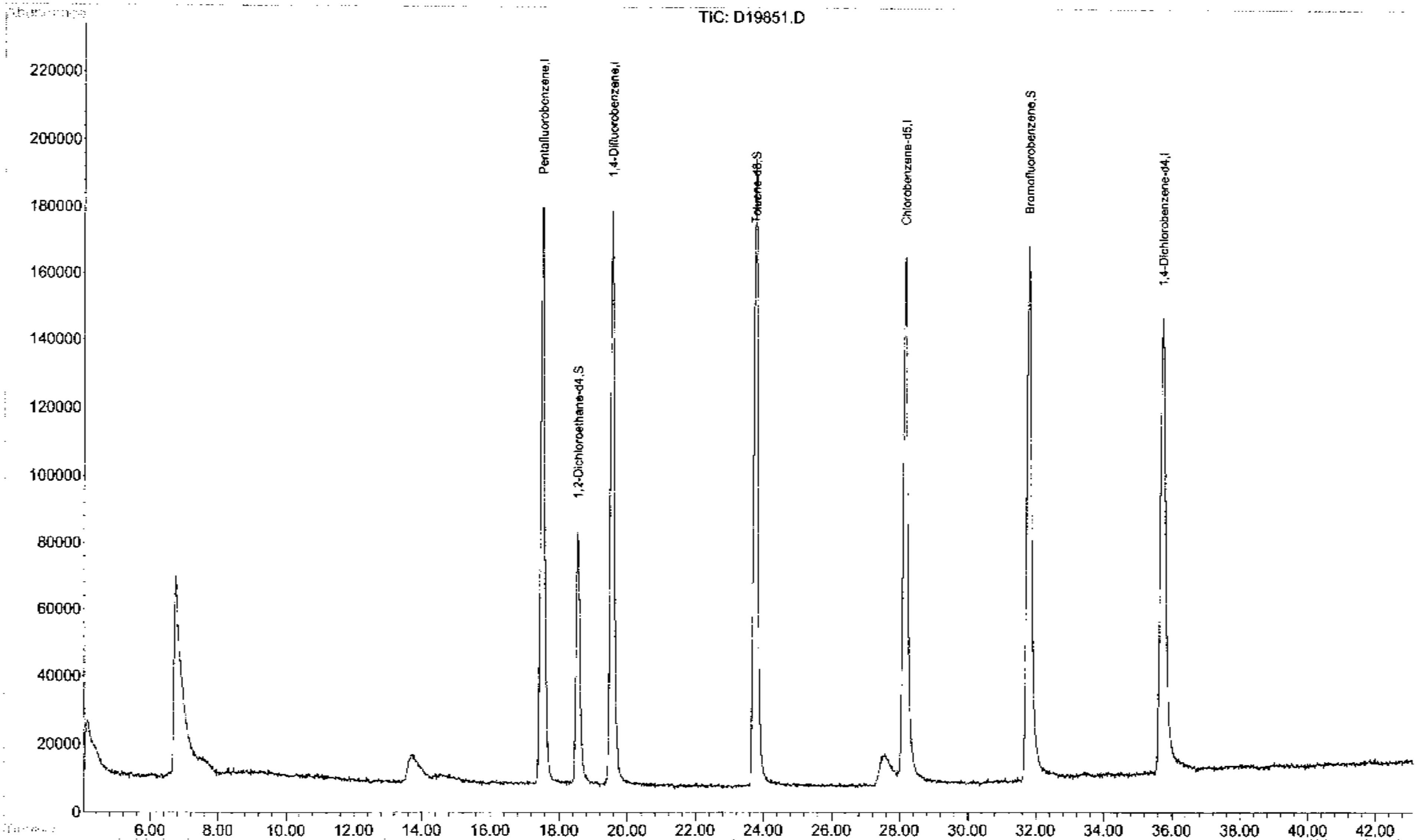
Quantitation Report

Data File : D:\DATA\D19851.D
Acq On : 13 Dec 2007 2:11 pm
Sample : U0712180-023C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:05 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

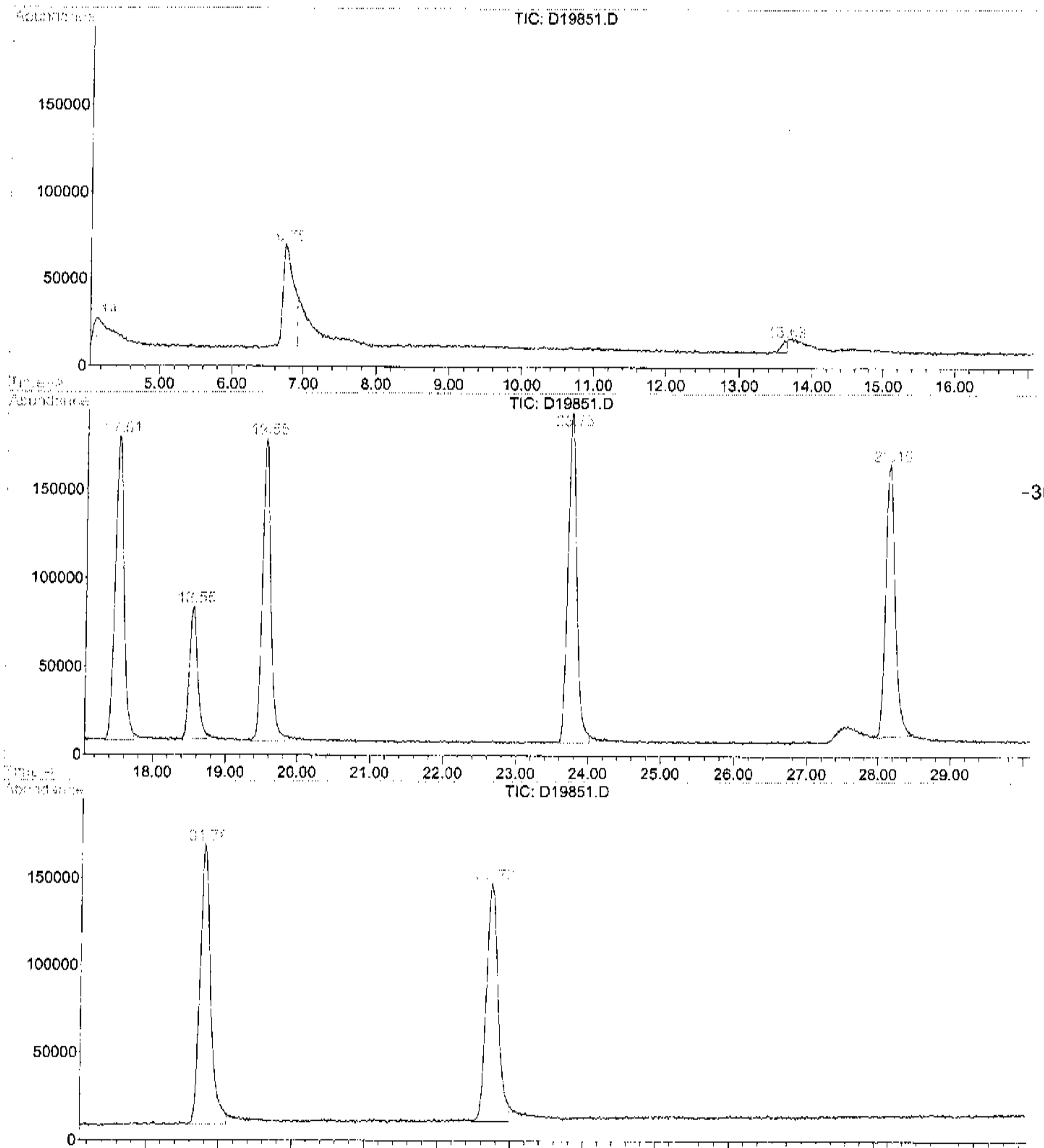
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19851.D
Operator : ART
Acquired : 13 Dec 2007 2:11 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-023C
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19851.D D120360X.M Fri Dec 14 09:57:06 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19852.D
Acq On : 13 Dec 2007 3:01 pm
Sample : U0712180-024C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:06 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.50	168	411328m AQ	50.00	ug/L	0.12
33) 1,4-Difluorobenzene	19.53	114	528736	50.00	ug/L	0.13
51) Chlorobenzene-d5	28.17	117	419700m AQ	50.00	ug/L	0.18
73) 1,4-Dichlorobenzene-d4	35.75	152	206437m	50.00	ug/L	0.20
System Monitoring Compounds						
31) 1,2-Dichloroethane-d4	18.53	65	211399	50.82	ug/L	0.14
Spiked Amount 50.000	Range 86 - 118		Recovery =	101.64%		
45) Toluene-d8	23.75	98	562116m AQ	52.17	ug/L	0.13
Spiked Amount 50.000	Range 88 - 110		Recovery =	104.34%		
50) Bromofluorobenzene	31.81	95	378105m AQ	50.73	ug/L	0.18
Spiked Amount 50.000	Range 86 - 115		Recovery =	101.46%		

Target Compounds Qvalue

-373-

(#) = qualifier out of range (m) = manual integration

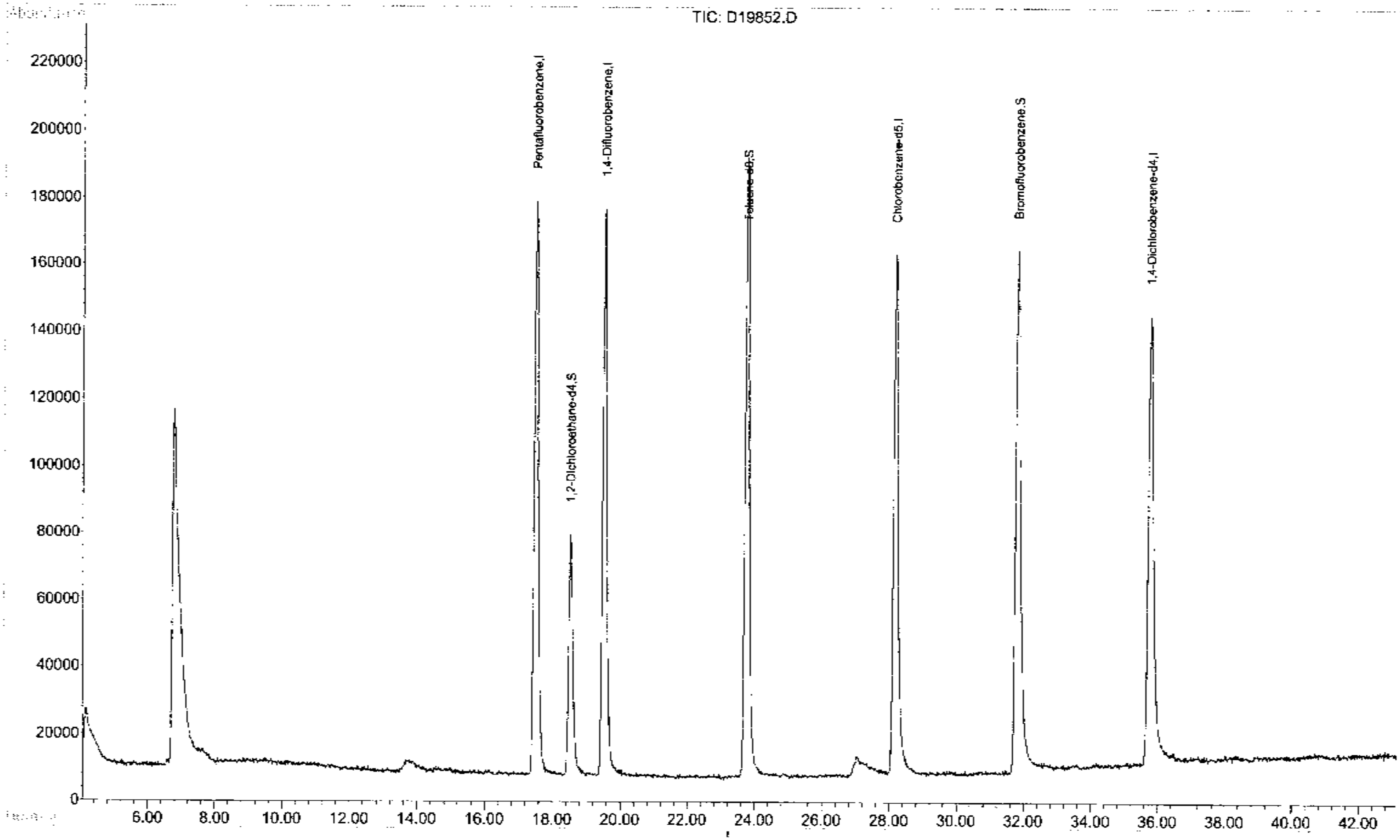
Quantitation Report

Data File : D:\DATA\D19852.D
Acq On : 13 Dec 2007 3:01 pm
Sample : U0712180-024C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:06 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

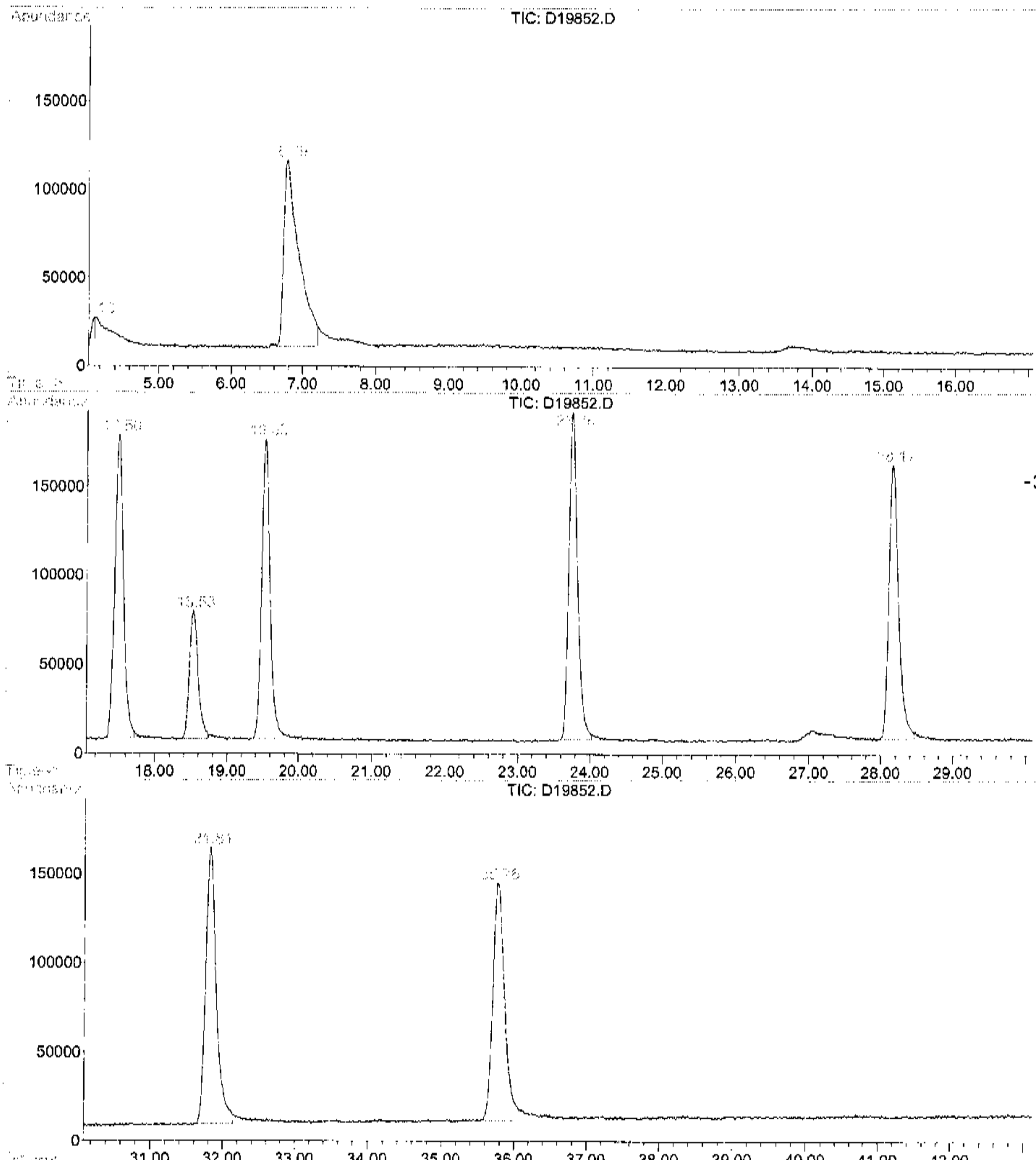
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19852.D
Operator : ART
Acquired : 13 Dec 2007 3:01 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-024C
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19852.D D120360X.M Fri Dec 14 09:57:16 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ___ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19853.D
Acq On : 13 Dec 2007 3:52 pm
Sample : U0712180-025C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:07 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.50	168	391140m AQ\	50.00	ug/L	0.12
33) 1,4-Difluorobenzene	19.50	114	488763	50.00	ug/L	0.10
51) Chlorobenzene-d5	28.11	117	411161m AQ\	50.00	ug/L	0.12
73) 1,4-Dichlorobenzene-d4	35.67	152	206050m AQ\	50.00	ug/L	0.12

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.52	65	182682	46.18	ug/L	0.13
Spiked Amount 50.000	Range 86 - 118		Recovery =	92.36%		
45) Toluene-d8	23.71	98	538541	54.07	ug/L	0.09
Spiked Amount 50.000	Range 88 - 110		Recovery =	108.14%		
50) Bromofluorobenzene	31.72	95	357937	51.96	ug/L	0.09
Spiked Amount 50.000	Range 86 - 115		Recovery =	103.92%		

Target Compounds Qvalue

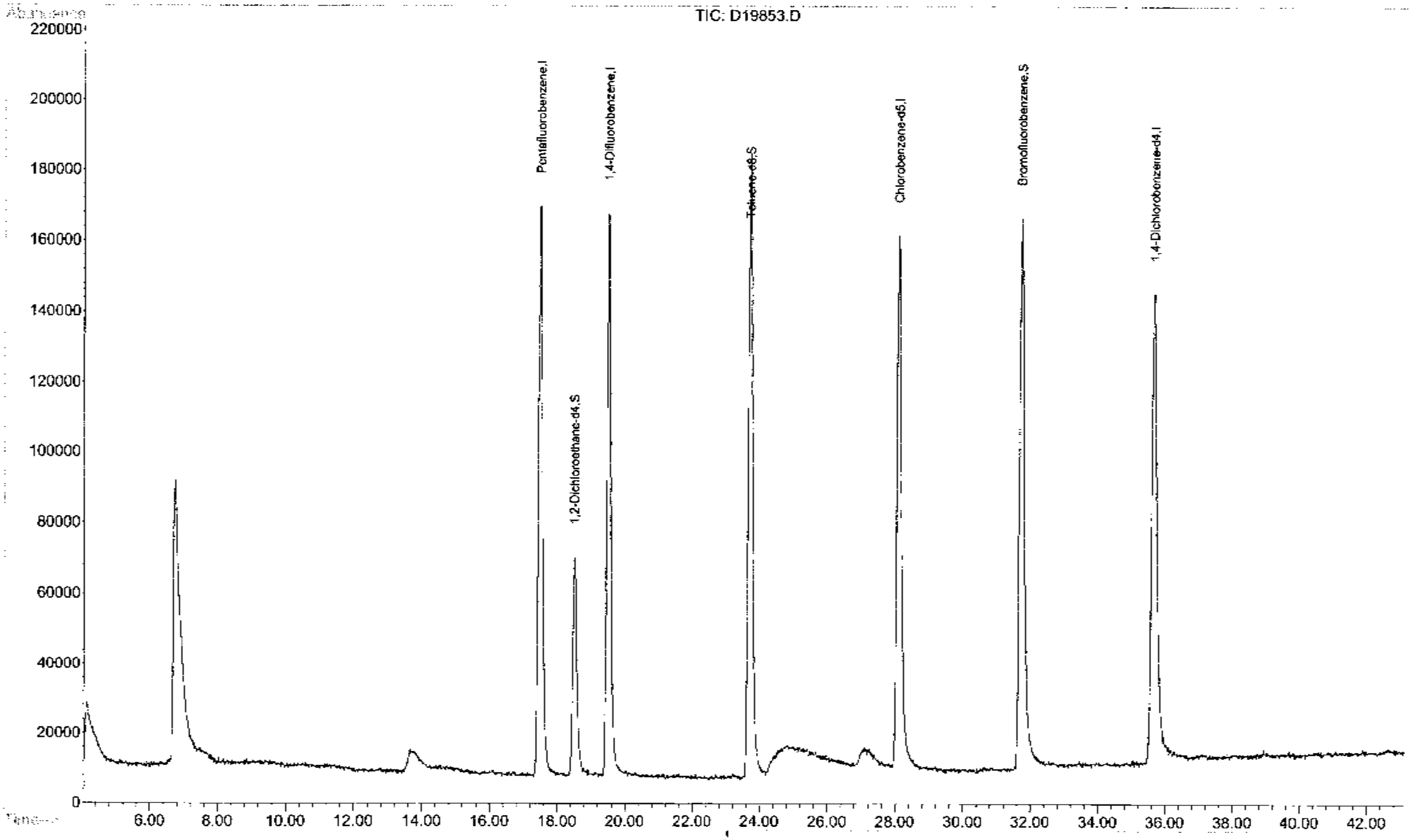
-379-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

```
Data File : D:\DATA\D19853.D                              Vial: 100
Acq On    : 13 Dec 2007   3:52 pm                     Operator: ART
Sample    : U0712180-025C                             Inst    : #13
Misc      : 5MLS                                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14  9:07 2007            Quant Results File: D120360X.RES

Method        : D:\METHODS\D120360X.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Fri Dec 14 09:15:20 2007
Response via  : Initial Calibration
```



LSC Report - Integrated Chromatogram

```
File         : D:\DATA\D19853.D
Operator     : ART
Acquired     : 13 Dec 2007   3:52 pm using AcqMethod D120360X
Instrument :    #13
Sample Name: U0712180-025C
Misc Info    : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)
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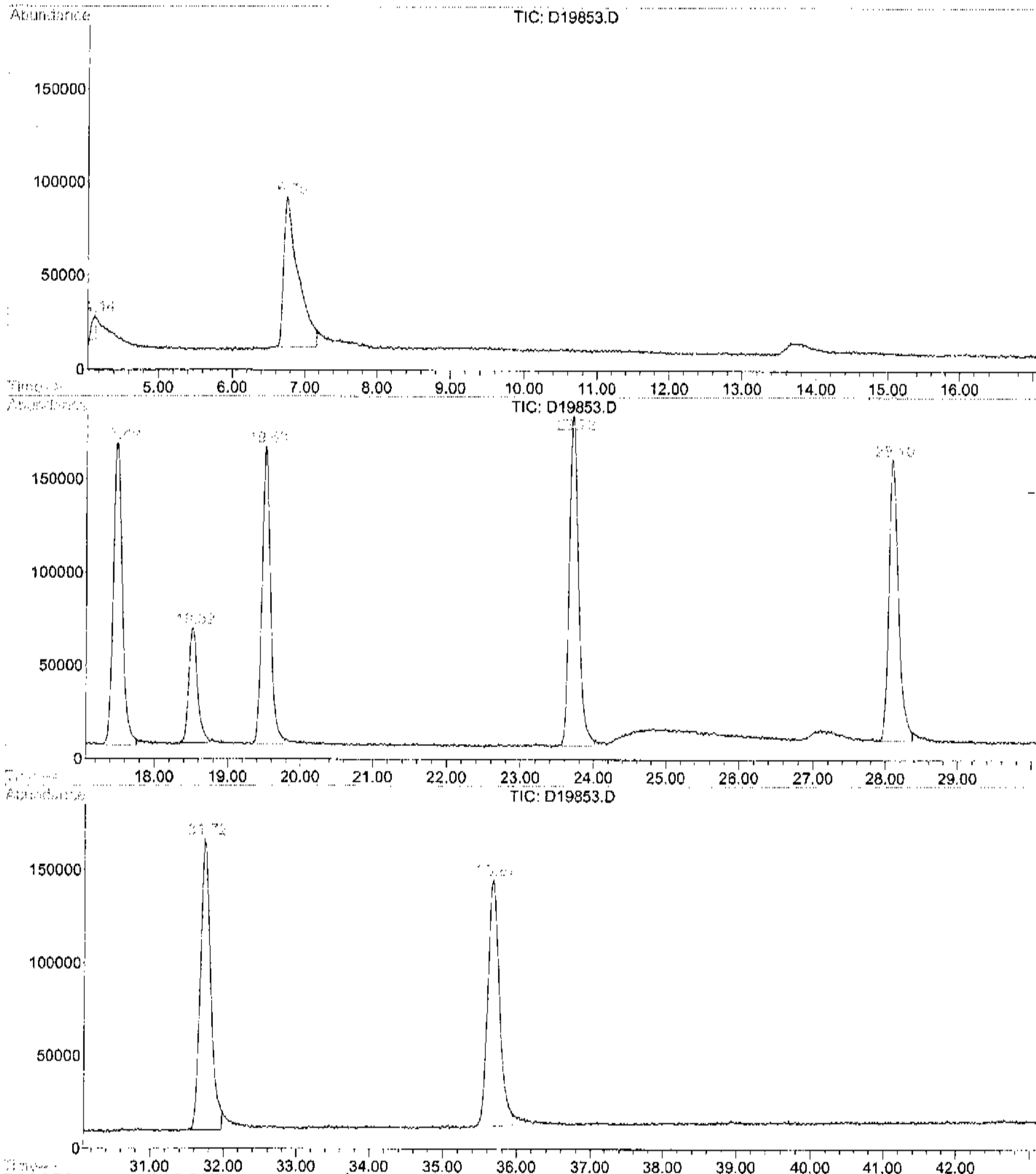

D19853.D   D120360X.M   Fri Dec 14 09:57:27 2007

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\D19854.D                                Vial: 100
Acq On    : 13 Dec 2007   4:43 pm                       Operator: ART
Sample    : U0712180-026C                               Inst    : #13
Misc      : 5MLS                                        Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Dec 14  9:08 2007              Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

 Internal Standards                R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
  1) Pentafluorobenzene           17.48  168   406356m   50.00 ug/L    0.10
 33) 1,4-Difluorobenzene          19.51  114   525600    50.00 ug/L    0.11
 51) Chlorobenzene-d5             28.10  117   418005m   50.00 ug/L    0.11
 73) 1,4-Dichlorobenzene-d4       35.67  152   206610m   50.00 ug/L    0.11

 System Monitoring Compounds
 31) 1,2-Dichloroethane-d4        18.52   65   208674    50.78 ug/L    0.13
  Spiked Amount     50.000   Range  86 - 118    Recovery   =  101.56%
 45) Toluene-d8                   23.72   98   554339    51.75 ug/L    0.10
  Spiked Amount     50.000   Range  88 - 110    Recovery   =  103.50%
 50) Bromofluorobenzene           31.74   95   372031m   50.22 ug/L    0.10
  Spiked Amount     50.000   Range  86 - 115    Recovery   =  100.44%

 Target Compounds                                                   Qvalue
```

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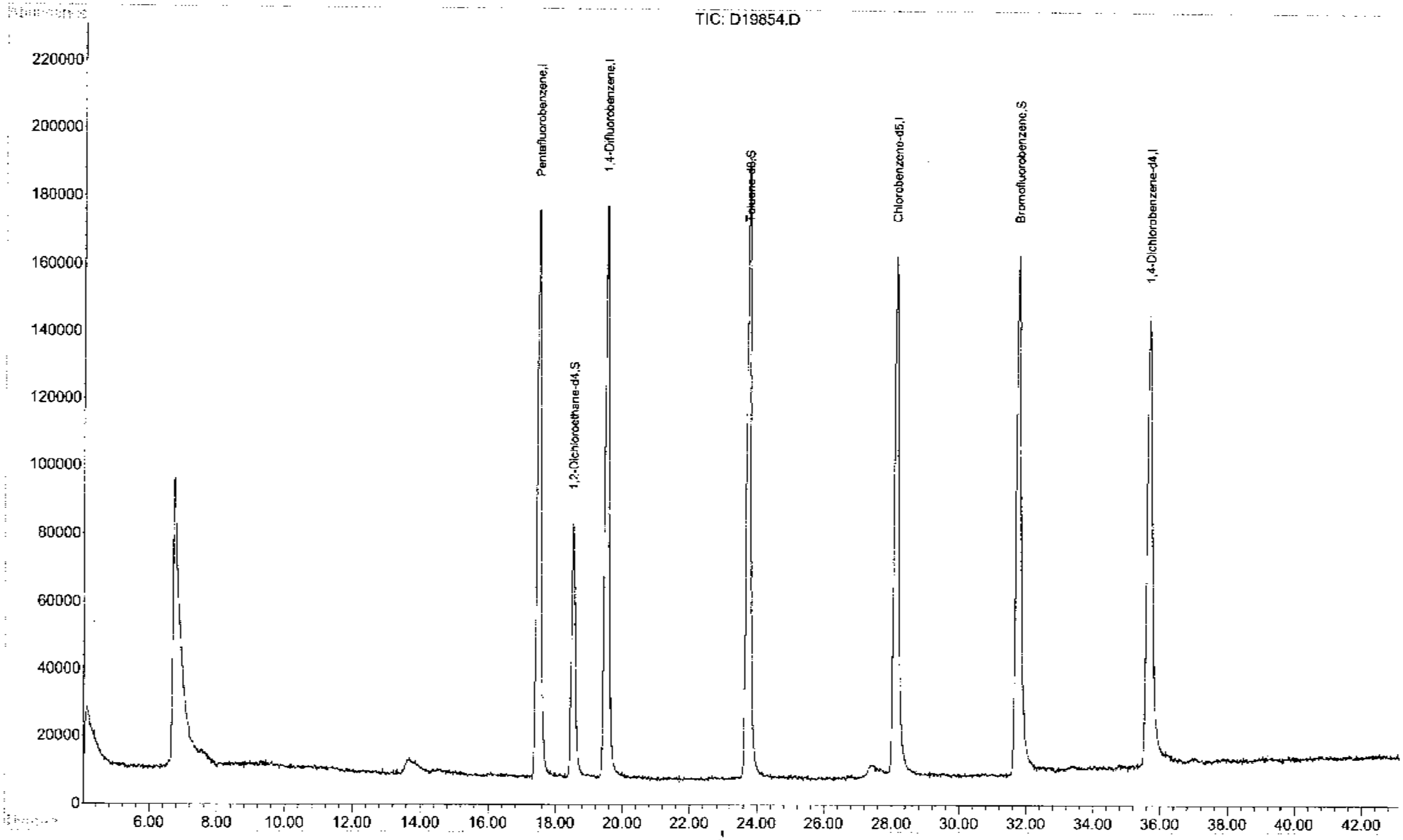
Quantitation Report

Data File : D:\DATA\D19854.D
Acq On : 13 Dec 2007 4:43 pm
Sample : U0712180-026C
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:08 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

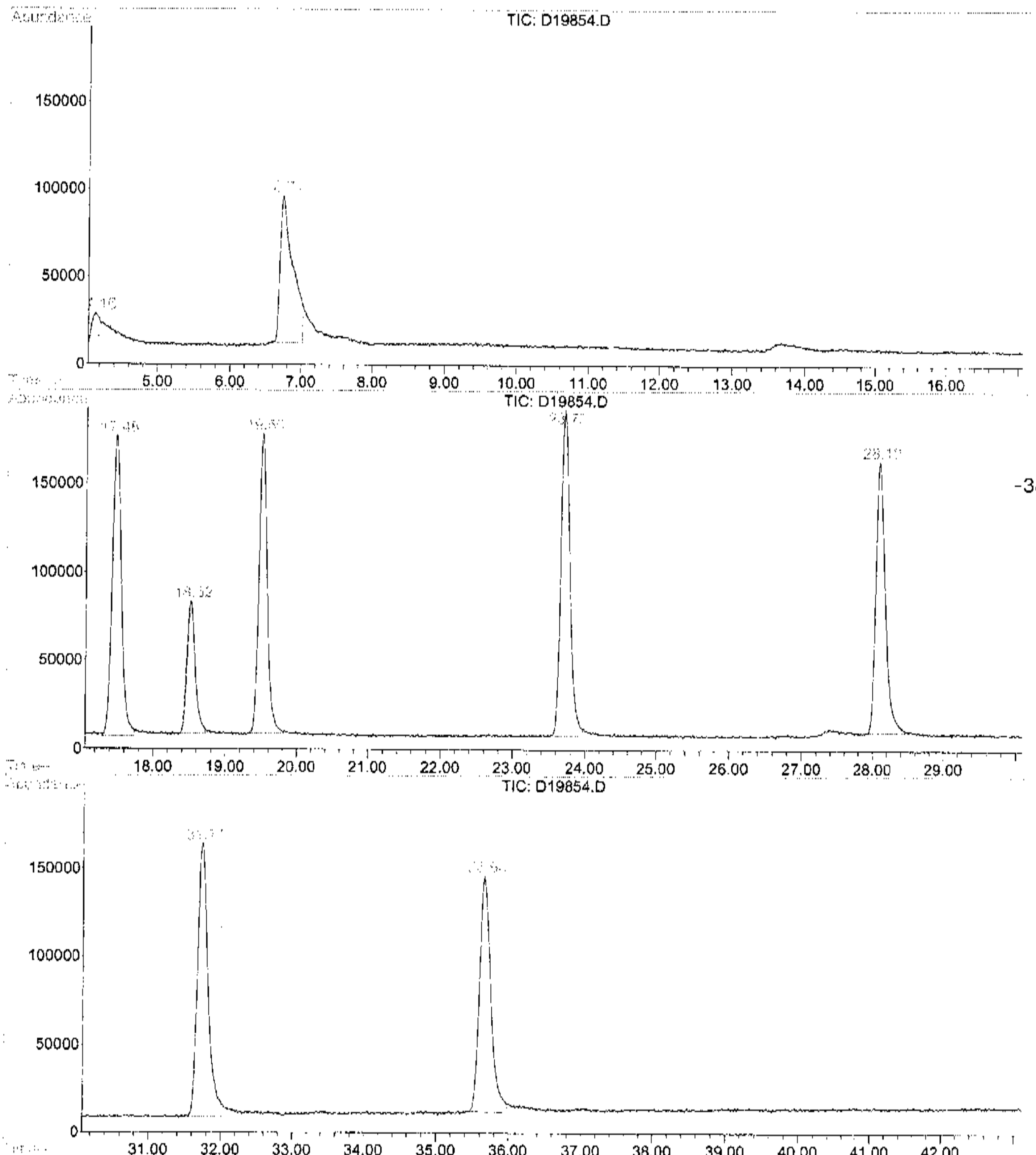
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19854.D
Operator : ART
Acquired : 13 Dec 2007 4:43 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-026C
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19854.D D120360X.M Fri Dec 14 09:57:37 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\D19855.D                         Vial: 100
Acq On    : 13 Dec 2007   5:34 pm                Operator: ART
Sample    : U0712180-027A                        Inst    : #13
Misc      : 5MLS                                 Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Dec 14  9:09 2007            Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.51	168	407347m AQ	50.00 ug/L	0.13
33) 1,4-Difluorobenzene	19.54	114	541376	50.00 ug/L	0.14
51) Chlorobenzene-d5	28.15	117	420335m AQ	50.00 ug/L	0.16
73) 1,4-Dichlorobenzene-d4	35.71	152	202942m AQ	50.00 ug/L	0.16

System Monitoring Compounds						
31) 1,2-Dichloroethane-d4		18.55	65	212731	51.64 ug/L	0.16
Spiked Amount	50.000	Range 86 - 118		Recovery	= 103.28%	
45) Toluene-d8		23.76	98	554290	50.24 ug/L	0.14
Spiked Amount	50.000	Range 88 - 110		Recovery	= 100.48%	
50) Bromofluorobenzene		31.78	95	361268	47.34 ug/L	0.15
Spiked Amount	50.000	Range 86 - 115		Recovery	= 94.68%	

Target Compounds Qvalue

-391-

(#) = qualifier out of range (m) = manual integration

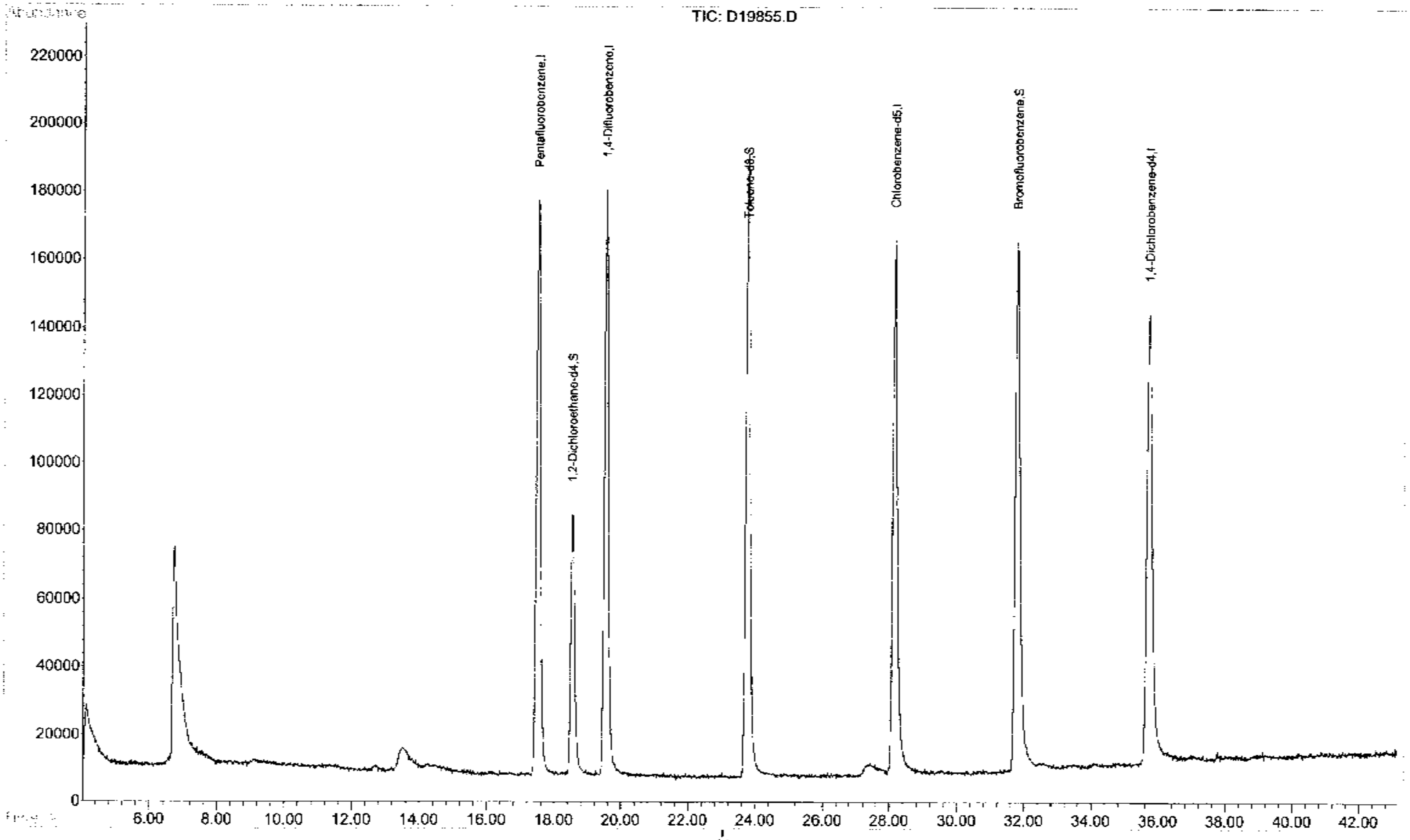
Quantitation Report

Data File : D:\DATA\D19855.D
Acq On : 13 Dec 2007 5:34 pm
Sample : U0712180-027A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:09 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

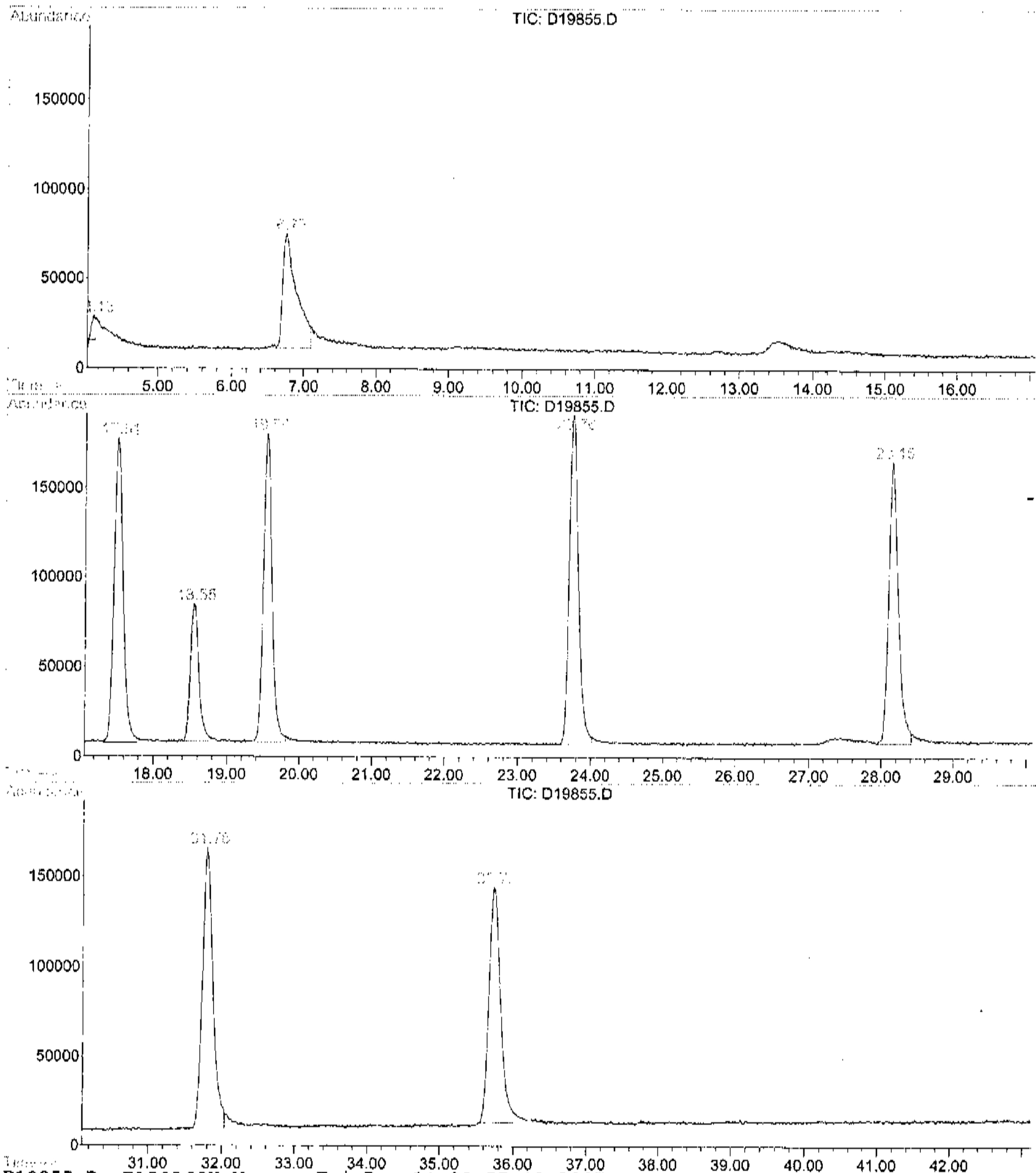
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19855.D
Operator : ART
Acquired : 13 Dec 2007 5:34 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-027A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



-393-

D19855.D D120360X.M Fri Dec 14 09:57:48 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19856.D
Acq On : 13 Dec 2007 6:24 pm
Sample : U0712180-028A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:11 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.52	168	425848m AQ	50.00	ug/L	0.14
33) 1,4-Difluorobenzene	19.56	114	545944	50.00	ug/L	0.16
51) Chlorobenzene-d5	28.14	117	425609m AQ	50.00	ug/L	0.15
73) 1,4-Dichlorobenzene-d4	35.69	152	197693	50.00	ug/L	0.14

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.58	65	221009m AQ	51.32	ug/L	0.20
Spiked Amount 50.000	Range 86 - 118		Recovery =	102.64%		
45) Toluene-d8	23.76	98	572082	51.42	ug/L	0.14
Spiked Amount 50.000	Range 88 - 110		Recovery =	102.84%		
50) Bromofluorobenzene	31.77	95	371495m AQ	48.28	ug/L	0.14
Spiked Amount 50.000	Range 86 - 115		Recovery =	96.56%		

Target Compounds Qvalue

-397-

(#) = qualifier out of range (m) = manual integration

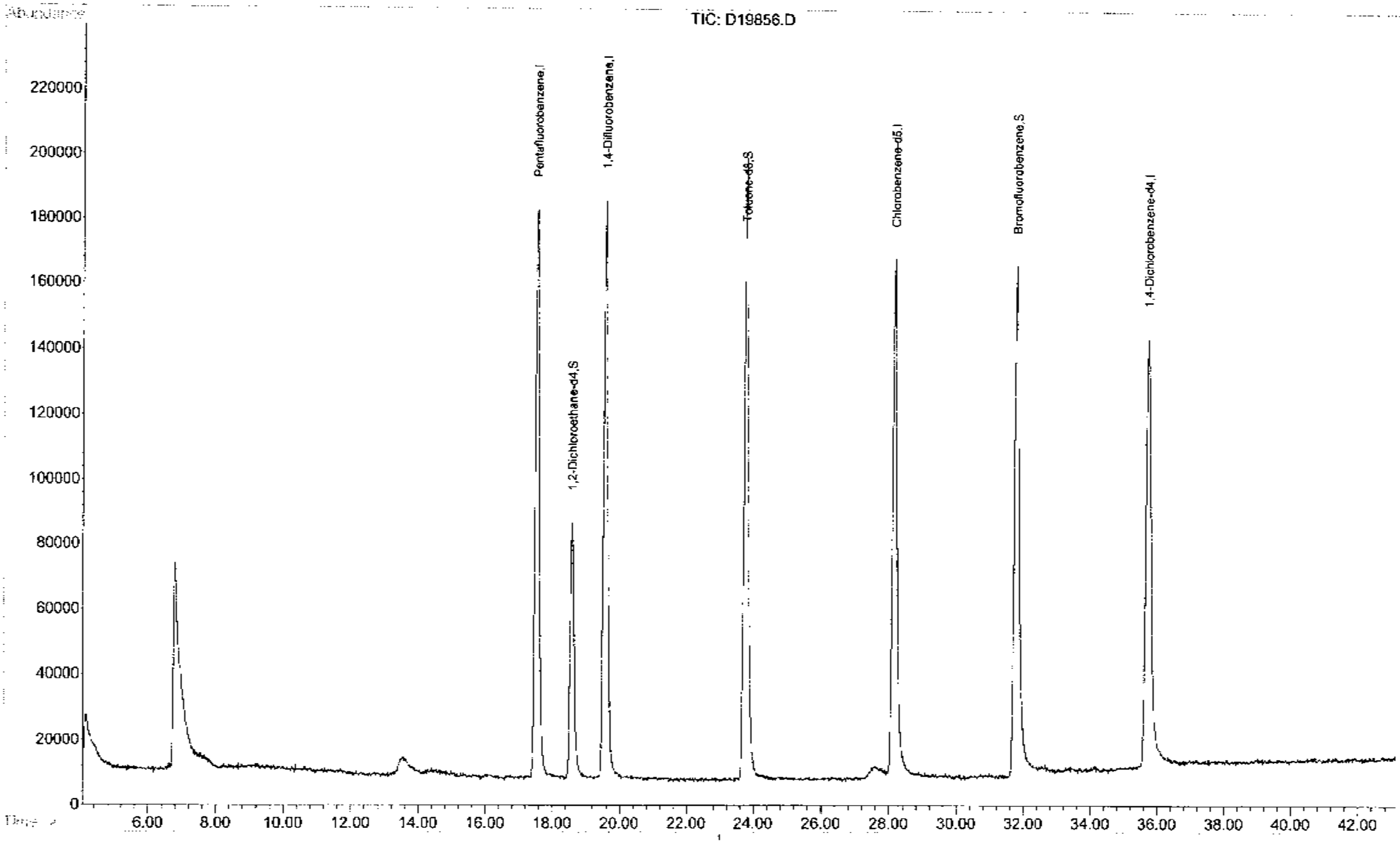
Quantitation Report

Data File : D:\DATA\D19856.D
Acq On : 13 Dec 2007 6:24 pm
Sample : U0712180-028A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:11 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

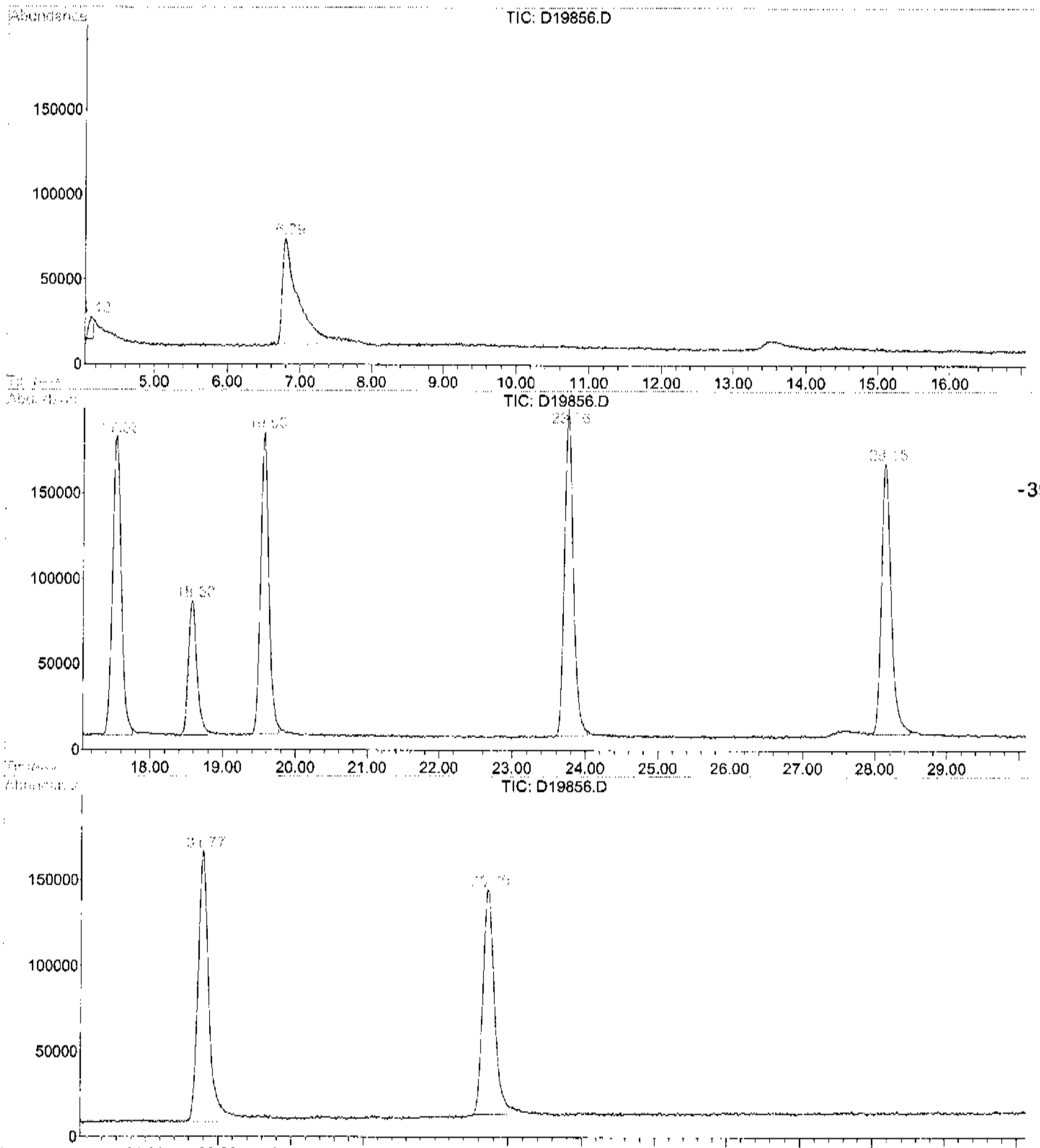
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19856.D
Operator : ART
Acquired : 13 Dec 2007 6:24 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-028A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



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D19856.D D120360X.M Fri Dec 14 09:57:59 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19857.D
Acq On : 13 Dec 2007 7:15 pm
Sample : U0712180-029A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:12 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.54	168	426728m ART	50.00	ug/L	0.16
33) 1,4-Difluorobenzene	19.56	114	548397	50.00	ug/L	0.16
51) Chlorobenzene-d5	28.18	117	423526m ART	50.00	ug/L	0.19
73) 1,4-Dichlorobenzene-d4	35.75	152	204429	50.00	ug/L	0.20
System Monitoring Compounds						
31) 1,2-Dichloroethane-d4	18.57	65	218004	50.51	ug/L	0.19
Spiked Amount 50.000	Range 86 - 118		Recovery =	101.02%		
45) Toluene-d8	23.77	98	568651	50.88	ug/L	0.16
Spiked Amount 50.000	Range 88 - 110		Recovery =	101.76%		
50) Bromofluorobenzene	31.81	95	368220	47.64	ug/L	0.18
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.28%		

Target Compounds Qvalue

-403-

(#) = qualifier out of range (m) = manual integration

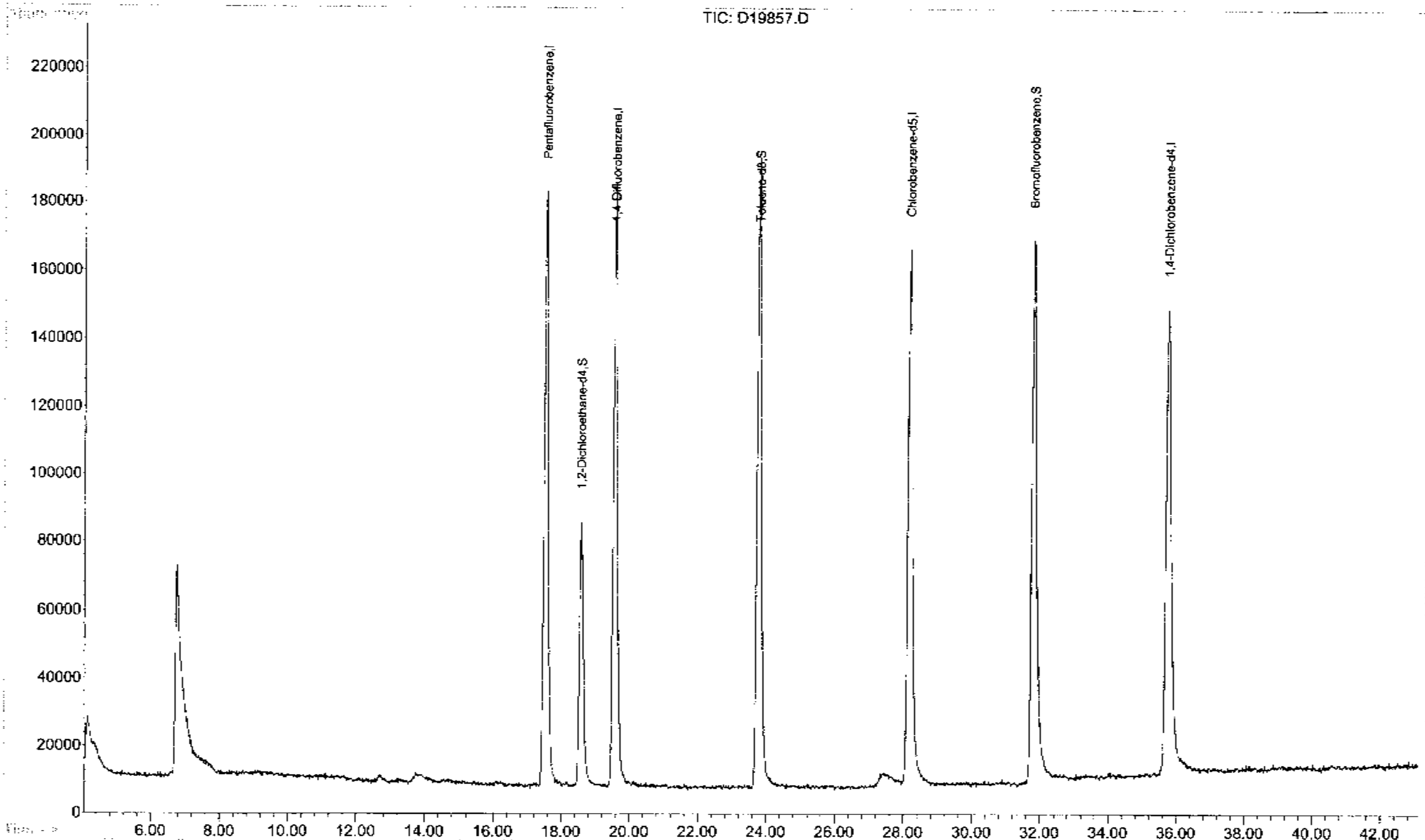
Quantitation Report

Data File : D:\DATA\D19857.D
Acq On : 13 Dec 2007 7:15 pm
Sample : U0712180-029A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:12 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

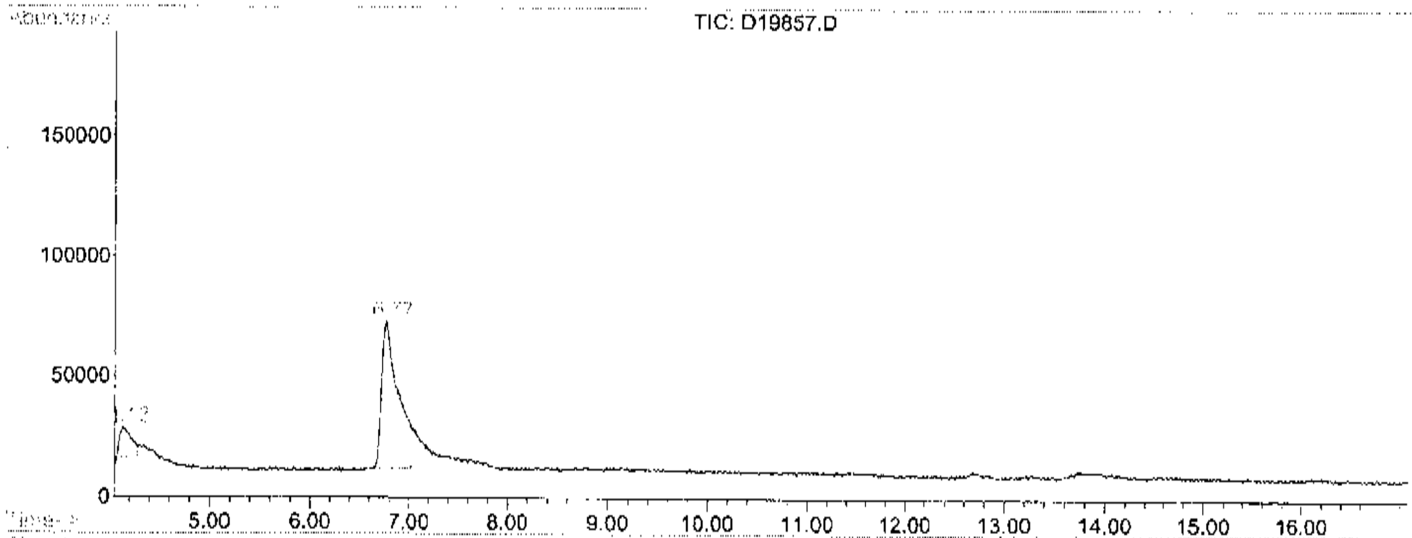
Quant Results File: D120360X.RES

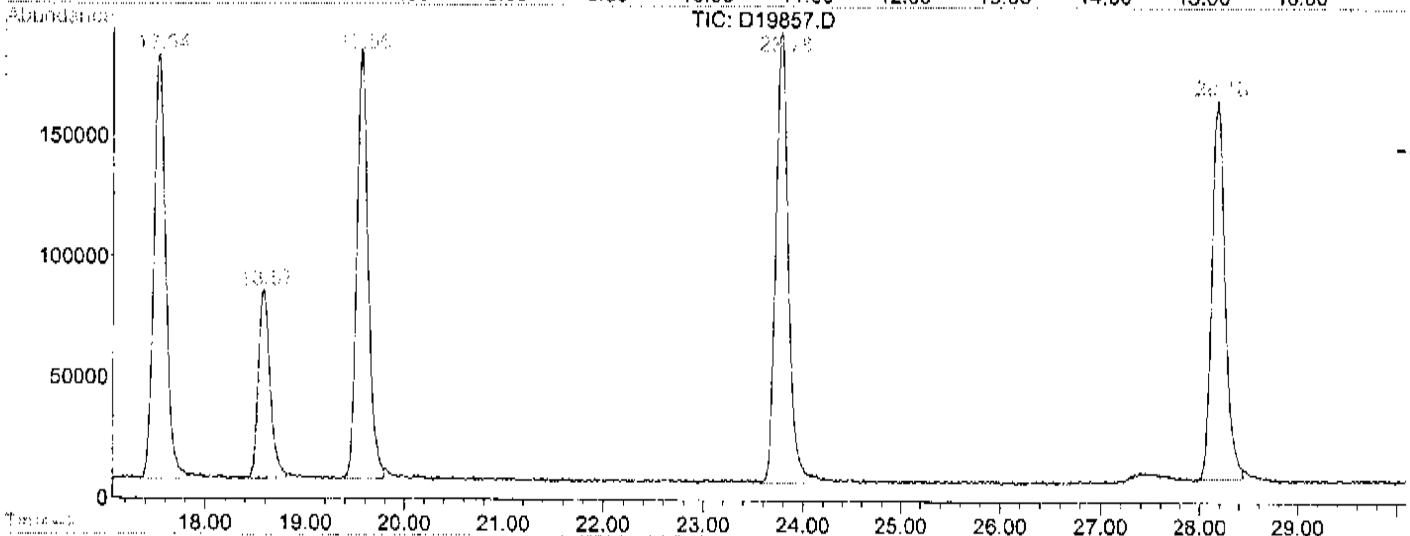
Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration

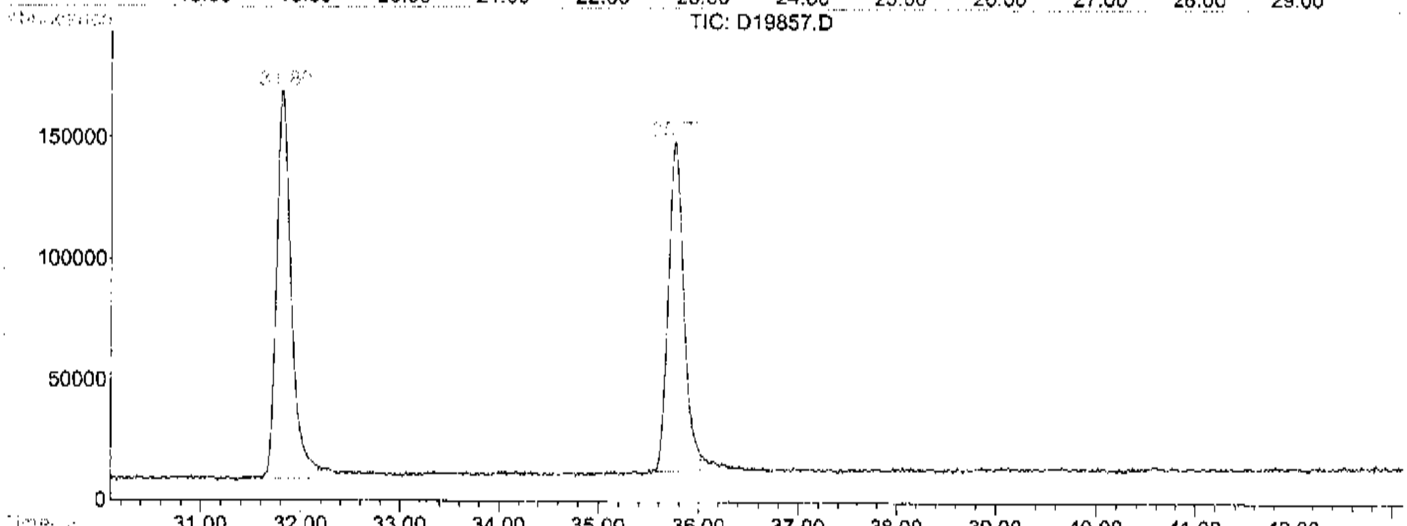


LSC Report - Integrated Chromatogram

File : D:\DATA\D19857.D
Operator : ART
Acquired : 13 Dec 2007 7:15 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-029A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)







-405-

D19857.D D120360X.M Fri Dec 14 09:58:09 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

-406-

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

-408-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19858.D
Acq On : 13 Dec 2007 8:05 pm
Sample : U0712180-030A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:13 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.53	168	418206m ART	50.00	ug/L	0.15
33) 1,4-Difluorobenzene	19.57	114	540650	50.00	ug/L	0.17
51) Chlorobenzene-d5	28.17	117	419520m ART	50.00	ug/L	0.19
73) 1,4-Dichlorobenzene-d4	35.74	152	204525m	50.00	ug/L	0.19

System Monitoring Compounds						
31) 1,2-Dichloroethane-d4	18.59	65	217806m ART	51.50	ug/L	0.21
Spiked Amount 50.000	Range 86 - 118		Recovery = 103.00%			
45) Toluene-d8	23.78	98	573172	52.02	ug/L	0.17
Spiked Amount 50.000	Range 88 - 110		Recovery = 104.04%			
50) Bromofluorobenzene	31.81	95	373944m ART	49.07	ug/L	0.18
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.14%			

Target Compounds Qvalue

-409-

(#) = qualifier out of range (m) = manual integration

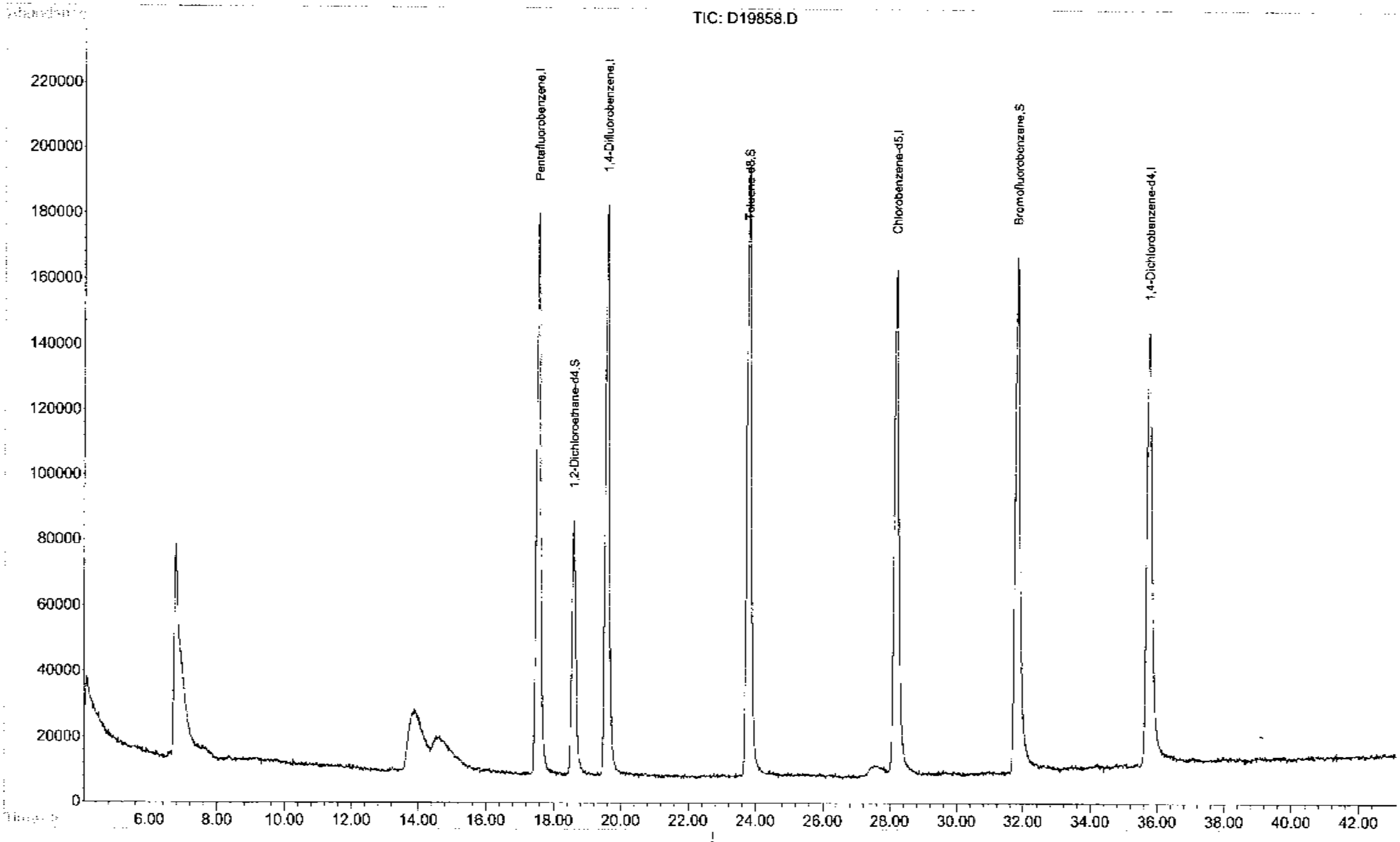
Quantitation Report

Data File : D:\DATA\D19858.D
Acq On : 13 Dec 2007 8:05 pm
Sample : U0712180-030A
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:13 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

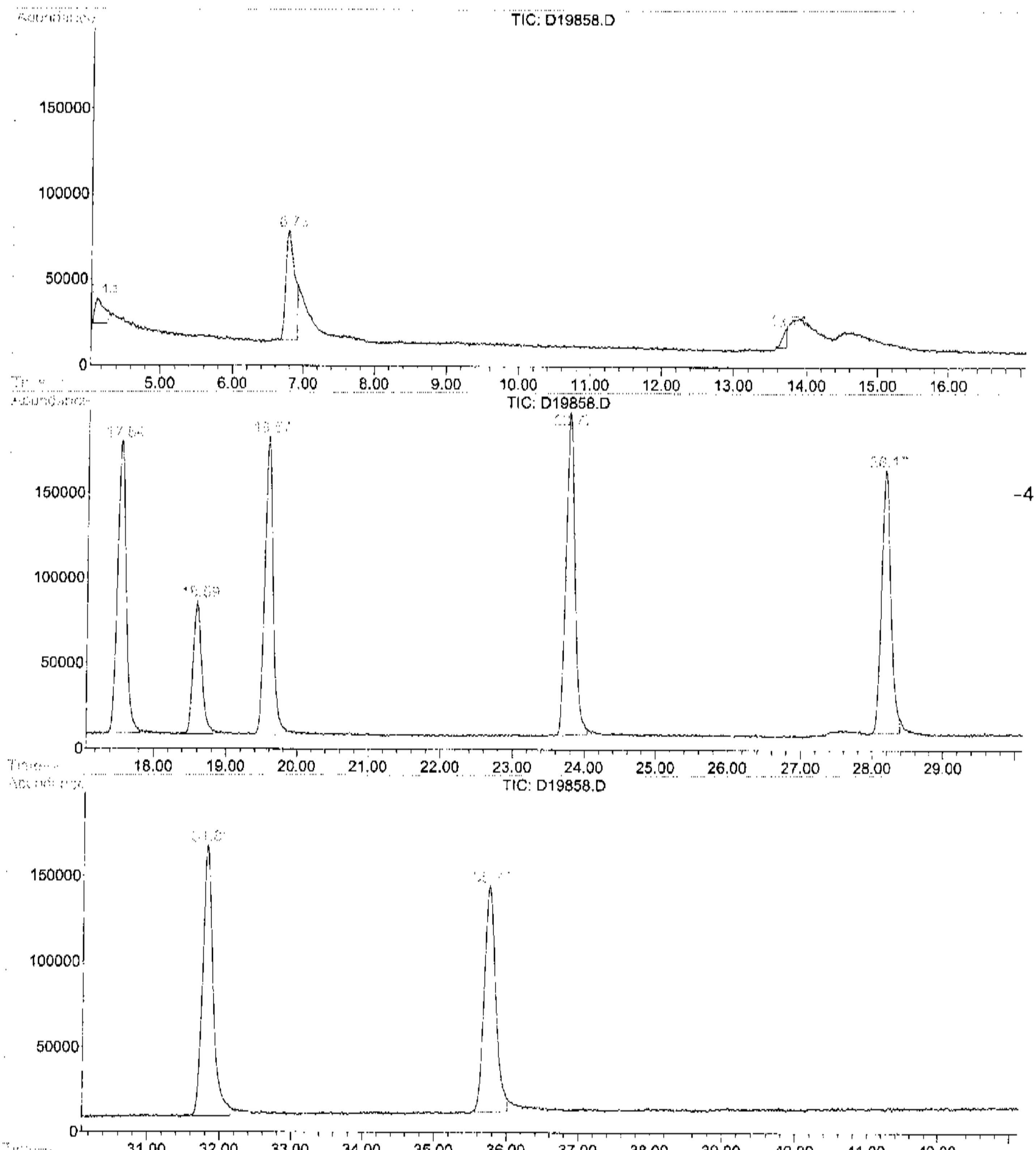
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19858.D
Operator : ART
Acquired : 13 Dec 2007 8:05 pm using AcqMethod D120360X
Instrument : #13
Sample Name: U0712180-030A
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



D19858.D D120360X.M Fri Dec 14 09:58:20 2007

Standards Data

-412-

Upstate Laboratories, Inc.

Initial Calibration

-413-

Upstate Laboratories, Inc.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date(s): 12/10/2007 12/10/2007

Heated Purge (Y/N): N Calibration Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

LAB FILE ID: RRF03 = C20054.D RRF10 = C20055.D RRF200 = C20059.D
RRF20 = C20056.D RRFCC = C20057.D RRF100 = C20058.D

COMPOUND		RRF03	RRF10	RRF20	RRFCC	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	*	0.397	0.404	0.389	0.397	0.409	0.377	0.396	2.9	*
Vinyl Chloride	*	0.351	0.301	0.315	0.345	0.327	0.299	0.323	6.9	*
Bromomethane	*	0.356	0.263	0.335	0.319	0.359	0.325	0.326	10.6	*
Chloroethane	*	0.253	0.233	0.236	0.234	0.247	0.215	0.236	5.5	*
Trichlorofluoromethane	*	0.886	0.836	0.852	0.821	0.852	0.716	0.827	7.1	*
Acetone	*		0.085	0.085	0.086	0.092	0.084	0.086	3.7	*
1,1-Dichloroethene	*	0.311	0.301	0.310	0.300	0.308	0.268	0.300	5.4	*
Iodomethane	*	0.530	0.598	0.611	0.556	0.680	0.572	0.591	8.8	*
Carbon Disulfide	*	1.289	1.211	1.256	1.245	1.315	1.129	1.241	5.3	*
Methylene Chloride	*	0.545	0.411	0.397	0.390	0.408	0.392	0.424	14.2	*
Acrylonitrile	*		0.047	0.049	0.049	0.056	0.053	0.051	6.6	*
trans-1,2-Dichloroethene	*	0.345	0.356	0.362	0.357	0.384	0.342	0.358	4.2	*
1,1-Dichloroethane	*	0.929	0.877	0.879	0.892	0.935	0.851	0.894	3.6	*
Vinyl Acetate	*	0.530	0.525	0.552	0.569	0.644	0.623	0.574	8.6	*
2-Butanone	*		0.104	0.107	0.102	0.116	0.113	0.108	5.8	*
cis-1,2-Dichloroethene	*	0.405	0.402	0.415	0.413	0.438	0.406	0.413	3.1	*
Chloroform	*	1.404	1.089	1.073	1.026	1.098	1.006	1.116	13.1	*
Bromochloromethane	*	0.276	0.264	0.271	0.259	0.282	0.264	0.269	3.2	*
1,1,1-Trichloroethane	*	0.831	0.795	0.817	0.806	0.863	0.752	0.811	4.6	*
Carbon Tetrachloride	*	0.560	0.554	0.576	0.567	0.592	0.508	0.560	5.1	*
Benzene	*	0.938	0.855	0.870	0.848	0.868	0.776	0.859	6.1	*
1,2-Dichloroethane	*	0.461	0.429	0.452	0.446	0.474	0.443	0.451	3.4	*
Trichloroethene	*	0.467	0.429	0.437	0.437	0.451	0.398	0.437	5.3	*
1,2-Dichloropropane	*	0.472	0.430	0.437	0.427	0.441	0.405	0.435	5.0	*
Bromodichloromethane	*	0.981	0.906	0.936	0.915	0.949	0.872	0.926	4.1	*
Dibromomethane	*	0.491	0.465	0.480	0.478	0.503	0.462	0.480	3.2	*
4-Methyl-2-pentanone	*		0.225	0.241	0.238	0.259	0.241	0.241	5.0	*
cis-1,3-Dichloropropene	*	0.557	0.534	0.553	0.545	0.580	0.542	0.552	2.9	*
Toluene	*	0.516	0.452	0.454	0.438	0.447	0.401	0.451	8.3	*
trans-1,3-Dichloropropene	*	0.413	0.399	0.416	0.418	0.451	0.425	0.421	4.2	*
1,1,2-Trichloroethane	*	0.274	0.258	0.270	0.268	0.282	0.261	0.269	3.3	*
2-Hexanone	*		0.225	0.230	0.231	0.261	0.252	0.240	6.6	*
Tetrachloroethene	*	0.613	0.569	0.604	0.605	0.620	0.563	0.596	4.0	*
Dibromochloromethane	*	0.969	0.907	0.957	0.950	1.021	0.956	0.960	3.8	*
1,2-Dibromoethane	*	0.685	0.633	0.660	0.659	0.709	0.662	0.668	3.9	*
Chlorobenzene	*	0.865	0.789	0.818	0.805	0.825	0.754	0.809	4.6	*
1,1,1,2-Tetrachloroethane	*	0.520	0.497	0.521	0.512	0.534	0.491	0.512	3.1	*
Ethylbenzene	*	1.336	1.244	1.285	1.256	1.284	1.143	1.258	5.1	*
m,p-Xylene	*	0.447	0.409	0.426	0.406	0.414	0.367	0.412	6.3	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date(s): 12/10/2007 12/10/2007

Heated Purge (Y/N): N Calibration Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

LAB FILE ID: RRF03 = C20054.D RRF10 = C20055.D RRF200 =
RRF20 = C20056.D RRFCC = C20057.D RRF100 = C20058.D C20059.D

COMPOUND		RRF03	RRF10	RRF20	RRFCC	RRF100	RRF200	$\overline{RRF}$	% RSD	
o-Xylene	*	0.452	0.406	0.427	0.414	0.421	0.375	0.416	6.1	*
Styrene	*	0.668	0.637	0.671	0.659	0.673	0.619	0.654	3.3	*
Bromoform	*	0.511	0.459	0.506	0.507	0.550	0.520	0.509	5.8	*
1,1,2,2-Tetrachloroethane	*	0.751	0.648	0.687	0.669	0.726	0.672	0.692	5.6	*
1,2,3-Trichloropropane	*	0.616	0.435	0.447	0.428	0.451	0.408	0.464	16.3	*
1,4-Dichloro-2-butene	*		0.178	0.188	0.180	0.201	0.188	0.187	4.9	*
1,3-Dichlorobenzene	*	0.745	0.664	0.687	0.660	0.675	0.609	0.673	6.6	*
1,4-Dichlorobenzene	*	0.724	0.657	0.655	0.642	0.666	0.611	0.659	5.6	*
1,2-Dichlorobenzene	*	0.679	0.623	0.650	0.607	0.633	0.584	0.629	5.3	*
1,2-Dibromo-3-chloro-propane	*		0.162	0.172	0.171	0.193	0.182	0.176	6.7	*
1,2-Dichloroethane-d4	*	0.567	0.579	0.558	0.558	0.597	0.602	0.577	3.3	*
Toluene-d8	*	0.815	0.812	0.802	0.809	0.809	0.801	0.808	0.7	*
Bromofluorobenzene		0.780	0.771	0.767	0.771	0.774	0.771	0.772	0.6	

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Response Factor Report #12

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Calibration

Calibration Files
200 =C20059.D 100 =C20058.D 50 =C20057.D
20 =C20056.D 10 =C20055.D 03 =C20054.D

		Compound	200	100	50	20	10	03	Avg	%RSD
1)	I	Pentafluorobenzene				ISTD				
2)	T	Dichlorodifluoromet	0.661	0.789	0.757	0.779	0.750	0.776	0.752	6.21
3)	T	Chloromethane	0.377	0.409	0.397	0.389	0.404	0.397	0.396	2.87
4)	TC	Vinyl Chloride	0.299	0.327	0.345	0.315	0.301	0.351	0.323	6.85
5)	T	Bromomethane	0.324	0.359	0.319	0.335	0.263	0.356	0.326	10.63
6)	T	Chloroethane	0.215	0.247	0.234	0.236	0.233	0.253	0.236	5.52
7)	T	Trichlorofluorometh	0.715	0.852	0.821	0.852	0.836	0.886	0.827	7.12
8)	T	Acrolein	0.022	0.023	0.020	0.021	0.019		0.021#	7.62
9)	T	Acetone	0.084	0.092	0.086	0.085	0.085		0.086	3.72
10)	T	1,1,2-Trichloro-1,2	0.585	0.697	0.667	0.699	0.679	0.708	0.672	6.76
11)	TC	1,1-Dichloroethene	0.268	0.308	0.300	0.310	0.301	0.311	0.299	5.36
12)	T	Acetonitrile	0.018	0.019	0.017	0.017	0.018		0.018#	5.49
13)	T	Iodomethane	0.572	0.680	0.556	0.611	0.598	0.530	0.591	8.83
14)	T	Methyl acetate	0.218	0.234	0.206	0.212	0.216	0.193	0.213	6.39
15)	T	Allyl Chloride	0.604	0.659	0.631	0.648	0.648	0.628	0.636	3.07
16)	T	Carbon Disulfide	1.129	1.315	1.245	1.256	1.211	1.289	1.241	5.27
17)	T	Methylene Chloride	0.392	0.408	0.390	0.397	0.411	0.545	0.424	14.16
18)	T	MTBE	0.703	0.704	0.657	0.664	0.630	0.652	0.668	4.43
19)	T	Acrylonitrile	0.053	0.056	0.049	0.049	0.047		0.051	6.66
20)	T	trans-1,2-Dichloroe	0.342	0.384	0.357	0.362	0.356	0.344	0.358	4.19
21)	T	1,1-Dichloroethane	0.851	0.935	0.892	0.879	0.877	0.928	0.894	3.60
22)	T	Vinyl Acetate	0.623	0.644	0.568	0.552	0.525	0.530	0.574	8.60
23)	T	Chloroprene	0.448	0.520	0.488	0.496	0.488	0.509	0.491	5.02
24)	T	2-Butanone	0.113	0.116	0.101	0.107	0.104		0.108	5.83
25)	T	Propionitrile	0.020	0.022	0.018	0.018	0.016		0.019#	11.46
26)	T	2,2-Dichloropropane	0.595	0.678	0.636	0.650	0.598	0.729	0.648	7.83
27)	T	cis-1,2-Dichloroeth	0.406	0.438	0.412	0.415	0.402	0.405	0.413	3.15
28)	T	Methacrylonitrile	1.408	1.499	1.322	1.329	1.307		1.373	5.86
29)	TC	Chloroform	1.006	1.098	1.026	1.073	1.088	1.404	1.116	13.05
30)	T	Bromochloromethane	0.264	0.282	0.259	0.271	0.264	0.276	0.269	3.18
31)	T	Isobutyl Alcohol	0.002	0.002	0.002	0.002	0.002		0.002#	19.01
32)	T	Cyclohexane	0.446	0.526	0.505	0.522	0.499	0.535	0.506	6.33
33)	S	1,2-Dichloroethane-	0.602	0.597	0.558	0.558	0.579	0.567	0.577	3.32
34)	T	1,1,1-Trichloroetha	0.752	0.863	0.806	0.817	0.795	0.831	0.811	4.57
35)	I	1,4-Difluorobenzene				ISTD				
36)	T	1,1-Dichloropropene	0.448	0.515	0.515	0.518	0.502	0.544	0.507	6.27
37)	T	Carbon Tetrachlorid	0.508	0.592	0.566	0.576	0.554	0.560	0.560	5.08
38)	T	Benzene	0.776	0.868	0.847	0.870	0.855	0.938	0.859	6.06
39)	T	1,2-Dichloroethane	0.443	0.474	0.445	0.452	0.429	0.461	0.451	3.40
40)	T	Trichloroethene	0.398	0.451	0.436	0.437	0.429	0.467	0.436	5.29
41)	TC	1,2-Dichloropropane	0.405	0.441	0.426	0.437	0.430	0.472	0.435	5.02
42)	T	Methylcyclohexane	0.241	0.293	0.292	0.307	0.301	0.307	0.290	8.62
43)	T	Methyl Methacrylate	0.288	0.311	0.288	0.296	0.284		0.293	3.77
44)	T	Bromodichloromethan	0.872	0.949	0.914	0.936	0.906	0.981	0.926	4.07
45)	T	Dibromomethane	0.462	0.503	0.478	0.480	0.465	0.491	0.480	3.20
46)	T	1,4-Dioxane	0.030	0.031	0.027	0.027	0.023		0.028#	11.88
47)	T	4-Methyl-2-pentanon	0.241	0.259	0.237	0.241	0.225		0.240	5.05
48)	T	cis-1,3-Dichloropro	0.542	0.580	0.544	0.553	0.534	0.557	0.552	2.91
49)	S	Toluene-d8	0.801	0.809	0.808	0.802	0.812	0.814	0.808	0.65
50)	TC	Toluene	0.401	0.447	0.437	0.454	0.452	0.516	0.451	8.28
51)	T	trans-1,3-Dichlorop	0.425	0.451	0.418	0.416	0.399	0.413	0.420	4.16

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(#) = Out of Range

Response Factor Report #12

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Calibration

Calibration Files

200	=C20059.D	100	=C20058.D	50	=C20057.D
20	=C20056.D	10	=C20055.D	03	=C20054.D

		Compound	200	100	50	20	10	03	Avg	%RSD
52)	T	Ethyl Methacrylate	0.142	0.159	0.146	0.149	0.139		0.147	5.18
53)	T	1,1,2-Trichloroetha	0.261	0.282	0.268	0.270	0.258	0.274	0.269	3.31
54)	S	Bromofluorobenzene	0.771	0.774	0.769	0.767	0.771	0.780	0.772	0.59
55)	I	Chlorobenzene-d5	---------------ISTD---------------------							
56)	T	2-Hexanone	0.252	0.261	0.231	0.230	0.224		0.240	6.61
57)	T	1,3-Dichloropropane	0.623	0.664	0.629	0.639	0.602	0.653	0.635	3.52
58)	T	Tetrachloroethene	0.563	0.620	0.605	0.604	0.569	0.613	0.596	4.00
59)	T	Dibromochloromethan	0.956	1.021	0.950	0.957	0.907	0.969	0.960	3.84
60)	T	1,2-Dibromoethane	0.662	0.709	0.659	0.660	0.633	0.685	0.668	3.86
61)	T	Chlorobenzene	0.754	0.825	0.805	0.818	0.789	0.865	0.809	4.61
62)	T	1,1,1,2-Tetrachloro	0.491	0.534	0.511	0.521	0.497	0.520	0.512	3.12
63)	TC	Ethylbenzene	1.143	1.284	1.256	1.285	1.244	1.336	1.258	5.14
64)	T	m,p-Xylene	0.367	0.414	0.406	0.426	0.409	0.447	0.412	6.35
65)	T	o-Xylene	0.375	0.421	0.414	0.427	0.406	0.452	0.416	6.09
66)	T	Styrene	0.619	0.673	0.658	0.670	0.637	0.668	0.654	3.34
67)	T	Bromoform	0.520	0.550	0.507	0.506	0.459	0.510	0.509	5.80
68)	T	Isopropylbenzene	0.999	1.135	1.114	1.149	1.103	1.177	1.113	5.52
69)	T	1,1,2,2-Tetrachloro	0.672	0.726	0.669	0.687	0.648	0.751	0.692	5.64
70)	T	1,2,3-Trichloroprop	0.408	0.451	0.428	0.447	0.435	0.616	0.464	16.34
71)	T	1,4-Dichloro-2-bute	0.188	0.201	0.180	0.188	0.178		0.187	4.89
72)	T	n-propylbenzene	1.206	1.308	1.344	1.382	1.328	1.479	1.341	6.68
73)	T	1,3,5-Trimethylbenz	0.816	0.926	0.914	0.943	0.911	0.986	0.916	6.12
74)	T	T-butylbenzene	0.251	0.294	0.290	0.312	0.303	0.312	0.294	7.73
75)	T	1,2,4-Trimethylbenz	0.838	0.938	0.912	0.947	0.913	1.000	0.925	5.74
76)	T	sec-butylbenzene	1.171	1.358	1.335	1.390	1.325	1.470	1.341	7.32
77)	T	1,3-Dichlorobenzene	0.609	0.674	0.660	0.687	0.664	0.745	0.673	6.57
78)	T	p-isopropyltoluene	0.204	0.238	0.235	0.257	0.245	0.264	0.241	8.78
79)	T	1,4-Dichlorobenzene	0.611	0.666	0.641	0.655	0.657	0.724	0.659	5.62
80)	T	n-butylbenzene	0.993	1.145	1.126	1.158	1.101	1.216	1.123	6.63
81)	T	1,2-Dichlorobenzene	0.584	0.633	0.607	0.649	0.623	0.679	0.629	5.27
82)	T	1,2-Dibromo-3-chlor	0.182	0.193	0.171	0.172	0.162		0.176	6.69
83)	I	1,4-Dichlorobenzene-d	---------------ISTD--------------------							
84)	T	1,2,4 trichlorobenz	0.833	0.879	0.841	0.854	0.789	0.849	0.841	3.55
85)	T	Naphalene	1.092	1.152	1.045	1.041	0.944	1.004	1.046	6.82
86)	T	1,2,3 Trichlorobenz	0.718	0.757	0.718	0.721	0.677	0.739	0.722	3.69

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(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20054.D
Acq On : 10 Dec 2007 11:06 am
Sample : VSTD003
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:47 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.82	168	342272	50.00 ug/L	-0.03
35) 1,4-Difluorobenzene	11.15	114	424827	50.00 ug/L	-0.03
55) Chlorobenzene-d5	18.64	117	293913	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.29	152	154980	50.00 ug/L	-0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.24	65	194198	50.86 ug/L	-0.04
Spiked Amount 50.000	Range 76 - 114		Recovery = 101.72%		
49) Toluene-d8	15.41	98	346007	50.34 ug/L	-0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.68%		
54) Bromofluorobenzene	21.07	95	331506	50.63 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 101.26%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.03	85	15945	3.08 ug/L	99
3) Chloromethane	2.26	50	8159m MM	3.00 ug/L	
4) Vinyl Chloride	2.31	62	7212	3.05 ug/L	93
5) Bromomethane	2.67	94	7304m MM	3.34 ug/L	
6) Chloroethane	2.76	64	5195	3.25 ug/L	81
7) Trichlorofluoromethane	3.04	101	18204	3.24 ug/L	99
8) Acrolein	3.37	56	1614	11.84 ug/L #	66
9) Acetone	3.45	43	6002m MM	10.23 ug/L	
10) 1,1,2-Trichloro-1,2,2-trif	3.55	101	14542	3.18 ug/L	91
11) 1,1-Dichloroethene	3.65	96	6383	3.11 ug/L	83
12) Acetonitrile	3.68	41	4866	40.94 ug/L	83
13) Iodomethane	3.94	142	10889	2.86 ug/L	95
14) Methyl acetate	4.04	43	3973	2.82 ug/L	93
15) Allyl Chloride	4.08	41	12895m MM	2.94 ug/L	
16) Carbon Disulfide	4.20	76	26462	3.10 ug/L	100
17) Methylene Chloride	4.20	84	11189	4.19 ug/L	90
18) MTBE	4.60	73	13390	2.98 ug/L	77
19) Acrylonitrile	4.31	53	3820	11.30 ug/L	92
20) trans-1,2-Dichloroethene	4.70	96	7074	2.89 ug/L #	72
21) 1,1-Dichloroethane	5.38	63	19067	3.12 ug/L	94
22) Vinyl Acetate	5.49	43	10874	2.79 ug/L	100
23) Chloroprene	5.64	53	10446	3.13 ug/L	85
24) 2-Butanone	6.30	43	2288	3.29 ug/L #	68
25) Propionitrile	6.25	54	3111	25.25 ug/L	96
26) 2,2-Dichloropropane	6.68	77	14965	3.44 ug/L	84
27) cis-1,2-Dichloroethene	6.67	96	8320	2.95 ug/L #	79
28) Methacrylonitrile	6.83	41	25543	2.83 ug/L	95
29) Chloroform	7.10	83	28836	4.11 ug/L	99
30) Bromochloromethane	7.40	128	5664	3.19 ug/L #	69
31) Isobutyl Alcohol	7.31	43	3264	280.33 ug/L #	15
32) Cyclohexane	8.58	56	10978	3.17 ug/L #	56
34) 1,1,1-Trichloroethane	8.37	97	17067	3.09 ug/L	84
36) 1,1-Dichloropropene	8.97	75	13859	3.16 ug/L	75
37) Carbon Tetrachloride	9.23	117	14275m MM	2.97 ug/L	
38) Benzene	9.69	78	23905	3.32 ug/L	100
39) 1,2-Dichloroethane	9.60	62	11740	3.10 ug/L	83
40) Trichloroethene	12.12	95	11905	3.21 ug/L	94

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20054.D
Acq On : 10 Dec 2007 11:06 am
Sample : VSTD003
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:47 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	1,2-Dichloropropane	12.57	63	12023	3.32 ug/L	#	88
42)	Methylcyclohexane	12.56	83	7834	3.15 ug/L		84
43)	Methyl Methacrylate	16.36	41	8456	3.45 ug/L		91
44)	Bromodichloromethane	13.16	83	25003	3.22 ug/L		98
45)	Dibromomethane	13.15	93	12516	3.08 ug/L		89
47)	4-Methyl-2-pentanone	14.56	43	6868	3.40 ug/L		61
48)	cis-1,3-Dichloropropene	14.81	75	14203	3.07 ug/L		93
50)	Toluene	15.59	92	13164m MM	3.54 ug/L		
51)	trans-1,3-Dichloropropene	16.05	75	10528	2.96 ug/L		86
52)	Ethyl Methacrylate	13.16	69	3718	3.00 ug/L	#	48
53)	1,1,2-Trichloroethane	16.32	83	6990	3.07 ug/L		97
56)	2-Hexanone	16.66	43	4048	2.98 ug/L		92
57)	1,3-Dichloropropane	16.89	76	11512	3.11 ug/L		93
58)	Tetrachloroethene	17.10	166	10806	3.04 ug/L		89
59)	Dibromochloromethane	17.30	129	17091	3.06 ug/L		100
60)	1,2-Dibromoethane	17.70	107	12075	3.12 ug/L		99
61)	Chlorobenzene	18.70	112	15254	3.22 ug/L	#	67
62)	1,1,1,2-Tetrachloroethane	18.85	131	9169	3.05 ug/L		89
63)	Ethylbenzene	18.96	91	23561	3.19 ug/L		99
64)	m,p-Xylene	19.14	106	15751	6.60 ug/L		97
65)	o-Xylene	19.95	106	7964	3.27 ug/L		99
66)	Styrene	19.99	104	11780	3.04 ug/L		83
67)	Bromoform	20.39	173	9002	3.02 ug/L		96
68)	Isopropylbenzene	20.74	105	20754	3.17 ug/L		93
69)	1,1,2,2-Tetrachloroethane	20.93	83	13250 MM	3.37 ug/L		95
70)	1,2,3-Trichloropropane	21.15	75	10860m	4.32 ug/L		
71)	1,4-Dichloro-2-butene	21.36	75	4052m MM	3.83 ug/L		
72)	n-propylbenzene	21.83	91	26084	3.30 ug/L		96
73)	1,3,5-Trimethylbenzene	21.84	105	17392	3.24 ug/L		97
74)	T-butylbenzene	23.18	91	5501	3.23 ug/L		96
75)	1,2,4-Trimethylbenzene	22.54	105	17631	3.29 ug/L		99
76)	sec-butylbenzene	22.91	105	25915	3.30 ug/L		97
77)	1,3-Dichlorobenzene	23.16	146	13136	3.39 ug/L		97
78)	p-isopropyltoluene	22.91	91	4656	3.37 ug/L		86
79)	1,4-Dichlorobenzene	23.35	146	12759	3.38 ug/L		82
80)	n-butylbenzene	23.95	91	21451	3.24 ug/L		95
81)	1,2-Dichlorobenzene	23.98	146	11978	3.35 ug/L		98
82)	1,2-Dibromo-3-chloro-propa	25.38	75	3240	3.22 ug/L		78
84)	1,2,4 trichlorobenze	27.09	180	7896	3.03 ug/L		97
85)	Naphalene	27.45	128	9340	2.88 ug/L		100
86)	1,2,3 Trichlorobenzene	27.95	180	6875	3.09 ug/L		99

(#) = qualifier out of range (m) = manual integration

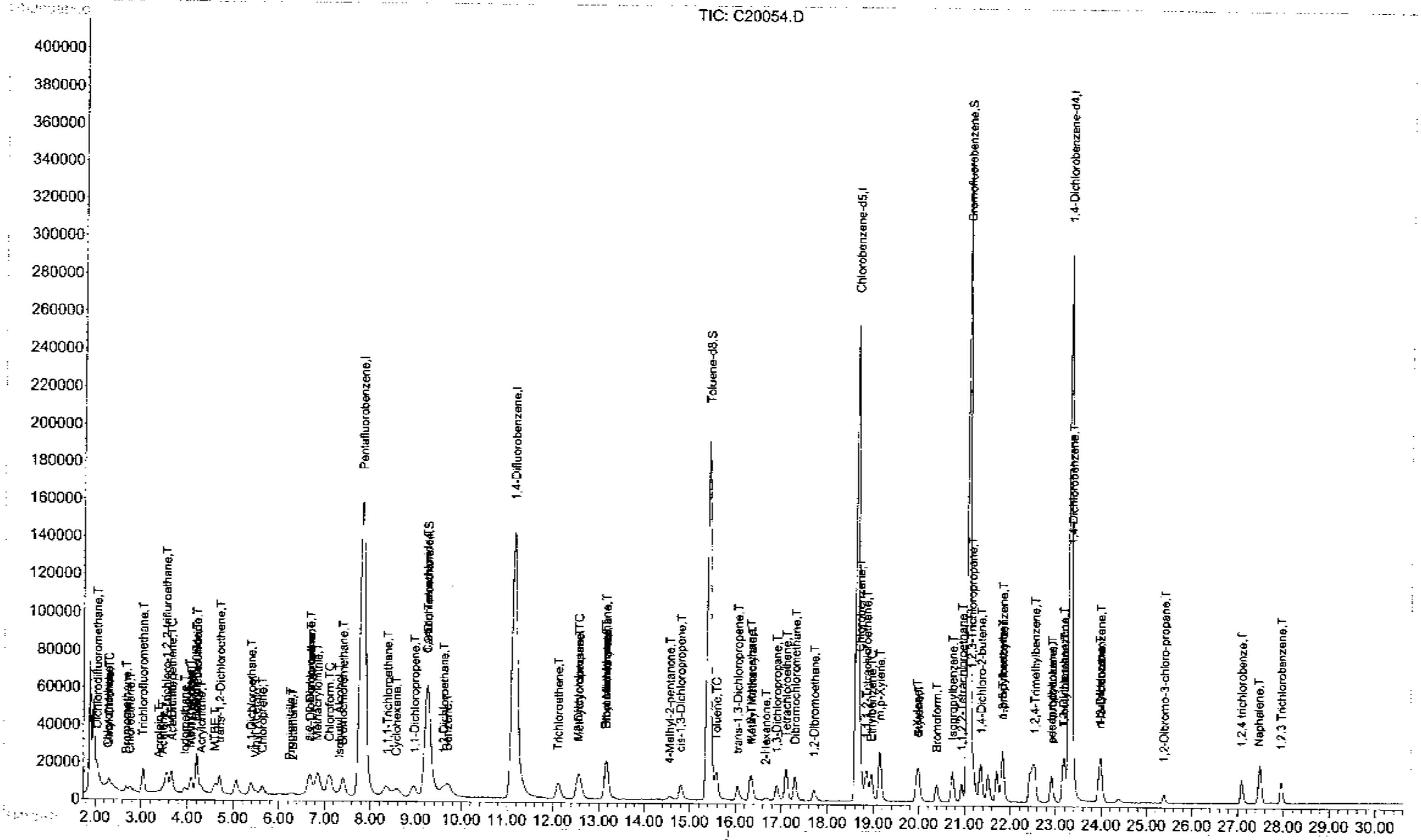
Quantitation Report

Data File : D:\DATA\C20054.D
Acq On : 10 Dec 2007 11:06 am
Sample : VSTD003
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:47 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20055.D
Acq On : 10 Dec 2007 11:44 am
Sample : VSTD010
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:54 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	365819	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.18	114	461598	50.00 ug/L	-0.01
55) Chlorobenzene-d5	18.64	117	315724	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	164358	50.00 ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	9.28	65	211827	51.91 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery	= 103.82%	
49) Toluene-d8	15.42	98	374998	50.21 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 100.42%	
54) Bromofluorobenzene	21.07	95	355917	50.03 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery	= 100.06%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.06	85	54844	9.90 ug/L	98
3) Chloromethane	2.28	50	29585	10.19 ug/L	95
4) Vinyl Chloride	2.32	62	22027	8.72 ug/L	98
5) Bromomethane	2.70	94	19271	8.25 ug/L	98
6) Chloroethane	2.78	64	17055	9.98 ug/L	95
7) Trichlorofluoromethane	3.06	101	61181	10.18 ug/L	99
8) Acrolein	3.40	56	5684 MM	9.02 ug/L	98
9) Acetone	3.48	43	6225m	9.92 ug/L	
10) 1,1,2-Trichloro-1,2,2-trif	3.56	101	49648	10.17 ug/L	91
11) 1,1-Dichloroethene	3.68	96	21986	10.02 ug/L	84
12) Acetonitrile	3.70	41	13354	105.13 ug/L	93
13) Iodomethane	3.98	142	43730 MM	10.74 ug/L	84
14) Methyl acetate	4.07	43	15776m MM	10.47 ug/L	
15) Allyl Chloride	4.12	41	47405m MM	10.12 ug/L	
16) Carbon Disulfide	4.22	76	88597	9.73 ug/L	100
17) Methylene Chloride	4.23	84	30047	10.54 ug/L	90
18) MTBE	4.64	73	46071	9.58 ug/L	93
19) Acrylonitrile	4.33	53	13869	38.39 ug/L	99
20) trans-1,2-Dichloroethene	4.74	96	26047	9.97 ug/L	85
21) 1,1-Dichloroethane	5.42	63	64154	9.83 ug/L	97
22) Vinyl Acetate	5.52	43	38418	9.24 ug/L	100
23) Chloroprene	5.66	53	35732 MM	10.01 ug/L	90
24) 2-Butanone	6.34	43	7595m	10.23 ug/L	
25) Propionitrile	6.30	54	12016	91.24 ug/L	100
26) 2,2-Dichloropropane	6.71	77	43754	9.40 ug/L	95
27) cis-1,2-Dichloroethene	6.71	96	29421	9.75 ug/L #	82
28) Methacrylonitrile	6.88	41	95620	9.90 ug/L	96
29) Chloroform	7.14	83	79636	10.61 ug/L	100
30) Bromochloromethane	7.44	128	19292	10.17 ug/L #	78
31) Isobutyl Alcohol	7.35	43	11459	920.81 ug/L	96
32) Cyclohexane	8.61	56	36478	9.87 ug/L	90
34) 1,1,1-Trichloroethane	8.40	97	58192	9.86 ug/L	93
36) 1,1-Dichloropropene	9.00	75	46375	9.74 ug/L	95
37) Carbon Tetrachloride	9.27	117	51164	9.78 ug/L	99
38) Benzene	9.75	78	78903	10.08 ug/L	100
39) 1,2-Dichloroethane	9.62	62	39623	9.63 ug/L	95
40) Trichloroethene	12.14	95	39643	9.84 ug/L	95

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20055.D
Acq On : 10 Dec 2007 11:44 am
Sample : VSTD010
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:54 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.59	63	39729	10.09 ug/L	94
42) Methylcyclohexane	12.60	83	27834	10.31 ug/L	93
43) Methyl Methacrylate	16.37	41	26173	9.83 ug/L	96
44) Bromodichloromethane	13.18	83	83621	9.90 ug/L	97
45) Dibromomethane	13.16	93	42936	9.72 ug/L	88
46) 1,4-Dioxane	13.38	88	2111	8.47 ug/L	80
47) 4-Methyl-2-pentanone	14.56	43	20767	9.47 ug/L	95
48) cis-1,3-Dichloropropene	14.82	75	49296	9.80 ug/L	96
50) Toluene	15.60	92	41690	10.32 ug/L	98
51) trans-1,3-Dichloropropene	16.06	75	36814	9.53 ug/L	95
52) Ethyl Methacrylate	13.18	69	12812	9.52 ug/L	87
53) 1,1,2-Trichloroethane	16.34	83	23802	9.62 ug/L	95
56) 2-Hexanone	16.67	43	14175	9.73 ug/L	92
57) 1,3-Dichloropropane	16.92	76	37983	9.57 ug/L	96
58) Tetrachloroethene	17.11	166	35901	9.40 ug/L	90
59) Dibromochloromethane	17.30	129	57262	9.54 ug/L	100
60) 1,2-Dibromoethane	17.71	107	39991	9.62 ug/L	99
61) Chlorobenzene	18.71	112	49798	9.79 ug/L	86
62) 1,1,1,2-Tetrachloroethane	18.85	131	31379	9.72 ug/L	97
63) Ethylbenzene	18.96	91	78530	9.90 ug/L	99
64) m,p-Xylene	19.15	106	51702	20.15 ug/L	97
65) o-Xylene	19.95	106	25630	9.81 ug/L	95
66) Styrene	20.00	104	40218	9.67 ug/L	90
67) Bromoform	20.39	173	28982	9.05 ug/L	99
68) Isopropylbenzene	20.75	105	69648	9.90 ug/L	96
69) 1,1,2,2-Tetrachloroethane	20.93	83	40889 MM	9.69 ug/L	98
70) 1,2,3-Trichloropropane	21.19	75	27483m	10.17 ug/L	
71) 1,4-Dichloro-2-butene	21.37	75	11215	9.86 ug/L #	37
72) n-propylbenzene	21.83	91	83887	9.88 ug/L	98
73) 1,3,5-Trimethylbenzene	21.84	105	57501	9.97 ug/L	97
74) T-butylbenzene	23.20	91	19156	10.47 ug/L #	86
75) 1,2,4-Trimethylbenzene	22.55	105	57621	10.01 ug/L	100
76) sec-butylbenzene	22.91	105	83662	9.93 ug/L	98
77) 1,3-Dichlorobenzene	23.17	146	41901	10.05 ug/L	98
78) p-isopropyltoluene	22.91	91	15480	10.42 ug/L	87
79) 1,4-Dichlorobenzene	23.36	146	41475	10.24 ug/L	94
80) n-butylbenzene	23.96	91	69551	9.78 ug/L	95
81) 1,2-Dichlorobenzene	24.00	146	39345	10.25 ug/L	97
82) 1,2-Dibromo-3-chloro-propa	25.38	75	10249	9.48 ug/L	79
84) 1,2,4 trichlorobenze	27.10	180	25935	9.39 ug/L	98
85) Naphalene	27.45	128	31032	9.03 ug/L	100
86) 1,2,3 Trichlorobenzene	27.96	180	22263	9.44 ug/L	98

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(#) = qualifier out of range (m) = manual integration

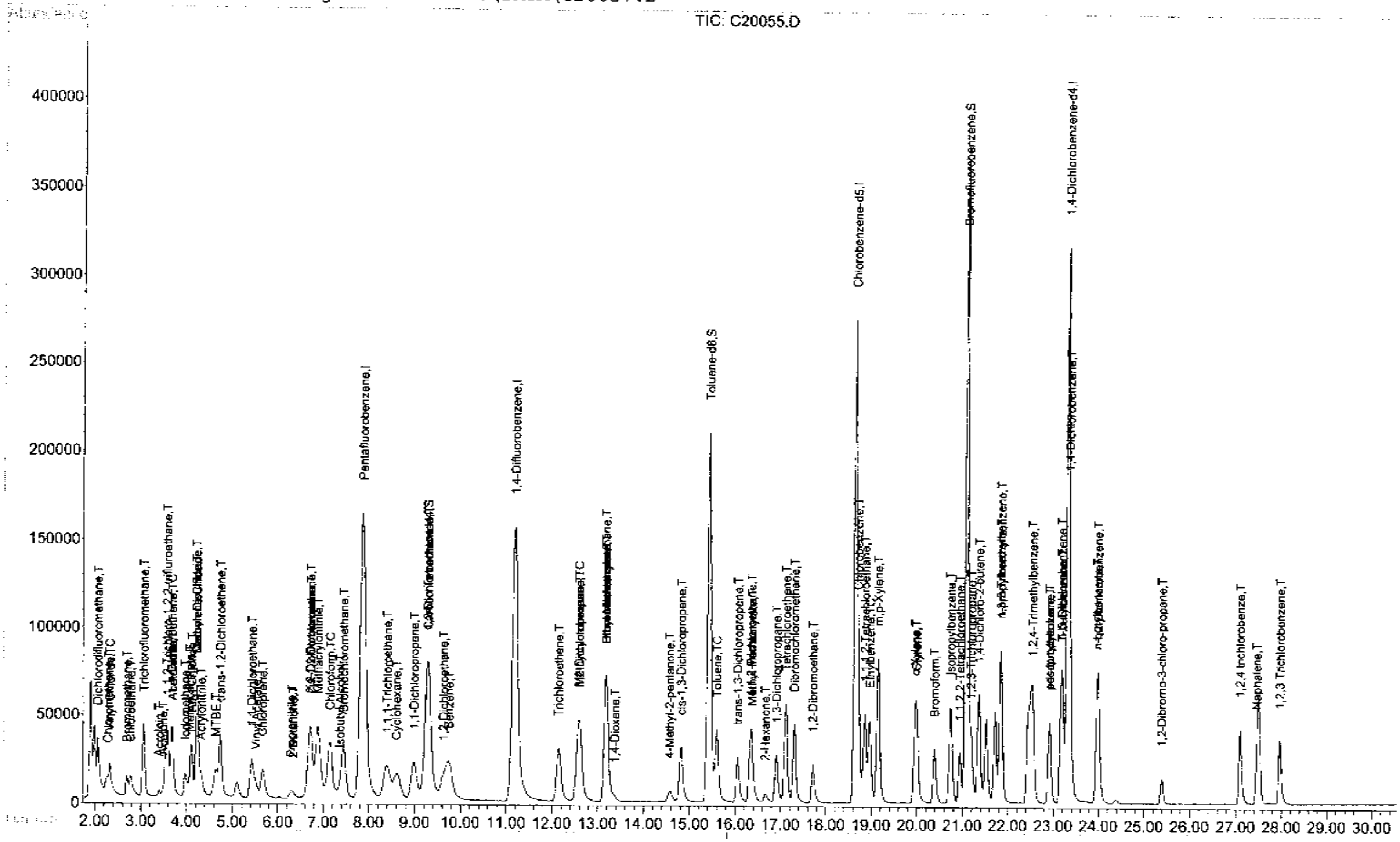
Quantitation Report

Data File : D:\DATA\C20055.D
Acq On : 10 Dec 2007 11:44 am
Sample : VSTD010
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:54 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20056.D
Acq On : 10 Dec 2007 12:21 pm
Sample : VSTD020
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:50 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.85	168	358853	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.17	114	454985	50.00 ug/L	-0.01
55) Chlorobenzene-d5	18.63	117	306330	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.30	152	159868	50.00 ug/L	0.00

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.27	65	200229	50.02 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 114		Recovery =	100.04%	
49) Toluene-d8	15.41	98	364935	49.58 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.16%	
54) Bromofluorobenzene	21.07	95	349070	49.78 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	99.56%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.05	85	111750	20.57 ug/L	99
3) Chloromethane	2.28	50	55883 MM	19.61 ug/L	97
4) Vinyl Chloride	2.32	62	45176m	18.23 ug/L	
5) Bromomethane	2.69	94	48043m MM	20.96 ug/L	
6) Chloroethane	2.77	64	33841	20.18 ug/L	97
7) Trichlorofluoromethane	3.06	101	122357	20.76 ug/L	100
8) Acrolein	3.40	56	11957	83.68 ug/L	90
9) Acetone	3.48	43	12154m MM	19.75 ug/L	
10) 1,1,2-Trichloro-1,2,2-trif	3.57	101	100342	20.96 ug/L	91
11) 1,1-Dichloroethene	3.68	96	44434	20.64 ug/L	84
12) Acetonitrile	3.71	41	24247 MM	194.60 ug/L	96
13) Iodomethane	3.97	142	87699m	21.96 ug/L	
14) Methyl acetate	4.06	43	30359	20.54 ug/L	94
15) Allyl Chloride	4.11	41	92993m MM	20.24 ug/L	
16) Carbon Disulfide	4.22	76	180290	20.18 ug/L	100
17) Methylene Chloride	4.22	84	56946	20.36 ug/L	91
18) MTBE	4.64	73	95361	20.21 ug/L	95
19) Acrylonitrile	4.33	53	27984	78.97 ug/L	97
20) trans-1,2-Dichloroethene	4.73	96	52008	20.29 ug/L #	82
21) 1,1-Dichloroethane	5.42	63	126242	19.71 ug/L	99
22) Vinyl Acetate	5.51	43	79228	19.42 ug/L	100
23) Chloroprene	5.66	53	71180	20.32 ug/L	92
24) 2-Butanone	6.35	43	15317	21.03 ug/L	92
25) Propionitrile	6.28	54	25518	197.52 ug/L	99
26) 2,2-Dichloropropane	6.70	77	93344	20.44 ug/L	94
27) cis-1,2-Dichloroethene	6.71	96	59516	20.10 ug/L #	81
28) Methacrylonitrile	6.87	41	190756	20.14 ug/L	97
29) Chloroform	7.14	83	154019	20.92 ug/L	100
30) Bromochloromethane	7.44	128	38850	20.88 ug/L #	75
31) Isobutyl Alcohol	7.37	43	25928	2123.94 ug/L	80
32) Cyclohexane	8.60	56	74973	20.67 ug/L	87
34) 1,1,1-Trichloroethane	8.39	97	117301	20.27 ug/L	93
36) 1,1-Dichloropropene	8.98	75	94227	20.08 ug/L	95
37) Carbon Tetrachloride	9.25	117	104908	20.35 ug/L	99
38) Benzene	9.75	78	158412	20.53 ug/L	100
39) 1,2-Dichloroethane	9.62	62	82307	20.31 ug/L	95
40) Trichloroethene	12.15	95	79578	20.03 ug/L	96

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20056.D
Acq On : 10 Dec 2007 12:21 pm
Sample : VSTD020
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:50 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	1,2-Dichloropropane	12.59	63	79594	20.51 ug/L	96
42)	Methylcyclohexane	12.58	83	55785	20.96 ug/L	90
43)	Methyl Methacrylate	16.36	41	53829	20.52 ug/L	98
44)	Bromodichloromethane	13.18	83	170315	20.45 ug/L	97
45)	Dibromomethane	13.17	93	87367	20.07 ug/L	90
46)	1,4-Dioxane	13.37	88	4835	19.68 ug/L	93
47)	4-Methyl-2-pentanone	14.57	43	43839	20.28 ug/L	98
48)	cis-1,3-Dichloropropene	14.80	75	100648	20.30 ug/L	100
50)	Toluene	15.59	92	82618	20.74 ug/L	99
51)	trans-1,3-Dichloropropene	16.06	75	75785	19.91 ug/L	99
52)	Ethyl Methacrylate	13.18	69	27133	20.44 ug/L	98
53)	1,1,2-Trichloroethane	16.33	83	49070	20.12 ug/L	95
56)	2-Hexanone	16.66	43	28162	19.92 ug/L	98
57)	1,3-Dichloropropane	16.90	76	78248	20.31 ug/L	98
58)	Tetrachloroethene	17.11	166	73984	19.97 ug/L	90
59)	Dibromochloromethane	17.30	129	117314	20.15 ug/L	99
60)	1,2-Dibromoethane	17.71	107	80924	20.06 ug/L	99
61)	Chlorobenzene	18.70	112	100206	20.31 ug/L	90
62)	1,1,1,2-Tetrachloroethane	18.85	131	63842	20.37 ug/L	96
63)	Ethylbenzene	18.96	91	157486	20.46 ug/L	99
64)	m,p-Xylene	19.15	106	104286	41.90 ug/L	99
65)	o-Xylene	19.95	106	52263	20.62 ug/L	97
66)	Styrene	19.99	104	82157	20.36 ug/L	91
67)	Bromoform	20.39	173	62021	19.96 ug/L	99
68)	Isopropylbenzene	20.74	105	140786	20.62 ug/L	97
69)	1,1,2,2-Tetrachloroethane	20.93	83	84165	20.55 ug/L	99
70)	1,2,3-Trichloropropane	21.20	75	54750	20.88 ug/L	96
71)	1,4-Dichloro-2-butene	21.36	75	23067	20.91 ug/L #	44
72)	n-propylbenzene	21.83	91	169297	20.56 ug/L	98
73)	1,3,5-Trimethylbenzene	21.85	105	115525	20.64 ug/L	98
74)	T-butylbenzene	23.19	91	38198	21.52 ug/L #	89
75)	1,2,4-Trimethylbenzene	22.54	105	116076	20.78 ug/L	100
76)	sec-butylbenzene	22.91	105	170307	20.83 ug/L	97
77)	1,3-Dichlorobenzene	23.15	146	84172	20.82 ug/L	97
78)	p-isopropyltoluene	22.91	91	31468	21.83 ug/L	86
79)	1,4-Dichlorobenzene	23.35	146	80219	20.41 ug/L	93
80)	n-butylbenzene	23.95	91	141882	20.56 ug/L	95
81)	1,2-Dichlorobenzene	23.99	146	79581	21.37 ug/L	98
82)	1,2-Dibromo-3-chloro-propa	25.38	75	21024	20.04 ug/L	82
84)	1,2,4 trichlorobenze	27.08	180	54603	20.32 ug/L	99
85)	Naphalene	27.45	128	66592	19.93 ug/L	100
86)	1,2,3 Trichlorobenzene	27.96	180	46137	20.10 ug/L	98

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(#) = qualifier out of range (m) = manual integration

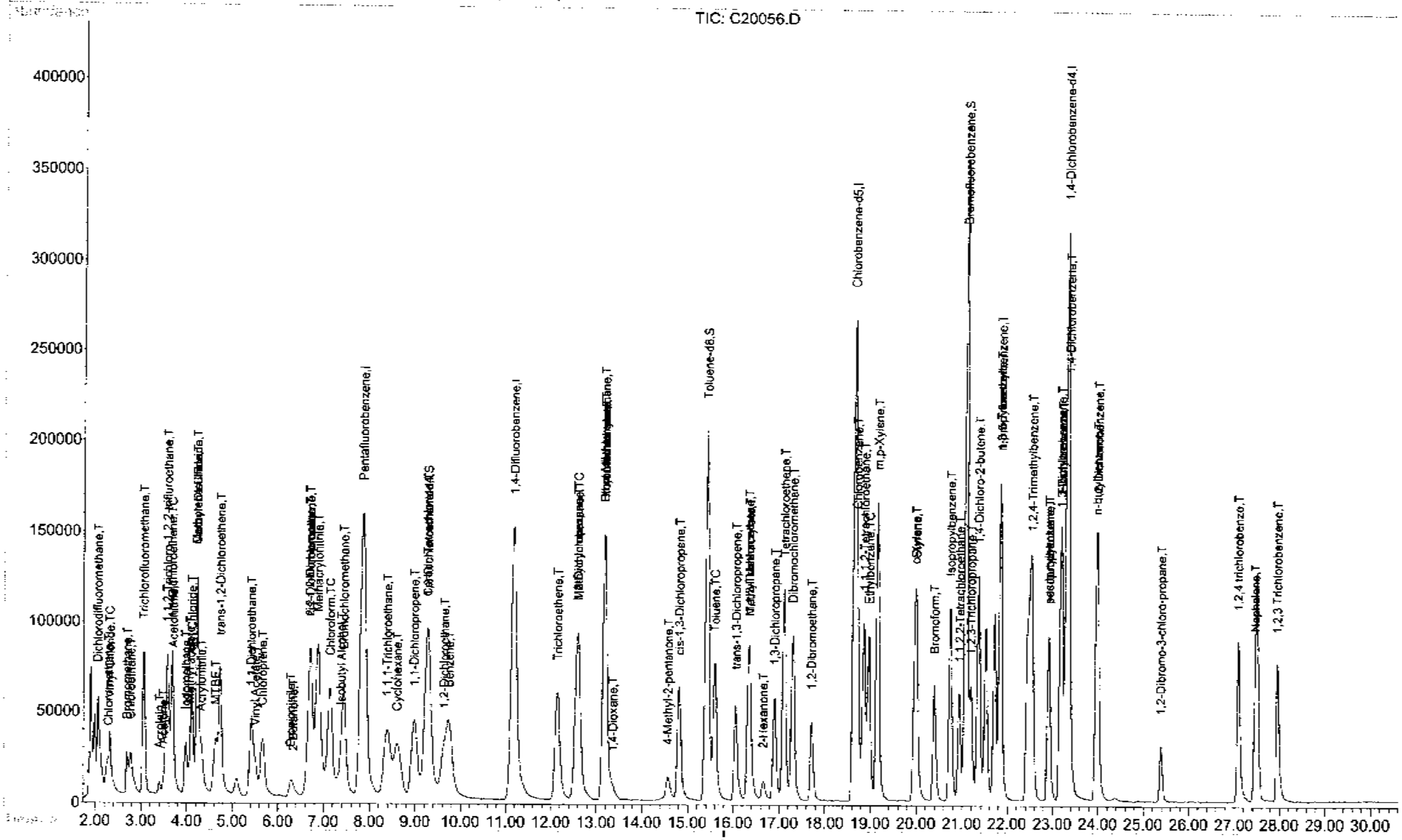
Quantitation Report

Data File : D:\DATA\C20056.D
Acq On : 10 Dec 2007 12:21 pm
Sample : VSTD020
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:50 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20057.D
Acq On : 10 Dec 2007 12:59 pm
Sample : VSTD050
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:36 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.86	168	360291	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.19	114	461314	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.64	117	311739	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	161536	50.00 ug/L	0.00

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.29	65	200969	50.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	100.00%	
49) Toluene-d8	15.42	98	372591	49.92 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.84%	
54) Bromofluorobenzene	21.07	95	354944	49.92 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	99.84%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.06	85	272763	50.00 ug/L	99
3) Chloromethane	2.27	50	143043	50.00 ug/L	96
4) Vinyl Chloride	2.33	62	124431	50.00 ug/L	98
5) Bromomethane	2.70	94	115070	50.00 ug/L	99
6) Chloroethane	2.79	64	84173	50.00 ug/L	99
7) Trichlorofluoromethane	3.06	101	295826	50.00 ug/L	100
8) Acrolein	3.41	56	28694	200.00 ug/L	99
9) Acetone	3.49	43	30890	50.00 ug/L	99
10) 1,1,2-Trichloro-1,2,2-trif	3.57	101	240314	50.00 ug/L	92
11) 1,1-Dichloroethene	3.68	96	108089	50.00 ug/L	82
12) Acetonitrile	3.70	41	62550	500.00 ug/L	98
13) Iodomethane	3.98	142	200481	50.00 ug/L	88
14) Methyl acetate	4.08	43	74203 MM	50.00 ug/L	96
15) Allyl Chloride	4.12	41	227255m	49.25 ug/L	
16) Carbon Disulfide	4.23	76	448555	50.00 ug/L	100
17) Methylene Chloride	4.23	84	140403	50.00 ug/L	90
18) MTBE	4.64	73	236832	50.00 ug/L	98
19) Acrylonitrile	4.33	53	71155	200.00 ug/L	98
20) trans-1,2-Dichloroethene	4.74	96	128654	50.00 ug/L #	81
21) 1,1-Dichloroethane	5.43	63	321532	50.00 ug/L	98
22) Vinyl Acetate	5.51	43	204808	50.00 ug/L	100
23) Chloroprene	5.66	53	175821	50.00 ug/L	93
24) 2-Butanone	6.33	43	36568	50.00 ug/L	95
25) Propionitrile	6.29	54	64855	500.00 ug/L	96
26) 2,2-Dichloropropane	6.72	77	229283	50.00 ug/L	96
27) cis-1,2-Dichloroethene	6.72	96	148610	50.00 ug/L #	83
28) Methacrylonitrile	6.88	41	476347	50.10 ug/L	98
29) Chloroform	7.14	83	369612	50.00 ug/L	100
30) Bromochloromethane	7.43	128	93411	50.00 ug/L #	77
31) Isobutyl Alcohol	7.35	43	61282	5000.00 ug/L	99
32) Cyclohexane	8.62	56	182042	50.00 ug/L	88
34) 1,1,1-Trichloroethane	8.39	97	290523	50.00 ug/L	91
36) 1,1-Dichloropropene	8.98	75	237446	49.90 ug/L	96
37) Carbon Tetrachloride	9.27	117	260984	49.92 ug/L	99
38) Benzene	9.75	78	390628	49.92 ug/L	100
39) 1,2-Dichloroethane	9.63	62	205177	49.92 ug/L	97
40) Trichloroethene	12.15	95	201067	49.92 ug/L	95

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20057.D
Acq On : 10 Dec 2007 12:59 pm
Sample : VSTD050
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:36 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:35:41 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.59	63	196474	49.92 ug/L	97
42) Methylcyclohexane	12.59	83	134740	49.92 ug/L	93
43) Methyl Methacrylate	16.37	41	132798	49.92 ug/L	100
44) Bromodichloromethane	13.18	83	421459	49.92 ug/L	99
45) Dibromomethane	13.17	93	220310	49.92 ug/L	89
46) 1,4-Dioxane	13.37	88	12438	49.92 ug/L	90
47) 4-Methyl-2-pentanone	14.57	43	109421	49.92 ug/L	98
48) cis-1,3-Dichloropropene	14.81	75	250948	49.92 ug/L	100
50) Toluene	15.60	92	201620	49.92 ug/L	97
51) trans-1,3-Dichloropropene	16.06	75	192658	49.92 ug/L	100
52) Ethyl Methacrylate	13.17	69	67180	49.92 ug/L	99
53) 1,1,2-Trichloroethane	16.34	83	123419	49.92 ug/L	95
56) 2-Hexanone	16.66	43	71951	50.00 ug/L	98
57) 1,3-Dichloropropane	16.91	76	196030	50.00 ug/L	100
58) Tetrachloroethene	17.10	166	188511	50.00 ug/L	90
59) Dibromochloromethane	17.29	129	296236	50.00 ug/L	99
60) 1,2-Dibromoethane	17.70	107	205301	50.00 ug/L	99
61) Chlorobenzene	18.71	112	251081	50.00 ug/L	94
62) 1,1,1,2-Tetrachloroethane	18.86	131	159453	50.00 ug/L	97
63) Ethylbenzene	18.96	91	391648	50.00 ug/L	100
64) m,p-Xylene	19.15	106	253301	100.00 ug/L	97
65) o-Xylene	19.96	106	128971	50.00 ug/L	99
66) Styrene	20.00	104	205276	50.00 ug/L	94
67) Bromoform	20.39	173	158087	50.00 ug/L	99
68) Isopropylbenzene	20.75	105	347420	50.00 ug/L	98
69) 1,1,2,2-Tetrachloroethane	20.93	83	208417	50.00 ug/L	99
70) 1,2,3-Trichloropropane	21.19	75	133453	50.00 ug/L	98
71) 1,4-Dichloro-2-butene	21.37	75	56140	50.00 ug/L #	42
72) n-propylbenzene	21.83	91	419075	50.00 ug/L	98
73) 1,3,5-Trimethylbenzene	21.85	105	284794	50.00 ug/L	98
74) T-butylbenzene	23.20	91	90313	50.00 ug/L	95
75) 1,2,4-Trimethylbenzene	22.55	105	284175	50.00 ug/L	99
76) sec-butylbenzene	22.91	105	416016	50.00 ug/L	98
77) 1,3-Dichlorobenzene	23.16	146	205740	50.00 ug/L	97
78) p-isopropyltoluene	22.91	91	73363	50.00 ug/L	92
79) 1,4-Dichlorobenzene	23.36	146	199972	50.00 ug/L	97
80) n-butylbenzene	23.96	91	351131	50.00 ug/L	96
81) 1,2-Dichlorobenzene	24.00	146	189350	49.96 ug/L	96
82) 1,2-Dibromo-3-chloro-propa	25.39	75	53391	50.00 ug/L	82
84) 1,2,4 trichlorobenze	27.10	180	135772	50.00 ug/L	98
85) Naphalene	27.45	128	168810	50.00 ug/L	100
86) 1,2,3 Trichlorobenzene	27.97	180	115942	50.00 ug/L	98

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(#) = qualifier out of range (m) = manual integration

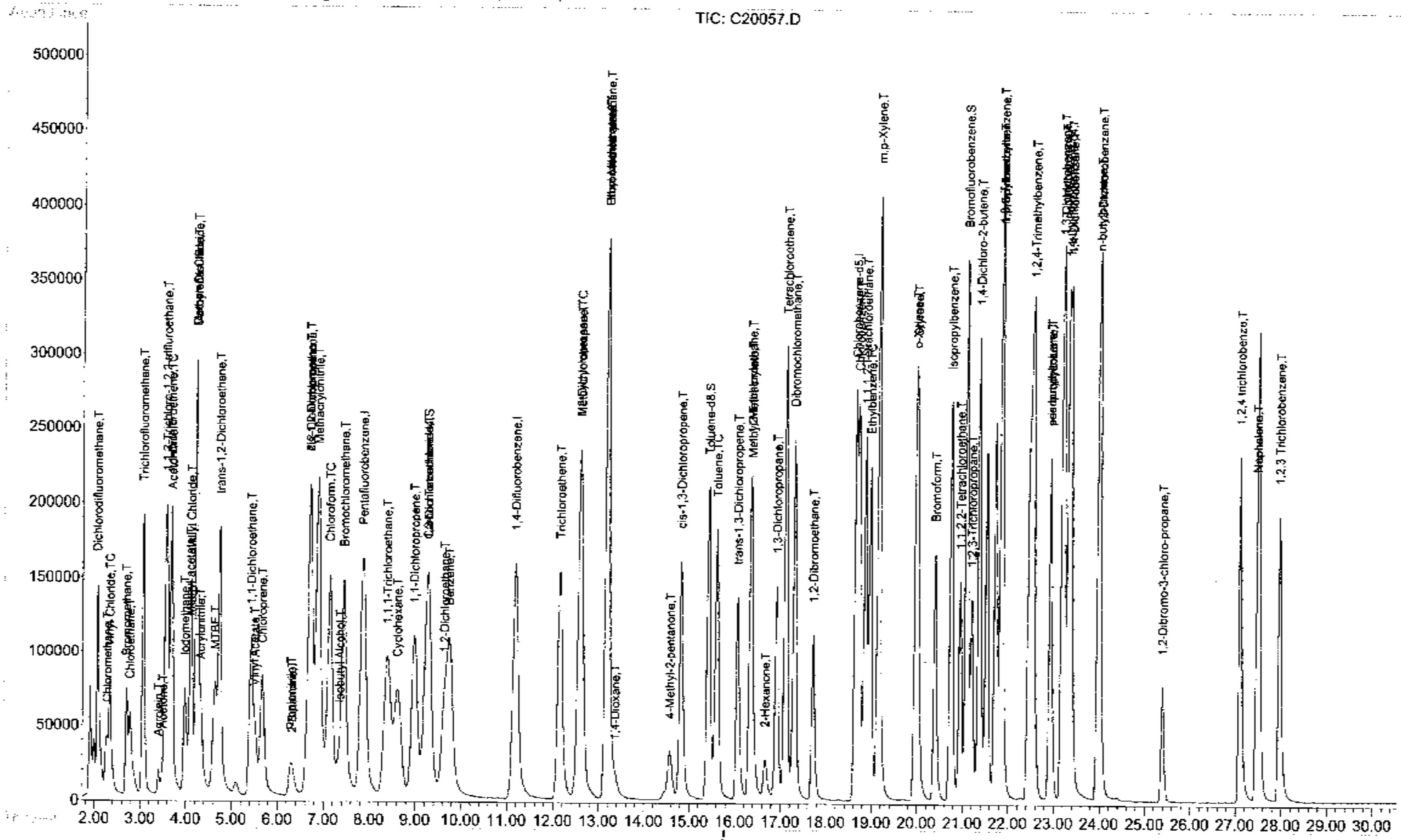
Quantitation Report

Data File : D:\DATA\C20057.D
Acq On : 10 Dec 2007 12:59 pm
Sample : VSTD050
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 13:36 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



C20057.D TEST1210.M Mon Dec 10 15:36:58 2007 12. -429-

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20058.D
Acq On : 10 Dec 2007 1:37 pm
Sample : VSTD100
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 14:25 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:54:12 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.86	168	333177	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.18	114	445190	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.65	117	302533	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.32	152	159730	50.00 ug/L	0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.29	65	198969	53.53 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery	= 107.06%	
49) Toluene-d8	15.42	98	359995	49.98 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 99.96%	
54) Bromofluorobenzene	21.09	95	344536	50.21 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery	= 100.42%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.06	85	525468	104.16 ug/L	100
3) Chloromethane	2.27	50	272391	102.96 ug/L	99
4) Vinyl Chloride	2.33	62	217714	94.60 ug/L	99
5) Bromomethane	2.70	94	239201	112.40 ug/L	99
6) Chloroethane	2.78	64	164732	105.82 ug/L	99
7) Trichlorofluoromethane	3.07	101	567601	103.74 ug/L	100
8) Acrolein	3.40	56	62605	471.87 ug/L	93
9) Acetone	3.48	43	61259	107.23 ug/L	100
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	464669	104.55 ug/L	99
11) 1,1-Dichloroethene	3.69	96	205218	102.66 ug/L	96
12) Acetonitrile	3.70	41	129823	1122.21 ug/L	99
13) Iodomethane	3.97	142	453207	122.23 ug/L	100
14) Methyl acetate	4.07	43	156217 MM	113.83 ug/L	100
15) Allyl Chloride	4.11	41	439092m	102.91 ug/L	
16) Carbon Disulfide	4.23	76	876473 MM	105.65 ug/L	100
17) Methylene Chloride	4.23	84	271932m	104.72 ug/L	
18) MTBE	4.64	73	469188m MM	107.12 ug/L	
19) Acrylonitrile	4.34	53	148511	451.40 ug/L	92
20) trans-1,2-Dichloroethene	4.74	96	255643	107.44 ug/L	99
21) 1,1-Dichloroethane	5.43	63	622981 MM	104.76 ug/L	99
22) Vinyl Acetate	5.52	43	429070m	113.27 ug/L	
23) Chloroprene	5.67	53	346216	106.47 ug/L	100
24) 2-Butanone	6.35	43	77595	114.73 ug/L	94
25) Propionitrile	6.30	54	145081	1209.53 ug/L	100
26) 2,2-Dichloropropane	6.71	77	451989	106.59 ug/L	100
27) cis-1,2-Dichloroethene	6.71	96	291763	106.15 ug/L	98
28) Methacrylonitrile	6.90	41	998558	113.56 ug/L	100
29) Chloroform	7.14	83	731702	107.04 ug/L	100
30) Bromochloromethane	7.44	128	187978	108.81 ug/L	100
31) Isobutyl Alcohol	7.36	43	161507	14249.74 ug/L	100
32) Cyclohexane	8.61	56	350774	104.18 ug/L	94
34) 1,1,1-Trichloroethane	8.39	97	575274	107.06 ug/L	98
36) 1,1-Dichloropropene	8.97	75	458878	99.93 ug/L	99
37) Carbon Tetrachloride	9.26	117	527501	104.56 ug/L	100
38) Benzene	9.75	78	772657	102.32 ug/L	100
39) 1,2-Dichloroethane	9.63	62	421653	106.31 ug/L	100
40) Trichloroethene	12.15	95	401369	103.27 ug/L	99

-430-

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20058.D
Acq On : 10 Dec 2007 1:37 pm
Sample : VSTD100
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 14:25 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 13:54:12 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.61	63	392602	103.37 ug/L	100
42) Methylcyclohexane	12.60	83	261255	100.30 ug/L	99
43) Methyl Methacrylate	16.37	41	277308	108.02 ug/L	99
44) Bromodichloromethane	13.19	83	845144	103.74 ug/L	100
45) Dibromomethane	13.18	93	447535	105.09 ug/L	99
46) 1,4-Dioxane	13.38	88	27929	116.16 ug/L	98
47) 4-Methyl-2-pentanone	14.58	43	230455	108.95 ug/L	99
48) cis-1,3-Dichloropropene	14.81	75	516296	106.43 ug/L	99
50) Toluene	15.61	92	398013	102.12 ug/L	100
51) trans-1,3-Dichloropropene	16.06	75	401898	107.91 ug/L	100
52) Ethyl Methacrylate	13.18	69	141192	108.72 ug/L	99
53) 1,1,2-Trichloroethane	16.34	83	251266	105.32 ug/L	100
56) 2-Hexanone	16.67	43	157923	113.08 ug/L	98
57) 1,3-Dichloropropane	16.92	76	401960	105.64 ug/L	99
58) Tetrachloroethene	17.12	166	375219	102.55 ug/L	99
59) Dibromochloromethane	17.31	129	618012	107.48 ug/L	99
60) 1,2-Dibromoethane	17.72	107	428839	107.62 ug/L	100
61) Chlorobenzene	18.72	112	498938	102.38 ug/L	99
62) 1,1,1,2-Tetrachloroethane	18.86	131	322837	104.31 ug/L	99
63) Ethylbenzene	18.98	91	776773	102.18 ug/L	100
64) m,p-Xylene	19.17	106	501131	203.86 ug/L	100
65) o-Xylene	19.97	106	254500	101.67 ug/L	100
66) Styrene	20.01	104	407096	102.18 ug/L	100
67) Bromoform	20.41	173	333048	108.54 ug/L	100
68) Isopropylbenzene	20.76	105	686495	101.81 ug/L	99
69) 1,1,2,2-Tetrachloroethane	20.95	83	439163	108.56 ug/L	99
70) 1,2,3-Trichloropropane	21.20	75	272984	105.39 ug/L	97
71) 1,4-Dichloro-2-butene	21.39	75	121613	111.61 ug/L #	86
72) n-propylbenzene	21.84	91	791714	97.33 ug/L	98
73) 1,3,5-Trimethylbenzene	21.86	105	560152	101.34 ug/L	99
74) T-butylbenzene	23.21	91	177942	101.51 ug/L	100
75) 1,2,4-Trimethylbenzene	22.56	105	567824	102.95 ug/L	100
76) sec-butylbenzene	22.93	105	821531	101.74 ug/L	100
77) 1,3-Dichlorobenzene	23.18	146	408108	102.20 ug/L	100
78) p-isopropyltoluene	22.94	91	144033	101.15 ug/L	99
79) 1,4-Dichlorobenzene	23.38	146	402976	103.82 ug/L	99
80) n-butylbenzene	23.97	91	692806	101.66 ug/L	99
81) 1,2-Dichlorobenzene	24.01	146	382925	104.11 ug/L	98
82) 1,2-Dibromo-3-chloro-propa	25.40	75	116726	112.64 ug/L	99
84) 1,2,4 trichlorobenze	27.10	180	280830	104.59 ug/L	99
85) Naphalene	27.47	128	368014	110.23 ug/L	100
86) 1,2,3 Trichlorobenzene	27.98	180	241755	105.44 ug/L	99

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(#) = qualifier out of range (m) = manual integration

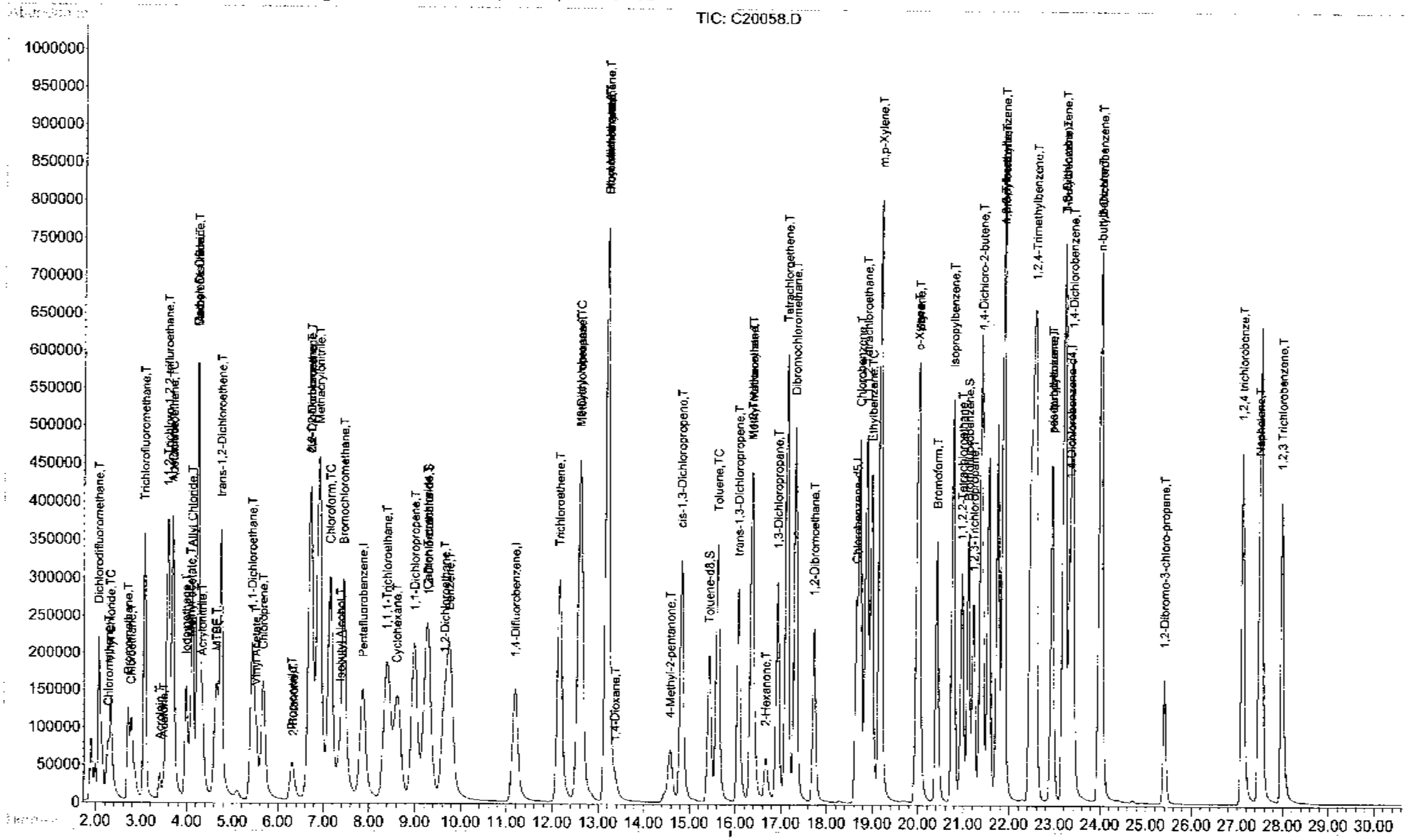
Quantitation Report

Data File : D:\DATA\C20058.D
Acq On : 10 Dec 2007 1:37 pm
Sample : VSTD100
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 14:25 2007

Vial: 7
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20059.D
Acq On : 10 Dec 2007 2:15 pm
Sample : VSTD200
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 14:46 2007

Vial: 8
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:26:16 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	329543	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.20	114	448864	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.68	117	304002	50.00 ug/L	0.04
83) 1,4-Dichlorobenzene-d4	23.35	152	158580	50.00 ug/L	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	9.30	65	198233	53.92 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	107.84%	
49) Toluene-d8	15.44	98	359732	49.54 ug/L	0.02
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.08%	
54) Bromofluorobenzene	21.12	95	345940	50.01 ug/L	0.05
Spiked Amount 50.000	Range 86 - 115		Recovery =	100.02%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.07	85	871674m	174.69 ug/L	
3) Chloromethane	2.28	50	496884	189.89 ug/L	100
4) Vinyl Chloride	2.33	62	393680	172.95 ug/L	99
5) Bromomethane	2.71	94	427717	203.19 ug/L	99
6) Chloroethane	2.79	64	283975	184.42 ug/L	98
7) Trichlorofluoromethane	3.07	101	943098	174.27 ug/L	100
8) Acrolein	3.41	56	114135	869.76 ug/L	95
9) Acetone	3.49	43	110774	196.03 ug/L	100
10) 1,1,2-Trichloro-1,2,2-trif	3.58	101	770988	175.38 ug/L	100
11) 1,1-Dichloroethene	3.69	96	353385	178.72 ug/L	98
12) Acetonitrile	3.71	41	239408	2092.29 ug/L	97
13) Iodomethane	3.99	142	753784	205.53 ug/L	99
14) Methyl acetate	4.08	43	287763 MM	211.99 ug/L	99
15) Allyl Chloride	4.13	41	796493m	188.73 ug/L	
16) Carbon Disulfide	4.24	76	1488613	181.42 ug/L	100
17) Methylene Chloride	4.24	84	516367	201.05 ug/L	100
18) MTBE	4.65	73	926851	213.93 ug/L	99
19) Acrylonitrile	4.34	53	278039	854.42 ug/L	95
20) trans-1,2-Dichloroethene	4.75	96	450666	191.49 ug/L	99
21) 1,1-Dichloroethane	5.43	63	1122237	190.80 ug/L	99
22) Vinyl Acetate	5.53	43	820998	219.13 ug/L	100
23) Chloroprene	5.68	53	590177	183.49 ug/L	99
24) 2-Butanone	6.35	43	149273	223.15 ug/L	97
25) Propionitrile	6.32	54	269019	2267.52 ug/L	97
26) 2,2-Dichloropropane	6.72	77	784643	187.07 ug/L	99
27) cis-1,2-Dichloroethene	6.72	96	535483	196.97 ug/L	99
28) Methacrylonitrile	6.93	41	1855657	213.37 ug/L	99
29) Chloroform	7.16	83	1326454	196.18 ug/L	100
30) Bromochloromethane	7.45	128	348238	203.79 ug/L	99
31) Isobutyl Alcohol	7.38	43	297830	26567.26 ug/L	88
32) Cyclohexane	8.63	56	588178	176.62 ug/L	94
34) 1,1,1-Trichloroethane	8.41	97	991873	186.63 ug/L	99
36) 1,1-Dichloropropene	9.00	75	804977	173.87 ug/L	99
37) Carbon Tetrachloride	9.28	117	912860	179.46 ug/L	100
38) Benzene	9.77	78	1392592	182.91 ug/L	100
39) 1,2-Dichloroethane	9.65	62	796189	199.10 ug/L	100
40) Trichloroethene	12.16	95	714706	182.38 ug/L	99

