SHERIDAN SITE SLUDGE STABILIZATION

BENCH-SCALE TREATABILITY STUDY

FINAL REPORT

VOLUME I
Text, Tables, Figures, Appendices A - E

PRESENTED TO:

SHERIDAN SITE TRUST

Sheridan Site Trust
P.O. Box 440005
Houston, Texas 77244-0005
(281) 496-4224

PRESENTED BY:

KIBER ENVIRONMENTAL SERVICES

3145 Medlock Bridge Road
Norcross, Georgia 30071
(770) 242-4090

904153

FEBRUARY 2001

001491

SHERIDAN SITE SLUDGE STABILIZATION
BENCH-SCALE TREATABILITY STUDY
FINAL REPORT

TABLE OF CONTENTS

VOLUME I

1.0 INTRODUCTION 1

1.1 TERMS OF REFERENCE 1
1.2 SCOPE OF WORK 1
1.3 REPORT ORGANIZATION 2

2.0 CALCULATION OF UCS PERFORMANCE STANDARD 3

2.1 INTRODUCTION 3
2.2 UCS PERFORMANCE STANDARD CALCULATION 3

3.0 PHASE I: UNTREATED MATERIAL CHARACTERIZATION 6

3.1 OVERVIEW 6
3.2 MATERIAL SAMPLING AND RECEIPT 6
3.3 UNTREATED MATERIAL CHARACTERIZATION 7

4.0 PHASE II: PRELIMINARY STABILIZATION TREATMENT 8

4.1 OVERVIEW 8
4.2 BLENDING TECHNIQUES AND SAMPLE FORMATION 9
4.3 TREATED EVALUATIONS 10

5.0 PHASE III: OPTIMIZATION STABILIZATION TREATMENT 12

5.1 OVERVIEW 12
5.2 TREATED EVALUATIONS 12

6.0 PHASE IV: VERIFICATION TREATMENT EVALUATIONS 14

6.1 OVERVIEW 14
6.2 TREATED EVALUATIONS 14

7.0 FULL-SCALE CONSIDERATIONS 18

7.1 OVERVIEW 18
7.2 SCALING UP TO FULL-SCALE REMEDIATION 18
7.3 REAGENT HANDLING AND COST ESTIMATES 19

Table of Contents – Continued

7.4 SPACE REQUIREMENTS 21
7.5 HEALTH AND SAFETY CONSIDERATIONS 21

8.0 QUALITY ASSURANCE / QUALITY CONTROL 22

9.0 RECOMMENDATIONS / CONCLUSIONS 23

9.1 CONCLUSIONS 23
9.2 RECOMMENDATIONS 25

TABLES

FIGURES

APPENDICES

LIST OF TABLES

Table 1 Untreated Material Characterization – Total Volatiles
Table 2 Untreated Material Characterization – Total Semivolatiles
Table 3 Untreated Material Characterization – Total PCBs
Table 4 Untreated Material Characterization – Total Pesticides
Table 5 Untreated Material Characterization – Total Metals
Table 6 Untreated Material Characterization – Physical Analyses
Table 7 Preliminary Stabilization Treatment – Mixture Development
Table 8 Preliminary Stabilization Treatment – UCS Testing
Table 9 Optimization Stabilization Treatment – Mixture Development
Table 10 Optimization Stabilization Treatment – Penetrometer Testing
Table 11 Optimization Stabilization Treatment – UCS Testing
Table 12 Verification Stabilization Treatment – Mixture Development
Table 13 Verification Stabilization Treatment – Penetrometer Testing
Table 14 Verification Stabilization Treatment – SPLP Volatiles
Table 15 Verification Stabilization Treatment – SPLP Semivolatiles
Table 16 Verification Stabilization Treatment – SPLP PCBs
Table 17 Verification Stabilization Treatment – SPLP Pesticides
Table 18 Verification Stabilization Treatment – SPLP Metals
Table 19 Verification Stabilization Treatment – UCS Testing

Table of Contents – Continued

LIST OF FIGURES

Figure 1 Conceptual Landfill Design

LIST OF APPENDICES

Appendix A Chain of Custody
Appendix B Untreated Characterization Data
Appendix C Preliminary Stabilization Data
Appendix D Optimization Stabilization Data
Appendix E Verification Stabilization Data

SHERIDAN SITE SLUDGE STABILIZATION
BENCH-SCALE TREATABILITY STUDY
FINAL REPORT

1.0 INTRODUCTION

1.1 TERMS OF REFERENCE

This report is a presentation of the results of the stabilization treatability study conducted for the Sheridan Site Trust (SST) on materials sampled from the Sheridan Disposal Services Superfund Site located in Waller County, Texas (the site). The Sheridan Site Sludge Stabilization Study was performed to 1) expand on data already obtained during previous treatability testing, 2) provide sufficient data to identify full-scale treatment requirements, and 3) identify a range of mixtures capable of successfully remediating the site in a technically feasible and cost efficient manner. This report was developed to present the testing protocols and results of treatability testing performed by Kiber.

1.2 SCOPE OF WORK

All testing was performed in general accordance with the Scope of Work dated 8 February 2000 and preliminary proposal dated 22 September 1999. The treatability study outlined by Kiber consisted of: Phase I, Untreated Material Characterization; Phase II, Preliminary Stabilization Treatment; Phase III, Optimization Stabilization Treatment; and Phase IV, Verification Treatment Evaluations. Goals and objectives identified by SST in the Supplemental Stabilization Treatability Study Work Plan (Book 1, Appendix A) include:

1) Determine a recommended unconfined compressive strength (UCS) performance standard for use as a screening target for comparison of reagent mixtures in this study. Determine the approach to a site-specific UCS performance standard for site remediation.

2) Estimate any pretreatment processes, such as sorting of debris or drying that may be required to facilitate the treatment process.

3) Estimate the amount and type of reagents that could be used to treat the site sludges and achieve a treated material capable of meeting a reasonable performance standard.

001495

1.3 REPORT ORGANIZATION

This final report presents the sample tracking information, the test methods and protocols, and the results of analyses and testing conducted throughout the treatability study. Section 2.0 presents information regarding calculation of unconfined compressive strength performance standards. Phase I: Untreated Material Characterization results are included in Section 3.0. This section includes information pertaining to untreated material receipt and handling, sample preparation and analytical and geotechnical evaluations of the untreated material. All information and results associated with Phase II: Preliminary Stabilization Treatment are presented in Section 4.0. Section 5.0 presents the results of Phase III: Optimization Stabilization Treatment. The results of Phase IV: Verification Testing Evaluations are presented in Section 6.0. Section 7.0 presents Full-Scale Considerations, while Kiber's Quality Assurance (QA) and Quality Control (QC) procedures for the treatability study are included in Section 8.0. Recommendations and Conclusions are included in Section 9.0. Following the main text are tables and figures presenting the results of all testing performed. Appendices are presented at the end of the document and include analytical data packages and geotechnical data reports.

001496

2.0 CALCULATION OF UCS PERFORMANCE STANDARD

2.1 INTRODUCTION

Kiber was tasked with identifying an unconfined compressive strength (UCS) performance standard for the study that would be equal to or greater than that used for full-scale remediation activities. The information utilized to develop the UCS performance standard was presented to Kiber by the SST. To summarize, the preliminary cap design as provided by the SST includes the following:

- 2.5 feet of stabilized sludge at the bottom of the pond;
- maximum 18.5 feet of compacted clay fill over the sludge;
- 1.0 foot of topsoil cover to support growth of grass; and
- side stability controlled by a dike measuring 40 feet thick at the base and 8 feet thick at the top of the dike. The dike rises to a height of 9 feet above the bottom of the sludge.

2.2 UCS PERFORMANCE STANDARD CALCULATION

Kiber performed engineering calculations in an effort to determine a conservative UCS performance standard for the study that could be used as a starting point for the full-scale treatment at the site. The dimensional information that was used in the calculations was primarily provided by the SST. In determining the UCS performance standard, Kiber incorporated several safety factors including:

- While the body of the sludge is mathematically treated as unconfined, it is in fact confined by 1) the normal bottom of the system, 2) the dikes, and 3) the clay burden. Note that the clay burden is virtually impervious at 90% AASHTO compaction or 95% ASTM compaction and at optimum moisture. This conclusion was developed based on typical performance values as presented in *Data Book for Civil Engineers: Design, Third Edition* by Elwyn Steelye. Note that Kiber did not test samples of the borrow source to verify these typical values.
- Side stability is controlled through the characteristics of the clay burden. Side stability is induced by the horizontal shear stresses of the 18.5 feet of compacted clay. If downward settlement stresses are properly restrained by the natural

001497

bottom's bearing capacity, and the clay fill is homogenous, then side movement is controlled by the horizontal shear stability of the clay body and not the dike.

- As outlined above, Kiber assumed that the clay burden would be composed of 18.5 feet of compacted clay. Kiber understands that this is a conservative assumption with regard to UCS calculations. In fact, the actual clay burden may be composed of as little as 9 feet of compacted clay. Note that this change would significantly reduce the strain on the stabilized material, thereby reducing the required UCS value.

The load imposed upon the bottom layer of stabilized sludge is defined by the top soil, clay and stabilized sludge. Specifically, the following density values were used to estimate this anticipated load:

Material Type	Density (lbs/ft^3)	Expected		Maximum	
		Expected Column Height (ft)	Expected Column Pressure (lbs/ft^2)	Maximum Column Height (ft)	Maximum Column Pressure (lbs/ft^2)
Top Soil	110	1	110	1	110
Clay	120	9	1080	18.5	2220
Stab. Sludge	130	2.5	325	2.5	325
Total Column		12.5	1515	22	2655
Total Column Pressure (lbs/in^2)			10.5		18.4

Based on this data, the stress imparted on the bottom of the stabilization vault will be equal to the sum of the stress values imparted by the topsoil column, the clay column, and the stabilized sludge column. For the maximum column height above, this net stress results in a total column compressive stress of 2,655 lbs/ft^2. Converting the units, this results in a required bearing capacity for the bottom of the sludge layer of 18.4 lbs/in^2. As such, this calculated bearing capacity, or true unconfined compressive strength, would be required to support the maximum fill height. Note that if the clay burden is reduced from the very conservative 18.5 feet design assumption to the expected 9 feet, the calculated UCS value is 10.5 lbs/in^2. Kiber therefore recommends using the calculated UCS performance standard of 18.4 lbs/in^2 for the stabilization study as a conservative preliminary design performance standard. After the final design basis is established and engineering drawings are developed which address total vault height required and temporary construction equipment live load, then the final UCS performance standard can be calculated.

Figure 1, which is included within the figures section of the final report, was developed by Kiber in an effort to graphically illustrate the anticipated stresses in the proposed landfill. The figure was developed based on the information provided by the SST. Note that in calculating all density and corresponding stress values, Kiber used standard values published in *Data Book for Civil Engineers: Design, Third Edition* by Elwyn Steelye.

001499

3.0 PHASE I: UNTREATED MATERIAL CHARACTERIZATION

3.1 OVERVIEW

Upon receipt, untreated materials from the site were analyzed to verify that the samples received for the treatability study were representative and consistent with previous samples and materials received from the site. This section presents information on the sampling, handling, preparation and characterization of the untreated material utilized during the treatability study.

3.2 MATERIAL SAMPLING AND RECEIPT

On 13 September 2000, Kiber received a total of two 5-gallon buckets labeled Pond Sludge from the site. All site materials were delivered under proper chain of custody (COC) via Federal Express Overnight Delivery. A copy of the COC is included in Appendix A.

Upon receipt, each 5-gallon bucket of untreated material was logged in and placed into refrigerated storage maintained at a temperature of 4 degrees Celsius (°C). Once the untreated materials cooled to a temperature of 4 °C, Kiber homogenized the untreated material from the site. For homogenization, Kiber placed the contents of each bucket into a stainless steel mixing basin. Note that the untreated materials were chilled to 4 °C prior to initiating homogenization to minimize the potential for volatilization of organic compounds. The untreated material was then manually blended with stainless steel hand tools using low energy mixing techniques in an effort to minimize the volatilization of organic compounds that may be present. Homogenization continued for a period of approximately 10 to 15 minutes until visually homogenous. Upon completion, the homogenized material was placed back into the original shipping containers and returned to refrigerated storage.

During homogenization, any large and agglomerated particles were broken into smaller, more manageable sizes. All particles and debris larger than 0.5 inches in diameter were removed. This process was performed in order to 1) simulate potential full-scale particle size reduction, and 2) ensure that the material was practical for laboratory analysis. Kiber's experience indicates that contaminants are generally concentrated on the fine-grained particles; therefore, laboratory testing on material of less than 0.5 inches in diameter typically presents a worst-case contaminant scenario. The untreated materials did not contain any oversized materials. Visual observations of the untreated material indicated a brown liquid-like sludge material with a strong organic odor.

001500

While the material received for treatability testing did not include any oversized particles, Kiber understands that oversized material and debris are common at the site. Many options exist with regard to the handling of oversized material. Kiber has presented a discussion of options regarding handling of the oversized materials in Section 9.0 of this report.

3.3 UNTREATED MATERIAL CHARACTERIZATION

The untreated Pond Sludge sample was submitted to KEMRON Environmental Services, Inc., located in Marietta, Ohio for analytical characterization while Kiber performed the geotechnical characterization. The following tests were conducted on aliquots of the untreated material in accordance with the referenced test method:

Analytical:

Total Volatiles	EPA Method 8260B
Total Semivolatiles	EPA Method 8270C
Total PCBs	EPA Method 8081
Total Pesticides	EPA Method 8081
Total RCRA Metals	EPA Methods 6010B/7471
Material pH	EPA Method 9045C

Geotechnical:

Moisture Content	ASTM D 2216
Loss on Ignition	ASTM D 2974
Bulk Unit Weight	ASTM D 5057

The results of baseline characterization analyses are presented in Tables 1 through 6. Table 1 includes the results of total volatile organic analyses, and Table 2 presents the results of total semivolatile organic analyses. The results of total PCB and total pesticide analyses are presented in Tables 3 and 4, respectively. Table 5 includes the results of total RCRA metals analyses. The results of all additional chemical and physical analyses are included in Table 6. Note that all analytical results are reported on a wet-weight basis as requested by the SST to maintain consistency with prior analytical results. Analytical and geotechnical data reports are included in Appendix B.

The untreated sludge characterization studies confirmed that material in this study is consistent with other sludge samples collected from the Sheridan site. Comparison of the analyses presented herein with the results from previous treatability testing reveals that: 1) similar volatile and semivolatile compounds were detected during the two studies, 2) analyte concentrations were generally similar between the two materials, and 3) the geotechnical results were similar.

001501

4.0 PHASE II: PRELIMINARY STABILIZATION TREATMENT

4.1 OVERVIEW

The primary applications of stabilization include 1) treatment of liquids and sludges for land disposal, 2) remediation of contaminated sites containing organic and inorganic contaminants, and 3) solidification of materials which are physically unstable. Stabilization treatment is identified in the National Contingency Plan as a permanent remedial alternative for treatment of organic and inorganic waste materials. To perform stabilization treatment, common binding reagents or proprietary reagents are added to the untreated waste materials. Common binding agents include materials like cement, fly ash, hydrated lime and organophillic clay.

Effective treatment is evaluated through a review of the properties and characteristics produced by mechanisms of stabilization. Successful treatment of the contaminated soil is dependent on the following stabilization mechanisms:

- Macroencapsulation
- Microencapsulation
- Adsorption
- Detoxification

Macroencapsulation is the mechanism by which contaminants are physically entrapped as agglomerated particles within the physical structure, or monolith, formed by immobilization reagents. Microencapsulation is the mechanism by which contaminants are entrapped within the crystalline structure of the immobilization reagents. Stabilization reagents are selected based on the ability of the reagents to generate the cementitious reaction necessary to bind and encapsulate the contaminants into a crystalline structure with low permeability.

In some cases, physical encapsulation of the contaminants within the immobilization monolith and crystalline structure is not sufficient since physical degradation may allow some contaminant migration. In order to achieve effective immobilization, contaminants should be chemically bonded or adsorbed within the stabilized matrix. Common immobilization reagents, such as cement, will usually provide the necessary binding mechanisms.

The preliminary stabilization evaluations were designed to identify potential reagents and reagent formulations capable of achieving the site specific performance criterion. The preliminary stabilization phase of the Sheridan Sludge Site Treatability study was

001502

designed to evaluate a variety of reagent designs capable of stabilizing and solidifying the untreated material to achieve the previously calculated UCS performance criteria of 18.4 lbs/in^2. Prior to developing mixtures, Kiber provided the SST with a proposed mixture development table for review. After review by the SST, Kiber proceeded with Phase II mixture development. The following sections summarize the protocols used by Kiber and the results of all testing and observations performed during Phase II.

4.2 BLENDING TECHNIQUES AND SAMPLE FORMATION

A total of 24 mixtures were developed during Phase II: Preliminary Stabilization Treatment. Reagents that were utilized for treatment include Quicklime, Type I Portland cement, hydrated lime, fly ash, bed ash and site clay. Note that these reagents were evaluated alone and in combination.

Each mixture was developed by placing an aliquot of the pond sludge untreated material into a blending chamber. For the mixtures developed with Quicklime, the specified amount of Quicklime was added directly to the untreated material and blended. The mixtures developed with a combination of Type I Portland cement and hydrated lime, and a combination of Type I Portland cement and fly ash were developed by initially blending the specified reagents dry and adding the reagent mixture to the untreated material and blending. Once the reagents were added to the untreated material, the mixture was blended at a rate of approximately 40 to 60 rotations per minute (rpm) until visually homogenous, a period of 60 to 90 seconds.

For the mixtures that were pretreated with either bed ash or a combination of site clay and lime, these reagents were added first to the untreated material and blended. Once homogenous, the second reagent, (either cement or quicklime) was added to the mixture and blended. The mixtures developed by Kiber are included in Table 7. This table includes Kiber's mixture numbers, reagent types and reagent addition rates.

Following mixture development, all reactions were allowed to cease by loosely placing the treated material on stainless steel trays. The treated materials were then allowed to sit for a period of approximately 4 hours. After 4 hours, Kiber utilized temperature measurements to confirm that reactions were complete. Specifically, once the treated material had cooled to approximately room temperature, Kiber considered the immediate treatment reactions to have been completed. Upon completion of this reaction period, the treated materials were compacted into cylindrical molds for curing.

Once compacted into molds, the treated materials were allowed to cure for the specified cure interval in a humid environment maintained at a temperature of 18 to 24 °C. During the curing period, treated materials were subjected to penetrometer strength testing.

001503

Penetrometer analyses are screening tests that were performed on each mixture to determine the setting and strength properties of the treated materials throughout the curing process. The pocket penetrometer is a hand-held instrument commonly used during field tests to estimate the unconfined compressive strength of soils. The penetrometer is calibrated by the manufacturer in increments of 0.25 tons per square foot (tons/ft^2) with a maximum reading of 4.5 tons/ft^2 (63 lbs/in^2).

4.3 TREATED EVALUATIONS

The results of penetrometer analyses performed on the treated materials, as presented in Table 7, indicate that several of the treated materials were capable of reaching penetrometer strengths of at least 4.5 tons/ft^2, the maximum reading of the penetrometer, at the specified cure intervals. The mixtures developed with quicklime achieved strengths of greater than 4.5 tons/ft^2 after only 1 day of curing. The mixtures developed with a combination of Type I Portland cement and fly ash, and a combination of 60% bed ash and 20% cement achieved strengths of greater than 4.5 tons/ft^2 after 3 days of curing. The mixtures developed with 40% bed ash in combination with 20% and 40% cement achieved strengths of greater than 4.5 tons/ft^2 after 21 days of curing. The mixtures pretreated with a combination of site clay and lime, and treated with quicklime also required 21 days to achieve strengths of greater than 4.5 tons/ft^2. The remaining mixtures did not reach greater than 4.5 tons/ft^2 within the specified cure time. It should be noted that a penetrometer reading of 4.5 tons/ft^2 represents a confined strength of over 60 lb./in^2 and is the maximum reading of the instrument.

Based on the results of penetrometer strength testing data and cost of reagent, Kiber and the SST selected a total of ten treatment designs for unconfined compressive strength testing after 21 days of curing. The treatment designs were selected based on visual observations, penetrometer strengths, cost-effectiveness and Kiber's experience in treating similar materials.

The UCS test is a measure of the shear strength of a soil-like material under unsaturated and unconfined conditions. All testing was performed on specimens measuring 2.0 inches in diameter and 4.0 inches in length. Before testing, the weight and dimensions were recorded for each test specimen. Each specimen was tested at a strain rate of 1 percent per minute. Testing was terminated at failure of the specimen as defined by ASTM D 2166. To clarify, UCS testing was terminated after achieving the maximum unconfined compressive strength or upon attaining 15% strain, whichever occurred first.

The treated materials selected for testing are included in Table 8. A review of the results indicates that several mixtures were capable of achieving the calculated unconfined compressive strength performance criterion of 18.4 lbs/in^2. In that group, the highest

001504

unconfined compressive strength was 56.4 lbs/in^2 for the mixture developed with a combination of 20% cement and 60% fly ash. Other mixtures in that group were developed with 40% Quicklime, a combination of 20% cement and 40% fly ash, and a combination of 40% cement and 40% fly ash, which resulted in unconfined compressive strength values ranging from 25.5 to 34.7 lbs/in^2. The treated materials developed with 30% Quicklime and a combination of 60% bed ash and 20% cement resulted in unconfined compressive strength values of 18.3 and 18.5 lbs/in^2 , both of which were very close to the conservative target value. Other treated materials evaluated did not achieve satisfactory unconfined compressive strength . Physical data reports are included in Appendix C.

Based on the results of unconfined compressive strength testing, Kiber and the SST identified mixture designs to be evaluated and/or optimized during the next phase of testing.

001505

5.0 PHASE III: OPTIMIZATION STABILIZATION TREATMENT

5.1 OVERVIEW

The Optimization Stabilization Treatment phase of the Sheridan treatability study was performed to further optimize and evaluate candidate treatment designs identified during Phase II. Kiber and SST identified candidate mixtures based on unconfined compressive strength testing results, cost effectiveness and visual observations. During this phase of testing, Kiber identified a total of seven mixture designs to be evaluated for Phase III of the treatability study. The reagents or reagent combinations that were evaluated during this phase of the study included Quicklime; a combination of cement and fly ash; a combination of site clay, lime and quicklime; a combination of site clay, bed ash and cement; and site clay. The following sections include detailed discussions of the procedures utilized and the results of all testing performed during Phase III of the treatability study.

5.2 TREATED EVALUATIONS

As previously mentioned, Kiber developed a total of seven mixtures during this phase of the treatability study. All mixtures were developed in accordance with previously discussed protocols. Upon completion of mixture development, the treated materials were placed in cylindrical molds for curing. Upon reaching the specified cure interval, the treated materials were subjected to treated evaluations. The mixtures developed by Kiber are included in Table 9. This table includes Kiber mixture numbers, reagent types and reagent addition rates.

Treated evaluations performed on the mixtures included photoionization (PID) and temperature monitoring during mixture development, pocket penetrometer testing during curing, and unconfined compressive strength testing upon reaching 28 days of curing. The results of treated evaluations are included in Tables 9 through 11. Table 9 includes the results of PID and temperature monitoring. The results of pocket penetrometer testing are included in Table 10, and the results of unconfined compressive strength testing are included in Table 11. Complete physical data reports are included in Appendix D.

PID and Temperature Monitoring

The PID and temperature results, as presented in Table 9, present the maximum temperature observed before, during or after mixture development. For the mixtures developed during Phase III, the mixtures that exhibited the highest PID and temperature values included those developed with Quicklime. Specifically, the mixtures developed with 20% and 30% Quicklime exhibited maximum PID values of 492 and 525 parts per

001506

million (ppm), and 42.3 and 68.3 °C, respectively. The mixtures developed with a combination of cement and fly ash exhibited the next highest PID values, with values of 350 and 305 ppm. Maximum temperatures for the mixtures developed with a combination of cement and fly ash were 32.9 and 29.6 °C. The mixture pretreated with a combination of site clay and lime exhibited a maximum PID value of 466 ppm and a maximum temperature of 34.6 °C, and the mixture pretreated with a combination of site clay and bed ash exhibited a maximum PID value of 152 ppm and a maximum temperature of 35.8 °C. The mixture treated with site clay had the lowest PID and temperature values of all the mixtures evaluated. The maximum PID and temperature values for the site clay mixture were 14.6 ppm and 18.5 °C, respectively.

Penetrometer Testing

Table 10 presents the results of pocket penetrometer testing performed on the treated materials throughout the curing time. The results indicate that all treated materials achieved strengths of greater than 4.5 tons/ft^2 after 28 days of curing except for the mixture developed with 30% Quicklime. The mixture developed with 30% Quicklime achieved a strength of 3.5 tons/ft^2 after 28 days of curing.

Unconfined Compressive Strength Testing

The results of unconfined compressive strength testing are included in Table 11. A review of the results of unconfined compressive strength testing indicate that a total of four mixtures achieved the calculated strength performance standard of 18.4 lbs/in^2. The treated material that exhibited the highest strength (64.2 lbs/in^2) includes the mixture developed with a combination of 20% cement and 40% fly ash. The mixtures developed with 30% Quicklime and a combination of 15% cement and 30% fly ash exhibited strengths of 30.7 and 29.0 lbs/in^2, respectively. The final mixture to achieve the strength criterion is the mixture pretreated with a combination of site clay and lime, and treated with Quicklime (21.3 lbs/in^2). The remaining three mixtures evaluated exhibited strengths of less than 13.2 lbs/in^2 and were not considered further.

Based on the results of unconfined compressive strength testing and visual observations, Kiber proceeded with Phase IV: Verification Treatment Evaluations. Kiber and the SST utilized the data generated during Phase III of the treatability study to further optimize and evaluate treated materials during Phase IV.

6.0 PHASE IV: VERIFICATION TREATMENT EVALUATIONS

6.1 OVERVIEW

Verification testing was designed to evaluate the optimum mixtures identified during Phase III of the treatability study. For this phase of the study, Kiber and the SST identified a total of four mixture designs for evaluation. Mixture designs were selected based on unconfined compressive strength results, reagent cost, ease of implementation and visual observations.

6.2 TREATED EVALUATIONS

The mixture designs evaluated during verification treatment evaluations were as follows:

Reagent Type	Reagent Addition (%)
Quicklime	30
Cement / Fly Ash	15 / 30
(Site Clay / Lime) / Quicklime	(20/2) / 15
Site Clay	600

The Reagent Addition % is the amount of reagent added to the original amount of untreated sludge on a weight basis. For example, if 200 grams of untreated sludge is used as a basis for testing, when 30% quicklime reagent is added, the resulting final mixture totals 260 grams. The mixtures were developed in accordance with previously discussed protocols. Upon completion of mixture development, the treated materials were placed into cylindrical molds and allowed to cure for a period of 28 days in a humid environment.

During mixture development and throughout the curing process the treated materials were subjected to mixture monitoring. Mixture monitoring performed by Kiber included PID and temperature monitoring during mixture development, and penetrometer strength testing during the curing process. Upon reaching 28 days of curing, the treated materials

001508

were subjected to analytical and geotechnical testing. Specifically, upon reaching 28 days of curing, the treated materials were subjected to the following tests in accordance with the referenced test methods:

Parameter	Method
SPLP Volatile Organics	EPA Methods 1312/8260B
SPLP Semivolatile Organics	EPA Methods 1312/8270C
SPLP PCBs	EPA Methods 1312/8081
SPLP Pesticides	EPA Methods 1312/8081
SPLP RCRA Metals	EPA Methods 1312/6010B/7470
Unconfined Compressive Strength	ASTM D 2166

The results of characterization testing performed on the treated materials are included in Tables 12 through 19. The results of PID and temperature monitoring results are presented in Table 12, while the results of penetrometer strength testing are included in Table 13. Tables 14 through 18 presents the results of the SPLP analyses (volatile organics, semivolatile organics, PCB and pesticide, and RCRA metals, respectively). Table 19 presents the results of unconfined compressive strength testing. Complete analytical and physical data reports are included in Appendix E.

PID and Temperature Monitoring

The results of PID and temperature monitoring, as presented in Table 12, indicate that as seen previously the mixture developed with Quicklime exhibited the highest PID (738 ppm) and temperature (100 °C) values. The mixture pretreated with site clay and lime exhibited the second highest PID and temperature values of 650 ppm and 38.8 °C. The remaining mixtures exhibited PID values of 325 and 279 ppm, and temperature values of 34.6 and 28.4 °C.

Penetrometer Strength Testing

Table 13 presents the results of penetrometer strength testing performed on the treated materials throughout the curing process. The maximum reading on the penetrometer is 4.5 tons/ft^2 and actually represents a confined strength of over 60 lbs/in^2. A review of the results reveals that all treated materials achieved strengths of greater than 4.5 tons/ft^2 after reaching 21 days of curing. The material pretreated with a combination of site clay and lime, and the mixture developed with site clay exhibited penetrometer strengths of greater than 4.5 tons/ft^2 after only 1 day of curing. The mixture developed with Quicklime achieved greater than 4.5 tons/ft^2 at 21 days of curing, and the mixture developed with a combination of cement and fly ash achieved a strength of greater than 4.5 tons/ft^2 after 2 days of curing.

SPLP Analyses

SPLP analyses were performed on the final mixtures to verify that concentrations were not elevated above protective levels. Earlier fate and transport modeling, Evaluation of Leachate Performance Standards (1999), showed that the SPLP of the leachate from the raw sludge was substantially below the value necessary to be protective at the nearest receptor. The SPLP analyses in Tables 14 through 18 confirm that SPLP values for all treated sludge mixtures fall in the expected range, with concentrations that are consistently lower than SPLP values reported for both untreated and treated sludge in the previous Kiber treatability study.

Unconfined Compressive Strength Testing

The results of unconfined compressive strength testing are included in Table 19. A review of the results indicates that three of the four treated materials achieve the calculated strength criteria of 18.4 lbs/in^2. Specifically, the mixtures and the corresponding unconfined compressive strength values after 28 days of curing are as follows:

Reagent Type	Addition Rate (%)	UCS Value (lbs/in^2)
Quicklime	30	11.1
Cement / Fly Ash	15 / 30	23.0
(Site Clay / Lime) / Cement	(20/2) / 15	19.4
Site Clay	600	30.9

Note that the mixture that achieved the highest strength includes the mixture developed with a 600% addition rate of site clay by weight. Although the site clay was capable of producing the highest unconfined compressive strength value, there was a significant amount of volumetric expansion as a result of the extremely high addition rate.

Comparing this data to results from the prior optimization reveals some variability in the results of UCS testing performed on material treated with a 30% addition of quicklime. Specifically, during the Optimization phase of testing a 30% quicklime addition resulted in a treated material capable of achieving a UCS of 30.7 lbs/in^2. However, testing during the Verification phase using a 30% addition of quicklime, resulted in a treated material UCS of only 11.1 lbs/in^2.

The variability observed during treatability testing is common for bench-scale treatment using quicklime. Experience indicates that much of the strength obtained through treatment with quicklime is developed in conjunction with relatively high heat-of-hydration values. Quicklime has a very exothermic hydration reaction which can develop significant heat. However, laboratory testing, which uses relatively small aliquots of site material, can dissipate this heat very quickly. As a result, treatment in the laboratory often demonstrates significant variability in the amount of heat developed during the

quicklime hydration reaction and in the corresponding treatment effectiveness. Note that full-scale treatment benefits from a mass effect and typically achieves much more consistent and reproducible results with quicklime than does laboratory testing.

Kiber's experience indicates that bench-scale treatment using quicklime often provides a broad range of strength values. Based on review of the data obtained during testing, and experience treating similar types of materials using quicklime, Kiber believes that the two UCS values achieved during bench-scale testing (11.1 and 30.7 lbs/in^2) likely represent relatively high and low values. Kiber would expect that actual strength values during full-scale remediation would more commonly fall between these two values, with typical UCS values of approximately 20 to 25 lbs/in^2 being common.

001511

7.0 FULL-SCALE CONSIDERATIONS

7.1 OVERVIEW

Based on the results of the treatability study, the materials provided to Kiber by SST for the Sheridan Site treatability study can be effectively treated using stabilization / solidification treatment. In the scale-up of a laboratory study to pilot- and full-scale treatment, several areas need to be considered for successful implementation. The information presented herein is intended to provide SST with a preliminary outline of several of these considerations. The remaining sections provide a brief discussion of each of the following topics:

- Scaling up to Full-Scale Remediation
- Reagent Handling and Cost Estimates
- Space Requirements
- Health and Safety Considerations

7.2 SCALING UP TO FULL-SCALE REMEDIATION

Several of the mixtures identified herein were successful at stabilizing the site sludge and achieving the site study performance criteria. However, the reagent addition rates were identified based on laboratory testing of a discrete sample collected from the site. As such, actual addition rates necessary for effective on-site remediation will likely vary. These variations will be necessarily based on real-time on-site evaluations of the untreated materials and the treatment processes. Experience indicates that full-scale application of the stabilization / solidification process will often result in improved treatment relative to laboratory evaluations. Additionally, effective full-scale treatment can often be achieved using reduced reagent addition rates.

Typically, pilot-scale testing is recommended prior to initiating full-scale treatment, especially for relatively large and complex sites. Review of the data presented herein, as well as continuous observations performed through the testing program, has indicated that the various untreated site materials respond well to the stabilization process. Large quantities of oversized materials were not present. As such, the testing performed to date has provided very reliable and reproducible results. With this in mind, the data collected to date indicates that a separate pilot-scale testing phase may not be necessary prior to full-scale stabilization / solidification treatment.

Performing separate pilot-scale testing does significantly increase costs associated with the treatment program. An effective option associated with typical pilot-scale testing

001512

involves devoting the first two to three weeks of full-scale treatment to pilot-scale evaluations. In this way, potential problems associated with full-scale treatment can be addressed and then immediately implemented.

While no oversized materials were present in the samples received for treatability testing, Kiber understands that oversized material and debris are present at the site. Treatment effectiveness is generally not impacted by the presence of oversized materials. However, treatment equipment commonly has limits on the size of oversized debris that can be effectively handled. Ex-situ treatment approaches (e.g. pugmill mixers) typically include a pre-treatment screening operation to remove oversize materials that would otherwise cause plugging of the mixing operation. On the other hand, track-type excavators and backhoes are often used for in-situ stabilization projects because of their ability to shred and incorporate a range of debris and oversize material into the final stabilized mixture matrix.

Specific approaches to oversized material handling should be determined based on types of material present, overall stabilization program goals, and equipment capabilities and limitations (which are commonly contractor-specific).

If intact drums are encountered during stabilization, the drums should be removed and their contents evaluated to determine whether the drum should be overpacked and shipped offsite for disposal. Alternatively, if it is determined that the drummed materials are consistent with other materials in the stabilization program, the drum contents may be suitable for incorporation into the final stabilized material matrix. The empty, cleaned, and crushed drums may then be placed, along with other oversized debris, in layers between lifts of treated material. In this way, the oversized material and debris will become encapsulated within the stabilized matrix. If deteriorated drums are encountered during stabilization, it may be possible to directly incorporate the remaining debris with the stabilized matrix.

Overall, no potential problems are foreseen that could delay the project at the start of full-scale efforts. Based on the results of bench-scale testing, several reagents and reagent combinations can be effective for full-scale remediation at the site.

7.3 REAGENT HANDLING AND COST ESTIMATES

The actual cost and space requirements for full-scale treatment will depend on the reagent handling requirements. Once the specific type and quantity of reagent is selected, SST should develop a database of potential suppliers for the identified reagents. Kiber has already provided preliminary information on reagent suppliers which may be used to develop this database. Each supplier can be contacted in order to negotiate a unit cost for

supplying the treatment reagents. The method by which the reagents will be delivered and stored on site is critical for cost negotiations and space considerations for the treatment equipment. Options available for reagent handling include silo, pig transports, and/or one-ton bags.

Costs for reagents can vary significantly based on geography, quantity ordered and any relationships with reagent suppliers. For this reason, it is difficult to identify reagent costs prior to contracting with reagent suppliers. However, Kiber has estimated potential reagent costs based on experience with other reagent suppliers. This experience indicates that the following represent typical bulk costs for stabilization reagents:

Quicklime	$65/Ton
Hydrated Lime	$50/Ton
Portland Cement	$80/Ton
Fly Ash	$35/Ton
Site Clay	Unknown Cost

Based on these estimated bulk costs for reagent, Kiber has further estimated the reagent cost to treat one ton of site sludge. Note that this estimated cost is only for the reagent and does not include costs associated with reagent transport, mobilization, demobilization, equipment, material handling or personnel associated with full-scale remediation. Based on the above information, Kiber has estimated the following reagent costs to treat one ton of site sludge:

KIBER SAMPLE NUMBER	REAGENT TYPE	REAGENT ADDITION (%)	ESTIMATED REAGENT COST ($Reagent/Ton Sludge)
3230-032	Quicklime	30	$19.50
3230-033	Cement / Fly Ash	15 / 30	$22.50
3230-034	(Site Clay/Lime)/Quicklime	(20/2) / 15	$10.75+Clay Cost
3230-035	Site Clay	600	Clay Cost

The above table presents the estimated costs for reagent only to treat the site sludge with the various candidate mixture designs. Other reagent mixtures could prove to be equally effective and economical. Note that two of the mixtures utilize clay from the site. Kiber is not aware of any costs associated with obtaining the site clay for remediation purposes. However, costs may be incurred through the use of this site clay beyond simple acquisition costs. These costs may include, but are not limited to, increased material handling and preparation, backfilling, or finishing of the area where the clay will be collected.

7.4 SPACE REQUIREMENTS

The space requirements will depend on 1) the reagent handling method, 2) the treatment process implemented, 3) how the material will be placed after treatment, 4) whether the materials will be stockpiled until confirmation of performance specifications, and 5) the length of cure required. Once additional information becomes available, specific space requirements can be identified. However, many options exist regarding modifying potential treatment alternatives to the space available.

7.5 HEALTH AND SAFETY CONSIDERATIONS

The use of the treatment reagents during full-scale remediation may necessitate special health and safety concerns. Quicklime, cement, fly ash and hydrated lime are all irritants which will have to be handled accordingly. Further, SST and the full-scale contractor will need to address 1) off-gassing and potential volatiles emissions, and 2) temperature increase due to the hydration of the treatment reagents. The use of Portland cement will result in a slight increase in temperature due to the hydration reaction. Typically, this temperature increase is not dramatic and does not result in the need for significant health and safety protocols. However, the use of quicklime will result in significant temperature increases. If quicklime is selected as a treatment reagent, Kiber recommends that the full-scale contractor have specific experience using quicklime as a stabilization / solidification reagent due to the potential for very high temperatures during remediation.

001515

8.0 QUALITY ASSURANCE / QUALITY CONTROL

Kiber maintains strict Quality Assurance (QA) and Quality Control (QC) programs as part of Kiber's standard operating procedures. The QA/QC program for the Sheridan site treatability study had two primary objectives: 1) to validate the quality of each analysis conducted in accordance with the referenced protocols, and 2) to evaluate the effectiveness of each treatment process on the site materials. The treatability and analytical testing procedures implemented throughout the study were known, tested and approved EPA and ASTM methodologies.

The QA/QC objectives for treatability testing were achieved through 1) calibration of the associated equipment, and 2) supervision and review by qualified technical personnel. All treatability testing was supervised by personnel experienced in both laboratory evaluations and full-scale application of the treatment processes.

All equipment associated with the treatability testing is calibrated according to the schedule specified by the manufacturer. Daily monitoring and calibration were also performed on common laboratory equipment, including pH meters, ovens, and balances.

The analytical QA/QC program was developed in accordance with EPA's Level III QA/QC standards as outlined in *Preparation Aids for the Development of Category III Quality Assurance Project Plans*. Specifically, the objectives of the QA/QC program were to ensure that the data generated were comparable, accurate, reproducible, valid, and defensible. All QA/QC testing was applied to the initial phase of the Sheridan site treatability study on a batch-specific basis. The program included analyses of method blanks, duplicates, blank spikes, laboratory control samples, and surrogate recoveries, as appropriate. Complete QA/QC data is reported with the full data reports presented in each of the referenced appendices. Any sample-specific observations are reported on the appropriate data reports.

001516

9.0 RECOMMENDATIONS / CONCLUSIONS

9.1 CONCLUSIONS

Objective No. 1, as outlined in Section 2, was achieved when Kiber calculated a target UCS value of 18.4 lbs/in^2, a conservative value for use during the treatability studies. As outlined in Section 2, this conservative value was developed based on a maximum clay burden of 18.5 feet in thickness. Actual design values for the clay burden are anticipated to be as little as 9 feet in thickness, which would result in a corresponding UCS value of only 10.5 lbs/in^2. However, for the purposes of this treatability project and to account for a possible conservative design basis, Kiber has used 18.4 lbs/in^2 as the UCS treatment criterion for the site.

The following discussion addresses the ability of each of the four final mixtures to achieve satisfactory project results:

Mixture 3230-032 (30% Quicklime)

Treatment with 30% quicklime significantly improved the material handling characteristics of the site sludge. The untreated sludge was a very low solids flowable material. After treatment with quicklime, the material became soil-like and was very easy to handle. However, treatment with quicklime does not consistently achieve high UCS values. For Phase III of this project, treatment with quicklime alone resulted in a UCS value of 11.1 lbs/in^2, somewhat below the site criteria of 18.4 lbs/in^2.

The variability observed during treatability testing is common for bench-scale treatment using quicklime. Experience indicates that much of the strength obtained through treatment with quicklime is developed in conjunction with relatively high heat-of-hydration values. Quicklime has a very exothermic hydration reaction which can develop significant heat. However, laboratory testing, which uses relatively small aliquots of site material, can dissipate this heat very quickly. As a result, treatment in the laboratory often demonstrates significant variability in the amount of heat developed during the quicklime hydration reaction and in the corresponding treatment effectiveness. Note that full-scale treatment benefits from a mass effect and typically achieves much more consistent and reproducible results with quicklime than does laboratory testing.

Kiber's experience indicates that bench-scale treatment using quicklime often provides a broad range of strength values. Based on review of the data obtained during testing, and experience treating similar types of materials using quicklime, Kiber believes that the two UCS values achieved during bench-scale testing (11.1 and 30.7 lbs/in^2) likely represent relatively high and low values. Kiber would expect that actual strength values during

001517

full-scale remediation would more commonly fall between these two values, with typical UCS values of approximately 20 to 25 lbs/in^2 being common.

Implementation of the quicklime mixture would result in several benefits compared to other treatment options. The quicklime treatment process does not require any pretreatment and results in a soil-like material which is very easy to handle, place, move and compact. However, treatment with quicklime does require experience in full-scale application due to the high heat of hydration and corresponding health and safety issues.

Kiber estimated a reagent-cost for treatment with quicklime at $19.50 per ton of sludge. Based on experience, this represents a relatively cost-effective remediation approach. While the results of quicklime treatment are promising, note that treatment did not always achieve the study strength criterion of 18.4 lbs/in^2. However, it did exceed the expected lower full-scale UCS strength requirement of 10.5 lbs/in^2.

Mixture 3230-033 – 15% Cement / 30% Fly Ash

Treatment with a combination of cement and fly ash was able to improve the physical properties of the site sludge after both short-term and long-term curing. In fact, the UCS of this mixture was 23.0 lbs/in^2, above the 18.4 lbs/in^2 criterion for the study.

Implementation of this mixture should be relatively simple. While no pretreatment is necessary using this approach, two reagents are required. The use of two reagents will slightly increase the difficulty associated with remediation. Using two reagents doubles the effort necessary to obtain, store and add reagents during the remediation process. While this extra effort should not preclude the use of treatment with multiple reagents, it should be considered when evaluating the optimum mixture for the site.

As outlined in Section 7.3, Kiber estimated the costs associated with the reagents for treatment using the cement/fly ash combination. Based on this rough estimate, Kiber identified a reagent cost of $22.50 to treat one ton of sludge. Kiber considers this reagent cost to be acceptable due to the nature of the site sludge.

Mixture 3230-034 – (Site Clay/Hydrated Lime) / Quicklime

This mixture used a combination of site clay and hydrated lime to add solids to the site sludge. The hydrated lime was used to condition the clay, which was then added to the sludge as a pretreatment process. Following pretreatment, quicklime was added to the mixture to drive off residual moisture and stabilize the sludge. The use of this treatment process resulted in a material with significantly improved physical properties and material handling characteristics. The treated material was somewhat soil-like and very easy to handle. Compaction was readily achieved prior to curing and resulted in a UCS value of 19.4 lbs/in^2, above the 18.4 lbs/in^2 study criterion.

001518

Results of treatment performed with this pretreatment process (site clay / hydrated lime) followed by quicklime reveal that treatment can achieve all of the project-specific treatment criteria. Kiber estimated the reagent cost for this mixture at $10.75 for the hydrated lime and the quicklime. Additional costs, not estimated by Kiber, include additional material handling associated with 1) obtaining and conditioning the site clay, 2) the two-stage treatment process, and 3) the use of two reagents for full-scale remediation. Although these additional costs would be incurred through the use of this mixture design, Kiber does not believe that these costs would prohibit the cost-effective implementation of this mixture design. As outlined above, the mixture is capable of achieving the site-specific treatment criterion identified for this project. Kiber is confident that this mixture design could be effectively implemented at the site without significantly increased costs compared to the other candidate mixture designs.

3230-035 – Site Clay

Treatment was performed using only the site clay to see whether effective treatment could be achieved without the use of outside reagents. Treatability testing showed that a site clay addition rate of 600% was capable of achieving the project-specific UCS performance criterion. While this addition rate is considered excessive by traditional standards, it may be feasible given the space available at the site.

Addition of 600% of site clay also resulted in significant improvement in the physical properties of the site sludge. The treated sludge resembled a stiff, wet clay which dried as it cured into a monolith. Testing of the cured sample revealed that the treatment process achieved the site treatment criterion by achieving a UCS value of 30.9 lbs/in^2, well in excess of the treatment target value.

Addition of 600% reagent may create additional difficulties associated with full-scale remediation. For example, the removal of sufficient clay from the site to treat the sludge may require some backfilling or excavation finishing. This volume requirement may have costs associated with it, including material handling and potentially obtaining clean fill from off-site. Also, mixing and sludge handling for this approach may be more difficult due to the high volume of material being added to the sludge

9.2 RECOMMENDATIONS

Based on review of available data, Kiber believes that all four of the optimization mixtures could effectively treat the site sludge. Note that, while treatment with quicklime alone did not consistently achieve the UCS study criterion of greater than 18.4 lbs/in^2, it did significantly improve the material handling characteristics while minimizing contaminant mobility. Further, note that the strength achieved with quicklime alone was

001519

higher than the strength requirement of 10.5 lbs/in^2, identified in Section 2.2 as the expected column pressure resulting from the anticipated design column height of 12.5 feet.

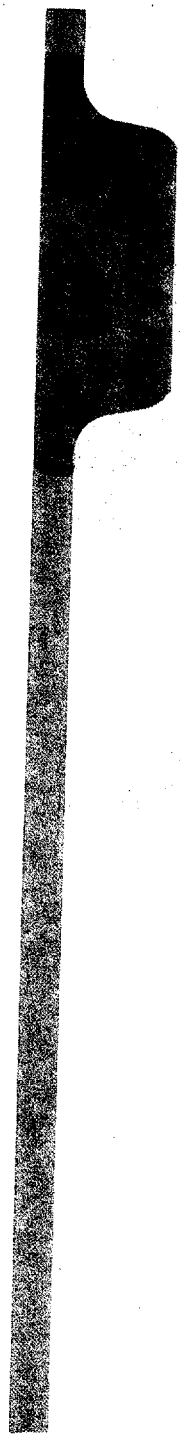
Of the three mixtures that achieved all of the site criteria, Kiber believes that any could be effectively implemented at the site. Each mixture, however, has various advantages and disadvantages, as outlined above. Based on prior experience, Kiber believes these and other reagent mixtures will be satisfactory to reach the calculated performance strength required at the Sheridan site. These mixtures can be performed with common reagents with no pretreatment of the sludge. Further, reagent addition rates are not excessive and could be optimized during full-scale activities.

Treatment using site clay conditioned with hydrated lime as a pretreatment approach followed by quicklime also achieved good results. While treatment was generally as effective as for the cement/fly ash mixture, treatment did require a multi-step treatment approach. Specifically, treatment required 1) conditioning the site clay with hydrated lime, 2) addition and blending of the conditioned clay to the site sludge, and 3) addition and blending of the quicklime to the pretreated sludge. These steps would add a significant level of effort to the remediation process which may not justify any potential savings associated with lower reagent costs.

The final mixture design, developed with the site clay, also achieved the site treatment criteria. However, in order to achieve effective treatment, a 600% addition rate had to be performed. As outlined above, material handling for this approach may be more difficult due to the high volume of material being added to the sludge. While the approach does strictly achieve the UCS performance criterion, it may not be optimal for full-scale remediation.

This supplemental stabilization testing showed there are a variety of reagents that will provide satisfactory performance for stabilization of the sludge at the Sheridan Disposal Services Superfund site. Since the primary performance criterion for the stabilized mass is strength for vault and cap support, the final UCS performance design standard should be calculated and established during the Remedial Design to assure an efficient design and implementation.