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20059.D Vial: 8
Acq On : 10 Dec 2007 2:15 pm Operator: MM
Sample : VSTD200 Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 10 14:46 2007 Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:26:16 2007
Response via : Continuing Cal File: D:\DATA\C20057.D
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.61	63	727336	189.94 ug/L	100
42) Methylcyclohexane	12.60	83	432502	164.69 ug/L	100
43) Methyl Methacrylate	16.38	41	517118	199.79 ug/L	99
44) Bromodichloromethane	13.20	83	1565820	190.62 ug/L	100
45) Dibromomethane	13.19	93	829885	193.27 ug/L	99
46) 1,4-Dioxane	13.37	88	53442	220.45 ug/L	100
47) 4-Methyl-2-pentanone	14.58	43	431887	202.51 ug/L	99
48) cis-1,3-Dichloropropene	14.83	75	973730	199.08 ug/L	98
50) Toluene	15.62	92	720417	183.33 ug/L	99
51) trans-1,3-Dichloropropene	16.07	75	763462	203.32 ug/L	99
52) Ethyl Methacrylate	13.18	69	255210	194.91 ug/L	97
53) 1,1,2-Trichloroethane	16.36	83	468383	194.72 ug/L	99
56) 2-Hexanone	16.68	43	305960	218.03 ug/L	96
57) 1,3-Dichloropropane	16.93	76	757593	198.15 ug/L	99
58) Tetrachloroethene	17.13	166	684801	186.26 ug/L	99
59) Dibromochloromethane	17.32	129	1162656	201.23 ug/L	100
60) 1,2-Dibromoethane	17.74	107	805288	201.12 ug/L	100
61) Chlorobenzene	18.76	112	916488	187.15 ug/L	99
62) 1,1,1,2-Tetrachloroethane	18.90	131	596961	191.95 ug/L	99
63) Ethylbenzene	19.01	91	1390142	181.99 ug/L	100
64) m,p-Xylene	19.20	106	893528	361.73 ug/L	98
65) o-Xylene	20.01	106	455813	181.21 ug/L	99
66) Styrene	20.05	104	752199	187.88 ug/L	99
67) Bromoform	20.44	173	632051	204.99 ug/L	100
68) Isopropylbenzene	20.80	105	1215136	179.33 ug/L	99
69) 1,1,2,2-Tetrachloroethane	20.98	83	817402	201.09 ug/L	100
70) 1,2,3-Trichloropropane	21.24	75	496051	190.58 ug/L	94
71) 1,4-Dichloro-2-butene	21.43	75	228693	208.86 ug/L #	82
72) n-propylbenzene	21.88	91	1466453	179.42 ug/L	100
73) 1,3,5-Trimethylbenzene	21.90	105	992751	178.73 ug/L	100
74) T-butylbenzene	23.25	91	305427	173.40 ug/L	97
75) 1,2,4-Trimethylbenzene	22.60	105	1019597	183.96 ug/L	98
76) sec-butylbenzene	22.96	105	1424430	175.56 ug/L	100
77) 1,3-Dichlorobenzene	23.21	146	740064	184.43 ug/L	100
78) p-isopropyltoluene	22.96	91	247681	173.10 ug/L	99
79) 1,4-Dichlorobenzene	23.41	146	742908	190.48 ug/L	100
80) n-butylbenzene	24.00	91	1207889	176.38 ug/L	100
81) 1,2-Dichlorobenzene	24.04	146	709910	192.08 ug/L	98
82) 1,2-Dibromo-3-chloro-propa	25.42	75	221752	212.95 ug/L	99
84) 1,2,4 trichlorobenze	27.13	180	528512	198.26 ug/L	99
85) Naphalene	27.48	128	692389	208.90 ug/L	100
86) 1,2,3 Trichlorobenzene	27.99	180	455315	200.01 ug/L	99

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(#) = qualifier out of range (m) = manual integration

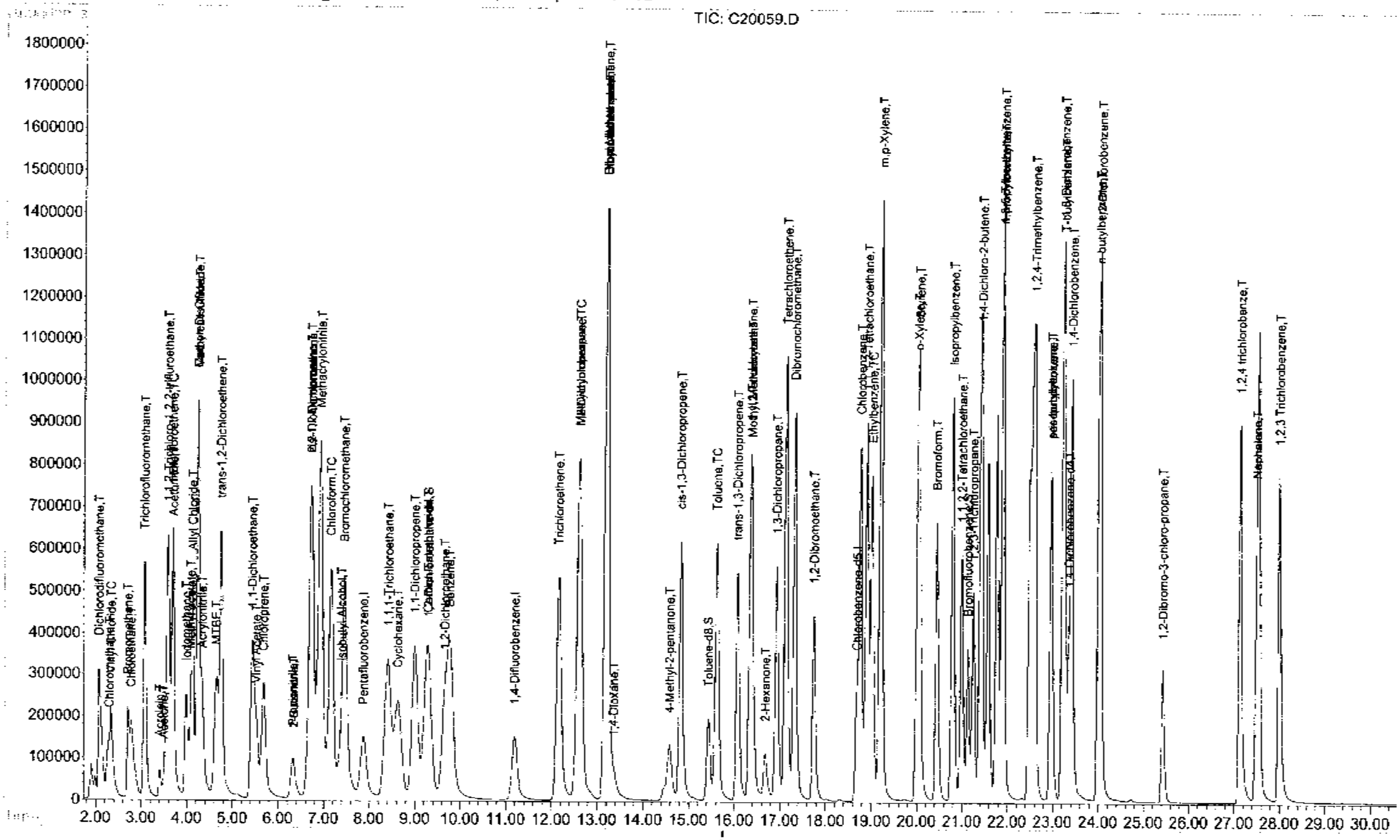
Quantitation Report

Data File : D:\DATA\C20059.D
Acq On : 10 Dec 2007 2:15 pm
Sample : VSTD200
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 10 14:46 2007

Vial: 8
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Continuing Cal File: D:\DATA\C20057.D



6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date(s): 12/3/2007 12/3/2007

Heated Purge (Y/N): N Calibration Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF03 = D19723.D RRF10 = D19722.D RRF200 = D19719.D
RRF20 = D19721.D RRF50 = D19718.D RRF100 = D19720.D

COMPOUND		RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD	
Chloromethane	*	0.415	0.393	0.339	0.366	0.346	0.469	0.388	12.6	*
Vinyl Chloride	*	0.410	0.438	0.368	0.370	0.343	0.473	0.400	12.3	*
Bromomethane	*	0.338	0.253	0.256	0.252	0.249	0.338	0.281	15.7	*
Chloroethane	*	0.286	0.286	0.245	0.246	0.226	0.295	0.264	10.8	*
Trichlorofluoromethane	*	0.658	0.691	0.572	0.662	0.580	0.750	0.652	10.4	*
Acetone	*		0.116	0.184	0.129	0.115	0.120	0.133	22.0	*
1,1-Dichloroethene	*	0.414	0.370	0.348	0.305	0.277	0.414	0.355	15.9	*
Iodomethane	*	0.573	0.642	0.623	0.512	0.560	0.627	0.589	8.5	*
Carbon Disulfide	*	1.002	0.984	0.908	0.877	0.818	1.089	0.946	10.3	*
Methylene Chloride	*	0.477	0.427	0.388	0.387	0.364	0.426	0.411	9.8	*
Acrylonitrile	*	0.125	0.093	0.082	0.088	0.084	0.095	0.095	16.4	*
trans-1,2-Dichloroethene	*	0.451	0.382	0.368	0.365	0.309	0.430	0.384	13.1	*
1,1-Dichloroethane	*	0.807	0.784	0.695	0.726	0.650	0.872	0.756	10.7	*
Vinyl Acetate	*	0.846	0.835	0.872	0.905	0.845	1.040	0.891	8.7	*
2-Butanone	*	0.193	0.201	0.242	0.214	0.174	0.194	0.203	11.4	* -436-
cis-1,2-Dichloroethene	*	0.507	0.440	0.399	0.398	0.346	0.460	0.425	13.2	*
Chloroform	*	0.990	0.832	0.737	0.747	0.657	0.835	0.800	14.3	*
Bromochloromethane	*	0.242	0.231	0.218	0.223	0.206	0.237	0.226	5.8	*
1,1,1-Trichloroethane	*	0.662	0.636	0.582	0.600	0.583	0.746	0.635	9.9	*
Carbon Tetrachloride	*	0.348	0.351	0.343	0.331	0.330	0.430	0.355	10.6	*
Benzene	*	0.906	0.874	0.821	0.828	0.788	0.930	0.858	6.4	*
1,2-Dichloroethane	*	0.376	0.386	0.359	0.359	0.331	0.386	0.366	5.8	*
Trichloroethene	*	0.413	0.344	0.324	0.307	0.300	0.348	0.339	12.0	*
1,2-Dichloropropane	*	0.399	0.359	0.336	0.336	0.329	0.362	0.353	7.3	*
Bromodichloromethane	*	0.678	0.573	0.547	0.531	0.518	0.579	0.571	10.1	*
Dibromomethane	*	0.291	0.277	0.254	0.246	0.237	0.255	0.260	7.8	*
4-Methyl-2-pentanone	*	0.238	0.381	0.329	0.284	0.310	0.304	0.308	15.4	*
cis-1,3-Dichloropropene	*	0.503	0.522	0.490	0.497	0.510	0.568	0.515	5.4	*
Toluene	*	0.544	0.530	0.523	0.494	0.525	0.593	0.535	6.2	*
trans-1,3-Dichloropropene	*	0.442	0.423	0.407	0.408	0.423	0.465	0.428	5.2	*
1,1,2-Trichloroethane	*	0.360	0.286	0.258	0.239	0.247	0.262	0.276	16.1	*
2-Hexanone	*	0.152	0.291	0.297	0.298	0.313	0.307	0.276	22.2	*
Tetrachloroethene	*	0.343	0.329	0.319	0.296	0.329	0.371	0.331	7.6	*
Dibromochloromethane	*	0.481	0.477	0.464	0.489	0.466	0.516	0.482	4.0	*
1,2-Dibromoethane	*	0.469	0.459	0.441	0.464	0.444	0.476	0.459	3.1	*
Chlorobenzene	*	0.728	0.750	0.775	0.751	0.800	0.866	0.778	6.4	*
1,1,1,2-Tetrachloroethane	*	0.342	0.347	0.338	0.358	0.346	0.382	0.352	4.6	*
Ethylbenzene	*	1.089	1.095	1.130	1.112	1.229	1.342	1.166	8.6	*
m,p-Xylene	*	0.513	0.510	0.491	0.452	0.469	0.502	0.489	5.0	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date(s): 12/3/2007 12/3/2007

Heated Purge (Y/N): N Calibration Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF03 = D19723.D RRF10 = D19722.D RRF200 =
RRF20 = D19721.D RRF50 = D19718.D RRF100 = D19720.D D19719.D

COMPOUND		RRF03	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
o-Xylene	*	0.517	0.515	0.501	0.489	0.474	0.515	0.502	3.4	*
Styrene	*	0.852	0.872	0.872	0.862	0.859	0.932	0.875	3.3	*
Bromoform	*	0.249	0.288	0.304	0.310	0.320	0.321	0.299	9.0	*
1,1,2,2-Tetrachloroethane	*	0.682	0.611	0.603	0.567	0.591	0.542	0.599	8.0	*
1,2,3-Trichloropropane	*	0.616	0.532	0.528	0.543	0.551	0.500	0.545	7.1	*
1,4-Dichloro-2-butene	*	0.044	0.057	0.062	0.061	0.065	0.065	0.059	13.2	*
1,3-Dichlorobenzene	*	[illegible]	[illegible]	[illegible]	0.541	0.596	0.612	0.537	10.6	*
1,4-Dichlorobenzene	*	0.594	0.568	0.555	0.599	0.606	0.659	0.597	6.0	*
1,2-Dichlorobenzene	*	0.495	0.518	0.522	0.547	0.571	0.608	0.543	7.5	*
1,2-Dibromo-3-chloro-propane	*	0.196	0.144	0.140	0.143	0.147	0.131	0.150	15.4	*
1,2-Dichloroethane-d4	*	0.501	0.510	0.481	0.516	0.508	0.518	0.506	2.7	*
Toluene-d8	*	1.022	1.028	1.022	0.977	1.041	1.023	1.019	2.2	*
Bromofluorobenzene		0.715	0.739	0.706	0.659	0.720	0.689	0.705	4.0	

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* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Response Factor Report #13

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Calibration

Calibration Files
10 =D19722.D 20 =D19721.D 50 =D19718.D
100 =D19720.D 200 =D19719.D 03 =D19723.D

		Compound	10	20	50	100	200	03	Avg	%RSD
1)	I	Pentafluorobenzene				ISTD				
2)	T	Dichlorodifluoromet	0.731	0.548	0.676	0.590	0.691	0.704	0.657	10.89
3)	T	Chloromethane	0.393	0.339	0.366	0.346	0.469	0.415	0.388	12.60
4)	TC	Vinyl Chloride	0.438	0.368	0.370	0.343	0.473	0.410	0.400	12.25
5)	T	Bromomethane	0.253	0.256	0.251	0.249	0.338	0.337	0.281	15.73
6)	T	Chloroethane	0.286	0.245	0.246	0.226	0.295	0.286	0.264	10.78
7)	T	Trichlorofluorometh	0.691	0.572	0.662	0.580	0.750	0.658	0.652	10.35
8)	T	Acrolein	0.048	0.043	0.046	0.042	0.050		0.046#	7.39
9)	T	Acetone	0.116	0.184	0.129	0.115	0.120		0.133	21.96
10)	TC	1,1-Dichloroethene	0.370	0.348	0.305	0.277	0.414	0.414	0.355	15.89
11)	T	Acetonitrile	0.083	0.086	0.081	0.076	0.094	0.099	0.087	10.09
12)	T	Iodomethane	0.642	0.623	0.512	0.560	0.627	0.572	0.589	8.48
13)	T	Allyl Chloride	0.183	0.166	0.185	0.166	0.209	0.158	0.178	10.37
14)	T	Carbon Disulfide	0.984	0.908	0.877	0.818	1.089	1.002	0.946	10.33
15)	T	Methylene Chloride	0.427	0.388	0.387	0.364	0.426	0.477	0.411	9.83
16)		t-butanol	0.294	0.271	0.273	0.246	0.269	0.317	0.278	8.67
17)	T	MTBE	1.046	0.939	1.005	0.899	1.088	1.082	1.010	7.67
18)	T	Acrylonitrile	0.093	0.082	0.088	0.084	0.095	0.125	0.095	16.42
19)	T	trans-1,2-Dichloroe	0.382	0.368	0.365	0.309	0.430	0.451	0.384	13.13
20)	T	1,1-Dichloroethane	0.784	0.695	0.726	0.650	0.872	0.807	0.756	10.71
21)	T	Vinyl Acetate	0.835	0.872	0.905	0.845	1.040	0.846	0.891	8.71
22)	T	Chloroprene	0.612	0.551	0.539	0.490	0.699	0.656	0.591	13.30
23)	T	2-Butanone	0.201	0.242	0.214	0.174	0.194	0.193	0.203	11.36
24)	T	Propionitrile	0.027	0.027	0.030	0.029	0.032	0.024	0.028#	10.81
25)	T	2,2-Dichloropropane	0.610	0.582	0.612	0.533	0.732	0.641	0.618	10.73
26)	T	cis-1,2-Dichloroeth	0.440	0.399	0.398	0.346	0.460	0.507	0.425	13.24
27)	T	Methacrylonitrile	2.199	2.012	2.060	1.888	2.174	2.368	2.117	7.89
28)	TC	Chloroform	0.832	0.737	0.747	0.657	0.835	0.990	0.800	14.32
29)	T	Bromochloromethane	0.231	0.218	0.223	0.206	0.237	0.242	0.226	5.82
30)	T	Isobutyl Alcohol	0.003	0.003	0.003	0.003	0.003	0.003	0.003#	6.92
31)	S	1,2-Dichloroethane-	0.510	0.481	0.516	0.508	0.518	0.501	0.506	2.69
32)	T	1,1,1-Trichloroetha	0.636	0.582	0.600	0.583	0.746	0.662	0.635	9.91
33)	I	1,4-Difluorobenzene				ISTD				
34)	T	1,1-Dichloropropene	0.379	0.383	0.374	0.352	0.443	0.392	0.387	7.90
35)	T	Carbon Tetrachlorid	0.351	0.343	0.330	0.330	0.430	0.348	0.355	10.55
36)	T	Benzene	0.874	0.821	0.828	0.788	0.930	0.906	0.858	6.38
37)	T	1,2-Dichloroethane	0.386	0.359	0.359	0.331	0.386	0.376	0.366	5.80
38)	T	Trichloroethene	0.344	0.324	0.307	0.300	0.348	0.413	0.339	11.99
39)	TC	1,2-Dichloropropane	0.359	0.336	0.336	0.329	0.362	0.399	0.353	7.35
40)	T	Methyl Methacrylate	0.610	0.551	0.502	0.501	0.538	0.458	0.527	9.96
41)	T	Bromodichloromethan	0.573	0.547	0.531	0.518	0.579	0.678	0.571	10.09
42)	T	Dibromomethane	0.277	0.254	0.246	0.237	0.255	0.291	0.260	7.83
43)	T	4-Methyl-2-pentanon	0.381	0.329	0.284	0.310	0.304	0.238	0.308	15.40
44)	T	cis-1,3-Dichloropro	0.521	0.490	0.497	0.510	0.568	0.503	0.515	5.43
45)	S	Toluene-d8	1.028	1.022	0.977	1.041	1.023	1.022	1.019	2.16
46)	TC	Toluene	0.530	0.523	0.494	0.525	0.593	0.544	0.535	6.16
47)	T	trans-1,3-Dichlorop	0.423	0.407	0.408	0.423	0.465	0.442	0.428	5.22
48)	T	Ethyl Methacrylate	0.435	0.448	0.400	0.442	0.436		0.432	4.30
49)	T	1,1,2-Trichloroetha	0.286	0.258	0.239	0.247	0.262	0.360	0.276	16.09
50)	S	Bromofluorobenzene	0.739	0.706	0.659	0.720	0.689	0.715	0.705	3.96
51)	I	Chlorobenzene-d5				ISTD				

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(#) = Out of Range

Response Factor Report #13

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Calibration

Calibration Files

10	=D19722.D	20	=D19721.D	50	=D19718.D
100	=D19720.D	200	=D19719.D	03	=D19723.D

		Compound	10	20	50	100	200	03	Avg	%RSD
52)	T	2-Hexanone	0.291	0.297	0.298	0.313	0.307	0.152	0.276	22.21
53)	T	1,3-Dichloropropane	0.600	0.565	0.621	0.590	0.618	0.593	0.598	3.43
54)	T	Tetrachloroethene	0.329	0.319	0.296	0.329	0.371	0.343	0.331	7.59
55)	T	Dibromochloromethan	0.477	0.464	0.489	0.466	0.516	0.481	0.482	3.96
56)	T	1,2-Dibromoethane	0.459	0.441	0.464	0.444	0.476	0.469	0.459	3.08
57)	T	Chlorobenzene	0.750	0.775	0.751	0.800	0.866	0.728	0.778	6.38
58)	T	1,1,1,2-Tetrachloro	0.346	0.338	0.358	0.346	0.382	0.342	0.352	4.58
59)	TC	Ethylbenzene	1.094	1.130	1.112	1.229	1.342	1.089	1.166	8.59
60)	T	m,p-Xylene	0.510	0.491	0.452	0.469	0.502	0.513	0.489	4.99
61)	T	o-Xylene	0.515	0.501	0.489	0.474	0.515	0.517	0.502	3.45
62)	T	Styrene	0.872	0.872	0.862	0.859	0.932	0.852	0.875	3.30
63)	T	Bromoform	0.288	0.304	0.310	0.320	0.321	0.249	0.299	9.04
64)	T	1,1,2,2-Tetrachloro	0.611	0.603	0.566	0.591	0.542	0.682	0.599	7.96
65)	T	1,2,3-Trichloroprop	0.532	0.528	0.543	0.551	0.500	0.616	0.545	7.12
66)	T	1,4-Dichloro-2-bute	0.057	0.062	0.061	0.065	0.064	0.044	0.059	13.24
67)	T	1,3,5-Trimethylbenz	1.207	1.185	1.174	1.118	1.166	1.340	1.199	6.29
68)	T	1,2,4-Trimethylbenz	1.134	1.098	1.082	1.051	1.111	1.295	1.128	7.63
69)	T	1,3-Dichlorobenzene	0.514	0.483	0.541	0.596	0.612	0.477	0.537	10.57
70)	T	1,4-Dichlorobenzene	0.568	0.555	0.599	0.606	0.659	0.594	0.597	6.04
71)	T	1,2-Dichlorobenzene	0.518	0.522	0.547	0.571	0.608	0.495	0.543	7.53
72)	T	1,2-Dibromo-3-chlor	0.144	0.140	0.143	0.147	0.131	0.196	0.150	15.39
73)	I	1,4-Dichlorobenzene-d	---------------ISTD--------------------							

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(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19718.D
Acq On : 3 Dec 2007 1:11 pm
Sample : VSTD050
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:23 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.47	168	298871	50.00	ug/L	0.00
33) 1,4-Difluorobenzene	19.60	114	422890	50.00	ug/L	0.00
51) Chlorobenzene-d5	28.43	117	312269m NT	50.00	ug/L	0.00
73) 1,4-Dichlorobenzene-d4	36.08	152	172566	50.00	ug/L	0.00
System Monitoring Compounds						
31) 1,2-Dichloroethane-d4	18.55	65	154291	50.60	ug/L	0.00
Spiked Amount 50.000	Range 86 - 118		Recovery = 101.20%			
45) Toluene-d8	23.93	98	413022	49.98	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.96%			
50) Bromofluorobenzene	32.12	95	278578	50.00	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 100.00%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	7.25	85	202145m NT	50.42	ug/L	
3) Chloromethane	7.90	50	109269m	50.30	ug/L	
4) Vinyl Chloride	8.24	62	110699m	50.05	ug/L	
5) Bromomethane	9.28	94	75153m	49.74	ug/L	
6) Chloroethane	9.58	64	73402m	50.10	ug/L	
7) Trichlorofluoromethane	10.31	101	197885	50.26	ug/L	100
8) Acrolein	11.45	56	55031m NT	201.79	ug/L	
9) Acetone	11.85	43	38607m	49.50	ug/L	
10) 1,1-Dichloroethene	11.77	96	91143	48.84	ug/L	98
11) Acetonitrile	12.71	41	241344	485.31	ug/L	91
12) Iodomethane	12.27	142	153056	49.49	ug/L	98
13) Allyl Chloride	12.66	76	55274m NT	53.84	ug/L	
14) Carbon Disulfide	12.54	76	262012	50.33	ug/L	100
15) Methylene Chloride	13.05	84	115623	50.33	ug/L	99
16) t-butanol	13.21	59	81491	50.33	ug/L #	89
17) MTBE	13.75	73	300345	50.38	ug/L	99
18) Acrylonitrile	13.69	53	105462	193.14	ug/L	98
19) trans-1,2-Dichloroethene	13.79	96	108959	50.43	ug/L	98
20) 1,1-Dichloroethane	14.88	63	217108	50.22	ug/L	99
21) Vinyl Acetate	14.85	43	270517	50.08	ug/L	100
22) Chloroprene	15.12	53	161010	50.33	ug/L	98
23) 2-Butanone	16.35	43	63876m NT	48.07	ug/L	
24) Propionitrile	16.52	54	91101	503.29	ug/L	76
25) 2,2-Dichloropropane	16.41	77	182920	50.33	ug/L	100
26) cis-1,2-Dichloroethene	16.37	96	118918	50.33	ug/L	98
27) Methacrylonitrile	16.90	41	615689	50.16	ug/L	98
28) Chloroform	17.13	83	223271	50.34	ug/L	99
29) Bromochloromethane	17.03	128	66769	50.44	ug/L	90
30) Isobutyl Alcohol	18.09	43	81324	5032.89	ug/L	95
32) 1,1,1-Trichloroethane	17.78	97	179438	50.33	ug/L	99
34) 1,1-Dichloropropene	18.17	75	158086	50.15	ug/L	97
35) Carbon Tetrachloride	18.23	117	139758	50.08	ug/L	99
36) Benzene	18.77	78	350256	50.05	ug/L	100
37) 1,2-Dichloroethane	18.75	62	151892	50.04	ug/L	97
38) Trichloroethene	20.44	95	129844	49.93	ug/L	99
39) 1,2-Dichloropropane	21.11	63	141921	50.08	ug/L	100
40) Methyl Methacrylate	21.13	41	212130	46.28	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19718.D
Acq On : 3 Dec 2007 1:11 pm
Sample : VSTD050
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:23 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromodichloromethane	21.80	83	224417	50.00 ug/L	100
42)	Dibromomethane	21.48	93	104077	50.08 ug/L	99
43)	4-Methyl-2-pentanone	23.40	43	120037	49.73 ug/L	99
44)	cis-1,3-Dichloropropene	23.05	75	210298	49.70 ug/L	99
46)	Toluene	24.14	92	208903	49.96 ug/L	98
47)	trans-1,3-Dichloropropene	24.63	75	172330	50.00 ug/L	100
48)	Ethyl Methacrylate	24.70	69	169343	47.28 ug/L	96
49)	1,1,2-Trichloroethane	25.26	83	101144	50.02 ug/L	100
52)	2-Hexanone	25.88	43	93040m ART	47.42 ug/L	
53)	1,3-Dichloropropane	25.80	76	193828	49.48 ug/L	100
54)	Tetrachloroethene	25.85	166	92296	49.86 ug/L	97
55)	Dibromochloromethane	26.56	129	152806	49.87 ug/L	100
56)	1,2-Dibromoethane	27.06	107	145020	50.00 ug/L	98
57)	Chlorobenzene	28.51	112	234517	49.83 ug/L	100
58)	1,1,1,2-Tetrachloroethane	28.69	131	111926	49.97 ug/L	100
59)	Ethylbenzene	28.73	91	347256	50.00 ug/L	99
60)	m,p-Xylene	29.09	106	282190	93.72 ug/L	91
61)	o-Xylene	30.39	106	152819	49.62 ug/L	98
62)	Styrene	30.43	104	269274	49.38 ug/L	99
63)	Bromoform	31.16	173	96786	49.45 ug/L	99
64)	1,1,2,2-Tetrachloroethane	32.40	83	176893 ART	48.15 ug/L	99
65)	1,2,3-Trichloropropane	32.64	75	169528m	49.81 ug/L	
66)	1,4-Dichloro-2-butene	31.70	89	18963m	47.81 ug/L	
67)	1,3,5-Trimethylbenzene	33.35	105	366494	48.78 ug/L	98
68)	1,2,4-Trimethylbenzene	34.68	105	337827 ART	49.13 ug/L	100
69)	1,3-Dichlorobenzene	35.86	146	168997m	50.66 ug/L	
70)	1,4-Dichlorobenzene	36.15	146	187076m	50.04 ug/L	
71)	1,2-Dichlorobenzene	37.60	146	170864 ART	48.17 ug/L	97
72)	1,2-Dibromo-3-chloro-propa	40.64	75	44746m	46.60 ug/L	

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(#) = qualifier out of range (m) = manual integration

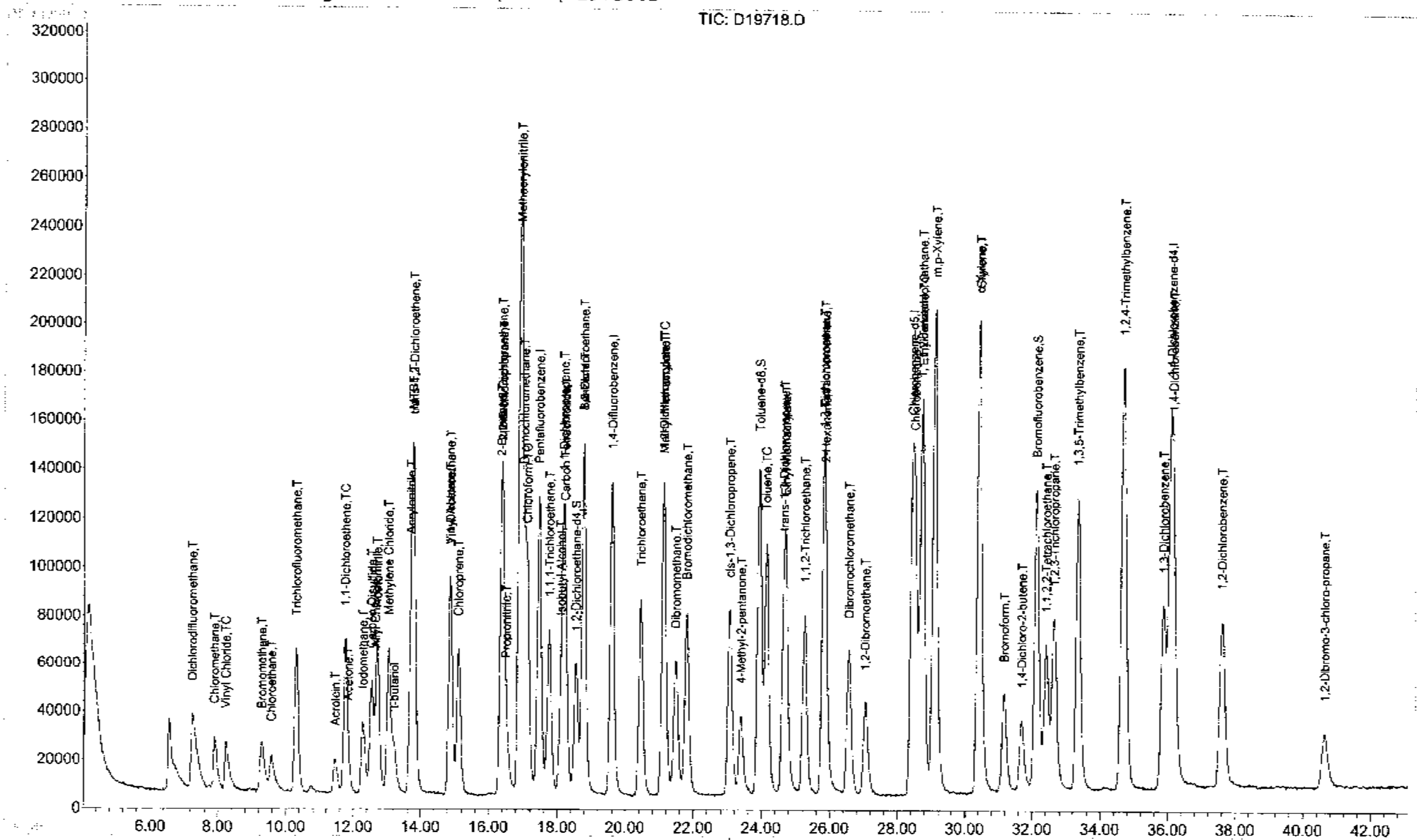
Quantitation Report

Data File : D:\DATA\D19718.D
Acq On : 3 Dec 2007 1:11 pm
Sample : VSTD050
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:23 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Cal File: D:\DATA\D19718.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19719.D
Acq On : 3 Dec 2007 2:11 pm
Sample : VSTD200
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:27 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.47	168	280823	50.00 ug/L	0.00
33) 1,4-Difluorobenzene	19.55	114	408265	50.00 ug/L	-0.05
51) Chlorobenzene-d5	28.23	117	329613m	50.00 ug/L	-0.20
73) 1,4-Dichlorobenzene-d4	35.87	152	175270m	50.00 ug/L	-0.21

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.53	65	145380	50.74 ug/L	-0.02
Spiked Amount 50.000	Range 86 - 118		Recovery = 101.48%		
45) Toluene-d8	23.80	98	417680	52.36 ug/L	-0.13
Spiked Amount 50.000	Range 88 - 110		Recovery = 104.72%		
50) Bromofluorobenzene	31.89	95	281337m	52.31 ug/L	-0.23
Spiked Amount 50.000	Range 86 - 115		Recovery = 104.62%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	7.27	85	775930m	205.97 ug/L	
3) Chloromethane	7.91	50	526795	258.10 ug/L	99
4) Vinyl Chloride	8.26	62	531509m	255.78 ug/L	
5) Bromomethane	9.26	94	379476m	267.30 ug/L	
6) Chloroethane	9.57	64	330824m	240.30 ug/L	
7) Trichlorofluoromethane	10.31	101	842075	227.61 ug/L	100
8) Acrolein	11.45	56	224200	874.94 ug/L	98
9) Acetone	11.87	43	134740	183.88 ug/L	93
10) 1,1-Dichloroethene	11.76	96	465036	265.22 ug/L	94
11) Acetonitrile	12.72	41	1060781	2270.18 ug/L	98
12) Iodomethane	12.28	142	704186	242.34 ug/L	98
13) Allyl Chloride	12.68	76	234211m	242.77 ug/L	
14) Carbon Disulfide	12.53	76	1223748m	250.17 ug/L	
15) Methylene Chloride	13.05	84	478834	221.82 ug/L	99
16) t-butanol	13.24	59	301929	198.46 ug/L #	79
17) MTBE	13.75	73	1222423	218.22 ug/L	100
18) Acrylonitrile	13.68	53	428695	835.57 ug/L	99
19) trans-1,2-Dichloroethene	13.79	96	482538	237.69 ug/L	99
20) 1,1-Dichloroethane	14.87	63	979304	241.10 ug/L	99
21) Vinyl Acetate	14.84	43	1168362	230.22 ug/L	100
22) Chloroprene	15.12	53	785461	261.30 ug/L	97
23) 2-Butanone	16.33	43	218202	174.75 ug/L	91
24) Propionitrile	16.52	54	364195	2141.31 ug/L	100
25) 2,2-Dichloropropane	16.41	77	821766	240.63 ug/L	99
26) cis-1,2-Dichloroethene	16.36	96	517074	232.90 ug/L	98
27) Methacrylonitrile	16.90	41	2441568	211.70 ug/L	98
28) Chloroform	17.13	83	938406	225.20 ug/L	100
29) Bromochloromethane	17.02	128	266543	214.30 ug/L	92
30) Isobutyl Alcohol	18.06	43	336800	22183.08 ug/L	96
32) 1,1,1-Trichloroethane	17.76	97	838361	250.26 ug/L	99
34) 1,1-Dichloropropene	18.16	75	723851	237.87 ug/L	99
35) Carbon Tetrachloride	18.22	117	701836	260.50 ug/L	99
36) Benzene	18.76	78	1518903	224.82 ug/L	100
37) 1,2-Dichloroethane	18.73	62	630032	215.00 ug/L	100
38) Trichloroethene	20.36	95	567526	226.06 ug/L	97
39) 1,2-Dichloropropane	21.00	63	590424	215.81 ug/L	99
40) Methyl Methacrylate	21.01	41	878623	198.56 ug/L	99

-443-

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19719.D
Acq On : 3 Dec 2007 2:11 pm
Sample : VSTD200
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:27 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41)	Bromodichloromethane	21.67	83	946256	218.39	ug/L	100
42)	Dibromomethane	21.35	93	416840	207.76	ug/L	99
43)	4-Methyl-2-pentanone	23.26	43	496294	212.99	ug/L	100
44)	cis-1,3-Dichloropropene	22.93	75	927089	226.96	ug/L	98
46)	Toluene	24.00	92	968688	239.96	ug/L	99
47)	trans-1,3-Dichloropropene	24.48	75	759318	228.21	ug/L	100
48)	Ethyl Methacrylate	24.56	69	712551	206.08	ug/L	96
49)	1,1,2-Trichloroethane	25.10	83	428512	219.53	ug/L	99
52)	2-Hexanone	25.69	43	404710m	195.42	ug/L	
53)	1,3-Dichloropropane	25.64	76	814807	197.05	ug/L	99
54)	Tetrachloroethene	25.68	166	489336	250.43	ug/L	99
55)	Dibromochloromethane	26.40	129	680294	210.35	ug/L	99
56)	1,2-Dibromoethane	26.87	107	628054	205.14	ug/L	98
57)	Chlorobenzene	28.33	112	1141968	229.90	ug/L	97
58)	1,1,1,2-Tetrachloroethane	28.50	131	503708	213.05	ug/L	98
59)	Ethylbenzene	28.55	91	1769177	241.33	ug/L	100
60)	m,p-Xylene	28.89	106	1324182	416.65	ug/L	92
61)	o-Xylene	30.19	106	678799	208.83	ug/L	99
62)	Styrene	30.21	104	1228217	213.40	ug/L	98
63)	Bromoform	30.95	173	423756	205.13	ug/L	98
64)	1,1,2,2-Tetrachloroethane	32.18	83	715011	184.39	ug/L	100
65)	1,2,3-Trichloropropane	32.41	75	659837	183.66	ug/L	98
66)	1,4-Dichloro-2-butene	31.46	89	85014	203.06	ug/L	98
67)	1,3,5-Trimethylbenzene	33.14	105	1537912	193.94	ug/L	98
68)	1,2,4-Trimethylbenzene	34.45	105	1465066m	201.85	ug/L	
69)	1,3-Dichlorobenzene	35.65	146	806414m	229.00	ug/L	
70)	1,4-Dichlorobenzene	35.96	146	868802m	220.16	ug/L	
71)	1,2-Dichlorobenzene	37.39	146	801182m	213.98	ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.44	75	173181m	170.85	ug/L	

-444-

(#) = qualifier out of range (m) = manual integration

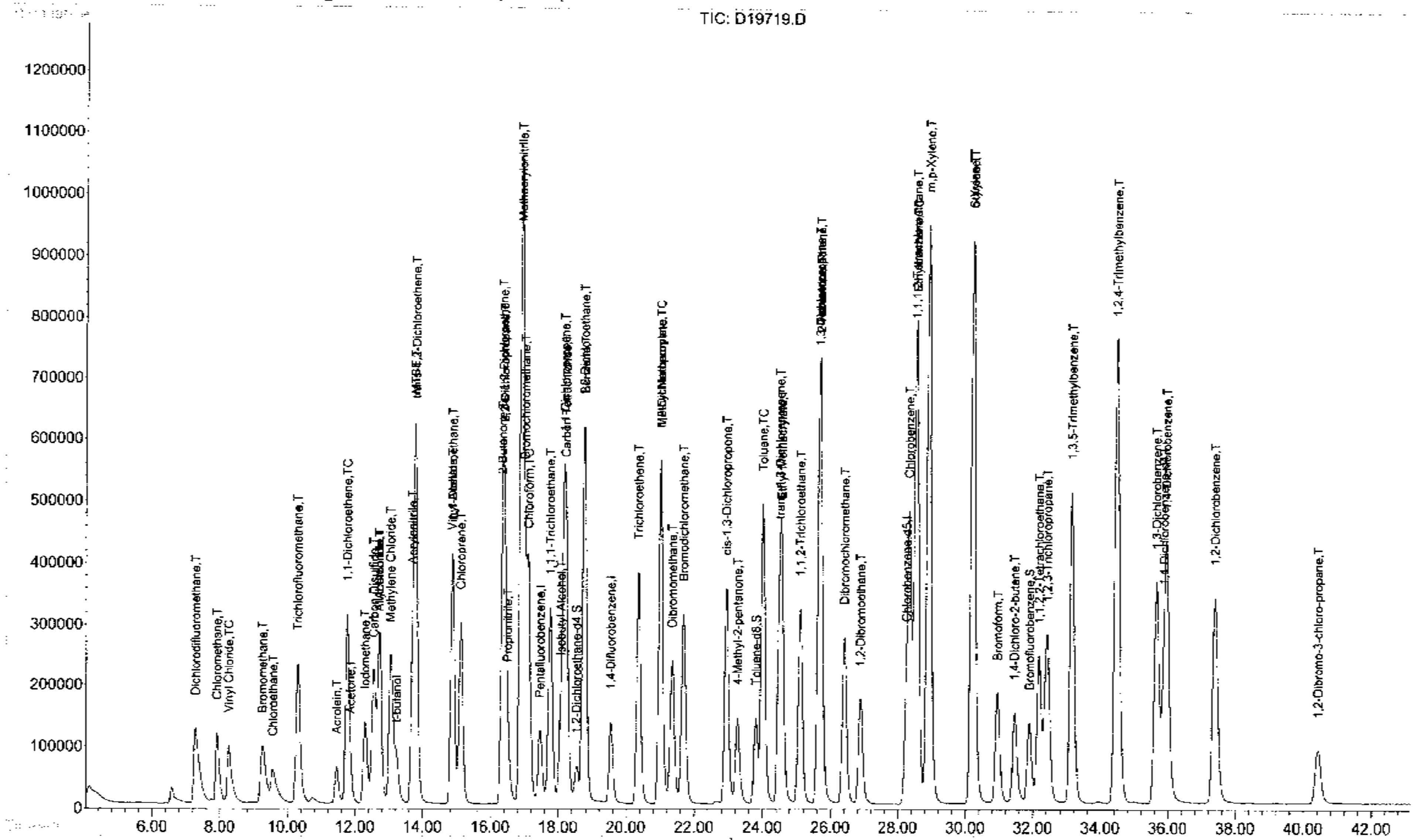
Quantitation Report

Data File : D:\DATA\D19719.D
Acq On : 3 Dec 2007 2:11 pm
Sample : VSTD200
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:27 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Cal File: D:\DATA\D19718.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19720.D
Acq On : 3 Dec 2007 3:01 pm
Sample : VSTD100
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:30 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.65	168	284398m	50.00 ug/L	0.18
33) 1,4-Difluorobenzene	19.70	114	399279	50.00 ug/L	0.10
51) Chlorobenzene-d5	28.30	117	317001m	50.00 ug/L	-0.13
73) 1,4-Dichlorobenzene-d4	35.90	152	168912m	50.00 ug/L	-0.18

System Monitoring Compounds					
31) 1,2-Dichloroethane-d4	18.72	65	144389	49.76 ug/L	0.17
Spiked Amount 50.000	Range 86 - 118		Recovery = 99.52%		
45) Toluene-d8	23.91	98	415751m	53.29 ug/L	-0.02
Spiked Amount 50.000	Range 88 - 110		Recovery = 106.58%		
50) Bromofluorobenzene	31.91	95	287585m	54.67 ug/L	-0.20
Spiked Amount 50.000	Range 86 - 115		Recovery = 109.34%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	7.51	85	335778m	88.01 ug/L	
3) Chloromethane	8.17	50	196895m	95.26 ug/L	
4) Vinyl Chloride	8.52	62	195346m	92.82 ug/L	
5) Bromomethane	9.55	94	141600m	98.49 ug/L	
6) Chloroethane	9.85	64	128438m	92.12 ug/L	
7) Trichlorofluoromethane	10.58	101	330070m	88.10 ug/L	
8) Acrolein	11.73	56	94927m	365.79 ug/L	
9) Acetone	12.14	43	65628m	88.44 ug/L	
10) 1,1-Dichloroethene	12.04	96	157341m	88.61 ug/L	
11) Acetonitrile	12.98	41	432578m	914.13 ug/L	
12) Iodomethane	12.57	142	318304m	108.17 ug/L	
13) Allyl Chloride	12.94	76	94679m	96.91 ug/L	
14) Carbon Disulfide	12.82	76	465268m	93.92 ug/L	
15) Methylene Chloride	13.31	84	206879m	94.63 ug/L	
16) t-butanol	13.46	59	140162m	90.97 ug/L	
17) MTBE	13.99	73	511556	90.17 ug/L	99
18) Acrylonitrile	13.94	53	192126m	369.76 ug/L	
19) trans-1,2-Dichloroethene	14.04	96	175981	85.60 ug/L	98
20) 1,1-Dichloroethane	15.11	63	369439	89.81 ug/L	99
21) Vinyl Acetate	15.07	43	480352	93.46 ug/L	100
22) Chloroprene	15.35	53	278723	91.56 ug/L	98
23) 2-Butanone	16.54	43	99141	78.40 ug/L	94
24) Propionitrile	16.72	54	167273	971.13 ug/L	100
25) 2,2-Dichloropropane	16.60	77	303321	87.70 ug/L	98
26) cis-1,2-Dichloroethene	16.57	96	196558	87.42 ug/L	98
27) Methacrylonitrile	17.09	41	1074123	91.96 ug/L	98
28) Chloroform	17.31	83	373807	88.58 ug/L	100
29) Bromochloromethane	17.22	128	117376	93.19 ug/L	90
30) Isobutyl Alcohol	18.24	43	164362	10689.50 ug/L	94
32) 1,1,1-Trichloroethane	17.96	97	331612	97.74 ug/L	100
34) 1,1-Dichloropropene	18.35	75	281050	94.44 ug/L	98
35) Carbon Tetrachloride	18.41	117	263567	100.03 ug/L	99
36) Benzene	18.95	78	628941	95.19 ug/L	100
37) 1,2-Dichloroethane	18.92	62	263946	92.10 ug/L	98
38) Trichloroethene	20.51	95	239830	97.68 ug/L	95
39) 1,2-Dichloropropane	21.14	63	262631	98.16 ug/L	100
40) Methyl Methacrylate	21.14	41	400177	92.47 ug/L	97

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19720.D
Acq On : 3 Dec 2007 3:01 pm
Sample : VSTD100
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:30 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromodichloromethane	21.82	83	413584	97.60 ug/L	99
42)	Dibromomethane	21.51	93	188861	96.25 ug/L	98
43)	4-Methyl-2-pentanone	23.37	43	247627m	108.66 ug/L	
44)	cis-1,3-Dichloropropene	23.05	75	407558m	102.02 ug/L	
46)	Toluene	24.12	92	419225	106.19 ug/L	99
47)	trans-1,3-Dichloropropene	24.60	75	337618m	103.75 ug/L	
48)	Ethyl Methacrylate	24.66	69	353239m	104.46 ug/L	
49)	1,1,2-Trichloroethane	25.20	83	197510m	103.46 ug/L	
52)	2-Hexanone	25.79	43	198336m	99.58 ug/L	
53)	1,3-Dichloropropane	25.74	76	373884m	94.02 ug/L	
54)	Tetrachloroethene	25.77	166	208467m	110.93 ug/L	
55)	Dibromochloromethane	26.50	129	295171m	94.90 ug/L	
56)	1,2-Dibromoethane	26.96	107	281364m	95.56 ug/L	
57)	Chlorobenzene	28.40	112	507291m	106.19 ug/L	
58)	1,1,1,2-Tetrachloroethane	28.57	131	219164m	96.39 ug/L	
59)	Ethylbenzene	28.61	91	778949m	110.48 ug/L	
60)	m,p-Xylene	28.95	106	594790m	194.60 ug/L	
61)	o-Xylene	30.23	106	300606m	96.16 ug/L	
62)	Styrene	30.25	104	544579m	98.38 ug/L	
63)	Bromoform	30.98	173	202689m	102.02 ug/L	
64)	1,1,2,2-Tetrachloroethane	32.20	83	374731m	100.48 ug/L	
65)	1,2,3-Trichloropropane	32.44	75	349103m	101.04 ug/L	
66)	1,4-Dichloro-2-butene	31.48	89	41404m	102.83 ug/L	
67)	1,3,5-Trimethylbenzene	33.17	105	708973m	92.96 ug/L	
68)	1,2,4-Trimethylbenzene	34.48	105	666336m	95.46 ug/L	
69)	1,3-Dichlorobenzene	35.69	146	377796m	111.55 ug/L	
70)	1,4-Dichlorobenzene	35.99	146	384397m	101.28 ug/L	
71)	1,2-Dichlorobenzene	37.43	146	362058m	100.54 ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.45	75	93409m	95.82 ug/L	

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(#) = qualifier out of range (m) = manual integration

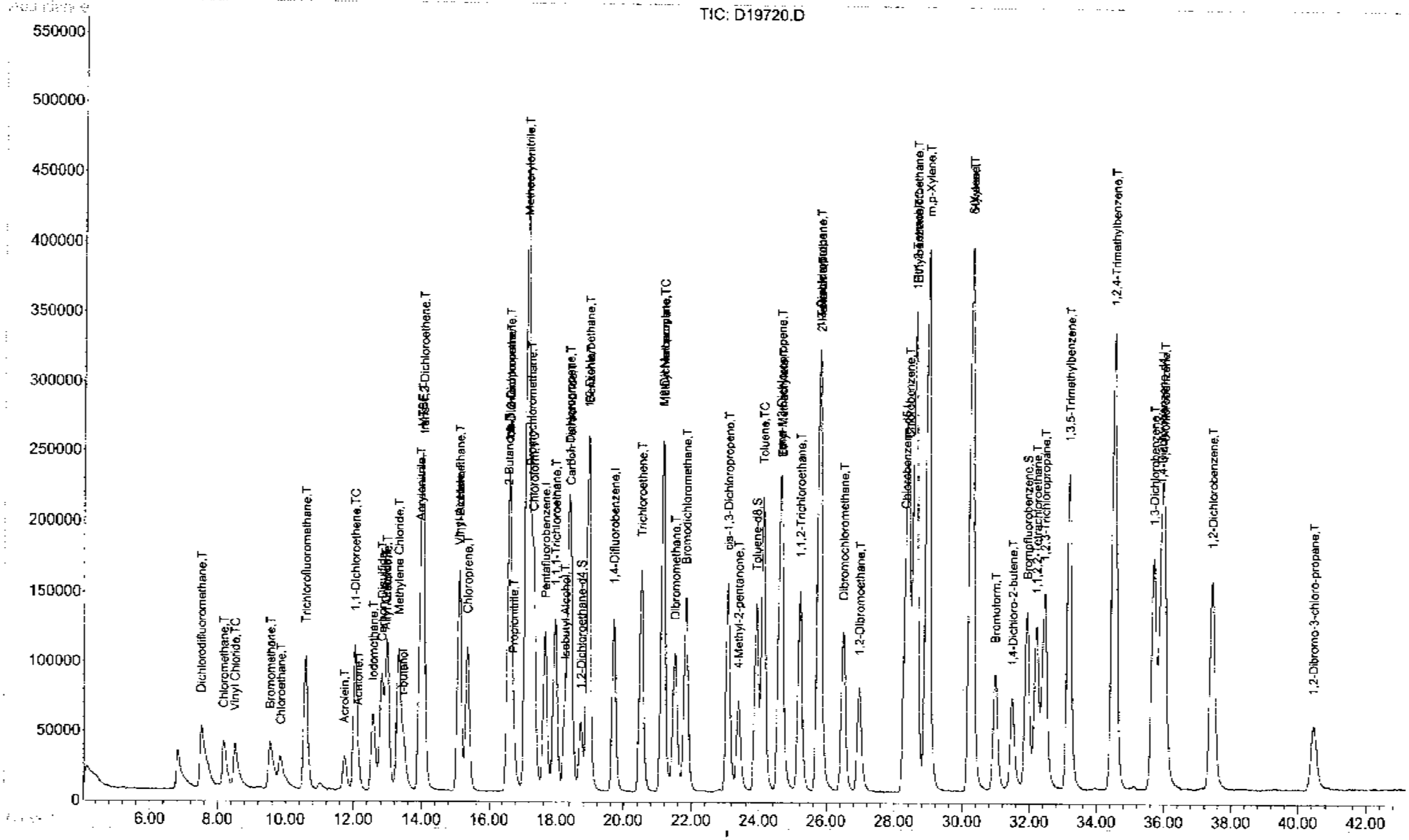
Quantitation Report

Data File : D:\DATA\D19720.D
Acq On : 3 Dec 2007 3:01 pm
Sample : VSTD100
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:30 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Cal File: D:\DATA\D19718.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19721.D
Acq On : 3 Dec 2007 3:52 pm
Sample : VSTD020
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:33 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.59	168	298518m ART	50.00 ug/L	0.12
33) 1,4-Difluorobenzene	19.64	114	410658 ART	50.00 ug/L	0.04
51) Chlorobenzene-d5	28.25	117	325415m	50.00 ug/L	-0.17
73) 1,4-Dichlorobenzene-d4	35.85	152	161816m	50.00 ug/L	-0.22
System Monitoring Compounds					
31) 1,2-Dichloroethane-d4	18.66	65	143515	47.12 ug/L	0.10
Spiked Amount 50.000	Range 86 - 118		Recovery = 94.24%		
45) Toluene-d8	23.85	98	419719	52.30 ug/L	-0.08
Spiked Amount 50.000	Range 88 - 110		Recovery = 104.60%		
50) Bromofluorobenzene	31.89	95	290093m ART	53.62 ug/L	-0.23
Spiked Amount 50.000	Range 86 - 115		Recovery = 107.24%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	7.49	85	65384m ART	16.33 ug/L	
3) Chloromethane	8.12	50	40484m	18.66 ug/L	
4) Vinyl Chloride	8.47	62	43921m	19.88 ug/L	
5) Bromomethane	9.50	94	30565m	20.25 ug/L	
6) Chloroethane	9.80	64	29277m	20.00 ug/L	
7) Trichlorofluoromethane	10.53	101	68246m	17.35 ug/L	
8) Acrolein	11.68	56	20659m	75.84 ug/L	
9) Acetone	12.10	43	21995m	28.24 ug/L	
10) 1,1-Dichloroethene	11.99	96	41554m	22.29 ug/L	
11) Acetonitrile	12.92	41	102645m	206.65 ug/L	
12) Iodomethane	12.49	142	74436m	24.10 ug/L	
13) Allyl Chloride	12.89	76	19802m	19.31 ug/L	
14) Carbon Disulfide	12.75	76	108391 ART	20.85 ug/L	100
15) Methylene Chloride	13.26	84	46298m ART	20.18 ug/L	
16) t-butanol	13.41	59	32326m	19.99 ug/L	
17) MTBE	13.91	73	112115m	18.83 ug/L	
18) Acrylonitrile	13.90	53	39146m	71.78 ug/L	
19) trans-1,2-Dichloroethene	13.97	96	43929m	20.36 ug/L	
20) 1,1-Dichloroethane	15.05	63	82967m	19.22 ug/L	
21) Vinyl Acetate	15.01	43	104099m	19.30 ug/L	
22) Chloroprene	15.28	53	65811m	20.60 ug/L	
23) 2-Butanone	16.50	43	28911m	21.78 ug/L	
24) Propionitrile	16.68	54	32433m	179.39 ug/L	
25) 2,2-Dichloropropane	16.54	77	69463m	19.13 ug/L	
26) cis-1,2-Dichloroethene	16.52	96	47695m	20.21 ug/L	
27) Methacrylonitrile	17.05	41	240280m	19.60 ug/L	
28) Chloroform	17.26	83	87958m	19.86 ug/L	
29) Bromochloromethane	17.16	128	26036m	19.69 ug/L	
30) Isobutyl Alcohol	18.19	43	37094m	2298.35 ug/L	
32) 1,1,1-Trichloroethane	17.89	97	69546 ART	19.53 ug/L	98
34) 1,1-Dichloropropene	18.30	75	62860m ART	20.54 ug/L	
35) Carbon Tetrachloride	18.36	117	56304 ART	20.78 ug/L	99
36) Benzene	18.88	78	134868m ART	19.85 ug/L	
37) 1,2-Dichloroethane	18.86	62	58900m	19.98 ug/L	
38) Trichloroethene	20.46	95	53149m	21.05 ug/L	
39) 1,2-Dichloropropane	21.11	63	55145m	20.04 ug/L	
40) Methyl Methacrylate	21.10	41	90478m	20.33 ug/L	

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19721.D
Acq On : 3 Dec 2007 3:52 pm
Sample : VSTD020
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:33 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromodichloromethane	21.79	83	89855m	20.62 ug/L	
42)	Dibromomethane	21.47	93	41678	20.65 ug/L	97
43)	4-Methyl-2-pentanone	23.34	43	54105m	23.08 ug/L	
44)	cis-1,3-Dichloropropene	23.03	75	80515	19.60 ug/L	100
46)	Toluene	24.07	92	85842m	21.14 ug/L	
47)	trans-1,3-Dichloropropene	24.56	75	66797m	19.96 ug/L	
48)	Ethyl Methacrylate	24.62	69	73566m	21.15 ug/L	
49)	1,1,2-Trichloroethane	25.14	83	42448m	21.62 ug/L	
52)	2-Hexanone	25.77	43	38661m	18.91 ug/L	
53)	1,3-Dichloropropane	25.70	76	73527m	18.01 ug/L	
54)	Tetrachloroethene	25.72	166	41576m	21.55 ug/L	
55)	Dibromochloromethane	26.45	129	60435m	18.93 ug/L	
56)	1,2-Dibromoethane	26.92	107	57387m	18.99 ug/L	
57)	Chlorobenzene	28.34	112	100870m	20.57 ug/L	
58)	1,1,1,2-Tetrachloroethane	28.51	131	44008m	18.85 ug/L	
59)	Ethylbenzene	28.58	91	147097m	20.32 ug/L	
60)	m,p-Xylene	28.90	106	127719m	40.70 ug/L	
61)	o-Xylene	30.20	106	65276m	20.34 ug/L	
62)	Styrene	30.22	104	113450m	19.97 ug/L	
63)	Bromoform	30.95	173	39527m	19.38 ug/L	
64)	1,1,2,2-Tetrachloroethane	32.16	83	78540m	20.52 ug/L	
65)	1,2,3-Trichloropropane	32.44	75	68744m	19.38 ug/L	
66)	1,4-Dichloro-2-butene	31.44	89	8016m	19.39 ug/L	
67)	1,3,5-Trimethylbenzene	33.15	105	154303m	19.71 ug/L	
68)	1,2,4-Trimethylbenzene	34.46	105	142914m	19.94 ug/L	
69)	1,3-Dichlorobenzene	35.66	146	62817m	18.07 ug/L	
70)	1,4-Dichlorobenzene	35.93	146	72268m	18.55 ug/L	
71)	1,2-Dichlorobenzene	37.40	146	67905m	18.37 ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.41	75	18178m	18.17 ug/L	

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(#) = qualifier out of range (m) = manual integration

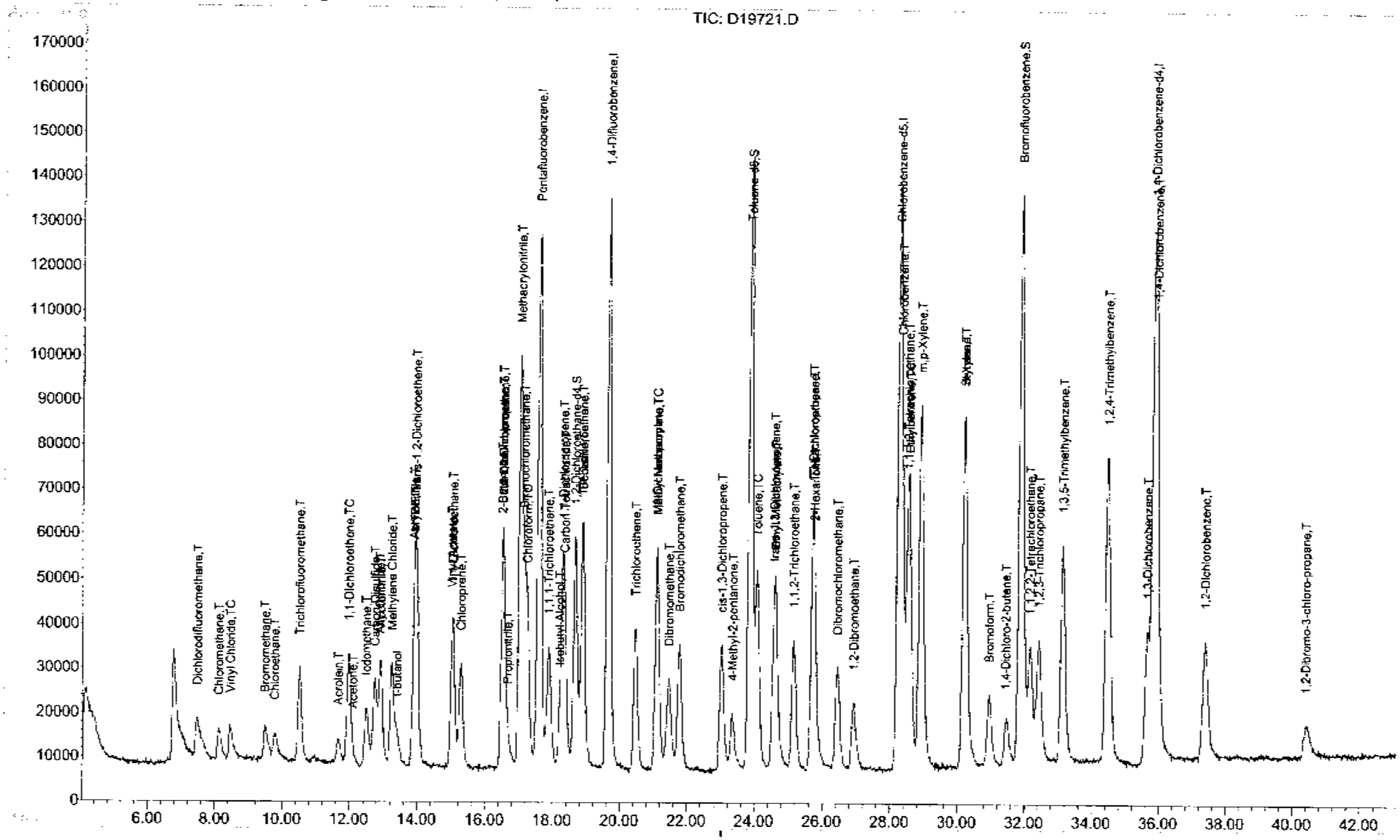
Quantitation Report

Data File : D:\DATA\D19721.D
Acq On : 3 Dec 2007 3:52 pm
Sample : VSTD020
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:33 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Cal File: D:\DATA\D19718.D



D19721.D D120360X.M Tue Dec 04 08:49:49 2007

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19722.D
Acq On : 3 Dec 2007 4:44 pm
Sample : VSTD010
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:46 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.59	168	278293m	50.00 ug/L	0.11
33) 1,4-Difluorobenzene	19.63	114	380964	50.00 ug/L	0.04
51) Chlorobenzene-d5	28.24	117	311293m	50.00 ug/L	-0.19
73) 1,4-Dichlorobenzene-d4	35.82	152	164268m	50.00 ug/L	-0.25

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.66	65	142048m	50.03 ug/L	0.10
Spiked Amount 50.000	Range 86 - 118		Recovery = 100.06%		
45) Toluene-d8	23.85	98	391769	52.63 ug/L	-0.08
Spiked Amount 50.000	Range 88 - 110		Recovery = 105.26%		
50) Bromofluorobenzene	31.86	95	281542m	56.10 ug/L	-0.26
Spiked Amount 50.000	Range 86 - 115		Recovery = 112.20%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	7.47	85	40673m	10.89 ug/L	
3) Chloromethane	8.13	50	21871m	10.81 ug/L	
4) Vinyl Chloride	8.46	62	24398m	11.85 ug/L	
5) Bromomethane	9.49	94	14059m	9.99 ug/L	
6) Chloroethane	9.80	64	15915m	11.67 ug/L	
7) Trichlorofluoromethane	10.51	101	38439m	10.48 ug/L	
8) Acrolein	11.68	56	10739m	42.29 ug/L	
9) Acetone	12.06	43	6453m	8.89 ug/L	
10) 1,1-Dichloroethene	11.96	96	20594m	11.85 ug/L	
11) Acetonitrile	12.92	41	46442m	100.29 ug/L	
12) Iodomethane	12.48	142	35739m	12.41 ug/L	
13) Allyl Chloride	12.89	76	10162m	10.63 ug/L	
14) Carbon Disulfide	12.74	76	54779	11.30 ug/L	100
15) Methylene Chloride	13.21	84	23783m	11.12 ug/L	
16) t-butanol	13.39	59	16336	10.84 ug/L #	95
17) MTBE	13.91	73	58232m	10.49 ug/L	
18) Acrylonitrile	13.91	53	20620m	40.56 ug/L	
19) trans-1,2-Dichloroethene	13.97	96	21284m	10.58 ug/L	
20) 1,1-Dichloroethane	15.04	63	43623m	10.84 ug/L	
21) Vinyl Acetate	15.02	43	46495	9.24 ug/L	100
22) Chloroprene	15.26	53	34064	11.44 ug/L	99
23) 2-Butanone	16.50	43	11163m	9.02 ug/L	
24) Propionitrile	16.71	54	14902m	88.41 ug/L	
25) 2,2-Dichloropropane	16.54	77	33970m	10.04 ug/L	
26) cis-1,2-Dichloroethene	16.51	96	24477	11.13 ug/L	89
27) Methacrylonitrile	17.02	41	122386m	10.71 ug/L	
28) Chloroform	17.24	83	46330m	11.22 ug/L	
29) Bromochloromethane	17.15	128	12870m	10.44 ug/L	
30) Isobutyl Alcohol	18.24	43	18597m	236.01 ug/L	
32) 1,1,1-Trichloroethane	17.90	97	35378	10.66 ug/L	98
34) 1,1-Dichloropropene	18.28	75	28874	10.17 ug/L	81
35) Carbon Tetrachloride	18.35	117	26711	10.62 ug/L	100
36) Benzene	18.88	78	66557m	10.56 ug/L	
37) 1,2-Dichloroethane	18.86	62	29421m	10.76 ug/L	
38) Trichloroethene	20.44	95	26234m	11.20 ug/L	
39) 1,2-Dichloropropane	21.10	63	27347m	10.71 ug/L	
40) Methyl Methacrylate	21.11	41	46501m	11.26 ug/L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19722.D
Acq On : 3 Dec 2007 4:44 pm
Sample : VSTD010
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:46 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41)	Bromodichloromethane	21.77	83	43688m ART	10.81	ug/L	
42)	Dibromomethane	21.43	93	21131m	11.29	ug/L	
43)	4-Methyl-2-pentanone	23.36	43	29016m	13.34	ug/L	
44)	cis-1,3-Dichloropropene	23.01	75	39734m	10.42	ug/L	
46)	Toluene	24.06	92	40393	10.72	ug/L	94
47)	trans-1,3-Dichloropropene	24.56	75	32236m ART	10.38	ug/L	
48)	Ethyl Methacrylate	24.63	69	33159m	10.28	ug/L	
49)	1,1,2-Trichloroethane	25.15	83	21813m	11.98	ug/L	
52)	2-Hexanone	25.83	43	18104m	9.26	ug/L	
53)	1,3-Dichloropropane	25.71	76	37326m	9.56	ug/L	
54)	Tetrachloroethene	25.74	166	20489m	11.10	ug/L	
55)	Dibromochloromethane	26.42	129	29689m	9.72	ug/L	
56)	1,2-Dibromoethane	26.93	107	28547m	9.87	ug/L	
57)	Chlorobenzene	28.31	112	46690	9.95	ug/L	98
58)	1,1,1,2-Tetrachloroethane	28.51	131	21572	9.66	ug/L	97
59)	Ethylbenzene	28.56	91	68142m ART	9.84	ug/L	
60)	m,p-Xylene	28.91	106	63519m	21.16	ug/L	
61)	o-Xylene	30.17	106	32076m	10.45	ug/L	
62)	Styrene	30.20	104	54271m	9.98	ug/L	
63)	Bromoform	30.94	173	17955m	9.20	ug/L	
64)	1,1,2,2-Tetrachloroethane	32.16	83	38019m	10.38	ug/L	
65)	1,2,3-Trichloropropane	32.40	75	33133m	9.77	ug/L	
66)	1,4-Dichloro-2-butene	31.44	89	3538m	8.95	ug/L	
67)	1,3,5-Trimethylbenzene	33.12	105	75145m	10.03	ug/L	
68)	1,2,4-Trimethylbenzene	34.43	105	70572m	10.30	ug/L	
69)	1,3-Dichlorobenzene	35.63	146	32027m	9.63	ug/L	
70)	1,4-Dichlorobenzene	35.93	146	35382m	9.49	ug/L	
71)	1,2-Dichlorobenzene	37.38	146	32226m	9.11	ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.40	75	8951m	9.35	ug/L	

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(#) = qualifier out of range (m) = manual integration

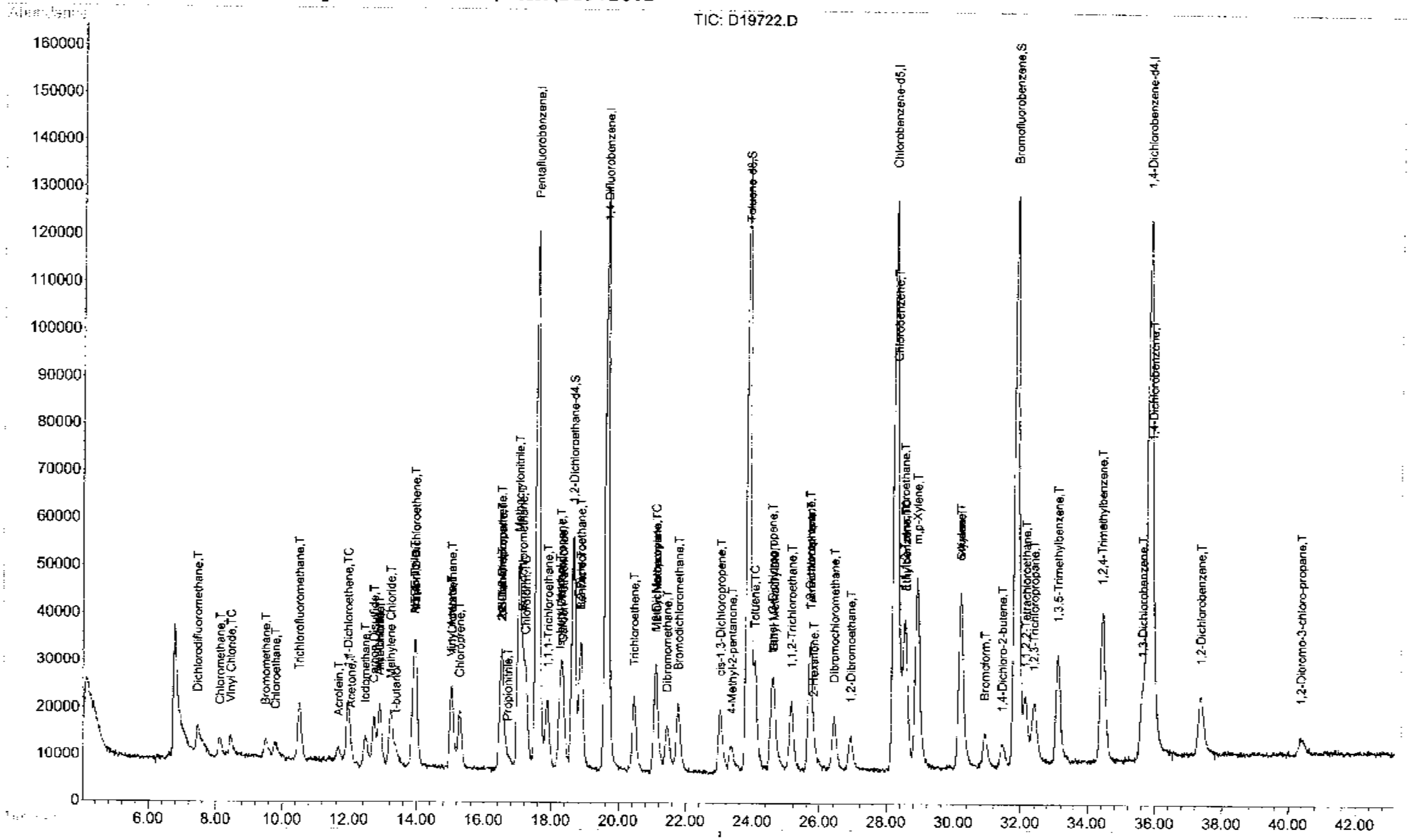
Quantitation Report

Data File : D:\DATA\D19722.D
Acq On : 3 Dec 2007 4:44 pm
Sample : VSTD010
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:46 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Tue Dec 04 08:48:03 2007
Response via : Continuing Cal File: D:\DATA\D19718.D



Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19723.D — Vial: 100
Acq On : 3 Dec 2007 5:34 pm — Operator: ART
Sample : VSTD003 — Inst : #13
Misc : 5MLS — Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 4 8:47 2007 — Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.60	168	297193m	50.00 ug/L	0.13
33) 1,4-Difluorobenzene	19.70	114	407622	50.00 ug/L	0.10
51) Chlorobenzene-d5	28.43	117	337938m	50.00 ug/L	0.00
73) 1,4-Dichlorobenzene-d4	36.00	152	171584m	50.00 ug/L	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.66	65	148972m	49.13 ug/L	0.11
Spiked Amount 50.000	Range 86 - 118		Recovery = 98.26%		
45) Toluene-d8	23.98	98	416757	52.32 ug/L	0.05
Spiked Amount 50.000	Range 88 - 110		Recovery = 104.64%		
50) Bromofluorobenzene	32.07	95	291476m	54.28 ug/L	-0.05
Spiked Amount 50.000	Range 86 - 115		Recovery = 108.56%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	7.48	85	12551m	3.15 ug/L	
3) Chloromethane	8.16	50	7394m	3.42 ug/L	
4) Vinyl Chloride	8.48	62	7305m	3.32 ug/L	
5) Bromomethane	9.50	94	6018m	4.01 ug/L	
6) Chloroethane	9.79	64	5100m	3.50 ug/L	
7) Trichlorofluoromethane	10.53	101	11729m	3.00 ug/L	
8) Acrolein	11.68	56	4986m	18.39 ug/L	
9) Acetone	12.08	43	4006m	5.17 ug/L	
10) 1,1-Dichloroethene	11.99	96	7380m	3.98 ug/L	
11) Acetonitrile	12.93	41	17733m	35.86 ug/L	
12) Iodomethane	12.51	142	10208m	3.32 ug/L	
13) Allyl Chloride	12.92	76	2810m	2.75 ug/L	
14) Carbon Disulfide	12.76	76	17868	3.45 ug/L	100
15) Methylene Chloride	13.26	84	8501m	3.72 ug/L	
16) t-butanol	13.45	59	5648m	3.51 ug/L	
17) MTBE	13.92	73	19301m	3.26 ug/L	
18) Acrylonitrile	13.95	53	8883m	16.36 ug/L	
19) trans-1,2-Dichloroethene	13.97	96	8034m	3.74 ug/L	
20) 1,1-Dichloroethane	15.06	63	14392	3.35 ug/L	89
21) Vinyl Acetate	15.02	43	15089	2.81 ug/L	100
22) Chloroprene	15.30	53	11697m	3.68 ug/L	
23) 2-Butanone	16.55	43	3436m	2.60 ug/L	
24) Propionitrile	16.85	54	4243m	23.57 ug/L	
25) 2,2-Dichloropropane	16.56	77	11433	3.16 ug/L	80
26) cis-1,2-Dichloroethene	16.53	96	9033m	3.84 ug/L	
27) Methacrylonitrile	17.06	41	42233m	3.46 ug/L	
28) Chloroform	17.26	83	17653m	4.00 ug/L	
29) Bromochloromethane	17.18	128	4317m	3.28 ug/L	
30) Isobutyl Alcohol	18.27	43	5415m	337.01 ug/L	
32) 1,1,1-Trichloroethane	17.88	97	11806	3.33 ug/L #	54
34) 1,1-Dichloropropene	18.32	75	9591	3.16 ug/L	74
35) Carbon Tetrachloride	18.39	117	8515m	3.17 ug/L	
36) Benzene	18.91	78	22159	3.29 ug/L	100
37) 1,2-Dichloroethane	18.91	62	9195m	3.14 ug/L	
38) Trichloroethene	20.57	95	10090m	4.03 ug/L	
39) 1,2-Dichloropropane	21.22	63	9748m	3.57 ug/L	
40) Methyl Methacrylate	21.22	41	11193m	2.53 ug/L	

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19723.D
Acq On : 3 Dec 2007 5:34 pm
Sample : VSTD003
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 4 8:47 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 03 14:18:54 2007
Response via : Continuing Cal File: D:\DATA\D19718.D
DataAcq Meth : D112760X

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromodichloromethane	21.87	83	16588m ART	3.83	ug/L	
42)	Dibromomethane	21.59	93	7119m	3.55	ug/L	
43)	4-Methyl-2-pentanone	23.51	43	5827m	2.50	ug/L	
44)	cis-1,3-Dichloropropene	23.16	75	12307m	3.02	ug/L	
46)	Toluene	24.21	92	13310m	3.30	ug/L	
47)	trans-1,3-Dichloropropene	24.72	75	10814m	3.26	ug/L	
48)	Ethyl Methacrylate	24.79	69	8677m	2.51	ug/L	
49)	1,1,2-Trichloroethane	25.30	83	8805m	4.52	ug/L	
52)	2-Hexanone	26.18	43	3083m	1.45	ug/L	
53)	1,3-Dichloropropane	25.87	76	12027m	2.84	ug/L	
54)	Tetrachloroethene	25.89	166	6958m	3.47	ug/L	
55)	Dibromochloromethane	26.64	129	9746m	2.94	ug/L	
56)	1,2-Dibromoethane	27.13	107	9517m	3.03	ug/L	
57)	Chlorobenzene	28.55	112	14752	2.90	ug/L	75
58)	1,1,1,2-Tetrachloroethane	28.69	131	6942m ART	2.86	ug/L	
59)	Ethylbenzene	28.75	91	22071m	2.94	ug/L	
60)	m,p-Xylene	29.10	106	20809m	6.39	ug/L	
61)	o-Xylene	30.41	106	10481m	3.14	ug/L	
62)	Styrene	30.46	104	17272m	2.93	ug/L	
63)	Bromoform	31.15	173	5057m	2.39	ug/L	
64)	1,1,2,2-Tetrachloroethane	32.38	83	13828m	3.48	ug/L	
65)	1,2,3-Trichloropropane	32.66	75	12494m	3.39	ug/L	
66)	1,4-Dichloro-2-butene	31.70	89	896m	2.09	ug/L	
67)	1,3,5-Trimethylbenzene	33.32	105	27177m	3.34	ug/L	
68)	1,2,4-Trimethylbenzene	34.63	105	26252m	3.53	ug/L	
69)	1,3-Dichlorobenzene	35.82	146	9672m	2.68	ug/L	
70)	1,4-Dichlorobenzene	36.08	146	12049m	2.98	ug/L	
71)	1,2-Dichlorobenzene	37.56	146	10039m	2.62	ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.58	75	3977m	3.83	ug/L	

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Quantitation Report

```
Data File : D:\DATA\D19723.D                          Vial: 100
Acq On    :  3 Dec 2007   5:34 pm                 Operator: ART
Sample    : VSTD003                                Inst    : #13
Misc      : 5MLS                                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec  4  8:47 2007         Quant Results File: D120360X.RES

Method        : D:\METHODS\D120360X.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Tue Dec 04 08:48:03 2007
Response via  : Continuing Cal File: D:\DATA\D19718.D
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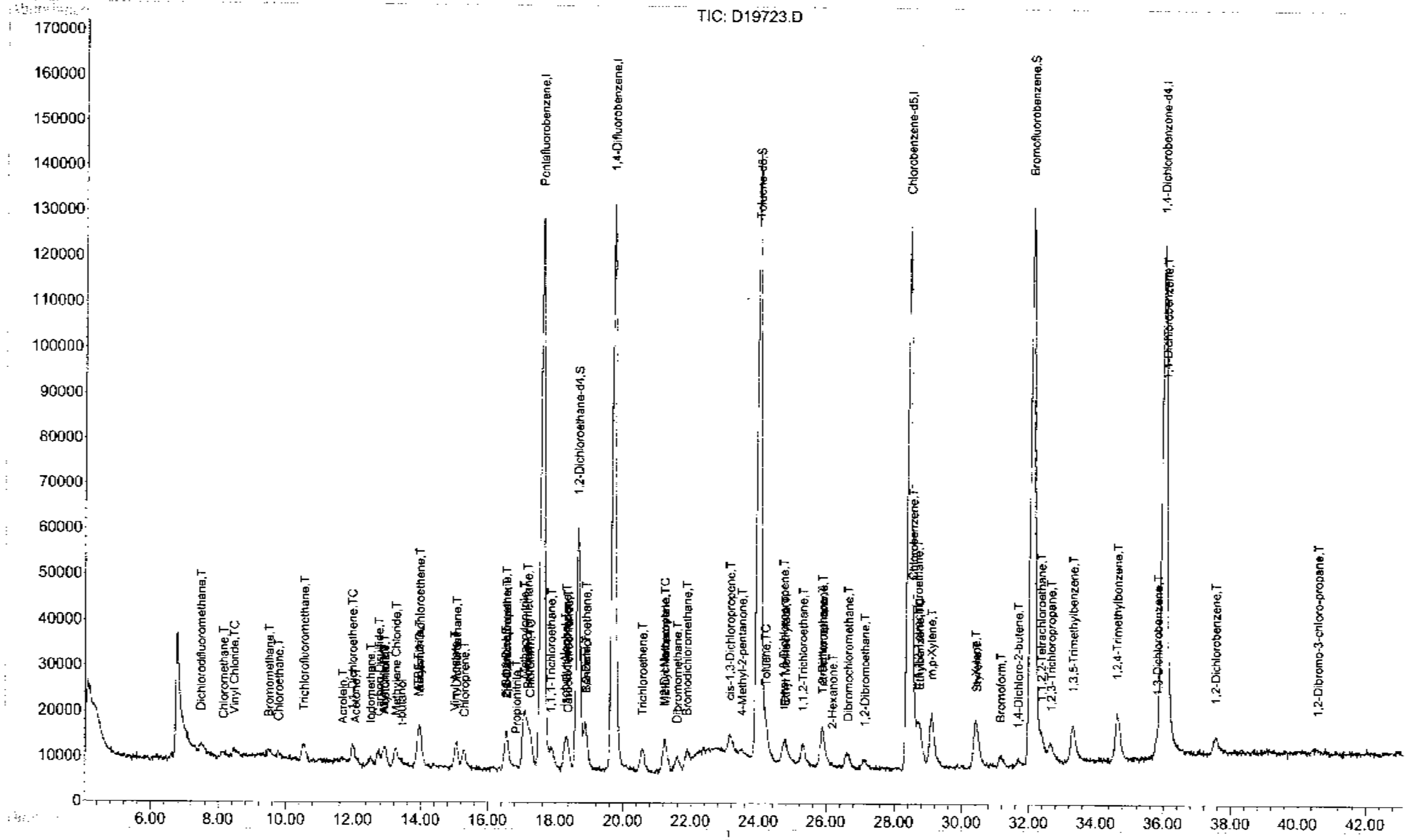

Continuing Calibration

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Upstate Laboratories, Inc.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/12/2007 Time: 20:53

Lab File ID: D19831.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.388	0.360		7.3	
Vinyl Chloride	0.400	0.368	0.100	8.0	25.0
Bromomethane	0.281	0.245	0.100	12.7	25.0
Chloroethane	0.264	0.239		9.5	
Trichlorofluoromethane	0.652	0.703		-7.8	
Acetone	0.133	0.136		-1.9	
1,1-Dichloroethene	0.355	0.324	0.100	8.6	25.0
Iodomethane	0.589	0.533		9.6	
Carbon Disulfide	0.946	0.900		4.9	
Methylene Chloride	0.411	0.381		7.5	
Acrylonitrile	0.095	0.087		7.4	
trans-1,2-Dichloroethene	0.384	0.354		7.7	
1,1-Dichloroethane	0.756	0.753	0.200	0.4	25.0
Vinyl Acetate	0.891	0.912		-2.4	
2-Butanone	0.203	0.197		2.8	
cis-1,2-Dichloroethene	0.425	0.385		9.4	
Chloroform	0.800	0.774	0.200	3.3	25.0
Bromochloromethane	0.226	0.208		8.3	
1,1,1-Trichloroethane	0.635	0.628	0.100	1.1	25.0
Carbon Tetrachloride	0.355	0.379	0.100	-6.7	25.0
Benzene	0.858	0.870	0.500	-1.4	25.0
1,2-Dichloroethane	0.366	0.419	0.100	-14.6	25.0
Trichloroethene	0.339	0.334	0.300	1.5	25.0
1,2-Dichloropropane	0.353	0.361		-2.2	
Bromodichloromethane	0.571	0.597	0.200	-4.6	25.0
Dibromomethane	0.260	0.268		-2.9	
4-Methyl-2-pentanone	0.308	0.326		-5.9	
cis-1,3-Dichloropropene	0.515	0.540	0.200	-4.9	25.0
Toluene	0.535	0.518	0.400	3.1	25.0
trans-1,3-Dichloropropene	0.428	0.449	0.100	-5.0	25.0
1,1,2-Trichloroethane	0.276	0.270	0.100	2.2	25.0
2-Hexanone	0.276	0.259		6.1	
Tetrachloroethene	0.331	0.392	0.200	-18.4	25.0
Dibromochloromethane	0.482	0.516	0.200	-6.9	25.0
1,2-Dibromoethane	0.459	0.484		-5.4	
Chlorobenzene	0.778	0.777	0.500	0.1	25.0
1,1,1,2-Tetrachloroethane	0.352	0.377		-7.1	
Ethylbenzene	1.166	1.169	0.100	-0.2	25.0
m,p-Xylene	0.489	0.512	0.300	-4.6	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ______ SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/12/2007 Time: 20:53

Lab File ID: D19831.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.502	0.507	0.300	-1.1	25.0
Styrene	0.875	0.887	0.300	-1.4	25.0
Bromoform	0.299	0.333	0.100	-11.6	25.0
1,1,2,2-Tetrachloroethane	0.599	0.608	0.500	-1.4	25.0
1,2,3-Trichloropropane	0.545	0.540		1.0	
1,4-Dichloro-2-butene	0.059	0.056		4.8	
1,3-Dichlorobenzene	0.537	[illegible]	0.600	5.0	
1,4-Dichlorobenzene	0.597	0.559	0.500	6.4	
1,2-Dichlorobenzene	0.543	0.525	0.400	3.3	
1,2-Dibromo-3-chloro-propane	0.150	0.150		0.1	
1,2-Dichloroethane-d4	0.506	0.553		-9.3	
Toluene-d8	1.019	1.041		-2.2	
Bromofluorobenzene	0.705	0.673	0.200	4.5	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19831.D
Acq On : 12 Dec 2007 8:53 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	140	0.00
2	T	Dichlorodifluoromethane	0.657	0.629	4.3	130	0.00
3	T	Chloromethane	0.388	0.360	7.2	138	0.00
4	TC	Vinyl Chloride	0.400	0.368	8.0	139	0.00
5	T	Bromomethane	0.281	0.245	12.8	137	0.00
6	T	Chloroethane	0.264	0.239	9.5	136	0.00
7	T	Trichlorofluoromethane	0.652	0.703	-7.8	149	0.00
8	T	Acrolein	0.046	0.043#	6.5	132	0.00
9	T	Acetone	0.133	0.135	-1.5	147	0.00
10	TC	1,1-Dichloroethene	0.355	0.324	8.7	149	0.00
11	T	Acetonitrile	0.087	0.085	2.3	148	0.00
12	T	Iodomethane	0.589	0.533	9.5	146	0.00
13	T	Allyl Chloride	0.178	0.154	13.5	116	0.00
14	T	Carbon Disulfide	0.946	0.900	4.9	144	0.00
15	T	Methylene Chloride	0.411	0.381	7.3	138	0.00
16		t-butanol	0.278	0.000#	100.0#	0#	0.00
17	T	MTBE	1.010	0.998	1.2	139	0.00
18	T	Acrylonitrile	0.095	0.088	7.4	139	0.00
19	T	trans-1,2-Dichloroethene	0.384	0.354	7.8	136	0.00
20	T	1,1-Dichloroethane	0.756	0.753	0.4	145	0.00
21	T	Vinyl Acetate	0.891	0.912	-2.4	141	0.00
22	T	Chloroprene	0.591	0.000#	100.0#	0#	0.00
23	T	2-Butanone	0.203	0.197	3.0	129	0.00
24	T	Propionitrile	0.028	0.029#	-3.6	136	0.00
25	T	2,2-Dichloropropane	0.618	0.576	6.8	132	0.00
26	T	cis-1,2-Dichloroethene	0.425	0.385	9.4	136	0.00
27	T	Methacrylonitrile	2.117	2.092	1.2	142	0.00
28	TC	Chloroform	0.800	0.774	3.3	145	0.00
29	T	Bromochloromethane	0.226	0.208	8.0	130	0.00
30	T	Isobutyl Alcohol	0.003	0.003#	0.0	144	0.00
31	S	1,2-Dichloroethane-d4	0.506	0.552	-9.1	150	0.00
32	T	1,1,1-Trichloroethane	0.635	0.628	1.1	147	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	129	0.00
34	T	1,1-Dichloropropene	0.387	0.409	-5.7	141	0.00
35	T	Carbon Tetrachloride	0.355	0.379	-6.8	148	0.00
36	T	Benzene	0.858	0.870	-1.4	135	0.00
37	T	1,2-Dichloroethane	0.366	0.419	-14.5	150#	0.00
38	T	Trichloroethene	0.339	0.334	1.5	140	0.00
39	TC	1,2-Dichloropropane	0.353	0.361	-2.3	138	0.00
40	T	Methyl Methacrylate	0.527	0.602	-14.2	154#	0.00
41	T	Bromodichloromethane	0.571	0.597	-4.6	145	0.00
42	T	Dibromomethane	0.260	0.268	-3.1	140	0.00
43	T	4-Methyl-2-pentanone	0.308	0.326	-5.8	148	0.00
44	T	cis-1,3-Dichloropropene	0.515	0.540	-4.9	140	0.00
45	S	Toluene-d8	1.019	1.041	-2.2	137	0.00
46	TC	Toluene	0.535	0.518	3.2	135	0.00
47	T	trans-1,3-Dichloropropene	0.428	0.449	-4.9	142	0.00
48	T	Ethyl Methacrylate	0.432	0.454	-5.1	146	0.00
49	T	1,1,2-Trichloroethane	0.276	0.269	2.5	145	0.00

(#) = Out of Range

-489-

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19831.D
Acq On : 12 Dec 2007 8:53 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Bromofluorobenzene	0.705	0.673	4.5	131	0.00
51	I	Chlorobenzene-d5	1.000	1.000	0.0	133	0.00
52	T	2-Hexanone	0.276	0.259	6.2	116	0.00
53	T	1,3-Dichloropropane	0.598	0.643	-7.5	138	0.00
54	T	Tetrachloroethene	0.331	0.392	-18.4	177#	0.00
55	T	Dibromochloromethane	0.482	0.515	-6.8	140	0.00
56	T	1,2-Dibromoethane	0.459	0.484	-5.4	139	0.00
57	T	Chlorobenzene	0.778	0.777	0.1	138	0.00
58	T	1,1,1,2-Tetrachloroethane	0.352	0.377	-7.1	140	0.00
59	TC	Ethylbenzene	1.166	1.169	-0.3	140	0.00
60	T	m,p-Xylene	0.489	0.512	-4.7	151#	0.00
61	T	o-Xylene	0.502	0.507	-1.0	138	0.00
62	T	Styrene	0.875	0.887	-1.4	137	0.00
63	T	Bromoform	0.299	0.333	-11.4	143	0.00
64	T	1,1,2,2-Tetrachloroethane	0.599	0.608	-1.5	143	0.00
65	T	1,2,3-Trichloropropane	0.545	0.540	0.9	132	0.00
66	T	1,4-Dichloro-2-butene	0.059	0.056	5.1	123	0.00
67	T	1,3,5-Trimethylbenzene	1.199	1.222	-1.9	139	0.00
68	T	1,2,4-Trimethylbenzene	1.128	1.127	0.1	139	0.00
69	T	1,3-Dichlorobenzene	0.537	0.511	4.8	126	0.00
70	T	1,4-Dichlorobenzene	0.597	0.559	6.4	124	0.00
71	T	1,2-Dichlorobenzene	0.543	0.525	3.3	128	0.00
72	T	1,2-Dibromo-3-chloro-propan	0.150	0.150	0.0	140	0.00
73	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	124	0.00

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(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19831.D Vial: 100
Acq On : 12 Dec 2007 8:53 pm Operator: ART
Sample : CC Inst : #13
Misc : 5MLS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 7:28 2007 Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 07:17:56 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.21	168	418828m AR	50.00	ug/L	-0.22
33) 1,4-Difluorobenzene	19.28	114	543674	50.00	ug/L	-0.19
51) Chlorobenzene-d5	27.81	117	415935m AR	50.00	ug/L	-0.25
73) 1,4-Dichlorobenzene-d4	35.28	152	214601m AR	50.00	ug/L	-0.33

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.25	65	231387	54.63	ug/L	-0.22
Spiked Amount 50.000	Range 86 - 118		Recovery =	109.26%		
45) Toluene-d8	23.44	98	566020m AR	51.09	ug/L	-0.22
Spiked Amount 50.000	Range 88 - 110		Recovery =	102.18%		
50) Bromofluorobenzene	31.42	95	365815	47.74	ug/L	-0.27
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.48%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	7.27	85	263419m AR	47.89	ug/L	
3) Chloromethane	7.89	50	150573m	46.34	ug/L	
4) Vinyl Chloride	8.21	62	154242m	45.98	ug/L	
5) Bromomethane	9.25	94	102640m	43.65	ug/L	
6) Chloroethane	9.52	64	100068m	45.28	ug/L	
7) Trichlorofluoromethane	10.23	101	294471m	53.92	ug/L	
8) Acrolein	11.35	56	72595m	189.11	ug/L	
9) Acetone	11.74	43	56740m	50.96	ug/L	
10) 1,1-Dichloroethene	11.64	96	135753m	45.71	ug/L	
11) Acetonitrile	12.56	41	357264m	492.04	ug/L	
12) Iodomethane	12.15	142	223253	45.22	ug/L	96
13) Allyl Chloride	12.51	76	64359m AR	43.25	ug/L	
14) Carbon Disulfide	12.40	76	376862	47.54	ug/L	100
15) Methylene Chloride	12.89	84	159399	46.25	ug/L	98
17) MTBE	13.58	73	417998	49.41	ug/L	98
18) Acrylonitrile	13.51	53	146670	185.22	ug/L	98
19) trans-1,2-Dichloroethene	13.62	96	148418	46.13	ug/L	96
20) 1,1-Dichloroethane	14.68	63	315226	49.81	ug/L	100
21) Vinyl Acetate	14.66	43	381805m AR	51.18	ug/L	
23) 2-Butanone	16.12	43	82641	48.61	ug/L	92
24) Propionitrile	16.30	54	123491	520.19	ug/L	71
25) 2,2-Dichloropropane	16.17	77	241161	46.56	ug/L	99
26) cis-1,2-Dichloroethene	16.13	96	161192	45.29	ug/L	97
27) Methacrylonitrile	16.66	41	876186	49.41	ug/L	97
28) Chloroform	16.86	83	324067	48.37	ug/L	100
29) Bromochloromethane	16.77	128	86923	45.83	ug/L	89
30) Isobutyl Alcohol	17.81	43	117200	4639.70	ug/L	97
32) 1,1,1-Trichloroethane	17.49	97	263040	49.45	ug/L	98
34) 1,1-Dichloropropene	17.89	75	222428	52.84	ug/L	98
35) Carbon Tetrachloride	17.96	117	206188	53.37	ug/L	99
36) Benzene	18.48	78	472919	50.71	ug/L	100
37) 1,2-Dichloroethane	18.47	62	228015m	57.29	ug/L	
38) Trichloroethene	20.07	95	181599m	49.23	ug/L	
39) 1,2-Dichloropropane	20.70	63	196225m	51.09	ug/L	
40) Methyl Methacrylate	20.71	41	327196m	57.14	ug/L	
41) Bromodichloromethane	21.34	83	324681m	52.28	ug/L	
42) Dibromomethane	21.04	93	145511	51.47	ug/L	99

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19831.D
Acq On : 12 Dec 2007 8:53 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 7:28 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 07:17:56 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 4-Methyl-2-pentanone	22.92	43	177106m AD	52.93 ug/L	
44) cis-1,3-Dichloropropene	22.60	75	293665m	52.44 ug/L	
46) Toluene	23.65	92	281827m	48.46 ug/L	
47) trans-1,3-Dichloropropene	24.12	75	244278m	52.51 ug/L	
48) Ethyl Methacrylate	24.20	69	246683m	52.46 ug/L	
49) 1,1,2-Trichloroethane	24.72	83	146513m	48.89 ug/L	
52) 2-Hexanone	25.34	43	107846	46.93 ug/L	99
53) 1,3-Dichloropropane	25.27	76	267397	53.78 ug/L	99
54) Tetrachloroethene	25.28	166	163034m AQ	59.17 ug/L	
55) Dibromochloromethane	26.00	129	214409	53.46 ug/L	100
56) 1,2-Dibromoethane	26.48	107	201281	52.73 ug/L	100
57) Chlorobenzene	27.90	112	323279	49.93 ug/L	99
58) 1,1,1,2-Tetrachloroethane	28.07	131	156838	53.53 ug/L	98
59) Ethylbenzene	28.13	91	486101m AQ	50.12 ug/L	
60) m,p-Xylene	28.47	106	425940m	104.60 ug/L	
61) o-Xylene	29.75	106	211009m	50.53 ug/L	
62) Styrene	29.77	104	368834m	50.69 ug/L	
63) Bromoform	30.47	173	138692m	55.81 ug/L	
64) 1,1,2,2-Tetrachloroethane	31.71	83	252875m	50.72 ug/L	
65) 1,2,3-Trichloropropane	31.94	75	224552m	49.52 ug/L	
66) 1,4-Dichloro-2-butene	31.03	89	23278m	47.55 ug/L	
67) 1,3,5-Trimethylbenzene	32.64	105	508156m	50.97 ug/L	
68) 1,2,4-Trimethylbenzene	33.94	105	468808m	49.94 ug/L	
69) 1,3-Dichlorobenzene	35.08	146	212348m	47.52 ug/L	
70) 1,4-Dichlorobenzene	35.39	146	232422m	46.80 ug/L	
71) 1,2-Dichlorobenzene	36.78	146	218470m	48.33 ug/L	
72) 1,2-Dibromo-3-chloro-propa	39.76	75	62436m	49.95 ug/L	

-492-

(#) = qualifier out of range (m) = manual integration

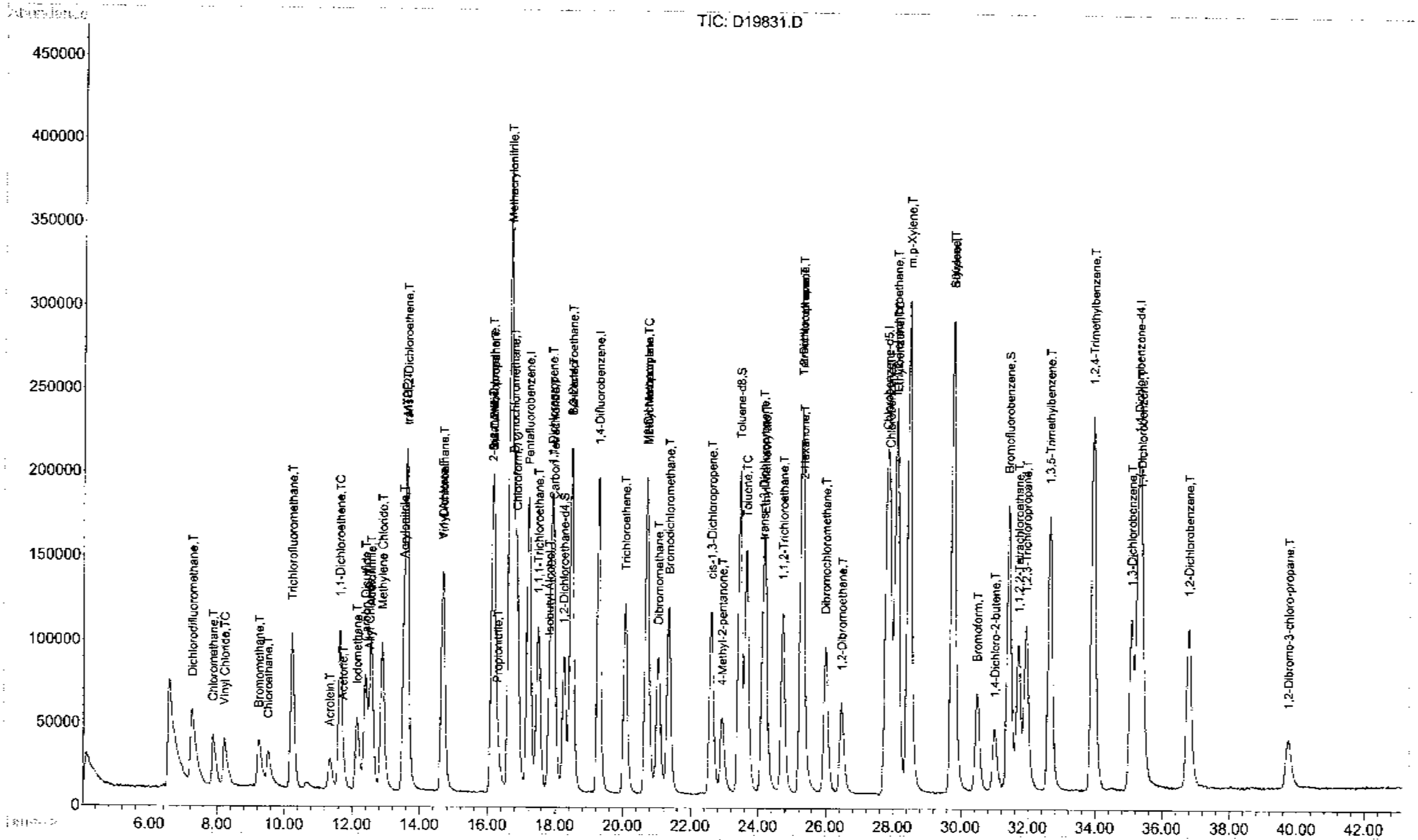
Quantitation Report

Data File : D:\DATA\D19831.D
Acq On : 12 Dec 2007 8:53 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 7:28 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 7:50

Lab File ID: D19844.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

NA End of Run

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.388	0.379		2.2	
Vinyl Chloride	0.400	0.368	0.100	8.1	25.0
Bromomethane	0.281	0.254	0.100	9.5	25.0
Chloroethane	0.264	0.245		7.0	
Trichlorofluoromethane	0.652	0.726		-11.4	
Acetone	0.133	0.136		-1.9	
1,1-Dichloroethene	0.355	0.346	0.100	2.5	25.0
Iodomethane	0.589	0.574		2.6	
Carbon Disulfide	0.946	0.935		1.2	
Methylene Chloride	0.411	0.379		7.8	
Acrylonitrile	0.095	0.084		11.7	
trans-1,2-Dichloroethene	0.384	0.359		6.6	
1,1-Dichloroethane	0.756	0.773	0.200	-2.3	25.0
Vinyl Acetate	0.891	0.767		13.9	
2-Butanone	0.203	0.169		16.5	
cis-1,2-Dichloroethene	0.425	0.391		8.0	
Chloroform	0.800	0.796	0.200	0.4	25.0
Bromochloromethane	0.226	0.208		8.1	
1,1,1-Trichloroethane	0.635	0.683	0.100	-7.5	25.0
Carbon Tetrachloride	0.355	0.403	0.100	-13.4	25.0
Benzene	0.858	0.875	0.500	-2.0	25.0
1,2-Dichloroethane	0.366	0.412	0.100	-12.4	25.0
Trichloroethene	0.339	0.343	0.300	-1.0	25.0
1,2-Dichloropropane	0.353	0.360		-2.0	
Bromodichloromethane	0.571	0.584	0.200	-2.2	25.0
Dibromomethane	0.260	0.269		-3.3	
4-Methyl-2-pentanone	0.308	0.314		-2.1	
cis-1,3-Dichloropropene	0.515	0.512	0.200	0.6	25.0
Toluene	0.535	0.548	0.400	-2.5	25.0
trans-1,3-Dichloropropene	0.428	0.421	0.100	1.6	25.0
1,1,2-Trichloroethane	0.276	0.259	0.100	6.0	25.0
2-Hexanone	0.276	0.254		8.2	
Tetrachloroethene	0.331	0.485	0.200	-46.5	25.0
Dibromochloromethane	0.482	0.520	0.200	-7.9	25.0
1,2-Dibromoethane	0.459	0.468		-2.0	
Chlorobenzene	0.778	0.818	0.500	-5.1	25.0
1,1,1,2-Tetrachloroethane	0.352	0.365		-3.8	
Ethylbenzene	1.166	1.286	0.100	-10.3	25.0
m,p-Xylene	0.489	0.503	0.300	-2.7	25.0

-494-

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 7:50

Lab File ID: D19844.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.502	0.507	0.300	-1.0	25.0
Styrene	0.875	0.885	0.300	-1.1	25.0
Bromoform	0.299	0.332	0.100	-11.1	25.0
1,1,2,2-Tetrachloroethane	0.599	0.601	0.500	-0.3	25.0
1,2,3-Trichloropropane	0.545	0.524		3.9	
1,4-Dichloro-2-butene	0.059	0.055		5.9	
1,3-Dichlorobenzene	0.537	0.559	0.600	-4.1	
1,4-Dichlorobenzene	0.597	0.594	0.500	0.6	
1,2-Dichlorobenzene	0.543	0.575	0.400	-5.9	
1,2-Dibromo-3-chloro-propane	0.150	0.150		0.1	
1,2-Dichloroethane-d4	0.506	0.552		-9.1	
Toluene-d8	1.019	1.024		-0.5	
Bromofluorobenzene	0.705	0.670	0.200	5.0	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19844.D
Acq On : 13 Dec 2007 7:50 am
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	139	0.16
2	T	Dichlorodifluoromethane	0.657	0.635	3.3	131	0.11
3	T	Chloromethane	0.388	0.379	2.3	145	0.12
4	TC	Vinyl Chloride	0.400	0.368	8.0	138	0.13
5	T	Bromomethane	0.281	0.254	9.6	141	0.11
6	T	Chloroethane	0.264	0.245	7.2	139	0.15
7	T	Trichlorofluoromethane	0.652	0.726	-11.3	153#	0.13
8	T	Acrolein	0.046	0.039#	15.2	117	0.16
9	T	Acetone	0.133	0.136	-2.3	146	0.17
10	TC	1,1-Dichloroethene	0.355	0.346	2.5	158#	0.16
11	T	Acetonitrile	0.087	0.082	5.7	141	0.17
12	T	Iodomethane	0.589	0.574	2.5	156#	0.16
13	T	Allyl Chloride	0.178	0.181	-1.7	137	0.16
14	T	Carbon Disulfide	0.946	0.935	1.2	149	0.16
15	T	Methylene Chloride	0.411	0.379	7.8	137	0.15
16		t-butanol	0.278	0.000#	100.0#	0#	0.17
17	T	MTBE	1.010	0.989	2.1	137	0.14
18	T	Acrylonitrile	0.095	0.084	11.6	132	0.19
19	T	trans-1,2-Dichloroethene	0.384	0.359	6.5	137	0.16
20	T	1,1-Dichloroethane	0.756	0.773	-2.2	148	0.17
21	T	Vinyl Acetate	0.891	0.767	13.9	118	0.16
22	T	Chloroprene	0.591	0.000#	100.0#	0#	0.38
23	T	2-Butanone	0.203	0.169	16.7	110	0.17
24	T	Propionitrile	0.028	0.028#	0.0	129	0.13
25	T	2,2-Dichloropropane	0.618	0.452	26.9	103	0.17
26	T	cis-1,2-Dichloroethene	0.425	0.391	8.0	137	0.16
27	T	Methacrylonitrile	2.117	2.056	2.9	139	0.16
28	TC	Chloroform	0.800	0.796	0.5	149	0.17
29	T	Bromochloromethane	0.226	0.208	8.0	130	0.16
30	T	Isobutyl Alcohol	0.003	0.003#	0.0	135	0.17
31	S	1,2-Dichloroethane-d4	0.506	0.552	-9.1	149	0.18
32	T	1,1,1-Trichloroethane	0.635	0.683	-7.6	158#	0.17
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	131	0.19
34	T	1,1-Dichloropropene	0.387	0.415	-7.2	145	0.17
35	T	Carbon Tetrachloride	0.355	0.403	-13.5	160#	0.16
36	T	Benzene	0.858	0.875	-2.0	138	0.18
37	T	1,2-Dichloroethane	0.366	0.411	-12.3	150	0.17
38	T	Trichloroethene	0.339	0.342	-0.9	146	0.23
39	TC	1,2-Dichloropropane	0.353	0.360	-2.0	140	0.25
40	T	Methyl Methacrylate	0.527	0.559	-6.1	146	0.24
41	T	Bromodichloromethane	0.571	0.584	-2.3	144	0.28
42	T	Dibromomethane	0.260	0.269	-3.5	143	0.28
43	T	4-Methyl-2-pentanone	0.308	0.314	-1.9	145	0.26
44	T	cis-1,3-Dichloropropene	0.515	0.512	0.6	135	0.26
45	S	Toluene-d8	1.019	1.024	-0.5	137	0.27
46	TC	Toluene	0.535	0.548	-2.4	145	0.27
47	T	trans-1,3-Dichloropropene	0.428	0.421	1.6	135	0.28
48	T	Ethyl Methacrylate	0.432	0.437	-1.2	143	0.25
49	T	1,1,2-Trichloroethane	0.276	0.259	6.2	142	0.27

(#) = Out of Range

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Evaluate Continuing Calibration Report

Data File : D:\DATA\D19844.D Vial: 100
Acq On : 13 Dec 2007 7:50 am Operator: ART
Sample : CC Inst : #13
Misc : 5MLS Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Bromofluorobenzene	0.705	0.669	5.1	133	0.26
51	I	Chlorobenzene-d5	1.000	1.000	0.0	134	0.29
52	T	2-Hexanone	0.276	0.254	8.0	114	0.26
53	T	1,3-Dichloropropane	0.598	0.631	-5.5	137	0.26
54	T	Tetrachloroethene	0.331	0.485	-46.5#	220#	0.29
55	T	Dibromochloromethane	0.482	0.520	-7.9	143	0.28
56	T	1,2-Dibromoethane	0.459	0.468	-2.0	135	0.28
57	T	Chlorobenzene	0.778	0.818	-5.1	146	0.28
58	T	1,1,1,2-Tetrachloroethane	0.352	0.365	-3.7	137	0.28
59	TC	Ethylbenzene	1.166	1.286	-10.3	155#	0.28
60	T	m,p-Xylene	0.489	0.503	-2.9	149	0.27
61	T	o-Xylene	0.502	0.507	-1.0	139	0.27
62	T	Styrene	0.875	0.885	-1.1	138	0.27
63	T	Bromoform	0.299	0.332	-11.0	144	0.29
64	T	1,1,2,2-Tetrachloroethane	0.599	0.601	-0.3	142	0.28
65	T	1,2,3-Trichloropropane	0.545	0.524	3.9	130	0.26
66	T	1,4-Dichloro-2-butene	0.059	0.055	6.8	122	0.26
67	T	1,3,5-Trimethylbenzene	1.199	1.207	-0.7	138	0.26
68	T	1,2,4-Trimethylbenzene	1.128	1.099	2.6	136	0.22
69	T	1,3-Dichlorobenzene	0.537	0.559	-4.1	139	0.23
70	T	1,4-Dichlorobenzene	0.597	0.594	0.5	133	0.23
71	T	1,2-Dichlorobenzene	0.543	0.575	-5.9	141	0.22
72	T	1,2-Dibromo-3-chloro-propan	0.150	0.150	0.0	141	0.18
73	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.24

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(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19844.D
Acq On : 13 Dec 2007 7:50 am
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:39 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:19:50 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.36	168	416360	50.00 ug/L	-0.04
33) 1,4-Difluorobenzene	19.46	114	553193	50.00 ug/L	-0.01
51) Chlorobenzene-d5	28.09	117	419260m	50.00 ug/L	0.09
73) 1,4-Dichlorobenzene-d4	35.52	152	215914m	50.00 ug/L	0.04

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.43	65	229663	54.54 ug/L	-0.02
Spiked Amount 50.000	Range 86 - 118		Recovery =	109.08%	
45) Toluene-d8	23.71	98	566691m	50.27 ug/L	0.07
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.54%	
50) Bromofluorobenzene	31.68	95	370358m	47.50 ug/L	0.06
Spiked Amount 50.000	Range 86 - 115		Recovery =	95.00%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	7.38	85	264344m	48.35 ug/L	
3) Chloromethane	8.01	50	157914m	48.89 ug/L	
4) Vinyl Chloride	8.34	62	153227m	45.95 ug/L	
5) Bromomethane	9.36	94	105800m	45.26 ug/L	
6) Chloroethane	9.67	64	102187m	46.51 ug/L	
7) Trichlorofluoromethane	10.36	101	302304m	55.68 ug/L	
8) Acrolein	11.50	56	64141m	168.07 ug/L	
9) Acetone	11.91	43	56417m	50.97 ug/L	
10) 1,1-Dichloroethene	11.80	96	143949m	48.75 ug/L	
11) Acetonitrile	12.73	41	340585m	471.85 ug/L	
12) Iodomethane	12.31	142	239082m	48.71 ug/L	
13) Allyl Chloride	12.67	76	75569m	51.08 ug/L	
14) Carbon Disulfide	12.56	76	389461	49.42 ug/L	100
15) Methylene Chloride	13.04	84	157952	46.10 ug/L	96
17) MTBE	13.72	73	411637	48.94 ug/L	98
18) Acrylonitrile	13.70	53	139138	176.75 ug/L	100
19) trans-1,2-Dichloroethene	13.78	96	149450	46.73 ug/L	95
20) 1,1-Dichloroethane	14.85	63	321736	51.14 ug/L	99
21) Vinyl Acetate	14.81	43	319366	43.07 ug/L	100
23) 2-Butanone	16.29	43	70523	41.73 ug/L #	94
24) Propionitrile	16.43	54	117870	499.46 ug/L	69
25) 2,2-Dichloropropane	16.34	77	188213	36.55 ug/L	99
26) cis-1,2-Dichloroethene	16.29	96	162748	45.99 ug/L	100
27) Methacrylonitrile	16.81	41	856104	48.56 ug/L	98
28) Chloroform	17.03	83	331564	49.79 ug/L	100
29) Bromochloromethane	16.93	128	86630	45.95 ug/L	88
30) Isobutyl Alcohol	17.98	43	109882	4375.78 ug/L	98
32) 1,1,1-Trichloroethane	17.66	97	284267	53.76 ug/L	99
34) 1,1-Dichloropropene	18.05	75	229794	53.65 ug/L	98
35) Carbon Tetrachloride	18.11	117	223010	56.73 ug/L	100
36) Benzene	18.66	78	484212	51.02 ug/L	100
37) 1,2-Dichloroethane	18.64	62	227636	56.21 ug/L	96
38) Trichloroethene	20.30	95	189447	50.48 ug/L	99
39) 1,2-Dichloropropane	20.95	63	199270	50.99 ug/L	99
40) Methyl Methacrylate	20.95	41	309387	53.10 ug/L	94
41) Bromodichloromethane	21.62	83	322850	51.09 ug/L	99
42) Dibromomethane	21.31	93	148619m	51.66 ug/L	

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19844.D
Acq On : 13 Dec 2007 7:50 am
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:39 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:19:50 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43)	4-Methyl-2-pentanone	23.18	43	173772m ART	51.04	ug/L	
44)	cis-1,3-Dichloropropene	22.86	75	283259m	49.71	ug/L	
46)	Toluene	23.92	92	303146m	51.23	ug/L	
47)	trans-1,3-Dichloropropene	24.40	75	232833m	49.19	ug/L	
48)	Ethyl Methacrylate	24.45	69	241502m	50.48	ug/L	
49)	1,1,2-Trichloroethane	24.99	83	143382m	47.02	ug/L	
52)	2-Hexanone	25.60	43	106293	45.88	ug/L	99
53)	1,3-Dichloropropane	25.53	76	264737	52.83	ug/L	98
54)	Tetrachloroethene	25.57	166	203487m ART	73.27	ug/L	
55)	Dibromochloromethane	26.28	129	218058m	53.94	ug/L	
56)	1,2-Dibromoethane	26.75	107	196295	51.01	ug/L	99
57)	Chlorobenzene	28.18	112	342973	52.55	ug/L	98
58)	1,1,1,2-Tetrachloroethane	28.35	131	153199	51.88	ug/L	99
59)	Ethylbenzene	28.41	91	539054	55.14	ug/L	98
60)	m,p-Xylene	28.73	106	421610m ART	102.72	ug/L	
61)	o-Xylene	30.01	106	212473m	50.48	ug/L	
62)	Styrene	30.03	104	370872m	50.57	ug/L	
63)	Bromoform	30.76	173	139146m	55.55	ug/L	
64)	1,1,2,2-Tetrachloroethane	31.98	83	252026m	50.15	ug/L	
65)	1,2,3-Trichloropropane	32.20	75	219635m	48.05	ug/L	
66)	1,4-Dichloro-2-butene	31.28	89	23227m	47.07	ug/L	
67)	1,3,5-Trimethylbenzene	32.90	105	506000m	50.35	ug/L	
68)	1,2,4-Trimethylbenzene	34.16	105	460596m	48.68	ug/L	
69)	1,3-Dichlorobenzene	35.31	146	234453m	52.06	ug/L	
70)	1,4-Dichlorobenzene	35.62	146	248839m	49.71	ug/L	
71)	1,2-Dichlorobenzene	37.00	146	241166m	52.93	ug/L	
72)	1,2-Dibromo-3-chloro-propa	39.94	75	62925m	49.94	ug/L	

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(#) = qualifier out of range (m) = manual integration
D19844.D D120360X.M Thu Dec 13 09:09:38 2007

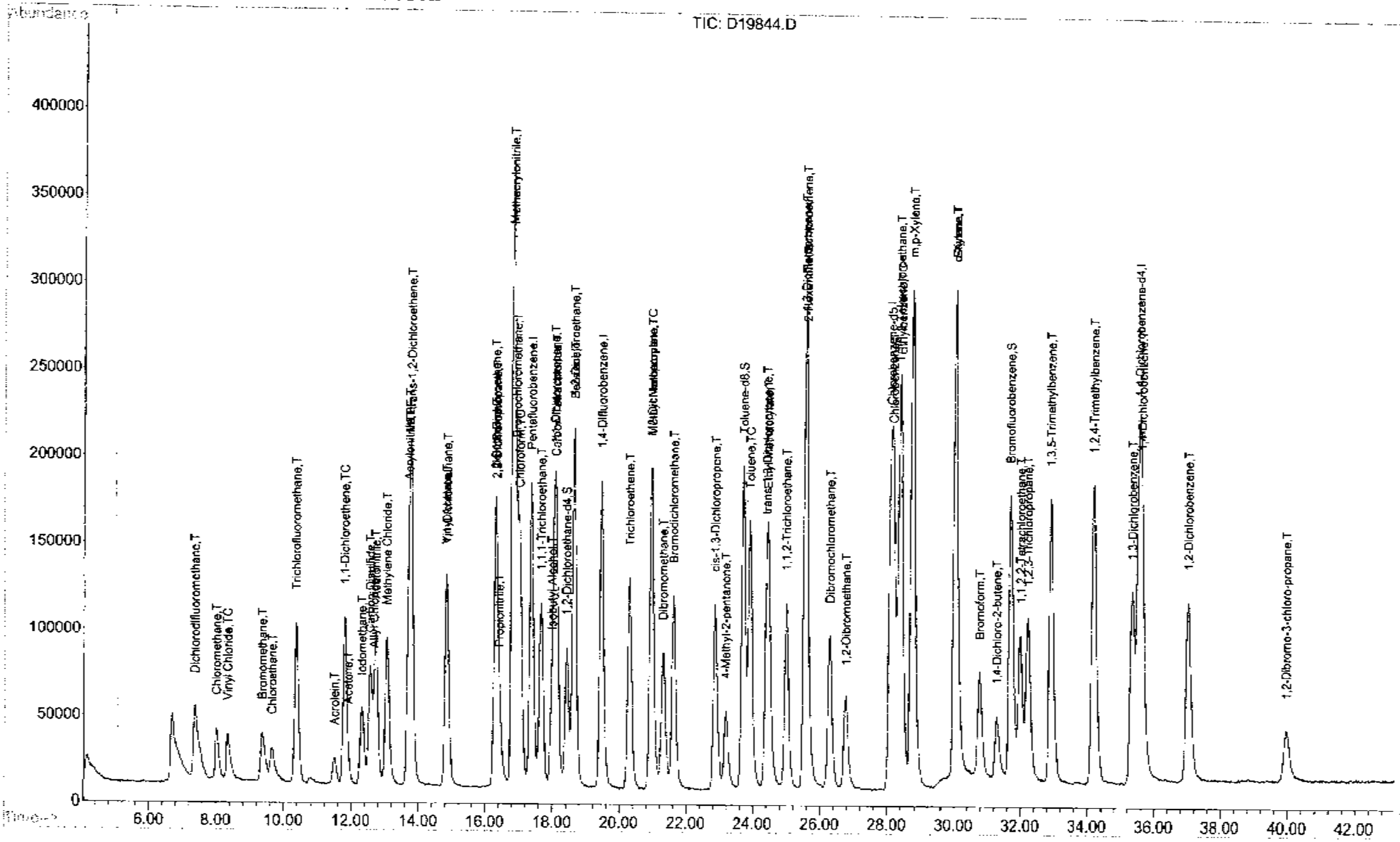
Quantitation Report

Data File : D:\DATA\D19844.D
Acq On : 13 Dec 2007 7:50 am
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:39 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



-500-

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/11/2007 Time: 13:54

Lab File ID: C20083.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.396	0.452		-14.3	
Vinyl Chloride	0.323	0.387	0.100	-19.8	25.0
Bromomethane	0.326	0.353	0.100	-8.1	25.0
Chloroethane	0.236	0.283		-19.7	
Trichlorofluoromethane	0.827	1.069		-29.2	
Acetone	0.086	0.111		-28.4	
1,1-Dichloroethene	0.300	0.364	0.100	-21.5	25.0
Iodomethane	0.591	0.758		-28.2	
Carbon Disulfide	1.241	1.551		-25.0	
Methylene Chloride	0.424	0.439		-3.7	
Acrylonitrile	0.051	0.071		-39.6	
trans-1,2-Dichloroethene	0.358	0.424		-18.6	
1,1-Dichloroethane	0.894	1.044	0.200	-16.8	25.0
Vinyl Acetate	0.574	0.727		-26.8	
2-Butanone	0.108	0.117		-7.6	
cis-1,2-Dichloroethene	0.413	0.479		-16.0	
Chloroform	1.116	1.195	0.200	-7.1	25.0
Bromochloromethane	0.269	0.298		-10.6	
1,1,1-Trichloroethane	0.811	0.931	0.100	-14.8	25.0
Carbon Tetrachloride	0.560	0.625	0.100	-11.6	25.0
Benzene	0.859	0.939	0.500	-9.3	25.0
1,2-Dichloroethane	0.451	0.472	0.100	-4.6	25.0
Trichloroethene	0.437	0.484	0.300	-10.9	25.0
1,2-Dichloropropane	0.435	0.478		-9.8	
Bromodichloromethane	0.926	1.001	0.200	-8.0	25.0
Dibromomethane	0.480	0.520		-8.3	
4-Methyl-2-pentanone	0.241	0.262		-8.9	
cis-1,3-Dichloropropene	0.552	0.611	0.200	-10.7	25.0
Toluene	0.451	0.482	0.400	-6.9	25.0
trans-1,3-Dichloropropene	0.421	0.462	0.100	-9.7	25.0
1,1,2-Trichloroethane	0.269	0.292	0.100	-8.7	25.0
2-Hexanone	0.240	0.257		-7.4	
Tetrachloroethene	0.596	0.575	0.200	3.4	25.0
Dibromochloromethane	0.960	1.017	0.200	-5.9	25.0
1,2-Dibromoethane	0.668	0.688		-3.0	
Chlorobenzene	0.809	0.877	0.500	-8.4	25.0
1,1,1,2-Tetrachloroethane	0.512	0.549		-7.1	
Ethylbenzene	1.258	1.390	0.100	-10.5	25.0
m,p-Xylene	0.412	0.456	0.300	-10.8	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/11/2007 Time: 13:54

Lab File ID: C20083.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.416	0.457	0.300	-10.1	25.0
Styrene	0.654	0.717	0.300	-9.6	25.0
Bromoform	0.509	0.532	0.100	-4.6	25.0
1,1,2,2-Tetrachloroethane	0.692	0.724	0.500	-4.6	25.0
1,2,3-Trichloropropane	0.464	0.452		2.5	
1,4-Dichloro-2-butene	0.187	0.197		-5.2	
1,3-Dichlorobenzene	0.673	0.729	0.600	-8.3	
1,4-Dichlorobenzene	0.659	0.712	0.500	-8.1	
1,2-Dichlorobenzene	0.629	0.670	0.400	-6.5	
1,2-Dibromo-3-chloro-propane	0.176	0.183		-4.0	
1,2-Dichloroethane-d4	0.577	0.575		0.3	
Toluene-d8	0.808	0.810		-0.3	
Bromofluorobenzene	0.772	0.780	0.200	-1.0	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20083.D
Acq On : 11 Dec 2007 1:54 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	82	-0.02
2	T	Dichlorodifluoromethane	0.752	1.004	-33.5#	109	-0.01
3	T	Chloromethane	0.396	0.452	-14.1	94	-0.01
4	TC	Vinyl Chloride	0.323	0.387	-19.8	92	-0.02
5	T	Bromomethane	0.326	0.353	-8.3	91	-0.01
6	T	Chloroethane	0.236	0.283	-19.9	100	-0.02
7	T	Trichlorofluoromethane	0.827	1.069	-29.3#	107	-0.02
8	T	Acrolein	0.021	0.028#	-33.3#	115	-0.02
9	T	Acetone	0.086	0.111	-29.1#	107	-0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	0.672	0.825	-22.8	102	-0.02
11	TC	1,1-Dichloroethene	0.299	0.364	-21.7	100	-0.02
12	T	Acetonitrile	0.018	0.020#	-11.1	93	-0.02
13	T	Iodomethane	0.591	0.758	-28.3#	112	-0.02
14	T	Methyl acetate	0.213	0.238	-11.7	95	-0.02
15	T	Allyl Chloride	0.636	0.751	-18.1	98	-0.02
16	T	Carbon Disulfide	1.241	1.551	-25.0	103	-0.02
17	T	Methylene Chloride	0.424	0.439	-3.5	93	-0.02
18	T	MTBE	0.668	0.758	-13.5	95	-0.01
19	T	Acrylonitrile	0.051	0.071	-39.2#	118	-0.02
20	T	trans-1,2-Dichloroethene	0.358	0.424	-18.4	98	-0.01
21	T	1,1-Dichloroethane	0.894	1.044	-16.8	96	-0.02
22	T	Vinyl Acetate	0.574	0.727	-26.7#	105	-0.01
23	T	Chloroprene	0.491	0.645	-31.4#	109	0.00
24	T	2-Butanone	0.108	0.117	-8.3	95	-0.01
25	T	Propionitrile	0.019	0.022#	-15.8	100	-0.02
26	T	2,2-Dichloropropane	0.648	0.786	-21.3	102	-0.03
27	T	cis-1,2-Dichloroethene	0.413	0.479	-16.0	96	-0.02
28	T	Methacrylonitrile	1.373	1.537	-11.9	96	-0.02
29	TC	Chloroform	1.116	1.195	-7.1	96	-0.02
30	T	Bromochloromethane	0.269	0.298	-10.8	95	-0.01
31	T	Isobutyl Alcohol	0.002	0.002#	0.0	99	-0.01
32	T	Cyclohexane	0.506	0.627	-23.9	102	-0.02
33	S	1,2-Dichloroethane-d4	0.577	0.575	0.3	85	-0.02
34	T	1,1,1-Trichloroethane	0.811	0.931	-14.8	95	-0.01
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	88	-0.01
36	T	1,1-Dichloropropene	0.507	0.580	-14.4	99	-0.02
37	T	Carbon Tetrachloride	0.560	0.625	-11.6	97	-0.03
38	T	Benzene	0.859	0.939	-9.3	98	-0.02
39	T	1,2-Dichloroethane	0.451	0.472	-4.7	93	-0.02
40	T	Trichloroethene	0.436	0.484	-11.0	98	-0.01
41	TC	1,2-Dichloropropane	0.435	0.478	-9.9	99	0.00
42	T	Methylcyclohexane	0.290	0.354	-22.1	107	0.00
43	T	Methyl Methacrylate	0.293	0.313	-6.8	96	0.02
44	T	Bromodichloromethane	0.926	1.001	-8.1	97	0.00
45	T	Dibromomethane	0.480	0.520	-8.3	96	0.00
46	T	1,4-Dioxane	0.028	0.031#	-10.7	100	0.00
47	T	4-Methyl-2-pentanone	0.240	0.262	-9.2	97	0.00
48	T	cis-1,3-Dichloropropene	0.552	0.611	-10.7	99	0.00
49	S	Toluene-d8	0.808	0.810	-0.2	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20083.D
Acq On : 11 Dec 2007 1:54 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.451	0.482	-6.9	97	0.00
51	T	trans-1,3-Dichloropropene	0.420	0.462	-10.0	97	0.00
52	T	Ethyl Methacrylate	0.147	0.161	-9.5	98	0.00
53	T	1,1,2-Trichloroethane	0.269	0.292	-8.6	96	0.00
54	S	Bromofluorobenzene	0.772	0.780	-1.0	89	0.05
55	I	Chlorobenzene-d5	1.000	1.000	0.0	89	0.04
56	T	2-Hexanone	0.240	0.257	-7.1	99	0.00
57	T	1,3-Dichloropropane	0.635	0.684	-7.7	97	0.02
58	T	Tetrachloroethene	0.596	0.575	3.5	85	0.02
59	T	Dibromochloromethane	0.960	1.017	-5.9	95	0.03
60	T	1,2-Dibromoethane	0.668	0.688	-3.0	93	0.04
61	T	Chlorobenzene	0.809	0.877	-8.4	97	0.05
62	T	1,1,1,2-Tetrachloroethane	0.512	0.549	-7.2	96	0.04
63	TC	Ethylbenzene	1.258	1.390	-10.5	99	0.04
64	T	m,p-Xylene	0.412	0.456	-10.7	100	0.04
65	T	o-Xylene	0.416	0.457	-9.9	99	0.05
66	T	Styrene	0.654	0.717	-9.6	97	0.05
67	T	Bromoform	0.509	0.532	-4.5	94	0.05
68	T	Isopropylbenzene	1.113	1.229	-10.4	98	0.04
69	T	1,1,2,2-Tetrachloroethane	0.692	0.724	-4.6	97	0.05
70	T	1,2,3-Trichloropropane	0.464	0.452	2.6	94	0.05
71	T	1,4-Dichloro-2-butene	0.187	0.197	-5.3	97	0.06
72	T	n-propylbenzene	1.341	1.467	-9.4	97	0.05
73	T	1,3,5-Trimethylbenzene	0.916	1.001	-9.3	98	0.04
74	T	T-butylbenzene	0.294	0.313	-6.5	96	0.04
75	T	1,2,4-Trimethylbenzene	0.925	1.020	-10.3	100	0.04
76	T	sec-butylbenzene	1.341	1.461	-8.9	98	0.05
77	T	1,3-Dichlorobenzene	0.673	0.729	-8.3	99	0.05
78	T	p-isopropyltoluene	0.241	0.253	-5.0	96	0.05
79	T	1,4-Dichlorobenzene	0.659	0.712	-8.0	99	0.05
80	T	n-butylbenzene	1.123	1.249	-11.2	99	0.04
81	T	1,2-Dichlorobenzene	0.629	0.670	-6.5	98	0.04
82	T	1,2-Dibromo-3-chloro-propan	0.176	0.183	-4.0	95	0.04
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.04
84	T	1,2,4 trichlorobenze	0.841	0.933	-10.9	99	0.03
85	T	Naphalene	1.046	1.150	-9.9	98	0.04
86	T	1,2,3 Trichlorobenzene	0.722	0.784	-8.6	98	0.03

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(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20083.D
Acq On : 11 Dec 2007 1:54 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 11 14:28 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.84	168	297150	50.00 ug/L	-0.02
35) 1,4-Difluorobenzene	11.18	114	406770	50.00 ug/L	-0.01
55) Chlorobenzene-d5	18.68	117	278079	50.00 ug/L	0.04
83) 1,4-Dichlorobenzene-d4	23.35	152	144343	50.00 ug/L	0.04
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.27	65	170919	49.86 ug/L	-0.02
Spiked Amount 50.000	Range 76 - 114		Recovery = 99.72%		
49) Toluene-d8	15.43	98	329623	50.16 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.32%		
54) Bromofluorobenzene	21.12	95	317390	50.53 ug/L	0.05
Spiked Amount 50.000	Range 86 - 115		Recovery = 101.06%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.05	85	298484m	66.80 ug/L	
3) Chloromethane	2.26	50	134397	57.16 ug/L	99
4) Vinyl Chloride	2.31	62	114931m	59.88 ug/L	
5) Bromomethane	2.69	94	104755	54.05 ug/L	99
6) Chloroethane	2.77	64	84048	59.84 ug/L	99
7) Trichlorofluoromethane	3.04	101	317624	64.61 ug/L	100
8) Acrolein	3.39	56	33135m	64.76 ug/L	
9) Acetone	3.47	43	32919	64.19 ug/L	99
10) 1,1,2-Trichloro-1,2,2-trif	3.55	101	245073	61.32 ug/L	99
11) 1,1-Dichloroethene	3.66	96	108108	60.74 ug/L	95
12) Acetonitrile	3.68	41	58298	544.07 ug/L	99
13) Iodomethane	3.96	142	225310m	64.12 ug/L	
14) Methyl acetate	4.06	43	70832	55.90 ug/L	98
15) Allyl Chloride	4.10	41	223026m	58.98 ug/L	
16) Carbon Disulfide	4.21	76	460886	62.50 ug/L	100
17) Methylene Chloride	4.21	84	130476	51.83 ug/L	99
18) MTBE	4.63	73	225298	56.71 ug/L	99
19) Acrylonitrile	4.31	53	84251	279.12 ug/L	94
20) trans-1,2-Dichloroethene	4.73	96	125983	59.29 ug/L	99
21) 1,1-Dichloroethane	5.41	63	310126	58.38 ug/L	99
22) Vinyl Acetate	5.50	43	216045	63.37 ug/L	100
23) Chloroprene	5.66	53	191761	65.67 ug/L	99
24) 2-Butanone	6.32	43	34638	53.80 ug/L	96
25) Propionitrile	6.27	54	64728	576.99 ug/L	94
26) 2,2-Dichloropropane	6.69	77	233470	60.64 ug/L	100
27) cis-1,2-Dichloroethene	6.70	96	142374	58.00 ug/L	97
28) Methacrylonitrile	6.86	41	456618	55.97 ug/L	100
29) Chloroform	7.12	83	355227	53.56 ug/L	100
30) Bromochloromethane	7.42	128	88526	55.32 ug/L	98
31) Isobutyl Alcohol	7.34	43	60966	5257.20 ug/L	83
32) Cyclohexane	8.60	56	186456	62.06 ug/L	95
34) 1,1,1-Trichloroethane	8.38	97	276767	57.43 ug/L	99
36) 1,1-Dichloropropene	8.96	75	235933	57.20 ug/L	99
37) Carbon Tetrachloride	9.24	117	254144	55.83 ug/L	99
38) Benzene	9.73	78	381818	54.65 ug/L	100
39) 1,2-Dichloroethane	9.61	62	191831	52.33 ug/L	100
40) Trichloroethene	12.14	95	196890	55.46 ug/L	99

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(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20083.D
Acq On : 11 Dec 2007 1:54 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 11 14:28 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.59	63	194368	54.90 ug/L	100
42) Methylcyclohexane	12.59	83	143995	60.97 ug/L	99
43) Methyl Methacrylate	16.38	41	127215	53.31 ug/L	99
44) Bromodichloromethane	13.18	83	407127	54.03 ug/L	100
45) Dibromomethane	13.17	93	211371	54.16 ug/L	100
46) 1,4-Dioxane	13.37	88	12450	55.64 ug/L	97
47) 4-Methyl-2-pentanone	14.58	43	106534	54.45 ug/L	99
48) cis-1,3-Dichloropropene	14.82	75	248556	55.38 ug/L	99
50) Toluene	15.61	92	196192	53.45 ug/L	100
51) trans-1,3-Dichloropropene	16.07	75	187740	54.89 ug/L	99
52) Ethyl Methacrylate	13.17	69	65593	54.91 ug/L	95
53) 1,1,2-Trichloroethane	16.35	83	118814	54.35 ug/L	100
56) 2-Hexanone	16.67	43	71518	53.68 ug/L	99
57) 1,3-Dichloropropane	16.93	76	190124	53.85 ug/L	99
58) Tetrachloroethene	17.12	166	159904	48.28 ug/L	100
59) Dibromochloromethane	17.32	129	282827	52.96 ug/L	99
60) 1,2-Dibromoethane	17.74	107	191222	51.47 ug/L	100
61) Chlorobenzene	18.76	112	243846	54.18 ug/L	100
62) 1,1,1,2-Tetrachloroethane	18.90	131	152565	53.55 ug/L	99
63) Ethylbenzene	19.00	91	386648	55.26 ug/L	99
64) m,p-Xylene	19.19	106	253508	110.76 ug/L	99
65) o-Xylene	20.01	106	127175	55.03 ug/L	100
66) Styrene	20.05	104	199445	54.82 ug/L	99
67) Bromoform	20.44	173	148040	52.31 ug/L	99
68) Isopropylbenzene	20.79	105	341680	55.21 ug/L	100
69) 1,1,2,2-Tetrachloroethane	20.98	83	201269	52.29 ug/L	100
70) 1,2,3-Trichloropropane	21.24	75	125792	48.73 ug/L	99
71) 1,4-Dichloro-2-butene	21.43	75	54689	52.58 ug/L	98
72) n-propylbenzene	21.88	91	407980	54.69 ug/L	98
73) 1,3,5-Trimethylbenzene	21.89	105	278336	54.64 ug/L	98
74) T-butylbenzene	23.24	91	86934	53.23 ug/L	97
75) 1,2,4-Trimethylbenzene	22.59	105	283689	55.16 ug/L	99
76) sec-butylbenzene	22.96	105	406137	54.44 ug/L	100
77) 1,3-Dichlorobenzene	23.21	146	202740	54.16 ug/L	100
78) p-isopropyltoluene	22.96	91	70413	52.64 ug/L	99
79) 1,4-Dichlorobenzene	23.41	146	197999	54.03 ug/L	100
80) n-butylbenzene	24.00	91	347280	55.58 ug/L	100
81) 1,2-Dichlorobenzene	24.04	146	186372	53.25 ug/L	99
82) 1,2-Dibromo-3-chloro-propa	25.42	75	50926	52.00 ug/L	99
84) 1,2,4 trichlorobenze	27.13	180	134732	55.51 ug/L	99
85) Naphalene	27.49	128	165948	54.94 ug/L	100
86) 1,2,3 Trichlorobenzene	27.99	180	113163	54.31 ug/L	98

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(#) = qualifier out of range (m) = manual integration

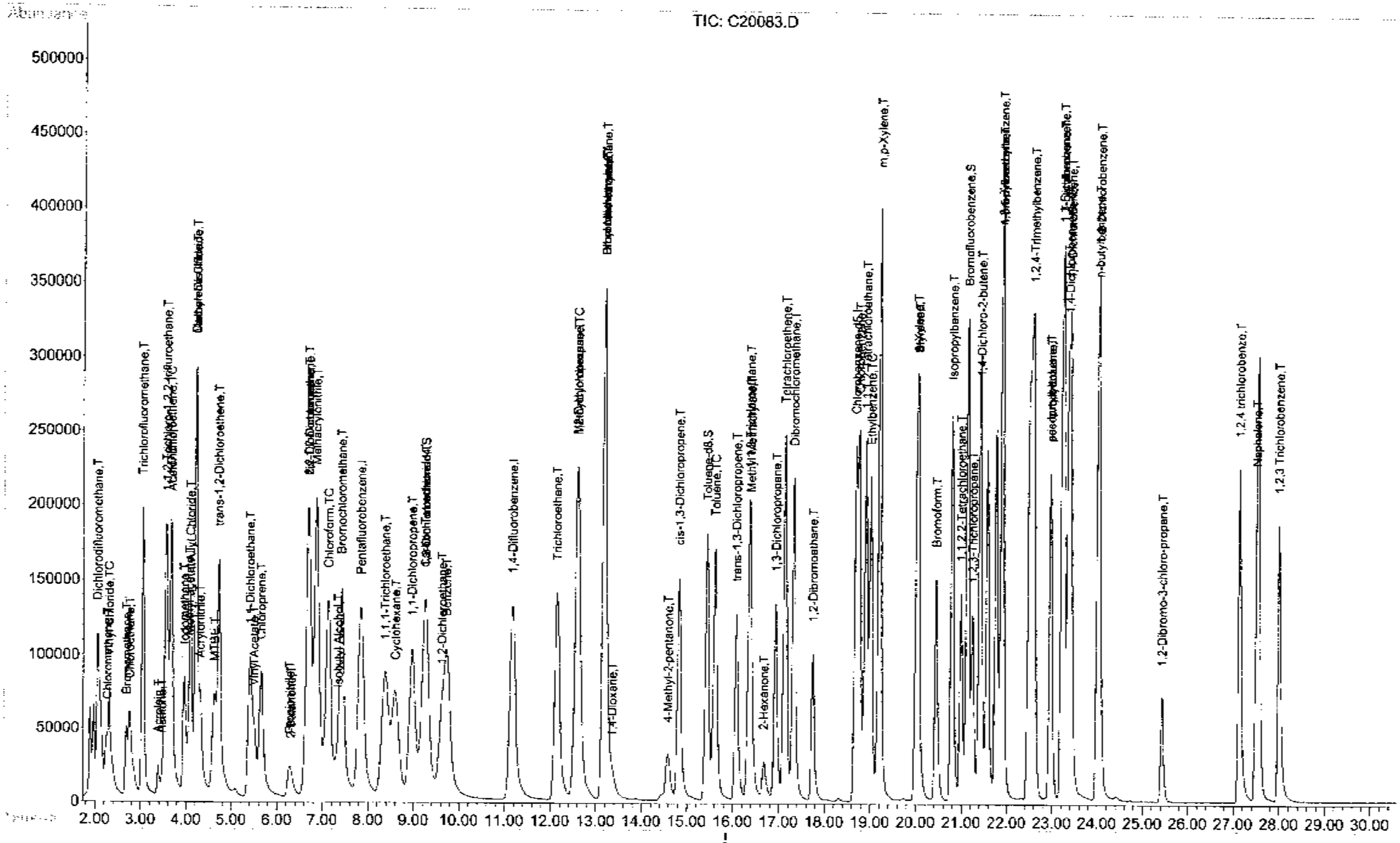
Quantitation Report

Data File : D:\DATA\C20083.D
Acq On : 11 Dec 2007 1:54 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 11 14:28 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/12/2007 Time: 0:55

Lab File ID: C20100.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm) NA End of Run

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.396	0.491		-24.1	
Vinyl Chloride	0.323	0.446	0.100	[illegible]	25.0
Bromomethane	0.326	0.291	0.100	10.8	25.0
Chloroethane	0.236	0.286		-21.0	
Trichlorofluoromethane	0.827	0.986		-19.2	
Acetone	0.086	0.109		-25.8	
1,1-Dichloroethene	0.300	0.339	0.100	-13.1	25.0
Iodomethane	0.591	0.623		-5.4	
Carbon Disulfide	1.241	1.492		-20.2	
Methylene Chloride	0.424	0.464		-9.5	
Acrylonitrile	0.051	0.074		-45.9	
trans-1,2-Dichloroethene	0.358	0.410		-14.7	
1,1-Dichloroethane	0.894	1.055	0.200	-18.0	25.0
Vinyl Acetate	0.574	0.623		-8.6	
2-Butanone	0.108	0.124		-14.2	
cis-1,2-Dichloroethene	0.413	0.478		-15.7	
Chloroform	1.116	1.199	0.200	-7.4	25.0
Bromochloromethane	0.269	0.298		-10.5	
1,1,1-Trichloroethane	0.811	0.865	0.100	-6.6	25.0
Carbon Tetrachloride	0.560	0.581	0.100	-3.7	25.0
Benzene	0.859	0.929	0.500	-8.1	25.0
1,2-Dichloroethane	0.451	0.477	0.100	-5.8	25.0
Trichloroethene	0.437	0.476	0.300	-9.0	25.0
1,2-Dichloropropane	0.435	0.483		-11.0	
Bromodichloromethane	0.926	0.984	0.200	-6.2	25.0
Dibromomethane	0.480	0.513		-6.8	
4-Methyl-2-pentanone	0.241	0.270		-12.1	
cis-1,3-Dichloropropene	0.552	0.575	0.200	-4.1	25.0
Toluene	0.451	0.465	0.400	-3.1	25.0
trans-1,3-Dichloropropene	0.421	0.415	0.100	1.3	25.0
1,1,2-Trichloroethane	0.269	0.295	0.100	-9.6	25.0
2-Hexanone	0.240	0.254		-6.2	
Tetrachloroethene	0.596	0.752	0.200	-26.2	25.0
Dibromochloromethane	0.960	1.003	0.200	-4.4	25.0
1,2-Dibromoethane	0.668	0.651		2.5	
Chlorobenzene	0.809	0.845	0.500	-4.4	25.0
1,1,1,2-Tetrachloroethane	0.512	0.540		-5.4	
Ethylbenzene	1.258	1.309	0.100	-4.0	25.0
m,p-Xylene	0.412	0.427	0.300	-3.9	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/12/2007 Time: 0:55

Lab File ID: C20100.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.416	0.441	0.300	-6.1	25.0
Styrene	0.654	0.701	0.300	-7.2	25.0
Bromoform	0.509	0.482	0.100	5.3	25.0
1,1,2,2-Tetrachloroethane	0.692	0.696	0.500	-0.5	25.0
1,2,3-Trichloropropane	0.464	0.474		-2.0	
1,4-Dichloro-2-butene	0.187	0.184		1.7	
1,3-Dichlorobenzene	0.673	0.667	0.600	0.9	
1,4-Dichlorobenzene	0.659	0.658	0.500	0.1	
1,2-Dichlorobenzene	0.629	0.633	0.400	-0.6	
1,2-Dibromo-3-chloro-propane	0.176	0.182		-3.4	
1,2-Dichloroethane-d4	0.577	0.578		-0.2	
Toluene-d8	0.808	0.807		0.1	
Bromofluorobenzene	0.772	0.755	0.200	2.2	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20100.D
Acq On : 12 Dec 2007 12:55 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	79	0.03
2	T	Dichlorodifluoromethane	0.752	0.932	-23.9	97	0.07
3	T	Chloromethane	0.396	0.491	-24.0	98	0.04
4	TC	Vinyl Chloride	0.323	0.446	-38.1#	102	0.00
5	T	Bromomethane	0.326	0.291	10.7	72	0.02
6	T	Chloroethane	0.236	0.286	-21.2	97	0.00
7	T	Trichlorofluoromethane	0.827	0.986	-19.2	95	0.02
8	T	Acrolein	0.021	0.027#	-28.6#	107	0.00
9	T	Acetone	0.086	0.109	-26.7#	100	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	0.672	0.756	-12.5	90	0.02
11	TC	1,1-Dichloroethene	0.299	0.339	-13.4	89	0.00
12	T	Acetonitrile	0.018	0.021#	-16.7	97	0.00
13	T	Iodomethane	0.591	0.623	-5.4	89	0.00
14	T	Methyl acetate	0.213	0.240	-12.7	92	0.00
15	T	Allyl Chloride	0.636	0.739	-16.2	93	0.00
16	T	Carbon Disulfide	1.241	1.491	-20.1	95	0.00
17	T	Methylene Chloride	0.424	0.464	-9.4	94	0.00
18	T	MTBE	0.668	0.800	-19.8	96	0.02
19	T	Acrylonitrile	0.051	0.074	-45.1#	119	0.00
20	T	trans-1,2-Dichloroethene	0.358	0.410	-14.5	91	0.02
21	T	1,1-Dichloroethane	0.894	1.055	-18.0	94	0.00
22	T	Vinyl Acetate	0.574	0.623	-8.5	87	0.02
23	T	Chloroprene	0.491	0.614	-25.1#	100	0.03
24	T	2-Butanone	0.108	0.124	-14.8	97	0.02
25	T	Propionitrile	0.019	0.022#	-15.8	96	0.00
26	T	2,2-Dichloropropane	0.648	0.629	2.9	78	0.00
27	T	cis-1,2-Dichloroethene	0.413	0.478	-15.7	92	0.02
28	T	Methacrylonitrile	1.373	1.602	-16.7	96	0.00
29	TC	Chloroform	1.116	1.198	-7.3	93	0.02
30	T	Bromochloromethane	0.269	0.298	-10.8	91	0.02
31	T	Isobutyl Alcohol	0.002	0.002#	0.0	114	0.02
32	T	Cyclohexane	0.506	0.592	-17.0	93	0.02
33	S	1,2-Dichloroethane-d4	0.577	0.578	-0.2	82	0.00
34	T	1,1,1-Trichloroethane	0.811	0.865	-6.7	85	0.00
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	85	0.00
36	T	1,1-Dichloropropene	0.507	0.544	-7.3	90	0.02
37	T	Carbon Tetrachloride	0.560	0.580	-3.6	87	0.00
38	T	Benzene	0.859	0.929	-8.1	93	0.02
39	T	1,2-Dichloroethane	0.451	0.477	-5.8	91	0.00
40	T	Trichloroethene	0.436	0.476	-9.2	93	0.00
41	TC	1,2-Dichloropropane	0.435	0.483	-11.0	96	0.00
42	T	Methylcyclohexane	0.290	0.312	-7.6	91	0.02
43	T	Methyl Methacrylate	0.293	0.318	-8.5	94	0.00
44	T	Bromodichloromethane	0.926	0.984	-6.3	91	0.00
45	T	Dibromomethane	0.480	0.512	-6.7	91	0.00
46	T	1,4-Dioxane	0.028	0.032#	-14.3	100	0.00
47	T	4-Methyl-2-pentanone	0.240	0.270	-12.5	96	0.00
48	T	cis-1,3-Dichloropropene	0.552	0.574	-4.0	90	0.02
49	S	Toluene-d8	0.808	0.807	0.1	85	0.00

(#) = Out of Range

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Evaluate Continuing Calibration Report

Data File : D:\DATA\C20100.D
Acq On : 12 Dec 2007 12:55 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.451	0.465	-3.1	90	0.00
51	T	trans-1,3-Dichloropropene	0.420	0.415	1.2	84	0.00
52	T	Ethyl Methacrylate	0.147	0.162	-10.2	94	0.02
53	T	1,1,2-Trichloroethane	0.269	0.294	-9.3	93	0.00
54	S	Bromofluorobenzene	0.772	0.756	2.1	83	0.04
55	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.04
56	T	2-Hexanone	0.240	0.254	-5.8	94	0.02
57	T	1,3-Dichloropropane	0.635	0.685	-7.9	93	0.00
58	T	Tetrachloroethene	0.596	0.752	-26.2#	106	0.02
59	T	Dibromochloromethane	0.960	1.003	-4.5	90	0.03
60	T	1,2-Dibromoethane	0.668	0.651	2.5	84	0.03
61	T	Chlorobenzene	0.809	0.845	-4.4	89	0.04
62	T	1,1,1,2-Tetrachloroethane	0.512	0.540	-5.5	90	0.04
63	TC	Ethylbenzene	1.258	1.309	-4.1	88	0.04
64	T	m,p-Xylene	0.412	0.427	-3.6	89	0.04
65	T	o-Xylene	0.416	0.441	-6.0	90	0.04
66	T	Styrene	0.654	0.701	-7.2	90	0.04
67	T	Bromoform	0.509	0.482	5.3	81	0.04
68	T	Isopropylbenzene	1.113	1.160	-4.2	88	0.04
69	T	1,1,2,2-Tetrachloroethane	0.692	0.696	-0.6	88	0.04
70	T	1,2,3-Trichloropropane	0.464	0.474	-2.2	94	0.05
71	T	1,4-Dichloro-2-butene	0.187	0.184	1.6	87	0.05
72	T	n-propylbenzene	1.341	1.375	-2.5	87	0.04
73	T	1,3,5-Trimethylbenzene	0.916	0.950	-3.7	88	0.03
74	T	T-butylbenzene	0.294	0.285	3.1	83	0.04
75	T	1,2,4-Trimethylbenzene	0.925	0.962	-4.0	90	0.04
76	T	sec-butylbenzene	1.341	1.356	-1.1	86	0.04
77	T	1,3-Dichlorobenzene	0.673	0.667	0.9	86	0.04
78	T	p-isopropyltoluene	0.241	0.231	4.1	83	0.03
79	T	1,4-Dichlorobenzene	0.659	0.658	0.2	87	0.04
80	T	n-butylbenzene	1.123	1.100	2.0	83	0.03
81	T	1,2-Dichlorobenzene	0.629	0.633	-0.6	88	0.03
82	T	1,2-Dibromo-3-chloro-propan	0.176	0.182	-3.4	90	0.03
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.03
84	T	1,2,4 trichlorobenze	0.841	0.823	2.1	83	0.02
85	T	Naphalene	1.046	1.144	-9.4	92	0.02
86	T	1,2,3 Trichlorobenzene	0.722	0.723	-0.1	85	0.02

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(#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\C20100.D                              Vial: 19
Acq On    : 12 Dec 2007  12:55 am                     Operator: MM
Sample    : CC                                        Inst    : #12
Misc      : 5ML                                       Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Dec 12  8:10 2007              Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.89	168	285344	50.00 ug/L	0.03
35) 1,4-Difluorobenzene	11.20	114	391168	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.68	117	264618	50.00 ug/L	0.04
83) 1,4-Dichlorobenzene-d4	23.34	152	136473	50.00 ug/L	0.03

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.29	65	164949	50.11 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	100.22%	
49) Toluene-d8	15.43	98	315757	49.97 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.94%	
54) Bromofluorobenzene	21.11	95	295533	48.93 ug/L	0.04
Spiked Amount 50.000	Range 86 - 115		Recovery =	97.86%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.13	85	265906	61.97 ug/L	100
3) Chloromethane	2.31	50	140077	62.04 ug/L	99
4) Vinyl Chloride	2.34	62	127292	69.07 ug/L	99
5) Bromomethane	2.72	94	82999	44.60 ug/L	98
6) Chloroethane	2.80	64	81616	60.51 ug/L	99
7) Trichlorofluoromethane	3.08	101	281382	59.60 ug/L	100
8) Acrolein	3.42	56	30801	256.30 ug/L	98
9) Acetone	3.49	43	30962	62.87 ug/L	98
10) 1,1,2-Trichloro-1,2,2-trif	3.59	101	215695	56.20 ug/L	99
11) 1,1-Dichloroethene	3.69	96	96645	56.55 ug/L	99
12) Acetonitrile	3.71	41	60642	589.36 ug/L	99
13) Iodomethane	3.99	142	177889	52.72 ug/L	100
14) Methyl acetate	4.09	43	68419	56.23 ug/L	98
15) Allyl Chloride	4.13	41	210837m	58.06 ug/L	
16) Carbon Disulfide	4.24	76	425587	60.10 ug/L	100
17) Methylene Chloride	4.24	84	132341	54.74 ug/L	99
18) MTBE	4.66	73	228297	59.85 ug/L	99
19) Acrylonitrile	4.34	53	84615	291.92 ug/L	93
20) trans-1,2-Dichloroethene	4.76	96	117007	57.34 ug/L	99
21) 1,1-Dichloroethane	5.43	63	301011	59.00 ug/L	99
22) Vinyl Acetate	5.53	43	177794	54.31 ug/L	100
23) Chloroprene	5.69	53	175255	62.50 ug/L	99
24) 2-Butanone	6.35	43	35289	57.08 ug/L	98
25) Propionitrile	6.30	54	62211	577.49 ug/L	97
26) 2,2-Dichloropropane	6.72	77	179450	48.54 ug/L	98
27) cis-1,2-Dichloroethene	6.73	96	136420	57.87 ug/L	99
28) Methacrylonitrile	6.89	41	457247	58.36 ug/L	99
29) Chloroform	7.16	83	341975	53.70 ug/L	100
30) Bromochloromethane	7.45	128	84953	55.28 ug/L	96
31) Isobutyl Alcohol	7.36	43	69865	6273.84 ug/L	81
32) Cyclohexane	8.64	56	168798	58.51 ug/L	95
34) 1,1,1-Trichloroethane	8.40	97	246758	53.32 ug/L	97
36) 1,1-Dichloropropene	9.00	75	212832	53.65 ug/L	99
37) Carbon Tetrachloride	9.28	117	227072	51.87 ug/L	100
38) Benzene	9.77	78	363233	54.06 ug/L	100
39) 1,2-Dichloroethane	9.64	62	186566	52.92 ug/L	99
40) Trichloroethene	12.16	95	186211	54.54 ug/L	99

(#) = qualifier out of range (m) = manual integration

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20100.D Vial: 19
Acq On : 12 Dec 2007 12:55 am Operator: MM
Sample : CC Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 8:10 2007 Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) 1,2-Dichloropropane	12.60	63	188961	55.50 ug/L	99
42) Methylcyclohexane	12.61	83	122003	53.72 ug/L	99
43) Methyl Methacrylate	16.37	41	124362	54.19 ug/L	100
44) Bromodichloromethane	13.19	83	384736	53.09 ug/L	100
45) Dibromomethane	13.18	93	200457	53.41 ug/L	99
46) 1,4-Dioxane	13.38	88	12418	57.71 ug/L	97
47) 4-Methyl-2-pentanone	14.58	43	105462	56.06 ug/L	100
48) cis-1,3-Dichloropropene	14.83	75	224723	52.06 ug/L	98
50) Toluene	15.61	92	181945	51.54 ug/L	100
51) trans-1,3-Dichloropropene	16.07	75	162431	49.39 ug/L	99
52) Ethyl Methacrylate	13.18	69	63318	55.12 ug/L	97
53) 1,1,2-Trichloroethane	16.35	83	115188	54.79 ug/L	99
56) 2-Hexanone	16.68	43	67295	53.08 ug/L	99
57) 1,3-Dichloropropane	16.92	76	181385	53.99 ug/L	100
58) Tetrachloroethene	17.12	166	198906	63.11 ug/L	100
59) Dibromochloromethane	17.32	129	265298	52.21 ug/L	99
60) 1,2-Dibromoethane	17.73	107	172299	48.74 ug/L	100
61) Chlorobenzene	18.75	112	223516	52.19 ug/L	98
62) 1,1,1,2-Tetrachloroethane	18.90	131	142865	52.69 ug/L	99
63) Ethylbenzene	19.00	91	346289	52.01 ug/L	100
64) m,p-Xylene	19.19	106	226213	103.86 ug/L	100
65) o-Xylene	20.00	106	116655	53.05 ug/L	98
66) Styrene	20.04	104	185563	53.59 ug/L	100
67) Bromoform	20.43	173	127474	47.34 ug/L	100
68) Isopropylbenzene	20.79	105	306973	52.12 ug/L	100
69) 1,1,2,2-Tetrachloroethane	20.97	83	184049	50.25 ug/L	100
70) 1,2,3-Trichloropropane	21.24	75	125331	51.02 ug/L	99
71) 1,4-Dichloro-2-butene	21.42	75	48655	49.16 ug/L	92
72) n-propylbenzene	21.87	91	363816	51.25 ug/L	99
73) 1,3,5-Trimethylbenzene	21.88	105	251486	51.88 ug/L	100
74) T-butylbenzene	23.24	91	75313	48.46 ug/L	96
75) 1,2,4-Trimethylbenzene	22.59	105	254468	52.00 ug/L	99
76) sec-butylbenzene	22.95	105	358804	50.54 ug/L	99
77) 1,3-Dichlorobenzene	23.20	146	176502	49.55 ug/L	99
78) p-isopropyltoluene	22.94	91	61240	48.11 ug/L	99
79) 1,4-Dichlorobenzene	23.40	146	174142	49.94 ug/L	99
80) n-butylbenzene	23.99	91	291112	48.96 ug/L	99
81) 1,2-Dichlorobenzene	24.03	146	167478	50.29 ug/L	100
82) 1,2-Dibromo-3-chloro-propa	25.41	75	48184	51.70 ug/L	98
84) 1,2,4 trichlorobenze	27.12	180	112287	48.93 ug/L	99
85) Naphalene	27.47	128	156079	54.65 ug/L	100
86) 1,2,3 Trichlorobenzene	27.98	180	98662	50.08 ug/L	99

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(#) = qualifier out of range (m) = manual integration

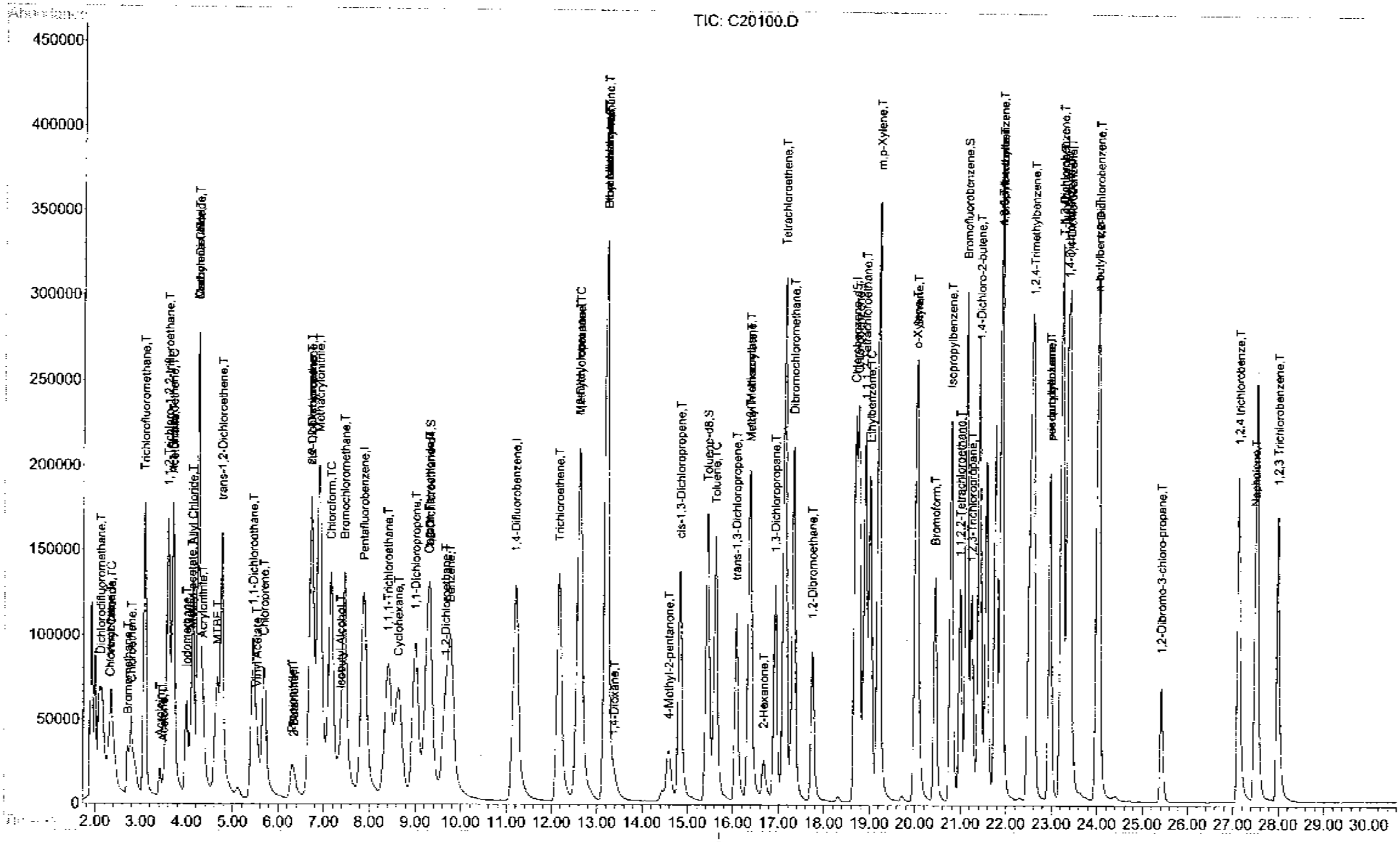
Quantitation Report

Data File : D:\DATA\C20100.D
Acq On : 12 Dec 2007 12:55 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:10 2007

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/12/2007 Time: 14:18

Lab File ID: C20102.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.396	0.425		-7.4	
Vinyl Chloride	0.323	0.361	0.100	-11.9	25.0
Bromomethane	0.326	0.330	0.100	-1.3	25.0
Chloroethane	0.236	0.259		-9.6	
Trichlorofluoromethane	0.827	0.887		-7.2	
Acetone	0.086	0.103		-19.5	
1,1-Dichloroethene	0.300	0.337	0.100	-12.5	25.0
Iodomethane	0.591	0.752		-27.3	
Carbon Disulfide	1.241	1.453		-17.1	
Methylene Chloride	0.424	0.421		0.6	
Acrylonitrile	0.051	0.055		-7.3	
trans-1,2-Dichloroethene	0.358	0.399		-11.6	
1,1-Dichloroethane	0.894	1.006	0.200	-12.6	25.0
Vinyl Acetate	0.574	0.674		-17.5	
2-Butanone	0.108	0.113		-4.6	
cis-1,2-Dichloroethene	0.413	0.464		-12.4	
Chloroform	1.116	1.148	0.200	-2.9	25.0
Bromochloromethane	0.269	0.298		-10.8	
1,1,1-Trichloroethane	0.811	0.909	0.100	-12.1	25.0
Carbon Tetrachloride	0.560	0.616	0.100	-10.0	25.0
Benzene	0.859	0.921	0.500	-7.2	25.0
1,2-Dichloroethane	0.451	0.457	0.100	-1.3	25.0
Trichloroethene	0.437	0.468	0.300	-7.3	25.0
1,2-Dichloropropane	0.435	0.463		-6.4	
Bromodichloromethane	0.926	0.959	0.200	-3.5	25.0
Dibromomethane	0.480	0.502		-4.7	
4-Methyl-2-pentanone	0.241	0.251		-4.5	
cis-1,3-Dichloropropene	0.552	0.583	0.200	-5.7	25.0
Toluene	0.451	0.468	0.400	-3.6	25.0
trans-1,3-Dichloropropene	0.421	0.433	0.100	-2.9	25.0
1,1,2-Trichloroethane	0.269	0.286	0.100	-6.6	25.0
2-Hexanone	0.240	0.266		-11.0	
Tetrachloroethene	0.596	0.570	0.200	4.2	25.0
Dibromochloromethane	0.960	1.029	0.200	-7.2	25.0
1,2-Dibromoethane	0.668	0.674		-0.9	
Chlorobenzene	0.809	0.889	0.500	-9.9	25.0
1,1,1,2-Tetrachloroethane	0.512	0.554		-8.1	
Ethylbenzene	1.258	1.363	0.100	-8.4	25.0
m,p-Xylene	0.412	0.454	0.300	-10.4	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/12/2007 Time: 14:18

Lab File ID: C20102.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.416	0.457	0.300	-9.9	25.0
Styrene	0.654	0.727	0.300	-11.1	25.0
Bromoform	0.509	0.514	0.100	-1.0	25.0
1,1,2,2-Tetrachloroethane	0.692	0.742	0.500	-7.3	25.0
1,2,3-Trichloropropane	0.464	0.486		-4.7	
1,4-Dichloro-2-butene	0.187	0.220		-17.6	
1,3-Dichlorobenzene	0.673	0.714	0.600	-6.1	
1,4-Dichlorobenzene	0.659	0.684	0.500	-3.9	
1,2-Dichlorobenzene	0.629	0.653	0.400	-3.8	
1,2-Dibromo-3-chloro-propane	0.176	0.183		-3.9	
1,2-Dichloroethane-d4	0.577	0.568		1.6	
Toluene-d8	0.808	0.802		0.8	
Bromofluorobenzene	0.772	0.711	0.200	7.9	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20102.D
Acq On : 12 Dec 2007 2:18 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	84	-0.02
2	T	Dichlorodifluoromethane	0.752	0.793	-5.5	88	0.00
3	T	Chloromethane	0.396	0.425	-7.3	90	0.00
4	TC	Vinyl Chloride	0.323	0.361	-11.8	88	-0.03
5	T	Bromomethane	0.326	0.330	-1.2	87	-0.03
6	T	Chloroethane	0.236	0.259	-9.7	93	-0.03
7	T	Trichlorofluoromethane	0.827	0.887	-7.3	91	-0.03
8	T	Acrolein	0.021	0.024#	-14.3	99	-0.03
9	T	Acetone	0.086	0.103	-19.8	101	-0.03
10	T	1,1,2-Trichloro-1,2,2-trifl	0.672	0.853	-26.9#	107	-0.03
11	TC	1,1-Dichloroethene	0.299	0.337	-12.7	94	-0.03
12	T	Acetonitrile	0.018	0.019#	-5.6	90	-0.03
13	T	Iodomethane	0.591	0.752	-27.2#	114	-0.03
14	T	Methyl acetate	0.213	0.226	-6.1	92	-0.03
15	T	Allyl Chloride	0.636	0.704	-10.7	94	-0.03
16	T	Carbon Disulfide	1.241	1.453	-17.1	98	-0.04
17	T	Methylene Chloride	0.424	0.421	0.7	91	-0.03
18	T	MTBE	0.668	0.710	-6.3	91	-0.02
19	T	Acrylonitrile	0.051	0.055	-7.8	93	-0.03
20	T	trans-1,2-Dichloroethene	0.358	0.399	-11.5	94	-0.02
21	T	1,1-Dichloroethane	0.894	1.006	-12.5	95	-0.03
22	T	Vinyl Acetate	0.574	0.674	-17.4	100	-0.02
23	T	Chloroprene	0.491	0.001#	99.8#	0#	0.00
24	T	2-Butanone	0.108	0.113	-4.6	94	-0.02
25	T	Propionitrile	0.019	0.020#	-5.3	95	-0.04
26	T	2,2-Dichloropropane	0.648	0.750	-15.7	99	-0.04
27	T	cis-1,2-Dichloroethene	0.413	0.464	-12.3	95	-0.03
28	T	Methacrylonitrile	1.373	1.512	-10.1	96	-0.03
29	TC	Chloroform	1.116	1.148	-2.9	94	-0.03
30	T	Bromochloromethane	0.269	0.298	-10.8	97	-0.03
31	T	Isobutyl Alcohol	0.002	0.002#	0.0	94	0.00
32	T	Cyclohexane	0.506	0.628	-24.1	104	-0.03
33	S	1,2-Dichloroethane-d4	0.577	0.568	1.6	86	-0.03
34	T	1,1,1-Trichloroethane	0.811	0.909	-12.1	95	-0.02
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	-0.02
36	T	1,1-Dichloropropene	0.507	0.556	-9.7	97	-0.03
37	T	Carbon Tetrachloride	0.560	0.616	-10.0	97	-0.03
38	T	Benzene	0.859	0.921	-7.2	97	-0.03
39	T	1,2-Dichloroethane	0.451	0.457	-1.3	92	-0.03
40	T	Trichloroethene	0.436	0.468	-7.3	96	-0.02
41	TC	1,2-Dichloropropane	0.435	0.463	-6.4	97	0.00
42	T	Methylcyclohexane	0.290	0.357	-23.1	109	0.00
43	T	Methyl Methacrylate	0.293	0.303	-3.4	94	0.00
44	T	Bromodichloromethane	0.926	0.959	-3.6	94	0.00
45	T	Dibromomethane	0.480	0.502	-4.6	94	0.00
46	T	1,4-Dioxane	0.028	0.029#	-3.6	95	0.00
47	T	4-Methyl-2-pentanone	0.240	0.251	-4.6	95	0.00
48	T	cis-1,3-Dichloropropene	0.552	0.583	-5.6	96	0.00
49	S	Toluene-d8	0.808	0.801	0.9	89	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20102.D
Acq On : 12 Dec 2007 2:18 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.451	0.468	-3.8	96	0.00
51	T	trans-1,3-Dichloropropene	0.420	0.433	-3.1	93	0.00
52	T	Ethyl Methacrylate	0.147	0.154	-4.8	94	0.00
53	T	1,1,2-Trichloroethane	0.269	0.286	-6.3	96	0.00
54	S	Bromofluorobenzene	0.772	0.711	7.9	83	0.03
55	I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.03
56	T	2-Hexanone	0.240	0.266	-10.8	99	0.00
57	T	1,3-Dichloropropane	0.635	0.697	-9.8	95	0.00
58	T	Tetrachloroethene	0.596	0.570	4.4	81	0.01
59	T	Dibromochloromethane	0.960	1.029	-7.2	93	0.02
60	T	1,2-Dibromoethane	0.668	0.674	-0.9	88	0.02
61	T	Chlorobenzene	0.809	0.889	-9.9	95	0.03
62	T	1,1,1,2-Tetrachloroethane	0.512	0.554	-8.2	93	0.03
63	TC	Ethylbenzene	1.258	1.363	-8.3	94	0.03
64	T	m,p-Xylene	0.412	0.454	-10.2	96	0.03
65	T	o-Xylene	0.416	0.457	-9.9	95	0.03
66	T	Styrene	0.654	0.727	-11.2	95	0.03
67	T	Bromoform	0.509	0.514	-1.0	87	0.03
68	T	Isopropylbenzene	1.113	1.206	-8.4	93	0.03
69	T	1,1,2,2-Tetrachloroethane	0.692	0.742	-7.2	96	0.04
70	T	1,2,3-Trichloropropane	0.464	0.486	-4.7	98	0.04
71	T	1,4-Dichloro-2-butene	0.187	0.220	-17.6	105	0.04
72	T	n-propylbenzene	1.341	1.455	-8.5	93	0.03
73	T	1,3,5-Trimethylbenzene	0.916	0.964	-5.2	91	0.03
74	T	T-butylbenzene	0.294	0.301	-2.4	90	0.01
75	T	1,2,4-Trimethylbenzene	0.925	0.985	-6.5	93	0.02
76	T	sec-butylbenzene	1.341	1.450	-8.1	94	0.01
77	T	1,3-Dichlorobenzene	0.673	0.714	-6.1	93	0.01
78	T	p-isopropyltoluene	0.241	0.247	-2.5	91	0.01
79	T	1,4-Dichlorobenzene	0.659	0.684	-3.8	92	0.01
80	T	n-butylbenzene	1.123	1.246	-11.0	95	0.00
81	T	1,2-Dichlorobenzene	0.629	0.653	-3.8	93	0.00
82	T	1,2-Dibromo-3-chloro-propan	0.176	0.183	-4.0	92	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	0.00
84	T	1,2,4 trichlorobenze	0.841	0.931	-10.7	94	-0.02
85	T	Naphalene	1.046	1.135	-8.5	93	-0.02
86	T	1,2,3 Trichlorobenzene	0.722	0.785	-8.7	93	-0.02

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
C20102.D TEST1210.M Wed Dec 12 14:56:31 2007 12.0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20102.D
Acq On : 12 Dec 2007 2:18 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 14:56 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.84	168	302658	50.00 ug/L	-0.02
35) 1,4-Difluorobenzene	11.17	114	412102	50.00 ug/L	-0.02
55) Chlorobenzene-d5	18.67	117	268685	50.00 ug/L	0.03
83) 1,4-Dichlorobenzene-d4	23.31	152	137726	50.00 ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc Units	Dev(Min)
33) 1,2-Dichloroethane-d4	9.26	65	171859	49.22 ug/L	-0.03
Spiked Amount 50.000	Range 76 - 114		Recovery = 98.44%		
49) Toluene-d8	15.41	98	330283	49.61 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.22%		
54) Bromofluorobenzene	21.10	95	293057	46.05 ug/L	0.03
Spiked Amount 50.000	Range 86 - 115		Recovery = 92.10%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) Dichlorodifluoromethane	2.05	85	239876	52.70 ug/L	100
3) Chloromethane	2.27	50	128627	53.71 ug/L	99
4) Vinyl Chloride	2.31	62	109376	55.95 ug/L	99
5) Bromomethane	2.67	94	99968	50.64 ug/L	100
6) Chloroethane	2.76	64	78387	54.79 ug/L	99
7) Trichlorofluoromethane	3.03	101	268415	53.60 ug/L	99
8) Acrolein	3.38	56	28519	223.73 ug/L	98
9) Acetone	3.46	43	31215	59.76 ug/L	99
10) 1,1,2-Trichloro-1,2,2-trif	3.55	101	258137	63.41 ug/L	98
11) 1,1-Dichloroethene	3.66	96	101933	56.23 ug/L	98
12) Acetonitrile	3.67	41	56346	516.28 ug/L	100
13) Iodomethane	3.95	142	227743	63.64 ug/L	100
14) Methyl acetate	4.05	43	68458	53.04 ug/L	98
15) Allyl Chloride	4.09	41	212953m MM	55.29 ug/L	
16) Carbon Disulfide	4.20	76	439761	58.55 ug/L	100
17) Methylene Chloride	4.21	84	127430	49.69 ug/L	100
18) MTBE	4.62	73	214948	53.12 ug/L	98
19) Acrylonitrile	4.31	53	65997	214.66 ug/L	99
20) trans-1,2-Dichloroethene	4.72	96	120759	55.79 ug/L	100
21) 1,1-Dichloroethane	5.40	63	304563	56.29 ug/L	100
22) Vinyl Acetate	5.50	43	203936	58.73 ug/L	100
24) 2-Butanone	6.31	43	34282	52.27 ug/L	97
25) Propionitrile	6.25	54	61786	540.74 ug/L	98
26) 2,2-Dichloropropane	6.68	77	227005	57.89 ug/L	100
27) cis-1,2-Dichloroethene	6.69	96	140475	56.18 ug/L	99
28) Methacrylonitrile	6.86	41	457581	55.06 ug/L	99
29) Chloroform	7.11	83	347507	51.44 ug/L	99
30) Bromochloromethane	7.41	128	90321	55.41 ug/L	98
31) Isobutyl Alcohol	7.34	43	57321	4852.93 ug/L	82
32) Cyclohexane	8.59	56	189947	62.07 ug/L	94
34) 1,1,1-Trichloroethane	8.37	97	275239	56.07 ug/L	99
36) 1,1-Dichloropropene	8.95	75	229284	54.87 ug/L	99
37) Carbon Tetrachloride	9.24	117	253828	55.04 ug/L	99
38) Benzene	9.72	78	379662	53.63 ug/L	100
39) 1,2-Dichloroethane	9.60	62	188216	50.68 ug/L	99
40) Trichloroethene	12.13	95	193046	53.67 ug/L	99
41) 1,2-Dichloropropane	12.60	63	190946	53.23 ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\DATA\C20102.D
Acq On : 12 Dec 2007 2:18 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 14:56 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42) Methylcyclohexane	12.59	83	146955	61.42 ug/L	99
43) Methyl Methacrylate	16.37	41	124669	51.57 ug/L	98
44) Bromodichloromethane	13.19	83	395337	51.79 ug/L	100
45) Dibromomethane	13.17	93	206985	52.35 ug/L	100
46) 1,4-Dioxane	13.36	88	11874	52.38 ug/L	96
47) 4-Methyl-2-pentanone	14.58	43	103609	52.27 ug/L	99
48) cis-1,3-Dichloropropene	14.81	75	240413	52.87 ug/L	98
50) Toluene	15.60	92	192670	51.81 ug/L	99
51) trans-1,3-Dichloropropene	16.06	75	178303	51.46 ug/L	100
52) Ethyl Methacrylate	13.17	69	63382	52.37 ug/L	98
53) 1,1,2-Trichloroethane	16.34	83	118031	53.29 ug/L	99
56) 2-Hexanone	16.66	43	71450	55.51 ug/L	98
57) 1,3-Dichloropropane	16.91	76	187157	54.86 ug/L	99
58) Tetrachloroethene	17.12	166	153265	47.89 ug/L	98
59) Dibromochloromethane	17.31	129	276463	53.58 ug/L	99
60) 1,2-Dibromoethane	17.73	107	181179	50.47 ug/L	100
61) Chlorobenzene	18.74	112	238960	54.95 ug/L	100
62) 1,1,1,2-Tetrachloroethane	18.89	131	148839	54.06 ug/L	99
63) Ethylbenzene	19.00	91	366316	54.19 ug/L	100
64) m,p-Xylene	19.18	106	244070	110.36 ug/L	97
65) o-Xylene	19.99	106	122655	54.93 ug/L	98
66) Styrene	20.03	104	195295	55.55 ug/L	99
67) Bromoform	20.42	173	138048	50.49 ug/L	99
68) Isopropylbenzene	20.78	105	324104	54.20 ug/L	99
69) 1,1,2,2-Tetrachloroethane	20.98	83	199483	53.64 ug/L	99
70) 1,2,3-Trichloropropane	21.23	75	130626 MM	52.37 ug/L	98
71) 1,4-Dichloro-2-butene	21.41	75	59108m	58.82 ug/L	
72) n-propylbenzene	21.86	91	390854	54.23 ug/L	100
73) 1,3,5-Trimethylbenzene	21.88	105	259128	52.65 ug/L	99
74) T-butylbenzene	23.21	91	80901	51.27 ug/L	92
75) 1,2,4-Trimethylbenzene	22.57	105	264601	53.25 ug/L	100
76) sec-butylbenzene	22.93	105	389665	54.06 ug/L	100
77) 1,3-Dichlorobenzene	23.17	146	191874	53.05 ug/L	99
78) p-isopropyltoluene	22.93	91	66491	51.45 ug/L	97
79) 1,4-Dichlorobenzene	23.37	146	183881	51.93 ug/L	99
80) n-butylbenzene	23.96	91	334856	55.47 ug/L	100
81) 1,2-Dichlorobenzene	23.99	146	175526	51.90 ug/L	100
82) 1,2-Dibromo-3-chloro-propa	25.38	75	49177	51.97 ug/L	99
84) 1,2,4 trichlorobenze	27.08	180	128223	55.36 ug/L	99
85) Naphalene	27.44	128	156293	54.22 ug/L	100
86) 1,2,3 Trichlorobenzene	27.95	180	108140	54.40 ug/L	98

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(#) = qualifier out of range (m) = manual integration

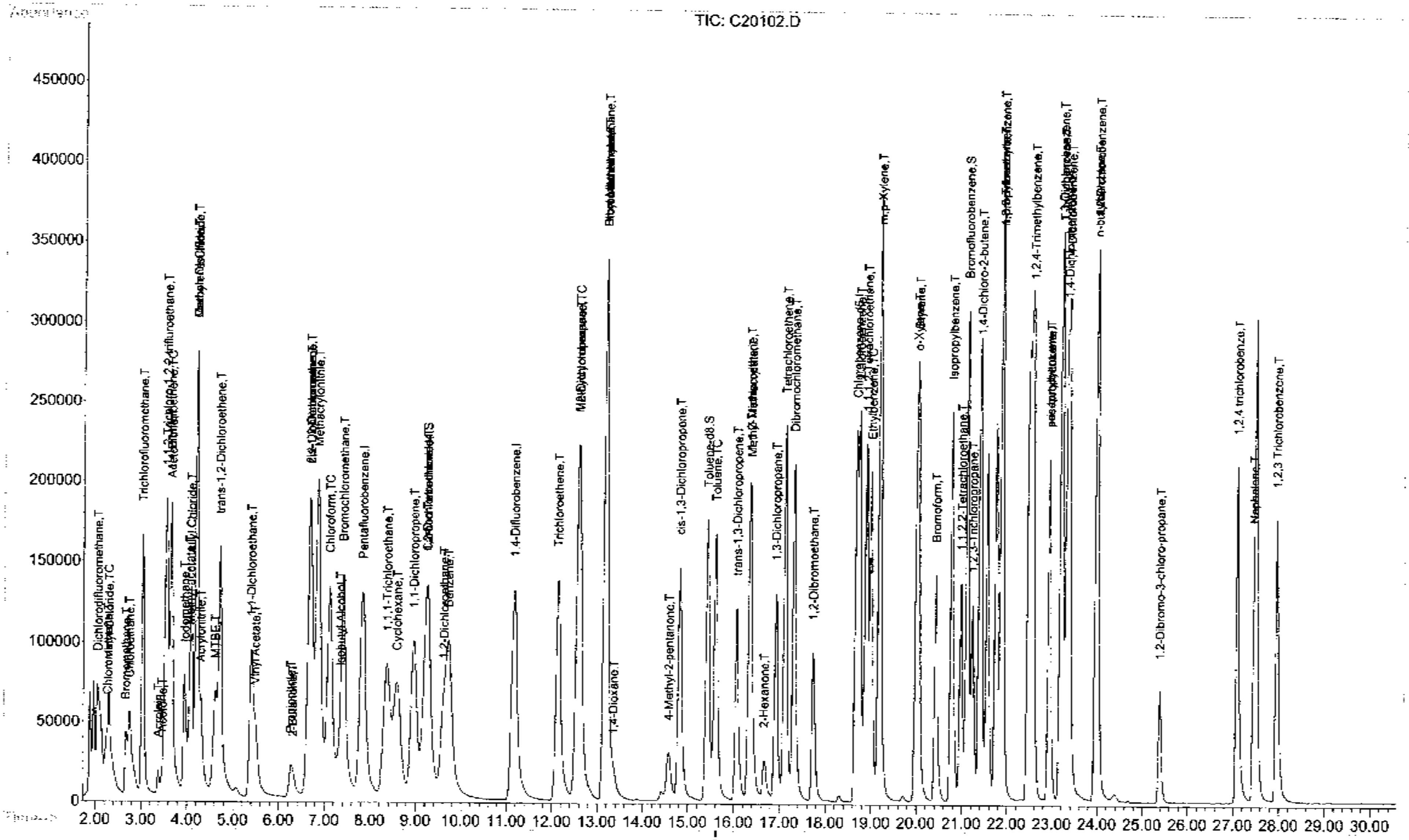
Quantitation Report

Data File : D:\DATA\C20102.D
Acq On : 12 Dec 2007 2:18 pm
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 14:56 2007

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/13/2007 Time: 1:02

Lab File ID: C20119.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm) NA End of Run

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.396	0.440		-11.2	
Vinyl Chloride	0.323	0.393	0.100	-21.8	25.0
Bromomethane	0.326	0.297	0.100	9.1	25.0
Chloroethane	0.236	0.258		-9.2	
Trichlorofluoromethane	0.827	0.819		1.0	
Acetone	0.086	0.085		2.1	
1,1-Dichloroethene	0.300	0.329	0.100	-9.8	25.0
Iodomethane	0.591	0.614		-3.8	
Carbon Disulfide	1.241	1.408		-13.4	
Methylene Chloride	0.424	0.419		1.2	
Acrylonitrile	0.051	0.051		0.6	
trans-1,2-Dichloroethene	0.358	0.396		-10.6	
1,1-Dichloroethane	0.894	0.999	0.200	-11.7	25.0
Vinyl Acetate	0.574	0.510		11.2	
2-Butanone	0.108	0.099		8.9	
cis-1,2-Dichloroethene	0.413	0.453		-9.6	
Chloroform	1.116	1.137	0.200	-1.9	25.0
Bromochloromethane	0.269	0.275		-2.0	
1,1,1-Trichloroethane	0.811	0.862	0.100	-6.3	25.0
Carbon Tetrachloride	0.560	0.568	0.100	-1.4	25.0
Benzene	0.859	0.893	0.500	-4.0	25.0
1,2-Dichloroethane	0.451	0.419	0.100	7.1	25.0
Trichloroethene	0.437	0.455	0.300	-4.3	25.0
1,2-Dichloropropane	0.435	0.452		-3.8	
Bromodichloromethane	0.926	0.911	0.200	1.7	25.0
Dibromomethane	0.480	0.464		3.4	
4-Methyl-2-pentanone	0.241	0.221		8.2	
cis-1,3-Dichloropropene	0.552	0.528	0.200	4.3	25.0
Toluene	0.451	0.448	0.400	0.7	25.0
trans-1,3-Dichloropropene	0.421	0.371	0.100	11.7	25.0
1,1,2-Trichloroethane	0.269	0.264	0.100	1.9	25.0
2-Hexanone	0.240	0.227		5.1	
Tetrachloroethene	0.596	0.773	0.200	-29.8	25.0
Dibromochloromethane	0.960	0.956	0.200	0.4	25.0
1,2-Dibromoethane	0.668	0.584		12.5	
Chlorobenzene	0.809	0.854	0.500	-5.5	25.0
1,1,1,2-Tetrachloroethane	0.512	0.527		-2.8	
Ethylbenzene	1.258	1.335	0.100	-6.1	25.0
m,p-Xylene	0.412	0.435	0.300	-5.6	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 12 Calibration Date: 12/13/2007 Time: 1:02

Lab File ID: C20119.D Init. Calib. Date(s): 12/10/2007 12/10/2007

Heated Purge: (Y/N) N Init. Calib. Times: 11:06 14:15

GC Column: RTX-VOLA ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.416	0.441	0.300	-6.2	25.0
Styrene	0.654	0.687	0.300	-5.0	25.0
Bromoform	0.509	0.434	0.100	14.7	25.0
1,1,2,2-Tetrachloroethane	0.692	0.638	0.500	7.8	25.0
1,2,3-Trichloropropane	0.464	0.449		3.3	
1,4-Dichloro-2-butene	0.187	0.172		7.8	
1,3-Dichlorobenzene	0.673	0.678	0.600	-0.8	
1,4-Dichlorobenzene	0.659	0.653	0.500	0.9	
1,2-Dichlorobenzene	0.629	0.633	0.400	-0.6	
1,2-Dibromo-3-chloro-propane	0.176	0.161		8.5	
1,2-Dichloroethane-d4	0.577	0.549		4.9	
Toluene-d8	0.808	0.803		0.6	
Bromofluorobenzene	0.772	0.693	0.200	10.3	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\C20119.D
Acq On : 13 Dec 2007 1:02 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	83	0.02
2	T	Dichlorodifluoromethane	0.752	0.722	4.0	80	0.08
3	T	Chloromethane	0.396	0.440	-11.1	92	0.04
4	TC	Vinyl Chloride	0.323	0.393	-21.7	95	0.01
5	T	Bromomethane	0.326	0.297	8.9	77	0.01
6	T	Chloroethane	0.236	0.258	-9.3	92	0.00
7	T	Trichlorofluoromethane	0.827	0.819	1.0	83	0.01
8	T	Acrolein	0.021	0.019#	9.5	79	0.00
9	T	Acetone	0.086	0.084	2.3	82	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	0.672	0.761	-13.2	95	0.01
11	TC	1,1-Dichloroethene	0.299	0.329	-10.0	91	0.01
12	T	Acetonitrile	0.018	0.018#	0.0	88	0.01
13	T	Iodomethane	0.591	0.614	-3.9	92	0.00
14	T	Methyl acetate	0.213	0.214	-0.5	87	0.00
15	T	Allyl Chloride	0.636	0.695	-9.3	92	0.01
16	T	Carbon Disulfide	1.241	1.408	-13.5	94	0.00
17	T	Methylene Chloride	0.424	0.419	1.2	90	0.01
18	T	MTBE	0.668	0.663	0.7	84	0.01
19	T	Acrylonitrile	0.051	0.051	0.0	85	0.01
20	T	trans-1,2-Dichloroethene	0.358	0.396	-10.6	92	0.01
21	T	1,1-Dichloroethane	0.894	0.999	-11.7	93	0.01
22	T	Vinyl Acetate	0.574	0.510	11.1	75	0.02
23	T	Chloroprene	0.491	0.007#	98.6#	1#	0.01
24	T	2-Butanone	0.108	0.099	8.3	81	0.02
25	T	Propionitrile	0.019	0.019#	0.0	90	0.01
26	T	2,2-Dichloropropane	0.648	0.610	5.9	80	0.01
27	T	cis-1,2-Dichloroethene	0.413	0.453	-9.7	92	0.01
28	T	Methacrylonitrile	1.373	1.377	-0.3	87	0.01
29	TC	Chloroform	1.116	1.137	-1.9	92	0.01
30	T	Bromochloromethane	0.269	0.275	-2.2	88	0.02
31	T	Isobutyl Alcohol	0.002	0.002#	0.0	79	0.01
32	T	Cyclohexane	0.506	0.604	-19.4	100	0.02
33	S	1,2-Dichloroethane-d4	0.577	0.548	5.0	82	0.01
34	T	1,1,1-Trichloroethane	0.811	0.862	-6.3	89	0.02
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	0.01
36	T	1,1-Dichloropropene	0.507	0.538	-6.1	93	0.01
37	T	Carbon Tetrachloride	0.560	0.568	-1.4	89	0.01
38	T	Benzene	0.859	0.893	-4.0	94	0.01
39	T	1,2-Dichloroethane	0.451	0.419	7.1	84	0.02
40	T	Trichloroethene	0.436	0.455	-4.4	93	0.01
41	TC	1,2-Dichloropropane	0.435	0.452	-3.9	95	0.02
42	T	Methylcyclohexane	0.290	0.320	-10.3	98	0.02
43	T	Methyl Methacrylate	0.293	0.276	5.8	86	0.01
44	T	Bromodichloromethane	0.926	0.911	1.6	89	0.01
45	T	Dibromomethane	0.480	0.463	3.5	87	0.01
46	T	1,4-Dioxane	0.028	0.026#	7.1	86	0.01
47	T	4-Methyl-2-pentanone	0.240	0.221	7.9	83	0.01
48	T	cis-1,3-Dichloropropene	0.552	0.528	4.3	87	0.02
49	S	Toluene-d8	0.808	0.803	0.6	89	0.01

(#) = Out of Range

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Evaluate Continuing Calibration Report

Data File : D:\DATA\C20119.D Vial: 19
Acq On : 13 Dec 2007 1:02 am Operator: MM
Sample : CC Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	TC	Toluene	0.451	0.448	0.7	91	0.01
51	T	trans-1,3-Dichloropropene	0.420	0.371	11.7	79	0.01
52	T	Ethyl Methacrylate	0.147	0.136	7.5	83	0.02
53	T	1,1,2-Trichloroethane	0.269	0.264	1.9	88	0.01
54	S	Bromofluorobenzene	0.772	0.693	10.2	80	0.04
55	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.03
56	T	2-Hexanone	0.240	0.227	5.4	84	0.01
57	T	1,3-Dichloropropane	0.635	0.650	-2.4	88	0.01
58	T	Tetrachloroethene	0.596	0.773	-29.7#	109	0.02
59	T	Dibromochloromethane	0.960	0.956	0.4	86	0.02
60	T	1,2-Dibromoethane	0.668	0.584	12.6	76	0.03
61	T	Chlorobenzene	0.809	0.854	-5.6	90	0.04
62	T	1,1,1,2-Tetrachloroethane	0.512	0.527	-2.9	88	0.03
63	TC	Ethylbenzene	1.258	1.335	-6.1	91	0.03
64	T	m,p-Xylene	0.412	0.434	-5.3	91	0.03
65	T	o-Xylene	0.416	0.441	-6.0	91	0.03
66	T	Styrene	0.654	0.687	-5.0	89	0.04
67	T	Bromoform	0.509	0.434	14.7	73	0.03
68	T	Isopropylbenzene	1.113	1.180	-6.0	90	0.03
69	T	1,1,2,2-Tetrachloroethane	0.692	0.638	7.8	81	0.04
70	T	1,2,3-Trichloropropane	0.464	0.449	3.2	89	0.04
71	T	1,4-Dichloro-2-butene	0.187	0.172	8.0	82	0.04
72	T	n-propylbenzene	1.341	1.418	-5.7	90	0.03
73	T	1,3,5-Trimethylbenzene	0.916	0.953	-4.0	89	0.03
74	T	T-butylbenzene	0.294	0.296	-0.7	87	0.03
75	T	1,2,4-Trimethylbenzene	0.925	0.961	-3.9	90	0.03
76	T	sec-butylbenzene	1.341	1.412	-5.3	90	0.03
77	T	1,3-Dichlorobenzene	0.673	0.678	-0.7	88	0.03
78	T	p-isopropyltoluene	0.241	0.242	-0.4	88	0.03
79	T	1,4-Dichlorobenzene	0.659	0.653	0.9	87	0.03
80	T	n-butylbenzene	1.123	1.167	-3.9	88	0.02
81	T	1,2-Dichlorobenzene	0.629	0.633	-0.6	89	0.02
82	T	1,2-Dibromo-3-chloro-propan	0.176	0.161	8.5	80	0.02
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.03
84	T	1,2,4 trichlorobenze	0.841	0.871	-3.6	86	0.01
85	T	Naphalene	1.046	1.078	-3.1	86	0.01
86	T	1,2,3 Trichlorobenzene	0.722	0.746	-3.3	87	0.01

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(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20119.D
Acq On : 13 Dec 2007 1:02 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:10 2007

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	300349	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.20	114	411196	50.00 ug/L	0.01
55) Chlorobenzene-d5	18.67	117	265618	50.00 ug/L	0.03
83) 1,4-Dichlorobenzene-d4	23.34	152	134587	50.00 ug/L	0.03

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.30	65	164734	47.54 ug/L	0.01
Spiked Amount 50.000	Range 76 - 114		Recovery = 95.08%		
49) Toluene-d8	15.43	98	330345	49.73 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.46%		
54) Bromofluorobenzene	21.12	95	284902	44.87 ug/L	0.04
Spiked Amount 50.000	Range 86 - 115		Recovery = 89.74%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.14	85	216899	48.02 ug/L	100
3) Chloromethane	2.32	50	132170	55.62 ug/L	100
4) Vinyl Chloride	2.35	62	118128	60.89 ug/L	99
5) Bromomethane	2.71	94	89084	45.48 ug/L	99
6) Chloroethane	2.79	64	77551	54.62 ug/L	99
7) Trichlorofluoromethane	3.08	101	245977	49.50 ug/L	100
8) Acrolein	3.41	56	22697	179.43 ug/L	97
9) Acetone	3.49	43	25377	48.96 ug/L	96
10) 1,1,2-Trichloro-1,2,2-trif	3.59	101	228427	56.55 ug/L	100
11) 1,1-Dichloroethene	3.70	96	98756	54.89 ug/L	97
12) Acetonitrile	3.72	41	54939	507.26 ug/L	97
13) Iodomethane	3.98	142	184274	51.89 ug/L	99
14) Methyl acetate	4.08	43	64403	50.28 ug/L	99
15) Allyl Chloride	4.13	41	208846m	54.64 ug/L	
16) Carbon Disulfide	4.24	76	422786	56.72 ug/L	100
17) Methylene Chloride	4.25	84	125733	49.41 ug/L	97
18) MTBE	4.65	73	199126	49.59 ug/L	99
19) Acrylonitrile	4.35	53	60726	199.04 ug/L	99
20) trans-1,2-Dichloroethene	4.75	96	118796	55.31 ug/L	98
21) 1,1-Dichloroethane	5.44	63	299970	55.86 ug/L	100
22) Vinyl Acetate	5.54	43	153033	44.41 ug/L	100
24) 2-Butanone	6.36	43	29640	45.54 ug/L	99
25) Propionitrile	6.31	54	58336	514.47 ug/L	100
26) 2,2-Dichloropropane	6.73	77	183208	47.08 ug/L	98
27) cis-1,2-Dichloroethene	6.73	96	136017	54.82 ug/L	98
28) Methacrylonitrile	6.90	41	413587	50.15 ug/L	98
29) Chloroform	7.15	83	341609	50.96 ug/L	100
30) Bromochloromethane	7.46	128	82471	50.98 ug/L	95
31) Isobutyl Alcohol	7.36	43	48405	4129.58 ug/L	85
32) Cyclohexane	8.64	56	181389	59.73 ug/L	97
34) 1,1,1-Trichloroethane	8.41	97	258936	53.15 ug/L	99
36) 1,1-Dichloropropene	8.99	75	221302	53.07 ug/L	99
37) Carbon Tetrachloride	9.28	117	233414	50.72 ug/L	99
38) Benzene	9.76	78	367185	51.99 ug/L	100
39) 1,2-Dichloroethane	9.65	62	172192	46.46 ug/L	100
40) Trichloroethene	12.17	95	187163	52.15 ug/L	99
41) 1,2-Dichloropropane	12.62	63	185880	51.93 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20119.D
Acq On : 13 Dec 2007 1:02 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:10 2007

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Methylcyclohexane	12.62	83	131677	55.16 ug/L	99
43)	Methyl Methacrylate	16.38	41	113595	47.09 ug/L	100
44)	Bromodichloromethane	13.20	83	374487	49.16 ug/L	99
45)	Dibromomethane	13.19	93	190575	48.30 ug/L	99
46)	1,4-Dioxane	13.39	88	10656	47.11 ug/L	99
47)	4-Methyl-2-pentanone	14.59	43	90783	45.90 ug/L	100
48)	cis-1,3-Dichloropropene	14.83	75	217233	47.88 ug/L	98
50)	Toluene	15.61	92	184276	49.66 ug/L	100
51)	trans-1,3-Dichloropropene	16.07	75	152683	44.16 ug/L	99
52)	Ethyl Methacrylate	13.19	69	56095	46.45 ug/L	99
53)	1,1,2-Trichloroethane	16.35	83	108433	49.07 ug/L	99
56)	2-Hexanone	16.68	43	60367	47.44 ug/L	99
57)	1,3-Dichloropropane	16.92	76	172760	51.23 ug/L	99
58)	Tetrachloroethene	17.13	166	205409	64.93 ug/L	99
59)	Dibromochloromethane	17.32	129	253968	49.79 ug/L	99
60)	1,2-Dibromoethane	17.74	107	155161	43.72 ug/L	99
61)	Chlorobenzene	18.75	112	226835	52.77 ug/L	100
62)	1,1,1,2-Tetrachloroethane	18.89	131	139954	51.42 ug/L	99
63)	Ethylbenzene	19.00	91	354605	53.06 ug/L	100
64)	m,p-Xylene	19.19	106	230808	105.57 ug/L	100
65)	o-Xylene	19.99	106	117222	53.10 ug/L	99
66)	Styrene	20.04	104	182539	52.52 ug/L	99
67)	Bromoform	20.43	173	115301	42.66 ug/L	100
68)	Isopropylbenzene	20.78	105	313404	53.01 ug/L	100
69)	1,1,2,2-Tetrachloroethane	20.98	83	169496	46.10 ug/L	99
70)	1,2,3-Trichloropropane	21.23	75	119188	48.33 ug/L	97
71)	1,4-Dichloro-2-butene	21.41	75	45793	46.10 ug/L	94
72)	n-propylbenzene	21.86	91	376692	52.86 ug/L	99
73)	1,3,5-Trimethylbenzene	21.88	105	253163	52.03 ug/L	99
74)	T-butylbenzene	23.23	91	78747	50.48 ug/L	97
75)	1,2,4-Trimethylbenzene	22.58	105	255351	51.98 ug/L	100
76)	sec-butylbenzene	22.95	105	375054	52.63 ug/L	100
77)	1,3-Dichlorobenzene	23.19	146	180167	50.39 ug/L	100
78)	p-isopropyltoluene	22.95	91	64197	50.25 ug/L	98
79)	1,4-Dichlorobenzene	23.39	146	173474	49.56 ug/L	99
80)	n-butylbenzene	23.98	91	309965	51.94 ug/L	99
81)	1,2-Dichlorobenzene	24.02	146	168237	50.32 ug/L	99
82)	1,2-Dibromo-3-chloro-propa	25.41	75	42790	45.74 ug/L	99
84)	1,2,4 trichlorobenze	27.11	180	117237	51.80 ug/L	99
85)	Naphalene	27.47	128	145145	51.53 ug/L	100
86)	1,2,3 Trichlorobenzene	27.98	180	100419	51.69 ug/L	100

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(#) = qualifier out of range (m) = manual integration

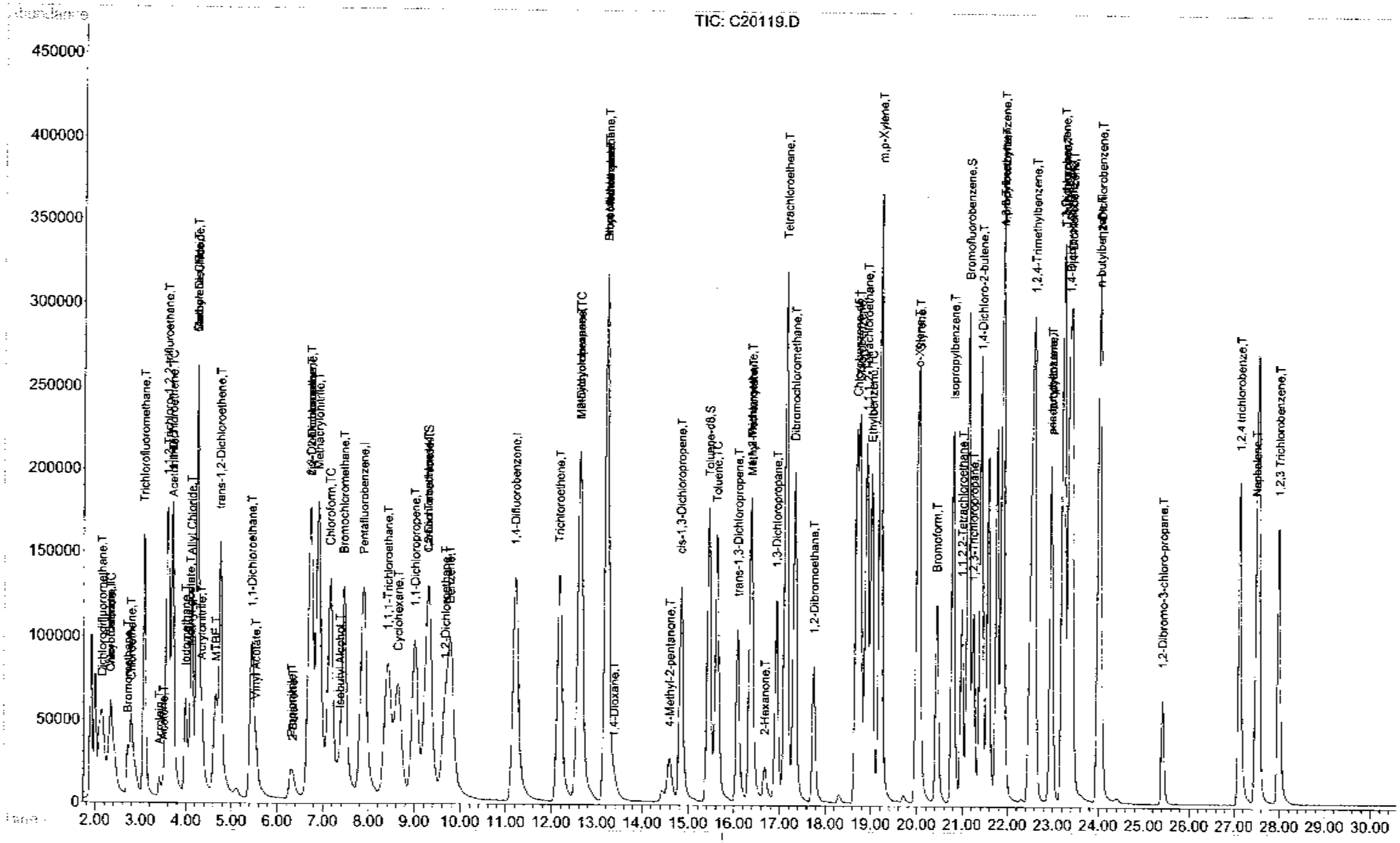
Quantitation Report

Data File : D:\DATA\C20119.D
Acq On : 13 Dec 2007 1:02 am
Sample : CC
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:10 2007

Vial: 19
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 9:56

Lab File ID: D19846.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.388	0.359		7.3	
Vinyl Chloride	0.400	0.360	0.100	10.0	25.0
Bromomethane	0.281	0.248	0.100	11.7	25.0
Chloroethane	0.264	0.233		11.6	
Trichlorofluoromethane	0.652	0.701		-7.5	
Acetone	0.133	0.139		-4.6	
1,1-Dichloroethene	0.355	0.333	0.100	6.2	25.0
Iodomethane	0.589	0.562		4.6	
Carbon Disulfide	0.946	0.909		3.9	
Methylene Chloride	0.411	0.367		10.8	
Acrylonitrile	0.095	0.085		9.6	
trans-1,2-Dichloroethene	0.384	0.347		9.7	
1,1-Dichloroethane	0.756	0.743	0.200	1.6	25.0
Vinyl Acetate	0.891	0.911		-2.3	
2-Butanone	0.203	0.185		8.7	
cis-1,2-Dichloroethene	0.425	0.375		11.8	
Chloroform	0.800	0.750	0.200	6.2	25.0
Bromochloromethane	0.226	0.198		12.6	
1,1,1-Trichloroethane	0.635	0.624	0.100	1.7	25.0
Carbon Tetrachloride	0.355	0.370	0.100	-4.2	25.0
Benzene	0.858	0.846	0.500	1.3	25.0
1,2-Dichloroethane	0.366	0.400	0.100	-9.4	25.0
Trichloroethene	0.339	0.318	0.300	6.2	25.0
1,2-Dichloropropane	0.353	0.351		0.7	
Bromodichloromethane	0.571	0.564	0.200	1.3	25.0
Dibromomethane	0.260	0.259		0.5	
4-Methyl-2-pentanone	0.308	0.329		-7.0	
cis-1,3-Dichloropropene	0.515	0.521	0.200	-1.2	25.0
Toluene	0.535	0.499	0.400	6.7	25.0
trans-1,3-Dichloropropene	0.428	0.432	0.100	-0.9	25.0
1,1,2-Trichloroethane	0.276	0.254	0.100	7.9	25.0
2-Hexanone	0.276	0.324		-17.1	
Tetrachloroethene	0.331	0.290	0.200	12.5	25.0
Dibromochloromethane	0.482	0.501	0.200	-4.0	25.0
1,2-Dibromoethane	0.459	0.464		-1.1	
Chlorobenzene	0.778	0.762	0.500	2.1	25.0
1,1,1,2-Tetrachloroethane	0.352	0.358		-1.5	
Ethylbenzene	1.166	1.128	0.100	3.2	25.0
m,p-Xylene	0.489	0.504	0.300	-2.9	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 9:56

Lab File ID: D19846.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.502	0.495	0.300	1.4	25.0
Styrene	0.875	0.852	0.300	2.5	25.0
Bromoform	0.299	0.319	0.100	-6.9	25.0
1,1,2,2-Tetrachloroethane	0.599	0.580	0.500	3.2	25.0
1,2,3-Trichloropropane	0.545	0.512		6.1	
1,4-Dichloro-2-butene	0.059	0.058		2.3	
1,3-Dichlorobenzene	0.537	[illegible]	0.600	7.8	
1,4-Dichlorobenzene	0.597	0.537	0.500	10.1	
1,2-Dichlorobenzene	0.543	0.507	0.400	6.7	
1,2-Dibromo-3-chloro-propane	0.150	0.146		3.0	
1,2-Dichloroethane-d4	0.506	0.556		-9.9	
Toluene-d8	1.019	1.016		0.3	
Bromofluorobenzene	0.705	0.676	0.200	4.1	

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All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19846.D
Acq On : 13 Dec 2007 9:56 am
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	143	-0.25
2	T	Dichlorodifluoromethane	0.657	0.619	5.8	130	-0.25
3	T	Chloromethane	0.388	0.359	7.5	140	-0.25
4	TC	Vinyl Chloride	0.400	0.360	10.0	139	-0.25
5	T	Bromomethane	0.281	0.248	11.7	141	-0.25
6	T	Chloroethane	0.264	0.233	11.7	135	-0.25
7	T	Trichlorofluoromethane	0.652	0.701	-7.5	151#	-0.25
8	T	Acrolein	0.046	0.043#	6.5	135	-0.25
9	T	Acetone	0.133	0.139	-4.5	153#	-0.25
10	TC	1,1-Dichloroethene	0.355	0.332	6.5	155#	-0.25
11	T	Acetonitrile	0.087	0.084	3.4	148	-0.25
12	T	Iodomethane	0.589	0.562	4.6	156#	-0.25
13	T	Allyl Chloride	0.178	0.175	1.7	135	-0.25
14	T	Carbon Disulfide	0.946	0.909	3.9	148	-0.25
15	T	Methylene Chloride	0.411	0.367	10.7	135	-0.25
16		t-butanol	0.278	0.000#	100.0#	0#	-0.25
17	T	MTBE	1.010	0.948	6.1	135	-0.25
18	T	Acrylonitrile	0.095	0.085	10.5	138	-0.25
19	T	trans-1,2-Dichloroethene	0.384	0.347	9.6	136	-0.25
20	T	1,1-Dichloroethane	0.756	0.743	1.7	146	-0.25
21	T	Vinyl Acetate	0.891	0.911	-2.2	143	-0.25
22	T	Chloroprene	0.591	0.000#	100.0#	0#	-0.25
23	T	2-Butanone	0.203	0.185	8.9	124	-0.25
24	T	Propionitrile	0.028	0.028#	0.0	129	-0.25
25	T	2,2-Dichloropropane	0.618	0.615	0.5	143	-0.25
26	T	cis-1,2-Dichloroethene	0.425	0.375	11.8	134	-0.25
27	T	Methacrylonitrile	2.117	1.966	7.1	136	-0.25
28	TC	Chloroform	0.800	0.750	6.3	143	-0.25
29	T	Bromochloromethane	0.226	0.198	12.4	126	-0.25
30	T	Isobutyl Alcohol	0.003	0.003#	0.0	139	-0.25
31	S	1,2-Dichloroethane-d4	0.506	0.556	-9.9	153#	-0.25
32	T	1,1,1-Trichloroethane	0.635	0.624	1.7	148	-0.25
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	132	-0.25
34	T	1,1-Dichloropropene	0.387	0.407	-5.2	143	-0.25
35	T	Carbon Tetrachloride	0.355	0.370	-4.2	148	-0.25
36	T	Benzene	0.858	0.846	1.4	135	-0.25
37	T	1,2-Dichloroethane	0.366	0.400	-9.3	147	-0.25
38	T	Trichloroethene	0.339	0.318	6.2	137	-0.25
39	TC	1,2-Dichloropropane	0.353	0.351	0.6	138	-0.25
40	T	Methyl Methacrylate	0.527	0.547	-3.8	144	-0.25
41	T	Bromodichloromethane	0.571	0.564	1.2	140	-0.25
42	T	Dibromomethane	0.260	0.259	0.4	139	-0.25
43	T	4-Methyl-2-pentanone	0.308	0.329	-6.8	153#	-0.25
44	T	cis-1,3-Dichloropropene	0.515	0.521	-1.2	138	-0.25
45	S	Toluene-d8	1.019	1.016	0.3	137	-0.25
46	TC	Toluene	0.535	0.499	6.7	133	-0.25
47	T	trans-1,3-Dichloropropene	0.428	0.432	-0.9	140	-0.25
48	T	Ethyl Methacrylate	0.432	0.427	1.2	141	-0.25
49	T	1,1,2-Trichloroethane	0.276	0.254	8.0	140	-0.25

-503-

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19846.D   Vial: 100
Acq On : 13 Dec 2007 9:56 am   Operator: ART
Sample : CC   Inst : #13
Misc : 5MLS   Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Bromofluorobenzene	0.705	0.676	4.1	135	-0.25
51	I	Chlorobenzene-d5	1.000	1.000	0.0	134	-0.25
52	T	2-Hexanone	0.276	0.324	-17.4	145	-0.25
53	T	1,3-Dichloropropane	0.598	0.617	-3.2	133	-0.25
54	T	Tetrachloroethene	0.331	0.290	12.4	131	-0.25
55	T	Dibromochloromethane	0.482	0.501	-3.9	137	-0.25
56	T	1,2-Dibromoethane	0.459	0.464	-1.1	133	-0.25
57	T	Chlorobenzene	0.778	0.762	2.1	135	-0.25
58	T	1,1,1,2-Tetrachloroethane	0.352	0.358	-1.7	133	-0.25
59	TC	Ethylbenzene	1.166	1.128	3.3	135	-0.25
60	T	m,p-Xylene	0.489	0.504	-3.1	149	-0.25
61	T	o-Xylene	0.502	0.495	1.4	135	-0.25
62	T	Styrene	0.875	0.852	2.6	132	-0.25
63	T	Bromoform	0.299	0.319	-6.7	138	-0.25
64	T	1,1,2,2-Tetrachloroethane	0.599	0.580	3.2	137	-0.25
65	T	1,2,3-Trichloropropane	0.545	0.512	6.1	126	-0.25
66	T	1,4-Dichloro-2-butene	0.059	0.057	3.4	126	-0.25
67	T	1,3,5-Trimethylbenzene	1.199	1.182	1.4	134	-0.25
68	T	1,2,4-Trimethylbenzene	1.128	1.079	4.3	133	-0.25
69	T	1,3-Dichlorobenzene	0.537	0.495	7.8	122	-0.25
70	T	1,4-Dichlorobenzene	0.597	0.537	10.1	120	-0.25
71	T	1,2-Dichlorobenzene	0.543	0.507	6.6	124	-0.25
72	T	1,2-Dibromo-3-chloro-propan	0.150	0.146	2.7	136	-0.25
73	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	-0.25

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(#) = Out of Range   SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19846.D   Vial: 100
Acq On : 13 Dec 2007 9:56 am   Operator: ART
Sample : CC   Inst : #13
Misc : 5MLS   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 8:39 2007   Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 10:34:36 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.38	168	426090	50.00	ug/L	-0.03
33) 1,4-Difluorobenzene	19.40	114	557117 ART	50.00	ug/L	-0.08
51) Chlorobenzene-d5	27.99	117	416925m	50.00	ug/L	-0.02
73) 1,4-Dichlorobenzene-d4	35.55	152	215308m	50.00	ug/L	0.07

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
31) 1,2-Dichloroethane-d4		18.38	65	236714	54.93	ug/L	-0.07
Spiked Amount	50.000	Range 86 - 118		Recovery	=	109.86%	
45) Toluene-d8		23.61	98	566145m AQ	49.86	ug/L	-0.03
Spiked Amount	50.000	Range 88 - 110		Recovery	=	99.72%	
50) Bromofluorobenzene		31.63	95	376592m AQ	47.96	ug/L	0.01
Spiked Amount	50.000	Range 86 - 115		Recovery	=	95.92%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	7.35	85	263781m AQ	47.14	ug/L	
3) Chloromethane	7.98	50	153150m	46.33	ug/L	
4) Vinyl Chloride	8.31	62	153574m	45.00	ug/L	
5) Bromomethane	9.35	94	105663m	44.17	ug/L	
6) Chloroethane	9.64	64	99373m	44.20	ug/L	
7) Trichlorofluoromethane	10.35	101	298698m	53.76	ug/L	
8) Acrolein	11.48	56	74133m	189.82	ug/L	
9) Acetone	11.88	43	59248m	52.30	ug/L	
10) 1,1-Dichloroethene	11.79	96	141667m	46.88	ug/L	
11) Acetonitrile	12.72	41	357141m	483.48	ug/L	
12) Iodomethane	12.31	142	239499	47.68	ug/L	97
13) Allyl Chloride	12.66	76	74608m AQ	49.28	ug/L	
14) Carbon Disulfide	12.54	76	387423	48.04	ug/L	100
15) Methylene Chloride	13.05	84	156321	44.58	ug/L	95
17) MTBE	13.72	73	403976	46.93	ug/L	98
18) Acrylonitrile	13.68	53	145605m AQ	80.75	ug/L	
19) trans-1,2-Dichloroethene	13.77	96	147759	45.15	ug/L	95
20) 1,1-Dichloroethane	14.84	63	316724	49.19	ug/L	100
21) Vinyl Acetate	14.82	43	388081	51.14	ug/L	100
23) 2-Butanone	16.29	43	78912	45.63	ug/L #	95
24) Propionitrile	16.44	54	117956	488.41	ug/L	71
25) 2,2-Dichloropropane	16.34	77	262207	49.76	ug/L	99
26) cis-1,2-Dichloroethene	16.29	96	159800	44.13	ug/L	96
27) Methacrylonitrile	16.81	41	837718	46.44	ug/L	97
28) Chloroform	17.02	83	319672	46.90	ug/L	99
29) Bromochloromethane	16.92	128	84338	43.71	ug/L #	86
30) Isobutyl Alcohol	17.95	43	112968	4395.94	ug/L	97
32) 1,1,1-Trichloroethane	17.67	97	266010	49.16	ug/L	98
34) 1,1-Dichloropropene	18.03	75	226729	52.56	ug/L	99
35) Carbon Tetrachloride	18.10	117	206308	52.11	ug/L	99
36) Benzene	18.62	78	471425	49.33	ug/L	100
37) 1,2-Dichloroethane	18.59	62	223090	54.70	ug/L	95
38) Trichloroethene	20.22	95	177292	46.91	ug/L	97
39) 1,2-Dichloropropane	20.85	63	195433	49.66	ug/L	99
40) Methyl Methacrylate	20.86	41	304885	51.96	ug/L	95
41) Bromodichloromethane	21.54	83	314160	49.37	ug/L	99
42) Dibromomethane	21.20	93	144153	49.76	ug/L	96

-505-

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19846.D Vial: 100
Acq On : 13 Dec 2007 9:56 am Operator: ART
Sample : CC Inst : #13
Misc : 5MLS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 8:39 2007 Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 10:34:36 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43)	4-Methyl-2-pentanone	23.09	43	183531m ART	53.53	ug/L	
44)	cis-1,3-Dichloropropene	22.77	75	290275m	50.58	ug/L	
46)	Toluene	23.81	92	278103m	46.67	ug/L	
47)	trans-1,3-Dichloropropene	24.30	75	240646m	50.48	ug/L	
48)	Ethyl Methacrylate	24.36	69	238004m	49.40	ug/L	
49)	1,1,2-Trichloroethane	24.90	83	141330m	46.02	ug/L	
52)	2-Hexanone	25.50	43	134902m	58.56	ug/L	
53)	1,3-Dichloropropane	25.44	76	257222	51.61	ug/L	100
54)	Tetrachloroethene	25.47	166	120864	43.76	ug/L	99
55)	Dibromochloromethane	26.19	129	208951	51.98	ug/L	100
56)	1,2-Dibromoethane	26.66	107	193513	50.57	ug/L	99
57)	Chlorobenzene	28.10	112	317673	48.95	ug/L	97
58)	1,1,1,2-Tetrachloroethane	28.25	131	149075	50.76	ug/L	98
59)	Ethylbenzene	28.31	91	470324	48.38	ug/L	98
60)	m,p-Xylene	28.65	106	420149m ART	102.94	ug/L	
61)	o-Xylene	29.95	106	206375	49.30	ug/L	93
62)	Styrene	29.97	104	355397	48.73	ug/L	96
63)	Bromoform	30.71	173	133138	53.44	ug/L	98
64)	1,1,2,2-Tetrachloroethane	31.93	83	241941	48.41	ug/L	99
65)	1,2,3-Trichloropropane	32.16	75	213316	46.93	ug/L	99
66)	1,4-Dichloro-2-butene	31.20	89	23962	48.83	ug/L #	85
67)	1,3,5-Trimethylbenzene	32.87	105	492644	49.29	ug/L	95
68)	1,2,4-Trimethylbenzene	34.17	105	449756	47.80	ug/L	97
69)	1,3-Dichlorobenzene	35.36	146	206450m ART	46.09	ug/L	
70)	1,4-Dichlorobenzene	35.64	146	223883m	44.97	ug/L	
71)	1,2-Dichlorobenzene	37.08	146	211306m	46.64	ug/L	
72)	1,2-Dibromo-3-chloro-propa	40.08	75	60737m	48.48	ug/L	

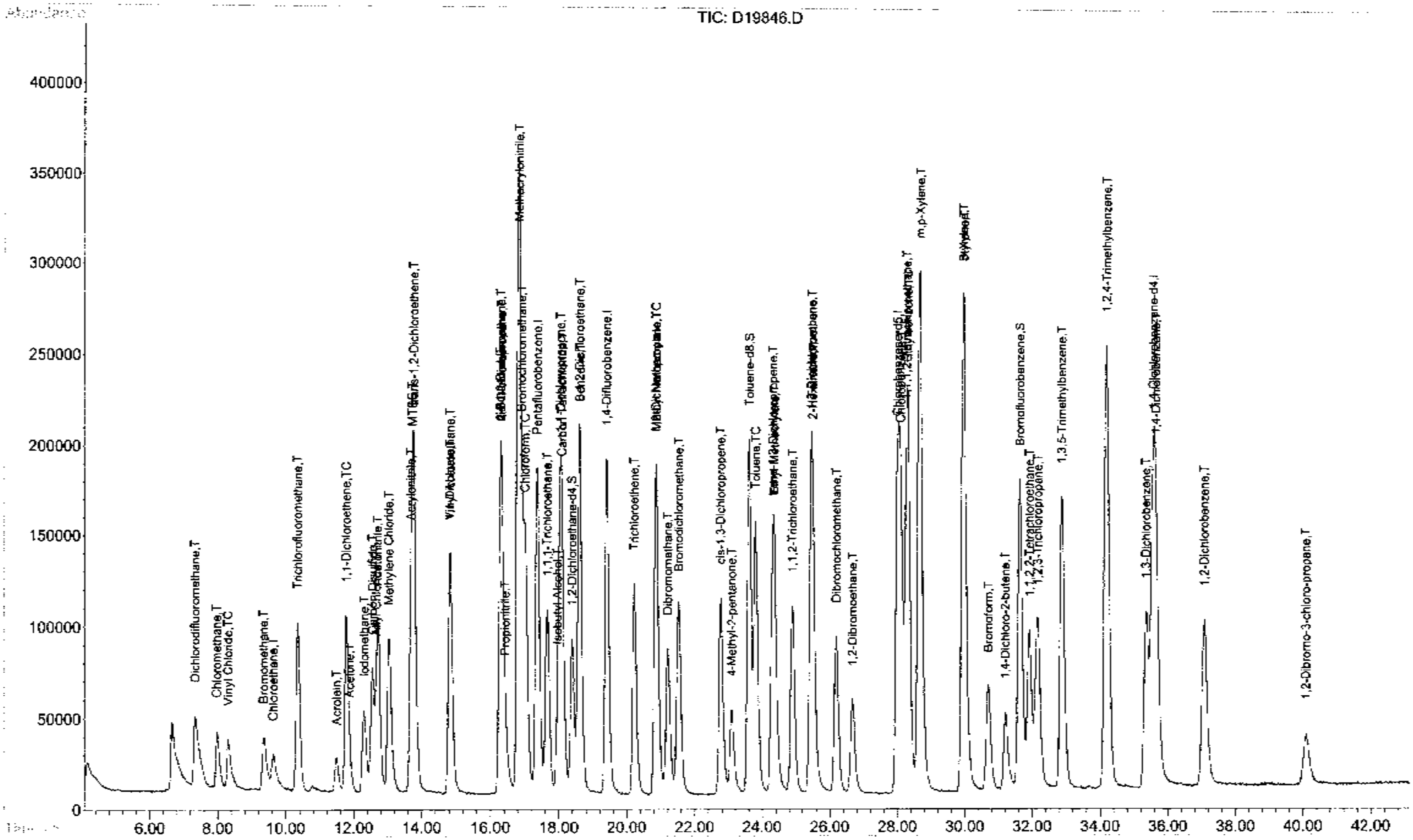
-506-

(#) = qualifier out of range (m) = manual integration

Quantitation Report

```
Data File : D:\DATA\D19846.D                     Vial: 100
Acq On    : 13 Dec 2007   9:56 am            Operator: ART
Sample    : CC                               Inst    : #13
Misc      : 5MLS                             Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14  8:39 2007          Quant Results File: D120360X.RES

Method         : D:\METHODS\D120360X.M (RTE Integrator)
Title          : VOA 8260 Calibration
Last Update    : Fri Dec 14 09:15:20 2007
Response via   : Initial Calibration
```



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 20:55

Lab File ID: D19859.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

NA

End of Run

COMPOUND	RRF	RRF03	MIN RRF	% D	MAX % D
Chloromethane	0.388	0.337		13.1	
Vinyl Chloride	0.400	0.331	0.100	17.3	25.0
Bromomethane	0.281	0.235	0.100	16.4	25.0
Chloroethane	0.264	0.219		17.1	
Trichlorofluoromethane	0.652	0.624		4.3	
Acetone	0.133	0.089		32.8	
1,1-Dichloroethene	0.355	0.309	0.100	12.8	25.0
Iodomethane	0.589	0.542		8.0	
Carbon Disulfide	0.946	0.847		10.5	
Methylene Chloride	0.411	0.365		11.4	
Acrylonitrile	0.095	0.080		15.8	
trans-1,2-Dichloroethene	0.384	0.342		11.1	
1,1-Dichloroethane	0.756	0.730	0.200	3.4	25.0
Vinyl Acetate	0.891	0.824		7.4	
2-Butanone	0.203	0.141		30.7	
cis-1,2-Dichloroethene	0.425	0.370		12.9	
Chloroform	0.800	0.750	0.200	6.2	25.0
Bromochloromethane	0.226	0.198		12.4	
1,1,1-Trichloroethane	0.635	0.622	0.100	2.0	25.0
Carbon Tetrachloride	0.355	0.370	0.100	-4.0	25.0
Benzene	0.858	0.843	0.500	1.7	25.0
1,2-Dichloroethane	0.366	0.395	0.100	-7.8	25.0
Trichloroethene	0.339	0.320	0.300	5.7	25.0
1,2-Dichloropropane	0.353	0.353		0.1	
Bromodichloromethane	0.571	0.571	0.200	0.1	25.0
Dibromomethane	0.260	0.258		0.8	
4-Methyl-2-pentanone	0.308	0.302		1.9	
cis-1,3-Dichloropropene	0.515	0.506	0.200	1.7	25.0
Toluene	0.535	0.527	0.400	1.5	25.0
trans-1,3-Dichloropropene	0.428	0.423	0.100	1.2	25.0
1,1,2-Trichloroethane	0.276	0.257	0.100	6.8	25.0
2-Hexanone	0.276	0.239		13.6	
Tetrachloroethene	0.331	0.389	0.200	-17.4	25.0
Dibromochloromethane	0.482	0.501	0.200	-4.0	25.0
1,2-Dibromoethane	0.459	0.457		0.4	
Chlorobenzene	0.778	0.805	0.500	-3.4	25.0
1,1,1,2-Tetrachloroethane	0.352	0.361		-2.6	
Ethylbenzene	1.166	1.266	0.100	-8.5	25.0
m,p-Xylene	0.489	0.496	0.300	-1.3	25.0

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All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Instrument ID: 13 Calibration Date: 12/13/2007 Time: 20:55

Lab File ID: D19859.D Init. Calib. Date(s): 12/3/2007 12/3/2007

Heated Purge: (Y/N) N Init. Calib. Times: 13:11 17:34

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF03	MIN RRF	% D	MAX % D
o-Xylene	0.502	0.493	0.300	1.7	25.0
Styrene	0.875	0.857	0.300	2.0	25.0
Bromoform	0.299	0.316	0.100	-5.6	25.0
1,1,2,2-Tetrachloroethane	0.599	0.587	0.500	2.1	25.0
1,2,3-Trichloropropane	0.545	0.516		5.3	
1,4-Dichloro-2-butene	0.059	0.052		11.5	
1,3-Dichlorobenzene	0.537	0.579		-7.7	
1,4-Dichlorobenzene	0.597	0.635		-6.4	
1,2-Dichlorobenzene	0.543	0.582		-7.1	
1,2-Dibromo-3-chloro-propane	0.150	0.135		10.0	
1,2-Dichloroethane-d4	0.506	0.530		-4.9	
Toluene-d8	1.019	1.049		-3.0	
Bromofluorobenzene	0.705	0.655		7.1	

-509-

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19859.D
Acq On : 13 Dec 2007 8:55 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	142	-0.06
2	T	Dichlorodifluoromethane	0.657	0.518	21.2	109	-0.11
3	T	Chloromethane	0.388	0.337	13.1	131	-0.09
4	TC	Vinyl Chloride	0.400	0.331	17.3	127	-0.08
5	T	Bromomethane	0.281	0.235	16.4	133	-0.09
6	T	Chloroethane	0.264	0.219	17.0	127	-0.07
7	T	Trichlorofluoromethane	0.652	0.624	4.3	134	-0.07
8	T	Acrolein	0.046	0.038#	17.4	119	-0.06
9	T	Acetone	0.133	0.089	33.1#	98	-0.05
10	TC	1,1-Dichloroethene	0.355	0.309	13.0	144	-0.06
11	T	Acetonitrile	0.087	0.077	11.5	135	-0.05
12	T	Iodomethane	0.589	0.542	8.0	150#	-0.06
13	T	Allyl Chloride	0.178	0.188	-5.6	144	-0.06
14	T	Carbon Disulfide	0.946	0.847	10.5	137	-0.05
15	T	Methylene Chloride	0.411	0.364	11.4	134	-0.05
16		t-butanol	0.278	0.000#	100.0#	0#	-0.03
17	T	MTBE	1.010	0.936	7.3	132	-0.05
18	T	Acrylonitrile	0.095	0.080	15.8	128	-0.06
19	T	trans-1,2-Dichloroethene	0.384	0.341	11.2	133	-0.05
20	T	1,1-Dichloroethane	0.756	0.730	3.4	143	-0.05
21	T	Vinyl Acetate	0.891	0.824	7.5	129	-0.07
22	T	Chloroprene	0.591	0.000#	100.0#	0#	-0.31
23	T	2-Butanone	0.203	0.141	30.5#	93	-0.06
24	T	Propionitrile	0.028	0.027#	3.6	125	-0.06
25	T	2,2-Dichloropropane	0.618	0.503	18.6	117	-0.05
26	T	cis-1,2-Dichloroethene	0.425	0.370	12.9	132	-0.04
27	T	Methacrylonitrile	2.117	1.937	8.5	134	-0.04
28	TC	Chloroform	0.800	0.750	6.3	143	-0.04
29	T	Bromochloromethane	0.226	0.198	12.4	126	-0.03
30	T	Isobutyl Alcohol	0.003	0.002#	33.3#	129	-0.03
31	S	1,2-Dichloroethane-d4	0.506	0.530	-4.7	146	0.00
32	T	1,1,1-Trichloroethane	0.635	0.622	2.0	147	-0.06
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	131	0.01
34	T	1,1-Dichloropropene	0.387	0.348	10.1	122	0.00
35	T	Carbon Tetrachloride	0.355	0.370	-4.2	147	-0.02
36	T	Benzene	0.858	0.843	1.7	134	0.00
37	T	1,2-Dichloroethane	0.366	0.394	-7.7	144	0.00
38	T	Trichloroethene	0.339	0.320	5.6	137	0.04
39	TC	1,2-Dichloropropane	0.353	0.353	0.0	138	0.06
40	T	Methyl Methacrylate	0.527	0.545	-3.4	143	0.06
41	T	Bromodichloromethane	0.571	0.571	0.0	141	0.04
42	T	Dibromomethane	0.260	0.258	0.8	138	0.07
43	T	4-Methyl-2-pentanone	0.308	0.302	1.9	140	0.05
44	T	cis-1,3-Dichloropropene	0.515	0.506	1.7	134	0.06
45	S	Toluene-d8	1.019	1.049	-2.9	141	0.06
46	TC	Toluene	0.535	0.527	1.5	140	0.07
47	T	trans-1,3-Dichloropropene	0.428	0.423	1.2	136	0.06
48	T	Ethyl Methacrylate	0.432	0.429	0.7	141	0.06
49	T	1,1,2-Trichloroethane	0.276	0.257	6.9	141	0.08

(#) = Out of Range

-510-

Evaluate Continuing Calibration Report

Data File : D:\DATA\D19859.D
Acq On : 13 Dec 2007 8:55 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	S	Bromofluorobenzene	0.705	0.655	7.1	131	0.13
51	I	Chlorobenzene-d5	1.000	1.000	0.0	136	0.11
52	T	2-Hexanone	0.276	0.239	13.4	109	0.11
53	T	1,3-Dichloropropane	0.598	0.611	-2.2	134	0.10
54	T	Tetrachloroethene	0.331	0.389	-17.5	179#	0.10
55	T	Dibromochloromethane	0.482	0.501	-3.9	139	0.08
56	T	1,2-Dibromoethane	0.459	0.457	0.4	134	0.11
57	T	Chlorobenzene	0.778	0.804	-3.3	145	0.11
58	T	1,1,1,2-Tetrachloroethane	0.352	0.361	-2.6	137	0.12
59	TC	Ethylbenzene	1.166	1.266	-8.6	155#	0.11
60	T	m,p-Xylene	0.489	0.496	-1.4	149	0.12
61	T	o-Xylene	0.502	0.493	1.8	137	0.12
62	T	Styrene	0.875	0.857	2.1	135	0.12
63	T	Bromoform	0.299	0.315	-5.4	138	0.11
64	T	1,1,2,2-Tetrachloroethane	0.599	0.586	2.2	141	0.11
65	T	1,2,3-Trichloropropane	0.545	0.516	5.3	129	0.12
66	T	1,4-Dichloro-2-butene	0.059	0.052	11.9	117	0.15
67	T	1,3,5-Trimethylbenzene	1.199	1.157	3.5	134	0.10
68	T	1,2,4-Trimethylbenzene	1.128	1.078	4.4	135	0.11
69	T	1,3-Dichlorobenzene	0.537	0.578	-7.6	145	0.11
70	T	1,4-Dichlorobenzene	0.597	0.635	-6.4	144	0.11
71	T	1,2-Dichlorobenzene	0.543	0.582	-7.2	144	0.10
72	T	1,2-Dibromo-3-chloro-propan	0.150	0.135	10.0	128	0.07
73	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.11

-511-

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19859.D Vial: 100
Acq On : 13 Dec 2007 8:55 pm Operator: ART
Sample : CC Inst : #13
Misc : 5MLS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:17 2007 Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.57	168	424557	50.00	ug/L	-0.06
33) 1,4-Difluorobenzene	19.66	114	555231	50.00	ug/L	0.01
51) Chlorobenzene-d5	28.35	117	424050m ART	50.00	ug/L	0.11
73) 1,4-Dichlorobenzene-d4	35.91	152	219477m ART	50.00	ug/L	0.11

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.64	65	225140	52.43	ug/L	0.00
Spiked Amount 50.000	Range 86 - 118		Recovery =	104.86%		
45) Toluene-d8	23.93	98	582495m	51.48	ug/L	0.06
Spiked Amount 50.000	Range 88 - 110		Recovery =	102.96%		
50) Bromofluorobenzene	32.01	95	363689	46.47	ug/L	0.13
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.94%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	7.50	85	219917	39.44	ug/L	94
3) Chloromethane	8.15	50	143163	43.47	ug/L	98
4) Vinyl Chloride	8.48	62	140654	41.36	ug/L	99
5) Bromomethane	9.52	94	99678	41.82	ug/L	93
6) Chloroethane	9.82	64	92891	41.46	ug/L	96
7) Trichlorofluoromethane	10.53	101	264806	47.83	ug/L	100
8) Acrolein	11.67	56	65342	167.92	ug/L	95
9) Acetone	12.09	43	37937	33.61	ug/L	68
10) 1,1-Dichloroethene	11.99	96	131303	43.61	ug/L	98
11) Acetonitrile	12.92	41	324875	441.39	ug/L	90
12) Iodomethane	12.50	142	230236	46.00	ug/L	96
13) Allyl Chloride	12.85	76	79722m ART	52.85	ug/L	
14) Carbon Disulfide	12.75	76	359423m ART	44.73	ug/L	
15) Methylene Chloride	13.25	84	154736	44.29	ug/L	96
17) MTBE	13.92	73	397410	46.34	ug/L	99
18) Acrylonitrile	13.87	53	135123	168.34	ug/L	98
19) trans-1,2-Dichloroethene	13.98	96	144965	44.45	ug/L	96
20) 1,1-Dichloroethane	15.04	63	309757	48.28	ug/L	99
21) Vinyl Acetate	15.00	43	349963	46.28	ug/L	100
23) 2-Butanone	16.48	43	59679	34.63	ug/L	97
24) Propionitrile	16.64	54	114018	473.81	ug/L	63
25) 2,2-Dichloropropane	16.54	77	213447	40.65	ug/L	100
26) cis-1,2-Dichloroethene	16.50	96	157171	43.56	ug/L	98
27) Methacrylonitrile	17.02	41	822325	45.75	ug/L	97
28) Chloroform	17.24	83	318586	46.91	ug/L	100
29) Bromochloromethane	17.14	128	84218	43.81	ug/L	90
30) Isobutyl Alcohol	18.17	43	104944	4098.45	ug/L	99
32) 1,1,1-Trichloroethane	17.86	97	264107	48.98	ug/L	100
34) 1,1-Dichloropropene	18.27	75	193393	44.99	ug/L	98
35) Carbon Tetrachloride	18.33	117	205228	52.02	ug/L	98
36) Benzene	18.86	78	468101	49.14	ug/L	100
37) 1,2-Dichloroethane	18.84	62	219032	53.89	ug/L	96
38) Trichloroethene	20.51	95	177674	47.17	ug/L	98
39) 1,2-Dichloropropane	21.16	63	195815	49.92	ug/L	99
40) Methyl Methacrylate	21.17	41	302400	51.71	ug/L	94
41) Bromodichloromethane	21.83	83	316824	49.96	ug/L	100
42) Dibromomethane	21.52	93	143257	49.62	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19859.D
Acq On : 13 Dec 2007 8:55 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:17 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	4-Methyl-2-pentanone	23.39	43	167550m ARt	49.03	ug/L		
44)	cis-1,3-Dichloropropene	23.08	75	281101	49.15	ug/L		99
46)	Toluene	24.13	92	292402m ARt	49.23	ug/L		
47)	trans-1,3-Dichloropropene	24.62	75	234678m	49.39	ug/L		
48)	Ethyl Methacrylate	24.67	69	238060m	49.58	ug/L		
49)	1,1,2-Trichloroethane	25.23	83	142561m	46.58	ug/L		
52)	2-Hexanone	25.86	43	101239m	43.21	ug/L		
53)	1,3-Dichloropropane	25.79	76	259108	51.12	ug/L		99
54)	Tetrachloroethene	25.82	166	164916m ARt	58.71	ug/L		
55)	Dibromochloromethane	26.52	129	212597	51.99	ug/L		100
56)	1,2-Dibromoethane	27.02	107	193787	49.79	ug/L		98
57)	Chlorobenzene	28.46	112	341143	51.68	ug/L		100
58)	1,1,1,2-Tetrachloroethane	28.62	131	153164m ARt	51.28	ug/L		
59)	Ethylbenzene	28.67	91	536691m	54.28	ug/L		
60)	m,p-Xylene	29.02	106	420564m	101.31	ug/L		
61)	o-Xylene	30.32	106	209173m	49.13	ug/L		
62)	Styrene	30.34	104	363495m	49.00	ug/L		
63)	Bromoform	31.07	173	133784m	52.80	ug/L		
64)	1,1,2,2-Tetrachloroethane	32.29	83	248702m	48.93	ug/L		
65)	1,2,3-Trichloropropane	32.54	75	218872m	47.35	ug/L		
66)	1,4-Dichloro-2-butene	31.60	89	22110	44.30	ug/L	#	89
67)	1,3,5-Trimethylbenzene	33.22	105	490501m ARt	48.26	ug/L		
68)	1,2,4-Trimethylbenzene	34.54	105	456922m	47.75	ug/L		
69)	1,3-Dichlorobenzene	35.72	146	245302m	53.85	ug/L		
70)	1,4-Dichlorobenzene	36.00	146	269251m	53.18	ug/L		
71)	1,2-Dichlorobenzene	37.43	146	246845m	53.56	ug/L		
72)	1,2-Dibromo-3-chloro-propa	40.41	75	57349m	45.00	ug/L		

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(#) = qualifier out of range (m) = manual integration

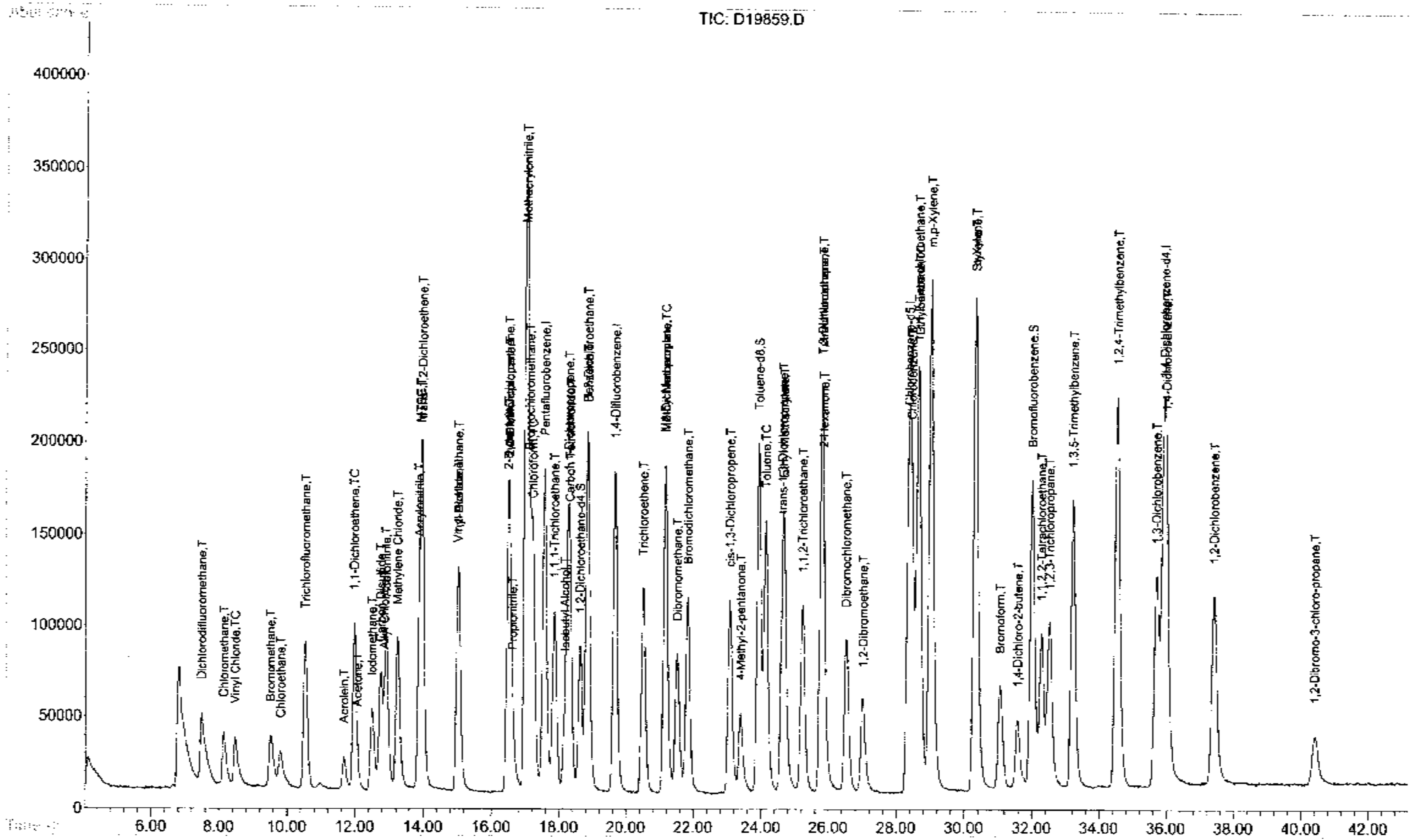
Quantitation Report

Data File : D:\DATA\D19859.D
Acq On : 13 Dec 2007 8:55 pm
Sample : CC
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:17 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



Raw Quality Control Data

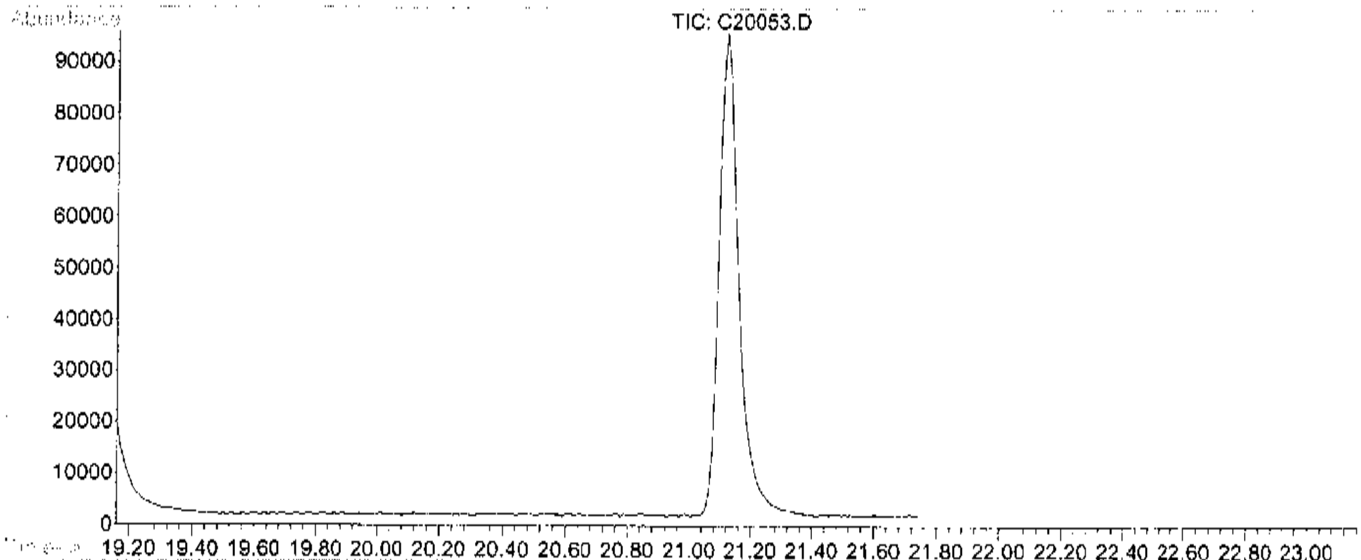
-515-

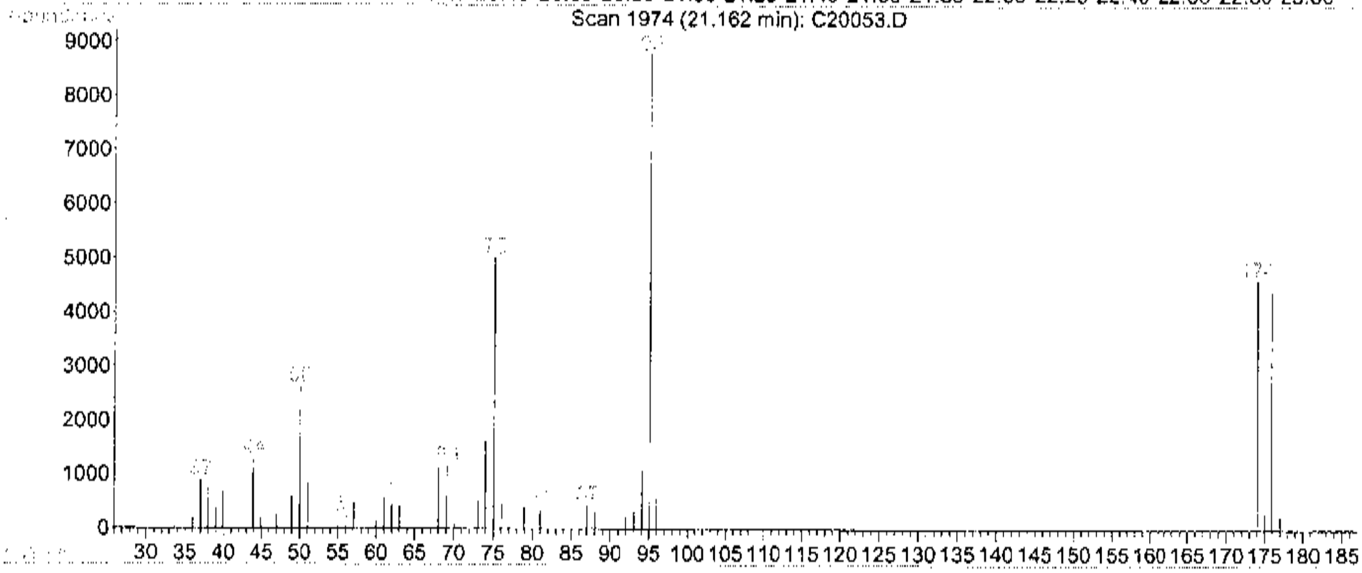
Upstate Laboratories, Inc.

BFB

Data File : D:\DATA\C20053.D
Acq On : 10 Dec 2007 10:21 am
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\TEST1203.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 2
Operator: MM
Inst : #12
Multiplr: 1.00





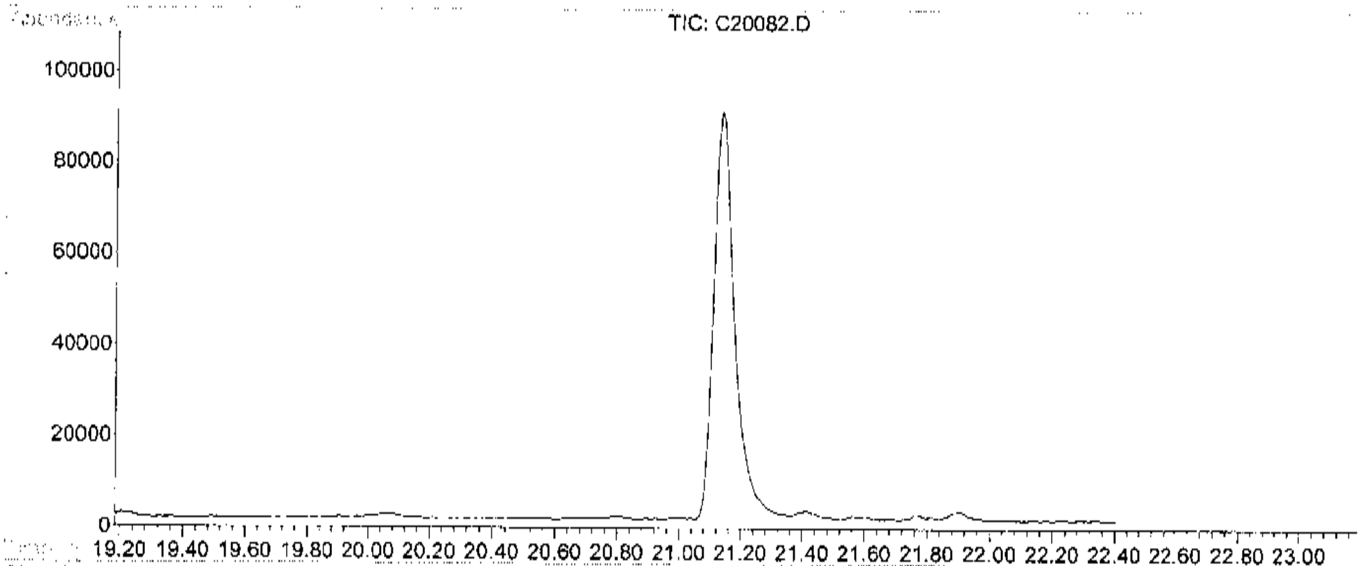
-516-

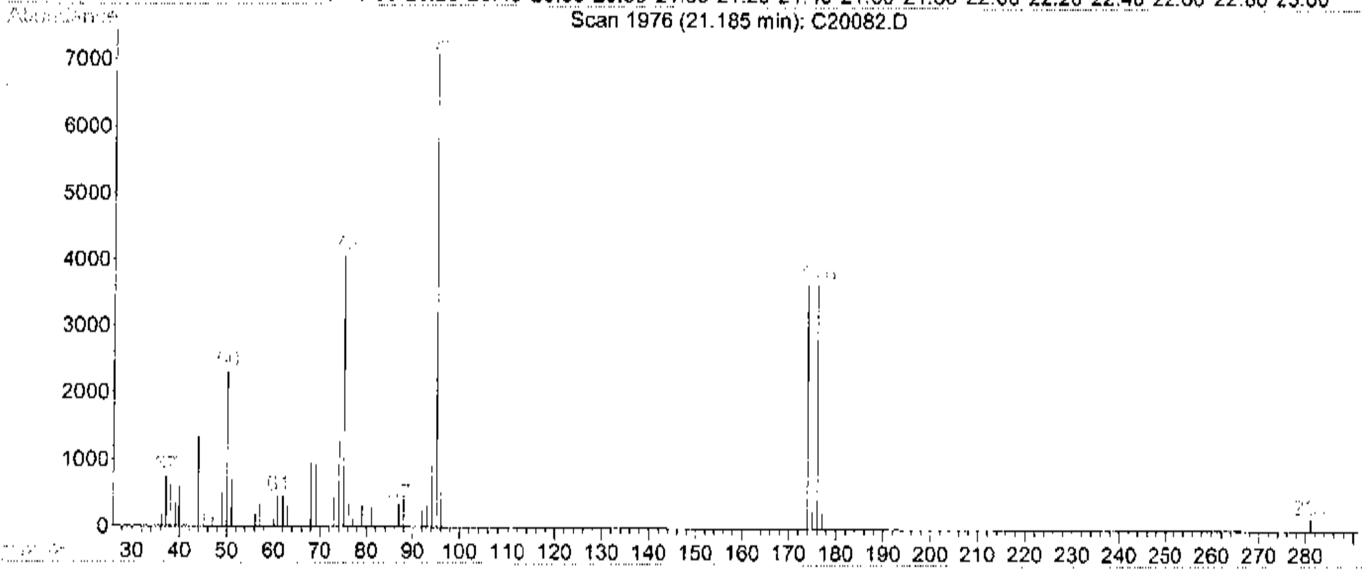
Spectrum Information: Scan 1974

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.7	2617	PASS
75	95	30	66	56.9	5009	PASS
95	95	100	100	100.0	8800	PASS
96	95	5	9	6.7	589	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	52.5	4624	PASS
175	174	4	9	6.9	318	PASS
176	174	93	101	96.0	4437	PASS
177	176	5	9	6.0	268	PASS

Data File : D:\DATA\C20082.D
Acq On : 11 Dec 2007 1:09 pm
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 1
Operator: MM
Inst : #12
Multiplr: 1.00





-517-

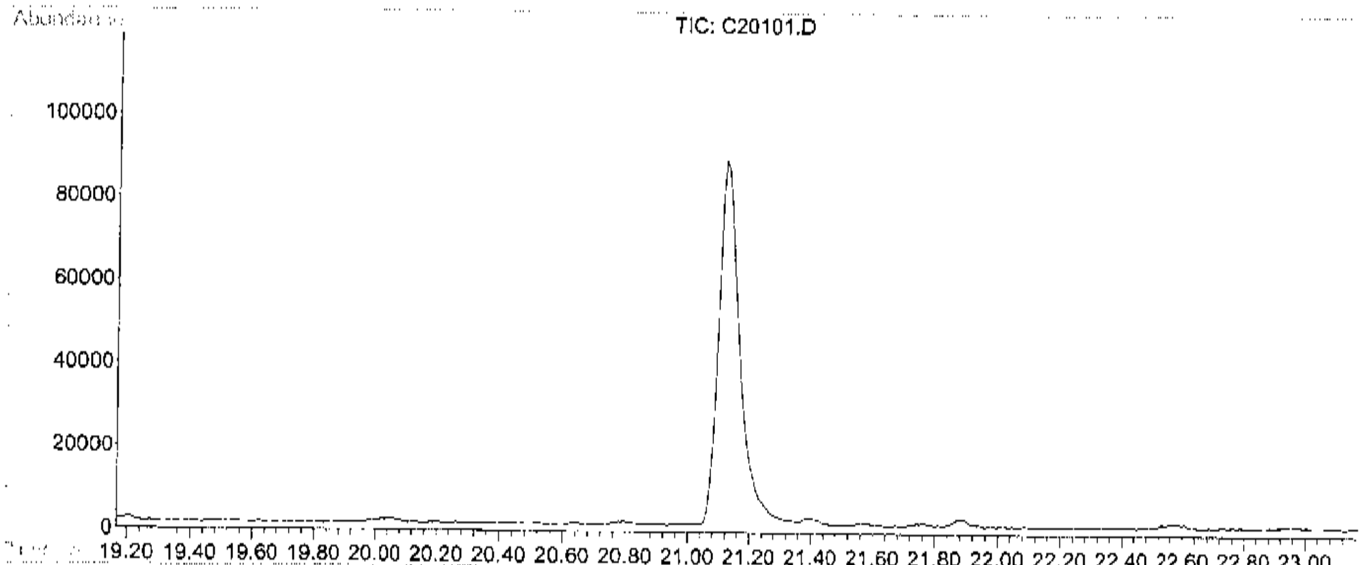
Spectrum Information: Scan 1976

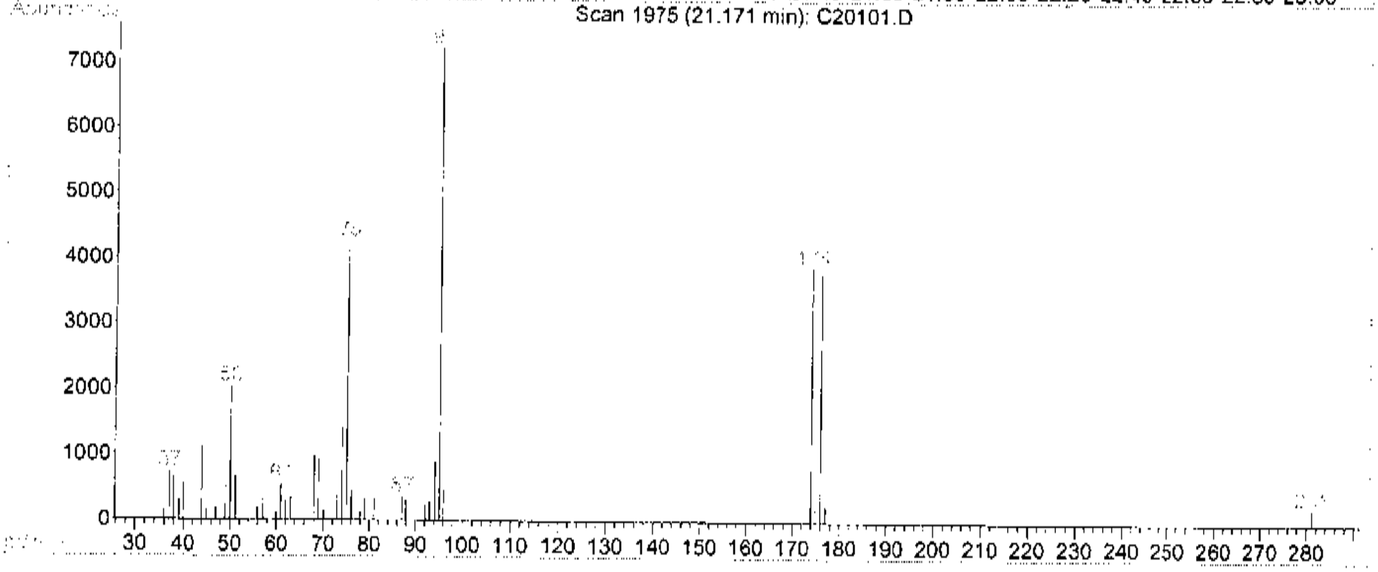
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	32.6	2309	PASS
75	95	30	66	57.6	4082	PASS
95	95	100	100	100.0	7088	PASS
96	95	5	9	7.4	525	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	51.4	3640	PASS
175	174	4	9	7.0	255	PASS
176	174	93	101	100.6	3663	PASS
177	176	5	9	6.3	230	PASS

BFB

Data File : D:\DATA\C20101.D
Acq On : 12 Dec 2007 1:31 pm
Sample : BFB
Misc : 5ML
MS Integration Params: rteint.p
Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 1
Operator: MM
Inst : #12
Multiplr: 1.00





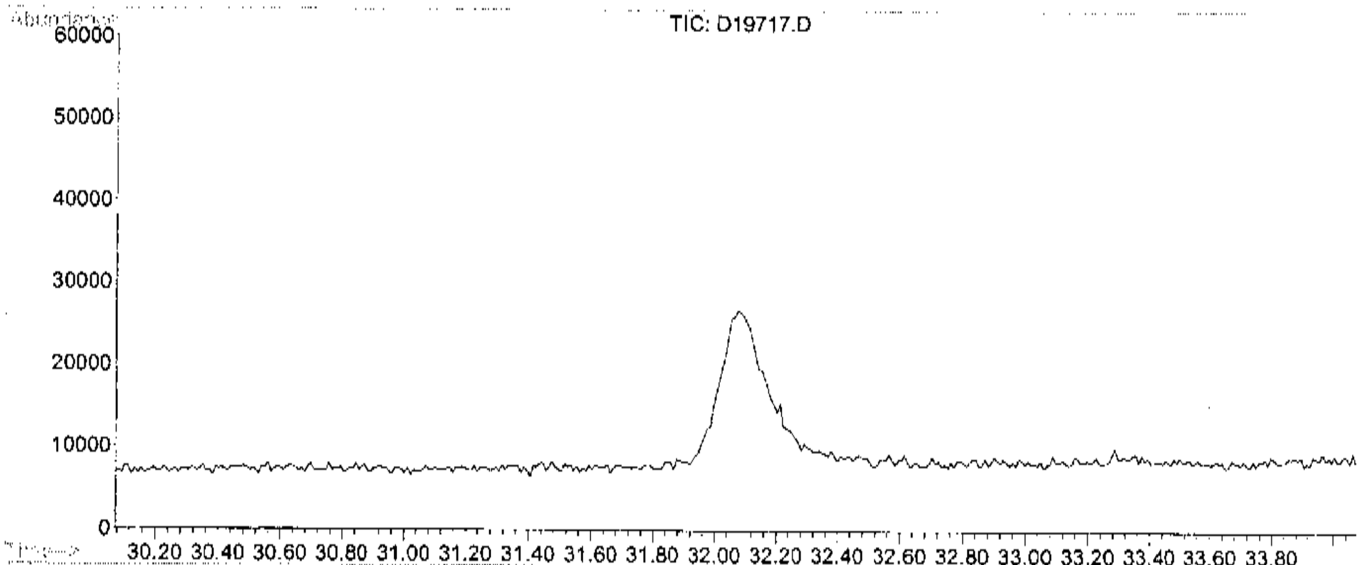
-518-

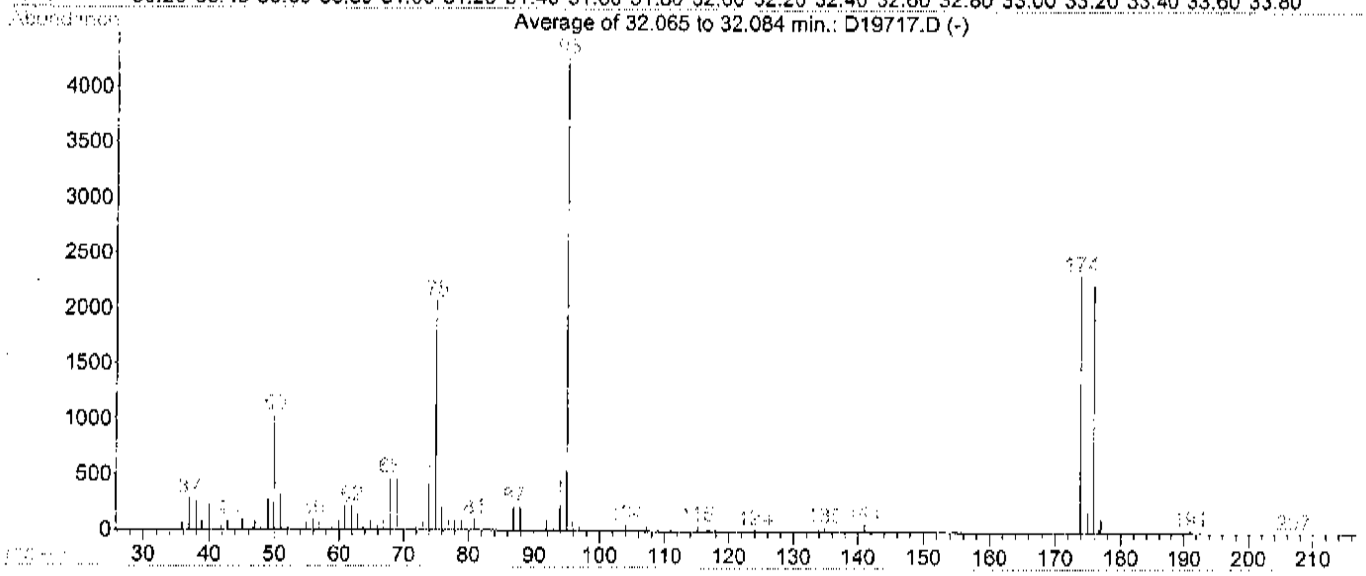
Spectrum Information: Scan 1975

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	28.1	2029	PASS
75	95	30	66	58.9	4257	PASS
95	95	100	100	100.0	7230	PASS
96	95	5	9	6.3	458	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	53.7	3884	PASS
175	174	4	9	7.8	304	PASS
176	174	93	101	97.4	3784	PASS
177	176	5	9	6.5	247	PASS

Data File : D:\DATA\D19717.D
Acq On : 3 Dec 2007 10:36 am
Sample : BFB
Misc : 5MLS
MS Integration Params: rteint.p
Method : D:\METHODS\D112760X.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00





AutoFind: Scans 2847, 2848, 2849; Background Corrected with Scan 2829

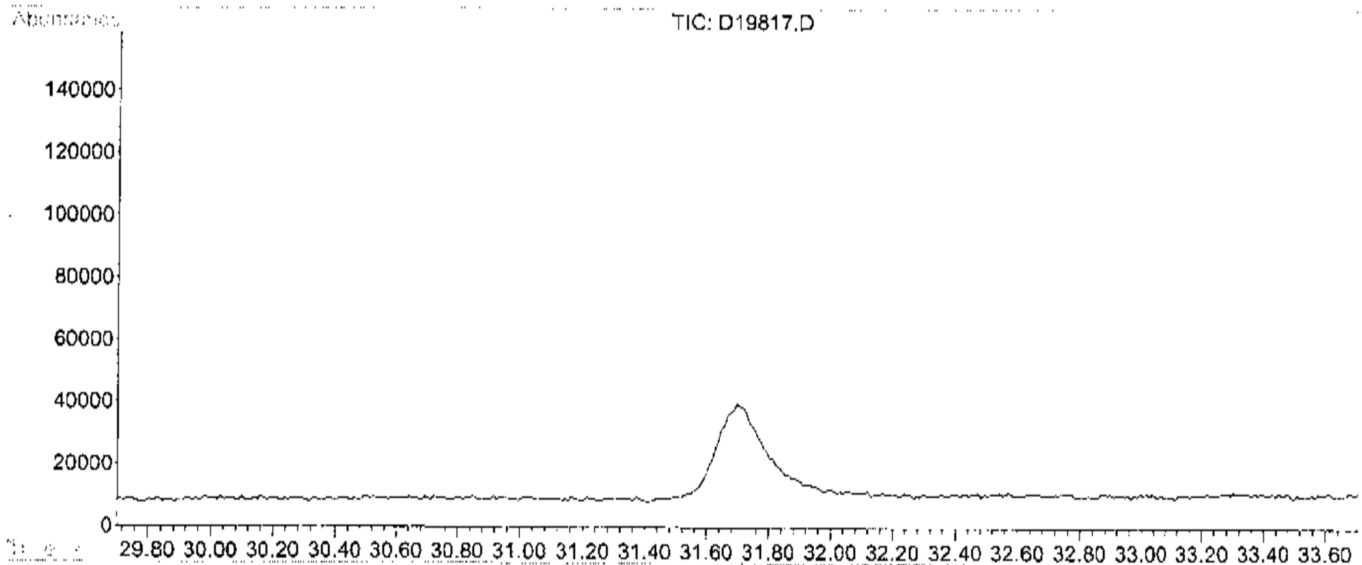
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.2	1033	PASS
75	95	30	66	48.4	2069	PASS
95	95	100	100	100.0	4277	PASS
96	95	5	9	6.3	269	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	54.2	2319	PASS
175	174	4	9	8.2	189	PASS
176	174	93	101	96.5	2237	PASS
177	176	5	9	5.5	122	PASS

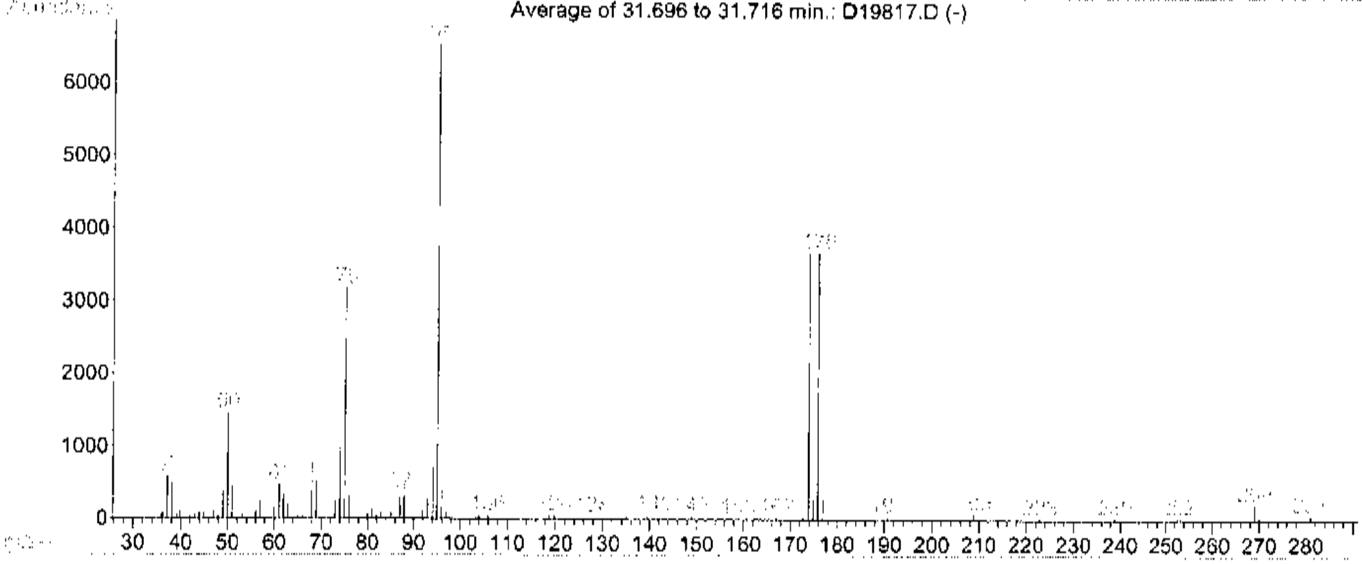
D19717.D D112760X.M Mon Dec 03 11:21:27 2007

BFB

Data File : D:\DATA\D19817.D
Acq On : 12 Dec 2007 9:03 am
Sample : BFB
Misc : 5MLS
MS Integration Params: rteint.p
Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00



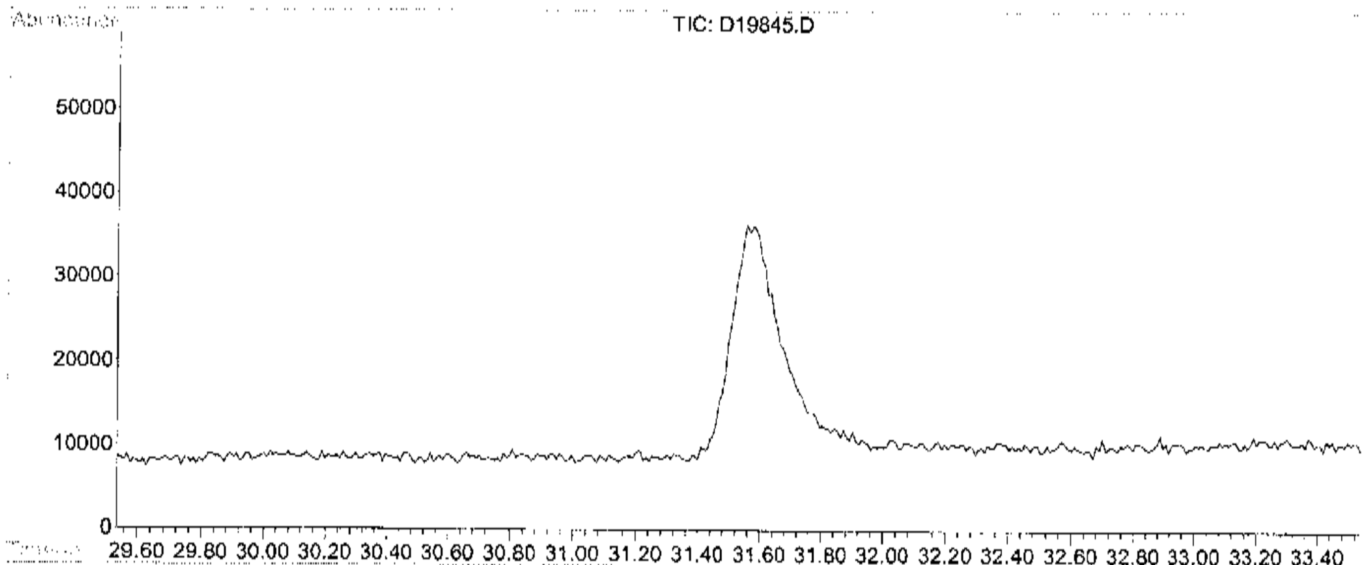


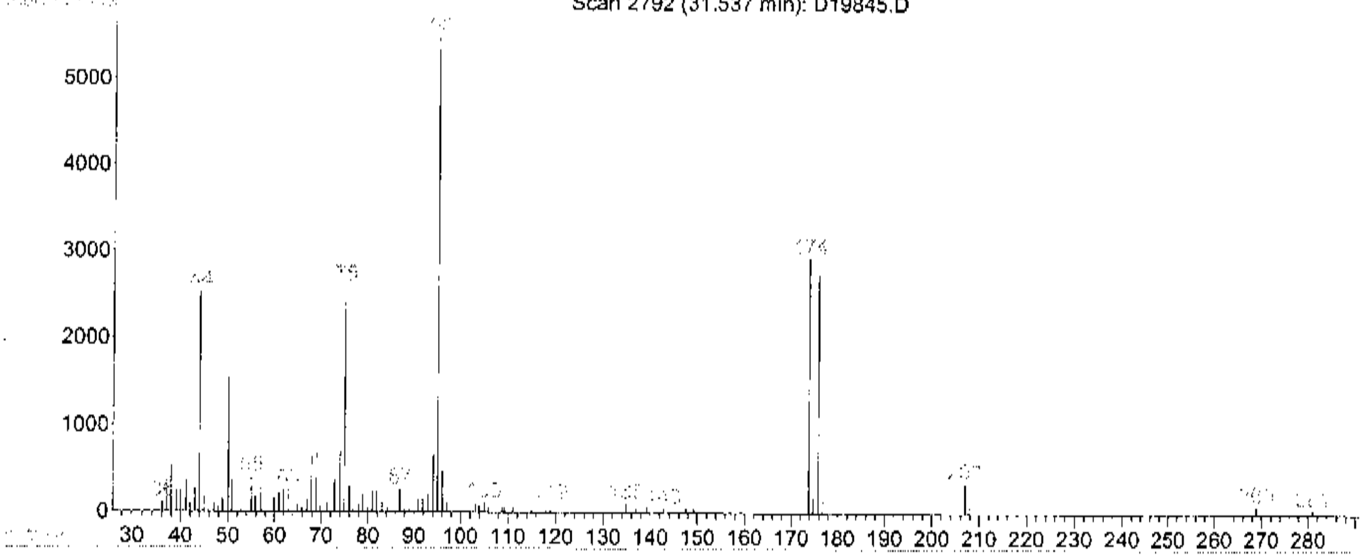
-520-

Spectrum Information: Average of 31.696 to 31.716 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.3	1459	PASS
75	95	30	66	48.6	3181	PASS
95	95	100	100	100.0	6548	PASS
96	95	5	9	5.8	379	PASS
173	174	0.00	2	0.5	19	PASS
174	95	50	120	56.1	3674	PASS
175	174	4	9	7.4	273	PASS
176	174	93	101	100.2	3682	PASS
177	176	5	9	7.8	287	PASS