001520



TABLES

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 1

Untreated Material Characterization
Summary of Total Volatile Analyses (Wet-Weight Results)

TOTAL VOLATILES	RESULTS (ug/kg)	
	Result	Reporting Limit
Acetone	-	1,300,000
Benzene	**430,000**	63,000
Bromobenzene	-	63,000
Bromochloromethane	-	63,000
Bromodichloromethane	-	63,000
Bromoform	-	63,000
Bromomethane	-	130,000
2-Butanone	-	1,300,000
n-Butylbenzene	-	63,000
sec-Butylbenzene	-	63,000
tert-Butylbenzene	-	63,000
Carbon disulfide	-	63,000
Carbon tetrachloride	-	63,000
Chlorobenzene	-	63,000
Chlorodibromomethane	-	63,000
Chloroethane	-	130,000
2-Chloroethyl vinyl ether	-	130,000
Chloroform	-	63,000
Chloromethane	-	130,000
2-Chlorotoluene	-	63,000
4-Chlorotoluene	-	63,000
1,2-Dibromo-3-chloropropane	-	63,000
1,2-Dibromoethane	-	63,000
Dibromomethane	-	63,000
1,2-Dichlorobenzene	-	63,000
1,3-Dichlorobenzene	-	63,000
1,4-Dichlorobenzene	-	63,000
Dichlorodifluoromethane	-	130,000
1,1-Dichloroethane	-	63,000
1,2-Dichloroethane	-	63,000
1,1-Dichloroethene	-	63,000
cis-1,2-Dichloroethene	-	63,000
trans-1,2-Dichloroethene	-	63,000
1,2-Dichloropropane	-	63,000

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 1

Untreated Material Characterization
Summary of Total Volatile Analyses (Wet-Weight Results)

TOTAL VOLATILES	RESULTS (ug/kg)	
	Result	Reporting Limit
1,3-Dichloropropane	-	63,000
2,2-Dichloropropane	-	63,000
cis-1,3-=Dichloropropene	-	63,000
trans-1,3-Dichloropropene	-	63,000
1,1-Dichloropropene	-	63,000
Ethylbenzene	**560,000**	63,000
2-Hexanone	-	130,000
Hexachlorobutadiene	-	63,000
Isopropylbenzene	**83,000**	63,000
p-Isopropyltoluene	-	63,000
4-Methyl-2-pentanone	**130,000**	130,000
Methylene chloride	-	63,000
Naphthalene	-	130,000
n-Propylbenzene	-	63,000
Styrene	**300,000**	63,000
1,1,1,2-Tetrachloroethane ,	-	63,000
1,1,2,2-Tetrachloroethane	-	63,000
Tetrachloroethene	-	63,000
Toluene	**1,300,000**	63,000
1,2,3-Trichlorobenzene	-	63,000
1,2,4-Trichlorobenzene	-	63,000
1,1,1-Trichloroethane	-	63,000
1,1,2-Trichloroethane	-	63,000
Trichloroethene	-	63,000
Trichlorofluoromethane	-	130,000
1,2,3-Trichloropropane	-	63,000
1,2,4-Trimethylbenzene	**92,000**	63,000
1,3,5-Trimethylbenzene	-	63,000
Vinyl acetate	-	130,000
Vinyl chloride	-	130,000
o-Xylene	**510,000**	63,000
m-Xylene	**1,100,000**	63,000
p-Xylene	-	63,000

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 2

Untreated Material Characterization
Summary of Total Semivolatile Analyses (Wet-Weight Results)

TOTAL SEMIVOLATILES	RESULTS (ug/kg)	
	Result	Reporting Limit
Phenol	**1,300,000**	460,000
Bis (2-Chloroethyl) ether	-	460,000
2-Chlorophenol	-	460,000
1,3-Dichlorobenzene	-	460,000
1,4-Dichlorobenzene	-	460,000
Benzyl alcohol	-	460,000
1,2-Dichlorobenzene	-	460,000
2-Methylphenol	-	460,000
3-Methylphenol	-	460,000
bis (2-Chloroisopropyl) ether	-	460,000
4-Methylphenol	**660,000**	460,000
N-Nitrosodipropylamine	-	460,000
Hexachloroethane	-	460,000
Nitrobenzene	-	460,000
Isophorone	-	460,000
2-Nitrophenol	-	460,000
2,4-Dimethylphenol	-	460,000
Benzoic acid	-	2,300,000
Bis (2-Chloroethoxy) Methane	-	460,000
2,4-Dichlorophenol	-	460,000
1,2,4-Trichlorobenzene	-	460,000
Naphthalene	-	460,000
4-Chloroaniline	-	460,000
Hexachlorobutadiene	-	460,000
4-Chloro-3-methylphenol	-	460,000
2-Methylnaphthalene	-	460,000
Hexachlorocyclopentadiene	-	460,000
2,4,6-Trichlorophenol	-	460,000
2,4,5-Trichlorophenol	-	2,300,000
2-Chloronaphthalene	-	460,000
2-Nitroaniline	-	2,300,000
Dimethylphthalate	-	460,000
Acenaphthylene	-	460,000
2,6-Dinitrotoluene	-	460,000

001525

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 2

Untreated Material Characterization
Summary of Total Semivolatile Analyses (Wet-Weight Results)

TOTAL SEMIVOLATILES	RESULTS (ug/kg)	
	Result	Reporting Limit
3-Nitroaniline	-	2,300,000
Acenaphthene	-	460,000
2,4-Dinitrophenol	-	2,300,000
4-Nitrophenol	-	2,300,000
Dibenzofuran	-	460,000
2,4-Dinitrotoluene	-	460,000
Diethylphthalate	-	460,000
4-Chlorophenyl-phenyl ether	-	460,000
Fluorene	-	460,000
4-Nitroaniline	-	2,300,000
4,6-Dinitro-2-methylphenol	-	2,300,000
N-Nitrosodiphenylamine	-	460,000
4-Bromophenyl-phenylether	-	460,000
Hexachlorobenzene	-	460,000
Pentachlorophenol	-	2,300,000
Phenanthrene	-	460,000
Anthracene	-	460,000
Di-N-Butylphthalate	-	460,000
Fluoranthrene	-	460,000
Pyrene	-	460,000
Butylbenzylphthalate	-	460,000
3,3'-Dichlorobenzidine	-	460,000
Benzo(a)anthracene	-	460,000
Chrysene	-	460,000
bis(2-Ethylhexyl)phthalate	-	460,000
Di-n-octylphthalate	-	460,000
Benzo(b)fluoranthene	-	460,000
Benzo(k)fluoranthene	-	460,000
Banzo(a)pyrene	-	460,000
Indeno(1,2,3-cd)pyrene	-	460,000
Dibenzo(a,h)Anthracene	-	460,000
Benzo(g,h,i)Perylene	-	460,000

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 3

Untreated Material Characterization
Summary of Total PCB Analyses (Wet-Weight Results)

TOTAL PCBs	RESULTS (ug/kg)	
	Result	Reporting Limit
Aroclor-1016	-	170
Aroclor-1221	-	170
Aroclor-1232	-	170
Aroclor-1242	-	170
Aroclor-1248	19,000	830
Aroclor-1254	-	170
Aroclor-1260	-	170

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 4

Untreated Material Characterization
Summary of Total Pesticide Analyses (Wet-Weight Results)

TOTAL PESTICIDES	RESULTS (ug/kg)	
	Result	Reporting Limit
alpha-BHC	-	170
beta-BHC	-	170
delta-BHC	-	170
Heptachlor	-	170
Aldrin	-	170
Heptachlor epoxide	-	170
Endosulfan I	-	170
Dieldrin	-	330
4,4'-DDE	-	330
Endrin	-	330
Endosulfan II	-	330
4,4'-DDD	-	330
Endosulfan sulfate	-	330
4,4'-DDT	-	330
Methoxychlor	-	1700
Endrin ketone	-	330
Endrin aldehyde	-	330
alpha Chlordane	-	170
gamma Chlordane	-	170
Toxaphene	-	3300
gamma-BHC (Lindane)	-	170

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 5

Untreated Material Characterization
Summary of Total Metals Analyses (Wet-Weight Results)

TOTAL RCRA METALS	RESULTS (mg/kg)	
	Result	Reporting Limit
Silver	8.4	2.0
Arsenic	40	1.0
Barium	590	0.50
Cadmium	3.0	0.50
Chromium	170	1.0
Mercury	1.4	1.3
Lead	360	5.0
Selenium	0.51	0.20

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 6

Untreated Material Characterization
Summary of Physical Analyses

TESTING PARAMETER	UNIT	UNTREATED SLUDGE
Moisture Content		
Dry Weight Basis	%	103.3
Wet Weight Basis	%	50.2
Loss On Ignition @ 440 °C	%	73.5
Bulk Density	lb/ft³	66.8
Bulk Specific Gravity	-	1.1
Material pH	s.u.	6.87

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 7
Preliminary Stabilization Treatment
Mixture Development and Penetrometer Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	PENETROMETER TESTING (tons/ft^2)						Estimated Reagent Cost ($/ton)
			Day 1	Day 2	Day 3	Day 7	Day 14	Day 21	
3230-001	Quicklime	30	>4.5	>4.5	>4.5	>4.5	NA	NA	$18
3230-002	Quicklime	40	>4.5	>4.5	>4.5	>4.5	NA	NA	$24
3230-003	Portland Cement / Hydrated Lime	20 / 40	<0.5	<0.5	0.5	1.0	NA	NA	$36
3230-004	Portland Cement / Hydrated Lime	20 / 60	<0.5	0.5	0.5	1.0	NA	NA	$46
3230-005	Portland Cement / Hydrated Lime	30 / 30	<0.5	<0.5	<0.5	0.5	NA	NA	$39
3230-006	Portland Cement / Hydrated Lime	40 / 40	<0.5	0.5	1.0	1.5	NA	NA	$52
3230-007	Portland Cement / Fly Ash	20 / 40	2.0	3.5	>4.5	>4.5	NA	NA	$32
3230-008	Portland Cement / Fly Ash	40 / 40	2.5	4.0	>4.5	>4.5	NA	NA	$48
3230-009	Portland Cement / Fly Ash	20 / 60	3.5	4.0	>4.5	>4.5	NA	NA	$40
3230-010	Bed Ash (Pretreat) / Portland Cement	40 / 20	<0.5	0.5	2.0	2.5	3.8	>4.5	$30
3230-011	Bed Ash (Pretreat) / Portland Cement	40 / 40	<0.5	0.5	2.5	3.0	4.0	>4.5	$46
3230-012	Bed Ash (Pretreat) / Portland Cement	60 / 20	1.5	2.0	>4.5	>4.5	NA	NA	$37
3230-013	(Site Clay / Lime - pretreat) / Cement	(20 / 2) / 15	<0.5	<0.5	<0.5	<0.5	0.5	0.5	$13+
3230-014	(Site Clay / Lime - pretreat) / Cement	(20 / 4) / 15	<0.5	<0.5	0.5	0.5	1.0	1.5	$14+
3230-015	(Site Clay / Lime - pretreat) / Cement	(40 / 4) / 15	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	$14+
3230-016	(Site Clay / Lime - pretreat) / Cement	(40 / 8) / 15	<0.5	<0.5	0.5	0.5	1.0	1.0	$16+
3230-017	(Site Clay / Lime - pretreat) / Cement	(20 / 2) / 30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	$25+
3230-018	(Site Clay / Lime - pretreat) / Cement	(20 / 4) / 30	<0.5	<0.5	<0.5	<0.5	0.5	0.5	$26+
3230-019	(Site Clay / Lime - pretreat) / Cement	(40 / 4) / 30	<0.5	<0.5	<0.5	0.5	0.5	0.5	$26+
3230-020	(Site Clay / Lime - pretreat) / Cement	(40 / 8) / 30	<0.5	<0.5	0.5	0.5	1.5	2.5	$28+
3230-021	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 15	0.5	0.5	1.0	2.0	3.0	>4.5	$10+
3230-022	(Site Clay / Lime - pretreat) / Quicklime	(40 / 4) / 15	0.5	0.5	0.5	1.5	3.0	>4.5	$11+
3230-023	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 20	0.5	0.5	1.0	2.5	3.0	>4.5	$13+
3230-024	(Site Clay / Lime - pretreat) / Quicklime	(40 / 4) / 20	0.5	0.5	1.0	2.5	3.5	>4.5	$14+

Estimated reagent cost identifies the bulk cost for reagent to treat 1 ton of sludge. The costs are estimated using the following:
Quicklime = $60/ton, Cement = $80/ton, Hydrated Lime = $50/ton, Fly Ash = $40/ton, Bed Ash = $35/ton.
Costs for treatment using site clay could not be estimated. Treatment with site clay would require increased costs beyond bulk material charges. Cost estimates for treatment using site clay are identified with a "+" sign to indicate that there are extra costs which have not been included in the cost estimate.

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 8
Preliminary Stabilization Treatment
Mixture Development and UCS Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	UNCONFINED COMPRESSIVE STRENGTH			
			Moisture Content (%)	Bulk Density (lbs/ft^3)	Dry Density (lbs/ft^3)	UCS (lbs/in^2)
3230-001	Quicklime	30	33.4	79.4	59.5	18.3
3230-002	Quicklime	40	28.8	79.4	61.6	29.2
3230-003	Portland Cement / Hydrated Lime	20 / 40	36.4	85.1	62.4	2.8
3230-004	Portland Cement / Hydrated Lime	20 / 60	31.9	86.5	65.6	5.6
3230-005	Portland Cement / Hydrated Lime	30 / 30	36.6	87.1	63.7	2.3
3230-006	Portland Cement / Hydrated Lime	40 / 40	31.3	87.6	66.7	5.3
3230-007	Portland Cement / Fly Ash	20 / 40	20.1	93.9	78.2	25.5
3230-008	Portland Cement / Fly Ash	40 / 40	16.3	102.3	87.9	34.7
3230-009	Portland Cement / Fly Ash	20 / 60	19.8	96.4	80.5	56.4
3230-010	Bed Ash (Pretreat) / Portland Cement	40 / 20	*	*	*	*
3230-011	Bed Ash (Pretreat) / Portland Cement	40 / 40	*	*	*	*
3230-012	Bed Ash (Pretreat) / Portland Cement	60 / 20	15.5	99.3	86	18.5
3230-013	(Site Clay / Lime - pretreat) / Cement	(20 / 2) / 15	*	*	*	*
3230-014	(Site Clay / Lime - pretreat) / Cement	(20 / 4) / 15	*	*	*	*
3230-015	(Site Clay / Lime - pretreat) / Cement	(40 / 4) / 15	*	*	*	*
3230-016	(Site Clay / Lime - pretreat) / Cement	(40 / 8) / 15	*	*	*	*
3230-017	(Site Clay / Lime - pretreat) / Cement	(20 / 2) / 30	*	*	*	*
3230-018	(Site Clay / Lime - pretreat) / Cement	(20 / 4) / 30	*	*	*	*
3230-019	(Site Clay / Lime - pretreat) / Cement	(40 / 4) / 30	*	*	*	*
3230-020	(Site Clay / Lime - pretreat) / Cement	(40 / 8) / 30	*	*	*	*
3230-021	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 15	*	*	*	*
3230-022	(Site Clay / Lime - pretreat) / Quicklime	(40 / 4) / 15	*	*	*	*
3230-023	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 20	*	*	*	*
3230-024	(Site Clay / Lime - pretreat) / Quicklime	(40 / 4) / 20	*	*	*	*

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 9
Optimization Stabilization Treatment
Mixture Development and Monitoring

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	MIXTURE MONITORING Maximum Values	
			PID	Temperature
3230-025	Quicklime	20	492	42.3
3230-026	Quicklime	30	525	68.3
3230-027	Portland Cement / Fly Ash	15 / 30	350	32.9
3230-028	Portland Cement / Fly Ash	20 / 40	305	29.6
3230-029	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 15	466	34.6
3230-030	(Site Clay / Bed Ash - pretreat) / Cement	(20 / 4) / 15	152	35.8
3230-031	Site Clay	600	14.6	18.5

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 10
Optimization Stabilization Treatment
Mixture Development and Penetrometer Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	PENETROMETER TESTING (tons/ft^2)						
			Day 1	Day 2	Day 3	Day 7	Day 14	Day 21	Day 28
3230-025	Quicklime	20	<0.5	<0.5	0.5	1.5	3.0	3.5	3.5
3230-026	Quicklime	30	1.5	3.5	>4.5	>4.5	>4.5	>4.5	>4.5
3230-027	Portland Cement / Fly Ash	15 / 30	2.5	3.5	4.0	>4.5	>4.5	>4.5	>4.5
3230-028	Portland Cement / Fly Ash	20 / 40	3.0	3.5	>4.5	>4.5	>4.5	>4.5	>4.5
3230-029	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 15	1.5	2.5	3.0	>4.5	>4.5	>4.5	>4.5
3230-030	(Site Clay / Bed Ash - pretreat) / Cement	(20 / 4) / 15	0.5	1.0	2.5	4.0	4.0	4.0	>4.5
3230-031	Site Clay	600	2.5	3.0	4.0	>4.5	>4.5	>4.5	>4.5

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 11
Optimization Stabilization Treatment
Mixture Development and Unconfined Compressive Strength Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	UNCONFINED COMPRESSIVE STRENGTH			
			Moisture Content (%)	Bulk Density (lbs/ft^3)	Dry Density (lbs/ft^3)	UCS (lbs/in^2)
3230-025	Quicklime	20	46.3	79.5	54.3	9.2
3230-026	Quicklime	30	36.1	78.1	57.4	30.7
3230-027	Portland Cement / Fly Ash	15 / 30	21.0	93.9	77.6	29.0
3230-028	Portland Cement / Fly Ash	20 / 40	18.0	97.8	82.9	64.2
3230-029	(Site Clay / Lime - pretreat) / Quicklime	(20 / 2) / 15	35.2	84.1	62.2	21.3
3230-030	(Site Clay / Bed Ash - pretreat) / Cement	(20 / 4) / 15	39.8	84.1	60.2	13.2
3230-031	Site Clay	600	35.7	96.0	70.7	10.4

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 12
Verification Stabilization Treatment
Mixture Development and Monitoring

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	MIXTURE MONITORING Maximum Values	
			PID	Temperature
3230-032	Quicklime	30	738	100
3230-033	Portland Cement / Fly Ash	15 / 30	325	34.6
3230-034	(Site Clay/Hydrated Lime) / Quicklime (1)	(20/2) / 15	650	38.8
3230-035	Site Clay	600	279	28.4

(1) The site clay and hydrated lime were mixed together then blended with the untreated material as a pre-treatment then the quicklime was added to this pre-treated mixture.

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 13
Verification Treatment Evaluations
Mixture Development and Penetrometer Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	PENETROMETER TESTING (tons/ft^2)					
			Day 3	Day 5	Day 7	Day 14	Day 21	Day 28
3230-032	Quicklime	30	0.5	2.0	2.0	3.5	> 4.5	> 4.5
3230-033	Portland Cement / Fly Ash	15 / 30	4.0	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5
3230-034	(Site Clay/Hydrated Lime) / Quicklime (1)	(20/2) / 15	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5
3230-035	Site Clay	600	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5

(1) The site clay and hydrated lime were mixed together then blended with the untreated material as a pre-treatment then the quicklime was added to this pre-treated mixture.

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 14

Verification Treatment Evaluations
Summary of SPLP Volatile Analyses

SPLP VOLATILES	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement/Fly Ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
Acetone	**637**	*	**392**	*	**810**	*	**150**	*
Benzene	**14**	*	**1,500**	*	**1,700**	*	**100**	*
Bromobenzene	-	*	-	*	-	*	-	*
Bromochloromethane	-	*	-	*	-	*	-	*
Bromodichloromethane	-	*	-	*	-	*	-	*
Bromoform	-	*	-	*	-	*	-	*
Bromomethane	-	*	-	*	-	*	-	*
2-Butanone	**230**	*	**650**	*	**1,000**	*	-	*
n-Butylbenzene	-	*	-	*	-	*	-	*
sec-Butylbenzene	-	*	-	*	-	*	-	*
tert-Butylbenzene	-	*	-	*	-	*	-	*
Carbon disulfide	-	*	-	*	-	*	-	*
Carbon tetrachloride	-	*	-	*	-	*	-	*
Chlorobenzene	-	*	**32**	*	**46**	*	**22**	*
Chlorodibromomethane	-	*	-	*	-	*	-	*
Chloroethane	-	*	-	*	-	*	-	*
2-Chloroethyl vinyl ether	-	*	-	*	-	*	-	*
Chloroform	-	*	-	*	-	*	-	*
Chloromethane	-	*	-	*	-	*	-	*
2-Chlorotoluene	-	*	-	*	-	*	-	*
4-Chlorotoluene	-	*	-	*	-	*	-	*
1,2-Dibromo-3-chloropropane	-	*	-	*	-	*	-	*
1,2-Dibromoethane	-	*	-	*	-	*	-	*
Dibromomethane	-	*	-	*	-	*	-	*
1,2-Dichlorobenzene	**70**	*	-	*	-	*	-	*
1,3-Dichlorobenzene	-	*	-	*	-	*	-	*
1,4-Dichlorobenzene	-	*	-	*	-	*	-	*
Dichlorodifluoromethane	-	*	-	*	-	*	-	*
1,1-Dichloroethane	-	*	-	*	-	*	-	*
1,2-Dichloroethane	-	*	-	*	-	*	-	*
1,1-Dichloroethene	-	*	-	*	**61**	*	-	*
cis-1,2-Dichloroethene	-	*	-	*	-	*	-	*
trans-1,2-Dichloroethene	**41**	*	**70**	*	**61**	*	**35**	*
1,2-Dichloropropane	-	*	**31**	*	**36**	*	-	*

001538

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 14

Verification Treatment Evaluations
Summary of SPLP Volatile Analyses

SPLP VOLATILES	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement/Fly Ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
1,3-Dichloropropane	-	*	-	*	-	*	-	*
2,2-Dichloropropane	-	*	-	*	-	*	-	*
cis-1,3-Dichloropropene	-	*	-	*	-	*	-	*
trans-1,3-Dichloropropene	-	*	-	*	-	*	-	*
1,1-Dichloropropene	-	*	-	*	-	*	-	*
Ethylbenzene	24	*	520	*	830	*	530	*
2-Hexanone	-	*	160	*	260	*	-	*
Hexachlorobutadiene	-	*	-	*	-	*	-	*
Isopropylbenzene	5.3	*	51	*	83	*	62	*
p-Isopropyltoluene	-	*	-	*	-	*	-	*
4-Methyl-2-pentanone	160	*	3,000	*	4,000	*	58	*
Methylene chloride	7.2	*	27	*	28	*	11	*
Naphthalene	110	*	120	*	160	*	-	*
n-Propylbenzene	-	*	-	*	-	*	9.2	*
Styrene	41	*	570	*	840	*	440	*
1,1,1,2-Tetrachloroethane	-	*	-	*	-	*	-	*
1,1,2,2-Tetrachloroethane	-	*	-	*	-	*	-	*
Tetrachloroethene	-	*	30	*	48	*	31	*
Toluene	55	*	2,600	*	3,700	*	1,200	*
1,2,3-Trichlorobenzene	-	*	-	*	-	*	110	*
1,2,4-Trichlorobenzene	-	*	-	*	-	*	-	*
1,1,1-Trichloroethane	-	*	-	*	-	*	-	*
1,1,2-Trichloroethane	-	*	-	*	-	*	-	*
Trichloroethene	-	*	67	*	92	*	23	*
Trichlorofluoromethane	-	*	-	*	-	*	-	*
1,2,3-Trichloropropane	-	*	23	*	17	*	-	*
1,2,4-Trimethylbenzene	17	*	63	*	100	*	80	*
1,3,5-Trimethylbenzene	3.8	*	17	*	26	*	23	*
Vinyl acetate	-	*	-	*	-	*	-	*
Vinyl chloride	-	*	-	*	-	*	-	*
o-Xylene	56	*	840	*	1,200	*	780	*
m-Xylene	62	*	1,200	*	1,900	*	1,200	*
p-Xylene	118	*	2,000	*	3,100	*	2,000	*

001539

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 15

Verification Treatment Evaluations
Summary of SPLP Semivolatile Analyses

SPLP SEMIVOLATILES	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement / Fly ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
Phenol	**3,300**	160	**23,000**	250	**23,000**	250	**6,800**	50
Bis (2-Chloroethyl) ether	-	160	-	250	-	250	-	50
2-Chlorophenol	-	160	-	250	-	250	-	50
1,3-Dichlorobenzene	-	160	-	250	-	250	-	50
1,4-Dichlorobenzene	-	160	-	250	-	250	-	50
Benzyl alcohol	-	160	-	250	-	250	-	50
1,2-Dichlorobenzene	-	160	-	250	-	250	-	50
2-Methylphenol	**8,300**	160	**12,000**	250	**13,000**	250	**2,900**	50
3-Methylphenol	-	160	-	250	-	250	-	50
bis (2-Chloroisopropyl) ether	-	160	-	250	-	250	-	50
4-Methylphenol	**25,000**	160	**22,000**	250	**25,000**	250	**6,300**	50
N-Nitrosodipropylamine	-	160	-	250	-	250	-	50
Hexachloroethane	-	160	-	250	-	250	-	50
Nitrobenzene	-	160	-	250	-	250	-	50
Isophorone	-	160	**350**	250	**430**	250	**110**	50
2-Nitrophenol	-	160	-	250	-	250	-	50
2,4-Dimethylphenol	**6,900**	160	**13,000**	250	**17,000**	250	**2,300**	50
Benzoic acid	-	790	-	1,300	-	1,300	-	250
Bis (2-Chloroethoxy) Methane	-	160	-	250	-	250	-	50
2,4-Dichlorophenol	-	160	-	250	-	250	-	50
1,2,4-Trichlorobenzene	-	160	-	250	-	250	-	50
Naphthalene	**75**	160	**120**	250	**130**	250	**100**	50
4-Chloroaniline	-	160	-	250	-	250	-	50
Hexachlorobutadiene	-	160	-	250	-	250	-	50
4-Chloro-3-methylphenol	-	160	-	250	-	250	-	50
2-Methylnaphthalene	-	160	-	250	-	250	**32**	50
Hexachlorocyclopentadiene	-	160	-	250	-	250	-	50
2,4,6-Trichlorophenol	-	160	-	250	-	250	-	50
2,4,5-Trichlorophenol	-	160	-	250	-	250	-	50
2-Chloronaphthalene	-	160	-	250	-	250	-	50
2-Nitroaniline	-	790	-	1,300	-	1,300	-	250
Dimethylphthalate	-	160	-	250	-	250	-	50
Acenaphthylene	-	160	-	250	-	250	-	50
2,6-Dinitrotoluene	-	160	-	250	-	250	-	50

001540

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 15

Verification Treatment Evaluations
Summary of SPLP Semivolatile Analyses

SPLP SEMIVOLATILES	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement / Fly ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
3-Nitroaniline	-	790	-	1,300	-	1,300	-	250
Acenaphthene	-	160	-	250	-	250	-	50
2,4-Dinitrophenol	-	790	-	1,300	-	1,300	-	250
4-Nitrophenol	-	790	-	1,300	-	1,300	-	250
Dibenzofuran	-	160	-	250	-	250	-	50
2,4-Dinitrotoluene	-	160	-	250	-	250	-	50
Diethylphthalate	-	160	-	250	-	250	-	50
4-Chlorophenyl-phenyl ether	-	160	-	250	-	250	-	50
Fluorene	-	160	-	250	-	250	-	50
4-Nitroaniline	-	790	-	1,300	-	1,300	-	250
4,6-Dinitro-2-methylphenol	-	790	-	1,300	-	1,300	-	250
N-Nitrosodiphenylamine	-	160	-	250	-	250	-	50
4-Bromophenyl-phenylether	-	160	-	250	-	250	-	50
Hexachlorobenzene	-	160	-	250	-	250	-	50
Pentachlorophenol	-	790	-	1,300	-	1,300	-	250
Phenanthrene	-	160	-	250	-	250	-	50
Anthracene	-	160	-	250	-	250	-	50
Di-N-Butylphthalate	-	160	-	250	-	250	-	50
Fluoranthrene	-	160	-	250	-	250	-	50
Pyrene	-	160	-	250	-	250	-	50
Butylbenzylphthalate	-	160	-	250	-	250	-	50
3,3'-Dichlorobenzidine	-	320	-	500	-	500	-	100
Benzo(a)anthracene	-	160	-	250	-	250	-	50
Chrysene	-	160	-	250	-	250	-	50
bis(2-Ethylhexyl)phthalate	-	160	-	250	-	250	-	50
Di-n-octylphthalate	-	160	-	250	-	250	-	50
Benzo(b)fluoranthene	-	160	-	250	-	250	-	50
Benzo(k)fluoranthene	-	160	-	250	-	250	-	50
Banzo(a)pyrene	-	160	-	250	-	250	-	50
Indeno(1,2,3-cd)pyrene	-	160	-	250	-	250	-	50
Dibenzo(a,h)Anthracene	-	160	-	250	-	250	-	50
Benzo(g,h,i)Perylene	-	160	-	250	-	250	-	50

001541

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 16

Verification Treatment Evaluations
Summary of SPLP PCB Analyses

SPLP PCBs	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement/Fly Ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
Aroclor-1016	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1221	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1232	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1242	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1248	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1254	-	0.55	-	0.55	-	0.50	-	0.50
Aroclor-1260	-	0.55	-	0.55	-	0.50	-	0.50

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 17

Verification Treatment Evaluations
Summary of SPLP Pesticide Analyses

SPLP PESTICIDES	RESULTS (ug/L)							
	3230-032 Quicklime		3230-033 Cement/Fly Ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
alpha-BHC	-	0.05	-	0.05	-	0.05	-	0.05
beta-BHC	-	0.05	-	0.05	-	0.05	-	0.05
delta-BHC	-	0.05	-	0.05	-	0.05	-	0.05
Heptachlor	-	0.05	-	0.05	-	0.05	-	0.05
Aldrin	-	0.05	-	0.05	-	0.05	-	0.05
Heptachlor epoxide	-	0.05	-	0.05	-	0.05	-	0.05
Endosulfan I	-	0.05	-	0.05	-	0.05	-	0.05
Dieldrin	-	0.05	-	0.05	-	0.05	-	0.05
4,4'-DDE	-	0.10	-	0.10	-	0.10	-	0.10
Endrin	-	0.10	-	0.10	-	0.10	-	0.10
Endosulfan II	-	0.10	-	0.10	-	0.10	-	0.10
4,4'-DDD	-	0.10	-	0.10	-	0.10	-	0.10
Endosulfan sulfate	-	0.10	-	0.10	-	0.10	-	0.10
4,4'-DDT	-	0.10	-	0.10	-	0.10	-	0.10
Methoxychlor	-	0.50	-	0.50	-	0.50	-	0.50
Endrin ketone	-	0.10	-	0.10	-	0.10	-	0.10
Endrin aldehyde	-	0.10	-	0.10	-	0.10	-	0.10
alpha Chlordane	-	0.05	-	0.05	-	0.05	-	0.05
gamma Chlordane	-	0.05	-	0.05	-	0.05	-	0.05
Toxaphene	-	1.00	-	1.00	-	1.00	-	1.00
gamma-BHC (Lindane)	-	0.05	-	0.05	-	0.05	-	0.05

KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN DISPOSAL SERVICES SUPERFUND SITE

TABLE 18

Verification Treatment Evaluations
Summary of SPLP Metals Analyses

SPLP METALS	RESULTS (mg/L)							
	3230-032 Quicklime		3230-033 Cement/Fly Ash		3230-034 Clay/Lime/QL		3230-035 Site Clay	
	Result	RL	Result	RL	Result	RL	Result	RL
Silver	-	0.01	-	0.01	-	0.01	-	0.01
Arsenic	0.033	0.004	0.046	0.004	0.042	0.004	0.016	0.004
Barium	0.039	0.01	0.12	0.01	0.15	0.01	0.069	0.01
Cadmium	-	0.01	-	0.01	-	0.01	-	0.01
Chromium	-	0.02	-	0.02	-	0.02	-	0.02
Mercury	0.00026	0.0002	0.00022	0.0002	-	0.0002	-	0.0002
Lead	0.12	0.005	0.067	0.005	0.03	0.005	-	0.005
Selenium	-	0.004	-	0.004	-	0.004	-	0.004

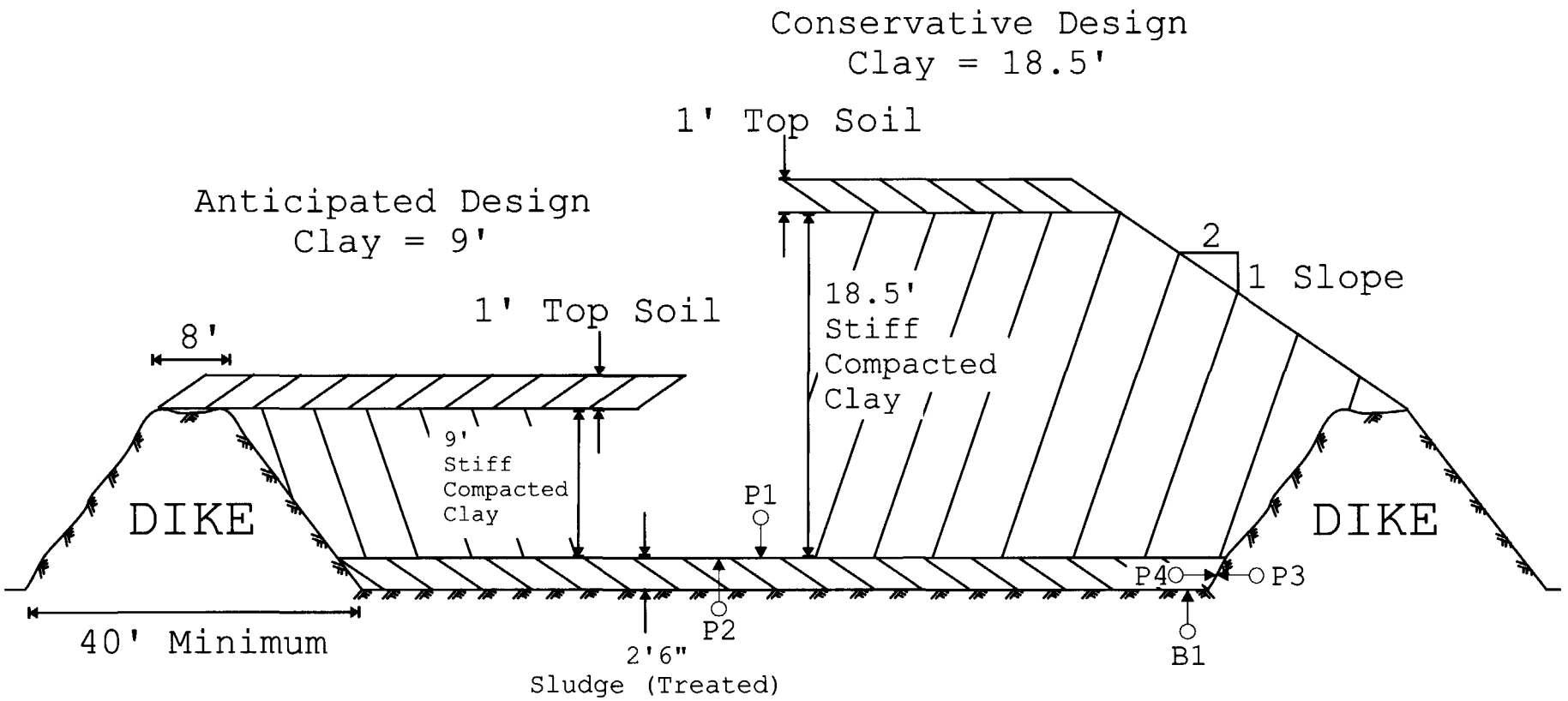
KIBER ENVIRONMENTAL SERVICES
SHERIDAN SITE TRUST
SHERIDAN SITE TREATABILITY STUDY

TABLE 19
Verification Treatment Evaluations
Summary of Unconfined Compressive Strength Testing

KIBER SAMPLE No.	REAGENT TYPE	REAGENT ADDITION (%)	UNCONFINED COMPRESSIVE STRENGTH			
			Moisture Content (%)	Bulk Density (lbs/ft^3)	Dry Density (lbs/ft^3)	UCS (lbs/in^2)
3230-032	Quicklime	30	42.1	71.0	50.0	11.1
3230-033	Portland Cement / Fly Ash	15 / 30	25.6	91.3	72.7	23.0
3230-034	(Site Clay/Hydrated Lime) / Quicklime (1)	(20/2) / 15	33.8	82.3	61.5	19.4
3230-035	Site Clay	600	31.0	113.2	86.4	30.9

(1) The site clay and hydrated lime were mixed together then blended with the untreated material as a pre-treatment then the quicklime was added to this pre-treated mixture.

FIGURES



P1 Load on Sludge from Clay and Top Soil
P2 Virtually Equal Reaction of Sludge
P3 Load on Sludge from Dike
P4 Virtually Equal Reaction of Sludge
B1 Bearing Capacity of the Natural Bottom

FIGURE NOT TO SCALE

FIGURE 1
CONCEPTUAL LANDFILL DESIGN

KIBER ENVIRONMENTAL SERVICES

001548

dike.CDR

APPENDIX A

APPENDIX A

CHAIN OF CUSTODY

ERM-Southwest, Inc.
HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • EL PASO
ERM

Report sent to:
John Cotterell
Sheridan Site Trust
P.O. Box 440005 Houston, Texas 77244

CHAIN OF CUSTODY RECORD

Contact (PM):

Sample Type: O = Nonaqueous, Oily
W = Surface Water
GW = Ground Water
WW = Wastewater
SW = Soil, Sediment, Solid Waste

For Blank Indicate Same As Matrix

PROJ. NO.: 91-27

PROJECT NAME: Sheridan Sediment Sampling

Location: Hempstead Texas

SAMPLERS: (SIGNATURE) [signature]

NUMBER OF CONTAINERS

STA. NO.	DATE	TIME	COMP.	GRAB	SAMPLE TYPE	STATION LOCATION	TOTAL NUMBER OF CONTAINERS	PARAMETERS METHODS: Stabilization									EXPECTED CONCENTRATION LEVEL (L,M,H)	REMARKS: (Indicate if Limited Sample Volume, Special Detection Limits, Sampling Purpose)
	1/5/00		X		SW	Pond Sludge.	2	X										

Relinquished by: (signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
[signature]	1/12/00 10:00	[signature]			
Relinquished by: (signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished by: (signature)	Date/Time	Destroyed or shipped for return to site for destruction (Signature)	Date/Time		

REMARKS:

Preapproved Turnaround Time:
Designated Lab:

Distribution: Original Accompanies Shipment; Copy to Project Manager

16300 KATY FREEWAY #300
Houston, Texas 77094-1609
(713) 579-8999

APPENDIX B

APPENDIX B
UNTREATED MATERIAL CHARACTERIZATION

KEMRON Environm. .l Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Kiber Environmental Services
3145 Medlock Bridge Road
Norcross, GA 30071

Attention: Mr. Mark Clark

PO Number: 8822
Account Number: KIBER-601
Invoice Number: 545804

Login #: L0001340
Report Date: 03/27/00
Work ID: SHERIDAN/3230-8822
Date Received: 01/20/00

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0001340-01	POND SLUDGE	L0001340-02	POND SLUDGE/SPLP EXTRACT

Revised Report

All results on solids/sludges are reported on a wet weight basis (AS RECEIVED), unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

KEMRON ENVIRONMENTAL SERVICES

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822

Matrix: Sludge
Collected: 01/18/00 00:00

% Solid: 38
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	weight %	38		1.0	1	N/A	TMM	01/24/00	12:20	D2216-90
Silver, Total	mg/kg	8.4		2.0	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Arsenic, Total	mg/kg	40		1.0	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Barium, Total	mg/kg	590		0.50	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Cadmium, Total	mg/kg	3.0		0.50	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Chromium, Total	mg/kg	170		1.0	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Mercury, Total	mg/kg	1.4		1.3	5	N/A	MMB	01/25/00	09:06	7471A\7471A
Lead, Total	mg/kg	360		5.0	1	N/A	JYH	01/25/00	15:25	6010B\3050B
Selenium, Total	mg/kg	0.51		0.20	1	N/A	RSS	01/26/00	10:01	7740

Product: 8082 - PCB

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A
Date Collected: 01/18/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: 38

TCLP Extract Date: N/A
Extract Date: 01/24/00
Analysis Date: 01/24/00 Time: 16:24

Instrument: HP10
Analyst: SMW
Lab File ID: 10G6964

Method: 8082\3550
Run ID: R81862
Batch : WG71232

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	170	10
11104-28-2	Aroclor-1221	ug/kg		ND	170	10
11141-16-5	Aroclor-1232	ug/kg		ND	170	10
53469-21-9	Aroclor-1242	ug/kg		ND	170	10
12672-29-6	Aroclor-1248	ug/kg	19000	D	830	50
11097-69-1	Aroclor-1254	ug/kg		ND	170	10
11096-82-5	Aroclor-1260	ug/kg		ND	170	10

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	24.3 *	(29 - 133%)	
Decachlorobiphenyl	44.6	(30 - 173%)	

* = Reporting Limit

ogin #L0001340
larch 27, 2000 09:15 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 01/18/00

% Solid: 38

CLP Extract Date: N/A
Extract Date: 01/24/00
Analysis Date: 01/25/00 Time: 17:14

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M2106

Method: 8270C\3550B
Run ID: R81683
Batch : WG71268

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/kg	1300000	L	460000	2800
111-44-4	Bis(2-Chloroethyl)ether	ug/kg		ND	460000	2800
95-57-8	2-Chlorophenol	ug/kg		ND	460000	2800
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	460000	2800
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	460000	2800
100-51-6	Benzyl alcohol	ug/kg		ND	460000	2800
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	460000	2800
95-48-7	2-Methylphenol	ug/kg		ND	460000	2800
108-39-4	3-Methylphenol	ug/kg		Z	460000	2800
108-60-1	bis(2-Chloroisopropyl)ether	ug/kg		ND	460000	2800
106-44-5	4-Methylphenol	ug/kg	660000	Z	460000	2800
621-64-7	N-Nitrosodipropylamine	ug/kg		ND	460000	2800
67-72-1	Hexachloroethane	ug/kg		ND	460000	2800
98-95-3	Nitrobenzene	ug/kg		ND	460000	2800
78-59-1	Isophorone	ug/kg		ND	460000	2800
88-75-5	2-Nitrophenol	ug/kg		ND	460000	2800
105-67-9	2,4-Dimethylphenol	ug/kg		ND	460000	2800
65-85-0	Benzoic acid	ug/kg		ND	2300000	2800
111-91-1	Bis(2-Chloroethoxy)Methane	ug/kg		ND	460000	2800
120-83-2	2,4-Dichlorophenol	ug/kg		ND	460000	2800
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	460000	2800
91-20-3	Naphthalene	ug/kg		ND	460000	2800
106-47-8	4-Chloroaniline	ug/kg		ND	460000	2800
87-68-3	Hexachlorobutadiene	ug/kg		ND	460000	2800
59-50-7	4-Chloro-3-methylphenol	ug/kg		ND	460000	2800
91-57-6	2-Methylnaphthalene	ug/kg		ND	460000	2800
77-47-4	Hexachlorocyclopentadiene	ug/kg		ND	460000	2800
88-06-2	2,4,6-Trichlorophenol	ug/kg		ND	460000	2800
95-95-4	2,4,5-Trichlorophenol	ug/kg		ND	2300000	2800
91-58-7	2-Chloronaphthalene	ug/kg		ND	460000	2800
88-74-4	2-Nitroaniline	ug/kg		ND	2300000	2800
131-11-3	Dimethylphthalate	ug/kg		ND	460000	2800
208-96-8	Acenaphthylene	ug/kg		ND	460000	2800
606-20-2	2,6-Dinitrotoluene	ug/kg		ND	460000	2800
99-09-2	3-Nitroaniline	ug/kg		ND	2300000	2800
83-32-9	Acenaphthene	ug/kg		ND	460000	2800
51-28-5	2,4-Dinitrophenol	ug/kg		ND	2300000	2800
100-02-7	4-Nitrophenol	ug/kg		ND	2300000	2800
132-64-9	Dibenzofuran	ug/kg		ND	460000	2800

= Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A
Date Collected: 01/18/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: 38

CLP Extract Date: N/A
Extract Date: 01/24/00
Analysis Date: 01/25/00 Time: 17:14

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M2106

Method: 8270C\3550B
Run ID: R81683
Batch : WG71268

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
121-14-2	2,4-Dinitrotoluene	ug/kg		ND	460000	2800
84-66-2	Diethylphthalate	ug/kg		ND	460000	2800
7005-72-3	4-Chlorophenyl-phenyl ether	ug/kg		ND	460000	2800
86-73-7	Fluorene	ug/kg		ND	460000	2800
100-01-6	4-Nitroaniline	ug/kg		ND	2300000	2800
534-52-1	4,6-Dinitro-2-methylphenol	ug/kg		ND	2300000	2800
86-30-6	N-Nitrosodiphenylamine	ug/kg		ND	460000	2800
101-55-3	4-Bromophenyl-phenylether	ug/kg		ND	460000	2800
118-74-1	Hexachlorobenzene	ug/kg		ND	460000	2800
87-86-5	Pentachlorophenol	ug/kg		ND	2300000	2800
85-01-8	Phenanthrene	ug/kg		ND	460000	2800
120-12-7	Anthracene	ug/kg		ND	460000	2800
84-74-2	Di-N-Butylphthalate	ug/kg		ND	460000	2800
206-44-0	Fluoranthene	ug/kg		ND	460000	2800
129-00-0	Pyrene	ug/kg		ND	460000	2800
85-68-7	Butylbenzylphthalate	ug/kg		ND	460000	2800
91-94-1	3,3'-Dichlorobenzidine	ug/kg		ND	920000	2800
56-55-3	Benzo(a)anthracene	ug/kg		ND	460000	2800
218-01-9	Chrysene	ug/kg		ND	460000	2800
117-81-7	bis(2-Ethylhexyl)phthalate	ug/kg		ND	460000	2800
117-84-0	Di-n-octylphthalate	ug/kg		ND	460000	2800
205-99-2	Benzo(b)fluoranthene	ug/kg		ND	460000	2800
207-08-9	Benzo(k)fluoranthene	ug/kg		ND	460000	2800
50-32-8	Benzo(a)pyrene	ug/kg		ND	460000	2800
193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg		ND	460000	2800
53-70-3	Dibenzo(a,h)Anthracene	ug/kg		ND	460000	2800
191-24-2	Benzo(g,h,i)Perylene	ug/kg		ND	460000	2800

SURROGATES- In Percent Recovery:

2-Fluorophenol	DL	(25 - 121%)
Phenol-d5	DL	(24 - 113%)
Nitrobenzene-d5	DL	(23 - 120%)
2-Fluorobiphenyl	DL	(30 - 115%)
2,4,6-Tribromophenol	DL	(19 - 122%)
p-Terphenyl-d14	DL	(18 - 137%)

* Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A
Date Collected: 01/18/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: 38

CLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 02/01/00 Time: 14:49

Instrument: HPMS8
Analyst: MES
Lab File ID: 8M13201

Method: 8260B
Run ID: R82142
Batch : WG71591

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/kg		ND	1300000	12500
71-43-2	Benzene	ug/kg	430000		63000	12500
108-86-1	Bromobenzene	ug/kg		ND	63000	12500
74-97-5	Bromochloromethane	ug/kg		ND	63000	12500
75-27-4	Bromodichloromethane	ug/kg		ND	63000	12500
75-25-2	Bromoform	ug/kg		ND	63000	12500
74-83-9	Bromomethane	ug/kg		ND	130000	12500
78-93-3	2-Butanone	ug/kg		ND	1300000	12500
104-51-8	n-Butylbenzene	ug/kg		ND	63000	12500
135-98-8	sec-Butylbenzene	ug/kg		ND	63000	12500
98-06-6	tert-Butylbenzene	ug/kg		ND	63000	12500
75-15-0	Carbon disulfide	ug/kg		ND	63000	12500
56-23-5	Carbon tetrachloride	ug/kg		ND	63000	12500
108-90-7	Chlorobenzene	ug/kg		ND	63000	12500
124-48-1	Chlorodibromomethane	ug/kg		ND	63000	12500
75-00-3	Chloroethane	ug/kg		ND	130000	12500
110-75-8	2-Chloroethyl vinyl ether	ug/kg		ND	130000	12500
67-66-3	Chloroform	ug/kg		ND	63000	12500
74-87-3	Chloromethane	ug/kg		ND	130000	12500
95-49-8	2-Chlorotoluene	ug/kg		ND	63000	12500
106-43-4	4-Chlorotoluene	ug/kg		ND	63000	12500
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	63000	12500
106-93-4	1,2-Dibromoethane	ug/kg		ND	63000	12500
74-95-3	Dibromomethane	ug/kg		ND	63000	12500
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	63000	12500
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	63000	12500
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	63000	12500
75-71-8	Dichlorodifluoromethane	ug/kg		ND	130000	12500
75-34-3	1,1-Dichloroethane	ug/kg		ND	63000	12500
107-06-2	1,2-Dichloroethane	ug/kg		ND	63000	12500
75-35-4	1,1-Dichloroethene	ug/kg		ND	63000	12500
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	63000	12500
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	63000	12500
78-87-5	1,2-Dichloropropane	ug/kg		ND	63000	12500
142-28-9	1,3-Dichloropropane	ug/kg		ND	63000	12500
594-20-7	2,2-Dichloropropane	ug/kg		ND	63000	12500
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	63000	12500
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	63000	12500
563-58-6	1,1-Dichloropropene	ug/kg		ND	63000	12500

= Reporting Limit

0015
58

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0001340-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN/3230-8822
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A
Date Collected: 01/18/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: 38

CLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 02/01/00 Time: 14:49

Instrument: HPMS8
Analyst: MES
Lab File ID: 8M13201

Method: 8260B
Run ID: R82142
Batch : WG71591

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/kg	560000		63000	12500
591-78-6	2-Hexanone	ug/kg		ND	130000	12500
87-68-3	Hexachlorobutadiene	ug/kg		ND	63000	12500
98-82-8	Isopropylbenzene	ug/kg	83000		63000	12500
99-87-6	p-Isopropyltoluene	ug/kg		ND	63000	12500
108-10-1	4-Methyl-2-pentanone	ug/kg	130000		130000	12500
75-09-2	Methylene chloride	ug/kg		ND	63000	12500
91-20-3	Naphthalene	ug/kg		ND	130000	12500
103-65-1	n-Propylbenzene	ug/kg		ND	63000	12500
100-42-5	Styrene	ug/kg	300000		63000	12500
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	63000	12500
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	63000	12500
127-18-4	Tetrachloroethene	ug/kg		ND	63000	12500
108-88-3	Toluene	ug/kg	1300000		63000	12500
87-61-6	1,2,3-Trichlorobenzene	ug/kg		ND	63000	12500
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	63000	12500
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	63000	12500
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	63000	12500
79-01-6	Trichloroethene	ug/kg		ND	63000	12500
75-69-4	Trichlorofluoromethane	ug/kg		ND	130000	12500
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	63000	12500
95-63-6	1,2,4-Trimethylbenzene	ug/kg	92000		63000	12500
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	63000	12500
108-05-4	Vinyl acetate	ug/kg		ND	130000	12500
75-01-4	Vinyl chloride	ug/kg		ND	130000	12500
95-47-6	o-Xylene	ug/kg	510000		63000	12500
108-38-3	m-Xylene	ug/kg	1100000	Z	63000	12500
106-42-3	p-Xylene	ug/kg		Z	63000	12500

SURROGATES- In Percent Recovery:

Dibromofluoromethane	101	(80 - 120%)
1,2-Dichloroethane-d4	96.2	(80 - 120%)
Toluene-d8	100	(81 - 117%)
4-Bromofluorobenzene	114	(74 - 121%)

, = Reporting Limit

001559

Order #: 00-01-340
February 3, 2000 08:18 am

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG71196	R81862	L0001340-01		Sludge	PCB	8082\3550	18-JAN-2000	Extraction
WG71197	R81683	L0001340-01		Sludge	Semivolatile Compounds	8270C\3550B	18-JAN-2000	Extraction
WG71210	R81612	L0001340-01		Sludge	Percent Solids	D2216-90	18-JAN-2000	Conventionals
WG71223	R81741	L0001340-01		Sludge	Arsenic, Total	6010B\3050B	18-JAN-2000	Digestion
WG71223	R81741	L0001340-01		Sludge	Barium, Total	6010B\3050B	18-JAN-2000	Digestion
WG71223	R81741	L0001340-01		Sludge	Cadmium, Total	6010B\3050B	18-JAN-2000	Digestion
WG71223	R81741	L0001340-01		Sludge	Chromium, Total	6010B\3050B	18-JAN-2000	Digestion
WG71223	R81741	L0001340-01		Sludge	Lead, Total	6010B\3050B	18-JAN-2000	Digestion
WG71223	R81741	L0001340-01		Sludge	Silver, Total	6010B\3050B	18-JAN-2000	Digestion
WG71232	R81862	L0001340-01		Sludge	PCB	8082\3550	18-JAN-2000	Semivolatile - GC
WG71241	R81677	L0001340-01		Sludge	Mercury, Total	7471A\7471A	18-JAN-2000	Digestion
WG71256	R81790	L0001340-02		Water	PCB	8082/3550	18-JAN-2000	Extraction
WG71259	R81744	L0001340-02		Water	Semivolatile Compounds	8270C\3510C	18-JAN-2000	Extraction
WG71260	R81741	L0001340-01		Sludge	Arsenic, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71260	R81741	L0001340-01		Sludge	Barium, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71260	R81741	L0001340-01		Sludge	Cadmium, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71260	R81741	L0001340-01		Sludge	Chromium, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71260	R81741	L0001340-01		Sludge	Lead, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71260	R81741	L0001340-01		Sludge	Silver, Total	6010B\3050B	18-JAN-2000	Metals - ICP
WG71268	R81683	L0001340-01		Sludge	Semivolatile Compounds	8270C\3550B	18-JAN-2000	Semivolatile - GC/MS
WG71271	R81677	L0001340-01		Sludge	Mercury, Total	7471A\7471A	18-JAN-2000	Metals - AA
WG71278	R81705	L0001340-02		Water	Mercury, Total	7470A\7470A	18-JAN-2000	Digestion
WG71281	R81790	L0001340-02		Water	PCB	8082/3550	18-JAN-2000	Semivolatile - GC
WG71288	R81793	L0001340-02		Water	Arsenic, Total	6010B\3005A	18-JAN-2000	Digestion
WG71288	R81793	L0001340-02		Water	Barium, Total	6010B\3005A	18-JAN-2000	Digestion
WG71288	R81793	L0001340-02		Water	Cadmium, Total	6010B\3005A	18-JAN-2000	Digestion
WG71288	R81793	L0001340-02		Water	Chromium, Total	6010B\3005A	18-JAN-2000	Digestion
WG71288	R81793	L0001340-02		Water	Lead, Total	6010B\3005A	18-JAN-2000	Digestion
WG71288	R81793	L0001340-02		Water	Silver, Total	6010B\3005A	18-JAN-2000	Digestion
WG71291	R81809	L0001340-01		Sludge	Selenium, Total	7740	18-JAN-2000	Digestion

001560

Order #: 00-01-340
February 3, 2000 08:18 am

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG71312	R81705	L0001340-02		Water	Mercury, Total	7470A\7470A	18-JAN-2000	Metals - AA
WG71319	R81793	L0001340-02		Water	Arsenic, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71319	R81793	L0001340-02		Water	Barium, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71319	R81793	L0001340-02		Water	Cadmium, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71319	R81793	L0001340-02		Water	Chromium, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71319	R81793	L0001340-02		Water	Lead, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71319	R81793	L0001340-02		Water	Silver, Total	6010B\3005A	18-JAN-2000	Metals - ICP
WG71330	R81744	L0001340-02		Water	Semivolatile Compounds	8270C\3510C	18-JAN-2000	Semivolatile - GC/MS
WG71362	R81836	L0001340-02		Water	Selenium, Total	7740\7740	18-JAN-2000	Digestion
WG71375	R81809	L0001340-01		Sludge	Selenium, Total	7740	18-JAN-2000	Metals - AA
WG71409	R81836	L0001340-02		Water	Selenium, Total	7740\7740	18-JAN-2000	Metals - AA
WG71515	R82031	L0001340-02		Water	Volatile Organics	8260B	18-JAN-2000	Volatile - GC/MS
WG71591	R82142	L0001340-01		Sludge	Volatile Organics	8260B	18-JAN-2000	Volatile - GC/MS

001561

KEMRON ANALYST LIST

Ohio Valley Laboratory

12/14/99

ALT - Ann L. Thayer
ARS - Angelina (Nina) R. Scott
BKL - Brian K. LeMasters
BRG - Brenda R. Gregory
CAG - Cheryl A. Graham
CAK - Cheryl A. Koelsch
CBN - Charles B. Noll
CEA - Carla E. Allen
CEB - Chad E. Barnes
CLC - Chrys L. Crawford
CLK - Carl L. King
CLW - Charissa L. Winters
CMS - Crystal M. Stevens
CPA - Cliff P. Asher
CRC - Carla R. Cochran
CSH - Chris S. Hill
CWS - Clark W. Stanley
DAM - Dan A. Musgrave
DAS - Dallas A. Sullivan
DAT - Debbie A. Tornes
DEL - Don E. Lightfritz
DEV - David E. Vandenberg
DGB - Douglas G. Butcher
DIH - Deanna I. Hesson
DLA - Denise L. Adams
DLB - David L. Bumgarner
DLN - Deanna L. Norton
DLP - Dorothy L. Payne
DLR - Dianna L. Rauch
DMD - David M. Dye
DST - Dennis S. Tepe
EAW - Elizabeth (Beth) A. Weber
ECL - Eric C. Lawson
EIE - Elizabeth (Betsy) I. Eagle
FEH - Fay E. Harmon
GWH - George W. Hutchinson
GSG - Galen S. George
HV - Hema Vilasagar
JCR - Jennifer C. Randall
JDG - Jonathan D. Graziani
JDN - Jamie D. Newell
JKM - June K. Morris
JKW - Jane K. Warden
JLH - Janice L. Holland
JMW - John M. Wass
JRM - Jay R. McDougal
JMT - Joy M. Thomas
JWR - John W. Richards
JWS - Jack W. Sheaves
JYH - Ji Y. Hu
KEB - Katie E. Barnes
KHR - Kim H. Rhodes
KRA - Kathy R. Albertson
KSL - Kelly S. Lauer
LKM - Laura K Morris
LLH - Laura L. Hinton
LSA - Lucinda (Cindy) S. Arnold
LSB - Leslie S. Bucina
MDA - Mike D. Albertson
MDC - Michael D. Cochran
MDG - Melissa D. Grimes
MEF - Mike E. Flanagan
MES - Mary E. Schilling
MFB - Mike F. Barrow
MLS - Michael L. Schimmel
MMB- Maren M. Beery
MSW - Matt S. Wilson
NJB - Natalie J. Booth
PML - Paula M. Leidy
RDC - Rebecca D. Cutlip
REF - Ron E. Fertile
REK - Robert E. Kyer
RJW - Rhonda J. Wittekind
RLW - Ron L. Watson
RSH - Renee S. Hennes
RSS - Regina S. Simmons
RWC - Rod W. Campbell
SJK - Sindy J. Kinney
SLP - Sheri L. Pfalzgraf
SLT - Stephanie L. Tepe
SMW - Shauna M. Welch
SPL - Steve P. Learn
SPS - Steve P. Swatzel
TJH - Tim J. Hoeflich
TLB - Tracy L. Baldwin
TLD - Teresa L. Davis
TMM- Tammy M. Morris
TRS - Todd R. Stack
VC - Vicki Collier
VMN - Vincent M. Nedeff

KEMRON Environmental Services, Inc.
LIST OF VALID QUALIFIERS (qual)
December 10, 1998

Qualifier	Description
A	See the report narrative
NA	Not applicable
+	Correlation coefficient for the MSA is less than 0.995
<	Less than
>	Greater than
B	Present in the method blank
C	Confirmed by GC/MS
*	Surrogate or spike compound out of range
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
F	Present below nominal reporting limit (AFCEE only)
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met

Qualifier	Description
N	Tentatively Identified Compound (TIC)
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration > 25% difference between the two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out of control limits
Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, dix IX. They are not always achievable for every compound and are matrix dependent.