```
Data File : D:\DATA\D19845.D                              Vial: 100
Acq On    : 13 Dec 2007   9:06 am                    Operator: ART
Sample    : BFB                                      Inst    : #13
Misc      : 5MLS                                     Multiplr: 1.00
MS Integration Params: rteint.p
Method    : D:\METHODS\D120360X.M (RTE Integrator)
Title     : VOA 8260 Calibration
```





Spectrum Information: Scan 2792

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	28.3	1554	PASS
75	95	30	66	47.4	2604	PASS
95	95	100	100	100.0	5491	PASS
96	95	5	9	8.6	474	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	53.6	2941	PASS
175	174	4	9	6.1	179	PASS
176	174	93	101	94.0	2764	PASS
177	176	5	9	5.4	149	PASS

D19845.D   D120360X.M   Thu Dec 13 10:33:32 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	2	J
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ____ Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20084.D
Acq On : 11 Dec 2007 2:47 pm
Sample : MB
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:31 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.84	168	311161	50.00	ug/L	-0.02
35) 1,4-Difluorobenzene	11.17	114	421380	50.00	ug/L	-0.02
55) Chlorobenzene-d5	18.65	117	298669	50.00	ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.32	152	151985	50.00	ug/L	0.01
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.27	65	186933m	52.08	ug/L	-0.02
Spiked Amount 50.000	Range 76 - 114		Recovery	= 104.16%		
49) Toluene-d8	15.42	98	342819	50.36	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery	= 100.72%		
54) Bromofluorobenzene	21.10	95	330383	50.77	ug/L	0.02
Spiked Amount 50.000	Range 86 - 115		Recovery	= 101.54%		
Target Compounds						Qvalue
17) Methylene Chloride	4.22	84	4815m	1.83	ug/L	

(#) = qualifier out of range (m) = manual integration
C20084.D TEST1210.M Wed Dec 12 08:49:40 2007 12.0

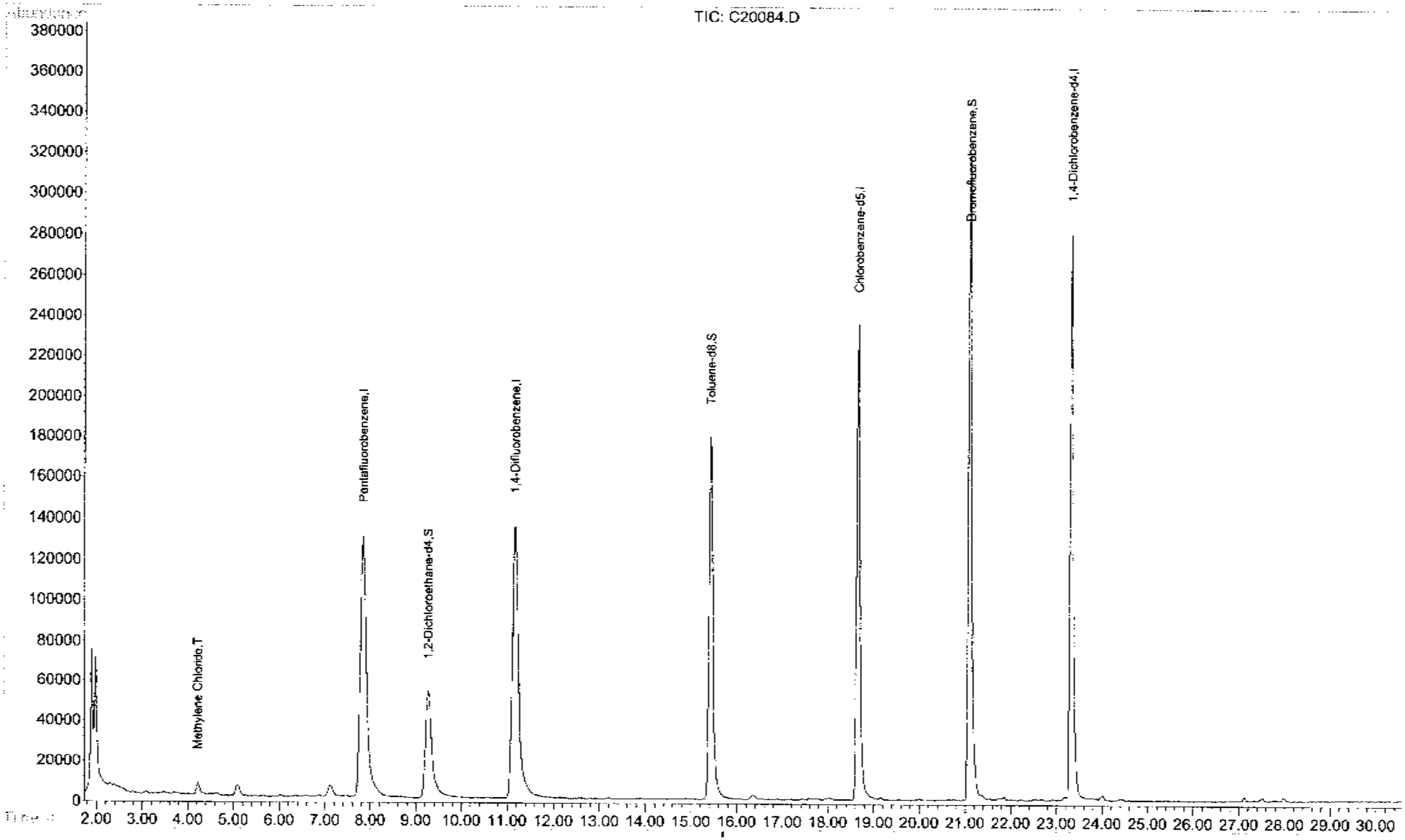
Quantitation Report

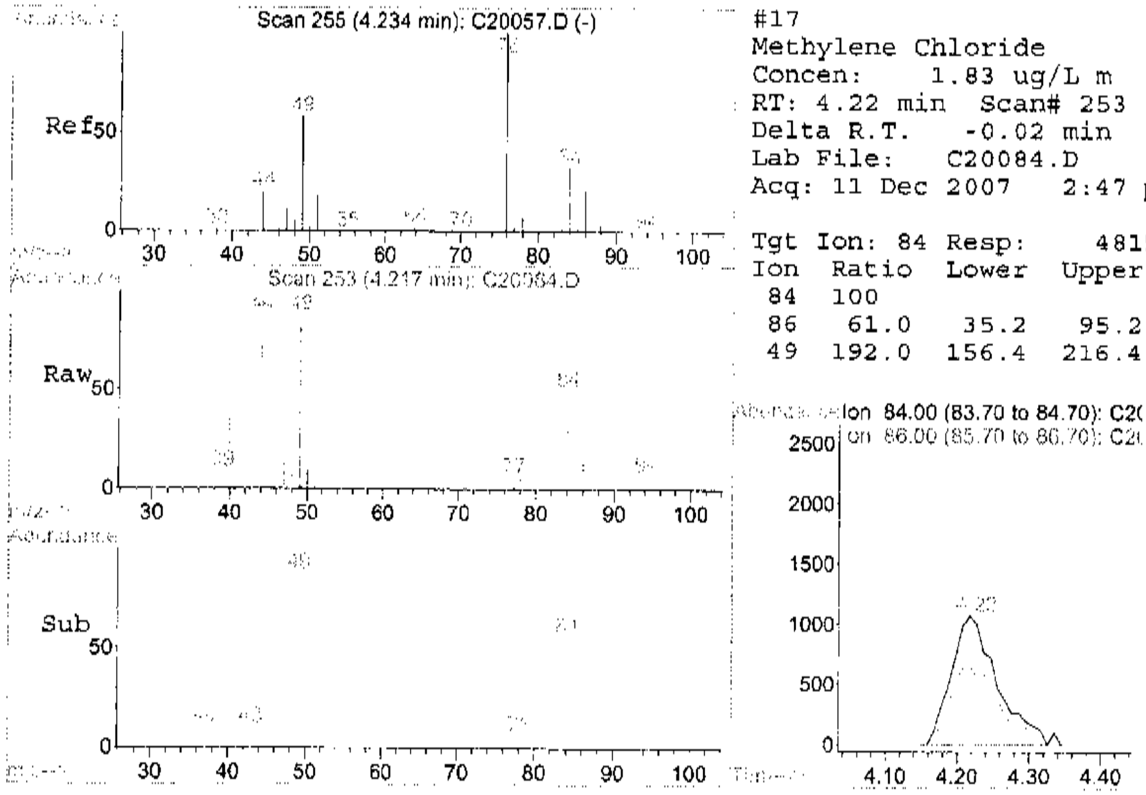
Data File : D:\DATA\C20084.D
Acq On : 11 Dec 2007 2:47 pm
Sample : MB
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:31 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration





#17
Methylene Chloride
Concen: 1.83 ug/L m
RT: 4.22 min Scan# 253
Delta R.T. -0.02 min
Lab File: C20084.D
Acq: 11 Dec 2007 2:47 pm

Tgt Ion: 84 Resp: 4815

Ion	Ratio	Lower	Upper
84	100		
86	61.0	35.2	95.2
49	192.0	156.4	216.4

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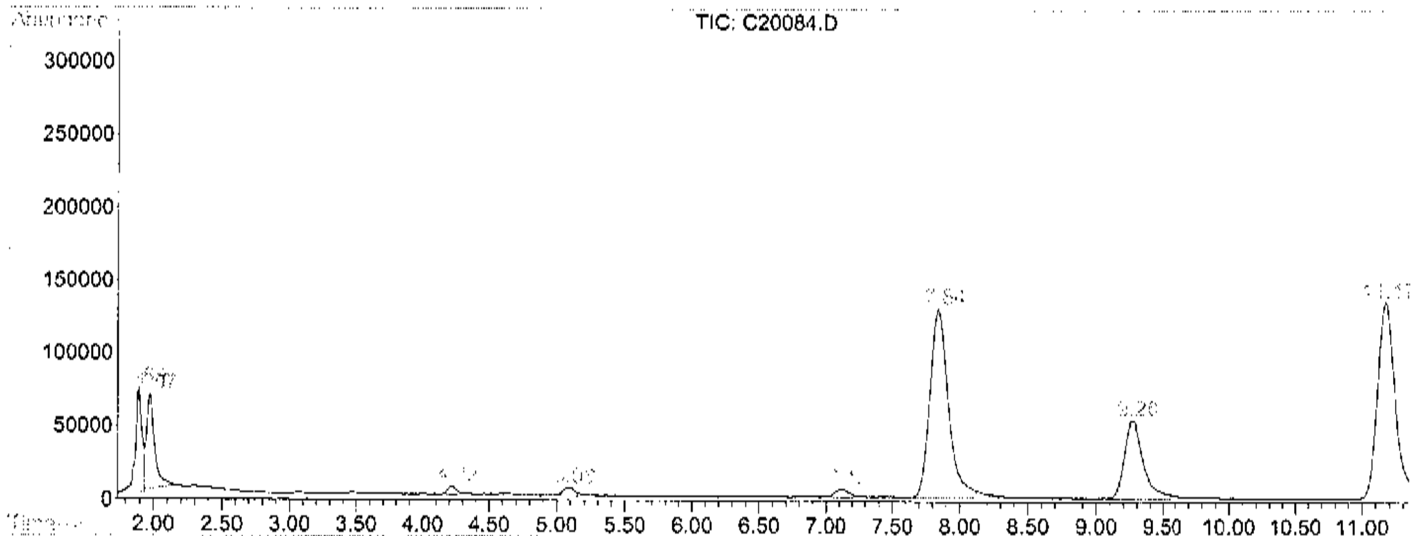
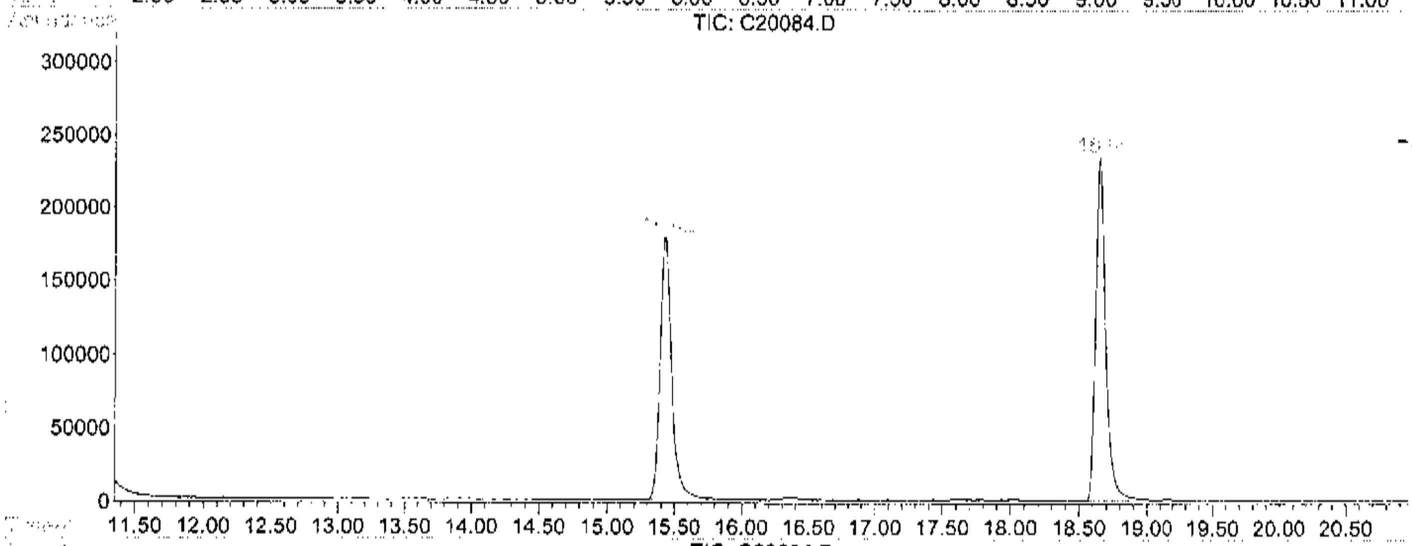
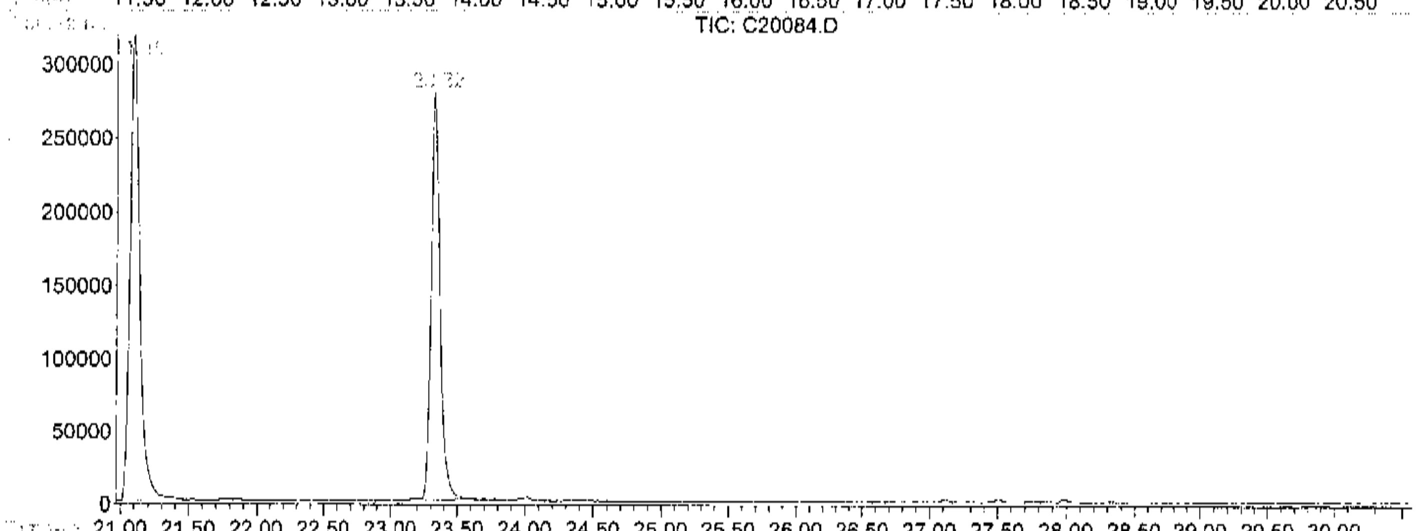
LSC Report - Integrated Chromatogram

File : D:\DATA\C20084.D
Operator : MM
Acquired : 11 Dec 2007 2:47 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: MB
Misc Info : 5ML
Vial Number: 3
Quant File :TEST1210.RES (RTE Integrator)



-528-





C20084.D TEST1210.M Wed Dec 12 09:12:49 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20103.D
Acq On : 12 Dec 2007 3:00 pm
Sample : MB
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:17 2007

Vial: 3
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.85	168	311030	50.00 ug/L	0.00
35) 1,4-Difluorobenzene	11.17	114	418746	50.00 ug/L	-0.02
55) Chlorobenzene-d5	18.64	117	282920	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	139425	50.00 ug/L	0.00

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.27	65	181481	50.58 ug/L	-0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	101.16%	
49) Toluene-d8	15.42	98	335237	49.55 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	99.10%	
54) Bromofluorobenzene	21.08	95	304866	47.15 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	94.30%	

Target Compounds Qvalue

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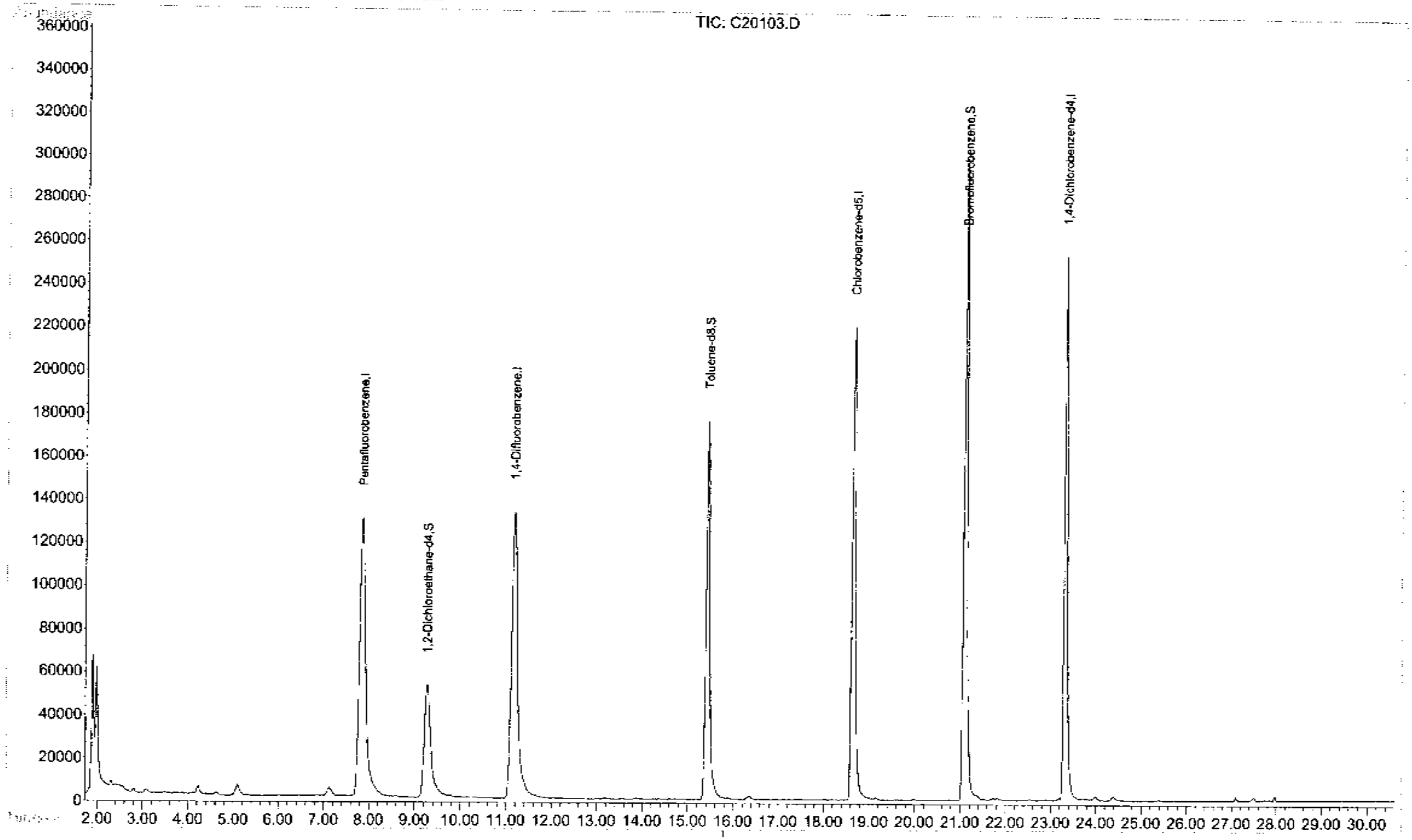
(#) = qualifier out of range (m) = manual integration

Quantitation Report

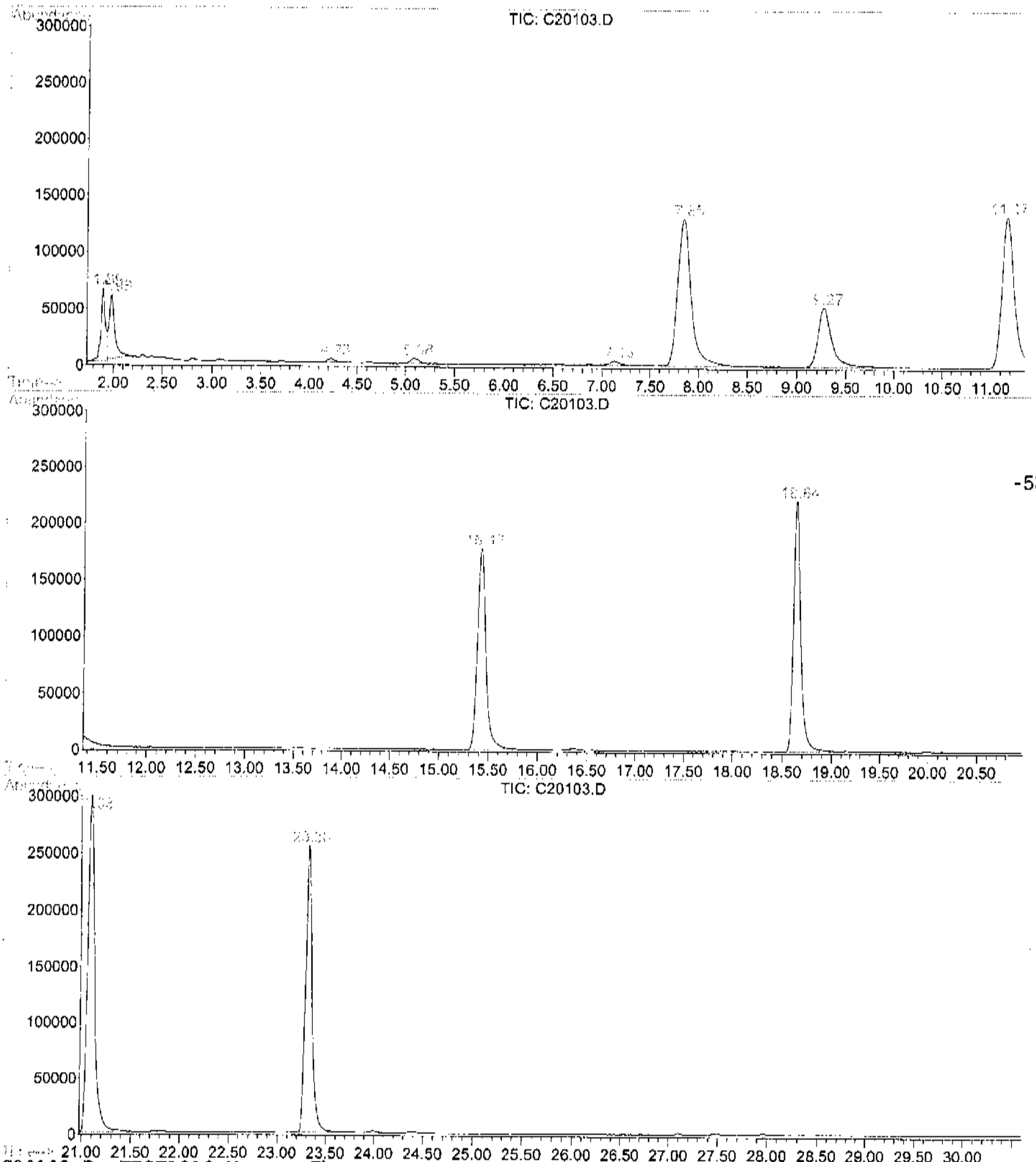
```
Data File : D:\DATA\C20103.D                      Vial: 3
Acq On    : 12 Dec 2007   3:00 pm             Operator: MM
Sample    : MB                                Inst    : #12
Misc      : 5ML                               Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13  8:17 2007            Quant Results File: TEST1210.RES

Method        : D:\METHODS\TEST1210.M (RTE Integrator)
Title         : VOA 8260 Calibration
Last Update   : Mon Dec 10 14:48:15 2007
Response via  : Initial Calibration
```



LSC Report - Integrated Chromatogram

File : D:\DATA\C20103.D
Operator : MM
Acquired : 12 Dec 2007 3:00 pm using AcqMethod TEST1210
Instrument : #12
Sample Name: MB
Misc Info : 5ML
Vial Number: 3
Quant File :TEST1210.RES (RTE Integrator)



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C20103.D TEST1210.M Thu Dec 13 13:17:34 2007 12.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. ______ Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19832.D
Acq On : 12 Dec 2007 9:44 pm
Sample : MB
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:32 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.23	168	425901	50.00 ug/L	0.02
33) 1,4-Difluorobenzene	19.29	114	547673	50.00 ug/L	0.02
51) Chlorobenzene-d5	27.82	117	420507m ART	50.00 ug/L	0.00
73) 1,4-Dichlorobenzene-d4	35.29	152	196659	50.00 ug/L	0.00

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.28	65	224539	52.13 ug/L	0.03
Spiked Amount 50.000	Range 86 - 118		Recovery = 104.26%		
45) Toluene-d8	23.45	98	562535	50.40 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.80%		
50) Bromofluorobenzene	31.43	95	363550	47.09 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 94.18%		

Target Compounds Qvalue

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(#) = qualifier out of range (m) = manual integration
D19832.D D120360X.M Thu Dec 13 09:05:06 2007

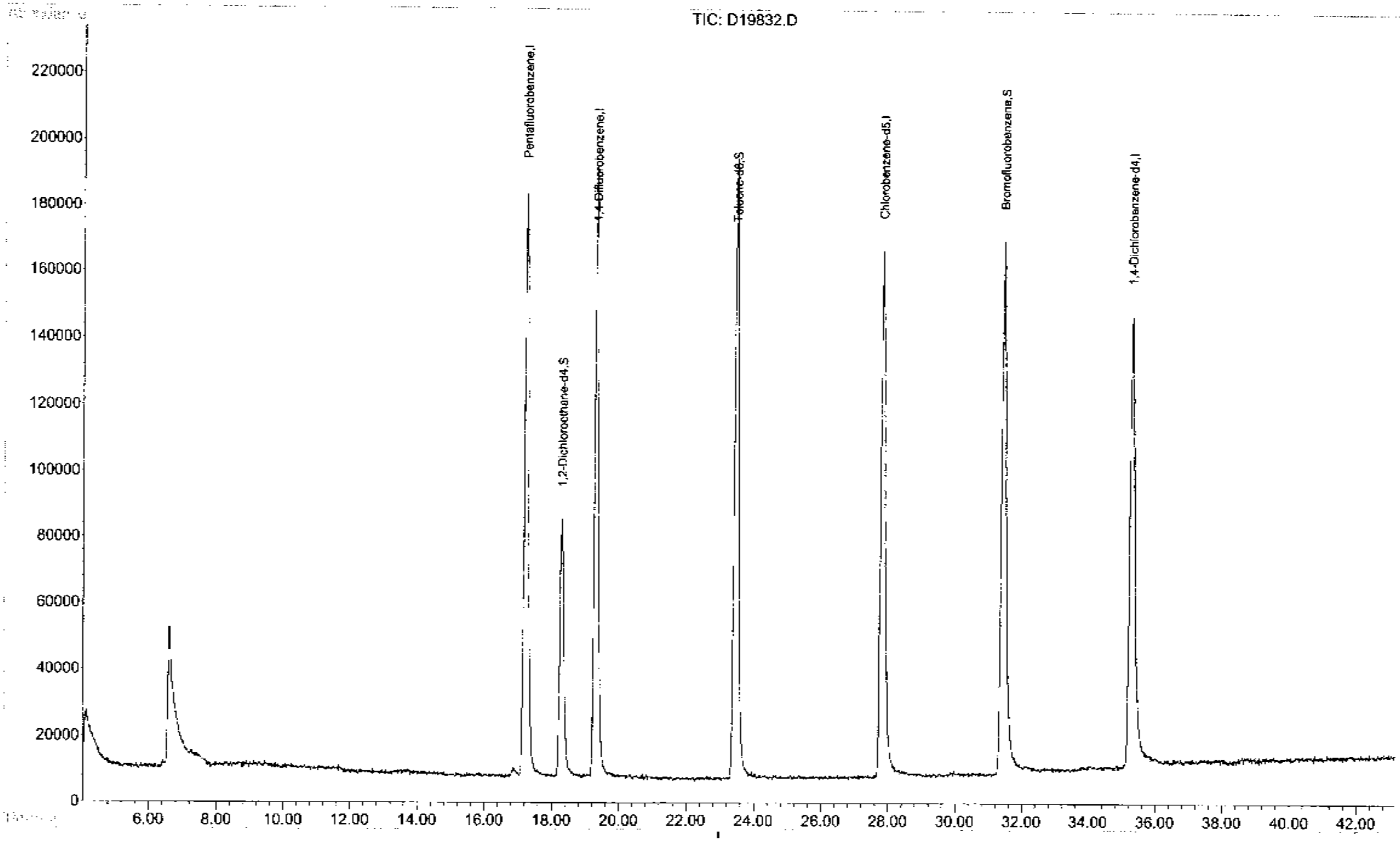
Quantitation Report

Data File : D:\DATA\D19832.D
Acq On : 12 Dec 2007 9:44 pm
Sample : MB
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:32 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

```
File         : D:\DATA\D19832.D
Operator     : ART
Acquired     : 12 Dec 2007   9:44 pm using AcqMethod D120360X
Instrument :    #13
Sample Name: MB
Misc Info   : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)
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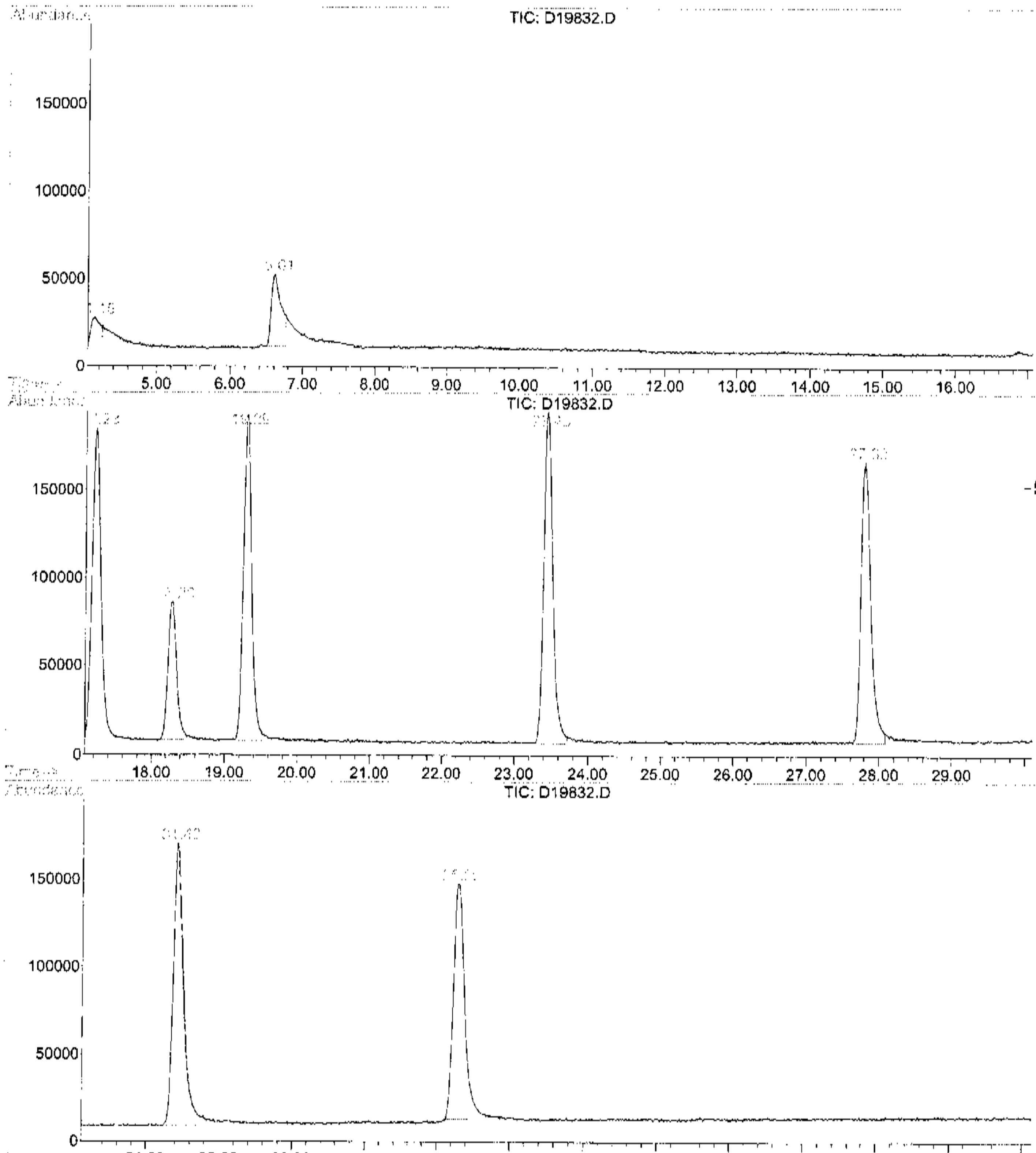

-540-

D19832.D   D120360X.M   Thu Dec 13 09:11:07 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

```
Data File : D:\DATA\D19847.D                          Vial: 100
Acq On    : 13 Dec 2007  10:47 am                 Operator: ART
Sample    : MB                                    Inst    : #13
Misc      : 5MLS                                  Multiplr: 1.00
MS Integration Params: rteint.p
 Quant Time: Dec 14  9:02 2007          Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title        : VOA 8260 Calibration
Last Update  : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	17.44	168	417497	50.00 ug/L	0.06
33) 1,4-Difluorobenzene	19.49	114	545786	50.00 ug/L	0.09
51) Chlorobenzene-d5	28.11	117	415082m	50.00 ug/L	0.12
73) 1,4-Dichlorobenzene-d4	35.67	152	198632m	50.00 ug/L	0.12

ART

System Monitoring Compounds		R.T.	QIon	Response	Conc Units	Dev(Min)
31) 1,2-Dichloroethane-d4		18.47	65	218288	51.70 ug/L	0.09
Spiked Amount	50.000	Range 86 - 118		Recovery =	103.40%	
45) Toluene-d8		23.70	98	556811	50.06 ug/L	0.09
Spiked Amount	50.000	Range 88 - 110		Recovery =	100.12%	
50) Bromofluorobenzene		31.73	95	355872	46.26 ug/L	0.10
Spiked Amount	50.000	Range 86 - 115		Recovery =	92.52%	

Target Compounds   Qvalue

(#) = qualifier out of range (m) = manual integration

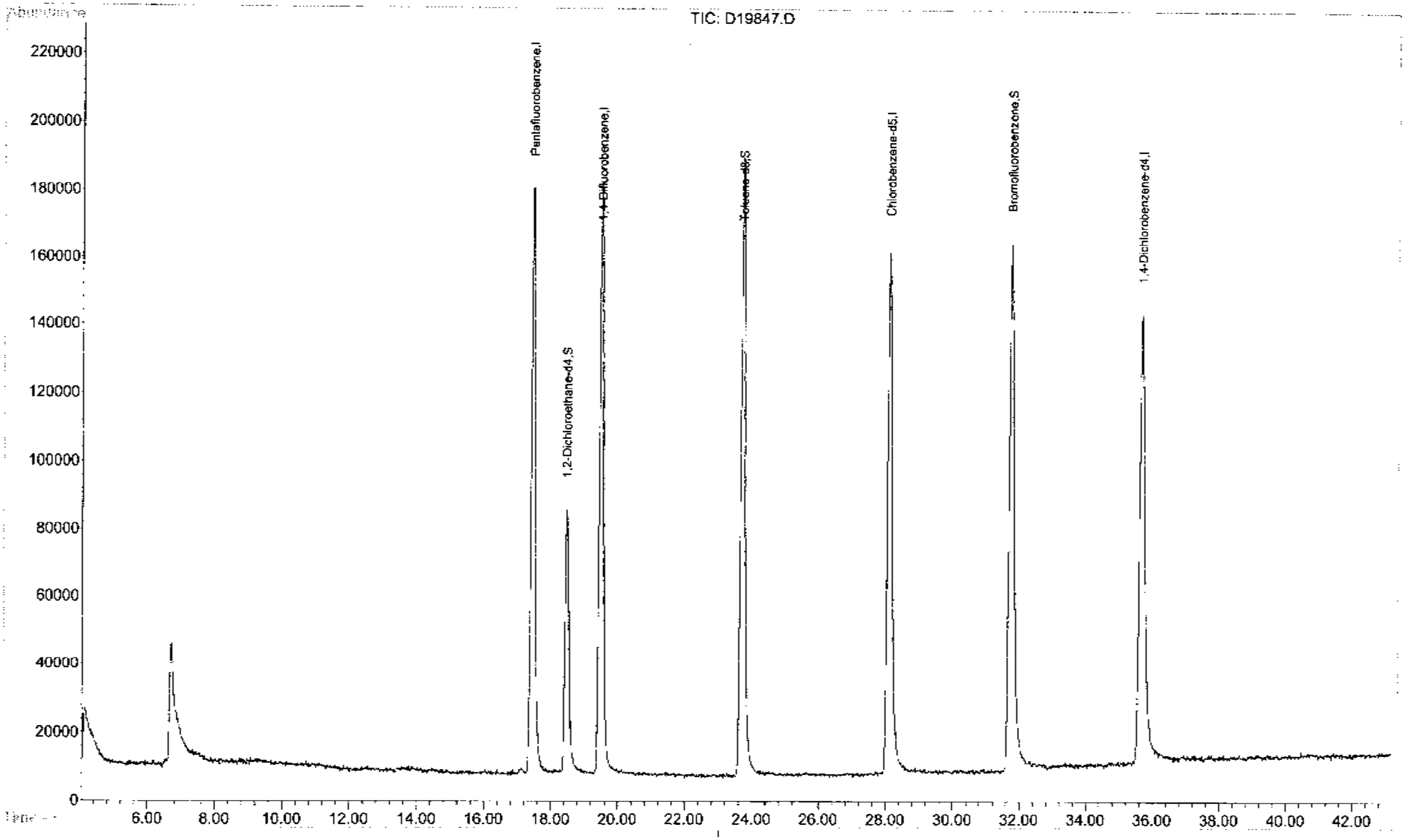
Quantitation Report

Data File : D:\DATA\D19847.D
Acq On : 13 Dec 2007 10:47 am
Sample : MB
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:02 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

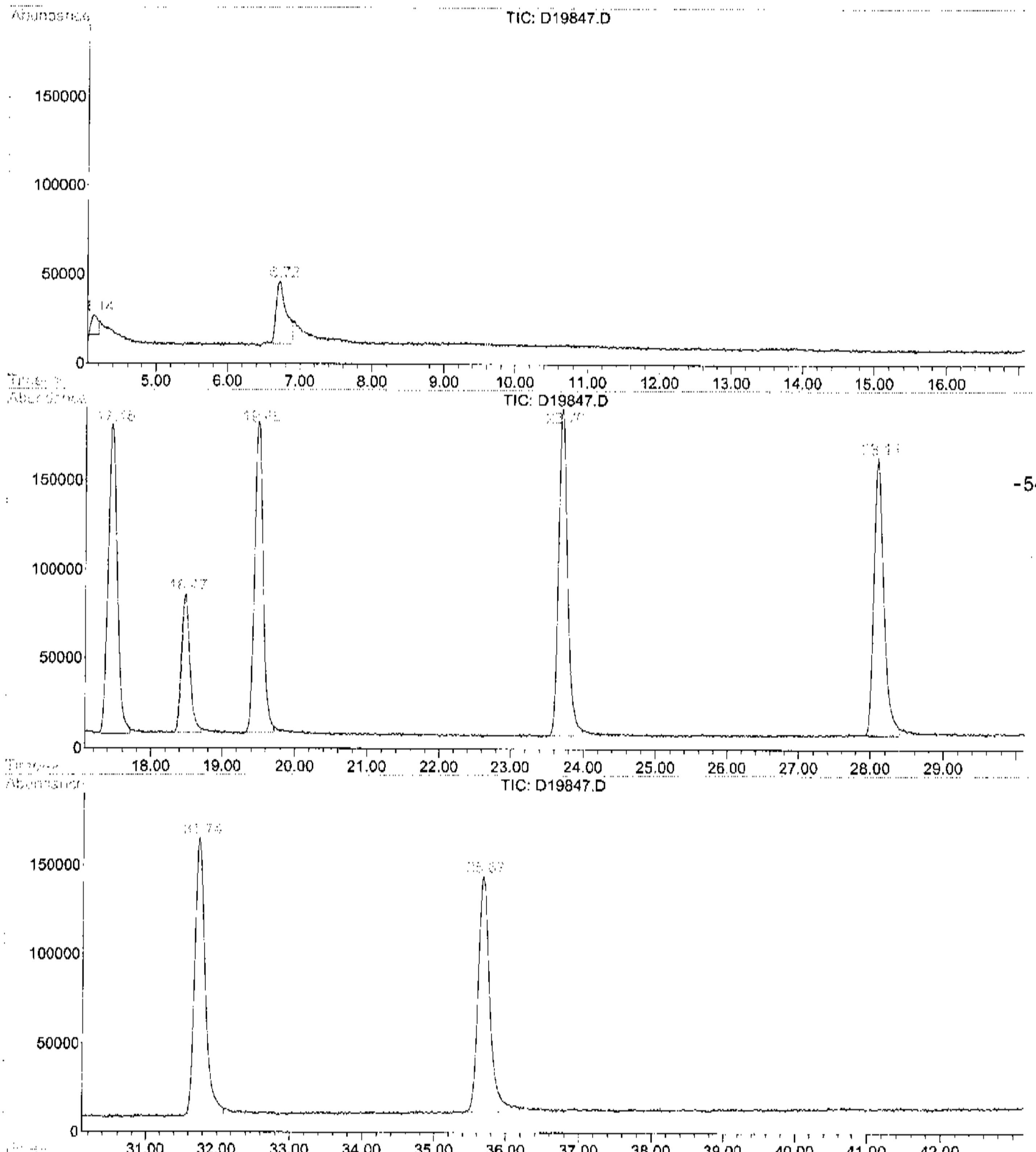
Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



LSC Report - Integrated Chromatogram

File : D:\DATA\D19847.D
Operator : ART
Acquired : 13 Dec 2007 10:47 am using AcqMethod D120360X
Instrument : #13
Sample Name: MB
Misc Info : 5MLS
Vial Number: 100
Quant File :D120360X.RES (RTE Integrator)



D19847.D D120360X.M Fri Dec 14 09:56:33 2007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20085.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	63	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	2	JB
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	2	J
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	48	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	47	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	47	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20085.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20085.D
Acq On : 11 Dec 2007 3:25 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:32 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	208486m MM	50.00 ug/L	0.01
35) 1,4-Difluorobenzene	11.19	114	283916	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.65	117	201496	50.00 ug/L	0.01
83) 1,4-Dichlorobenzene-d4	23.32	152	103802	50.00 ug/L	0.01

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	9.29	65	131562	54.70 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 109.40%		
49) Toluene-d8	15.43	98	230390	50.23 ug/L	0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 100.46%		
54) Bromofluorobenzene	21.08	95	226310	51.62 ug/L	0.01
Spiked Amount 50.000	Range 86 - 115		Recovery = 103.24%		

Target Compounds					Qvalue
11) 1,1-Dichloroethene	3.69	96	78132	62.57 ug/L	100
17) Methylene Chloride	4.24	84	3369	1.91 ug/L	96
29) Chloroform	7.16	83	8333	1.79 ug/L	99
38) Benzene	9.76	78	233559	47.89 ug/L	100
40) Trichloroethene	12.15	95	121410	48.99 ug/L	98
50) Toluene	15.61	92	119306	46.56 ug/L	99
61) Chlorobenzene	18.72	112	154256	47.30 ug/L	97

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(#) = qualifier out of range (m) = manual integration

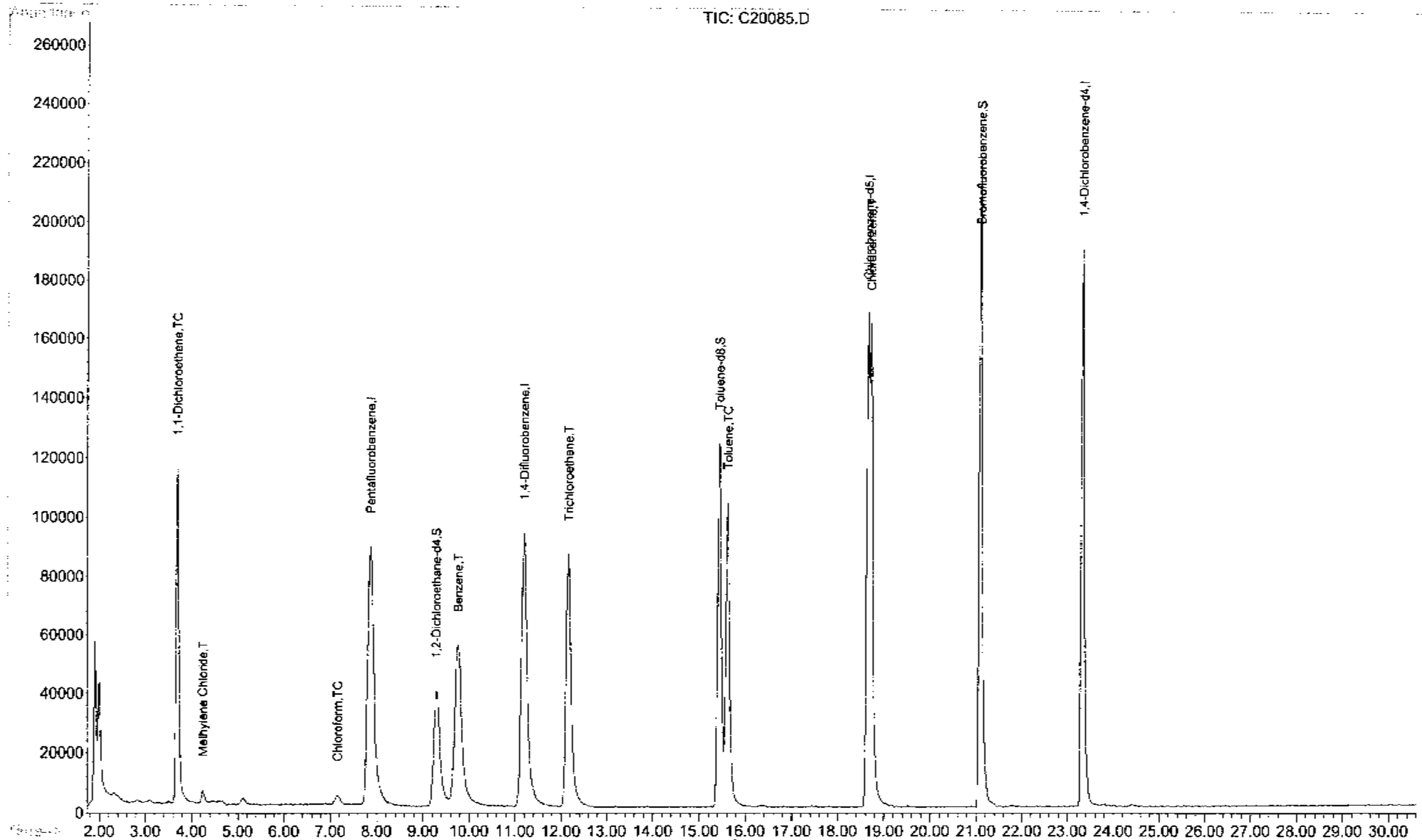
Quantitation Report

Data File : D:\DATA\C20085.D
Acq On : 11 Dec 2007 3:25 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 12 8:32 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20104.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	70	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	53	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	54	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	51	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	55	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20104.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20104.D
Acq On : 12 Dec 2007 3:39 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:17 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	312382	50.00	ug/L	0.00
35) 1,4-Difluorobenzene	11.19	114	425168	50.00	ug/L	0.00
55) Chlorobenzene-d5	18.64	117	284090	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.31	152	139622	50.00	ug/L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.29	65	174629	48.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 96.92%			
49) Toluene-d8	15.43	98	340394	49.56	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 99.12%			
54) Bromofluorobenzene	21.08	95	302863	46.13	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 92.26%			
Target Compounds						Qvalue
11) 1,1-Dichloroethene	3.68	96	130329	69.65	ug/L	99
38) Benzene	9.75	78	390661	53.49	ug/L	100
40) Trichloroethene	12.15	95	201342	54.26	ug/L	99
50) Toluene	15.61	92	197276	51.42	ug/L	100
61) Chlorobenzene	18.72	112	250809	54.55	ug/L	99

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(#) = qualifier out of range (m) = manual integration

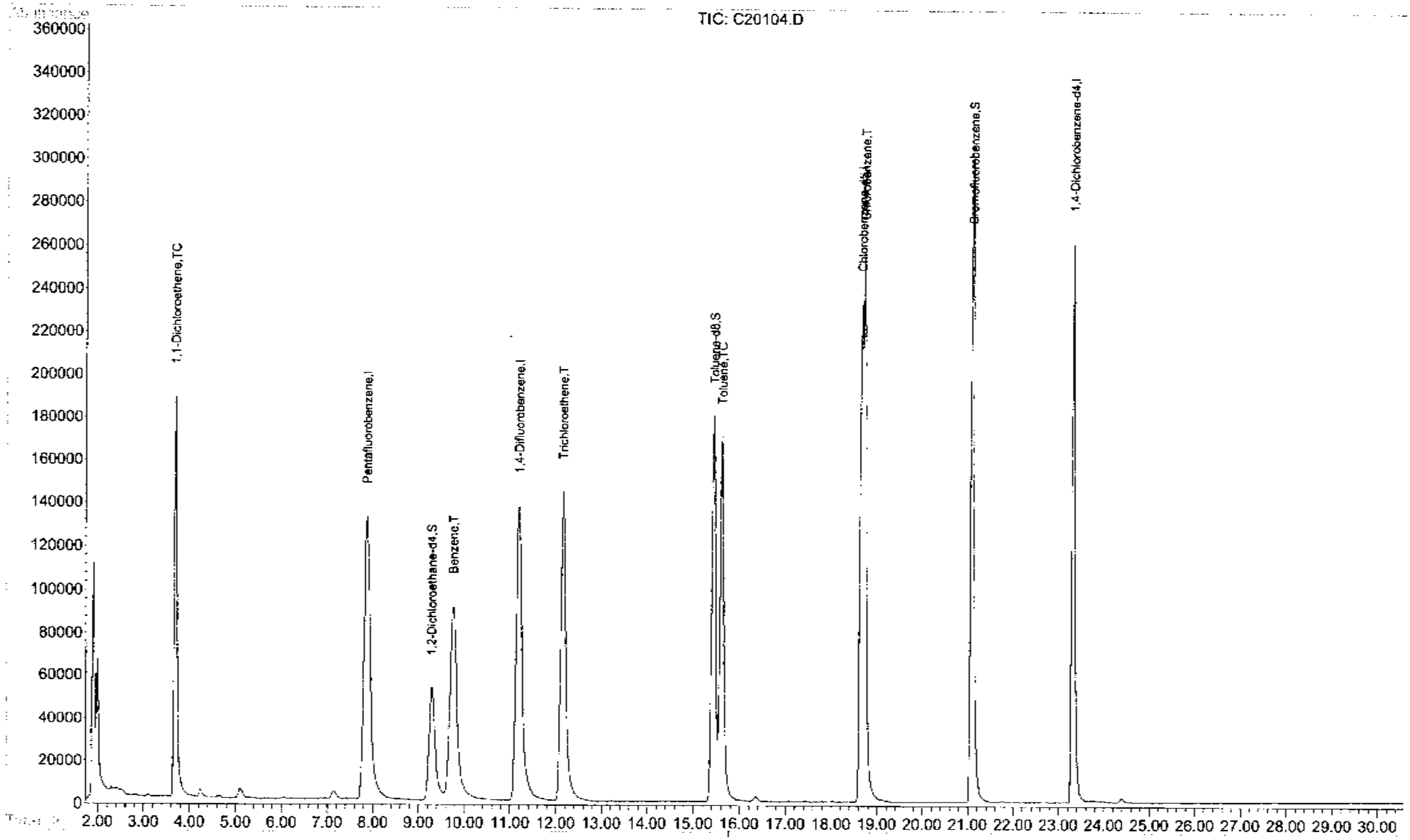
Quantitation Report

Data File : D:\DATA\C20104.D
Acq On : 12 Dec 2007 3:39 pm
Sample : LCS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:17 2007

Vial: 4
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19833.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	52	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	50	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	53	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	55	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19833.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19833.D
Acq On : 12 Dec 2007 10:35 pm
Sample : LCS
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:32 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.20	168	418354	50.00	ug/L	0.00
33) 1,4-Difluorobenzene	19.28	114	547859	50.00	ug/L	0.00
51) Chlorobenzene-d5	27.81	117	416293m	50.00	ug/L	0.00
73) 1,4-Dichlorobenzene-d4	35.27	152	201630	50.00	ug/L	-0.01

System Monitoring Compounds

31) 1,2-Dichloroethane-d4	18.26	65	224269	53.01	ug/L	0.00
Spiked Amount 50.000	Range 86 - 118		Recovery = 106.02%			
45) Toluene-d8	23.43	98	570441	51.09	ug/L	-0.01
Spiked Amount 50.000	Range 88 - 110		Recovery = 102.18%			
50) Bromofluorobenzene	31.40	95	360239	46.65	ug/L	-0.02
Spiked Amount 50.000	Range 86 - 115		Recovery = 93.30%			

Target Compounds						Qvalue
10) 1,1-Dichloroethene	11.66	96	153462	51.73	ug/L	98
36) Benzene	18.48	78	472749	50.30	ug/L	100
38) Trichloroethene	20.07	95	186334	50.13	ug/L	97
46) Toluene	23.62	92	309815	52.87	ug/L	98
57) Chlorobenzene	27.89	112	353375	54.53	ug/L	97

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(#) = qualifier out of range (m) = manual integration

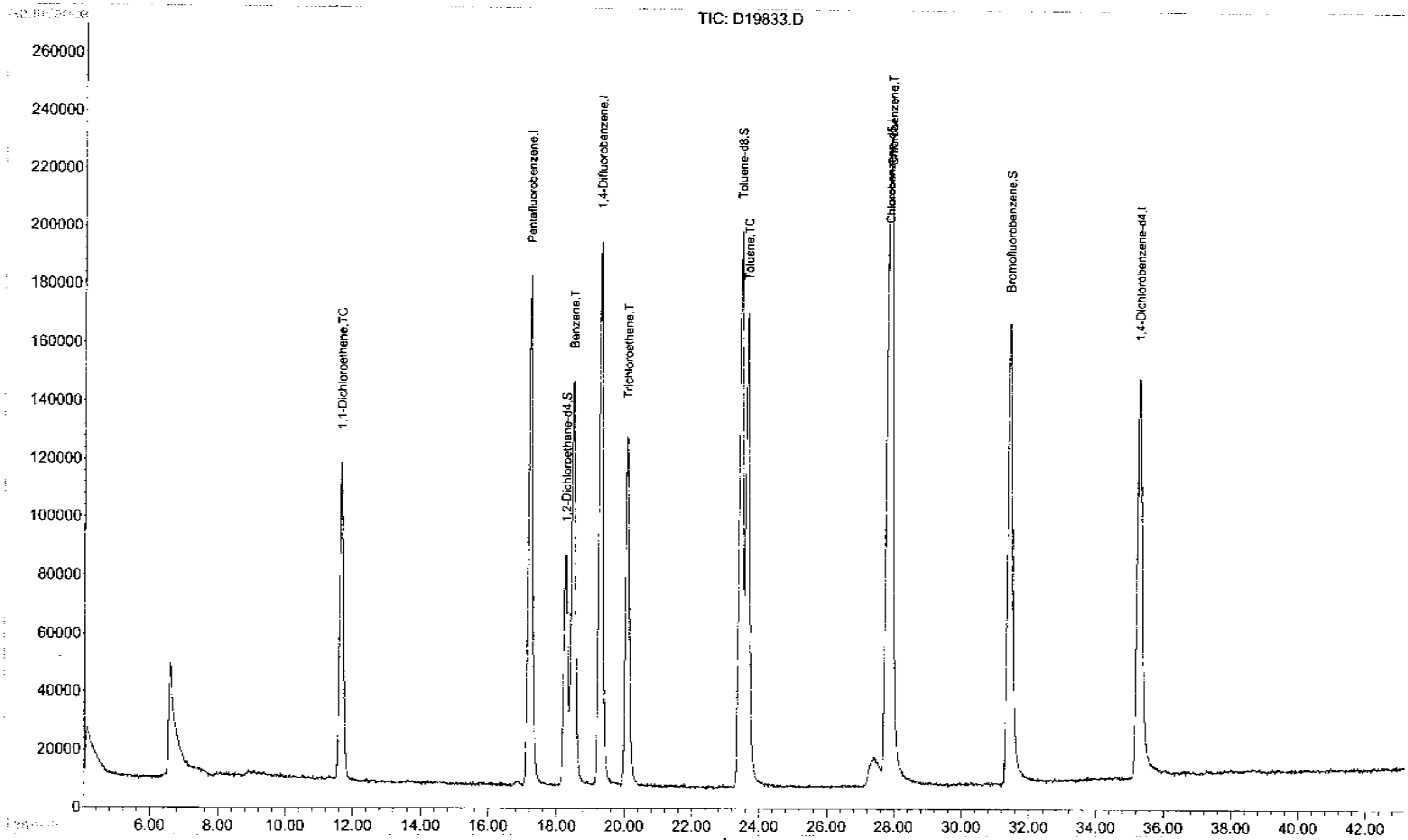
Quantitation Report

Data File : D:\DATA\D19833.D
Acq On : 12 Dec 2007 10:35 pm
Sample : LCS
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 13 8:32 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Thu Dec 13 08:30:40 2007
Response via : Initial Calibration



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19848.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ____ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	47	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	46	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	49	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	51	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VMBS04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19848.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VMBS04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: LCS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19848.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\D19848.D
Acq On : 13 Dec 2007 11:38 am
Sample : LCS
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:03 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Quant Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 08:39:34 2007
Response via : Initial Calibration
DataAcq Meth : D120360X

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.40	168	407667	50.00	ug/L	0.02
33) 1,4-Difluorobenzene	19.43	114	531436m AR	50.00	ug/L	0.03
51) Chlorobenzene-d5	28.07	117	415052m	50.00	ug/L	0.08
73) 1,4-Dichlorobenzene-d4	35.64	152	203558m	50.00	ug/L	0.08

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) 1,2-Dichloroethane-d4	18.42	65	213508	51.78	ug/L	0.03
Spiked Amount 50.000	Range 86 - 118		Recovery =	103.56%		
45) Toluene-d8	23.66	98	553873	51.14	ug/L	0.04
Spiked Amount 50.000	Range 88 - 110		Recovery =	102.28%		
50) Bromofluorobenzene	31.71	95	367417m AR	49.05	ug/L	0.07
Spiked Amount 50.000	Range 86 - 115		Recovery =	98.10%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
10) 1,1-Dichloroethene	11.83	96	135943m AR	47.02	ug/L	
36) Benzene	18.64	78	418031	45.85	ug/L	100
38) Trichloroethene	20.26	95	169465m AR	47.00	ug/L	
46) Toluene	23.86	92	278419	48.98	ug/L	100
57) Chlorobenzene	28.17	112	326298m AR	50.51	ug/L	

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(#) = qualifier out of range (m) = manual integration

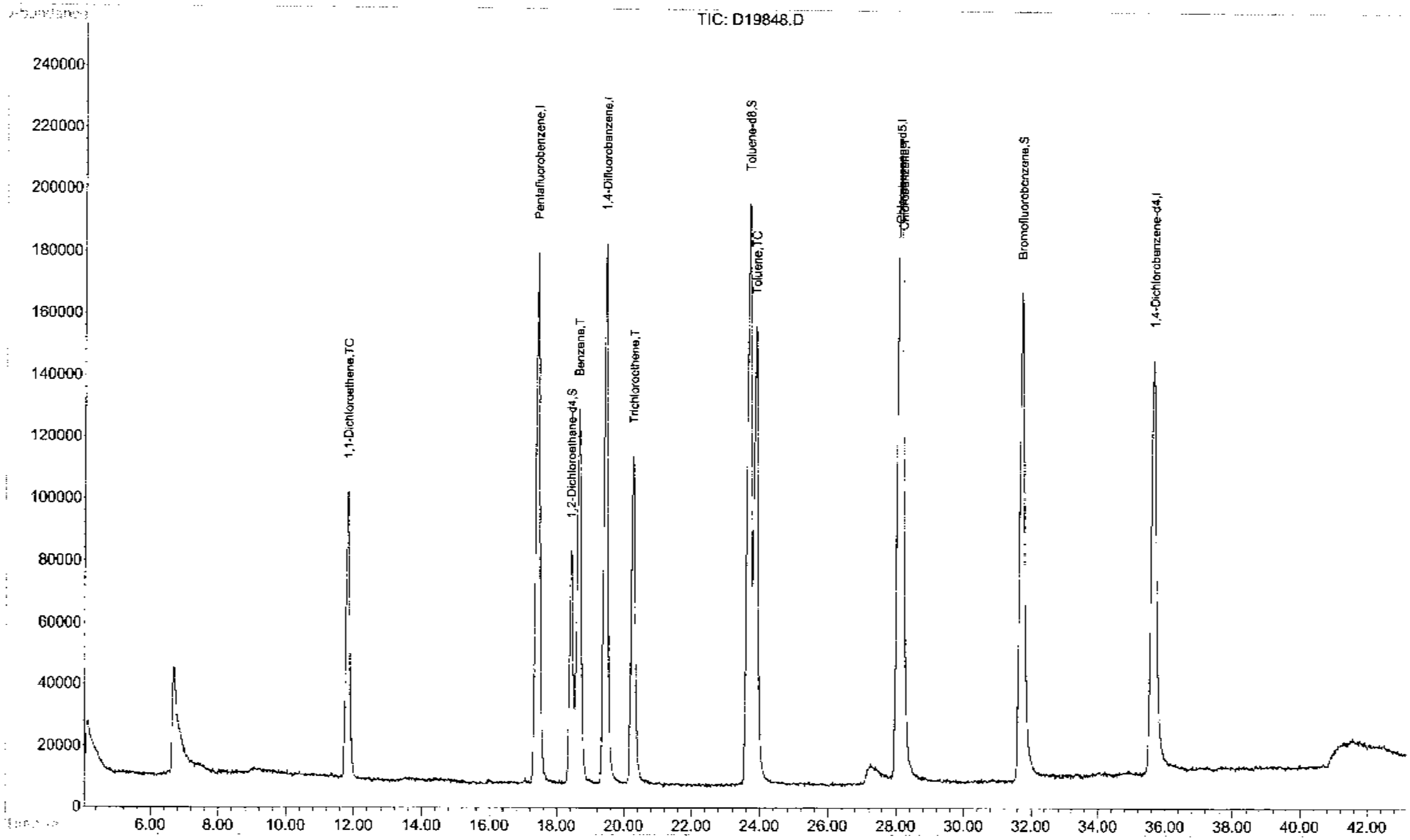
Quantitation Report

Data File : D:\DATA\D19848.D
Acq On : 13 Dec 2007 11:38 am
Sample : LCS
Misc : 5MLS
MS Integration Params: rteint.p
Quant Time: Dec 14 9:03 2007

Vial: 100
Operator: ART
Inst : #13
Multiplr: 1.00

Quant Results File: D120360X.RES

Method : D:\METHODS\D120360X.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Fri Dec 14 09:15:20 2007
Response via : Initial Calibration



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10IMS

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011AMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20105.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	68	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	57	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	58	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	55	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	58	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10IMS

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011AMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20105.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20105.D Vial: 5
Acq On : 12 Dec 2007 4:16 pm Operator: MM
Sample : U0712180-011AMS Inst : #12
Misc : 5ML Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 8:18 2007 Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	297369	50.00	ug/L	0.02
35) 1,4-Difluorobenzene	11.20	114	398798	50.00	ug/L	0.00
55) Chlorobenzene-d5	18.65	117	268574	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.32	152	131772	50.00	ug/L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	9.29	65	167758	48.90	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	97.80%		
49) Toluene-d8	15.43	98	324798	50.41	ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	100.82%		
54) Bromofluorobenzene	21.08	95	287340	46.66	ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	93.32%		
Target Compounds						Qvalue
11) 1,1-Dichloroethene	3.68	96	121259m	68.08	ug/L	
38) Benzene	9.76	78	392692	57.33	ug/L	100
40) Trichloroethene	12.16	95	200614	57.64	ug/L	100
50) Toluene	15.61	92	196700	54.66	ug/L	99
61) Chlorobenzene	18.72	112	251935	57.96	ug/L	99

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(#) = qualifier out of range (m) = manual integration

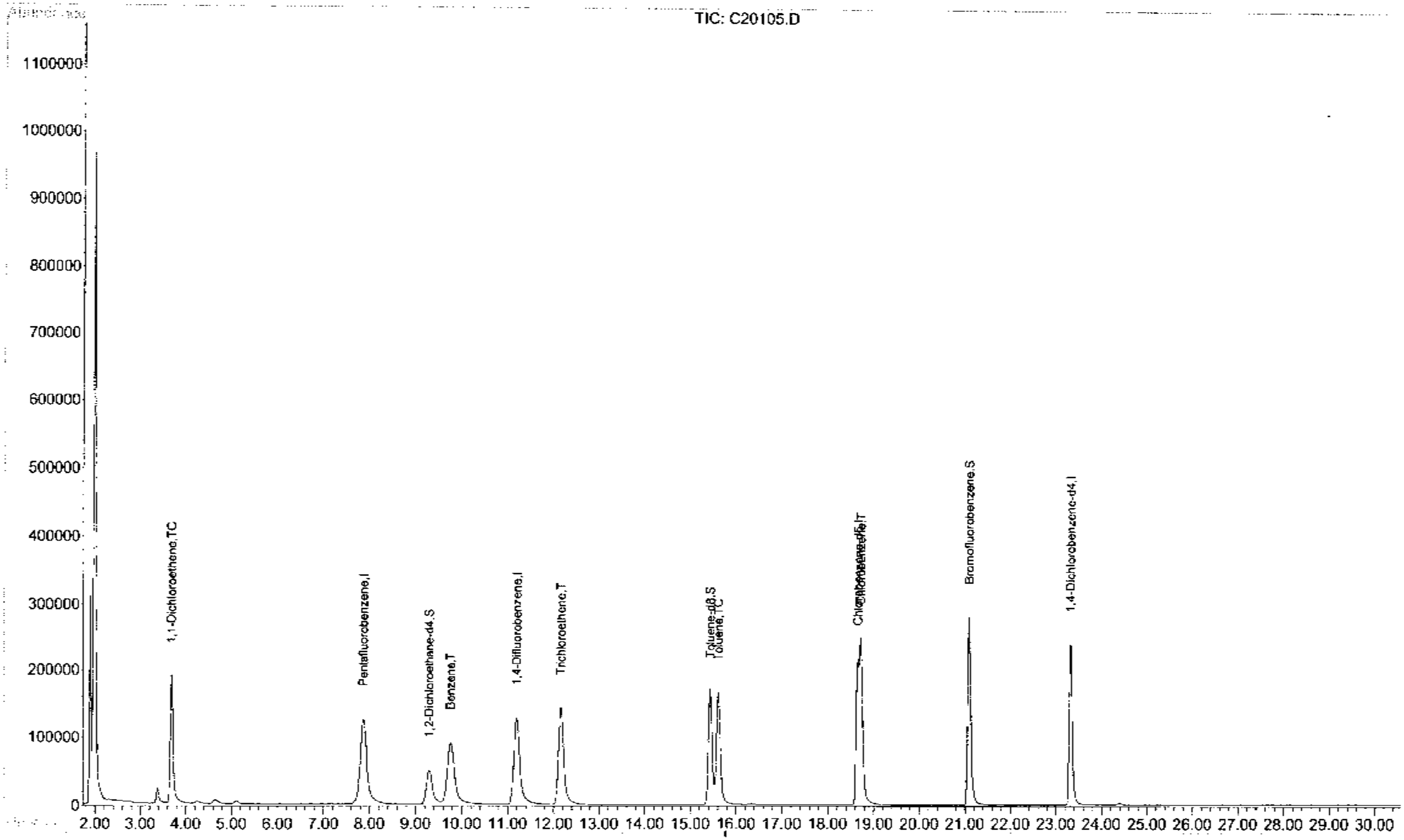
Quantitation Report

Data File : D:\DATA\C20105.D
Acq On : 12 Dec 2007 4:16 pm
Sample : U0712180-011AMS
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:18 2007

Vial: 5
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10IMSD

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011AMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20106.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	67	
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	56	
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	56	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	53	
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	56	
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10IMSD

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011AMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20106.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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Quantitation Report (QT Reviewed)

Data File : D:\DATA\C20106.D
Acq On : 12 Dec 2007 4:54 pm
Sample : U0712180-011AMSD
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:19 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Quant Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration
DataAcq Meth : TEST1210

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.88	168	298019	50.00 ug/L	0.02
35) 1,4-Difluorobenzene	11.19	114	405212	50.00 ug/L	0.00
55) Chlorobenzene-d5	18.65	117	269894	50.00 ug/L	0.00
83) 1,4-Dichlorobenzene-d4	23.32	152	134119	50.00 ug/L	0.00

System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	9.30	65	167156	48.62 ug/L	0.02
Spiked Amount 50.000	Range 76 - 114		Recovery =	97.24%	
49) Toluene-d8	15.43	98	323842	49.47 ug/L	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery =	98.94%	
54) Bromofluorobenzene	21.08	95	290707	46.46 ug/L	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery =	92.92%	

Target Compounds					Qvalue
11) 1,1-Dichloroethene	3.69	96	118941m	66.63 ug/L	
38) Benzene	9.76	78	386309	55.50 ug/L	100
40) Trichloroethene	12.17	95	197170	55.75 ug/L	99
50) Toluene	15.61	92	194618	53.22 ug/L	100
61) Chlorobenzene	18.72	112	245892	56.30 ug/L	98

(#) = qualifier out of range (m) = manual integration

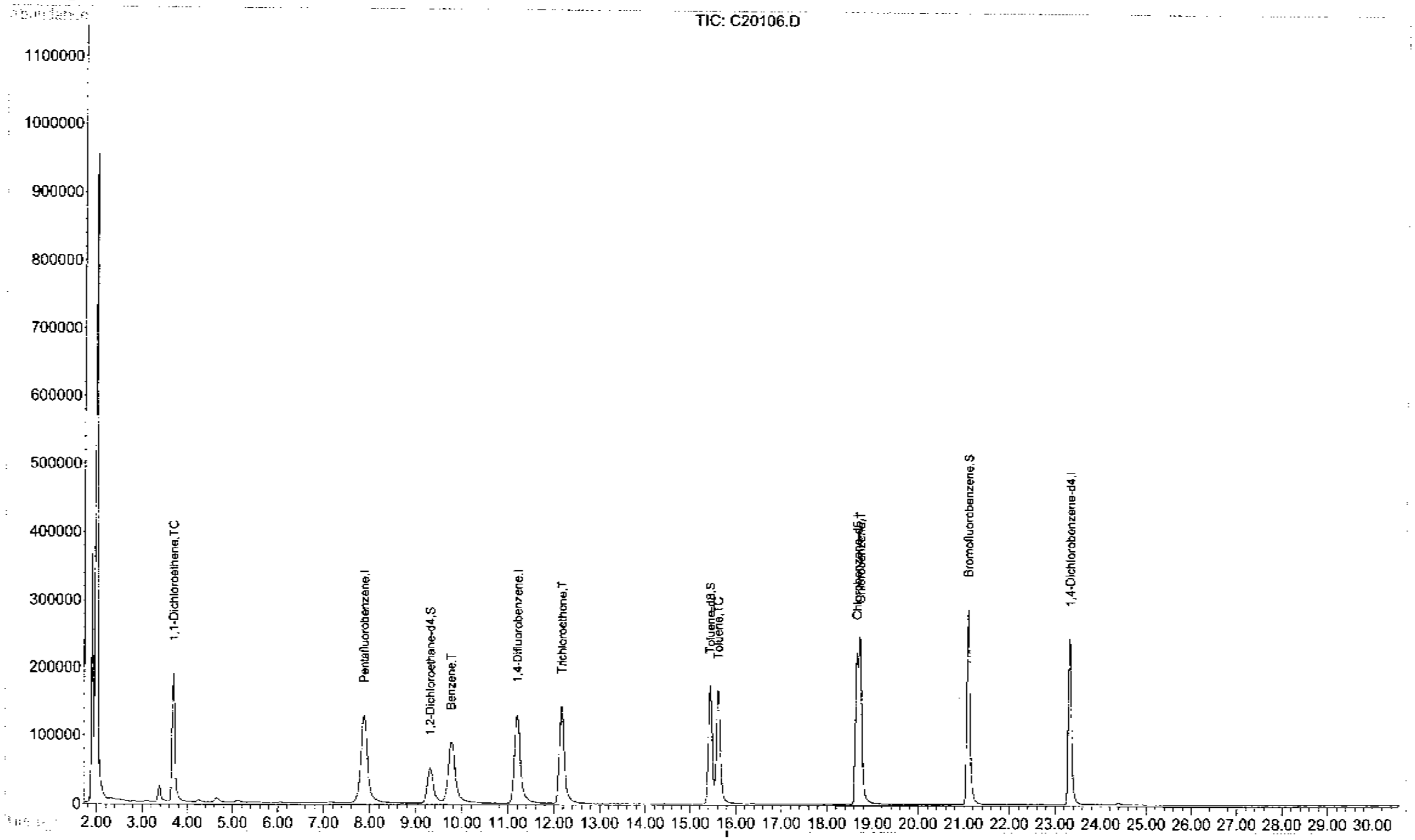
Quantitation Report

Data File : D:\DATA\C20106.D
Acq On : 12 Dec 2007 4:54 pm
Sample : U0712180-011AMSD
Misc : 5ML
MS Integration Params: rteint.p
Quant Time: Dec 13 8:19 2007

Vial: 6
Operator: MM
Inst : #12
Multiplr: 1.00

Quant Results File: TEST1210.RES

Method : D:\METHODS\TEST1210.M (RTE Integrator)
Title : VOA 8260 Calibration
Last Update : Mon Dec 10 14:48:15 2007
Response via : Initial Calibration



Copy of Calculations

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Upstate Laboratories, Inc.

11.1.2.4 Guidelines for making tentative identification:

- Relative intensities of major ions in the reference spectrum (ions greater than 10.0 percent of the most abundant ion) should be present in the sample spectrum.
- The relative intensities of the major ions should agree within ±20.0 percent. (Example: For an ion with an abundance of 50.0 percent of the standard spectra, the corresponding sample ion abundance must be between 30.0 and 70.0 percent.)
- Molecular ions present in reference spectrum should be present in sample spectrum.
- Ions present in the sample spectrum but not in the reference spectrum should be reviewed for possible background contamination or presence of co-eluting compounds.
- Ions present in the reference spectrum but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or co-eluting compounds. Data system library reduction programs can sometimes create these discrepancies.

11.1.2.5 If, in the technical judgment of the mass spectral interpretation specialist, no valid tentative identification can be made, the compound should be reported as unknown. The mass spectral specialist should give additional classification of the unknown compound, if possible (i.e., unknown aromatic, unknown hydrocarbon, unknown acid type, unknown chlorinated compound). If probable molecular weights can be distinguished, include them. -573-

11.2 Calculations

11.2.1 Target Compounds

11.2.1.1 Target compounds identified shall be quantified by the internal standard method using the equations below. The internal standard used shall be that which is assigned in Table 3. The relative response factor (RRF) from the continuing calibration standard is calculate the concentration in the sample.

11.2.1.2 Water

Equation 5

$$\text{Concentration } \mu g/L = \frac{(A_x)\ (I_s)\ (Df)}{(A_{is})\ (RRF)\ V_o}$$

Where,

A_x = Area of the characteristic ion (EICP) for the compound to be measured (see Table 2)

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard (see Tables 3 and 4)

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor from the ambient temperature purge of the calibration standard.

V_o = Volume of water purged in milliliters (mL)

Df = Dilution factor. The dilution factor for analysis of water samples for volatiles by this method is defined as the ratio of the number of milliliters (mL) of water purged (i.e., Vo above) to the number of mL of the original water sample used for purging. For example, if 2.0 mL of sample is diluted to 5 mL with reagent water and purged, Df = 5 mL/2.0 mL = 2.5. If no dilution is performed, Df = 1.

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11.2.1.3 Low Soil/Sediment

Equation 6

$$\text{Concentration } \mu g/Kg \text{ (dry weight basis)} = \frac{(A_x)\,(I_s)}{(A_{is})\,(RRF)\,(W_s)\,(D)}$$

Where,

A_x, I_s, A_{is} are as given for water.

RRF = Relative response factor from the heated purge of the calibration standard.

$$D = \frac{100 - \%\text{ moisture}}{100}$$

W_s = Weight of sample added to the purge tube, in grams (g).

11.2.1.4 Medium Soil/Sediment

Equation 7

$$\text{Concentration } \mu g/Kg \text{ (Dry weight basis)} = \frac{(A_x)(I_s)(V_t)(1000)(Df)}{(A_{is})(RRT)(V_a)(W_s)(D)}$$

Where,

A_x, I_s, A_{is} are as given for water.

RRF = Relative response factor from the ambient temperature purge of the calibration standard.

V_t = Total volume of the methanol extract in milliliters (mL). NOTE: This volume is typically 10 mL, even though only 1 mL is transferred to the vial in Section 10.1.5.6.

V_a = Volume of the aliquot of the sample methanol extract (i.e., sample extract not including the methanol added to equal 100 µL) in microliters (µL) added to reagent water for purging.

W_s = Weight of soil/sediment extracted, in grams (g).

$$D = \frac{100 - \%\text{ moisture}}{100}$$

Df = Dilution factor. The dilution factor for analysis of soil/sediment samples for volatiles by the medium level method is defined as:

$$\frac{\mu L \text{ most conc. extract used to make dilution} + \mu L \text{ clean solvent}}{\mu L \text{ most conc. extract used to make dilution}}$$

The dilution factor is equal to 1.0 in all cases other than those requiring dilution of the sample methanol extract (V_t). Dilution of the extract is required when the X factor (Section 10.1.5.7) is ≥12.5. The factor of 1,000 in the numerator converts the value of V_t from mL to µL.

11.2.1.5 For water, low level and medium level soil/sediment samples, xylenes (o-,m- and p-isomers) are to be reported as xylenes (total). Because the o- and p-xylene isomers co-elute on packed columns, and the m- and p-xylene isomers co-elute on capillary columns, special attention must be given to the quantitation of the xylenes. The relative

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11.2.2 Non-Target Compounds

11.2.2.1 An estimated concentration for non-target compounds tentatively identified shall be determined by the internal standard method. For quantitation, the nearest internal standard free of interferences shall be used.

11.2.2.2 The formulas for calculating concentrations are the same as in Sections 11.2.1.2, 11.2.1.3, and 11.2.1.4. Total area counts (or peak heights) from the total ion chromatograms are to be used for both the compound to be measured and the internal standard. A relative response factor (RRF) of one (1) is to be assumed. The resulting concentration shall be qualified as "J" (estimated, due to lack of a compound-specific response factor), and "N" (presumptive evidence of presence), indicating the quantitative and qualitative uncertainties associated with this non-target component. An estimated concentration must be calculated for all tentatively identified compounds as sell as those identified as unknowns.

11.2.3 CRQL Calculations

NOTE: If the adjusted CRQL is less than the CRQL listed in Exhibit C (Volatiles), report the CRQL listed in Exhibit C (Volatiles).

11.2.3.1 Water

Equation 8 -576-

$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{V_x}{V_o} \times Df$$

Where,

V_o and Df are as given in Equation 5

V_x = Contract Sample Volume (5 mL)

11.2.3.2 Low Level Soil/Sediment

Equation 9

$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{(W_x)}{(W_s)\ (D)}$$

Where,

W_s and D are as given in Equation 6

W_x = Contract Sample Weight (5 g)

11.2.3.3 Medium Level Soil/Sediment

Equation 10

$$\text{Adjusted CRQL} = \text{Protocol CRQL} \times \frac{(W_x)\,(V_t)\,(V_y)\,(Df)}{(W_s)\,(V_c)\,(V_a)\,(D)}$$

Where,

V_t, Df, W_s, V_a, and D are as given in Equation 7

W_x = Contract Sample Weight (4 g)

V_y = Contract Soil Aliquot Volume from soil methanol extract (100 μL)

V_c = Contract Soil Methanol Extract Volume (10,000 μL) -577-

11.2.4 System Monitoring Compound Recoveries

11.2.4.1 Calculate the recovery of each system monitoring compound in all samples, blanks, matrix spikes, matrix spike duplicates, and matrix spike blanks. Determine if the recovery is within limits (see Table 7), and report on appropriate form.

11.2.4.2 Calculate the concentrations of the system monitoring compounds using the same equations as used for target compounds

11.2.4.3 Calculate the recovery of each system monitoring compound as follows:

Equation 11

$$\%\text{Recovery} = \frac{\text{Concentration (amount) found}}{\text{Concentration (amount) spiked}} \times 100$$

9.3.3 Procedure for Initial Calibration

9.3.3.1 Assemble a purge and trap device that meets the specifications in Section 6.4. Condition the device as described in Section 9.1.1.

9.3.3.2 Connect the purge and trap device to the gas chromatograph. The gas chromatograph must be operated using temperature and flow rate parameters equivalent to those in 9.1.2.

9.3.3.3 Add 10 µL of the internal standard solution (Section 7.2.4.3) to each of the five aqueous calibration standard solutions containing the system monitoring compounds (Section 7.2.4.6) for a concentration of 50 µg/L at time of purge. Analyze each calibration standard according to Section 10.

9.3.3.4 Separate initial and continuing calibrations must be performed for water samples and low level soil/sediment samples (unheated purge vs. heated purge). Extracts of medium level soil/sediment samples may be analyzed using the calibrations of water samples.

9.3.4 Calculations for Initial Calibration

9.3.4.1 Calculate the relative response factor (RRF) for each volatile target and system monitoring compound using Equation 1. The primary characteristic ions used for quantitation are listed in Table 2 and Table 4. Assign the target compounds, and system monitoring compound to an internal standard according to Table 3. If an interference prevents the use of a primary ion for a given internal standard, use a secondary ion listed in Table 4. NOTE: Unless otherwise stated, the area response of the primary characteristic ion is the quantitation ion. -578-

Equation 1.

$$RRF = \frac{A_x}{A_{is}} \times \frac{C_{is}}{C_x}$$

Where:

A_x = Area of the characteristic ion (EICP) for the compound to be measured (see Table 2).

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard (see Tables 3 and 4).

C_{is} = Concentration of the internal standard (µg/mL).

C_x = Concentration of the compound to be measured (µg/mL).

9.3.4.2 Calculating the relative response factor of the xylenes and the cis- and trans- isomers of 1,2-dichloroethene requires special attention. On packed columns, o- and p-xylene isomers co-elute. On capillary columns, the m- and p-xylene isomers co-elute. Therefore, when calculating the relative response factor in the equation above, use the area response (A_x) and concentration (C_x) of the peak that represents the single isomer on the GC column used for analysis.

9.3.4.3 For the cis- and trans- isomers of 1,2-dichloroethene which may co-elute on packed columns but not on capillary columns, both isomers must be present in the standards. If the two isomers co-elute, use the area of the co-eluting peak and the total concentration of the two isomers in the standard to determine the relative response factor. If the two isomers do not co-elute, sum the areas of the two peaks and the concentrations of the two isomers in the standard to determine the relative response factor.

9.3.4.4 The mean relative response factor ($\overline{RRF}$) must be calculated for all compounds.

9.3.4.5 Calculate the % Relative Standard Deviation (%RSD) of the RRF values over the working range of the curve.

Equation 2

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$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

Where:

$$\text{Standard Deviation} = \sqrt{\frac{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2}{(n-1)}}$$

Where:

x_i = each individual value used to calculate the mean

$\bar{x}$ = the mean of n values

n = the total number of values

Injection Log

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Upstate Laboratories, Inc.

Volatile GC/MS Injection Log

Instrument: HP5971 #12.0	Client Name: 1) QA/QC
GC Column: RTX-VOLATILE	2)
60m x 0.53mmID	3)
* Init Cal Date 1:	4)
+ Init Cal Date 2:	Client Name: 5) 6) 7) 8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	Test1203	5ml	8260	V09	C20050	12/10/07	–	ND	
2		BFB	Test1203				C20053		1021		
3		VSTD003	Test1210				C20054		1106		
4		VSTD010					C20055		1144		
5		VSTD020					C20056		1221		
6		VSTD050					C20057		1259		
7		VSTD100					C20058		1337		
8		VSTD200					C20059		1415		
9		BFB					C20060		1506		
10		CC					C20061		1550		
11		MB					C20062		1628		
12		LCS					C20063		1706		
13	V0711508-019AMS						C20064		1744		
14		-019AMSD					C20065		1822		
15		-019A					C20066		1900		
16	V0712081-005A						C20067		1938		
17	V0711508-025A						C20068		2016		
18		-026A					C20069		2053		
19		-027A					C20070		2131		
20		-028A					C20071		2209		
21		-029A					C20072		2247		
22		-030A					C20073		2325		
23	V0712081-001A						C20074	12/11/07	2403		
24	V0711208-002A			1ml			C20075		2441	5X	
25		-003A		5ml			C20076		119	ND	
26		-004A		5ml			C20077		157		
27	CC			5ml			C20078		1435		
28											
29											

Comments: heated 10 ml heated H2O (heated soil.

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: MM

Page No. 17

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—	X		X			1
—	—	—	—	—	—	—						2
342272	424827	293913	154980	102	101	101						3
365819	461598	315724	164358	104	100	100						4
358853	454985	306330	159868	100	99	100						5
360291	461314	311739	161536	100	100	100						6
333177	445190	302533	159730	107	100	100						7
329543	448864	304002	158580	108	99	100						8
—	—	—	—	—	—	—						9
344902	460853	316203	166888	103	101	103	X		30185			10
319064	418510	292591	150773	103	101	102						11
324092	429027	298005	153416	103	100	102						12
314923	420431	291386	150133	103	100	101						13
318575	425812	295499	154533	102	100	101						14
332748	445533	312250	160085	104	100	101						15
316606	430758	296811	151699	101	100	99						16
317961	431829	297335	150737	102	99	98						17
331949	447851	309900	156427	101	100	99						18
318480	426359	294422	148647	100	100	99						19
328882	445649	306261	155329	103	99	99						20
302008	405881	279611	141844	99	101	99						21
301982	405085	279539	139952	97	99	97				failing internals		22
300122	400514	275631	137704	97	100	97						23
305431	411657	283426	142798	98	100	97				RR > confirm		24
53557	68899	49882	25163	107	102	104				RR > DCM		25
309920	414886	288221	147993	102	101	100				RR n.t.s		26
309084	417427	281516	145637	98	100	98						27
												28
												29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #1 % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: MM

Page No. 18

Volatile GC/MS Injection Log

Instrument: HP5971 #12.0	
GC Column: RTX-VOLATILE	
60m x 0.53mmID	
* Init Cal Date 1: 12/10/07	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	test1210	5ml	8260	voa	C20082	12/11/07	1304	ND	
2		CC					C20083		1341		
3		MB					C20084		1417		
4		LCS					C20085		1525		
5	V07	1209-002A		1ml			C20086		1603	5X	
6		-003A		5ml			C20087		1641	ND	
7		-004A					C20088		1719		
8	V07	1213-004A					C20089		1757		
9	V07	1208-001A					C20090		1835		
10		-002A					C20091		1913		
11		-004A					C20092		1951		
12		-005A					C20093		2029		
13		-007A					C20094		2107		
14		-008A					C20095		2145		
15		-009A					C20096		2223		
16	V07	1210-001A					C20097		2301		
17		-002A					C20098		2339		
18		-003A					C20099		2417		
19	CC						C20100		2455		
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											

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Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

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Analyzed by: [signature]

Page No. 19

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance
___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—	X		30223	.		1
297153	406770	278079	144343	100	100	101						2
311161	421380	298669	151985	104	101	102						3
208486	283916	201496	103802	109	100	103						4
296216	403092	283257	144224	105	101	102						5
290967	391970	275272	139221	103	101	101						6
290446	396187	278924	140525	105	100	101						7
298027	401185	279917	142195	101	101	100						8
312324	424703	305713	154836	106	101	101						9
248942	364992	295553	133276	104	99	104						10
312145	409476	285461	143042	99	101	100						11
277826	382881	270173	138452	108	101	103						12
289463	393909	278049	140648	102	101	101						13
318016	439278	312611	158673	107	102	103						14
272811	378367	267300	132440	104	101	101						15
284435	388267	272066	137141	102	101	100						16
274894	374021	263097	132157	104	102	101						17
275692	374079	265597	133328	102	101	100						18
285344	391168	264618	136473	100	100	98						19
												20
												21
												22
												23
												24
												25
												26
												27
												28
												29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #1 % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: MM

Page No. 20

Volatile GC/MS Injection Log

Instrument: HP5971 #12.0
GC Column: RTX-VOLATILE
60m x 0.53mmID
* Init Cal Date 1:
+ Init Cal Date 2:

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	test1210	5ml	8260	V09	C20101	12/12/97	1331	ND	
2		CC					C20102		1418		
3		MB					C20103		1500		
4		LCS					C20104		1539		
5	V97	12180-011AMS					C20105		1634		
6		-011AMSD					C20106		1616		
7		-011A					C20107		1732		
8		-004A					C20108		1409		
9		-005A					C20109		1847		
10		-006A					C20110		1924		
11		-007A					C20111		2002		
12		-008A					C20112		2039		
13		-009A					C20113		2117		
14		-010A					C20114		2154		
15		-012A					C20115		2231		
16		-013A					C20116		2309		
17		-014A					C20117		2347		
18		-015A					C20118		2420		
19	CC						C20119		102		
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											

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Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: [signature]

Page No. 21

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

- ___Purge & Bake system
- ___Change trap
- ___Change column
- ___Cleans source
- ___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
–	–	–	–	–	–	–	X		30268			1
302658	412102	268685	137726	98	99	92						2
311030	418746	282920	139425	101	99	94						3
312382	425168	284090	139622	97	99	92						4
298019	405212	269894	134119	97	99	93						5
297369	398798	268574	131772	98	101	93						6
302783	416514	274410	136199	98	100	93						7
294395	403496	270246	133250	99	100	94						8
302346	411486	273832	133991	99	100	93						9
295141	399412	266421	129398	97	100	93						10
291481	398986	265357	129692	96	100	92						11
315709	436517	293485	142511	99	100	93						12
294968	402357	270432	132880	101	99	93						13
290985	393330	262594	127613	96	99	92						14
289567	392639	260982	126367	97	99	91						15
300559	396523	264830	128552	92	99	91						16
300401	408718	270691	132494	96	99	91						17
293876	401017	268213	131054	97	100	92						18
300349	411196	265618	134587	95	99	90						19
												20
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												29

-586-

IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #1 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: [signature]

Page No. 22

Volatile GC/MS Injection Log

Instrument: HP5971 #13.0	
GC Column: DB-624	
75m x 0.53mmID	
* Init Cal Date 1: 11/27/07	
+ Init Cal Date 2: 12/3/07	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	D112760X	5mLS	8260	VOA	D19717	12/3/07	1036	—	
2		VSTD050	D120360X				D19718		1311	—	
3		VSTD200					D19719		1411	—	
4		VSTD100					D19720		1501	—	
5		VSTD020					D19721		1552	—	
6		VSTD010					D19722		1644	—	
7		VSTD003					D19723		1734	—	
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29											

Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

Analyzed by: ART

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INJLOGV.XLS

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—	X					1
295871	422890	312269	172566	101	99	100						2
280823	408265	329613	175270	101	104	104						3
284398	399279	317001	168912	99	106	109						4
298582	410658	325415	161816	94	104	107						5
278293	380964	311293	164266	100	105	112						6
297193	407622	337938	171584	98	104	108						7
												8
												9
												10
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												29

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IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #1 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: ART

Page No. 4

Volatile GC/MS Injection Log

Instrument: HP5971 #13.0	
GC Column: DB-624	
75m x 0.53mmID	
* Init Cal Date 1: 12/3/07	
+ Init Cal Date 2:	

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	DR0360X	5mL	8260	VOA	D19817	12/12/07	903		
2		CC					D19831		853		
3		MB					D19832		949		
4		LCS					D19833		1035		
5		W0712084-021A					D19834		1125		
6		-022A					D19835		1216		
7		-023A					D19836		1306		
8		-024A					D19837		1357		
9		-025A					D19838		1447		
10		W0712180-016A					D19839		1538		
11		-017A					D19840		1629		
12		-018A					D19841		1719		
13		-019A					D19842		1810		
14		-020A					D19843		1900		
15		CC					D19844		1950		
16											
17											
18											
19											
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21											
22											
23											
24											
25											
26											
27											
28											
29											

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Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

Analyzed by: ART

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INJLOGV.XLS

Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

___Purge & Bake system
___Change trap
___Change column
___Cleans source
___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—	X		30248			1
418328	543694	415935	214601	109	102	95						2
425901	547673	420507	196659	104	100	94						3
418354	547859	416293	201630	106	102	93						4
412984	528687	415431	192299	103	102	94						5
408562	526149	414363	192222	104	102	96						6
411358	531083	415413	201219	106	103	96						7
398339	514444	407100	201394	104	102	101						8
410405	527728	411591	194922	105	103	94						9
414889	539952	414058	197439	105	100	95						10
411922	530433	416378	194309	103	102	97						11
415930	545204	419086	202784	103	101	95						12
406206	526109	408034	202503	102	101	97						13
401203	523606	412679	194790	107	103	95						14
416360	553193	419260	215914	109	100	95						-590-
												16
												17
												18
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												29

IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

		Water Limits	Soil Limits
Surr #1 % Recovery		76-114	70-121
Surr #1 % Recovery		88-110	84-138
Surr #3 % Recovery		86-115	59-113

Analyzed by: ART

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Instrument: HP5971 #13.0
GC Column: DB-624
75m x 0.53mmID
* Init Cal Date 1:
\+ Init Cal Date 2:

Volatile GC/MS Injection Log

Client Name	Client Name
1) QA/QC	5)
2)	6)
3)	7)
4)	8)

	Client	Sample No.	Method/ID File	Samp Vol	Method	List	Number	Data File Date	Time	Dil. Factor	IS
1		BFB	D120360X	5mLs	8260	V24	D19845	12/13/07	906		
2		CC					D19846		956		
3		MB					D19847		1047		
4		LCS					D19848		1138		
5		40712180-021C					D19849		1229		
6		-022C					D19850		1320		
7		-023C					D19851		1411		
8		-024C					D19852		1501		
9		-025C					D19853		1552		
10		-026C					D19854		1643		
11		-027A					D19855		1734		
12		-028A					D19856		1824		
13		-029A					D19857		1915		
14		-030A					D19858		2005		
15		CC					D19859		2055		
16											
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18											
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24											
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26											
27											
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29											

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Comments:

Method	Source	Date
624	Fed Reg,Vol 49, #209	10/26/1984
8240	USEPA SW846, Rev 2	9/1/1994
8260	USEPA SW846, Rev 2	9/1/1994
TCLP	8240 w/Mtd extraction	9/1/1994
FedCLP	USEPA CLP OLM03.0	
ASPCL	DEC Superfund-95-1	

INJLOGV.XLS

Analyzed by: ART

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Volatile GC/MS Injection Log

CCCChk Internal Std Limits

				High limit
				Low limit

Pre-run maintenance

- ___Purge & Bake system
- ___Change trap
- ___Change column
- ___Cleans source
- ___Change He tank

Int. Std. #1	Int. Std. #2	Int. Std. #3	Int. Std. #4	Surr. #1	Surr. #2	Surr. #3	Matrix Water	Matrix Soil	Batch No.	Comments	Tape #	
—	—	—	—	—	—	—						1
426090	537117	416925	215308	109	99	95						2
417497	545796	415082	198632	103	100	92						3
407667	531436	415252	203558	103	102	98						4
413471	536529	418838	199253	105	103	95						5
402763	512711	420756	199695	98	105	99						6
406667	529626	418541	208259	102	104	98						7
411328	528236	419700	206437	101	104	101						8
391140	488763	411161	206050	92	108	123						9
406356	525600	418005	206610	101	103	100						10
407347	541376	420335	202942	103	100	94						11
425846	545944	425609	197693	102	102	96						12
426728	548397	423826	204429	101	101	95						13
418206	540650	419520	204525	103	104	98						14
424557	555231	424050	219477	104	102	92						15
												16
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												27
												28
												29

IS #1 = Pentafluorobenzene
IS #2 = 1,4 Difluorobenzene
IS #3 = Chlorobenzene-5
IS #4 = 1,4-dichlorobenzene-d4

	Water Limits	Soil Limits
Surr #1 % Recovery	76-114	70-121
Surr #1 % Recovery	88-110	84-138
Surr #3 % Recovery	86-115	59-113

Analyzed by: ART

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Sample List for Group: VOA_Dec_15_2007

Printing Date Dec-15-2007

Lab File ID	EPA SAMPLE NO.	Lab Sample ID	Date Acq.		Date Rec.	Date Due
C20053.D	VTUN01	BFB	12/10/2007	10:21	12/7/2007	12/14/2007
C20054.D	VSTD003	VSTD003	12/10/2007	11:06	12/7/2007	12/14/2007
C20055.D	VSTD010	VSTD010	12/10/2007	11:44	12/7/2007	12/14/2007
C20056.D	VSTD020	VSTD020	12/10/2007	12:21	12/7/2007	12/14/2007
C20057.D	VSTD050	VSTD050	12/10/2007	12:59	12/7/2007	12/14/2007
C20058.D	VSTD100	VSTD100	12/10/2007	13:37	12/7/2007	12/14/2007
C20059.D	VSTD200	VSTD200	12/10/2007	14:15	12/7/2007	12/14/2007
C20082.D	VTUN02	BFB	12/11/2007	13:09	12/7/2007	12/14/2007
C20083.D	VSTD050CC01	CC	12/11/2007	13:54	12/7/2007	12/14/2007
C20084.D	VBLK01	MB	12/11/2007	14:47	12/7/2007	12/14/2007
C20085.D	VMBS01	LCS	12/11/2007	15:25	12/7/2007	12/14/2007
C20097.D	MW-1S	U0712180-001A	12/11/2007	23:01	12/7/2007	12/14/2007
C20098.D	MW-1I	U0712180-002A	12/11/2007	23:39	12/7/2007	12/14/2007
C20099.D	MW-1D	U0712180-003A	12/12/2007	0:17	12/7/2007	12/14/2007
C20100.D	VSTD050CC02	CC	12/12/2007	0:55	12/7/2007	12/14/2007
C20101.D	VTUN03	BFB	12/12/2007	13:31	12/7/2007	12/14/2007
C20102.D	VSTD050CC03	CC	12/12/2007	14:18	12/7/2007	12/14/2007
C20103.D	VBLK02	MB	12/12/2007	15:00	12/7/2007	12/14/2007
C20104.D	VMBS02	LCS	12/12/2007	15:39	12/7/2007	12/14/2007
C20105.D	MW-10IMS	U0712180-011AMS	12/12/2007	16:16	12/7/2007	12/14/2007
C20106.D	MW-10IMSD	U0712180-011AMS	12/12/2007	16:54	12/7/2007	12/14/2007
C20107.D	MW-10I	U0712180-011A	12/12/2007	17:32	12/7/2007	12/14/2007
C20108.D	MW-2S	U0712180-004A	12/12/2007	18:09	12/7/2007	12/14/2007
C20109.D	MW-2I	U0712180-005A	12/12/2007	18:47	12/7/2007	12/14/2007
C20110.D	MW-2D	U0712180-006A	12/12/2007	19:24	12/7/2007	12/14/2007
C20111.D	MW-9S	U0712180-007A	12/12/2007	20:02	12/7/2007	12/14/2007
C20112.D	MW-9I	U0712180-008A	12/12/2007	20:39	12/7/2007	12/14/2007
C20113.D	MW-9D	U0712180-009A	12/12/2007	21:17	12/7/2007	12/14/2007
C20114.D	MW-10S	U0712180-010A	12/12/2007	21:54	12/7/2007	12/14/2007
C20115.D	MW-10D	U0712180-012A	12/12/2007	22:31	12/7/2007	12/14/2007
C20116.D	MW-12S	U0712180-013A	12/12/2007	23:09	12/7/2007	12/14/2007
C20117.D	CHA-1	U0712180-014A	12/12/2007	23:47	12/7/2007	12/14/2007
C20118.D	MW-12I	U0712180-015A	12/13/2007	0:24	12/7/2007	12/14/2007
C20119.D	VSTD050CC04	CC	12/13/2007	1:02	12/7/2007	12/14/2007

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Sample List for Group: VOA_Dec_15_2007

Printing Date Dec-15-2007

Lab File ID	EPA SAMPLE NO.	Lab Sample ID	Date Acq.		Date Rec.	Date Due
D19717.D	VTUN04	BFB	12/3/2007	10:36	12/7/2007	12/14/2007
D19718.D	VSTD050	VSTD050	12/3/2007	13:11	12/7/2007	12/14/2007
D19719.D	VSTD200	VSTD200	12/3/2007	14:11	12/7/2007	12/14/2007
D19720.D	VSTD100	VSTD100	12/3/2007	15:01	12/7/2007	12/14/2007
D19721.D	VSTD020	VSTD020	12/3/2007	15:52	12/7/2007	12/14/2007
D19722.D	VSTD010	VSTD010	12/3/2007	16:44	12/7/2007	12/14/2007
D19723.D	VSTD003	VSTD003	12/3/2007	17:34	12/7/2007	12/14/2007
D19817.D	VTUN05	BFB	12/12/2007	9:03	12/7/2007	12/14/2007
D19831.D	VSTD050CC05	CC	12/12/2007	20:53	12/7/2007	12/14/2007
D19832.D	VBLK03	MB	12/12/2007	21:44	12/7/2007	12/14/2007
D19833.D	VMBS03	LCS	12/12/2007	22:35	12/7/2007	12/14/2007
D19839.D	MW-12D	U0712180-016A	12/13/2007	3:38	12/7/2007	12/14/2007
D19840.D	MW-7S	U0712180-017A	12/13/2007	4:29	12/7/2007	12/14/2007
D19841.D	MW-71	U0712180-018A	12/13/2007	5:19	12/7/2007	12/14/2007
D19842.D	MW-7D	U0712180-019A	12/13/2007	6:10	12/7/2007	12/14/2007
D19843.D	ULI TRIP BLAN	U0712180-020A	12/13/2007	7:00	12/7/2007	12/14/2007
D19844.D	VSTD050CC06	CC	12/13/2007	7:50	12/7/2007	12/14/2007
D19845.D	VTUN06	BFB	12/13/2007	9:06	12/7/2007	12/14/2007
D19846.D	VSTD050CC07	CC	12/13/2007	9:56	12/7/2007	12/14/2007
D19847.D	VBLK04	MB	12/13/2007	10:47	12/7/2007	12/14/2007
D19848.D	VMBS04	LCS	12/13/2007	11:38	12/7/2007	12/14/2007
D19849.D	MW-14S	U0712180-021C	12/13/2007	12:29	12/7/2007	12/14/2007
D19850.D	MW-14I	U0712180-022C	12/13/2007	13:20	12/7/2007	12/14/2007
D19851.D	MW-14D	U0712180-023C	12/13/2007	14:11	12/7/2007	12/14/2007
D19852.D	MW-15S	U0712180-024C	12/13/2007	15:01	12/7/2007	12/14/2007
D19853.D	MW-15I	U0712180-025C	12/13/2007	15:52	12/7/2007	12/14/2007
D19854.D	MW-15D	U0712180-026C	12/13/2007	16:43	12/7/2007	12/14/2007
D19855.D	ULI TRIP BLAN	U0712180-027A	12/13/2007	17:34	12/7/2007	12/14/2007
D19856.D	ULI TRIP LANK	U0712180-028A	12/13/2007	18:24	12/7/2007	12/14/2007
D19857.D	ULI TRIP BLAN	U0712180-029A	12/13/2007	19:15	12/7/2007	12/14/2007
D19858.D	HOLDING BLA	U0712180-030A	12/13/2007	20:05	12/7/2007	12/14/2007
D19859.D	VSTD050CC08	CC	12/13/2007	20:55	12/7/2007	12/14/2007

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SDG Sequence Summary

Instrument Name: 13

Sample List Name: VOA_Dec_15_2007

	Continuing Calibration/Tune			Calibration	Sample	Ref. Blank	Misc.	Acquisition	
	Date	Time	File Name	File Name	File Name	File Name		Date	Time
1	12/3/2007	10:36	D19717.D				TUN	12/3/2007	10:36
2	12/3/2007	13:11	D19718.D				ICCAL	12/3/2007	13:11
3				D19719.D			STD	12/3/2007	14:11
4				D19720.D			STD	12/3/2007	15:01
5				D19721.D			STD	12/3/2007	15:52
6				D19722.D			STD	12/3/2007	16:44
7				D19723.D			STD	12/3/2007	17:34
8	12/12/2007	9:03	D19817.D				TUN	12/12/2007	9:03
9	12/12/2007	20:53	D19831.D				CCAL	12/12/2007	20:53
10					D19832.D		MBLK	12/12/2007	21:44
11					D19833.D	D19832.D	SMP	12/12/2007	22:35
12					D19839.D	D19832.D	SMP	12/13/2007	3:38
13					D19840.D	D19832.D	SMP	12/13/2007	4:29
14					D19841.D	D19832.D	SMP	12/13/2007	5:19
15					D19842.D	D19832.D	SMP	12/13/2007	6:10
16					D19843.D	D19832.D	SMP	12/13/2007	7:00
17	12/13/2007	7:50	D19844.D				CCAL	12/13/2007	7:50
18	12/13/2007	9:06	D19845.D				TUN	12/13/2007	9:06
19	12/13/2007	9:56	D19846.D				CCAL	12/13/2007	9:56
20					D19847.D		MBLK	12/13/2007	10:47
21					D19848.D	D19847.D	SMP	12/13/2007	11:38
22					D19849.D	D19847.D	SMP	12/13/2007	12:29
23					D19850.D	D19847.D	SMP	12/13/2007	13:20
24					D19851.D	D19847.D	SMP	12/13/2007	14:11
25					D19852.D	D19847.D	SMP	12/13/2007	15:01
26					D19853.D	D19847.D	SMP	12/13/2007	15:52
27					D19854.D	D19847.D	SMP	12/13/2007	16:43
28					D19855.D	D19847.D	SMP	12/13/2007	17:34
29					D19856.D	D19847.D	SMP	12/13/2007	18:24
30					D19857.D	D19847.D	SMP	12/13/2007	19:15
31					D19858.D	D19847.D	SMP	12/13/2007	20:05
32	12/13/2007	20:55	D19859.D				CCAL	12/13/2007	20:55

SDG Sequence Summary

Instrument Name: 12

Sample List Name: VOA_Dec_15_2007

	Continuing Calibration/Tune Date	Time	File Name	Calibration File Name	Sample File Name	Ref. Blank File Name	Misc.	Acquisition Date	Time
1	12/10/2007	10:21	C20053.D				TUN	12/10/2007	10:21
2				C20054.D			STD	12/10/2007	11:06
3				C20055.D			STD	12/10/2007	11:44
4				C20056.D			STD	12/10/2007	12:21
5	12/10/2007	12:59	C20057.D				ICCAL	12/10/2007	12:59
6				C20058.D			STD	12/10/2007	13:37
7				C20059.D			STD	12/10/2007	14:15
8	12/11/2007	13:09	C20082.D				TUN	12/11/2007	13:09
9	12/11/2007	13:54	C20083.D				CCAL	12/11/2007	13:54
10					C20084.D		MBLK	12/11/2007	14:47
11					C20085.D	C20084.D	SMP	12/11/2007	15:25
12					C20097.D	C20084.D	SMP	12/11/2007	23:01
13					C20098.D	C20084.D	SMP	12/11/2007	23:39
14					C20099.D	C20084.D	SMP	12/12/2007	0:17
15	12/12/2007	0:55	C20100.D				CCAL	12/12/2007	0:55
16	12/12/2007	13:31	C20101.D				TUN	12/12/2007	13:31
17	12/12/2007	14:18	C20102.D				CCAL	12/12/2007	14:18
18					C20103.D		MBLK	12/12/2007	15:00
19					C20104.D	C20103.D	SMP	12/12/2007	15:39
20					C20105.D	C20103.D	MS	12/12/2007	16:16
21					C20106.D	C20103.D	MSD	12/12/2007	16:54
22					C20107.D	C20103.D	SMP	12/12/2007	17:32
23					C20108.D	C20103.D	SMP	12/12/2007	18:09
24					C20109.D	C20103.D	SMP	12/12/2007	18:47
25					C20110.D	C20103.D	SMP	12/12/2007	19:24
26					C20111.D	C20103.D	SMP	12/12/2007	20:02
27					C20112.D	C20103.D	SMP	12/12/2007	20:39
28					C20113.D	C20103.D	SMP	12/12/2007	21:17
29					C20114.D	C20103.D	SMP	12/12/2007	21:54
30					C20115.D	C20103.D	SMP	12/12/2007	22:31
31					C20116.D	C20103.D	SMP	12/12/2007	23:09
32					C20117.D	C20103.D	SMP	12/12/2007	23:47
33					C20118.D	C20103.D	SMP	12/13/2007	0:24
34	12/13/2007	1:02	C20119.D				CCAL	12/13/2007	1:02

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Upstate Laboratories, Inc.
Sample Preservation Log for VOCs
SR-10-08 Revised 11/97

ULI No.	pH	ULI No.	pH	ULI No.	pH
U0711081-001	<2	U0711335-011H	<2	U0712180-001	<2
-002		-012H		-002	
-004		U0711346-001H	<2	-003	
-005		002H		-004	
-006		003H		-005	
-007		004H		-006	
-008		005H		-007	
U0711315-001	<2	006H		-008	
-002		007H		-009	
-003		U0711239-20	<2	-010	
-004		-21		-011	
U0711316-047G	<2	-22		-012	
048G		-23		-013	
049G		-24		-014	
050A		-25		-015	
055A		-26		-016	
056A		-27		-017	
057A		-28		-018	
058A		-29		-019	
059A		-30		-020	
060A		-31		-021	
061A		-32		-022	
062A		-33		-023	
063A		-34		-024	
064A		-35		-025	
U0711335-001H	<2	-36		-026	
-002H		U0711247-001	<2	-027	
-003H		-002		-028	
-004H		-003		-029	
-005H		-004		-030	
-006H		-005	4		
-007H		-006	<2		
-008H		-007			
-009H					
-010H					

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Summary Package

Case Narrative, Summary of Test Results, Summary of QC Results, Chain of Custody Documentation and Field Data
Volume 1 of 4

SDG No. CHA-89

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

Samples Collected:

December 4, 2007
December 5, 2007
December 6, 2007
December 7, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-1S	U0712180-001	8260	-	-	-	-	-
MW-1I	U0712180-002	8260	-	-	-	-	-
MW-1D	U0712180-003	8260	-	-	-	-	-
MW-2S	U0712180-004	8260	-	-	-	-	-
MW-2I	U0712180-005	8260	-	-	-	-	-
MW-2D	U0712180-006	8260	-	-	-	-	-
MW-9S	U0712180-007	8260	-	-	-	-	-
MW-9I	U0712180-008	8260	-	-	-	-	-
MW-9D	U0712180-009	8260	-	-	-	-	-
MW-10S	U0712180-010	8260	-	-	-	-	-
MW-10I	U0712180-011	8260	-	-	-	-	-
MW-10I MS	U0712180-011MS	8260	-	-	-	-	-
MW-10I MSD	U0712180-011MSD	8260	-	-	-	-	-
MW-10D	U0712180-012	8260	-	-	-	-	-
MW-12S	U0712180-013	8260	-	-	-	-	-
CHA-1	U0712180-014	8260	-	-	-	-	-
MW-12I	U0712180-015	8260	-	-	-	-	-
MW-12D	U0712180-016	8260	-	-	-	-	-
MW-7S	U0712180-017	8260	-	-	-	-	-
MW-7I	U0712180-018	8260	-	-	-	-	-
MW-7D	U0712180-019	8260	-	-	-	-	-
ULI Trip Blank	U0712180-020	8260	-	-	-	-	-
MW-14S	U0712180-021	8260	-	-	-	Baseline (1993)	TDS
MW-14I	U0712180-022	8260	-	-	-	Baseline (1993)	TDS
MW-14D	U0712180-023	8260	-	-	-	Baseline (1993)	TDS
MW-15S	U0712180-024	8260	-	-	-	Baseline (1993)	TDS
MW-15I	U0712180-025	8260	-	-	-	Baseline (1993)	TDS
MW-15D	U0712180-026	8260	-	-	-	Baseline (1993)	TDS
ULI Trip Blank	U0712180-027	8260	-	-	-	-	-
ULI Trip Blank	U0712180-028	8260	-	-	-	-	-
ULI Trip Blank	U0712180-029	8260	-	-	-	-	-
Holding Blank	U0712180-030	8260	-	-	-	-	-

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Narrative

1.0 Summary

This report presents the sample test results and quality control results for twenty five water sample locations for the City of Albany Interim Landfill Project, Albany, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and four volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-4) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples was collected by Upstate Laboratories, Inc. personnel on December 4, 5, 6, and 7, 2007, and were then delivered to Upstate Laboratories, Inc., Syracuse, New York, via Velocity. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Volatile Organics	8260	(1)
Aluminum	200.7	(1)
Antimony	200.7	(1)
Arsenic	200.7	(1)
Barium	200.7	(1)
Beryllium	200.7	(1)
Boron	200.7	(1)
Cadmium	200.7	(1)
Calcium	200.7	(1)
Chromium	200.7	(1)
Cobalt	200.7	(1)
Copper	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Mercury	245.2	(1)
Nickel	200.7	(1)
Potassium	200.7	(1)
Selenium	200.7	(1)
Silver	200.7	(1)
Sodium	200.7	(1)
Thallium	200.7	(1)
Vanadium	200.7	(1)
Zinc	200.7	(1)
TDS	160.1	(1)

The total number of pages in this Data Package is: 133.

(1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 10/95 Revision

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

Holding Time : Criteria were satisfied.

Calibration : 1,3-Dichlorobenzene did not meet the minimum RRF requirements for the IC and the CC lab files C20119.D and D19846.D. Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.

Method Blank : Criteria were satisfied.

MSB : Criteria were satisfied.

MS/MSD : Criteria were satisfied.

Surrogates : Criteria were satisfied.

Internal Stds : Criteria were satisfied.

Trace Metals Data

Holding Time : Criteria were satisfied.

Calibration : The CCV and the initial CRDL %recoveries for Boron were greater than QC acceptance limits. All other criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref. Samples : Criteria were satisfied.

Matrix Spikes : An MS was not submitted and / or designated for trace metals analysis for ULI SDG No. CHA-89.

Duplicates : A Duplicate analysis was not submitted and /or designated for trace metals analysis for ULI SDG No. CHA-89.

Wet Chemistry Data

Holding Time : Criteria were satisfied.

Calibration : Criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref. Samples : Criteria were satisfied.

Matrix Spikes : An MS was not submitted and / or designated for wet chemistry analysis for ULI SDG No. CHA-89.

Duplicates : A Duplicate analysis was not submitted and /or designated for wet chemistry analysis for ULI SDG No. CHA-89.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved Anthony J. Scala

Anthony J. Scala, Director

CHA89BALB.INT.doc

Sample Data

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Upstate Laboratories, Inc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-001A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20097.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	2	J
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-002A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20098.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ____ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ____ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-003A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20099.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-004A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20108.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-005A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20109.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-006A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20110.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-007A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20111.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	2	J
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	2	J
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-008A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20112.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	3.39	7	JN

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-009A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20113.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-010A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20114.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-011A

Sample wt/vol: 5.0 ___ (g/ml) ML Lab File ID: C20107.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. _____ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000060-29-7	Ethyl ether	3.38	4	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-012A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20115.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-013A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20116.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CHA-1

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-014A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20117.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-015A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20118.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-12D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-016A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19839.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-017A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19840.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-71

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-018A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19841.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-019A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19842.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-020A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19843.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-021C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19849.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-14S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-021

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1370			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	18400			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	62000			P
7439-89-6	Iron	8190			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3920	B		P
7439-96-5	Manganese	175			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	2680	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	56.7			P

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Color Before: YELLOW Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:
Light Brown Sediement

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14S
Lab Order:	U0712180	**Collection Date:**	12/6/2007 3:40:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-021	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	120 J	25		mg/L	1	12/10/2007

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19850.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc.   Contract: CHA

Lab Code: 10170   Case No.: ___   SAS No.: ___   SDG No.: CHA89

Matrix: (soil/water) WATER   Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML   Lab File ID: D19850.D

Level: (low/med) LOW   Date Received: 12/7/2007

% Moisture: not dec. ___   Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm)   Dilution Factor: 1.0

Soil Extract Volume: ___ (uL)   Soil Aliquot Volume: ___ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-022C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19850.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-14I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-022

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	133	B		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	67.5	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	59000			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	180000			P
7439-89-6	Iron	681			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8020			P
7439-96-5	Manganese	143			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	4320	B		P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	24.2			P

-75-

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14I
Lab Order:	U0712180	**Collection Date:**	12/6/2007 3:21:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-022	**Matrix:**	GROUNDWATER

Analyses	Result		Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)			**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	212	J	25		mg/L	1	12/10/2007

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Approved By: **Date:** Page 2 of 6

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-14D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-023C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19851.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-14D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-023

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	19900			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	65300			P
7439-89-6	Iron	155			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	3810	B		P
7439-96-5	Manganese	35.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	15500			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	10.8	B		P

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14D
Lab Order:	U0712180	**Collection Date:**	12/6/2007 3:52:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-023	**Matrix:**	GROUNDWATER

Analyses	Result		Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)			E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	132	J	25		mg/L	1	12/10/2007

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Approved By: ____________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15S

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-024C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19852.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-15S

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-024

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	67.1	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	51100			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	12.5	B		P
471-34-1	Hardness, T	181000			P
7439-89-6	Iron	8840			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	12900			P
7439-96-5	Manganese	695			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	3240	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	51800			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	12.4	B		P

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Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15S
Lab Order:	U0712180	**Collection Date:**	12/6/2007 12:04:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-024	**Matrix:**	GROUNDWATER

Analyses	Result		Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)			**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	376	J	25		mg/L	1	12/10/2007

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Approved By: **Date:**

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15I

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-025C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19853.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID: MW-15I

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-025

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	243			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	128	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	64800			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	198000			P
7439-89-6	Iron	996			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8910			P
7439-96-5	Manganese	201			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	9680			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	12.1	B		P

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Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:
Light Brown Sediment

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15I
Lab Order:	U0712180	**Collection Date:**	12/6/2007 11:44:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-025	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	272 J	25		mg/L	1	12/10/2007

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Approved By: ________ **Date:** ________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ________ SAS No.: ___ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ________ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ________ (uL) Soil Aliquot Volume: ________ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15D

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-026C

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19854.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMP ID

MW-15D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Lab Sample ID: U0712180-026

Level (low/med): LOW Date Received: 12/7/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2550			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	13.6			P
7440-39-3	Barium	61.1	B		P
7440-41-7	Beryllium	3.0	U		P
7440-42-8	Boron	500	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	42500			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U		P
471-34-1	Hardness, T	143000			P
7439-89-6	Iron	5410			P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	8870			P
7439-96-5	Manganese	244			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1020	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	13000			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	24.4			P

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

Light Brown Sediment

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15D
Lab Order:	U0712180	**Collection Date:**	12/6/2007 12:16:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-026	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	112 J	25		mg/L	1	12/10/2007

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Approved By: ______ **Date:** ______

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-027A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19855.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-028A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19856.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ULI TRIP BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-029A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19857.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANK

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: U0712180-030A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19858.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. ______ Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ______ (uL) Soil Aliquot Volume: ______ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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Quality Control Summary

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Upstate Laboratories, Inc.

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	104	101	102	0
02	VMBS01	109	100	103	0
03	MW-1S	102	101	100	0
04	MW-1I	104	102	101	0
05	MW-1D	102	101	100	0
06	VBLK02	101	99	94	0
07	VMBS02	97	99	92	0
08	MW-10IMS	98	101	93	0
09	MW-10IMSD	97	99	93	0
10	MW-10I	98	100	93	0
11	MW-2S	99	100	94	0
12	MW-2I	99	100	93	0
13	MW-2D	97	100	93	0
14	MW-9S	96	100	92	0
15	MW-9I	99	100	93	0
16	MW-9D	101	99	93	0
17	MW-10S	96	99	92	0
18	MW-10D	97	99	91	0
19	MW-12S	92	99	91	0
20	CHA-1	96	99	91	0
21	MW-12I	97	100	92	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK03	104	101	94	0
02	VMBS03	106	102	93	0
03	MW-12D	106	101	96	0
04	MW-7S	103	102	98	0
05	MW-71	103	102	96	0
06	MW-7D	103	101	97	0
07	ULI TRIP BLAN	107	103	96	0
08	VBLK04	103	100	93	0
09	VMBS04	104	102	98	0
10	MW-14S	106	103	95	0
11	MW-14I	99	105	100	0
12	MW-14D	102	104	98	0
13	MW-15S	102	104	101	0
14	MW-15I	92	108	104	0
15	MW-15D	102	104	100	0
16	ULI TRIP BLAN	103	100	95	0
17	ULI TRIP LANK	103	103	97	0
18	ULI TRIP BLAN	101	102	95	0
19	HOLDING BLAN	103	104	98	0

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			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix Spike - EPA Sample No MW-10I

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	68	136	61 - 145
Benzene	50	0.0	57	114	76 - 127
Trichloroethene	50	0.0	58	116	71 - 120
Toluene	50	0.0	55	110	76 - 125
Chlorobenzene	50	0.0	58	116	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	67	134	1	14	61 - 145
Benzene	50	56	112	2	11	76 - 127
Trichloroethene	50	56	112	4	14	71 - 120
Toluene	50	53	106	4	13	76 - 125
Chlorobenzene	50	56	112	4	13	75 - 130

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Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK01 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	63	126	61-145
Benzene	50	0	48	96	76-127
Trichloroethene	50	0	49	98	71-120
Toluene	50	0	47	94	76-125
Chlorobenzene	50	0	47	94	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK02 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	70	140	61-145
Benzene	50	0	53	106	76-127
Trichloroethene	50	0	54	108	71-120
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	55	110	75-130

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WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK03 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	52	104	61-145
Benzene	50	0	50	100	76-127
Trichloroethene	50	0	50	100	71-120
Toluene	50	0	53	106	76-125
Chlorobenzene	50	0	55	110	75-130

WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case 1 SAS No.: ______ SDG No.: CHA89

Matrix Spike-EPA Sample No.: VBLK04 Level (low/med): Low

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATIO (ug/l)	MS % REC	QC LIMITS
1,1-Dichloroethene	50	0	47	94	61-145
Benzene	50	0	46	92	76-127
Trichloroethene	50	0	47	94	71-120
Toluene	50	0	49	98	76-125
Chlorobenzene	50	0	51	102	75-130

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Solid LCS Source: ERA

Aqueous LCS Source: CPI

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Aluminum	12000.0	11951.23	99.6					
Antimony	1000.0	928.63	92.9					
Arsenic	1000.0	949.70	95.0					
Barium	12000.0	11370.82	94.8					
Beryllium	1000.0	941.70	94.2					
Boron	2000.0	2330.01	116.5					
Cadmium	1000.0	972.81	97.3					
Calcium	21000.0	18640.27	88.8					
Chromium	1000.0	939.20	93.9					
Cobalt	1000.0	962.17	96.2					
Copper	1000.0	963.39	96.3					
Iron	21000.0	19918.85	94.9					
Lead	1000.0	975.01	97.5					
Magnesium	21000.0	20206.93	96.2					
Manganese	1000.0	949.32	94.9					
Nickel	1000.0	983.63	98.4					
Potassium	20000.0	17952.20	89.8					
Selenium	1000.0	1024.78	102.5					
Silver	2000.0	2077.03	103.9					
Sodium	22000.0	19875.09	90.3					
Thallium	1000.0	930.58	93.1					
Vanadium	1000.0	911.49	91.1					
Zinc	1000.0	984.07	98.4					

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20084.D Lab Sample ID: MB

Date Analyzed: 12/11/2007 Time Analyzed: 14:47

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS01	LCS	C20085.D	15:25
02	MW-1S	U0712180-001A	C20097.D	23:01
03	MW-1I	U0712180-002A	C20098.D	23:39
04	MW-1D	U0712180-003A	C20099.D	0:17

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	2	J
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20084.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/11/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20103.D Lab Sample ID: MB

Date Analyzed: 12/12/2007 Time Analyzed: 15:00

GC Column: RTX-VO ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS02	LCS	C20104.D	15:39
02	MW-10IMS	U0712180-011AMS	C20105.D	16:16
03	MW-10IMSD	U0712180-011AMSD	C20106.D	16:54
04	MW-10I	U0712180-011A	C20107.D	17:32
05	MW-2S	U0712180-004A	C20108.D	18:09
06	MW-2I	U0712180-005A	C20109.D	18:47
07	MW-2D	U0712180-006A	C20110.D	19:24
08	MW-9S	U0712180-007A	C20111.D	20:02
09	MW-9I	U0712180-008A	C20112.D	20:39
10	MW-9D	U0712180-009A	C20113.D	21:17
11	MW-10S	U0712180-010A	C20114.D	21:54
12	MW-10D	U0712180-012A	C20115.D	22:31
13	MW-12S	U0712180-013A	C20116.D	23:09
14	CHA-1	U0712180-014A	C20117.D	23:47
15	MW-12I	U0712180-015A	C20118.D	0:24

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: C20103.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19832.D Lab Sample ID: MB

Date Analyzed: 12/12/2007 Time Analyzed: 21:44

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS03	LCS	D19833.D	22:35
02	MW-12D	U0712180-016A	D19839.D	3:38
03	MW-7S	U0712180-017A	D19840.D	4:29
04	MW-71	U0712180-018A	D19841.D	5:19
05	MW-7D	U0712180-019A	D19842.D	6:10
06	ULI TRIP BLANK	U0712180-020A	D19843.D	7:00

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19832.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/12/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19847.D Lab Sample ID: MB

Date Analyzed: 12/13/2007 Time Analyzed: 10:47

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMBS04	LCS	D19848.D	11:38
02	MW-14S	U0712180-021C	D19849.D	12:29
03	MW-14I	U0712180-022C	D19850.D	13:20
04	MW-14D	U0712180-023C	D19851.D	14:11
05	MW-15S	U0712180-024C	D19852.D	15:01
06	MW-15I	U0712180-025C	D19853.D	15:52
07	MW-15D	U0712180-026C	D19854.D	16:43
08	ULI TRIP BLANK	U0712180-027A	D19855.D	17:34
09	ULI TRIP LANK	U0712180-028A	D19856.D	18:24
10	ULI TRIP BLANK	U0712180-029A	D19857.D	19:15
11	HOLDING BLANK	U0712180-030A	D19858.D	20:05

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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
75-1-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
107-13-1	Acrylonitrile	100	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-33	1,1-Dichloroethane	5	U
108-5-4	Vinyl Acetate	50	U
78-93-3	2-Butanone	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
97-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-1-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-2-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
108-38-3	m,p-Xylene	5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	1,4-Dichloro-2-butene	10	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloro-propane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: D19847.D

Level: (low/med) LOW Date Received: 12/7/2007

% Moisture: not dec. Date Analyzed: 12/13/2007

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30413 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Prepa-ration Blank	C	M
Aluminum	100.0	U	100.0	U					100.000	U	P
Antimony	15.0	U	15.0	U					15.000	U	P
Arsenic	10.0	U	10.0	U					10.000	U	P
Barium	50.0	U	50.0	U					50.000	U	P
Beryllium	3.0	U	3.0	U					3.000	U	P
Cadmium	5.0	U	5.0	U					5.000	U	P
Calcium	1000.0	U	1000.0	U					1000.000	U	P
Chromium	5.0	U	5.0	U					5.000	U	P
Cobalt	20.0	U	20.0	U					20.000	U	P
Copper	10.0	U	10.0	U					10.000	U	P
Iron	60.0	U	60.0	U					60.000	U	P
Lead	3.0	U	3.0	U					3.000	U	P
Magnesium	1000.0	U	1000.0	U					1000.000	U	P
Manganese	10.0	U	10.0	U					10.000	U	P
Nickel	30.0	U	30.0	U					30.000	U	P
Potassium	1000.0	U	1000.0	U					1000.000	U	P
Silver	10.0	U	10.0	U					10.000	U	P
Sodium	1000.0	U	1000.0	U					1000.000	U	P
Thallium	10.0	U	10.0	U					10.000	U	P
Vanadium	30.0	U	30.0	U					30.000	U	P
Zinc	10.0	U	10.0	U					10.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30416 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Preparation Blank	C	M
Selenium	5.0	U	5.0	U					5.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): NA

Preparation Blank Concentration Units (ug/L or mg/kg): NA

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30418 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Potassium	1000.0	U	1000.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30418 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Sodium	1000.0	U	1000.0	U							P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30415 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12448 Prepa-ration Blank	C	M
Boron	500.0	U	500.0	U					500.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30301 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12452 Preparation Blank	C	M
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	RunNo: 30301 Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	MB-12452 Prepa-ration Blank	C	M
Mercury			0.2	U							CV

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	497686	495667.1	99.1	500025	493804.5	98.8
Antimony	0	0	30	28.1		22	22.7	0.0
Arsenic	0	0	-28	-31.4		-28	-28.2	0.0
Barium	0	500	13	489.5	97.9	12	485.7	97.1
Beryllium	0	500	0	474.3	94.9	0	473.2	94.6
Cadmium	0	1000	7	925.5	92.6	7	920.2	92.0
Calcium	500000	500000	498797	498154.9	99.6	499884	496316.0	99.3
Chromium	0	500	4	475.1	95.0	3	471.9	94.4
Cobalt	0	500	4	451.4	90.3	5	448.3	89.7
Copper	0	500	-1	492.3	98.5	-3	490.1	98.0
Iron	200000	200000	177413	176900.7	88.5	177745	175921.3	88.0
Lead	0	1000	-54	886.0	88.6	-59	872.1	87.2
Magnesium	500000	500000	500071	496125.7	99.2	502147	495443.0	99.1
Manganese	0	500	11	479.2	95.8	11	477.2	95.4
Nickel	0	1000	4	917.9	91.8	3	903.4	90.3
Potassium	0	0	9	36.4		7	35.4	0.0
Silver	0	1000	4	892.3	89.2	5	898.0	89.8
Sodium	0	0	-1308	-1077.4		-1270	-1024.6	0.0
Thallium	0	0	-30	-22.3		-23	-16.3	0.0
Vanadium	0	500	2	472.3	94.5	2	468.4	93.7
Zinc	0	1000	13	902.9	90.3	13	894.4	89.4

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U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Selenium	0	0	-62	-92.0		-90	-71.1	0.0

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

ICP ID Number: 58.0 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Boron	0	1000	101	1047.8	104.8	14	1029.8	103.0

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20053.D BFB Injection Date: 12/10/2007

Instrument ID: 12 BFB Injection Time: 10:21

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	29.7
75	30.0 - 66.0% of mass 95	56.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	52.5
175	4.0 - 9.0% of mass 174	3.6 (6.9)1
176	93.0 - 101.0% of mass 174	50.4 (96.0)1
177	5.0 - 9.0% of mass 176	3.0 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD003	VSTD003	C20054.D	12/10/2007	11:06
02	VSTD010	VSTD010	C20055.D	12/10/2007	11:44
03	VSTD020	VSTD020	C20056.D	12/10/2007	12:21
04	VSTD050	VSTD050	C20057.D	12/10/2007	12:59
05	VSTD100	VSTD100	C20058.D	12/10/2007	13:37
06	VSTD200	VSTD200	C20059.D	12/10/2007	14:15

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20082.D BFB Injection Date: 12/11/2007

Instrument ID: 12 BFB Injection Time: 13:09

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	32.6
75	30.0 - 66.0% of mass 95	57.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	51.4
175	4.0 - 9.0% of mass 174	3.6 (7.0)1
176	93.0 - 101.0% of mass 174	51.7 (100.6)1
177	5.0 - 9.0% of mass 176	3.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

-145-

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC01	CC	C20083.D	12/11/2007	13:54
02	VBLK01	MB	C20084.D	12/11/2007	14:47
03	VMBS01	LCS	C20085.D	12/11/2007	15:25
04	MW-1S	U0712180-001A	C20097.D	12/11/2007	23:01
05	MW-1I	U0712180-002A	C20098.D	12/11/2007	23:39
06	MW-1D	U0712180-003A	C20099.D	12/12/2007	0:17
07	VSTD050CC02	CC	C20100.D	12/12/2007	0:55

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: C20101.D BFB Injection Date: 12/12/2007

Instrument ID: 12 BFB Injection Time: 13:31

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.1
75	30.0 - 66.0% of mass 95	58.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	53.7
175	4.0 - 9.0% of mass 174	4.2 (7.8)1
176	93.0 - 101.0% of mass 174	52.3 (97.4)1
177	5.0 - 9.0% of mass 176	3.4 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC03	CC	C20102.D	12/12/2007	14:18
02	VBLK02	MB	C20103.D	12/12/2007	15:00
03	VMBS02	LCS	C20104.D	12/12/2007	15:39
04	MW-10IMS	U0712180-011AMS	C20105.D	12/12/2007	16:16
05	MW-10IMSD	U0712180-011AMSD	C20106.D	12/12/2007	16:54
06	MW-10I	U0712180-011A	C20107.D	12/12/2007	17:32
07	MW-2S	U0712180-004A	C20108.D	12/12/2007	18:09
08	MW-2I	U0712180-005A	C20109.D	12/12/2007	18:47
09	MW-2D	U0712180-006A	C20110.D	12/12/2007	19:24
10	MW-9S	U0712180-007A	C20111.D	12/12/2007	20:02
11	MW-9I	U0712180-008A	C20112.D	12/12/2007	20:39
12	MW-9D	U0712180-009A	C20113.D	12/12/2007	21:17
13	MW-10S	U0712180-010A	C20114.D	12/12/2007	21:54
14	MW-10D	U0712180-012A	C20115.D	12/12/2007	22:31
15	MW-12S	U0712180-013A	C20116.D	12/12/2007	23:09
16	CHA-1	U0712180-014A	C20117.D	12/12/2007	23:47
17	MW-12I	U0712180-015A	C20118.D	12/13/2007	0:24
18	VSTD050CC04	CC	C20119.D	12/13/2007	1:02

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19717.D BFB Injection Date: 12/3/2007

Instrument ID: 13 BFB Injection Time: 10:36

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	24.2
75	30.0 - 66.0% of mass 95	48.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	54.2
175	4.0 - 9.0% of mass 174	4.4 (8.2)1
176	93.0 - 101.0% of mass 174	52.3 (96.5)1
177	5.0 - 9.0% of mass 176	2.9 (5.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	D19718.D	12/3/2007	13:11
02	VSTD200	VSTD200	D19719.D	12/3/2007	14:11
03	VSTD100	VSTD100	D19720.D	12/3/2007	15:01
04	VSTD020	VSTD020	D19721.D	12/3/2007	15:52
05	VSTD010	VSTD010	D19722.D	12/3/2007	16:44
06	VSTD003	VSTD003	D19723.D	12/3/2007	17:34

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID: D19817.D BFB Injection Date: 12/12/2007

Instrument ID: 13 BFB Injection Time: 9:03

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.3
75	30.0 - 66.0% of mass 95	48.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	50.0 - 120.0% of mass 95	56.1
175	4.0 - 9.0% of mass 174	4.2 (7.4)1
176	93.0 - 101.0% of mass 174	56.2 (100.2)1
177	5.0 - 9.0% of mass 176	4.4 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC05	CC	D19831.D	12/12/2007	20:53
02	VBLK03	MB	D19832.D	12/12/2007	21:44
03	VMBS03	LCS	D19833.D	12/12/2007	22:35
04	MW-12D	U0712180-016A	D19839.D	12/13/2007	3:38
05	MW-7S	U0712180-017A	D19840.D	12/13/2007	4:29
06	MW-71	U0712180-018A	D19841.D	12/13/2007	5:19
07	MW-7D	U0712180-019A	D19842.D	12/13/2007	6:10
08	ULI TRIP BLANK	U0712180-020A	D19843.D	12/13/2007	7:00
09	VSTD050CC06	CC	D19844.D	12/13/2007	7:50

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Lab File ID: D19845.D BFB Injection Date: 12/13/2007

Instrument ID: 13 BFB Injection Time: 9:06

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.3
75	30.0 - 66.0% of mass 95	47.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	53.6
175	4.0 - 9.0% of mass 174	3.3 (6.1)1
176	93.0 - 101.0% of mass 174	50.3 (94.0)1
177	5.0 - 9.0% of mass 176	2.7 (5.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CC07	CC	D19846.D	12/13/2007	9:56
02	VBLK04	MB	D19847.D	12/13/2007	10:47
03	VMBS04	LCS	D19848.D	12/13/2007	11:38
04	MW-14S	U0712180-021C	D19849.D	12/13/2007	12:29
05	MW-14I	U0712180-022C	D19850.D	12/13/2007	13:20
06	MW-14D	U0712180-023C	D19851.D	12/13/2007	14:11
07	MW-15S	U0712180-024C	D19852.D	12/13/2007	15:01
08	MW-15I	U0712180-025C	D19853.D	12/13/2007	15:52
09	MW-15D	U0712180-026C	D19854.D	12/13/2007	16:43
10	ULI TRIP BLANK	U0712180-027A	D19855.D	12/13/2007	17:34
11	ULI TRIP LANK	U0712180-028A	D19856.D	12/13/2007	18:24
12	ULI TRIP BLANK	U0712180-029A	D19857.D	12/13/2007	19:15
13	HOLDING BLANK	U0712180-030A	D19858.D	12/13/2007	20:05
14	VSTD050CC08	CC	D19859.D	12/13/2007	20:55

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20083.D Date Analyzed: 12/11/2007

Instrument ID: 12 Time Analyzed: 13:54

GC Column: RTX-VOLAT ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	297150	7.84	406770	11.18	278079	18.68
	UPPER LIMIT	594300	8.34	813540	11.68	556158	19.18
	LOWER LIMIT	148575	7.34	203385	10.68	139040	18.18
	EPA SAMPLE NO.						
01	VBLK01	311161	7.84	421380	11.17	298669	18.65
02	VMBS01	208486	7.87	283916	11.19	201496	18.65
03	MW-1S	284435	7.87	388267	11.20	272066	18.65
04	MW-1I	274894	7.87	374021	11.19	263097	18.65
05	MW-1D	275692	7.87	378079	11.19	265597	18.65

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20083.D Date Analyzed: 12/11/07

Instrument ID: 12 Time Analyzed: 13:54

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	144343	23.35				
	UPPER LIMIT	288686	22.85				
	LOWER LIMIT	72172	23.85				
	EPA SAMPLE NO.						
01	VBLK01	151985	23.32				
02	VMBS01	103802	23.32				
03	MW-1S	137141	23.32				
04	MW-1I	132157	23.31				
05	MW-1D	133328	23.32				

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. ____________ Contract: CHA

Lab Code: 10170 Case No.: ______ SAS No.: ______ SDG No.: CHA89

Lab File ID (Standard): C20102.D Date Analyzed: 12/12/2007

Instrument ID: 12 Time Analyzed: 14:18

GC Column: RTX-VOLAT ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	302658	7.84	412102	11.17	268685	18.67
	UPPER LIMIT	605316	8.34	824204	11.67	537370	19.17
	LOWER LIMIT	151329	7.34	206051	10.67	134343	18.17
	EPA SAMPLE NO.						
01	VBLK02	311030	7.85	418746	11.17	282920	18.64
02	VMBS02	312382	7.87	425168	11.19	284090	18.64
03	MW-10IMS	297369	7.88	398798	11.20	268574	18.65
04	MW-10IMSD	298019	7.88	405212	11.19	269894	18.65
05	MW-10I	302783	7.87	416544	11.19	276410	18.64
06	MW-2S	294395	7.87	403496	11.19	270246	18.66
07	MW-2I	302340	7.88	411486	11.21	273832	18.65
08	MW-2D	295141	7.89	399421	11.21	266471	18.66
09	MW-9S	291481	7.89	398986	11.20	265357	18.65
10	MW-9I	315709	7.90	436517	11.21	293485	18.66
11	MW-9D	294968	7.89	402357	11.21	270432	18.65
12	MW-10S	290985	7.89	393330	11.20	262594	18.66
13	MW-10D	289567	7.88	392639	11.20	260982	18.64
14	MW-12S	300559	7.88	396523	11.20	264830	18.64
15	CHA-1	300401	7.87	408718	11.19	270691	18.64
16	MW-12I	293876	7.89	401017	11.20	268213	18.65

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): C20102.D Date Analyzed: 12/12/07

Instrument ID: 12 Time Analyzed: 14:18

GC Column: RTX-VOLA ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	137726	23.31				
	UPPER LIMIT	275452	22.81				
	LOWER LIMIT	68863	23.81				
	EPA SAMPLE NO.						
01	VBLK02	139425	23.31				
02	VMBS02	139622	23.31				
03	MW-10IMS	131772	23.32				
04	MW-10IMSD	134119	23.32				
05	MW-10I	136199	23.31				
06	MW-2S	133250	23.31				
07	MW-2I	133991	23.32				
08	MW-2D	129398	23.33				
09	MW-9S	129692	23.33				
10	MW-9I	142541	23.33				
11	MW-9D	132880	23.31				
12	MW-10S	127613	23.32				
13	MW-10D	126367	23.31				
14	MW-12S	128552	23.31				
15	CHA-1	132494	23.30				
16	MW-12I	131054	23.32				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19831.D Date Analyzed: 12/12/2007

Instrument ID: 13 Time Analyzed: 20:53

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	418828	17.21	543674	19.28	415935	27.81
	UPPER LIMIT	837656	17.71	1087348	19.78	831870	28.31
	LOWER LIMIT	209414	16.71	271837	18.78	207968	27.31
	EPA SAMPLE NO.						
01	VBLK03	425901	17.23	547673	19.29	420507	27.82
02	VMBS03	418354	17.20	547859	19.28	416293	27.81
03	MW-12D	414889	17.22	539952	19.26	414058	27.82
04	MW-7S	411922	17.22	530433	19.25	416378	27.82
05	MW-71	415930	17.24	545204	19.28	419086	27.84
06	MW-7D	406206	17.25	526109	19.29	408034	27.84
07	ULI TRIP BLANK	401203	17.30	523606	19.35	412879	27.92

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19831.D Date Analyzed: 12/12/07

Instrument ID: 13 Time Analyzed: 20:53

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	214601	35.28				
	UPPER LIMIT	429202	34.78				
	LOWER LIMIT	107301	35.78				
	EPA SAMPLE NO.						
01	VBLK03	196659	35.29				
02	VMBS03	201630	35.27				
03	MW-12D	197439	35.31				
04	MW-7S	194309	35.32				
05	MW-71	202784	35.34				
06	MW-7D	202503	35.36				
07	ULI TRIP BLA	194790	35.42				

-155-

IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: SAS No.: SDG No.: CHA89

Lab File ID (Standard): D19846.D Date Analyzed: 12/13/2007

Instrument ID: 13 Time Analyzed: 9:56

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): N

		IS1(PFB) AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	426090	17.38	557117	19.40	416925	27.99
	UPPER LIMIT	852180	17.88	1114234	19.90	833850	28.49
	LOWER LIMIT	213045	16.88	278559	18.90	208463	27.49
	EPA SAMPLE NO.						
01	VBLK04	417497	17.44	545786	19.49	415082	28.11
02	VMBS04	407667	17.40	531436	19.43	415052	28.07
03	MW-14S	413471	17.50	536529	19.53	418838	28.15
04	MW-14I	402763	17.47	512711	19.49	420756	28.11
05	MW-14D	406667	17.52	529626	19.55	418541	28.15
06	MW-15S	411328	17.50	528736	19.53	419700	28.17
07	MW-15I	391140	17.50	488763	19.50	411161	28.11
08	MW-15D	406356	17.48	525600	19.51	418005	28.10
09	ULI TRIP BLANK	407347	17.51	541376	19.54	420335	28.15
10	ULI TRIP LANK	425848	17.52	545944	19.56	425609	28.14
11	ULI TRIP BLANK	426728	17.54	548397	19.56	423526	28.18
12	HOLDING BLANK	418206	17.53	540650	19.57	419520	28.17

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Upstate Labs Inc. Contract: CHA

Lab Code: 10170 Case No.: ____ SAS No.: ______ SDG No.: CHA89

Lab File ID (Standard): D19846.D Date Analyzed: 12/13/07

Instrument ID: 13 Time Analyzed: 09:56

GC Column: DB-624 ID: 0.53 (mm) Heated Purge (Y/N): Y

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	215308	35.55				
	UPPER LIMIT	430616	35.05				
	LOWER LIMIT	107654	36.05				
	EPA SAMPLE NO.						
01	VBLK04	198632	35.67				
02	VMBS04	203558	35.64				
03	MW-14S	199253	35.71				
04	MW-14I	199695	35.68				
05	MW-14D	208059	35.72				
06	MW-15S	206437	35.75				
07	MW-15I	206050	35.67				
08	MW-15D	206610	35.67				
09	ULI TRIP BLA	202942	35.71				
10	ULI TRIP LAN	197693	35.69				
11	ULI TRIP BLA	204429	35.75				
12	HOLDING BL	204525	35.74				

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IS1 (PFB) = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum	10000.0	10376.10	103.8	16000.0	16078.50	100.5			P
Antimony	2500.0	2715.45	108.6	4800.0	4709.08	98.1			P
Arsenic	500.0	522.44	104.5	2000.0	2110.43	105.5			P
Barium	10000.0	10707.82	107.1	16000.0	16136.47	100.9			P
Beryllium	250.0	263.08	105.2	400.0	403.16	100.8			P
Cadmium	250.0	264.19	105.7	1000.0	1073.73	107.4			P
Calcium	25000.0	26073.67	104.3	40000.0	40354.55	100.9			P
Chromium	500.0	522.01	104.4	800.0	803.96	100.5			P
Cobalt	2500.0	2658.80	106.4	4000.0	4050.88	101.3			P
Copper	1250.0	1320.22	105.6	2000.0	2027.30	101.4			P
Iron	5000.0	5327.65	106.6	8000.0	8097.49	101.2			P
Lead	250.0	264.75	105.9	2000.0	2130.93	106.5			P
Magnesium	25000.0	26299.87	105.2	40000.0	41273.03	103.2			P
Manganese	750.0	781.30	104.2	1200.0	1199.50	100.0			P
Nickel	2000.0	2114.57	105.7	3200.0	3249.05	101.5			P
Potassium	25000.0	24090.20	96.4	40000.0	39769.14	99.4			P
Silver	500.0	526.36	105.3	800.0	834.79	104.3			P
Sodium	25000.0	25312.92	101.3	40000.0	40860.18	102.2			P
Thallium	500.0	529.93	106.0	2000.0	2053.26	102.7			P
Vanadium	2500.0	2612.11	104.5	4000.0	3999.33	100.0			P
Zinc	1000.0	1052.86	105.3	1600.0	1609.07	100.6			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Selenium	250.0	265.56	106.2	2000.0	2139.10	107.0			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Potassium	25000.0	23502.14	94.0	40000.0	38060.32	95.2			P
Sodium	25000.0	24820.87	99.3	40000.0	40992.15	102.5			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc.   Contract:

Lab Code: 10170   Case No.   SAS No.:   SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Boron	10000.0	10205.50	102.1	5000.0	5699.69	114.0			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Mercury	2.0	1.81	90.5	4.0	3.73	93.3	3.70	92.4	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Initial Calibration Verification Source: SPEX

Continuing Calibration Verification Source: CPI

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				4.0	3.63	90.8	3.68	92.1	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

Analyte	CRDL Standard for AA True	Found	%R	CRDL Standard for ICP True	Initial Found	%R	Final Found	%R
Aluminum				0.0	22.57	0.0	15.63	0.0
Antimony				120.0	120.69	100.6	121.94	101.6
Arsenic				20.0	19.66	98.3	18.16	90.8
Barium				0.0	0.62	0.0	0.50	0.0
Beryllium				10.0	9.97	99.7	10.02	100.2
Cadmium				10.0	10.20	102.0	10.38	103.8
Calcium				0.0	209.14	0.0	252.61	0.0
Chromium				20.0	20.60	103.0	20.81	104.0
Cobalt				100.0	105.91	105.9	107.04	107.0
Copper				50.0	52.29	104.6	52.02	104.0
Iron				0.0	15.63	0.0	12.40	0.0
Lead				6.0	6.41	106.9	6.04	100.7
Magnesium				0.0	12.46	0.0	5.21	0.0
Manganese				30.0	31.72	105.7	31.82	106.1
Nickel				80.0	85.97	107.5	86.86	108.6
Potassium				0.0	4.36	0.0	5.15	0.0
Silver				20.0	20.26	101.3	20.37	101.9
Sodium				0.0	157.24	0.0	148.26	0.0
Thallium				20.0	23.62	118.1	21.70	108.5
Vanadium				100.0	99.35	99.3	100.08	100.1
Zinc				40.0	49.53	123.8	50.03	125.1

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U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Selenium				10.0	8.76	87.6	12.10	121.0

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Potassium				0.0	2.29	0.0	0.13	0.0
Sodium				0.0	77.81	0.0	95.08	0.0

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Boron				500.0	670.54	134.1	517.82	103.6

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: SPEX

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.20	100.3					

U.S. EPA - CLP

9
ICP SERIAL DILUTIONS

MW-15D

Lab Name: Upstate Laboratories, Inc. Contract:

Lab Code: 10170 Case No. SAS No.: SDG No.: CHA89

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Aluminum	2554.91		2721.29		6.5		P
Antimony	15.00	U	75.00	U			P
Arsenic	13.65		50.00	U	0.0		P
Barium	61.07	B	250.00	U	0.0		P
Beryllium	3.00	U	15.00	U			P
Boron	500.00	U	2500.00	U			P
Cadmium	5.00	U	25.00	U			P
Calcium	42529.92		45342.32		6.6		P
Chromium	5.00	U	25.00	U			P
Cobalt	20.00	U	100.00	U			P
Copper	10.00	U	50.00	U			P
Iron	5409.25		5723.50		5.8		P
Lead	3.00	U	15.00	U			P
Magnesium	8873.96		9543.32		7.5		P
Manganese	243.62		312.41		28.2		P
Nickel	30.00	U	150.00	U			P
Potassium	1019.50	B	5000.00	U	0.0		P
Selenium	5.00	U	26.43				P
Silver	10.00	U	50.00	U			P
Sodium	12980.01		16049.24		23.6		P
Thallium	10.00	U	50.00	U			P
Vanadium	30.00	U	150.00	U			P
Zinc	24.39		118.85		387.2		P

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Upstate Laboratories, Inc.

Date: 24-Dec-07

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0712180
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1

Sample ID: **MB-R30211** SampType: **MBLK** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **30211**
Client ID: **ZZZZZ** Batch ID: **R30211** TestNo: **E160.1** Analysis Date: **12/10/2007** SeqNo: **556341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	ND	25.0									

Sample ID: **LCS-R30211** SampType: **LCS** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **30211**
Client ID: **ZZZZZ** Batch ID: **R30211** TestNo: **E160.1** Analysis Date: **12/10/2007** SeqNo: **556342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	208.0	25.0	217	0	95.9	89	112				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Chain of Custody

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Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-1S	12/4/07	9:40A	GW	GRAB		2								X			NYS PART 360
MW-1I	12/4/07	9:54A	GW	GRAB		2								X			BASELINE 1993
MW-1D	12/4/07	9:47A	GW	GRAB		2								X			ASP CAT. B
MW-2S	12/4/07	10:55A	GW	GRAB		2								X			
MW-2I	12/4/07	11:21A	GW	GRAB		2								X			
MW-2D	12/4/07	11:28A	GW	GRAB		2								X			
MW-9S	12/4/07	1:37P	GW	GRAB		2								X			
MW-9I	12/4/07	1:46P	GW	GRAB		2								X			
MW-9D	12/4/07	1:55P	GW	GRAB		2								X			
MW-10S	12/4/07	2:24P	GW	GRAB		2								X			
MW-10I MS/MSD	12/4/07	3:11P	GW	GRAB		3								X			
MW-10D	12/4/07	2:51P	GW	GRAB		2								X			
MW-12S	12/5/07	2:32P	GW	GRAB		2								X			
CHA-1	12/5/07	2:40P	GW	GRAB		2								X			
MW-12I	12/5/07	3:36P	GW	GRAB		2								X			
MW-12D	12/5/07	2:58P	GW	GRAB		2								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) ~~Rob Hall~~ M.Bako
Company: ~~CHA~~ UCI

Name of Courier: VELOCITY

Relinquished by: (sign)	Date	Time	Received by: (sign)
[signature]	12/6/07	5:00	
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date 12/7/07	Time 1000	Rec'd for Lab by: K Camp

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-7S	12/7/07	9:25A	GW	GRAB		2								X			NYS PART 360
MW-7I	12/7/07	10:21A	GW	GRAB		2								X			BASELINE 1993
MW-7D	12/7/07	10:09A	GW	GRAB		2								X			ASP CAT. B
ULI TRIP BLANK	12/7/07	N/A	WATER	GRAB		1								X			

Parameter and Method	Sample bottle: Type	Size	Preservative
1) NH3,TKN,COD	P	500ML	H2SO4
2) TOC	P	120ML	1:1HCL
3) TOTAL PHENOLS	AMBER	32OZ	H2SO4
4) ALKALINITY	G	8OZ	NONE
5) NO3,BOD5,TDS,SO4,CL,COLOR,BROMIDE,CR+6	P	2000ML	NONE
6) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
7) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
8) BASELINE 8260	G	40ML	1:1 HCL
9) TOTAL CYANIDE	P	1000ML	NAOH
10)			

Sampled by (Print) MAT BROKER
Company: ULI
Name of Courier

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 1:09	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/7/07	Time 3:30	Rec'd for Lab by:

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

Chain of Custody Record

Client: CHA
Project #/ Project Name: C/O ALBANY INTERIM LANDFILL
Client Contact: KEITH COWAN
Phone #: 453-4500
Location (city/state) Address: ALBANY, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW-14S	12/6/07	3:40P	GW	GRAB		4	X	X	X	X							NYS PART 360
MW-14I	12/6/07	3:21P	GW	GRAB		4	X	X	X	X							BASELINE 1993
MW-14D	12/6/07	3:52P	GW	GRAB		4	X	X	X	X							ASP CAT. B
MW-15S	12/6/07	12:04P	GW	GRAB		4	X	X	X	X							
MW-15I	12/6/07	11:44A	GW	GRAB		4	X	X	X	X							
MW-15D	12/6/07	12:16P	GW	GRAB		4	X	X	X	X							
ULI TRIP BLANK	12/4/07	N/A	WATER	GRAB		1				X							
ULI TRIP BLANK	12/5/07	N/A	WATER	GRAB		1				X							
ULI TRIP BLANK	12/6/07	N/A	WATER	GRAB		1				X							

Parameter and Method	Sample bottle: Type	Size	Preservative
1) TDS	P	250ml	NONE
2) T-K,FE,MN,MG,BA,CR,NA,AG,HG,SE,TL*,PB*,CD,ZN,	P	500ML	HNO3
3) CA,AL,SB*,AS,BE,CU,NI,CO,V,B, + CALC. HARDNESS	P	500ML	HNO3
4) BASELINE 8260	G	40ML	1:1 HCL
5)			
6)			
7)			
8)			
9)			
10)			

Sampled by (Print) Matt Broker
Company: ULI
Name of Courier: VELOCITY

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) Matt [signature]	12/6/07	5	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date 12/6/07	Time 1600	Rec'd for Lab by: K Chimp

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories, Inc.
Internal Laboratory Sign–Out Log
SR–10–03 Revised 3/98

Project: CHA
SDG No.:
ULI ID No.: U0712180

ULI Number or Range of ULI Numbers	Date/Time Sample(s) Taken	Purpose	S.Custodian Initials	Analyst Initials	Date/Time Sample(s) Returned	S.Custodian Initials	Analyst Initials
21A-26A	12/10/07 1:00pm	TDS		DJ	12/10/07 3:00pm		DJ
11-15	12/11/07 9am	8260		MM	12/11/07 4pm		MM
16-20	12/12/07 ~~1~~600	8260		AF	12/12/07 ~~1~~630		AF
21-30	12/13/07 1030	8260		AF	12/13/07 1200		AF
21B-26B	12/14/07 9Am	200.7 Hpr		SBG	4pm		SBG
27-30	12/15/07 1000	~~600~~ 8260		AF	12/15/07 1200		ART

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Upstate Laboratories, Inc.

Sample Receipt Checklist

Client Name CHA-ALBANY

Date and Time Receive 12/7/2007

Work Order Numbe U0712180

Received by TC

Checklist completed by [signature] 12/10/07 (Signature, Date)

Reviewed by PH 12/11/07 (Initials, Date)

Matrix:

Carrier name: ULI

Shipping container/cooler in good condition?	Yes ✔	No	Not Presen
Custody seals intact on shipping container/cooler?	Yes	No	Not Presen ✔
Custody seals intact on sample bottles?	Yes	No	Not Presen ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes ✔	No	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ✔	No	
Water - VOA vials have zero headspace? No VOA vials submitted	Yes ✔	No	
Water - pH acceptable upon receipt?	Yes ✔	No	

Adjusted? ________ Checked by ________

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Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments:

Corrective Action

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Package

Wet Chemistry and Other Data
Volume 4 of 4

SDG No. CHA-89

Project:

C/O Albany Interim Landfill
Albany, New York

Prepared for:

Clough, Harbour & Associates LLP -720-
3 Winners Circle
P.O. Box 5269
Albany, New York 12205-5269

Samples Collected:

December 4, 2007
December 5, 2007
December 6, 2007
December 7, 2007

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		VOA GC/MS Method #	BNA GC/MS Method #	Pest PCBs Method #	Herb Method #	Metals	Wet Chemistry and Other
MW-1S	U0712180-001	8260	-	-	-	-	-
MW-1I	U0712180-002	8260	-	-	-	-	-
MW-1D	U0712180-003	8260	-	-	-	-	-
MW-2S	U0712180-004	8260	-	-	-	-	-
MW-2I	U0712180-005	8260	-	-	-	-	-
MW-2D	U0712180-006	8260	-	-	-	-	-
MW-9S	U0712180-007	8260	-	-	-	-	-
MW-9I	U0712180-008	8260	-	-	-	-	-
MW-9D	U0712180-009	8260	-	-	-	-	-
MW-10S	U0712180-010	8260	-	-	-	-	-
MW-10I	U0712180-011	8260	-	-	-	-	-
MW-10I MS	U0712180-011MS	8260	-	-	-	-	-
MW-10I MSD	U0712180-011MSD	8260	-	-	-	-	-
MW-10D	U0712180-012	8260	-	-	-	-	-
MW-12S	U0712180-013	8260	-	-	-	-	-
CHA-1	U0712180-014	8260	-	-	-	-	-
MW-12I	U0712180-015	8260	-	-	-	-	-
MW-12D	U0712180-016	8260	-	-	-	-	-
MW-7S	U0712180-017	8260	-	-	-	-	-
MW-7I	U0712180-018	8260	-	-	-	-	-
MW-7D	U0712180-019	8260	-	-	-	-	-
ULI Trip Blank	U0712180-020	8260	-	-	-	-	-
MW-14S	U0712180-021	8260	-	-	-	Baseline (1993)	TDS
MW-14I	U0712180-022	8260	-	-	-	Baseline (1993)	TDS
MW-14D	U0712180-023	8260	-	-	-	Baseline (1993)	TDS
MW-15S	U0712180-024	8260	-	-	-	Baseline (1993)	TDS
MW-15I	U0712180-025	8260	-	-	-	Baseline (1993)	TDS
MW-15D	U0712180-026	8260	-	-	-	Baseline (1993)	TDS
ULI Trip Blank	U0712180-027	8260	-	-	-	-	-
ULI Trip Blank	U0712180-028	8260	-	-	-	-	-
ULI Trip Blank	U0712180-029	8260	-	-	-	-	-
Holding Blank	U0712180-030	8260	-	-	-	-	-

-721-

Wet Chemistry Data

-722-

Upstate Laboratories, Inc.

Sample Data

Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT: Clough, Harbour & Assoc. LLP
Lab Order: U0712180
Project: C/O Albany Interim Landfill
Lab ID: U0712180-021

Client Sample ID: MW-14S
Collection Date: 12/6/2007 3:40:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	120	25		mg/L	1	12/10/2007

-724-

Approved By: ______________ **Date:** ______________

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT: Clough, Harbour & Assoc. LLP
Lab Order: U0712180
Project: C/O Albany Interim Landfill
Lab ID: U0712180-022

Client Sample ID: MW-14I
Collection Date: 12/6/2007 3:21:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	212	25		mg/L	1	12/10/2007

-725-

Approved By: ______ **Date:** ______

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-14D
Lab Order:	U0712180	**Collection Date:**	12/6/2007 3:52:00 PM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-023	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	132	25		mg/L	1	12/10/2007

-726-

Approved By: ____________ **Date:** ____________

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT: Clough, Harbour & Assoc. LLP

Lab Order: U0712180

Project: C/O Albany Interim Landfill

Lab ID: U0712180-024

Client Sample ID: MW-15S

Collection Date: 12/6/2007 12:04:00 PM

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	376	25		mg/L	1	12/10/2007

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Approved By: **Date:** Page 4 of 6

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT:	Clough, Harbour & Assoc. LLP	**Client Sample ID:**	MW-15I
Lab Order:	U0712180	**Collection Date:**	12/6/2007 11:44:00 AM
Project:	C/O Albany Interim Landfill		
Lab ID:	U0712180-025	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: **DEY**
Residue, Dissolved (TDS)	272	25		mg/L	1	12/10/2007

Approved By: **Date:**

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *21-Dec-07*

CLIENT: Clough, Harbour & Assoc. LLP
Client Sample ID: MW-15D
Lab Order: U0712180
Collection Date: 12/6/2007 12:16:00 PM
Project: C/O Albany Interim Landfill
Lab ID: U0712180-026
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **DEY**
Residue, Dissolved (TDS)	112	25		mg/L	1	12/10/2007

-729-

Approved By: ________ **Date:** ________

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Quality Control Summary

-730-

Upstate Laboratories, Inc.

Upstate Laboratories, Inc.

Date: *24-Dec-07*

CLIENT: Clough, Harbour & Assoc. LLP
Work Order: U0712180
Project: C/O Albany Interim Landfill

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1

Sample ID: **MB-R30211** SampType: **MBLK** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **30211**
Client ID: **ZZZZZ** Batch ID: **R30211** TestNo: **E160.1** Analysis Date: **12/10/2007** SeqNo: **556341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	ND	25.0									

Sample ID: **LCS-R30211** SampType: **LCS** TestCode: **160.1** Units: **mg/L** Prep Date: RunNo: **30211**
Client ID: **ZZZZZ** Batch ID: **R30211** TestNo: **E160.1** Analysis Date: **12/10/2007** SeqNo: **556342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Residue, Dissolved (TDS)	208.0	25.0	217	0	95.9	89	112				
11489-33	260		256	%RPD 1.6							

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Raw Wet Chemistry Data

-732-

Upstate Laboratories, Inc.

Total Dissolved Solids
UPSTATE LABORATORIES, INC.
WORK SHEET

Today's analysis:
Date Analyzed: 12/10/07
Matrix: water
Units: mg/l

Batch/File No. 30211
SOP 535-2-02 Revised 6/99

Oven Temp. in 180 C
Oven Temp. out 180 C

TDS = (c-a)/volume x1000000

UU ID Number	Dish ID No.	Dish Weight (g) "a"	Volume (ml)	1st Reading (g) "b"	2nd Reading (g) "c"	TDS Result (mg/l)
MB	Daffy	33.8458	25	33.8459	33.8459	0
LCS	Butthead	29.4676	25	29.4729	29.4728	208
FB	Beast	32.3825	–	33.3825	33.3826	0
12180-21A	Fox	31.3976	25	31.4006	31.4006	120
22A	Goofy	32.0967		32.1020	32.1020	212
23A	Hound	37.8281		37.8316	37.8314	132
24A	Snoopy	34.8692		34.8788	34.8786	376
25A	Donald	28.8456		28.8524	28.8524	272
26A	Daisey	32.9165		32.9193	32.9193	112
11489-3A	Sugar	29.9569		29.9685	29.9685	464
4A	Flounder	28.8560		28.8677	28.8678	472
5A	Sleepy	29.5766		29.5893	29.5893	508
10A	Beris	31.3692		31.3793	31.3793	404
16A	EDDY	32.5803		32.5895	32.5895	368
17A	Jerry	33.4503		33.4586	33.4585	328
26A	Piglet	33.0161		33.0223	33.0222	244
28A	TOM	31.3695		31.3792	31.3792	388
29A	Plum	37.5109		37.5236	37.5236	508
33A	Grumpy	35.1133		35.1198	35.1198	260
33A Dup	Alladin	32.5522		32.5586	32.5586	256

96%

2%

Spike Solution: RS: 25 ml of 217 Stk Sol. No. 62554

Analyst DVA

Control Limits: RS: 80-120

Date: 12/10/07

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APPENDIX J

Data Validation Report

ALPHA GEOSCIENCE

Geology | Hydrology | Remediation | Water Supply

November 14, 2007

Mr. Keith Cowan
Clough, Harbour, & Associates LLP
III Winners Circle
P.O. Box 5269
Albany, New York 12205-0269

Re: City of Albany Landfill
Data Validation Report
September 2007 Ground Water Sampling Event
6NYCRR Part 360 Baseline Parameters

Dear Mr. Cowan:

The data usability summary report and data validation reviews are attached to this letter for the City of Albany Landfill. The data were only partially acceptable for Upstate Laboratories, Inc., SDG No. CHA85, with some issues that are identified and discussed in the validation summaries. Upstate Laboratories, Inc. did not meet the volatile ASP requirements for any of the calibrations. There were "not detected" volatile data that were rejected (R) in this data pack. The basis for rejecting the data are outlined in the DUSR and QA/QC review for volatile data. The data is rejected based solely on the validation guidance criteria. The rejected data may be determined to be acceptable to the user based on additional information that is not contained in the data validation criteria.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Clough, Harbour, & Associates LLP.

Sincerely,
Alpha Geoscience

Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

Z:\projects\2006\06621-06640\06625-albany landfill\cowan-1107.ltr wpd

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

ALPHA GEOSCIENCE

Geology | Hydrology | Remediation | Water Supply

Data Usability Summary Report
for Upstate Laboratories, Inc.
SDG No. CHA85
25 Ground Water Samples,
5 Trip Blanks, and 5 Holding Blanks
Collected September 18-21, 2007

Prepared by: Donald Anné
November 14, 2007

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data packs contained the results for 25 ground water samples analyzed for volatile, metal, and general chemistry analyses for 6NYCRR Part 360 baseline parameters, and 5 trip and 5 holding blanks analyzed for volatiles only.

The overall performances of the volatile analyses are not acceptable. Upstate Laboratories, Inc. did not fulfill the calibration requirements for volatiles analyses. There were not any initial or continuing calibrations that were ASP compliant.

The some of the data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were flagged:

- The "not detected" results for all volatiles were flagged as "estimated" (J) in samples MW-15S, MW-15I, MW-15D, ULI TB D, and ULI HB D because the samples were analyzed beyond NYSDEC ASP holding times.

- The positive and "not detected" results for all volatiles except acrylonitrile were flagged as "estimated" (J) in samples MW-14D, ULI TB E, and ULI HB E because the samples were analyzed beyond NYSDEC ASP holding times.

- The "not detected" results for acrylonitrile were flagged as "unusable" (R) in samples MW-14D, ULI TB E, and ULI HB E because the response factor for acrylonitrile was below the allowable minimum in the associated continuing calibration.

- The "not detected" results for acetone were flagged as "unusable" (R) in the following samples because the response factor for acetone was below the allowable minimum in the associated continuing calibration.

679 Plank Road • Clifton Park, New York 12065 • (518) 348-6995 • FAX (518) 348-6966
www.alphageoscience.com

MW-1I	MW-1D	MW-2S	MW-2I	MW-2D	ULI TB B
ULI HB B	MW-7S	MW-7I	MW-7D	ULI TB C	ULI HB C

- The positive results for iron were flagged as "estimated" (J) in all 25 ground water samples except sample MW-7D because the percent recovery for iron was below control limits, but was not less than 30% for spike sample MW-10IS.

- The "not detected" result for iron was flagged as "estimated" (J) in sample MW-7D because the percent recovery for iron was below control limits, but was not less than 30% for spike sample MW-10IS.

- The "not detected" results for silver were flagged as "estimated" (J) in samples MW-14S, MW-14I, MW-14D, and MW-15D because the percent recovery for silver in the associated continuing calibration verification standard was above control limits and was greater than 150%.

- Positive results for zinc were flagged as "estimated" (J) in all 25 ground water samples except sample MW-10D because the percent recovery for zinc was above laboratory limits for the CRDL standarad.

- Positive results for potassium were flagged as "estimated" (J) in the following samples because the percent recoveries for potassium were above control limits in the associated laboratory control samples.

MW-9S	MW-9I	MW-12S	MW-12I	MW-12D
CHA-1	MW-10S	MW-10I	MW-10D	MW-2S
MW-2D	MW-7S	MW-7D	MW-15S	MW-15D

- The "not detected" results for cyanide were flagged as "estimated" (J) in all 25 ground water samples because the percent recoveries for cyanide in the associated continuing calibration verification standards were below control limits, but were not less than 50%.

- Results for TDS were flagged as "estimates" (J) in the following samples because the samples were analyzed beyond NYSDEC holding times for TDS.

MW-9S	MW-9I	MW-9D	MW-12S	CHA-1
MW-12I	MW-12D	MW-10S	MW-10I	MW-10D

All data that are not flagged rejected (R) are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Part 360 Baseline Volatiles
Data for Upstate Laboratories, Inc.
SDG No. CHA85
25 Ground Water Samples, 5 Trip Blanks,
and 1 Holding Blanks
Collected September 18-21, 2007

Prepared by: Donald Anné
November 14, 2007

Holding Times: The following samples were were analyzed beyond NYSDEC ASP holding times. All results for these samples should be considered estimated (J).

MW-15S	MW-15I	MW-15D	MW-14D
ULI TB D	ULI HB D	ULI TB E	ULI HB E

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The %RSD for bromomethane was above the ASP maximum (20.5%) and was above 40%. and the RRFs for trichloroethene and bromomethane were below the ASP minimums, but were above 0.010 for 49 on 09-25-07. The RRFs for vinyl chloride, benzene, trichloroethene, toluene, m&p-xylene, o-xylene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene were below the ASP minimums, but were above 0.010 for 12 on 09-25-07. Both initial calibrations were not compliant with ASP criteria and samples should have been re-analyzed with method compliant calibrations.

The average RRF for target compounds were above the allowable minimum (0.050), as required.

The %RSDs for bromomethane, iodomethane , and 2-butanone were above the allowable maximum (30%) for 49 on 09-25-07. Positive results for these compounds should be considered estimates (J) in associated samples.

Continuing Calibration: The %D for bromomethane was above the ASP maximum (25%), but was below 40%; the %D for tetrachloroethene was above the ASP maximum (25%) and was above 40%; and the RRF50s for bromomethane and 1,1,2,2-tetrachloroethane were below the ASP minimums, but were above 0.010 on 09-27-07 (E15439.D). The %Ds for vinyl chloride and 1,1-dichloroethene were above the ASP maximum (25%), but were below 40% and the RRF50 for trichloroethene was below the ASP minimum, but was above 0.010 on 09-27-07 (E15453.D).

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The %Ds for vinyl chloride, tetrachloroethene, ethylbenzene, m&p-xylene, and styrene were above the ASP maximum (25%), but were below 40%; the %Ds for 0-xylene, 1,3-dichlorobenzene, 1,4-dichlorobenzen, and 1,2-dichlorobenzene were above the ASP maximum (25%) and were above 40%; and the RRF50s for vinyl chloride, benzene, toluene, and m&p-xylene were below the ASP minimum, but were above 0.010 on 09-30-07 (C19033.D). The %Ds for vinyl chloride and 1,1-dichloroethene were above the ASP maximum (25%), but were below 40% and the RRF50s for trichloroethene was below the ASP minimum, but was above 0.010 on 10-01-07 (E15521.D). The %Ds for 1,1-dichloroethene, chloroform, benzene, bromoform, and 1,2-dichlorobenzene were above the ASP maximum (25%), but were below 40%; the %Ds for vinyl chloride, bromomethane, and 1,1-dichloroethane were above the ASP maximum (25%) and were above 40%; and the RRF50 for 1,1,2,2-tetrachloroethane was below the ASP minimum, but was above 0.010 on 10-02-07 (E15537.D). None of these calibrations were ASP compliant, samples should have been analyzed with method compliant calibrations.

The %D for bromomethane, iodomethane, carbon disulfide (26.4%), and tetrachloroethene were above the allowable maximum (25%) on 09-27-07 (E15439.D). The %Ds for chloromethane, vinyl chloride, 1,1-dichloroethene, carbon disulfide, and vinyl acetate were above the allowable maximum (25%) on 09-27-07 (E15453.D). The %Ds for chloromethane, vinyl chloride, 1,1-dichloroethene, and carbon disulfide were above the allowable maximum (25%) on 10-01-07 (E15521.D). The %Ds for following compounds were above the allowable maximum (25%) on 10-02-07 (E15537.D).

chloromethane	vinyl chloride	bromomethane
chloroethane	acetone	1,1-dichloroethene
carbon disulfide	methylene chloride	acrylonitrile
trans-1,2-dichloroethane	vinyl acetate	2-butanone
cis-1,2-dichloroethene	chloroform	bromochloromethane
benzene	1,2-dichloropropane	4-methyl-2-pentanone
2-hexanone	bromoform	1,2-dichlorobenzene

The %Ds for chloromethane, vinyl chloride, 1,1-dichloroethene, and carbon disulfide were above the allowable maximum (25%) on 10-01-07 (E15521.D). The %Ds for following compounds were above the allowable maximum (25%) on 10-02-07 (E15537.D).

chloromethane	vinyl chloride	chloroethane
tetrachloroethene	ethylbenzene	m&p-xylene
o-xylene	styrene	1,3-dichlorobenzene
1,4-dichlorobenzene	1,2-dichlorobenzene	

Positive results for the above compounds should be considered estimates (J) in associated samples.

The RRF50 for acetone was below the allowable minimum (0.050), but was above the method minimum (0.010) on 09-30-07 (C19033.D). The RRF50 for acrylonitrile was below the allowable minimum (0.050), but was above the method minimum (0.010) on 10-02-07 (E15537.D). Positive results for acrylonitrile and acetone should be considered estimated (J) and negative results unusable (R) in associated samples.

Blanks: The holding blank for 09-21-07 contained a trace of acetone (6 ug/L). Results for acetone that are less than ten times the holding blank level should be reported as not detected (U) in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences were below the allowable maximums and the percent recoveries were within control limits for MS/MSD sample MW-101.

Matrix Spike Blank Recovery: The percent recoveries were within QC limits for samples VBLK01, VBLK02, VBLK03, VBLK04, and VBLK05.

Compound ID: Checked compounds were within GC/MS quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

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QA/QC Review of Part 360 Baseline Metals and Cyanide Data for Upstate Laboratories, Inc.
SDG No. CHA85
25 Ground Water Samples
Collected September 18-21, 2007

Prepared by: Donald Anné
November 14, 2007

Holding Times: Samples were analyzed within NYSDEC holding times.

Initial and Continuing Calibration Verification: The percent recovery for silver in CCV3 was above control limits (90-110%) and above 150%. Positive results for silver should be considered unusable (R) and not detected results estimated (J) in associated samples.

The percent recoveries for cyanide in all CCVs were below control limits (85-115%), but were not below 50%. All results for cyanide should be considered estimated (J) in associated samples.

CRDL Standard for AA and ICP: The percent recovery for zinc was above laboratory QC limits (70-130%). Positive results for zinc less than 160 ug/L should be considered estimated (J) in associated samples.

Blanks: The analyses of initial and continuing calibration, and preparation blanks reported baseline metals and cyanide as below the CRDLs, as required.

ICP Interference Check Sample: The percent recoveries for applicable baseline metals were within control limits (80-120%).

Spike Sample Recovery: The percent recovery for iron was below control limits (75-125%), but was not below 30% for spike sample MW-10IS. All results for iron should be considered estimated (J) in associated samples.

Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) in duplicate sample MW-10ID.

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Laboratory Control Sample: The percent recoveries for potassium were above control limits (80-120%) in the aqueous LCSs. Positive results for potassium should be considered estimated (J) in associated samples.

ICP Serial Dilution: The %Ds for the applicable metals were below the allowable maximum (10%) in serial dilution samples MW-15S and MW-14D, as required.

Instrument Detection Limits: All IDLs were at or below the CRDLs, as required.

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QA/QC Review of Classical Chemistry* Baseline Parameters
Data for Upstate Laboratories, Inc.
SDG No. CHA85
25 Ground Water Samples
Collected April 4 and 5, 2007

Prepared by: Donald Anné
November 14, 2007

Holding Times: The following samples were analyzed beyond the NYSDEC holding times for TDS. Results for TDS should be considered estimates (J) in these samples.

MW-9S	MW-9I	MW-9D	MW-12S	CHA-1
MW-12I	MW-12D	MW-10S	MW-10I	MW-10D

Initial and Continuing Calibration Verification: The percent recoveries for target chemistries were within QC limits.

Blanks: The analyses of initial and continuing calibration and method blanks reported target analytes as not detected.

Spike Sample Recovery: The percent recoveries for target analytes were within QC limits in spike samples.

Duplicates: The relative percent differences for applicable target analytes were below the allowable maximum (20%) in duplicate samples.

Laboratory Control Sample: The percent recoveries for target analytes were within laboratory QC limits for the LCSs.

* Classical chemistry analytes include alkalinity, ammonia, bio-chemical oxygen demand (BOD_5), bromide, chemical oxygen demand (COD), chloride, color, hardness, hexavalent chromium, nitrate, sulfate, total dissolved solids (TDS), total kjeldahl nitrogen (TKN), total organic carbon (TOC), and total phenols.

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February 11, 2008

Mr. Keith Cowan
Clough, Harbour, & Associates LLP
III Winners Circle
P.O. Box 5269
Albany, New York 12205-0269

Re: City of Albany Landfill
Data Validation Report
October and December 2007 Ground Water Sampling Events
6NYCRR Part 360 Baseline Parameters

Dear Mr. Cowan:

The data usability summary report and data validation reviews are attached to this letter for the City of Albany Landfill. The data were mostly acceptable for Upstate Laboratories, Inc., SDG Nos. CHA-87 and CHA-89, with some issues that are identified and discussed in the validation summaries. Upstate Laboratories, Inc. did not meet the volatile ASP requirements for any of the calibrations for volatiles in SDG No. CHA-87. There were "not detected" volatile data that were rejected (R) in data pack CHA-87. The basis for rejecting the data are outlined in the DUSR and QA/QC review for volatile data. The data is rejected based solely on the validation guidance criteria. The rejected data may be determined to be acceptable to the user based on additional information that is not contained in the data validation criteria.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Clough, Harbour, & Associates LLP.

Sincerely,
Alpha Geoscience

Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

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Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

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Data Usability Summary Report
for Upstate Laboratories, Inc.
SDG No. CHA-87
1 Ground Water Sample,
1 Trip Blank, and 1 Holding Blank
Collected October 18, 2007

Prepared by: Donald Anné
February 11, 2008

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data packs contained the results for 1 ground water sample analyzed for volatile, metal, and general chemistry analyses for 6NYCRR Part 360 baseline parameters, and 1 trip blank and 1 holding blank analyzed for volatiles only.

The overall performances of the analyses are acceptable. Upstate Laboratories, Inc. did not fulfill the requirements of the analytical method for volatiles. The initial and continuing calibrations were not ASP compliant.

The majority of the data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were flagged:

- The "not detected" results for acetone, acrylonitrile, and 2-butanone were flagged as "unusable" (R) in the ground water sample, 1 trip blank, and 1 holding blank because the response factors for acrylonitrile were below the allowable minimum in the associated initial and/or continuing calibrations.

- The positive result for TDS was flagged as "estimates" (J) in sample MW-17A because the sample was analyzed beyond NYSDEC holding times for TDS.

All data that are not flagged rejected (R) are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Part 360 Baseline Volatiles
Data for Upstate Laboratories, Inc.
SDG No. CHA-87
1 Ground Water Sample,
1 Trip Blank, and 1 Holding Blank
Collected October 18, 2007

Prepared by: Donald Anné
February 11, 2008

Holding Times: The samples were analyzed within NYSDEC ASP holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The %RSDs for applicable compounds were below the ASP maximum (20.5%), as required. The RRFs for benzene, trichloroethene, toluene, m,p-xylene, and o-xylene were below the ASP minimums, but were above 0.010 for instrument 12.0 on 10-03-07. The initial calibration was not compliant with ASP criteria because more than two compounds exceeded criteria and samples should have been re-analyzed with method compliant calibrations.

The %RSDs for target compounds were below the allowable maximum (30%), as required.

The average RRFs for acetone and acrylonitrile were below the allowable minimum (0.050), but were above the method minimum (0.010) on 10-03-07. Positive results for acrylonitrile and acetone should be considered estimated (J) and negative results unusable (R) in associated samples.

Continuing Calibration: The %Ds for applicable compounds were below the ASP maximum (25%), as required. The RRF50s for benzene, trichloroethene, and toluene were below the ASP minimums, but were above 0.010 for instrument 12.0 on 10-03-07. The continuing calibration was not compliant with ASP criteria because more than two compounds exceeded criteria and samples should have been re-analyzed with method compliant calibrations.

The %Ds for target compounds were below the allowable maximum (25%), as required.

The RRF50s for acetone, acrylonitrile, and 2-butanone were below the allowable minimum (0.050), but were above the method minimum (0.010) on 10-20-07 (C19430.D). Positive results for these three compounds should be considered estimated (J) and negative results unusable (R) in associated samples.

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Blanks: The analyses of method, trip, and holding blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for ground water samples.

Matrix Spike/Matrix Spike Duplicate: MS/MSD data was not provided in this data pack. No action is taken on MS/MSD data alone to qualify or reject an entire set of samples

Matrix Spike Blank Recovery: The percent recoveries were within QC limits for sample VBLK01.

Compound ID: Checked surrogates were within GC/MS quantitation limits. The analyses of samples in this data pack reported target compounds as not detected.

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QA/QC Review of Part 360 Baseline Metals and Cyanide Data for Upstate Laboratories, Inc.
SDG No. CHA-87
1 Ground Water Sample
Collected October 18, 2007

Prepared by: Donald Anné
February 11, 2008

Holding Times: Sample MW-17A was analyzed within NYSDEC holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target metals were within control limits (90-110% for all metals except Hg, 80-120% for Hg).

CRDL Standard for AA and ICP: The percent recoveries for target metals were within laboratory QC limits (70-130%).

Blanks: The analyses of initial and continuing calibration, and preparation blanks reported baseline metals as below the CRDLs and not detected, as required.

ICP Interference Check Sample: The percent recoveries for applicable baseline metals were within control limits (80-120%).

Spike Sample Recovery: Spike recovery data was not provided in this data pack.

Duplicates: Duplicate data was not provided in this data pack.

Laboratory Control Sample: The percent recoveries for target metals and cyanide were within control limits (80-120%) in the aqueous LCS.

ICP Serial Dilution: The %Ds for the applicable metals were below the allowable maximum (10%) in serial dilution sample MW-17A, as required.

Instrument Detection Limits: All IDLs were at or below the CRDLs, as required.

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QA/QC Review of Classical Chemistry* Baseline Parameters Data for Upstate Laboratories, Inc.
SDG No. CHA-87
1 Ground Water Sample
Collected October 18, 2007

Prepared by: Donald Anné
February 11, 2008

Holding Times: Sample MW-17A was analyzed beyond the NYSDEC holding times for TDS. The result for TDS should be considered estimated (J) in sample MW-17A.

Initial and Continuing Calibration Verification: The percent recoveries for target chemistries were within QC limits.

Blanks: The analyses of initial and continuing calibration and method blanks reported target analytes as not detected.

Spike Sample Recovery: The percent recoveries for target analytes were within QC limits in spike samples.

Duplicates: The relative percent differences for applicable target analytes were below the allowable maximum (20%) in duplicate samples.

Laboratory Control Sample: The percent recoveries for target analytes were within laboratory QC limits for the LCSs.

* Classical chemistry analytes include alkalinity, ammonia, bio-chemical oxygen demand (BOD_5), bromide, chemical oxygen demand (COD), chloride, color, hardness, hexavalent chromium, nitrate, sulfate, total dissolved solids (TDS), total kjeldahl nitrogen (TKN), total organic carbon (TOC), and total phenols.

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Data Usability Summary Report
for Upstate Laboratories, Inc.
SDG No. CHA-89
24 Ground Water Samples, 1 Field Duplicate,
4 Trip Blanks, and 1 Holding Blank
Collected December 4-7, 2007

Prepared by: Donald Anné
February 11, 2008

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data packs contained the results for 6 ground water samples analyzed for TDS, 6NYCRR Part 360 baseline volatiles and 6NYCRR Part 360 baseline metals, and 18 ground water samples, 1 field duplicate, 4 trip blanks, and 1 holding blanks analyzed for 6NYCRR Part 360 baseline volatiles only.

The overall performances of the analyses are acceptable. Upstate Laboratories, Inc. did fulfill the requirements of the analytical methods.

The majority of the data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were flagged:

- Positive results for TDS were flagged as "estimates" (J) in samples MW-14S, MW-14I, MW-14D, MW-15S, MW-15I, and MW-15D because the samples were analyzed beyond NYSDEC holding times for TDS.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Part 360 Baseline Volatiles Data for Upstate Laboratories, Inc. SDG No. CHA-89 24 Ground Water Samples, 1 Field Duplicate 4 Trip Blanks, and 1 Holding Blanks Collected December 4-7, 2007

Prepared by: Donald Anné

February 11, 2008

Holding Times: The samples were analyzed within NYSDEC ASP holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The %RSD for applicable compounds were below the ASP maximum (20.5%), as required. The RRFs for 1,3-dichlorobenzene were below the ASP minimums, but were above 0.010 for 13 on 12-03-07. No action is taken when two or fewer compounds per calibration do not meet ASP criteria, provided %RSDs are not greater than 40% and RRFs are not less than 0.010.

The average RRF for target compounds were above the allowable minimum (0.050) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The %Ds for applicable compounds were below the ASP maximum (25%), as required. The RRF50 for 1,3-dichlorobenzene was below the ASP minimum, but was above 0.010 on 12-12 -07 (D19831.D). The RRF50 for 1,3-dichlorobenzene was below the ASP minimum, but was above 0.010 on 12-13 -07 (D19846.D). No action is taken when two or fewer compounds per calibration that do not meet ASP criteria, provided %Ds are not greater than 40% and RRF50s are not less than 0.010.

The RRF50s for target compounds were above the allowable minimum (0.050), as required.

The %D for trichlorofluoromethane, acetane, iodomethane, acrylonitrile, and vinyl acetate were above the allowable maximum (25%) on 12-11-07 (C20083.D). The %D for iodomethane was above the allowable maximum (25%) on 12-12-07 (C20102.D). Positive results for the above compounds should be considered estimates (J) in associated samples.

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Blanks: Method blank VBLK01 contained a trace of methylene chloride (2 ug/L). Results for methylene chloride that are less than ten times the holding blank level should be reported as not detected (U) in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences were below the allowable maximums and the percent recoveries were within control limits for MS/MSD sample MW-101.

Matrix Spike Blank Recovery: The percent recoveries were within QC limits for samples VBLK01, VBLK02, VBLK03, and VBLK04.

Field Duplicates: The analyses for field duplicate pair MW-12S and CHA-1 reported target compounds as not detected; therefore, relative percent differences could not be calculated. The analyses of the field duplicate pair are acceptable.

Compound ID: Checked compounds were within GC/MS quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

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QA/QC Review of Part 360 Baseline Metals
Data for Upstate Laboratories, Inc.
SDG No. CHA-89
6 Ground Water Samples
Collected December 6, 2007

Prepared by: Donald Anné
February 11, 2008

Holding Times: Samples were analyzed within NYSDEC holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target metals were within control limits (90-110% for all metals except Hg, 80-120% for Hg).

CRDL Standard for AA and ICP: The percent recovery for boron was above laboratory QC limits (70-130%). Positive results for boron less than 2000 ug/L should be considered estimated (J) in associated samples.

Blanks: The analyses of initial and continuing calibration, and preparation blanks reported baseline metals as below the CRDLs and not detected, as required.

ICP Interference Check Sample: The percent recoveries for applicable baseline metals were within control limits (80-120%).

Spike Sample Recovery: Spike recovery data was not provided in this data pack.

Duplicates: Duplicate data was not provided in this data pack.

Laboratory Control Sample: The percent recoveries for target metals were within control limits (80-120%) in the aqueous LCS.

ICP Serial Dilution: The %Ds for the applicable metals were below the allowable maximum (10%) in serial dilution sample MW-15D, as required.

Instrument Detection Limits: All IDLs were at or below the CRDLs, as required.

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QA/QC Review of Total Dissolved Solids (TDS) Data for Upstate Laboratories, Inc.
SDG No. CHA-89
6 Ground Water Samples
Collected December 6, 2007

Prepared by: Donald Anné
February 11, 2008

Holding Times: All 6 samples were analyzed beyond the NYSDEC holding times. Results for TDS should be considered estimated (J) in all 6 samples.

Blanks: The analysis of the method blank reported TDS as not detected.

Spike Sample Recovery: Spike recovery data is not applicable.

Duplicates: The relative percent difference for TDS was below the allowable maximum (20%) for duplicate sample 11489-33.

Laboratory Control Sample: The percent recovery for TDS was within laboratory QC limits for the LCS.

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APPENDIX K
Environmental Monitoring Plan

Proposed Eastern Expansion at the Albany Interim Landfill

Environmental Monitoring Plan

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

Clough Harbour & Associates LLP
III Winners Circle
Albany, New York 12205
(518) 453-4500

CLOUGH HARBOUR & ASSOCIATES LLP

March 26, 2008

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1.0 INTRODUCTION

Clough Harbour & Associates has been retained by The City of Albany to prepare an Environmental Monitoring Plan (EMP) for the proposed Eastern Expansion of the Albany Interim Landfill (AIL) located in the City of Albany, Albany County, New York (Figure 1). This document is a companion document to the Hydrogeologic Investigation Report found under separate cover. The purpose of this document is to describe all proposed on-site and off-site monitoring for the proposed Eastern Expansion of the AIL. It should be noted that this Plan describes the additional monitoring proposed for Eastern Expansion and is to be integrated with the on-going monitoring already being conducted for the AIL. The closed Greater Albany Landfill (GAL) will continue to be monitored separately.

The document describes the monitoring points, methods, required analyses, and frequency of sampling for groundwater, surface water, sediment, and leachate. The EMP also includes a schedule for monitoring existing water quality, operational water quality, and contingency water quality monitoring, if applicable.

The Environmental Monitoring Plan has been developed in accordance with the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 360 Regulations regarding Solid Waste Management Facilities. The Monitoring Plan has been designed for the operational phase of the landfill through the first five years after closure. A separate Post Closure Monitoring Plan will be developed for this facility as part of the conceptual Closure Plan.

2.0 SITE HYDROGEOLOGY

2.1 GEOLOGY

The following description of the geology of the site is derived from a review of the historical data and site-specific stratigraphic data obtained during the recent soil boring and monitoring well installations at the site. Detailed descriptions of the subsurface soils are provided in the Subsurface Logs included as Appendix C.

There are 5 primary units within the overburden, in order of descending depth are listed below:

1. Shallow, Brown/Gray Sand Unit (Shallow Sand Unit);
2. Silty Sand/ Sand and Silt Unit (Intermediate Unit);
3. Deep Silty Clay/Sand and Silt Unit;
4. Deep Clay Unit; and
5. Till Unit.

Bedrock is present at depths apparently greater than 100 feet.

2.2 HYDROGEOLOGY

Three hydrostratigraphic units exist and are currently monitored at the AIL, Wedge, and P-4 project. These units include the shallow water bearing Sand Unit, the intermediate Silty Sand/Sandy Silt Unit, and the Deep Silty Clay/Sand and Silt Unit that overlies the confining clay. The stratigraphic units beneath the proposed expansion areas were similar in nature with the exception of the changes noted in the gradation within the deep Silty Clay/Clayey Silt Unit. For the proposed expansion area, CHA characterized the upper portion of this unit as silty clay, however, a transition to an underlying fine Sand and Silt Unit is noted, rather than the clayey silt.

3.0 ENVIRONMENTAL MONITORING NETWORK

3.1 LEAK DETECTION SYSTEM

The double composite liner system of the proposed Eastern Expansion to the Albany Interim Landfill has been designed to provide the best environmental protection and ease of monitoring possible. This system provides two (2) monitoring points, including a primary leachate collection system and a secondary leachate collection and recovery system (LCRS). These systems are routed to discrete collection areas where leachate from the primary collection system can be sampled for each individual cell, prior to pumping of leachate to the storage tanks.

The secondary LCRS flows to low points in the cells and are collected in leak detection manholes at which point levels are checked daily. Once leachate has accumulated to a two (2) foot level in the leak detection manhole, it is pumped into the leachate collection manholes. Locations of the leachate sampling points are available on Figure 2.

During the first year of operation, testing will consist of two (2) rounds of baseline parameter and two (2) rounds of expanded parameter analyses. The sampling and analyses shall be performed quarterly and analytical parameters will be alternated between baseline and expanded scans. The leachate sampling and analysis plan following the first year of operation will then be reduced to include semi-annual analysis for expanded parameters during both sample events.

Analytical testing parameters and sampling frequencies for the leachate are to be conducted in accordance with 6 NYCRR Part 360-2.11(c)(3).

3.2 GROUNDWATER MONITORING NETWORK

The current monitoring network for the AIL includes the following well locations:

- MW-1S, MW-1I, MW-1D
- MW-2S, MW-2I, MW-2D
- MW-7S, MW-7I, MW-7D

- MW-9S, MW-9I, MW-9D
- MW-10S, MW-10I, MW-10D
- MW-12S, MW-12I, MW-12D

Eight (8) additional monitoring wells were installed as part of the hydrogeologic investigation for the proposed Eastern Expansion. These wells include the following:

- MW-14S, MW-14I, MW-14D
- MW-15S, MW-15I, MW-15D
- MW-16A
- MW-17A

The existing monitoring well network for the operational AIL will continue to be used with the exception of monitoring well clusters MW-7 and MW-12. These wells are within the Eastern Expansion footprint and must be abandoned prior to landfilling activities. It should be noted that these wells are currently part of the operational monitoring well network and will not be abandoned until liner installation activities begin.

Well clusters MW-14 and MW-15 (see Figure 1) have been installed to evaluate the subsurface hydrogeology for the expansion area, establish existing water quality, and to provide future operational water quality monitoring points. To meet the minimum requirements set forth in NYCRR Part 360 for the cross-gradient and downgradient monitoring locations one additional well cluster will be installed between clusters MW-10 and MW-14. The location of the additional monitoring well cluster is illustrated as well cluster MW-18 on Figure 1. After installation of the additional cluster, the downgradient monitoring wells will be spaced less than five hundred (500) feet apart and not more than fifty (50) feet from the proposed waste boundary. The cross-gradient monitoring wells are spaced within 1,500 feet apart and are also placed within fifty (50) feet from the proposed waste boundary. No new upgradient wells are scheduled to be installed for the Eastern Expansion as the existing wells provide adequate upgradient well spacing and have significant amounts of data established that define the historical and current groundwater chemistry.

Wells screened in the shallow overburden sand layer are designated with an “S”; monitoring wells screened in the intermediate silty sand/ sandy silt designated with an “I”, and at monitoring wells screened at the deep silty clay/clayey silt and clay interface designated with a “D”. Table 1 provides a list of all proposed monitoring points and geologic units screened.

It should be noted that wells MW-16A and MW-17A were installed to provide further investigation of conditions present at the landfill and are not included in the proposed monitoring network for the expansion area. MW-16A was installed as part of an investigation to isolate the source of an elevated level of ammonia that was detected in the two shallow expansion well clusters (MW-14S and MW-15S). MW-17A was installed in order to determine if an overflow event of the existing leachate pump station #1 on the northeast side of the AIL had impacted shallow groundwater in the immediate area. These wells are not expected to be sampled on a regular basis, however, they provided the necessary groundwater monitoring data to evaluate the referenced conditions. Additional information relative to the evaluation of water quality in the vicinity of well MW-16A is discussed in the Hydrogeologic Investigation Report. Information regarding sampling and analysis of monitoring well MW-17A has been provided in the January of 2008 quarterly water quality monitoring report for the AIL.

3.3 WELL SCREEN PLACEMENT

The monitoring wells within the groundwater compliance network are screened to monitor the hydrostratigraphic layers in the shallow overburden sand unit, the intermediate silty sand/sandy silt layer, and at the interface of the deep silty clay/clayey silt and underlying clay layer. The monitoring well designations, screened intervals, and units screened are provided in Table 1. All wells recently installed were constructed in accordance with NYSDEC regulations.