INORGANIC QA/QC

KEMRON ENTAL SERVICES
OHIO VALL RATORY
QUALITY CONTROL SUMMARY

WORKGROUP: wg71312
METHOD: 7470A
MATRIX: Water
UNITS: mg/L
INSTRUMENT: Leeman PS 202

RUN DATE: 01/25/2000
PREP DATE: 01/25/2000
ANALYST: MMB

ANALYTE	RDL	Blank	CONCENTRATION PPB								PERCENT RECOVERY							PERCENT RPD		
			T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Mercury	0.000200	ND	0.001000	0.000982	ND	ND	ND	0.010000	0.008040	0.007850	99.2	80.0	120.0	80.4	78.5	75.0	125.0	NA	2.4	20

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
DL = DILUTED OUT
NA = NOT APPLICABLE

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMRON MENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG71319 RUN DATE: 1/25/2000
METHOD: 6010B PREP DATE: 1/25/2000
MATRIX: Water ANALYST: ALT
UNITS: mg/L
INSTRUMENT: Perkin Elmer Optima 3000 DV

			CONCENTRATION PPM								PERCENT RECOVERY							PERCENT		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Silver	0.004	ND	0.200	0.195	ND	ND	ND	0.200	0.190	0.192	97.5	80.0	120.0	95.0	96.0	75.0	125.0	NA	1.0	20
Aluminum	0.100	ND	10.000	9.730	0.423	0.429	0.440	10.000	10.300	10.400	97.3	80.0	120.0	98.6	99.6	75.0	125.0	1.4	1.0	20
Arsenic	0.004	ND	1.000	0.963	ND	ND	ND	1.000	0.937	0.931	96.3	80.0	120.0	93.7	93.1	75.0	125.0	NA	0.6	20
Barium	0.010	ND	10.000	9.090	0.099	0.098	0.085	10.000	7.950	8.000	90.9	80.0	120.0	78.7	79.2	75.0	125.0	0.8	0.6	20
Beryllium	0.01000	ND	1.000	0.996	ND	ND	ND	1.000	0.942	0.954	99.6	80.0	120.0	94.2	95.4	75.0	125.0	NA	1.3	20
Calcium	0.2000	ND	10.000	9.800	63.200	62.800	131.000	10.000	DL	DL	98.0	80.0	120.0	NA	NA	75.0	125.0	0.6	NA	20
Cadmium	0.01000	ND	1.000	0.955	ND	ND	ND	1.000	0.911	0.915	95.5	80.0	120.0	91.1	91.5	75.0	125.0	NA	0.4	20
Cobalt	0.020	ND	1.000	0.966	ND	ND	ND	1.000	0.860	0.860	96.6	80.0	120.0	86.0	86.0	75.0	125.0	NA	0.0	20
Chromium	0.020	ND	1.000	0.969	ND	ND	ND	1.000	0.877	0.880	96.9	80.0	120.0	87.7	88.0	75.0	125.0	NA	0.3	20
Copper	0.020	ND	1.000	0.972	ND	ND	ND	1.000	0.943	0.954	97.2	80.0	120.0	94.3	95.4	75.0	125.0	NA	1.2	20
Iron	0.040	ND	1.000	0.956	0.366	0.374	6.250	1.000	DL	DL	95.6	80.0	120.0	NA	NA	75.0	125.0	2.2	NA	20
Magnesium	0.500	ND	10.000	9.790	10.200	10.000	10.000	10.000	19.000	19.000	97.9	80.0	120.0	90.0	90.0	75.0	125.0	2.0	0.0	20
Manganese	0.010	ND	1.000	0.977	1.490	1.460	1.260	1.000	2.000	2.050	97.7	80.0	120.0	74.0	79.0	75.0	125.0	2.0	2.5	20
Molybdenum	0.100	ND	1.000	0.928	ND	ND	ND	1.000	0.847	0.852	92.8	80.0	120.0	84.7	85.2	75.0	125.0	NA	0.6	20
Sodium	0.500	ND	50.000	44.700	44.800	43.800	93.600	50.000	143.000	148.000	89.4	80.0	120.0	98.8	108.8	75.0	125.0	2.3	3.4	20
Nickel	0.040	ND	1.000	0.990	ND	ND	ND	1.000	0.906	0.906	99.0	80.0	120.0	90.6	90.6	75.0	125.0	NA	0.0	20
Lead	0.005	ND	1.000	0.971	ND	ND	ND	1.000	0.868	0.863	97.1	80.0	120.0	86.8	86.3	75.0	125.0	NA	0.6	20
Selenium	0.010	ND	1.000	0.922	ND	ND	ND	1.000	0.875	0.879	92.2	80.0	120.0	87.5	87.9	75.0	125.0	NA	0.5	20
Vanadium	0.010	ND	1.000	0.970	ND	ND	ND	1.000	0.897	0.904	97.0	80.0	120.0	89.7	90.4	75.0	125.0	NA	0.8	20
Zinc	0.020	ND	1.000	0.962	ND	ND	0.055	1.000	0.886	0.881	96.2	80.0	120.0	83.1	82.6	75.0	125.0	NA	0.6	20
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMRON MENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: wg71375
METHOD: 7060
MATRIX: Soil
UNITS: mg/kg
INSTRUMENT: Perkin Elmer

RUN DATE: 01/26/2000
PREP DATE: 01/25/2000
Analyst: RSS

			CONCENTRATION PPM								PERCENT RECOVERY							PERCENT RPD		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Selenium	0.2000	ND	1.2500	1.4400	ND	ND	ND	1.2500	0.5420	0.5040	115.2	80.0	120.0	43.4	40.3	75.0	125.0	NA	7.27	20

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = % RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMRON NMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: wg71409
METHOD: 7740
MATRIX: Water
UNITS: mg/L
INSTRUMENT: Perkin Elmer

RUN DATE: 01/27/2000
PREP DATE: 01/26/2000
Analyst: RSS

			CONCENTRATION PPB								PERCENT RECOVERY							PERCENT RPD		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Selenium	0.0040	ND	0.0250	0.0272	ND	ND	ND	0.0250	0.0264	0.0273	108.8	80.0	120.0	105.6	109.2	75.0	125.0	NA	3.35	20

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = % RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

ORGANIC QA/QC

Volatile Quality Summary

Workgroup #: WG71515 | Run Date: 1/29/00 | Sample Num: 01-343-02 | LCS DF: 1
Method: 8260B | Instrument ID: HPMS8 | Sample FLNM: 8M13136.D | Sample DF: 10
Matrix: WATER | BLK FLNM: 8M13129.D | MS FLNM: 8M13137.D | MS DF: 10
Units: ug/L | LCS FLNM: 8M13130.D | MSD FLNM: 8M13138.D | MSD DF: 10

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
	MDL	Blank	LCS	LCS Spike Level	Sample	MS	MSD	MS Spike Level	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS RPD	RPD UCL	Blank	LCS	Sample	MS	MSD	RPD
Target Analytes	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%	%	%	%	%	%						
dichlorodifluoromethane	0.25	ND	19.70	20.0	ND	168.77	172.67	200.0	ND	98.5	10.0	153.0	ND	84.4	86.3	10.0	153.0	2.3	42.0						
chloromethane	0.56	ND	19.67	20.0	ND	105.73	115.10	200.0	ND	98.4	49.0	129.0	ND	52.9	57.6	49.0	129.0	8.5	30.0						
vinyl chloride	0.48	ND	21.43	20.0	ND	176.46	154.47	200.0	ND	107.2	57.0	135.0	ND	88.2	77.2	57.0	135.0	13.3	30.0						
bromomethane	0.25	ND	28.53	20.0	ND	4.21	3.49	200.0	ND	142.7	58.0	140.0	ND	2.1	1.7	58.0	140.0	18.7	39.0		H		L	L	
chloroethane	0.22	ND	22.12	20.0	ND	179.12	166.53	200.0	ND	110.6	69.0	126.0	ND	89.6	83.3	69.0	126.0	7.3	27.0						
trichlorofluoromethane	0.46	ND	13.13	20.0	ND	110.82	214.33	200.0	ND	65.7	67.0	152.0	ND	55.4	107.2	67.0	152.0	63.7	22.0		L		L		H
isoprene	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
acrolein	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
1,1,2-trichloro-1,2,2-trifluoroethane	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
acetone	1.84	ND	22.54	20.0	ND	252.77	258.14	200.0	ND	112.7	40.0	142.0	ND	126.4	129.1	40.0	142.0	2.1	40.0						
1,1-dichloroethene	0.27	ND	20.67	20.0	ND	212.89	236.61	200.0	ND	103.4	81.0	130.0	ND	106.4	118.3	81.0	130.0	10.6	18.0						
dimethyl sulfide	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
iodomethane	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
methylene chloride	0.60	ND	22.20	20.0	ND	212.96	213.21	200.0	ND	111.0	76.0	125.0	ND	106.5	106.6	76.0	125.0	0.1	19.0						
carbon disulfide	0.24	ND	20.61	20.0	ND	ND	ND	200.0	ND	103.1	70.0	138.0	ND	NA	NA	70.0	138.0	NA	20.0						
acrylonitrile	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
methyl-tert-butyl ether	NTC	ND	24.00	20.0	ND	225.11	232.48	200.0	ND	120.0	NA	NA	ND	112.6	116.2	NA	NA	3.2	NA						
trans-1,2-dichloroethene	0.21	ND	24.15	20.0	ND	224.06	250.46	200.0	ND	120.8	86.0	135.0	ND	112.0	125.2	86.0	135.0	11.1	16.0						
n-hexane	NTC	ND	20.09	20.0	ND	230.26	240.57	200.0	ND	100.5	63.0	137.0	ND	115.1	120.3	58.1	141.9	4.4	30.0						
vinyl acetate	4.43	ND	20.04	20.0	ND	0.40	0.44	200.0	ND	100.2	10.0	136.0	ND	0.2	0.2	10.0	136.0	9.5	45.0				L	L	
1,1-dichloroethane	0.23	ND	22.14	20.0	ND	218.50	233.99	200.0	ND	110.7	84.0	127.0	ND	109.3	117.0	84.0	127.0	6.8	15.0						
2-butanone	1.52	ND	25.93	20.0	ND	252.57	286.69	200.0	ND	129.7	61.0	137.0	ND	126.3	143.3	61.0	137.0	12.7	30.0					H	
2,2-dichloropropane	0.23	ND	23.67	20.0	ND	191.80	203.97	200.0	ND	118.4	79.0	130.0	ND	95.9	102.0	79.0	130.0	6.2	17.0						
cis-1,2-dichloroethene	0.15	ND	22.61	20.0	ND	215.45	225.21	200.0	ND	113.1	82.0	121.0	ND	107.7	112.6	82.0	121.0	4.4	15.0						
chloroform	0.19	ND	23.16	20.0	ND	209.32	215.28	200.0	ND	115.8	85.0	121.0	ND	104.7	107.6	85.0	121.0	2.8	15.0						
bromochloromethane	0.19	ND	22.99	20.0	ND	213.61	216.33	200.0	ND	115.0	85.0	121.0	ND	106.8	108.2	85.0	121.0	1.3	15.0						
1,1,1-trichloroethane	0.25	ND	23.83	20.0	ND	199.61	209.93	200.0	ND	119.2	78.0	127.0	ND	99.8	105.0	78.0	127.0	5.0	17.0						
cyclohexane	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
1,1-dichloropropene	0.21	ND	25.10	20.0	ND	231.67	239.59	200.0	ND	125.5	91.0	133.0	ND	115.8	119.8	91.0	133.0	3.4	15.0						
carbon tetrachloride	0.30	ND	24.69	20.0	ND	194.09	202.25	200.0	ND	123.5	70.0	130.0	ND	97.0	101.1	70.0	130.0	4.1	20.0						
1,2-dichloroethane	0.33	ND	23.78	20.0	ND	216.50	291.24	200.0	ND	118.9	78.0	128.0	ND	108.3	145.6	78.0	128.0	29.4	17.0					H	H
benzene	0.17	ND	21.96	20.0	4390.71	4248.80	4360.39	200.0	ND	109.8	87.0	118.0	4390.71	NA	NA	87.0	118.0	NA	15.0						
trichloroethene	0.17	ND	23.51	20.0	ND	408.35	411.96	200.0	ND	117.6	83.0	123.0	ND	204.2	206.0	83.0	123.0	0.9	15.0				H	H	
1,2-dichloropropane	0.19	ND	22.66	20.0	ND	227.58	220.51	200.0	ND	113.3	81.0	121.0	ND	113.8	110.3	81.0	121.0	3.2	15.0						
bromodichloromethane	0.25	ND	23.69	20.0	ND	193.65	177.98	200.0	ND	118.5	81.0	126.0	ND	96.8	89.0	81.0	126.0	8.4	16.0						
dibromomethane	0.20	ND	23.38	20.0	ND	206.33	190.43	200.0	ND	116.9	83.0	122.0	ND	103.2	95.2	83.0	122.0	8.0	15.0						
2-chloroethylvinyl ether	1.35	ND	24.55	20.0	ND	263.20	243.69	200.0	ND	122.8	45.0	154.0	ND	131.6	121.8	45.0	154.0	7.7	46.0						
4-methyl-2-pentanone	1.10	ND	25.44	20.0	ND	246.65	270.89	200.0	ND	127.2	66.0	132.0	ND	123.3	135.4	66.0	132.0	9.4	33.0					H	
cis-1,3-dichloropropene	0.16	ND	25.24	20.0	ND	5.99	3.73	200.0	ND	126.2	82.0	124.0	ND	3.0	1.9	82.0	124.0	46.5	15.0		H		L	L	H
dimethyl disulfide	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
toluene	0.16	ND	23.00	20.0	15.37	238.24	225.21	200.0	ND	115.0	84.0	123.0	15.37	111.4	104.9	84.0	123.0	5.6	15.0						
ethyl methacrylate	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
trans-1,3-dichloropropene	0.21	ND	21.80	20.0	ND	30.42	22.50	200.0	ND	109.0	80.0	124.0	ND	15.2	11.3	80.0	124.0	29.9	15.0				L	L	H
1,1,2-trichloroethane	0.28	ND	22.08	20.0	ND	193.14	181.22	200.0	ND	110.4	78.0	122.0	ND	96.6	90.6	78.0	122.0	6.4	15.0						

001570

Workgroup #: WG71515 | Run Date: 1/29/00 | SMPL Num: 01-343-0_ | LCS DF: 1
Method: 8260B | Instrument ID: HPMS8 | SMPL FLNM: 8M13136.D | SMPL DF: 10
Matrix: WATER | BLK FLNM: 8M13129.D | MS FLNM: 8M13137.D | MS DF: 10
Units: ug/L | LCS FLNM: 8M13130.D | MSD FLNM: 8M13138.D | MSD DF: 10

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
	MDL	Blank	LCS	LCS Spike Level	Sample	MS	MSD	MS Spike Level	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MSD UCL	MS RPD	RPD UCL	Blank	LCS	Sample	MS	MSD	RPD
Target Analytes	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%	%	%	%	%	%						
2-hexanone	1.92	ND	23.51	20.0	ND	246.28	269.08	200.0	ND	117.6	57.0	130.0	ND	123.1	134.5	57.0	130.0	8.8	31.0					H	
1,3-dichloropropane	0.19	ND	22.41	20.0	ND	229.79	209.72	200.0	ND	112.1	78.0	123.0	ND	114.9	104.9	78.0	123.0	9.1	15.0						
tetrachloroethene	0.25	ND	22.43	20.0	ND	233.78	225.35	200.0	ND	112.2	83.0	124.0	ND	116.9	112.7	83.0	124.0	3.7	15.0						
dibromochloromethane	0.29	ND	22.85	20.0	ND	222.39	217.49	200.0	ND	114.3	78.0	123.0	ND	111.2	108.7	78.0	123.0	2.2	18.0						
1,2-dibromoethane	0.23	ND	21.91	20.0	ND	225.81	216.81	200.0	ND	109.6	79.0	123.0	ND	112.9	108.4	79.0	123.0	4.1	15.0						
1-chlorohexane	NTC	ND	20.82	20.0	ND	233.45	224.64	200.0	ND	104.1	60.0	140.0	ND	116.7	112.3	60.0	140.0	3.8	NA						
chlorobenzene	0.17	ND	22.56	20.0	ND	216.49	214.91	200.0	ND	112.8	70.0	130.0	ND	108.2	107.5	87.0	118.0	0.7	15.0						
1,1,1,2-tetrachloroethane	0.25	ND	22.75	20.0	ND	209.75	215.96	200.0	ND	113.8	82.0	123.0	ND	104.9	108.0	82.0	123.0	2.9	15.0						
ethylbenzene	0.20	ND	23.57	20.0	12.19	243.14	239.83	200.0	ND	117.9	85.0	121.0	12.2	115.5	113.8	85.0	121.0	1.4	15.0						
m+p-xylene	0.33	ND	46.15	40.0	ND	449.16	447.83	400.0	ND	115.4	86.0	121.0	ND	112.3	112.0	86.0	121.0	0.3	15.0						
o-xylene	0.16	ND	20.02	20.0	ND	212.45	207.07	200.0	ND	100.1	85.0	121.0	ND	106.2	103.5	85.0	121.0	2.6	15.0						
styrene	0.20	ND	19.44	20.0	151.96	367.52	359.21	200.0	ND	97.2	84.0	120.0	152.0	107.8	103.6	84.0	120.0	2.3	15.0						
bromoform	0.45	ND	22.76	20.0	ND	218.11	210.60	200.0	ND	113.8	73.0	124.0	ND	109.1	105.3	73.0	124.0	3.5	22.0						
isopropylbenzene	0.20	ND	19.34	20.0	ND	202.95	197.72	200.0	ND	96.7	81.0	124.0	ND	101.5	98.9	81.0	124.0	2.6	15.0						
1,1,2,2-tetrachloroethane	0.39	ND	23.57	20.0	ND	ND	ND	200.0	ND	117.9	72.0	132.0	ND	NA	NA	72.0	132.0	NA	23.0						
1,2,3-trichloropropane	0.31	ND	24.91	20.0	ND	218.51	218.86	200.0	ND	124.6	72.0	132.0	ND	109.3	109.4	72.0	132.0	0.2	21.0						
trans-1,4-dichloro-2-butene	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	60.0	140.0	ND	NS	NS	60.0	140.0	NA	20.0						
propyl-benzene	0.26	ND	18.98	20.0	ND	190.18	194.43	200.0	ND	94.9	82.0	125.0	ND	95.1	97.2	82.0	125.0	2.2	15.0						
bromobenzene	0.30	ND	22.71	20.0	ND	217.13	223.35	200.0	ND	113.6	84.0	120.0	ND	108.6	111.7	84.0	120.0	2.8	15.0						
1,3,5-trimethylbenzene	0.22	ND	21.73	20.0	ND	206.57	211.95	200.0	ND	108.7	82.0	125.0	ND	103.3	106.0	82.0	125.0	2.6	15.0						
2-chlorotoluene	0.20	ND	23.61	20.0	ND	210.92	226.53	200.0	ND	118.1	80.0	128.0	ND	105.5	113.3	80.0	128.0	7.1	15.0						
4-chlorotoluene	0.26	ND	23.08	20.0	ND	215.94	212.16	200.0	ND	115.4	80.0	127.0	ND	108.0	106.1	80.0	127.0	1.8	15.0						
alpha-methyl-styrene	NTC	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA	NA						
tert-butyl-benzene	0.27	ND	19.54	20.0	ND	203.74	206.10	200.0	ND	97.7	80.0	121.0	ND	101.9	103.1	80.0	121.0	1.2	15.0						
1,2,4-trimethylbenzene	0.23	ND	19.27	20.0	ND	177.63	181.07	200.0	ND	96.4	84.0	125.0	ND	88.8	90.5	84.0	125.0	1.9	15.0						
sec-butyl-benzene	0.33	ND	16.67	20.0	ND	184.13	184.79	200.0	ND	83.4	80.0	125.0	ND	92.1	92.4	80.0	125.0	0.4	15.0						
p-isopropyl-toluene	0.33	ND	16.44	20.0	ND	166.18	171.89	200.0	ND	82.2	79.0	133.0	ND	83.1	85.9	79.0	133.0	3.4	15.0						
1,3-dichlorobenzene	0.32	ND	22.72	20.0	ND	226.47	230.28	200.0	ND	113.6	70.0	130.0	ND	113.2	115.1	70.0	130.0	1.7	15.0						
1,4-dichlorobenzene	0.38	ND	21.93	20.0	ND	219.04	217.31	200.0	ND	109.7	70.0	130.0	ND	109.5	108.7	70.0	130.0	0.8	15.0						
n-butyl-benzene	0.37	ND	19.37	20.0	ND	220.37	216.41	200.0	ND	96.9	78.0	128.0	ND	110.2	108.2	78.0	128.0	1.8	17.0						
1,2-dichlorobenzene	0.37	ND	23.33	20.0	ND	229.27	228.58	200.0	ND	116.7	70.0	130.0	ND	114.6	114.3	70.0	130.0	0.3	15.0						
1,2-dibromo-3-chloropropane	0.78	ND	21.88	20.0	ND	203.72	188.73	200.0	ND	109.4	69.0	125.0	ND	101.9	94.4	69.0	125.0	7.6	26.0						
1,2,4-trichlorobenzene	0.25	ND	22.64	20.0	ND	204.69	200.37	200.0	ND	113.2	74.0	124.0	ND	102.3	100.2	74.0	124.0	2.1	20.0						
hexachlorobutadiene	0.46	ND	17.22	20.0	ND	304.53	282.13	200.0	ND	86.1	67.0	131.0	ND	152.3	141.1	67.0	131.0	7.6	26.0				H	H	
naphthalene	0.48	ND	24.51	20.0	ND	197.36	188.08	200.0	ND	122.6	69.0	126.0	ND	98.7	94.0	69.0	126.0	4.8	24.0						
1,2,3-trichlorobenzene	0.33	ND	22.49	20.0	ND	209.20	201.82	200.0	ND	112.5	60.0	137.0	ND	104.6	100.9	60.0	137.0	3.6	33.0						
Surrogates																									
dibromofluoromethane		25.50	25.34	25.0	22.84	22.20	22.01	25.0	102.0	101.4	86	118	91.4	88.8	88.0										
1,2-dichloroethane-d4		25.09	25.23	25.0	21.48	21.21	20.64	25.0	100.4	100.9	80	120	85.9	84.8	82.6										
toluene-d8		26.98	25.98	25.0	25.51	25.41	24.01	25.0	107.9	103.9	88	110	102.0	101.6	96.0										
p-bromofluorobenzene		29.51	27.38	25.0	28.47	25.69	26.58	25.0	118.0	109.5	86	115	113.9	102.8	106.3					H					

Notes and Definitions:

MDL= Method Detection Limit
LCL= Lower Control Limit
ND= Non Detected
DF=Dilution Factor
UCL= Upper Control Limit
RPD= Relative Percent Difference
rol Sample
H=Above control limit
NS=Not spiked
MS/MSD - Matrix Spike / Matrix Spike Duplicate
L=Below control limit
NA=Not applicable

001571

8260

Kemron Environmental Services -OVL

Volatile Quality Control Summary

Workgroup #:	WG71591	**Run Date:**	2/1/00	**Sample:**	01-362-06	**LCS DF:**	125
Method:	8260B	**Instrument ID:**	HPMS8	**Smple Flnm:**	8M13199.D	**SMPL DF:**	125
Matrix:	SOIL	**BLK FLNM:**	8M13197.D	**Dup Flnm:**	8M13200.D	**DUP DF:**	125
Units:	ug/Kg	**LCS FLNM:**	8M13198.D				

		CONCENTRATION, PPB					PERCENT RECOVERY						PERCENT RPD		OUTLIERS			
	RDL	Blank	LCS	LCS Spike Level	Sample	DUP	BLK	LCS	LCS LCL	LCS UCL	SMPL	DUP	RPD	RPD UCL	Blank	LCS	Sample	RPD
Target Analytes	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	%	%	%	%	%	%	%	%				
dichlorodifluoromethane	1250.0	ND	2111.3	2500.0	ND	ND	NA	84.5	19.0	175.0	ND	ND	NA	64.0				
chloromethane	1250.0	ND	2537.8	2500.0	ND	ND	NA	101.5	54.0	144.0	ND	ND	NA	38.0				
vinyl chloride	1250.0	ND	1935.8	2500.0	ND	ND	NA	77.4	67.0	141.0	ND	ND	NA	70.0				
bromomethane	1250.0	ND	3078.3	2500.0	ND	ND	NA	123.1	67.0	143.0	ND	ND	NA	41.0				
chloroethane	1250.0	ND	2092.1	2500.0	ND	ND	NA	83.7	71.0	135.0	ND	ND	NA	52.0				
trichlorofluoromethane	1250.0	ND	1501.9	2500.0	ND	ND	NA	60.1	68.0	151.0	ND	ND	NA	38.0		L		
isoprene	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
acrolein	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
freon 113	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
acetone	12500.0	ND	2804.4	2500.0	ND	ND	NA	112.2	70.0	161.0	ND	ND	NA	53.0				
1,1-dichloroethene	625.0	ND	2767.3	2500.0	ND	ND	NA	110.7	83.0	133.0	ND	ND	NA	25.0				
dimethyl sulfide	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
iodomethane	NTC	ND	NS	NS	17.6	33.0	NA	NA	NA	NA	17.6	33.0	60.8	NA				
methylene chloride	625.0	ND	2565.7	2500.0	ND	ND	NA	102.6	70.0	130.0	ND	ND	NA	23.0				
carbon disulfide	625.0	ND	2719.7	2500.0	ND	ND	NA	108.8	65.0	135.0	ND	ND	NA	20.0				
acrylonitrile	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
methyl-tert-butyl ether	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
trans-1,2-dichloroethene	625.0	ND	2965.5	2500.0	ND	ND	NA	118.6	81.0	145.0	ND	ND	NA	25.0				
n-hexane	625.0	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
vinyl acetate	1250.0	ND	2174.3	2500.0	ND	ND	NA	87.0	10.0	156.0	ND	ND	NA	61.0				
1,1-dichloroethane	625.0	ND	2875.2	2500.0	ND	ND	NA	115.0	86.0	126.0	ND	ND	NA	24.0				
2-butanone	12500.0	1121.9	4043.1	2500.0	929.9	920.1	NA	161.7	39.0	159.0	929.9	920.1	1.1	40.0		H		
2,2-dichloropropane	625.0	ND	2881.9	2500.0	ND	ND	NA	115.3	70.0	134.0	ND	ND	NA	20.0				
cis-1,2-dichloroethene	625.0	ND	2788.6	2500.0	ND	ND	NA	111.5	78.0	129.0	ND	ND	NA	18.0				
chloroform	625.0	ND	2749.5	2500.0	ND	ND	NA	110.0	81.0	126.0	ND	ND	NA	16.0				
bromochloromethane	625.0	ND	2729.9	2500.0	ND	ND	NA	109.2	81.0	129.0	ND	ND	NA	22.0				
1,1,1-trichloroethane	625.0	ND	2833.2	2500.0	ND	ND	NA	113.3	77.0	130.0	ND	ND	NA	21.0				
cyclohexane	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
1,1-dichloropropene	625.0	ND	3250.0	2500.0	ND	ND	NA	130.0	92.0	136.0	ND	ND	NA	20.0				
carbon tetrachloride	625.0	ND	2835.7	2500.0	ND	ND	NA	113.4	76.0	132.0	ND	ND	NA	25.0				
1,2-dichloroethane	625.0	ND	2641.0	2500.0	ND	ND	NA	105.6	78.0	128.0	ND	ND	NA	21.0				
benzene	625.0	ND	2856.5	2500.0	ND	ND	NA	114.3	86.0	122.0	ND	ND	NA	18.0				
trichloroethene	625.0	ND	2926.1	2500.0	ND	ND	NA	117.0	84.0	125.0	ND	ND	NA	19.0				
1,2-dichloropropane	625.0	ND	2738.4	2500.0	ND	ND	NA	109.5	83.0	125.0	ND	ND	NA	22.0				
bromodichloromethane	625.0	ND	2519.4	2500.0	ND	ND	NA	100.8	80.0	130.0	ND	ND	NA	16.0				
dibromomethane	625.0	ND	2579.9	2500.0	ND	ND	NA	103.2	80.0	127.0	ND	ND	NA	20.0				
2-chloroethylvinyl-ether	1250.0	ND	2966.7	2500.0	ND	ND	NA	118.7	50.0	154.0	ND	ND	NA	32.0				
4-methyl-2-pentanone	1250.0	ND	3160.0	2500.0	ND	ND	NA	126.4	48.0	158.0	ND	ND	NA	34.0				
cis-1,3-dichloropropene	625.0	ND	2785.1	2500.0	ND	ND	NA	111.4	85.0	127.0	ND	ND	NA	20.0				
dimethyl disulfide	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
toluene	625.0	ND	2748.2	2500.0	ND	ND	NA	109.9	85.0	123.0	ND	ND	NA	18.0				
ethyl methacrylate	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
trans-1,3-dichloropropene	625.0	ND	2430.6	2500.0	ND	ND	NA	97.2	82.0	124.0	ND	ND	NA	22.0				
1,1,2-trichloroethane	625.0	ND	2559.9	2500.0	ND	ND	NA	102.4	82.0	126.0	ND	ND	NA	21.0				

001572

Kemron Environmental Services -OVL
Volatile Quality Control Summary

Workgroup #:	WG71591	**Run Date:** 2/1/00	**Sample:** 01-362-06	**LCS DF:**	125
Method:	8260B	**Instrument ID:** HPMS8	**Smple Flnm:** 8M13199.D	**SMPL DF:**	125
Matrix:	SOIL	**BLK FLNM:** 8M13197.D	**Dup Flnm:** 8M13200.D	**MS DF:**	125
Units:	ug/Kg	**LCS FLNM:** 8M13198.D			

		CONCENTRATION, PPM					PERCENT RECOVERY						PERCENT RPD		OUTLIERS			
	RDL	BLK	LCS	LCS Spike Level	SMPL	DUP	BLK	LCS	LCS LCL	LCS UCL	SMPL	DUP	RPD	RPD UCL	Blank	LCS	Sample	RPD
Target Analytes	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	%	%	%	%	%	%	%	%				
2-hexanone	1250.0	ND	3223.2	2500.0	ND	ND	NA	128.9	38.0	130.0	ND	ND	NA	32.0				
1,3-dichloropropane	625.0	ND	2559.8	2500.0	ND	ND	NA	102.4	84.0	104.0	ND	ND	NA	23.0				
tetrachloroethene	625.0	ND	2745.9	2500.0	ND	ND	NA	109.8	83.0	126.0	ND	ND	NA	22.0				
dibromochloromethane	625.0	ND	2777.9	2500.0	ND	ND	NA	111.1	82.0	126.0	ND	ND	NA	22.0				
1,2-dibromoethane	625.0	ND	2702.1	2500.0	ND	ND	NA	108.1	81.0	128.0	ND	ND	NA	20.0				
1-chlorohexane	NTC	ND	NS	NS	ND	ND	NA	NA	60.0	140.0	ND	ND	NA	NA				
chlorobenzene	625.0	ND	2712.6	2500.0	ND	ND	NA	108.5	86.0	125.0	ND	ND	NA	16.0				
1,1,1,2-tetrachloroethane	625.0	ND	2838.9	2500.0	ND	ND	NA	113.6	83.0	127.0	ND	ND	NA	19.0				
ethylbenzene	625.0	ND	2826.5	2500.0	ND	ND	NA	113.1	86.0	125.0	ND	ND	NA	16.0				
m+p-xylene	625.0	ND	5601.4	5000.0	ND	ND	NA	112.0	86.0	123.0	ND	ND	NA	29.0				
o-xylene	625.0	ND	2503.3	2500.0	ND	ND	NA	100.1	87.0	124.0	ND	ND	NA	16.0				
styrene	625.0	ND	2445.0	2500.0	ND	ND	NA	97.8	83.0	124.0	ND	ND	NA	16.0				
bromoform	625.0	ND	2792.2	2500.0	ND	ND	NA	111.7	64.0	132.0	ND	ND	NA	17.0				
isopropylbenzene	625.0	ND	2384.0	2500.0	ND	ND	NA	95.4	85.0	124.0	ND	ND	NA	16.0				
1,1,2,2-tetrachloroethane	625.0	ND	2794.8	2500.0	ND	ND	NA	111.8	72.0	140.0	ND	ND	NA	32.0				
1,2,3-trichloropropane	625.0	ND	3002.3	2500.0	ND	ND	NA	120.1	70.0	144.0	ND	ND	NA	24.0				
trans-1,4-dichloro-2-butene	NTC	ND	NS	NS	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
propyl-benzene	625.0	ND	2419.7	2500.0	ND	ND	NA	96.8	84.0	126.0	ND	ND	NA	17.0				
bromobenzene	625.0	ND	2891.6	2500.0	ND	ND	NA	115.7	85.0	121.0	ND	ND	NA	18.0				
1,3,5-trimethylbenzene	625.0	ND	2716.9	2500.0	ND	ND	NA	108.7	86.0	124.0	ND	ND	NA	17.0				
2-chlorotoluene	625.0	ND	2883.4	2500.0	ND	ND	NA	115.3	81.0	127.0	ND	ND	NA	23.0				
4-chlorotoluene	625.0	ND	2940.8	2500.0	ND	ND	NA	117.6	84.0	125.0	ND	ND	NA	17.0				
alpha-methyl-styrene	NTC	ND	NS	2500.0	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA				
tert-butyl-benzene	625.0	ND	2526.8	2500.0	ND	ND	NA	101.1	83.0	125.0	ND	ND	NA	17.0				
1,2,4-trimethylbenzene	625.0	ND	2402.8	2500.0	ND	ND	NA	96.1	87.0	124.0	ND	ND	NA	16.0				
sec-butyl-benzene	625.0	ND	2170.5	2500.0	ND	ND	NA	86.8	83.0	126.0	ND	ND	NA	17.0				
p-isopropyl-toluene	625.0	ND	2156.9	2500.0	ND	ND	NA	86.3	83.0	122.0	ND	ND	NA	16.0				
1,3-dichlorobenzene	625.0	ND	2830.1	2500.0	ND	ND	NA	113.2	85.0	121.0	ND	ND	NA	16.0				
1,4-dichlorobenzene	625.0	ND	2707.3	2500.0	ND	ND	NA	108.3	84.0	119.0	ND	ND	NA	16.0				
n-butyl-benzene	625.0	ND	2540.3	2500.0	ND	ND	NA	101.6	81.0	128.0	ND	ND	NA	17.0				
1,2-dichlorobenzene	625.0	ND	2858.3	2500.0	ND	ND	NA	114.3	86.0	123.0	ND	ND	NA	16.0				
1,2-dibromo-3-chloropropane	625.0	ND	2682.4	2500.0	ND	ND	NA	107.3	51.0	151.0	ND	ND	NA	27.0				
1,2,4-trichlorobenzene	625.0	ND	2827.6	2500.0	48.1	ND	NA	113.1	74.0	126.0	48.1	ND	200.0	21.0				H
hexachlorobutadiene	625.0	ND	2383.5	2500.0	150.3	ND	NA	95.3	73.0	131.0	150.3	ND	200.0	27.0				H
napthalene	1250.0	ND	2823.5	2500.0	ND	ND	NA	112.9	61.0	142.0	ND	ND	NA	26.0				
1,2,3-trichlorobenzene	625.0	ND	2651.0	2500.0	ND	ND	NA	106.0	72.0	130.0	ND	ND	NA	23.0				
Surrogates																		
dibromofluoromethane		24.1	23.4	25.0	24.1	24.3	96.3	93.5	65	135	96.6	97.4						
1,2-dichloroethane-d4		22.8	22.6	25.0	22.8	22.4	91.2	90.4	65	135	91.3	89.6						
toluene-d8		25.4	24.6	25.0	23.4	23.6	101.5	98.32	65	135	93.4	94.2						
p-bromofluorobenzene		30.1	28.3	25.0	29.7	29.8	120.4	113.04	52	149	118.6	119.2						

Notes and Definitions:
MDL= Method Detection Limit
BLK= Method Blank
LCS= Laboratory Control Sample
SMPL= Sample Results
MS/MSD= Matrix Spike / Matrix Spike Duplicate
LCL= Lower Control Limit
UCL= Upper Control Limit
RPD= Relative Percent Difference
H=Above control limit
L=Below control limit
NS=Not spiked
ND= Non Detected

001573

CHEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG71268 **EXT DATE :** 1/24/2000 **RUN DATE :** 1/24/2000 **INSTRUMENT :** HPMS4
METHOD : 8270 **BENCH SHEET :** V131P55 **SMPL ID :** L0001362-03 **ANALYST :** mdc
MATRIX : SOIL **BLK FLNM :** 4M2086 **SMPL FLNM :** 4M2098
CONCENTRATION UNITS : ug/kg **LCS FLNM :** 4M2087 **MS FLNM :** 4M2099
PREP WORK GRP : WG71197 **MSD FLNM :** 4M2100

	CONCENTRATION , ug / kg								PERCENT RECOVERY , %									PERCENT		BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	% RPD	RPD LIMIT	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
YRIDINE	165	ND	1667	0	ND	1667	655	419	NA	0.0	25	150	NA	39.3	25.1	25	150	44	40	*					
I-NITROSODIMETHYLAMINE	165	ND	1667	757	ND	1667	822	703	NA	45.4	40	106	NA	49.3	42.2	40	106	16	40						
NILINE	165	ND	1667	530	ND	1667	996	474	NA	31.8	25	150	NA	59.8	28.5	25	150	71	40	*					
HENOL	165	ND	1667	782	ND	1667	631	676	NA	46.9	18	90	NA	37.9	40.5	18	90	7	40						
IS(2-CHLOROETHYL)ETHER	165	ND	1667	837	ND	1667	978	733	NA	50.2	19	88	NA	58.7	44.0	19	88	29	40						
-CHLOROPHENOL	165	ND	1667	743	ND	1667	840	656	NA	44.6	20	84	NA	50.4	39.4	20	84	25	40						
,3-DICHLOROBENZENE	165	ND	1667	769	ND	1667	846	722	NA	46.2	20	79	NA	50.7	43.3	20	79	16	40						
,4-DICHLOROBENZENE	165	ND	1667	741	ND	1667	827	684	NA	44.5	20	81	NA	49.6	41.0	20	81	19	40						
ENZYL ALCOHOL	165	ND	1667	800	ND	1667	866	668	NA	48.0	11	94	NA	52.0	40.1	11	94	26	40						
,2-DICHLOROBENZENE	165	ND	1667	778	ND	1667	849	696	NA	46.7	19	83	NA	51.0	41.8	19	83	20	40						
-METHYLPHENOL	165	ND	1667	813	ND	1667	899	706	NA	48.8	21	90	NA	53.9	42.4	21	90	24	40						
IS(2-CHLOROISOPROPYL)ETHEI	165	ND	1667	704	ND	1667	768	597	NA	42.2	10	92	NA	46.0	35.8	10	92	25	40						
- & 4-METHYLPHENOL	165	ND	1667	815	ND	1667	917	703	NA	48.9	23	91	NA	55.0	42.2	23	91	26	40						
I-NITROSO-DI-N-PROPYLAMINE	165	ND	1667	889	ND	1667	912	699	NA	53.3	19	93	NA	54.7	41.9	19	93	26	40						
EXACHLOROETHANE	165	ND	1667	788	ND	1667	877	707	NA	47.3	18	85	NA	52.6	42.4	18	85	21	40						
ITROBENZENE	165	ND	1667	880	ND	1667	957	758	NA	52.8	20	91	NA	57.4	45.5	20	91	23	40						
SOPHORONE	165	ND	1667	952	ND	1667	1000	785	NA	57.1	20	102	NA	60.0	47.1	20	102	24	40						
-NITROPHENOL	165	ND	1667	771	ND	1667	890	668	NA	46.2	20	90	NA	53.4	40.1	20	90	29	40						
,4-DIMETHYLPHENOL	165	ND	1667	845	ND	1667	1004	788	NA	50.7	23	98	NA	60.3	47.3	23	98	24	40						
IS(2-CHLOROETHOXY)METHANE	165	ND	1667	867	ND	1667	914	707	NA	52.0	23	96	NA	54.8	42.4	23	96	26	40						
ENZOIC ACID	825	ND	1667	543	ND	1667	680	623	NA	32.6	10	95	NA	40.8	37.4	10	95	9	40						
,4-DICHLOROPHENOL	165	ND	1667	819	ND	1667	1004	806	NA	49.2	21	93	NA	60.2	48.3	21	93	22	40						
,2,4-TRICHLOROBENZENE	165	ND	1667	769	ND	1667	852	668	NA	46.1	19	87	NA	51.1	40.1	19	87	24	40						
APHTHALENE	165	ND	1667	776	ND	1667	863	677	NA	46.5	21	89	NA	51.8	40.8	21	89	24	40						
-CHLOROANILINE	165	ND	1667	718	ND	1667	637	584	NA	43.1	10	94	NA	38.2	35.0	10	94	9	40						
EXACHLOROBUTADIENE	165	ND	1667	951	ND	1667	1061	835	NA	57.0	18	96	NA	63.7	50.1	18	96	24	40						
-CHLORO-3-METHYLPHENOL	165	ND	1667	981	ND	1667	1204	1178	NA	58.9	26	99	NA	72.2	70.7	26	99	2	40						
-METHYLNAPHTHALENE	165	ND	1667	810	ND	1667	910	719	NA	48.6	21	90	NA	54.6	43.1	21	90	24	40						
EXACHLOROCYCLOPENTADIEN	165	ND	1667	638	ND	1667	709	509	NA	38.3	10	89	NA	42.6	30.5	10	89	33	40						
,4,6-TRICHLOROPHENOL	165	ND	1667	909	ND	1667	1071	1071	NA	54.6	26	97	NA	64.3	64.2	26	97	0	40						
,4,5-TRICHLOROPHENOL	165	ND	1667	977	ND	1667	1205	1227	NA	58.6	27	96	NA	72.3	73.6	27	96	2	40						
-CHLORONAPHTHALENE	165	ND	1667	836	ND	1667	904	776	NA	50.1	23	93	NA	54.2	46.6	23	93	15	40						
-NITROANILINE	825	ND	1667	1091	ND	1667	1246	1153	NA	65.5	27	104	NA	74.7	69.2	27	104	8	40						
IMETHYLPHTHALATE	165	ND	1667	1114	ND	1667	1187	1081	NA	66.9	23	98	NA	71.2	64.9	23	98	9	40						
CENAPHTHYLENE	165	ND	1667	948	ND	1667	1061	959	NA	56.9	25	101	NA	63.7	57.5	25	101	10	40						
6-DINITROTOLUENE	165	ND	1667	1076	ND	1667	1185	1140	NA	64.5	31	103	NA	71.1	68.4	31	103	4	40						
-NITROANILINE	825	ND	1667	1032	ND	1667	1050	1041	NA	61.9	10	134	NA	63.0	62.5	10	134	1	40						
CENAPHTHENE	165	ND	1667	913	ND	1667	1045	989	NA	54.8	22	100	NA	62.7	59.3	22	100	6	40						
4-DINITROPHENOL	825	ND	1667	910	ND	1667	1161	1110	NA	54.6	11	102	NA	69.6	66.6	11	102	4	40						
-NITROPHENOL	825	ND	1667	1320	ND	1667	1499	1485	NA	79.2	30	116	NA	90.0	89.1	30	116	1	40						
IBENZOFURAN	165	ND	1667	945	ND	1667	1052	1028	NA	56.7	28	96	NA	63.1	61.7	28	96	2	40						
4-DINITROTOLUENE	165	ND	1667	1240	ND	1667	1294	1321	NA	74.4	41	109	NA	77.6	79.3	41	109	2	40						

CEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG71268 | EXT DATE : 1/24/2000 | RUN DATE : 1/24/2000 | INSTRUMENT : HPMS4
METHOD : 8270 | BENCH SHEET : V131P55 | SMPL ID : L0001362-03 | ANALYST : mdc
MATRIX : SOIL | BLK FLNM : 4M2086 | SMPL FLNM : 4M2098
CONCENTRATION UNITS : ug/kg | LCS FLNM : 4M2087 | MS FLNM : 4M2099
PREP WORK GRP : WG71197 | MSD FLNM : 4M2100