The shallow monitoring wells designated with an “S” are installed in the overburden sand and are screened at depths less than thirty (30) feet below ground surface, not entering the intermediate silty sand/sandy silt layer that is underlying the overburden sands. The intermediate wells are screened in this intermediate silty sand/sandy silt layer. The bottom of the screened intervals for the intermediate layers are set at approximately sixty nine (69) feet to fifty seven (57) feet bgs. The deep monitoring wells were installed to monitor the groundwater that is perched on the confining clay layer that underlies the entire site. The deep wells contain screened intervals from approximately 84 feet to 105 feet bgs.

4.0 SURFACE WATER AND STREAM SEDIMENT SAMPLING

The City of Albany's Rapp Road facility is located within the Rensselaer Lake (Six Mile Waterworks) watershed. This lake is used for recreational purposes and is not currently a potable water reservoir. To the north and east of the landfill facility, there is a drainage ditch/unnamed stream that receives some surface runoff from the facility. This stream is intermittent and largely affected by baseflow from the shallow water table. The stream flows to the east and eventually discharges into Rensselaer Lake. In order to accommodate the proposed expansion, this stream will need to be relocated as part of the construction activities.

Due to the fact that the stream will be relocated, existing water quality values will be determined through analysis of samples collected at those locations designated as SW-1, SW-2, and SW-5, which are illustrated by Figure 1. After relocation of the stream, surface waters will be monitored at SW-1, SW-2A, and SW-5. The location of monitoring point SW-2A shall be designated as the closest point in the relocated stream to the present monitoring location and will be determined following construction. Once the stream re-location is complete, regular monitoring of the surface waters shall continue on a quarterly basis to document potential impacts to the stream. Additional surface water samples SW-3 and SW-4, which are also illustrated by Figure 1, shall only be instituted in the event that the contingency plan is placed in effect.

In the event that the contingency monitoring plan for this facility is instituted, all surface water locations and sediment sampling will be conducted, as outlined in Section 6.3 of this monitoring plan. All surface water and sediment sampling necessary during contingency monitoring is to be conducted in accordance with 6 NYCRR Part 360-2.11(c)(2) and protocols enclosed as Appendix A of this plan. Surface water monitoring points that would be sampled should contingency monitoring be placed in effect are labeled with the prefix 'SW" as displayed in Figure 3. Respective sediment sample monitoring points to be utilized during contingency monitoring are labeled with the prefix 'SS" as displayed in Figure 3. The Contingency Monitoring Plan is further discussed in Section 6.3 of this EMP.

5.0 LEACHATE SAMPLING

Existing cells at AIL consist of a double composite liner system. As discussed in Section 3.1, the double composite liner system provides two distinct sampling interfaces. A representative sample of these distinct layers will be sampled on a quarterly basis through the first operational year alternating from expanded to baseline parameters. During all subsequent operational years the liner system will be sampled on a semi-annual basis for expanded parameters during each monitoring event.

6.0 WATER QUALITY MONITORING PROGRAM

Three (3) different categories of analytical parameter scans will be used in water quality monitoring of the points previously described to establish existing water quality prior to landfilling, operational water quality during landfilling, and water quality during the post closure period. The three (3) categories of analytical parameter scans are as follows: expanded, baseline, and enhanced routine scans. Sampling protocols will be as outlined in Appendix A. The laboratory(s) performing all analyses will be certified under the New York State Department of Health's (NYSDOH's) Environmental Laboratory Approval Program under the Analytical Service Protocol (ASP) category for all parameters to be analyzed. Field and laboratory quality assurance and quality control (QA/QC) procedures are documented in the Site Analytical Plan included as Appendix D. All laboratory analyses will conform to ASP procedures. The laboratory performing the analyses will be required to submit its most current QA/QC Plan to The City of Albany prior to conducting the required analyses.

6.1 ESTABLISHING EXISTING WATER QUALITY

Analysis of existing water quality for representative monitoring points from each water-bearing hydrogeologic unit within the critical stratigraphic section is provided as Appendix B. This includes data from the existing monitoring wells for the AIL, as well as the newly installed monitoring wells for the expansion area. EWQVs for the existing AIL monitoring wells are also presented in Appendix B.

Following installation, groundwater samples from the two (2) new monitoring well clusters (MW-14 and MW-15) were collected on January 23, 2007. Pursuant to the regulations, two samples were collected from each monitoring wells during the first monitoring event and analyzed for the expanded suite of parameters as listed in the Part 360 regulations. The new monitoring wells were sampled again in April 2007, September 2007, and December 2008. All rounds subsequent to the January event, were analyzed for baseline parameters, pursuant to the 6 NYCRR Part 360-2.11 (c)(5)(1)(a) regulations.

At this time, the expansion wells will be sampled for a minimum of four additional quarters to further define the existing water quality for the expansion area. Results of sampling to date are attached as Appendix B. In addition to the existing monitoring wells, one additional monitoring well cluster will be installed prior to the construction of the proposed eastern expansion. The additional well cluster will be installed between existing monitoring wells MW-14 and MW-10 to satisfy requirements of the maximum spacing between downgradient wells being 500 feet. Similar to the previously installed monitoring wells, samples from the first quarter pre-operational monitoring event will be analyzed for expanded parameters. Pursuant to Part 360 regulations, duplicate samples will be collected from each newly installed monitoring well during the first monitoring event. During the remaining three monitoring events samples will be analyzed for baseline parameters.

Prior to construction, EWQVs for each flow regime will be developed for the newly installed expansion wells and the proposed additional monitoring well cluster based on a minimum of four quarters of pre-operational water quality data. The EWQV's for each flow regime will be the arithmetic mean for each analytical parameter based on a minimum of four pre-operational quarterly monitoring events. It should be noted that due to the inherent variability at the site, EWQV's will represent the statistical comparison of intra-well data based on past baseline sampling results for each well rather than inter-well comparison of similar groundwater flow regimes. This is consistent with the development of EWQVs for the existing AIL monitoring network. Results from the operational monitoring events are compared to EWQV's to determine whether or not there is a significant increase over existing background water quality. A discussion of the evaluation of operational water quality monitoring data based on the EWQVs is presented in Section 6.2.4.

Protocols followed during the sampling of the monitoring wells are outlined in the Appendix A. These protocols were standardized to provide a consistent sampling methodology, however, this basic protocol was modified for the deep wells to include evacuation and sampling using a WaTerra Inertial Hydrolift Pump and dedicated HDPE tubing and foot valves. This modification eliminated the need for bailing wells with high well column volumes. It should be noted that dedicated bailers are utilized for the shallow overburden wells.

6.2 OPERATIONAL WATER QUALITY

6.2.1 Leachate Collection System

Leachate at the facility has been characterized by performing semi-annual monitoring during the years of operation for the existing AIL. Given that the specific waste stream for the AIL has been well defined by years of sampling on a semi-annual basis for expanded parameters, as cited in NYCRR 6 Part 360 2.11.c.3.ii, with department approval the schedule for leachate sampling will remain on the same frequency when the expansion is completed.

6.2.2 Groundwater Wells

The monitoring wells that make up the monitoring network for the will be sampled quarterly during the operational phase of this facility. Analytical parameters will include three (3) routine parameter scans and one (1) baseline parameter scan per year for all wells in the compliance monitoring network.

The existing expansion wells will be analyzed for baseline scan parameters for one additional year, to expand the pre-operational monitoring database. The additional pre-operational monitoring will help to further define the EWQVs for the expansion area. Existing wells currently monitored for the operational AIL have established EWQV's that will continue to be used for the respective wells, and will remain as part of the existing monitoring well network following the completion of the Eastern Expansion.

6.2.3 Leak Detection Layer

The leak detection layer creates a significant monitoring point for the detection of a breach of the upper geomembrane. This layer will be monitored semi-annually for any leachate or fluid within the leak detection layer. Should leachate or fluid be detected in this layer, it will be pumped out to the leachate collection system. If determined that the upper membrane has been breached, additional sampling will be utilized and steps established by the contingency monitoring plan may be used in conjunction to isolate the leak.

6.2.4 Summary

Within 90 days of completing the quarterly field sampling activities, a determination will be made whether or not there is a significant increase from existing water quality levels established for each parameter. In determining whether a significant increase has occurred, a comparison will be made of the groundwater quality of each parameter at each monitoring well to the existing water quality value of that parameter. A significant increase has occurred if: 1) the groundwater quality for any parameter at any monitoring well exceeds the existing water quality value for that parameter by three standard deviations; or 2) the groundwater quality for any parameter at any monitoring well exceeds the existing water quality value for that parameter and exceeds the water quality standards for that parameter as specified in Part 701, 702, or 703 of Title 6 of the NYCRR.

If there is a significant increase from existing water quality levels for one or more of the parameters during field sampling for the routine parameters, excluding the field parameters, at any monitoring well, the following will be performed: 1) Within 14 days of this finding, the NYSDEC will be notified of which parameters have shown significant increases from existing water quality levels; and 2) A sampling and analysis program will be conducted of all monitoring points for baseline parameters during the next quarterly sampling event. Subsequent sampling and analysis for baseline parameters will be conducted semiannually until the significant increase is determined not to be landfill-derived or the NYSDEC determines such monitoring is not needed to protect public health or the environment.

If there is a significant increase from existing water quality levels for one or more of the parameters during field sampling for the baseline parameters, excluding the field parameters, at any monitoring well, the following will be performed: 1) within 14 days of this finding, the NYSDEC will be notified of the existing water quality levels; and 2) a contingency monitoring program will be established within 90 days unless it is demonstrated to the NYSDEC that a source other than the facility caused the contamination or that the significant increase resulted from error in sampling, analysis, or natural variation in groundwater quality. A report documenting this demonstration will be submitted to the NYSDEC for approval. If a successful demonstration is made, documented and approved by the NYSDEC, the facility may continue operational water quality monitoring. If, after 90 days, a successful demonstration is not made, a contingency monitoring program will be initiated.

6.3 CONTINGENCY WATER QUALITY MONITORING

Should a significant increase over existing water quality be detected for one or more of the baseline parameters or a waste stream release occurs, all affected monitoring points will be sampled and analyzed for contingency water quality monitoring in order to isolate the source of the potential contamination.

Within ninety (90) days of triggering the contingency water quality monitoring program, the groundwater will be sampled and analyzed for expanded parameters. A minimum of one (1) sample from each monitoring well (upgradient and downgradient) will be collected and analyzed during each sampling event. For any constituent detected in the downgradient wells as a result of the expanded parameter analysis, a minimum of two (2) independent samples from each well (upgradient and downgradient) will be collected within 30 days of obtaining the results of the expanded parameter analysis and analyzed for the detected constituents. These samples must be collected within two (2) weeks of each other and compared to the existing groundwater quality values. If an increase in the existing water quality values in the upgradient wells is indicated by this comparison, the existing water quality values for these parameters shall be revised to be the arithmetic mean of the results of the analyses for each parameter in the upgradient wells within each hydrogeologic flow region. A deletion of any of the expanded parameters may be conducted if it can be demonstrated that the removed parameters are not reasonably expected to be in, or derived from, the waste contained in the landfill based on the leachate sampling being performed pursuant to Section 5 of this plan.

After obtaining the results from the initial or subsequent sampling events, the following will be performed: 1) Within fourteen (14) days, NYSDEC will be notified of the expanded parameters that are detected. 2) Within ninety (90) days, and on a quarterly basis thereafter, all wells will be re-sampled and analyzed for all baseline parameters and for those expanded parameters that are detected. In addition, all wells will be sampled and analyzed annually for expanded parameters, At least one sample from each upgradient and downgradient well will be collected and analyzed during these sampling events. Requirements of this item may be reduced by NYSDEC based on-site specific conditions. 3) Groundwater protection standards for all parameters detected will be established as per 360-2.11 (c)(5)(iv)(f) regulations.

If the concentrations of any of the expanded parameters are shown to be at or below existing water quality values for two (2) consecutive sampling events, the NYSDEC will be notified and if approved by NYSDEC that parameter may be removed from the contingency water quality monitoring program. If the concentrations of all the expanded parameters are shown to be at or below existing water quality values for two (2) consecutive sampling events, the NYSDEC will be notified and, if approved by NYSDEC, the facility will return to operational water quality monitoring.

If the concentrations of any expanded parameters are above existing water quality values, but all concentrations are below the groundwater protection standard established, contingency water quality monitoring will continue.

If one or more expanded parameters are detected at significant levels above the groundwater protection standard during any sampling event, the NYSDEC and all appropriate local government officials will be notified within fourteen (14) days of the expanded parameters that have exceeded the groundwater protection standard. The following will be conducted:

- characterize the nature and extent of the release by installing additional monitoring wells as necessary;

- install at least one additional monitoring well at the facility boundary in the direction of contaminant migration. Establish existing water quality for this well, if possible, consistent with Part 360-2.11(c)(5)(i).

- notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by sampling of wells; and

- initiate an assessment of corrective measures as required by section 360-2.20 of the Part 360 regulations within ninety (90) days; or

- demonstrate that a source other than the landfill caused the contamination, or that the significant increase resulted from error in sampling, analysis, or natural variation in groundwater quality. This report will be submitted for approval by the NYSDEC. If approved; the facility will continue monitoring in accordance with the contingency water quality monitoring program and will return to operational monitoring if the expanded parameters are at or below existing water quality.

The groundwater protection standard for each expanded parameter detected in the groundwater shall be:

- for parameters for which a maximum contaminant level (MCL) has been promulgated under section 1412 of the Safe Drinking Water Act (codified) under 40 CFR Part 141 or for which a standard has been established pursuant to Part 701, 702, or 703 of 6 NYCRR, whichever is more stringent when the parameters are the same, the MCL or standard for that constituent.

- for parameters for which MCLs or standards have not been promulgated, the existing water quality concentration for the parameter established from on-site wells; or

- for parameters for which the existing water quality level is higher than the MCL or standard the existing water quality concentration.

6.4 REPORTING OF DATA

All water quality monitoring results will be reported to the NYSDEC within ninety (90) days of sample collection. The report will include tables with the minimum following information: 1. sample collection date, 2. analytical results, 3. designation of upgradient wells, 4. location and number of each environmental monitoring point sampled, 5. applicable water quality and groundwater protection standards. In addition, a table comparing current water quality, existing water quality, and applicable groundwater standards will be included with a discussion of results and a summary of any increase in existing water quality levels and exceedences of groundwater protection standards. Any proposed modification to the sampling and analysis program will be reported. All QA/QC documentation will be submitted to the NYSDEC. An annual report will be prepared and will contain a summary of water quality data collected throughout the year with a special note given to changes in water quality which occurred throughout the year.

6.5 DATA QUALITY ASSESSMENT

A data usability analysis shall be performed on all analytical data for the facility and shall consist, at a minimum, of the following:

- An assessment to determine if the data quality objectives were met;
- Evaluation of field duplicate results to indicate the representativeness of the samples:
- Comparison of the results of all field blanks, trip blanks, and equipment rinsates with full data set to provide information concerning contaminants that may have been introduced during sampling or shipping;
- Evaluation of matrix effects to assess the performance of the analytical method with respect to the sample matrix, and determine whether the data have been biased high or low due to matrix effects;
- Integration of the field and laboratory data with geological, hydrogeological, and meteorological data to provide information about the extent of contamination, if it occurs; and
- Comparison of precision, accuracy, comparability, bias, completeness, representation, and defensibility of the data generated with that required to meet the data quality objectives established in the site analytical plan.

In addition to the data usability analysis, data validation, as discussed in the following, will be provided to assess data quality.

- For those sampling events for which only routine parameters are analyzed, the data validation shall be performed by the laboratory that performed the sample analyses.

- For those sampling events for which baseline or expanded parameters are analyzed, the data validation shall be performed by a person other than the laboratory that performed the analyses and that is acceptable to the NYSDEC.
- The data validation shall be performed on all analytical data for the facility at a rate acceptable to the NYSDEC, but not less than twenty percent of the data generated, and shall consist, at a minimum, of the following:

Field records and analytical data will be reviewed to determine whether the data are accurate and defensible. All QA/QC information shall be reviewed along with any corrective actions taken during that sampling event; and

All data summaries shall be clearly marked to identify any data that are not representative of environmental conditions at the site, or that were not generated in accordance with the site analytical plan.

7.0 INDEPENDENT MONITORABILITY BETWEEN ALBANY INTERIM LANDFILL INCLUDING THE EASTERN EXPANSION AND THE GREATER ALBANY LANDFILL

The existing Greater Albany Sanitary Landfill (GAL) is located adjacent and sharing it's northern boundary with AIL. The ability to distinguish the location of a potential release from the waste facilities is an important element in the Environmental Monitoring Plan for this site. Identifying a release from either or both facilities can be accomplished utilizing three separate and distinct methods: groundwater flow direction, distinct leachate characteristics, and monitoring of the secondary leachate collection system.

7.1 GROUNDWATER FLOW

Groundwater flow in each of the underlying hydrogeological units trends toward the east by southeast throughout the site. A leak from this facility, should it escape the landfill liner system would most likely travel to the east and discharge into the adjacent woodland areas. Considering that the normal groundwater flow in the area is to the east by southeast it is highly unlikely that the GAL landfill would affect the monitorability of the AIL and Eastern Expansion that abut to the north. It is possible that during a leachate leak from the AIL, elevated parameters might be detected in the GAL samples. The GAL monitoring wells have been sampled on a quarterly basis since March of 2003 by CHA and have relatively stable parameter levels.

7.2 DISTINCT LEACHATE CHARACTERISTICS

In an effort to distinguish parameters which would definitively differentiate leachate from the AIL to the GAL, and to a number of the natural and/or seasonal variations, the results of multiple monitoring events data have been compiled by CHA from a minimum of twelve (12) events at the site. It should be noted that the GAL landfill is a closed unlined landfill that has not been used as a landfill since 1990, it should also be noted that this landfill has been sampled on a quarterly basis since March 2003 by CHA.

Wet chemical/leachate indicator parameter data from the sources identified were plotted on Piper diagrams to determine a distinct leachate signature to trace back to the individual landfills. Currently the new well clusters (MW-14, MW-15) installed closely resemble the upgradient well groundwater chemistry. The analysis from monitoring wells MW-1S, MW-14S, MW-15S, and the secondary leachate collection system sample from Cell 1 were plotted together and represent local natural groundwater chemistry. This plot is provided as Figure 6. The sample from the secondary leachate collection shows that the liner system is working and has not been impacted by the overlying waste mass. These wells that are considered to represent the upgradient groundwater chemistry were found to contain less than 50% sulfate/chloride and less than 20% sodium/potassium.

Downgradient wells from GAL (MW-1, MW-4S, MW-5S) were plotted with wells MW-7S, MW-9S, MW-10S, and MW-12S of the AIL, and the primary leachate collection sample from pumping station #2 of the AIL. This plot is provided as Figure 7 And illustrates that samples from wells directly downgradient of the GAL (e.g. MW-1 and MW-5S) exhibit much higher proportions of sodium and potassium than the wells located cross-gradient of the GAL (e.g. MW-4S, MW-9S, and MW-10S). These cross-gradient wells exhibit similar water chemistry with the exception that monitoring well MW-9S exhibits a higher proportion of sulfate and chloride. This is not unexpected given the fact that MW-9S has been influenced by the application of road salt. As illustrated by Figure 6, the natural background water quality exhibits the lowest proportion of sodium and potassium and the highest proportions of calcium and magnesium. Due to the fact that the major cation/anion chemistry for wells located cross-gradient and in relatively close proximity to the GAL plot between the background water chemistry and the downgradient/leachate sample, the results of the plots indicate a mixing of more natural waters with the GAL impacted groundwater.

Historical samples of these wells were plotted and determined to be in the same range with exception of increasing sodium and chloride parameters that are assumed to be the effects of road deicing. Monitoring well MW-5S plots at a 60% sulfate/chloride and 80%

sodium/potassium zone, however this is expected given the close proximity to the entry road with its continual deicing regiment.

GAL monitoring well MW-1 is a flush mount well that is located in the parking area of the Rapp Road Facility. Results of this well from the December 2006 monitoring event plot in the same general location as the data from the March 2003 monitoring event. Primary leachate collection data attained from pumping station #2 which services cells 7, 8, and 9 of AIL plot in a very close proximity (Figure 7). Monitoring well MW-1 is downgradient of both GAL and AIL, in fact, it is the furthest downgradient well from the waste mass. By the use of the volatile analysis, 2-Butanone and acetone is present in the leachate sample discussed at concentrations of 3900 and 2900 mg/l, respectively. Volatile analysis from monitoring well MW-1 contains concentrations of benzene, chlorobenzene, and 1,4 Dichlorobenzene at levels of 10, 49, and 3 mg/l respectively. Using the volatile analysis as tracers, the source of the contaminants present in the groundwater collected from monitoring well MW-1 are likely associated with surface runoff from the adjacent parking, staging areas and entry road to the Rapp Road Facility.

7.3 DETECTION AND MONITORING CAPABILITIES OF THE SECONDARY LEACHATE COLLECTION (LEAK DETECTION LAYER) SYSTEM

The leak detection layer is designed as an integral part of the secondary leachate collection system, and is effective throughout the entire landfill liner. Should the integrity of the upper geotextile membrane be compromised, leachate would enter the leak detection layer and collect at the designed monitoring point. Since the leak detection layer will be monitored on a monthly basis for water levels, early detection of a release will be possible.

8.0 FINANCIAL ASSURANCE FOR CORRECTIVE MEASURES

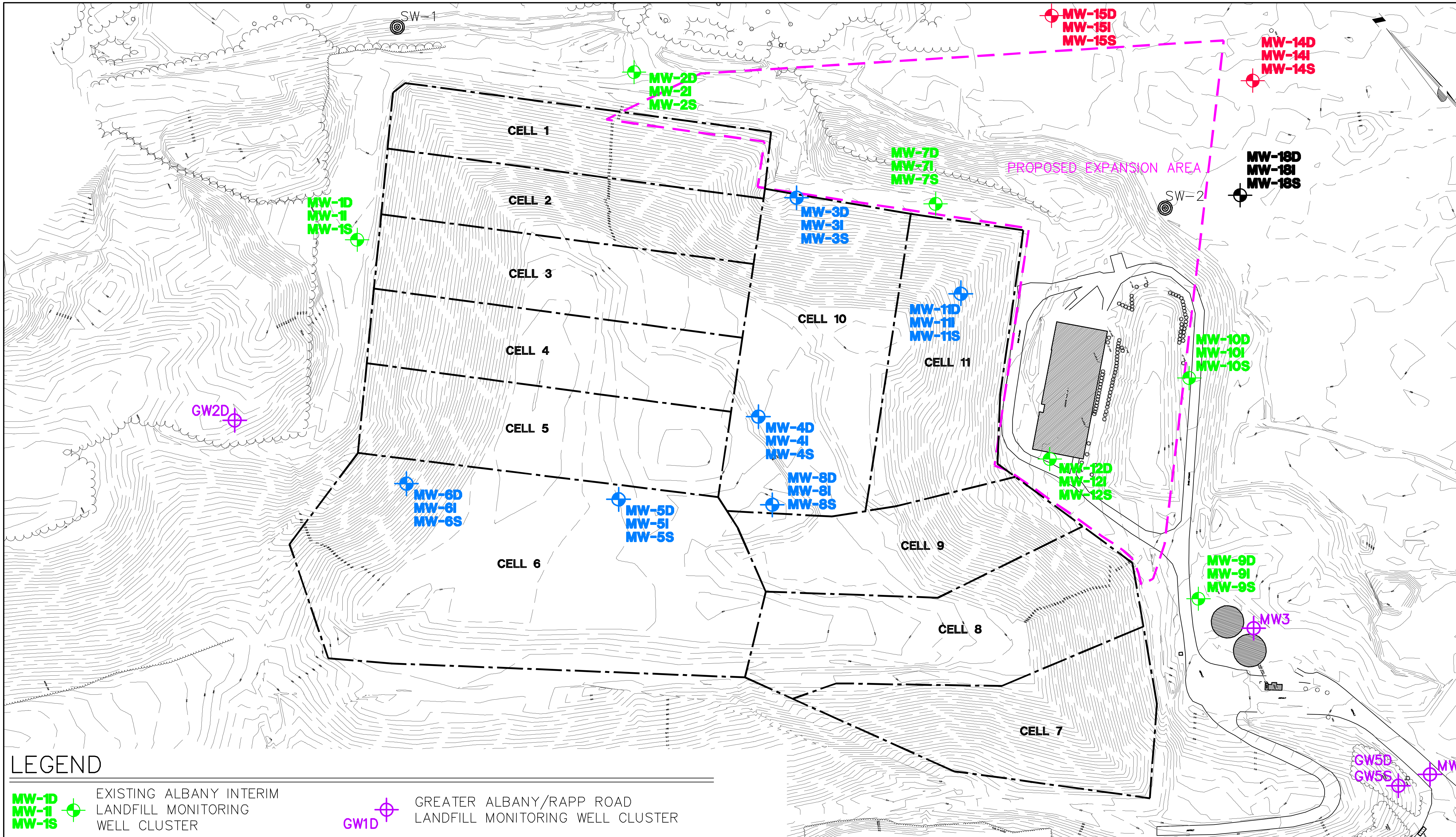
In the event that a parameter listed in the expanded parameter list in Part 360-2.11 exceeds the applicable water standards at the landfill, a corrective measures report will be completed in accordance with the requirements of Part 360-2.20. The City acknowledges its responsibility that a corrective measure report must be completed in the event that a respective limit is exceeded. The City assumes financial responsibility for the landfill and all necessary corrective measures. Once it is determined which corrective measure will be the most effective to correct a potential erroneous condition, the City will provide an estimate of costs in current dollars and corresponding financial documents required by Part 360-2.19 for correction of the condition. During and after the corrective measures work is performed, the environmental monitoring program will be maintained by the City in the phase that the landfill is currently in, be it operational or post-closure. Only when completion of the corrective measures is certified by the department, is the City is released from the requirements of financial assurance and corrective measures under section 360-2.19.

9.0 CONCLUSION

This Environmental Monitoring Plan is prepared to supplement the Hydrogeologic Report prepared for The City of Albany, by Clough, Harbour & Associates. This Environmental Monitoring Plan is intended to replace the existing monitoring plan to include the future expansion landfill cells to be located at the eastern end of the existing landfill.

Contingency groundwater, surface water, and sediment samples may be monitored from 34 environmental monitoring points. A compliance network of 18 liner monitoring wells are to serve as the primary means of detecting any failure of the landfill cell liner. The other environmental monitoring points are to be used for monitoring either existing operational or contingency water quality. Existing and operational water quality is to be monitored as shown on Figure 1. Contingency water quality will be monitored as specified in this report. The well construction summaries with screened intervals may be found as Table 1. Sampling protocols are available in Appendix A and the complete Site Analytical Plan is attached as Appendix D.

FIGURES



LEGEND

MW-1D MW-1I MW-1S	EXISTING ALBANY INTERIM LANDFILL MONITORING WELL CLUSTER	GW1D	GREATER ALBANY/RAPP ROAD LANDFILL MONITORING WELL CLUSTER
MW-1D MW-1I MW-1S	ABANDONED MONITORING WELL CLUSTER	MW-1D MW-1I MW-1S	NEWLY INSTALLED EASTERN EXPANSION MONITORING WELLS
MW-18D MW-18I MW-18S	PROPOSED MONITORING WELL CLUSTER	SW-1	SURFACE WATER SAMPLING LOCATION

SCALE: 1" = 200'

CHA

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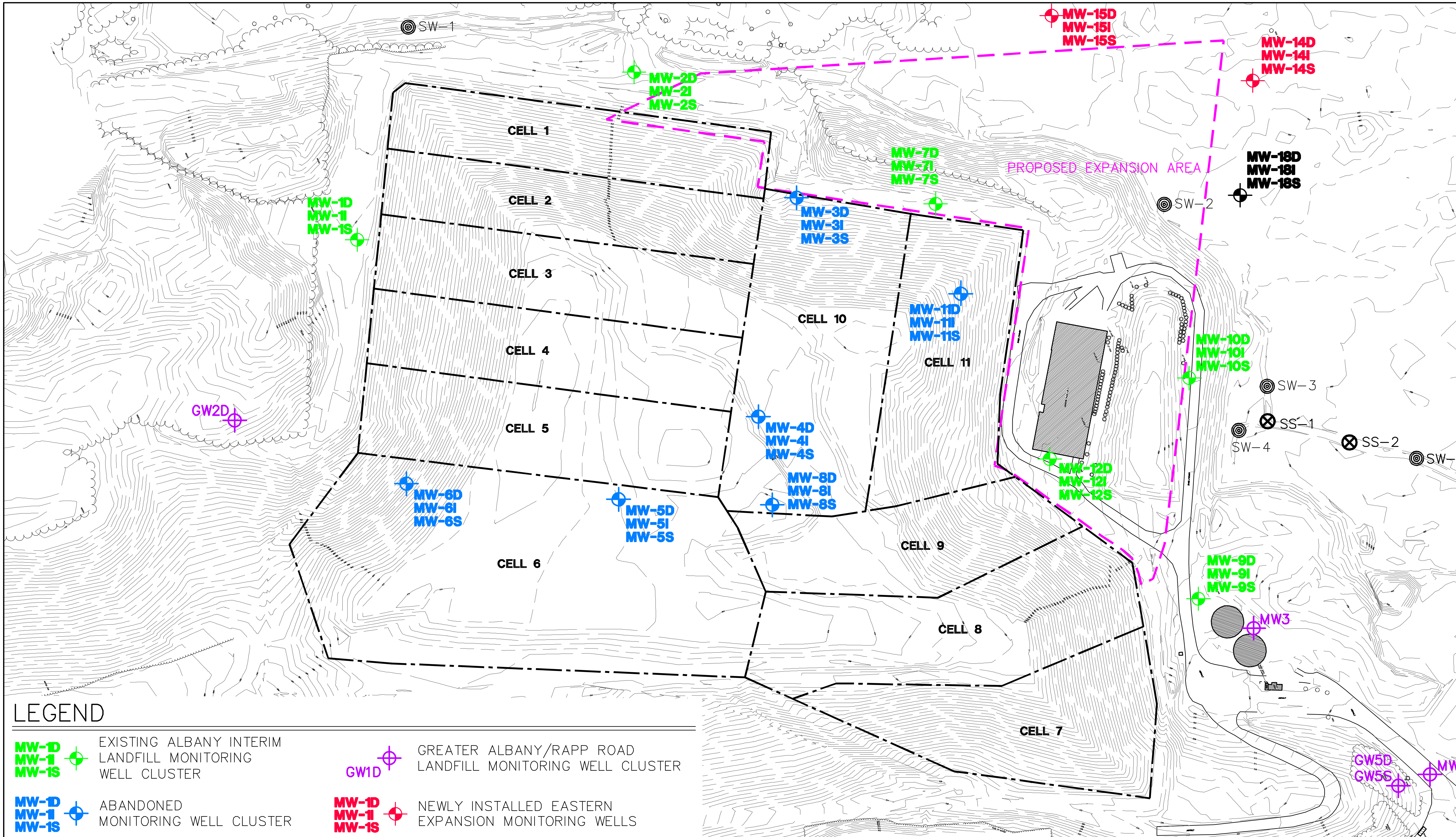
FIGURE 1

MONITORING POINT LOCATION MAP

RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\EMP\FIGURE 1 - EX.MONITORING WELL LOCATION MAP.DWG Saved: 3/25/2008 4:04:45 PM Plotted: 3/26/2008 1:25:42 PM User: Markham, Gary



LEGEND

MW-1D
MW-1I
MW-1S
EXISTING ALBANY INTERIM LANDFILL MONITORING WELL CLUSTER

GW1D
GREATER ALBANY/RAPP ROAD LANDFILL MONITORING WELL CLUSTER

MW-1D
MW-1I
MW-1S
ABANDONED MONITORING WELL CLUSTER

MW-1D
MW-1I
MW-1S
NEWLY INSTALLED EASTERN EXPANSION MONITORING WELLS

SW-3
CONTINGENCY MONITORING SURFACE WATER SAMPLE

SS-2
CONTINGENCY MONITORING SEDIMENT SAMPLE

MW-18D
MW-18I
MW-18S
PROPOSED MONITORING WELL CLUSTER

SCALE: 1" = 200'

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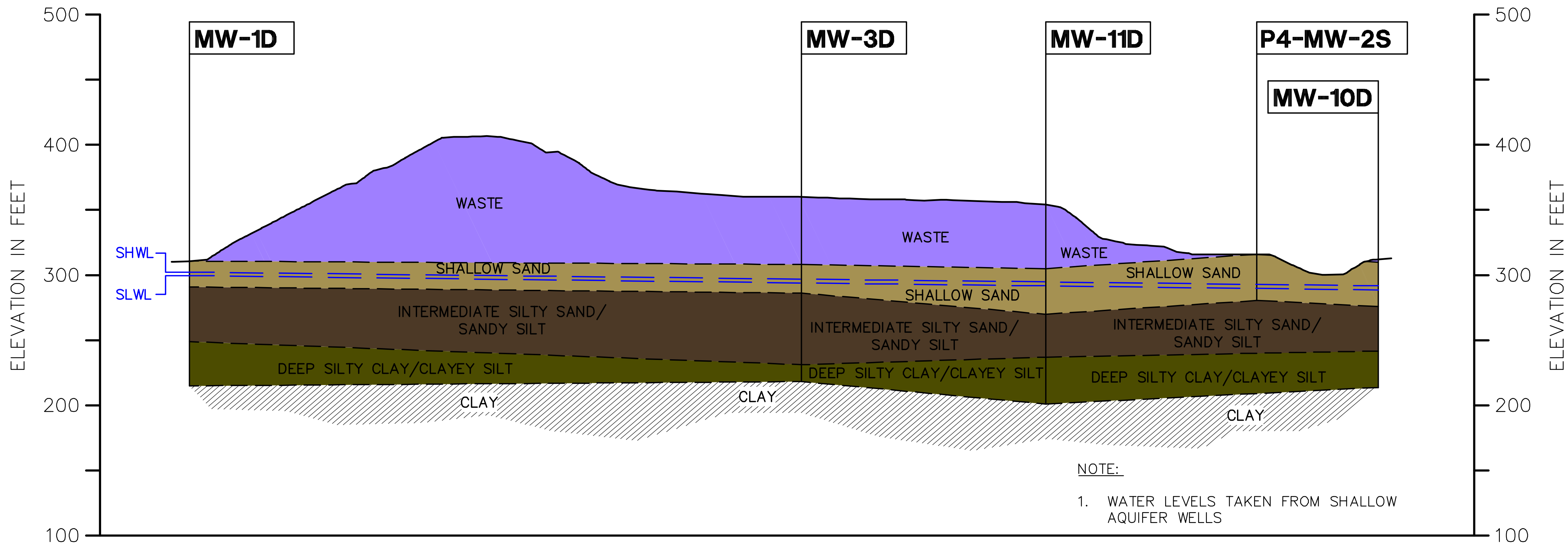
FIGURE 3
CONTINGENCY MONITORING LOCATION PLAN
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\EMP\HISTORY\FIGURE 3 - CONTINGENCY.DWG Saved: 3/25/2008 4:04:42 PM PLotted: 3/26/2008 1:30:11 PM User: Markham, Gary



SECTION A–A'

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 100'

LEGEND

SHWL – Seasonal High Water Level
SLWL – Seasonal Low Water Level

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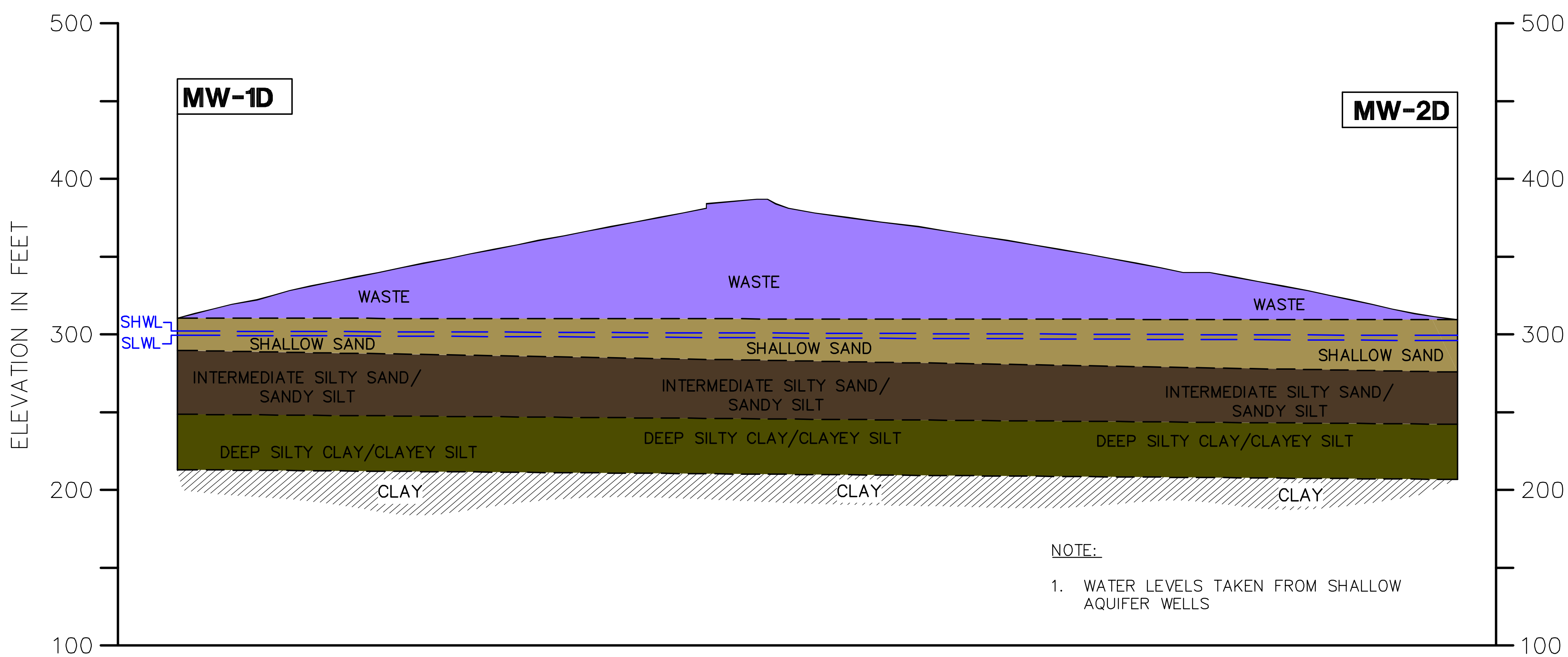
FIGURE 5–1

GEOLOGIC SECTION A–A'

ENVIRONMENTAL MONITORING PLAN
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\EMP\FIGURE 5.1 – SECTION A-A'.DWG Saved: 3/25/2008 10:43:07 AM Plotted: 3/26/2008 1:33:07 PM User: Markham, Gary



SECTION B–B'

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 100'

LEGEND

SHWL – Seasonal High Water Level
SLWL – Seasonal Low Water Level

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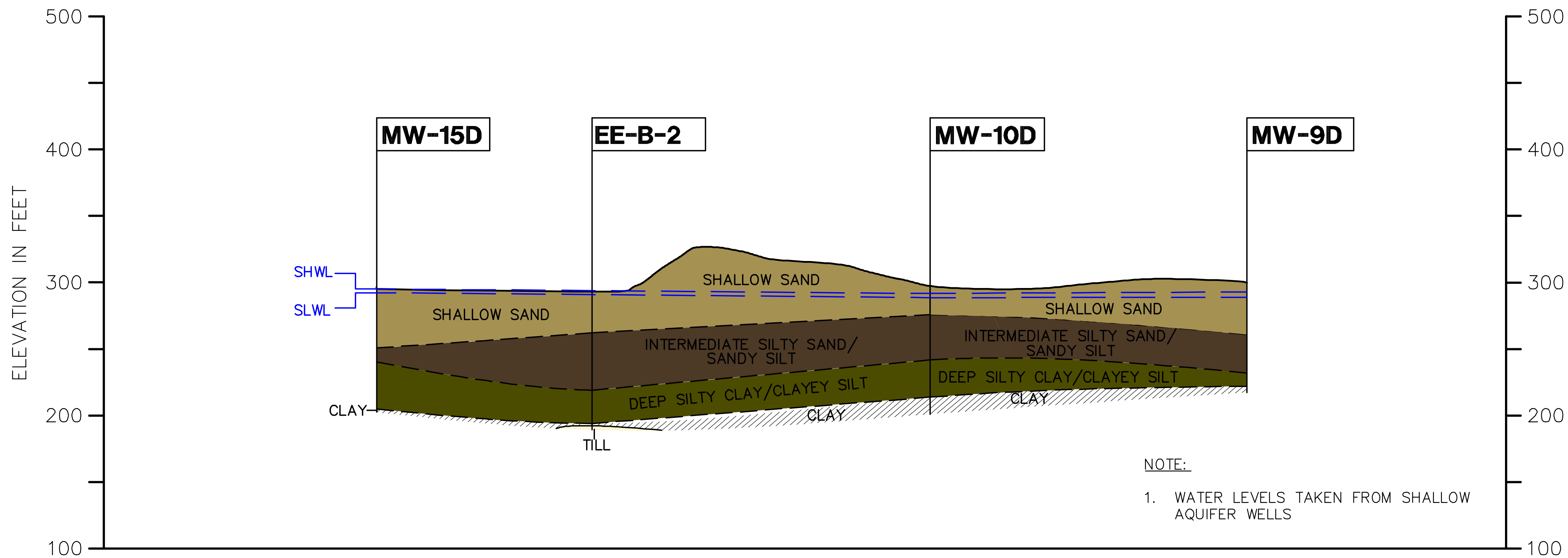
FIGURE 5–2

GEOLOGIC SECTION B–B'

ENVIRONMENTAL MONITORING PLAN
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\EMP\FIGURE 5.2 – SECTION B-B'.DWG Saved: 3/25/2008 10:45:56 AM Plotted: 3/26/2008 1:34:22 PM User: Markham, Gary



SECTION C–C'

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 100'

LEGEND

SHWL – Seasonal High Water Level
SLWL – Seasonal Low Water Level

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FIGURE 5–3

GEOLOGIC SECTION C–C'

ENVIRONMENTAL MONITORING PLAN
RAPP ROAD SOLID WASTE MANAGEMENT FACILITY
CITY OF ALBANY
STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\HYDRO REPORT\ACAD\3-28-07\EMP\FIGURE 5.3 - SECTION C-C'.DWG Saved: 3/25/2008 10:45:53 AM Plotted: 3/26/2008 1:35:34 PM User: Markham, Gary

TABLES

APPENDIX A

APPENDIX B

TABLE 3
Groundwater Analytical Monitoring Data
MW-14S
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				6.6	6.6	4.04	14.54	8.37	7.54
Conductivity	uS				226	226	288	281	343	295
pH	SU	6.5-8.5			6.71	6.71	6.6	6.98	6.7	6.69
Eh	mV				15.5	15.5	-25.8	-5.6	-65	-79.8
Turbidity (after purging well)	N.T.U	5			505	464	28.2	981	12.7	19.8
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			<0.5	<0.5	0.751	<0.5	0.765	0.536
BOD 5	mg/l				6	<4	43	<4	<4	<4
Bromide	mg/l	2			<2	<2	<20	<20	<2.0	<200
COD	mg/l				<20	<20	180	<20	<20	<20
Chloride	mg/l	250			7.26	6.35	6.86	2.14	7.41	5.35
Nitrate	mg/l	10			<0.2	<0.2	<0.2	<0.2	0.223	<0.2
Sulfate	mg/l	250			<5	6.71	9.82	<10	29.5	28.2
Total Alkalinity	mg/l				130	140	130	100	140	120
Total Dissolved Solids	mg/l	500			162	250	440	120	188	215
Total Hardness	mg/l				226	231	129	62	152	135
Total Kjed. Nitrogen	mg/l				<0.50	<0.05	1.47	<0.5	1.37	1.11
Total Organic Carbon	mg/l	500			11	11	33.8	11.8	11.9	11.6
Total Phenols	mg/l	0.001			<0.005	<0.005	<0.005	0.007	<0.005	<0.005
Color	P.C.U.	15			100	80	100	12		400
Boron	mg/l	1			<0.5	<0.5	<0.5	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			31.2	28.7	1.19	1.37		0.582
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			0.0184	0.0209	<0.010	<0.01		<0.01
Barium	mg/l	1			0.199	0.198	<0.05	<0.05		<0.05
Beryllium	mg/l	0.003			<0.003	<0.003	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			0.00642	0.00669	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				60.7	63.6	39.2	18.4	44.8	40.1
Chromium	mg/l				0.0451	0.0426	<0.005	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.010	<0.010	<0.010	<0.04		<0.01
Cobalt	mg/l	0.005			0.0445	0.0435	<0.020	<0.02		<0.002
Copper	mg/l	0.2			0.122	0.121	0.0201	<0.01		<0.01
Total Cyanide	mg/l	0.1			<0.010	<0.010	<0.010	<0.01		<0.01
Iron	mg/l	0.3			50.9	48.3	7.12	8.19	7.62	8.28
Lead	mg/l	0.025			0.0377	0.0408	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35			17.9	17.5	7.65	3.92	9.84	8.59
Manganese	mg/l	0.3			0.732	0.731	0.323	0.175	0.343	0.306
Mercury	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			0.0763	0.0736	<0.030	<0.03		0.225
Potassium	mg/l				4.31	3.85	<1	<1	<1	<1
Selenium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005		<0.005
Silver	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Sodium	mg/l	20			4.24	3.75	3.68	2.68	3.91	3.79
Thallium	mg/l	0.004			<0.01	<0.010	0.0144	<0.01		<0.01
Vanadium	mg/l	0.014			0.0639	0.0626	<0.030	<0.03		<0.03
Zinc	mg/l				0.217	0.207	0.115	0.0567		0.0213
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:					<MDL	<MDL	<MDL	<MDL		
	ug/l	0.1								

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)

TABLE 3
Groundwater Analytical Monitoring Data
MW-14I
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	Jan-07A Routine	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				7.52	7.52	7.9	13.4	9.36	9.65
Conductivity	uS				302	302	441	168	328	381
pH	SU	6.5-8.5			7.96	7.96	7.85	8.23	7.6	7.01
Eh	mV				-42.9	-42.9	-88.1	-17.2	-79.9	-68.1
Turbidity (after purging well)	N.T.U	5			98.7	76	1.34	398	8.35	7.19
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l				<4	<4	<4	<4	<4	<4
Bromide	mg/l	2			<2	<2	<0.2	<0.2	<0.2	<20
COD	mg/l				<20	<20	<20	<20	<20	<20
Chloride	mg/l	250			15	15.5	26.2	5.55	14.1	19.9
Nitrate	mg/l	10			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250			29.5	25.4	52.6	21.4	36	48.2
Total Alkalinity	mg/l				110	120	130	100	120	150
Total Dissolved Solids	mg/l	500			277	190	423	212	200	310
Total Hardness	mg/l				176	215	197	180	147	186
Total Kjed. Nitrogen	mg/l				<0.5	<0.5	1.47	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500			<3	<3	<3	<3	<3	<3
Total Phenols	mg/l	0.001			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15			15	12	8	290		21
Boron	mg/l	1			<0.5	<0.5	<0.5	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			3.18	3.61	<0.1	0.133		0.139
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			<0.010	0.0121	<0.10	<0.010		<0.010
Barium	mg/l	1			0.0848	0.113	0.0692	0.0672		0.0665
Beryllium	mg/l	0.003			<0.003	<0.003	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				56.2	68.5	64.3	59	48.4	60.8
Chromium	mg/l				<0.005	<0.005	<0.005	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Cobalt	mg/l	0.005			<0.02	<0.02	<0.020	<0.02		<0.02
Copper	mg/l	0.2			0.0155	0.0202	<0.010	<0.01		<0.01
Total Cyanide	mg/l	0.1			<0.010	<0.010	<0.010	<0.01		<0.01
Iron	mg/l	0.3			6.89	8.04	0.535	0.681	0.741	0.71
Lead	mg/l	0.025			0.00782	0.00863	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35			8.72	10.6	8.76	7.02	6.44	8.21
Manganese	mg/l	0.3			0.232	0.275	0.153	0.143	0.116	0.145
Mercury	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			<0.030	<0.030	<0.030	<0.03		<0.03
Potassium	mg/l				1.09	1.28	<1	<1	<1	<1
Selenium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005		<0.005
Silver	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Sodium	mg/l	20			4.73	5.77	4.44	4.32	3.69	3.73
Thallium	mg/l	0.004			<0.010	<0.010	0.0228	<0.01		<0.01
Vanadium	mg/l	0.014			<0.030	<0.030	<0.030	<0.03		<0.03
Zinc	mg/l	0.3			0.0297	0.034	0.0665	0.0242		<0.01
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:						<MDL	<MDL	<MDL		
Bis 2(ethylhexyl)phthlate	ug/l				10 U					

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)
4. Bis 2(ethylhexyl)phthalate is undetected (U) due to less than 10 times the associated method blank level.

TABLE 3
Groundwater Analytical Monitoring Data
MW-14D
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				7.53	7.53	8.57	12.86	9.46	9.6
Conductivity	uS				188	188	205	192	185	186
pH	SU	6.5-8.5			8.32	8.32	8.39	8.11	6.96	6.56
Eh	mV				-4.9	-4.9	-14.1	-32.6	-82.8	-57.9
Turbidity (after purging well)	N.T.U	5			101	90	2.68	186	5.98	4.86
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l				<4	<4	<4	<4	<4	<4
Bromide	mg/l	2			<20	<2	<0.2	0.49	<0.2	<0.2
COD	mg/l				<20	<20	<20	<20	<20	50
Chloride	mg/l	250			7.38	1.76	4.51	1.1	1.11	1.68
Nitrate	mg/l	10			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250			<5	<5	<5	<5	<5	<5
Total Alkalinity	mg/l				100	110	110	100	110	110
Total Dissolved Solids	mg/l	500			160	88	402	132	76	123
Total Hardness	mg/l				119	111	66.8	65.3	66.8	68.5
Total Kjed. Nitrogen	mg/l				<0.5	<0.5	2.86	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500			<3	<3	<3	<3	<3	<3
Total Phenols	mg/l	0.001			<0.005	0.006	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15			18	15	7	15		8
Boron	mg/l	1			<0.5	<0.5	<0.5	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			2.87	3.42	<0.1	<0.1		0.102
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			<0.010	0.0121	<0.010	<0.01		<0.01
Barium	mg/l	1			0.0692	0.067	<0.05	<0.05		<0.05
Beryllium	mg/l	0.003			<0.003	<0.003	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				35.4	32.6	20.3	19.9	20.4	20.9
Chromium	mg/l				<0.005	<0.005	<0.005	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.01	<0.010	<0.010	<0.01		<0.01
Cobalt	mg/l	0.005			<0.020	<0.020	<0.020	<0.02		<0.02
Copper	mg/l	0.2			0.0211	0.0119	<0.010	<0.01		<0.01
Total Cyanide	mg/l	0.1			<0.010	<0.010	<0.010	<0.01		<0.01
Iron	mg/l	0.3			5.66	6.53	0.149	0.155	0.426	0.247
Lead	mg/l	0.025			0.00387	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35			7.4	7.1	3.94	3.81	3.88	3.94
Manganese	mg/l	0.3			0.203	0.193	0.0234	0.0355	0.0311	0.0256
Mercury	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			<0.030	<0.030	<0.030	<0.03		<0.03
Potassium	mg/l				1.16	1.22	<1	<1	<1	<1
Selenium	mg/l	0.01			<0.005	<0.005	<0.005	0.00569		<0.005
Silver	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.010
Sodium	mg/l	20			16	15	16.3	15.5	14.7	15.1
Thallium	mg/l	0.004			<0.010	<0.010	<0.010	<0.01		<0.010
Vanadium	mg/l	0.014			<0.030	<0.030	<0.030	<0.03		<0.03
Zinc	mg/l	0.3			0.0378	0.0454	0.0572	0.0108		<0.01
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:					<MDL	<MDL	<MDL	<MDL		
	ug/l	0.1								

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)

TABLE 3
Groundwater Analytical Monitoring Data
MW-15S
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	Jan-07A Expanded	Jan-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				8.99	8.99	6.34	12.84	10.4	9.88
Conductivity	uS				565	565	570	614	643	621
pH	SU	6.5-8.5			6.86	6.86	7.03	7.86	6.86	6.44
Eh	mV				-17.1	-17.1	-59.2	-106.7	-86.6	-71.9
Turbidity (after purging well)	N.T.U	5			464	331	38.1	8.66	9.86	10
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			2.14	1.99	2.15	1.54	1.71	1.74
BOD 5	mg/l				5	6	4	<4	<4	<4
Bromide	mg/l	2			<2	<2	<20	<20	<200	<200
COD	mg/l				22	32	31	<20	<20	<20
Chloride	mg/l	250			65.2	65.5	50.2	67.7	123	85.2
Nitrate	mg/l	10			<0.2	<0.2	<0.20	<0.2	<0.2	<0.2
Sulfate	mg/l	250			40.1	46.7	35.5	45.9	58.2	50.2
Total Alkalinity	mg/l				180	170	150	130	140	150
Total Dissolved Solids	mg/l	500			275	322	680	376	356	390
Total Hardness	mg/l				448	452	195	181	176	175
Total Kjed. Nitrogen	mg/l				1.47	2.2	3.6	2.02	2.23	2.3
Total Organic Carbon	mg/l	500			9	26	7.1	5.4	5.6	6.8
Total Phenols	mg/l	0.001			<0.005	<0.005	<0.005	0.007	<0.005	<0.005
Color	P.C.U.	15			80	70	125	250		290
Boron	mg/l	1			<0.005	<0.005	<0.5	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			15.8	19	0.292	<0.1		<0.1
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			0.0207	0.0382	<0.010	<0.01		<0.010
Barium	mg/l	1			0.139	0.149	0.0636	0.0671		0.0663
Beryllium	mg/l	0.003			<0.003	<0.003	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			0.00786	0.0099	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				139	139	55.9	51.1	50.1	50.1
Chromium	mg/l				0.0284	0.0316	<0.005	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.01	<0.01	<0.01	<0.02		<0.010
Cobalt	mg/l	0.005			0.0265	0.0252	<0.020	<0.02		<0.02
Copper	mg/l	0.2			0.156	0.135	<0.010	0.0125		<0.010
Total Cyanide	mg/l	0.1			<0.01	<0.01	<0.01	<0.01		<0.010
Iron	mg/l	0.3			58.1	77.1	9.59	8.84	8.76	8.51
Lead	mg/l	0.025			0.0526	0.0453	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35			24.5	1.25	13.4	12.9	12.3	12.1
Manganese	mg/l	0.3			1.24	1.25	0.658	0.695	0.656	0.657
Mercury	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			0.0539	0.0509	<0.030	<0.03		<0.030
Potassium	mg/l				4.65	6.45	3.29	3.24	3.05	3.35
Selenium	mg/l	0.01			<0.005	<0.005	0.00585	<0.005		<0.005
Silver	mg/l	0.05			<0.01	<0.010	<0.010	<0.01		<0.010
Sodium	mg/l	20			40.1	39.2	36.5	51.8	49.1	50.7
Thallium	mg/l	0.004			<0.01	<0.010	0.018	<0.01		<0.01
Vanadium	mg/l	0.014			0.0791	0.0775	<0.030	<0.03		<0.030
Zinc	mg/l	0.3			0.147	0.145	0.0561	0.0124		0.0117
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:					<MDL	<MDL	<MDL	<MDL		
Carbon Disulfide	ug/l	0.1								3 J

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)

TABLE 3
Groundwater Analytical Monitoring Data
MW-15I
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	JAN-07A Expanded	JAN-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				8.64	8.64	7.48	15.06	9.87	10.26
Conductivity	uS				406	406	444	430	393	403
pH	SU	6.5-8.5			7.9	7.9	7.82	8.87	7.6	6.88
Eh	mV				-129.6	-129.6	-96	-12.2	-75.3	-39.6
Turbidity (after purging well)	N.T.U	5			35.5	18.4	3.64	38.4	32.6	15.6
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l				4	5	7	<4	<4	<4
Bromide	mg/l	2			<2	<2	<0.2	<2	<0.2	<20
COD	mg/l				<20	<20	<20	<20	<20	<20
Chloride	mg/l	250			30	29.7	29.9	21.2	32.6	29.8
Nitrate	mg/l	10			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250			37.2	33.1	39.4	36.3	45.4	49.8
Total Alkalinity	mg/l				140	140	140	120	130	140
Total Dissolved Solids	mg/l	500			225	160	387	272	272	283
Total Hardness	mg/l				246	320	197	198	179	200
Total Kjed. Nitrogen	mg/l				<0.5	<0.5	1.76	<0.5	0.989	<0.5
Total Organic Carbon	mg/l	500			3	3	<3	<3	<3	<3
Total Phenols	mg/l	0.001			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15			20	18	10	55		21
Boron	mg/l	1			<0.5	<0.5	<0.5	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			5.24	6.52	0.207	0.243		0.262
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			<0.010	<0.010	<0.010	<0.01		<0.01
Barium	mg/l	1			0.138	0.159	0.126	0.128		0.124
Beryllium	mg/l	0.003			<0.003	<0.003	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				75.4	96.9	64.5	64.8	58.9	65.6
Chromium	mg/l				0.00684	0.00888	<0.005	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Cobalt	mg/l	0.005			<0.02	<0.020	<0.020	<0.02		<0.02
Copper	mg/l	0.2			0.0157	0.0162	<0.010	<0.01		<0.010
Total Cyanide	mg/l	0.1			<0.01	<0.01	<0.010	<0.01		<0.01
Iron	mg/l	0.3			11.2	15.4	1.07	0.996	0.943	1.2
Lead	mg/l	0.025			0.00575	0.0062	<0.003	<0.003	<0.003	<0.003
Magnesium	mg/l	35			14.1	18.8	8.82	8.91	7.77	8.77
Manganese	mg/l	0.3			0.452	0.63	0.187	0.201	0.165	0.188
Mercury	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			<0.030	<0.030	<0.030	<0.03		0.0311
Potassium	mg/l				1.62	1.59	<1	<1	<1	<1
Selenium	mg/l	0.01			<0.005	<0.005	<0.005	0.0111		<0.005
Silver	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Sodium	mg/l	20			7.97	9.11	9.44	9.68	8.01	8.73
Thallium	mg/l	0.004			<0.010	<0.010	0.0227	<0.01		<0.010
Vanadium	mg/l	0.014			<0.030	<0.030	<0.030	<0.03		<0.030
Zinc	mg/l	0.3			0.0542	0.0705	0.231	0.0121		0.0117
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:					<MDL	<MDL	<MDL	<MDL		
	ug/l	0.1								

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)

TABLE 3
Groundwater Analytical Monitoring Data
MW-15D
Albany Interim Landfill/P-4 Project
CHA Project No. 12244

TEST PARAMETER (mg/l unless otherwise noted)	Unit	TOGS Guidance Value	Mean (EWQV)	Mean (EWQV) Plus 3 Std. Dev.	JAN-07A Expanded	JAN-07B Expanded	Apr-07 Baseline	Sep-07 Baseline	Dec-07 Routine	Jan-08 Baseline
Temperature	C°				8.47	8.47	8.79	12.12	9.91	10.45
Conductivity	uS				208	208	221	210	200	198
pH	SU	6.5-8.5			8.38	8.38	8.26	7.94	7.79	6.6
Eh	mV				29.5	29.5	2	-70.2	-93.6	-69.6
Turbidity (after purging well)	N.T.U	5			840	1290	142	4.8	49.6	16.2
LEACHATE INDICATORS:										
Ammonia Nitrogen	mg/l	2			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BOD 5	mg/l				6	<4	<4	<4	<4	<4
Bromide	mg/l	2			<2	<2	0.25	<0.2	<0.2	<20
COD	mg/l				<20	<20	<20	<20	<20	<20
Chloride	mg/l	250			3.39	3.14	5.71	1.36	2.95	3.18
Nitrate	mg/l	10			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulfate	mg/l	250			<5	<5	<5	<5	<5	<5
Total Alkalinity	mg/l				110	110	110	100	110	110
Total Dissolved Solids	mg/l	500			157	150	232	112	144	135
Total Hardness	mg/l				5270	2220	181	143	114	94.2
Total Kjed. Nitrogen	mg/l				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Organic Carbon	mg/l	500			17	32	10.5	<3	<3	<3
Total Phenols	mg/l	0.001			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Color	P.C.U.	15			120	100	10	7		20
Boron	mg/l	1			<0.5	<0.50	<0.50	<0.5		<0.5
INORGANIC PARAMETERS:										
Aluminum	mg/l	0.1			139	99.2	6.09	2.55		0.452
Antimony	mg/l	0.003			<0.015	<0.015	<0.015	<0.015		<0.015
Arsenic	mg/l	0.025			0.0952	0.0598	0.0138	0.0136		0.0127
Barium	mg/l	1			0.951	0.822	0.0918	0.0611		0.0505
Beryllium	mg/l	0.003			0.00659	0.00502	<0.003	<0.003		<0.003
Cadmium	mg/l	0.01			0.0446	0.0298	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l				1460	629	53.2	42.5	35	29.5
Chromium	mg/l				0.176	0.129	0.00838	<0.005		<0.005
Hexavalent Chromium	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.01
Cobalt	mg/l	0.005			0.141	0.1	<0.020	<0.02		<0.02
Copper	mg/l	0.2			0.406	0.302	0.016	<0.01		<0.01
Total Cyanide	mg/l	0.1			<0.010	<0.010	<0.010	<0.01		<0.01
Iron	mg/l	0.3			303	220	12.4	5.41	3.33	1.18
Lead	mg/l	0.025			0.105	0.0767	0.00502	<0.003	<0.003	<0.003
Magnesium	mg/l	35			246	158	11.7	8.87	6.41	5.01
Manganese	mg/l	0.3			9.54	6.83	0.416	0.244	0.159	0.0934
Mercury (total)	mg/l	0.002			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
Nickel	mg/l	0.007			0.281	0.198	<0.030	<0.03		<0.030
Potassium	mg/l				17.1	12	13.9	1.02	<1	<1
Selenium	mg/l	0.01			<0.005	<0.005	<0.005	<0.005		<0.005
Silver	mg/l	0.05			<0.010	<0.010	<0.010	<0.01		<0.010
Sodium	mg/l	20			10.8	12.3	13.9	13	13.2	12.9
Thallium	mg/l	0.004			<0.010	<0.010	<0.0238	<0.01		<0.01
Vanadium	mg/l	0.014			0.289	0.206	<0.030	<0.03		<0.03
Zinc	mg/l	0.3			0.842	0.628	0.144	0.0244		<0.01
ASP PEST/PCB WATERS					<MDL	<MDL				
	ug/l	0.1								
CHLORINATED HERBICIDES					<MDL	<MDL				
	ug/l	0.1								
ORGANIC PARAMETERS:					<MDL	<MDL	<MDL	<MDL		
	ug/l	0.1								

Notes:

1. Parameters listed are Part 360 Baseline or Routine Parameters Effective 1993.
2. Blanks indicate no analysis performed
3. "<" indicates not detected at the specified method detection limit (MDL)

APPENDIX C

CHA
CLOUGH HARBOUR & ASSOCIATES LLP

Rapp Road Eastern Expansion
SUBSURFACE LOG
HOLE NUMBER MW-A-16A

PROJECT NUMBER: 12206-4008-1102 7/9/2007

LOCATION: Albany, New York

CLIENT: City of Albany DGS

CONTRACTOR: ADT

DRILLER: Mike INSPECTOR: R.Hall

START DATE and TIME: 6/1/2007 8:00:00 AM

FINISH DATE and TIME: 6/1/2007 9:10:00 AM

SURFACE ELEV:

CHECKED BY: K. Cowan

DRILL FLUID:

DRILLING METHOD: 4" FJC

WATER LEVEL OBSERVATIONS DURING DRILLING	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)

SAMP./CORE NUMBER	SAMP. ADV. (ft) LEN. CORE (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	DEPTH (Feet)	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.
1	2	0.6	1-1-2-2	03%	0–2	**TOPSOIL**, Brown **f. SAND**, trace organics, tan, very loose, moist **(SP)**		
2	2	1.8	5-3-2-2	05%	2–4	**f. SAND**, trace organics, layers of grey/tan, very loose, moist **(SP)**		
3	3	1.2	1-1-1-WH	02%	4–7	**f. SAND**, trace organics, layers of grey/tan, very loose, moist **(SP)** **f. SAND**, tan, very loose, soft, moist **(SP)**		
4	2	1.9	3-1-2-1	03%	7–9	**f. SAND**, tan, very loose, soft, moist **(SP)** **SILT**, little organics, black earth, very loose, moist **(ML)** **f. SAND**, little organics, trace silt, very loose gray/tan **(SP)**		
5	2	1.4	1-1-1-1	02%	9–11	**SILT and f. SAND**, trace organics, gray, very loose, wet **(SM)** **f. SAND**, trace organic, trace f. gravel, gray, very loose, wet **(SP)**		
6	2	1.9	2-2-2-2	04%	11–13	**f. SAND**, gray, very loose, wet **(SM)**		
7	2		1-1-WH-1	0%	13–15	**f. SAND**, gray, very loose, wet **(SP)**		
					15	End of Boring at 15 ft		

WATER LEVELS AND/OR WELL DATA

CLOUGH HARBOUR & ASSOCIATES LLP

PROJECT NUMBER: 12206-4008-1102 7/9/2007

Rapp Road Eastern Expansion
SUBSURFACE LOG
HOLE NUMBER MW-A17

LOCATION: Albany, New York	DRILL FLUID:
CLIENT: City of Albany DGS	DRILLING METHOD: 4" FJC
CONTRACTOR: ADT	
DRILLER: Mike	INSPECTOR: R. Hall
START DATE and TIME: 6/1/2007 11:15:00 AM	
FINISH DATE and TIME: 6/1/2007 12:30:00 AM	
SURFACE ELEV:	CHECKED BY: K. Cowan

WATER LEVEL OBSERVATIONS DURING DRILLING	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)

SAMP./CORE NUMBER	SAMP. ADV. (ft) LEN. CORE (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
								TOPSOIL (SP)			
1	2	0.2	4-5-3-4	08%				**f. SAND**, trace c. gravel, trace organics, brown, loose, moist **(SP)**			
						2		**f. SAND**, trace silt, orange brown, medium compact, moist **(SP)**			
2	2	1.1	2-2-10-8	012%				**c. GRAVEL**, medium compact, moist **(SP)**			
						4		**f. SAND**, Some Silt, trace clay, trace organics, dark brown, medium compact, moist **(SP)**			
								f. SAND, trace Silt, orange, loose moist **(SP)**			
3	2	1.5	3-4-4-3	08%				**f. SAND**, little silt, grey, loose, wet **(SP)**			
						6		**f. SAND**, trace silt, trace m. sand, trace organics, very loose, saturated **(SP)**		slight organic odor	
4	2	1.5	2-3-1-2	04%							
						8		**f. SAND**, little m. sand, gray, very loose, saturated **(SP)**			
5	2	1.3	1-WH-1-WH	0%							
						10		**f. SAND**, trace m. sand, gray, very loose, saturated **(SP)**			
6	2	1.2	WH-1-1-1	02%							
						12		**f. SAND**, trace m. sand, gray, loose, saturated **(SP)**			
7	2	0.6	1-3-2-6	05%							
						14		End of Boring at 14 ft		end of boring install MW-A17.	
						16					
						18					

SUBSURFACE LOG LOGS (12206.4008).GPJ UPDATEDCHA.GDT 7/30/07

APPENDIX D

Site Analytical Plan for the Albany Interim Landfill

Environmental Monitoring Plan Appendix D

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

Clough Harbour & Associates LLP
III Winners Circle
Albany, New York 12205
(518) 453-4500

CLOUGH HARBOUR & ASSOCIATES LLP

March 2008

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1.0 INTRODUCTION

Clough Harbour & Associates (CHA) has been retained by The City of Albany to prepare the Part 360 Application for the proposed Eastern Expansion. This report constitutes the Site Analytical Plan (SAP) for the Albany Interim Landfill (AIL), which includes the proposed Eastern Expansion, located in the City of Albany, Albany County, New York (Figure 1). This SAP describes the facility-wide sampling and analytical procedures to be followed at the AIL as well as the proposed Eastern Expansion. This SAP was prepared in accordance with 6 NYCRR Part 360-2.11(d).

This SAP is intended to be an orderly set of standard operating procedures beginning with the planning of sample collection procedures and ending with the usability analysis of the generated analytical data. The predefinition of these activities is intended to ensure consistent, comparable data for all sampling events occurring throughout the life of the landfill. A SAP is developed to describe the reporting data quality objectives, method of sample collection, sample preservation, chain-of-custody documentation, analyses to be performed, analytical methods and procedures for corrective actions. Additionally, this SAP describes the procedures for data reduction, validation and usability.

These activities will be performed to fulfill the requirements established in the Environmental Monitoring Plan (EMP). This report is submitted as Appendix D of the EMP. This SAP pertains to existing, operational, contingency, post-closure and corrective measures, water quality monitoring categories, and leachate monitoring.

2.0 DATA QUALITY OBJECTIVES

2.1 Data Users

Data users are categorized into three groups: 1) landfill owner and operator, or decision maker; 2) regulators, or primary data users; and 3) the public, or secondary data users. The decision maker is responsible for identifying appropriate staff and contractors needed to acquire the quantity and quality of data that is required as outlined in this SAP. In addition, the decision maker is responsible for reporting this data to the appropriate agencies. All communications regarding data acquisition and data reporting will be coordinated through the decision maker.

Primary data users are directly involved in the collection, analysis, reporting and interpretation of environmental samples. For the purpose of this SAP, primary data users include the following individuals and/or agencies:

- Environmental, Engineering and Compliance Manager (CHA)
- Analytical Quality Assurance Officer (CHA)
- Private Contract Laboratory
- New York State Department of Environmental Conservation (NYSDEC) Regional Office
- NYSDEC Central Office
- Independent Data Validator

Secondary data users are those who rely of the results of the sampling and analysis program to support their activities but who are not directly involved with the collection, analysis, reporting and interpretation of environmental samples. However, they may provide input to both the decision maker and the primary data users by communicating generic or site-specific data needs. These users include the following individuals and/or agencies:

- NYS Department of Health
- Albany County Department of Health
- Interested Citizens

2.2 Objectives for the Monitoring Program

The analytical program for water quality monitoring at AIL is being undertaken to quantify the existing water quality at the Site, to conduct ongoing monitoring to detect any changes in water quality at the Site and to initially create the pre-operational existing water quality values (EWQVs) for the Proposed Eastern Expansion. Water quality monitoring is being conducted in accordance with the regulatory requirements outlined in 6 NYCRR Part 360 for the purpose of protecting the quality of surface water and groundwater resources.

The overall objective of the environmental monitoring plan is to sample and analyze select environmental media within AIL and the Proposed Eastern Expansion. The EMP was prepared to describe the various on-site and off-site monitoring that would be conducted for the AIL, as well as to describe the additional monitoring proposed for the Proposed Eastern Expansion, which is to be integrated with the on-going monitoring already being conducted for the AIL.

Specifically, the data quality objectives for the water quality monitoring program at AIL are:

- to assure that the data collected and reported is of a known and documented value;
- to assess and document that all data collected, stored, and reported are scientifically valid, defensible, and within accepted standards for precision, accuracy, and consistency; and,
- to assure that data collection, storage, and reporting meet all state and federal regulations.

The data quality objectives will define the goals of each phase of the water quality monitoring program. The data quality objectives (DQOs) discussed below take into account sampling considerations as well as analytical protocols.

2.3 Media Types

The types of environmental media to be sampled and analyzed and to which this SAP applies includes the following:

- Groundwater
- Surface Water
- Sediment
- Leachate

Currently, groundwater sampling includes all monitoring well samples collected as part of the current operational water quality program as well as monitoring wells samples collected from the Proposed Eastern Expansion wells. These monitoring points are outlined in the EMP. Well sampling is performed based on the EMP that this SAP is attached to. In short, the wells are sampled quarterly with 3 routine events and 1 revolving baseline event. The wells are sampled to determine that the proper engineering controls are in place and working to contain effects of landfilling from reaching the surrounding resources. In addition to the groundwater sampling activities, surface water samples will also be collected on a quarterly basis from the intermittent stream located north and east of the proposed expansion. The monitoring program is designed to be in accordance with the 6 NYCRR Part 360 regulations for Solid Waste Management Facilities.

In the event that the contingency monitoring plan for this facility is instituted, sediment sampling will also be conducted as outlined in the EMP. All sampling conducted during contingency monitoring is to be conducted in accordance with 6 NYCRR Part 360-2.11(c)(2) and protocols enclosed as Appendix A of the EMP.

Existing cells at AIL consist of a double composite liner system. As discussed in the EMP, the double composite liner system provides two distinct sampling interfaces. Representative leachate samples of each of these two distinct layers will be sampled.

2.4 Contaminants of Concern

Contaminants of concern (COCs) are those analytes that have regulated standards or guidance values. These COCs includes several inorganic and organic analytes in the routine, baseline, and expanded parameter lists provided in 6 NYCRR Part 360-2.11(d)(6). Specific COCs are those analytes that are known to be landfill-derived and are moderately to highly mobile in the environment. Three (3) different categories of analytical parameter scans will be used in water quality monitoring to establish existing water quality prior to landfilling, operational water quality during landfilling, and water quality during the post closure period. The three (3) categories of analytical parameter scans are as follows: expanded, baseline, and enhanced routine scans. The regulatory standards and guidance values that are applicable to the media being sampled and analyzed during the EMP are listed below:

<table>
<tr><th>Media Type</th><th>Regulatory Standards and Guidance Criteria</th></tr>
<tr><td rowspan="2">Groundwater and Surface Water</td><td>6 NYCRR Part 703 and in the NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1 document, entitled, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC 1998).</td></tr>
<tr><td>Maximum Contaminant Levels (MCLs) of 40 CFR Part 141 National Primary Drinking Water Regulations</td></tr>
<tr><td rowspan="2">Soil/Sediment</td><td>Technical and Administrative Guidance Memorandum (TAGM) 4046 issued on November, 24 1994 (NYSDEC 1994).</td></tr>
<tr><td>6 NYCRR Subpart 375 6.8</td></tr>
<tr><td>Leachate</td><td>No Applicable Standards. Data are used to characterize leachate chemical compositions.</td></tr>
</table>

Analytical results obtained for groundwater, surface waters, and sediment will be compared to these standards and guidance values with the objective of determining potential or actual impacts to the environment surrounding the Site.

2.5 Data Types and Uses

The EMP outlines the requirements for the collection and documentation of specific field and laboratory chemical data, which is collected for the purpose of assessing potential impacts to the environment. To facilitate proper decision making, each data type is collected for a specific use and requires a certain quality.

There are a variety of data types to be collected. Those data types that are necessary to complete routine operations at the Site may require more frequent collection, while data types assigned to the contract laboratory are associated solely with the analysis of samples that are required as part of the operational monitoring of the landfill facility.

The operational monitoring of groundwater monitoring wells, surface water and sediment and leachate are given the highest priority based on the objective of protecting surface water and groundwater resources. These data types are required to be generated in accordance with the quality control criteria established for each analytical method to be used since they are screened against the standards and guidance values presented in Section 2.4.

Data collected for the purpose of characterizing the chemistry of various media (e.g. leachate) are given lower priority because these data are not compared to numerical standards or limits. Instead, they are used to identify and quantify the major chemical components which, if detected in groundwater, surface water or sediment, may indicate a potential impact.

2.6 Data Quality Needs

Important factors in defining data quality include prioritizing data uses and determining appropriate analytical levels, contaminants of concern, levels of concern, required detection limits, and critical samples. The quality of the environmental monitoring data depends on the type of sample measurement or analysis and the intended use of the data. In general, the level of data quality increases as the level of analysis increases. The USEPA defined five levels of analysis and corresponding degrees of data quality in the document "Data Quality Objectives for Remedial Response Actions" (1987). In order to define the data quality needs and to aid in the development of a cost-effective monitoring program, it is necessary to identify the data types required for each aspect of the monitoring program and to categorize each data type into one of the various analytical levels. These levels of analysis are summarized below:

Table 2.6a: Summary of Analytical Levels and Corresponding Data Quality

Analytical Level	Type of Analysis	Limitations	Data Quality
Level V	Analyses performed by non-standard methods by an off-site laboratory	May require method development or modification	Quality is method-specific.
Level IV	Analyses performed in strict accordance with NYSDEC ASP by an off-site laboratory	Additional time erquired for data validation and usability	Rigorous QA/QC; Data are validated
Level III	Analyses performed in accordance with NYSDEC ASP by an off-site laboratory	No laboratory QA/QC documentation required; Analyte IS may be tentative in some cases	Detection limits as required by ASP; less rigorous QA/QC; Data are not validated
Level II	Field analytical instruments for measuring pH, ORP, turbidity, SpC, temperature	Depends on proper calibration and operation	Precision and accuracy determined by manufacturer's specifications; replicate analyses usually not performed
Level I	Field screening instruments such as organic vapor analyzers, water level meters, etc.	Not typically compound-specific	Useful as an indicator of contamination only

Data requirements for AIL and the Proposed Eastern Expansion include data generated from four levels of analysis presented above. Specifically, each data type to be generated and the associated level of analysis are described below:

- Level 1: Water level measurements in monitoring wells and leachate recovery wells.
- Level 2: Field measurements, including temperature, pH, redox potential, specific conductance, turbidity, etc.
- Level 3: Analysis by a contract laboratory for any of Part 360 routine parameters using NYSDEC ASP protocols and provided in Category A results format.
- Level 4: Analysis by a contract laboratory for any of Part 360 baseline or expanded parameters using NYSDEC ASP protocols and provided in Category B results format.

The following table presents a summary of the analytical levels required for each data type to be generated at AIL. This summary includes the level of data quality needed, the quantity of data required, and the frequency of data collection for each data type.

Table 2.6b: Summary of Data Quality and Quantity Needs

Data Type	Sample Type	Number of Samples	Type of Analysis	Analytical Level	Frequency
Groundwater	Grab	21	Water Levels	I	Quarterly
			Field Parameters	II	Quarterly
			Part 360 Routine Parameters	III	3 of 4 Quarters[1]
			Part 360 Baseline Parameters	IV	1 of 4 Quarters[1]
		21	Part 360 Expanded Parameters	IV	Initial Sampling Event for Newly Installed Wells and Contingency Monitoring
Surface Water (Unnamed Stream - East Side of Landfill)	Grab	3 (or 5)	Field Parameters	II	Quarterly
			Part 360 Routine Parameters	III	3 of 4 Quarters[1]
			Part 360 Baseline Parameters	IV	1 of 4 Quarters[1]
		5	Part 360 Expanded Parameters	IV	Contingency Monitoring Only
Sediment (Unnamed Stream - East Side of Landfill)	Grab	5	Expanded Parameters	IV	Contingency Monitoring Only
Leachate (Primary Collection System)	Grab	1	Expanded Parameters	IV	Semi-Annual
Leachate (Secondary Collection System)	Grab	1	Expanded Parameters	IV	Semi-Annual

Notes:

1. Samples from the monitoring well network are analyzed for routine parameters during three of the four quarterly monitoring events. During the remaining quarter, the samples are analyzed for baseline parameters. The baseline monitoring event will be rotated quarterly.

The EMP includes a complete and detailed description of the monitoring points, methods, required analyses, and frequency of sampling for groundwater, surface water, sediment, and leachate. The EMP also includes a schedule for monitoring existing water quality, operational water quality, and contingency water quality monitoring, if applicable. Analytical parameters to be sampled during the performance of this SAP are provided in 6 NYCRR Part 360-2.11(d)(6) and the minimum detection limits of all of the applicable parameters are included in the laboratory quality manual included as Appendix C.

2.7 Data Quantity Needs

Table 2.6 provides an estimate of the number of samples to be collected for each type of media sampled. In addition, the frequency of sampling and analysis associated with each data type are presented. The AQA/AQC samples that will be required in addition to the samples listed in

Table 2.6 are discussed in Section 3.0 of this SAP.

3.0 ANALYTICAL QUALITY ASSURANCE (AQA)/ANALYTICAL QUALITY CONTROL (AQC)

This section describes the management and technical activities that will be performed to achieve the data quality objectives stated in Section 2.0 of this SAP. The overall AQA/AQC objective is to develop and implement procedures for sample preparation and handling, sample chain-of-custody, laboratory analyses, and reporting which will provide data that is of a quality commensurate with their intended use and the requirements of the NYSDEC. The fundamental AQA objective with respect to the accuracy, precision and sensitivity of analytical data is to achieve the AQC acceptance of each analytical protocol.

AQA is an integrated program that assures the integrity of sample collection and measurement processes. The purpose of AQA is to define the goals for the level of AQA effort; namely, accuracy; precision and sensitivity of analyses; and completeness, representativeness and comparability of measurement data from the analytical laboratories. AQA objectives for field measurements are also discussed. AQC is the application of procedures for obtaining prescribed standards of performance in the monitoring and measurement processes; the AQC process shall be integrated throughout the analytical program.

Specific procedures to be followed for sampling, sample custody and document control, calibration, laboratory analyses and data reduction, validation, assessment and reporting are presented in Sections 4.0 through 6.0 of this SAP. The laboratory-specific Quality Assurance Plan is included as Appendix C.

3.1 Quality Assurance Objectives

3.1.1 Precision

Precision is defined as the measure of closeness of agreement among individual measurements, or reproducibility. The method(s) precision (relative percent difference of duplicate analysis) will be determined from the duplicate analyses of matrix spike samples. A minimum of one sample per site will be spiked and analyzed in duplicate. Data will be considered precise when analyses compare with the criteria presented in the appropriate methods identified in Section 5.0.

Precision will also be determined by the analyses of field duplicates collected at the same sampling location and by laboratory duplicate analyses of the same sample, performed at a frequency of 1 per 20 samples for each sample matrix (groundwater, surface water, sediment). Acceptable limits of precision will be those established by USEPA data validation guidance.

3.1.2 Accuracy

Accuracy is defined as the measure of the closeness of an analytical result to a true value. The sampling effects on accuracy will be controlled by the use of standardized field and sampling procedures (see Section 4.0). The method(s) accuracy (percent recovery) for water and soil samples will be determined by spiking selected samples (matrix spikes) with test compounds. Accuracy will be reported as the percent recovery of the test compound and data will be considered accurate when they compare with the criteria given in the appropriate methods as identified in Section 5.0. The analytical effects on accuracy will be controlled by strict adherence to the NYSDEC Analytical Service Protocols (ASPs) and by ensuring that all laboratory analyses are performed by a laboratory currently certified under the NYSDOH Environmental Laboratory Approval Program.

3.1.3 Representativeness

In order for a sampling program to provide valuable information, the samples collected must be representative of the environmental conditions. EPA defines representativeness as "The degree to which the data accurately and precisely represent a characteristic of a population parameter, variation of a property, a process characteristic, or an operational condition". The meaning of "representativeness" is often bound to the environmental context in which the samples are taken. In general, representativeness is a qualitative parameter that is addressed through proper design of the sampling program. For each type of media sampled, the number of samples, frequency of sampling, and locations from which samples are collected are chosen to provide samples that are representative of the environmental conditions. In addition, samples must be collected using predefined and systematic sampling procedures in order to obtain representative samples. These sampling procedures are presented in a series of standard operating procedures included as Appendix B.

3.1.4 Completeness

Completeness refers to the percentage of measurements that are determined to be usable. For sample collection and field measurements, the goal for completeness is established at 85%. This goal assumes that there will be occasions when samples cannot be collected due to damaged wells, low water table conditions, inaccessibility to sampling points due to weather conditions, etc.

Completeness of the laboratory analyses is defined here as the percentage of parameters within a specified list of analytes (i.e Part 360 routine, baseline, and expanded parameters listed in Section 7.0) that have been successfully analyzed by the laboratory and that have not been rejected as a result of data validation. On this basis, a goal for completeness of laboratory analysis is set at 85%.

3.1.5 Comparability

Comparability refers to the confidence with which one data set can be compared to another. Data sets will be considered comparable when all field sampling and laboratory analytical protocols have been followed as described in this SAP, and by adherence to the requirements for precision, accuracy, representativeness and completeness of the data.

3.1.6 Defensibility

Defensibility of data is generally defined as data which is collected by a technique that has been validated and tested, the principle of the technology has been subjected to peer review and in publication, the rates of potential error associated with the relevant testing are known, and the technique has gained general acceptance in the relevant scientific community. For this project, data will be considered defensible by following the QA procedures outlined in this SAP, including following sample collection protocol, following chain-of-custody procedures, etc., and by ensuring that the contract laboratory performing the sample analyses is currently certified by the NYSDOH's ELAP program. QA procedures for the collection, handling and transport of samples are included in Section 4.0 of this SAP.

3.2 Project Organization

The SAP will be initiated by CHA. The project organization and a brief description of the duties of the key personnel are presented below. All participants will be briefed on their responsibilities prior to initiation of this SAP.

Environmental, Engineering and Compliance Manager

- Responsible for the preparation of this SAP;
- Responsible for following the approved SAP;
- Provide overall and day-to-day project management;
- Ensure professional services by CHA are cost effective and of highest quality;
- Ensure all resources of CHA are available on an as-required basis;
- Provide managerial guidance to CHA's technical group;
- Evaluate data; and
- Prepare and coordinate the issuance of reports.

AQA Officer

- Review field activities and sampling to ensure that QA/QC objectives are met;
- Review laboratory activities to ensure that QA/QC objectives are met;
- Determine laboratory data corrective action;
- Perform analytical data validation and assessment;
- Review laboratory QA/QC;
- Assist in preparation and review of final report; and
- Provide technical representation for analytical activities.

Environmental Specialist

- Provide immediate supervision of all on-site activities
- Ensures that all activities are conducted in accordance with the EMP and SAP
- Provide field management of sample collection and field QA/QC;
- Directs data management activities
- Assist in preparation and review of final report
- Provide technical representation for field activities

Technical Services Manager

- Will serve as Sampling Team Leader
- Work with field crew to prepare for field activities and conduct investigations
- Will be on Site to
    1. Ensure that required QC procedures are followed for excavation, material handling and sample collection
    2. Ensure field equipment is properly maintained
    3. Initiate informal and/or formal corrective actions as necessary
    4. Maintain and report QC records (i.e. chain-of-custody, field equipment calibration, etc.)
    5. Report to the Project Manager

Contract Laboratory

The analytical laboratory chosen to perform the proposed work is certified by the NYSDOH through the Environmental Laboratory Approval Program (ELAP). The following laboratory will perform the analytical laboratory testing requirements for the project:

Life Sciences Laboratories, Inc. (LSL)
5854 Butternut Drive
East Syracuse, NY 13057
Phone: (800) 784-7447

Laboratory- Project Manager, Analytical Contractor

- Ensure resources of laboratory are available on an as-required basis
- Coordinate laboratory analyses;
- Supervise laboratory's in-house chain-of-custody
- Schedule analyses of samples
- Oversee review of data
- Oversee preparation of analytical reports
- Approve final analytical reports prior to submission to CHA

Laboratory - Analytical Quality Assurance/ Quality Control Officer

- Overview laboratory QA/QC
- Overview QA/QC documentation
- Conduct detailed data review
- Decide laboratory corrective actions, if required
- Provide technical representation for laboratory QA/QC procedures

Laboratory - Sample Custodian - Analytical Contractor

- Receive and inspect the sample containers
- Record the condition of the sample containers
- Sign appropriate documents
- Verify chain-of-custodies and their correctness
- Notify laboratory project manager and laboratory QA/QC Officer of sample receipt and inspection
- Assign a unique laboratory identification number correlated to CHA's sample identification number, and enter each into the sample receiving log
- Initiate transfer of the samples to the appropriate lab sections with assistance from the laboratory project manager
- Control and monitor access to and storage of samples and extracts

Independent Data Validator

- Validates sample results in accordance with appropriate USEPA guidance documents
- Assesses data usability in terms of precision, accuracy, representativeness, completeness and compliance goals establish in this SAP
- Provides data validation and usability reports to the AQA Officer and the Environmental Specialist

3.3 Sampling Procedures

All pre-sampling and sampling procedures to be followed are described in CHA's standard operating procedures, included in Appendix B. CHA's Technical Services Manager will be responsible for ensuring that field procedures are consistently followed from one sampling event to another. The Technical Services Manager will be responsible for reporting any deviations from the EMP to the Environmental Specialist and the AQA Officer. Any change to the sampling procedures will be discussed in the monitoring reports and will be updated in the standard operating procedure for the sampling type that was found to have a deficiency.

Ground water samples will be collected on a quarterly basis and include three routine monitoring events and one revolving baseline parameter scan. All pre-sampling and sampling procedures to be followed are described in SOP CHA #313, included in Appendix B. The CHA standard operating procedure for the collection of groundwater samples discusses the methods by which wells are prepared, purged, sampled, and samples are stored.

Surface water samples will be collected on a quarterly basis using the same sampling schedule as the groundwater sampling. Baseline sampling will be performed for four quarterly sampling events until EWQVs can be created for the monitoring points. Three routine events and one baseline event per year will be collected following the creation of EWQVs. Surface water samples will be collected as per the procedures set forth in CHA SOP# 401, included in Appendix B. Leachate samples will be collected on a quarterly basis using the same sampling schedule as the groundwater and surface water sampling.

In the event that the contingency monitoring plan for this facility is instituted, sediment sampling will be conducted. Sediment samples will be collected based on the contingency monitoring plan presented in the EMP. Sediment samples will be collected as per the procedures set forth in CHA SOP# 403, included in Appendix B.

3.4 AQA/AQC Requirements

To assess the quality of data resulting from the field sampling program, field duplicate samples, field blank samples, samples for laboratory matrix spike/matrix spike duplicate (MS/MSD) analyses, and trip blank samples will be collected (where appropriate) and submitted to the contract laboratory. A description of the AQA/AQC samples to be collected is provided below:

Field Duplicate Samples - Duplicate samples will be collected one for every twenty (20) routine samples collected per matrix, per analysis. In the event that a sampling round consists of less than

20 samples, one field duplicate will be collected. The duplicates will be collected in the same manner as their corresponding routine samples and will be assigned alternate sample identification numbers. Duplicate samples are used to assess the precision of sampling and analysis.

Trip Blank Samples - Trip blanks for volatile organic samples are prepared in the laboratory prior to the sampling event using analyte-free water. The trip blanks accompany the routine sample containers to the field, during collection of the samples in the field, and during transport of the routine volatile organic samples back to the laboratory. Trip blanks must remain un-opened until time of analysis. One trip blank sample will be submitted with each cooler containing aqueous samples to be analyzed for VOCs. Trip blanks are used to determine if contaminants are introduced into a sample during sample transport.

Field Blank Samples - Field blank samples will not be collected during these sampling events.

Matrix Spike/Matrix Spike Duplicates (MS/MSD) – MS/MSD samples will be analyzed at a minimum frequency of one per 20 investigative samples. In the event that a sampling event consists of less than 20 samples, one MS/MSD sample will be collected. MS/MSD samples are used to assess matrix effects and analytical precision.

Quality control procedures for field measurements will be limited to checking the reproducibility of the measurement in the field by obtaining multiple readings and by calibrating the instruments (where appropriate). Field quality control procedures are further described in CHA SOPs #801-#809, included in Appendix B. Methods of assessing laboratory analytical accuracy and precision such as method blanks and surrogate recoveries are discussed in detail in Appendix C.

3.5 Sample Custody

Upon sample collection, each sample container is affixed with an identification label that contains the following information, at a minimum:

- project name & number
- sample identification

- date and time sampled
- analysis required
- preservation used, if required
- sampler's name (initials)

Sample containers will be labeled, using an indelible ink marker, with sample identification, date, and time at the time a sample is actually collected to prevent accidental mix-up of samples that may occur when containers are pre-labeled prior to a sampling event. Other information (project name and number, analysis type, preservation type, and sampler’s name) may be completed on the sample label prior to sample collection.

A Chain-of-Custody will be maintained to document the transfer of all samples. A Chain of Custody form is to be filled out as the samples are collected. Samples are entered onto the form in the order in which they are collected. All data recorded on the sample container label is copied onto the Chain of Custody form. A copy of the Chain of Custody form should be maintained for project files. All samples will be delivered to the laboratory within 48 hours of their collection (72 hours if a weekend or holiday interferes), unless the analytical method requires a more rapid turn-round time, thus necessitating more rapid delivery.

3.6 Calibration Procedures and Frequency

Instruments used to make field measurements during sample collection include the following:

- Water level meter
- Turbidity meter
- YSI 3500 Water Quality Meter (pH, turbidity, oxidation/reduction potential [ORP], specific conductance)

Each instrument will be calibrated and maintained by CHA in accordance with the manufacturer’s specifications. Details of calibration and frequency are provided in Section 4.0.

Laboratory instrument calibration requirements are defined in NYSDEC ASP and will be adhered to by the contract laboratory. The contract laboratory’s procedures are outlined in their

Quality Assurance Manual, included as Appendix C.

3.7 Analytical Procedures

All laboratory analytical procedures are provided in the contract laboratory's Quality Assurance Manual, included as Appendix C. This document contains all standard operating procedures for the analysis of the Part 360 routine, baseline and expanded parameters that will be conducted as part of the EMP.

3.8 Data Management

All data management will be the responsibility of the Environmental Specialist. All analytical results for each sampling event will be provided to CHA by the contract laboratory as an electronic data deliverable (EDD) and as a paper copy. Electronic data will be maintained in an Earthsoft Equis database format and updated following each sampling event.

For all Level IV analyses (Part 360 baseline and expanded parameters), data will be provided by the laboratory in ASP Category B format for the purpose of performing data validation and a data usability assessment. All other data will be provided by the laboratory in ASP Category A format.

An assessment of the environmental monitoring data collected from each quarterly sampling event will be provided to the NYSDEC in the form of a quarterly report, as discussed in the EMP. This report will include a listing of field measurements collected, samples collected, analytical results, comparisons of those results with NYSDEC standards and guidance values, identification of exceedance of established trigger values, and data validation report for those events requiring it, and a data usability summary.

4.0 FIELD SAMPLING PROCEDURES

4.1 Scope and Objectives

This section describes the procedures to be followed for the collection of environmental samples included in the EMP for the Albany Interim Landfill. The objective of this section is to establish a systematic and comprehensive set of procedures for collecting samples that will be consistently applied from one sampling event to the next for the purpose of achieving the AQA/AQC objectives described in Section 3.0 of this SAP.

4.2 Sampling Team Responsibilities

CHA will provide a sampling team that will perform field measurements and collect samples in accordance with the procedures outlined in this Plan and will be responsible for ensuring that sampling team members are trained in the protocols provided in this Plan. The sampling team will consist of one team leader and one or more team members. Their responsibilities are described below:

Sampling Team Leader

The Sampling Team Leader will supervise the field sampling program and will be responsible for the following:

- Work with sampling team members to prepare for field activities, including ensuring the good working order to sampling equipment;
- Will ensure that required QC procedures are followed for sample collection and handling;
- Will ensure, maintain and report QC records (i.e. chain-of-custody, field equipment calibration, etc.)
- Will report to the Environmental Specialist of any problems regarding sample collection.

Sampling Team Member

The Sampling Team Members will be responsible for:

- Performing field measurements;

- Collecting and preserving environmental samples,
- preparing samples for transport to the laboratory, and
- Decontaminating sampling equipment as directed by the Sampling Team Leader.

4.3 Sampling Equipment

Measurements of temperature, turbidity, specific conductance (SpC), pH, and oxidation-reduction potential (ORP) will be performed on all aqueous samples, including groundwater, surface water, and leachate. Additionally, the static water level in each groundwater monitoring well will also be measured. The sampling equipment used for each media type being sampling is described in CHA's SOPs, included as Appendix A and discussed in Section 4.4.

The sampling equipment, calibration standards, and required accuracies for performing the field measurements are described in CHA's SOPs, included in Appendix B. Each field instrument will be calibrated according to the manufacturer's specification using appropriate standards at the beginning of each sampling day. If readings appear to be non-representative of the sample matrix or if the physical configuration of the instrument is changed (changing batteries, probes, etc.), equipment will be re-calibrated in the field.

4.4 Sampling Procedures

Sampling will be conducted at the environmental monitoring points identified in the EMP at the frequencies specified in the EMP. This information is also summarized in Table 2.6, Section 2.0 of this Plan. Field sampling procedures for the operational monitoring events at the AIL and the Proposed Eastern Expansion include three routine monitoring events and one revolving baseline parameter scan. All pre-sampling and sampling procedures to be followed are described in CHA's standard operating procedures, included in Appendix B. Corrective actions will be made in the event that a deficiency is determined in regards to the sampling protocols. Any change to the sampling procedures will be discussed in the monitoring reports and will be updated in the standard operating procedure for the sampling type that was found to have a deficiency.

4.5 Quality Control

To assess the quality of data resulting from the field sampling program, field duplicate samples, field blank samples, samples for laboratory matrix spike/matrix spike duplicate (MS/MSD) analyses, and trip blank samples will be collected (where appropriate) and submitted to the contract laboratory. Quality control procedures for field measurements will be limited to checking the reproducibility of the measurement in the field by obtaining multiple readings and by calibrating the instruments (where appropriate). Field quality control procedures are further described in CHA SOP #609, included in Appendix B.

In general, one blind field duplicate sample and one matrix spike/matrix spike duplicate (MS/MSD) sample is collected during each monitoring event that includes the 18 operational monitoring wells. During the baseline sampling event, a trip blank for VOC’s is included in the regimen. Considering that the expansion wells are consistently sampled as baseline parameter scans, a separate blind field duplicate, MS/MSD, and trip blank is collected/analyzed during each sampling event. These QC samples and frequency are described in detail in Section 3.0.

4.6 Sample Numbering System and Labeling

This protocol details the procedures for identifying the sample container and documenting its handling from its first existence as a sample until analysis and data reduction are complete. The procedures are described in detail below.

Upon sample collection, each sample container is affixed with an identification label that contains the following information, at a minimum:

- project name & number
- sample identification
- date and time sampled
- analysis required
- preservation used, if required
- sampler's name (initials)

Sample containers will be labeled, using an indelible ink marker, with sample identification, date, and time at the time a sample is actually collected to prevent accidental mix-up of samples that may occur when containers are pre-labeled prior to a sampling event. Other information (project name and number, analysis type, preservation type, and sampler's name) may be completed on the sample label prior to sample collection.

4.7 Sample Containers, Preservation and Holding Times

The field sampling team and contract laboratory will use the sample containers, sample preservation procedures and holding times specified in the NYSDEC ASP. These procedures are outlined in Table 4.7.1a and Table 4.7.1b below.

Table 4.7.1a: Preservation, Holding Times and Containers for Water Samples

LABORATORY ANALYSES	SAMPLE PRESERVATION	HOLDING TIME[a]	CONTAINER
Volatile Organic Compounds	HCl to pH<2, Cool to 4^oC	14 days	3 - 40 ml glass vials w/teflon-lined septum
Extractable Org. Compounds	Cool to 4^oC, Store in dark	*7 days	4 - 1 L amber glass bottles w/teflon-lined cap
Total Metals	HNO_3 to pH<2	6 months	1 - 1 L high density polyethylene bottle
Cyanide	NaOH to pH>12, Cool to 4^oc	6 months	1 - 1 L high density polyethylene bottle
Alkalinity	Cool to 4^oC	14 days	1 - 1 L high density polyethylene bottle
Ammonia	H_2S0_4 to pH<2, Cool to 4^oC	28 days	1 - 1 L high density polyethylene bottle
Tot. Kjeldahl Nitrogen	H_2S0_4 to pH<2 , Cool to 4^oC	28 days	1 - 1 L high density polyethylene bottle
Nitrate	Cool to 4^oC	48 hours	1 - 1 L high density polyethylene bottle
Oil and Grease	HCl to pH<2, Cool to 4^oC	28 days	1 - 1 L amber glass bottles w/teflon-lined cap
BOD	Cool to 4^oC	48 hours	1 - 1 L high density polyethylene bottle
COD	H_2S0_4 to pH<2, Cool to 4^oC	28 days	1 - 50 ml high density polyethylene bottle
TOC	HCl to pH<2, Cool to 4^oC	28 days	1 - 125 ml glass bottle w/Teflon-lined cap
TDS	Cool to 4^oC	7 days	1 - 500 ml high density polyethylene bottle
Sulfate	Cool to 4^oC	28 days	1 - 1 L high density polyethylene bottle
Phenols	H_2S0_4 to pH<2, Cool to 4^oC	28 days	1 - 500 ml glass bottle w/Teflon-lined cap
Hardness	HNO_3 to pH<2	6 months	1 - 1 L high density polyethylene bottle
Bromide	None	28 days	1 - 500 ml high density polyethylene bottle
Chloride	None	28 days	1 - 500 ml high density polyethylene bottle
Hexavalent Chromium	Cool to 4^oC	24 hours	1 - 1 L high density polyethylene bottle

[a] *Holding times are from the time of collection.*

** Extraction within 7 days of collection; then analysis within 40 days of extraction*

Table 4.7.1b: Preservation, Holding Times and Containers for Sediment Samples

LABORATORY ANALYSES	SAMPLE PRESERVATION	HOLDING TIME[a]	CONTAINER
Volatile Organic Compounds	Cool to 4°C	14 days	1 – 4 oz. Glass wide mouth jar w/teflon-lined lid
Extractable Organic Compounds	Cool to 4°C, Store in dark	14 days	1 - 8 oz. Glass wide mouth jar
Total Metals	Cool to 4°C	6 months	1 - 8 oz. Glass wide mouth jar
Cyanide	Cool to 4°C	6 months	1 - 8 oz. Glass wide mouth jar
Grain Size	N/A	N/A	1 - 8 oz. Glass wide mouth jar
Moisture Content	Store in airtight jar 3-30°C	N/A	1 - 8 oz. Glass side mouth jar
pH	Cool to 4°C	14 days	1 - 8 oz. Glass mouth jar
TCLP	As per 40 CFR	As per 40 CFR	1 - 8 oz. Glass mouth jar
TOC	Cool to 4°C	28 days	1 - 125 ml glass bottle w/teflon-lined cap

4.8 Sample Transport

All environmental samples collected for analysis will be transported to the contract laboratory on the same day as collection to ensure that all analyses are performed within the specified holding times and that sample preservation temperatures are properly maintained. Samples are normally hand delivered to the contracted laboratory in order to insure that holding times are met.

Samples will be preserved as required to prevent biological or chemical changes that may occur in response to changing physical conditions. Prior to transportation to the contract laboratory, the Sampling Team Members will ensure that the caps/lids of all sample containers are properly secured and sealed. All sample containers will be transported in plastic hard-sided coolers that are free from contamination. All glass sample containers will be wrapped and cushioned to prevent breakage during transport. Finally, the Sampling Team will ensure that sufficient ice is placed in the cooler to maintain the samples at 4ºC during transport. Proper chain-of-custody forms will be included with each cooler. Chain-of-custody procedures are detailed in Section 4.9.1.

4.9 Documentation

Sample Documentation in the Field: Evidentiary files for the entire project will be inventoried and maintained by CHA and will consist of the following:

1) Project related plans;
2) Project log books;
3) Field data records;
4) Sample identification documents;
5) Chain-of-Custody records;
6) Report notes, calculations, etc;
7) References, literature;
8) Miscellaneous - photos, maps, drawings, etc.; and
9) Copies of all final reports pertaining to the project.

The project file materials will be the responsibility of CHA's Environmental, Engineering and Compliance Manager with respect to document maintenance and management.

Sample Documentation in the Laboratory - Each sample or group of samples shipped to the laboratory for analysis will be given a unique identification number. The laboratory sample custodian will record the client name, number of samples and date of receipt of samples in the Sample Control Log Book.

The Contract Laboratory will be responsible for maintaining analytical log books and laboratory data as well as sample inventory on hand for submittal to CHA on an "as required" basis. Samples will be maintained by the laboratory for a period of 30 days, under the conditions prescribed by the appropriate USEPA methods, for additional analyses, if necessary. Raw laboratory data files will be inventoried and maintained by the Contract Laboratory for a period of five years, at which time CHA will advise them as to the need for additional storage.

4.9.1 Field Sampling Form

A field sampling form will be completed for each sample collected and signed by the Sampling Team Member who is performing the sampling. Standardized forms will be used for each sample type collected (groundwater, surface water, sediment or leachate). On each form, the sample number, sample date, record of any field measurements, prevailing weather conditions, and other relevant observations regarding the sample appearance or condition will be recorded. Any problems encountered during sampling, such as a damaged well, insufficient volume of water in the well, etc. will also be recorded on the form. An example of a field sampling form is included as Appendix D.

4.9.2 Chain-of-Custody

A Chain-of-Custody will be maintained to document the transfer of all samples. Each sample container will be properly sealed. Sample container labels will include sample number, place of collection and date and time of collection. Sample containers will be shipped to the Contract Laboratory at 4°C (±2°C) in sealed coolers. Sample shipping procedures are further described in SOP CHA #621 in Appendix B.

A Chain of Custody form is to be filled out as the samples are collected. Samples are entered onto the form in the order in which they are collected. All data recorded on the sample container label is copied onto the Chain of Custody form. Obvious contamination observed in the sampled material is noted on the Chain of Custody form. A copy of the Chain of Custody form should be maintained for project files. All samples will be delivered to the laboratory within 48 hours of their collection (72 hours if a weekend or holiday interferes), unless the analytical method requires a more rapid turn-round time, thus necessitating more rapid delivery.

Each sample cooler being shipped to the Contract Laboratory will contain a Chain-of-Custody form. One copy will be returned to CHA upon receipt of the samples by the laboratory. One copy will be returned to CHA with the data deliverables package. Field custody procedures are further described in SOP CHA #613 in Appendix B.

Upon receipt of the cooler at the laboratory, it will be inspected by the designated sample custodian. The condition of the cooler and sample containers will be noted on the Chain-of-Custody record sheet by the sample custodian. The sample custodian will also document the date and time of receipt of the container and sign the form.

If damage or discrepancies are noticed, they will be recorded in the remarks column of the record sheet, and be dated and signed. Any damage or discrepancies will be reported to the lab supervisor who will inform the lab manager and QA Officer. All transfers of the samples by the Sampling Team or laboratory personnel will be documented by a signature of the person receiving the samples and by noting the date and time of the transfer on the Chain-of-Custody. An example of the Chain-of-Custody form is included as Appendix E.

4.10 Decontamination Procedures

All re-usable, non-dedicated sampling equipment will be decontaminated prior to use. The procedures to be followed are provided in CHA SOP #501, included in Appendix B. Equipment requiring decontamination in the field will be cleaned using the same steps as described in CHA SOP #501. This equipment includes static water level indicators and interface probes that require re-cleaning in the field between each use.

5.0 LABORATORY PROCEDURES

The laboratory procedures are described in the contract laboratories quality manual, provided as Appendix C. Life Sciences Laboratories, Inc. (LSL) of Syracuse, NY is the current laboratory of the Rapp Road Landfills as of the 2008 Monitoring Year. LSL is currently certified by the New York State Department of Health's (NYSDOH) Environmental Laboratory Approval Plan (ELAP).

The laboratory quality manual from LSL includes the standard operating procedures of all laboratory activities; receipt, storage and handling of samples; scheduling for holding times; reagent/standard preparation; general laboratory techniques; analytical methodology; calibration and maintenance; and for corrective actions.

6.0 DATA QUALITY ASSESSMENT

A data quality assessment must be performed to determine whether the data collected were acceptable for the intended use. Laboratory data will be evaluated for precision, accuracy, and comparability. Laboratory methods, procedures, holding times, and quality control sample data will be reviewed to assess data quality. Based on the results of the data quality assessment, sample data may be qualified as estimated or questionable. Estimated or questionable data may or may not be considered acceptable depending on the intended use of the data. This assessment will be performed in two phases, data validation and data usability analysis, each of which are discussed below.

All reporting and deliverables will be in accordance with the NYSDEC September 1989 ASP (12/91 Revision), Category A for routine sampling events and Category B for all baseline and expanded parameter sampling events. All reports will be received by CHA within 30 days of the last day of sampling. All sample data and its corresponding QA/QC data as specified in Category B, shall be maintained accessible to CHA either in hard copy or on disk.

6.1 Data Validation

Data validation is the process by which the quality of the laboratory analytical data is determined with respect to data quality criteria defined by the facility and laboratory quality control programs as well as by NYSDEC ASP analytical methods. For all sampling events the analytical data must be reviewed and a data quality assessment be performed. The data quality assessment will be provided with each monitoring report that is created for the subsequent monitoring events. The level of data validation will be determined by the type of analytical parameter scan that was performed. When routine parameters are collected, an internal laboratory QC will be performed and presented to CHA as a case narrative. During events when baseline and expanded parameters are collected an independent data validator will be used to insure that the data is acceptable

The Contract Laboratory will perform analytical data reduction and validation in-house under the direction of the laboratory QA Officer for the routine monitoring events. The laboratory's QA Officer will be responsible for assessing data quality and advising of any data which were rated "preliminary" or "unacceptable" or other qualifications based on the QC criteria outlined in the methods, which would caution the data user of possible unreliability.

During the baseline and expanded events, CHA will contract an independent data validator who will conduct an evaluation of data reduction and reporting by the laboratory. The data validator will review the data packages for completeness of the required deliverables as well as compliance with relevant portions of this SAP, particularly the DQOs. The data validation will be performed in general compliance with the following documents: "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA 540/R-94-012, February 1994; and "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", EPA 540/R-013, February 1994. Data analyzed using methods not covered in these documents will be validated using the general principles used in these documents, and the analytical requirements specified in the methods. For each data package, the validator will provide a data validation report that includes a general assessment of the data package and a listing of any/all data qualified and an explanation for such qualifications.

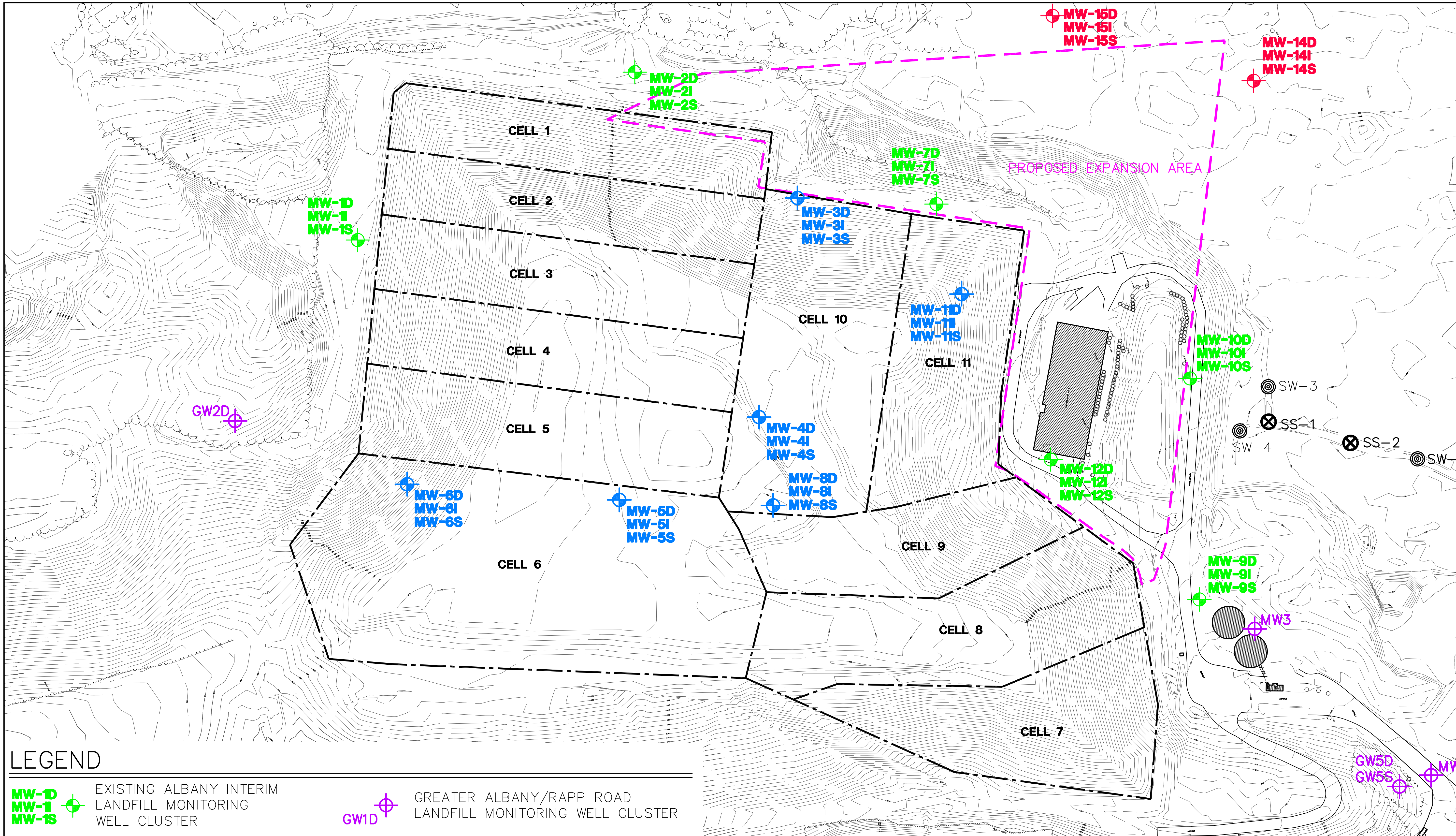
6.2 Data Usability

Raw data from field measurements and sample collection activities that are used in project reports will be appropriately identified and appended to the report. Where data have been reduced or summarized, the method of reduction will be documented in the report. Field data will be reviewed for anomalously high or low values that may appear to be inconsistent with other data.

The assessment of analytical and field data will include checks for data consistency by looking for comparability of duplicate analyses, laboratory QA procedures, adherence to accuracy and precision criteria, transmittal errors, and anomalously high or low parameter values. The assessment will determine if the DQOs outlined in this SAP were met. The results of these data validations will be reported to the project managers, noting any discrepancies and their effect upon acceptability of the data.

For laboratory data, a data usability report will be prepared by the data validator that addresses data consistency, comparability of duplicate analyses and blank data, laboratory QA procedures, adherence to accuracy and precision criteria, and an overall evaluation of the data characteristics. This report will identify any/all analytical results for which additional usability qualifiers have been added.

FIGURES



LEGEND

MW-1D MW-1I MW-1S — EXISTING ALBANY INTERIM LANDFILL MONITORING WELL CLUSTER

GW1D — GREATER ALBANY/RAPP ROAD LANDFILL MONITORING WELL CLUSTER

MW-1D MW-1I MW-1S — ABANDONED MONITORING WELL CLUSTER

MW-1D MW-1I MW-1S — NEWLY INSTALLED EASTERN EXPANSION MONITORING WELLS

SW-3 — CONTINGENCY MONITORING SURFACE WATER SAMPLE

SS-2 — CONTINGENCY MONITORING SEDIMENT SAMPLE

SCALE: 1" = 200'

CHA

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12206.4009.1102

DATE: 03/27/07

FIGURE 1

MONITORING POINTS LOCATION MAP

RAPP ROAD SOLID WASTE MANAGEMENT FACILITY

CITY OF ALBANY

STATE OF NEW YORK

File: K:\12206\EXPANSION\HYDRO INVESTIGATION\FIGURE 1.DWG Saved: 4/26/2007 2:57:42 PM Plotted: 3/28/2008 2:00:19 PM User: Newell, Sarah

APPENDIX A

Christopher A. Burns, PG, PhD

Project Manager

Dr. Burns has 19 years of experience in managing a broad range of geological and environmental projects. He has served as Project Manager of Remedial Investigations/Feasibility Studies at CERCLA sites, hydrogeological investigations at leaking UST sites, Phase I and II site assessments, siting studies for new solid waste management facilities, and water resource protection and water supply projects.

Education

Colgate University, NY/ B.A./ Geology/ 1982
University of Delaware, DE/ M.S./ Geology/ 1985
University of Delaware, DE/ Ph.D./ Geology/ 1990

Professional Registration and Activities

PG-DE, NH
National Ground Water Association
American Geophysical Union
Central NY Association of Professional Geologists
NYS Council of Professional Geologists
American Institute of Professional Geologists

Representative Project Experience Includes:

Ulster County Resource Recovery Agency, Ulster County Landfills - Solid Waste Management Services.

Town of Saugerties, Engineering Services for Landfill Closure.

Franklin Co. Solid Waste Mgmt. Authority, Environmental Monitoring/Part 360 Permitting.

Finch Paper, PSMF Monitoring 2006.

Finch Paper, Queensbury Landfill - Post Closure Monitoring.

Solvents & Petroleum Service, Inc., RCRA Facility Investigation.

Niagara County Refuse Disposal District, Landfills No. 1 & 2 - Environmental Monitoring.

City of Albany Dept. of General Services, Professional Engineering Services for Rapp Road Landfill.

Town of Macedon, Landfill Post Closure Monitoring.

Niagara County Refuse Disposal District, Environmental Monitoring Services.

Town of Saugerties, Post Closure Environ. Monitor. 2000.

Town of Mayfield, Post-Closure Monitoring Variance.

Town of Macedon, Landfill Post Closure Monitoring.

Appendix A
Site Analytical Plan
Approval Page

Site Analytical Plan for Albany Interim Landfill (Environmental Monitoring Plan, Appendix D)
Document Title

Keith Cowan and Sarah Newell, Clough, Harbour & Associates LLP
Prepared By

III Winners Circle, Albany, NY 12205
Address

March 28, 2008
Date

CHA AQA Officer, Christopher A. Burns:

Signature

Christopher A. Burns
Printed Name

March 28, 2008
Date

APPENDIX B

GROUNDWATER SAMPLING

A. PURPOSE/SCOPE:

To obtain representative ground-water samples from an aquifer.

B. EQUIPMENT/MATERIALS:

Inertial pump, submersible pump, disposable bailers, generator, sample bottles, bailing twine and rope, field analyses meters, sampling gloves, water level meters, filtration system, 2-inch Grundfos Rediflow pump and controller, well sampling forms.

C. PROCEDURE:

1. The wells will be sampled in order from the least contaminated well to the most contaminated well (if applicable).

2. Using a decontaminated measurement probe, determine the water level in the well; then calculate the fluid volume in the casing.

3. Using a decontaminated surface pump, submersible pump or disposable bailer, purge the well of a minimum of three well volumes. Note that a new pair of disposable latex or nitrile gloves shall be used when handling any sampling or purging equipment at each sampling location.Purging will be conducted at the lowest flow rate possible to purge the well within a reasonable time frame and to decrease the potential for elevating the turbidity of the well water. Conductivity, pH, Eh, turbidity, and temperature readings shall be taken and recorded during the well purging. The well will be considered properly purged when a minimum of three well volumes have been purged and the conductivity, pH, Eh, turbidity and temperature have stabilized. Turbidity should be below 50 NTU, if possible. If sample turbidity can not be reduced below 50 NTU, a field filtered sample shall be collected for metals analysis in addition to an unfiltered sample. Record these readings on the well sampling log.

   It is important that none of the sampling equipment (pump, bailer, pump tubing, electrical cords, rope, etc.) come into contact with the ground.

4. Sample collection will be performed utilizing either an inertial pump system or disposable bailer. If the inertial pump system is used, samples will be obtained through the dedicated polyethylene tubing. Should disposable bailers be utilized, the sampling will be performed as follows:

   Attach a new bailer line to the disposable bailer equipped with a single check valve. Check the operation of the check valve assembly to confirm free operation. Lower the single check valve bailer slowly into the well until it contacts the water surface.

Then lower the bailer just below the water surface with a minimum of disturbance. When filled with groundwater, slowly raise the bailer to the surface. Discharge the first bailer to the ground. Tip the bailer to allow the water to slowly discharge from the top and to flow gently down the inside of the sample bottle with minimum entry turbulence and aeration.

5. The order in which samples are to be collected is as follows:

   volatile organic compounds,
   bacteriological,
   purgable organic carbon,
   purgeable organic halogens
   total organic halogens
   total organic carbon
   extractable organic
   total metals
   dissolved metals
   phenols
   cyanide
   sulfate and chloride
   turbidity
   nitrate and ammonia
   radionuclides.

6. When collecting aliquots for analysis of volatile organic compounds, make absolutely certain that there are no bubbles adhering to the walls or the top of the VOA container.

7. Add appropriate preservatives to samples as described in SOP #605.

8. Label the sample containers with all necessary information and complete all chain-of-custody documents and seals.

9. Place the properly labeled and sealed sample bottles in a cooler with ice and maintain at 4^oC for the duration of the sampling and transportation period. Do not allow samples to freeze.

D. <u>QA/QC REQUIREMENTS:</u>

To the extent possible, all samples should be collected using the same type of equipment and in the same manner to ensure comparability of data.

E. <u>SPECIAL CONDITIONS:</u>

Step 4 can be replaced if purging and sampling is being performed with a Grundfos Rediflow pump. In this case, after well purging was completed, the discharge rate for the pump would be reduced to approximately 40 ml/minute. Sampling can then proceed as described above.

SURFACE WATER SAMPLING

A. PURPOSE/SCOPE:

The objective of sampling surface water in various streams, lakes, or ponds on or adjacent to a site is to determine the presence and extent of impacts and/or contamination emanating from the site and to determine the necessity for ecological studies.

B. EQUIPMENT/MATERIALS:

Dedicated sample bottles, glass and/or stainless steel collection vessel/pitcher, Water Quality Measurement Meter (including pH, Eh, dissolved oxygen (DO), temperature, specific conductance), tape measure, stopwatch, Surface Water/Sediment Sampling Log (attached).

C. PROCEDURE:

1. When collecting both water and sediment at the same location, the surface water sample will be collected first, followed by the collection of the sediment sample to agitation of sediments into the water column.

2. The samples will be collected from areas of stream bottom where there is predominantly fine-grained sediment. These areas should also be characterized by a steady, but non-turbulent, flow of water. These criteria are designed to maximize sample quality by maximizing the adsorption of metals and organics in the sediments and the retention of volatile constituents in the water column, respectively. Adjust the field sampling locations to accomodate the above considerations, making sure to measure and record relocation information (e.g., distance from proposed location in what direction), if any, in the field logbook.

3. Once the sampling location has been established, describe the location in terms of water flow rate and descriptive parameters as described below (refer to sampling log):

   FLOW RATE - Measure, or estimate if too large to measure, the average stream width and depth. Measure flow velocity three times by measuring off a 10-foot stretch and timing how long is required for a floating object to traverse the 10-foot length. Average the three measurements of stream velocity (add the three and then divide by three) in units of ft/sec. Multiply the average velocity (in feet/sec) by the average stream width (in feet), then multiply by the stream average depth (in feet). The product will be the average flow volume in units of cubic feet/sec.

WATER QUALITY PARAMETERS - Using the collection vessel, transfer the necessary amount of surface water from the water body to a container for field measurements of Eh, pH, specific conductance, turbidity, dissolved oxygen, and temperature. Alternatively, some instruments are equipped with specially designed cups to hold the water or may have submersible probes that are placed into the actual water body itself, etc. Record the field parameter measurements on the log.

DESCRIPTIVE PARAMETERS - Describe the surface water/sediment sampling location by describing both the stream bed and the stream water. Describe the amount of organic material seen in the stream, from toppled trees and branches to fine particles on the bed. Estimate the texture of the stream sediment (% rocks, gravel, sand, silt/clay) and estimate the depth of sediment sample collection. Note the presence of odors, if any. Describe the stream at the sampling location in terms of the percentage of pool (deep, calm, pooled areas), % riffle (shallow, swift-flowing, with the surface broken e.g., tumbling over rocks), and % run (smoothly flowing). The sum of the three types should total 100%. Describe the adjacent banks and surrounding area in terms of amount and type of vegetation, steepness of the banks, rocky versus muddy banks, outcrops, sunny vs. shady, etc.

4. One team member will perform the actual sample collection; he will carefully adopt an optimal sampling position, and once in that position, will not move his feet until all sampling at that locality is concluded in order to minimize agitation of the sediment and water.

5. Stream sediments are to remain undisturbed by the water collection vessel. Should contact with the bottom and resuspension of sediment occur, the sampling team is to halt sampling until the water has cleared. If the water does not clear within a few minutes, the team is to proceed slightly upstream (about 1 meter or just above the disturbed area) and resume the sampling effort.

6. Submerge the open water collection vessel in water with mouth below the water surface. Take care not to collect any floating solids or materials disturbed from the bottom of the water body. In areas of active flow, point bottle mouth upstream. (A stainless steel pitcher may be used to facilitate collection of the portion of the sample for analysis of organics, but should not be used to collect the portion to be analyzed for inorganics).

7. Use the collection vessel to fill all designated sample bottles. Collect the volatile organic fraction first, if it is to be collected. Add appropriate preservatives to samples as given in SOP #605.

8. Label the sample bottles with all necessary information.

9. Place the properly labeled sample bottles in a cooler with ice and maintain at $4^{o}C$ for the duration of the sampling and transportation period. Do not allow samples to freeze.

10. Record all sampling information on the log and complete all chain-of-custody documents.

D. QA/QC REQUIREMENTS:

None.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

Sediment samples are often collected at the same time surface water samples are collected. Refer to SOP #403 for more details regarding sediment sampling.

SEDIMENT SAMPLING

A. PURPOSE/SCOPE:

This procedure is applicable to collecting disturbed samples of bottom sediments in shallow water bodies that are less than 2 feet deep. Either a stainless-steel scoop with several 5 mm holes drilled in the upper portion of the back and rear sides, or a hard-driven corer may be used to collect the samples. In fine-grained sediment, deeper and less disturbed samples can be obtained with the corer.

B. EQUIPMENT/MATERIALS:

Stainless-steel scoop, plastic scoops, hand auger or corer, sample bottles, Surface Water/Sediment Sampling Log

C. PROCEDURE:

1. When collecting both water and sediment at the same location, the surface water sample will be collected first, followed by the collection of the sediment sample to avoid agitation of sediments into the water column.

2. The samples will be collected from areas of stream bottom where there is predominantly fine-grained sediment. These areas should also be characterized by a steady, but non-turbulent, flow of water. These criteria are designed to maximize sample quality by maximizing the adsorption of metals and organics in the sediments and the retention of volatile constituents in the water column, respectively.

3. Insert scoop or corer into sediment to be sampled. (Stainless steel should be used to collect organic portion and plastic should be used to collect inorganic portion). Slowly lift the sample from the water and allow excess water to drain slowly, being careful not to lose fine-grained particles. Depending on the area to be covered, up to five component samples should be collected to form a composite sample. Samples for volatile organics analysis should be placed directly in sample containers and not mixed or composited.

4. Place the component samples for each sediment composite in a clean, stainless-steel bowl for homogenization. Remove any objects larger than approximately 0.5 inches in diameter using clean, stainless-steel forceps.

5. Thoroughly mix the sediment in the bowl and separate into quarters. Place an aliquot from each quarter into an appropriate sample container. Fill the container completely, leaving no headspace.

6. Label the sample container with all necessary information. Record the information on the Surface Water/Sediment Sampling Log and complete all chain-of-custody documents and seals.

7. Place the properly labeled and sealed sample bottle in a cooler with ice and maintain at $4^{o}C$ for the duration of the sampling and transportation period. Do not allow samples to freeze.

D. QA/QC REQUIREMENTS:

None

E. SPECIAL CONDITIONS:

None

F. REFERENCES:

Surface water samples are often collected at the same time sediment samples are collected. Refer to SOP #401 for more details regarding surface water sampling.

SMALL EQUIPMENT DECONTAMINATION

A. PURPOSE/SCOPE:

Decontamination will be performed between each sample collection point. (Waste products produced by the decontamination procedures such as waste liquids, solids, rags, gloves, etc., will be collected and disposed of properly based on the nature of contamination). See SOP #507 for specific details on the handling of decontamination wastes.

Decontamination of sampling equipment is performed to prevent cross contamination between samples.

B. EQUIPMENT/MATERIALS:

Alconox, tap water, distilled water, 20% methanol, 10% nitric acid, 1 gallon pressure spray bottles, long-handled brushes, 5 gallon plastic buckets

C. PROCEDURE:

1. Disassemble equipment, as required.
2. Remove gross contamination from the equipment by brushing and then rinsing with tap water.
3. Wash with Alconox and tap water.
4. Rinse with tap water.
5. Rinse with methanol when sampling for organics only.
6. Rinse with nitric acid when sampling for inorganics only.
7. Rinse with methanol and then with nitric acid when sampling for both organic and inorganic analytes.
8. Rinse with distilled water.
9. Air dry equipment.
10. Field personnel will use a new pair of outer gloves before handling sample equipment after it is cleaned.
11. If equipment is not to be used again immediately, it will be wrapped in aluminum foil.

D. QA/QC:

Field equipment rinsate blanks will be collected and used to assess the quality of equipment decontamination.

E. SPECIAL CONDITIONS:

Reusable PPE, such as respirators, chemical-resistant overboots, gloves shall also undergo the equipment decontamination sequence.

F. REFERENCES:

OSHA Health and Safety Manual for Hazardous Waste Site Activities.

SAMPLE PRESERVATION, HOLDING TIMES, AND CONTAINERS

A. PURPOSE/SCOPE:

To ensure sample integrity through use of proper sample preservation techniques, sample containers, and through observance of sample holding times.

B. EQUIPMENT/MATERIALS:

Sample containers and preservatives (see table).

C. PROCEDURE:

Refer to SOP #607 for procedure and to attached table.

D. QA/QC REQUIREMENTS:

Refer to SOP #608 for QA/QC check of sample pH.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

None.

PRESERVATION, HOLDING TIMES AND CONTAINERS
FOR WATER SAMPLES

LABORATORY ANALYSES	SAMPLE PRESERVATION	HOLDING TIME[a]	CONTAINER
Volatile Organic Compounds	HCl to pH<2, Cool to 4^{o}C	14 days	3 - 40 ml glass vials w/teflon-lined septum
Extractable Org. Compounds	Cool to 4^{o}C, Store in dark	*7 days	4 - 1 L amber glass bottles w/teflon-lined cap
Total Metals	HNO_3 to pH<2	6 months	1 - 1 L high density polyethylene bottle
Cyanide	NaOH to pH>12, Cool to 4^{o}c	6 months	1 - 1 L high density polyethylene bottle
Alkalinity	Cool to 4^{o}C	14 days	1 - 1 L high density polyethylene bottle
Ammonia	H_2S0_4 to pH<2, Cool to 4^{o}C	28 days	1 - 1 L high density polyethylene bottle
Tot. Kjeldahl Nitrogen	H_2S0_4 to pH<2 , Cool to 4^{o}C	28 days	1 - 1 L high density polyethylene bottle
Nitrate	Cool to 4^{o}C	48 hours	1 - 1 L high density polyethylene bottle
Oil and Grease	HCl to pH<2, Cool to 4^{o}C	28 days	1 - 1 L amber glass bottles w/teflon-lined cap
BOD	Cool to 4^{o}C	48 hours	1 - 1 L high density polyethylene bottle
COD	H_2S0_4 to pH<2, Cool to 4^{o}C	28 days	1 - 50 ml high density polyethylene bottle
TOC	HCl to pH<2, Cool to 4^{o}C	28 days	1 - 125 ml glass bottle w/Teflon-lined cap
TDS	Cool to 4^{o}C	7 days	1 - 500 ml high density polyethylene bottle
Sulfate	Cool to 4^{o}C	28 days	1 - 1 L high density polyethylene bottle
Phenols	H_2S0_4 to pH<2, Cool to 4^{o}C	28 days	1 - 500 ml glass bottle w/Teflon-lined cap
Hardness	HNO_3 to pH<2	6 months	1 - 1 L high density polyethylene bottle
Bromide	None	28 days	1 - 500 ml high density polyethylene bottle
Chloride	None	28 days	1 - 500 ml high density polyethylene bottle
Hexavalent Chromium	Cool to 4^{o}C	24 hours	1 - 1 L high density polyethylene bottle

[a] *Holding times are from the time of collection.*

* *Extraction within 7 days of collection; then analysis within 40 days of extraction.*

PRESERVATION, HOLDING TIMES AND CONTAINERS
FOR SOIL SAMPLES

LABORATORY ANALYSES	SAMPLE PRESERVATION	HOLDING TIME[a]	CONTAINER
Volatile Organic Compounds	Cool to 4°C	14 days	1 – 4 oz. Glass wide mouth jar w/teflon-lined lid
Extractable Organic Compounds	Cool to 4°C, Store in dark	14 days	1 - 8 oz. Glass wide mouth jar
Total Metals	Cool to 4°C	6 months	1 - 8 oz. Glass wide mouth jar
Cyanide	Cool to 4°C	6 months	1 - 8 oz. Glass wide mouth jar
Grain Size	N/A	N/A	1 - 8 oz. Glass wide mouth jar
Moisture Content	Store in airtight jar 3-30°C	N/A	1 - 8 oz. Glass side mouth jar
pH	Cool to 4°C	14 days	1 - 8 oz. Glass mouth jar
TCLP	As per 40 CFR	As per 40 CFR	1 - 8 oz. Glass mouth jar
TOC	Cool to 4°C	28 days	1 - 125 ml glass bottle w/teflon-lined cap

[a] *Holding times are from the time of collection.*

** Extraction within 7 days of collection; then analysis within 40 days of extraction.*

SAMPLE PRESERVATION AQUEOUS SAMPLES

A. PURPOSE/SCOPE:

Water samples collected in the field may undergo biological, chemical, or physical changes after removal from their environment. In order to minimize those changes, many samples must have preservatives in the form of strong acids or bases immediately added prior to delivery to the laboratory. Because of the inherent danger in working with these acids and bases, this SOP describes procedures for safe preservation of the samples.

B. EQUIPMENT/MATERIALS:

Hydrochloric (HCL) Acid Reagent A.S.C. 38%, Nitric (HNO3) Acid Reagent, A.S.C. 71%, Sodium Hydroxide (NaOH) 97%, 10 ml glass pipettes, narrow range (0-3, and 12-14) pH paper, nitrile gloves.

C. PROCEDURE:

Volatile Organic Compounds

1. Put on a clean pair of nitrile gloves.

2. In a clean, non-dusty environment, remove the cap of the 40-mL glass vial.

3. Using a clean, 10 ml glass pipette draw approximately 2 ml of Hydrochloric (HCL) Acid from the acid container and insert into the VOA vial.

4. Immediately after the HCL acid is placed into the sample bottle, replace and tighten the cap.

Total and Dissolved Metals, Mercury

1. Put on a clean pair of nitrile gloves.

2. In a clean, non-dusty environment, remove the cap of the 1-L high density polyethylene bottle.

3. Using a clean 10 mL glass pipette draw approximately 5 mL of Nitric (HNO3) acid from the acid container and insert into the polyethylene bottle.

4. Immediately after the HNO3 is placed into the sample bottle, replace and tighten the cap.

Cyanide

1. Put on a clean pair of nitrile gloves.

2. In a clean, non-dusty environment, remove the cap of the high density polyethylene bottle.

3. Using your hands remove approximately 15-20 Sodium Hydroxide (NaOH) pellets from the NaOH container and place into the sample bottle.

4. Immediately after the NaOH is placed into the sample bottle, replace and tighten the cap.

<u>COD, Oil and Grease, Organic Carbon, Phenolics, Total Dissolved Phosphorus, Hydrolyzable Phosphorus, Ammonia, Nitrate plus Nitrite</u>

1. Put on a clean pair of nitrile gloves.

2. In a clean, non-dusty environment, remove the cap of the appropriate sample bottle.

3. Using a clean 10 mL glass pipette, remove approximately 5 ml of Sulfuric (H2SO4) acid and insert into the sample container.

4. Immediately after the H2SO4 is placed into the sample container, replace and tighten the cap.

D. <u>QA/QC REQUIREMENTS:</u>

E. <u>SPECIAL CONDITIONS:</u>

Sample preservation should be done prior to collecting the sample to minimize the potential of contaminating the sample. Sample preservatives may need to be added to samples in the field if QA/QC field measurements indicate that the samples have not been preserved to the proper pH (see SOP for field measurement of pH for aqueous samples).

F. <u>REFERENCES:</u>

None.

QA/QC SAMPLES

A. PURPOSE/SCOPE:

Quality control samples are used to trace routes of contamination. Each type of sample traces a different route of contamination.

B. EQUIPMENT/MATERIALS:

Analyte-free water, appropriate sample containers.

C. PROCEDURE:

1.Duplicate Samples

Duplicate samples will be collected for every twenty (20) routine samples collected per matrix, per analysis. The duplicates will be collected in the same manner as their corresponding routine samples.

2.Matrix Spike and Matrix Spike Duplicate Samples

Matrix spikes and matrix spike duplicates are laboratory required quality control samples. However, the laboratory must be provided with additional sample volume for each sample matrix to complete their analysis. One matrix spike/matrix spike duplicate (MS/MSD) pair will be collected per matrix per 20 samples. Again, the MS/MSD pairs will be collected in the same manner as their corresponding routine samples.

3. Field Blank Samples

Field blanks are blanks prepared prior to the sampling event from clean, analyte-free materials most closely resembling the sample matrices to be collected in the field. The blanks are transported to the field along with the containers in which the routine samples will be collected. Once in the field, the caps of the field blanks are removed so that the field blanks are exposed to the same conditions as the routine samples. At the end of each location sampling event, the caps to the field blanks are replaced, and the blanks are then subjected to the same protocol as the routine samples. Field blanks are collected for water only.

4. Equipment Rinsate Samples

One equipment rinseate sample will be collected per every 20 samples collected, per analysis, per matrix. The equipment rinseate blank will be collected by pouring analyte-free water, directly over decontaminated sampling equipment into a prepared sample container. The equipment rinseate blanks are then shipped to the laboratory with the other routine samples collected.

5. Trip Blank Samples

Trip blanks for volatile organic samples are prepared in the laboratory prior to the sampling event using analyte-free water. The trip blanks accompany the routine sample containers to the field, during collection of the samples in the field, and during transport of the routine volatile organic samples back to the laboratory. Trip blanks must remain un-opened until time of analysis. One trip blank sample will be used for each day of sampling for volatile organic compounds.

D. QA/QC REQUIREMENTS:

None.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

None.

CHAIN OF CUSTODY FORM

A. PURPOSE/SCOPE:

Sample custody is a necessary aspect to ensuring sample integrity. Sample custody is to be maintained during all sample handling activities. By definition, samples are in custody if they:

· are in the possession of an authorized individual;
· are in the field of vision of an authorized individual; and
· are in a secure area or a locked container.

In order to verify sample integrity, written conclusive proof is required that samples are collected, transferred, prepared, and analyzed in an unbroken chain. That written proof is a Chain-of-Custody form.

B. EQUIPMENT/MATERIALS:

Black ink pen, Chain-of-Custody forms

C. PROCEDURE:

To complete the form, the following information must be provided:

· The project number
· The project name
· The sampler's signature;
· The sample number which may be equivalent to the sample location;
· The date and time the sample was taken;
· Whether the sample is composite or grab;
· The number of containers in which the sample has been placed;
· The type of analyses requested;
· Under "Remarks" (in the lower right corner of the record), the airbill number of the container in which the samples will be shipped to the laboratory. (When samples are shipped to the laboratory via commercial carrier, the airbill serves as an extension of the chain-of-custody.); and
· Under "Relinquished by" and "Received by", the signature of every authorized person who maintains custody of the samples.

D. QA/QC REQUIREMENTS:

A second person should review all entries before the form is sealed in the sample cooler.

Mistakes should be corrected by crossing out the incorrect entry with a single line, initialing the line out, and entering the correct entry immediately adjacent to the incorrect entry.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

None.

SAMPLE SHIPPING

A. PURPOSE/SCOPE:

This procedure describes proper packaging of samples for shipment to the laboratory.

B. EQUIPMENT/MATERIALS:

40-quart ice coolers, vermiculite, ziploc bags, lawn and leaf trash bags, ice or freezer packs, chain-of-custody seals, packing tape, 1-gallon paint cans with lids.

C. PROCEDURE:

Once the samples have been collected, properly labeled and tagged, these steps should be followed to properly pack and ship the samples:

1. Seal all containers in clear plastic bags.

2. Double line the sample cooler with 2 plastic trash bags.

3. Place all samples within the inner trash bags in the cooler.

4. Surround the samples with vermiculite and seal the inner trash bag.

5. Use freezer packs or ice to cool the organic low level water samples to $4^{\circ}C$. (Do not cool dioxin or organic high level water samples; cooling of inorganic water samples is optional). The freezer packs or ice should be placed between the inner and outer trash bags. Then the outer trash bag should be sealed.

6. Tape paperwork in plastic bag on inside of cooler lid (The paper work includes the chain-of-custody record, and the bottom two copies of the traffic report); and

7. Close cooler and seal with custody seals.

D. QA/QC REQUIREMENTS:

None.

E. SPECIAL CONDITIONS

Pack all high concentration samples in metal paint cans. The paint cans should be labelled with sample number of sample contained inside and the contents of the can should be surrounded with vermiculite.

F. REFERENCES:

None.

FIELD MEASUREMENT OF WATER TEMPERATURE

A. PURPOSE/SCOPE:

To record accurate temperature of surface water for site characterization purposes.

B. EQUIPMENT/MATERIALS:

NBS - calibrated thermometers or YSI Flow Thru meter

C. PROCEDURE:

1.If using thermometer:

- Check thermometer for cracks or gaps in the mercury.
- Draw sample of at least 200 mL into beaker or sample bottle.
- Place thermometer in sample. Do not allow thermometer bulb to touch sides of beaker. Allow to equilibrate (about 1 min).
- Record temperature to nearest 1^o C in field logbook.

2.If using YSI Flow Thru meter:

- Draw sample of at least 200 mL into beaker or sample bottle.
- Place temperature probe in sample. Do not allow probe to touch sides of beaker. Allow to equilibrate (about 1 min).
- Record temperature to nearest 1^o C in field logbook.

D. QA/QC REQUIREMENTS:

On a quarterly basis, check against NBS-calibrated field laboratory thermometer. Agreement should be within 0.5^o C.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

See SOP #207 for information regarding use of YSI Flow Thru meter.

FIELD MEASUREMENT OF pH FOR SURFACE AND GROUND WATERS

A. PURPOSE/SCOPE:

To accurately record the pH of water for site characterization purposes.

B. EQUIPMENT/MATERIALS:

Markson 611 pH meter or YSI Flow Thru meter, spare battery, plastic beakers, buffer solution of pH 4, 7, and 10.

C. PROCEDURE:

1. Rinse 500-mL plastic beaker with small portions of sample water 3 times.

2. Rinse electrodes with sample water.

3. Immerse electrode in sample while swirling the sample, if needed, to provide thorough mixing. Turn on meter. Read pH to nearest 0.1 unit once the reading is stabilized.

4. Record sample pH. Note any problems such as drift of meter.

D. QA/QC REQUIREMENTS:

Calibrate pH meter according to manufacturer's instructions in the field at the beginning and end of every work day, or at a minimum of every 10 samples analyzed.

Check batteries each time meter is used. Carry a spare battery pack and a screwdriver into the field in the pH meter case.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

Refer to SOP's # 207 and 209 for further information.

FIELD MEASUREMENT OF SPECIFIC CONDUCTANCE

A. PURPOSE/SCOPE:

To accurately record the specific conductance of water for site characterization purposes.

B. EQUIPMENT/MATERIALS:

YSI Flow Thru Meter, plastic or glass beaker

C. PROCEDURE:

1. Mechanically zero the instrument while the instrument is OFF using screwdriver adjustment on the meter face.

2. Collect water sample in 500-mL plastic beaker.

3. Swirl conductivity probe in sample; discard sample.

4. Collect fresh sample in beaker.

5. Measure sample temperature to nearest 1^{o} C.

6. Adjust the temperature setting on conductivity meter as per recorded temperature.

7. Turn on meter and immerse conductivity probe in sample. Move probe around in sample to displace any air bubbles.

8. Select the lowest appropriate multiplier setting to obtain the greatest meter needle deflection. Read the conductivity from the dial and record in field notebook.

D. QA/QC REQUIREMENTS:

None.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

See SOP #207 for further information.

FIELD MEASUREMENT OF DISSOLVED OXYGEN

A. PURPOSE/SCOPE:

To accurately record the dissolved oxygen content of water for site characterization purposes.

B. EQUIPMENT/MATERIALS:

dissolved oxygen meter, plastic beaker, KCl solution (17 grams of KCl per 92 ml of distilled water).