		CONCENTRATION , ug / kg							PERCENT RECOVERY , %									PERCENT		BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	% RPD	RPD LIMIT	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
IETHYLPHTHALATE	165	ND	1667	1275	ND	1667	1334	1318	NA	76.5	42	108	NA	80.0	79.1	42	108	1	40						
LUORENE	165	ND	1667	1074	ND	1667	1209	1207	NA	64.4	33	101	NA	72.5	72.4	33	101	0	40						
-CHLOROPHENYL-PHENYL ETHE	165	ND	1667	995	ND	1667	1099	1100	NA	59.7	29	99	NA	65.9	66.0	29	99	0	40						
-NITROANILINE	825	ND	1667	1106	ND	1667	1116	1147	NA	66.4	34	114	NA	67.0	68.8	34	114	3	40						
,2-DIPHENYLHYDRAZINE *	165	ND	1667	1194	ND	1667	1274	1317	NA	71.7	25	150	NA	76.5	79.0	25	150	3	40						
,6-DINITRO-2-METHYLPHENOL	825	ND	1667	878	ND	1667	985	887	NA	52.7	33	110	NA	59.1	53.2	33	110	10	40						
-NITROSODIPHENYLAMINE **	165	ND	1667	1108	ND	1667	1195	1197	NA	66.5	25	135	NA	71.7	71.8	25	135	0	40						
-BROMOPHENYL-PHENYL ETHE	165	ND	1667	1033	ND	1667	1119	1139	NA	62.0	32	94	NA	67.1	68.3	32	94	2	40						
EXACHLOROBENZENE	165	ND	1667	1183	ND	1667	1253	1271	NA	71.0	39	103	NA	75.2	76.3	39	103	1	40						
ENTACHLOROPHENOL	825	ND	1667	1062	ND	1667	1236	1171	NA	63.7	26	114	NA	74.2	70.2	26	114	5	40						
HENANTHRENE	165	ND	1667	1187	ND	1667	1290	1361	NA	71.2	38	111	NA	77.4	81.7	38	111	5	40						
NTHRACENE	165	ND	1667	1182	ND	1667	1262	1269	NA	70.9	44	105	NA	75.7	76.2	44	105	1	40						
ARBAZOLE	165	ND	1667	1141	ND	1667	1176	1188	NA	68.5	25	150	NA	70.6	71.3	25	150	1	40						
-N-BUTYLPHTHALATE	165	ND	1667	1275	ND	1667	1346	1353	NA	76.5	45	116	NA	80.7	81.2	45	116	1	40						
LUORANTHENE	165	ND	1667	1280	ND	1667	1356	1381	NA	76.8	46	114	NA	81.3	82.8	46	114	2	40						
YRENE	165	ND	1667	1228	ND	1667	1299	1393	NA	73.7	41	120	NA	77.9	83.6	41	120	7	40						
UTYLBENZYLPHTHALATE	165	ND	1667	1336	ND	1667	1487	1543	NA	80.2	45	135	NA	89.2	92.6	45	135	4	40						
ENZO(A)ANTHRACENE	330	ND	1667	1281	ND	1667	1336	1340	NA	76.9	41	119	NA	80.1	80.4	41	119	0	40						
,3'-DICHLOROBENZIDINE	165	ND	1667	1000	ND	1667	1002	872	NA	60.0	10	146	NA	60.1	52.3	10	146	14	40						
HRYSENE	165	ND	1667	1690	ND	1667	1755	1746	NA	101.4	44	118	NA	105.3	104.7	44	118	1	40						
IS(2-ETHYLHEXYL)PHTHALATE	165	ND	1667	1296	ND	1667	1579	1678	NA	77.8	48	122	NA	94.8	100.7	48	122	6	40						
-N-OCTYLPHTHALATE	165	ND	1667	1187	ND	1667	1686	1983	NA	71.2	40	127	NA	101.2	119.0	40	127	16	40						
ENZO[B]FLUORANTHENE	165	ND	1667	1244	ND	1667	1327	1443	NA	74.7	34	124	NA	79.6	86.6	34	124	8	40						
ENZO[K]FLUORANTHENE	165	ND	1667	1148	ND	1667	1336	1372	NA	68.8	37	124	NA	80.2	82.3	37	124	3	40						
ENZO[A]PYRENE	165	ND	1667	1268	ND	1667	1317	1352	NA	76.1	41	115	NA	79.0	81.1	41	115	3	40						
IDENO[1,2,3-CD]PYRENE	165	ND	1667	1504	ND	1667	1103	1035	NA	90.2	33	126	NA	66.2	62.1	33	126	6	40						
IBENZ[A,H]ANTHRACENE	165	ND	1667	1634	ND	1667	1243	1181	NA	98.1	31	127	NA	74.6	70.8	31	127	5	40						
ENZO[G,H,I]PERYLENE	165	ND	1667	1595	ND	1667	1092	1007	NA	95.7	34	120	NA	85.5	80.4	34	120	8	40						
URROGATES																									
FLUOROPHENOL		49.10	100	47.59	38.49	100	52.64	41.85	49.1	47.6	25	121	38.49	52.64	41.85	25	121								
HENOL - D5		47.72	100	50.09	39.03	100	41.33	42.80	47.7	50.1	24	113	39.03	41.33	42.80	24	113								
ITROBENZENE - D5		25.57	50	26.30	19.95	50	29.34	22.91	51.1	52.6	23	120	39.90	58.68	45.82	23	120								
FLUOROBIPHENYL		24.14	50	27.54	20.67	50	29.31	24.14	48.3	55.1	30	115	41.34	58.62	48.28	30	115								
4,6-TRIBROMOPHENOL		53.27	100	72.96	65.36	100	85.69	85.44	53.3	73.0	19	122	65.36	85.69	85.44	19	122								
TERPHENYL - D14		38.88	50	36.02	32.88	50	38.40	39.23	77.8	72.0	18	137	65.76	76.80	78.46	18	137								

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit
* = RPD above limit

KEMR ONMENTAL SERVICES , OVL
SEMI-VC ...ES QUALITY CONTROL SUMMARY

ANAL WORK GRP : wg71330 EXT DATE : 01/25/00 RUN DATE : 01/25/00 INSTRUMENT : HPMS7
METHOD : 8270 BENCH SHEET : V131P77 SMPL ID : NA ANALYST : mdc
MATRIX : WATER BLK FLNM : 7M6532 SMPL FLNM : NA
CONCENTRATION UNITS : ug/mL LCS FLNM: 7M6533 MS FLNM : NA
PREP WORK GRP : WG71259 MSD FLNM : NA

	CONCENTRATION , ug / mL								PERCENT RECOVERY , %									PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPD UCL	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
PYRIDINE	5.0	ND	50	5.9	NA	50	NA	NA	NA	11.7	10	150	NA	NA	NA	10	150	NA	40						
N-NITROSODIMETHYLAMINE	5.0	ND	50	14.0	NA	50	NA	NA	NA	27.9	10	150	NA	NA	NA	10	150	NA	40						
ANILINE	10.0	ND	50	15.0	NA	50	NA	NA	NA	29.9	10	150	NA	NA	NA	10	150	NA	40						
PHENOL	5.0	ND	50	8.4	NA	50	NA	NA	NA	16.7	10	62	NA	NA	NA	10	62	NA	40						
BIS(2-CHLOROETHYL)ETHER	5.0	ND	50	20.5	NA	50	NA	NA	NA	41.1	25	104	NA	NA	NA	25	104	NA	40						
2-CHLOROPHENOL	5.0	ND	50	19.2	NA	50	NA	NA	NA	38.4	26	99	NA	NA	NA	26	99	NA	40						
1,3-DICHLOROBENZENE	5.0	ND	50	18.6	NA	50	NA	NA	NA	37.2	22	89	NA	NA	NA	22	89	NA	40						
1,4-DICHLOROBENZENE	10.0	ND	50	18.1	NA	50	NA	NA	NA	36.2	22	91	NA	NA	NA	22	91	NA	40						
BENZYL ALCOHOL	5.0	ND	50	18.7	NA	50	NA	NA	NA	37.4	22	96	NA	NA	NA	22	96	NA	40						
1,2-DICHLOROBENZENE	5.0	ND	50	19.6	NA	50	NA	NA	NA	39.2	23	94	NA	NA	NA	23	94	NA	40						
2-METHYLPHENOL	5.0	ND	50	19.9	NA	50	NA	NA	NA	39.8	21	105	NA	NA	NA	21	105	NA	40						
BIS(2-CHLOROISOPROPYL)ETHE	5.0	ND	50	16.7	NA	50	NA	NA	NA	33.4	23	99	NA	NA	NA	23	99	NA	40						
3- & 4-METHYLPHENOL	5.0	ND	50	18.5	NA	50	NA	NA	NA	37.0	22	99	NA	NA	NA	22	99	NA	40						
N-NITROSO-DI-N-PROPYLAMINE	5.0	ND	50	20.8	NA	50	NA	NA	NA	41.6	24	113	NA	NA	NA	24	113	NA	40						
HEXACHLOROETHANE	5.0	ND	50	17.7	NA	50	NA	NA	NA	35.3	20	93	NA	NA	NA	20	93	NA	40						
NITROBENZENE	5.0	ND	50	19.9	NA	50	NA	NA	NA	39.8	26	109	NA	NA	NA	26	109	NA	40						
ISOPHORONE	5.0	ND	50	22.9	NA	50	NA	NA	NA	45.9	24	126	NA	NA	NA	24	126	NA	40						
2-NITROPHENOL	5.0	ND	50	19.7	NA	50	NA	NA	NA	39.4	23	114	NA	NA	NA	23	114	NA	40						
2,4-DIMETHYLPHENOL	5.0	ND	50	24.5	NA	50	NA	NA	NA	49.1	27	121	NA	NA	NA	27	121	NA	40						
BIS(2-CHLOROETHOXY)METHAN	25.0	ND	50	22.4	NA	50	NA	NA	NA	44.7	26	120	NA	NA	NA	26	120	NA	40						
BENZOIC ACID	5.0	ND	50	7.0	NA	50	NA	NA	NA	14.1	10	106	NA	NA	NA	10	106	NA	40						
2,4-DICHLOROPHENOL	5.0	ND	50	24.1	NA	50	NA	NA	NA	48.2	27	116	NA	NA	NA	27	116	NA	40						
1,2,4-TRICHLOROBENZENE	5.0	ND	50	18.9	NA	50	NA	NA	NA	37.7	21	100	NA	NA	NA	21	100	NA	40						
NAPHTHALENE	5.0	ND	50	19.5	NA	50	NA	NA	NA	38.9	27	107	NA	NA	NA	27	107	NA	40						
4-CHLOROANILINE	5.0	ND	50	22.5	NA	50	NA	NA	NA	45.0	10	109	NA	NA	NA	10	109	NA	40						
HEXACHLOROBUTADIENE	10.0	ND	50	20.8	NA	50	NA	NA	NA	41.5	22	107	NA	NA	NA	22	107	NA	40						
4-CHLORO-3-METHYLPHENOL	5.0	ND	50	32.3	NA	50	NA	NA	NA	64.6	39	111	NA	NA	NA	39	111	NA	40						
2-METHYLNAPHTHALENE	5.0	ND	50	20.7	NA	50	NA	NA	NA	41.5	27	109	NA	NA	NA	27	109	NA	40						
HEXACHLOROCYCLOPENTADIEN	5.0	ND	50	18.7	NA	50	NA	NA	NA	37.4	10	102	NA	NA	NA	10	102	NA	40						
2,4,6-TRICHLOROPHENOL	25.0	ND	50	30.9	NA	50	NA	NA	NA	61.7	37	103	NA	NA	NA	37	103	NA	40						
2,4,5-TRICHLOROPHENOL	5.0	ND	50	35.3	NA	50	NA	NA	NA	70.6	42	115	NA	NA	NA	42	115	NA	40						
2-CHLORONAPHTHALENE	25.0	ND	50	21.7	NA	50	NA	NA	NA	43.3	24	115	NA	NA	NA	24	115	NA	40						
2-NITROANILINE	5.0	ND	50	29.8	NA	50	NA	NA	NA	59.5	46	110	NA	NA	NA	46	110	NA	40						
DIMETHYLPHTHALATE	5.0	ND	50	32.3	NA	50	NA	NA	NA	64.6	29	116	NA	NA	NA	29	116	NA	40						
ACENAPHTHYLENE	5.0	ND	50	25.8	NA	50	NA	NA	NA	51.6	37	120	NA	NA	NA	37	120	NA	40						
2,6-DINITROTOLUENE	5.0	ND	50	33.3	NA	50	NA	NA	NA	66.5	45	117	NA	NA	NA	45	117	NA	40						
3-NITROANILINE	25.0	ND	50	33.5	NA	50	NA	NA	NA	67.0	44	121	NA	NA	NA	44	121	NA	40						
ACENAPHTHENE	5.0	ND	50	25.7	NA	50	NA	NA	NA	51.4	30	127	NA	NA	NA	30	127	NA	40						
2,4-DINITROPHENOL	25.0	ND	50	23.3	NA	50	NA	NA	NA	46.6	22	109	NA	NA	NA	22	109	NA	40						
4-NITROPHENOL	25.0	ND	50	15.1	NA	50	NA	NA	NA	30.3	10	81	NA	NA	NA	10	81	NA	40						
DIBENZOFURAN	5.0	ND	50	26.7	NA	50	NA	NA	NA	53.3	36	122	NA	NA	NA	36	122	NA	40						
2,4-DINITROTOLUENE	5.0	ND	50	37.9	NA	50	NA	NA	NA	75.8	58	128	NA	NA	NA	58	128	NA	40						

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
)T DETECTED
:PORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit

001576

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : wg71330 **EXT DATE :** 01/25/00 **RUN DATE :** 01/25/00 **INSTRUMENT :** HPMS7
METHOD : 8270 **BENCH SHEET :** V131P77 **SMPL ID :** NA **ANALYST :** mdc
MATRIX : WATER **BLK FLNM :** 7M6532 **SMPL FLNM :** NA
CONCENTRATION UNITS : ug/mL **LCS FLNM:** 7M6533 **MS FLNM :** NA
PREP WORK GRP : WG71259 **MSD FLNM :** NA

	CONCENTRATION , ug/mL								PERCENT RECOVERY , %									PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPD UCL	BEYOND RPD LIMIT	SAMPLE	BLANK	LCS	MS	MSD
DIETHYLPHTHALATE	5.0	ND	50	37.7	NA	50	NA	NA	NA	75.4	37	130	NA	NA	NA	37	130	NA	40						
FLUORENE	5.0	ND	50	31.4	NA	50	NA	NA	NA	62.8	39	111	NA	NA	NA	39	111	NA	40						
4-CHLOROPHENYL-PHENYL ETH	5.0	ND	50	30.4	NA	50	NA	NA	NA	60.7	25	106	NA	NA	NA	25	106	NA	40						
4-NITROANILINE	25.0	ND	50	35.7	NA	50	NA	NA	NA	71.5	45	147	NA	NA	NA	45	147	NA	40						
1,2-DIPHENYLHYDRAZINE *	5.0	ND	50	32.9	NA	50	NA	NA	NA	65.9	42	120	NA	NA	NA	42	120	NA	40						
4,6-DINITRO-2-METHYLPHENOL	25.0	ND	50	31.6	NA	50	NA	NA	NA	63.2	33	135	NA	NA	NA	33	135	NA	40						
N-NITROSODIPHENYLAMINE **	5.0	ND	50	35.1	NA	50	NA	NA	NA	70.2	36	119	NA	NA	NA	36	119	NA	40						
4-BROMOPHENYL-PHENYL ETHE	5.0	ND	50	32.1	NA	50	NA	NA	NA	64.2	31	104	NA	NA	NA	31	104	NA	40						
HEXACHLOROBENZENE	5.0	ND	50	36.3	NA	50	NA	NA	NA	72.7	55	119	NA	NA	NA	55	119	NA	40						
PENTACHLOROPHENOL	25.0	ND	50	36.9	NA	50	NA	NA	NA	73.9	40	131	NA	NA	NA	40	131	NA	40						
PHENANTHRENE	5.0	ND	50	36.3	NA	50	NA	NA	NA	72.6	50	125	NA	NA	NA	50	125	NA	40						
ANTHRACENE	5.0	ND	50	37.1	NA	50	NA	NA	NA	74.2	52	120	NA	NA	NA	52	120	NA	40						
CARBAZOLE	5.0	ND	50	37.7	NA	50	NA	NA	NA	75.4	36	181	NA	NA	NA	36	181	NA	40						
DI-N-BUTYLPHTHALATE	5.0	ND	50	40.6	NA	50	NA	NA	NA	81.1	37	139	NA	NA	NA	37	139	NA	40						
FLUORANTHENE	5.0	ND	50	39.5	NA	50	NA	NA	NA	79.1	52	137	NA	NA	NA	52	137	NA	40						
PYRENE	5.0	ND	50	38.4	NA	50	NA	NA	NA	76.8	55	127	NA	NA	NA	55	127	NA	40						
BUTYLBENZYLPHTHALATE	5.0	ND	50	44.6	NA	50	NA	NA	NA	89.2	28	150	NA	NA	NA	28	150	NA	40						
BENZO(A)ANTHRACENE	10.0	ND	50	39.7	NA	50	NA	NA	NA	79.3	58	131	NA	NA	NA	58	131	NA	40						
3,3'-DICHLOROBENZIDINE	5.0	ND	50	36.7	NA	50	NA	NA	NA	73.5	41	172	NA	NA	NA	41	172	NA	40						
CHRYSENE	5.0	ND	50	52.3	NA	50	NA	NA	NA	104.6	67	176	NA	NA	NA	67	176	NA	40						
BIS(2-ETHYLHEXYL)PHTHALATE	5.0	ND	50	44.6	NA	50	NA	NA	NA	89.1	32	149	NA	NA	NA	32	149	NA	40						
DI-N-OCTYLPHTHALATE	5.0	ND	50	46.8	NA	50	NA	NA	NA	93.6	32	149	NA	NA	NA	32	149	NA	40						
BENZO[B]FLUORANTHENE	5.0	ND	50	38.2	NA	50	NA	NA	NA	76.3	48	129	NA	NA	NA	48	129	NA	40						
BENZO[K]FLUORANTHENE	5.0	ND	50	38.3	NA	50	NA	NA	NA	76.5	55	127	NA	NA	NA	55	127	NA	40						
BENZO[A]PYRENE	5.0	ND	50	38.8	NA	50	NA	NA	NA	77.5	55	132	NA	NA	NA	55	132	NA	40						
INDENO[1,2,3-CD]PYRENE	5.0	ND	50	31.6	NA	50	NA	NA	NA	63.2	43	140	NA	NA	NA	43	140	NA	40						
DIBENZ[A,H]ANTHRACENE	5.0	ND	50	35.3	NA	50	NA	NA	NA	70.5	37	167	NA	NA	NA	37	167	NA	40						
BENZO[G,H,I]PERYLENE	5.0	ND	50	30.2	NA	50	NA	NA	NA	60.4	42	143	NA	NA	NA	42	143	NA	40						
SURROGATES																									
2-FLUOROPHENOL		29.8	100	25.8	NA	100	NA	NA	29.8	25.8	21	100	NA	NA	NA	21	100								
PHENOL - D5		18.3	100	17.1	NA	100	NA	NA	18.3	17.1	10	94	NA	NA	NA	10	94								
NITROBENZENE - D5		21.3	50	20.0	NA	50	NA	NA	42.6	40.0	35	114	NA	NA	NA	35	114								
2-FLUOROBIPHENYL		24.5	50	23.6	NA	50	NA	NA	49.0	47.2	43	116	NA	NA	NA	43	116								
2,4,6-TRIBROMOPHENOL		75.9	100	84.4	NA	100	NA	NA	75.9	84.4	10	123	NA	NA	NA	10	123								
p-TERPHENYL - D14		41.4	50	42.1	NA	50	NA	NA	82.8	84.1	33	141	NA	NA	NA	33	141								

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit

001577

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / PCB SOILS , FRONT

EXT'N DATE : 1/24/2000
EXT'N BENCH SHT : V131P53
EXT'N WORK GRP : WG71196

INSTRUMENT : HP10
ANALYST : SMW
RUN DATE : 1/24/2000
ANAL WORK GRP : WG71232

BLK FLNM : 10G6962
LCS FLNM : 10G6963

SMPL ID : L0001362-11
SMPL FLNM : 10G6965
MS FLNM : 10G6966
MSD FLNM : 10G6967

COMPOUND	RDL	CONCENTRATION , ug/Kg					% RECOVERY								PERCENT						
		Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	17.0	ND	118.1	ND	179.6	108.1	NA	142	29	131	NA	216	130	29	131	49.7	0-49		H		H	
AROCLOR 1221	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1232	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-36					
AROCLOR 1242	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1248	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1254	17.0	ND	NA	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1260	17.0	ND	126.3	ND	210.8	117.2	NA	152	29	131	NA	253	141	29	131	57.1	0-62		H		H	H
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		14.7	18.4	23.2	26.7	9.9	73.3	92.0	29	133	116.2	133.4	49.6	29	133						H	
DECACHLOROBIPHENYL		22.1	22.9	16.6	32.9	14.3	111	115	30	173	83.2	165	71.6	30	173							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 83.3 ug/kg
SURROGATES spiked at 20.0 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / PCB WATERS , FRONT

		INSTRUMENT : HP10			SMPL ID : NA
EXT'N DATE : 1/25/2000		ANALYST : SMW	BLK FLNM : 10G6991		SMPL FLNM : NA
EXT'N BENCH SHT : V131P75		RUN DATE : 1/25/2000	LCS FLNM : 10G6992		MS FLNM : NA
EXT'N WORK GRP : WG71256		ANAL WORK GRP : WG71281			MSD FLNM : NA

		CONCENTRATION , ug/L					% RECOVERY								PERCENT						
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	0.5	ND	3.82	ND	NA	NA	NA	153	48	125	NA	NA	NA	48	125	NA	0-46		H			
AROCLOR 1221	0.5	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-38					
AROCLOR 1232	0.5	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-35					
AROCLOR 1242	0.5	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-35					
AROCLOR 1248	0.5	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-31					
AROCLOR 1254	0.5	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-36					
AROCLOR 1260	0.5	ND	4.05	ND	NA	NA	NA	162.0	59	122	NA	NA	NA	59	122	NA	0-41		H			
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		11.0	12.4	NA	NA	NA	55.2	62.2	13	154	NA	NA	NA	13	154							
DECACHLOROBIPHENYL		25.8	23.5	NA	NA	NA	129.1	118	25	140	NA	NA	NA	25	140							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 2.5 ug/kg
SURROGATES spiked at 20 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Kiber Environmental Services
3145 Medlock Bridge Road
Norcross, GA 30071

Attention: George Zaharchak

PO Number:
Account Number: KIBER-601
Invoice Number: 546368

Login #: L0003306
Report Date: 03/27/00
Work ID: SHERIDAN
Date Received: 03/16/00

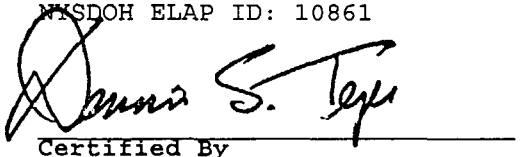
SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0003306-01	POND SLUDGE		

Revised Report

All results on solids/sludges are reported on a wet weight basis (AS RECEIVED), unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861



Certified By
Dennis S. Tepe

KEMRON ENVIRONMENTAL SERVICES

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0003306-01
lient Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN

Matrix: Sludge
Collected: 03/15/00 00:00

% Solid: 41
COC Info: N/A

nalyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
ercent Solids.....	weight %	41	A	1.0	1	N/A	TMM	03/20/00	14:30	D2216-90

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0003306-01
Client Sample ID: POND SLUDGE
Site/Work ID: SHERIDAN
Matrix: Sludge

Dil. Type: N/A
COC Info: N/A
Date Collected: 03/15/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: 41

CLP Extract Date: N/A
Extract Date: 03/16/00
Analysis Date: 03/17/00 Time: 19:26

Instrument: HP9
Analyst: ECL
Lab File ID: 9G9242

Method: 8081A\3550B
Run ID: R85349
Batch : WG73855

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC.....	ug/kg		ND,L	170	100
319-85-7	beta-BHC.....	ug/kg		ND	170	100
319-86-8	delta-BHC.....	ug/kg		ND	170	100
76-44-8	Heptachlor.....	ug/kg		ND	170	100
309-00-2	Aldrin.....	ug/kg		ND	170	100
1024-57-3	Heptachlor epoxide.....	ug/kg		ND	170	100
959-98-8	Endosulfan I.....	ug/kg		ND	170	100
60-57-1	Dieldrin.....	ug/kg		ND	330	100
72-55-9	4,4'-DDE.....	ug/kg		ND	330	100
72-20-8	Endrin.....	ug/kg		ND	330	100
33213-65-9	Endosulfan II.....	ug/kg		ND	330	100
72-54-8	4,4'-DDD.....	ug/kg		ND	330	100
1031-07-8	Endosulfan sulfate.....	ug/kg		ND	330	100
50-29-3	4,4'-DDT.....	ug/kg		ND	330	100
72-43-5	Methoxychlor.....	ug/kg		ND	1700	100
53494-70-5	Endrin ketone.....	ug/kg		ND	330	100
7421-93-4	Endrin aldehyde.....	ug/kg		ND	330	100
5103-71-9	alpha Chlordane.....	ug/kg		ND	170	100
5103-74-2	gamma Chlordane.....	ug/kg		ND	170	100
8001-35-2	Toxaphene.....	ug/kg		ND	3300	100
58-89-9	gamma-BHC (Lindane).....	ug/kg		ND	170	100

= Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID:	L0003306-01	Dil. Type:	N/A	Sample Weight:	N/A
Client Sample ID:	POND SLUDGE	COC Info:	N/A	Extract Volume:	N/A
Site/Work ID:	SHERIDAN				
Matrix:	Sludge	Date Collected:	03/15/00	% Solid:	41
CLP Extract Date:	N/A	Instrument:	HP9	Method:	8081A\3550B
Extract Date:	03/16/00	Analyst:	ECL	Run ID:	R85349
Analysis Date:	03/17/00 Time: 19:26	Lab File ID:	9G9242	Batch :	WG73855

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....	DL		(29 - 133%)		
	Decachlorobiphenyl.....	DL		(30 - 173%)		

▪ Reporting Limit

Order #: 00-03-306
March 22, 2000 03:23 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG73817	R85349	L0003306-01		Sludge	Organochlorine Pesticides	8081A\3550B	15-MAR-2000	Extraction
WG73855	R85349	L0003306-01		Sludge	Organochlorine Pesticides	8081A\3550B	15-MAR-2000	Semivolatile - GC
WG73934	R85256	L0003306-01		Sludge	Percent Solids	D2216-90	15-MAR-2000	Conventionals

001583

KEMRON ANALYST LIST

Ohio Valley Laboratory

03/01/00

ALT - Ann L. Thayer
ARS - Angelina (Nina) R. Scott
BKL - Brian K. LeMasters
BRG - Brenda R. Gregory
CAG - Cheryl A. Graham
CAK - Cheryl A. Koelsch
CBN - Charles B. Noll
CEA - Carla E. Allen
CEB - Chad E. Barnes
CLC - Chrys L. Crawford
CLK - Carl L. King
CLW - Charissa L. Winters
CMS - Crystal M. Stevens
CPA - Cliff P. Asher
CRC - Carla R. Cochran
CSH - Chris S. Hill
CWS - Clark W. Stanley
DAM - Dan A. Musgrave
DAS - Dallas A. Sullivan
DAT - Debbie A. Tornes
DEL - Don E. Lightfritz
DEV - David E. Vandenberg
DGB - Douglas G. Butcher
DIH - Deanna I. Hesson
DLA - Denise L. Adams
DLB - David L. Bumgarner
DLN - Deanna L. Norton
DLP - Dorothy L. Payne
DLR - Dianna L. Rauch
DMD - David M. Dye
DST - Dennis S. Tepe
EAW - Elizabeth (Beth) A. Weber
ECL - Eric C. Lawson
EIE - Elizabeth (Betsy) I. Eagle
FEH - Fay E. Harmon
GSG - Galen S. George
GWH - George W. Hutchinson
HV - Hema Vilasagar
JCR - Jennifer C. Randall
JDN - Jamie D. Newell
JKM - June K. Morris
JKW - Jane K. Warden
JLH - Janice L. Holland
JMT - Joy M. Thomas
JMW - John M. Wass
JRM - Jay R. McDougal
JWR - John W. Richards
JWS - Jack W. Sheaves
JYH - Ji Y. Hu
KHR - Kim H. Rhodes
KRA - Kathy R. Albertson
KSL - Kelly S. Lauer
LKM - Laura K Morris
LKN - Linda K. Nedeff
LLB - Lori L. Bradley
LSA - Lucinda (Cindy) S. Arnold
LSB - Leslie S. Bucina
MDA - Mike D. Albertson
MDC - Michael D. Cochran
MDG - Melissa D. Grimes
MEF - Mike E. Flanagan
MES - Mary E. Schilling
MFB - Mike F. Barrow
MLS - Michael L. Schimmel
MMB- Maren M. Beery
MSW - Matt S. Wilson
NJB - Natalie J. Booth
PML - Paula M. Leidy
RDC - Rebecca D. Cutlip
REF - Ron E. Fertile
REK - Robert E. Keyer
RJW - Rhonda J. Wittekind
RLW - Ron L. Watson
RSH - Renee S. Hennes
RSS - Regina S. Simmons
RWC - Rod W. Campbell
SAL - Sophia A. Lesher
SJK - Sindy J. Kinney
SLP - Sheri L. Pfalzgraf
SLT - Stephanie L. Tepe
SMW - Shauna M. Welch
SPL - Steve P. Learn
SPS - Steve P. Swatzel
TJH - Tim J. Hoeflich
TLD - Teresa L. Davis
TMM- Tammy M. Morris
TRS - Todd R. Stack
VC - Vicki Collier
VMN - Vincent M. Nedeff

KEMRON Environmental Services, Inc.
LIST OF VALID QUALIFIERS (qual)
December 10, 1998

Qualifier	Description
A	See the report narrative
NA	Not applicable
+	Correlation coefficient for the MSA is less than 0.995
<	Less than
>	Greater than
B	Present in the method blank
C	Confirmed by GC/MS
*	Surrogate or spike compound out of range
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
F	Present below nominal reporting limit (AFCEE only)
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met

Qualifier	Description
N	Tentatively Identified Compound (TIC)
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration > 25% difference between the two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out of control limits
Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

ORGANIC QA/QC

ON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / 8081 SOILS , FRONT

INSTRUMENT : HP9
EXT'N DATE : 3/16/00 ANALYST : ECL BLK FLNM : 9G9238 SAMPLE ID : L0003306-01 100x
EXT'N BENCH SHT : V134 P97 RUN DATE : 3/17/00 LCS FLNM : 9G9239 SMPL FLNM : 9G9242
EXT'N WORK GRP : WG73817 ANAL WORK GRP : WG73855 MS FLNM : 9G9243
MSD FLNM : 9G9244

COMPOUND	RDL	CONCENTRATION , ug/kg					% RECOVERY							PERCENT			
		Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits
ALPHA-BHC	1.7	ND	12.7	ND	DL	DL	NA	76.1	38	125	NA	DL	DL	38	125	NA	0-42
GAMMA-BHC	1.7	ND	13.3	ND	DL	DL	NA	79.5	37	125	NA	DL	DL	37	125	NA	0-42
BETA-BHC	1.7	ND	13.6	ND	DL	DL	NA	81.7	39	103	NA	DL	DL	39	103	NA	0-37
HEPTACHLOR	1.7	ND	13.7	ND	DL	DL	NA	81.9	40	111	NA	DL	DL	40	111	NA	0-40
DELTA-BHC	1.7	ND	14.2	ND	DL	DL	NA	84.8	38	133	NA	DL	DL	38	133	NA	0-40
ALDRIN	1.7	ND	13.4	ND	DL	DL	NA	80.4	34	124	NA	DL	DL	34	124	NA	0-41
HEPTACHLOR EPOXIDE	1.7	ND	14.7	ND	DL	DL	NA	87.9	37	115	NA	DL	DL	37	115	NA	0-38
GAMMA-CHLORDANE	1.7	ND	14.5	ND	DL	DL	NA	87.0	70	130	NA	DL	DL	70	130	NA	0-40
ALPHA-CHLORDANE	1.7	ND	13.6	ND	DL	DL	NA	81.4	70	130	NA	DL	DL	70	130	NA	0-40
ENDOSULFAN I	1.7	ND	10.5	ND	DL	DL	NA	62.7	18	107	NA	DL	DL	18	107	NA	0-46
4,4-DDE	3.3	ND	17.6	ND	DL	DL	NA	105	39	114	NA	DL	DL	39	114	NA	0-38
DIELDRIN	3.3	ND	17.2	ND	DL	DL	NA	103	41	121	NA	DL	DL	41	121	NA	0-39
ENDRIN	3.3	ND	16.5	ND	DL	DL	NA	98.7	41	125	NA	DL	DL	41	125	NA	0-42
4,4-DDD	3.3	ND	17.1	ND	DL	DL	NA	102	38	119	NA	DL	DL	38	119	NA	0-40
ENDOSULFAN II	3.3	ND	11.6	ND	DL	DL	NA	69.7	21	101	NA	DL	DL	21	101	NA	0-43
4,4-DDT	3.3	ND	18.9	ND	DL	DL	NA	113	41	128	NA	DL	DL	41	128	NA	0-40
ENDRIN ALDEHYDE	3.3	ND	12.7	ND	DL	DL	NA	76.1	20	100	NA	DL	DL	20	100	NA	0-54
ENDOSULFAN SULFATE	3.3	ND	12.1	ND	DL	DL	NA	72.7	18	108	NA	DL	DL	18	108	NA	0-53
METHOXYCHLOR	17	ND	20.8	ND	DL	DL	NA	125	43	123	NA	DL	DL	43	123	NA	0-40 H
ENDRIN KETONE	3.3	ND	15.6	ND	DL	DL	NA	93.3	26	129	NA	DL	DL	26	129	NA	0-43
Tech-CHLORDANE	33	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-40
TOXAPHENE	33	ND	NA	ND	NA	NA	NA	NA	25	138	NA	NA	NA	25	138	NA	0-40
SURROGATES																	
2,4,5,6-TETRACHLORO-M-XYLENE		13.9	13.4	DL	DL	DL	69.4	67.1	29	133	DL	DL	DL	29	133		
DECACHLOROBIPHENYL		19.6	21.8	DL	DL	DL	98.0	109	30	173	DL	DL	DL	30	173		

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 16.7 ug/kg
SURROGATES spiked at 20 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

001587

N ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / 8080 SOILS , REAR

INSTRUMENT : HP9
EXT'N DATE : 3/16/00 ANALYST : ECL BLK FLNM : 9G9238 SAMPLE ID : L0003306-01 100x
EXT'N BENCH SHT : V134 P97 RUN DATE : 3/17/00 LCS FLNM : 9G9239 SMPL FLNM : 9G9242
EXT'N WORK GRP : WG73817 ANAL WORK GRP : WG73855 MS FLNM : 9G9243
MSD FLNM : 9G9244

		CONCENTRATION , ug/L					% RECOVERY							PERCENT				
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank CS Sample MS MSD
ALPHA-BHC	1.7	ND	13.3	ND	DL	DL	NA	79.5	38	125	NA	DL	DL	38	125	NA	0-42	
GAMMA-BHC	1.7	ND	13.7	ND	DL	DL	NA	81.7	37	125	NA	DL	DL	37	125	NA	0-42	
BETA-BHC	1.7	ND	13.2	ND	DL	DL	NA	79.0	39	103	NA	DL	DL	39	103	NA	0-37	
HEPTACHLOR	1.7	ND	16.1	ND	DL	DL	NA	96.4	40	111	NA	DL	DL	40	111	NA	0-40	
DELTA-BHC	1.7	ND	16.3	ND	DL	DL	NA	97.6	38	133	NA	DL	DL	38	133	NA	0-40	
ALDRIN	1.7	ND	14.3	ND	DL	DL	NA	85.4	34	124	NA	DL	DL	34	124	NA	0-41	
HEPTACHLOR EPOXIDE	1.7	ND	15.5	ND	DL	DL	NA	92.6	37	115	NA	DL	DL	37	115	NA	0-38	
GAMMA-CHLORDANE	1.7	ND	15.3	ND	DL	DL	NA	91.9	70	130	NA	DL	DL	70	130	NA	0-40	
ALPHA-CHLORDANE	1.7	ND	14.8	ND	DL	DL	NA	88.8	70	130	NA	DL	DL	70	130	NA	0-40	
ENDOSULFAN I	1.7	ND	11.5	ND	DL	DL	NA	69.1	18	107	NA	DL	DL	18	107	NA	0-46	
4,4-DDE	3.3	ND	16.0	ND	DL	DL	NA	95.8	39	114	NA	DL	DL	39	114	NA	0-38	
DIELDRIN	3.3	ND	16.6	ND	DL	DL	NA	99.6	41	121	NA	DL	DL	41	121	NA	0-39	
ENDRIN	3.3	ND	16.4	ND	DL	DL	NA	98.4	41	125	NA	DL	DL	41	125	NA	0-42	
4,4-DDD	3.3	ND	16.6	ND	DL	DL	NA	99.5	38	119	NA	DL	DL	38	119	NA	0-40	
ENDOSULFAN II	3.3	ND	12.0	ND	DL	DL	NA	71.7	21	101	NA	DL	DL	21	101	NA	0-43	
4,4-DDT	3.3	ND	17.9	ND	DL	DL	NA	107	41	128	NA	DL	DL	41	128	NA	0-40	
ENDRIN ALDEHYDE	3.3	ND	11.5	ND	DL	DL	NA	69.0	20	100	NA	DL	DL	20	100	NA	0-54	
ENDOSULFAN SULFATE	3.3	ND	12.0	ND	DL	DL	NA	71.9	18	108	NA	DL	DL	18	108	NA	0-53	
METHOXYCHLOR	17	ND	20.0	ND	DL	DL	NA	120	43	123	NA	DL	DL	43	123	NA	0-40	
ENDRIN KETONE	3.3	ND	13.7	ND	DL	DL	NA	82.2	26	129	NA	DL	DL	26	129	NA	0-43	
Tech-CHLORDANE	33	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-40	
TOXAPHENE	33	ND	NA	ND	NA	NA	NA	NA	25	138	NA	NA	NA	25	138	NA	0-40	
SURROGATES																		
2,4,5,6-TETRACHLORO-M-XYLENE		14.3	14.1	DL	DL	DL	71.4	70.4	29	133	DL	DL	DL	29	133			
DECACHLOROBIPHENYL		20.8	23.1	DL	DL	DL	104	115	30	173	DL	DL	DL	30	173			

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 16.7 ug/kg
SURROGATES spiked at 20 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

ORGANIC INSTRUMENT DATA

KEMRON
ENVIRONMENTAL SERVICES

ENDRIN/ 4-4' DDT BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G9228.D

ENDRIN	ENDRIN ALDEHYDE	ENDRIN KETONE	ENDRIN BREAKDOWN
6293348696	81170669.33	144739234	3.47 %

4-4' DDT	4-4' DDE	4-4' DDD	4-4' DDT BREAKDOWN
4458399598	50784714	162427894.4	4.56 %

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G9228.D

ENDRIN #2	ENDRIN ALDEHYDE #2	ENDRIN KETONE #2	ENDRIN #2 BREAKDOWN
1967749550	0	43571326	2.17 %

4-4' DDT #2	4-4' DDE #2	4-4' DDD #2	4-4' DDT #2 BREAKDOWN
1528498088	23476546	79908446	6.34 %

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9229.D\ECD1A.CH Vial: 2
Acq On : 17 Mar 2000 13:35 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9229.D\ECD2B.CH Vial: 2
Acq On : 17 Mar 2000 13:59 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYLENE	20.000	19.783	1.1	96	-0.02
2		ALPHA-BHC	20.000	20.137	-0.7	98	-0.01
3		GAMMA-BHC	20.000	20.132	-0.7	98	-0.01
4		BETA-BHC	20.000	19.696	1.5	98	-0.02
5		HEPTACHLOR	20.000	20.439	-2.2	103	0.00
6		DELTA-BHC	20.000	20.153	-0.8	100	-0.02
		ALDRIN	20.000	20.481	-2.4	97	0.00
		HEPTACHLOR EPOXIDE	20.000	20.447	-2.2	97	0.00
9		GAMMA CHLORDANE	20.000	20.303	-1.5	99	0.00
10		ALPHA CHLORDANE	20.000	20.213	-1.1	98	0.00
11		ENDOSULFAN I	20.000	20.455	-2.3	98	0.00
12		4-4' DDE	20.000	20.674	-3.4	101	0.00
13		DIELDRIN	20.000	19.682	1.6	94	0.00
14		ENDRIN	20.000	20.474	-2.4	98	0.00
15		4-4' DDD	20.000	20.600	-3.0	97	0.00
16		ENDOSULFAN II	20.000	20.231	-1.2	96	0.00
17		4-4' DDT	20.000	20.100	-0.5	101	0.00
18		ENDRIN ALDEHYDE	20.000	20.413	-2.1	99	0.00
19		ENDOSULFAN SULFATE	20.000	20.517	-2.6	102	0.00
20		METHOXYCHLOR	20.000	20.947	-4.7	110	0.00
21		ENDRIN KETONE	20.000	20.259	-1.3	100	0.00
22	S	DECACHLOROBIPHENYL	20.000	20.029	-0.1	99	0.00
		Signal #2					
1	S	TETRACHLORO-M-XYLENE#2	20.000	19.936	0.3	97	-0.01
2		ALPHA-BHC	20.000	20.286	-1.4	101	-0.01
3		GAMMA-BHC	20.000	20.295	-1.5	101	-0.01
4		BETA-BHC	20.000	20.357	-1.8	102	-0.01
5		HEPTACHLOR	20.000	22.558	-12.8	112	-0.01
6		DELTA-BHC	20.000	20.639	-3.2	103	-0.01
		ALDRIN	20.000	20.745	-3.7	100	-0.01
		HEPTACHLOR EPOXIDE	20.000	20.962	-4.8	102	-0.01
9		GAMMA CHLORDANE	20.000	20.378	-1.9	101	-0.01
10		ALPHA CHLORDANE	20.000	20.498	-2.5	102	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9229.D\ECD1A.CH Vial: 2
Acq On : 17 Mar 2000 13:35 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9229.D\ECD2B.CH Vial: 2
Acq On : 17 Mar 2000 13:59 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
11		ENDOSULFAN I	20.000	20.870	-4.4	102	-0.01
12		4-4' DDE	20.000	20.792	-4.0	102	-0.01
13		DIELDRIN	20.000	20.735	-3.7	102	0.00
14		ENDRIN	20.000	20.925	-4.6	103	0.00
15		4-4' DDD	20.000	20.617	-3.1	102	-0.01
		ENDOSULFAN II	20.000	20.667	-3.3	102	0.00
		4-4' DDT	20.000	20.277	-1.4	103	0.00
18		ENDRIN ALDEHYDE	20.000	20.342	-1.7	101	0.00
19		ENDOSULFAN SULFATE	20.000	20.955	-4.8	105	0.00
20		METHOXYCHLOR	20.000	20.266	-1.3	104	0.00
21		ENDRIN KETONE	20.000	20.843	-4.2	104	0.00
22	S	DECACHLOROBIPHENYL	20.000	20.478	-2.4	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

001592

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9240.D\ECD1A.CH Vial: 13
Acq On : 17 Mar 2000 18:37 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9240.D\ECD2B.CH Vial: 13
Acq On : 17 Mar 2000 19:01 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYLENE	20.000	20.059	-0.3	97	-0.01
2		ALPHA-BHC	20.000	20.552	-2.8	100	0.00
3		GAMMA-BHC	20.000	20.571	-2.9	100	0.00
4		BETA-BHC	20.000	20.055	-0.3	100	-0.01
5		HEPTACHLOR	20.000	19.339	3.3	98	0.00
		DELTA-BHC	20.000	20.903	-4.5	103	-0.01
		ALDRIN	20.000	20.694	-3.5	98	0.00
		HEPTACHLOR EPOXIDE	20.000	20.348	-1.7	97	0.00
9		GAMMA CHLORDANE	20.000	20.314	-1.6	99	0.00
10		ALPHA CHLORDANE	20.000	18.071	9.6	88	0.00
11		ENDOSULFAN I	20.000	20.244	-1.2	97	0.00
12		4-4' DDE	20.000	21.572	-7.9	106	0.00
13		DIELDRIN	20.000	17.791	11.0	85	0.00
14		ENDRIN	20.000	21.118	-5.6	101	0.00
15		4-4' DDD	20.000	21.789	-8.9	103	0.00
16		ENDOSULFAN II	20.000	20.690	-3.5	98	0.00
17		4-4' DDT	20.000	21.202	-6.0	106	0.00
18		ENDRIN ALDEHYDE	20.000	20.387	-1.9	99	0.00
19		ENDOSULFAN SULFATE	20.000	20.730	-3.7	103	0.00
20		METHOXYCHLOR	20.000	21.588	-7.9	114	0.00
21		ENDRIN KETONE	20.000	20.762	-3.8	103	0.00
22	S	DECACHLOROBIPHENYL	20.000	20.011	-0.1	99	0.00
		Signal #2					
1	S	TETRACHLORO-M-XYLENE#2	20.000	20.998	-5.0	102	-0.01
2		ALPHA-BHC	20.000	20.361	-1.8	101	0.00
3		GAMMA-BHC	20.000	20.483	-2.4	102	0.00
4		BETA-BHC	20.000	20.021	-0.1	100	-0.01
5		HEPTACHLOR	20.000	21.736	-8.7	108	0.00
6		DELTA-BHC	20.000	18.083	9.6	90	-0.01
		ALDRIN	20.000	20.524	-2.6	99	-0.01
		HEPTACHLOR EPOXIDE	20.000	21.759	-8.8	106	-0.01
9		GAMMA CHLORDANE	20.000	20.354	-1.8	101	-0.01
10		ALPHA CHLORDANE	20.000	20.506	-2.5	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9240.D\ECD1A.CH Vial: 13
Acq On : 17 Mar 2000 18:37 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9240.D\ECD2B.CH Vial: 13
Acq On : 17 Mar 2000 19:01 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
11		ENDOSULFAN I	20.000	20.901	-4.5	102	0.00
12		4-4' DDE	20.000	20.728	-3.6	102	-0.01
13		DIELDRIN	20.000	20.449	-2.2	100	0.00
14		ENDRIN	20.000	20.570	-2.9	101	0.00
15		4-4' DDD	20.000	20.497	-2.5	102	-0.01
		ENDOSULFAN II	20.000	20.443	-2.2	101	0.00
		4-4' DDT	20.000	20.437	-2.2	104	0.00
		ENDRIN ALDEHYDE	20.000	19.994	0.0	99	0.00
19		ENDOSULFAN SULFATE	20.000	20.868	-4.3	105	0.00
20		METHOXYCHLOR	20.000	21.473	-7.4	110	0.00
21		ENDRIN KETONE	20.000	18.245	8.8	91	0.00
22	S	DECACHLOROBIPHENYL	20.000	20.401	-2.0	103	0.00

001594

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9230.D\ECD1A.CH Vial: 3
Acq On : 17 Mar 2000 13:59 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031700\9G9230.D\ECD2B.CH Vial: 3
Acq On : 17 Mar 2000 14:24 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : TOX
Last Update : Fri Mar 17 12:03:45 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1 TOXAPHENE-1	500.000	495.508	0.9	105	-0.01
2	L1 TOXAPHENE-2	500.000	517.277	-3.5	101	0.00
3	L1 TOXAPHENE-3	500.000	478.218	4.4	106	0.00
4	L1 TOXAPHENE-4	500.000	539.281	-7.9	107	0.00
5	L1 TOXAPHENE-5	500.000	525.148	-5.0	104	0.00
	Signal #2					
1	L1 TOXAPHENE-1	500.000	516.095	-3.2	104	0.00
2	L1 TOXAPHENE-2	500.000	533.512	-6.7	106	0.00
3	L1 TOXAPHENE-3	500.000	543.088	-8.6	107	0.00
4	L1 TOXAPHENE-4	500.000	548.591	-9.7	108	0.00
5	L1 TOXAPHENE-5	500.000	522.664	-4.5	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9241.D\ECD1A.CH Vial: 14
Acq On : 17 Mar 2000 19:01 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031700\9G9241.D\ECD2B.CH Vial: 14
Acq On : 17 Mar 2000 19:26 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : TOX
Last Update : Fri Mar 17 12:03:45 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	TOXAPHENE-1	500.000	543.360	-8.7	115	-0.01
2	L1	TOXAPHENE-2	500.000	512.266	-2.5	100	-0.01
3	L1	TOXAPHENE-3	500.000	560.461	-12.1	124	-0.01
4	L1	TOXAPHENE-4	500.000	546.279	-9.3	108	-0.01
5	L1	TOXAPHENE-5	500.000	529.251	-5.9	105	0.00
		Signal #2					
1	L1	TOXAPHENE-1	500.000	516.793	-3.4	104	0.00
2	L1	TOXAPHENE-2	500.000	547.849	-9.6	109	0.00
3	L1	TOXAPHENE-3	500.000	516.011	-3.2	102	0.00
4	L1	TOXAPHENE-4	500.000	557.179	-11.4	109	0.00
5	L1	TOXAPHENE-5	500.000	532.030	-6.4	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ENDRIN/ 4-4' DDT BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G9245.D

ENDRIN	ENDRIN ALDEHYDE	ENDRIN KETONE	ENDRIN BREAKDOWN
5810551055	0	107165435	1.81 %

4-4' DDT	4-4' DDE	4-4' DDD	4-4' DDT BREAKDOWN
4093965339	30139650	341201288.9	8.32 %

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G9245.D

ENDRIN #2	ENDRIN ALDEHYDE #2	ENDRIN KETONE #2	ENDRIN #2 BREAKDOWN
1587954292	0	24710450	1.53 %

4-4' DDT #2	4-4' DDE #2	4-4' DDD #2	4-4' DDT #2 BREAKDOWN
1105789337	0	107295360	8.84 %

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9246.D\ECD1A.CH Vial: 19
Acq On : 17 Mar 2000 21:04 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9246.D\ECD2B.CH Vial: 19
Acq On : 17 Mar 2000 21:28 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYLENE	20.000	20.309	-1.5	98	0.00
2		ALPHA-BHC	20.000	20.458	-2.3	100	0.00
3		GAMMA-BHC	20.000	20.448	-2.2	100	0.00
4		BETA-BHC	20.000	19.867	0.7	99	0.00
5		HEPTACHLOR	20.000	27.822	-39.1#	140	0.00
		DELTA-BHC	20.000	21.179	-5.9	105	0.00
		ALDRIN	20.000	20.201	-1.0	96	0.00
		HEPTACHLOR EPOXIDE	20.000	19.794	1.0	94	0.00
9		GAMMA CHLORDANE	20.000	19.535	2.3	95	0.00
10		ALPHA CHLORDANE	20.000	17.112	14.4	83	0.00
11		ENDOSULFAN I	20.000	18.943	5.3	90	0.00
12		4-4' DDE	20.000	21.943	-9.7	107	0.00
13		DIELDRIN	20.000	17.244	13.8	82	0.00
14		ENDRIN	20.000	20.655	-3.3	99	0.01
15		4-4' DDD	20.000	22.301	-11.5	105	0.00
16		ENDOSULFAN II	20.000	19.779	1.1	94	0.01
17		4-4' DDT	20.000	23.635	-18.2#	118	0.00
18		ENDRIN ALDEHYDE	20.000	18.807	6.0	91	0.01
19		ENDOSULFAN SULFATE	20.000	20.147	-0.7	100	0.01
20		METHOXYCHLOR	20.000	27.419	-37.1#	144	0.00
21		ENDRIN KETONE	20.000	20.021	-0.1	99	0.01
22	S	DECACHLOROBIPHENYL	20.000	18.846	5.8	94	0.02
		Signal #2					
1	S	TETRACHLORO-M-XYLENE#2	20.000	19.666	1.7	96	0.00
2		ALPHA-BHC	20.000	19.481	2.6	97	0.00
3		GAMMA-BHC	20.000	19.269	3.7	96	0.00
4		BETA-BHC	20.000	18.701	6.5	94	0.00
5		HEPTACHLOR	20.000	24.828	-24.1#	123	0.00
6		DELTA-BHC	20.000	17.823	10.9	89	0.00
		ALDRIN	20.000	18.962	5.2	92	0.00
		HEPTACHLOR EPOXIDE	20.000	19.864	0.7	97	0.00
9		GAMMA CHLORDANE	20.000	18.327	8.4	91	0.00
10		ALPHA CHLORDANE	20.000	18.372	8.1	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9246.D\ECD1A.CH Vial: 19
Acq On : 17 Mar 2000 21:04 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031700\9G9246.D\ECD2B.CH Vial: 19
Acq On : 17 Mar 2000 21:28 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : 2-11-00
Last Update : Fri Mar 17 12:12:18 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
11		ENDOSULFAN I	20.000	18.744	6.3	91	0.00
12		4-4' DDE	20.000	18.699	6.5	92	0.00
13		DIELDRIN	20.000	18.166	9.2	89	0.00
14		ENDRIN	20.000	19.108	4.5	94	0.00
15		4-4' DDD	20.000	18.714	6.4	93	0.00
		ENDOSULFAN II	20.000	18.173	9.1	90	0.00
		4-4' DDT	20.000	18.094	9.5	92	0.00
		ENDRIN ALDEHYDE	20.000	17.263	13.7	86	0.00
19		ENDOSULFAN SULFATE	20.000	18.776	6.1	94	0.00
20		METHOXYCHLOR	20.000	19.809	1.0	101	0.00
21		ENDRIN KETONE	20.000	18.106	9.5	90	0.00
22	S	DECACHLOROBIPHENYL	20.000	17.952	10.2	91	0.00

001599

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031700\9G9247.D\ECD1A.CH Vial: 20
Acq On : 17 Mar 2000 21:26 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031700\9G9247.D\ECD2B.CH Vial: 20
Acq On : 17 Mar 2000 21:53 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : TOX
Last Update : Fri Mar 17 12:03:45 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	TOXAPHENE-1	500.000	622.008	-24.4#	131	0.00
2	L1	TOXAPHENE-2	500.000	506.973	-1.4	99	0.00
3	L1	TOXAPHENE-3	500.000	611.433	-22.3#	135	0.00
4	L1	TOXAPHENE-4	500.000	533.722	-6.7	106	0.00
5	L1	TOXAPHENE-5	500.000	513.463	-2.7	102	0.01
		Signal #2					
1	L1	TOXAPHENE-1	500.000	491.560	1.7	99	0.00
2	L1	TOXAPHENE-2	500.000	501.027	-0.2	99	0.00
3	L1	TOXAPHENE-3	500.000	483.324	3.3	96	0.00
4	L1	TOXAPHENE-4	500.000	478.281	4.3	94	0.00
5	L1	TOXAPHENE-5	500.000	444.684	11.1	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample Extract Log Sheet

Volume 134
Page 97

Parameter: PCST-S SOP #: EN02 Revision #: 9
Ext Analyst(s): GSG TV/KD Analyst(s): GSG
Date/Time Ext: 03-16-00 @ 16:30 Date TV/KD: 03-16-00
Spike/Surrogate Analyst: GSG Witness: CSH
Extract Relinquished By: VBA
Extract Received By: EC Date Ext. Received: 3/17/00

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
ASE *	3545					
Separatory Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

Extraction Work Group WG 73817
Analytical Work Group WG 73855

	Client ID	Sample ID	pH <2	pH N	pH >12	Test Code	Initial Vol. / Wt	Amount Surrogated	Amount Spike	Final Volume	Emulsion A	Emulsion BN	Emulsion N	Comments
1		Blank					30.01 g	200 µl / ES50031-24		10 ml				WG 73817-02
2		LCS					30.00		250 µl / ES50030-40					WG 73817-03
3	KIBER	03-306-01				8081P	30.04							
4		-01MS					30.01		250 µl / ES50030-40					WG 73817-04
5		-01MSD					30.04		"					WG 73817-05
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CSH 3/16/00

Reviewed By: [signature] Date: 3/17/00

* Accelerated Solvent Extractor (ASE)

Sample Extract Log Sheet

Extraction Comments / Notes For Extraction Volume #: 134 Page #: 97 Work Group: 73817

Solvent:	Hexane	Lot #:	BX013	Florisil Lot #:	121550
Solvent:		Lot #:		Silica Gel #:	
Acid:		Lot #:		IR Analyst/Date/Time:	
Reagent:	94:6	Lot #:	ER 981		
Reagent:	50:50	Lot #:	ER 945		

Clean-up		✓	Clean-up	✓
Florisil	3620B	✓	Sulfur 3660B	
Silica Gel	3630C		Other	
GPC	3640A			
Acid	3665A			

* Sx was Thick, Tarry Sludge.

CSH 3-16-00

Supervisor Review: [signature] Date: 3/17/00

KEMRON ENV IMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 3/17/00 Column ID RTX-CLP Analyst ECL SOP # GCS09 Rev. # 0 ✓ 8081A
Instrument ID HP9 Data Subdirectory 031700 SOP # GCS10 Rev. # 1 _____ 8082
SOP # GCS01 Rev. # 0 _____ 8100 SOP # GCS02 Rev. # 0 _____ 8015B Mod (DRO) SOP # GCS04 Rev. # 2 _____ 8151
SOP # GCS03 Rev. # 0 _____ PRO SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol) SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	✓
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes _____ No _____ Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G9228	Endrin / DDT breakdown	NA	8081	✓	SV 44-43
29	Pesticide ✓ 20 PPB				SV 44-16
30	Toxaphene ✓ 0.5 PPM				SV 44-13
31	Blank V134 P109 WG73846-01				
32	LCS ⊥ ⊥ ⊥ -02				
33	TCLP Blank 3/16 WG73776-01				
34	L00033.01-01				
35	Blank V134 P99 WG73811-01				
36	LCS ⊥ ⊥ ⊥ -02				
37	L00033.61-01				
38	Blank V134 P97 WG73817-02				
39	LCS ⊥ ⊥ ⊥ -03	⊥		⊥	

Comments:

Reviewed By: SMW 3-21-00

✓ = Compliant Analysis, Reanalysis complete
R = Rerun
1 = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Semivolatile GC Laboratory Maintenance / Running

Date 3/17/00 Instrument ID HP 9 Data Subdirectory 031700 Column ID RTX CLP

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
969240	Pesticide ✓ 20 ppb	NA	8081	✓	
9241	Toxaphene ✓ 0.5 ppm	NA		✓	
42	L0003306-01 100x	100			
43	-01MS WG73817-04				
44	01MSD -05				
45	Endrin/DDT breakdown	NA			SV 44-43
46	Pesticide ✓ 20 ppb				SV 44-16
47	Toxaphene ✓ 0.5 ppm				SV 44-13
48	Hexane ✓ Lot #39265 V134 P95			✓	

3/21/00

Comments:

Reviewed By: SMW 3-21-00

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

EQ 3/21/00

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 3/17/00 Column ID RTX-CLP II Analyst E L SOP # GCS09 Rev. # 0 ✓ 8081A

Instrument ID HP9 Data Subdirectory 031700 SOP # GCS10 Rev. # 1 _____ 8082

SOP # GCS01 Rev. # 0 _____ 8100 SOP # GCS02 Rev. # 0 _____ 8015B Mod (DRO) SOP # GCS04 Rev. # 2 _____ 8151

SOP # GCS03 Rev. # 0 _____ PRO SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol) SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes No Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G9228	Endrin/DDT breakdown	NA	8081	✓	SV 44-43
29	Pesticide ✓ 20 PPB			✓	SV 44-16
30	Toxaphene ✓ 0.5 PPM			✓	SV 44-13
31	Blank V134 P109 WG73846-01				
32	LCS ⊥ ⊥ ⊥ -02				
33	TCLP Blank 3/16 WG73776-01				
34	L0003301-01				
35	Blank V134 P99 WG73811-01				
36	LCS ⊥ ⊥ ⊥ -02				
37	L0003261-01				
38	Blank V134 P97 WG73817-02				
39	LCS ⊥ ⊥ ⊥ -03	⊥			

Comments:

Reviewed By: SMW 3-21-00

001605

pliant Analysis, Reanalysis complete
:run
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Date 3/1, 00 Instrument ID HP9 Subdirectory 031700 Column ID RTX I II

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G9240	Pesticide ✓ 20 PPB	NA		✓	
41	Toxaphene ✓ 0.5 PPM	NA		✓	
42	L0003306-01	100			
43	01MS WG73817-04	"			
44	01MSD " 05	"			
45	Endrin/DDT breakdown	NA			SV 44-43
46	Pesticide ✓ 20 PPB	"			SV 44-16
47	Toxaphene ✓ 0.5 PPM	"			SV 44-13
48	Hexane ✓ Lot#39265	"		"	

3/21/00

Comments:

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

Reviewed By: SMW 03-21-00

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

MOISTURE CONTENT DETERMINATION

REPORT FORM

PROJECT:	SHERIDAN SITE
PROJECT No.:	3230
SAMPLE No.:	UNTREATED
TESTING DATE:	18 JANUARY 2000
TESTED BY:	CLG
TRACKING CODE:	9970_MC

MOISTURE CONTENT (Dry & Wet Basis)			
1. MOISTURE TIN NO.	A	B	C
2. WT MOISTURE TIN (tare weight)	48.50 g	49.69 g	53.17 g
3. WT WET SOIL + TARE	108.30 g	107.38 g	111.70 g
4. WT DRY SOIL + TARE	76.50 g	75.46 g	87.12 g
5. WT WATER, Ww	31.80 g	31.92 g	24.58 g
6. WT DRY SOIL, Ws	28.00 g	25.77 g	33.95 g
7. ASTM MOISTURE CONTENT, W	113.57 %	123.86 %	72.40 %
8. EPA MOISTURE CONTENT, W	53.18 %	55.33 %	42.00 %

LOSS ON IGNITION
(ORGANIC CONTENT)

PROJECT:	SHERIDAN SITE
PROJECT No.:	3230
SAMPLE No.:	UNTREATED
TESTING DATE:	18 JANUARY 2000
TESTED BY:	CLG
TRACKING CODE:	9970_LI

MOISTURE CONTENT/LOSS ON IGNITION (Dry & Wet Basis)					
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	48.50	g	49.69	g	53.17	g
3. WT WET SOIL + TARE	108.30	g	107.38	g	111.70	g
4. WT DRY SOIL + TARE	76.50	g	75.46	g	87.12	g
5. WT WATER, Ww	31.80	g	31.92	g	24.58	g
6. WT DRY SOIL, Ws	28.00	g	25.77	g	33.95	g
7. WT FINAL SOIL + TARE	56.43	g	57.28	g	60.51	g
8. WT FINAL SOIL, Wf	7.93	g	7.59	g	7.34	g
9. WT ORGANICS, Wo	20.07	g	18.18	g	26.61	g
10. MOISTURE CONTENT, WET BASIS	53.18	%	55.33	%	42.00	%
11. MOISTURE CONTENT, DRY BASIS	113.57	%	123.86	%	72.40	%
13. LOSS ON IGNITION, DRY BASIS	71.68	%	70.55	%	78.38	%

UNIT WEIGHT DETERMINATION
DATA SHEET

PROJECT:	SHERIDAN SITE
PROJECT No.:	3230
SAMPLE No.:	UNTREATED
TESTING DATE:	18 JANUARY 2000
TESTED BY:	CLG
TRACKING CODE:	9970_UW

UNIT WEIGHT (DENSITY)			
1. SAMPLE NO.	A	B	C
2. WT OF MOLD (tare weight)	20.79 g	20.79 g	20.79 g
3. WT OF MOLD + SOIL	241.03 g	240.69 g	241.15 g
4. WT OF WET SOIL, W	220.24 g	219.90 g	220.36 g
5. DIAMETER OF SPECIMEN, D	2.00 in	2.00 in	2.00 in
6. HEIGHT OF SPECIMEN, H	4.00 in	4.00 in	4.00 in
7. VOLUME OF SPECIMEN	12.57 in^3	12.57 in^3	12.57 in^3
8. BULK UNIT WEIGHT	66.8 pcf	66.7 pcf	66.8 pcf
9. BULK SPECIFIC GRAVITY	1.1	1.1	1.1

MATERIAL pH

EPA METHOD 9045
DATA SHEET

PROJECT:	SHERIDAN SITE
PROJECT No.:	3230
TESTING DATE:	18 JANUARY 2000
TESTED BY:	MC
TRACKING CODE:	9970_pH

KIBER SAMPLE No.		MATERIAL pH
1.	Untreated -A	6.85
2.	Untreated -B	6.86
3.	Untreated -C	6.89
4.		
5.		
6.		
7.		
8.		
9.		
10.		

APPENDIX G

APPENDIX C

PRELIMINARY STABILIZATION TREATMENT

UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-001 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0405_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	33.4	**%**
BULK UNIT WEIGHT	79.4	lb/ft³
DRY UNIT WEIGHT	59.5	lb/ft³
UCS •	18.3	lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-001 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0405_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	001	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	15.94	g
4. WT DRY SOIL + TARE	12.27	g
5. WT WATER, Ww	3.67	g
6. WT DRY SOIL, Ws	11.00	g
7. MOISTURE CONTENT, W	**33.36**	**%**

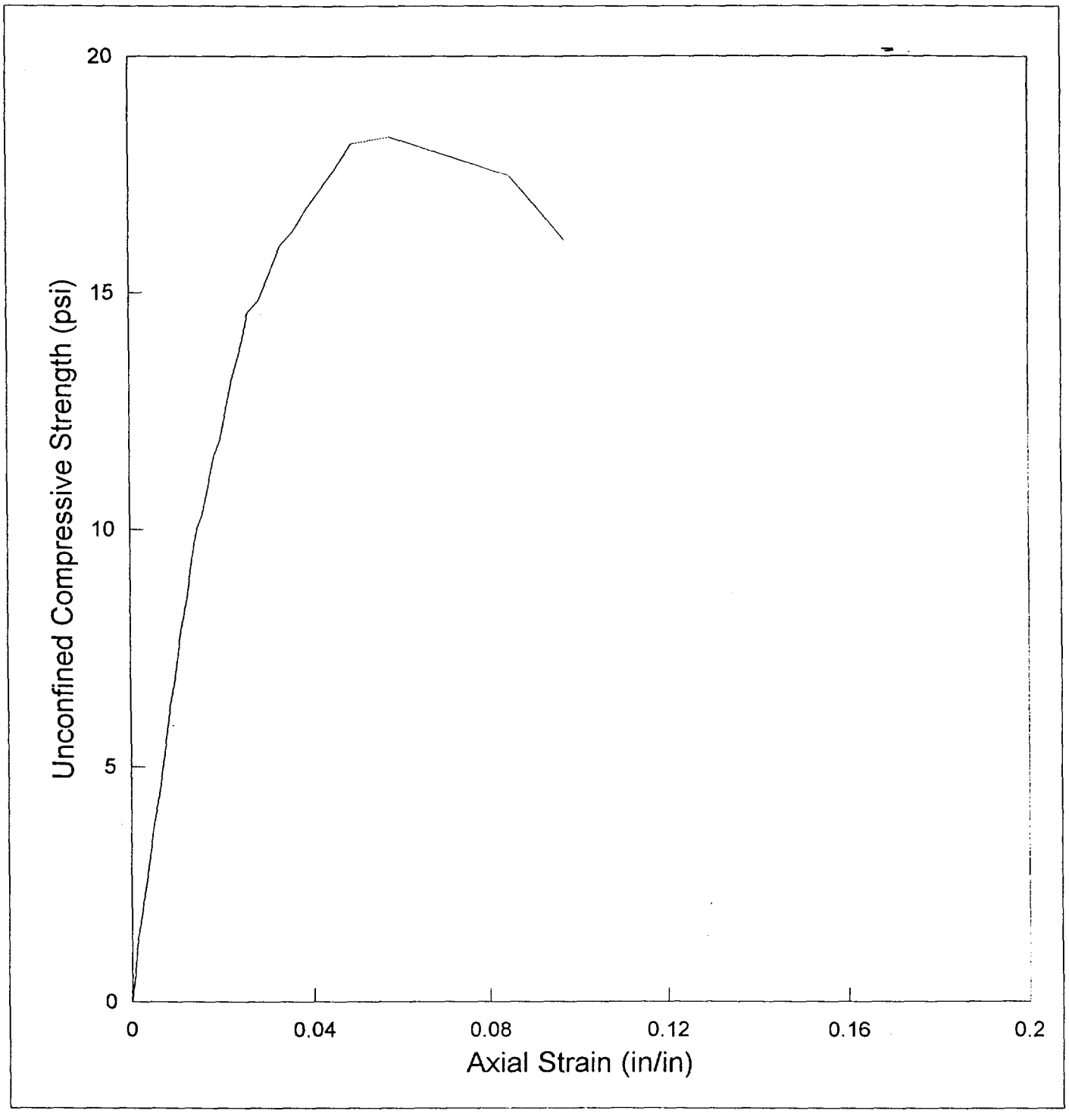
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	2.00 in.	4.05 in.
No. 2	2.00 in.	4.05 in.
No. 3	2.00 in.	4.06 in.
Average	**2.00 in.**	**4.05 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***265.34 g***
Initial Area, Ao	3.14 in^2
Initial Volume, Vo	12.73 in^3
Initial Bulk Unit Weight,	79.4 lb/ft^3
Initial Dry Unit Weight	59.5 lb/ft^3
15 % Strain (0.15 Lo)	0.61 in.
UCS	18.3 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
2	0.003	0.003	3.144	0.0007	0.6
4	0.005	0.005	3.145	0.0012	1.3
5	0.007	0.007	3.147	0.0017	1.6
9	0.015	0.015	3.153	0.0037	2.9
12	0.020	0.020	3.157	0.0049	3.8
14	0.025	0.025	3.161	0.0062	4.4
17	0.030	0.030	3.165	0.0074	5.4
20	0.035	0.035	3.169	0.0086	6.3
22	0.040	0.040	3.173	0.0099	6.9
25	0.045	0.045	3.177	0.0111	7.9
27	0.050	0.050	3.181	0.0123	8.5
30	0.055	0.055	3.185	0.0136	9.4
32	0.060	0.060	3.189	0.0148	10.0
33	0.065	0.065	3.193	0.0160	10.3
35	0.070	0.070	3.197	0.0173	10.9
37	0.075	0.075	3.201	0.0185	11.6
38	0.080	0.080	3.205	0.0197	11.9
42	0.090	0.090	3.213	0.0222	13.1
45	0.100	0.100	3.221	0.0247	14.0
47	0.105	0.105	3.225	0.0259	14.6
48	0.115	0.115	3.233	0.0284	14.8
50	0.125	0.125	3.242	0.0308	15.4
52	0.135	0.135	3.250	0.0333	16.0
53	0.145	0.145	3.258	0.0358	16.3
55	0.160	0.160	3.271	0.0395	16.8
58	0.185	0.185	3.292	0.0456	17.6
60	0.200	0.200	3.305	0.0493	18.2
61	0.235	0.235	3.335	0.0580	18.3
60	0.345	0.345	3.434	0.0851	17.5
58	0.370	0.370	3.457	0.0913	16.8
56	0.395	0.395	3.481	0.0975	16.1

UNCONFINED COMPRESSION TESTING

Sample No. 3230-001 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-002 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0406_US

TESTING PARAMETER AND RESULTS	
MOISTURE CONTENT	28.8 **%**
BULK UNIT WEIGHT	79.4 lb/ft³
DRY UNIT WEIGHT	61.6 lb/ft³
UCS •	29.2 lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-002 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0406_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	002	
2. WT MOISTURE TIN (tare weight)	1.26	g
3. WT WET SOIL + TARE	16.38	g
4. WT DRY SOIL + TARE	13.00	g
5. WT WATER, Ww	3.38	g
6. WT DRY SOIL, Ws	11.74	g
7. MOISTURE CONTENT, W	**28.79**	**%**

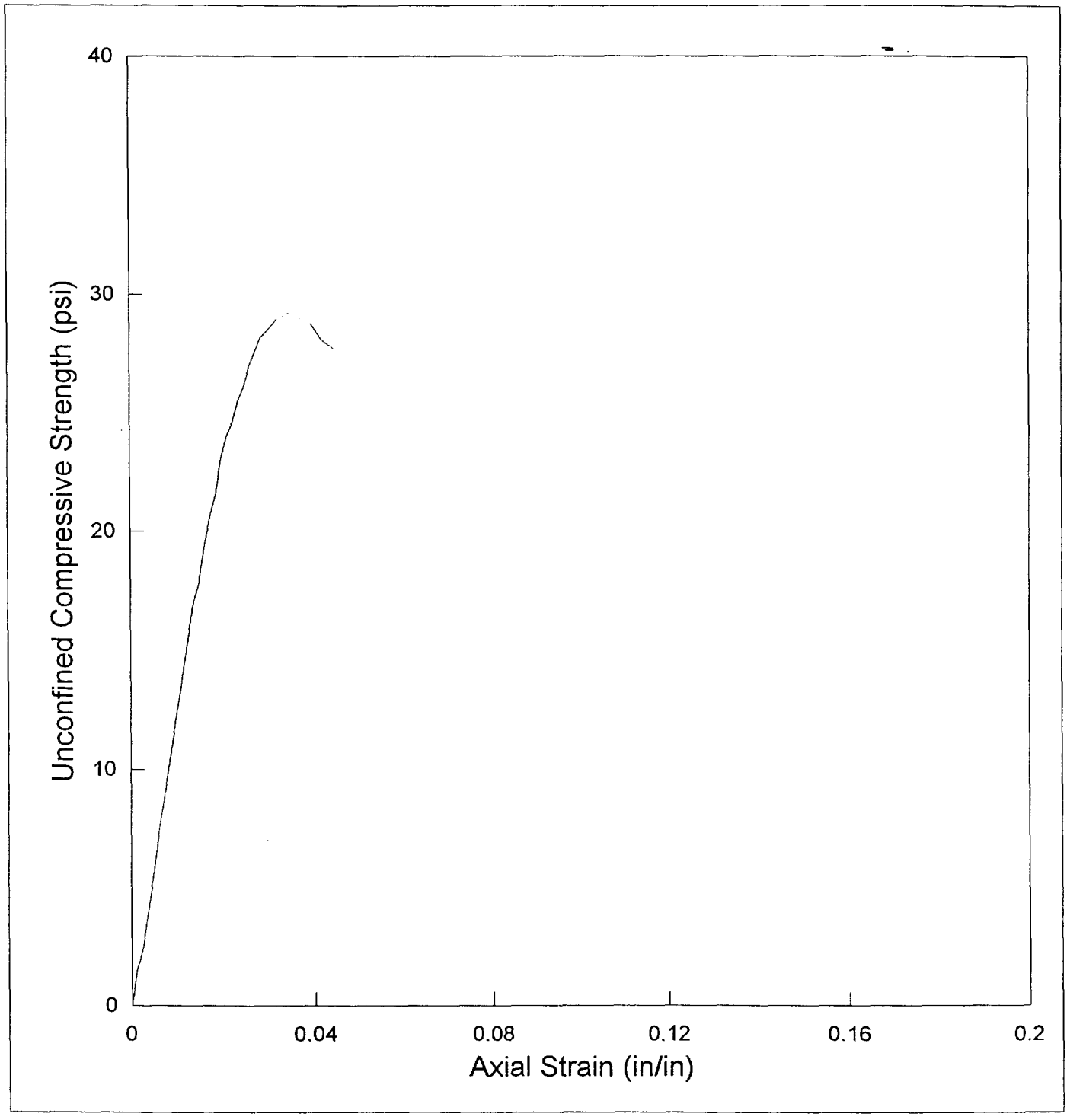
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.04	in.
No. 2	2.00	in.	4.04	in.
No. 3	2.00	in.	4.04	in.
Average	**2.00**	**in.**	**4.04**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***264.44***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.69	in^3
Initial Bulk Unit Weight,	79.4	lb/ft^3
Initial Dry Unit Weight	61.6	lb/ft^3
15 % Strain (0.15 Lo)	0.61	in.
UCS	29.2	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
3	0.003	0.003	3.144	0.0007	1.0
5	0.005	0.005	3.145	0.0012	1.6
6	0.007	0.007	3.147	0.0017	1.9
8	0.010	0.010	3.149	0.0025	2.5
13	0.015	0.015	3.153	0.0037	4.1
18	0.020	0.020	3.157	0.0050	5.7
24	0.025	0.025	3.161	0.0062	7.6
29	0.030	0.030	3.165	0.0074	9.2
34	0.035	0.035	3.169	0.0087	10.7
39	0.040	0.040	3.173	0.0099	12.3
44	0.045	0.045	3.177	0.0111	13.8
49	0.050	0.050	3.181	0.0124	15.4
54	0.055	0.055	3.185	0.0136	17.0
57	0.060	0.060	3.189	0.0149	17.9
62	0.065	0.065	3.193	0.0161	19.4
66	0.070	0.070	3.197	0.0173	20.6
69	0.075	0.075	3.201	0.0186	21.6
74	0.080	0.080	3.205	0.0198	23.1
77	0.085	0.085	3.209	0.0210	24.0
79	0.090	0.090	3.213	0.0223	24.6
82	0.095	0.095	3.217	0.0235	25.5
84	0.100	0.100	3.221	0.0248	26.1
87	0.105	0.105	3.225	0.0260	27.0
89	0.110	0.110	3.230	0.0272	27.6
91	0.115	0.115	3.234	0.0285	28.1
92	0.120	0.120	3.238	0.0297	28.4
94	0.130	0.130	3.246	0.0322	29.0
95	0.140	0.140	3.254	0.0347	29.2
94	0.160	0.160	3.271	0.0396	28.7
92	0.170	0.170	3.280	0.0421	28.1
91	0.180	0.180	3.288	0.0446	27.7

UNCONFINED COMPRESSION TESTING

Sample No. 3230-002 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-003 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0407_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	36.4	%
BULK UNIT WEIGHT	85.1	lb/ft^3
DRY UNIT WEIGHT	62.4	lb/ft^3
UCS *	2.8	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-003 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0407_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	003	
2. WT MOISTURE TIN (tare weight)	1.29	g
3. WT WET SOIL + TARE	22.70	g
4. WT DRY SOIL + TARE	16.99	g
5. WT WATER, Ww	5.71	g
6. WT DRY SOIL, Ws	15.70	g
7. MOISTURE CONTENT, W	**36.37**	**%**

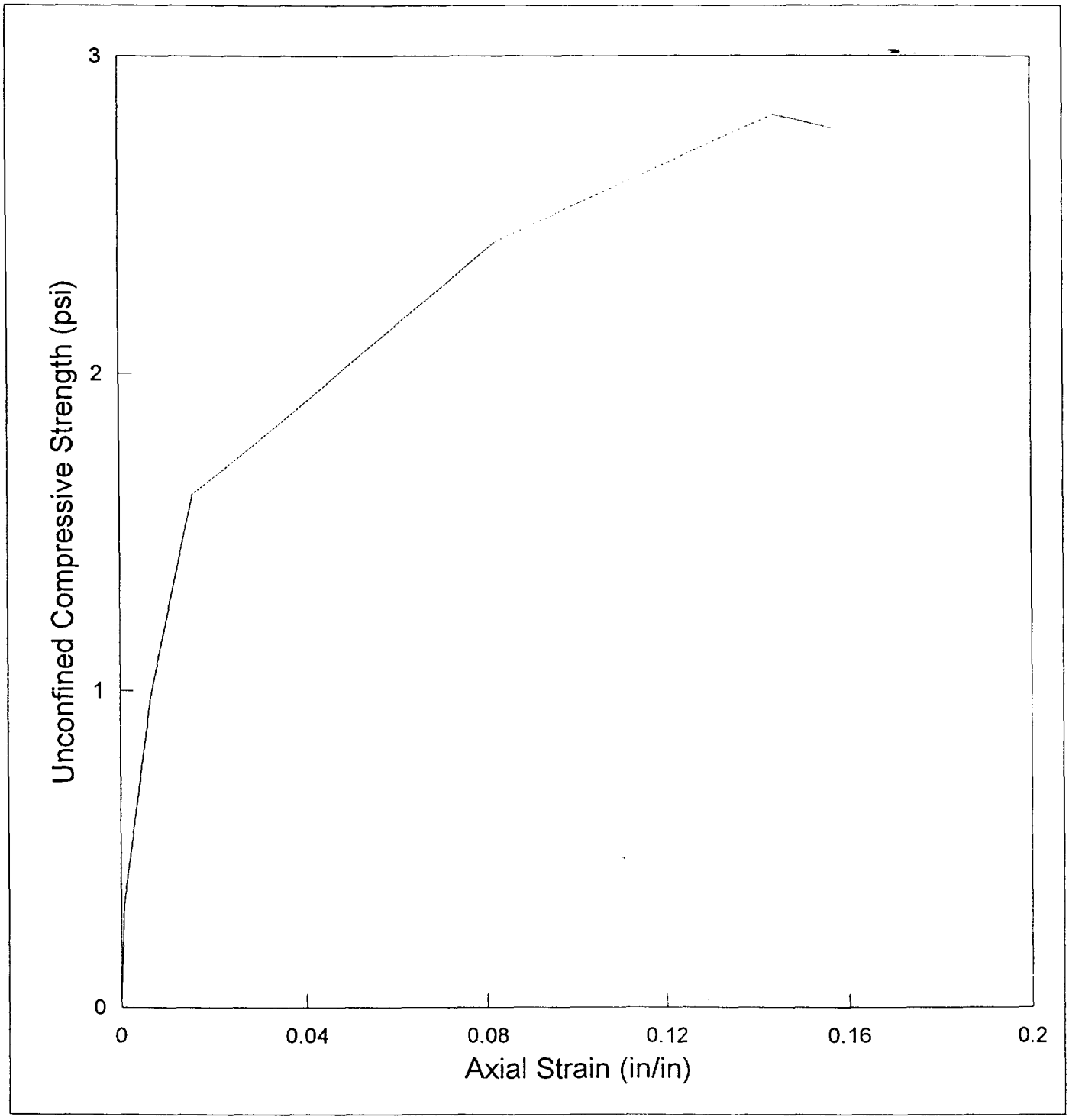
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	1.96 in.	3.82 in.
No. 2	1.97 in.	3.82 in.
No. 3	1.97 in.	3.83 in.
Average	**1.97 in.**	**3.82 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***259.32 g***
Initial Area, Ao	3.04 in^2
Initial Volume, Vo	11.61 in^3
Initial Bulk Unit Weight,	85.1 lb/ft^3
Initial Dry Unit Weight	62.4 lb/ft^3
15 % Strain (0.15 Lo)	0.57 in.
UCS	2.8 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.038	0.0000	0.0
1	0.003	0.003	3.040	0.0008	0.3
3	0.025	0.025	3.058	0.0065	1.0
5	0.060	0.060	3.086	0.0157	1.6
6	0.150	0.150	3.162	0.0392	1.9
8	0.315	0.315	3.310	0.0824	2.4
10	0.550	0.550	3.548	0.1439	2.8
10	0.600	0.600	3.603	0.1569	2.8

UNCONFINED COMPRESSION TESTING

Sample No. 3230-003 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-004 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0408_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	31.9	**%**
BULK UNIT WEIGHT	86.5	lb/ft^3
DRY UNIT WEIGHT	65.6	lb/ft^3
UCS •	5.6	lb/in^2

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-004 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0408_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	004	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	17.92	g
4. WT DRY SOIL + TARE	13.89	g
5. WT WATER, Ww	4.03	g
6. WT DRY SOIL, Ws	12.62	g
7. MOISTURE CONTENT, W	**31.93**	**%**

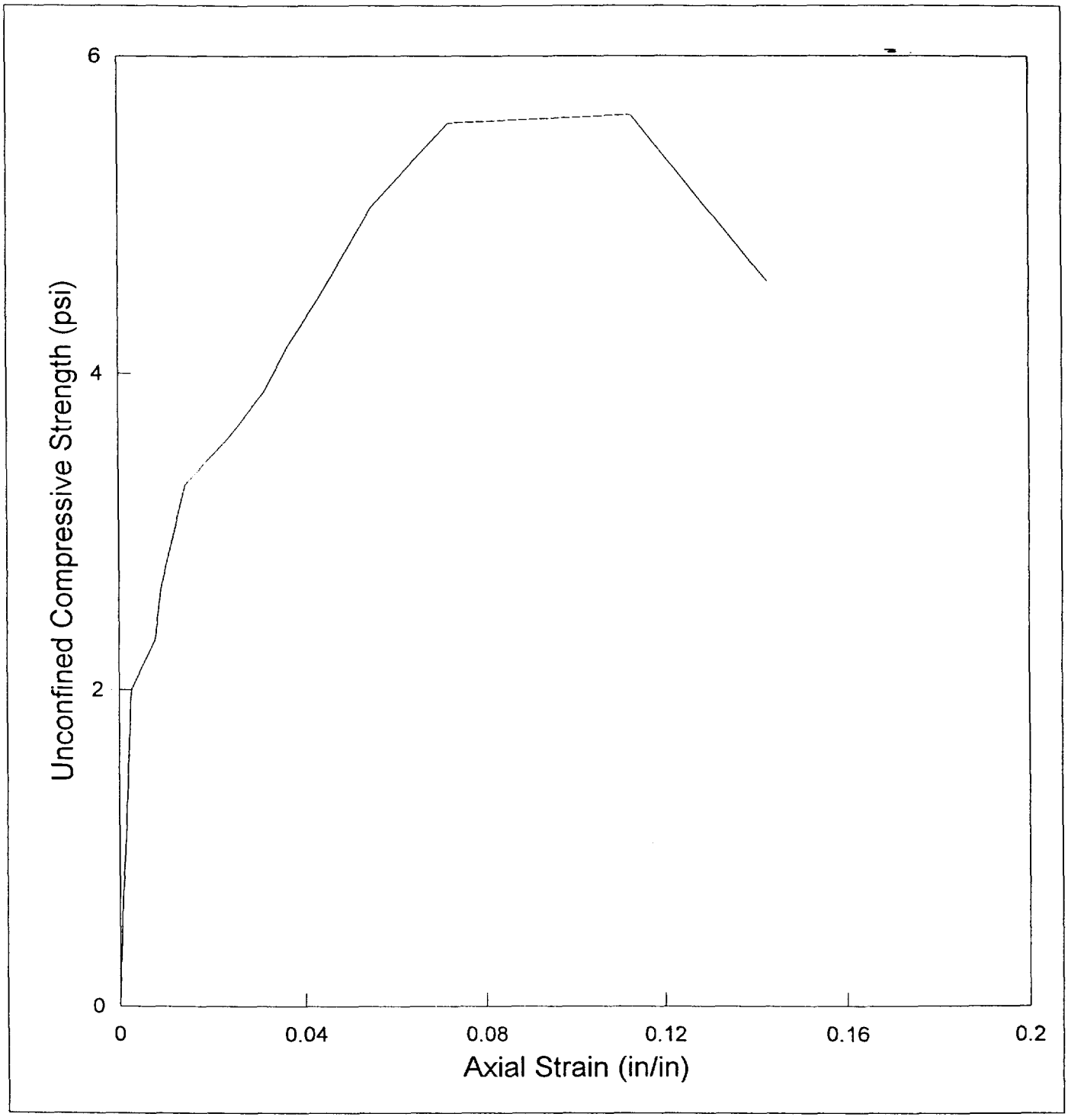
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	1.95 in.	3.83 in.
No. 2	1.95 in.	3.85 in.
No. 3	1.96 in.	3.84 in.
Average	**1.95 in.**	**3.84 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***261.29 g***
Initial Area, Ao	3.00 in^2
Initial Volume, Vo	11.51 in^3
Initial Bulk Unit Weight,	86.5 lb/ft^3
Initial Dry Unit Weight	65.6 lb/ft^3
15 % Strain (0.15 Lo)	0.58 in.
UCS	5.6 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	2.997	0.0000	0.0
2	0.003	0.003	2.999	0.0008	0.7
3	0.005	0.005	3.001	0.0013	1.0
4	0.007	0.007	3.002	0.0018	1.3
6	0.010	0.010	3.005	0.0026	2.0
7	0.030	0.030	3.020	0.0078	2.3
8	0.035	0.035	3.024	0.0091	2.6
10	0.055	0.055	3.040	0.0143	3.3
11	0.090	0.090	3.069	0.0234	3.6
12	0.120	0.120	3.093	0.0313	3.9
13	0.141	0.141	3.111	0.0367	4.2
14	0.166	0.166	3.132	0.0432	4.5
16	0.211	0.211	3.171	0.0549	5.0
18	0.277	0.277	3.230	0.0721	5.6
19	0.433	0.433	3.378	0.1128	5.6
16	0.548	0.548	3.496	0.1427	4.6

UNCONFINED COMPRESSION TESTING

Sample No. 3230-004 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-005 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0409_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	36.6	**%**
BULK UNIT WEIGHT	87.1	lb/ft³
DRY UNIT WEIGHT	63.7	lb/ft³
UCS •	2.3	lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-005 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0409_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	005	
2. WT MOISTURE TIN (tare weight)	1.28	g
3. WT WET SOIL + TARE	23.02	g
4. WT DRY SOIL + TARE	17.19	g
5. WT WATER, Ww	5.83	g
6. WT DRY SOIL, Ws	15.91	g
7. MOISTURE CONTENT, W	**36.64**	**%**

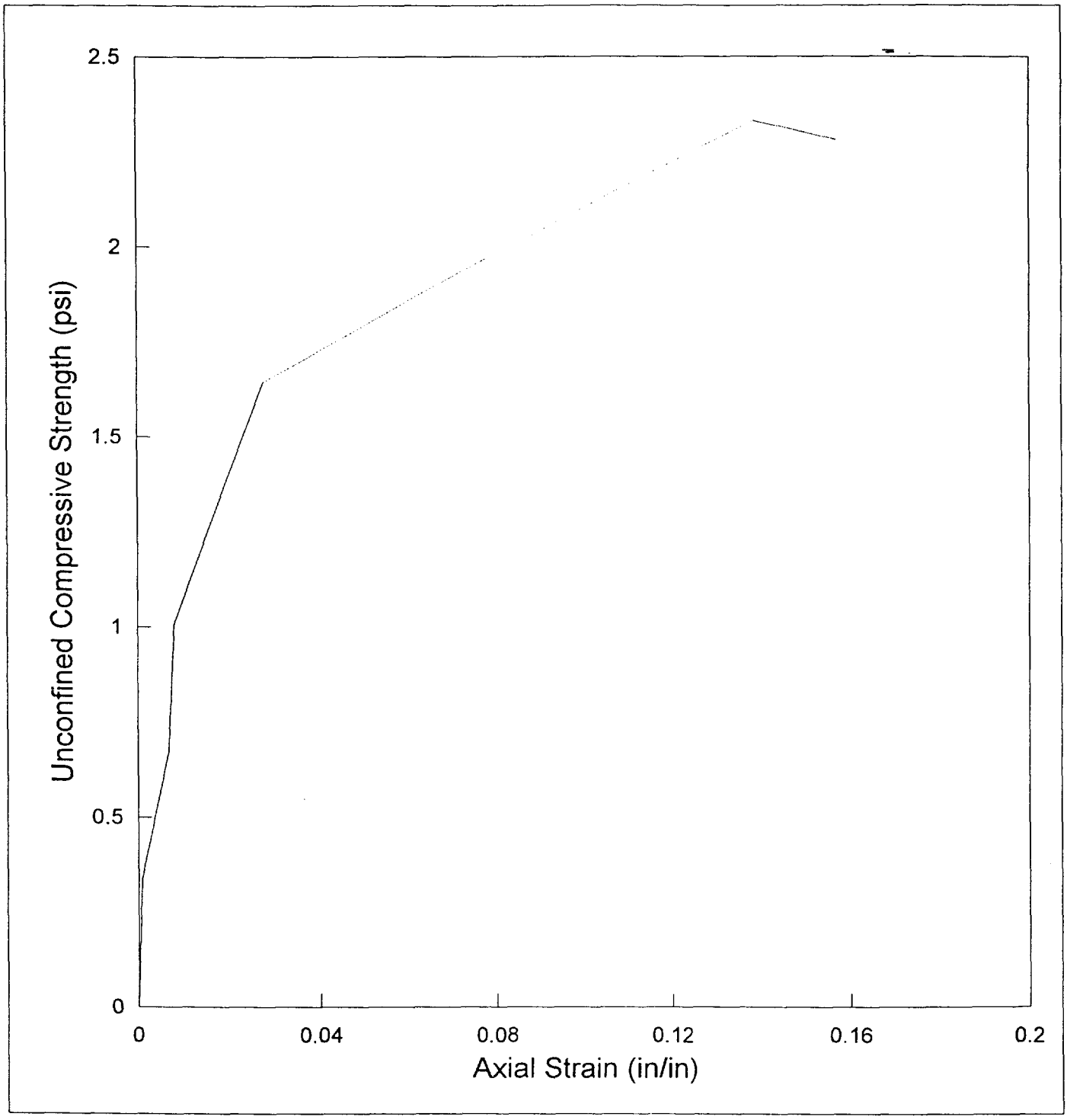
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	1.94 in.	3.82 in.
No. 2	1.94 in.	3.81 in.
No. 3	1.94 in.	3.81 in.
Average	**1.94 in.**	**3.81 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***257.71 g***
Initial Area, Ao	2.96 in^2
Initial Volume, Vo	11.27 in^3
Initial Bulk Unit Weight,	87.1 lb/ft^3
Initial Dry Unit Weight	63.7 lb/ft^3
15 % Strain (0.15 Lo)	0.57 in.
UCS	2.3 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	2.956	0.0000	0.0
1	0.003	0.003	2.958	0.0008	0.3
2	0.025	0.025	2.975	0.0066	0.7
3	0.030	0.030	2.979	0.0079	1.0
5	0.105	0.105	3.040	0.0275	1.6
6	0.251	0.251	3.164	0.0658	1.9
8	0.528	0.528	3.431	0.1385	2.3
8	0.600	0.600	3.508	0.1573	2.3

UNCONFINED COMPRESSION TESTING

Sample No. 3230-005 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-006 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0410_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	31.3	**%**
BULK UNIT WEIGHT	87.6	lb/ft³
DRY UNIT WEIGHT	66.7	lb/ft³
UCS •	5.3	lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE PHASE II	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-006 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	9 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0410_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	006	
2. WT MOISTURE TIN (tare weight)	1.29	g
3. WT WET SOIL + TARE	24.17	g
4. WT DRY SOIL + TARE	18.71	g
5. WT WATER, Ww	5.46	g
6. WT DRY SOIL, Ws	17.42	g
7. MOISTURE CONTENT, W	**31.34**	**%**

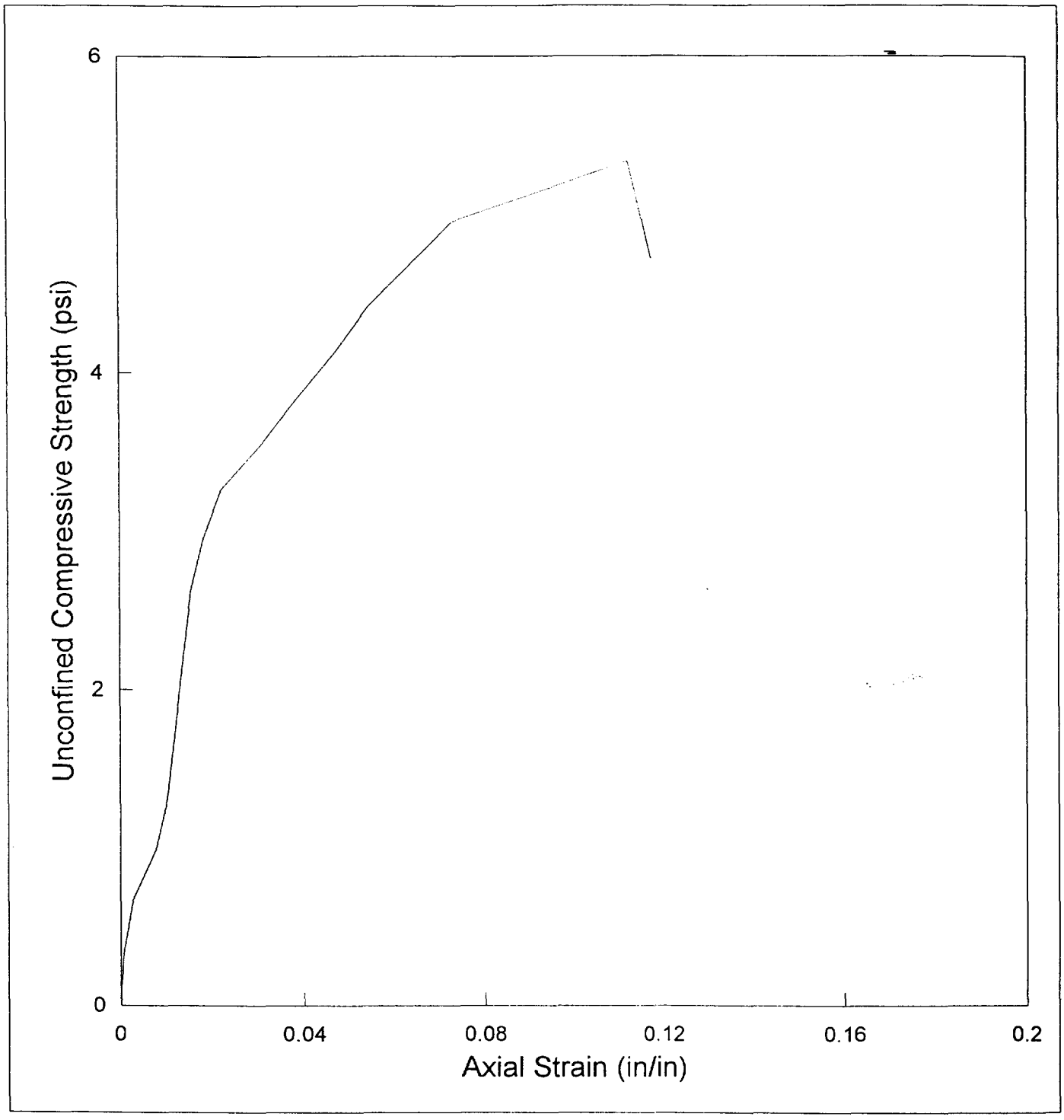
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	1.95 in.	3.83 in.
No. 2	1.95 in.	3.84 in.
No. 3	1.96 in.	3.84 in.
Average	**1.95 in.**	**3.84 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***264.38 g***
Initial Area, Ao	3.00 in^2
Initial Volume, Vo	11.50 in^3
Initial Bulk Unit Weight,	87.6 lb/ft^3
Initial Dry Unit Weight	66.7 lb/ft^3
15 % Strain (0.15 Lo)	0.58 in.
UCS	5.3 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	2.997	0.0000	0.0
1	0.003	0.003	2.999	0.0008	0.3
2	0.010	0.010	3.005	0.0026	0.7
3	0.030	0.030	3.020	0.0078	1.0
4	0.040	0.040	3.028	0.0104	1.3
6	0.050	0.050	3.036	0.0130	2.0
7	0.055	0.055	3.040	0.0143	2.3
8	0.060	0.060	3.044	0.0156	2.6
9	0.070	0.070	3.052	0.0182	2.9
10	0.085	0.085	3.065	0.0222	3.3
11	0.120	0.120	3.093	0.0313	3.6
12	0.150	0.150	3.119	0.0391	3.8
13	0.181	0.181	3.145	0.0472	4.1
14	0.209	0.209	3.169	0.0545	4.4
16	0.280	0.280	3.233	0.0730	4.9
18	0.430	0.430	3.375	0.1121	5.3
16	0.450	0.450	3.395	0.1173	4.7

UNCONFINED COMPRESSION TESTING

Sample No. 3230-006 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-007 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0430_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	20.1	**%**
BULK UNIT WEIGHT	93.9	lb/ft³
DRY UNIT WEIGHT	78.2	lb/ft³
UCS •	25.5	lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-007 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0430_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	007	
2. WT MOISTURE TIN (tare weight)	1.29	g
3. WT WET SOIL + TARE	27.14	g
4. WT DRY SOIL + TARE	22.82	g
5. WT WATER, Ww	4.32	g
6. WT DRY SOIL, Ws	21.53	g
7. MOISTURE CONTENT, W	**20.07**	**%**

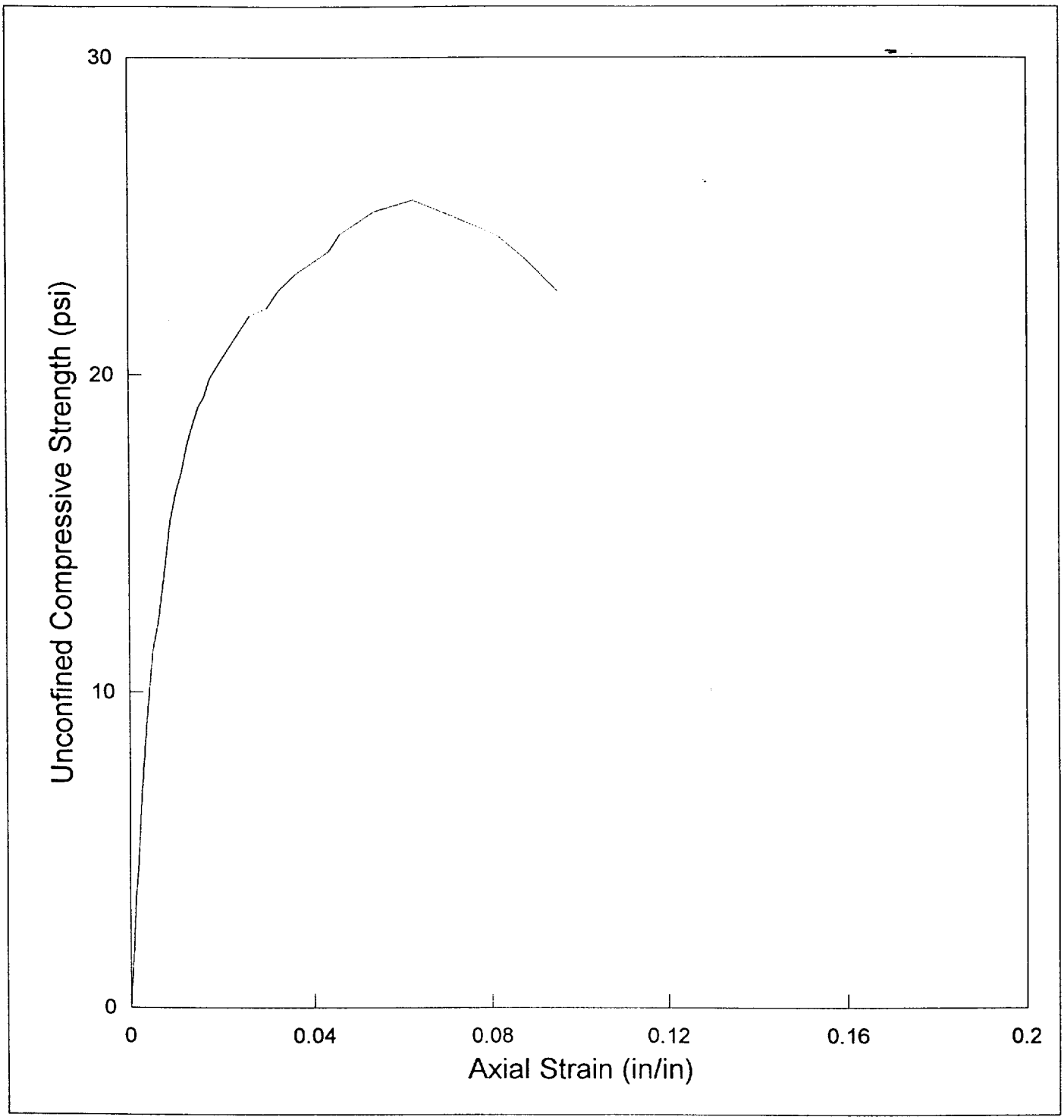
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	2.01 in.	3.99 in.
No. 2	2.01 in.	3.99 in.
No. 3	2.00 in.	3.98 in.
Average	**2.01 in.**	**3.99 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***310.87 g***
Initial Area, Ao	3.16 in^2
Initial Volume, Vo	12.61 in^3
Initial Bulk Unit Weight,	93.9 lb/ft^3
Initial Dry Unit Weight	78.2 lb/ft^3
15 % Strain (0.15 Lo)	0.60 in.
UCS	25.5 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.163	0.0000	0.0
6	0.003	0.003	3.165	0.0008	1.9
11	0.005	0.005	3.167	0.0013	3.5
14	0.007	0.007	3.168	0.0018	4.4
21	0.010	0.010	3.171	0.0025	6.6
29	0.015	0.015	3.175	0.0038	9.1
36	0.020	0.020	3.179	0.0050	11.3
39	0.025	0.025	3.183	0.0063	12.3
44	0.030	0.030	3.187	0.0075	13.8
49	0.035	0.035	3.191	0.0088	15.4
52	0.040	0.040	3.195	0.0100	16.3
54	0.045	0.045	3.199	0.0113	16.9
57	0.050	0.050	3.203	0.0125	17.8
59	0.055	0.055	3.207	0.0138	18.4
61	0.060	0.060	3.211	0.0151	19.0
62	0.065	0.065	3.215	0.0163	19.3
64	0.070	0.070	3.219	0.0176	19.9
66	0.080	0.080	3.227	0.0201	20.5
67	0.085	0.085	3.231	0.0213	20.7
69	0.095	0.095	3.240	0.0238	21.3
71	0.105	0.105	3.248	0.0263	21.9
72	0.120	0.120	3.261	0.0301	22.1
74	0.130	0.130	3.269	0.0326	22.6
76	0.145	0.145	3.282	0.0364	23.2
77	0.155	0.155	3.291	0.0389	23.4
79	0.175	0.175	3.308	0.0439	23.9
81	0.185	0.185	3.316	0.0464	24.4
84	0.215	0.215	3.343	0.0539	25.1
86	0.250	0.250	3.374	0.0627	25.5
84	0.325	0.325	3.443	0.0815	24.4
82	0.350	0.350	3.467	0.0878	23.7
79	0.380	0.380	3.496	0.0953	22.6