C. PROCEDURE:

On the morning of a sampling trip, check meter batteries and electrode.

1.Check that meter pointer is exactly at zero when meter is upright. If necessary, adjust its position with the screw in the center of the meter panel.

2.Switch to Red Line and adjust knob until needle aligns with red line. If needle cannot be brought up to red line, replace instrument batteries (four size C batteries).

3.Examine electrode. If membrane is damaged, or there are bubbles beneath it, or it is wrinkled or pinched under the O-ring, replace membrane.

a.Take off the O-ring and remove old membrane.

b.Fill electrode with half-saturated KCl solution. Holding probe sensor-end up, drip solution into the top while pumping gently on the probe diaphragm with the eraser end of a pencil. Continue until no more bubbles appear.

c.Secure a membrane against the probe body under your left thumb. Add more electrolyte to the probe until a large meniscus completely covers the gold cathode. NOTE: Handle membrane material with care, keeping it clean and dust free, touching it only at the ends.

d.With the thumb and forefinger of your other hand, grasp the free end of the membrane.

e.Using a continuous motion stretch the membrane up, over, and down the other side of the sensor.

f.Secure the end of the membrane under the forefinger of the hand holding the probe.

g.Roll the O-ring over the end of the probe. There should be no wrinkles in the membrane or trapped air bubbles. Some wrinkles may be removed by lightly tugging on the edges of the membrane beyond the O-ring. Trim off excess membrane with scissors or sharp knife. Check that the stainless steel temperature sensor is not covered by excess membrane.

4. Store probe attached to meter, with the electrode end inserted in the special plastic bottle. Check that Kimwipe in bottom of bottle is moist. If necessary, add distilled water.

5. At each station, air-calibrate the probe according to the manufacturer's instructions before taking a reading.

6. Immerse probe in sample water. For groundwater, have pump discharge tube in the bottom of a beaker, allow water to overflow. For surface water, probe is immersed in a beaker which has been dipped from the stream with minimal turbulence.

7. Allow probe to acclimate to sample temperature for 30 sec.

8. Switch to 0-10 setting and read dissolved oxygen concentration to nearest 0.1 mg/L. If the reading is less than 5, switch to 0-5 setting. In a quiescent beaker of water, the probe must be gently moved up and down while the reading is taken.

9. Check meter calibration against replicate Winkler determinations at the beginning and end of each day in the field according to the manufacturer's instructions. The water used may be distilled or tap water brought into the field.

D. <u>QA/QC REQUIREMENTS:</u>

None.

E. <u>SPECIAL CONDITIONS</u>

None.

F. <u>REFERENCES:</u>

None.

FIELD MEASUREMENT OF REDOX POTENTIAL (Eh)

A. PURPOSE/SCOPE:

To accurately record the Eh of water for site characterization purposes.

B. EQUIPMENT/MATERIALS:

YSI Flow Thru meter, spare battery, plastic beakers,

C. PROCEDURE:

1. Rinse 500-mL plastic beaker with small portions of sample water 3 times.

2. Rinse electrode with sample water.

3. Immerse electrode in sample while swirling the sample, if needed, to provide thorough mixing. Turn on meter. Read Eh to nearest 1 millivolt once the reading is stabilized.

4. Record sample Eh in the field log book. Note any problems such as drift of meter.

D. QA/QC REQUIREMENTS:

None.

E. SPECIAL CONDITIONS

None.

F. REFERENCES:

Refer to SOP #207 for further information.

APPENDIX C

LIFE SCIENCE LABORATORIES, INC. – CENTRAL
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Quality Assurance Manual

For Environmental Analyses
Revision No. 5
Effective Date: January 2008

DOCUMENT CONTROL PAGE

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1. QUALITY SYSTEM

1.1 SCOPE AND APPLICATION

Life Science Laboratories, Inc. – Central Lab's (LSL-CL) quality system is designed to ensure that all analytical testing performed and services provided by our laboratory are of known and documented quality that conforms to client requirements, regulatory specifications, and internal quality assurance and quality control policies and procedures. This system includes processes by which appropriate analytical methods are selected, their capability evaluated and performance documented. LSL-CL's quality system is compliant with the requirements the National Environmental Laboratory Accreditation Conference (NELAC) standards, New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP), the Environmental Protection Agency (EPA) and the other regulatory agencies.

LSL-CL's quality system policies and objectives are defined in this Quality Assurance (QA) Manual. The overall objectives are documented in a quality policy statement that is issued under the authority of the President of LSL, Inc. All LSL-CL employees are required to comply with the quality system requirements specified in this manual and associated QA documentation. The QA Manual is distributed to the laboratory personnel at LSL-CL and is available to clients, regulatory agencies, and accreditation authorities for their review and use in evaluating LSL-CL's quality system. LSL-CL's quality system is reviewed on an ongoing basis by laboratory management and the QA department to ensure its continued suitability and effectiveness, and to introduce any necessary changes and improvements.

1.2 QUALITY POLICY

LSL-CL's Quality Policy Statement is to:

- Provide high quality, consistent, and objective environmental testing services that meet federal, state, and local regulatory requirements and client/project specifications.
- Produce data that is scientifically valid, legally defensible and of known and documented quality in accordance with standards developed under NELAC, NYSDOH ELAP, and EPA.
- Provide LSL-CL clients with a high level of professionalism, service and quality.
- Ensure that client requirements are met by facilitating open communication between the clients and staff and by reviewing the technical and service requirements of all analytical requests before commitments are made to accept

the work.

To achieve these objectives, LSL-CL has documented policies and procedures for all aspects of sample handling, analysis, and reporting including specific protocols for sample handling and storage, chain-of-custody, laboratory analyses, data reduction, corrective action, and reporting. These policies and procedures are further defined in the QA Manual, Standard Operating Procedures (SOPs), and Corporate Informational Memorandums (CIMs).

To ensure that the data generated by the laboratory meet the standards set forth in the quality policy, LSL-CL analyzes proficiency testing samples provided by NYSDOH ELAP (a NIST-approved PT provider) as well as from other sources for all required analytes and matrices at a minimum frequency of two times per year. The laboratory may participate periodically in other NIST-approved non-routine commercial proficiency tests as well as from other sources, and in various private and governmental proficiency rounds.

The quality policy statement is issued under the authority of the President of Life Science Laboratories, Inc., Joseph L. Jeraci, Ph.D. and is communicated to all new employees during their QA orientation period. All personnel involved with environmental testing activities within the laboratory are required to familiarize themselves with the quality documentation and implement the policies and procedures in their work.

1.3 DATA INTEGRITY PROGRAM

At LSL-CL, establishing and maintaining a quality system with a high ethical approach to testing is a key component of all laboratory planning, training and implementation of methods. In order to ensure that all personnel understand the importance the company places on maintaining high ethical standards at all times, LSL-CL has established a data integrity program. LSL-CL's data integrity program requires that all employees participate in formal training on ethics and data integrity; complete a data integrity/ethics exam; and sign data integrity documentation demonstrating their commitment and obligations related to ethics and data integrity. All data integrity documentation are submitted to the QA department, where they are reviewed, signed, dated, and filed in each employee's training file. The QA department provides each employee with examples of improper and fraudulent laboratory practices that are considered a breach in ethics. The QA department also performs an in-depth review of data integrity during the annual internal audits and routine data package review. Management and the QA department are responsible for reviewing the data integrity program on an annual basis and updating it as needed to ensure its continued suitability and effectiveness.

Confidential reporting of data integrity issues is done through the QA department. The

QA Officer is authorized to communicate issues of concern with any laboratory employee (including the President) without releasing source information. Confidential reporting is also available through email and direct communication with the President and/or technical director. Any investigations within the laboratory will be documented and maintained by the laboratory for a minimum of five years.

LSL-CL's Ethics Agreement and Improper Laboratory Practices are provided in Appendices 1-1 and 1-2, respectively.

2. ORGANIZATION AND MANAGEMENT

2.1 ORGANIZATION

The organization and management structure of the laboratory, including the relationships between quality management, technical operations and support services are presented in LSL- CL's organizational chart (Appendix 2-1). This chart is updated with each revision of the Quality Manual.

2.2 MANAGEMENT

2.2.1 President of LSL, Inc.

The President of LSL, Inc. has overall management responsibility and authority, including responsibility for budgeting, resource allocation, long term planning, sales, marketing, and final approval on all management and administrative policies and management plans. The President authorizes the QA Manual and as such, sets the standards for the Quality System.

2.2.2 Laboratory/Technical Director

LSL-CL is managed by a Laboratory Director who is responsible for the daily operation of the laboratory. Under the NELAC standards, the Laboratory Director serves as the Technical Director. The Technical Director's responsibilities include supervision of staff, setting goals and objectives for both the business and the employees, and achieving the financial, business, and quality objectives of the facility. The Technical Director reports to the President of LSL, Inc.

2.2.3 Quality Assurance Officer

The QA Officer is responsible for implementing and communicating the quality objectives, providing QA training to all new personnel, maintaining the laboratory's QA Manual, and performing internal system and data audits. The QA Officer oversees the maintenance of the QC records, including certifications, performance evaluation studies, and audit reports. The QA Officer has final authority to accept or reject data, and to stop work in progress in the event that procedures or practices compromise the validity and integrity of analytical data. The QA Officer is available to any employee at the facility to resolve data quality and ethical issues. The QA Officer reports to the President of LSL, Inc.

2.2.4 Laboratory Section Supervisors

Section Supervisors manage the field service, sample custody, microbiology, metals, wet chemistry, organic extractions, chromatography analytical laboratory sections. The Section Supervisors' responsibilities include managing the day-to-day scheduling and operation of their analytical areas. They ensure that analyses are performed according to method and project specifications, and corrective action procedures are implemented as recommended by the QA department. The Section Supervisors report to the Technical Director.

2.3 DEPUTY ASSIGNMENTS

In the event that either the Technical Director or QA Officer are absent, LSL-CL has a contingency plan for nominating deputies. A list of the laboratory's approved signatories and deputy assignments are provided in Appendix 2-2.

3. DOCUMENT CONTROL

3.1 GENERAL

The document control system used by LSL-CL ensures that all administrative and technical SOPs, QA Manuals, logbooks and CIMs are controlled and maintained by the laboratory. LSL-CL is in the process of moving all official controlled and protected documents to a digital location in directories in Application Xtender. After a document becomes officially controlled and protected in Application Xtender, the document automatically becomes an uncontrolled copy when printed. The effected date and revision number of a document is the date of the most recent updated revision of that document entered into Application Xtender. Computers are strategically placed throughout the laboratory and available for use by all employees to view all controlled documents. The QA department is responsible for assigning control numbers to the QA Manuals, administrative and technical SOPs that are issued. The Administrative Department is responsible for assigning control numbers to notebooks and data packages.

3.2 DOCUMENT REVIEW, REVISION AND APPROVAL

3.2.1 QA Manual

The QA Manual is prepared by the QA department and reviewed and approved by the President of LSL, Inc., the Laboratory/Technical Director and QA Officer. The President and Laboratory/Technical Director approve the QA Manual for use by the laboratory staff by signing the cover page documenting management's approval and agreement to implement the policies and procedures in the manual. The revision number, effective date and total number of pages are included in the header information printed on each page of the QA Manual. The QA Manual is reviewed on an annual basis and revised as needed by the QA department to ensure continued suitability and compliance with applicable requirements.

3.2.2 Administrative Standard Operating Procedures

The administrative SOPs are prepared by designated laboratory personnel and reviewed by the QA department to ensure continued suitability and applicability to the laboratory's general operations. The administrative SOPS are revised as needed and whenever there are major changes in laboratory policies or procedures. Laboratory management or designated personnel and the QA department are responsible for approving the administrative SOPs. The unique SOP number and total number of pages are included in the header information located on each page of the administrative SOPs.

3.2.3 Technical Method Standard Operating Procedures

The technical method SOPs are prepared by the Section Supervisors or designated senior staff and reviewed by the QA department to ensure continued suitability and regulatory compliance. The technical method SOPs are revised as needed or when an updated or revised method is promulgated. The Technical Director and/or Section Supervisors and QA department are responsible for approving the technical SOPs. The unique SOP number and total number of pages are included in the header information located on each page of the technical SOPs.

3.2.4 Corporate Informational Memorandums (CIMs)

The Corporate Information Memorandums are issued under the authority of the President of LSL, Inc. CIMs are used to define and clarify corporate policies and procedures. CIMs are revised as needed, and whenever there are major changes in laboratory policies or procedures. Each CIM has a unique control number and an effective date. LSL, Inc.'s Administrative Secretary maintains documentation that employees have read the latest CIM revisions.

3.2.5 Laboratory Logbooks

Laboratory logbook formats are prepared by the laboratory section supervisors or designated senior staff and reviewed by the QA department to ensure continued suitability. Logbook formats are revised as needed by the QA department. The QA department and applicable supervisor are responsible for approving the final format used for logbooks issued in their area. Laboratory logbooks consist of standardized forms with consecutively numbered pages. The document control number, logbook ID and title, number of pages, date issued, and date(s) used are recorded on the logbook cover.

Laboratory logbooks used at LSL-CL include the following categories:

- Sample Preparation
- Standards/Reagent Preparation
- Sample Analysis
- Instrument Run Sequence
- Instrument Maintenance
- Temperature/Balance/Reagent Water Monitoring

Additional information on the creation, issue, maintenance and use of laboratory logbooks is provided in SOPs No. L8004, L8012, and L8020.

3.3 DOCUMENT DISTRIBUTION

The QA department is responsible for assigning control numbers to the QA Manuals, administrative and technical SOPs, and logbooks that are issued. Obsolete documents maintained for either legal or preservation purposes are suitably marked and maintained by the QA department. Controlled copies of QA Manuals and SOPs issued by the laboratory are digitally located in Application Xtender and become uncontrolled copies when printed. The QA department maintains a master list identifying the document's current revision date.

4. REVIEW OF REQUESTS, TENDERS AND CONTRACTS

Prior to the laboratory accepting samples for environmental testing, all requests, tenders and contracts are reviewed by the Technical Director, Client Service Manager, and designated laboratory personnel.

The purpose of the review is to establish that the laboratory possesses the necessary physical, personnel, and information resources, and that the laboratory's personnel have the skills and expertise necessary for the performance of the environmental test in question. As part of the review, the laboratory must ensure that the requirements, including the methods to be used, are clearly defined and documented; the laboratory has the capability and resources to meet the requirements; and the appropriate environmental test method(s) are selected.

The laboratory must inform the client of any potential conflicts, deficiencies, lack of appropriate accreditation status, or inability on the laboratory's part to complete the client's work. Any differences between the request or tender and the contract are to be resolved and agreed upon between the laboratory and the client before any work commences. Each contract shall be acceptable to both the laboratory and the client. A contract may be any written or oral agreement to provide a client with environmental testing services.

Records of the reviews, including discussions with the client regarding the work requirements and any amendments are to be maintained during the period the contract is in affect. Any changes or amendments to the contract after work has commenced must undergo the same contract review process and be communicated to all affected personnel. Clients must be notified immediately when a situation occurs where the laboratory cannot conform to the contract requirements or if there is a change in their accreditation or certification status.

5. PURCHASING OF SUPPLIES AND SERVICES

5.1 PROCUREMENT OF SUPPLIES AND SUPPORT SERVICES

The procurement of outside services, supplies, and equipment used in support of testing is controlled to ensure that the services and products used by the laboratory are of known quality, conform to the specified requirements, and sustain confidence in the laboratory's tests. Control includes vendor selection, evaluation of the quality records provided by the supplier, and examination of items received upon delivery or completion. Whenever possible, the laboratory ensures that purchased equipment and consumable materials are not used until they are inspected, calibrated or otherwise verified as complying with any standard specifications relevant to the calibrations or tests concerned.

LSL-CL maintains records of all suppliers from whom it obtains support services, supplies, and equipment required for performing laboratory tests. Procedures for procurement utilized at the laboratory are documented in SOP L0004, Ordering and Receiving Supplies.

This SOP automatically becomes an uncontrolled document when printed.
The official controlled and protected document is digitally located in the SOP directory in ApplicationXtender. Refer to this official controlled SOP in ApplicationXtender for the most recent document describing how this procedure is currently performed.

5.2 PROCUREMENT OF SUBCONTRACT LABORATORY SERVICES

The procurement of services from a subcontract laboratory are used only in the event that LSL-CL does not have the certification, capability or capacity to perform the requested analyses or if it is specifically requested by the client. The laboratory advises the client of its intention to subcontract any portion of the testing to another party whenever possible and maintains a record of the notification.

When the laboratory subcontracts any part of the testing covered under NELAP, this work is placed with a laboratory accredited under NELAP for the tests to be performed or with a laboratory that meets applicable statutory and regulatory requirements for performing the tests and submitting the results of tests performed. When a subcontract laboratory is used, the laboratory performing the work is indicated in the final report.

6. PERSONNEL

6.1 GENERAL REQUIREMENTS FOR LABORATORY PERSONNEL

LSL-CL is committed to hiring managerial and technical personnel with the necessary education, training, technical knowledge and experience for their assigned job function(s). Each technical staff member has a combination of experience and education to adequately demonstrate a specific knowledge of their particular function and a general knowledge of laboratory operations, analytical methods, QA/QC procedures, documentation, and recordkeeping. All personnel are responsible for complying with the quality assurance/quality control requirements that pertain to their assigned organizational/technical function.

6.2 JOB RESPONSIBILITIES

6.2.1 <u>Technical Director</u>

In accordance with the NELAC standards, LSL-CL has designated a Technical Director who exercises actual day-to-day supervision of laboratory procedures and reporting of results. The Technical Director's duties include, but are not limited to:

- Defining the minimal level of experience and skills necessary for all positions in the laboratory.
- Ensuring that all technical laboratory staff have demonstrated initial and ongoing proficiency in the activities for which they are responsible.

- Ensuring that the training of its personnel is kept up-to-date
- Documenting all analytical and operational activities;
- Supervising all personnel; and assures data quality
- Ensuring that all sample acceptance criteria are verified and that samples are logged into the sample tracking system and properly labeled and stored;
- Performing an annual Management System Review;
- Documenting the quality of all data reported by the laboratory;
- Ensuring that the laboratory has the appropriate resources and facilities to perform requested work;
- Ensuring that corrective actions relating to findings from internal audits are completed.

The Technical Director is designated in the organizational chart provided in Appendix 2-1.

6.2.2 Quality Assurance Officer

The QA Officer (and/or his/her designees) has the responsibility and authority for ensuring that the quality system is implemented and followed at all times. The QA Officer has direct access to the highest level of management at which decisions are made on laboratory policy or resources. The QA Officer shall:

- Serve as a focal point for QA/QC and be responsible for the oversight and/or review of quality control data.
- Have functions independent from laboratory operations for which they have quality assurance oversight.
- Provides QA technical assistance to project staff
- Be able to evaluate data objectively and perform assessments without (managerial) influence.
- Have documented training and/or experience in QA/QC procedures and be knowledgeable in the quality system as defined under NELAC.

- Have a general knowledge of the analytical test methods for which data review is performed.

- Arrange for or conduct internal audits on laboratory and administration operations annually.

- Notify laboratory management of deficiencies in the quality system and monitor corrective action.

- Acts as a confidential reporting source for data integrity issues.

The QA Officer and deputy QA officer(s) for LSL-CL are designated in the organizational chart provided in Appendix 2-1.

6.2.3 Laboratory Section Supervisors

Section Supervisors manage the field service, sample custody, microbiology, metals, wet chemistry, organic extractions, chromatography analytical laboratory sections. The Section Supervisors are responsible for the following functions:

- Monitoring of daily workloads.

- Coordination of laboratory resources to meet project deadlines.

- Distribution of project information.

- Managing the day-to-day scheduling and operation of their analytical areas.

The Section Supervisors for LSL-CL are designated in the organizational chart provided in Appendix 2-1.

6.2.4 Information System Supervisor

The Information System Supervisor is a staff member who has sufficient knowledge of, and experience with, software and hardware management. The Information System Supervisor is responsible for the following functions:

- Ensuring that routine data backup and archiving is performed.

- Ensuring that equipment protection devices are installed and operable.

- Verifying that licensed software is used on-site and that the laboratory is in compliance with all copyright protection regulations.

- Adequately testing and documenting site-generated software.

The Information System Supervisor for LSL-CL is designated in the organizational chart provided in Appendix 2-1.

6.2.5 Technical, Support and Quality Staff

The technical staff are individuals responsible for conducting the work of the laboratory, such as the sample custodians in sample receiving, and the chemists/technicians who perform sample preparation and analysis. The support staff administers the business practices of the laboratory, as well as information management, purchasing, and contractual systems. The quality staff oversees the implementation of the quality system, including the preparation of quality policies and procedures. All personnel are responsible for complying with the quality system and QA/QC requirements that pertain to their organizational/technical function. As documented in the employee records, each technical, support, and quality staff member have the experience and education to adequately demonstrate knowledge of their particular function. The technical staff must also have general knowledge of laboratory operations, test methods, QA/QC procedures and records management. The reporting relationships for the technical, support and quality staff are designated in the organizational chart located in Appendix 2-1.

6.3. TRAINING OF PERSONNEL

6.3.1 Training Program Overview

The LSL-CL training program is designed to ensure that all laboratory personnel (temporary and permanent) have the necessary education, training, experience, and technical knowledge to perform their assigned job functions. Training includes the following: employee orientation, QA orientation, data integrity/ethics training, safety training, analytical method training, and demonstration of capability. LSL-CL's training program is described in SOP L0003, Procedure for Documenting Training for New Employees.

Training for job functions other than performing analyses is normally provided by the Section Supervisor or other qualified personnel. This training may include but not be limited to the following: sample receipt, chain of custody procedures, LIMS login requirements, QA/QC policies and procedures, data review, and data reporting; waste control, treatment, and disposal; and administrative or clerical job functions. In addition, several laboratory areas or specific parameters (i.e., GC/MS, ICP, etc.) may require training on different computer systems.

Training and approval of training records are performed by qualified personnel. Personnel assigned to approve training records must meet the minimum requirements defined for a QA Officer, Section Supervisor or Technical Director. The minimum requirements for these positions are defined in the job descriptions.

6.3.2 <u>New Employee Orientation</u>

Employee orientation is provided to new employees to familiarize them with the laboratory facility and personnel, safety provisions, QA/QC requirements, and company policies and benefits program. The Administrative Secretary, Section Supervisor(s), Safety Officer and QA department perform new employee orientation.

At a minimum, new employee orientation shall include the following areas:

- Tour of the facility and introduction to the staff
    - Location and types of safety equipment available on-site (e.g., eye wash stations, safety showers, fire extinguishers, safety glasses, lab coats, etc.)
    - Introduction to the QA program and issuance of appropriate manuals and documentation
    - Introduction to the safety program and issuance of appropriate manuals and documentation
    - Completion of Ethics Agreement and Improper Laboratory Practices
    - Completion of the laboratory's Signature List
- Explanation of company policies and employee benefit program

The new employee orientation is documented and the documentation maintained in the employee's training file. A new employee orientation checklist is provided in Appendix 6-1.

This SOP automatically becomes an uncontrolled document when printed.
The official controlled and protected document is digitally located in the SOP directory in ApplicationXtender. Refer to this official controlled SOP in ApplicationXtender for the most recent document describing how this procedure is currently performed.

6.3.3 Data Integrity/Ethics Training

Data integrity/ethics training is provided as a formal part of all new employee orientation and as an annual refresher course for all current employees. As part of the training program, LSL-CL requires that each individual complete a data integrity/ethics training course. This course includes a power point presentation and final exam with questions related to real life laboratory situations that an employee may be faced with. Specific examples of breaches of ethical behavior are discussed including improper data manipulations, adjustments of instrument time clocks, and inappropriate changes to concentrations of standards. Employees are required to understand that any infractions of LSL-CL's data integrity procedures will result in a detailed investigation that could lead to serious consequences including immediate termination and civil/criminal prosecution.

For the initial data integrity training and annual refresher course, each employee must sign a training documentation form that signifies that they have participated in and understand their obligation related to data integrity. The final exam and signed training forms are submitted to the QA department for review and approval. Copies of the exam and signed data integrity training statement are maintained in the employee training files.

6.3.4 Safety Training

LSL-CL's personnel must complete training in safety, hazards communication, and worker right-to-know. It is the responsibility of the laboratory's safety officer to provide safety training to new employees. It is the responsibility of each employee to successfully complete all safety training. At a minimum, all laboratory employees will be trained in the following:

- Hazards of the chemicals used in the work area which includes showing the employee where the MSDS are located and how to read MSDS and manufacturer's labels
- Proper use and maintenance of personal protective equipment
- Special precautions and procedures that must be followed when using particularly hazardous substances
- Emergency procedures
- Storage practices

- Hazardous waste disposal procedures

Safety training is documented and the documentation maintained in the employee's training file. Safety training is documented on the new employee orientation checklist provided in Appendix 6-1.

6.3.5 Analytical Method Training and Demonstration of Capability

The analytical method training is designed to provide analysts with the necessary knowledge and skills required to successfully and safely perform their job. The objectives of the analytical method training are to demonstrate and document the analyst's knowledge of analytical methods and their competency to perform the analytical methods. These objectives are accomplished for each method by the following actions: reading the applicable SOP(s), supervised method training, practice, and demonstration of capability through the successful analysis of proficiency testing samples, reference standards, laboratory control samples, or samples of known composition.

Analytical method training is documented using a technical training checklist or other approved format. A certification statement is used to document the completion of each initial and continuing demonstrations of capability. The certification statement required by the NELAC standards is provided in Appendix 6-2.

Analytical method training is covered in the following steps:

6.3.5.1 Method and SOP Review

The analyst is required to read the SOP before supervised method training is started. An SOP reading record documenting the reading of the current revision of the SOP is maintained in the employee's training file. Knowledge of the method requirements is needed prior to performing the analytical method. Depending on the level of experience, an analyst with previous experience in a method may be exempt from performing the supervised method training and practice steps for that method and may proceed to completion of the demonstration of capability.

6.3.5.2 Supervised Method Training

The Section Supervisor or senior laboratory personnel who have demonstrated proficiency in the analytical procedure provide supervised method training. The supervised method training shall cover the following areas:

- Safety considerations (i.e., toxic reagents, safety equipment required, unusual method hazards, waste disposal, etc.)
- Sample preservation and holding time requirements
- Quality control analyses and their required frequency and acceptance criteria
- Known interferences and methods of handling interferences
- Reagent and standard preparation procedures
- Sample preparation procedures
- Instrument operation, calibration, troubleshooting, and maintenance
- Calculations, data review, data reduction, and LIMS data entry requirements

6.3.5.3 Practice

After reviewing the SOP and receiving supervised method training, the analyst is then given the opportunity to independently perform the method. Supervision and guidance is provided, if needed. The analyst will practice by performing the method using both field samples and known reference standards, if they are available.

6.3.5.4 Demonstration of Capability

A demonstration of capability must be made prior to independently reporting any test results, and at any time there is significant change in instrument type, personnel or test method. A certification statement is used to document the completion of each demonstration of capability. A copy of the certification statement shall be retained in the personnel records/training files of each affected employee.

6.3.5.4.1 Initial Demonstration of Capability

Initial demonstrations of capability (IDOCs) are performed by each analyst for the parameters they will be responsible for analyzing. IDOCs are performed by successfully analyzing four aliquots of a proficiency testing sample or QC check sample (obtained from an outside source) or a laboratory control sample prepared using stock standards independent from those used in instrument calibration. The concentrate is diluted in a volume of clean matrix sufficient to prepare four aliquots at the concentration specified, or if unspecified, the concentration of 1-4 times the limit of quantitation. The four aliquots are prepared and analyzed according to the test method either concurrently or over a period of days. Using the four results, the mean recovery and the standard deviation of the population sample (n-1) are calculated for each parameter of interest. For each parameter, the mean recovery and standard deviation are compared to the corresponding acceptance criteria for precision and accuracy in the test method (if applicable) or to laboratory-generated acceptance criteria (if there are no established mandatory criteria). If the mean recovery and standard deviation for all parameters meet the acceptance criteria, the analysis of actual samples may begin. If any one of the parameters does not meet the acceptance criteria, the performance is unacceptable for that parameter.

When one or more of the tested parameters fail at least one of the acceptance criteria, the analyst must proceed according to the following:

- Locate and correct the source of the problem and repeat the test for all parameters of interest.
- Repeat the test for all parameters that failed to meet criteria. Repeated failure, however, confirms a general problem with the measurement system. If this occurs, locate and correct the source of the problem and repeat the test for all compounds of interest.

6.3.5.4.2 Continuing Demonstration of Capability

Continuing demonstrations of capability (CDOCs) are completed by each analyst on the parameters they are responsible for at a frequency of once per year or as major changes are made in the method or instrumentation, whichever is more frequent. Continuing demonstrations of capability are performed by successfully analyzing a proficiency sample, QC check sample or laboratory control samples and documenting the results according to the procedure outlined in the previous section.

6.4 PERSONNEL RECORDS

Personnel records include job descriptions, qualification records and training records for all permanent and temporary employees. The following records are maintained for all employees:

6.4.1 Job Descriptions

LSL-CL maintains current job descriptions for all personnel who manage, perform, or verify work affecting the quality of the environmental data. Job descriptions include essential duties and responsibilities and the minimum qualifications (education and experience) necessary to perform each job function.

6.4.2 Qualification Records

LSL-CL maintains records on the relevant authorization(s), competence, educational and professional qualifications, training, skills and experience of all technical personnel. Qualification records used to document the capability of the laboratory personnel to perform their assigned job function(s) include resumes, copies of diplomas or transcripts for degreed personnel, license or certifications, attendance records for workshops and training courses, and demonstrations of capability. The QA department maintains these records in the employee training files.

6.4.3 Training Records

The QA department maintains training records for temporary and permanent employees. Training records include documentation on employee orientation, QA orientation, safety training, data integrity/ethics training, analytical method training, and demonstrations of capability. Training records also include evidence that each employee has read and is using the latest version of the laboratory's SOPs related to his/her job responsibilities. Departmental training checklists are also included in the employee's training file as part of their training records. Training courses or workshops on specific equipment, analytical techniques, QA policies or laboratory procedures are documented and a copy of the documentation maintained in the employee's training file. Certifications and/or records of any outside training are also kept on file.

This SOP automatically becomes an uncontrolled document when printed.
The official controlled and protected document is digitally located in the SOP directory in ApplicationXtender. Refer to this official controlled SOP in ApplicationXtender for the most recent document describing how this procedure is currently performed.

7. LABORATORY FACILITIES

7.1 PHYSICAL FACILITIES

7.1.1 Accommodations

LSL-CL's laboratory accommodations encompass 8000 square feet. The facility has provisions for energy sources, lighting, ventilation, heating and air conditioning. Security systems, including burglary and fire alarm systems, are utilized at the laboratory. A diagram of the laboratory facilities is provided in Appendix 7-1.

7.1.2 Environment

LSL-CL's laboratory environment is designed and monitored to ensure the proper performance of the test procedures. The environment in which the samples are handled and test procedures are performed is designed to not invalidate the results or adversely affect the required accuracy of the test measurements. The facility has suitable devices to control the environmental conditions as appropriate. Environmental conditions that may affect the calibrations or tests performed include biological sterility, temperature, humidity, ventilation, sound, vibration, dust, electromagnetic interferences, and electrical voltage. Where the monitoring or control of any of these items is specified in a test method or regulation, the laboratory monitors and documents adherence to the laboratory facility requirements (i.e., temperature of TCLP extraction area).

7.1.3 Work Areas

Each laboratory section has adequate space and separation from other incompatible functions, including volatile organic chemical handling areas, to ensure the proper performance of the required test procedures. Good housekeeping practices are taken to ensure that the laboratory work areas are maintained in a clean, orderly condition and cross contamination is eliminated.

7.2 FACILITY SECURITY

LSL-CL is located in a secured facility with restricted entry. All facility entrances, with the exception of reception and sample receiving areas, are locked during normal business hours. The reception and sample receiving areas have designative personnel monitoring the entrance of non-employee personnel. Unauthorized personnel are not permitted in the laboratory at any time. A visitor logbook is maintained in the reception area to document entrance by non-employee personnel to the laboratory. All doors to the facility are locked after normal working hours.

Employees are issued card-keys to the facility in order to permit after-hour entry. LSL, Inc.'s Administrative Secretary maintains a list of the keys distributed to employees. All card-keys must be returned to LSL-CL at termination of employment.

8. ENVIRONMENTAL TEST METHODS AND METHOD VALIDATION

8.1 ACCREDITED TEST METHODS

A list of all test methods under which the laboratory performs its accredited testing is provided in Appendix 8-1.

8.2 ANALYTICAL TEST METHODS

8.2.1 Selection of Methods

The laboratory shall use methods for environmental testing, including methods for sampling, which meet the needs of the client and are appropriate for the environmental tests being performed. These methods must be readily available to all staff. The method and procedure shall be consistent with the accuracy required and with any standard specifications relevant to the calibrations or tests concerned. When the use of a specific test method for a sample matrix is mandated or requested (i.e., drinking water, wastewater, hazardous waste, etc.) only those methods shall be used. The laboratory shall inform the client when the method proposed by the client is considered to be inappropriate or out of date. Where methods are employed that are not required, as in the performance based measurement system (PBMS) approach, the methods shall be fully documented and validated and be available to the client and other recipients of the relevant reports.

8.2.2 Source of Methods

LSL-CL selects appropriate methods that have been published either in international, regional or national standards, or by reputable technical organizations, or specified by the manufacturer of the equipment. The latest valid edition of a test method is used unless it is not appropriate or possible to do so, such as a prior edition of the test method being specified by the client or project QAPP.

8.3 LABORATORY PROCEDURES AND METHOD MANUALS

The laboratory maintains procedures and method manual(s) that accurately reflect all phases of current laboratory activities including instrument calibration, reagent and sample preparation and analysis, data reduction and reporting, assessing data integrity, corrective action protocols, handling customer complaints/inquiries, and all aspects of quality control related to test methods. In-house methods manual(s) are maintained for each accredited analyte or test method. These documents may include internally written documents such as administrative and technical SOPs, published or referenced test methods, and equipment manuals provided by the manufacturer. All SOPs, instruction/operation manuals, and reference data relevant to the work of the laboratory are kept up-to-date and readily available to the staff.

The requirements for the preparation, maintenance and distribution of administrative and technical SOPs are as follows:

8.3.1 Administrative Standard Operating Procedures

Site-specific administrative SOPs are prepared by the QA department and designated laboratory personnel. Controlled copies of all site-specific administrative SOPs are kept in designated binders and distributed to the appropriate personnel and laboratory sections or have been moved to Application Xtender. The QA department is responsible for maintaining the master SOPs, distributing copies of SOPs where appropriate, and verifying that outdated SOPs are not in use in the laboratory.

8.3.2 Technical Method Standard Operating Procedures

The technical staff and QA department prepare SOPs for technical methods. Controlled copies of technical method SOPs are kept in designated binders and distributed to the appropriate personnel and laboratory sections or have been moved to Application Xtender . The QA department is responsible for maintaining the master SOP files, distributing copies of SOPs where appropriate, and verifying that outdated SOPs are not in use in the laboratory.

Technical method SOPs shall include or reference where applicable the following:

1. Title
2. Summary of the test method
3. Scope and application
4. Applicable matrix or matrices
5. Method detection limit
6. Definitions
7. Interferences
8. Safety
9. Equipment and supplies

10. Reagents and standards
11. Sample collection, preservation, holding times, shipment and storage
12. Quality control and documentation
13. Calibration and standardization
14. Procedure
15. Calculations
16. Method performance
17. Pollution prevention
18. Data assessment, review and acceptance criteria for QC measures
19. Corrective actions for out of control data
20. Contingencies for handling out of control or unacceptable data
21. Waste management
22. References
23. Any tables, diagrams, flowcharts and validation data

A master list of LSL-CL's administrative and technical method SOPs are provided in Appendix 8-2.

8.4 ANALYTICAL METHOD REQUIREMENTS

All analytical method requirements are to be followed by the analyst as stated in the applicable method, technical SOP, and client project plan. Any deviation from a method or SOP requirement must be documented and approved by the QA Officer, Section Supervisor and Technical Director. Where applicable, a comparability study may be required to ensure that the deviation from the method or SOP yields comparable results. Comparability data must be included with the SOP and kept on file by the QA department or the appropriate section supervisor.

8.5 METHOD VALIDATION

Method validation shall be performed and documented prior to the implementation of any test method in the laboratory. When EPA reference methods are used, the laboratory shall follow the procedure for initial demonstration of capability as specified by NELAC standards. For all other methods, the laboratory shall follow the procedures for initial demonstration of method performance as specified by NELAC standards. Exceptions to these requirements are parameters for which spiking solutions are not available, for example, total volatile solids, pH, color, odor, temperature, dissolved oxygen or turbidity. For all standard methods other than toxicity and microbiology, the initial test method evaluation involves determining the limit of detection, limit of quantitation, evaluation of precision and bias, and evaluation of selectivity.

8.5.1 Limit of Detection (LOD)

A Limit of Detection (LOD) is understood to be the lowest level of qualitative detection achievable by a specific method. Several means of identifying this level have been established by the environmental industry. LOD determinations are not required if concentrations less than the limit of quantitation (LOQ) / practical quantitation limit (PQL) are not reported. LODs may be determined according to the following procedures.

8.5.1.1 Method Detection Limit:

The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The laboratory may establish an LOD by determining the MDL as follows:

- As stated in 40 CFR, Part 136B, MDLs shall be determined using a minimum of seven replicates. If more than seven replicates are processed, data cannot be excluded, unless exclusion is supported by sound, documented, technically based justification.

- The appropriateness of the analyte concentration in the seven replicates shall be evaluated on the ratio between the mean recovered concentration and the calculated MDL. The ratio should be between 1 to 5 for reagent water matrix and 1 to 10 for all other matrices. If the ratio for any target analyte is outside the acceptable range, the spiked concentration should be adjusted and the MDL studies repeated.

- MDL determinations may be generated for all applicable matrices using a purified matrix free of the analytes of interest (for example, Ottawa sand or ASTM Type II water). For metals, Teflon chips or glass beads may be used to simulate the soil matrix. All sample preparation and cleanup steps shall be included in the determination of the MDL.

- If multiple instruments with identical configurations are used in the laboratory, the laboratory shall conduct an MDL study on at least one of the instruments and confirm the attainability of that MDL on all instruments by using an MDL verification check sample.

- If multiple MDL results are generated from multiple instruments with identical configurations, then the highest MDL among those may be used in reporting data from all those instruments. If a lower MDL is reported for specific samples, then the samples must have been analyzed on that specific instrument on which the lower MDL was generated.

- If an annual MDL study is not performed, an MDL verification check shall be performed. If the annual MDL verification check fails, additional MDL verification checks shall be performed at a higher level to establish a higher MDL or the MDL study will have to be repeated.

- The MDL verification check sample should contain the analyte at a concentration no more than 2-3x the current reported MDL for single analyte tests and 1-4x the MDL for multiple analyte tests. This verification must be performed on every instrument that is to be used for analysis of samples and reporting of data.

- An MDL study is not required for any parameter for which spiking solutions or quality control samples are not available.

8.5.1.2 Alternative Approaches

Other protocols for determining an LOD may be implemented based on specific client or regulatory program requirements. Specifications for determining an LOD will be documented in the corresponding SOPs, quality assurance project plans, or client case files.

8.5.2 Limit of Quantitation (LOQ) / Practical Quantitation Limit (PQL)

The laboratory shall determine the LOQ (or PQL) for each analyte of concern according to a defined documented procedure. The LOQ study may not be required for any parameter for which spiking solutions or QC samples are not available. The validity of the LOQ shall be confirmed annually by the successful analysis of a QC sample containing the analytes of concern at 1-2 times the claimed LOQ. A successful analysis is where the recovery of the analyte is within the test method's acceptance criteria or client data quality objectives for accuracy. The LOQ must not be set any lower than the low-level calibration standard for a multipoint calibration or no lower than a low-level calibration check sample for a single point calibration. An LOQ must be equal to or greater than an established LOD.

8.5.3 Evaluation of Precision and Bias

The laboratory shall evaluate the precision and bias of each standard method for each analyte of concern for each matrix according to the single-concentration four-replicate recovery study procedures. An alternate procedure may be performed when the analyte cannot be spiked into the sample matrix and QC samples are not commercially available.

8.5.4 Evaluation of Selectivity

The laboratory shall evaluate selectivity by following the checks established within the method, which may include mass spectral tuning, second column confirmation, ICP inter-element interference checks, chromatography retention time windows, sample blanks, spectrochemical absorption or fluorescence profiles, co-precipitation evaluations, and electrode response factors.

8.6 ESTIMATION OF UNCERTAINTY OF MEASUREMENT

If requested, test results will be expressed in terms of measurement uncertainty by taking into account all components of variability, including the standard deviation from the LCS control chart. To express a result for a 95% confidence interval, two times the standard deviation (SD) will be used; for a 99% confidence interval, three times the standard deviation will be used. In cases where an LCS is unavailable, duplicate sample control data will be used. Reporting format will be: Result +/- 2 x SD (95% confidence level); or Result +/- 3 x SD (99% confidence level).

9. REAGENTS, STANDARDS AND REFERENCE MATERIALS

Reagents, standards and reference materials are prepared and utilized at the proper concentration, composition, and frequency specified in the corresponding technical SOPs and associated method references. Primary and secondary standards are used for the preparation of calibration standards, spiking solutions, and surrogate solutions. Reference materials are used as laboratory control standards for verification of calibration and/or method performance.

9.1 CHEMICAL RECEIPT

Records are retained for all standards, reagents, and reference materials received by the laboratory. These records may include the name of the manufacturer/vendor, the manufacturer's Certificate of Analysis or purity (if supplied), the date of receipt, and an expiration date. Upon receipt, a reagent label is affixed to the original container (such as provided by the manufacturer or vendor) for documenting the date of receipt and expiration date. A unique sequential laboratory control number is assigned to each purchased standard or reference material and recorded on the reagent label by the appropriate laboratory section. Procedures for the purchase, reception and storage of consumable materials used for the technical operations of the laboratory are documented in SOP No. L0004, Ordering and Receiving Supplies.

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9.2 PURITY OF REAGENTS AND REAGENT WATER

9.2.1 Reagents

Reagents used by the laboratory are of the quality and/or purity specified in the preparation and analytical methods. Reagents of lesser purity than those specified by the method are not used. If the preparation or analytical method does not specify the quality or purity of the reagent, then "analytical reagent grade" or better is used. Acids used for metals digestions and analyses are "trace metals grade". Ultra-pure acids may be used for metals analyses when needed by the analytical method or to achieve low-level detection limits. Solvents used for organic extractions and analyses are of the purity that is specified by the preparation or analysis method.

9.2.2 Reagent Water

Each type of reagent water used in the laboratory is monitored to ensure that the water type and parameter specific requirements for water purity are met. For ASTM Type II reagent water, the conductivity is monitored on a daily basis and the readings documented in a logbook. A conductivity reading above 1.0 µmhos/cm at 25°C indicates that the water purification system needs maintenance. After performing maintenance on the water system, the water lines in each laboratory section are purged for several minutes. After purging the water system, another conductivity reading is taken on the reagent water and documented in the daily readings logbook. All maintenance activities performed on the water purification system are documented in either a maintenance logbook or daily readings logbook.

9.3 TRACEABILITY OF STANDARDS AND REFERENCE MATERIALS

9.3.1 Primary Standards and Reference Materials

Primary standards and reference materials are certified and traceable, where possible, to national standards of measurement or standard reference materials. Certificates of Analysis or purity provided by the manufacturer for primary standards, surrogates and reference materials are kept on file in the appropriate laboratory section. The laboratory control number assigned at the time of receipt is referenced on all documentation associated with the use of each standard and reference material. The laboratory control number allows traceability to both the manufacturer and the lot number.

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9.3.2 Secondary/Intermediate Standards

Secondary/intermediate standards prepared in the laboratory must be traceable to the primary standards or reference material they are prepared from. The laboratory control numbers for the individual primary standard(s) used in preparing the secondary standard are recorded in a standards preparation logbook at the time of preparation. The laboratory control number assigned to the secondary/intermediate standard is recorded in the standards preparation logbook. This procedure allows traceability for all of the compounds used to prepare the secondary laboratory standards. The laboratory control number, and expiration date are recorded on the label at the time the secondary standard is prepared.

9.4 STANDARDS PREPARATION

9.4.1 General Standard Preparation Requirements

All standards prepared in-house must be recorded in a designated standards preparation logbook. The following standards preparation information must be recorded in the logbook or traceable to the Certificates of Analysis or other documentation:

- Assigned laboratory control number
- Standard identification or description
- Analyst's initials
- Date prepared
- Expiration date of standard being prepared
- Expiration date(s), laboratory control number(s), and initial concentration(s) of all primary or intermediate standards used to prepare a working standard
- Lot number of reagents and solvents, if applicable
- Dilution ratio
- Volume prepared
- Final standard concentration (true value)

9.4.2 Inorganic Standards Preparation

All general wet chemistry standards and trace metals standards for GFAA and ICAP analyses are prepared using ASTM Type II reagent water. Expiration dates for all standard solutions prepared from multiple sources coincide with the earliest expiration date of the starting materials.

9.4.3 Organic Standards Preparation

All organic standards are prepared using organic-free reagent water or high purity solvents supplied with the manufacturer's Certificate of Analysis or purity. Refer to the analytical method SOP for the required solvent purity and reagent water requirements. Expiration dates for all standard solutions prepared from multiple sources shall coincide with the earliest expiration date of the starting materials. If available, the manufacturer's expiration date is used for unopened organic standards or neat chemicals. Organic standard solutions in unopened ampules or neat chemicals without a specified expiration date may continue to be used if a reference standard obtained from an alternate source is analyzed to verify that the standard has not deteriorated.

9.4.4 Documentation and Labeling

9.4.4.1 Labeling

Analysts are required to properly label all standards prepared in their work area. The following information is included on the standards preparation label:

- Assigned laboratory control number
- Date prepared
- Standard concentration
- Standard identification or description (space permitting)
- Expiration date (space permitting)
- Preparer's initials (space permitting)

For organic standards, the amount of space on the label limits the information that can be recorded. At a minimum, the laboratory control number and expiration date must be recorded on the label. All other information must be recorded in a standards preparation log.

9.4.4.2 Documentation

The laboratory control number for standards used during an analytical procedure is included in the hard copy printout for instrumental parameters (file header information, sample identification section, etc.), wherever possible. If instrumental or data field limitations prevent entering the laboratory control number, then this information is handwritten on the raw laboratory data or included in the raw data file. Analysts record laboratory control numbers in sample analysis logbooks for all standards used during analysis.

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9.4.5 Expiration Dates

If an expiration date is not specified by the analytical method or chemical manufacturer, an expiration date of one year from the date of preparation is used for all standard solutions (laboratory control standards, calibration standards, intermediate standards, and stock standard solutions) unless otherwise specified in the appropriate SOP.

9.5 CHEMICAL STORAGE AND SEGREGATION

9.5.1 Standards and Reference Materials

All standard solutions and reference materials are stored in an area segregated from sample storage and waste accumulation or waste treatment areas. All organic standards in opened ampules, stock standards, intermediate standards, and working standards are stored in either a refrigeration unit maintained at 0°C to 6°C or freezer unit maintained at -10°C to -30°C. All general wet chemistry standard solutions are stored according to the applicable SOP in either a designated cabinet or a refrigeration unit maintained at 0°C to 6°C. Metals standards that are properly preserved with acid are stored unrefrigerated.

9.5.2 Reagents

As chemicals are received at the laboratory, the assigned person is responsible for documenting the receipt and placing the chemical in the appropriate storage location. All staff members are expected to follow the laboratory's chemical segregation and storage policies and return chemicals to the proper location after use. Designated storage areas are available for the segregation and storage of all major types of chemicals. These storage areas are properly labeled to assist the laboratory staff in determining the proper chemical storage location.

9.6 DISPOSAL OF EXPIRED CHEMICALS AND STANDARDS

Expired chemicals and standards are removed from their storage areas on or before the expiration date and placed in a segregated area and finally in the waste accumulation and treatment area for proper disposal. Chemicals and standards are properly disposed of on or before the expiration date specified by the analytical method or the chemical manufacturer.

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10. EQUIPMENT CALIBRATION, VERIFICATION AND MAINTENANCE

Equipment and associated software used for testing shall be capable of achieving the accuracy, precision, sensitivity, and selectivity required for the intended use of the generated data. Before being placed into service, all measuring and testing equipment having an effect on the accuracy or validity of tests shall be calibrated or checked to establish that it meets the laboratory's specification requirements. Calibration requirements are divided into two parts: (1) requirements for instrument calibration, and (2) requirements for analytical support equipment. In addition, the requirements for instrument calibration are divided into initial instrument calibration and continuing instrument calibration verification. Laboratory protocols for calibration and verification of test equipment are provided in Appendix 10-1 and in the following sections.

10.1 INSTRUMENT CALIBRATION AND TEST VERIFICATION

10.1.1 Initial Instrument Calibration

The following items are essential elements of initial instrument calibration:

- Instruments shall be calibrated at the frequency specified in the manufacturer's instructions and the test method or applicable SOP using the designated procedure. The status of the instruments with regard to calibration needs to be readily available and clearly indicated. Specific procedures for instrument calibration including calculations, integrations, acceptance criteria and associated statistics are documented in the associated SOP.

- Sufficient raw data records must be retained to permit reconstruction of the initial instrument calibration (e.g., calibration date, test method, instrument, analysis date, each analyte name, analyst's initials or signature, concentration and response, calibration curve or response factor; or unique equation or coefficient used to reduce instrument responses to concentration).

- All initial instrument calibrations must be verified with a standard from a second manufacturer or lot if the lot can be demonstrated from the manufacturer as being prepared independently from other lots.

- All applicable acceptance criteria for instrument set-up and calibration must be met before any sample analyses are performed and results reported.

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- Sample results must be quantitated from the initial instrument calibration and may not be quantitated from any continuing instrument calibration verification, unless otherwise required by a regulation, method or program. Sample results must be quantitated within the established calibration range or linear range for ICP.

- The lowest calibration standard shall be the lowest concentration for which quantitative data are to be reported. Any data reported below the lower limit of quantitation are to be reported with defined qualifiers or flags.

- The highest calibration standard shall be the highest concentration for which quantitative data are to be reported. Any data reported above this highest standard are to be reported with defined qualifiers or flags.

- If the initial instrument calibration results are outside the acceptance criteria, corrective actions must be performed and all associated samples reanalyzed. If reanalysis is not possible, sample data associated with an unacceptable initial calibration are reported with appropriate data qualifiers.

- If the reference or mandated method does not specify the number of calibration standards, then the initial calibration range shall consist of a minimum of 5 contiguous calibration points for organics and a minimum of 3 contiguous calibration points for inorganics. All reported target analytes and surrogates should be included in the initial calibration.

- The calibration points used in establishing an initial calibration curve shall be a contiguous subset of the original set. Exclusion of initial calibration points without technical justification is not allowed.

- The calibration curve shall be tested for linearity using established method specifications, such as, linear regression or %RSD of response factors (internal standard calibration) or calibration factors (external standard calibration).

- When manual integrations are performed, raw data records shall include annotation for those manipulations; raw data output showing the results of the manual integration (i.e., chromatograms of manually integrated peaks); date, and signature/initials of person performing manual operation (electronic signature and date is acceptable).

10.1.2 Calibration Verification

10.1.2.1 Frequency

When an initial instrument calibration is not performed on the day of analysis, the validity of the initial calibration shall be verified prior to sample analysis and at the required frequency throughout the analytical run. If the calibration verification frequency is not in the method, the NELAC standards specify that the calibration verification should be analyzed at a frequency of 5% or every 12 hours whichever is more frequent. The frequency shall be increased if the instrument consistently drifts outside the acceptance criteria before the next calibration.

10.1.2.2 Acceptance Criteria

Calibration verification is performed by analyzing a standard at the method-defined concentration or at a concentration near the mid-range of the calibration curve. When available, all initial calibrations shall be verified by a standard obtained from a second source. The results must be within the acceptance limits specified by the test method in order to proceed with the sample analysis. If the acceptance limits are not included in the analytical test method, the NELAC standards specify that the value of the analyte(s) in the calibration verification standards be within 15% of the true value unless the laboratory can demonstrate through historical data that wider limits are applicable.

10.1.2.3 Corrective Action

If the continuing calibration verification is outside established acceptance criteria, corrective action procedures must be performed. If routine corrective action procedures fail to produce a second consecutive calibration verification within the acceptance criteria, then the laboratory has to demonstrate acceptable performance after corrective action with two consecutive calibration verifications at different concentrations or a new initial instrument calibration curve must be performed. When the continuing calibration acceptance criteria are exceeded (i.e., high bias) and there are non-detects for the corresponding analyte in all environmental samples associated with the continuing calibration verification, then those non-detects may be reported, otherwise the samples affected by the unacceptable check shall be reanalyzed after a new calibration curve has been established, evaluated and accepted. Additional sample analysis shall not occur until a new calibration curve is established and verified. When the acceptance criteria for the continuing calibration verification are exceeded low (i.e., low bias), sample results that exceed the maximum regulatory limit/decision level may be reported. Otherwise, the samples affected by the unacceptable verification shall be reanalyzed after a new calibration curve has been established, evaluated and accepted.

10.1.3 Calibration Records

All calibrations and calibration verifications shall be documented in the applicable logbook, instrument printout, or computer data files. Sufficient raw data must be retained to permit reconstruction of the instrument calibration and calibration verification. This information must include the test method, instrument, analysis data, analyst, each analyte name, concentration and response, calibration curve or response factor or unique equations or coefficients used to convert instrument response into concentrations. Continuing calibration records must explicitly connect the continuing calibration verification data to the initial instrument calibration. When manual integrations are performed, raw data records shall include a complete audit trail for those manipulations, raw data output showing the results of the manual integration (i.e., chromatograms of manually integrated peaks), and notation of rationale, date and signature/initials of person performing manual operation. All records pertaining to calibration shall be safely stored and readily accessible.

10.2 CALIBRATION AND VERIFICATION OF SUPPORT EQUIPMENT

Support equipment are devices that may not be the actual test instrument, but are necessary to support laboratory operations. Support equipment includes but is not limited to: balances, ovens, refrigerators, freezers, incubators, water baths, temperature measuring devices, autoclaves, and volumetric dispensing devices (such as Eppendorf®, or automatic dilutor/dispensing devices). All support equipment shall be maintained in proper working order. The records of all repair and maintenance activities including service calls shall be recorded and kept on file. All support equipment shall be calibrated or verified at least annually, using NIST traceable references, when available, over the entire range of use. The results of such calibration or verification shall be within the specifications required of the application for which the equipment is used or:

- The equipment shall be removed from service until repaired; or
- The laboratory shall maintain records of established correction factors to correct all measurements.

LSL-CL's protocols for the calibration and verification of support equipment include the following:

10.2.1 Thermometers

All liquid in glass thermometers used in the laboratory for monitoring instruments or procedures shall be calibrated when received and annually against a NIST traceable thermometer according to SOP L8005, Thermometer Calibration and Labeling of Temperature Control Equipment. Electronic temperature measuring devices are calibrated quarterly against a NIST traceable thermometer at two temperatures bracketing the target temperature range or at the temperature of use if only a single temperature is measured. The temperature correction factor and calibration date are recorded on indelible tape and attached directly on the thermometer or device being monitored. All thermometers are labeled with a laboratory control number. The QA department maintains a record of all thermometers, their laboratory location and control number, and calibration information.

10.2.2 Temperature Controlled Devices

Temperature controlled devices, including refrigerators, freezers, incubators, water baths, and ovens shall be equipped with a thermometer or temperature monitoring device. Thermometers used for monitoring refrigeration units and incubators should be immersed in deionized water, alcohol or glycerol using a rubber-stoppered Erlenmeyer flask or other suitable container. Thermometers used for monitoring ovens should be immersed in sand using a rubber-stoppered Erlenmeyer flask or other suitable container. The temperature on all refrigeration units shall be monitored on a daily basis at a minimum. Water baths, incubators and ovens shall be monitored on the days when they are in use.

Temperature logbooks for recording daily temperature monitoring shall be placed in the vicinity of the device being monitored. The instrument ID and temperature requirements shall be clearly marked on the logbook. The date, temperature reading, adjustments (if needed), and initials of the person who performed the reading shall be recorded in the logbook.

Corrective action must be taken and documented if the temperature is not within the following acceptance limits:

TEMPERATURE CONTROLLED DEVICE	ACCEPTANCE LIMITS
Refrigerators	2 to 6°C
Freezers	-10 to -20°C
BOD Incubator	19 to 21°C
TDS Drying Oven	178 to 182°C
TS/TSS Drying Oven	103 to105°C
Water Baths	Specifications labeled on each unit.
General Ovens	Within method specifications or within ± 5% of set temp.

10.2.3 Balances

10.2.3.1 Annual Balance Certification

All analytical and top-loading balances shall be serviced and calibrated on an annual basis by a qualified service representative. A tag shall be attached to the balance showing the date of certification. The annual balance certificates shall be maintained in the QA department's files.

10.2.3.2 Daily Balance Checks

The calibration of all analytical and top-loading balances shall be checked with the appropriate ASTM Class 2 weights prior to use on each working day. Analytical and top-loading balances shall be checked daily prior to use with a minimum of two ASTM Class 2 weights that bracket the working range used for weight measurement. The daily balance check is to be recorded in a logbook. Corrective action must be taken and documented if the weight measurements are not within the acceptance limits specified in SOP L8016, Balance Calibration and Maintenance. If any of the control limits are exceeded, the laboratory supervisor and QA department are notified immediately. Balances that do not weigh within the acceptance limits are to be serviced and recalibrated prior to usage.

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10.2.4 Spectrophotometer Check

All UV spectrophotometers shall be monitored for linearity, wavelength calibration, and stray light detection using commercial calibration standards. IR spectrophotometers shall be checked according to the procedure recommended by the manufacturer. Spectrophotometer checks are performed at a minimum frequency of once a year according to the procedure in SOP L8043, Wavelength Verification and Calibration of Spectrophotometers.

10.2.5 Measuring Devices

Mechanical volumetric dispensing devices including pipettes (except Class A glassware) used to prepare standards and spikes or to aliquot or dilute samples shall be checked for accuracy on a quarterly basis. One exception is micro-liter syringes that do not need to be checked as long as the manufacturer provides a statement as to the accuracy and precision of the syringes and a copy of this statement is maintained in the QA files. The checking of mechanical volumetric dispensers shall be documented. Corrective action must be taken and documented if the volume measurements for the adjustable volumetric dispensing devices are not within the control limits specified by the manufacturer. If control limits are not specified, then the acceptance criteria of 3% of known or true value is used (refer to ASTM E 542, Standard Practice for Calibration of Volumetric Apparatus). Refer to SOP L8029, Calibration and Operation of Mechanical Pipettors.

10.2.6 Autoclaves

For chemical tests, the temperature, cycle time, and pressure of each run must be documented by the use of appropriate chemical indicators or temperature recorders and pressure gauges. For tests that employ sterilization, autoclave tape should be used to indicate that a load has been processed.

10.2.7 Laboratory Glassware

Each lot number of non-Class A volumetric glassware should be checked at the time of receipt and when there is evidence of deterioration. The acceptance criteria for non-Class A volumetric glassware is 3% of known or true value. All laboratory glassware should be segregated, cleaned and stored separately for the following areas: trace metal digestions, mercury analysis, organic analysis, wet chemistry analysis, biochemical oxygen demand analysis, and phosphorous analysis. Glassware cleaning procedures for each type of glassware are provided in SOP numbers L8011 (Trace Organics), L8009 (Trace Metals), and L8010 (Cyanide).

10.3 EQUIPMENT CERTIFICATION

ASTM Class 2 weights and NIST traceable thermometers are recalibrated and recertified at the required frequency by a qualified technician or agency. Calibration certificates indicating traceability to national standards of measurement are maintained in the QA department's files.

10.3.1 Certified Weights

Certified ASTM Class 2 weights used for performing balance calibration checks shall be recalibrated and recertified as needed according to ASTM at the frequency specified by the governing state or federal regulatory agencies or at a minimum frequency of once a year.

10.3.2 NIST Traceable Thermometers

The NIST traceable thermometer shall be recalibrated as needed according to NIST at the frequency specified by the governing state or federal regulatory agencies or at a minimum of every five years.

10.4 MAINTENANCE AND REPAIR

10.4.1 Service/Repair Protocols

All equipment shall be properly maintained, inspected and cleaned. Routine maintenance shall be performed according to the manufacturer's recommended procedure and at the frequency in the manufacturer's specifications. Only qualified personnel shall perform equipment and instrument maintenance and repair or the manufacturer's representative. When required, maintenance and repair contracts shall be used for specific instrumentation. Maintenance procedures performed for specific instrumentation is provided in Appendix 10-2.

10.4.2 Status of Equipment and Instrument Condition

Any equipment or instrumentation that gives suspect results or has been shown to be defective shall be taken out of service. Equipment and instruments taken out of service shall be clearly identified as "out of service" and, if possible stored in a designated location until the repair work has been completed and the equipment or instrument is operating satisfactorily. Equipment and instruments that are not marked or labeled as out of service shall be considered in proper working order. Any part of the equipment which has been subjected to overloading or mishandling, or which gives suspect results, or has been shown by verification or otherwise to be defective, is taken out of service and tagged with an "Out of Service" tag. When possible, the instrument is stored at a specified place until it has been repaired and shown by calibration, verification or test to perform satisfactorily. The laboratory examines the effect of any instrument defects or malfunctions on previous calibrations or tests and takes the appropriate corrective action. Upon confirmation, clients are notified promptly of any event concerning defective measuring or test equipment that casts doubt on the validity of results given in any test report or report amendment.

10.5 EQUIPMENT RECORDS

The laboratory maintains equipment records for all major laboratory equipment and instrumentation. These records include service contracts, maintenance or repair records issued by the service representative or analyst, and documentation on any modifications to the instrument. All routine and non-routine maintenance and repair activities are documented in the equipment maintenance records. At a minimum, the maintenance and repair records shall include the following information:

- Name of the equipment or instrument
- Manufacturer's name, identification, and serial number
- Date received and date placed in service
- Current location, where appropriate
- Condition when received (i.e., new, used, reconditioned)
- Copy of the manufacture's instructions, where available
- Manufacturer's service contract information
- Maintenance schedule recommended by the manufacturer
- Details of any maintenance or repairs performed as of date
- History of any damage, malfunction, modification or repair
- Service reports completed by the manufacturer's service representative

10.6 EQUIPMENT INVENTORY

An inventory record of all major laboratory equipment is kept on file and maintained by the QA department. The manufacturer, model number and serial number (if available) are recorded for all major laboratory equipment. The equipment inventory list is updated as needed to include any changes in the equipment inventory. An inventory record of all major laboratory equipment is provided in Appendix 10-3.

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11. QUALITY CONTROL

11.1 QUALITY CONTROL SAMPLES

The types of quality control samples, their recommended frequency and acceptance criteria are provided in Appendix 11-1.

11.2 GENERAL QUALITY CONTROL GUIDELINES

Quality control samples must be analyzed with each batch of samples, where applicable and available. If quality control data does not meet the method-specified acceptance criteria, analytical results for that batch of samples may also be questionable. Analytical results should not be reported to the client until this data has been reviewed and approved by the Section Supervisor, QA department, or Technical Director.

11.3 ESSENTIAL QUALITY CONTROL PROCEDURES

The following essential quality control principles shall apply, where applicable. The manner in which they are implemented is dependent on the types of tests performed by the laboratory section. Each laboratory section shall have protocols in place for the tests they perform to monitor the following quality controls:

- Adequate positive and negative controls to monitor tests, such as blanks and spikes
- Adequate tests to define the variability and/or reproducibility of the laboratory results such as duplicates
- Measures to ensure the accuracy of the test data including sufficient calibration and/or continuing calibrations, use of certified reference materials, proficiency test samples, or other measures
- Measures to evaluate test performance, such as method detection limits and quantitation limits or range of applicability such as linearity
- Selection of appropriate formulae to reduce raw data to final results such as regression analysis, comparison to internal/external standard calculations, and statistical analyses
- Selection and use of reagents and standards of appropriate quality
- Measures to ensure the selectivity of the test for its intended purpose

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- Measures to ensure constant and consistent test conditions (both instrumental and environmental) where required by the test method such as temperature, humidity, light, or specific instrument conditions

All quality control measures shall be assessed and evaluated on an on-going basis and quality control acceptance criteria used to determine the acceptability of the data. The laboratory shall have procedures for the development of acceptance/rejection criteria where no method or regulatory criteria exist. The quality control protocols specified by the SOPs and test methods shall be followed.

11.4 QUALITY CONTROL REQUIREMENTS

Analyses performed at LSL-CL include the quality control measures specified by the applicable method, technical SOP or client project plan. Certain methods have method specified quality control samples and acceptance criteria which the analysts are required to follow. If the method specified acceptance criteria is not met then corrective action must be taken, documented with the raw data and if necessary noted in the laboratory report. The method specified quality control samples and acceptance criteria are assessed on an on-going basis and used to determine the validity of the data. Specific types, frequencies, and acceptance criteria of QC samples for inorganic and organic methods are provided in the analytical SOPs. If the quality control requirements are not specified in the method or regulation then the NELAC quality control standards shall be used for the development of acceptance/rejection criteria. Refer to Appendix 11-1 for the laboratory QC checks and frequency for analytical methods performed at LSL.

11.5 QUALITY CONTROL CALCULATIONS

Quality control and sample quantitation calculations used in inorganic and organic analyses are provided in the applicable SOPs.

11.6 LABORATORY CONTROL LIMITS

Laboratory control limits shall be established and documented for surrogates, laboratory control samples, and matrix spikes. These limits, which measure laboratory performance, may be based on historical data produced in the laboratory or by the reference method. Laboratory established control limits should only be used for the acceptance or rejection of data if they are within the limits prescribed in the applicable reference method. LIMS provides for the entry of parameter-specific control limits that can be used for flagging out of control QC data. Project specific laboratory control limits are used when required by the client or project. Laboratory established control limits should be updated annually or as specified by the analytical method, client, or certification/accreditation agency.

11.7 CONTROL CHARTS

Control charts may be used to monitor trends in data that may indicate an analysis is tending toward an out of control situation. The following conditions may be suggested by trends observed on control charts:

- Incorrectly prepared standards or reagents, contamination of sample, problems with instrument calibration, or analyst error may cause shift in mean.
- Trend of mean upward may be caused by deterioration of standards or reagents.
- Trend of mean downward may be caused by concentration of standard due to evaporation of solvent or deterioration of reagents.
- Increase in variability may be caused by poor technique or deviation from procedure.

12. RECORDS AND RECORDKEEPING

LSL-CL's recordkeeping policies and procedures define the requirements for the documentation, identification, collection, filing, access, storage, maintenance and disposal of all laboratory records. The recordkeeping system allows for the historical reconstruction of all laboratory activities that produced the analytical data. All records are to be legible; stored in a suitable environment to prevent damage, deterioration or loss; and retained for a specified time period in such a way that they are readily retrievable. Procedures are implemented to protect and back-up records stored electronically and to prevent unauthorized access to or amendment of these records. Recordkeeping policies apply to any media of records, such as hard copy or electronic. Recordkeeping procedures are provided in SOP L0008 Scanning, Indexing, Telefaxing, E-mailing and Mailing Client Reports.

12.1 GENERAL DOCUMENTATION REQUIREMENTS

All information related to the laboratory's facilities, equipment, analytical test methods, and related laboratory activities, such as sample receipt, sample preparation, or data verification shall be documented in controlled laboratory logbooks, instrument printouts, computer data files or other approved formats. The information is to be recorded completely, identifying who, what, where, when, how, and any specific details of each activity. The following general documentation requirements and employee responsibilities are observed for sample collection and analytical laboratory records:

- Observations, data and calculations shall be recorded at the time they are made and identifiable to the specific task.

- All entries that are not generated by an automated data system are to be recorded promptly and legibly in permanent ink.

- Entries in records shall not be obliterated by methods such as erasures, overwritten files or markings. The use of correction fluid or correction tape is prohibited in sample handling and data generation, documentation and processing.

- Corrections to recordkeeping errors shall be made by crossing a single line through the error and entering the correct information near the cross out. The individual making the correction shall initial and date the correction. When corrections are due to reasons other than transcription errors, the reason for the correction shall be documented. These criteria also apply to electronically maintained records.

- Blank pages or substantial portions of pages with no entries shall be crossed out with a "Z" or "X" to prevent additional data being entered in the future.

- Analysts shall record all analytical data as it is acquired according to applicable SOPs and method-specified requirements. The transposition of analytical data from an uncontrolled document such as a note pad to a controlled logbook shall be strictly prohibited.

- Laboratory Section Supervisors and the QA department shall review the analytical laboratory records on a regular basis to verify adherence to LSL-CL's analytical and documentation procedures.

12.2 DOCUMENTATION RESPONSIBILITIES

12.2.1 <u>Laboratory Technician/Analyst Responsibilities</u>

The laboratory technician or analyst shall document the following information in either a logbook or computer generated printout:

- Analyst's initials
- Date and time of analysis
- Instrument ID (if applicable)
- Method number or SOP number

- Calibration information
- Sample information, including ID, weights, volumes, dilution factors, and data obtained.
- QC sample information and data for laboratory control samples, blanks, duplicates, spikes, etc.
- Reporting units

12.2.2 Section Supervisor Responsibilities

The Section Supervisor shall review, date, and initial logbooks issued in his or her laboratory section to ensure that the method/procedure is performed correctly and that logbook entries are complete and correct. If requirements are not being followed corrective action or disciplinary action shall be taken.

12.2.3 QA Department Responsibilities

The QA staff shall review logbooks, instrument printouts, or other approved forms during the routine data package review and annual internal audits to ensure that the documentation is being completed according to the required procedure. If requirements are not being followed, notification of non-compliant areas and required corrective action shall be provided to the affected personnel.

12. 3 LABORATORY RECORDS

12.3.1 Sample Handling Records

A record of all procedures to which a sample is subjected while in the possession of the laboratory shall be maintained. These shall include but are not limited to all records pertaining to:

- Sample preservation including appropriateness of sample container and compliance with holding time requirement
- Sample identification, receipt, acceptance or rejection and log-in
- Sample storage and tracking including intra-laboratory transfer forms and chain of custody forms
- Documented procedures for the receipt and retention of samples, including all provisions necessary to protect the integrity of samples

12.3.2 Analytical Records

Analytical records, such as instrument printouts, computer data files, and analytical logbooks and run logs, shall include:

- Laboratory/sample ID
- Date of analysis and time of analysis (Time of analysis is required if the holding time is 72 hours or less, when time critical steps are included in the analysis, e.g., extractions, and incubations, or when required by a client/project)
- Instrument ID and operating conditions (or reference to such data);
- Analysis type
- All manual calculations, e.g., manual integrations
- Analyst's or operator's initials/signature
- Sample preparation including extraction, cleanup, and incubation
- Sample volumes and weights
- Sample analysis data
- Standard and reagent origin, receipt, preparation, and use
- Calibration criteria, frequency and acceptance criteria
- Data and statistical calculations, review, confirmation, interpretation, assessment and reporting conventions
- Quality control protocols and assessment
- Electronic data security, software documentation and verification, software and hardware audits, backups, and records of any changes to automated data entries
- Method performance criteria including expected quality control requirements

12.3.3 QA Records and Supporting Documents

The QA department maintains the following QA records and supporting documentation:

- Archived SOPs and QA manuals
- Audit reports and responses
- Proficiency testing results and responses
- Lists of certified parameters
- Problem Notification/Prevention Reports
- Corrective Action Reports
- Records of demonstration of capability for each analyst

The Administration department maintains the following QA records and supporting documentation:

- Certifications
- Personnel qualifications, experience

- Signature log, including initials and signatures for all individuals responsible for signing or initialing any laboratory record

12.3.4 Client and Project Files

All documentation associated with each sample is maintained in either a client/project file or data package. At a minimum, the following information is maintained for each client and project:

- Chain of Custody Records or other documentation supplied by the client
- Inter-laboratory Chain of Custody Records or other documentation, if samples were submitted to another facility
- Copies of all correspondence, including letters, emails and phone logs relating to laboratory activities for the specific project
- Results of data review, verification, and crosschecking procedures
- Copies of the final analytical and QA reports as submitted to the client including case narratives and raw data, if required

12.4 CONTROL OF RECORDS

12.4.1 Management and Storage

All laboratory records (i.e., hard copy data, laboratory notebooks, instrument logbooks, standards logbooks, and records for data reduction, validation, storage and reporting) shall be safely stored, held secure and in confidence to the client. The laboratory must maintain all information necessary for the historical reconstruction of data. Records that are stored only on electronic media must be supported by the hardware and software necessary for their retrieval. Records that are stored or generated by computers or personal computers shall have hard copy back up. These records are protected from loss or damage by fire, theft, environmental deterioration, vermin, and in the case of electronic records, electronic or magnetic sources.

12.4.2 Access to Records

Completed data packages and lab reports are stored in Application Xtender with restricted access. Checkout procedures are used for removing completed data packages from the storage area. All access and retrieval of archived records from the storage area is documented. Access to finalized data packages is restricted to the Technical Director, QA Officer and QA staff, Section Supervisors or other designated personnel.

Training records, signature lists, laboratory certifications, performance evaluation results, audit reports and responses, and certificates of calibration for balances, ASTM Class 1 weights and NIST traceable thermometers are kept on file in the QA department's office. Copies of obsolete SOPs and QA manuals that have been revised are also kept on file or archived by the QA department. Access to these files is restricted to the Technical Director, QA Officer and QA staff.

12.4.3 Records Retention Policy

All records shall be retained for a minimum of five years (ten years for drinking water) from generation of the last entry in the records. If a client or regulatory agency requirement exceeds these minimum time requirements, then the longer time requirement will apply. In the event that the laboratory transfers ownership or goes out of business efforts will be made to maintain or transfer all records according to the clients' instructions.

13. DATA REVIEW AND REPORTING

13.1 DATA REVIEW PROCEDURES

Data review shall consist of the following procedures:

- Determination of whether the analytical testing results meet the laboratory 's requirements for interpretation, precision and accuracy.
- Checks to determine accuracy of calculations, conversions and data transfers.
- Checks for transcription errors, omissions and mistakes.
- Checks to determine compliance with client specifications and quality assurance project plans.
- Checks to ensure that the appropriate sample preparation and analysis procedures were followed, and that Chain of Custody and holding time requirements were met.
- Checks to ensure that requirements for calibration and calibration verification were met.
- Checks to ensure that QC samples met criteria for precision, accuracy and sensitivity.

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- Accurate explanation in the case narrative or comments of any anomalies and corrective action taken.

- Checks to ensure that all data flags are appropriately applied and that the data package is complete.

LSL-CL's data review procedures are provided in SOP L8032, Final Report Review.

13.2 DATA REVIEW AND APPROVAL RESPONSIBILITIES

LSL employs a tiered system for data verification consisting of three levels with each successive check performed by a different person. The following section specifies the data review and approval responsibilities for laboratory staff members. A flow chart outlining the sample analysis and data verification procedure is provided in Appendix 13-1.

13.2.1 Analyst Level Data Review

All analysts are responsible for reviewing the analytical and quality control data that they have generated. The following conditions are verified prior to entering data into LIMS.

- Appropriate analytical methodology was used, based on the sample matrix, analyte concentration, and project specifications.

- Instrumentation was functioning properly during sample analysis.

- Quality control analyses were analyzed at the proper frequency and the analyses met the QC acceptance criteria.

- Sample analysis was completed within the method-specified holding time. If holding times were exceeded, the appropriate personnel is notified.

- All analytes were quantitated within the calibration range and, if necessary, samples were diluted to bring results into calibration range.

- Corrective action, including reanalysis, dilution, or the use of matrix modifiers were taken to minimize or eliminate matrix interferences, where possible.

- Method-specific analytical requirements were met, including correlation coefficient values, surrogate recoveries, etc.

- Calculations, dilution factors, and detection limits are correct.

If any of the method-specific requirements or the requirements listed above were not met, the Section Supervisor or Technical Director will determine the corrective action that is required.

13.2.2 Supervisory Level Data Review and Approval

Section Supervisors are responsible for verifying the analytical and quality control data generated in their laboratory section. The following items are reviewed and approved before releasing the data for final reporting.

- The samples were analyzed within the method-specified holding time.

- Results for different parameters analyzed within the sample correlate. For example, total phosphorus should be greater than or equal to orthophosphate.

- Quality control analyses were analyzed at the proper frequency and the acceptance criteria were met.

- The data in the logbooks or instrument printouts was correctly entered into LIMS.

- The data in the final analytical and QC reports were reported correctly (i.e., reporting limits, units, date analyzed, etc).

Section Supervisors are responsible for reviewing any problems encountered during the analysis, determining whether corrective action is required and, if action is required, informing the appropriate personnel. When out of control events or non-conformances occur, such as QC acceptance limits not being met, matrix interference problems resulting in high detection limits, or missed holding times, the Section Supervisors will either flag the data, include appropriate comments with the results or prepare a explanation to include in the final analytical data package.

13.2.3 Final Data Review and Approval

The QA department is responsible for reviewing and approving the final reports and data packages that are submitted to the client. The following items are verified before releasing the final analytical and QA reports.

- The final analytical report format and content is appropriate and meets client and regulatory requirements.

- Additional QC requested by the client is provided (i.e., matrix spike/matrix spike duplicates, copies of raw data, etc.).

- A Corrective Action Report is present in the job file for any analytical or QC problems including any decisions made to report data that deviate from method-specified requirements.

- The analytical report and/or case narrative accurately reflect the sample data and any deviations or excursions that occurred. The QA department signs the case narratives of the data packages or the signs the final report.

The QA department assembles the final data package and performs a review of the completed package before authorizing its release to the client. If a data package is not needed the QA department signs the final report. LSL-CL's procedures for generating data reports are provided in SOP L8032, Review of Final Reports

13.3 DATA REPORTING

13.3.1 <u>LIMS Data Entry</u>

The following procedures are used for LIMS data entry:

13.3.1.1 Analytical Results

Analytical data is reported to the number of significant figures specified by the method, technical SOP and/or QAPP. Statistical rounding should be employed when reporting the data to the correct number of significant figures.

13.3.1.2 Reporting Limits

The LIMS default reporting limit is verified when entering data. If the reporting limit is incorrect, the Section Supervisor or Project Manager needs to be contacted. Samples diluted due to matrix interference, analyte concentration, or lack of sample must have their reporting limit increased by the appropriate factor.

13.3.1.3 Units

The concentration units must be entered according to the sample matrix (mg/L, mg/kg, etc.). These units are programmed into the LIMS test code.

13.3.1.4 Date/Time Analyzed

The date analyzed entered in LIMS must accurately reflect the actual date of sample analysis. The date and time when the analysis began should be entered not the ending date and time.

13.3.2 Data Report Contents

Each report to an outside client shall include at least the following information (those prefaced with "where relevant" are not mandatory):

- A title, e.g., "Test Report", or "Test Certificate", "Certificate of Results" or "Laboratory Results"
- Name and address of laboratory, and location where the test was carried out (if different from the address of the laboratory) and phone number with the name of a contact person for questions
- Unique identification of the certificate or report and of each page, and the total number of pages
- Name and address of client, where appropriate and project name if applicable
- Description and unambiguous identification of the test sample including the client identification code
- Identification of test results derived from any sample that did not meet NELAC sample acceptance requirements, such as holding time
- Date of receipt of sample, date and time of sample collection, date(s) of performance test, and time of sample preparation and/or analysis if the required holding time for either activity is less than or equal to 48 hours
- Identification of the test method used, or unambiguous description of any non-standard method used

- Any deviations from (such as failed quality control), additions to or exclusions from the test method (such as environmental conditions), and any non-standard conditions that may have affected the quality of results, and including the use and definitions of data qualifiers

- When required, measurements, examinations, and derived results supported by tables, graphs, sketches and photographs

- Whether the data are calculated on a dry weight or wet weight basis

- Reporting units such as ug/L or mg/kg

- When required, a statement of the estimated uncertainty of the test results

- A signature and title, or an equivalent electronic identification of the person(s) accepting responsibility for the content of the certificate or report (however produced), and date of issue

- At the laboratory's discretion, a statement to the effect that the results relate only to the items tested or to the sample as received by the laboratory

- At the laboratory's discretion, a statement that the certificate or report shall not be reproduced except in full, without the written approval of the laboratory

- Clear identification of all test data provided by outside sources, such as subcontract laboratories

13.3.3 Data Reporting Levels

LSL-CL is capable of providing various levels of reporting that meet the client or project specifications. Typical data reports released by the laboratory consist of either the sample report containing only the analytical results (Level 1) or the sample report containing the analytical results and quality control report (Level 2). Other levels of reporting, including CLP forms, internal Chain of Custody Records, raw data, and other supporting documentation are provided as specified by the client or QA Project Plan.

13.4 ELECTRONIC DATA DELIVERABLES (EDDs)

LSL-CL's LIMS has the capability of providing clients with electronic data deliverables. Client requests for electronic deliverables must be reviewed by the laboratory prior to the project to ensure that the data can be delivered in the requested format and in accordance with any project specifications. Electronic data can be delivered on diskette or transmitted directly by electronic means.

13.5 DATA REVISIONS AND TRACEABILITY

After issuance of the data report, the report contents shall remain unchanged unless an error or omission in the data report is identified. All data modifications and updates must be documented and traceable. All associated raw data must be documented or recorded in a laboratory logbook, instrument printout, or computer database. Any changes to data must be initialed and dated. Any changes to reported results must be based on a legitimate reason and corrected results must be traceable to the raw data. A review of the raw data is required prior to any data modifications.

Reports that are revised and reissued to a client must be clearly identified as a revision and contain a reference to the original report that it replaces. A case narrative or letter explaining the reason for the report revision may be provided to the client with the revised report. A copy of the original report, revised report, and case narrative or letter that was provided to the client must be kept on file. Report changes involving non-technical typographical errors, client contact information, and billing information do not require a "Revised" report heading.

13.6 CONFIDENTIALITY AND PROPRIETARY RIGHTS

All personnel treat analytical results and associated client/project information as confidential. Requests from other firms or consulting personnel for copies of analytical reports, or sampling/project information are honored only with the written consent of the specific client. Reporting of results by telephone, facsimile, and electronically to clients shall be performed confidentially according to the procedures in the applicable SOP and CIM. Proprietary information, if provided by a client, will be protected as Confidential Business Information in accordance with Title 40, Code of Federal Regulations, Part 2, and Subpart B.

14. COMPUTER MANAGEMENT

14.1 LABORATORY INFORMATION MANAGEMENT SYSTEM

The laboratory information management system used by LSL-CL is a software package designed to manage samples and data. The main functions of LIMS are sample and data management, report generation, and invoicing.

- The primary function of the LIMS is sample and data management which include providing up-to-date information for the Quality Department, Section Supervisors, chemists and technicians to use in prioritizing and performing sample analyses and managing the associated data.
- The second function of the LIMS is to provide a standard reporting format for the data and associated quality control.
- The third function of the LIMS is to generate invoices and provide financial information to laboratory management.

14.2 COMPUTER SECURITY AND CONTROL

All access to the laboratory information management system shall be approved, limited, and controlled. External parties shall not have access to the computer via modem unless access is approved and limited to specific functions of LIMS. Password access is implemented for all users and controlled by the Information System Supervisor. Passwords are to be kept confidential and not exchanged between staff members or other parties. Access to the LIMS is documented and traceable to prevent unauthorized amendment of computer records. The laboratory staff is required to log-off the system when they have completed their use of the system. Procedures for minimizing the infection and spread of computer viruses are implemented at the laboratory location by the information system supervisor.

14.3 EQUIPMENT PROTECTION

Computers and automated equipment are maintained to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of the environmental test data. Computers are protected by the use of an uninterruptible power supply (UPS), anti-static materials, surge protectors, and anti-virus software.

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14.4 COMPUTER SOFTWARE VALIDATION

Commercial off-the-shelf software (e.g., word processing, database and statistical programs) used by the laboratory within their designed application range are considered to be sufficiently validated. However, laboratory software configuration or modifications must be validated prior to use. Software validation consists of manual verification of automated data capture, processing, manipulation, calculations, recording and reporting procedures. This validation is performed before the software is put into place within the network. Software validation is documented and records maintained on the validation kept on file by the Information System Supervisor.

14.5 AUTOMATED DATA REDUCTION PROCEDURES

At a minimum, for those processes that are automated, a sample data test set shall be used to test and verify the correct operation of these data reduction procedures (including data capture, manipulation, transfer, and reporting). This shall be done anytime the programming code is modified or otherwise manipulated and applies even in cases where commercial software is used as part of the process.

14.6 DATA BACKUP

All stored data is backed up on retrievable storage media (magnetic tapes, diskettes, alternate computer server, etc.). The LIMS network is backed up every evening and the storage media stored so that it is protected from possible destruction. The laboratory uses a fireproof safe or offsite facility for the storage of the magnetic tapes, diskettes or other storage media.

15. SAMPLE MANAGEMENT

15.1 SAMPLE CONTAINERS AND PRESERVATIVES

Sample containers and preservatives are provided to clients upon request. The containers and preservatives must meet EPA specifications for preservatives, type of container and level of cleanliness based on the parameters being analyzed. Plastic containers are generally used for metals analysis and the majority of inorganic parameters. Glass containers with Teflon-lined lids or septa are used for all organic parameters. Certified pre-cleaned and sterilized sample containers are used where appropriate such as for volatile samples and microbiological samples, respectively. Certificates of cleanliness provided by the bottle manufacturers are kept on file in the sample kit and bottle preparation area for each lot of bottles received by the laboratory. Refer to Appendix 15-1 and the most recent ELAP manual for the requirements for sample containers and preservatives for each parameter and matrix type.

15.2 SAMPLE ACCEPTANCE POLICY

LSL-CL's Sample Acceptance Policy clearly outlines the requirements under which samples are to be accepted or rejected. The policy specifies the requirements for sample containers, preservation, volume, holding times, bottle labels, and chain of custody documentation. LSL-CL's Sample Acceptance Policy requires that samples meet the following criteria to be accepted for analysis by the laboratory:

- Proper, full and complete documentation, including sample identification, the location, date and time of collection, sample collector's name, preservation, sample type, and any special remarks concerning the sample

- Proper sample labeling, including unique identification and labeling of the samples with water resistant labels and indelible ink

- Appropriate sample containers and preservatives used for collection

- Adherence to specified holding times

- Adequate sample volume provided for performing the necessary tests

If these conditions are not met or the samples show signs of damage, contamination or inadequate preservation, then the client is notified immediately. Data from any samples that do not meet these criteria must be qualified in an unambiguous manner that clearly defines the deviation.

15.3 SAMPLE RECEIPT PROCEDURES

Sample receipt procedures are followed according to SOP No. L9004, Sample Receipt. Any discrepancies are documented on the chain of custody and the client is notified of any unacceptable sample receipt condition(s). Chain of Custody Records, Sample Receipt Checklist and associated shipping documents are reviewed by the Quality Department and filed with the final report. Sample receipt procedures include the following:

15.3.1 <u>Receipt and Inspection of Sample Containers</u>

All air bills, freight invoices, and shipping documents are removed from the exterior of the shipping container or cooler. The number of containers received by the laboratory is verified against the number declared on the shipping document. The person receiving the sample shipment must record the date and time of receipt and their legal signature on the shipping document. Any damaged or missing packages and containers are documented. Sample receiving will notify the client concerning problems with shipping containers. Air bills and shipping documents are retained with the original Chain of Custody Record.

15.3.2 Chain of Custody Record

Chain of custody procedures shall be followed for all samples received by the laboratory. Laboratory personnel receiving samples shall record their full legal signature, date, and time of sample receipt on the Chain of Custody (COC) Record. The sample receiving personnel must verify that the sample information recorded on the sample label agrees with the sample information on the COC Record and that the number and type of containers received also agree with what is recorded on the COC Record. Any discrepancies or unusual sample conditions noted during sample receipt must be documented on the chain of custody and immediately brought to the attention of Client Services. Refer to Appendix 15-1 for samples of Chain of Custodies.

15.3.3 Sample Condition Inspection

Upon receipt, the temperature of the samples in the shipping container is taken using either a digital thermometer and temperature blank (if available) or infrared temperature-monitoring device. The temperature reading and notation about the samples being received on ice (if applicable) are recorded on the Chain of Custody Record. This procedure must be performed before removing samples from the shipping container. Samples with a specified temperature of 4°C shall be considered acceptable if the arrival temperature is within the range of just above freezing to 6°C. Samples that are hand delivered to the laboratory on the same day they are collected are considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples are removed from the shipping container in a well-ventilated area using appropriate protective equipment (safety glasses and gloves, at a minimum). When it is known or suspected that the samples are toxic or radioactive, then the samples must be removed and inspected in a fume hood and/or screened for radioactivity. Any unusual sample conditions, such as leaking or broken sample containers, missing sample labels, etc., are documented on the chain of custody. The client is notified immediately concerning sample conditions that may affect sample analysis (inverted septum, incorrect preservative, air bubbles greater than 1/4 inch or 6 mm in diameter in VOA vials, etc.).

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The official controlled and protected document is digitally located in the SOP directory in ApplicationXtender. Refer to this official controlled SOP in ApplicationXtender for the most recent document describing how this procedure is currently performed.

15.3.4 Sample Preservation Verification

If a sample is received in bottles other than LSL bottles, the pH of each liquid sample is verified during sample login or at the time of analysis. Sample pH verified at login is performed by transferring a small amount of sample to pH paper using a disposable glass capillary tube or transfer pipette for each sample bottle. Samples that should not be opened prior to analysis, such as TOX and volatile organics, must have their pH checked at the time of analysis and recorded in the appropriate logbook. Discrepancies between actual and declared sample pH preservation are documented on the Chain of custody. The client is contacted in a timely manner to determine whether the sample should be preserved in the laboratory or whether the client prefers to re-sample. This information must be documented on the chain of custody, case file or correspondence log and added as a comment on the final data report.

15.3.5 Sample Condition Notification Procedure

The sample receiving department, client services, QA department or designated personnel must inform the client of any discrepancies that may affect sample integrity or sample analysis in a timely manner. If any of the following conditions are observed upon receipt, then the sample may be considered compromised:

- Cooler and/or samples are received outside of temperature specification
- Samples received broken or leaking
- Samples received beyond holding time
- Samples received without appropriate preservative
- Samples received in inappropriate containers
- COC does not match samples received
- COC is not properly completed or received
- Breakage of any Custody Seal
- Tampering with cooler and/or samples
- Headspace in volatiles samples
- Seepage of extraneous water or materials into samples
- Inadequate sample volume

When "compromised" samples are received, the sample condition is documented in the project file and the client notified. Any client contact regarding sample receipt and chain of custody issues must be recorded in the case file, phone log, facsimile, or in an email. The client's authorization to proceed with the analyses on samples or sample containers that did not meet the required specifications must be documented. The data report will indicate any of the above conditions and the resolution. A copy of any associated documentation is maintained in the client/project file or data package.

15.4 INTER-LABORATORY SAMPLE TRANSFER

The Chain of Custody and sample receipt requirements detailed in this manual apply to samples transferred between other laboratory locations. Guidelines for inter-laboratory sample transfers are as follows:

- The laboratory advises the client of its intent to subcontract any portion of the testing to another party. A subcontract laboratory is used only after approval is obtained from the client. When the laboratory subcontracts any part of the testing covered under NELAC, this work is placed with a laboratory accredited under NELAC for the tests to be performed. Samples submitted for projects requiring specific certifications may only be subcontracted to a laboratory with the appropriate certification unless prior authorization is obtained from the client. The laboratory maintains documentation detailing the scope of accreditation for any subcontract laboratory.

- After receiving the client's approval to subcontract the samples, the shipping laboratory shall contact a Laboratory Supervisor at the receiving laboratory prior to sample transfer with the details on all analytical, quality control, requested job turnaround and final reportable requirements.

- The receiving laboratory must verify that they can meet all sample analysis and client requirements prior to the samples being shipped.

- The originating laboratory for all samples transferred between laboratory locations shall provide a Chain of Custody Record.

15.5 SAMPLE LOGIN

Samples received for analysis by LSL-CL are logged into LIMS and assigned a unique identification number in the electronic database. Samples received after normal working hours may be placed in the proper storage location and logged into LIMS on the next working day. Samples are logged in according to the following procedure:

15.5.1 <u>Project Number and Information</u>

The job is logged in using a client-specific project, which has been defined by sample custody, reviewed and approved by the QA department.

15.5.2 Sample and Container Information

Samples are logged in by adding a sample and entering date/time sampled, date/time received and the client sample identification. Each sample is assigned a unique ID in LIMS. The sample matrix, container type and quantity and preservative are entered into the information section for each sample received. Temperature excursions and inadequate sample preservation must be noted on the Chain of Cusody. The Sample Custodian prints computer-generated sample labels based on the login information entered for each sample. The laboratory assigned sample identification and client sample identification is verified prior to affixing the sample label to the container.

Samples are placed on shelves in the appropriate storage area. Aqueous and solid volatile organic samples must be segregated and placed in designated volatile organic refrigeration units. If required by the project, an Internal Chain of Custody Record(s) is prepared for the analysts to use for documenting the retrieval of samples from the storage area.

15.5.3 Test Methods

The requested test methods are scheduled for each sample based on the Chain of Custody Record submitted with the samples. The LIMS methods and tests group function are utilized for logging in multiple samples with the same parameter requests. Where possible, the methods and tests in a client-specific project are used for login. Client-specific reference test are set up by the by the Technical Director to include any project specifications, such as test methods, reporting limits, target analytes, sample excedence limits, QC, and flagging requirements.

15.5.4 Login Documentation

The project folder is generated by the sample custodian. The sample receiving personnel should immediately inform the appropriate Section Supervisor if short holding time parameters (<48 hours) are received for that section.

15.6 SAMPLE HANDLING PROCEDURES

Samples are to be handled according to the requirements for the applicable parameters. Sample handling requirements including holding times and preservatives for environmental parameters are provided in Appendix 15-2 or the most current ELAP manual.

15.6.1 Analyte Specified Holding Times

Clients are responsible for providing the laboratory with samples in a timely manner so that the laboratory can complete the analytical work within the recommended holding times and client specified turnaround times. Samples designated for rush turnaround and parameters with short holding times are given priority for sample analysis. The Section Supervisor is immediately notified of any samples received with short holding time parameters (<48 hours). All sample analyses are to be completed within the maximum allowable holding times or the data must be appropriately qualified. Holding times are based on the date and time sampled unless the client/project requires the holding times to be based on VTSR (validated time of sample receipt). VTSR criteria are used when designated by the client/project, such as, New York State ASP projects. Samples received by the laboratory that have expired holding times must be documented and the client may be notified. Documentation on the missed holding time situation is maintained with the project folder. All samples analyzed outside the maximum allowable holding time will have the associated data flagged in the final report.

15.6.2 Sample Aliquots

Where sampling (as in obtaining sample aliquots from a submitted sample) is carried out as part of the test method, the laboratory uses documented procedures and appropriate techniques to obtain representative sub-samples.

15.7 SAMPLE STORAGE

Samples including all sample fractions, extracts, leachates and other sample preparation products are stored and segregated according to the preservation requirements for each test method. Most environmental samples require storage at 4°C. In addition, the following sample storage requirements shall be followed for environmental samples:

- Samples shall be stored away from all standards, reagents, food and other potentially contaminating sources. Samples shall be stored in such a manner to prevent cross contamination.

- Water and soil samples submitted for volatile organics analysis shall be segregated from all other sample types in separate refrigeration units.

- Organic analysis extracts prepared in the laboratory shall be segregated from all other sample types in a separate refrigeration unit.

- Samples and sample extracts shall not be stored in the same refrigeration unit with laboratory reagents or standards.

- Storage blanks shall be utilized for volatile sample storage units.

The analysts are responsible for maintaining the sample segregation and storage requirements for environmental parameters. Samples shall be returned to the appropriate storage location following analysis. All samples requiring refrigeration shall be returned to the appropriate refrigeration unit at the conclusion of each working day.

15.8 SAMPLE SECURITY AND TRACKING

Samples shall be maintained in designated sample storage areas. Based on project or client requirements, additional sample security and tracking procedures may be implemented

15.9 SAMPLE DISPOSAL

Disposal of samples, digestates, leachates, extracts or other sample preparation products are performed according to the procedures in the SOP L9012, Hazardous Waste Disposal. Samples shall be retained for a minimum of 30 days from the date of completion of the final report unless otherwise specified in a contract. After this period, samples will either be returned to the client or disposed of in an environmentally approved manner. LSL-CL reserves the right to charge the client for shipping and/or disposal costs of unused samples.

16. QUALITY ASSESSMENT PROGRAMS

LSL-CL's Quality Assessment Programs are designed to measure laboratory performance and monitor laboratory adherence to QA policies, method specifications, and regulatory requirements. Quality Assessment Programs help to identify and eliminate non-conformances and ensure that client and regulatory requirements are met. Programs used by LSL-CL to accomplish this goal include internal and external audits, proficiency testing studies, laboratory certifications and accreditations, QA reports and management review.

16.1 QUALITY ASSURANCE AUDIT PROGRAMS

16.1.1 <u>Internal Quality System Audits</u>

Internal laboratory audits consisting of technical and system audits are performed on an annual basis by the QA Officer and staff. The internal audits are used to review the laboratory's compliance with the QA Manual, administrative and technical SOP specifications, analytical method requirements, NELAC standard, and any project specific QA Plans. The internal audit program addresses all elements of the quality system, including the environmental testing activities and is designed to evaluate whether the quality system itself is effective and being implemented at the operational level of the laboratory.

Technical audits are used to verify compliance with method-specific requirements, as well as operations such as sample preparation and data reporting that are related to the test method. Data audits are performed as part of the technical audits. System audits include the review of procedures such as, corrective action, sample management and handling customer complaints, and are used to verify the laboratory's compliance with its own quality system and the NELAC standards. Technical and system audits are conducted by the QA Officer and staff which consists of trained and qualified personnel independent of the activity being audited. Audit checklists may be used to conduct and document internal laboratory audits.

Any findings identified in internal laboratory audits are reported to management using an audit report. The Technical Director, Section Supervisors, and key personnel are informed of the findings and involved in the corrective action process. All affected staff must implement the required corrective action within the designated time period. Each finding must have a written corrective action response prepared by the appropriate personnel. The corrective action response(s), including any supporting documentation are submitted to the QA department for review and approval. Subsequent internal audits are used to verify and record the implementation and effectiveness of the corrective action taken.

When audit findings cast doubt on the correctness or validity of the laboratory's environmental test results, then the laboratory must take timely corrective action and notify clients in writing if investigations show that their laboratory results may have been affected. The laboratory shall notify clients within twenty-four hours of confirmation of any event such as the identification of defective measuring or test equipment that casts doubt on the validity of results given in any test report or amendment or revision to a test report.

16.1.2 <u>External Audits</u>

External audits are audits performed by clients, accrediting agencies, or regulatory agencies. The frequency at which external audits will occur is not generally known. Audit reports received from the auditor(s) and the laboratory's corrective action documentation and audit response are maintained by the QA department.

16.1.3 Data Audits

Data audits are performed on all data packages prepared and issued by the individual laboratory sections to ensure the accuracy and defensibility of the data generated by the laboratory. Checklists may be used to document data audits and to provide consistency in the review process.

Data audits typically include a review of the following items:

- Final analytical report, QC report and case narratives
- Sample receipt documentation and Chain of Custody Records
- LIMS project summary
- Laboratory logbooks and instrument printouts
- Corrective Action Reports
- Client-specific QAPPs (if applicable)

Any findings identified in data audits are documented on a data review checklist or report review log. The Section Supervisors and key personnel are informed of the findings and involved in the corrective action process. All affected staff must implement the required corrective action within the designated time period. Subsequent data audits include a review of the implementation of required corrective action.

16.2 PROFICIENCY TESTING STUDIES

Proficiency testing studies are conducted at a frequency specified by the client, regulatory agency, or accrediting authority. Participation in NELAC approved proficiency testing studies is required for the methods and analytes analyzed by the laboratory. The proficiency testing studies and frequency at which LSL-CL participates in include the following:

- NYSDOH ELAP Proficiency Testing Studies (NVLAP and A2LA accredited): Twice a year for potable water, non-potable water, and solid and hazardous waste/chemical materials.

- Environmental Resource Associates, Wibby or other Proficiency Testing Studies (NIST/NVLAP and A2LA accredited): Used on an "as needed" basis for potable water, non-potable water, solid and hazardous waste, and underground storage tanks.

- Client-sponsored proficiency testing studies: When provided.

For any "not acceptable" proficiency results, the reason for the failure and corrective action taken must be documented using a Corrective Action Report or other acceptable format. The laboratory must pass two out of three studies for each analyte and matrix to maintain NELAC certification for that analyte.

16.3 LABORATORY ACCREDITATION AND CERTIFICATION PROGRAMS

LSL-CL participates in state and federal certification and accreditation programs. To gain certification, the laboratory must meet the prerequisites specified by the agency and provide detailed information about the laboratory's qualifications, capabilities and quality assurance program. The certification or accreditation program may also require the acceptable analysis of performance evaluation samples and a comprehensive inspection or audit before certification or approval may be granted.

16.4 REPORTS TO MANAGEMENT

16.4.1 Audit and Performance Evaluation Reports

Reports on laboratory performance, as identified by internal and external laboratory audits, proficiency testing studies, and data audits are prepared by the QA Officer and QA staff and distributed to the Technical Director and appropriate laboratory management personnel. Corrective Action Reports (or similar documentation) required in response to deficiencies noted are provided to the appropriate laboratory personnel and kept on file by the QA department.

16.4.2 Annual Quality Assurance Reports

Annual quality assurance reports on the QA related activities at the laboratory are prepared by the QA department and provided to the President, Technical Director, Section Supervisors, and Project Managers. At a minimum, the annual QA report includes the following items:

- External Audits: A list of external audits performed by clients, regulatory agencies, or accreditation agencies and the corrective action status.

- Internal Audits: A list of internal audits performed by the QA Officer or staff and the corrective action status.

- Proficiency Testing Studies: A list of the proficiency testing studies that the laboratory participated in, including the overall score and any parameters that were repeat failures.

- Certifications: A list of any changes in the certifications, accreditations, and approvals that the laboratory has received or is pursuing.

16.5 MANAGEMENT REVIEW

The laboratory management is required by the NELAC standards to conduct an annual review of the laboratory's QA program and testing and calibration activities. This review is performed to ensure the continuing suitability and effectiveness of the program and to introduce any changes or improvements in the QA program and laboratory operations. The management review includes an evaluation of the following items:

- Reports from the QA department and other supervisory personnel
- Results of recent audits performed by the QA department
- Assessments by external bodies (i.e., clients, regulatory agencies, accreditation organizations, etc.)
- Results of proficiency testing studies
- Changes in the volume and type of work performed
- Feedback from clients
- Corrective actions
- Other relevant factors

The QA department maintains records of the management review findings and actions. The results of the managerial reviews are provided to the President of LSL Inc., the Technical Director, QA Officer, and appropriate laboratory staff for evaluation and comments. The findings from the managerial review are evaluated and any necessary changes or improvements to the QA program are incorporated into the program and administered by the QA department.