UNCONFINED COMPRESSION TESTING

Sample No. 3230-007 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-008 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0431_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	16.3	**%**
BULK UNIT WEIGHT	102.3	lb/ft³
DRY UNIT WEIGHT	87.9	lb/ft³
UCS •	34.7	lb/in²

• *UCS - UNCONFINED COMPRESSIVE STRENGTH*

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-008 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0431_US

MOISTURE CONTENT (Dry Basis)	
1. MOISTURE TIN NO.	008
2. WT MOISTURE TIN (tare weight)	1.28 g
3. WT WET SOIL + TARE	24.24 g
4. WT DRY SOIL + TARE	21.02 g
5. WT WATER, Ww	3.22 g
6. WT DRY SOIL, Ws	19.74 g
7. MOISTURE CONTENT, W	**16.31 %**

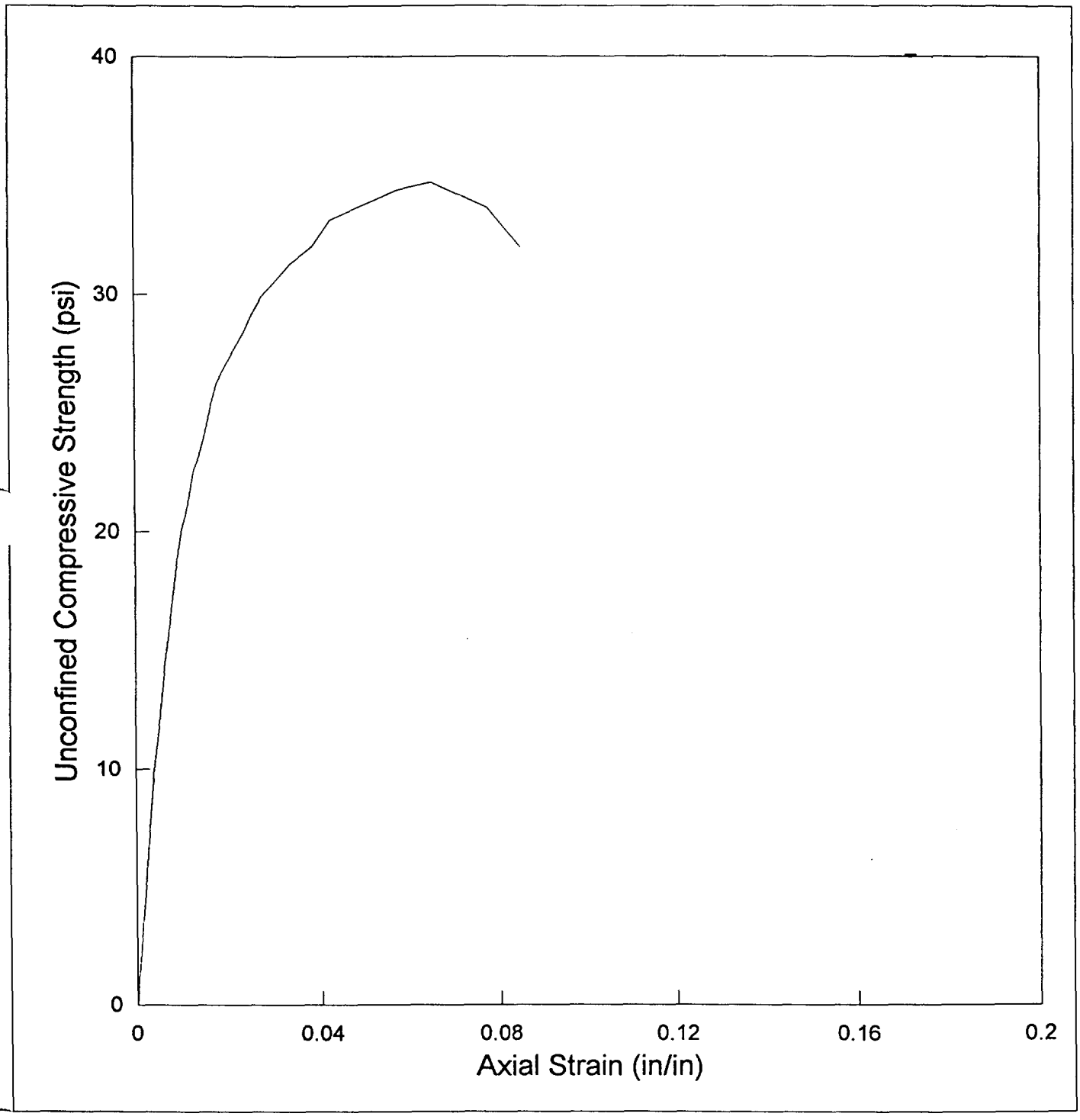
SOIL SPECIMEN DIMENSIONS	*DIAMETER*	*LENGTH*
No. 1	2.01 in.	4.00 in.
No. 2	2.00 in.	4.00 in.
No. 3	2.00 in.	4.00 in.
Average	**2.00 in.**	**4.00 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***338.54 g***
Initial Area, Ao	3.15 in^2
Initial Volume, Vo	12.61 in^3
Initial Bulk Unit Weight,	102.3 lb/ft^3
Initial Dry Unit Weight	87.9 lb/ft^3
15 % Strain (0.15 Lo)	0.60 in.
UCS	34.7 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.152	0.0000	0.0
6	0.003	0.003	3.154	0.0008	1.9
10	0.005	0.005	3.156	0.0013	3.2
14	0.007	0.007	3.158	0.0018	4.4
21	0.010	0.010	3.160	0.0025	6.6
31	0.015	0.015	3.164	0.0038	9.8
38	0.020	0.020	3.168	0.0050	12.0
46	0.025	0.025	3.172	0.0063	14.5
52	0.030	0.030	3.176	0.0075	16.4
59	0.035	0.035	3.180	0.0088	18.6
64	0.040	0.040	3.184	0.0100	20.1
67	0.045	0.045	3.188	0.0113	21.0
72	0.050	0.050	3.192	0.0125	22.6
74	0.055	0.055	3.196	0.0138	23.2
77	0.060	0.060	3.200	0.0150	24.1
81	0.065	0.065	3.204	0.0163	25.3
84	0.070	0.070	3.208	0.0175	26.2
86	0.075	0.075	3.212	0.0188	26.8
89	0.085	0.085	3.221	0.0213	27.6
92	0.095	0.095	3.229	0.0238	28.5
94	0.100	0.100	3.233	0.0250	29.1
97	0.110	0.110	3.241	0.0275	29.9
99	0.120	0.120	3.250	0.0300	30.5
102	0.135	0.135	3.262	0.0338	31.3
105	0.155	0.155	3.279	0.0388	32.0
109	0.170	0.170	3.292	0.0425	33.1
112	0.200	0.200	3.318	0.0500	33.8
115	0.230	0.230	3.344	0.0575	34.4
117	0.260	0.260	3.371	0.0650	34.7
115	0.310	0.310	3.417	0.0775	33.7
110	0.340	0.340	3.445	0.0850	31.9

UNCONFINED COMPRESSION TESTING

Sample No. 3230-008 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-009 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0432_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	19.8	%
BULK UNIT WEIGHT	96.4	lb/ft^3
DRY UNIT WEIGHT	80.5	lb/ft^3
UCS •	56.4	lb/in^2

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-009 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0432_US

MOISTURE CONTENT (Dry Basis)	
1. MOISTURE TIN NO.	009
2. WT MOISTURE TIN (tare weight)	1.27 g
3. WT WET SOIL + TARE	28.77 g
4. WT DRY SOIL + TARE	24.23 g
5. WT WATER, Ww	4.54 g
6. WT DRY SOIL, Ws	22.96 g
7. MOISTURE CONTENT, W	**19.77 %**

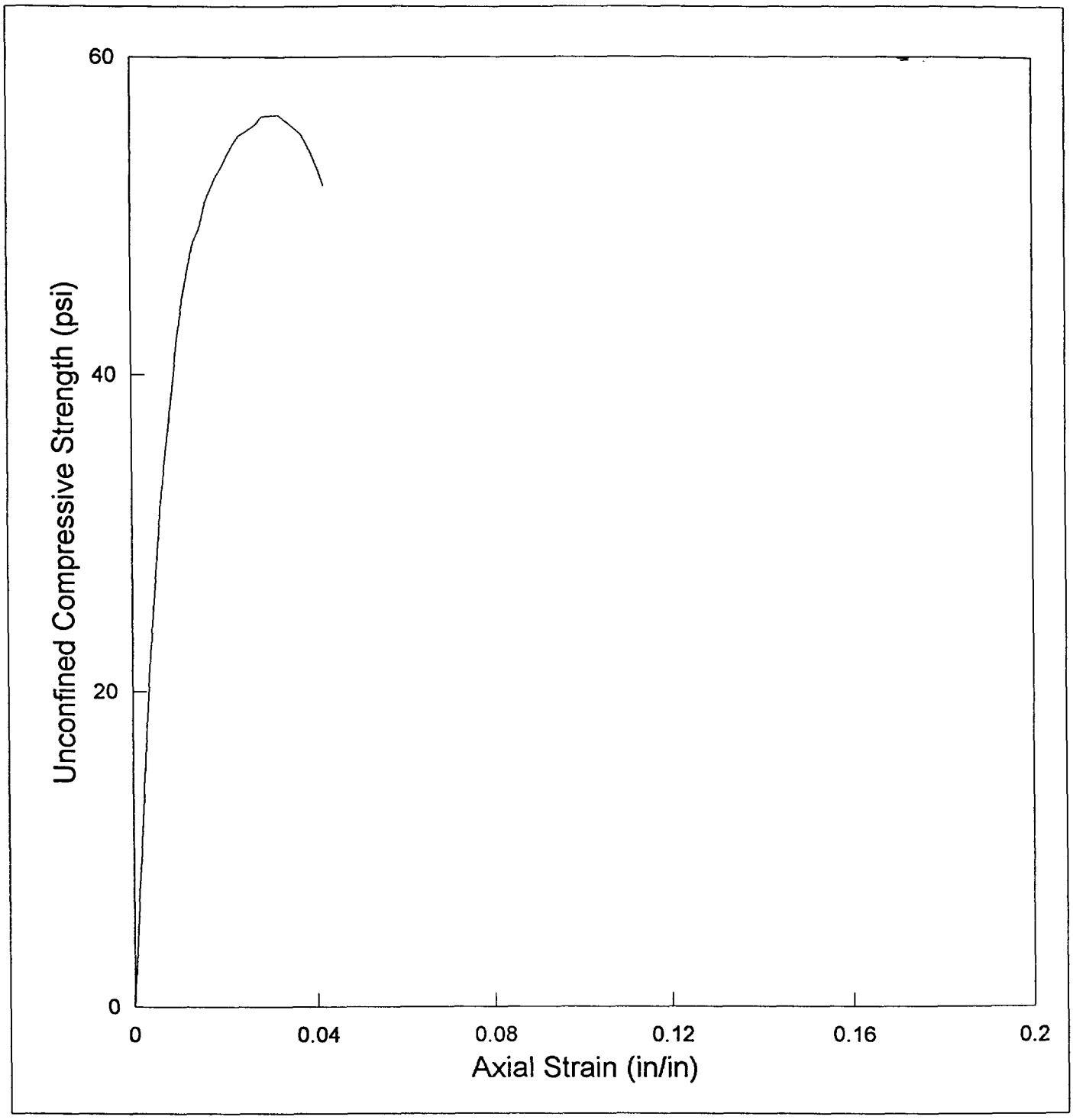
SOIL SPECIMEN DIMENSIONS		
	DIAMETER	*LENGTH*
No. 1	2.00 in.	4.02 in.
No. 2	2.00 in.	4.01 in.
No. 3	2.00 in.	4.02 in.
Average	**2.00 in.**	**4.02 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***319.21 g***
Initial Area, Ao	3.14 in^2
Initial Volume, Vo	12.62 in^3
Initial Bulk Unit Weight,	96.4 lb/ft^3
Initial Dry Unit Weight	80.5 lb/ft^3
15 % Strain (0.15 Lo)	0.60 in.
UCS	56.4 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
13	0.003	0.003	3.144	0.0007	4.1
23	0.005	0.005	3.146	0.0012	7.3
31	0.007	0.007	3.147	0.0017	9.9
46	0.010	0.010	3.149	0.0025	14.6
68	0.015	0.015	3.153	0.0037	21.6
84	0.020	0.020	3.157	0.0050	26.6
101	0.025	0.025	3.161	0.0062	31.9
112	0.030	0.030	3.165	0.0075	35.4
122	0.035	0.035	3.169	0.0087	38.5
134	0.040	0.040	3.173	0.0100	42.2
142	0.045	0.045	3.177	0.0112	44.7
149	0.050	0.050	3.181	0.0124	46.8
154	0.055	0.055	3.185	0.0137	48.3
157	0.060	0.060	3.189	0.0149	49.2
162	0.065	0.065	3.193	0.0162	50.7
165	0.070	0.070	3.197	0.0174	51.6
168	0.075	0.075	3.201	0.0187	52.5
170	0.080	0.080	3.205	0.0199	53.0
173	0.085	0.085	3.210	0.0212	53.9
175	0.090	0.090	3.214	0.0224	54.5
177	0.095	0.095	3.218	0.0237	55.0
178	0.100	0.100	3.222	0.0249	55.2
180	0.110	0.110	3.230	0.0274	55.7
182	0.115	0.115	3.234	0.0286	56.3
183	0.130	0.130	3.247	0.0324	56.4
180	0.150	0.150	3.263	0.0373	55.2
178	0.155	0.155	3.268	0.0386	54.5
173	0.165	0.165	3.276	0.0411	52.8
170	0.170	0.170	3.280	0.0423	51.8

UNCONFINED COMPRESSION TESTING

Sample No. 3230-009 (7 DAY)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-012 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0433_US

TESTING PARAMETER AND RESULTS	
MOISTURE CONTENT	15.5 **%**
BULK UNIT WEIGHT	99.3 lb/ft³
DRY UNIT WEIGHT	86.0 lb/ft³
UCS •	18.5 lb/in²

• UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	8 JUNE 1999
SAMPLE No.:	3230-012 (7 DAY)	DIAL GAGE:	LDT 2
TESTING DATE:	17 MAY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0433_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	012	
2. WT MOISTURE TIN (tare weight)	1.28	g
3. WT WET SOIL + TARE	46.59	g
4. WT DRY SOIL + TARE	40.51	g
5. WT WATER, Ww	6.08	g
6. WT DRY SOIL, Ws	39.23	g
7. MOISTURE CONTENT, W	**15.50**	**%**

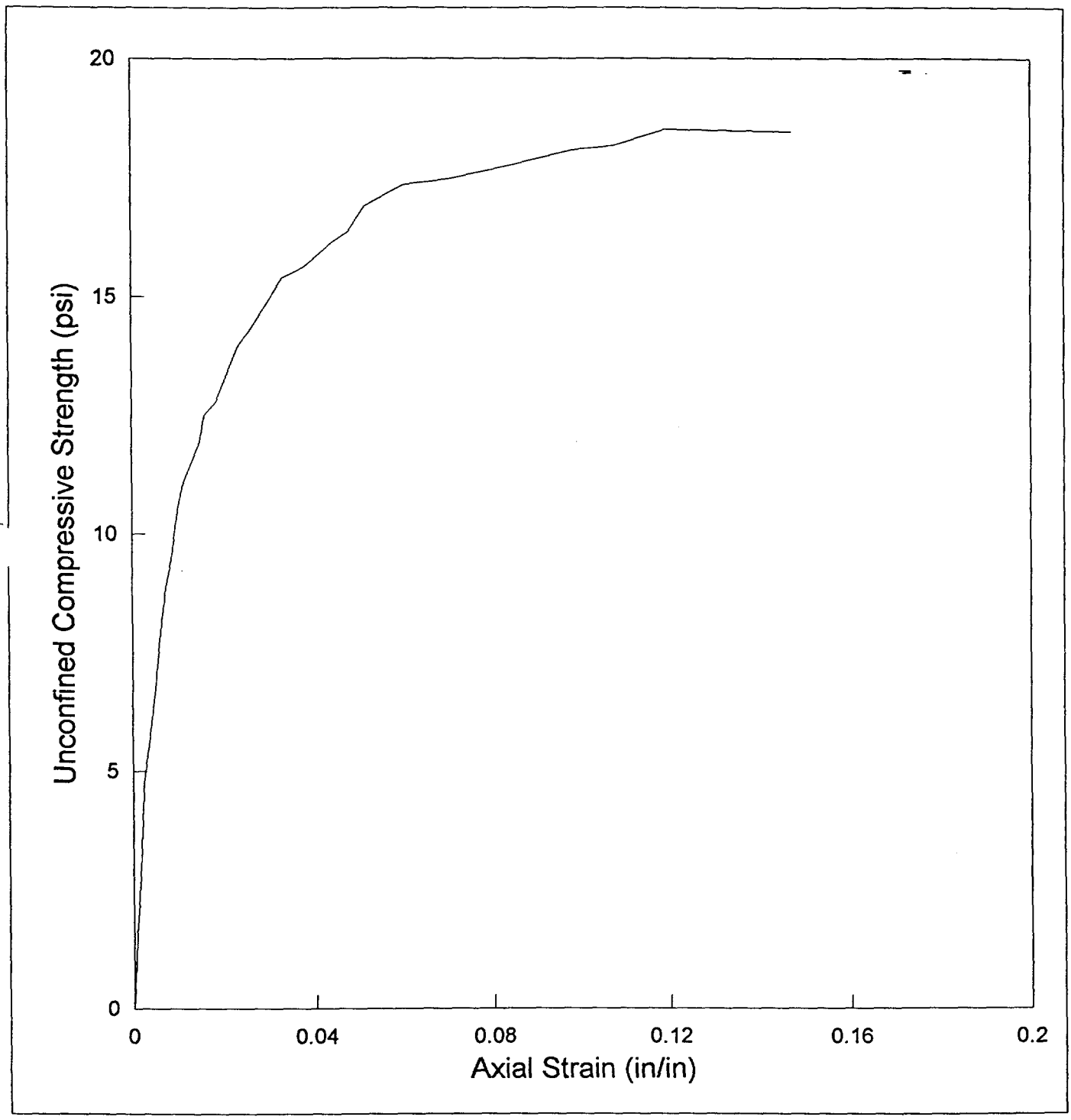
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.06	in.
No. 2	2.00	in.	4.07	in.
No. 3	2.00	in.	4.08	in.
Average	**2.00**	**in.**	**4.07**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***333.42***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.79	in^3
Initial Bulk Unit Weight,	99.3	lb/ft^3
Initial Dry Unit Weight	86.0	lb/ft^3
15 % Strain (0.15 Lo)	0.61	in.
UCS	18.5	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
5	0.003	0.003	3.144	0.0007	1.6
7	0.005	0.005	3.145	0.0012	2.2
10	0.007	0.007	3.147	0.0017	3.2
15	0.010	0.010	3.149	0.0025	4.8
18	0.015	0.015	3.153	0.0037	5.7
21	0.020	0.020	3.157	0.0049	6.7
25	0.025	0.025	3.161	0.0061	7.9
28	0.030	0.030	3.165	0.0074	8.8
30	0.035	0.035	3.169	0.0086	9.5
33	0.040	0.040	3.173	0.0098	10.4
35	0.045	0.045	3.177	0.0111	11.0
36	0.050	0.050	3.181	0.0123	11.3
38	0.060	0.060	3.189	0.0147	11.9
40	0.065	0.065	3.193	0.0160	12.5
41	0.075	0.075	3.201	0.0184	12.8
43	0.085	0.085	3.209	0.0209	13.4
45	0.095	0.095	3.217	0.0233	14.0
46	0.105	0.105	3.225	0.0258	14.3
48	0.120	0.120	3.237	0.0295	14.8
50	0.135	0.135	3.249	0.0332	15.4
51	0.155	0.155	3.266	0.0381	15.6
53	0.180	0.180	3.287	0.0442	16.1
54	0.195	0.195	3.300	0.0479	16.4
56	0.210	0.210	3.313	0.0516	16.9
58	0.245	0.245	3.343	0.0602	17.4
59	0.285	0.285	3.378	0.0700	17.5
61	0.345	0.345	3.433	0.0848	17.8
63	0.400	0.400	3.484	0.0983	18.1
64	0.440	0.440	3.522	0.1081	18.2
66	0.485	0.485	3.567	0.1192	18.5
68	0.600	0.600	3.685	0.1474	18.5

UNCONFINED COMPRESSION TESTING

Sample No. 3230-012 (7 DAY)



APPENDIX

APPENDIX D
OPTIMIZATION STABILIZATION TREATMENT

UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-025 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0533_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	46.3	%
BULK UNIT WEIGHT	79.5	lb/ft^3
DRY UNIT WEIGHT	54.3	lb/ft^3
UCS *	9.2	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-025 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0533_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	025	
2. WT MOISTURE TIN (tare weight)	1.24	g
3. WT WET SOIL + TARE	22.84	g
4. WT DRY SOIL + TARE	16.00	g
5. WT WATER, Ww	6.84	g
6. WT DRY SOIL, Ws	14.76	g
7. MOISTURE CONTENT, W	**46.34**	**%**

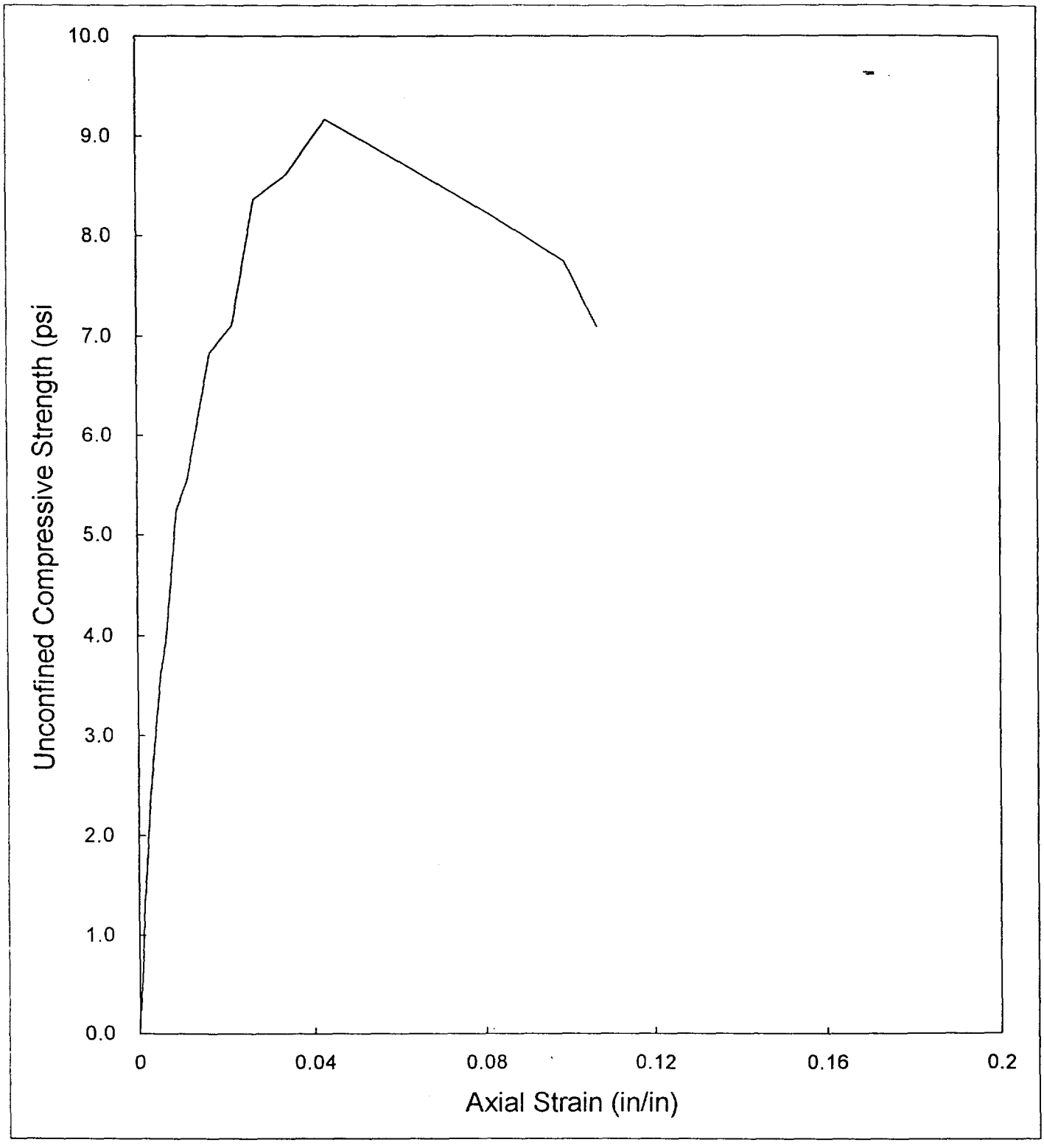
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	1.97	in.	3.93	in.
No. 2	1.95	in.	3.94	in.
No. 3	1.97	in.	3.95	in.
Average	**1.96**	**in.**	**3.94**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***248.90***	***g***
Initial Area, Ao	3.03	in^2
Initial Volume, Vo	11.93	in^3
Initial Bulk Unit Weight,	79.5	lb/ft^3
Initial Dry Unit Weight	54.3	lb/ft^3
15 % Strain (0.15 Lo)	0.59	in.
UCS	9.2	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.027	0.0000	0.0
2	0.003	0.003	3.030	0.0008	0.7
4	0.005	0.005	3.031	0.0013	1.3
5	0.007	0.007	3.033	0.0018	1.6
7	0.010	0.010	3.035	0.0025	2.3
9	0.015	0.015	3.039	0.0038	3.0
11	0.020	0.020	3.043	0.0051	3.6
12	0.025	0.025	3.047	0.0063	3.9
14	0.030	0.030	3.051	0.0076	4.6
16	0.035	0.035	3.055	0.0089	5.2
17	0.045	0.045	3.062	0.0114	5.6
19	0.055	0.055	3.070	0.0140	6.2
21	0.065	0.065	3.078	0.0165	6.8
22	0.085	0.085	3.094	0.0216	7.1
26	0.105	0.105	3.110	0.0266	8.4
27	0.135	0.135	3.135	0.0343	8.6
29	0.170	0.170	3.164	0.0431	9.2
27	0.325	0.325	3.300	0.0825	8.2
26	0.390	0.390	3.360	0.0990	7.7
24	0.420	0.420	3.389	0.1066	7.1

UNCONFINED COMPRESSION TESTING

Sample No. 3230-025 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-026 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0534_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	36.1	%
BULK UNIT WEIGHT	78.1	lb/ft^3
DRY UNIT WEIGHT	57.4	lb/ft^3
UCS *	30.7	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-026 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0534_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	026	
2. WT MOISTURE TIN (tare weight)	1.25	g
3. WT WET SOIL + TARE	25.11	g
4. WT DRY SOIL + TARE	18.78	g
5. WT WATER, Ww	6.33	g
6. WT DRY SOIL, Ws	17.53	g
7. MOISTURE CONTENT, W	**36.11**	**%**

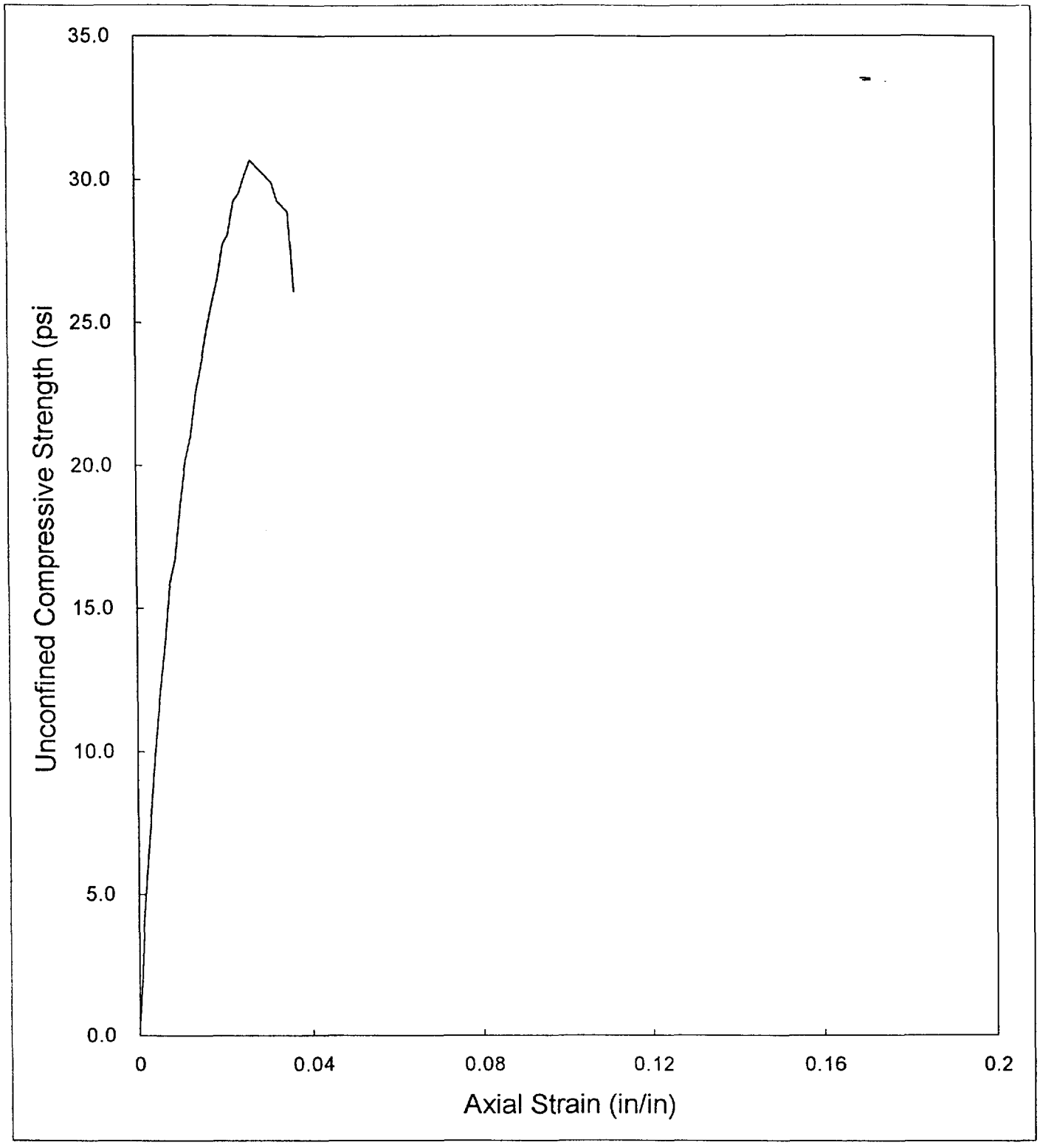
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	3.96	in.
No. 2	2.00	in.	3.97	in.
No. 3	2.00	in.	3.97	in.
Average	**2.00**	**in.**	**3.97**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***255.41***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.46	in^3
Initial Bulk Unit Weight,	78.1	lb/ft^3
Initial Dry Unit Weight	57.4	lb/ft^3
15 % Strain (0.15 Lo)	0.60	in.
UCS	30.7	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
7	0.003	0.003	3.144	0.0008	2.2
13	0.005	0.005	3.146	0.0013	4.1
17	0.007	0.007	3.147	0.0018	5.4
22	0.010	0.010	3.150	0.0025	7.0
30	0.015	0.015	3.154	0.0038	9.5
37	0.020	0.020	3.158	0.0050	11.7
43	0.025	0.025	3.162	0.0063	13.6
50	0.030	0.030	3.166	0.0076	15.8
53	0.035	0.035	3.170	0.0088	16.7
59	0.040	0.040	3.174	0.0101	18.6
64	0.045	0.045	3.178	0.0113	20.1
67	0.050	0.050	3.182	0.0126	21.1
72	0.055	0.055	3.186	0.0139	22.6
75	0.060	0.060	3.190	0.0151	23.5
79	0.065	0.065	3.194	0.0164	24.7
82	0.070	0.070	3.198	0.0176	25.6
85	0.075	0.075	3.202	0.0189	26.5
89	0.080	0.080	3.206	0.0202	27.8
90	0.085	0.085	3.210	0.0214	28.0
94	0.090	0.090	3.215	0.0227	29.2
95	0.095	0.095	3.219	0.0239	29.5
97	0.100	0.100	3.223	0.0252	30.1
99	0.105	0.105	3.227	0.0265	30.7
97	0.125	0.125	3.244	0.0315	29.9
95	0.130	0.130	3.248	0.0328	29.2
94	0.140	0.140	3.257	0.0353	28.9
85	0.145	0.145	3.261	0.0366	26.1

UNCONFINED COMPRESSION TESTING

Sample No. 3230-026 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-027 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0535_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	21.0	%
BULK UNIT WEIGHT	93.9	lb/ft³
DRY UNIT WEIGHT	77.6	lb/ft³
UCS *	29.0	lb/in²

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-027 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0535_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	027	
2. WT MOISTURE TIN (tare weight)	1.23	g
3. WT WET SOIL + TARE	23.86	g
4. WT DRY SOIL + TARE	19.93	g
5. WT WATER, Ww	3.93	g
6. WT DRY SOIL, Ws	18.70	g
7. MOISTURE CONTENT, W	**21.02**	**%**

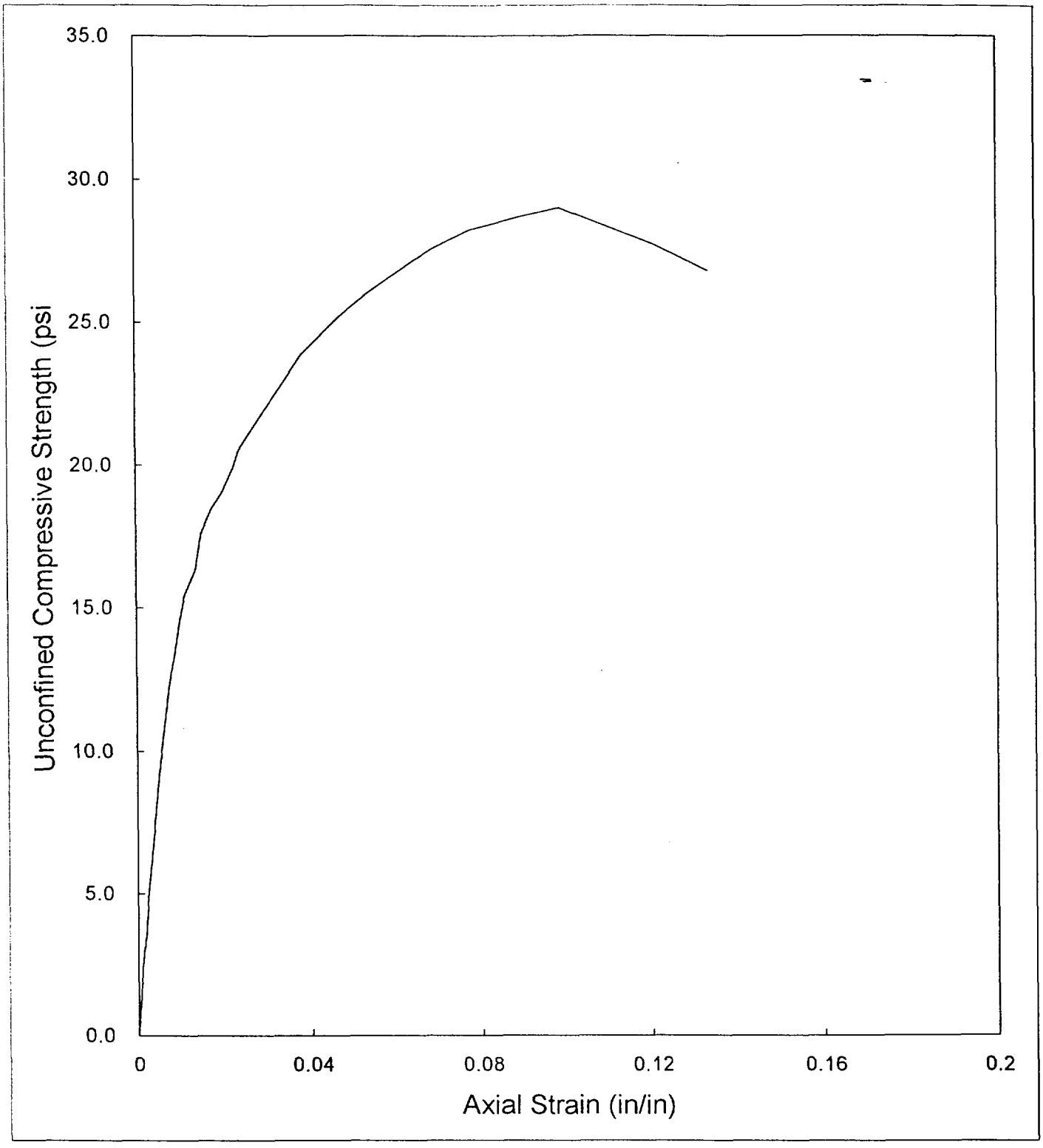
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.05	in.
No. 2	2.00	in.	4.05	in.
No. 3	2.00	in.	4.04	in.
Average	**2.00**	**in.**	**4.05**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***313.52***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.71	in^3
Initial Bulk Unit Weight,	93.9	lb/ft^3
Initial Dry Unit Weight	77.6	lb/ft^3
15 % Strain (0.15 Lo)	0.61	in.
UCS	29.0	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
6	0.003	0.003	3.144	0.0007	1.9
9	0.005	0.005	3.145	0.0012	2.9
11	0.007	0.007	3.147	0.0017	3.5
16	0.010	0.010	3.149	0.0025	5.1
22	0.015	0.015	3.153	0.0037	7.0
29	0.020	0.020	3.157	0.0049	9.2
34	0.025	0.025	3.161	0.0062	10.8
39	0.030	0.030	3.165	0.0074	12.3
42	0.035	0.035	3.169	0.0086	13.3
46	0.040	0.040	3.173	0.0099	14.5
49	0.045	0.045	3.177	0.0111	15.4
52	0.055	0.055	3.185	0.0136	16.3
56	0.060	0.060	3.189	0.0148	17.6
59	0.070	0.070	3.197	0.0173	18.5
61	0.080	0.080	3.205	0.0198	19.0
64	0.090	0.090	3.213	0.0222	19.9
66	0.095	0.095	3.217	0.0235	20.5
69	0.110	0.110	3.229	0.0272	21.4
71	0.120	0.120	3.238	0.0297	21.9
73	0.130	0.130	3.246	0.0321	22.5
78	0.155	0.155	3.267	0.0383	23.9
83	0.190	0.190	3.296	0.0470	25.2
86	0.215	0.215	3.318	0.0531	25.9
91	0.260	0.260	3.357	0.0643	27.1
93	0.280	0.280	3.375	0.0692	27.6
96	0.315	0.315	3.407	0.0778	28.2
99	0.365	0.365	3.453	0.0902	28.7
101	0.400	0.400	3.486	0.0988	29.0
99	0.485	0.485	3.569	0.1199	27.7
97	0.540	0.540	3.625	0.1334	26.8

UNCONFINED COMPRESSION TESTING

Sample No. 3230-027 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-028 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0536_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	18.0	%
BULK UNIT WEIGHT	97.8	lb/ft^3
DRY UNIT WEIGHT	82.9	lb/ft^3
UCS *	64.2	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-028 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0536_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	028	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	29.39	g
4. WT DRY SOIL + TARE	25.10	g
5. WT WATER, Ww	4.29	g
6. WT DRY SOIL, Ws	23.83	g
7. MOISTURE CONTENT, W	**18.00**	**%**

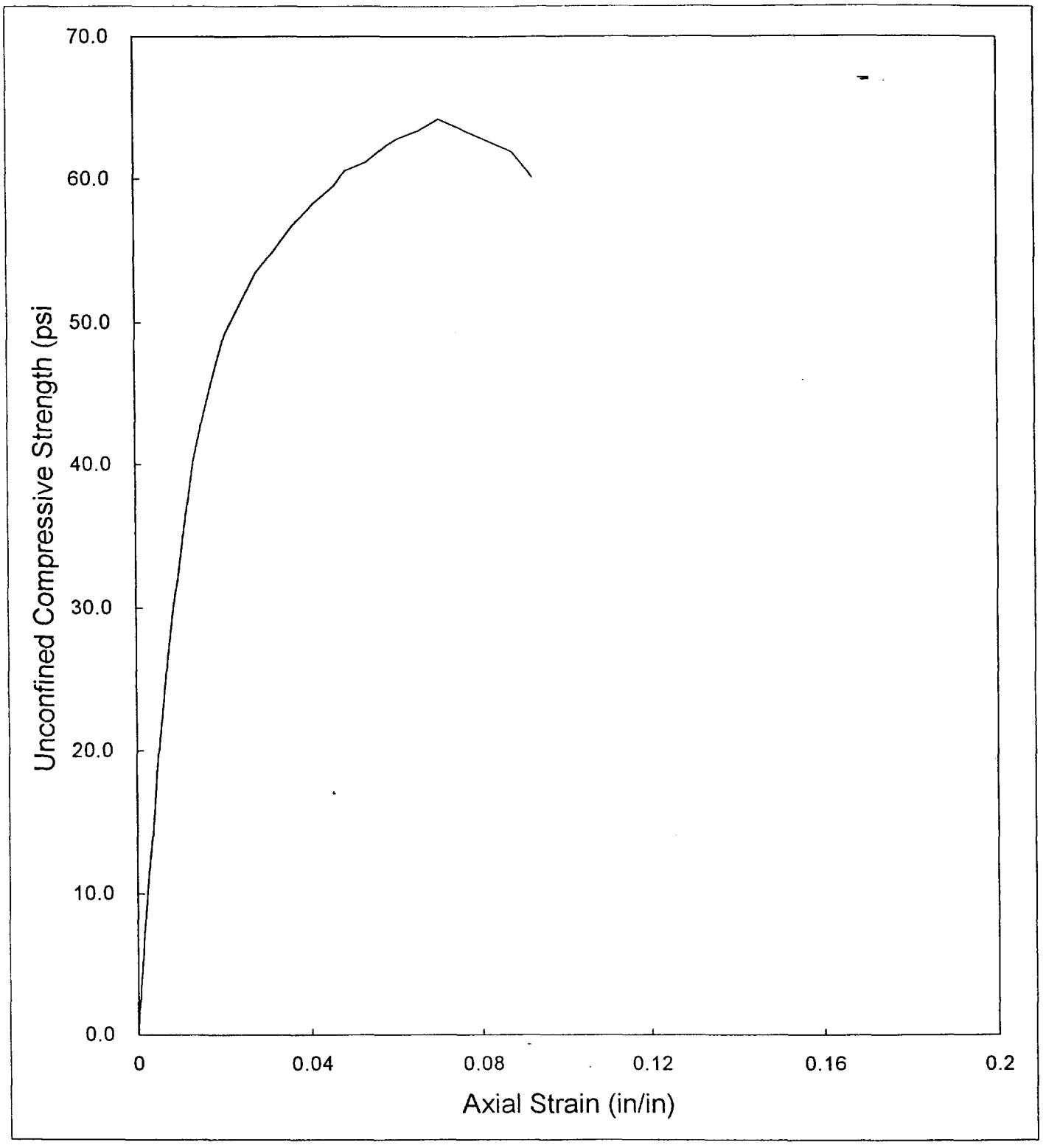
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.10	in.
No. 2	2.00	in.	4.10	in.
No. 3	2.00	in.	4.12	in.
Average	**2.00**	**In.**	**4.11**	**In.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***331.16***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.90	in^3
Initial Bulk Unit Weight,	97.8	lb/ft^3
Initial Dry Unit Weight	82.9	lb/ft^3
15 % Strain (0.15 Lo)	0.62	in.
UCS	64.2	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
12	0.003	0.003	3.144	0.0007	3.8
17	0.005	0.005	3.145	0.0012	5.4
24	0.007	0.007	3.147	0.0017	7.6
34	0.010	0.010	3.149	0.0024	10.8
45	0.015	0.015	3.153	0.0037	14.3
61	0.020	0.020	3.157	0.0049	19.3
72	0.025	0.025	3.161	0.0061	22.8
84	0.030	0.030	3.165	0.0073	26.5
94	0.035	0.035	3.169	0.0085	29.7
102	0.040	0.040	3.172	0.0097	32.2
111	0.045	0.045	3.176	0.0110	34.9
128	0.055	0.055	3.184	0.0134	40.2
139	0.065	0.065	3.192	0.0158	43.5
149	0.075	0.075	3.200	0.0183	46.6
158	0.085	0.085	3.208	0.0207	49.3
163	0.095	0.095	3.216	0.0231	50.7
168	0.105	0.105	3.224	0.0256	52.1
173	0.115	0.115	3.232	0.0280	53.5
178	0.130	0.130	3.244	0.0317	54.9
185	0.150	0.150	3.261	0.0365	56.7
191	0.170	0.170	3.277	0.0414	58.3
196	0.190	0.190	3.294	0.0463	59.5
200	0.200	0.200	3.302	0.0487	60.6
203	0.220	0.220	3.319	0.0536	61.2
208	0.240	0.240	3.337	0.0584	62.3
210	0.250	0.250	3.345	0.0609	62.8
213	0.270	0.270	3.363	0.0657	63.3
217	0.290	0.290	3.380	0.0706	64.2
213	0.360	0.360	3.443	0.0877	61.9
208	0.380	0.380	3.462	0.0925	60.1

UNCONFINED COMPRESSION TESTING

Sample No. 3230-028 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-029 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0537_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	35.2	%
BULK UNIT WEIGHT	84.1	lb/ft^3
DRY UNIT WEIGHT	62.2	lb/ft^3
UCS *	21.3	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-029 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0537_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	029	
2. WT MOISTURE TIN (tare weight)	1.29	g
3. WT WET SOIL + TARE	24.08	g
4. WT DRY SOIL + TARE	18.15	g
5. WT WATER, Ww	5.93	g
6. WT DRY SOIL, Ws	16.86	g
7. MOISTURE CONTENT, W	**35.17**	**%**

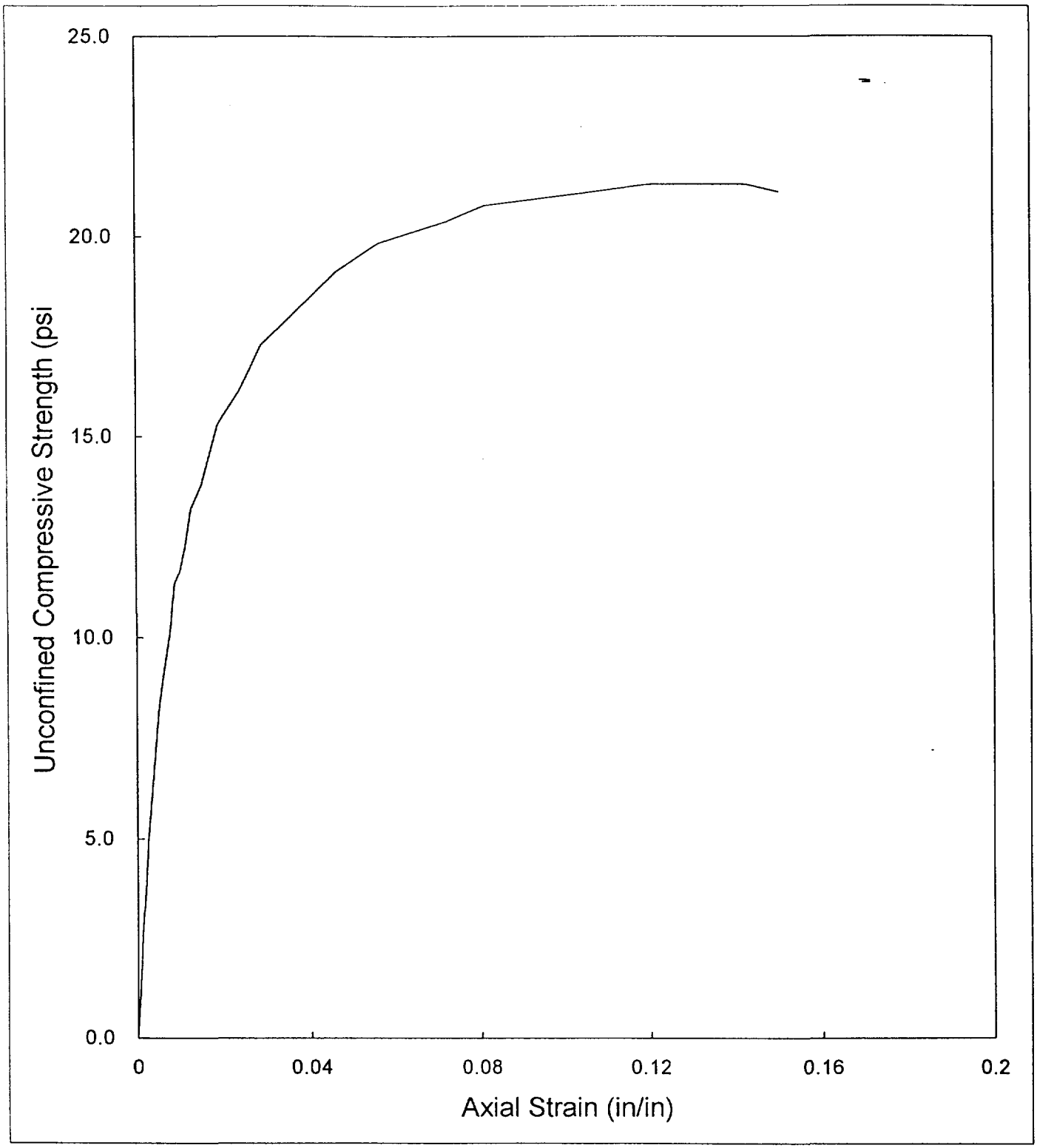
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.00	in.
No. 2	2.00	in.	4.01	in.
No. 3	2.00	in.	4.00	in.
Average	**2.00**	**in.**	**4.00**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***277.60***	***g***
Initial Area, Ao	3.14	in^2
Initial Volume, Vo	12.58	in^3
Initial Bulk Unit Weight,	84.1	lb/ft^3
Initial Dry Unit Weight	62.2	lb/ft^3
15 % Strain (0.15 Lo)	0.60	in.
UCS	21.3	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.142	0.0000	0.0
5	0.003	0.003	3.144	0.0007	1.6
9	0.005	0.005	3.146	0.0012	2.9
11	0.007	0.007	3.147	0.0017	3.5
16	0.010	0.010	3.149	0.0025	5.1
21	0.015	0.015	3.153	0.0037	6.7
26	0.020	0.020	3.157	0.0050	8.2
29	0.025	0.025	3.161	0.0062	9.2
32	0.030	0.030	3.165	0.0075	10.1
36	0.035	0.035	3.169	0.0087	11.4
37	0.040	0.040	3.173	0.0100	11.7
39	0.045	0.045	3.177	0.0112	12.3
42	0.050	0.050	3.181	0.0125	13.2
44	0.060	0.060	3.189	0.0150	13.8
49	0.075	0.075	3.202	0.0187	15.3
52	0.095	0.095	3.218	0.0237	16.2
54	0.105	0.105	3.226	0.0262	16.7
56	0.115	0.115	3.235	0.0287	17.3
59	0.145	0.145	3.260	0.0362	18.1
63	0.185	0.185	3.294	0.0462	19.1
66	0.225	0.225	3.329	0.0562	19.8
69	0.290	0.290	3.387	0.0724	20.4
71	0.325	0.325	3.419	0.0812	20.8
74	0.420	0.420	3.510	0.1049	21.1
76	0.480	0.480	3.570	0.1199	21.3
78	0.570	0.570	3.663	0.1424	21.3
78	0.600	0.600	3.695	0.1499	21.1

UNCONFINED COMPRESSION TESTING

Sample No. 3230-029 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-030 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0538_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	39.8	%
BULK UNIT WEIGHT	84.1	lb/ft^3
DRY UNIT WEIGHT	60.2	lb/ft^3
UCS *	13.2	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-030 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0538_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	030	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	20.96	g
4. WT DRY SOIL + TARE	15.35	g
5. WT WATER, Ww	5.61	g
6. WT DRY SOIL, Ws	14.08	g
7. MOISTURE CONTENT, W	**39.84**	**%**

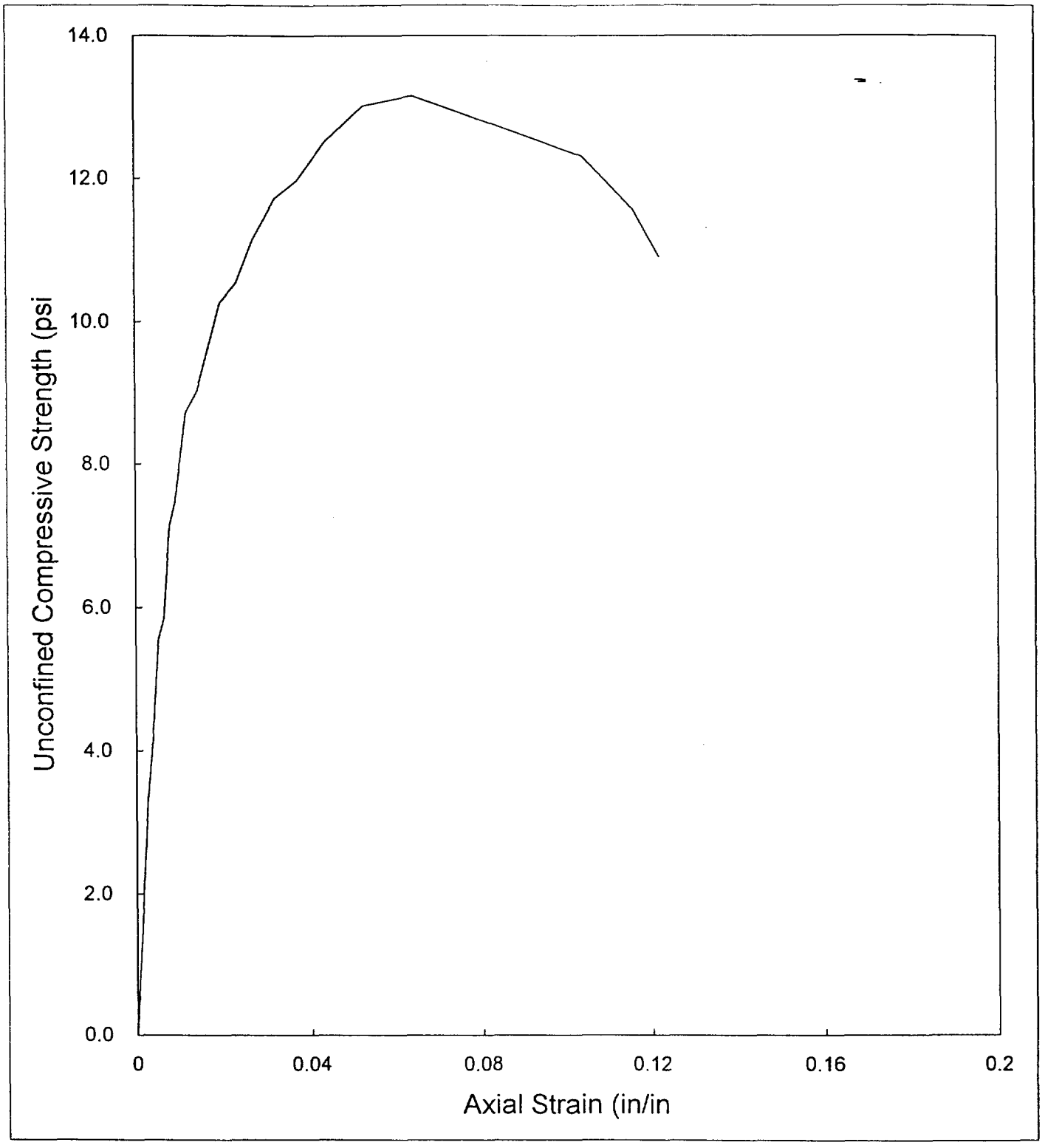
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	1.98	in.	3.89	in.
No. 2	1.97	in.	3.89	in.
No. 3	1.97	in.	3.90	in.
Average	**1.97**	**in.**	**3.89**	**In.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***262.94***	***g***
Initial Area, Ao	3.06	in^2
Initial Volume, Vo	11.91	in^3
Initial Bulk Unit Weight,	84.1	lb/ft^3
Initial Dry Unit Weight	60.2	lb/ft^3
15 % Strain (0.15 Lo)	0.58	in.
UCS	13.2	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.058	0.0000	0.0
3	0.003	0.003	3.061	0.0008	1.0
5	0.005	0.005	3.062	0.0013	1.6
7	0.007	0.007	3.064	0.0018	2.3
10	0.010	0.010	3.066	0.0026	3.3
13	0.015	0.015	3.070	0.0039	4.2
17	0.020	0.020	3.074	0.0051	5.5
18	0.025	0.025	3.078	0.0064	5.8
22	0.030	0.030	3.082	0.0077	7.1
23	0.035	0.035	3.086	0.0090	7.5
25	0.040	0.040	3.090	0.0103	8.1
27	0.045	0.045	3.094	0.0116	8.7
28	0.055	0.055	3.102	0.0141	9.0
30	0.065	0.065	3.110	0.0167	9.6
32	0.075	0.075	3.118	0.0193	10.3
33	0.090	0.090	3.131	0.0231	10.5
35	0.105	0.105	3.143	0.0270	11.1
37	0.125	0.125	3.160	0.0321	11.7
38	0.145	0.145	3.177	0.0372	12.0
40	0.170	0.170	3.198	0.0437	12.5
42	0.205	0.205	3.228	0.0527	13.0
43	0.250	0.250	3.268	0.0642	13.2
42	0.405	0.405	3.413	0.1040	12.3
40	0.450	0.450	3.458	0.1156	11.6
38	0.475	0.475	3.483	0.1220	10.9

UNCONFINED COMPRESSION TESTING

Sample No. 3230-030 (28 Day)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-031 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0539_US.xls

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	35.7	%
BULK UNIT WEIGHT	96.0	lb/ft^3
DRY UNIT WEIGHT	70.7	lb/ft^3
UCS *	10.4	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	16 JUNE 2000
SAMPLE No.:	3230-031 (28 Day)	DIAL GAGE:	LDT 2
TESTING DATE:	13 JULY 2000	LOADING RATE:	0.04 in./min.
TESTED BY:	MC	TRACKING CODE:	0539_US.xls

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	031	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	27.65	g
4. WT DRY SOIL + TARE	20.71	g
5. WT WATER, Ww	6.94	g
6. WT DRY SOIL, Ws	19.44	g
7. MOISTURE CONTENT, W	**35.70**	**%**

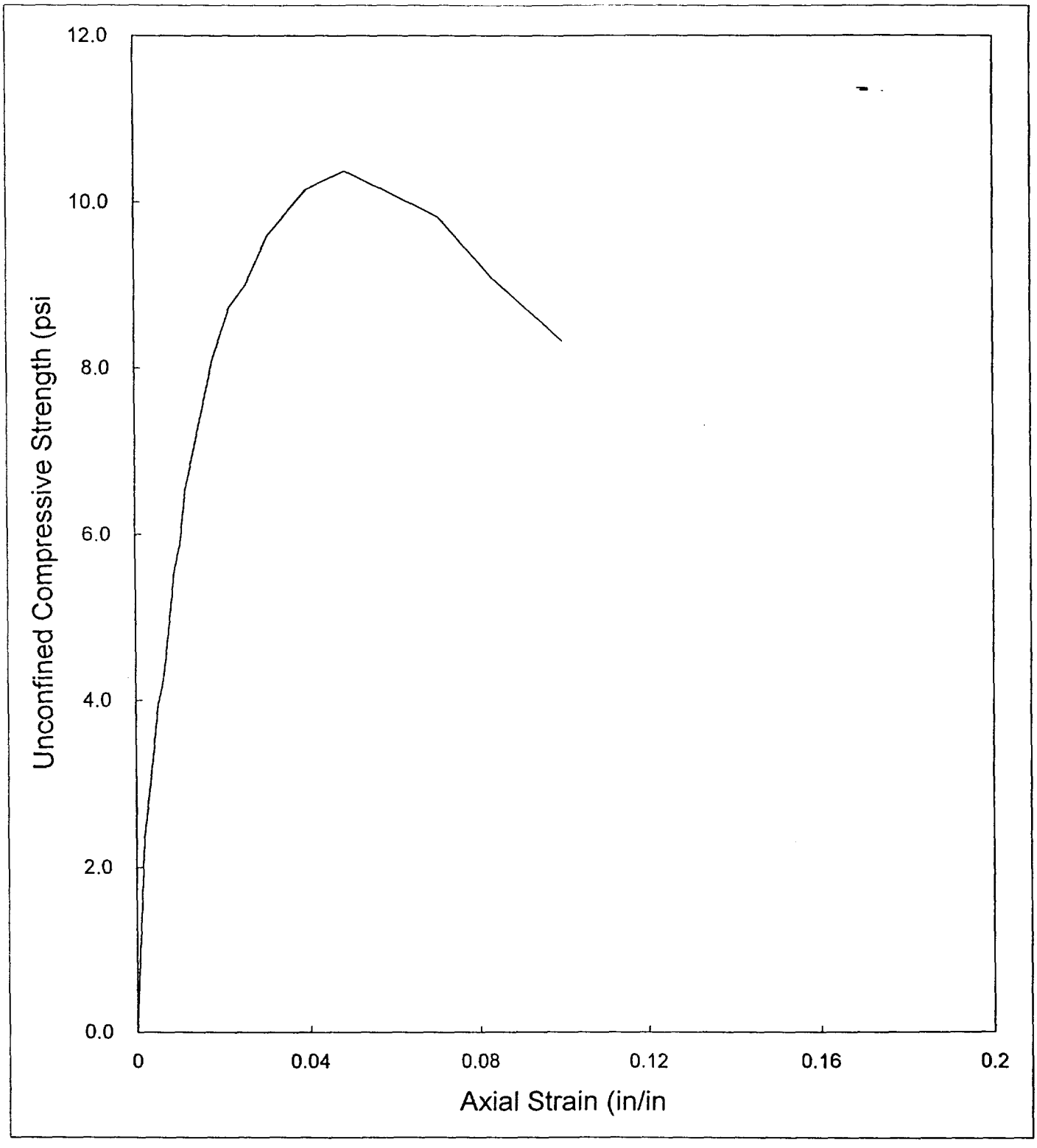
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	1.96	in.	3.89	in.
No. 2	1.96	in.	3.90	in.
No. 3	1.97	in.	3.89	in.
Average	**1.96**	**in.**	**3.89**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***296.90***	***g***
Initial Area, Ao	3.03	in^2
Initial Volume, Vo	11.79	in^3
Initial Bulk Unit Weight,	96.0	lb/ft^3
Initial Dry Unit Weight	70.7	lb/ft^3
15 % Strain (0.15 Lo)	0.58	in.
UCS	10.4	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.027	0.0000	0.0
3	0.003	0.003	3.030	0.0008	1.0
5	0.005	0.005	3.031	0.0013	1.6
7	0.007	0.007	3.033	0.0018	2.3
10	0.015	0.015	3.039	0.0039	3.3
12	0.020	0.020	3.043	0.0051	3.9
13	0.025	0.025	3.047	0.0064	4.3
15	0.030	0.030	3.051	0.0077	4.9
17	0.035	0.035	3.055	0.0090	5.6
18	0.040	0.040	3.059	0.0103	5.9
20	0.045	0.045	3.063	0.0116	6.5
22	0.055	0.055	3.071	0.0141	7.2
23	0.060	0.060	3.075	0.0154	7.5
25	0.070	0.070	3.083	0.0180	8.1
27	0.085	0.085	3.095	0.0218	8.7
28	0.100	0.100	3.107	0.0257	9.0
30	0.120	0.120	3.124	0.0308	9.6
32	0.155	0.155	3.153	0.0398	10.1
33	0.190	0.190	3.183	0.0488	10.4
32	0.275	0.275	3.258	0.0706	9.8
30	0.325	0.325	3.303	0.0835	9.1
28	0.390	0.390	3.364	0.1002	8.3

UNCONFINED COMPRESSION TESTING

Sample No. 3230-031 (28 Day)



APPENDIX

APPENDIX E
VERIFICATION TREATMENT EVALUATIONS

UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-032 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	36756	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0571_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	42.1	**%**
BULK UNIT WEIGHT	71.0	lb/ft³
DRY UNIT WEIGHT	50.0	lb/ft³
UCS *	11.1	lb/in²

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-032 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	18-Aug-00	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0571_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	3230-032	
2. WT MOISTURE TIN (tare weight)	1.26	g
3. WT WET SOIL + TARE	32.58	g
4. WT DRY SOIL + TARE	23.30	g
5. WT WATER, Ww	9.28	g
6. WT DRY SOIL, Ws	22.04	g
7. MOISTURE CONTENT, W	**42.11**	**%**

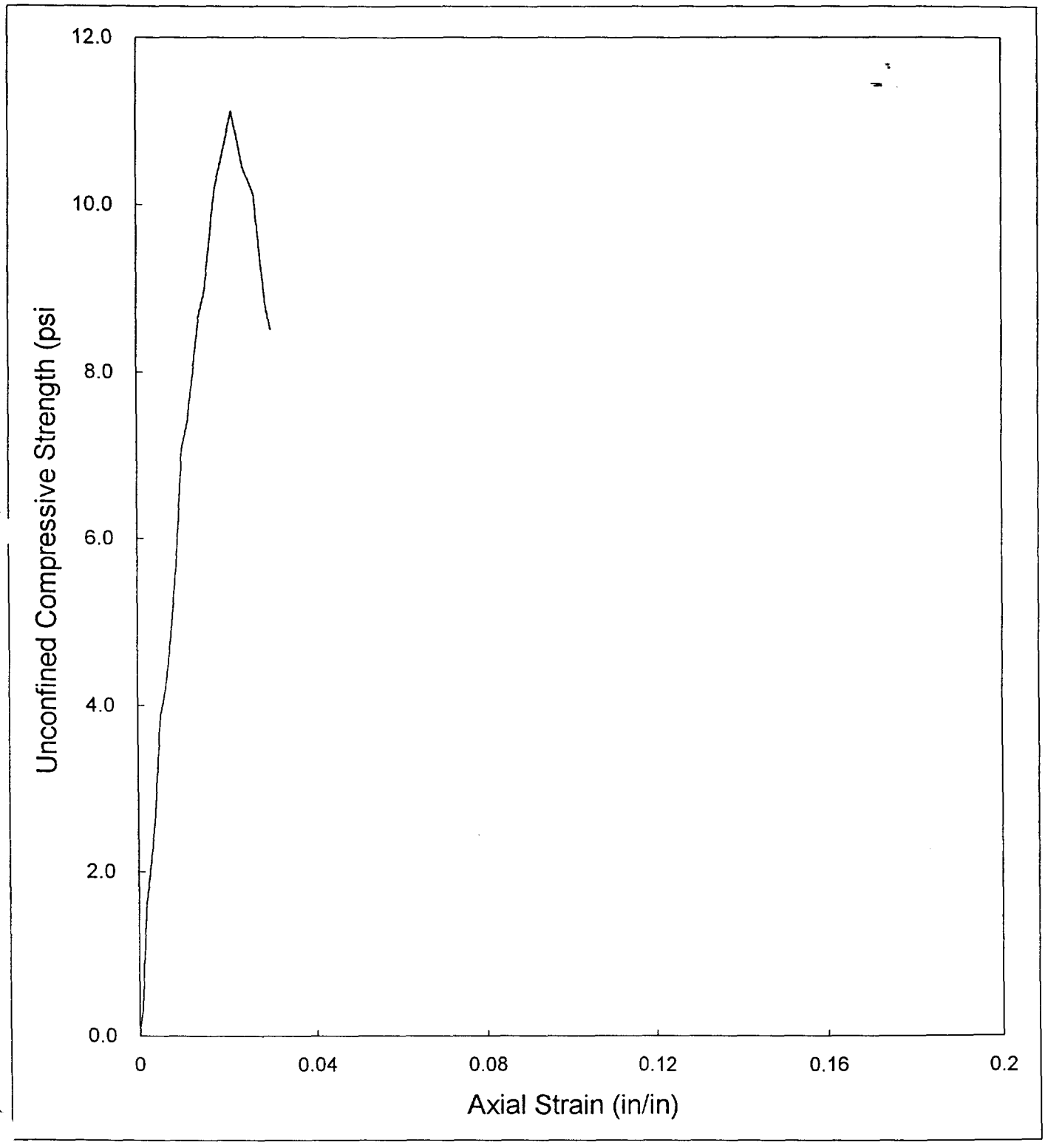
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	1.98	in.	3.96	in.
No. 2	1.97	in.	3.98	in.
No. 3	1.99	in.	4.01	in.
Average	**1.98**	**in.**	**3.98**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***228.71***	***g***
Initial Area, Ao	3.08	in^2
Initial Volume, Vo	12.26	in^3
Initial Bulk Unit Weight,	71.0	lb/ft^3
Initial Dry Unit Weight	50.0	lb/ft^3
15 % Strain (0.15 Lo)	0.60	in.
UCS	11.1	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.079	0.0000	0.0
1	0.003	0.003	3.081	0.0008	0.3
3	0.005	0.005	3.083	0.0013	1.0
5	0.007	0.007	3.084	0.0018	1.6
6	0.010	0.010	3.087	0.0025	1.9
8	0.015	0.015	3.091	0.0038	2.6
12	0.020	0.020	3.095	0.0050	3.9
13	0.025	0.025	3.099	0.0063	4.2
15	0.030	0.030	3.102	0.0075	4.8
18	0.035	0.035	3.106	0.0088	5.8
22	0.040	0.040	3.110	0.0100	7.1
23	0.045	0.045	3.114	0.0113	7.4
25	0.050	0.050	3.118	0.0126	8.0
27	0.055	0.055	3.122	0.0138	8.6
28	0.060	0.060	3.126	0.0151	9.0
30	0.065	0.065	3.130	0.0163	9.6
32	0.070	0.070	3.134	0.0176	10.2
33	0.075	0.075	3.138	0.0188	10.5
35	0.085	0.085	3.146	0.0213	11.1
33	0.095	0.095	3.154	0.0238	10.5
32	0.105	0.105	3.162	0.0264	10.1
30	0.110	0.110	3.167	0.0276	9.5
28	0.115	0.115	3.171	0.0289	8.8
27	0.120	0.120	3.175	0.0301	8.5

UNCONFINED COMPRESSION TESTING

Sample N6230-032 (28 DAY CURE)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-033 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	36756	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0572_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	25.6	**%**
BULK UNIT WEIGHT	91.3	lb/ft³
DRY UNIT WEIGHT	72.7	lb/ft³
UCS *	23.0	lb/in²

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-033 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	18-Aug-00	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0572_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	3230-033	
2. WT MOISTURE TIN (tare weight)	1.26	g
3. WT WET SOIL + TARE	40.00	g
4. WT DRY SOIL + TARE	32.11	g
5. WT WATER, Ww	7.89	g
6. WT DRY SOIL, Ws	30.85	g
7. MOISTURE CONTENT, W	**25.58**	**%**

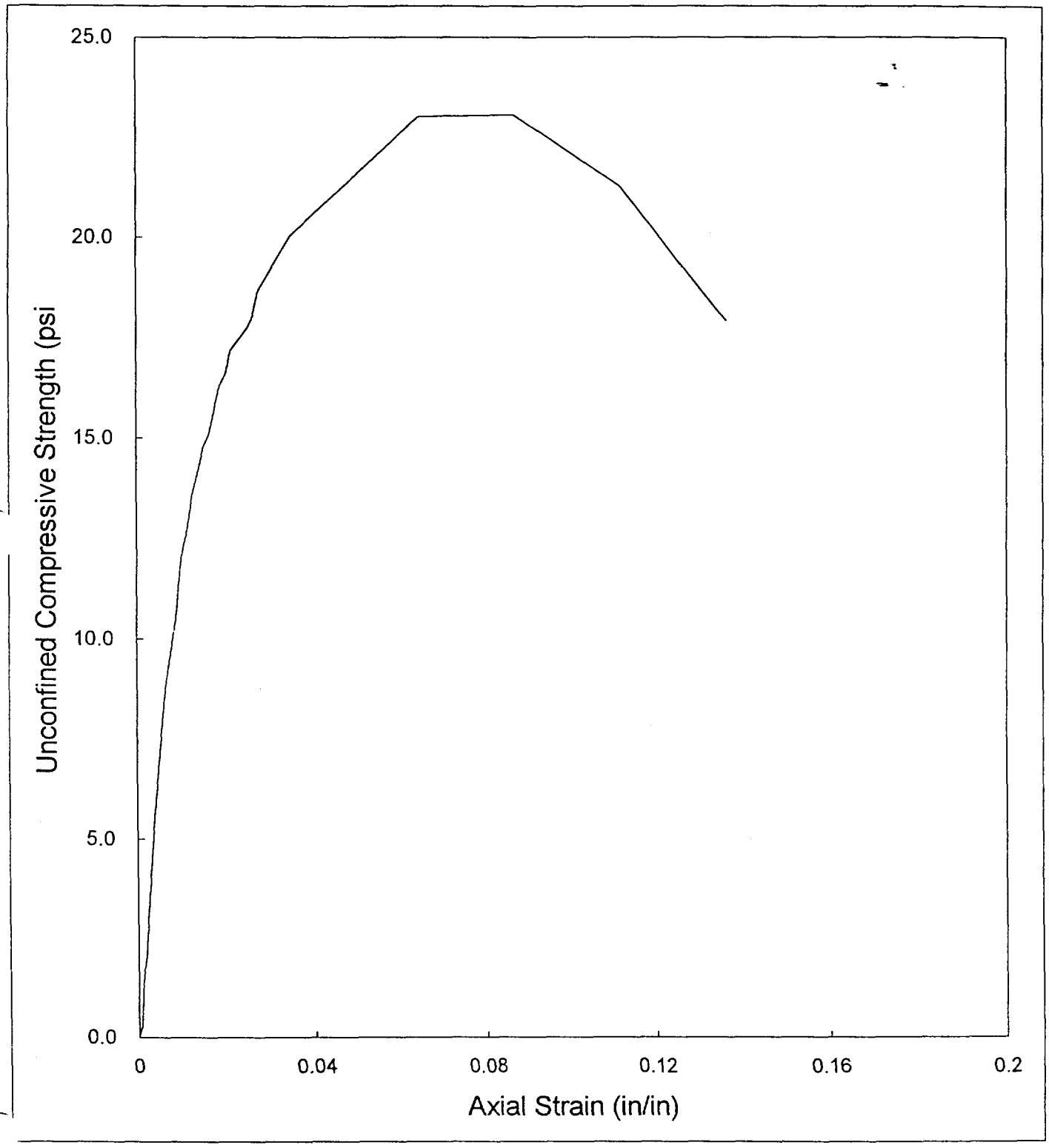
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	4.04	in.
No. 2	2.00	in.	4.04	in.
No. 3	1.99	in.	4.03	in.
Average	**2.00**	**in.**	**4.04**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***303.00***	***g***
Initial Area, Ao	3.13	in^2
Initial Volume, Vo	12.64	in^3
Initial Bulk Unit Weight,	91.3	lb/ft^3
Initial Dry Unit Weight	72.7	lb/ft^3
15 % Strain (0.15 Lo)	0.61	in.
UCS	23.0	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.131	0.0000	0.0
1	0.003	0.003	3.133	0.0007	0.3
5	0.005	0.005	3.135	0.0012	1.6
6	0.007	0.007	3.137	0.0017	1.9
10	0.010	0.010	3.139	0.0025	3.2
17	0.015	0.015	3.143	0.0037	5.4
22	0.020	0.020	3.147	0.0050	7.0
27	0.025	0.025	3.151	0.0062	8.6
30	0.030	0.030	3.155	0.0074	9.5
33	0.035	0.035	3.159	0.0087	10.4
38	0.040	0.040	3.162	0.0099	12.0
40	0.045	0.045	3.166	0.0111	12.6
43	0.050	0.050	3.170	0.0124	13.6
45	0.055	0.055	3.174	0.0136	14.2
47	0.060	0.060	3.178	0.0149	14.8
48	0.065	0.065	3.182	0.0161	15.1
50	0.070	0.070	3.186	0.0173	15.7
52	0.075	0.075	3.190	0.0186	16.3
53	0.080	0.080	3.194	0.0198	16.6
55	0.085	0.085	3.198	0.0211	17.2
57	0.100	0.100	3.211	0.0248	17.8
58	0.105	0.105	3.215	0.0260	18.0
60	0.110	0.110	3.219	0.0273	18.6
65	0.140	0.140	3.244	0.0347	20.0
75	0.240	0.240	3.329	0.0595	22.5
77	0.260	0.260	3.347	0.0644	23.0
79	0.350	0.350	3.428	0.0867	23.0
75	0.450	0.450	3.524	0.1115	21.3
70	0.500	0.500	3.574	0.1239	19.6
65	0.550	0.550	3.625	0.1363	17.9

UNCONFINED COMPRESSION TESTING

Sample N6230-033 (28 DAY CURE)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-034 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	36756	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0573_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	33.8	%
BULK UNIT WEIGHT	82.3	lb/ft^3
DRY UNIT WEIGHT	61.5	lb/ft^3
UCS *	19.4	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-034 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	18-Aug-00	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0573_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	3230-034	
2. WT MOISTURE TIN (tare weight)	1.27	g
3. WT WET SOIL + TARE	34.13	g
4. WT DRY SOIL + TARE	25.82	g
5. WT WATER, Ww	8.31	g
6. WT DRY SOIL, Ws	24.55	g
7. MOISTURE CONTENT, W	**33.85**	**%**

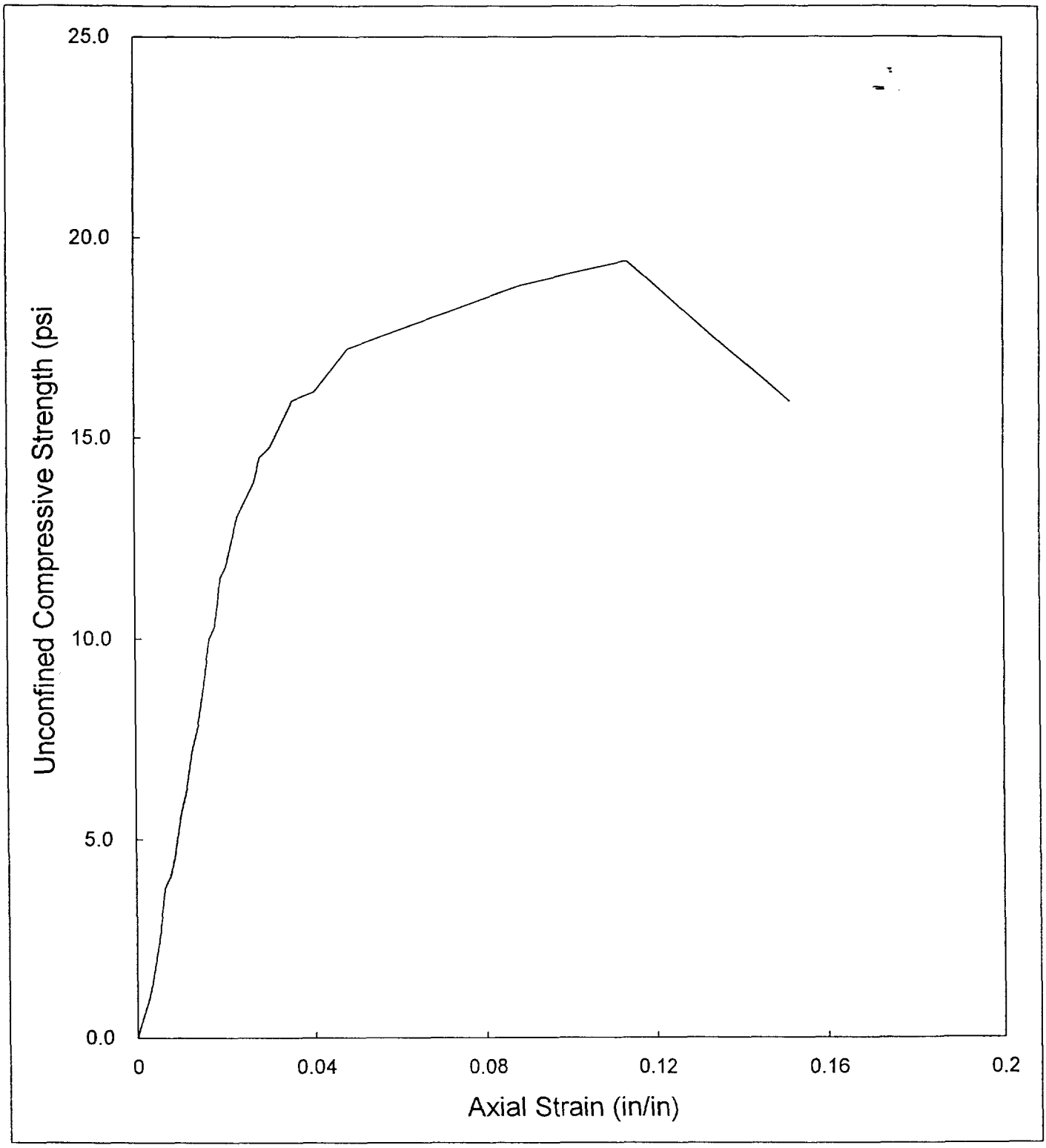
SOIL SPECIMEN DIMENSIONS				
	DIAMETER		*LENGTH*	
No. 1	2.00	in.	3.96	in.
No. 2	2.01	in.	3.95	in.
No. 3	2.00	in.	3.98	in.
Average	**2.00**	**in.**	**3.96**	**in.**

SPECIMEN CONDITIONS		
Initial Specimen WT, Wo	***269.87***	***g***
Initial Area, Ao	3.15	in^2
Initial Volume, Vo	12.49	in^3
Initial Bulk Unit Weight,	82.3	lb/ft^3
Initial Dry Unit Weight	61.5	lb/ft^3
15 % Strain (0.15 Lo)	0.59	in.
UCS	19.4	lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	3.152	0.0000	0.0
1	0.003	0.003	3.154	0.0008	0.3
3	0.010	0.010	3.160	0.0025	0.9
5	0.015	0.015	3.164	0.0038	1.6
8	0.020	0.020	3.168	0.0050	2.5
12	0.025	0.025	3.172	0.0063	3.8
13	0.030	0.030	3.176	0.0076	4.1
15	0.035	0.035	3.180	0.0088	4.7
18	0.040	0.040	3.184	0.0101	5.7
20	0.045	0.045	3.188	0.0114	6.3
23	0.050	0.050	3.192	0.0126	7.2
25	0.055	0.055	3.196	0.0139	7.8
28	0.060	0.060	3.201	0.0151	8.7
32	0.065	0.065	3.205	0.0164	10.0
33	0.070	0.070	3.209	0.0177	10.3
37	0.075	0.075	3.213	0.0189	11.5
38	0.080	0.080	3.217	0.0202	11.8
40	0.085	0.085	3.221	0.0214	12.4
42	0.090	0.090	3.225	0.0227	13.0
43	0.095	0.095	3.229	0.0240	13.3
45	0.105	0.105	3.238	0.0265	13.9
47	0.110	0.110	3.242	0.0278	14.5
48	0.120	0.120	3.250	0.0303	14.8
50	0.130	0.130	3.259	0.0328	15.3
52	0.140	0.140	3.267	0.0353	15.9
53	0.160	0.160	3.285	0.0404	16.1
57	0.190	0.190	3.311	0.0479	17.2
65	0.350	0.350	3.457	0.0883	18.8
67	0.400	0.400	3.506	0.1009	19.1
69	0.450	0.450	3.556	0.1135	19.4
59	0.600	0.600	3.714	0.1514	15.9

UNCONFINED COMPRESSION TESTING

Sample N6230-034 (28 DAY CURE)



UNCONFINED COMPRESSION TEST

ASTM D 2166
SUMMARY OF RESULTS

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-035 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	36756	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0574_US

TESTING PARAMETER AND RESULTS		
MOISTURE CONTENT	31.0	%
BULK UNIT WEIGHT	113.2	lb/ft^3
DRY UNIT WEIGHT	86.4	lb/ft^3
UCS *	30.9	lb/in^2

* UCS - UNCONFINED COMPRESSIVE STRENGTH

UNCONFINED COMPRESSION TEST

ASTM D 2166

PROJECT:	SHERIDAN TRUST SITE	LOAD CELL:	6000 lb.
PROJECT No.:	3230	DATE CALIBRATED:	13 JUNE 2000
SAMPLE No.:	3230-035 (28 DAY CURE)	DIAL GAGE:	LDT 2
TESTING DATE:	18-Aug-00	LOADING RATE:	0.04 in./min.
TESTED BY:	RKS	TRACKING CODE:	0574_US

MOISTURE CONTENT (Dry Basis)		
1. MOISTURE TIN NO.	3230-035	
2. WT MOISTURE TIN (tare weight)	1.30	g
3. WT WET SOIL + TARE	44.07	g
4. WT DRY SOIL + TARE	33.95	g
5. WT WATER, Ww	10.12	g
6. WT DRY SOIL, Ws	32.65	g
7. MOISTURE CONTENT, W	**31.00**	**%**

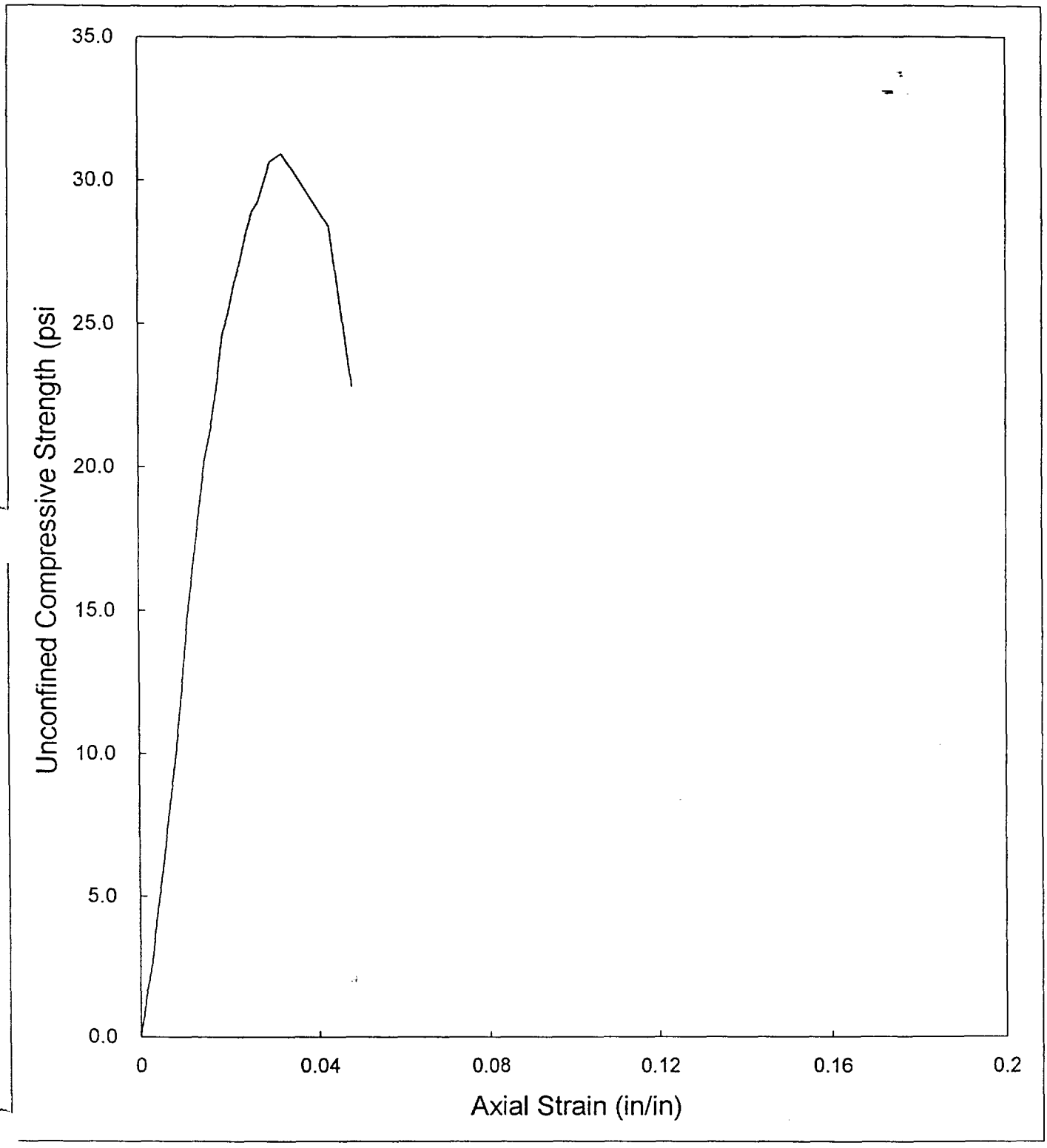
SOIL SPECIMEN DIMENSIONS	*DIAMETER*	*LENGTH*
No. 1	1.78 in.	3.75 in.
No. 2	1.83 in.	3.75 in.
No. 3	1.88 in.	3.75 in.
Average	**1.83 in.**	**3.75 in.**

SPECIMEN CONDITIONS	
Initial Specimen WT, Wo	***293.09 g***
Initial Area, Ao	2.63 in^2
Initial Volume, Vo	9.86 in^3
Initial Bulk Unit Weight,	113.2 lb/ft^3
Initial Dry Unit Weight	86.4 lb/ft^3
15 % Strain (0.15 Lo)	0.56 in.
UCS	30.9 lb/in^2

COMPRESSIVE LOAD (lbs.)	DIAL GAGE READING (in.)	SPECIMEN DEFORMATION (in.)	CORRECTED AREA (in^2)	AXIAL STRAIN (in/in)	UNCONFINED COMPRESSIVE STRENGTH (lb/in^2)
0	0.000	0.000	2.630	0.0000	0.0
2	0.003	0.003	2.632	0.0008	0.8
4	0.005	0.005	2.634	0.0013	1.5
5	0.007	0.007	2.635	0.0019	1.9
7	0.010	0.010	2.637	0.0027	2.7
12	0.015	0.015	2.641	0.0040	4.5
16	0.020	0.020	2.644	0.0053	6.1
21	0.025	0.025	2.648	0.0067	7.9
26	0.030	0.030	2.651	0.0080	9.8
32	0.035	0.035	2.655	0.0093	12.1
39	0.040	0.040	2.659	0.0107	14.7
44	0.045	0.045	2.662	0.0120	16.5
49	0.050	0.050	2.666	0.0133	18.4
54	0.055	0.055	2.669	0.0147	20.2
57	0.060	0.060	2.673	0.0160	21.3
61	0.065	0.065	2.677	0.0173	22.8
66	0.070	0.070	2.680	0.0187	24.6
68	0.075	0.075	2.684	0.0200	25.3
71	0.080	0.080	2.688	0.0213	26.4
73	0.085	0.085	2.691	0.0227	27.1
76	0.090	0.090	2.695	0.0240	28.2
78	0.095	0.095	2.699	0.0253	28.9
79	0.100	0.100	2.702	0.0267	29.2
81	0.105	0.105	2.706	0.0280	29.9
83	0.110	0.110	2.710	0.0293	30.6
84	0.120	0.120	2.717	0.0320	30.9
78	0.160	0.160	2.747	0.0427	28.4
63	0.180	0.180	2.763	0.0480	22.8

UNCONFINED COMPRESSION TESTING

Sample N6230-035 (28 DAY CURE)



SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive, NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

Lot #: A0I190260

Melissa Grimes

Kemron Environmental
109 Starlite Park Drive
Marietta, OH 45750

SEVERN TRENT LABORATORIES, INC.

Jeffrey C. Smith
Project Manager

October 3, 2000

Committed To *Your* Success

CASE NARRATIVE

CASE NARRATIVE

A0I190260

The following report contains the analytical results for four solid samples submitted to STL North Canton by Kemron Environmental. The samples were received September 19, 2000, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter listed on the analytical methods summary page in accordance with the method indicated. A summary of QC data for these analyses is included at the rear of this report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The cooler was received at the laboratory at a temperature of 1.5 ° C.

GC/MS VOLATILES

The sample(s) had elevated reporting limits due to TICs.

Due to a LIMS error, the system indicated an incorrect sample expiration date and the samples were analyzed outside of the recommended holding time.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB, PAH, and Herbicide methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

METHOD REFERENCE

ANALYTICAL METHODS SUMMARY

A0I190260

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Committed To *Your* Success

SAMPLE SUMMARY

SAMPLE SUMMARY

A0I190260

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DKM1R	001	L0009094-02	09/06/00	
DKM1X	002	L0009094-04	09/06/00	
DKM21	003	L0009094-06	09/06/00	
DKM22	004	L0009094-08	09/06/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING AND RECEIVING DOCUMENTS

001689

NO. 147. 1/2

SAMPLE LOG-OUT FORM

KEMRON ENVIRONMENTAL SERVICES, INC.
109 STARLITE PARK
MARIETTA, OHIO 45750
(740) 373-4071

TO: STL

REPORT TO ATTN: _____

TURNAROUND: _____

PO #: _____

SHIPPED VIA: Kemron

CHARGE TO: ____IH ____LAB ____

Kemron Work Order	Sample ID	Analysis	Date/Time Collected	Price
L0009094-02	3230-032/SPLP EXTRACT	8260	9/6/00	
04	3230-033/SPLP EXT.	↓	↓	
06	3230-034/SPLP EXT.			
08	3230-035/SPLP EXT.			
L0009119-01	RW-2	8260 (APP IX)	9/7/00 @1520	
02	Trip Blank	↓	9/7/00	
L0009132-01	SVE-8	8260	9/7/00 @1345	
02	SVE-7	↓	1430	
03	Trip Blank	↓	↓	

Relinquished by:	Brenda Gregory	Date 9-19-00	Time 1430
Received by:		Date	Time

Logout

Revised 01/0[illegible]

NO. 147 1/2

SAMPLE LOG-OUT FORM

KEMRON ENVIRONMENTAL SERVICES, INC.
109 STARLITE PARK
MARIETTA, OHIO 45750
(740) 373-4071

TO: STL

REPORT TO ATTN:

TURNAROUND:

PO #:

SHIPPED VIA: Kemron

CHARGE TO: ____IH ____LAB ____

Kemron Work Order	Sample ID	Analysis	Date/Time Collected	Price
L0009094-02	3230-032/SPLP EXTRACT	8260	9/6/00	
04	3230-033/SPLP EXT.	"	"	
06	3230-034/SPLP EXT.	"	"	
08	3230-035/SPLP EXT.	"	"	
L0009119-01	RW-2	8260 (APP IX)	9/7/00 @1520	
02	Trip Blank	"	9/7/00	
L0009132-01	SVE-8	8260	9/7/00 @1345	
02	SVE-7	"	1430	
03	Trip Blank	"	"	

Relinquished by: Brenda Gregory		Date 9-19-00	Time 1430
Received by:		Date 9-19-00	Time 1425

Logout

Revised 01/08

RSR280

Severn Trent Laboratories, Inc.
Sample Control Record

Client: 99434

Lot #: A0I190260

Case Number/SDG:

Storage Location: MS

Laboratory Sample I.D.	Transferred By	Date	Entered	Removed	Reason	Date Returned
DKM1R	EZZOL	9/19/00	Yes		Storage	
DKM1X	EZZOL	9/19/00	Yes		Storage	
DKM21	EZZOL	9/19/00	Yes		Storage	
DKM22	EZZOL	9/19/00	Yes		Storage	

STL North Canton

North Canton Facility

Client: Kemron Project: Quote#:

Cooler Received on: 9-19-00 Opened on: 9-19-00 by: (Signature)

Fedx ☐ Client Drop Off ☑ UPS ☐ Airborne ☐
Other:

Cooler ☐ Safe ☐ Foam Box ☐ Client Cooler ☑ Other:
STL Shipper No#:

1. Were custody seals on the outside of the cooler and intact? Yes ☑ No ☐
   If YES, Quantity 1 Location over closure
   Were the custody seals signed and dated? Yes ☑ No ☐ NA ☐
2. Shipper's packing slip attached to this form? Yes ☐ No ☑
3. Were custody papers included inside the cooler and relinquished? Yes ☑ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☑ No ☐
5. Packing material used:

Peanuts ☐ Bubble Wrap ☑ Vermiculite ☐ Foam ☑ None ☐ Other :

6. Cooler temperature upon receipt 1.5 °C (see back of form for multiple coolers/temp)

METHOD: Temperature Vial ☑ Coolant ☐ Against Bottles ☐
COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Were all the bottles sealed in separate plastic bags? Yes ☐ No ☑
8. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
9. Did all bottle labels and tags agree with the custody papers? Yes ☑ No ☐
10. Were samples at the correct pH? Yes ☐ No ☐ NA ☑
11. Were correct bottles used for the tests indicated? Yes ☑ No ☐
12. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
13. Was a sufficient amount of sample sent in each bottle? Yes ☑ No ☐

Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐
Concerning: _____

√	MACRO	MACRO
1. CHAIN OF CUSTODY		
	SR1A	Samples were received under proper custody procedures and without discrepancies.
	SR1B	The chain of custody and sample bottles did not agree. The following discrepancies occurred .
2. SAMPLE CONDITION		
	SR2A	Sample(s) _____ were received or requested after the recommended holding time had expired.
	SR2B	Sample(s) _____ were received with insufficient volume
	SR2C	Sample(s) _____ were received in a broken container.
3. SAMPLE PRESERVATION		
	SR3A	Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s).
	SR3B	Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)
4. NCM		
	SR4A	NCM has been generated. Refer to Clouseau for details
5. Other Anomalies (see below or back)		

Samples are leachates

Revision 13, June 19, 2000
SOP: NC-SC-0008, Sample Receiving
n:\qaqc\narrativ\stl\cooler_stl.doc

001693

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp	Method	Comments

Discrepancies Cont.