17. CORRECTIVE AND PREVENTIVE ACTIONS

17.1 GENERAL CORRECTIVE ACTION REQUIREMENTS

In addition to providing quality control acceptance criteria and specific protocols for corrective actions in the technical method SOPs and associated QC tables, the laboratory shall implement general procedures to be followed to determine when departures from documented policies, procedures and quality control have occurred. These procedures shall include but are not limited to the following:

- Identification of the individuals responsible for assessing each QC data type
- Identification of the individuals responsible for initiating and recommending corrective actions
- Defining how the analyst should treat a data set if the associated QC measurements are unacceptable
- Specifying how out of control situations and subsequent corrective active actions are to be documented
- Specifying procedures for management (including the QA Officer) to follow in reviewing corrective action reports

To the extent possible, samples shall be reported only if all quality control measures are acceptable. If a quality control measure is found to be out of control, and the data is to be reported, all samples associated with the failed quality control measure shall be reported with the appropriate data qualifier(s) and/or a case narrative included with the report.

17.2 PROBLEM NOTIFICATION/PREVENTION REPORTS

Deficiencies or other non-conformances that affect laboratory results are to be documented using a Problem Notification/Prevention form (PiNK sheet). Out of control events that occur during sample preparation and/or analysis and the subsequent corrective action that was taken are documented on this form and used to prepare a resolution for the client.

All complaints or inquiries received from clients or other parties that require investigation and/or corrective action are documented on a Client Inquiry/Nonconformance Resolution Report. The QA department and laboratory personnel involved with the project are responsible for documenting the action taken and resolution. LSL-CL's Problem Notification/Prevention form is provided in Appendix 17-1.

The Corrective Action Report may also be used to document the corrective action taken to eliminate or minimize the source of the problem identified during an audit or proficiency evaluation study. An example Corrective Action Report used by the laboratory is provided in Appendix 17-2.

17.3 CORRECTIVE ACTION PROCEDURES

17.3.1 Control of Non-Conforming Environmental Testing Data

If a nonconformance, deficiency, or unsatisfactory condition (item of concern) occurs in the laboratory and a PiNK sheet is generated, the management staff shall provide full support and assistance in resolving the item of concern. If the deficiency does not justify a PiNK sheet routine corrective action protocols may still be performed. Corrective action protocols are provided in Appendix 17-3.

The following guidelines are used to validate data and determine what corrective action may be required.

- Verify all calculations from the raw analytical data, including sample aliquots, dilution factors, linear regression calculations, etc.
- Verify that method-specific matrix interference procedures were followed. Check the raw data for other field samples in the same analytical batch in order to determine whether the problem is unique to a single sample (a possible matrix problem).
- Review the analytical procedure with the analyst to make certain that the required procedures and sample preparation techniques were performed correctly.
- Check the initial calibration data to verify that instrumental operating requirements were met prior to starting sample analysis.
- Verify that all necessary instrumental quality control checks met specifications during sample analysis; these specifications include the manufacturer's operating guidelines.
- Verify that quality control analyses were performed at the required frequency and that QC acceptance criteria were met.

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The official controlled and protected document is digitally located in the SOP directory in ApplicationXtender. Refer to this official controlled SOP in ApplicationXtender for the most recent document describing how this procedure is currently performed.

- Determine whether an alternate method would be more appropriate and accurate for sample analysis.

- Review login and chain of custody information to determine whether sample conditions may have affected analysis. Specific items to verify include sample condition on receipt, sample volume provided, bottle type, preservative used, and unusual field conditions which are noted on the Chain of Custody Record.

If a PiNK sheet is generated, the corrective action taken to eliminate the problem must be documented on the PiNK sheet and included in the client/project file. If necessary, the data will be flagged and a written explanation or comment included with the final report.

When corrective actions have not eliminated the nonconformance or out of control event, and the validity of the reported data are in question, either the Technical Director or QA department shall contact the client. All client contact is recorded in PiNK sheet, a phone log, report file or email. Copies of the PiNK sheet, phone log, report file or email and any associated documentation are kept on file.

17.3.2 Proficiency Testing Studies

When a "not acceptable" result is reported for a proficiency test, the QA department is required to issue a PT Corrective Action Response to the appropriate Section Supervisor. The Section Supervisor and QA department must review all "not acceptable" results and determine the appropriate corrective action. The following guidelines are used for evaluating not acceptable proficiency testing results and determining the corrective action that is required.

- Verify all calculations from the raw analytical data, including sample aliquots, dilution factors, linear regression calculations, etc.

- Review the data for any transposition errors that may have occurred.

- Review the analytical procedure with the analyst to make certain that the required procedures and sample preparation techniques were performed correctly.

- Check the initial calibration data to verify that instrumental operating requirements were met prior to starting sample analysis.

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- Verify that all necessary instrumental quality control checks met specifications during sample analysis; these specifications include the manufacturer's operating guidelines.

- Verify that quality control analyses were performed at the required frequency and that QC acceptance criteria were met.

- Determine whether an alternate method would be more appropriate and accurate for sample analysis.

The reason for the failure and the corrective action taken must be documented on the PT Corrective Action Response and submitted to the QA department for review and approval. Refer to Appendix 17-2. Any additional comments or recommendations from the QA staff are recorded on the form and provided to the Section Supervisors and Technical Director.

17.3.3 Audits

Any deficiencies identified during an audit must be documented in an audit report and submitted to the Technical Director and Section Supervisors. The Technical Director, Section Supervisors and key personnel are involved in the corrective action process. A corrective action response including documentation to support the implementation of the corrective action is required for each finding.

17.4 RESOLUTION OF COMPLAINTS

Any complaint received by LSL-CL from a client or other party regarding a laboratory activity shall be documented on a PiNK Sheet and submitted to the QA department. All complaints will be investigated and resolved in a timely manner to ensure that client requirements are met. The QA department maintains records of client inquiries/complaints and the subsequent investigations, corrective actions and responses. This information is used by the laboratory as part of its quality system to identify patterns of problems and correct them.

17.5 PREVENTIVE ACTION

Preventive action is the pro-active process to identify opportunities for improvement rather than a reaction to the identification of problems or complaints. LSL-CL's employees have the authority to identify any areas that need improvement or may be a potential source of error and to make recommendations on preventive action.

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18. CLIENT SERVICE ACTION PROTOCOL

18.1 GENERAL CLIENT SERVICE ACTION

One of LSL-CL's goal is to provide clients with a high level of professionalism, service and quality. Several communication protocols have been established to ensure that clients are provided with data generated by the standards set forth in our quality policy.

18.2 CLIENT NOTIFICATION REPORT

The Client Notification Report is also commonly know as a "green sheet" because it is printed on green paper. A green sheet is generated when there is an item of concern about a sample, a project or a data result which is not a result of a deficiency or error that occurred in the laboratory, but a condition of the sample or a data result itself. The green sheet is given to the QA department who reviews it and makes the decision whether further action or contact with the client is needed. The client may benefit from the information by notifying them as soon as possible or the laboratory may benefit from additional information about a particular sample. Such situations may include but are not limited to the following:

- Contacting the client with a positive bacteria result when the public could be affected by the result.
- Discussing with the client on how to handle the sample when a) there is an unusual appearance or b) the matrix may affect results
- Notifying a client when their sample result exceeds their regulatory limit.

The green sheet is filed with the final project. A Client Notification Report is located in Appendix 18-1.

18.3 PROJECT CHANGE REPORT

If a revision of the report or the invoice is needed after a report is generated and sent to the client, a project change form is used to document and track the progress of the change. Documentation includes but is not limited to the following:

- The reason for the revised report or invoiced and who is requesting the changes. Did the client call about the report or was the change

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prompted by someone working in the laboratory?

- Approval of the change.
- Tracking of the status of the change until the final revision is sent to the client.

The project change form is filed with the final project. A Project Change Form is located in Appendix 18-2.

18.4 REQUEST FOR RELOG REPORT

If a revision of the report includes verification of data by reanalysis or additional analysis, a request for relog form is used to document and track the progress of the verification. The form is filled out and given to sample custody who will assign the sample a new number and label the sample appropriately. Documentation includes but is not limited to the following:

- The reason for the relog. Is it a verification of results and who requested it?
- Pricing and original sample information
- Tracking of the status of the project until the final revision is sent to the client.

The request for relog form is filed with the final project. A Request For Relog Form is located in Appendix 18-3.

Appendix 1-1

Ethics Agreement

Appendix 1-1

ETHICS AGREEMENT

Life Science Laboratories is committed to ensuring the integrity of its data and meeting the quality needs of its clients. We pledge to manage our business according to the following principles:

- To produce results that are technically sound and legally defensible;
- To assert competency only for work for which adequate equipment and personnel are available;
- To present services in a confidential, honest, and forthright manner;
- To have a clear understanding with the client as to the extent and kind of services to be rendered;
- To provide employees with guidelines and an understanding of the ethical and quality standards required in this industry as well as the potential civil and/or criminal penalties associated with fraudulent practices.
- To operate facilities in a manner that protects the environment and the health and safety of employees and the public;
- To obey all pertinent federal, state, and local laws and regulations;
- To continually improve product and service quality;
- To treat employees equitably, acknowledge their scientific contributions, and provide them with opportunities for professional growth and development;
- To recognize and respond to community concerns; and
- To deal openly, fairly, and be forthright in all business and financial matters with employees, clients and the public.

Signed:__________________________________ Date:_____________

Appendix 1-2

Improper Laboratory Practices

Appendix 1-2

Life Science LABORATORIES, INC. - CENTRAL

IMPROPER LABORATORY PRACTICES

Improper laboratory practices are defined as (1) a scientifically unsound or technically unjustified omission, manipulation, or alteration of analytical procedures or data that bypasses the required quality control parameters, making the results appear acceptable; (2) Any alteration of data such that the data are unauthentic or untrue representations of the experiment or test performed.

The following activities are considered improper laboratory practices and are a breach of the ethical standards set forth by Life Science Laboratories, Inc. (LSL). These practices are not permitted at any time under any circumstance at LSL.

Fabrication of Data

Definition: Creating information or data for an analysis or procedure that was not performed.

Example(s): (1) Creating and reporting data for samples or quality control (QC) that were not analyzed; (2) Creating and recording any pertinent information (e.g., temperature readings, instrument conditions, etc.)
that was not documented,

LSL Policy: Analytical data for all samples and QC must be based on actual analyses performed by the laboratory. All data must be recorded at the actual time it is acquired and properly documented in a laboratory logbook or instrument printout.

Misrepresentation of QC Results

Definition: The intentional misrepresentation of QC samples as being digested or extracted according to the same procedure as the samples when in fact they were not actually digested or extracted.

Example(s): (1) Reporting post-digested spikes as pre-digested spikes; (2) Spiking surrogates into extracted samples to enhance surrogate recovery; (3) Not carrying method blanks, spikes, laboratory control samples (LCS), and proficiency testing samples through the entire sample preparation and analysis procedures used for the samples.

LSL Policy: QC samples must be prepared, analyzed and reported according to the method specifications, standard operating procedures (SOPs) and Quality Assurance Project Plans (QAPPs). Post-digested spikes must be reported as post-digested and not misrepresented as pre-digestion spikes. Surrogates must be added prior to sample extraction. Method blanks, spikes, LCSs and proficiency testing samples must be prepared and analyzed according to the same procedures used for preparing and analyzing the samples.

Improper Calibration/Verification

Definition: Any technically unsound deviation from proper calibration techniques.

Example(s): (1) Recording results for instrument calibrations that were not performed; (2) Performing multiple calibration runs or QC analyses until they pass instead of taking needed corrective action; (3) Representing previous initial calibration data as current; (4) Discarding analyte responses from the middle of the calibration curve without solid technical justification.

IMPROPER LABORATORY PRACTICES

LSL Policy: Instrument calibrations and verifications must be performed and documented according to the method specifications, SOPs and QAPPs. Corrective action must be taken and documented if calibration and or other QC criteria are not met. Calibration points can only be rejected for inclusion in the calibration curve if a known error was made or if a statistical evaluation indicates that the point can be discarded. Note: When multiple target analytes are included in each calibration standard, it may become necessary to discard selected upper or lower points for an individual target analyte. Points can be discarded at the upper end of the calibration curve if the linear range of the instrument has been exceeded. In this situation, the laboratory must dilute samples that exceed the highest point of the curve. Points can be discarded at the lower end of the calibration curve if the instrument is not producing a response. In this situation, the reporting limit must be adjusted accordingly.

Improper Date/Time Setting

Definition: Altering the recorded times that samples were collected, extracted or analyzed.

Example(s): (1) Resetting the instrument clocks to make it appear that a sample was analyzed within holding time; (2) Altering dates/times on printouts to make analyses appear to meet 12 hour windows.

LSL Policy: The date and time that the sample preparation and analyses took place must be properly documented and match the actual date and time performed.

Improper Peak Integration

Definition: Altering the area of a chromatographic peak to avoid QC failure.

Example(s): (1) Adding or subtracting peak area to make QC results appear to meet criteria (also called "peak shaving" or "peak enhancing"); (2) Artificially reducing or increasing the height of a peak response.

LSL Policy: Instrument peaks must be integrated and reported according to approved chromatography techniques.

Improper GC/MS Tuning

Definition: Manipulating ion abundance of GC/MS tune verification to cause the abundance to appear to meet criteria.

Example(s): (1) Selecting non-representative scan(s) for evaluation; (2) Performing incorrect background subtraction; (3) Injecting incorrect amounts of the BFB or DFTPP surrogate in the CCV; (3) Copying and renaming files; (4) Adding spectra from two different files.

LSL Policy: GC/MS tune data must be generated and reported according to approved chromatography techniques.

Improper Alteration of Analytical Conditions

Definition: Changing analytical or instrument conditions for standards or QC samples from those specified in the method, SOP or QAPP.

Example(s): (1) Increasing the gain; (2) Adjusting EM voltage; (3) Not allowing the instrument to fully warm up and reach stable conditions.

Life Science LABORATORIES, INC.

IMPROPER LABORATORY PRACTICES

LSL Policy: All samples must be analyzed using the same conditions as those used for analyzing the standards. The instrument conditions must be stable before proceeding with sample analysis. Any alterations of analytical conditions must be allowable under the method, SOP or QAPP and properly documented.

Unwarranted Software Manipulation

Definition: Manipulations of computer software to make sample or QC data appear acceptable.

Example(s): (1) Removing operational codes to eliminate or hide manipulations (e.g., removing "m" flag to hide the fact that a manual integration was performed); (2) Performing inappropriate background subtractions; (3) Adjusting baselines.

LSL Policy: Computer manipulation is allowed only for warranted reasons and any manipulation should be minimal and traceable. Removal of computer operational codes is not allowed.

Data/Data File Substitution

Definition: Substituting and reporting previously generated analyses that met criteria for non-compliant calibration, QC or sample runs.

Example(s): (1) Reusing historical calibration or QC data and representing it as current; (2) Changing sample Ids in the data files.

LSL Policy: All data must be generated and reported according to method specifications, SOPs and QAPPs. Data files may not be substituted or modified for non-compliant calibration, QC or sample data.

Deletion of Non-Compliant Data

Definition: Deleting or failing to record non-compliant analytical results for calibrations, QC, samples or blanks.

Example(s): (1) Deleting common laboratory contaminant results from method blanks; (2) Recording in the laboratory logbook only the sample and QC data that met criteria.

LSL Policy: All data associated with the preparation and analysis of the samples, including any out of control events or non-compliant sample or QC data, must be recorded in a laboratory logbook or instrument printout. Corrective action must be documented for any out of control events or non-compliant data.

Acknowledgement:

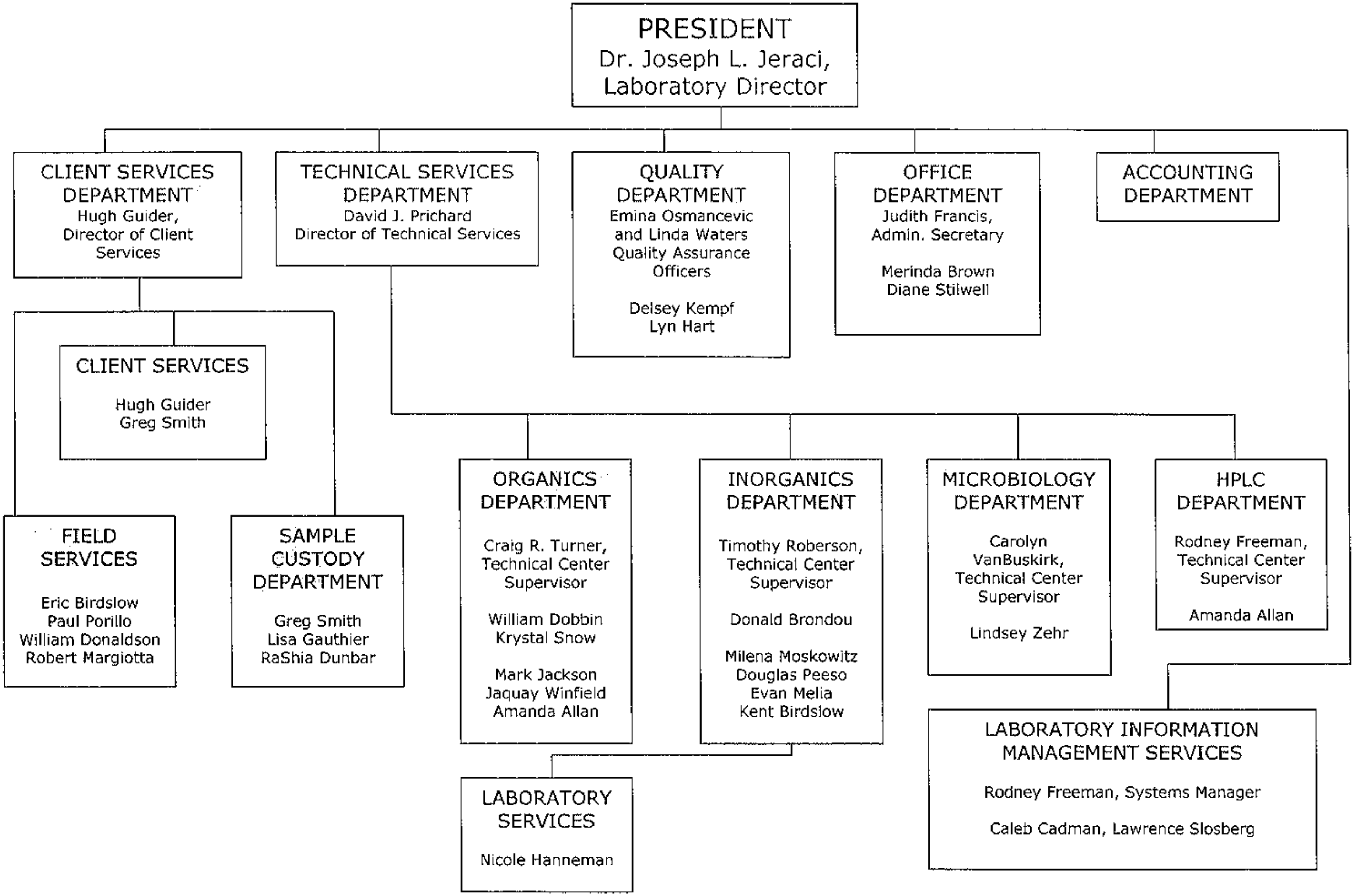
I have read and understand Life Science Laboratories' Policy on Improper Laboratory Practices. I understand that violation of this policy may result in disciplinary action up to and including termination of employment and civil/criminal punishment.

Signature ______________________ Date ______________________

Printed Name ______________________ Location ______________________

Appendix 2-1

LSL Central Organizational Chart



Appendix 2.1
Organizational Chart
Life Science Laboratories, Inc.
Central Lab

Appendix 2-2

Deputy Assignments and Approved Signatories

Appendix 2-2

Life Science Laboratories, Inc. – Central

DEPUTY ASSIGNMENTS AND APPROVED SIGNATORIES

Technical Director

Primary: David Prichard **Signature:** David Prichard

Deputy: Hugh Guider **Signature:** Hugh Guider

Quality Assurance Officer

Primary: Linda Waters **Signature:** Linda Waters

Primary: Emina Osmancevic **Signature:** Emina Osmancevic

Deputy: Delsey Kempf **Signature:** Delsey M. Kempf

Appendix 6-1

New Employee Orientation Checklist

ORIENTATION TRAINING RECORD ______________________________

Employee's Name

This log is part of your personnel file. Keep it up-to-date and store in your Employee Reference Manual. ***<u>All items must be completed before your orientation period can end.</u>***

The following is a list of orientation materials and activities that require documentation of training. You and your trainer should initial and date each activity upon completion.

	Trainee	Trainer	Date
Administrative			
Confirmation of Telephone Policy			
Time Sheet Instructions			
Shift Adjust Request			
Security Tour/Instruction			
Use of Access Card			
Ordering System			
LSL SOP L0004			
Time-Off Requests			
Overtime Policy			
Temporary Buddy System (Fire Alarm)			
Reading of LSL Safety Manual			

Section Supervisor			
Discussion of the Corporate Mission Statement			
Reading of Glassware Handling (Corning Literature)			
Safety Tour			
Safety Video			
Personal Safety Equipment (Lab Coats, Safety Glasses)			
Discussion of Safe Handling of Samples			
Discussion of Sample Disposal			
Mandatory pre-lab SOPs			
L0001 Laboratory Rules			
L0002 Proper Handling of Gas Cylinders			
Discussion of Work-Breaks			
Additional SOPs:			
Lost Sample Sheet Instructions			
Green Sheet (Client Notfication) Instructions			
Pink Sheet (Problem Notification/Prevention) Instructions			
Use of LIMS Sample Notes			
Assignment of laboratory notebooks and phone logs, if applicable.			
Other:			

Quality Assurance
Discussion of LSL Certifications
Green Sheet Instructions
Introduction to Data Defensibility
Potential for Client or Regulatory Requests for Supporting Data
Accuracy in Time and Date recording
Discussion of General QC protocols
Treatment of Results from Blank Samples
Control Limits
Initial Calibration
Continuing Calibration
LCS
Matrix Spikes
Surrogates
Notebook Entries
Initials and Dates
Notations of Observations
Notations of decision making
Notation of Supervisor Instructions
Use of SOPs and reference methods
Method Modification Documentation
Discussion of Monthly QC Recordkeeping
Ethics Training

Appendix 6-2

Demonstration of Capability Statement

Life Science Laboratories, Inc.
Central Laboratory
5854 Butternut Drive
East Syracuse, NY 13057

DEMONSTRATION OF CAPABILITY CERTIFICATION STATEMENT

Initial ________ Continuing_______ Date(s)Analyzed: ____________________________

Analyst:____ Section:___________

Matrix: Water______ Soil_________ Air______ Solid_______ Biological Tissue__________

Parameter(s):

We, the undersigned, CERTIFY that:

1. The analyst identified above, using the cited test method(s), which is in use at this facility for the analyses of samples under the National Environmental Laboratory Accreditation Program, have met the Demonstration of Capability.

2. The test method(s) was performed by the analyst(s) identified on this certification.

3. A copy of the test method(s) and the laboratory-specific SOPs are available for all personnel on-site.

4. The data associated with the demonstration capability are true, accurate, complete and self-explanatory.(1)

5. All raw data (including a copy of this certification form) necessary to reconstruct and validate these analyses have been retained at the facility, and that the associated information is well-organized and available for review by authorized assessors.

____

Technical Director Signature Date

____

Quality Assurance Signature Date

This certification form must be completed each time a demonstration of capability is completed.
(1) True: Consistent with supporting data.
Accurate: Based on good laboratory practices consistent with sound scientific principles/practices.
Complete: Includes the results of the supporting performance testing.

This DOC was verified using (circle one)

a. A quality control sample obtained from an outside source
b. Four aliquots prepared and analyzed according to the test method

Analytical Batch number_______________________________________

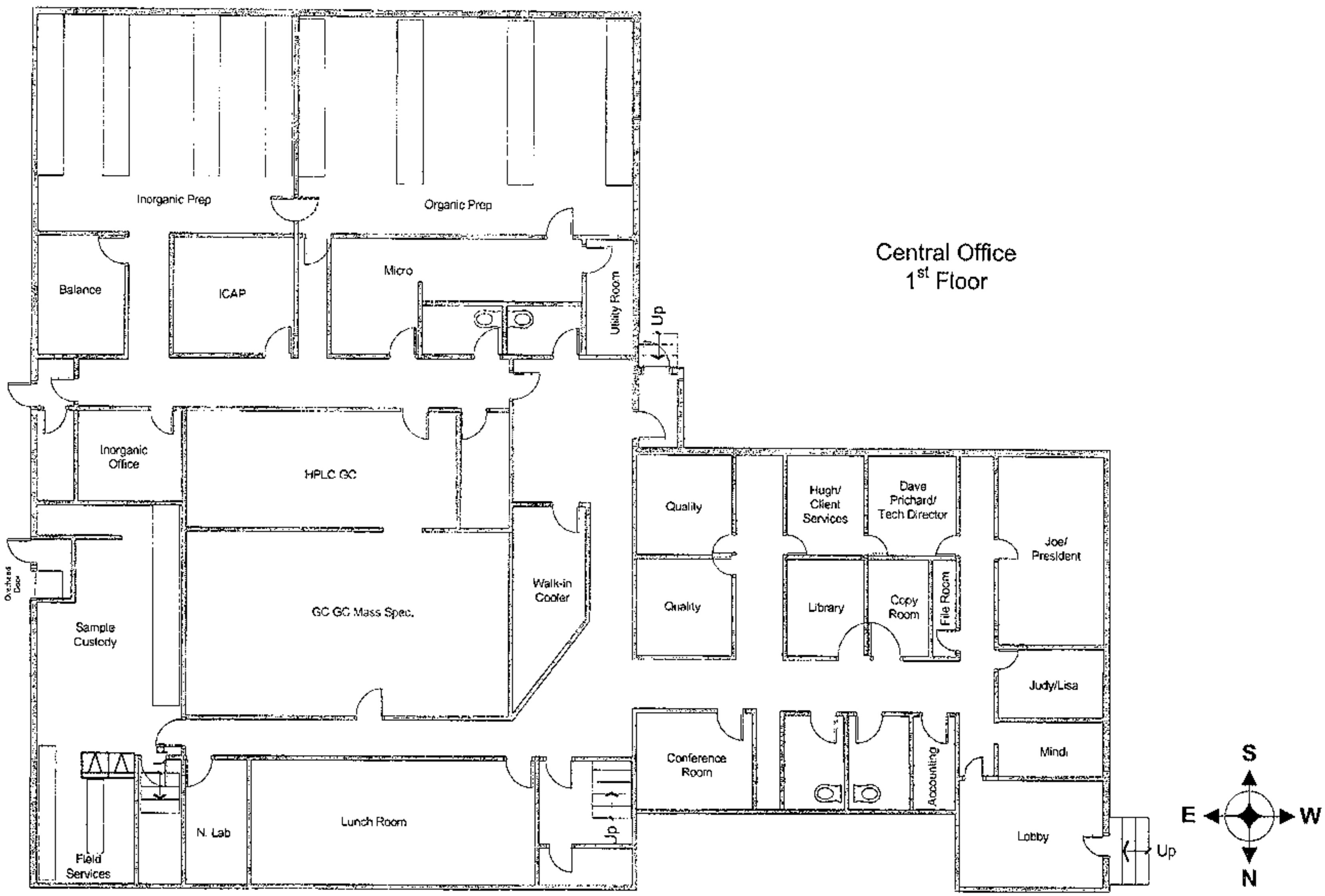
PT Round____

See attached____

This form automatically becomes an uncontrolled document when printed.
The official controlled and protected document is digitally located in the Training Record Application. Refer to the official controlled SOP L8025 in ApplicationXtender for information to complete this form.

Appendix 7-1

LSL-CL Facility Diagram


Central Office
1st Floor
Inorganic Prep
Organic Prep
Balance
ICAP
Micro
Utility Room
Up
Inorganic Office
HPLC GC
GC GC Mass Spec.
Walk-in Cooler
Overhead Door
Sample Custody
Field Services
N. Lab
Lunch Room
Up
Quality
Quality
Hugh/ Client Services
Dave Prichard/ Tech Director
Library
Copy Room
File Room
Joe/ President
Judy/Lisa
Mindi
Conference Room
Accounting
Lobby
Up
S
E
W
N

Appendix 8-1

Accredited Test Methods

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
Issued April 05, 2007

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. JOSEPH L. JERACI
LIFE SCIENCE LABORATORIES - CENTRAL
5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved subcategories and/or analytes are listed below:

Drinking Water Chlorinated Acids	
Acifluorofen	EPA 515.3
Drinking Water Metals I	
Copper, Total	EPA 200.7
	EPA 200.8
Drinking Water Miscellaneous	
Odor	EPA 140.1
Organic Carbon, Total	SM 18-20 5310C
Surfactant (MBAS)	EPA 425.1
UV 254	SM 19-20 5910B
Drinking Water Organohalide Pesticides	
Trifluralin	EPA 525.2

Serial No.: 33397

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

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All approved analytes are listed below:

D. W. Methylcarbamate Pesticides

3-Hydroxy Carbofuran	EPA 531.1
Aldicarb	EPA 531.1
Aldicarb Sulfone	EPA 531.1
Aldicarb Sulfoxide	EPA 531.1
Carbaryl	EPA 531.1
Carbofuran	EPA 531.1
Methomyl	EPA 531.1
Oxamyl	EPA 531.1

Disinfection By-products

Bromochloroacetic acid	EPA 552.2
Dibromoacetic acid	EPA 552.2
Dichloroacetic acid	EPA 552.2
Monobromoacetic acid	EPA 552.2
Monochloroacetic acid	EPA 552.2
Trichloroacetic acid	EPA 552.2

Drinking Water Bacteriology

Coliform, Total / E coli (Qualitative)	40 CFR, 141.21 (F) 6i
	Readycult Coliforms 100 P/A Test
	SM 18-20 9222B (97)
Standard Plate Count	SM 18 9215B

Drinking Water Chlorinated Acids

2,4,5-TP (Silvex)	EPA 515.1
	EPA 515.3
2,4-D	EPA 515.1
	EPA 515.3
Dalapon	EPA 515.1
	EPA 515.3

Drinking Water Chlorinated Acids

Dicamba	EPA 515.1
	EPA 515.3
Dinoseb	EPA 515.1
	EPA 515.3
Pentachlorophenol	EPA 515.1
	EPA 515.3
Picloram	EPA 515.1
	EPA 515.3

Drinking Water Metals I

Arsenic, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Chromium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
Lead, Total	EPA 200.8 Rev. 5.4
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Mercury, Total	EPA 200.8 Rev. 5.4
	EPA 245.1 Rev. 3.0
Selenium, Total	EPA 200.8 Rev. 5.4
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Zinc, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

Serial No.: 34275

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EPA Lab Code: NY01042

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All approved analytes are listed below:

Drinking Water Metals II

Aluminum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Antimony, Total	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Molybdenum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev 5.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Thallium, Total	EPA 200.8 Rev. 5.4
Vanadium, Total	EPA 200.7 Rev. 4 4
	EPA 200.8 Rev. 5.4

Drinking Water Metals III

Calcium, Total	EPA 200.7 Rev. 4.4
Magnesium, Total	EPA 200.7 Rev. 4.4
Potassium, Total	EPA 200.7 Rev. 4.4
Sodium, Total	EPA 200.7 Rev. 4 4

Drinking Water Miscellaneous

Benzo(a)pyrene	EPA 525.2
	EPA 550
Bis(2-ethylhexyl) phthalate	EPA 525.2
Butachlor	EPA 525.2
Di (2-ethylhexyl) adipate	EPA 525.2
Diquat	EPA 549.2
Glyphosate	EPA 547
Hexachlorobenzene	EPA 508
	EPA 525.2
Hexachlorocyclopentadiene	EPA 508

Drinking Water Miscellaneous

Hexachlorocyclopentadiene	EPA 525.2
Methyl tert-butyl ether	EPA 524.2
Propachlor	EPA 508
	EPA 525.2

Drinking Water Non-Metals

Alkalinity	SM 18-20 2320B (97)
Calcium Hardness	EPA 200.7 Rev. 4.4
Chloride	EPA 300.0 Rev. 2.1
Color	SM 18-20 2120B (01)
Corrosivity	SM 18-19 2330
Cyanide, Free	EPA 335.4 Rev. 1.0
Fluoride, Total	EPA 300.0 Rev. 2.1
Hydrogen Ion (pH)	EPA 150.1
Nitrate (as N)	EPA 300.0 Rev. 2.1
Nitrite (as N)	EPA 300.0 Rev. 2.1
Orthophosphate (as P)	EPA 365.1 Rev. 2.0
Silica, Dissolved	EPA 200.7 Rev. 4.4
Solids, Total Dissolved	EPA 160.1
	SM 18-20 2540C (97)
Specific Conductance	EPA 120.1 Rev. 1982
Sulfate (as SO4)	EPA 300.0 Rev. 2.1

Drinking Water Organohalide Pesticides

Alachlor	EPA 525.2
Aldrin	EPA 508
	EPA 525.2
Atrazine	EPA 525.2
Chlordane Total	EPA 508
Dieldrin	EPA 508

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Drinking Water Organohalide Pesticides

Dieldrin	EPA 525.2
Endrin	EPA 508
	EPA 525.2
Heptachlor	EPA 508
	EPA 525.2
Heptachlor epoxide	EPA 508
	EPA 525.2
Lindane	EPA 508
	EPA 525.2
Methoxychlor	EPA 508
	EPA 525 2
Metolachlor	EPA 525.2
Metribuzin	EPA 525.2
Simazine	EPA 525.2
Toxaphene	EPA 508

Drinking Water Trihalomethanes

Bromodichloromethane	EPA 524.2
Bromoform	EPA 524.2
Chloroform	EPA 524.2
Dibromochloromethane	EPA 524.2
Total Trihalomethanes	EPA 524.2

Polychlorinated Biphenyls

PCB Screen	EPA 508

Volatile Aromatics

1,2,3-Trichlorobenzene	EPA 524.2
1.2,4-Trichlorobenzene	EPA 524.2
1,2,4-Trimethylbenzene	EPA 524.2

Volatile Aromatics

1,2-Dichlorobenzene	EPA 524.2
1,3,5-Trimethylbenzene	EPA 524.2
1,3-Dichlorobenzene	EPA 524.2
1,4-Dichlorobenzene	EPA 524.2
2-Chlorotoluene	EPA 524.2
4-Chlorotoluene	EPA 524.2
Benzene	EPA 524.2
Bromobenzene	EPA 524.2
Chlorobenzene	EPA 524.2
Ethyl benzene	EPA 524.2
Hexachlorobutadiene	EPA 524.2
Isopropylbenzene	EPA 524.2
n-Butylbenzene	EPA 524.2
n-Propylbenzene	EPA 524.2
p-Isopropyltoluene (P-Cymene)	EPA 524.2
sec-Butylbenzene	EPA 524.2
Styrene	EPA 524.2
tert-Butylbenzene	EPA 524.2
Toluene	EPA 524.2
Total Xylenes	EPA 524.2

Volatile Halocarbons

1,1,1,2-Tetrachloroethane	EPA 524.2
1,1,1-Trichloroethane	EPA 524.2
1,1,2,2-Tetrachloroethane	EPA 524.2
1,1,2-Trichloroethane	EPA 524.2
1,1-Dichloroethane	EPA 524.2
1,1-Dichloroethene	EPA 524.2
1,1-Dichloropropene	EPA 524.2

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EPA Lab Code: NY01042

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All approved analytes are listed below:

Volatile Halocarbons

1,2,3-Trichloropropane	EPA 524.2
1,2-Dichloroethane	EPA 524.2
1,2-Dichloropropane	EPA 524.2
1,3-Dichloropropane	EPA 524.2
2,2-Dichloropropane	EPA 524.2
Bromochloromethane	EPA 524.2
Bromomethane	EPA 524.2
Carbon tetrachloride	EPA 524.2
Chloroethane	EPA 524.2
Chloromethane	EPA 524.2
cis-1,2-Dichloroethene	EPA 524.2
cis-1,3-Dichloropropene	EPA 524.2
Dibromomethane	EPA 524.2
Methylene chloride	EPA 524.2
Tetrachloroethene	EPA 524.2
trans-1,2-Dichloroethene	EPA 524.2
trans-1,3-Dichloropropene	EPA 524.2
Trichloroethene	EPA 524.2
Trichlorofluoromethane	EPA 524.2
Vinyl chloride	EPA 524.2

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EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved subcategories and/or analytes are listed below:

Bacteriology	
Coliform, Total	SM 18-20 9222B (97)
Carbamate Pesticides	
Aldicarb	EPA 8318
Aldicarb Sulfone	EPA 8318
Carbofuran	EPA 8318
Chlorinated Hydrocarbon Pesticides	
Toxaphene	EPA 608
	EPA 8081A
	EPA 8270C
Fuel Oxygenates	
Ethanol	EPA 8015 B
Methyl tert-butyl ether	EPA 8260B
t-Butyl alcohol	EPA 8260B
Purgeable Halocarbons	
Dichlorodifluoromethane	EPA 601
Wastewater Metals I	
Strontium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Wastewater Miscellaneous	
Surfactant (MBAS)	SM 18-20 5540C (00)
Total Recoverable Petroleum Hydrocarb	EPA 1664A

Serial No.: 34660

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All approved analytes are listed below:

Acrylates

Acrolein (Propenal)	EPA 624
	EPA 8260B
Acrylonitrile	EPA 624
	EPA 8260B

Amines

2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Carbazole	EPA 8270C
Pyridine	EPA 8270C

Bacteriology

Coliform, fecal	SM 18-20 9222D (97)
E. coli (Enumeration)	EPA 1603
Standard Plate Count	SM 18 9215B

Benzidines

3,3' -Dichlorobenzidine	EPA 625
	EPA 8270C
Benzidine	EPA 625
	EPA 8270C

Chlorinated Hydrocarbon Pesticides

4,4'-DDD	EPA 608
	EPA 8081A
4,4'-DDE	EPA 608
	EPA 8081A
4,4'-DDT	EPA 608

Chlorinated Hydrocarbon Pesticides

4,4'-DDT	EPA 8081A
Aldrin	EPA 608
	EPA 8081A
alpha-BHC	EPA 608
	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 608
	EPA 8081A
Captan	SM 18-20 6630B
Chlordane Total	EPA 608
	EPA 8081A
	EPA 8270C
delta-BHC	EPA 608
	EPA 8081A
Dieldrin	EPA 608
	EPA 8081A
Endosulfan I	EPA 608
	EPA 8081A
Endosulfan II	EPA 608
	EPA 8081A
Endosulfan sulfate	EPA 608
	EPA 8081A
Endrin	EPA 608
	EPA 8081A
	EPA 8270C
Endrin aldehyde	EPA 608
	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A

Serial No.: 34659

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EPA Lab Code: NY01042

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All approved analytes are listed below:

Chlorinated Hydrocarbon Pesticides	
Heptachlor	EPA 608
	EPA 8081A
	EPA 8270C
Heptachlor epoxide	EPA 608
	EPA 8081A
	EPA 8270C
Isodrin	EPA 8270C
Lindane	EPA 608
	EPA 8081A
	EPA 8270C
Methoxychlor	EPA 608
	EPA 8081A
	EPA 8270C
PCNB	EPA 8270C
Trifluralin	SM 18-20 6630B
Chlorinated Hydrocarbons	
1,2,4-Trichlorobenzene	EPA 625
	EPA 8270C
2-Chloronaphthalene	EPA 625
	EPA 8270C
Hexachlorobenzene	EPA 625
	EPA 8270C
Hexachlorobutadiene	EPA 625
	EPA 8260B
	EPA 8270C
Hexachlorocyclopentadiene	EPA 625
	EPA 8270C
Hexachloroethane	EPA 625
Chlorinated Hydrocarbons	
Hexachloroethane	EPA 8270C
Chlorophenoxy Acid Pesticides	
2,4,5-T	EPA 8151A
	SM 18-20 6640B
2,4,5-TP (Silvex)	EPA 8151A
	SM 18-20 6640B
2,4-D	EPA 8151A
	SM 18-20 6640B
Dicamba	EPA 1978, p.115
	EPA 8151A
Demand	
Biochemical Oxygen Demand	EPA 405.1
Carbonaceous BOD	SM 18-20 5210B (01)
Chemical Oxygen Demand	HACH 8000
Haloethers	
4-Bromophenylphenyl ether	EPA 625
	EPA 8270C
4-Chlorophenylphenyl ether	EPA 625
	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 625
	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 625
	EPA 8270C
Bis(2-chloroethyl)ether	EPA 625
	EPA 8270C

Serial No.: 34659

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
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Revised October 29, 2007

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. JOSEPH L. JERACI
LIFE SCIENCE LABORATORIES - CENTRAL
5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Microextractables

1,2-Dibromo-3-chloropropane	EPA 8260B
1,2-Dibromoethane	EPA 8260B

Mineral

Acidity	EPA 305.1
Alkalinity	SM 18-20 2320B (97)
Calcium Hardness	EPA 200.7 Rev. 4.4
Chloride	EPA 300.0 Rev. 2.1
Fluoride, Total	EPA 300.0 Rev. 2.1
Hardness, Total	EPA 200.7 Rev. 4.4
Sulfate (as SO4)	EPA 300.0 Rev. 2.1

Nitroaromatics and Isophorone

2,4-Dinitrotoluene	EPA 625
	EPA 8270C
2,6-Dinitrotoluene	EPA 625
	EPA 8270C
Isophorone	EPA 625
	EPA 8270C
Nitrobenzene	EPA 625
	EPA 8270C

Nitrosoamines

N-Nitrosodimethylamine	EPA 625
	EPA 8270C
N-Nitrosodi-n-propylamine	EPA 625
	EPA 8270C
N-Nitrosodiphenylamine	EPA 625
	EPA 8270C

Nutrient

Ammonia (as N)	EPA 350.2
Kjeldahl Nitrogen, Total	EPA 351.2 Rev. 2.0
Nitrate (as N)	EPA 300.0 Rev. 2.1
	EPA 353.1
Nitrite (as N)	EPA 300.0 Rev. 2.1
Orthophosphate (as P)	EPA 365.1 Rev. 2.0
	EPA 365.3 Rev. 1978
Phosphorus, Total	EPA 365.1 Rev. 2.0
	EPA 365.3 Rev. 1978

Organophosphate Pesticides

Azinphos methyl	EPA 8270C
Diazinon	EPA 8270C
Disulfoton	EPA 8270C
Malathion	EPA 8270C
Parathion ethyl	EPA 8270C
Parathion methyl	EPA 8270C

Phthalate Esters

Benzyl butyl pthalate	EPA 625
	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 625
	EPA 8270C
Diethyl phthalate	EPA 625
	EPA 8270C
Dimethyl phthalate	EPA 625
	EPA 8270C
Di-n-butyl phthalate	EPA 625
	EPA 8270C
Di-n-octyl phthalate	EPA 625

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Phthalate Esters

Di-n-octyl phthalate	EPA 8270C

Polychlorinated Biphenyls

PCB-1016	EPA 608
	EPA 8082
PCB-1221	EPA 608
	EPA 8082
PCB-1232	EPA 608
	EPA 8082
PCB-1242	EPA 608
	EPA 8082
PCB-1248	EPA 608
	EPA 8082
PCB-1254	EPA 608
	EPA 8082
PCB-1260	EPA 608
	EPA 8082

Polynuclear Aromatics

Acenaphthene	EPA 625
	EPA 8270C
Acenaphthylene	EPA 625
	EPA 8270C
Anthracene	EPA 625
	EPA 8270C
Benzo(a)anthracene	EPA 625
	EPA 8270C
Benzo(a)pyrene	EPA 625
	EPA 8270C
Benzo(b)fluoranthene	EPA 625

Polynuclear Aromatics

Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 625
	EPA 8270C
Benzo(k)fluoranthene	EPA 625
	EPA 8270C
Chrysene	EPA 625
	EPA 8270C
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270C
Fluoranthene	EPA 625
	EPA 8270C
Fluorene	EPA 625
	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270C
Naphthalene	EPA 625
	EPA 8260B
	EPA 8270C
Phenanthrene	EPA 625
	EPA 8270C
Pyrene	EPA 625
	EPA 8270C

Priority Pollutant Phenols

2,4,5-Trichlorophenol	EPA 625
	EPA 8270C
2,4,6-Trichlorophenol	EPA 625
	EPA 8270C
2,4-Dichlorophenol	EPA 625

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Priority Pollutant Phenols

2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 625
	EPA 8270C
2,4-Dinitrophenol	EPA 625
	EPA 8270C
2-Chlorophenol	EPA 625
	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 625
	EPA 8270C
3-Methylphenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 625
	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 625
	EPA 8270C
Cresols, Total	EPA 8270C
Pentachlorophenol	EPA 625
	EPA 8270C
Phenol	EPA 625
	EPA 8270C

Purgeable Aromatics

1,2-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
	EPA 8270C

Purgeable Aromatics

1,3-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
	EPA 8270C
1,4-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
	EPA 8270C
Benzene	EPA 624
	EPA 8260B
Chlorobenzene	EPA 624
	EPA 8260B
Ethyl benzene	EPA 624
	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 624
	EPA 8260B
Total Xylenes	EPA 624
	EPA 8260B

Purgeable Halocarbons

1,1,1-Trichloroethane	EPA 624
	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 624
	EPA 8260B
1,1,2-Trichloroethane	EPA 624
	EPA 8260B
1,1-Dichloroethane	EPA 624
	EPA 8260B

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Purgeable Halocarbons

1,1-Dichloroethene	EPA 624
	EPA 8260B
1,1-Dichloropropene	EPA 8260B
1,2,3-Trichloropropane	EPA 8260B
1,2-Dichloroethane	EPA 624
	EPA 8260B
1,2-Dichloropropane	EPA 624
	EPA 8260B
2-Chloroethylvinyl ether	EPA 624
	EPA 8260B
Bromodichloromethane	EPA 624
	EPA 8260B
Bromoform	EPA 624
	EPA 8260B
Bromomethane	EPA 624
	EPA 8260B
Carbon tetrachloride	EPA 624
	EPA 8260B
Chloroethane	EPA 624
	EPA 8260B
Chloroform	EPA 624
	EPA 8260B
Chloromethane	EPA 624
	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 624
	EPA 8260B
Dibromochloromethane	EPA 624
	EPA 8260B

Purgeable Halocarbons

Dichlorodifluoromethane	EPA 624
	EPA 8260B
Methylene chloride	EPA 624
	EPA 8260B
Tetrachloroethene	EPA 624
	EPA 8260B
trans-1,2-Dichloroethene	EPA 624
	EPA 8260B
trans-1,3-Dichloropropene	EPA 624
	EPA 8260B
trans-1,4-Dichloro-2-butene	EPA 8260B
Trichloroethene	EPA 624
	EPA 8260B
Trichlorofluoromethane	EPA 624
	EPA 8260B
Vinyl chloride	EPA 624
	EPA 8260B

Purgeable Organics

2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Vinyl acetate	EPA 8260B

Residue

Solids, Total	EPA 160.3
Solids, Total Dissolved	EPA 160.1
	SM 18-20 2540C (97)

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Residue

Solids, Total Suspended	EPA 160.2

Semi-Volatile Organics

2-Methylnaphthalene	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C

Wastewater Metals I

Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Calcium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Chromium, Total	EPA 200.7 Rev 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Copper, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Iron, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Lead, Total	EPA 200.7 Rev. 4.4

Wastewater Metals I

Lead, Total	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Magnesium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Potassium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Sodium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B

Wastewater Metals II

Aluminum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Antimony, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

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All approved analytes are listed below:

Wastewater Metals II

Antimony, Total	EPA 6010B
	EPA 6020
Arsenic, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Chromium VI	EPA 7196A
	SM 18-19 3500-Cr D
Mercury, Total	EPA 245.1 Rev. 3.0
	EPA 7470A
Selenium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Vanadium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Zinc, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020

Wastewater Metals III

Cobalt, Total	EPA 200.7 Rev. 4.4

Wastewater Metals III

Cobalt, Total	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Molybdenum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Thallium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Tin, Total	EPA 200.7 Rev. 4.4
	EPA 6010B

Wastewater Miscellaneous

Boron, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Bromide	EPA 300.0 Rev. 2.1
Color	SM 18-20 2120B (01)
Cyanide, Total	EPA 335.2
	EPA 335.4 Rev. 1.0
	EPA 9012A
Hydrogen Ion (pH)	EPA 150.1
	EPA 9040B
Oil & Grease Total Recoverable	EPA 1664A
Organic Carbon, Total	EPA 415.1
	SM 18-20 5310C (00)
Phenols	EPA 420.1 Rev. 1978
Silica, Dissolved	EPA 200.7 Rev. 4.4

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Wastewater Miscellaneous

Silica, Dissolved	EPA 6010B
Specific Conductance	EPA 120.1 Rev. 1982
Temperature	EPA 170.1

Sample Preparation Methods

	EPA 200.2
	EPA 3005A
	EPA 3010A
	EPA 3510C
	EPA 3535
	EPA 5030B
	EPA 9010B

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is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Metals II

Chromium VI	EPA 7196A

Miscellaneous

Cyanide, Total	EPA 9012A

Purgeable Halocarbons

Chloroethane	EPA 8260B

Purgeable Organics

Ethylene Glycol	EPA 8015 B
Isobutyl alcohol	EPA 8015 B

Semi-Volatile Organics

Benzyl alcohol	EPA 8270C

Sample Preparation Methods

EPA 1311	EPA 9030B	EPA 9010B	EPA 3010A
EPA 3005A	EPA 3050B	EPA 3580	EPA 3550B
EPA 5030B	EPA 3585		

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Acrylates

Acrolein (Propenal)	EPA 8260B
Acrylonitrile	EPA 8260B
Methyl methacrylate	EPA 8260B

Amines

1,2-Diphenylhydrazine	EPA 8270C
2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Aniline	EPA 8270C
Carbazole	EPA 8270C

Benzidines

3,3'-Dichlorobenzidine	EPA 8270C
Benzidine	EPA 8270C

Characteristic Testing

Corrosivity	EPA 9040B
	EPA 9045C
Ignitability	EPA 1010
Reactivity	SW-846 Ch7, Sec. 7.3

Chlorinated Hydrocarbon Pesticides

4,4'-DDD	EPA 8081A
4,4'-DDE	EPA 8081A
4,4'-DDT	EPA 8081A
Aldrin	EPA 8081A
alpha-BHC	EPA 8081A
alpha-Chlordane	EPA 8081A

Chlorinated Hydrocarbon Pesticides

beta-BHC	EPA 8081A
Chlordane Total	EPA 8081A
delta-BHC	EPA 8081A
Dieldrin	EPA 8081A
Endosulfan I	EPA 8081A
Endosulfan II	EPA 8081A
Endosulfan sulfate	EPA 8081A
Endrin	EPA 8081A
Endrin aldehyde	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 8081A
Heptachlor epoxide	EPA 8081A
Lindane	EPA 8081A
Methoxychlor	EPA 8081A
Toxaphene	EPA 8081A
Trifluralin	EPA 8081A

Chlorinated Hydrocarbons

1,2,4-Trichlorobenzene	EPA 8270C
2-Chloronaphthalene	EPA 8270C
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 8270C
Hexachlorocyclopentadiene	EPA 8270C
Hexachloroethane	EPA 8270C

Chlorophenoxy Acid Pesticides

2,4,5-T	EPA 8151A
2,4,5-TP (Silvex)	EPA 8151A
2,4-D	EPA 8151A

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Chlorophenoxy Acid Pesticides

Dalapon	EPA 8151A
Dicamba	EPA 8151A
Dinoseb	EPA 8151A
MCPA	EPA 8151A
MCPP	EPA 8151A

Haloethers

4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 8270C
Bis(2-chloroethyl)ether	EPA 8270C

Metals I

Barium, Total	EPA 6010B
Cadmium, Total	EPA 6010B
Calcium, Total	EPA 6010B
Chromium, Total	EPA 6010B
Copper, Total	EPA 6010B
Iron, Total	EPA 6010B
Lead, Total	EPA 6010B
Magnesium, Total	EPA 6010B
Manganese, Total	EPA 6010B
Nickel, Total	EPA 6010B
Potassium, Total	EPA 6010B
Silver, Total	EPA 6010B
Sodium, Total	EPA 6010B
Strontium, Total	EPA 6010B

Metals II

Aluminum, Total	EPA 6010B
Antimony, Total	EPA 6010B
Arsenic, Total	EPA 6010B
Beryllium, Total	EPA 6010B
Mercury, Total	EPA 7471A
Selenium, Total	EPA 6010B
Vanadium, Total	EPA 6010B
Zinc, Total	EPA 6010B

Metals III

Cobalt, Total	EPA 6010B
Molybdenum, Total	EPA 6010B
Thallium, Total	EPA 6010B
Tin, Total	EPA 6010B

Miscellaneous

Hydrogen Ion (pH)	EPA 9040B
	EPA 9045C
Lead in Dust Wipes	EPA 6010B
Lead in Paint	SM 18-20 3120B (99)
Phenols	EPA 9065
Sulfide (as S)	EPA 9034

Nitroaromatics and Isophorone

2,4-Dinitrotoluene	EPA 8270C
2,6-Dinitrotoluene	EPA 8270C
Isophorone	EPA 8270C
Nitrobenzene	EPA 8270C
Pyridine	EPA 8270C

Serial No.: 34661

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
Issued April 05, 2007
Revised October 29, 2007

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

NY Lab Id No: 10248
EPA Lab Code: NY01042

DR. JOSEPH L. JERACI
LIFE SCIENCE LABORATORIES - CENTRAL
5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved analytes are listed below:

Nitrosoamines

N-Nitrosodi-n-propylamine	EPA 8270C
N-Nitrosodiphenylamine	EPA 8270C

Phthalate Esters

Benzyl butyl phthalate	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 8270C
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 8270C
Di-n-butyl phthalate	EPA 8270C
Di-n-octyl phthalate	EPA 8270C

Polychlorinated Biphenyls

PCB-1016	EPA 8082
PCB-1221	EPA 8082
PCB-1232	EPA 8082
PCB-1242	EPA 8082
PCB-1248	EPA 8082
PCB-1254	EPA 8082
PCB-1260	EPA 8082

Polynuclear Aromatic Hydrocarbons

Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C

Polynuclear Aromatic Hydrocarbons

Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8260B
	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

Priority Pollutant Phenols

2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 8270C
3-Methylphenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C

Purgeable Aromatics

1,2,4-Trimethylbenzene	EPA 8260B
1,2-Dichlorobenzene	EPA 8260B
1,3,5-Trimethylbenzene	EPA 8260B

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
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CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

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DR. JOSEPH L. JERACI
LIFE SCIENCE LABORATORIES - CENTRAL
5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Purgeable Aromatics

1,3-Dichlorobenzene	EPA 8260B
1,4-Dichlorobenzene	EPA 8260B
2-Chlorotoluene	EPA 8260B
4-Chlorotoluene	EPA 8260B
Benzene	EPA 8260B
Bromobenzene	EPA 8260B
Chlorobenzene	EPA 8260B
Ethyl benzene	EPA 8260B
Isopropylbenzene	EPA 8260B
n-Butylbenzene	EPA 8260B
sec-Butylbenzene	EPA 8260B
Styrene	EPA 8260B
tert-Butylbenzene	EPA 8260B
Toluene	EPA 8260B
Total Xylenes	EPA 8260B

Purgeable Halocarbons

1,1,1,2-Tetrachloroethane	EPA 8260B
1,1,1-Trichloroethane	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B
1,1-Dichloroethene	EPA 8260B
1,1-Dichloropropene	EPA 8260B
1,2,3-Trichloropropane	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
1,3-Dichloropropane	EPA 8260B
2,2-Dichloropropane	EPA 8260B

Purgeable Halocarbons

2-Chloroethylvinyl ether	EPA 8260B
Bromochloromethane	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloromethane	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dibromomethane	EPA 8260B
Dichlorodifluoromethane	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B
Vinyl chloride	EPA 8260B

Purgeable Organics

2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Vinyl acetate	EPA 8260B

Semi-Volatile Organics

2-Methylnaphthalene	EPA 8270C
Benzoic Acid	EPA 8270C

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5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Semi-Volatile Organics

Dibenzofuran	EPA 8270C

Sample Preparation Methods

	EPA 1311
	EPA 3005A
	EPA 3010A
	EPA 3050B
	EPA 3550B
	EPA 3580
	EPA 3585
	EPA 5030B
	EPA 9030B

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5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved analytes are listed below:

Metals I

Lead, Total	EPA 200.7

Polychlorinated Biphenyls

PCB-1016	NIOSH 5503
	NYS DOH 311-1
PCB-1221	NIOSH 5503
	NYS DOH 311-1
PCB-1232	NIOSH 5503
	NYS DOH 311-1
PCB-1242	NIOSH 5503
	NYS DOH 311-1
PCB-1248	NIOSH 5503
	NYS DOH 311-1
PCB-1254	NIOSH 5503
	NYS DOH 311-1
PCB-1260	NIOSH 5503
	NYS DOH 311-1

Purgeable Aromatics

Benzene	40 CFR PART 60 1984 Method 18
Ethyl benzene	40 CFR PART 60 1984 Method 18
	NYS DOH JAN 1986
Toluene	40 CFR PART 60 1984 Method 18
Total Xylenes	40 CFR PART 60 1984 Method 18

Purgeable Aromatics

Total Xylenes	NYS DOH JAN 1986

Serial No.: 33402

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
Issued April 05, 2007

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. JOSEPH L. JERACI
LIFE SCIENCE LABORATORIES - CENTRAL
5854 BUTTERNUT DR
EAST SYRACUSE, NY 13057

NY Lab Id No: 10248
EPA Lab Code: NY01042

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES ANALYTICAL SERVICES PROTOCOL
All approved subcategories and/or analytes are listed below:

CLP Volatile Organics
CLP Semi-Volatile Organics
CLP Inorganics

Serial No.: 33403

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF FIELD OPERATIONS

BUREAU OF LABORATORIES

Certifies that

68-02556

LIFE SCIENCE LABORATORIES, INC.- CENTRAL

5854 BUTTERNUT DRIVE

EAST SYRACUSE, NY 13057

Having duly met the requirement of
The Act of June 29, 2002 (P.L. 596, No. 90)
dealing with Environmental Laboratory Accreditation
(27 Pa. C.S. §§4101-4113) and the
National Environmental Laboratory Accreditation Conference Standard

is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Expiration Date: **10/31/2008**

Certificate Number: **004**

Gary E. Niland, Acting Bureau Director
Bureau of Laboratories

Certificate not transferable   Surrender upon revocation
To Be Conspicuously Displayed at the Laboratory
Not valid unless accompanied by a valid Scope of Accreditation
Shall not be used to imply endorsement by the Commonwealth of Pennsylvania
Customers are urged to verify the laboratory's current accreditation status
PA DEP is a NELAP recognized accrediting authority

1500-FM-LAB0016 Rev. 6/2007

Laboratory Scope of Accreditation

Attachment to Certificate of Accreditation 004, expiration date October 31, 2008. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

State Laboratory ID: 68-02556 **EPA Lab Code: NY01042** **(315) 445-1105**

Life Science Laboratories, Inc.- Central
5854 Butternut Drive
East Syracuse, NY 13057

Program Drinking Water

Method	Analyte	Accreditation Type	Primary	Effective Date
EPA 120.1	Conductivity	NELAP	NY	7/25/2006
EPA 150.1	pH	NELAP	NY	9/8/2003
EPA 160.1	Residue-filterable (TDS)	NELAP	NY	7/25/2006
EPA 200.7	Barium	NELAP	NY	9/8/2003
EPA 200.7	Beryllium	NELAP	NY	9/8/2003
EPA 200.7	Cadmium	NELAP	NY	9/8/2003
EPA 200.7	Calcium	NELAP	NY	7/25/2006
EPA 200.7	Chromium	NELAP	NY	9/8/2003
EPA 200.7	Iron	NELAP	NY	10/4/2005
EPA 200.7	Manganese	NELAP	NY	10/4/2005
EPA 200.7	Nickel	NELAP	NY	9/8/2003
EPA 200.7	Silver	NELAP	NY	9/8/2003
EPA 200.7	Sodium	NELAP	NY	9/8/2003
EPA 200.7	Zinc	NELAP	NY	10/4/2005
EPA 200.7	Calcium hardness as CaCO3	NELAP	NY	7/25/2006
EPA 200.7	Silica as SiO2	NELAP	NY	7/25/2006
EPA 200.8	Aluminum	NELAP	NY	7/25/2006
EPA 200.8	Antimony	NELAP	NY	9/8/2003
EPA 200.8	Arsenic	NELAP	NY	9/8/2003
EPA 200.8	Barium	NELAP	NY	9/8/2003
EPA 200.8	Beryllium	NELAP	NY	9/8/2003
EPA 200.8	Cadmium	NELAP	NY	9/8/2003
EPA 200.8	Chromium	NELAP	NY	9/8/2003
EPA 200.8	Lead	NELAP	NY	9/8/2003
EPA 200.8	Manganese	NELAP	NY	10/4/2005
EPA 200.8	Mercury	NELAP	NY	10/4/2005
EPA 200.8	Nickel	NELAP	NY	9/8/2003
EPA 200.8	Selenium	NELAP	NY	9/8/2003
EPA 200.8	Silver	NELAP	NY	9/8/2003
EPA 200.8	Thallium	NELAP	NY	9/8/2003
EPA 200.8	Zinc	NELAP	NY	10/4/2005
EPA 300.0	Chloride	NELAP	NY	10/12/2004
EPA 300.0	Fluoride	NELAP	NY	9/8/2003
EPA 300.0	Nitrate as N	NELAP	NY	9/8/2003
EPA 300.0	Nitrite as N	NELAP	NY	9/8/2003
EPA 300.0	Sulfate	NELAP	NY	9/8/2003

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State Laboratory ID: 68-02556 **EPA Lab Code: NY01042** **(315) 445-1105**

Life Science Laboratories, Inc.- Central
5854 Butternut Drive
East Syracuse, NY 13057

Program Drinking Water

Method	Analyte	Accreditation Type	Primary	Effective Date
EPA 335.4	Total cyanide	NELAP	NY	9/8/2003
EPA 365.1	Orthophosphate as P	NELAP	NY	10/4/2005
EPA 504.1	1 2-Dibromo-3-chloropropane (DBCP)	NELAP	NY	9/8/2003
EPA 504.1	1 2-Dibromoethane (EDB Ethylene dibromide)	NELAP	NY	9/8/2003
EPA 508	Hexachlorobenzene	NELAP	NY	9/8/2003
EPA 508	Hexachlorocyclopentadiene	NELAP	NY	9/8/2003
EPA 508	PCBs, Total as decachlorobiphenyl	NELAP	NY	9/8/2003
EPA 508	Aldrin	NELAP	NY	9/8/2003
EPA 508	Chlordane (tech.)	NELAP	NY	9/8/2003
EPA 508	Dieldrin	NELAP	NY	9/8/2003
EPA 508	Endrin	NELAP	NY	9/8/2003
EPA 508	Heptachlor	NELAP	NY	9/8/2003
EPA 508	Heptachlor epoxide	NELAP	NY	9/8/2003
EPA 508	Methoxychlor	NELAP	NY	9/8/2003
EPA 508	Propachlor (Ramrod)	NELAP	NY	7/25/2006
EPA 508	Toxaphene (Chlorinated camphene)	NELAP	NY	9/8/2003
EPA 508	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	NELAP	NY	9/8/2003
EPA 515.1	Pentachlorophenol	NELAP	NY	8/19/2004
EPA 515.1	2 4-D	NELAP	NY	8/19/2004
EPA 515.1	Dalapon	NELAP	NY	9/8/2003
EPA 515.1	Dicamba	NELAP	NY	8/19/2004
EPA 515.1	Dinoseb (2-sec-butyl-4 6-dinitrophenol DNBP)	NELAP	NY	8/19/2004
EPA 515.1	Picloram	NELAP	NY	8/19/2004
EPA 515.1	Silvex (2 4 5-TP)	NELAP	NY	8/19/2004
EPA 515.3	Pentachlorophenol	NELAP	NY	9/8/2003
EPA 515.3	2 4-D	NELAP	NY	9/8/2003
EPA 515.3	Dalapon	NELAP	NY	8/19/2004
EPA 515.3	Dicamba	NELAP	NY	9/8/2003
EPA 515.3	Dinoseb (2-sec-butyl-4 6-dinitrophenol DNBP)	NELAP	NY	9/8/2003
EPA 515.3	Picloram	NELAP	NY	9/8/2003
EPA 515.3	Silvex (2 4 5-TP)	NELAP	NY	9/8/2003
EPA 524.2	1 1 1 2-Tetrachloroethane	NELAP	NY	9/8/2003
EPA 524.2	1 1 1-Trichloroethane	NELAP	NY	9/8/2003
EPA 524.2	1 1 2 2-Tetrachloroethane	NELAP	NY	9/8/2003
EPA 524.2	1 1 2-Trichloroethane	NELAP	NY	9/8/2003
EPA 524.2	1 1-Dichloroethane	NELAP	NY	9/8/2003

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State Laboratory ID: 68-02556 **EPA Lab Code: NY01042** **(315) 445-1105**

Life Science Laboratories, Inc.- Central
5854 Butternut Drive
East Syracuse, NY 13057

Program Drinking Water

Method	Analyte	Accreditation Type	Primary	Effective Date
EPA 524.2	1 1-Dichloroethene	NELAP	NY	9/8/2003
EPA 524.2	1 1-Dichloropropene	NELAP	NY	9/8/2003
EPA 524.2	1 2 3-Trichlorobenzene	NELAP	NY	10/4/2005
EPA 524.2	1 2 3-Trichloropropane	NELAP	NY	9/8/2003
EPA 524.2	1 2 4-Trichlorobenzene	NELAP	NY	9/8/2003
EPA 524.2	1 2 4-Trimethylbenzene	NELAP	NY	10/4/2005
EPA 524.2	1 2-Dichlorobenzene	NELAP	NY	9/8/2003
EPA 524.2	1 2-Dichloroethane	NELAP	NY	9/8/2003
EPA 524.2	1 2-Dichloropropane	NELAP	NY	9/8/2003
EPA 524.2	1 3 5-Trimethylbenzene	NELAP	NY	10/4/2005
EPA 524.2	1 3-Dichlorobenzene	NELAP	NY	9/8/2003
EPA 524.2	1 3-Dichloropropane	NELAP	NY	9/8/2003
EPA 524.2	1 4-Dichlorobenzene	NELAP	NY	9/8/2003
EPA 524.2	2 2-Dichloropropane	NELAP	NY	9/8/2003
EPA 524.2	2-Chlorotoluene	NELAP	NY	9/8/2003
EPA 524.2	4-Chlorotoluene	NELAP	NY	9/8/2003
EPA 524.2	Benzene	NELAP	NY	9/8/2003
EPA 524.2	Bromobenzene	NELAP	NY	9/8/2003
EPA 524.2	Bromochloromethane	NELAP	NY	10/4/2005
EPA 524.2	Bromodichloromethane	NELAP	NY	9/8/2003
EPA 524.2	Bromoform	NELAP	NY	9/8/2003
EPA 524.2	Carbon tetrachloride	NELAP	NY	9/8/2003
EPA 524.2	Chlorobenzene	NELAP	NY	9/8/2003
EPA 524.2	Chloroethane	NELAP	NY	9/8/2003
EPA 524.2	Chloroform	NELAP	NY	9/8/2003
EPA 524.2	Dibromochloromethane	NELAP	NY	9/8/2003
EPA 524.2	Dibromomethane	NELAP	NY	9/8/2003
EPA 524.2	Dichlorodifluoromethane	NELAP	NY	10/4/2005
EPA 524.2	Dichloromethane (DCM Methylene chloride)	NELAP	NY	9/8/2003
EPA 524.2	Ethylbenzene	NELAP	NY	9/8/2003
EPA 524.2	Hexachlorobutadiene	NELAP	NY	10/4/2005
EPA 524.2	Isopropylbenzene	NELAP	NY	10/4/2005
EPA 524.2	Methyl bromide (Bromomethane)	NELAP	NY	9/8/2003
EPA 524.2	Methyl chloride (Chloromethane)	NELAP	NY	9/8/2003
EPA 524.2	Methyl tert-butyl ether (MTBE)	NELAP	NY	10/4/2005
EPA 524.2	Styrene	NELAP	NY	9/8/2003

Laboratory Scope of Accreditation

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State Laboratory ID: 68-02556 EPA Lab Code: NY01042 (315) 445-1105

Life Science Laboratories, Inc.- Central
5854 Butternut Drive
East Syracuse, NY 13057

Program Drinking Water

Method	Analyte	Accreditation Type	Primary	Effective Date
EPA 524.2	Tetrachloroethene (PCE Perchloroethylene)	NELAP	NY	9/8/2003
EPA 524.2	Toluene	NELAP	NY	9/8/2003
EPA 524.2	Total trihalomethanes	NELAP	NY	9/8/2003
EPA 524.2	Trichloroethene (TCE Trichloroethylene)	NELAP	NY	9/8/2003
EPA 524.2	Vinyl chloride	NELAP	NY	9/8/2003
EPA 524.2	Xylene (total)	NELAP	NY	9/8/2003
EPA 524.2	cis-1 2-Dichloroethene	NELAP	NY	9/8/2003
EPA 524.2	cis-1 3-Dichloropropene	NELAP	NY	9/8/2003
EPA 524.2	n-Butylbenzene	NELAP	NY	10/4/2005
EPA 524.2	n-Propylbenzene	NELAP	NY	10/4/2005
EPA 524.2	sec-Butylbenzene	NELAP	NY	10/4/2005
EPA 524.2	tert-Butylbenzene	NELAP	NY	10/4/2005
EPA 524.2	trans-1 2-Dichloroethene	NELAP	NY	9/8/2003
EPA 524.2	trans-1 3-Dichloropropene	NELAP	NY	9/8/2003
EPA 525.2	Benzo(a)pyrene	NELAP	NY	9/8/2003
EPA 525.2	Hexachlorobenzene	NELAP	NY	9/8/2003
EPA 525.2	Hexachlorocyclopentadiene	NELAP	NY	9/8/2003
EPA 525.2	bis(2-Ethylhexyl) adipate	NELAP	NY	10/4/2005
EPA 525.2	bis(2-Ethylhexyl) phthalate (DEHP)	NELAP	NY	9/8/2003
EPA 525.2	Alachlor (Lasso)	NELAP	NY	9/8/2003
EPA 525.2	Aldrin	NELAP	NY	9/8/2003
EPA 525.2	Atrazine	NELAP	NY	9/8/2003
EPA 525.2	Butachlor	NELAP	NY	9/8/2003
EPA 525.2	Dieldrin	NELAP	NY	9/8/2003
EPA 525.2	Endrin	NELAP	NY	9/8/2003
EPA 525.2	Heptachlor	NELAP	NY	9/8/2003
EPA 525.2	Heptachlor epoxide	NELAP	NY	9/8/2003
EPA 525.2	Methoxychlor	NELAP	NY	9/8/2003
EPA 525.2	Metolachlor	NELAP	NY	9/8/2003
EPA 525.2	Metribuzin	NELAP	NY	9/8/2003
EPA 525.2	Propachlor (Ramrod)	NELAP	NY	9/8/2003
EPA 525.2	Simazine	NELAP	NY	9/8/2003
EPA 525.2	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	NELAP	NY	9/8/2003
EPA 531.1	3-Hydroxycarbofuran	NELAP	NY	9/8/2003
EPA 531.1	Aldicarb (Temik)	NELAP	NY	9/8/2003
EPA 531.1	Aldicarb sulfone	NELAP	NY	9/8/2003

Laboratory Scope of Accreditation

Attachment to Certificate of Accreditation 004, expiration date October 31, 2008. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

State Laboratory ID: 68-02556 **EPA Lab Code: NY01042** **(315) 445-1105**

Life Science Laboratories, Inc.- Central
5854 Butternut Drive
East Syracuse, NY 13057

Program Drinking Water

Method	Analyte	Accreditation Type	Primary	Effective Date
EPA 531.1	Aldicarb sulfoxide	NELAP	NY	9/8/2003
EPA 531.1	Carbaryl (Sevin)	NELAP	NY	9/8/2003
EPA 531.1	Carbofuran (Furaden)	NELAP	NY	9/8/2003
EPA 531.1	Methomyl (Lannate)	NELAP	NY	9/8/2003
EPA 531.1	Oxamyl (Vydate)	NELAP	NY	9/8/2003
EPA 547	Glyphosate	NELAP	NY	9/8/2003
EPA 549.2	Diquat	NELAP	NY	9/8/2003
EPA 550	Benzo(a)pyrene	NELAP	NY	10/4/2005
EPA 552.2	Bromoacetic acid	NELAP	NY	8/19/2004
EPA 552.2	Bromochloroacetic acid	NELAP	NY	7/25/2006
EPA 552.2	Chloroacetic acid	NELAP	NY	8/19/2004
EPA 552.2	Dibromoacetic acid	NELAP	NY	8/19/2004
EPA 552.2	Dichloroacetic acid	NELAP	NY	8/19/2004
EPA 552.2	Total haloacetic acids	NELAP	NY	8/19/2004
EPA 552.2	Trichloroacetic acid	NELAP	NY	8/19/2004
ReadyCult	Escherichia coli	NELAP	NY	10/31/2005
ReadyCult	Total coliforms	NELAP	NY	10/31/2005
SM 2120 B	Color	NELAP	NY	10/4/2005
SM 2320 B	Alkalinity as CaCO3	NELAP	NY	9/8/2003
SM 2330 B	Corrosivity (langlier index)	NELAP	NY	10/4/2005
SM 2540 C	Residue-filterable (TDS)	NELAP	NY	10/4/2005
SM 2540 C	Total dissolved solids	NELAP	NY	10/4/2005
SM 5910 B	UV 254	NELAP	NY	7/25/2006
SM 9215 B	Heterotrophic plate count	NELAP	NY	9/18/2003
SM 9222 B	Total coliforms	NELAP	NY	9/18/2003

Aaren Alegre

Appendix 8-2

Administrative and Technical Method SOPs

APPENDIX 8-2

SOP #	DOCUMENT TITLE
L1105	Mercury Analysis in Water, Wastewater, soil, sediment, and TCLP leachates.
L1200	Operation of ICP
L1201	Calcium and Total Hardness by calculation
L1202	ICPAES Method for Trace Element Analysis of Water and Wastes
L1207	Block Digestion of NPW for ICP
L1208	Block Digestion of SHW for ICP
L1209	Block Digestion of TCLP
L1211	Lead in wipes
L1600	ICP-MS Operation
L2000	pH
L2001	Color
L2002	BOD-5 and CBOD
L2008	Residue, Filterable (TDS)
L2009	Chemical Oxygen Demand (COD)
L2010	Alkalinity
L2012	Suspended Solids - Total, Non-Volatile, and Volatile
L2013	Solids - Total and Volatile
L2014	Settleable Solids
L2017	Sulfide
L2018	Sulfite - Titrimetric
L2019	Conductivity
L2020	Fisher Scientific Model 15 pH meter operation
L2021	Density
L2024	Color
L2025	Odor
L2026	Acidity
L2100	Hexavalent Chromium
L2102	Silica, Dissolved
L2103	TRAACS Operation
L2105	Method for Total Cyanide Anaysis by Midi Distillation
L2116	Oil & Grease 1664
L2117	HACH 4000U
L2119	Turbidity
L2120	Saturation Index
L2200	Sample Digestion for Nitrogen, Kjeldahl, Total

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L2201	Phenolics, Total Recoverable
L2202	Total Organic Carbon (TOC)
L2203	Distillation for Ammonia
L2204	Sample Digestion for Total Phosphorus
L2207	Low Level Phosphorus
L3001	Non-Volatile & Volatile TCLP
L3003	Ignitability
L3004	Paint Filter - Liquids Test
L4001	EPA Method 504, EDB & DBCP in Water (Microextractables)
L4002	Total Petroleum Hydrocarbons
L4003	Haloacetic Acids
L4004	Herbicides (includes 515.3)
L4005	Anionic Surfactants as MBAS
L4008	PCBs by TO-4
L4010	PCBs in Air by NIOSH 5503
L5200	EPA 531.1 Analysis of Methyl Carbamate Pesticides
L5201	EPA 547 Determination of Glyphosate
L5202	EPA 549 Determination of Diquat
L5212	UV-254 Analysis of Potable Water
L5305	Determination of Inorganic Anions by Ion Chromatography
L6001	NYSDEC ASP 95-1 Superfund - CLP Volatiles
L6002	NYSDEC ASP 95-1 Superfund - CLP Semi-Volatiles
L6003	NYSDEC ASP 95-1 Superfund - CLP Pest/PCBs
L6004	LSL Volatiles by GCMS
L6005	LSL Semi-Volatiles
L6006	LSL Pesticides and PCBs
L6009	EPA 525.2 Low level SemiVoa Analysis
L6013	Potable Water Pesticides following EPA 508
L6014	Herbicides by 515.1 (includes 8151)
L6016	Low Level Gycol by DAI
L6017	Determination of Ethylene Dichoride in Drinking Water
L7000	Aerobic Plate Count, Food Sample Matrix
L7001	Total Coliform, Membrane Filter(MF) - Env. Samples
L7005	Fecal Coliform, Most Probable Number Technique for water & wastewater
L7006	Total Coliform, MPN & E. coli determination in Food Samples
L7009	Total Coliform, MPN & E. coli determination in water
L7010	Fecal Coliform, Membrane Filter(MF) - Env. Samples

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L7015	Total Plate Count - Water & Wastewater
L7036	Total and E.coli using Readycult
L8000	Quality Control Requirements - LSL QA Manual
L8001	Std. Operating Procedure Format
L8009	Cleaning of Glassware - Metals
L8010	Cleaning of Glassware - Cyanide
L8011	Cleaning of Glassware - Organics
L8013	Data Rounding and Significant Figures
L8026	Definitions of Terms, Abbreviations and Acronyms
L8031	Technical Staff Training Program
L8042	Manual Integration on GC, HPLC and IC systems.
L8043	Calibration SOP for spectrophotometers
L8044	Non-Class A Glassware Calibration
L9001	Sampling Protocol for Groundwater
L9002	Residence Supply Well Sampling Protocol
L9003	Soil Sampling Protocol
L9024	Total Residual Chlorine
L9028	Temperature
L9029	Field pH Measurements

Appendix 10-1

Instrument Calibration Requirements

Appendix 10-1

INSTRUMENT CALIBRATION REQUIREMENTS

Instrument	Measurement or Check	Frequency
GC/MS	PFTBA Auto-tune	If Tune Check fails
	DFTPP or BFB Tune Check	Every 12/24 hours
	Initial Calibration	As per method or when new column, instrument conditions change and/or instrument acceptance criteria are not met
	Continuing Calibration	Every 12 hours and after Tune Check
IC/HPLC	Initial Calibration	As per method or when new column, instrument conditions change and/or instrument acceptance criteria are not being met.
	Continuing Calibration	The start of an analytical sequence, 10% of an analytical run and at the end of an analytical sequence.
	Retention Time Windows	Set at the first Calibration Check Standard of the day
GC Semivolatiles	Initial Calibration	New column, instrument conditions change and/or instrument acceptance criteria are not met
	Continuing Calibration	The start of an analytical sequence (if ICAL is not performed), 5%, 10% or every 12 hrs. as per method and at the end of an analytical sequence
	Retention Time Windows	Set at the first Calibration Check Standard of the day
	Endrin and 4,4'-DDT (Pesticide)	Daily (during analysis)
ICP or ICPMS	Initial Calibration	Daily and/or instrument acceptance criteria are not met
	Initial Calibration Verification	After each initial calibration

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INSTRUMENT CALIBRATION REQUIREMENTS

Instrument	Measurement or Check	Frequency
	Continuing Calibration	10%
	Interference Check Sample	At the start and end of each analytical sequence
Cold Vapor AA	Initial Calibration (6 point)	Daily and/or instrument acceptance criteria are not met
	Initial Calibration Verification	After each initial calibration
	Continuing Calibration	10%

Appendix 10-2

Maintenance Procedures

Appendix 10-2

MAINTENANCE PROCEDURES

Instrument	Activity	Frequency
ICP or ICP/MS	Check vacuum pump oil level	Daily (ICP/MS)
	Check vacuum reading	Daily (ICP/MS)
	Change pump tubing	Daily
	Replace or clean Torch	As needed
Mercury Analyzer	Change pump tubing	As needed
Gas Chromatograph - Semi-volatiles	Change septum	As needed
	Change carrier gas	When pressure reaches 100 psi
	Remove first foot of capillary column	As needed
	Clean ECD	As needed
	Check system for gas leaks	At each column, liner or injection port seal change
	Replace column	As needed
	Clean FID	As needed
	Replace capillary injection port liner	At column change or as needed
	Replace capillary injection port seal	At column change or as needed
	Measure gas flow	After changing column
	Change syringe	As needed
Gas Chromatograph/ Mass Spectrometer	Change septum	Daily/as needed
	Change carrier gas	Before pressure reaches 100 psi
	Change gas filters	As needed
	Change trap on Tekmar	As needed/poor sensitivity
	Change GC column	As needed/poor sensitivity
	Clean MS ion source	As needed/poor sensitivity
	Replace ion source parts	When worn/poor sensitivity
	Check pump oil leaks/level	Weekly
	Check gas flows	Before initial calibration
	Cut capillary column	As needed/contamination susp.
	Replace liner	As needed/contamination susp.
	Replace BNA seal	As needed/contamination susp.
	Bake VOA autosampler	After high samples
	Clean Archon syringe	As needed
	Replace syringe plungers	When worn
	Replace Tekmar transfer lines	As needed/poor sensitivity
	Clean or replace GC weldment	As needed/poor sensitivity
	Clean or replace split vent	As needed/poor sensitivity
	Clean injector housing	As needed/poor sensitivity
	Clean electron multiplier	As needed/poor sensitivity

Appendix 10-2

MAINTENANCE PROCEDURES

Instrument	Activity	Frequency
TRACCS	Check pump tubes	Before use
	Replace pump tubes	Monthly
	Clean platen and pump rollers	Monthly
	Lube pump rollers	Monthly
	Oil sample probe assembly	Monthly
DIONEX IC (#1 and #2)	Fill eluant bottle	As needed
	Replace column	As needed
	Check system background conductance	Daily
	Check system column pressure	Daily
	Replace suppressor	As needed
	Leak Check	Daily
	Replace Pump Seals and check valves	As needed
	Replace sample tip and tubing	As needed
	Dump Waste	As needed
HPLC (Isocratic and gradient)	Fill eluant containers	As needed- method specific
	Dump Waste	As needed
	Replace column	As needed- method specific
	Lamp check	Semi-annual
	Lamp replacement	As needed
	Leak Check	Daily
	Check column pressure	Daily, as needed- method specific
	Replace check valves, pump seals, tubing	As needed

Appendix 10-3

Equipment Inventory

FACILITIES AND EQUIPMENT

1. Facilities. LSL's laboratories and offices cover approximately 10,000 square feet. Facilities include a non-refrigerated storage area, a ventilated solvent shed, a ventilated hazardous waste storage area, and a large walk-in cooler. A list of the major analytical and miscellaneous laboratory equipment is outlined below. The laboratories are supplied with both 110 and 220 volts, and are illuminated with white fluorescent lamps.

2. Equipment

Gas Chromatograph/Mass Spectrometers and Accessories

- One Agilent Model 5971 (MSD) with 5890 Series II GC
- One Agilent Model 5972 (MSD) with 5890 Series II GC
- One Agilent Model 5973 (MSD) with 6890 GC
- One Agilent Model 5975 (MSD) with 6890 GC
    - Agilent MS DOS CHEMSTATION Software
    - Two Agilent Model 7673A Autosamplers
    - One Tekmar Model LSC2000 Purge and trap units
    - Two Tekmar Model LSC3000 Purge and trap units
    - One Tekmar Velocity Purge and trap units
    - One Tekmar Model ALS2016 Autosampler for Volatiles
    - One Tekmar Model ALS2032 Autosampler for Volatiles
    - Two Archon Autosamplers

Gas Chromatographs and Accessories

- One Tremetrics 9001 Gas Chromatograph
- Five Agilent 5890 Gas Chromatographs
    - Agilent MS DOS CHEMSTATION Software
    - Six automatic samplers:
      Six Agilent Model 7673 Autosamplers
    - Eight Detectors:
      Six Electron Capture Detectors
      Two Flame Ionization Detectors

High Performance Liquid Chromatographs and Accessories

- One Gradient HPLC with Post-column reaction module, Photodiode Array and Fluorescence Detection
- One Isocratic HPLC with UV/VIS and Refractive Index Detection
- Two Dionex DX120 Ion Chromatographs

Inductively Coupled Plasma Atomic Emission Spectrophotometer

Perkin Elmer OPTIMA 3300XL Axial ICP-OES
Perkin Elmer ELAN 6100 ICP-MS
Perkin Elmer FIMS 100 Mercury Analyzer

Auto-Analyzers

- Technicon TRAACS 800 Dual Channel System with Reagent Sequencer

Sampling Equipment

- Six American Sigma Samplers
- Three ISCO Samplers
- Two SOLINST Model 101 200' Water Level Indicators
- Rediflow Grundfos Pump
- Three HACH Chlorine Test Kits
- HACH DR700 Colorimeter
- Gilian Gilair 3 Air Sampling System
- Two Horiba U-10 Water Quality Checkers
- Two Solinst Model 122 Interface meters
- HACH Fe Test Kit
- HACH CO_2 Test Kit
- HACH Pocket Colormeter for Chlorine
- HACH Alkalinity Test Kit
- GAST Vacuum Pump

General Laboratory Equipment (Abbreviated List)

- Two Midi-Vap Cyanide Distillation Apparatus, Model MCV-103S
- Model 1010 OI Automated TOC Analyzer
- Tecator Cyclotec Mill
- Tecator 1016 Digester System 40
- Sybron Model MC3522 Steam Sterilizer
- YSI Model 5100 Dissolved Oxygen Meter
- YSI 5000 Dissolved Oxygen Meter
- Two Hach COD reactors
- Sorvall RC-5B superspeed refrigerated centrifuges
- Labconco glove box
- Five Shaking water baths
- Tekmar Sonication Horn
- Zymark Turbovap Concentration System
- Two HACH D4000/U UV/VIS Spectrophotometers
- HACH 2100D Turbidimeter
- Two Environmental Express Hot Block Metals Digestion Systems
- 2-6 Position TCLP rotators
- Spectronic 20 Genesys VIS Spectrophotometer
- Three Tecator Kjeltec 1002 Distilling Unit
- Assorted Ovens, Waterbaths, and Balances

Data Systems

- SQL Database LIMS
- Fifty-two networked PC's operating Windows 95, 98, NT, 2000, and XP
- Five Windows 2000 Network Servers and Two Windows 3000 Network Servers
- Video Conferencing Technology
- Application Extender Digital Document System

Appendix 11-1

QC Samples – Frequency and Acceptance Criteria

Appendix 11-1

QC SAMPLES: FREQUENCY AND ACCEPTANCE CRITERIA

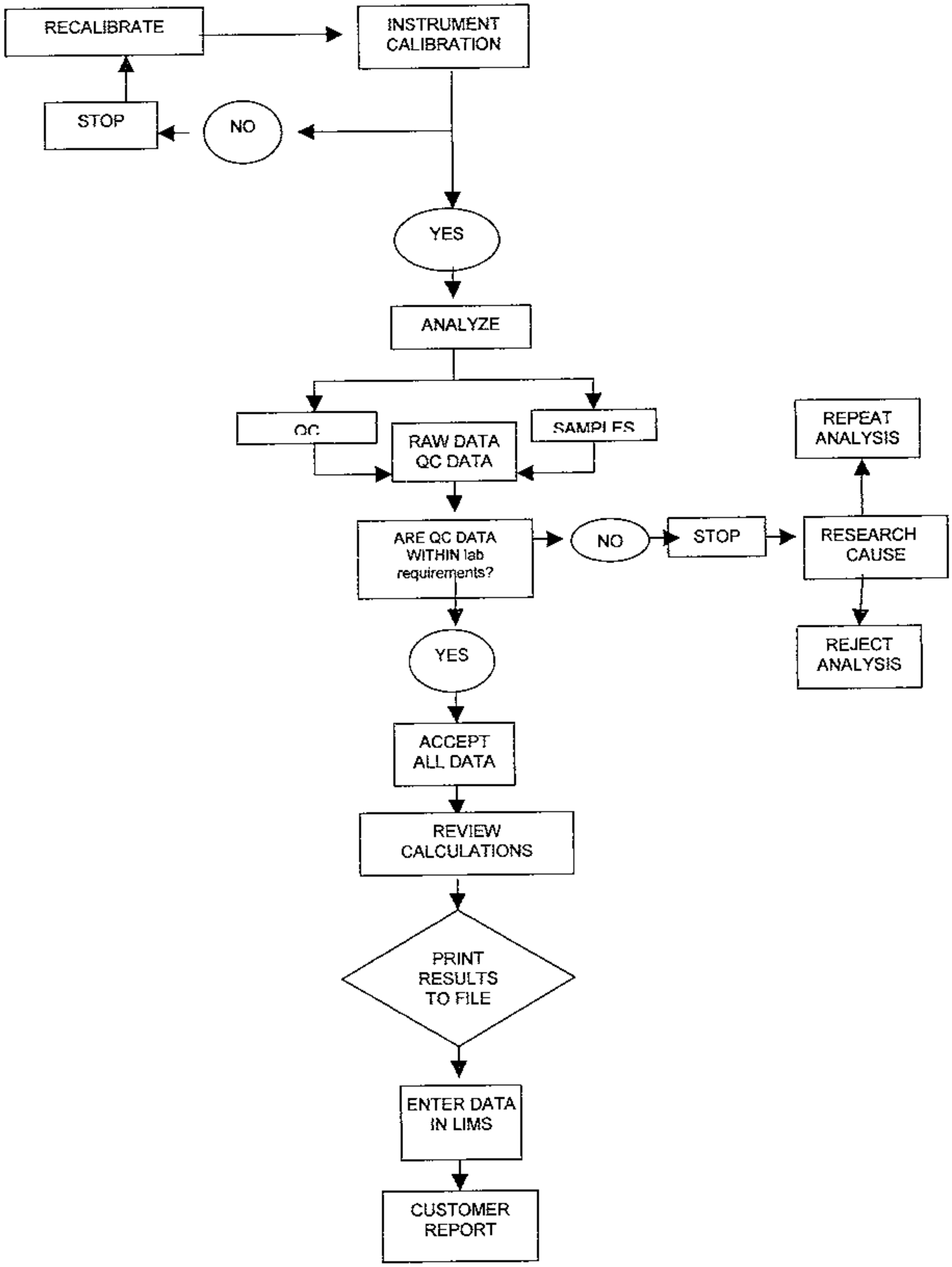
Laboratory Section	QC Sample	Frequency
GC/MS Volatiles	Laboratory Control Sample	Daily or every batch
	BFB	Every 12/24 hours
	Continuing Cal. Check	After BFB
	Matrix Spike	5% or 1 per batch
	Matrix Spike Duplicate	5% or 1 per batch
	Preparation Blank	Daily or 1 per batch
	Surrogates	Every sample
	Internal Standards	Every sample
	P.E. Samples	Semi-annually
GC/MS Semivolatiles	Laboratory Control Sample	Every batch
	DFTPP	Every 12/24 hours
	Continuing Cal. Check	After DFTPP
	Matrix Spike	5% or 1 per batch
	Matrix Spike Duplicate	5% or 1 per batch
	Preparation Blank	Every batch
	Surrogates	Every sample
	Internal Standards	Every sample
	P.E. Samples	Semi-annually
GC Semivolatiles	Laboratory Control Sample	5%
	Continuing Cal. Check	10%, 5% or every 12 hrs. (as per method)
	Matrix Spike	5%
	Matrix Spike Duplicate	5%
	Preparation Blank	5% or 1 per batch
	Surrogates	Every sample
	P.E. Samples	Semi-annually
Metals	Laboratory Control Sample	5% or 1 per batch
	Continuing Cal. Check	10%
	Matrix Spike	5% or 1 per batch
	Matrix Spike Duplicate/ or Duplicate	5% or 1 per batch
	Preparation Blank	5% or 1 per batch
	P.E. Sample	Semi-annually
Wet Chemistry	Laboratory Control Sample	5% or 1 per batch
	Continuing Cal. Check	10%
	Matrix Spike	5% or 1 per batch
	Matrix Spike Duplicate/ or Duplicate	5% or 1 per batch
	Preparation Blank	5% or 1 per batch
	P.E. Samples	Semi-annually

Appendix 13-1

Sample Analysis and Data Verification Procedure

Appendix 13-1

SAMPLE ANALYSIS & DATA VERIFICATION FLOW CHART



Appendix 15-2

Sample Containers, Preservatives, and Holding Times

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Drinking Water	11/22/06	1 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME

NOTE 1: Maximum holding time includes the time elapsed from collection of the sample to placement into the incubator.
NOTE 2: Consumer collected samples may be left unpreserved for up to 14 days.

Bacteriological Tests:

Fully processed Drinking Water (40 CFR 141.21(f)(3)):

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Coliform (Total) and E. coli presence/absence	P,G	0.008% $Na_2S_2O_3$	30 hours NOTE 1
Standard Plate Count	P,G	0.008% $Na_2S_2O_3$	8 hours NOTE 1
Coliphage	P	Cool to 4°C, 0.5mL 10% $Na_2S_2O_3$ per L of sample	48 hours

Surface Water (40 CFR 141.74(a)(1)):

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Coliform (Total) and E. coli enumeration	P,G	Cool to 4°C	8 hours NOTE 1
Standard Plate Count	P,G	Cool to 4°C	8 hours NOTE 1
Coliphage	P	Cool to 4°C	48 hours

Inorganic Tests:

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Alkalinity	P,G	Separate bottle completely filled to the exclusion of air, cool, 4°C	14 days
Antimony	P,G	HNO_3 to pH<2	6 months
Arsenic	P,G	HNO_3 to pH<2	6 months
Barium	P,G	HNO_3 to pH<2	6 months
Beryllium	P,G	HNO_3 to pH<2	6 months
Bromate	P,G	50 mg IL EDA	28 days
Cadmium	P,G	HNO_3 to pH<2	6 months

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Drinking Water	11/22/06	2 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Calcium	P,G	HNO_3 to pH<2	6 months
Chloride	P,G	None	28 days
Chlorite	P,G	50 mg IL EDA, Cool to 4^{o}C	14 days
Chromium	P,G	HNO_3 to pH<2	6 months
Color	P,G	Cool, 4^{o}C	48 hours
Conductivity	P,G	Cool, 4^{o}C	28 days
Copper	P,G	HNO_3 to pH<2 [Note 2]	6 months
Cyanide	P,G	Cool, 4^{o}C NaOH to pH<12 1.2 g/L ascorbic acid	14 days
Fluoride	P,G	None	28 days
Lead	P,G	HNO_3 to pH<2 [Note 2]	6 months
Mercury	G	HNO_3 to pH<2	28 days
	P	HNO_3 to pH<2	14 days
Nickel	P,G	HNO_3 to pH<2	6 months
Nitrate			
By Ion Chromatography	P,G	Cool, 4^{o}C	48 hours
Chlorinated Supplies	P,G	Cool, 4^{o}C	14 days
Non-chlorinated Supplies	P,G	H_2SO_4 to pH<2	28 days
Nitrite	P,G	Cool, 4^{o}C	48 hours
pH	P,G	None	1 hour
Phosphorus (as Orthophosphate)	P,G	Cool, 4^{o}C	48 hours
Selenium	P,G	HNO_3 to pH<2	6 months

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Drinking Water	11/22/06	3 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Silica	P	Cool, 4°C	28 days
Silver	P,G	HNO_3 to pH<2	6 months
Sodium	P,G	HNO_3 to pH<2	6 months
Sulfate	P,G	Cool, 4°C	28 days
Thallium	P,G	HNO_3 to pH<2	6 months
Total Filterable Residue	P,G	Cool, 4°C	7 days
UV_{254} Absorbance	P,G	Cool, 4°C	48 hours
Organic Tests:			
Trihalomethanes Bromodichloromethane Bromoform Chlorodibromomethane Chloroform	Glass with Teflon-lined Septum	0.008%$Na_2S_2O_3$	14 days
Volatile Halocarbon and Volatile Aromatics: Methy-tert-butyl ether	Glass with Teflon-lined Septum	Ascorbic Acid (25 mg/40 ml) added to empty sample bottle then add 1:1 HCl to pH<2. Cool 4°C	14 days
Microextractables: Method 504.1	Glass with Teflon-lined Septum	Cool, 4°C3 mg $Na_2S_2O_3$ per 40 ml vial	28 days
Method 505 analytes Alachlor Aldrin Atrazine Chlordane Dieldrin Heptachlor Heptachlor epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane	40-ml glass vial with cap liner	3 mg $Na_2S_2O_3$ Cool, 4°C	7 days

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Methoxychlor Metolachlor Metribuzin PCB's Simazine Toxaphene			
Method 506 analytes Di-(2-ethylhexyl)adipate Di-(2-ethylhexyl) phthalate	1-L (or qt.) amber glass with TFE lined cap	60 mg $Na_2S_2O_3$ Cool, 4^oC	14 days until extraction, then 14 days after extraction
Method 507 analytes Alachlor Atrazine Butachlor Chlordane Metolachlor Metribuzine Propachlor Simazine	1-L Borosilicate glass, graduated, with TFE lined cap	80 mg $Na_2S_2O_3$ Cool, 4^oC Protect from light after extraction	14 days until extraction, then 14 days
Method 508 analytes Aldrin Chlordane Dieldrin Endrin Heptachlor Heptachlor epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Metribuzin PCB's Toxaphene	1-L Borosilicate glass, graduated, with TFE lined cap	80 mg $Na_2S_2O_3$ Cool, 4^oC Protect from light	7 days until extraction, then 14 days after extraction
Method 508A PCB's, Total as decachlorobiphenyl	1-L glass, with TFE lined cap	Cool, 4^oC	14 days until extraction, then 30 days after extraction
Method 508.1	1-L glass with	50 mg $Na_2S_2O_3$	14 days until

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Drinking Water	11/22/06	5 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
All	TFE lined cap	then 1:1 HCl to pH<2 Cool, $4^{o}C$	extraction then 30 days after extraction
Method 1613 2,3,7,8-TCDD	1-L amber glass with TFE lined cap	80 mg $Na_2S_2O_3$ Cool, $4^{o}C$ Protect from light pH 7-9	one year until extraction, then one year after extraction
Method 515.1: 515.2, 515.3 Chlorinated Acids	1-L Borosilicate glass, graduated, with TFE lined cap	80 mg $Na_2S_2O_3$ Cool, $4^{o}C$ Protect from light	14 days until extraction, then 14 days after extraction
Method 525.2 Alachlor Aldrin Atrazine Benzo(a)pyrene Butachlor Chlordane (Technical) Dieldrin Di(2ethylhexyl)adipate Di(2-ethylhexyl) phthalate Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Metolachlor Metribuzin Pentachlorophenol Propachlor Simazine Toxaphene	Refrigerated glass sample containers, sampling must be free of plastic tubing, gaskets, etc. that may leach analytes into water	Cool, 4 C Remove Cl residual; adjust pH<2 with6 N HcL	Extract within14 days. Analyze within 30 days of sample extraction
Method 531.1 Methylcarbamate pesticides	60-ml vial with PTFE silicone	1.8 ml acetic acid buffer, 4.8 mg $Na_2S_2O_3$ Ship $4^{o}C$	28 days

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Sample Collection: Requirements for Drinking Water	11/22/06	6 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
	faced septa	Store at-10^{o}C	
Glyphosate	60-ml vial PTFE faced Silicone	6 mg $Na_2S_2O_3$ Cool 4^{o}C; Protect from light	14 days
Endothall	40-ml amber glass vial with TFE lined cap	Cool 4^{o}C; Protect from light	7 days
Diquat	1-L amber plastic or silanized glass with screw cap	100 mg $Na_2S_2O_3$ H_2SO_4 to pH=2, Cool to 4^{o}C, Protect from light	7 days until extraction, then 21 days after extraction
Benzo(a)pyrene	1-L (or qt.) amber glass with TFE lined cap	100 mg $Na_2S_2O_3$ 1:1 HCl to pH<2; Cool to 4^{o}C; Protect from light	7 days until extraction then 30 (40 for Method550.1) days after extraction
Method 551.1 Alachlor Atrazine Bromochloromethane Bromodichloromethane Bromoform Carbon Tetrachloride Chloroform Dibromochloromethane 1,2-Dibromo-3-chloropropane [DBCP] 1,2 Dibromoethane [EDB] Endrin Heptachlor Heptachlor epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor	60 ml glass vials Teflon lined Septum	Sodium Sulfite or Ammonium Chloride (for microextractables), pH 4.5-5.0 with phosphate buffer Cool, 4C	14 days until extraction, then 14 days after extraction

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Sample Collection: Requirements for Drinking Water	11/22/06	7 of 8	241

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Metalochlor Metribuzin Simazine Tetrachloroethylene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene			
Method 552.1 Dalapon Monochloroacetic acid Dichloroacetic acid Trichloroacetic acid Monobromoacetic acid Dibromoacetic acid Bromochloroacetic Acid	Amber glass with TFE liner	Add NH_4Cl to a concentration of 100 mg/L in sample; Cool 4^oC	Extract within 28 days of collection. Analyze extract within 48 hours if stored at 4^oC or less.
Method 552.2 Dalapon Monochloroacetic acid Dichloroacetic acid Trichloroacetic acid Monobromoacetic acid Dibromoacetic acid Bromochloroacetic Acid	Amber glass with TFE liner	Add NH_4Cl to a concentration of 100 mg/L in sample; Cool 4^oC	Extract within 28 days of collection. Analyze extract within 7 days if stored dark at 4^oC or less or 14 days if 10oC or less.
Method 555 2,4-D Dicamba Pichloram 2,4,5-TP	glass TFE lined	Acidify to pH2 with 1:1 HCl; Dechlorinate with 5 mg $NaSO_3$ per 100mL sample; Cool 4^oC Protect from light	Analyze after extraction, within 14 days of collection
Microscopical Tests:			
Asbestos	P,G	Cool, 4^oC	48 hours
		Preserved with10 gm/L of O_3, and UV treatment	6 months

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Radiological Tests:			
Gross Alpha	P,G	HCL or HNO_3 to pH<2	6 months
Gross Beta	P,G	HCL or HNO_3 to pH<2	6 months
Strontium-89	P,G	HCL or HNO_3 to pH<2	6 months
Srontium-90	P,G	HCL or HNO_3 to pH<2	6 months
Radium-226	P,G	HCL or HNO_3 to pH<2	6 months
Radium-228	P,G	HCL or HNO_3 to pH<2	6 months
Radon-222	Glass with teflon-lined septum	Cool, 4°C	4 days
Radioactive Cesium	P,G	HCL to pH<2	6 months
Iodine-131	P,G	None	7 days
Tritium	G	None	6 months
Uranium	P,G	HCL or HNO_3 pH<2	6 months
Photon Emitters	P,G	HCL or HNO_3 pH<2	6 months

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	1 of 6	242

Note that where "Cool to <=6°C" is stated, samples are not to be frozen. Rounding down to 6°C may not be used to meet the <=6°C requirement. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Bacteriological Tests:			
Coliform, Total, Fecal, and E. coli, and Enterococcus	P,G	Cool to <=6°C	8 hours*
Coliform, Total, Fecal, and E. coli and Enterococcus in chlorinated samples	P,G	Cool to <=6°C, 0.008% $Na_2S_2O_3$	8 hours*
Standard Plate Counts	P,G	Cool to <=6°C, 0.008% $Na_2S_2O_3$	8 hours*

*Maximum holding time includes the time elapsed from collection of the sample to placement into the incubator.

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Inorganic Tests:			
Acidity	P,G	Separate bottle completely filled to the exclusion of air, Cool to <=6°C	14 days
Alkalinity	P,G	Separate bottle completely filled to the exclusion of air, Cool to <=6°C	14 days
Aluminum	P,G	HNO_3 to PH<2	6 months
Ammonia	P,G	Cool to <=6°C, H_2SO_4 to pH<2	28 days
Antimony	P,G	HNO_3 to PH<2	6 months
Arsenic	P,G	HNO_3 to PH<2	6 months
Barium	P,G	HNO_3 to PH<2	6 months
Beryllium	P,G	HNO_3 to PH<2	6 months
Biochemical oxygen demand	P,G	Cool to <=6°C	48 hours
Boron	P, Quartz	HNO_3 to pH<2	6 months
Bromide	P,G	None	28 days

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	2 of 6	242

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Biochemical oxygen demand, carbonaceous	P,G	Cool to <=6°C	48 hours
Cadmium	P,G	HNO_3 to PH<2	6 months
Calcium	P,G	HNO_3 to PH<2	6 months
Chemical oxygen demand	P,G	Cool to <=6°C, H_2SO_4 to pH<2	28 days
Chloride	P,G	None	28 days
Chromium	P,G	HNO_3 to PH<2	6 months
Chromium VI	P,G	Cool to <=6°C	24 hours
Cobalt	P,G	HNO_3 to PH<2	6 months
Color	P,G	Cool to <=6°C	48 hours
Copper	P,G	HNO_3 to PH<2	6 months
Cyanide, total and amendable to chlorination	P,G	Cool to <=6°C, NaOH to pH>12, 0.6g ascorbic acid	14 days
Fluoride	P	None	28 days
Gold	P,G	HNO_3 to PH<2	6 months
Hardness	P,G	HNO_3 to pH<2 H_2SO_4 to pH<2	6 months
Hydrogen ion (pH)	P,G	None	Analyze within 15 minutes
Iridium	P,G	HNO_3 to PH<2	6 months
Iron	P,G	HNO_3 to PH<2	6 months
Kjeldahl and organic nitrogen	P,G	Cool to <=6°C, H_2SO_4 to pH<2	28 days
Lead	P,G	HNO_3 to pH<2	6 months
Magnesium	P,G	HNO_3 to pH<2	6 months
Manganese	P,G	HNO_3 to pH<2	6 months
Mercury	P,G	HNO_3 to pH<2	28 days
Molybdenum	P,G	HNO_3 to pH<2	6 months
Nickel	P,G	HNO_3 to pH<2	6 months
Nitrate	P,G	Cool to <=6°C	48 hours
Nitrate-nitrite	P,G	Cool to <=6°C, H_2SO_4 to pH<2	28 days
Nitrite	P,G	Cool to <=6°C	48 hours
Oil and Grease	G	Cool to <=6°C, HCl or H_2SO_4 to pH<2	28 days
Organic carbon	P,G	Cool to <=6°C, HCl or H_3PO_4, or H_2SO_4 to pH<2	28 days

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	3 of 6	242

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Orthophosphate	P,G	Filter within 15 minutes, Cool to <=6°C	48 hours
Osmium	P,G	HNO_3 to pH<2	6 months
Palladium	P,G	HNO_3 to pH<2	6 months
Phenols	G	Cool to <=6°C H_2SO_4 to pH<2	28 days
Phosphorus (elemental)	G	Cool to <=6°C	48 hours
Phosphorus, total	P,G	Cool to <=6°C, H_2SO_4 to pH<2	28 days
Platinum	P,G	HNO_3 to pH<2	6 months
Residue, Total	P,G	Cool to <=6°C	7 days
Residue, Volatile	P,G	Cool to <=6°C	7 days
Residue, Filterable	P,G	Cool to <=6°C	7 days
Residue, Non-filterable	P,G	Cool to <=6°C	7 days
Residue, Volatile	P,G	Cool to <=6°C	7 days
Rhodium	P,G	HNO_3 to pH<2	6 months
Ruthenium	P,G	HNO_3 to pH<2	6 months
Silica	P, Quartz	Cool to <=6°C	28 days
Silver	P,G	HNO_3 to pH<2	6 months
Specific Conductance	P,G	Cool to <=6°C	28 days
Sulfate	P,G	Cool to <=6°C	28 days
Sulfide	P,G	Cool to <=6°C, add zinc acetate plus sodium hydroxide to pH>9	7 days
Surfactants	P,G	Cool to <=6°C	48 hours
Temperature	P,G	None	Analyze within 15 minutes
Thallium	P,G	HNO_3 to pH<2	6 months
Tin	P,G	HNO_3 to pH<2	6 months
Titanium	P,G	HNO_3 to pH<2	6 months
Vanadium	P,G	HNO_3 to pH<2	6 months
Organic Tests:			
Purgeable Halocarbons plus Benzyl Chloride and Epichlorohydrin	G, Teflon- lined septum	Cool to <=6°C, Ascorbic Acid (25 mg/40 ml) for residual chlorine	14 days (7 days if not preserved)

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	4 of 6	242

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Purgeable Aromatics	G, Teflon-lined septum	Cool to <=6°C, 0.008%$Na_2S_2O_3$ for residual chlorine	14 days
		Preserve as above and HCl to pH<2	14 days (7days if not preserved)
Acrolein and Acrylonitrile	G, Teflon-lined septum	Cool to <=6°C, 0.008%$Na_2S_2O_3$ for residual chlorine	14 days for acrylonitrile, 3 days for acrolein
		Preserve as above and pH to 4-5	14 days
Phenols	G, Teflon- lined cap	Cool to <=6°C, 0.008% $Na_2S_2O_3$ for residual chlorine	7 days until extraction 40 days after extraction
Benzidines	G, Teflon- lined cap	Cool to <=6°C, 0.008% $Na_2S_2O_3$ for residual chlorine	7 days until extraction 7 days after extraction if stored under inert gas
Phthalate Esters	G, Teflon- lined cap	Cool to <=6°C	7 days until extraction 40 days after extraction
Nitrosamines	G, Teflon- lined cap	Cool to <=6°C, store in dark, 0.008% $Na_2S_2O_3$ for residual chlorine. For diphenylnitrosamine add 0.008% $Na_2S_20_3$ and adjust pH 7-10 with NaOH within 24 hours of sampling	7 days until extraction 40 days after extraction
Nitroaromatics and Isophorone	G, Teflon lined cap	Cool to <=6°C, 0.008% $Na_2S_2O_3$ for residual chlorine, store in dark	7 days until extraction 40 days after extraction
PCBs	G, Teflon-lined cap	Cool to <=6°C	7 days until extraction 40 days after extraction

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	5 of 6	242

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Pesticides	G, Teflon-lined cap	Cool to <=6°C	72 hours
		Cool to <=6°C, pH 5-9, 0.008% $Na_2S_2O_3$ for residual chlorine if aldrin is to be determined	7 days until extraction 40 days after extraction
Polynuclear Aromatic Hydrocarbons	G, Teflon-lined cap	Cool to <=6°C, 0.08%$Na_2S_2O_3$ for residual chlorine only, store in dark	7 days until extraction 40 days after extraction
Haloethers	G, Teflon-lined cap	Cool to <=6°C, 0.008%$Na_2S_2O_3$ for residual chlorine only	7 days until extraction 40 days after extraction
Chlorinated Hydrocarbons	G-Teflon-lined cap	Cool to <=6°C	7 days until extraction 40 days after extraction
2,3,7,8-Tetrachlorodi-benzo-p-Dioxin	G, Teflon-lined cap	Cool to <=6°C, 0.008% $Na_2S_2O_3$ for residual chlorine only	7 days until extraction 40 days after extraction
Radiological Tests:			
Gross Alpha	P,G	HCL or HNO_3 to pH<2	6 months
Gross Beta	P,G	HCL or HNO_3 to pH<2	6 months
Strontium-89	P,G	HCL or HNO_3 to pH<2	6 months
Strontium-90	P,G	HCL or HNO_3 to pH<2	6 months
Radium-226	P,G	HCL or HNO_3 to pH<2	6 months
Radium-228	P,G	HCL or HNO_3 to pH<2	6 months
Radon-222	glass with teflon-lined septum	Cool to <=6°C	4 days
Radioactive Cesium	P,G	HCL to pH<2	6 months
Iodine-131	P,G	None	7 days
Tritium	G	None	6 months

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Non-Potable Water	4/12/07	6 of 6	242

ANALYTE	CONTAINER P=Plastic, G=Glass	PRESERVATION	MAXIMUM HOLDING TIME
Uranium	P,G	HCL or HNO_3 to pH<2	6 months
Photon Emitters	P,G	HCL or HNO_3 to pH<2	6 months
Microscopical Tests:			
Asbestos	P	Cool to <u><=6</u>°C	48 hours
		20 mg/l Hg as $HgCl_2$	6 months

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Air and Emissions	4/12/07	1 of 3	244

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Ambient Air Tests:			
Asbestos Fibers	Millipore aerosol monitor case or equivalent	None	Indefinite
Lead in Suspended Particulates:			
Filter	Glassine bag	None	Indefinite
Extract	P, G	HNO_3 to pH<2	6 months
Mercury	G	H_2SO_4 to pH<2	28 days
Nitrates in Suspended Particulates:			
Filter	Glassine bag	None	Indefinite
Extract	P, G	Cool, 4°C	48 hours
Nitrogen Dioxide	P, G	Cool, 4°C	6 weeks
Sulfur Dioxide	P,G	Cool, 4°C	30 days
Suspended Particulates, Total	Glassine bag	None	Indefinite
Benzo(a)pyrene in Suspended Particulates, Extract	G	Cool, 4°C in dark	3 months
Organic Materials in Suspended Particulates:			
Filter	Glassine bag	None	14 days
Extract	G	Store in dark	6 months
PCB	G	None	30 days
Formaldehyde	G	None	30 days
Pesticides-Aldrin Chlordane, dieldrin Extract	G	Cool, 4°C	72 hours

SUBJECT	DATE	PAGE	ITEM NO.
Sample Collection: Requirements for Air and Emissions	4/12/07	2 of 3	244

ANALYTE	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME
Stationary Source Tests:			
Beryllium	G, Teflon- lined cap	HNO_3 to pH<2	30 days
Chromium	G, Teflon- lined cap	HNO_3 to pH<2	30 days
Fluorides	P	None	30 days
Lead	G, Teflon- lined cap	HNO_3 to pH<2	30 days
Mercury	G, Teflon- lined cap	HNO_3 to pH<2	30 days
Nitrogen Oxide	P	NaOH to pH 9-12	30 days
Particulates	G, Teflon-lined cap and Petri dish	None	30 days
Sulfur dioxide	P	None	30 days
Vinyl chloride	Tedlar bags	Out of direct sunlight (in dark)	72 hours
	Aluminized Mylar bag		24 hours
Organics Extract	G, Teflon- lined cap	Cool, 4°C	40 days
Surface Coatings Tests:			
Density	G, Teflon- lined cap	None	30 days
Percent Water	G, Teflon- lined cap	None	30 days
Volatile Content	G, Teflon- lined cap	None	30 days
Percent Solids (Non-volatiles) in ink	G, Teflon- lined cap	None	30 days
Solid Fuels, Oils, Solvents Tests:			
B.T.U.	P,G, Teflon-lined caps	None	30 days
Metals	G, Teflon-lined cap	None	30 days
Sulfur	G, Teflon-lined cap	None	30 days

Appendix 15-1

Chain of Custody
Inter-laboratory Transport Control

Appendix D

LS

Life Science Laboratories, Inc.

5854 Butternut Dr. East Syracuse, New York 13057

Phone # (315) 445-1105 Fax # (315) 445-1301

Chain of Custody Record

Report Address:

Name: ______

Company: ______

Street: ______

City/State ______ Zip: ______

Phone # ______ Email:

Fax #

Invoice Address (if different):

Authorization or PO# :

Turnaround Time Requested:

please circle 24-Hr RUSH 48-Hr RUSH 72-Hr RUSH 7-day RUSH 14-Day STD

Special Instructions:

Client Project ID or Name:

Client Project Site ID:

Contact Person and phone # (in case the lab has questions):

LSL Project #:

LSL Sample #	Client's Sample Identifications	Sample Date	Sample Time	Type: grab	Type: comp	Matrix	Preserv. Added	Containers: #	Containers: size/type	Requested Analyses	LSL Preserv. Check

Notes and Hazard identifications:

Custody Transfers		Date	Time
Sampled By:	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Rec'd for Lab By:		

Shipment Method: | Received Intact: Y N | Sample Receipt Temp. °C

LSL Inter-Laboratory Transport Chain of Custody (ILT-COC)

To: ________ From: ________ Type of 1st Transport: ________________ Date: ________

To: ________ From: ________ Sealed? ______ Type of 2nd Transport: __________ Date: ________

Container Labels	Analysis Needed	TAT	Container Labels	Analysis Needed	TAT

Relinquished By: ________ Date & Time	Received By: ________ Date & Time ________ Temp.: Bottle Conditions:
Relinquished By: ________ Date & Time	Received By: ________ Date & Time ________ Temp.: Bottle Conditions:

Appendix 17-1

Problem Notification / Prevention Form
(PiNK Sheet)

QAD Assigned No. ___________

Problem Notification/Prevention Form
(PINK SHEET)

Date Detected:

Client Name: ______________________

Detected By:

Client Sample ID(s): ________________

Tech Center(s) &/or Labs Involved:

LSL Sample #(s): __________________

Analyte:

Sample Date: ______________________

Problem: Missed H.T.

Lost Sample

Lab Accident

Wrong Analysis

Wrong D.L.

Other (explain):

Explain the Cause (what happened):

Response to Problem:

Notify Client?

Client Contact: ____________________

Flag Report?

Client Phone #: ____________________

Adjust Invoice?

Date Called: ______________________

LSL Caller: ______________________

Result of Call to Client:

Suggested Preventative/Corrective Action:

Copy to: JJ DP FL NL ML STL

Date Entered into LIMS ________________ By: ________________

Appendix 17-2

Example Corrective Action Report

PT STUDY CORRECTIVE ACTION RESPONSE

PT Study Name/No.

Analyte/Method

1. Description of Unacceptable Result (QA):

2. Identification of Cause:

3. Action Taken to Correct the Deficiency

4. Action Taken to Prevent Reoccurrence

Section Supervisor/Date

Quality Department/Date

Corrective Action Sheet

Corrective Action Follow-up **Date:** ________

Reference Number:

1.0 Problem:

2.0 Cause:

3.0 Corrective Action Required:

4.0 Implementation Date:

5.0 Continuing Verification Due Date (Follow Up):

6.0 Findings of Follow-up Inspection:

Quality Assurance ______________________________ Date: ________________

Technical Director ______________________________ Date: ________________

Appendix 17-3

Corrective Action Protocols

Activity	TAL ND	TAL Detected	*Proposed Footnote (Method or individual analytes, as required)*
Incorrect or no sample preservation	Flag	Flag	This sample was received without the NYSDOH ELAP required chemical preservative.
Insufficient Sample Quantity	Flag	No Flag	Due to insufficient sample quantity, the reported detection limit(s) have been increased.
Low Surrogate Recoveries	Flag	Flag	Surrogate recoveries for this analysis were below established control limits. Sample results may be biased low.
High Surrogate Recoveries	no flag (within reason*)	Flag	Surrogate recoveries for this analysis were above established control limits. Sample results may be biased high.
High LCS Results	no flag	Flag	The Laboratory Control Sample (LCS) recovery(s) for this analysis were above acceptable control limits. Sample results may be biased high.
Low LCS Results	Flag	Flag	The Laboratory Control Sample (LCS) recovery(s) for this analysis were below acceptable control limits. Sample results may be biased low.
Low MS Recoveries	Flag	Flag	Results for the matrix spike performed on this sample resulted in low recovery(s). Sample results may be biased low.
High MS Recoveries	Flag	Flag	Results for the matrix spike performed on this sample resulted in high recovery(s). Sample results may be biased high.
Poor Duplicate Results	No flag if both <RDL	Flag	Duplicate analysis of this sample resulted in a value of _________; the corresponding percent difference is beyond the established control limit of _________%.
Contaminated Blank	No flag if no chance of switched samples	Flag	This analyte was detected in the blank at a concentration of
Unacceptable IS Results	Flag if quantitation is affected.	Flag if quantitation is affected.	The internal standard response(s) for this analysis were outside our established control limits. Reported results have been estimated.
Failed Calibration-high	No Flag	Flag	Due to failed calibration, results may be biased high.
Failed Calibration-low	Flag	Flag	Due to failed calibration, results may be biased low.
Matrix Interference causing high recoveries	Flag	Flag	Due to sample matrix interferences, results may be biased high.
Matrix Interference causing low recoveries	Flag	Flag	Due to sample matrix interferences, results may be biased low.
Matrix Interference causing inaccurate quantitation	nothing would be detected	Flag	Due to sample matrix interferences, results have been estimated.

Laboratory Accident that increases detection limit.	Flag only if RDL is increased.	-	The detection limit for this analysis has been elevated due to a laboratory accident.
Laboratory Accident that increases concentration quantitation	-		Due to a laboratory accident, reported results may be biased high.
Laboratory Accident that decreases concentration quantitation	-		Due to a laboratory accident, reported results may be biased low.
Target analyte exceed calibration range and requires reanalysis.			This sample was initially analyzed on ___________, within allowable holding time; however, due to the high concentration of target analyte present in the sample, an additional diluted analysis was required for quantitation.
Oil and Grease OPR exceeds control limits.	Flag	Flag	This result should be considered estimated; the associated OPR recovery of ____________ was outside the method specified control limits of 86 to 114%.
Oil and Grease MS exceeds control limits.	Flag	Flag	This result should be considered estimated; the associated matrix spike recovery of ____________ was outside the method specified control limits of 78 to 114%.
Minor exceedance of H.T.	Flag	Flag	This analysis was performed ________minutes beyond the NYSDOH ELAP specified hold time.
Air space in bottle.	Flag	Flag	This sample bottle contained air space which may cause results to be biased low.

*within reason - ~200%

Appendix 18-1

Client Notification Form
(Green Sheet)

Appendix H-5
Client Notification Form

Client Notification Sheet

LSL Originator: Date: ____________________________

Client Name (if known)

LSL Sample(s) Number:

Parameter:

Problem:

****

Client Contact:

Phone #

Date of Call:

Resolution:

LSL Representative

Appendix 18-2

Project Change Form

PROJECT CHANGE FORM

		Date	
Revision Requested by: LSL		Client Name	
Client Contact for Revision		LSL Project #	
Reason for Revision of Report and/or Invoice:			

****

REVISED REPORT INFORMATION

Issue Revised Report? ☐ Yes ☐ No

Circle appropriate LSL sections:

SECTION:	Micro	HPLC	Inorganics	Organics	SCD
Done By:					
Date:					

OFFICE	Rpt Printed	QA Approval	Faxed	e-Mailed	Mailed
Initials:					
Date:					
Time:					

****

REVISED INVOICE INFORMATION

Issue new invoice? ☐ Yes ☐ No

Original Report Date: _____ Client Number: ____

Circulate as follows:	Done By	Date
Change approved by:		
SCD *(Change price in LIMS)*:		
Office *(Reprint new invoice and place copy of this form in the project file)*:		
Accounting (*Adjust in Accounts Receivable*)		

NO DEVIATION TO THIS CIRCULATION IS ACCEPTABLE

Note the Sample Number and Test Group to be changed	Old $	New $
TOTAL		

****

Appendix 18-3

Request For Relog Form

REQUEST FOR RELOG

Original Sample #______________________________________

New Sample #____

Parameter(s) Requested:__________________________________

____

Date Result Requested:___________________________________

Reason for Relog:

________ Verification of original analysis – client request

________ Verification of original analysis – QDO request

________ Additional analysis

Pricing

________ Billing dependent on results of analysis

________ Bill client for analysis

________ Do not bill client for analysis

Sample Info

Client: ____

Original client ID:______________________________________

Date Sampled:____

Date Received:_______________________________________

Request Submitted by:______________________ Date:_____________

Verification of sufficient sample volume:__________________________

Notes:____

____

____

____

APPENDIX D

Clough, Harbour & Associates LLP **Well Sampling/Development Log**	**Sample/Well Designation:**
Project Name:	Logged By:
Project Location:	Date:
Project Number:	Screen Length:

Purge Information:

(1) Depth to Bottom of Well: _____ ft.
(from TOC)

(2) Depth to Water: _____ ft.
(from TOC)

(3) Column of Water: _____ ft.
[(1) – (2)]

(4) Well Riser Diameter: _____ in.

(5) Volume Conversion: _____ gal./ft.
(see below)

(6) 1 Well Volume: _____ gal.
[(3) x (5)]

Method of Purging: ☐ WaTerra ☐ Bailer ☐Submersible ☐ Other: (

Volume Conversion: (gal./ft.)

2” = 0.163 4” = 0.653 6” = 1.469 8” 2.611 10” = 4.08

Field Analysis:

Volume Purged (gal.)										
Time										
ORP/EH (mV)										
pH										
Cond. (MS/CM)										
Turbidity (NTU)										
D.O. (mg/L)										
Temperature (°C)										

Total Volume Purged: _____ gal.

Total Purge Time: _____

Sampling Information:

Sampling Method: _____

Sampling Time: _____

Sample Analyses: _____

No. of Bottles: _____

Comments:

APPENDIX E

Appendix D

Life Science Laboratories, Inc.
5854 Butternut Dr. East Syracuse, New York 13057
Phone # (315) 445-1105 Fax # (315) 445-1301

Chain of Custody Record

Report Address:	Invoice Address (if different):	Turnaround Time Requested: please circle — 48-Hr RUSH, 7-day RUSH, 24-Hr RUSH, 72-Hr RUSH, 14-Day STD
Name:		Special Instructions:
Company:		
Street:		
City/State: Zip:		
Phone #: Email:	Authorization or PO# :	
Fax #	Contact Person and	

Client Project ID or Name:	Client Project Site ID:	Contact Person and phone # (in case the lab has questions):	LSL Project #:

LSL Sample #	Client's Sample Identifications	Sample Date	Sample Time	Type: grab	Type: comp	Matrix	Preserv. Added	Containers: #	Containers: size/type	Requested Analyses	LSL Preserv. Check

Notes and Hazard identifications:

Custody Transfers		Date	Time
Sampled By:	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Rec'd for Lab By:		

Shipment Method:	Received Intact: Y N	Sample Receipt Temp. °C

Gas Collection System Design Plan
Eastern Landfill Expansion

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 12206

Prepared for:

The City of Albany, New York

Prepared by:

Clough Harbour & Associates LLP
III Winners Circle
Albany, New York 12205
(518) 453-4500

CLOUGH HARBOUR & ASSOCIATES LLP

July 30, 2007

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1.0 INTRODUCTION

1.1 GENERAL

The Rapp Road Waste Management Facility currently has a gas collection system that has been installed in phases over the life of the facility. The initial system in the Greater Albany Landfill was passive with several vents fitted with vent flares. With the construction of the Albany Interim Landfill (Cells 1-5) and the "Wedge" (Cell 6) a series of horizontal collection lines were installed and connected to an active collection system in about 1996. In 1997 and 1998, additional collection wells and piping was installed in the Greater Albany Landfill with the construction of a gas to energy facility. In the late 1990's the system was expanded with the construction of the P-4 Expansion (Cells 7-9) with a series of horizontal collection trenches, vertical wells and associated header piping and laterals. The system was again expanded in 2001 with the construction of Cells 10 and 11. The current system is comprised of over 20 horizontal collection trenches and over 75 vertical collection wells to remove landfill gas under vacuum.

The City of Albany proposes the expansion of the facility to the east of the existing landfill. The Eastern Expansion of the landfill will involve an overfill of approximately 22 acres of the existing landfill and a lateral expansion of approximately 14 acres onto the adjacent City-owned property. The main components of the Rapp Road Landfill Eastern Expansion include a landfill liner system, a leachate collection and removal system, and a landfill gas collection system.

The collection system design plan which is outlined in the following sections incorporates elements of the existing system. The plan was developed in accordance with the requirements of 6 NYCRR Part 360-2.21 Landfill Gas Collection and Control Systems for Certain Municipal Solid Waste Landfills.

2.0 COLLECTION SYSTEM DESIGN REQUIREMENTS

The collection system must meet the requirements set forth in 6 NYCRR Part 360-2.21(c). The design plan for an active collection system must show that it meets the following four criteria:

- Can handle the maximum expected gas flow rate over the expected lifespan of the collection system equipment.
- Will collect gas from each area or cell in which waste has been placed for 5 years if the cell is active, and 2 years if it is closed or at final grade.
- Will collect gas at a sufficient extraction rate.
- Will minimize off-site migration of subsurface gas.

These design criteria are met at the Rapp Road Waste Management Facility.

2.1 MAXIMUM EXPECTED GAS GENERATION FLOW RATE

The maximum expected gas flow rate for the Rapp Road Waste Management Facility (including the Eastern Expansion) was calculated using EPA's LandGEM model. The Clean Air Act (CAA) defaults for the methane generation constant ($k = 0.05\ yr^{-1}$) and methane generation potential ($L_o = 170\ m^3/Mg$) were utilized in order to obtain a conservative estimate. Actual quantities of waste placed were input for years 1969-2006. Estimated values of waste to be placed were input for years 2007-2017. The LandGEM report is located in Appendix A. LandGEM calculations indicate that maximum average landfill gas production will be reached in 2011 at a rate of 4,448 ft^3/min.

2.2 GAS COLLECTION SYSTEM

Gas will be collected from each area of the Rapp Road Waste Management Facility in which waste has been placed. The current gas collection system composed of horizontal collection trenches, vertical collection wells and gas headers will be expanded to accommodate the additional gas generated in the Eastern Expansion Area. The proposed additional gas collection system components are shown on the Gas Collection System Plan included in the Permit drawings. Gas collection design calculations are included as Figure 2.

The collection system has been designed to allow for accessibility of the system components for inspection or repair. Additional collection wells, collection trenches and header piping installed are surveyed upon installation.

The collection system has been designed to accommodate the filling of the landfill with the placement of header piping and gas connections points around the perimeter of the landfill cells that allows for connection of additional collection wells and collection trenches as filling of the waste progresses.

The collection system design will be integrated with the anticipated closure end use of the landfill. Connection of header and lateral piping above the final cover cap will be connected to collection wells and the header system around the perimeter of the landfill cells.

2.3 EXTRACTION RATE

For purposes of demonstrating that the gas collection system flow rate is sufficient, gauge pressure at each individual well will be monitored monthly. The collection system must maintain a negative pressure at all wellheads in the collection system without causing air infiltration.

The extraction components are sized appropriately to convey the projected gas, withstand installation, static and settlement, properly perforated so as not to impair head loss and prevent excessive air infiltration and the gravel around the pipe perforations are of correct size as not to enter the perforations.

A viscosity of 1.09E-4 ft^2/s was used for landfill gas when designing the landfill gas collection system.

2.4 MINIMIZATION OF OFF-SITE MIGRATION

Landfill gas migration at the site is controlled with the use of an active gas collection system and appropriate collection well and trench spacing based on the zone of influence, to ensure sufficient density of collection devices.

In order to demonstrate that the off-site migration of gas is minimized, methane concentration must remain below 500 ppm above background at the surface of the landfill. After installation of the collection system, the owner or operator must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals for each collection area on a quarterly basis.

3.0 CONTROL SYSTEM DESIGN REQUIREMENTS

The landfill gas control system is addressed in the Part 201 Permit Application/ Modification.

4.0 WELL FIELD CONSTRUCTION/DENSITY OF GAS COLLECTORS

The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC) , high density polyethylene (HDPE), fiberglass, stainless steel or other nonporous corrosion resistant material of suitable dimensions to convey projected amounts of gas and withstand settlement forces and overburden or traffic loads. The materials use d for the construction of the underground components of the gas collection system is composed of either high density polyethylene (HDPE) or polyvinyl chloride (PVC). Carbon steel is used for flare system piping. HDPE is used for underground header, lateral and collection trench piping due to it's ability to flex and adjust to differential settlement without compromising it's structural integrity and the method used for joining pipe sections and fitting together are as strong as the pipe itself. PVC piping is used for construction of collection wells because the pipe will break and not pinch with movement of the well. Breaking of the well riser allows for continued collection of landfill gas through the filter material placed around the well riser.

Collection systems shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration. The collection devices are designed to not allow indirect short circuiting of air into the cover or refuse in to the collection system or gas into the air. This is accomplished through placement of the wells tat the appropriate density to ensure the zone of influence for each well is not significantly influenced by adjacent wells and through tuning to the desired gas quality and flow rate to reduce air intrusion and optimize gas collection. In addition, the use of cover material reduces air intrusion. The depth of refuse is evaluated during design of the collection devices to ensure the integrity of the baseliner system is not compromised during collection well installation and ensure enough vacuum is available to influence the anticipated well zone of influence.

Air intrusion control is achieved with the adjustment of the well head at each collection point. The collection point is tuned to the desired gas quality and flow rate to reduce air intrusion.

Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port.

4.1 HORIZONTAL COLLECTION TRENCHES

Horizontal collection trenches are installed during the active phase of landfilling. The collection trenches are excavated into the waste mass at a horizontal spacing of 100 feet and a vertical spacing of 40 feet. The trenches are constructed with perforated 12 inch HDPE pipe surrounded by tire chips or stone interlaced with solid 4 inch HDPE pipe at the penetration of the mass to connect to the gas collection header.

4.2 VERTICAL COLLECTION WELLS

Vertical collection wells are generally installed as the waste mass meets the proposed finished grade at spacing between 100 to 200 feet. The vertical collection wells are generally installed to a depth of about 75 percent of the total waste height and constructed with PVC ranging in diameter from 2 to 6 inches. Wells are to be constructed with slotted pipe in the bottom ¾ of the well surrounded with stone, and then completed with a solid pipe riser surrounded with benonite to seal the well and eliminate air infiltration. A gas collection well detail is included as Figure 1.

To ensure that the underlying baseliner system of the landfill cells are not damaged during installation of vertical collection wells, as-built drawings of the baseliner system and survey of the top of waste mass are examined. The location of the vertical well is determined and the difference between the top of waste and baseliner is calculated and a maximum well depth of 75 percent of the difference is used for construction of the well.

Should water be encountered in the landfill during installation of the well, the well is either placed above the water elevation or the well is installed at the planned depth. If the well is installed at the planned elevation or becomes filled with water subsequent to installation, the water will be removed from the well with a dedicated well pump. Upon installation of the well pump, the well will be evaluated to determine if replacement of the well is required due to inability to drain the well.

4.3 COLLECTION SYSTEM AND CONDENSATE

The collection system conveys landfill gas from the horizontal collection trenches and the vertical collection wells to the landfill gas control devices. Collection system piping is constructed of HDPE pipe ranging in diameter from 6 to 12 inches. The piping is buried at a minimum depth of four feet within the waste mass or outside the footprint of the landfill, and is placed at the maximum slope possible to accommodate landfill settlement. Condensate is removed from the collection system piping with the use of condensate drop outs and condensate traps. The collected condensate is transported to the leachate collection system for discharge into the leachate collection system.

4.4 BLOWER SYSTEM

The main gas collection header is connected to the blower system and the landfill gas control devices. The blower system provides vacuum to collect gas from the wellfield. Collected landfill gas is routed through the collection system to the blower at vacuum ranging from 10 to 55 inches of water depending on operating conditions of the well field. It is then discharged from the blower at a pressure ranging from 10 to 20 pounds per square inch through a flame arrestor to the appropriate control device.

5.0 OPERATIONAL STANDARDS

To demonstrate that the design criteria for the collection and control system are met, the system must be monitored for compliance with the following operational standards as listed in 6 NYSCRR Part 360-2.21:

- A negative pressure must be maintained at each wellhead.
- Temperature of the collected LFG must remain below 55 ^{o}C.
- Nitrogen concentration in the collected LFG must be maintained below 20%, or oxygen concentration below 5%.
- Methane concentration must remain below 500 ppm above background at the surface of the landfill. Surface testing is conducted at 30 meter intervals.
- Control devices must be operated at all times when LFG is routed to the device.
- If the control device becomes inoperable, the gas mover system must be shut down within one hour.

Air intrusion control is achieved with the adjustment of the well head at each collection point. The collection point is tuned to the desired gas quality and flow rate to reduce air intrusion.

5.1 NEGATIVE PRESSURE AT WELLHEADS

The collection system is designed to provide a negative pressure at each wellhead. Pressure readings at each wellhead will be performed on a monthly basis.

5.2 TEMPERATURE

Temperature at each wellhead will be monitored on a monthly basis.

5.3 NITROGEN/OXYGEN CONCENTRATION

For purposes of demonstrating whether excess air infiltration into the landfill is occurring, each well must be monitored monthly for nitrogen or oxygen concentration. Wells will be monitored monthly.

5.4 METHANE CONCENTRATION

The gas collection system will be operated so that the methane concentration is less than 500 ppm above background at the surface of the landfill. Surface testing will be performed around the perimeter and on the surface at an interval of about 100 feet and at areas that indicated signs of distress due to gas migration. These surface scans will be performed on a quarterly basis. The scan route is included in Appendix I.

5.5 CONTROL DEVICE OPERATION/GAS MOVER SHUTDOWN

The gas engines are equipped with measuring devices that record flow. In the event the engines shut down, the gas is automatically diverted to the flare (2,000 ft^3/min John Zink) for combustion. In the event the flare shuts down, the system vacuum will reduce, and only enough landfill gas required to operate the engines will be recovered. The facility does not utilize a lock and key device to prevent bypass, rather the system automatically diverts gas to either functioning control device, or shuts the landfill in if neither the flare nor engines are operational. This system prevents any bypass and is equivalent to the lock and key configuration. The following shutdown sequences are followed at the gas to energy facility:

Flare Failure

- Flare shuts down
- Flare attempts three automatic restarts

- Automatic valve to flare inlet quickly closes preventing any gas from venting to atmosphere if three restart attempts fail.
- Blower continues to operate to supply gas to the engines

Engine(s) Failure

- Engine(s) shut down
- Pressure regulating valve closes and diverts gas to the flare (gas flow to engines blocked)
- Blower continues to operate to supply gas to the flare
- Compressor shuts down

Blower Failure

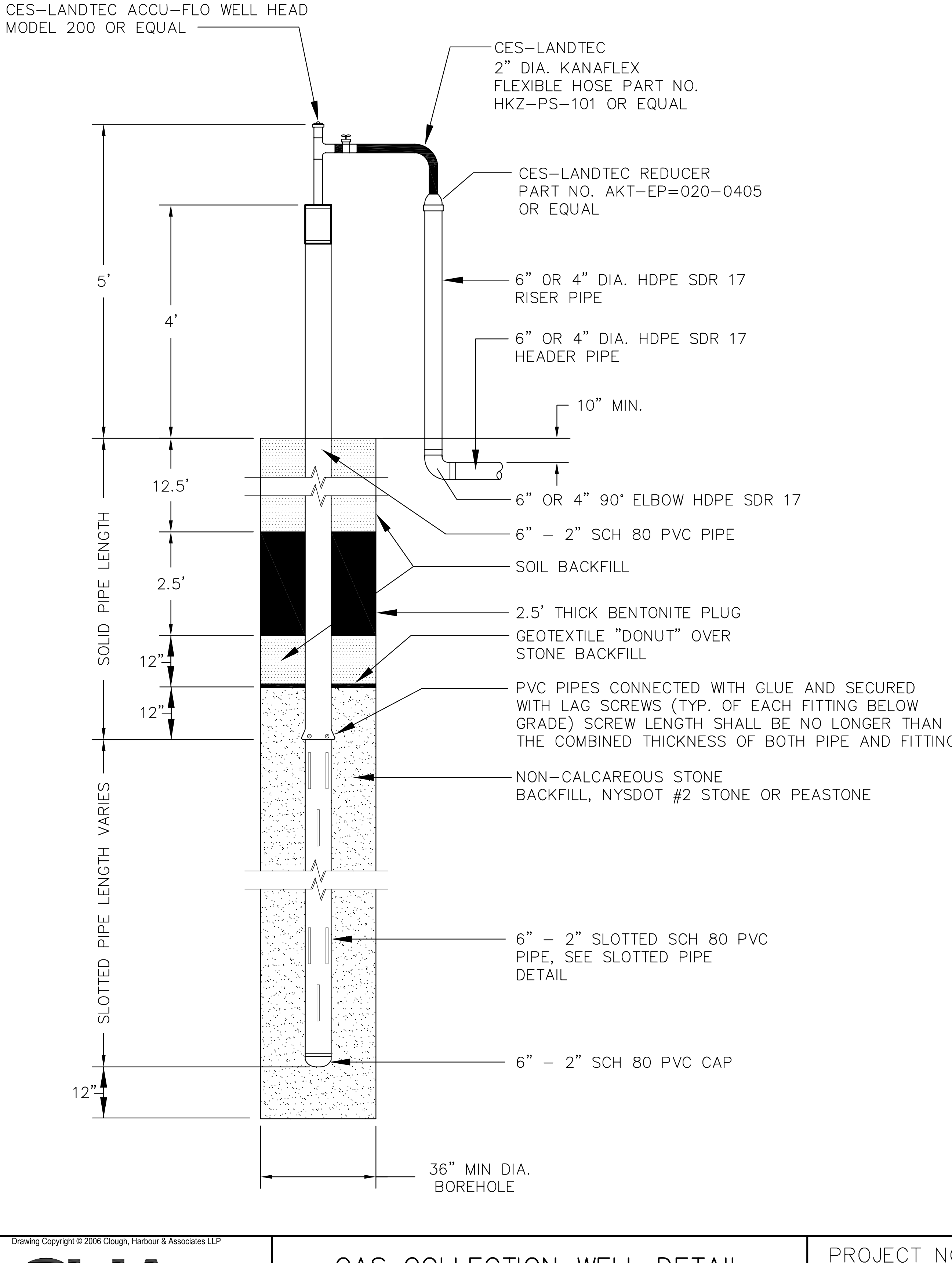
- Flare shuts down
- Engine shuts down
- The inlet, flare and engine pressure-sensing automatic valves all close to prevent gas from venting to atmosphere.

Total System Failure (loss of utility power)

- Flare, engines and blower shut down
- All automatic valves close
- Entire facility is isolated from the collection system preventing any gas venting to atmosphere.

The collection and destruction equipment is equipped with a thermocouple. When the thermocouple senses that the temperature has dropped below 400 ^{o}F, the gas flow to the flare is stopped with the use of an automatic valve, and three automatic restarts are attempted. If the three restart attempts fail, an alarm signal is sent indicating that the flare is shutdown and unable to restart.

FIGURE 1: GAS COLLECTION WELL DETAIL



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CHA
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GAS COLLECTION WELL DETAIL

GAS COLLECTION SYSTEM DESIGN PLAN
EASTERN LANDFILL EXPANSION
CITY OF ALBANY WASTE MANAGEMENT
FACILITY – ALBANY, NY

PROJECT NO.
12206

DATE: 03/21/07

FIGURE 1

File: K:\12306\WWW COMPLIANCE EVALUATION (8005)\ACAD\VERT WELL.DWG Saved: 3/29/2006 4:30:40 PM Plotted: 3/21/2008 11:34:14 AM User: Gorman, Jason

FIGURE 2: GAS COLLECTION SYSTEM DESIGN CALCULATIONS

Collection and Control System Calculations
Gas Collection System Design Plan
Eastern Landfill Expansion
City of Albany Rapp Road Solid Waste Management Facility

Figure 2

Number	Well or Perforated Pipe	Diameter (inches)	Cross Section in (SQF)	Pipe Length (FT)	Number of Elbows	Equiv. Elbow	Equiv. Tee	Equiv. Valve	Estimated Flow in (CFM)	Gas Velocity (F/s)	Reynolds's Number at 70F	Relative roughness (e/D)	Friction Factor	Velocity Head in (IN)	Head loss due to Friction in (IN)	Loss Testing station or drop box (in)	Total loss (in)
1	Sump to Exisitng System	18	1.767	105	1	18	0	3.2	1500	14.15	2.34E+06	3.333E-06	0.0210	0.2590	0.4576		0.4576
2	GCP	18	1.767	50	2	36	0	0	1540	14.52	2.40E+06	3.333E-06	0.0210	0.2730	0.3287		0.3287
3	GCP	18	1.767	50	2	36	0	0	1580	14.90	2.46E+06	3.333E-06	0.0210	0.2873	0.3460		0.3460
4	CS	18	1.767	50	2	36	0	0	1620	15.28	2.52E+06	3.333E-06	0.0210	0.3021	0.3637		0.3637
5	GCP	18	1.767	50	2	36	0	0	1660	15.66	2.59E+06	3.333E-06	0.0210	0.3172	0.3819		0.3819
6	GCP	18	1.767	50	2	36	0	0	1700	16.03	2.65E+06	3.333E-06	0.0210	0.3326	0.4005		0.4005
7	GCP	18	1.767	50	2	36	0	0	1740	16.41	2.71E+06	3.333E-06	0.0210	0.3485	0.4196		0.4196
8	GCP	18	1.767	22	2	36	0	0	1780	16.79	2.77E+06	3.333E-06	0.0210	0.3647	0.2961		0.2961
9	10" drain	10	0.545	28	2	20	0	2.9	1820	55.62	5.10E+06	0.000006	0.0210	4.0024	5.1338		5.1338
10	CS	18	1.767	50	2	36	0	0	1860	17.54	2.90E+06	3.333E-06	0.0210	0.3982	0.4794		0.4794
11	GCP	18	1.767	50	2	36	0	0	1900	17.92	2.96E+06	3.333E-06	0.0210	0.4155	0.5003		0.5003
12	GCP	18	1.767	50	2	36	0	0	1940	18.30	3.02E+06	3.333E-06	0.0210	0.4332	0.5216		0.5216
13	GCP	18	1.767	50	2	36	0	0	1980	18.67	3.08E+06	3.333E-06	0.0210	0.4512	0.5433		0.5433
14	GCP	18	1.767	50	2	36	0	0	2020	19.05	3.15E+06	3.333E-06	0.0210	0.4697	0.5655		0.5655
15	GCP	18	1.767	50	2	36	0	0	2060	19.43	3.21E+06	3.333E-06	0.0210	0.4884	0.5881		0.5881
16	GCP	18	1.767	50	2	36	0	0	2100	19.81	3.27E+06	3.333E-06	0.0210	0.5076	0.6112		0.6112
17	CS	18	1.767	50	2	36	0	0	2140	20.18	3.33E+06	3.333E-06	0.0210	0.5271	0.6347		0.6347
18	GCP	18	1.767	50	2	36	0	0	2180	20.56	3.40E+06	3.333E-06	0.0210	0.5470	0.6586		0.6586
19	GCP	18	1.767	50	2	36	0	0	2220	20.94	3.46E+06	3.333E-06	0.0210	0.5673	0.6830		0.6830
20	GCP	18	1.767	50	2	36	0	0	2260	21.31	3.52E+06	3.333E-06	0.0210	0.5879	0.7078		0.7078
21	GCP	18	1.767	50	2	36	0	0	2300	21.69	3.58E+06	3.333E-06	0.0210	0.6089	0.7331		0.7331
22	GCP	18	1.767	68	2	36	0	0	2340	22.07	3.64E+06	3.333E-06	0.0210	0.6303	0.9177		0.9177
23	CS	18	1.767	50	2	36	0	0	2380	22.45	3.71E+06	3.333E-06	0.0210	0.6520	0.7850		0.7850
24	GCP	18	1.767	50	2	36	0	0	2420	22.82	3.77E+06	3.333E-06	0.0210	0.6741	0.8116		0.8116
25	GCP	18	1.767	50	2	36	0	0	2460	23.20	3.83E+06	3.333E-06	0.0210	0.6966	0.8387		0.8387
26	GCP	18	1.767	50	2	36	0	0	2500	23.58	3.89E+06	3.333E-06	0.0210	0.7194	0.8661		0.8661
27	GCP	18	1.767	50	2	36	0	0	2540	23.96	3.96E+06	3.333E-06	0.0210	0.7426	0.8941		0.8941
28	GCP	18	1.767	50	2	36	0	0	2580	24.33	4.02E+06	3.333E-06	0.0210	0.7662	0.9225		0.9225

Collection and Control System Calculations
Gas Collection System Design Plan
Eastern Landfill Expansion
City of Albany Rapp Road Solid Waste Management Facility

Figure 2

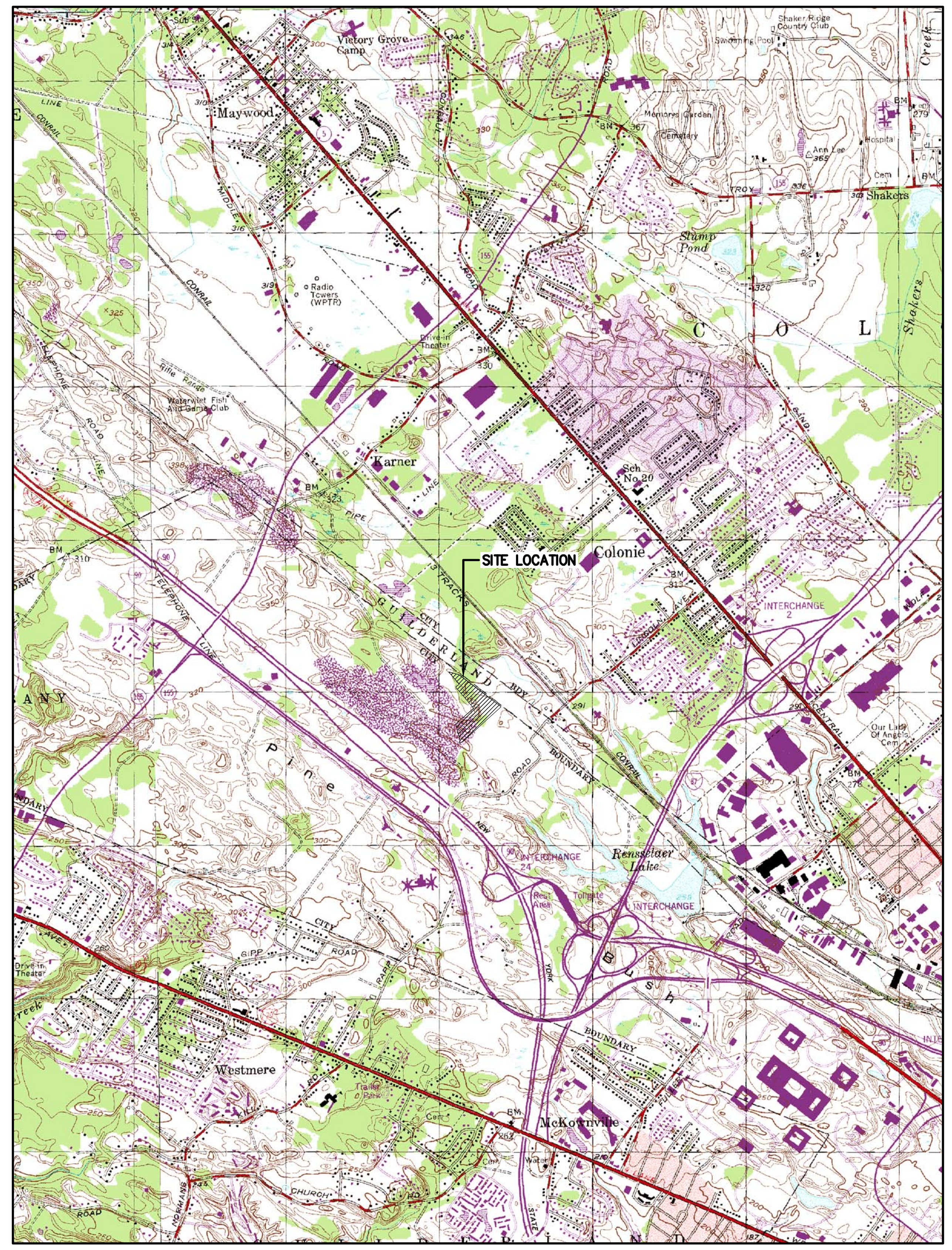
Number	Well or Perforated Pipe	Diameter (inches)	Cross Section in (SQF)	Pipe Length (FT)	Number of Elbows	Equiv. Elbow	Equiv. Tee	Equiv. Valve	Estimated Flow in (CFM)	Gas Velocity (F/s)	Reynolds's Number at 70F	Relative roughness (e/D)	Friction Factor	Velocity Head in (IN)	Head loss due to Friction in (IN)	Loss Testing station or drop box (in)	Total loss (in)
29	CS	18	1.767	50	2	36	0	0	2620	24.71	4.08E+06	3.333E-06	0.0210	0.7901	0.9513		0.9513
30	GCP	18	1.767	50	2	36	0	0	2660	25.09	4.14E+06	3.333E-06	0.0210	0.8144	0.9806		0.9806
31	GCP	18	1.767	50	2	36	0	0	2700	25.46	4.21E+06	3.333E-06	0.0210	0.8391	1.0103		1.0103
32	GCP	18	1.767	50	2	36	0	0	2740	25.84	4.27E+06	3.333E-06	0.0210	0.8641	1.0404		1.0404
33	GCP	18	1.767	50	2	36	0	0	2780	26.22	4.33E+06	3.333E-06	0.0210	0.8896	1.0710		1.0710
34	GCP	18	1.767	50	2	36	0	0	2820	26.60	4.39E+06	3.333E-06	0.0210	0.9153	1.1021		1.1021
35	CS	18	1.767	50	2	36	0	0	2860	26.97	4.45E+06	3.333E-06	0.0210	0.9415	1.1336		1.1336
36	GCP	18	1.767	50	2	36	0	0	2900	27.35	4.52E+06	3.333E-06	0.0210	0.9680	1.1655		1.1655
37	GCP	18	1.767	50	2	36	0	0	2940	27.73	4.58E+06	3.333E-06	0.0210	0.9949	1.1979		1.1979
38	GCP	18	1.767	50	2	36	0	0	2980	28.11	4.64E+06	3.333E-06	0.0210	1.0222	1.2307		1.2307
39	GCP	18	1.767	50	2	36	0	0	3020	28.48	4.70E+06	3.333E-06	0.0210	1.0498	1.2639		1.2639
40	GCP	18	1.767	50	2	36	0	0	3060	28.86	4.77E+06	3.333E-06	0.0210	1.0778	1.2976		1.2976
41	CS	18	1.767	50	2	36	0	0	3100	29.24	4.83E+06	3.333E-06	0.0210	1.1061	1.3318		1.3318
42	GCP	18	1.767	100	2	36	0	0	3140	29.61	4.89E+06	3.333E-06	0.0210	1.1349	2.1608		2.1608
43	GCP	18	1.767	100	2	36	0	0	3180	29.99	4.95E+06	3.333E-06	0.0210	1.1640	2.2162		2.2162
44	GCP to Existing System	18	1.767	315	2	36	0	3.2	4680	44.14	7.29E+06	3.333E-06	0.0210	2.5210	12.5013		12.5013
															Total Loss		53.0448

CITY OF ALBANY
DEPARTMENT OF GENERAL SERVICES

RAPP ROAD LANDFILL EASTERN EXPANSION

CITY OF ALBANY **ALBANY COUNTY, NY**

SHEET NUMBER	SHEET DESIGNATION	DESCRIPTION
1.	G1	COVER SHEET
2.	G2	LEGEND & GENERAL NOTES
3.	G3	VICINITY MAP
4.	G4	PROPERTY SURVEY MAP
5.	G5	EXISTING CONDITIONS PLAN
6.	G6	DEMOLITIONS/RELOCATIONS PLAN
7.	G7	LINER SUBGRADE PLAN
8.	G8	SECONDARY LINER/LCRS PLAN
9.	G9	PRIMARY LINER/LCRS PLAN
10.	G10	TOP OF LINER/LANDSCAPE/STORMWATER CONTROL PLAN
11.	G11	FINAL CLOSURE/LANDSCAPE/STORMWATER CONTROL PLAN
12.	G12	LINER/CLOSURE SYSTEM CROSS SECTIONS
13.	G13	SOLID WASTE PROGRESSION PLAN
14.	G14	SOLID WASTE PROGRESSION CROSS SECTION
15.	G15	GAS CONTROL SYSTEM PLAN
16.	G16	LEACHATE CONVEYANCE SYSTEM PLAN
17.	G17	LINER/COVER SYSTEM DETAILS
18.	G18	LINER/COVER SYSTEM DETAILS
19.	C19	GAS CONTROL SYSTEM DETAILS
20.	C20	LEACHATE COLLECTION SYSTEM DETAILS 1



JULY 2007
PART 360 PERMIT
APPLICATION PLANS
NOT FOR CONSTRUCTION

PREPARED FOR

CITY OF ALBANY ON BEHALF OF ANSWERS
SOLID WASTE MANAGEMENT PLANNING UNIT

DEPARTMENT OF GENERAL SERVICES
ONE CONNERS BOULEVARD
ALBANY, NEW YORK 12204

No.	Submittal / Revision	App'd	By	Date
1	ADDED SHEET G-20 TO LEGEND	WAH	CAP	2/22/08

CITY OF ALBANY
DEPARTMENT OF GENERAL SERVICES
ONE CONNERS BOULEVARD
ALBANY, NEW YORK 12204

CHA
CLOUGH HARBOUR & ASSOCIATES LLP

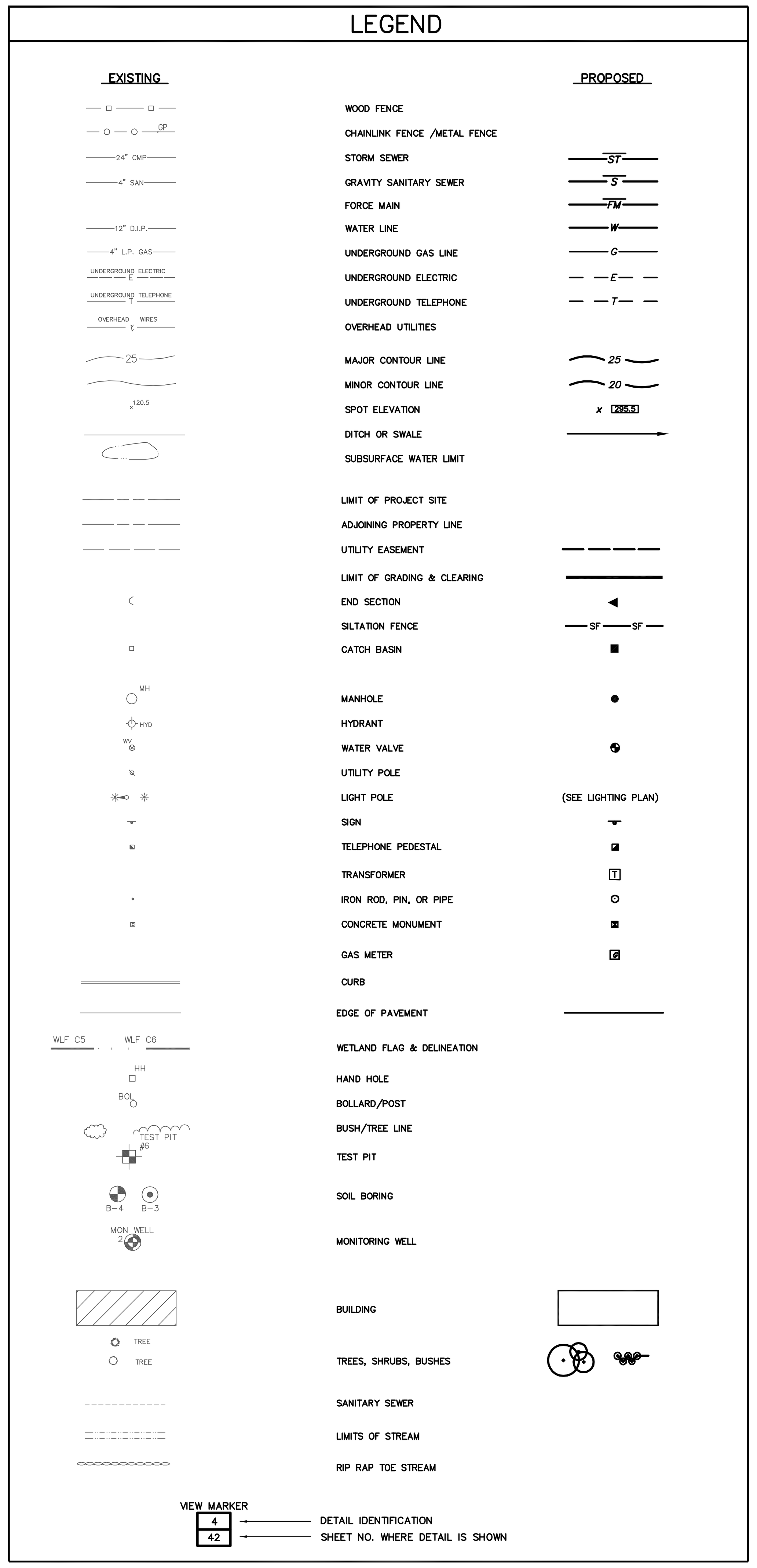
Designed: DF Drawn: CAP Checked:

RAPP ROAD LANDFILL
EASTERN EXPANSION

COVER SHEET

Issue Date: 7/07 Project No. 12206 Scale:

G-1



GENERAL NOTES

1. TOPOGRAPHIC BASE MAPPING WAS PREPARED BY CLOUGH HARBOUR & ASSOCIATES LLP FROM AN OCTOBER 2006 FIELD SURVEY.
2. ELEVATION CONTOURS IN THE CENTER PORTION OF THE P-4 PROJECT LANDFILL EXPANSION AREA HAVE BEEN MODIFIED TO DEPICT CURRENTLY PERMITTED FINAL CLOSURE GRADES.
3. NORTH ORIENTATION IS BASED ON TRUE NORTH. BASELINE COORDINATES REFERENCE THE NEW YORK TRANSVERSE MERCATOR COORDINATE SYSTEM.
4. CONTOURS AND ELEVATIONS ARE BASED ON PREVIOUSLY ESTABLISHED LANDFILL DATUM (USGS DATUM).
5. THE SURVEY MAP IS SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
6. THE WETLAND DELINEATION SHOWN WAS PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP DURING NOVEMBER 2006.
7. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES HAVE BEEN SHOWN FROM AN AERIAL SURVEY, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. THE SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFELY NEW YORK PRIOR TO ANY EXCAVATION.
8. ALL CONSTRUCTION MATERIALS, METHODS, QA/QC TESTING AND DOCUMENTATION FOR THE PROJECT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND APPLICABLE SECTIONS OF 6 NYCRR PART 360.
9. ALL MATERIALS USED, AND CONSTRUCTION METHODS EMPLOYED FOR WORK WITH REFERENCE TO NYSDOT ITEMS SHALL BE IN ACCORDANCE WITH THE "MATERIALS" AND "CONSTRUCTION DETAILS" SECTIONS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS" OF JANUARY 2, 2002, LATEST ADDENDA.
10. ALL EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST REVISION OF NEW YORK STATE INDUSTRIAL CODE RULE 23 AND OSHA REGULATIONS FOR CONSTRUCTION.
11. SAFE SLOPES AND GRADES SHALL BE MAINTAINED DURING ALL EARTHWORK COMPLETED FOR THE PROJECT.
12. ALL EXCAVATION AND FILLING ASSOCIATED WITH LANDFILL CELL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. OVER-EXCAVATION WILL NOT BE PERMITTED UNLESS DEEMED NECESSARY BY THE ENGINEER.
13. ALL FILL MATERIALS SHALL BE AS NOTED ON THE DRAWINGS AND DEFINED IN THE SPECIFICATIONS; AND SHALL BE FREE OF ORGANIC, SATURATED OR FROZEN MATERIAL.
14. THE GROUND SURFACE SHALL BE CLEARED OF ALL TOPSOIL, REFUSE, BRUSH, ORGANIC MATERIALS, LARGE STONES AND LOSE DEBRIS PRIOR TO PLACING FILL FOR LANDFILL CONSTRUCTION.
15. SUFFICIENT GRADING MUST BE COMPLETED DURING THE PROGRESS OF THE WORK SO THAT THE ENTIRE SITE IS WELL DRAINED AND FREE FROM STANDING WATER. TEMPORARY BERMS, DRAINAGE DITCHES, SUMPS WITH PUMPS, AND OTHER METHODS SHALL BE USED TO CONVEY WATER TO COLLECTION, RUNOFF OR DIVERSION AREAS AS REQUIRED.
16. EROSION CONTROL MEASURES SHALL BE EMPLOYED THROUGHOUT LANDFILL CONSTRUCTION. CONTROLS SUCH AS HAY BALES AND SILT FENCING SHALL BE INSTALLED PRIOR TO INITIATION OF CONSTRUCTION TO CONFINE SEDIMENTATION TO THE PROJECT SITE.
17. DRAINAGE SHALL BE CONTROLLED BY SEEDED DITCHES AND SWALES LOCATED AT THE TOE OF THE LANDFILL SLOPES. STONE SHALL BE USED WHERE NECESSARY TO PROTECT THE DRAINAGE DITCHES AND ADJACENT SLOPES FROM EROSION.
18. ALL RUNOFF FROM EXISTING WASTE ADJACENT TO THE LANDFILL EXPANSION AND FUTURE WASTE PLACED THAT IS PLACED IN THE EXPANSION AREA SHALL BE COMPLETELY CONTAINED WITHIN THE LANDFILL LIMITS AND COLLECTED THROUGH THE LANDFILL LEACHATE COLLECTION SYSTEMS.
19. ALL CONSTRUCTION COMPLETED FOR THE PROJECT SHALL BE PERFORMED UNDER THE OBSERVATION OF A REPRESENTATIVE OF A PROFESSIONAL ENGINEER LICENSES BY THE STATE OF NEW YORK. THE ENGINEER SHALL PREPARE A CONSTRUCTION CERTIFICATION REPORT IN ACCORDANCE WITH THE REQUIREMENTS OF 6 NYCRR PART 360-2.13(U).
20. CONSTRUCTION OF NEW TEMPORARY OR PERMANENT GAS COLLECTION AND LEACHATE COLLECTION SYSTEMS SHALL BE COMPLETED AND THESE SYSTEMS OPERATIONAL PRIOR TO DEMOLITION OF THE EXISTING GAS COLLECTION AND LEACHATE COLLECTION SYSTEMS.

No.	Submittal / Revision	Appr'd	By	Date
1	REVISED GENERAL NOTES 3 & 4	WAH	CAP	2/22/08

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DEPARTMENT OF GENERAL SERVICES
ONE CONNERS BOULEVARD
ALBANY, NEW YORK 12204

CLOUGH HARBOUR & ASSOCIATES LLP

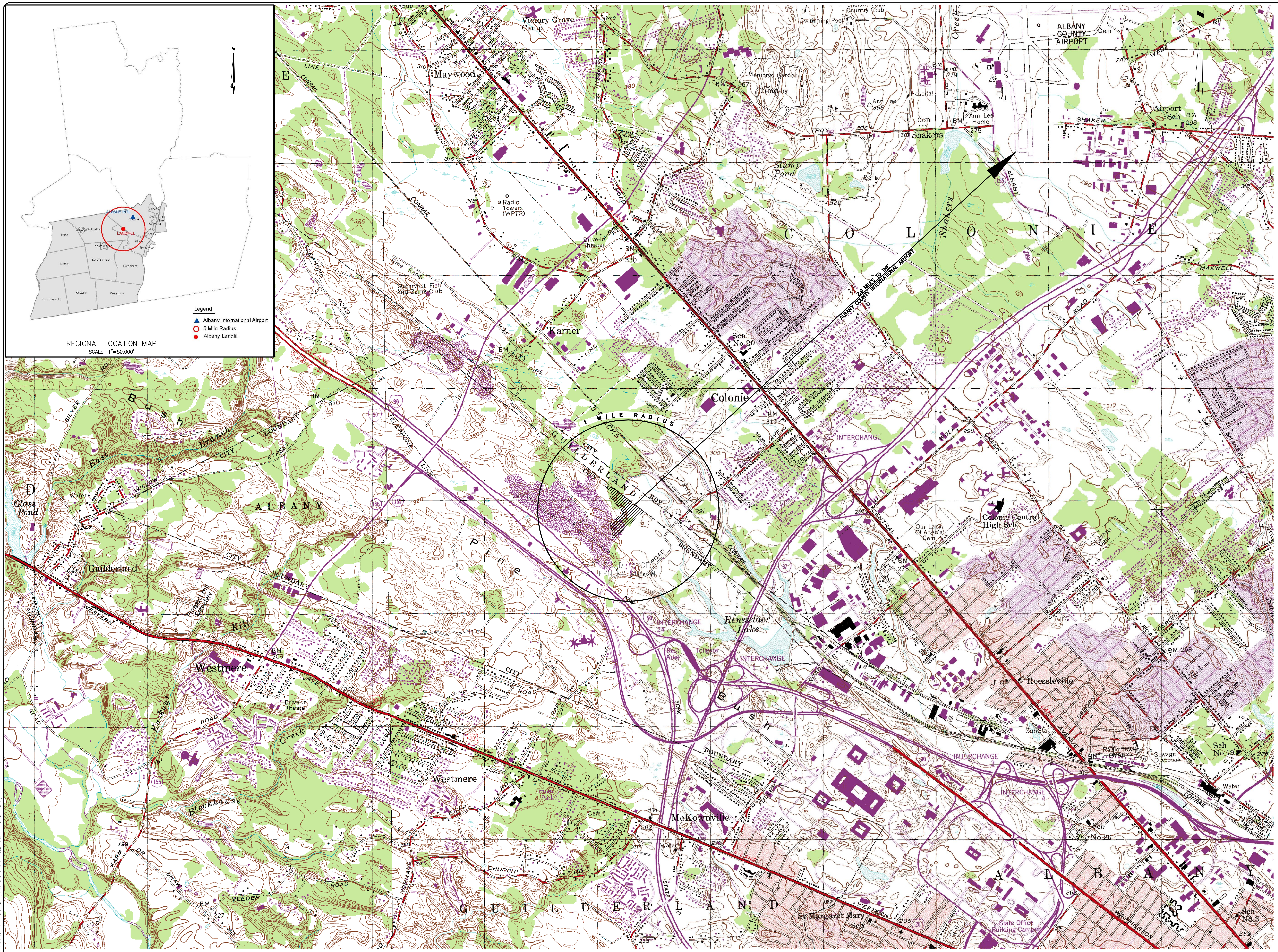
Designed: DF Drawn: CAP Checked:

RAPP ROAD LANDFILL
EASTERN EXPANSION

LEGEND & GENERAL NOTES

Issue Date: 7/07 Project No. 12206 Scale:

G-2



VICINTITY MAP

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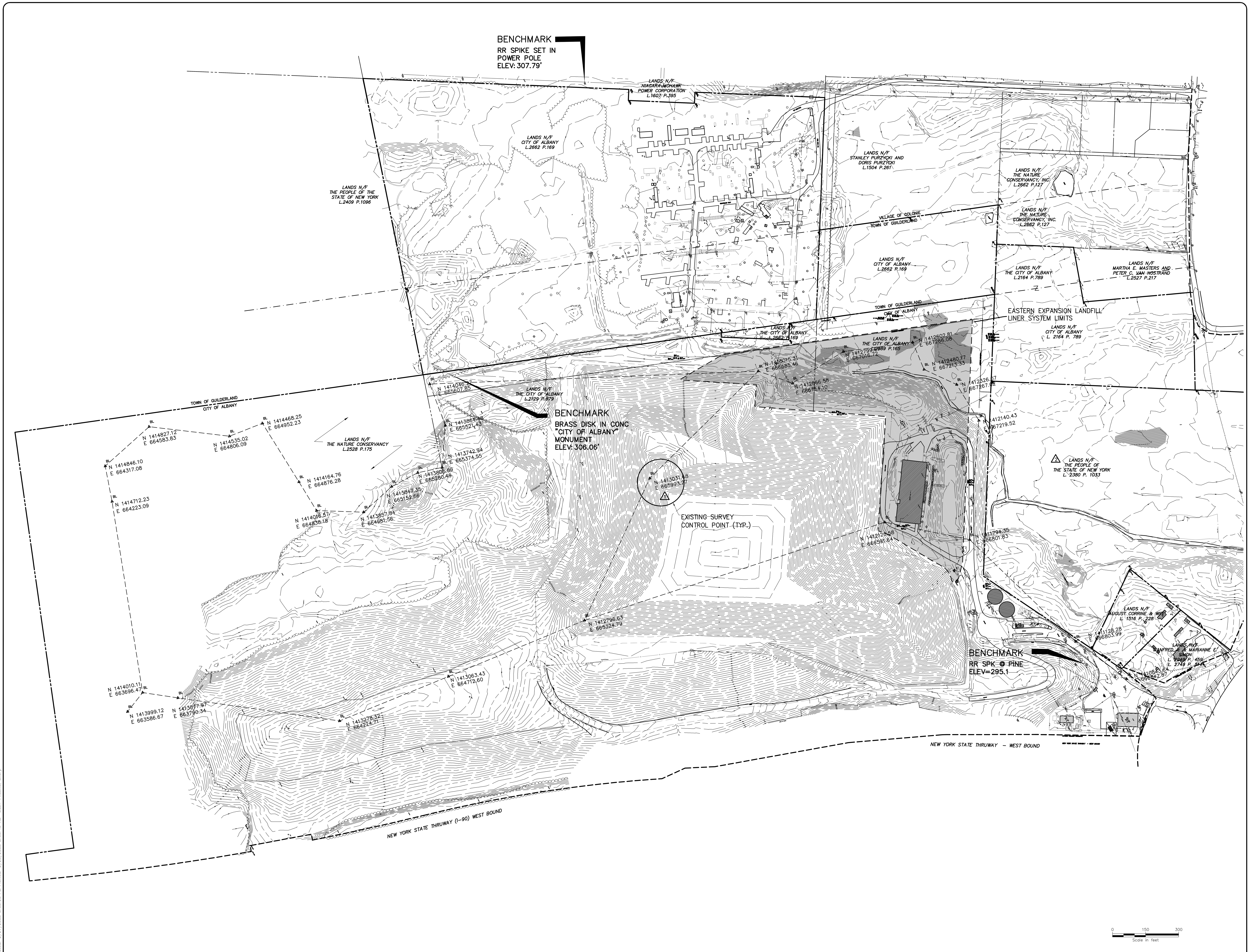
RAPP ROAD LANDFILL
EASTERN EXPANSION

REGIONAL / VICINITY MAP

Issue Date: 7/07 | Project No.: 12206 | Scale:

G-3



No.	Submittal / Revision	Appr'd	By	Date
1	REVISED BASELINE COORDINATES	WAH	CAP	2/22/08
2	REVISED PROPERTY OWNER TO "THE PEOPLE OF THE STATE OF NEW YORK"	WAH	CAP	2/22/08

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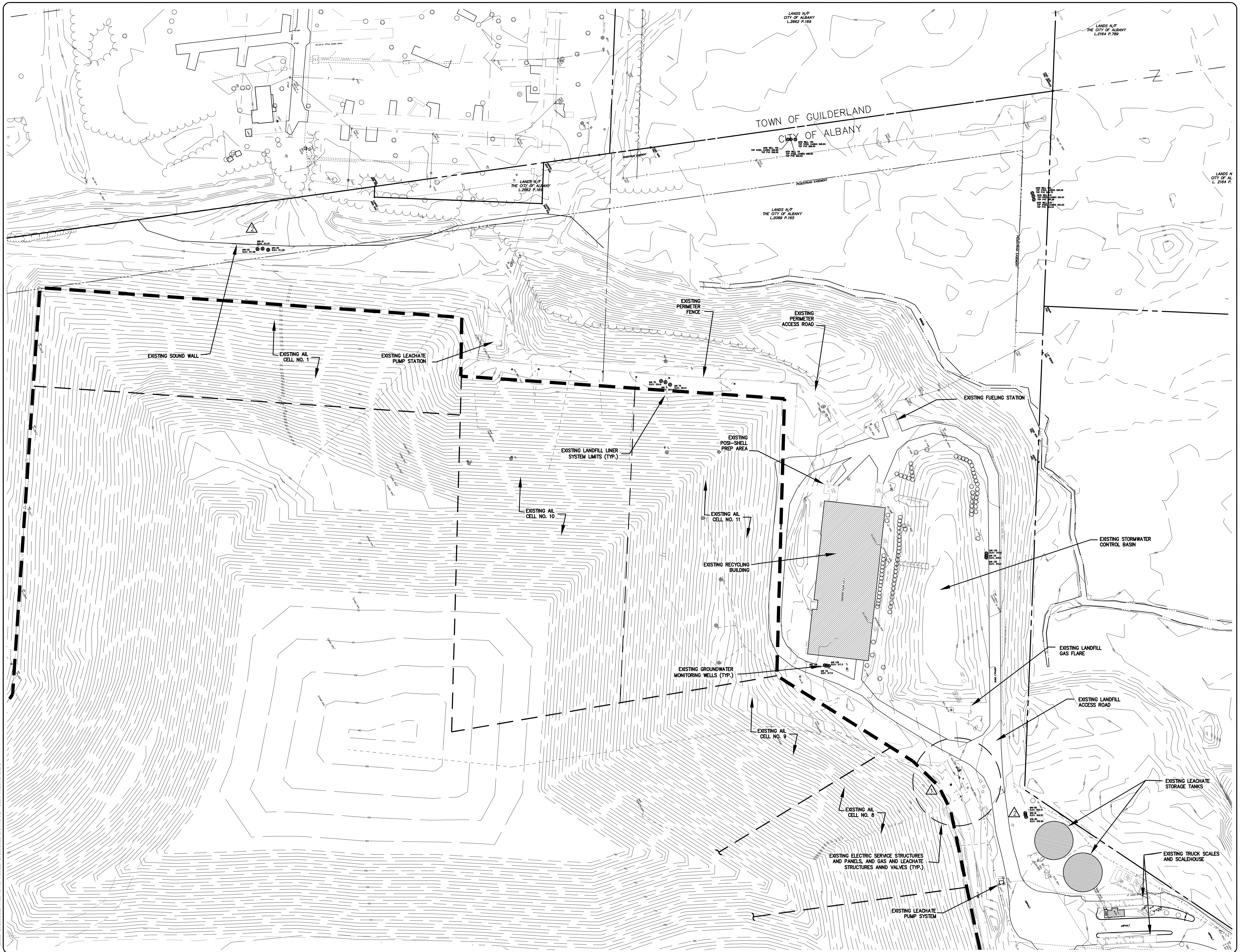
RAPP ROAD LANDFILL
EASTERN EXPANSION

PROPERTY SURVEY PLAN

Issue Date: 7/07 | Project No. 12206 | Scale:

G-4



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08

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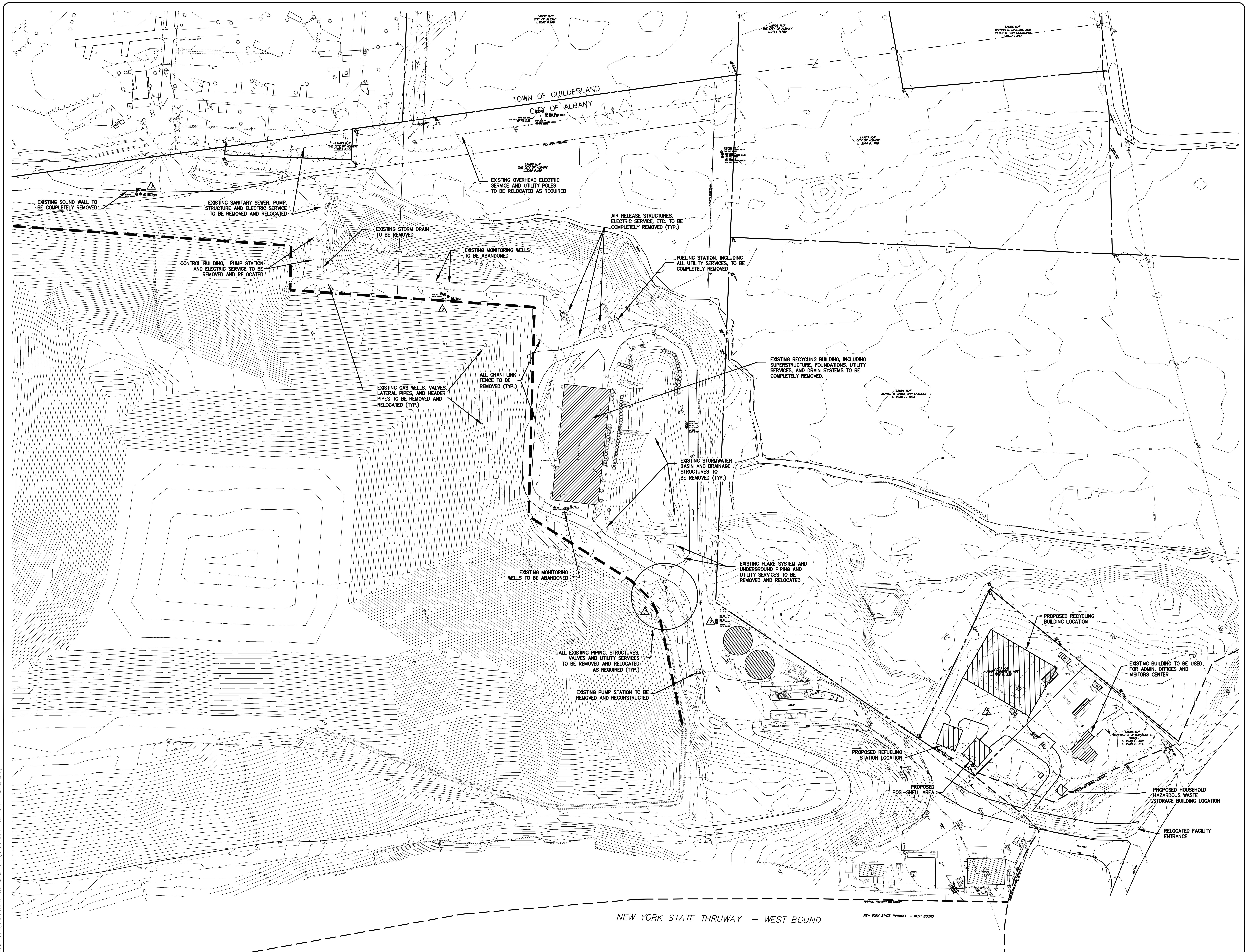
EASTERN EXPANSION

EXISTING CONDITIONS

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-5



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	ADDED FACILITIES TO BE RELOCATED	WAH	CAP	2/22/08

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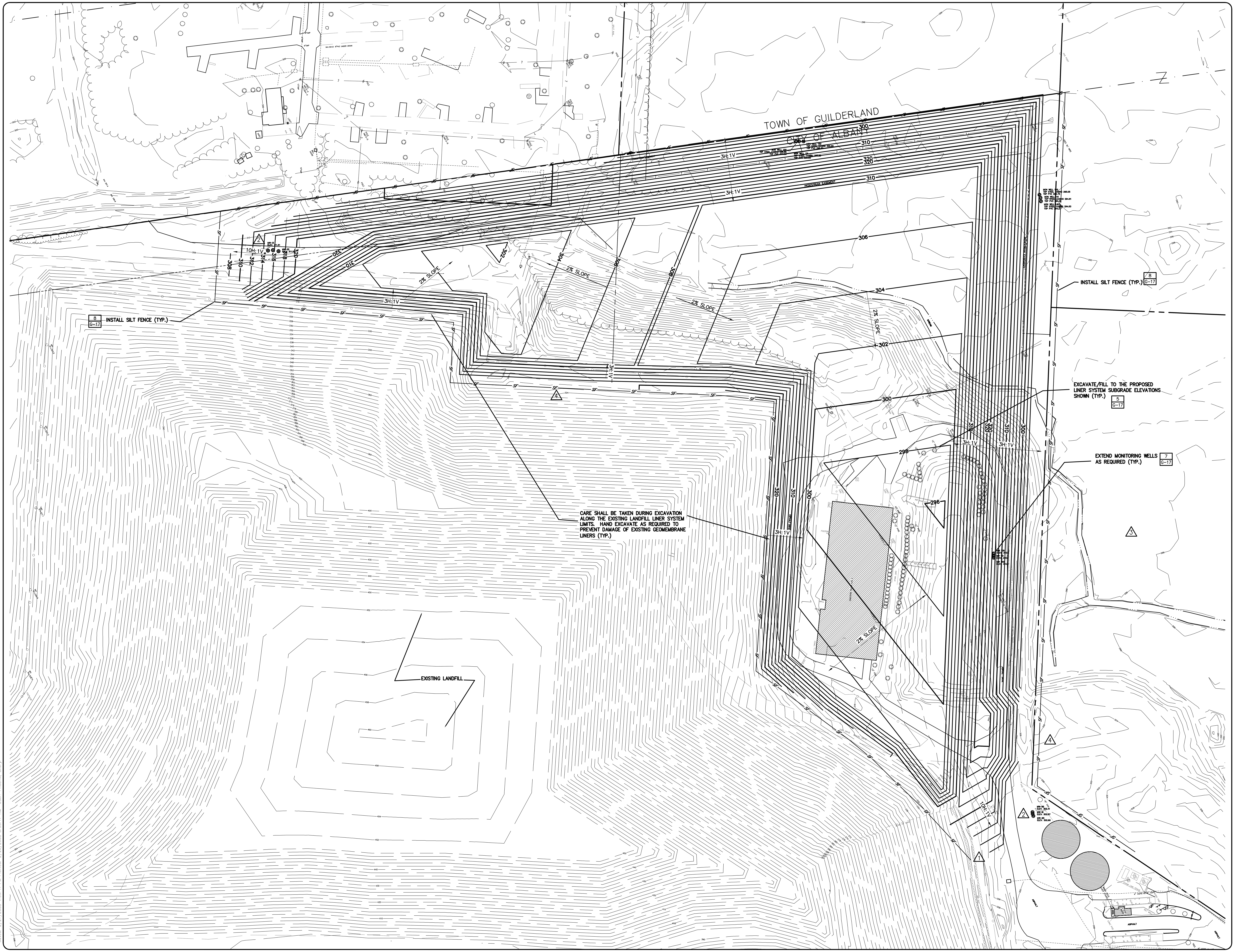
RAPP ROAD LANDFILL EASTERN EXPANSION

DEMOLITIONS/RELOCATIONS PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=80'

G-6



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08
4	ADDED SILT FENCT LOCATION	WAH	CAP	2/22/08

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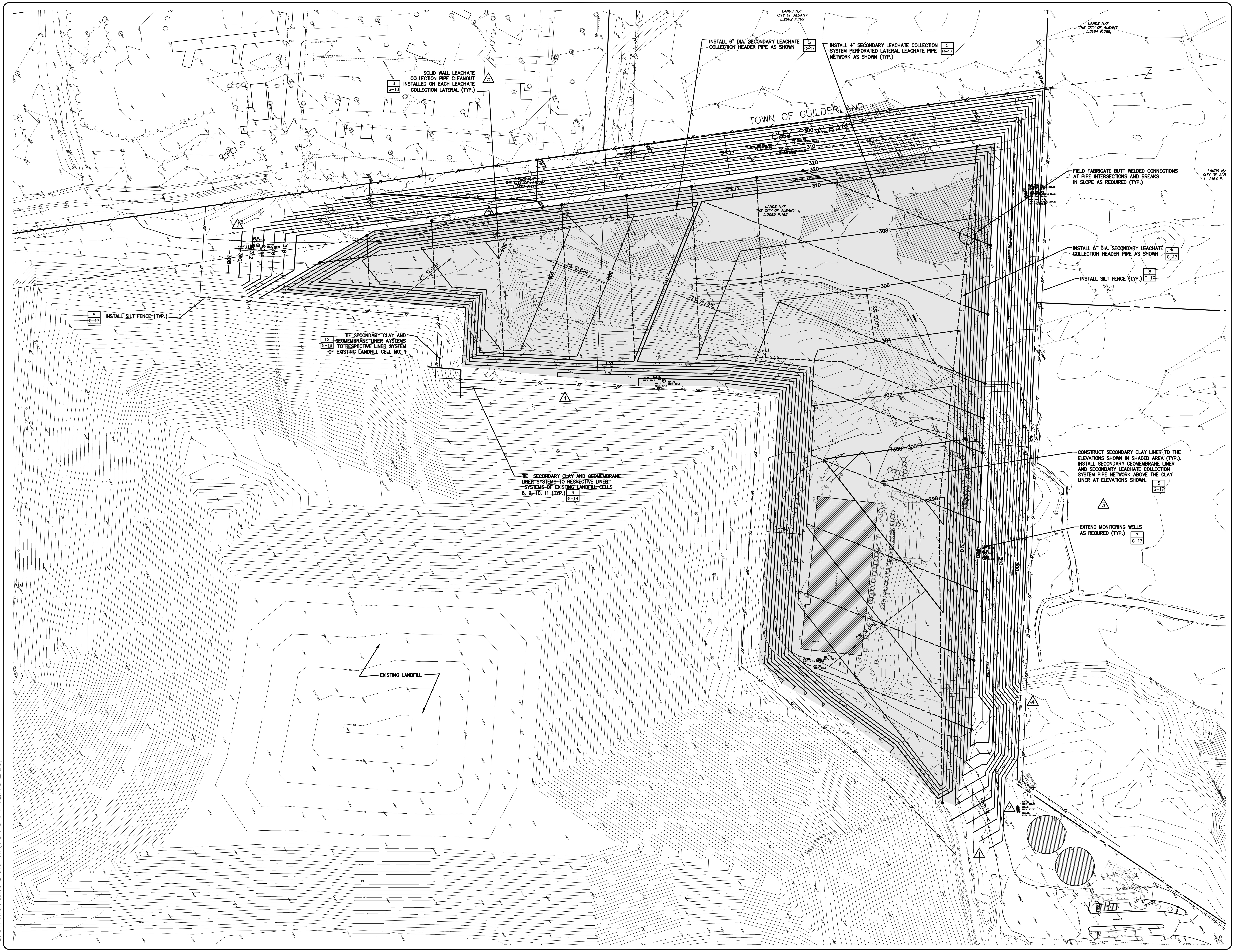
RAPP ROAD LANDFILL EASTERN EXPANSION

LINER SUBGRADE PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-7



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08
4	ADDED SILT FENCE LOCATION	WAH	CAP	2/22/08
5	MODIFIED LEACHATE CLEAN-OUTS AND NOTE	WAH	CAP	2/22/08

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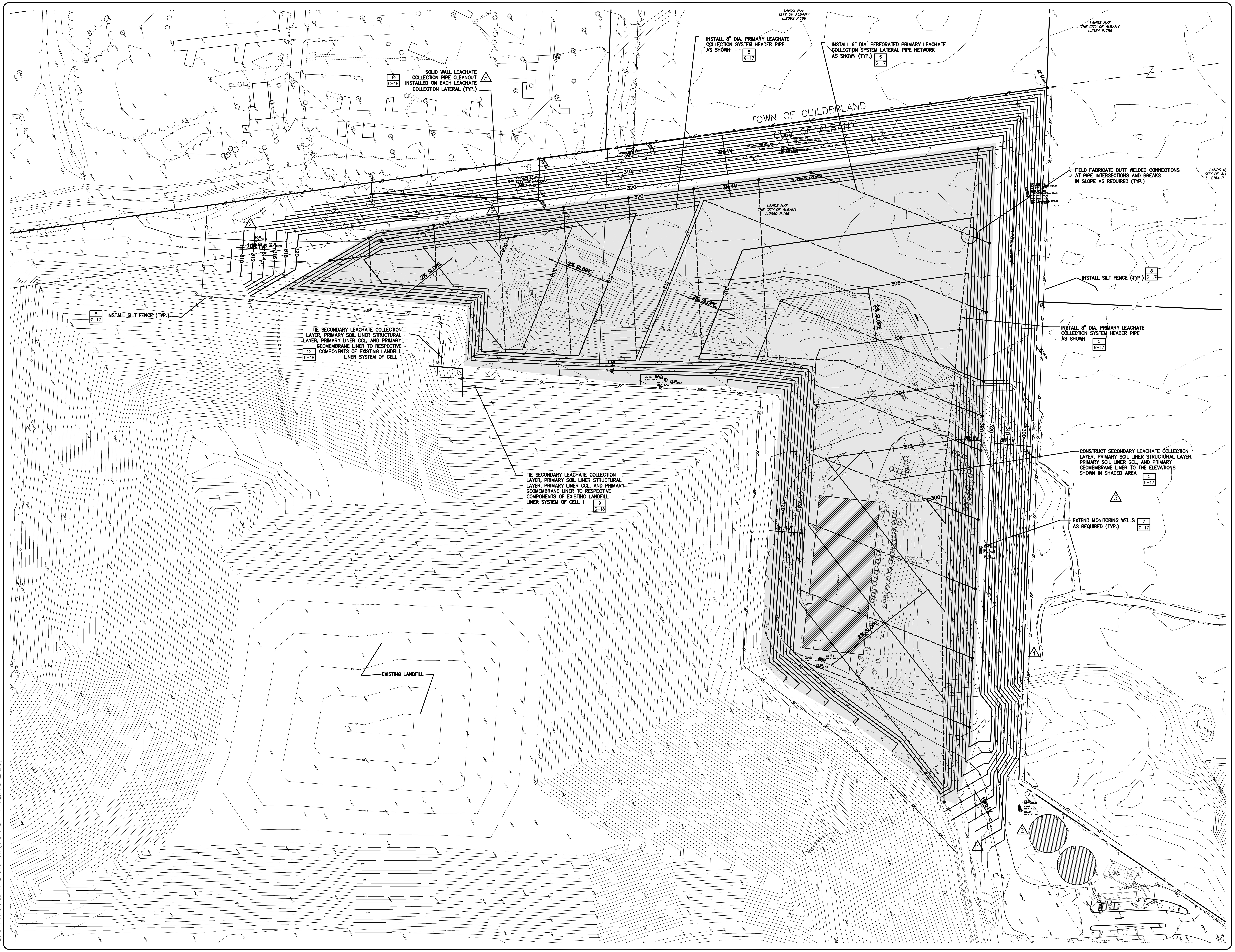
RAPP ROAD LANDFILL
EASTERN EXPANSION

SECONDARY LINER/LCRS PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-8



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08
4	ADDED SILT FENCE LOCATION	WAH	CAP	2/22/08
5	MODIFIED LEACHATE CLEAN-OUTS AND NOTE	WAH	CAP	2/22/08

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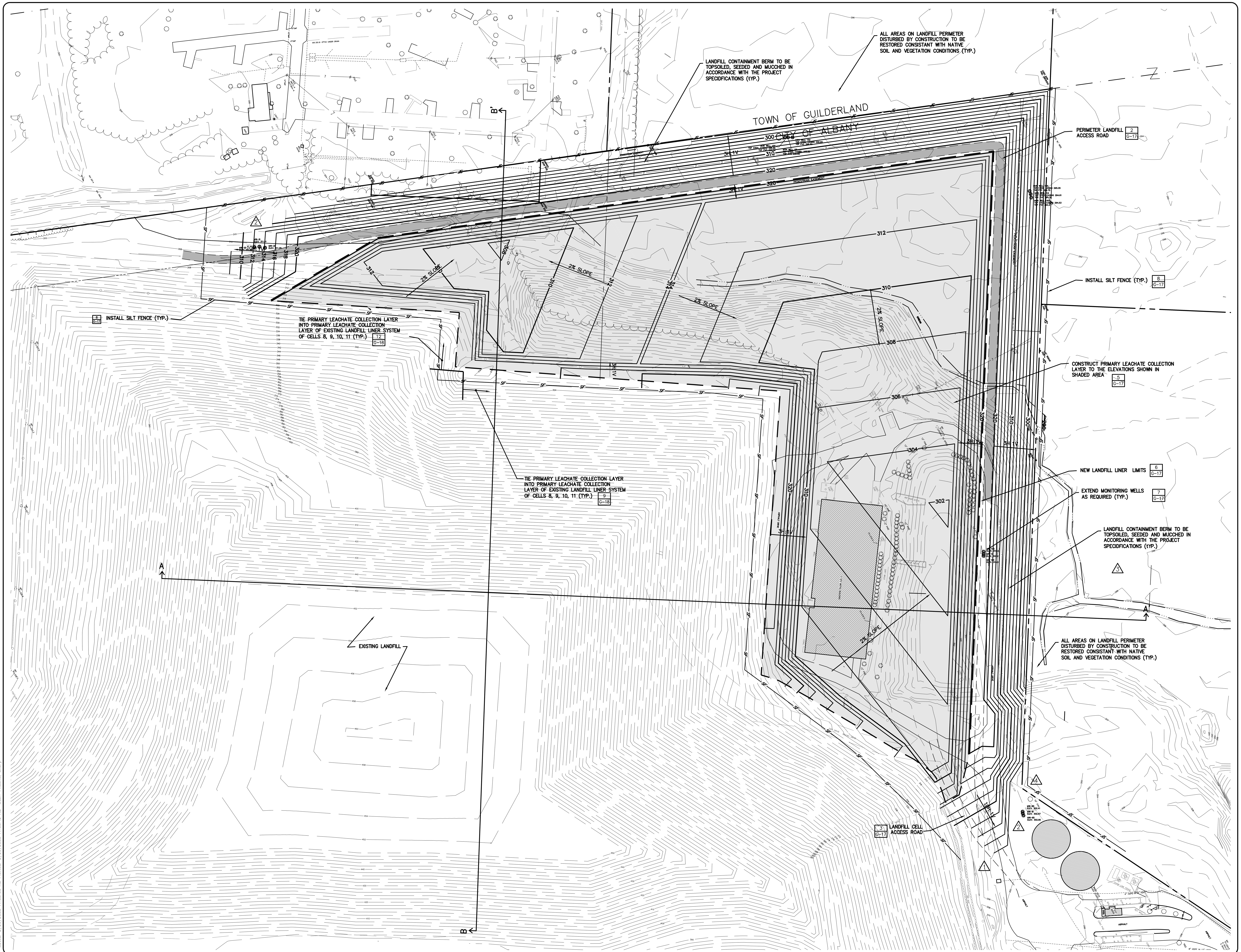
RAPP ROAD LANDFILL
EASTERN EXPANSION

PRIMARY LINER/ LCRS PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-9



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08
4	ADDED SILT FENCE LOCATION	WAH	CAP	2/22/08

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RAPP ROAD LANDFILL
EASTERN EXPANSION

TOP OF LINER/LANDSCAPE/
STORMWATER CONTROL PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-10

File: K:\12206\EXPANSION\PART 360 APPLICATION\ACAD\REVISED DWGS 2-08\G-10_TOP OF LINER.DWG
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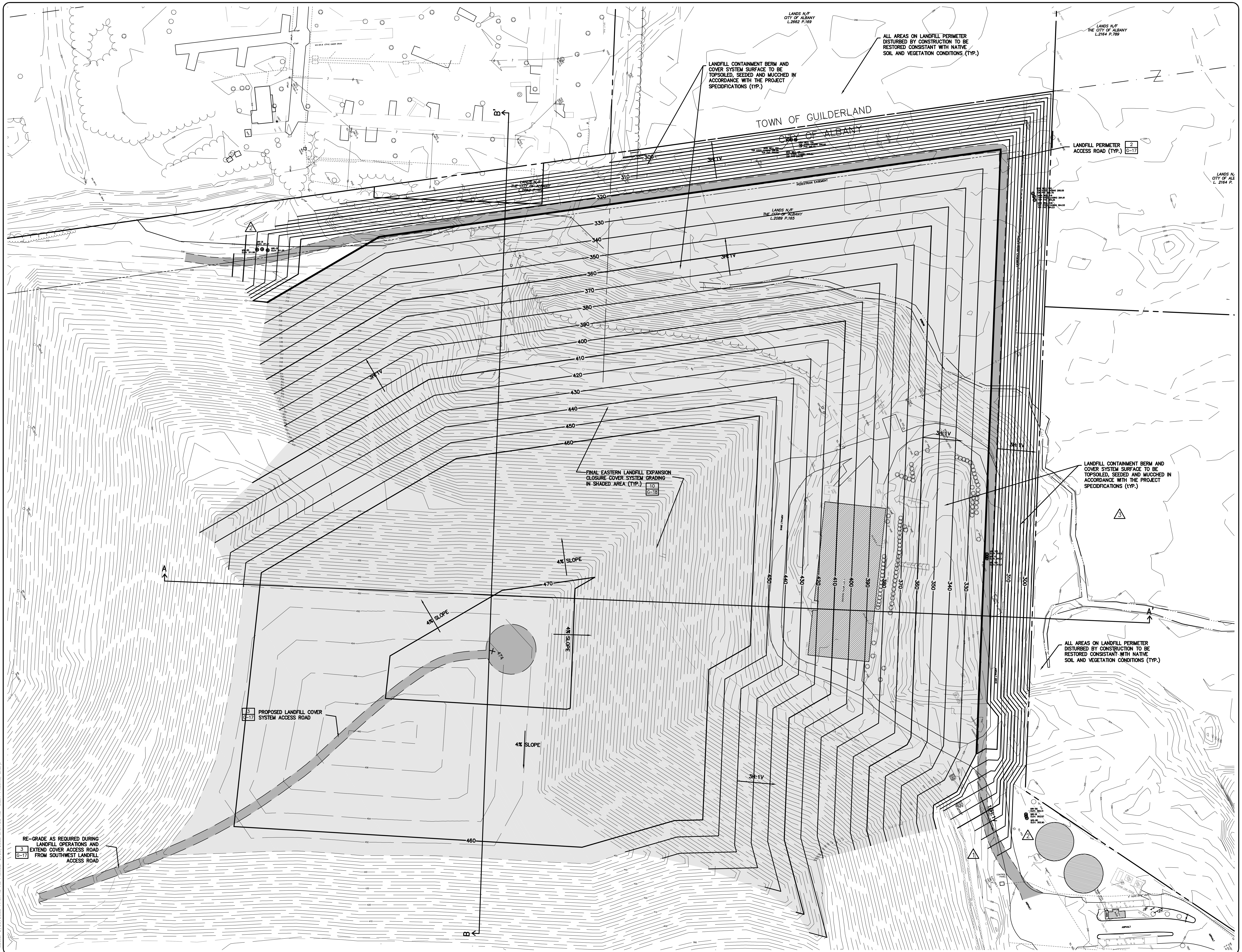

No.	Submittal / Revision	App'd	By	Date
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2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08

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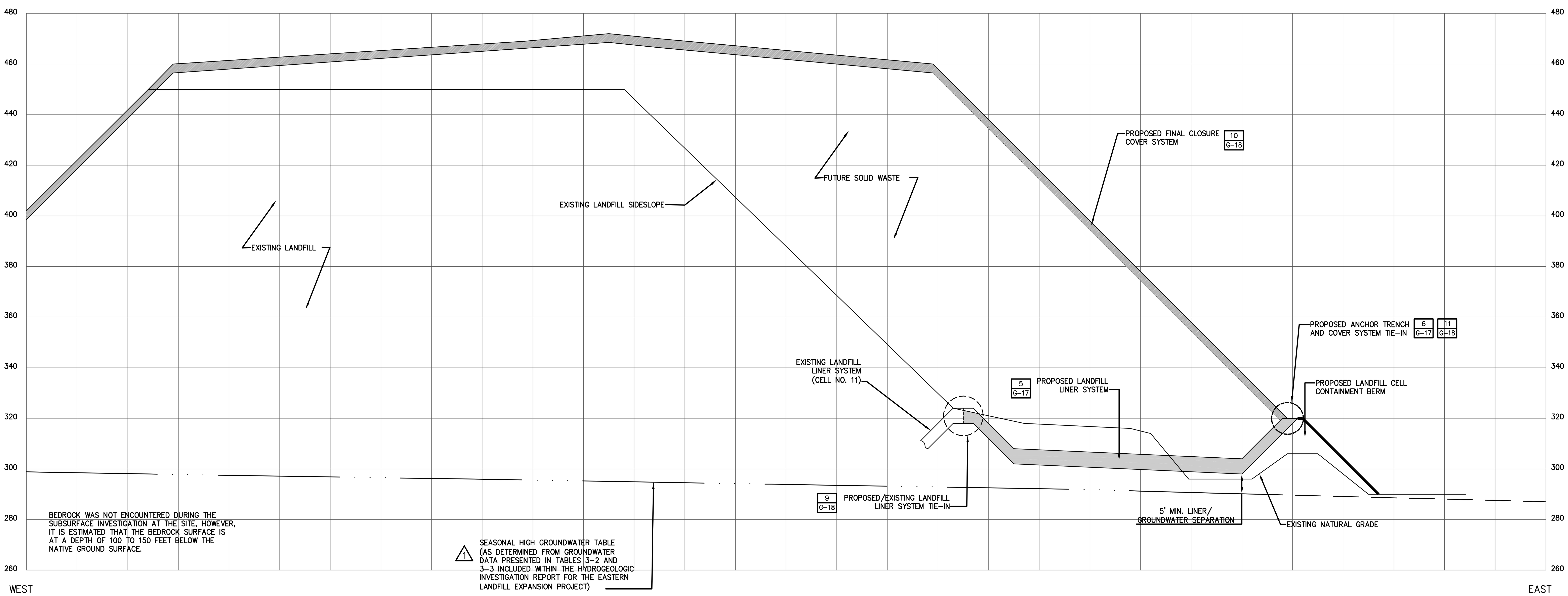
RAPP ROAD LANDFILL
EASTERN EXPANSION

FINAL CLOSURE/LANDSCAPE/
STORMWATER CONTROL PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-11



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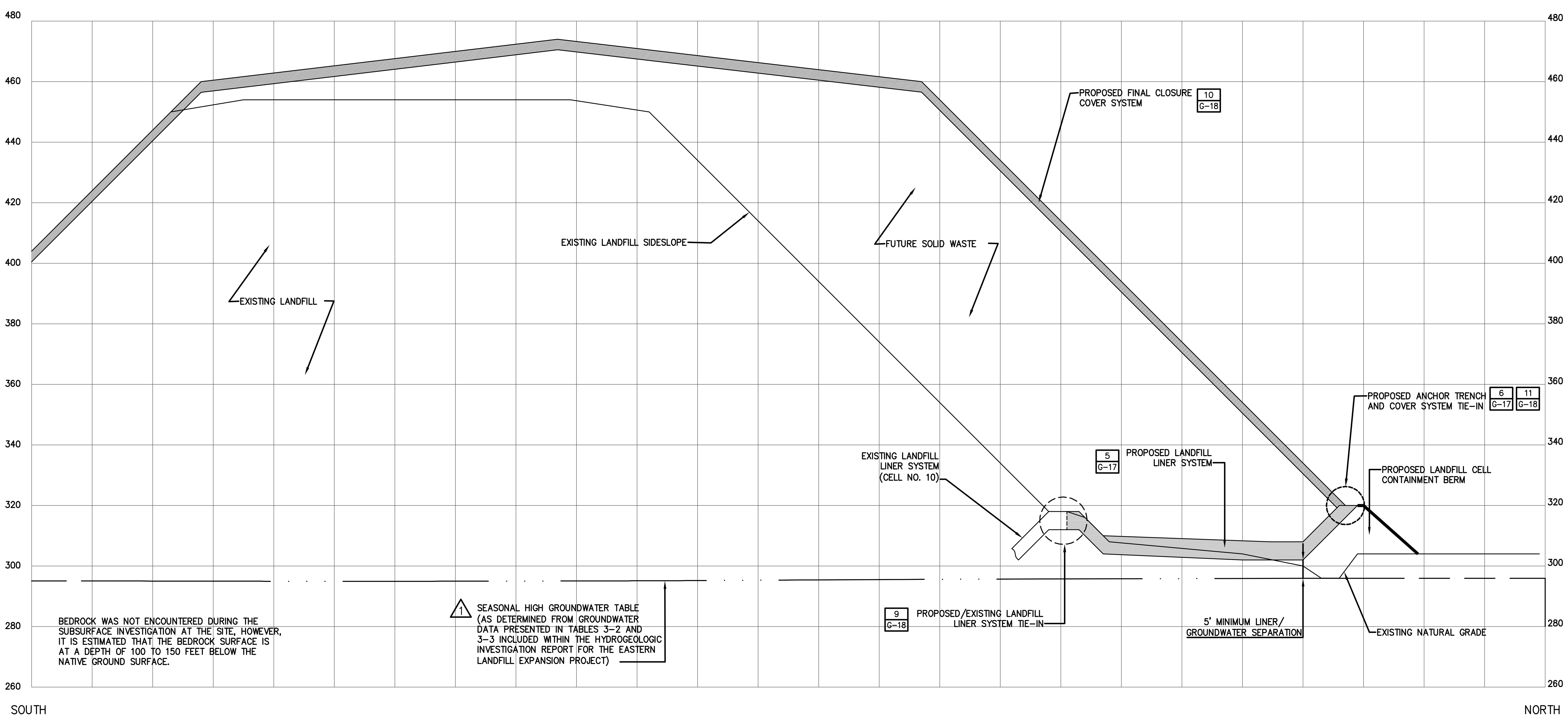

SECTION B–B'

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Vertical Scale = 1"=20'

No.	Submittal / Revision	App'd	By	Date
1	APPENDED GROUNDWATER NOTE	WAH	CAP	2/22/08

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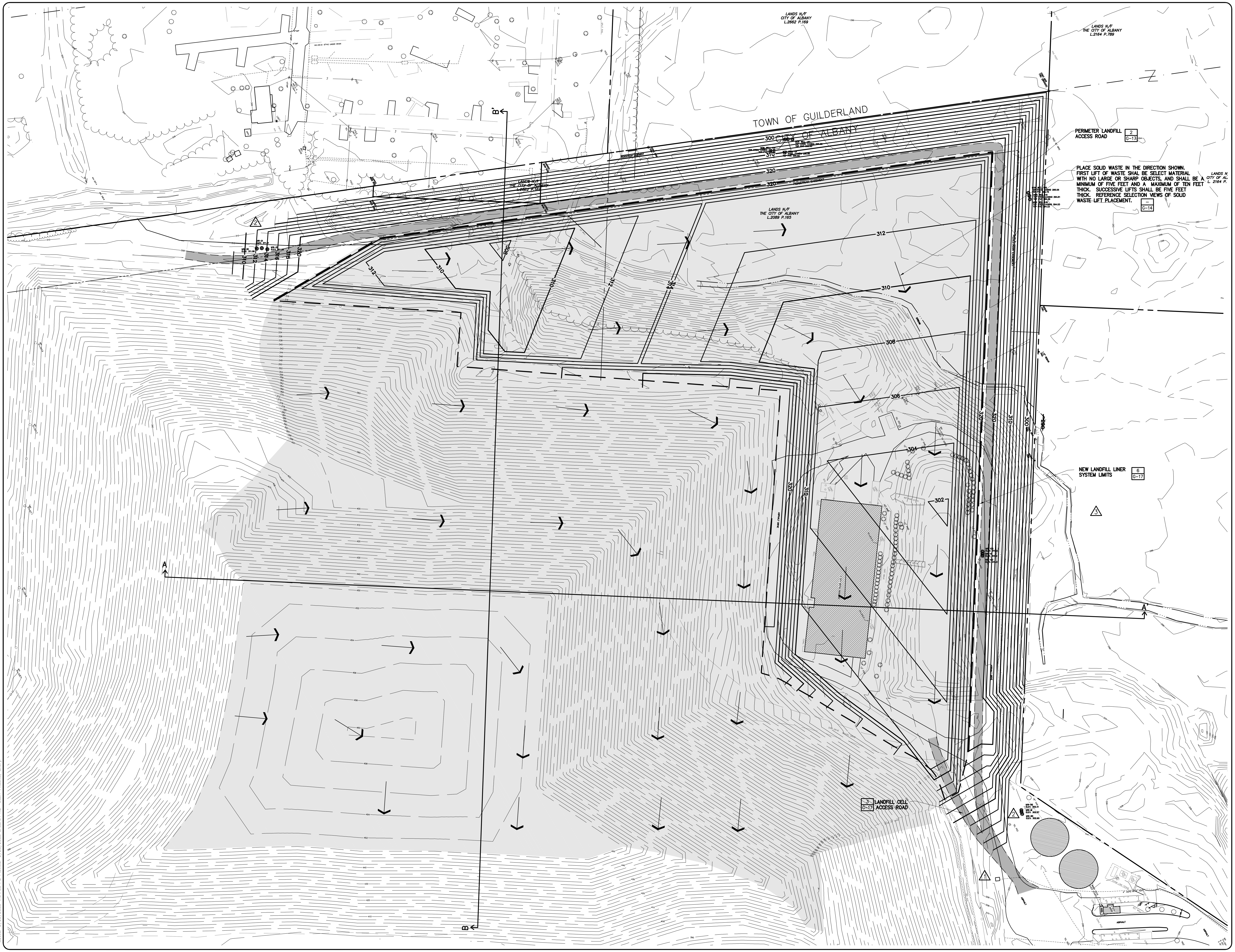
RAPP ROAD LANDFILL
EASTERN EXPANSION

LINER/CLOSURE SYSTEM
CROSS SECTIONS

Issue Date: 7/07 Project No. 12206 Scale:

G-12



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08

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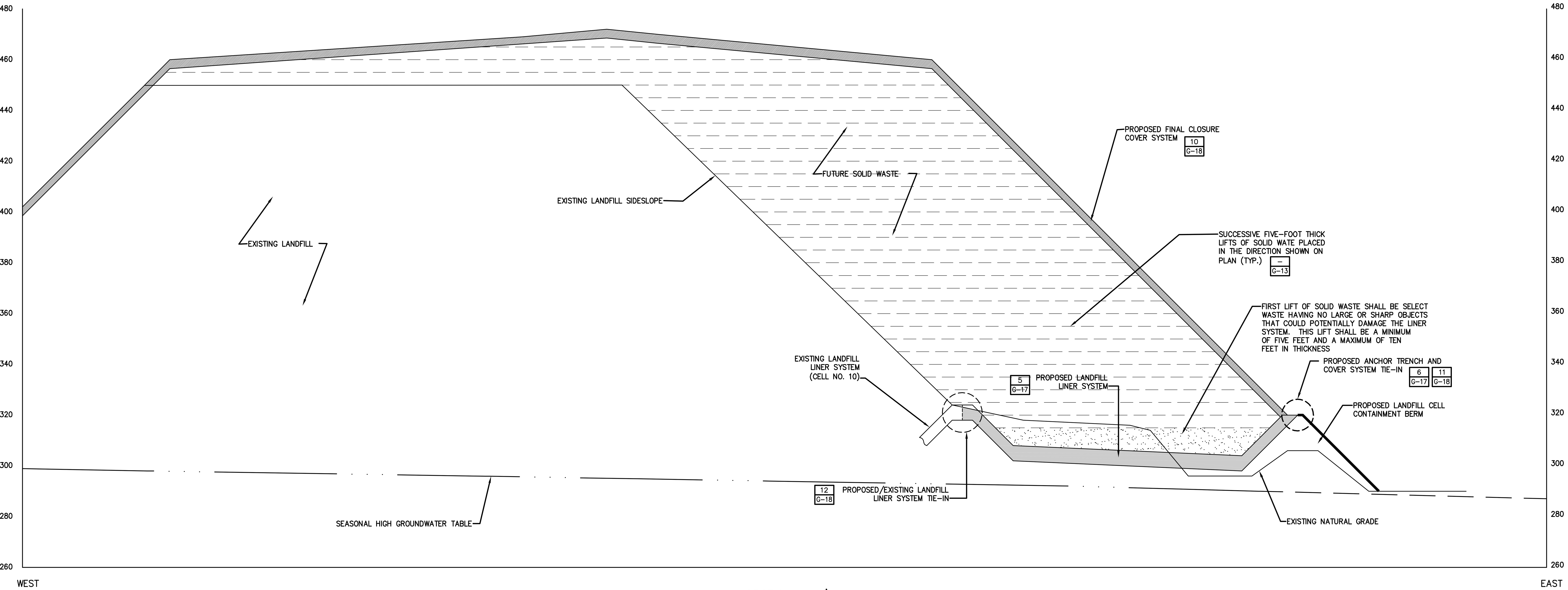
RAPP ROAD LANDFILL EASTERN EXPANSION

SOLID WASTE PROGRESSION PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale:

G-13



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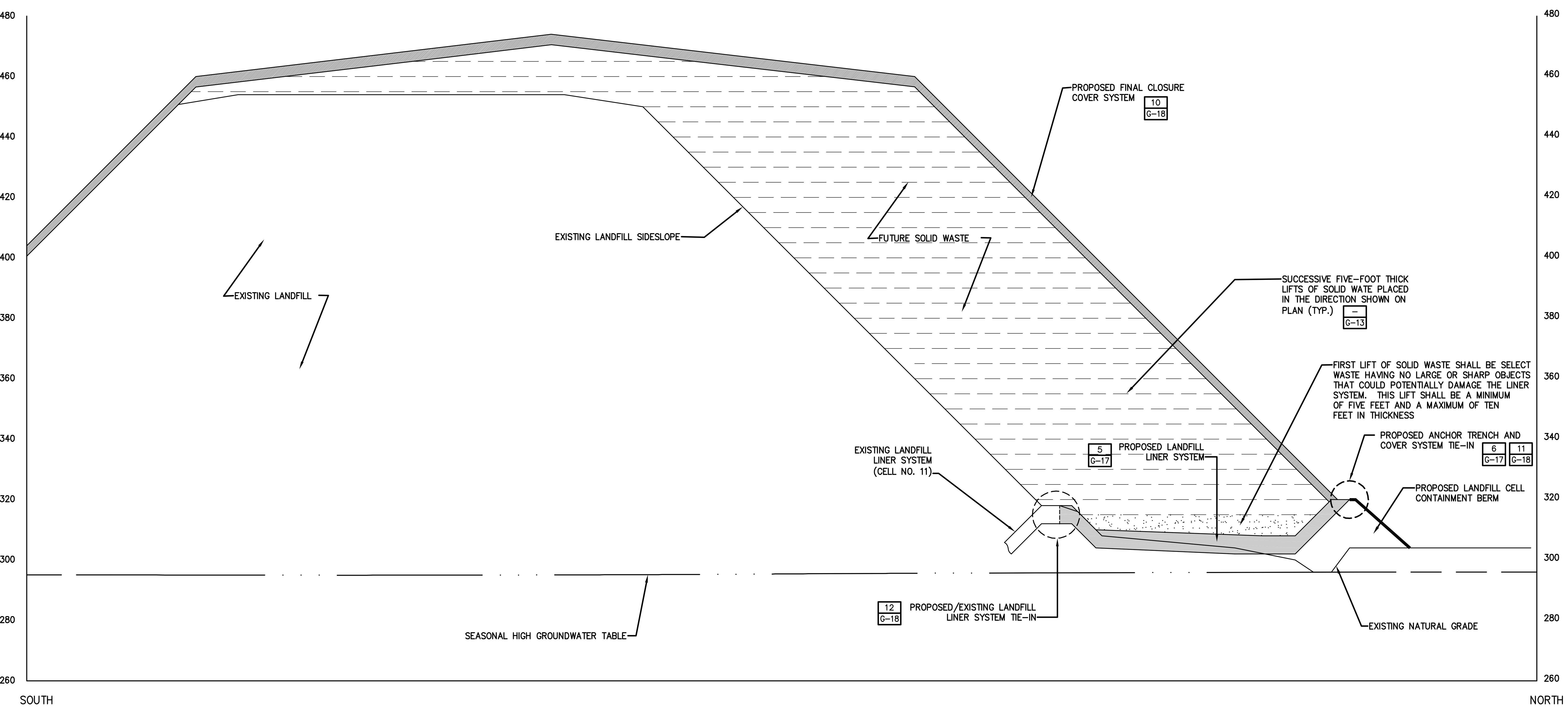

SECTION B–B'

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Vertical Scale = 1"=20'

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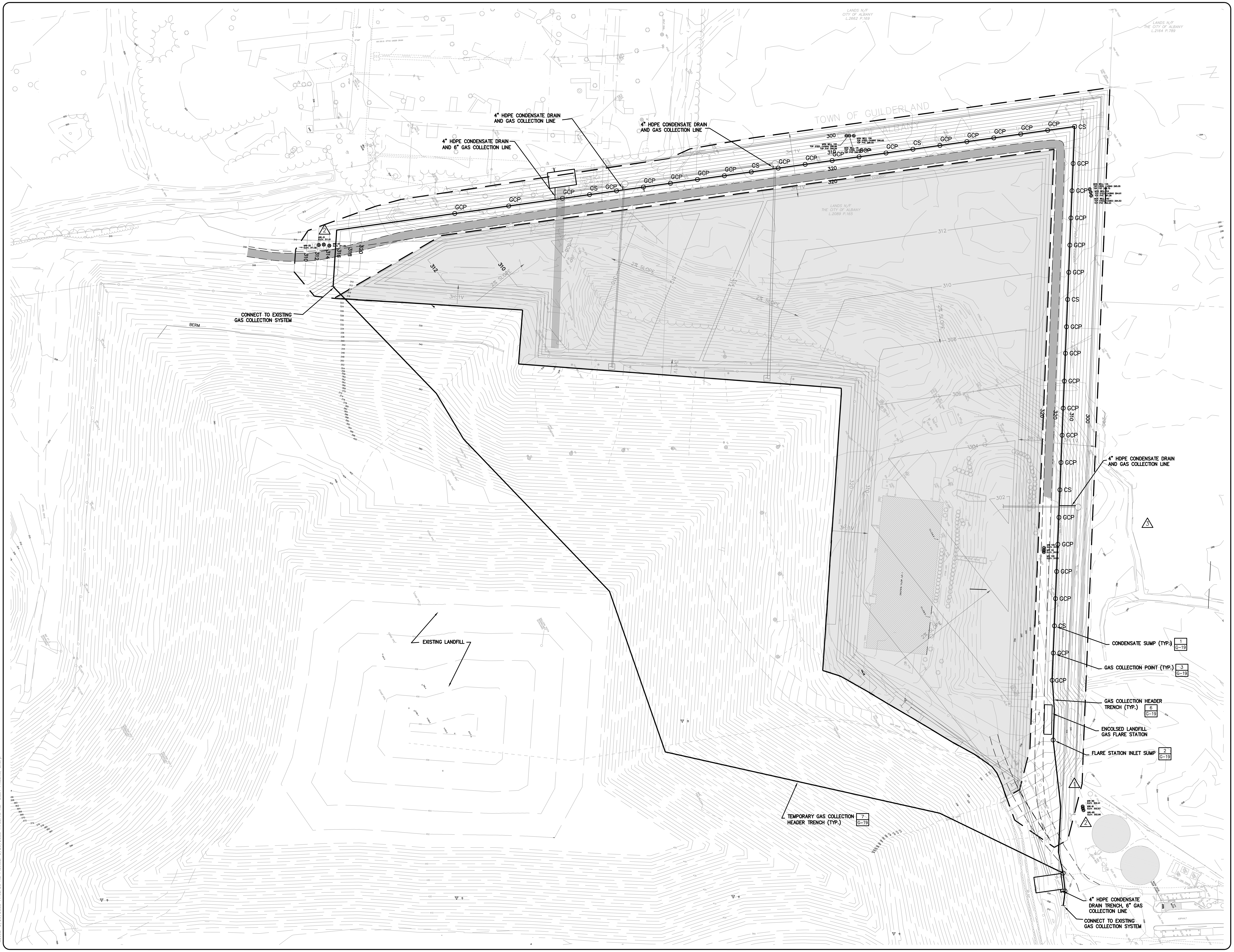
EASTERN EXPANSION

SOLID WASTE PROGRESSION
CROSS SECTION

Issue Date: 7/07 | Project No.: 12206 | Scale:

G-14



No.	Submittal / Revision	App'd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08

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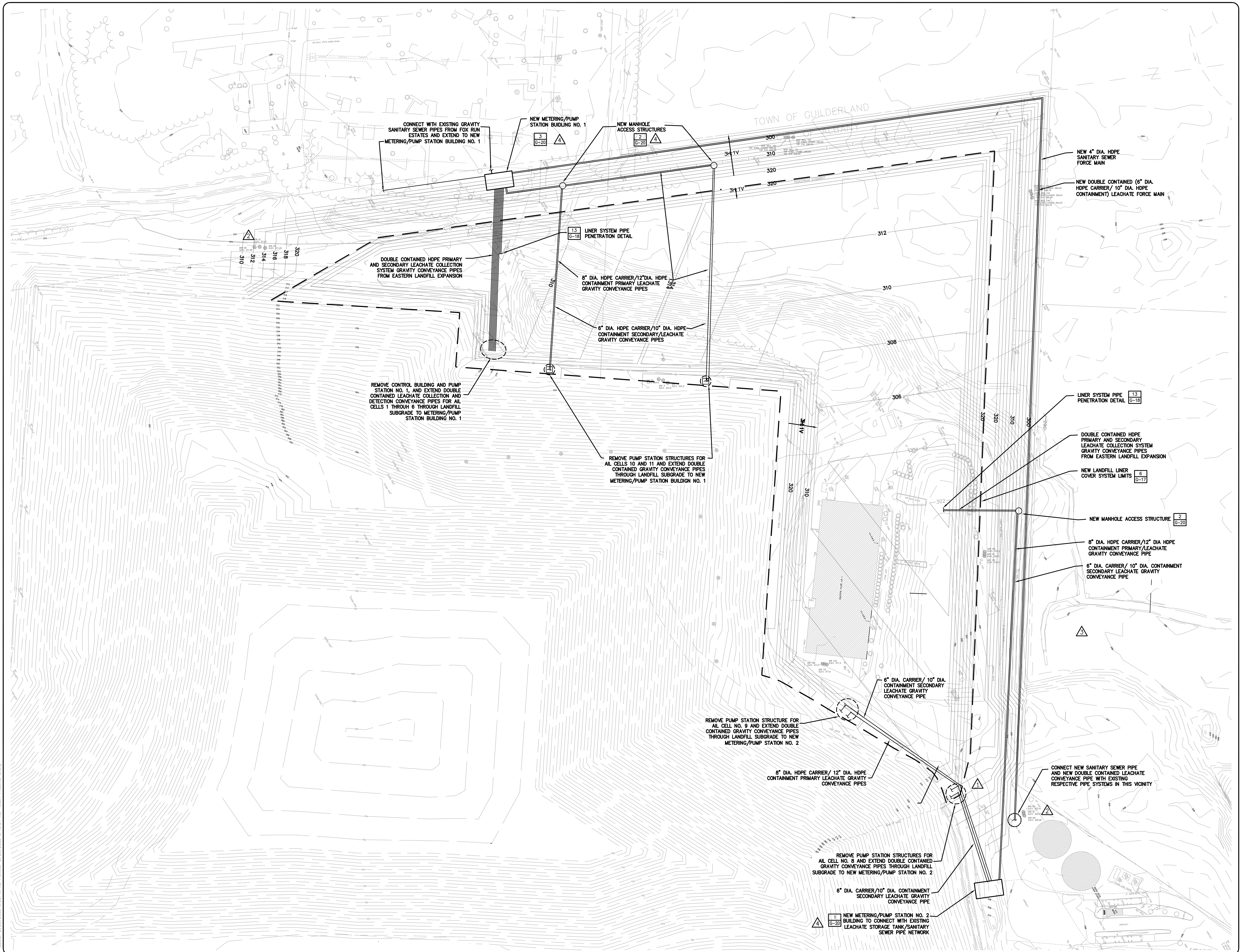
RAPP ROAD LANDFILL EASTERN EXPANSION

GAS CONROL PLAN

Issue Date: 7/07 | Project No.: 12206 | Scale: 1"=60'

G-15



No.	Submittal / Revision	Appd	By	Date
1	REMOVED SMALL, OBSCURED TEXT	WAH	CAP	2/22/08
2	ADDED MONITORING WELL LABELS	WAH	CAP	2/22/08
3	REMOVED MONITORING WELLS NOT PART OF PROJECT	WAH	CAP	2/22/08
4	ADDED DETAIL REFERENCES	WAH	CAP	2/22/08

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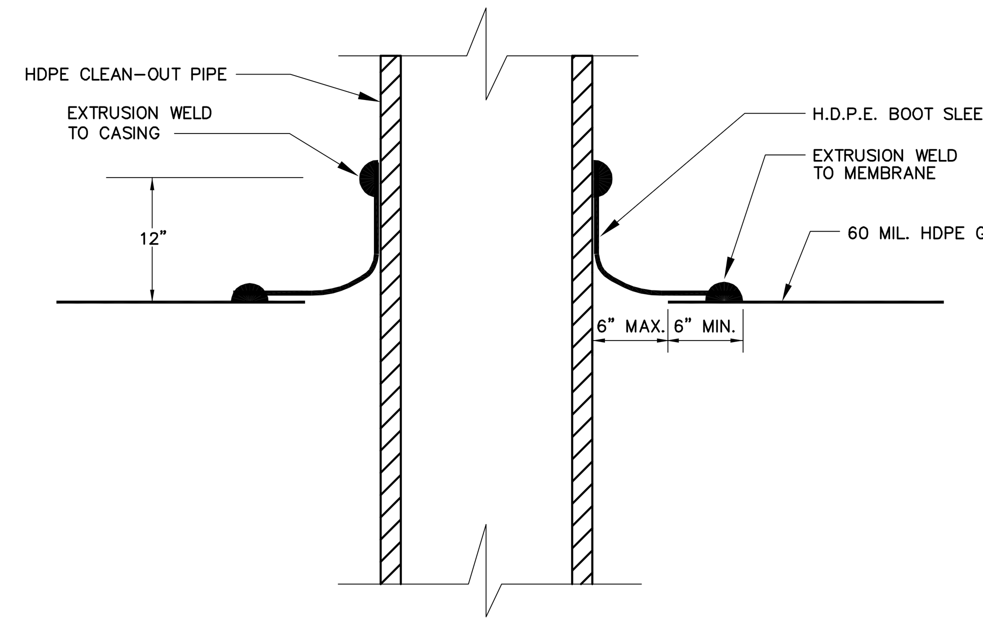
RAPP ROAD LANDFILL EASTERN EXPANSION

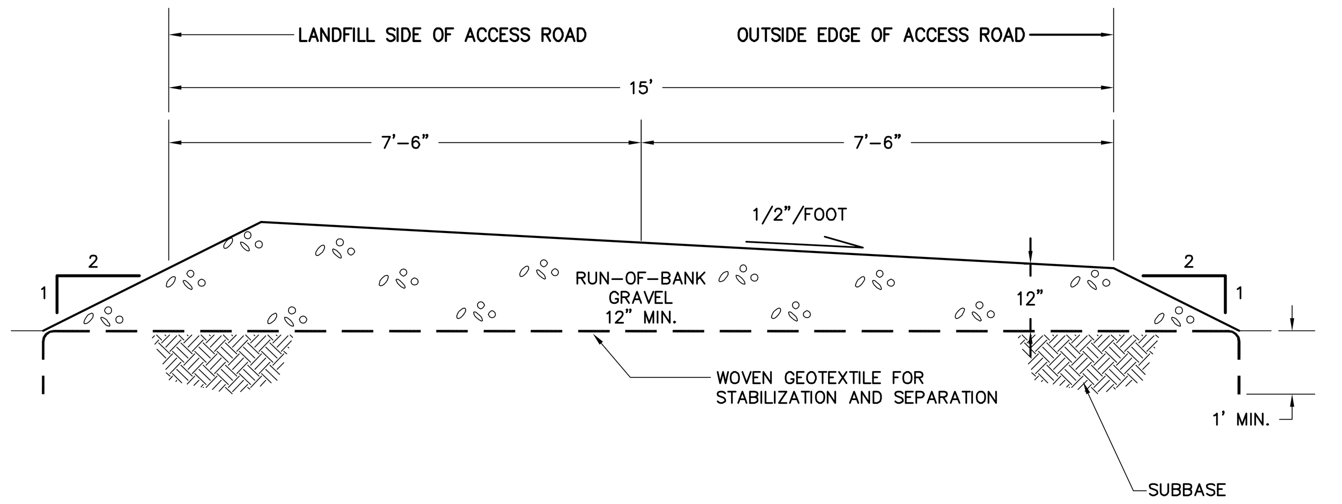
LEACHATE CONVEYANCE SYSTEM PLAN

Issue Date: 7/07 | Project No. 12206 | Scale: 1"=60'

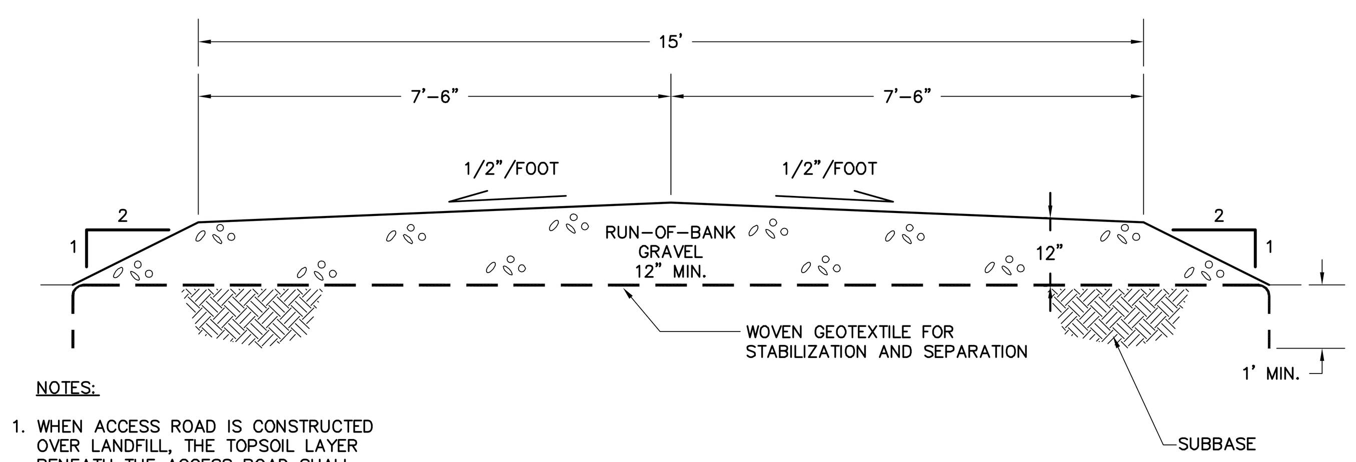
G-16



1 HDPE CLEAN-OUT PIPE PROTRUSION DETAIL
SCALE: N.T.S.



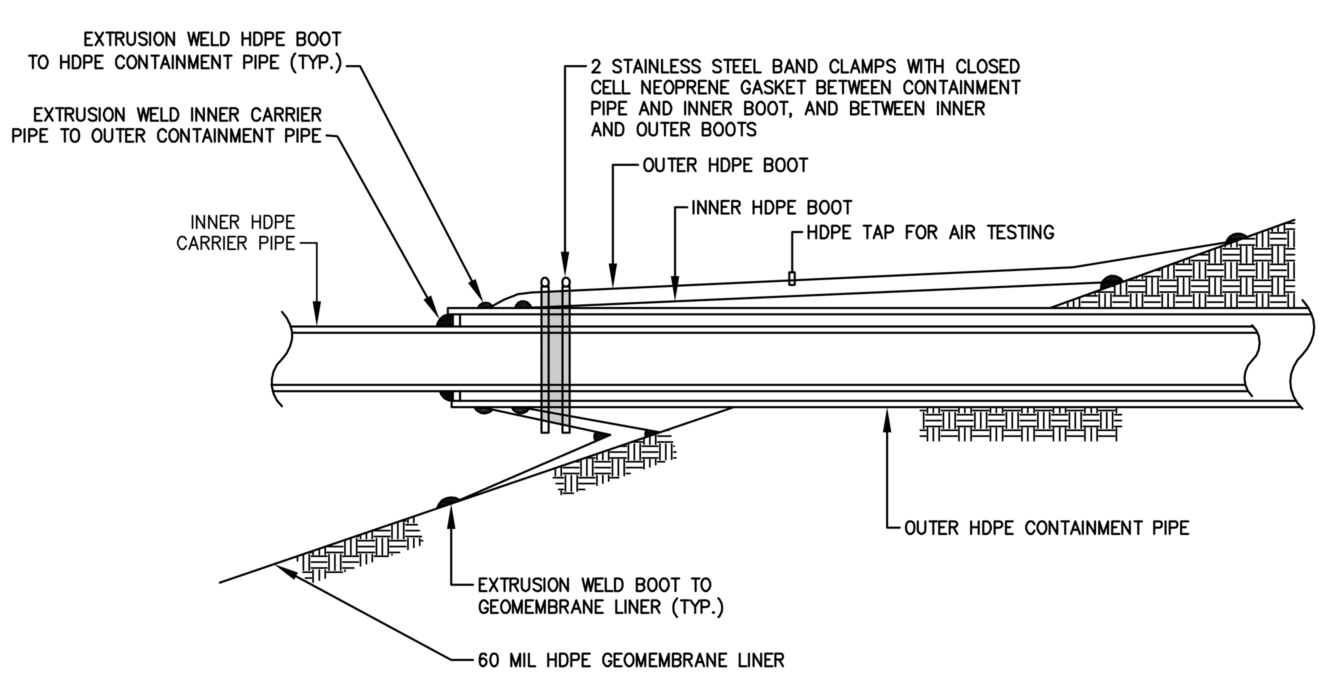
2 LANDFILL PERIMETER ACCESS ROAD DETAIL
SCALE: N.T.S.



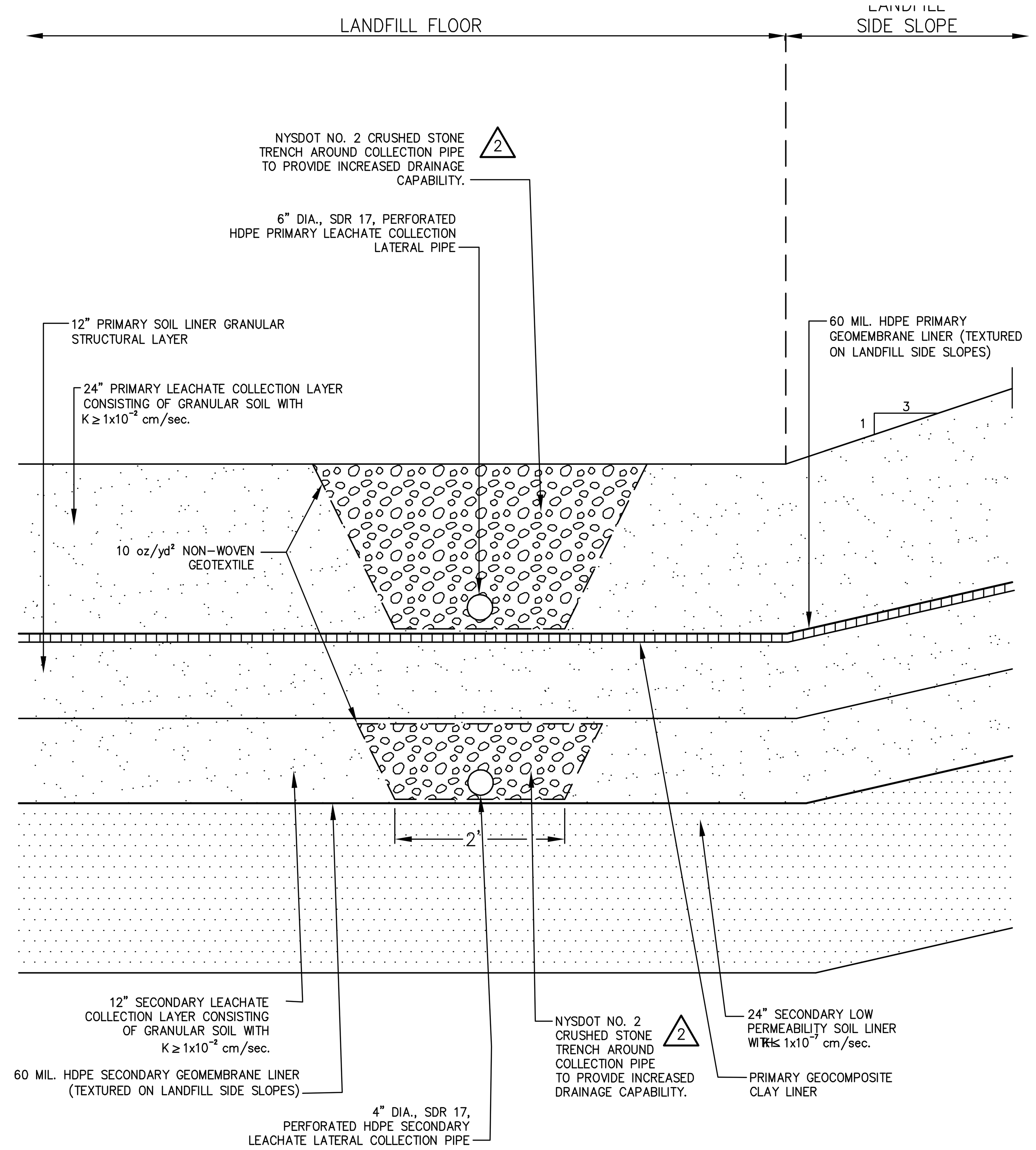
NOTES:

1. WHEN ACCESS ROAD IS CONSTRUCTED OVER LANDFILL, THE TOPSOIL LAYER BENEATH THE ACCESS ROAD SHALL BE REPLACED WITH SIX (6) INCHES OF BARRIER PROTECTION FILL.

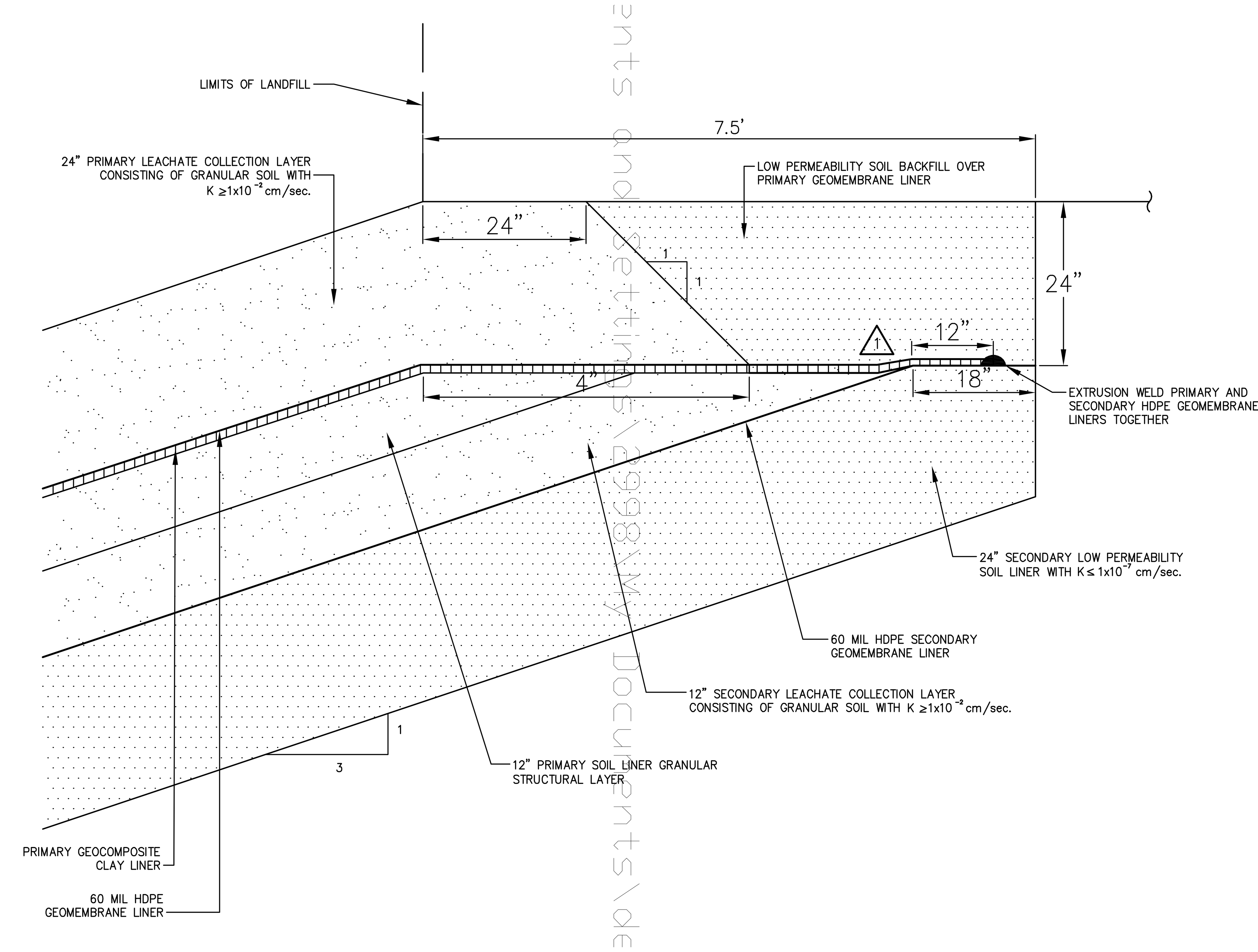
3 LANDFILL CELL AND COVER SYSTEM ACCESS ROAD DETAIL
SCALE: N.T.S.



4 PIPE BOOT DETAIL
SCALE: N.T.S.



5 LINER SYSTEM DETAIL
SCALE: N.T.S.



6 ANCHOR TRENCH DETAIL
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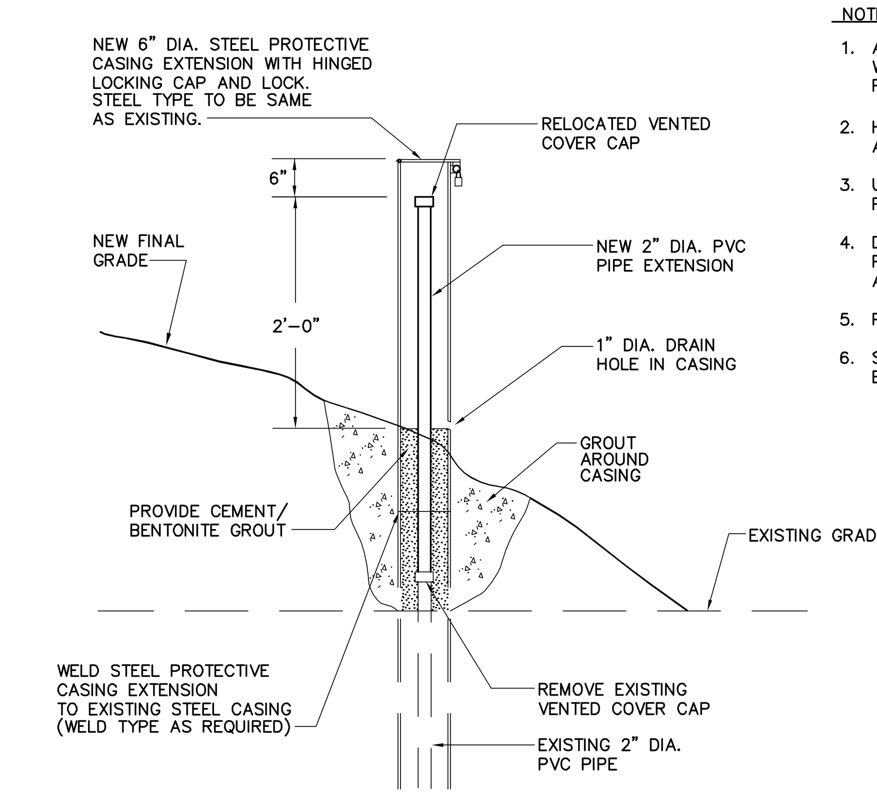
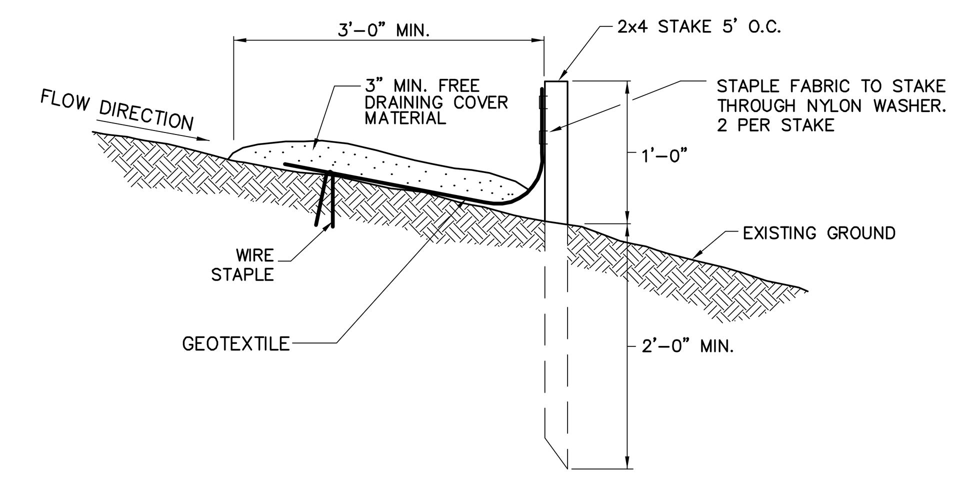


NOTES:

1. AS-BUILT CONDITIONS OF EXISTING WELLS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
2. HANDTAMP EMBANKMENT WITHIN A RADIUS OF 2'-0" OF THE WELL.
3. USE FLUSH COUPLE 2" DIA. PVC PIPE TO EXTEND WELLS.
4. DO NOT USE PVC GLUE TO CONNECT PVC PIPE COUPLING OR EXTENSIONS. ALL JOINTS TO BE THREADED.
5. PVC TO BE SCHEDULE 40.
6. SURVEY ELEVATION OF TOP OF PVC BEFORE AND AFTER EXTENSION.

7 MONITORING WELL EXTENSION DETAIL
SCALE: N.T.S.

GEOTEXTILE TO BE PERIODICALLY INSPECTED AND REPAIRED AS NECESSARY



3 8 SILTATION FENCE DETAIL
SCALE: N.T.S.

No.	Submittal / Revision	App'd	By	Date
1	REVISED GCL ON DETAIL 6	WAH	CAP	2/22/08
2	REVISED NOTE ON DETAIL 5	WAH	CAP	2/22/08
3	ADDED SILT FENCE DETAIL	WAH	CAP	2/22/08

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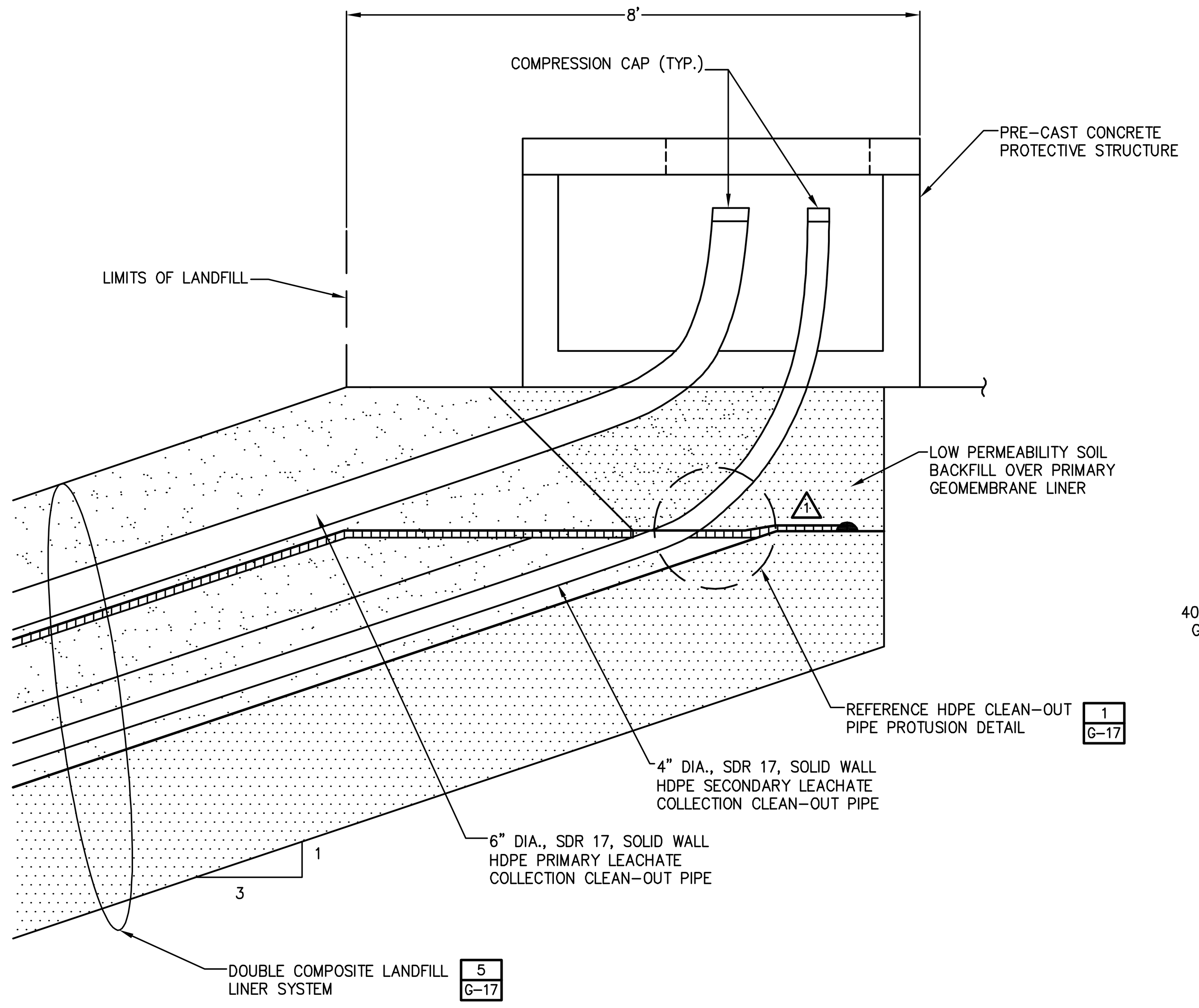
RAPP ROAD LANDFILL
EASTERN EXPANSION

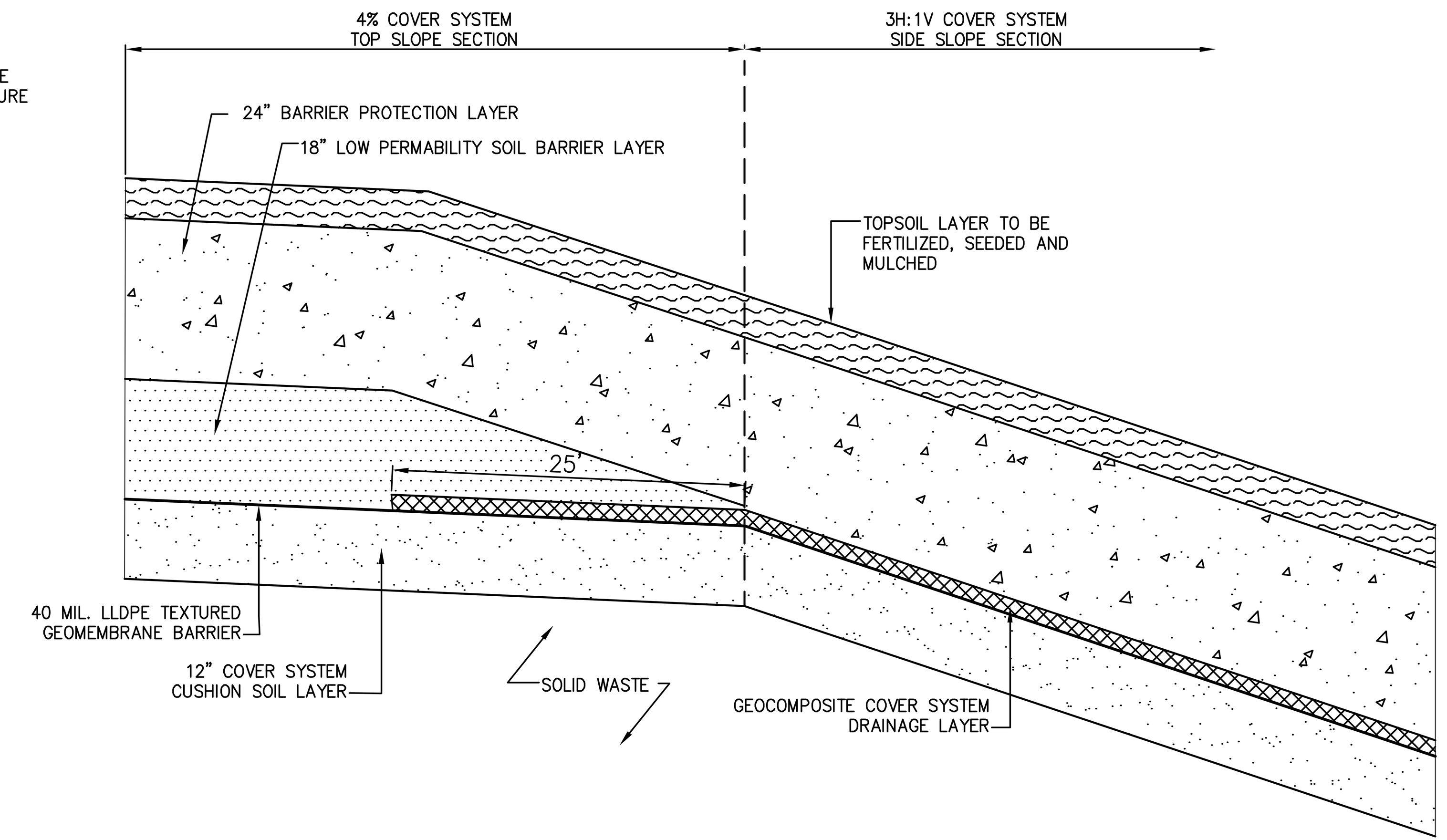
LINER/COVER SYSTEM DETAILS

Issue Date: 7/07 | Project No.: 12206 | Scale:

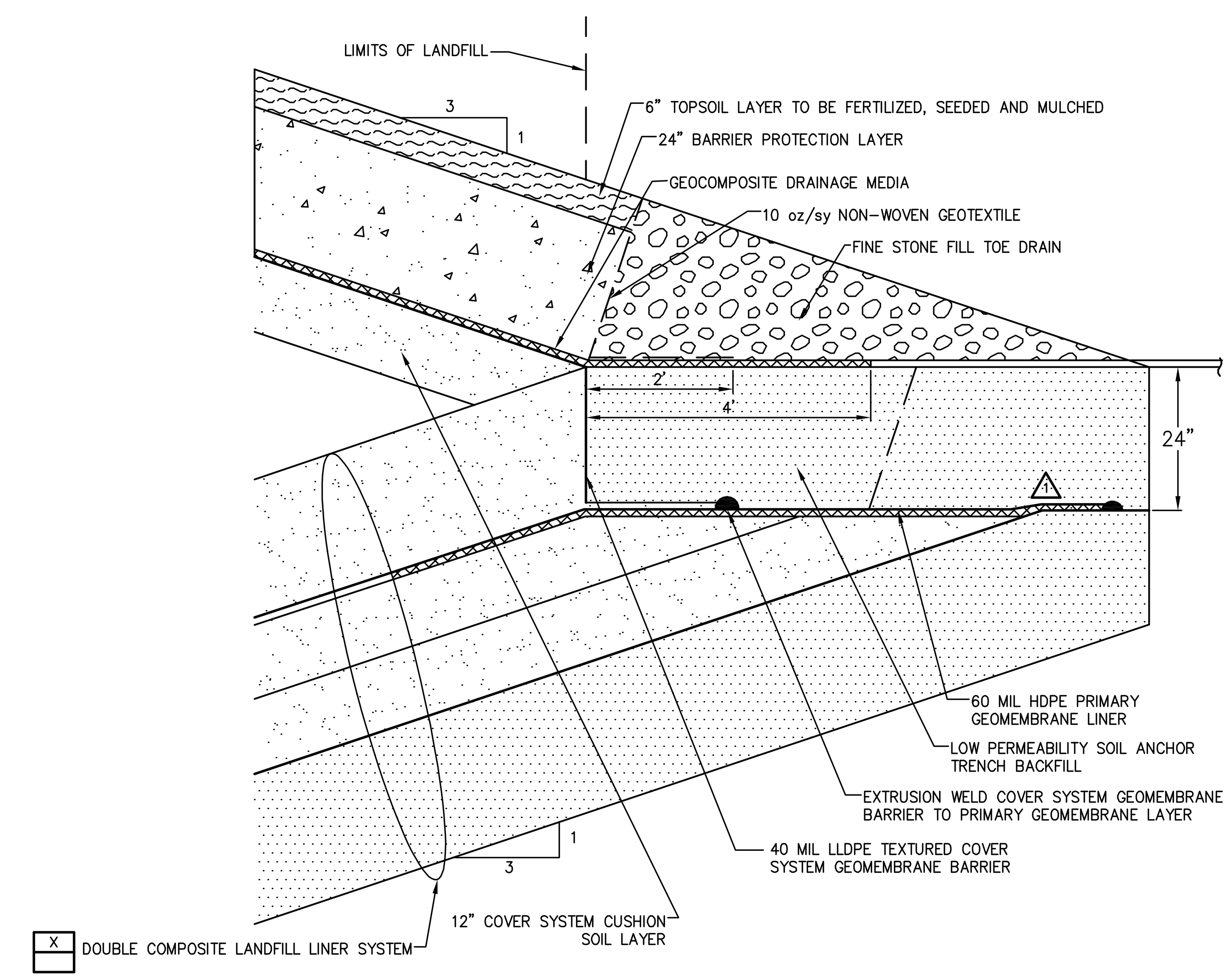
G-17



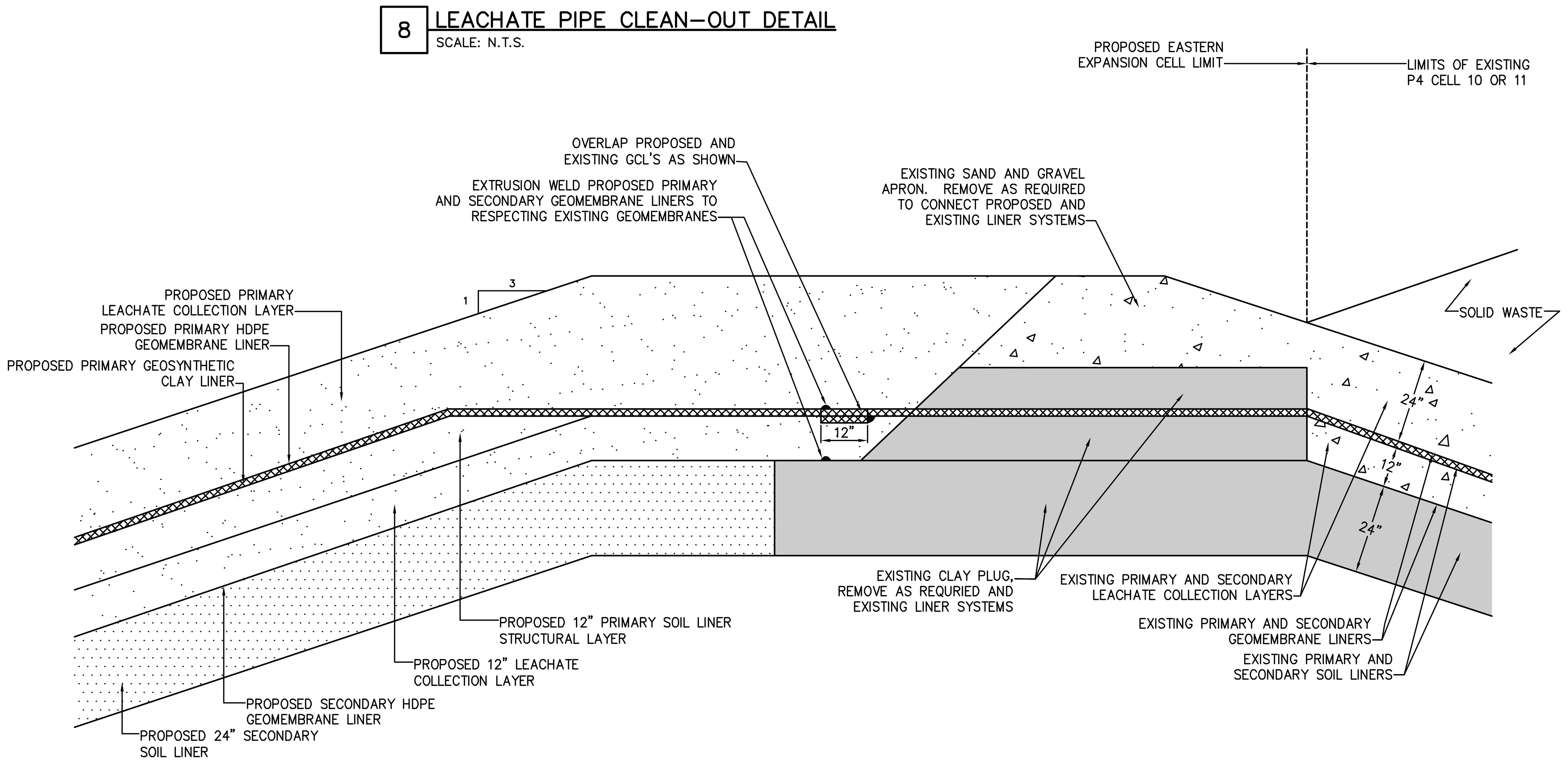
8 LEACHATE PIPE CLEAN-OUT DETAIL
SCALE: N.T.S.



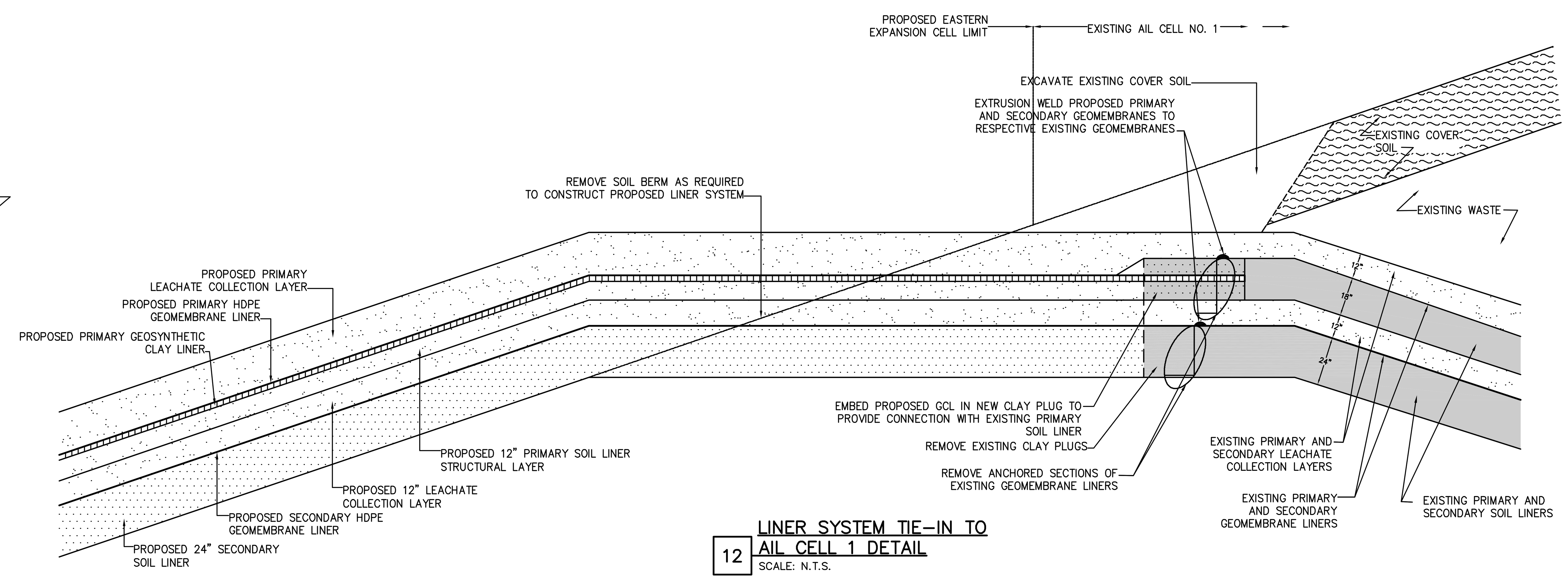
10 COVER SYSTEM DETAIL
SCALE: N.T.S.



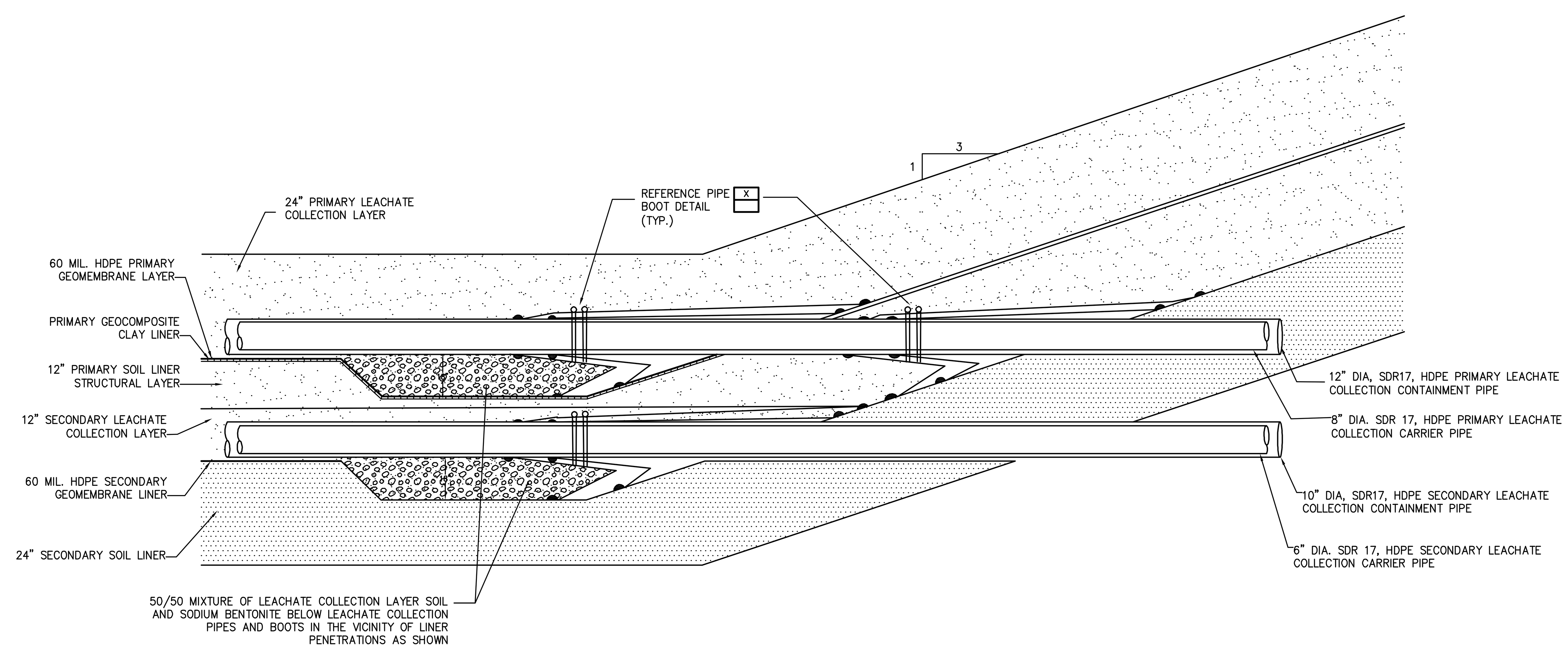
11 COVER SYSTEM TIE-IN DETAIL
SCALE: N.T.S.



9 LINER SYSTEM TIE-IN TO AIL CELLS 8,9,10 AND 11
SCALE: N.T.S.



12 LINER SYSTEM TIE-IN TO AIL CELL 1 DETAIL
SCALE: N.T.S.



13 LINER SYSTEM PENETRATION DETAIL
SCALE: N.T.S.

No.	Submittal / Revision	Appr'd	By	Date
1	REVISED GCL ON DETAILS 8 AND 11	WAH	CAP	2/22/08

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RAPP ROAD LANDFILL
EASTERN EXPANSION

LINER/COVER SYSTEM DETAILS

Issue Date: 7/07 | Project No.: 12206 | Scale:

G-18

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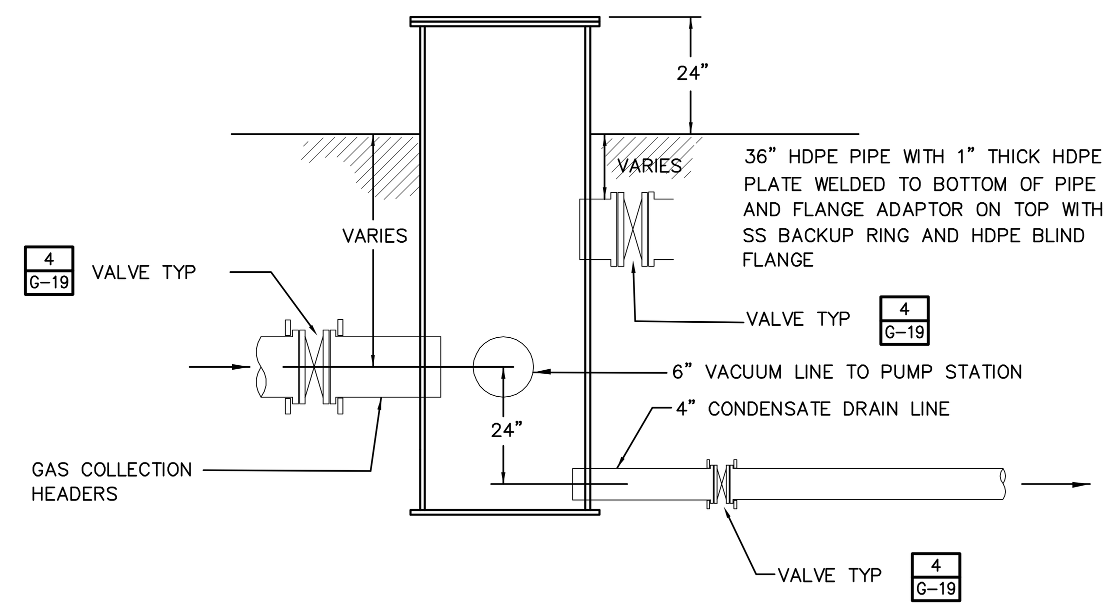

1 CONDENSATE SUMP
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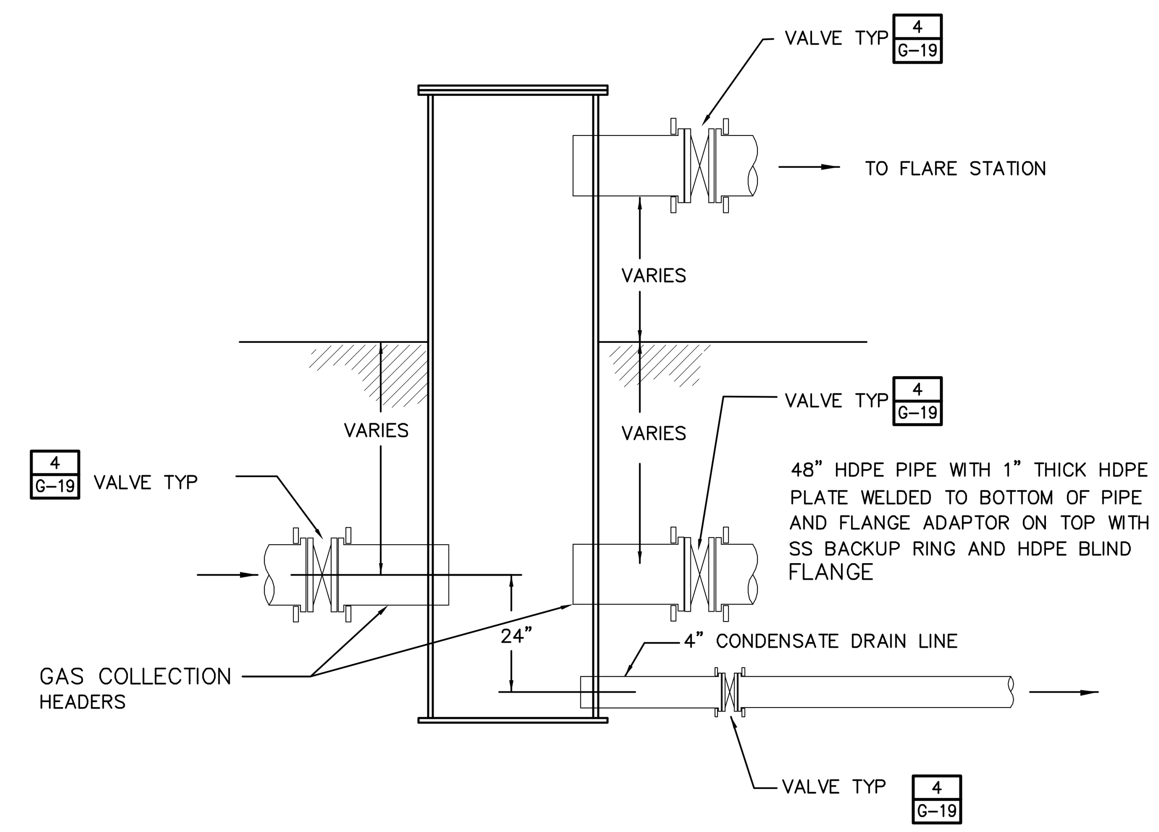

2 FLARE INLET SUMP
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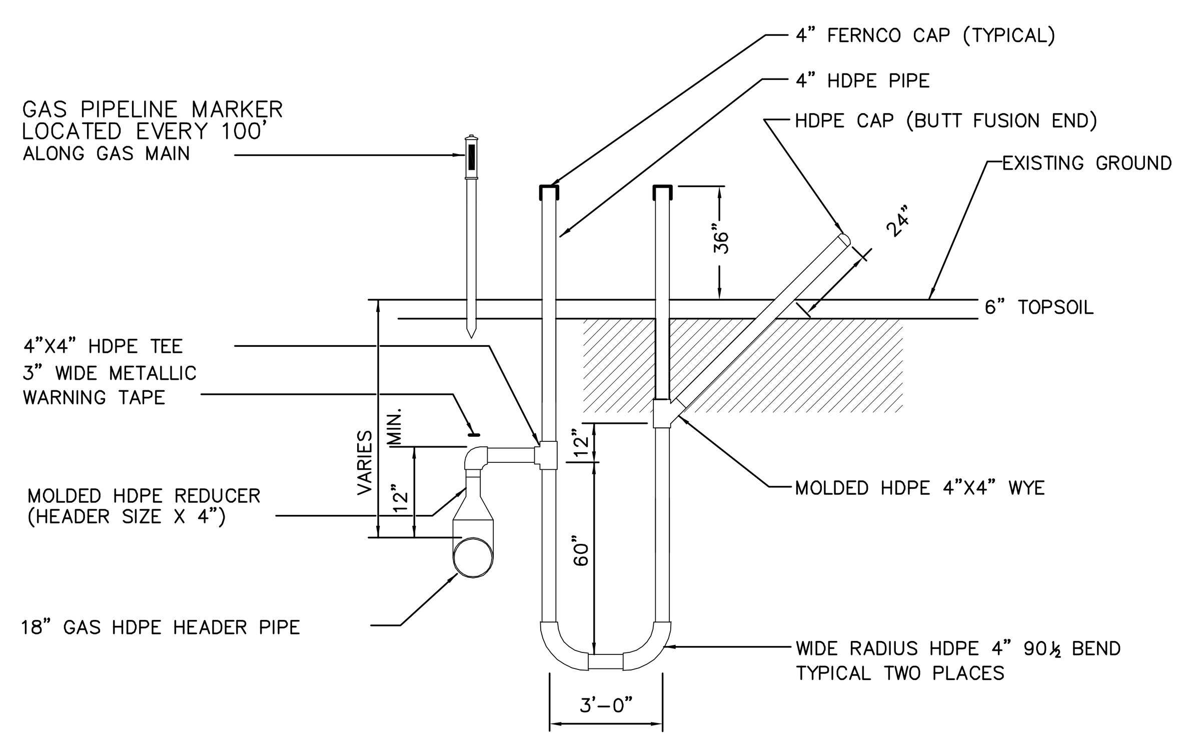
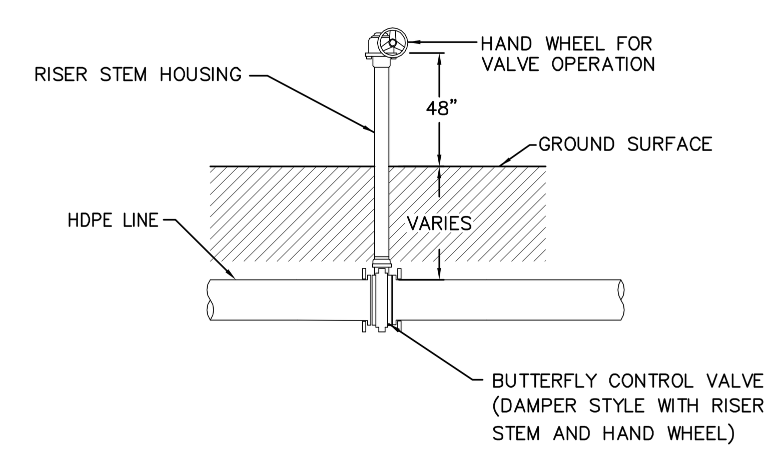


3 GAS CONNECTION POINT (TYPICAL)
SCALE: N.T.S.



4 TYPICAL CONTROL VALVE DETAIL
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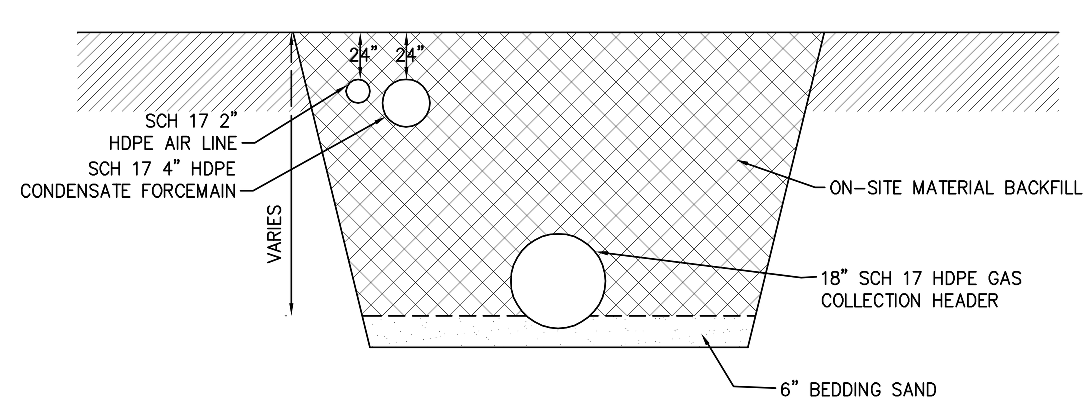

6 GAS COLLECTION TRENCH DETAIL
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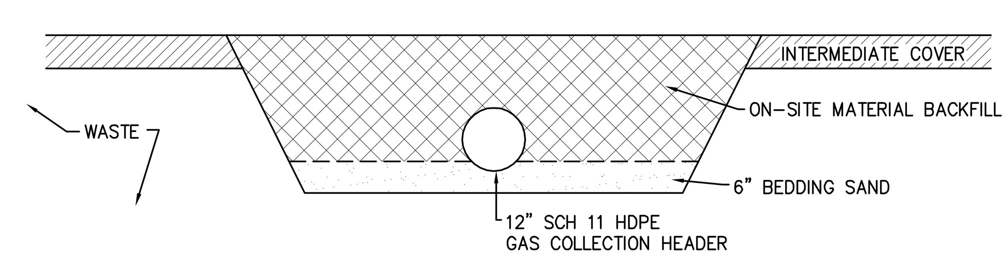

7 TEMPORARY GAS COLLECTION TRENCH DETAIL
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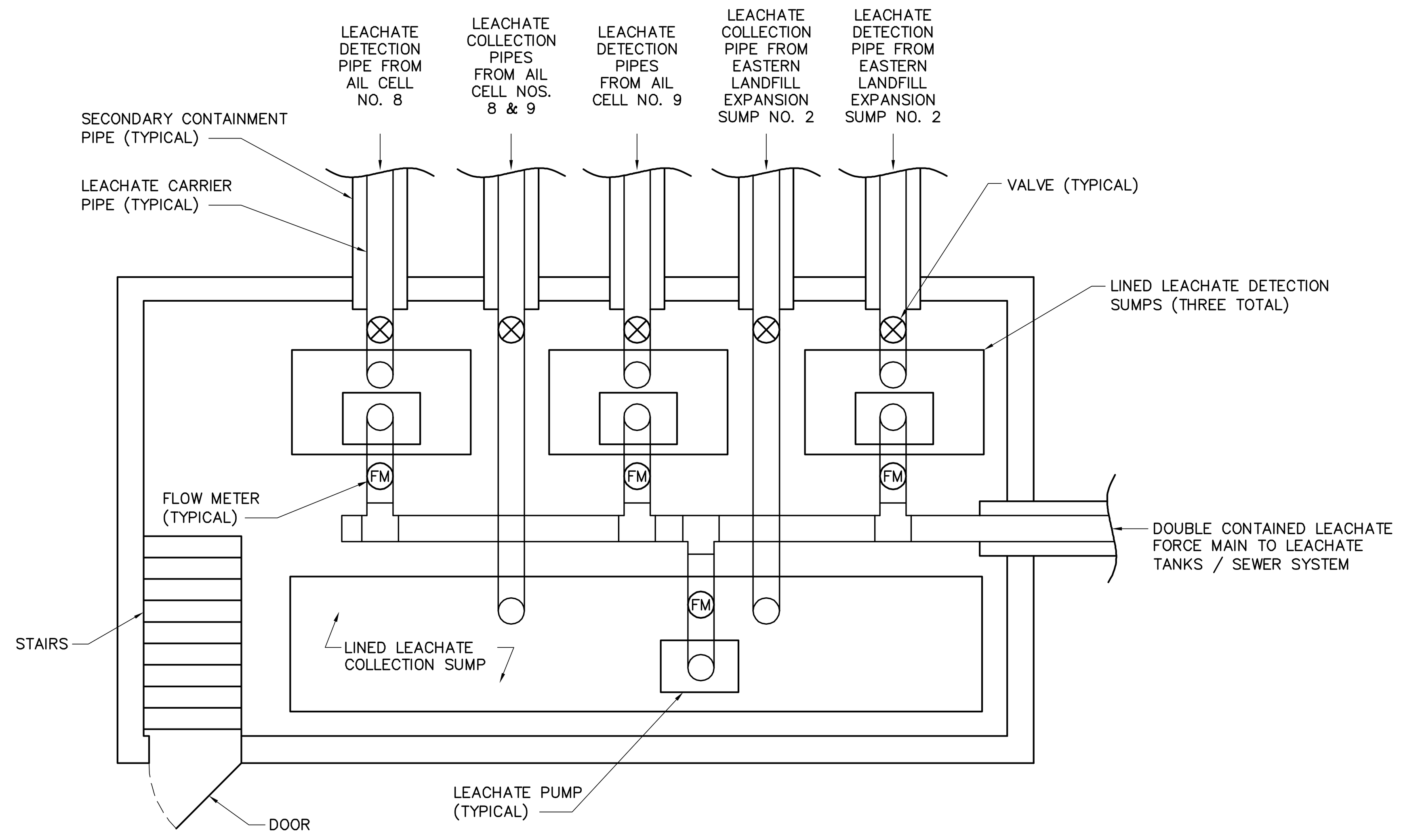
EASTERN EXPANSION

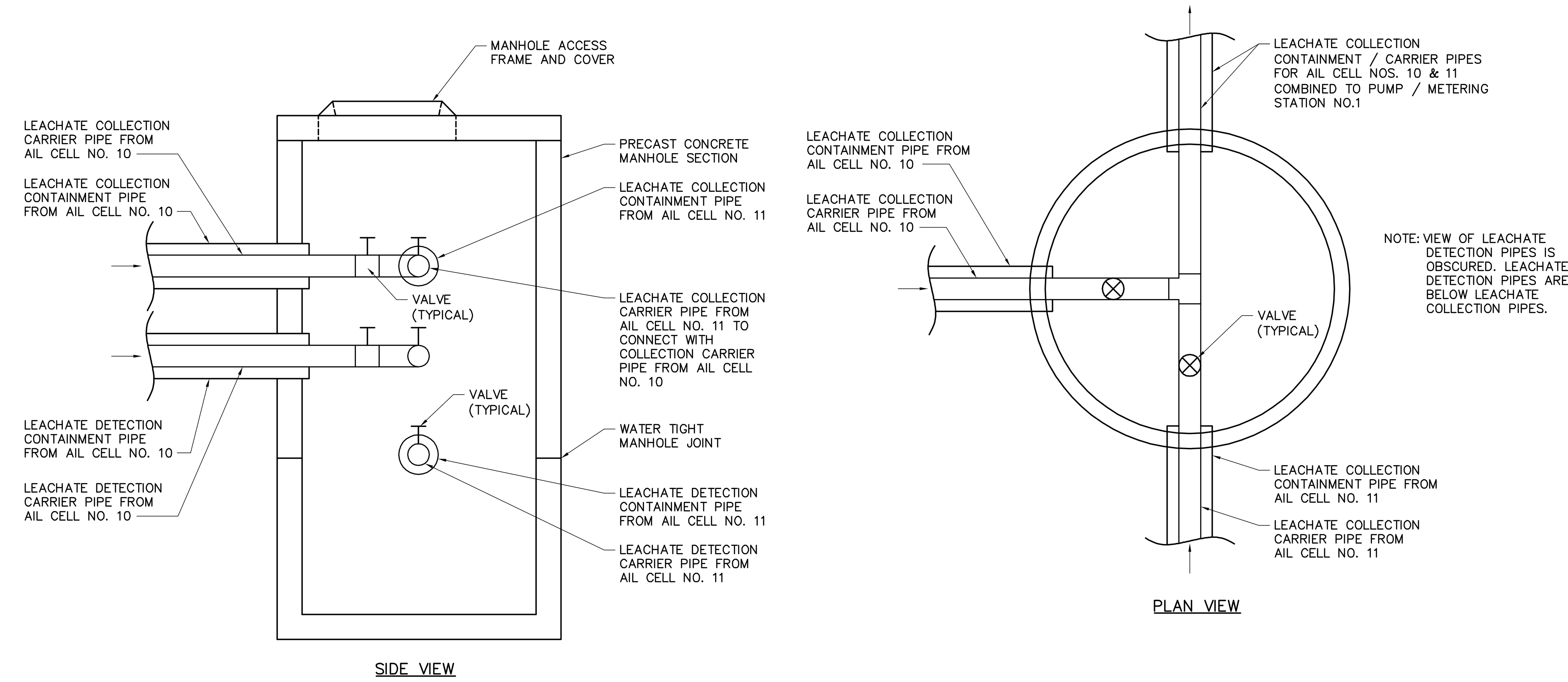
GAS CONTROL SYSTEM DETAILS

Issue Date: 7/07 Project No. 12206 Scale:

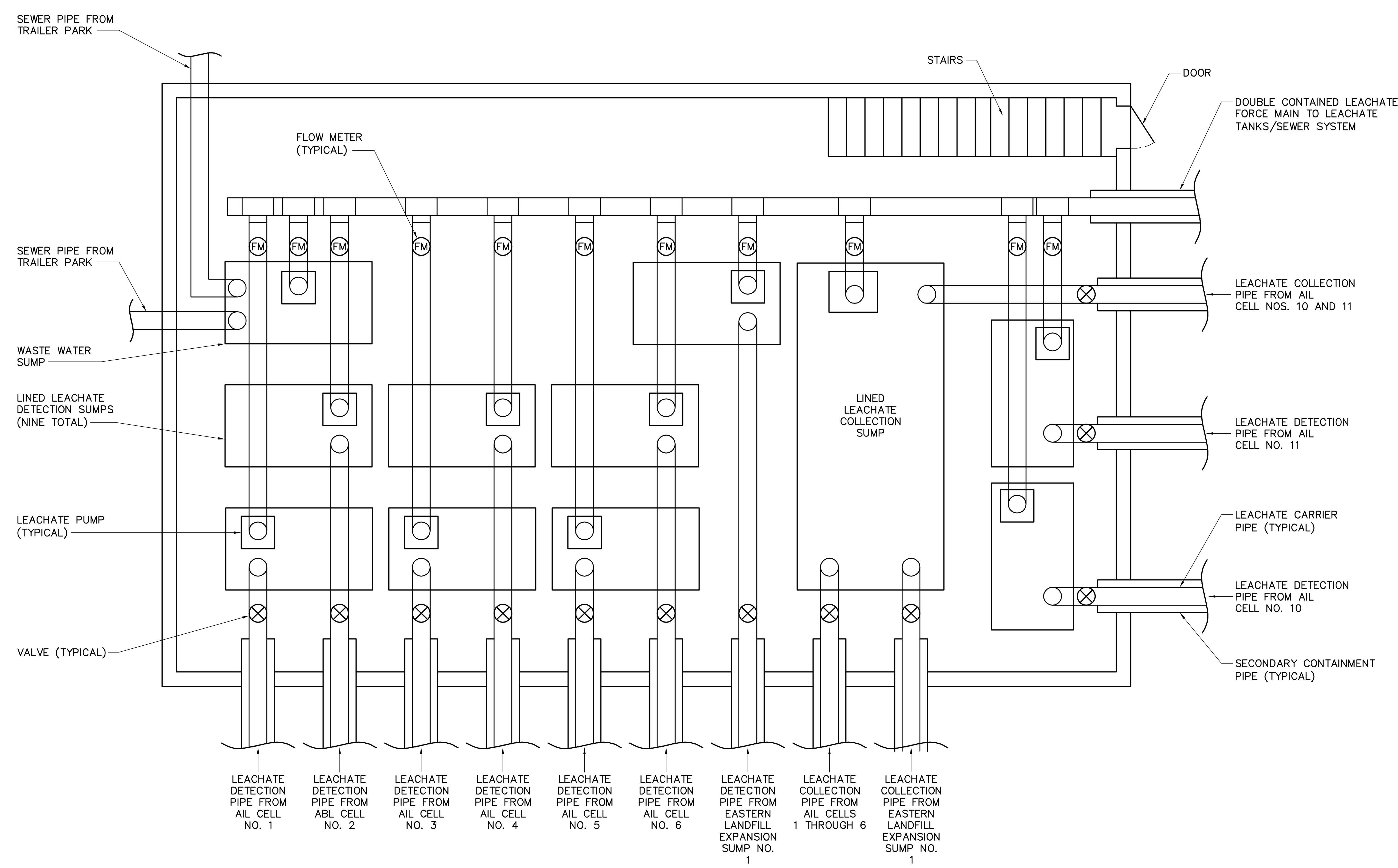
G-19



1 SCHEMATIC LAYOUT PUMP/METERING STATION NO.2
SCALE: N.T.S.



2 TYPICAL LEACHATE COLLECTION SYSTEM MANHOLE DETAIL
SCALE: N.T.S.



3 SCHEMATIC LAYOUT PUMP/METERING STATION NO.1
SCALE: N.T.S.

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