Macro Name:

Macro Name:

Macro Name:

Macro Name:

Other Anomalies:

Revision 13, June 19, 2000
SOP: NC-SC-0005, Sample Receiving
n:\qaqc\narrativ\stl\cooler_stl.doc

GCMS VOLATILE DATA

QC SUMMARY DATA

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: KEMRON ENVIRONMENTAL

Lab Code: QESCAN QESSDG:

Lot #: A0I190260

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	L0009094-02	67	100	101	102	00
02	L0009094-04	102	101	102	103	00
03	L0009094-06	86	102	102	106	00
04	L0009094-08	106	102	104	105	00
05	METHOD BLK. DL6DT101	101	100	103	94	00
06	LCS DL6DT102	100	99	100	100	00
07	L0009094-04 D	99	100	98	100	00
08	L0009094-04 S	105	104	103	104	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(59-138)
SRG02	= 1,2-Dichloroethane-d4	(61-130)
SRG03	= Toluene-d8	(60-143)
SRG04	= 4-Bromofluorobenzene	(47-158)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

ab Name: Severn Trent Laboratories, Inc. Client: KEMRON ENVIRONMENTAL

Lab Code: QESCAN SDG No:

Lot #: A0I280000 WO #: DL6DT102
BATCH: 0272140

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethylene	0.50	0.56	111	55- 142	
Trichloroethylene	0.50	0.51	101	70- 131	
Benzene	0.50	0.48	96	75- 129	
Toluene	0.50	0.48	96	71- 130	
Chlorobenzene	0.50	0.49	97	75- 127	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

OMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: KEMRON ENVIRONMENTAL

Lab Code: QESCAN SDG No:

Matrix Spike ID: L0009094-04

Lot #: A0I190260 WO #: DKM1X102
BATCH: 0272140

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethylene	2.0	ND	2.2	112	43- 147	
Trichloroethylene	2.0	ND	2.3	112	46- 143	
Benzene	2.0	1.5	3.5	101	55- 138	
Toluene	2.0	2.6	4.6	98	46- 147	
Chlorobenzene	2.0	ND	2.0	99	49- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: KEMRON ENVIRONMENTAL

Lab Code: QESCAN SDG No:

Matrix Spike ID: L0009094-04

Lot #: A0I190260 WO #: DKM1X103
BATCH: 0272140

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethylene	2.0	2.2	112	0.38	27	43 - 147	
Trichloroethylene	2.0	2.2	109	2.6	23	46 - 143	
Benzene	2.0	3.4	93	4.7	20	55 - 138	
Toluene	2.0	4.3	85	5.8	24	46 - 147	
Chlorobenzene	2.0	2.0	97	2.0	22	49 - 139	

NOTES(S):

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 5 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

DL6DT101

SW846 8260B METHOD BLANK SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESCAN SDG Number:

Lab File ID: UXX3643.D Lot Number: A0I190260

Date Analyzed: 09/27/00 Time Analyzed: 12:46

Matrix: SOLID Date Extracted:09/27/00

GC Column: DB 624 ID: .18 Extraction Method: 1312/5030B

Instrument ID: UX10 Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	L0009094-02	DKM1R101	UXX3649.D	09/27/00	15:20
02	L0009094-04	DKM1X101	UXX3650.D	09/27/00	15:43
03	L0009094-04	DKM1X102 S	UXX3659.D	09/27/00	19:08
04	L0009094-04	DKM1X103 D	UXX3660.D	09/27/00	19:31
05	L0009094-06	DKM21101	UXX3651.D	09/27/00	16:06
06	L0009094-08	DKM22101	UXX3719.D	09/29/00	12:56
	CHECK SAMPLE	DL6DT102 C	UXX3647.D	09/27/00	14:16
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID: BFB146 BFB Injection Date: 09/26/00

Instrument ID: A3UX10 BFB Injection Time: 0833

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.4
75	30.0 - 60.0% of mass 95	43.6
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	0.4 (0.5)1
174	50.0 - 120.0% of mass 95	95.4
175	5.0 - 9.0% of mass 174	6.4 (6.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	92.0 (96.5)1
177	5.0 - 9.0% of mass 176	6.0 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXX3595	09/26/00	0847
02	VSTD020	100NG-IC	UXX3596	09/26/00	0909
03	VSTD010	50NG-IC	UXX3597	09/26/00	0933
04	VSTD005	25NG-IC	UXX3598	09/26/00	0956
05	VSTD001	5NG-IC	UXX3599	09/26/00	1019
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID: BFB148 BFB Injection Date: 09/27/00

Instrument ID: A3UX10 BFB Injection Time: 1053

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.4
75	30.0 - 60.0% of mass 95	44.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.4
173	Less than 2.0% of mass 174	0.6 (0.6)1
174	50.0 - 120.0% of mass 95	95.3
175	5.0 - 9.0% of mass 174	6.4 (6.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.2 (97.7)1
177	5.0 - 9.0% of mass 176	5.8 (6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXX3642	09/27/00	1224
02	DL6DT-BLK	DL6DT101	UXX3643	09/27/00	1246
03	DL6DT-CHK	DL6DT102	UXX3647	09/27/00	1416
04	L0009094-02	DKM1R101	UXX3649	09/27/00	1520
05	L0009094-04	DKM1X101	UXX3650	09/27/00	1543
06	L0009094-06	DKM21101	UXX3651	09/27/00	1606
07	L0009094-04	DKM1X102	UXX3659	09/27/00	1908
08	L0009094-04	DKM1X103	UXX3660	09/27/00	1931
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID: BFB149 BFB Injection Date: 09/28/00

Instrument ID: A3UX10 BFB Injection Time: 1015

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	42.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.5 (0.5)1
174	50.0 - 120.0% of mass 95	90.9
175	5.0 - 9.0% of mass 174	6.7 (7.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	89.1 (98.0)1
177	5.0 - 9.0% of mass 176	6.2 (7.0)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	5NG-IC	UXX3670	09/28/00	1044
02	VSTD005	25NG-IC	UXX3671	09/28/00	1107
03	VSTD010	50NG-IC	UXX3672	09/28/00	1129
04	VSTD020	100NG-IC	UXX3673	09/28/00	1157
05	VSTD040	200NG-IC	UXX3674	09/28/00	1220
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID: BFB151 BFB Injection Date: 09/29/00

Instrument ID: A3UX10 BFB Injection Time: 1012

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.5
75	30.0 - 60.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.6 (0.6)1
174	50.0 - 120.0% of mass 95	94.0
175	5.0 - 9.0% of mass 174	6.6 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	89.8 (95.6)1
177	5.0 - 9.0% of mass 176	6.0 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXX3713	09/29/00	1035
02	L0009094-08	DKM22101	UXX3719	09/29/00	1256
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA 1/87 Rev.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID (Standard): UXX3642 Date Analyzed: 09/27/00

Instrument ID: A3UX10 Time Analyzed: 1224

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 (CBZ) AREA #	RT	IS2 AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1425658	7.56	1851386	4.90	563227	9.79
	UPPER LIMIT	2851316	8.06	3702772	5.40	1126454	10.29
	LOWER LIMIT	712829	7.06	925693	4.40	281614	9.29
	EPA SAMPLE NO.						
01	DL6DT-BLK	1339209	7.56	1814601	4.90	445912	9.80
02	DL6DT-CHK	1407808	7.55	1835194	4.90	550595	9.79
03	L0009094-02	1387540	7.55	1796652	4.90	551751	9.79
04	L0009094-04	1393663	7.55	1793096	4.90	559277	9.79
05	L0009094-06	1388918	7.56	1801862	4.90	563078	9.79
06	L0009094-04	1407186	7.56	1798793	4.90	560836	9.80
07	L0009094-04	1409114	7.56	1796824	4.90	564464	9.80
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 = Fluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

OM

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: STL - NORTH CANTON Contract:

Lab Code: QESOH Case No.: SAS No.: SDG No.: A0I190260

Lab File ID (Standard): UXX3713 Date Analyzed: 09/29/00

Instrument ID: A3UX10 Time Analyzed: 1035

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 (CBZ) AREA #	RT	IS2 AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1197407	7.56	1512113	4.90	480975	9.80
	UPPER LIMIT	2394814	8.06	3024226	5.40	961950	10.30
	LOWER LIMIT	598704	7.06	756057	4.40	240488	9.30
	EPA SAMPLE NO.						
01	L0009094-08	1181291	7.56	1510077	4.90	444826	9.79
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 = Fluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

Committed To *Your* Success

SAMPLE DATA

KEMRON ENVIRONMENTAL

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I190260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM1R101 Date Extracted:09/27/00
Dilution factor: 1 Date Analyzed: 09/27/00
Moisture %:

QC Batch: 0272140

Client Sample Id: L0009094-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.025	U
56-23-5	Carbon tetrachloride	0.025	U
108-90-7	Chlorobenzene	0.025	U
67-66-3	Chloroform	0.025	U
107-06-2	1,2-Dichloroethane	0.025	U
75-35-4	1,1-Dichloroethylene	0.070	U
78-93-3	Methyl ethyl ketone	20	U
127-18-4	Tetrachloroethylene	0.070	U
79-01-6	Trichloroethylene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Dat e: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UXX3649.D

Date : 27-SEP-2000 15:20

Client ID: L0009094-02

Sample Info: DKHLR101,0.2ML/5ML

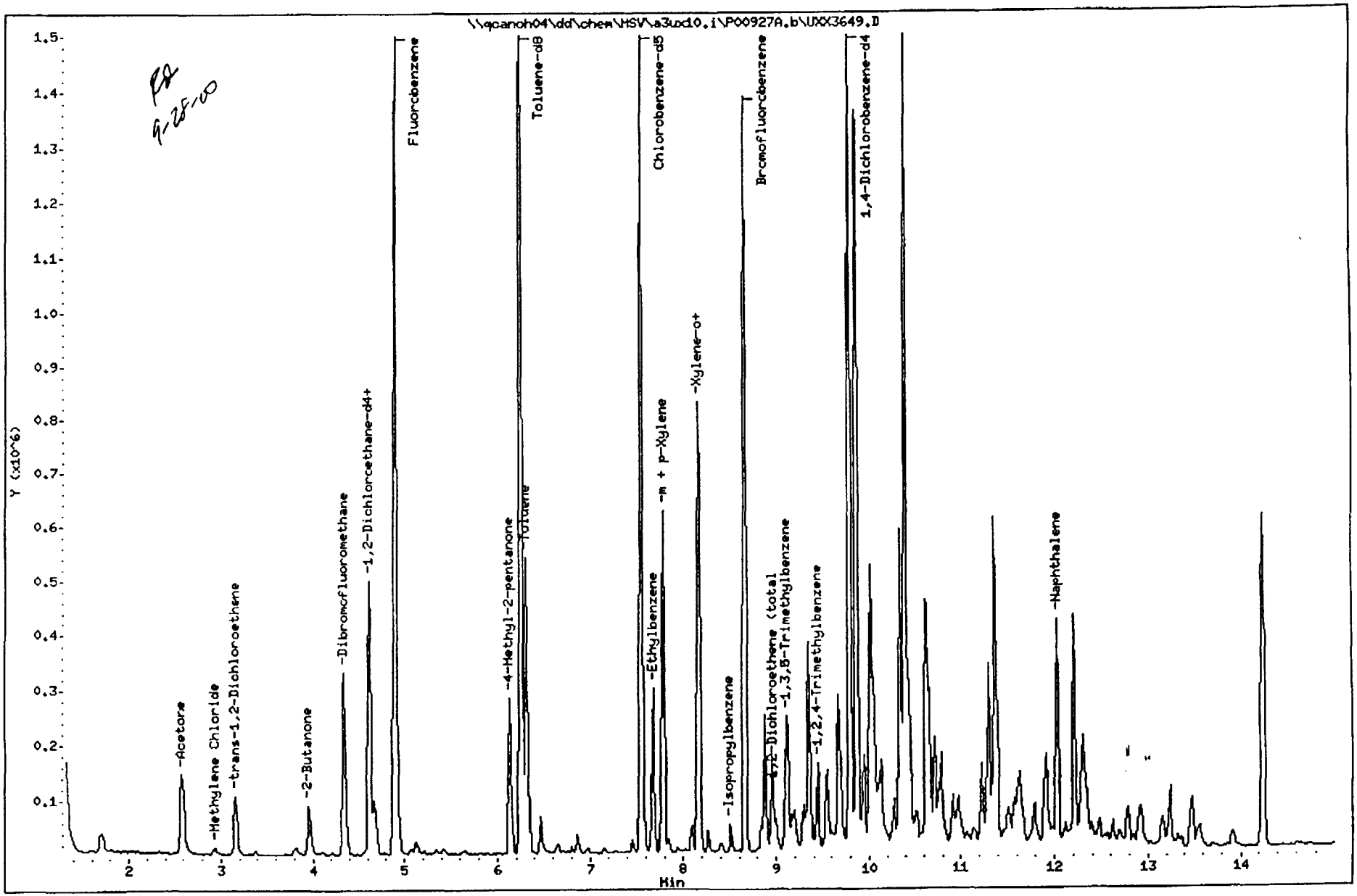
Purge Volume: 0.2

Column phase: DB624

Instrument: a3ux10.i

Operator: 1904

Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3649.D
Lab Smp Id: DKM1R101 Client Smp ID: L0009094-02
Inj Date : 27-SEP-2000 15:20
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM1R101,0.2ML/5ML
Misc Info : P00927A,8260LLUX10,,1904
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 27-Sep-2000 14:58 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.200	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	4.902	4.900	(1.000)	1796652	50.0000	
* 2 Chlorobenzene-d5	117	7.552	7.562	(1.000)	1387540	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.789	9.787	(1.000)	551751	50.0000	
$ 4 Dibromofluoromethane	113	4.346	4.344	(0.887)	246653	33.3690	166.84(R)
$ 5 1,2-Dichloroethane-d4	65	4.618	4.616	(0.942)	384283	50.1772	250.89
$ 6 Toluene-d8	98	6.251	6.249	(0.828)	1580814	50.2913	251.46
$ 7 Bromofluorobenzene	95	8.665	8.662	(1.147)	503340	51.0682	255.34
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	2.583	2.580	(0.527)	311333	127.523	637.61
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	19 Iodomethane	142	Compound Not Detected.					
	20 Carbon Disulfide	76	Compound Not Detected.					
	21 Methylene Chloride	84	2.938	2.935	(0.599)	11432	1.45110	7.255
	22 Acetonitrile	41	Compound Not Detected.					
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	3.162	3.160	(0.645)	70377	8.18535	40.927
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	3.955	3.953	(0.807)	147228	45.7119	228.56
M	31 1,2-Dichloroethene (total)	96				70377	8.18535	40.927
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichldroethane	62	Compound Not Detected.					
	41 Benzene	78	4.677	4.675	(0.954)	97534	2.83241	14.162
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	6.133	6.130	(1.251)	196897	32.1280	160.64
	50 Toluene	91	6.310	6.308	(0.836)	434130	11.0944	55.472
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	7.683	7.680	(1.017)	70106	4.96563	24.828
	62 m + p-Xylene	106	7.789	7.787	(1.031)	211094	12.5019	62.510
M	63 Xylenes (total)	106				392012	23.6354	118.18
	64 Xylene-o	106	8.168	8.166	(1.081)	180918	11.1334	55.667
	65 Styrene	104	8.180	8.177	(1.083)	218219	8.21369	41.068
	66 Bromoform	173	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
67	Isopropylbenzene	105	8.511	8.520	(1.127)	42367	1.06877	5.344
68	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
69	1,4-Dichloro-2-butene	53	Compound Not Detected.					
70	1,2,3-Trichloropropane	110	Compound Not Detected.					
71	Bromobenzene	156	Compound Not Detected.					
72	n-Propylbenzene	120	Compound Not Detected.					
73	2-Chlorotoluene	126	Compound Not Detected.					
74	1,3,5-Trimethylbenzene	105	9.079	9.077	(0.927)	22757	0.76711	3.836
75	4-Chlorotoluene	126	Compound Not Detected.					
76	tert-Butylbenzene	119	Compound Not Detected.					
77	1,2,4-Trimethylbenzene	105	9.446	9.443	(0.965)	93389	3.33602	16.680
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	12.025	12.023	(1.228)	383426	22.3715	111.86
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

KEMRON ENVIRONMENTAL

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I190260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

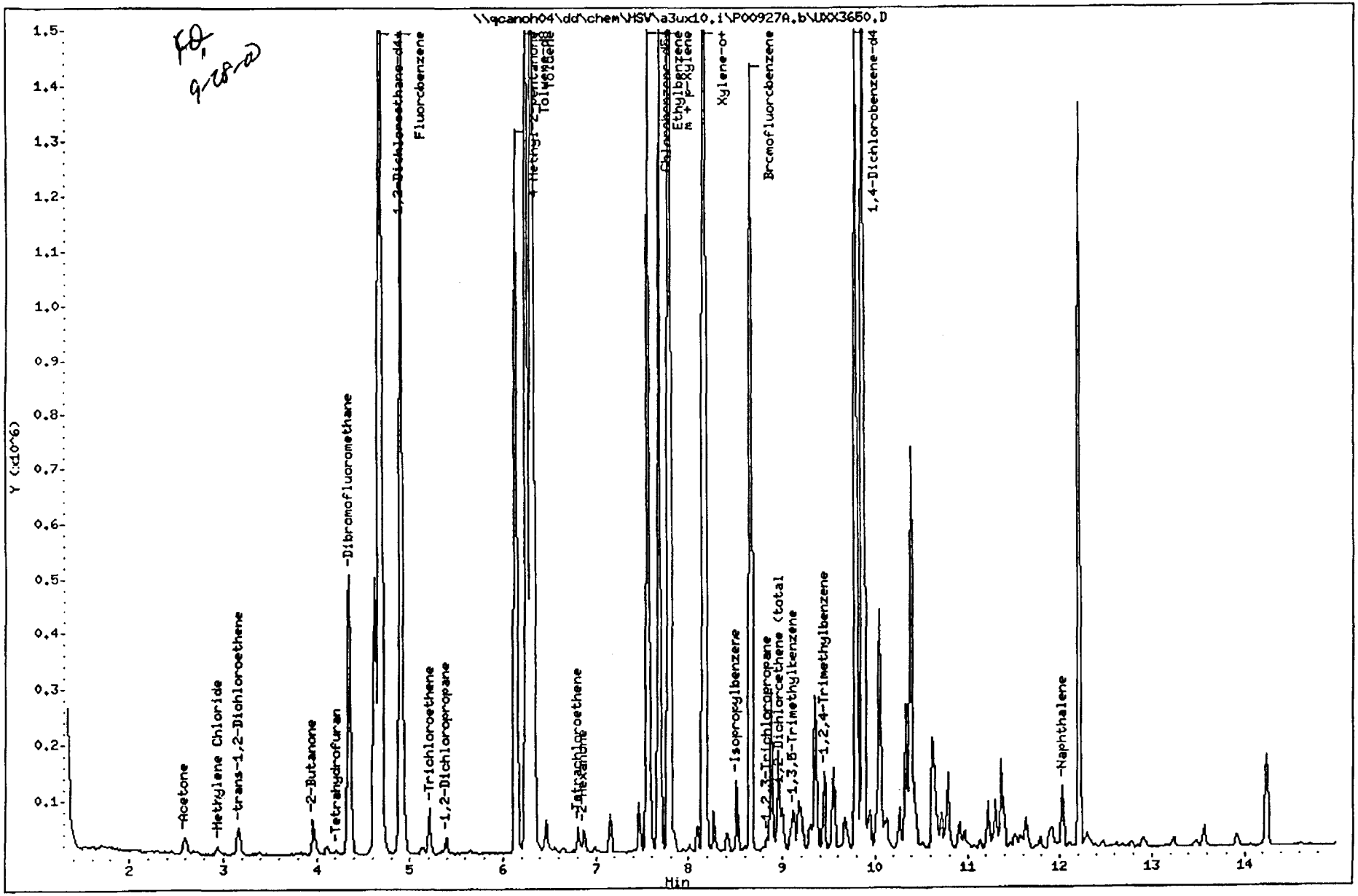
Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM1X101 Date Extracted:09/27/00
Dilution factor: 4 Date Analyzed: 09/27/00
Moisture %:

QC Batch: 0272140

Client Sample Id: L0009094-04

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	1.5	
56-23-5	Carbon tetrachloride	0.10	U
108-90-7	Chlorobenzene	0.10	U
67-66-3	Chloroform	0.10	U
107-06-2	1,2-Dichloroethane	0.10	U
75-35-4	1,1-Dichloroethylene	0.28	U
78-93-3	Methyl ethyl ketone	80	U
127-18-4	Tetrachloroethylene	0.28	U
79-01-6	Trichloroethylene	0.20	U
75-01-4	Vinyl chloride	0.20	U
108-88-3	Toluene	2.6	

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UXX3650.D
Date : 27-SEP-2000 15:43
Client ID: L0009094-04
Instrument: a3ux10.i
Sample Info: DKM1X101,0.05ML/5ML
Purge Volume: 0.1
Operator: 1904
Column phase: DB624
Column diameter: 0.18



STL North Canton
0017
15

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3650.D
Lab Smp Id: DKM1X101 Client Smp ID: L0009094-04
Inj Date : 27-SEP-2000 15:43
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM1X101,0.05ML/5ML
Misc Info : P00927A,8260LLUX10,,1904
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 28-Sep-2000 08:51 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.050	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1	Fluorobenzene	96	4.901	4.900	(1.000)	1793096	50.0000	
* 2	Chlorobenzene-d5	117	7.552	7.562	(1.000)	1393663	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	9.788	9.787	(1.000)	559277	50.0000	
$ 4	Dibromofluoromethane	113	4.345	4.344	(0.887)	376903	51.0912	1021.8
$ 5	1,2-Dichloroethane-d4	65	4.617	4.616	(0.942)	386426	50.5571	1011.1
$ 6	Toluene-d8	98	6.250	6.249	(0.828)	1606619	50.8877	1017.8
$ 7	Bromofluorobenzene	95	8.664	8.662	(1.147)	510018	51.5184	1030.4
8	Dichlorodifluoromethane	85	Compound Not Detected.					
9	Chloromethane	50	Compound Not Detected.					
10	Vinyl Chloride	62	Compound Not Detected.					
11	Bromomethane	94	Compound Not Detected.					
12	Chloroethane	64	Compound Not Detected.					
13	Trichlorofluoromethane	101	Compound Not Detected.					
15	Acrolein	56	Compound Not Detected.					
16	Acetone	43	2.582	2.581	(0.527)	62151	19.6226	392.45
17	1,1-Dichloroethene	96	Compound Not Detected.					
18	Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	19 Iodomethane	142	Compound Not Detected.					
	20 Carbon Disulfide	76	Compound Not Detected.					
	21 Methylene Chloride	84	2.937	2.935	(0.599)	10419	1.32514	26.503
	22 Acetonitrile	41	Compound Not Detected.					
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	3.162	3.160	(0.645)	30132	3.51152	70.230
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	3.955	3.953	(0.807)	104933	32.6446	652.89
M	31 1,2-Dichloroethene (total)	96				30132	3.51152	70.230
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	4.203	4.202	(0.858)	2893	1.56592	31.318
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	4.677	4.675	(0.954)	2577127	74.9888	1499.8
	42 Trichloroethene	130	5.209	5.207	(1.063)	33174	3.34344	66.869
	43 1,2-Dichloropropane	63	5.398	5.397	(1.101)	12593	1.55301	31.060
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	6.132	6.130	(1.251)	913630	149.374	2987.5
	50 Toluene	91	6.309	6.308	(0.835)	5185856	131.944	2638.9
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	6.806	6.805	(0.901)	13035	1.52196	30.439
	56 2-Hexanone	43	6.877	6.876	(0.911)	31291	7.89507	157.90
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	7.587	7.586	(1.005)	40960	1.58828	31.766
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	7.682	7.680	(1.017)	370763	26.1459	522.92
	62 m + p-Xylene	106	7.789	7.787	(1.031)	1011393	59.6361	1192.7
M	63 Xylenes (total)	106				1699609	101.802	2036.0
	64 Xylene-o	106	8.167	8.166	(1.081)	688216	42.1658	843.32
	65 Styrene	104	8.179	8.177	(1.083)	758060	28.4078	568.16
	66 Bromoform	173	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
67	Isopropylbenzene	105	8.510	8.520	(1.127)	101654	2.55311	51.062
68	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
69	1,4-Dichloro-2-butene	53	Compound Not Detected.					
70	1,2,3-Trichloropropane	110	8.842	8.840	(0.903)	3149	1.15876	23.175
71	Bromobenzene	156	Compound Not Detected.					
72	n-Propylbenzene	120	Compound Not Detected.					
73	2-Chlorotoluene	126	Compound Not Detected.					
74	1,3,5-Trimethylbenzene	105	9.078	9.077	(0.927)	25495	0.84784	16.957
75	4-Chlorotoluene	126	Compound Not Detected.					
76	tert-Butylbenzene	119	Compound Not Detected.					
77	1,2,4-Trimethylbenzene	105	9.445	9.443	(0.965)	89447	3.15221	63.044
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	12.025	12.023	(1.228)	107241	6.17292	123.46
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					

Data File: \\qcanoh04\dd\ohem\MSV\a3ux10.i\P00927A.b\UXX3650.D

Date : 27-SEP-2000 15:43

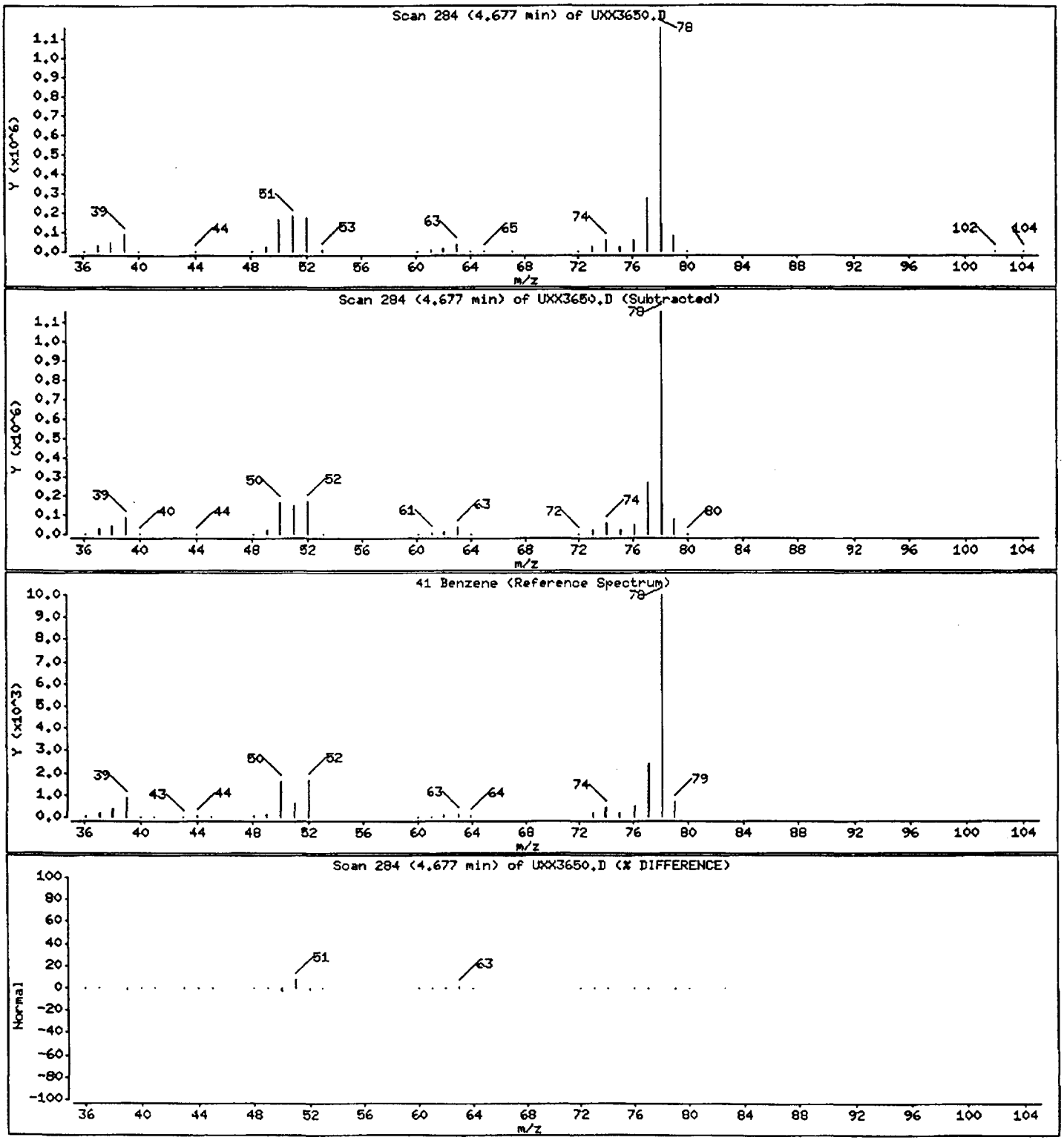
Client ID: L0009094-04 Instrument: a3ux10.i

Sample Info: DKH1X101,0.05ML/5ML

Purge Volume: 0.1 Operator: 1904

Column phase: DB624 Column diameter: 0.18

41 Benzene Concentration: 1499.8 ug/L



Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UXX3650.D

Date : 27-SEP-2000 15:43

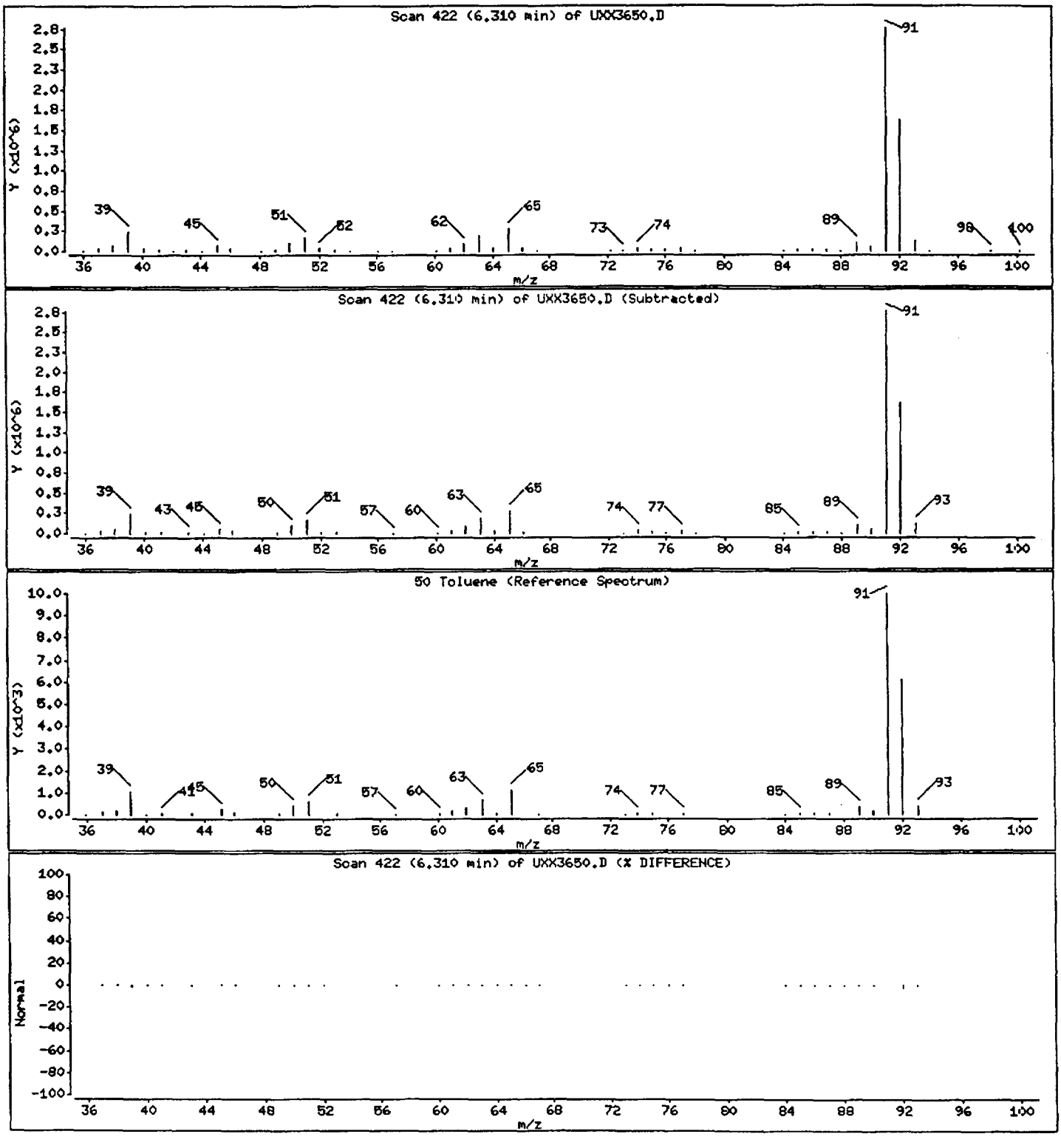
Client ID: L0009094-04 Instrument: a3ux10.i

Sample Info: DKM1X101,0.05ML/5ML

Purge Volume: 0.1 Operator: 1904

Column phase: DB624 Column diameter: 0.18

50 Toluene Concentration: 2638.9 ug/L



KEMRON ENVIRONMENTAL

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I190260 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM21101 Date Extracted:09/27/00
Dilution factor: 4 Date Analyzed: 09/27/00
Moisture %:

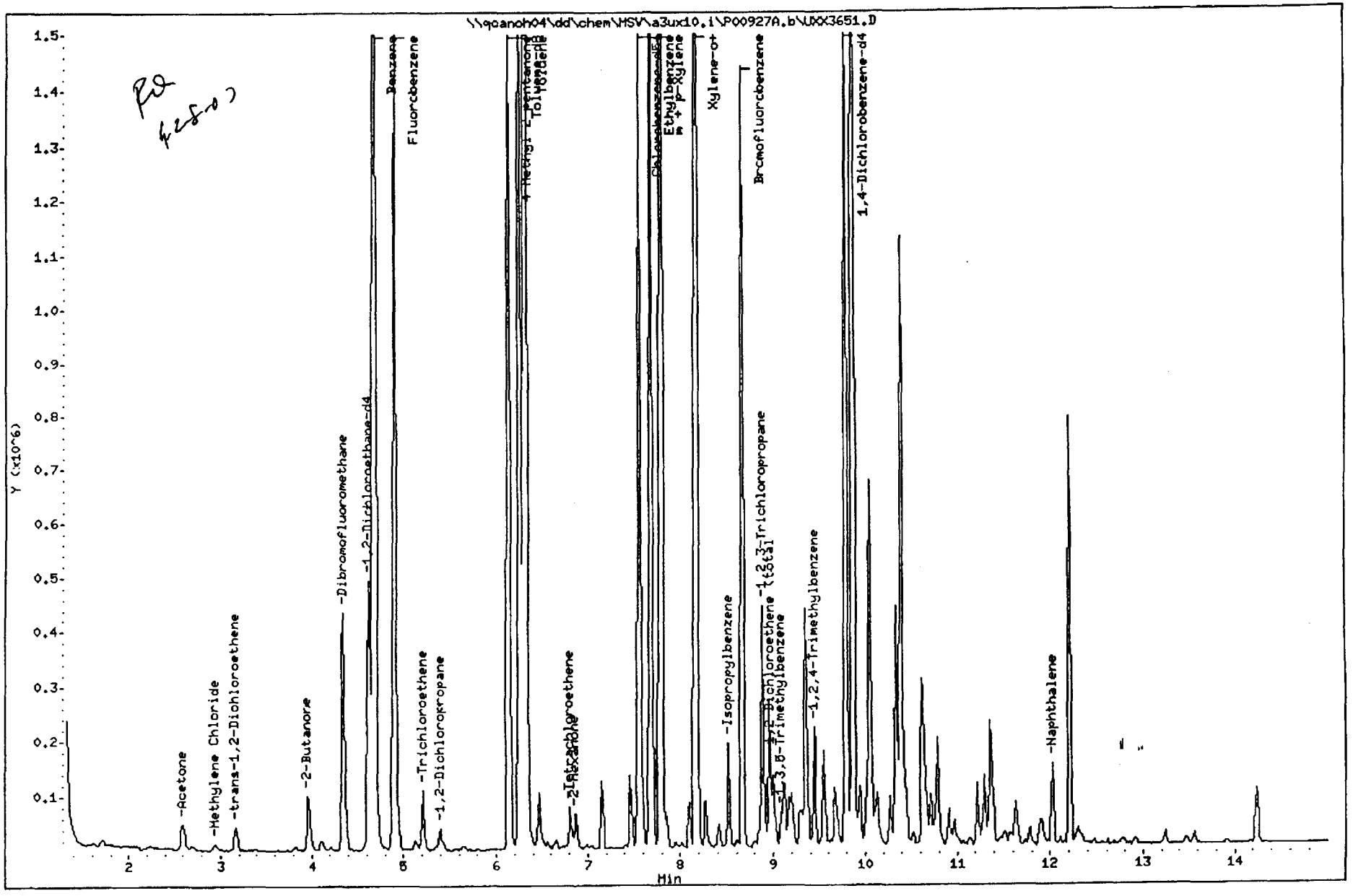
QC Batch: 0272140

Client Sample Id: L0009094-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	**Benzene**	**1.7**	
56-23-5	Carbon tetrachloride	0.10	U
108-90-7	Chlorobenzene	0.10	U
67-66-3	Chloroform	0.10	U
107-06-2	1,2-Dichloroethane	0.10	U
75-35-4	1,1-Dichloroethylene	0.28	U
78-93-3	Methyl ethyl ketone	80	U
127-18-4	Tetrachloroethylene	0.28	U
79-01-6	Trichloroethylene	0.20	U
75-01-4	Vinyl chloride	0.20	U

Da e: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UXX3651.D
Date : 27-SEP-2000 16:06
Client ID: L0009094-06
Sample Info: DKM21101,0.05ML/5ML
Purge Volume: 0.1
Column phase: DB624

Instrument: a3ux10.i
Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3651.D
Lab Smp Id: DKM21101 Client Smp ID: L0009094-06
Inj Date : 27-SEP-2000 16:06
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM21101,0.05ML/5ML
Misc Info : P00927A,8260LLUX10,,1904
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 27-Sep-2000 14:58 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.050	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
* 1 Fluorobenzene	96	4.900	4.900	(1.000)	1801862	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1388918	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.787	9.787	(1.000)	563078	50.0000	
$ 4 Dibromofluoromethane	113	4.344	4.344	(0.887)	319637	43.1177	862.35
$ 5 1,2-Dichloroethane-d4	65	4.616	4.616	(0.942)	392517	51.1042	1022.1
$ 6 Toluene-d8	98	6.249	6.249	(0.826)	1602006	50.9149	1018.3
$ 7 Bromofluorobenzene	95	8.663	8.662	(1.146)	522987	53.0090	1060.2
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	2.593	2.580	(0.529)	111186	40.6735	813.47
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
19	Iodomethane	142	Compound Not Detected.					
20	Carbon Disulfide	76	Compound Not Detected.					
21	Methylene Chloride	84	2.936	2.935	(0.599)	11174	1.41425	28.285
22	Acetonitrile	41	Compound Not Detected.					
23	Acrylonitrile	53	Compound Not Detected.					
24	Methyl tert-butyl ether	73	Compound Not Detected.					
25	trans-1,2-Dichloroethene	96	3.161	3.160	(0.645)	26465	3.06917	61.383
26	Hexane	86	Compound Not Detected.					
27	Vinyl acetate	43	Compound Not Detected.					
28	1,1-Dichloroethane	63	Compound Not Detected.					
29	tert-Butyl Alcohol	59	Compound Not Detected.					
30	2-Butanone	43	3.953	3.953	(0.807)	161366	49.9567	999.13
M 31	1,2-Dichloroethene (total)	96				26465	3.06917	61.383
32	cis-1,2-dichloroethene	96	Compound Not Detected.					
33	2,2-Dichloropropane	77	Compound Not Detected.					
34	Bromochloromethane	128	Compound Not Detected.					
35	Chloroform	83	Compound Not Detected.					
36	Tetrahydrofuran	42	Compound Not Detected.					
37	1,1,1-Trichloroethane	97	Compound Not Detected.					
38	1,1-Dichloropropene	75	Compound Not Detected.					
39	Carbon Tetrachloride	117	Compound Not Detected.					
40	1,2-Dichloroethane	62	Compound Not Detected.					
41	Benzene	78	4.675	4.675	(0.954)	2989192	86.5558	1731.1
42	Trichloroethene	130	5.208	5.207	(1.063)	45715	4.58496	91.699
43	1,2-Dichloropropane	63	5.397	5.397	(1.101)	14829	1.81987	36.397
44	1,4-Dioxane	88	Compound Not Detected.					
45	Dibromomethane	93	Compound Not Detected.					
46	Bromodichloromethane	83	Compound Not Detected.					
47	2-Chloroethyl vinyl ether	63	Compound Not Detected.					
48	cis-1,3-Dichloropropene	75	Compound Not Detected.					
49	4-Methyl-2-pentanone	43	6.131	6.130	(1.251)	1235750	201.056	4021.1(A)
50	Toluene	91	6.308	6.308	(0.834)	7272124	185.657	3713.1
51	trans-1,3-Dichloropropene	75	Compound Not Detected.					
52	Ethyl Methacrylate	69	Compound Not Detected.					
53	1,1,2-Trichloroethane	97	Compound Not Detected.					
54	1,3-Dichloropropane	76	Compound Not Detected.					
55	Tetrachloroethene	164	6.805	6.805	(0.900)	20546	2.40714	48.143
56	2-Hexanone	43	6.876	6.876	(0.909)	51575	13.0574	261.15
57	Dibromochloromethane	129	Compound Not Detected.					
58	1,2-Dibromoethane	107	Compound Not Detected.					
59	Chlorobenzene	112	7.586	7.586	(1.003)	58954	2.29383	45.877
60	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
61	Ethylbenzene	106	7.681	7.680	(1.016)	589133	41.6870	833.74
62	m + p-Xylene	106	7.787	7.787	(1.030)	1577851	93.3548	1867.1
M 63	Xylenes (total)	106				2581680	155.068	3101.4
64	Xylene-o	106	8.166	8.166	(1.080)	1003829	61.7129	1234.2
65	Styrene	104	8.178	8.177	(1.081)	1123494	42.2460	844.92
66	Bromoform	173	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
67 Isopropylbenzene	105	8.521	8.520	(1.127)	164313	4.14093	82.818
68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.903)	2347	0.85782	17.156
71 Bromobenzene	156	Compound Not Detected.					
72 n-Propylbenzene	120	Compound Not Detected.					
73 2-Chlorotoluene	126	Compound Not Detected.					
74 1,3,5-Trimethylbenzene	105	9.077	9.077	(0.927)	40005	1.32140	26.428
75 4-Chlorotoluene	126	Compound Not Detected.					
76 tert-Butylbenzene	119	Compound Not Detected.					
77 1,2,4-Trimethylbenzene	105	9.444	9.443	(0.965)	142650	4.99320	99.864
78 sec-Butylbenzene	105	Compound Not Detected.					
79 4-Isopropyltoluene	119	Compound Not Detected.					
80 1,3-Dichlorobenzene	146	Compound Not Detected.					
81 1,4-Dichlorobenzene	146	Compound Not Detected.					
82 n-Butylbenzene	91	Compound Not Detected.					
83 1,2-Dichlorobenzene	146	Compound Not Detected.					
84 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86 Hexachlorobutadiene	225	Compound Not Detected.					
87 Naphthalene	128	12.023	12.023	(1.228)	137116	7.83928	156.78
88 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98 Cyclohexane	56	Compound Not Detected.					
143 Methyl Acetate	43	Compound Not Detected.					
144 Methylcyclohexane	83	Compound Not Detected.					
141 1,3,5-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UXX3651.D

Date : 27-SEP-2000 16:06

Client ID: L0009094-06

Instrument: a3ux10.i

Sample Info: DKM21101,0.05ML/5ML

Purge Volume: 0.1

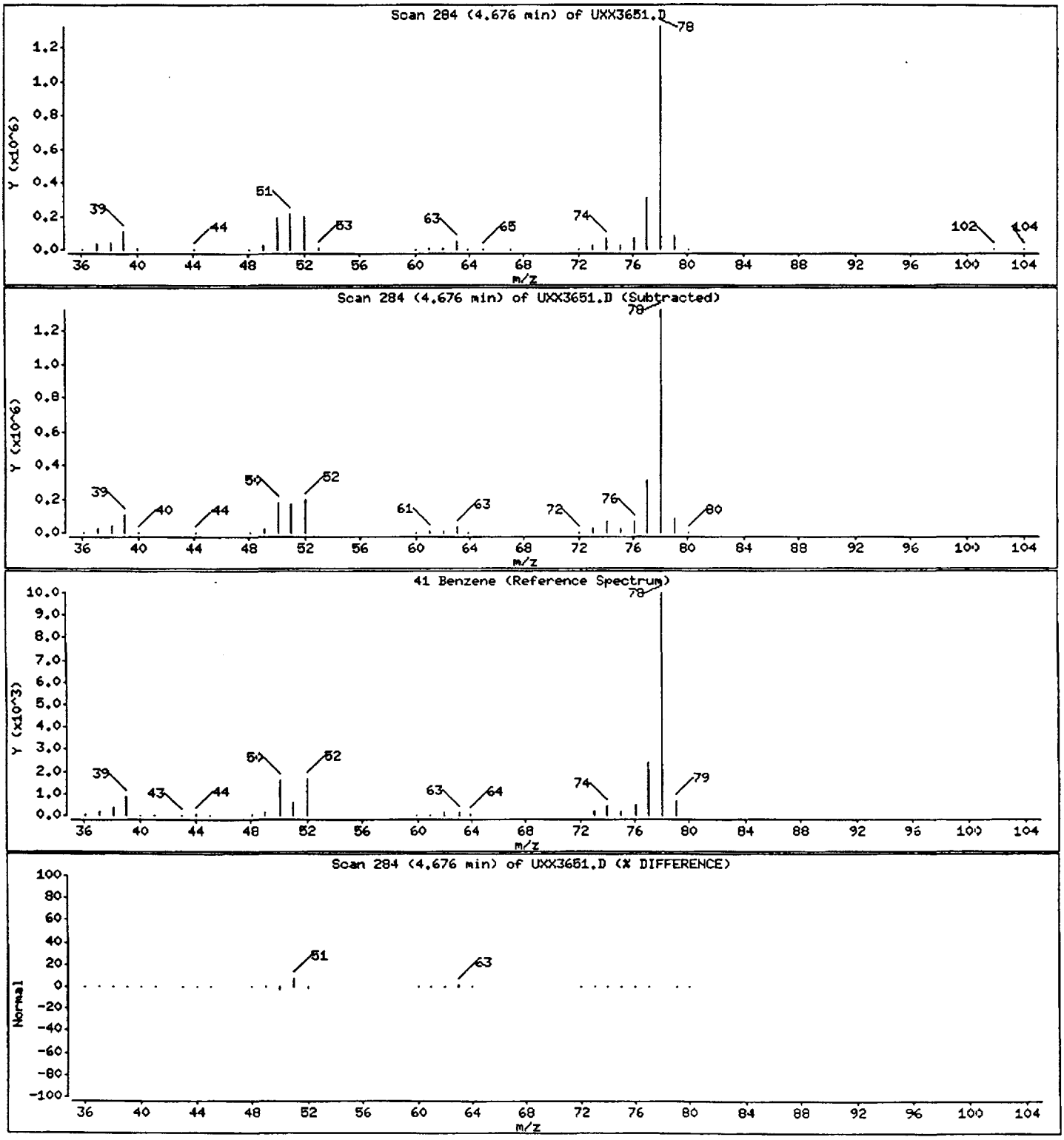
Operator: 1904

Column phase: DB624

Column diameter: 0.18

41 Benzene

Concentration: 1731.1 ug/L



KEMRON ENVIRONMENTAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I190260 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM22101 Date Extracted: 09/27/00
Dilution factor: 2 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0272140

Client Sample Id: L0009094-08

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	**Benzene**	**0.10**	
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethylene	0.14	U
78-93-3	Methyl ethyl ketone	40	U
127-18-4	Tetrachloroethylene	0.14	U
79-01-6	Trichloroethylene	0.10	U
75-01-4	Vinyl chloride	0.10	U

Da \\qcanoh04\dd\chem\HSV\a3ux10.i\P00929A.b\UXX3719.D

Page 49

Date : 29-SEP-2000 12:56

Client ID: L0009094-08

Instrument: a3ux10.i

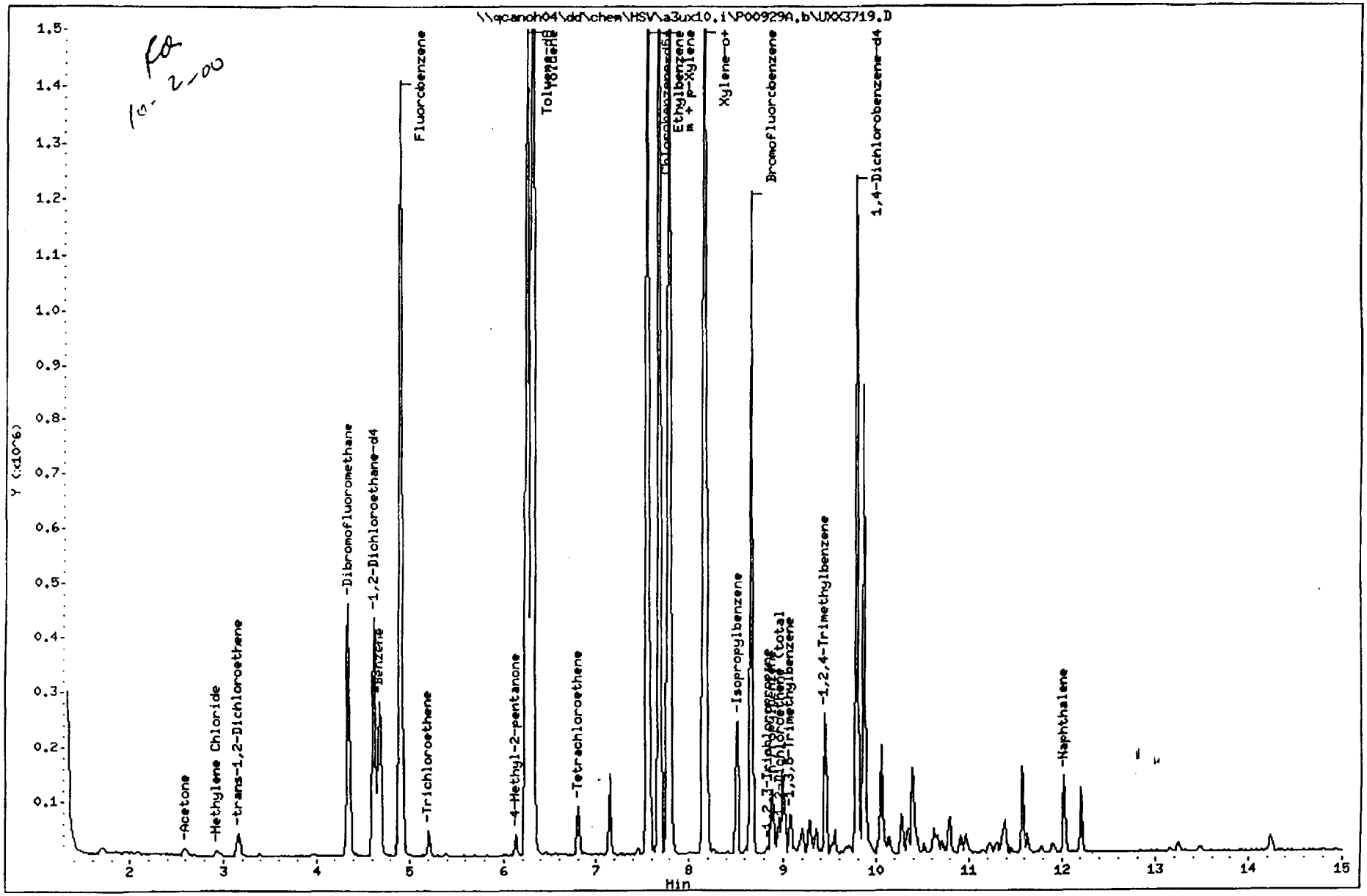
Sample Info: DKH22101,0.1ML/5ML

Purge Volume: 0.1

Operator: 1904

Column phase: DB624

Column diameter: 0.18



STL North Canton

0017
28

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\UXX3719.D
Lab Smp Id: DKM22101 Client Smp ID: L0009094-08
Inj Date : 29-SEP-2000 12:56
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM22101,0.1ML/5ML
Misc Info : P00929A,8260LLUX10,,1904
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m
Meth Date : 02-Oct-2000 09:41 quayler Quant Type: ISTD
Cal Date : 29-SEP-2000 00:54 Cal File: UXX3702.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.100	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	4.899	4.899	(1.000)	1510077	50.0000	
* 2 Chlorobenzene-d5	117	7.561	7.562	(1.000)	1181291	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.786	9.798	(1.000)	444826	50.0000	
$ 4 Dibromofluoromethane	113	4.343	4.343	(0.886)	337765	52.7525	527.52
$ 5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	346362	51.0137	510.14
$ 6 Toluene-d8	98	6.248	6.248	(0.826)	1407837	52.1544	521.54
$ 7 Bromofluorobenzene	95	8.662	8.662	(1.146)	444172	52.5869	525.87
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	2.592	2.592	(0.529)	29125	15.2378	152.38
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					

001729

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	19 Iodomethane	142	Compound Not Detected.					
	20 Carbon Disulfide	76	Compound Not Detected.					
	21 Methylene Chloride	84	2.947	2.935	(0.602)	8369	1.12126	11.213
	22 Acetonitrile	41	Compound Not Detected.					
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	26609	3.47351	34.735
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96				26609	3.47351	34.735
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	4.674	4.674	(0.954)	303013	10.0198	100.20
	42 Trichloroethene	130	5.207	5.207	(1.063)	20310	2.28110	22.811
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	28982	5.82702	58.270
	50 Toluene	91	6.307	6.307	(0.834)	4062050	121.811	1218.1
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	23257	3.10278	31.028
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	7.585	7.585	(1.003)	46977	2.18251	21.825
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	7.680	7.680	(1.016)	631935	53.3802	533.80
	62 m + p-Xylene	106	7.786	7.786	(1.030)	1766010	124.676	1246.8
M	63 Xylenes (total)	106				2829038	203.172	2031.7
	64 Xylene-o	106	8.165	8.165	(1.080)	1063028	78.4961	784.96
	65 Styrene	104	8.177	8.177	(1.081)	983790	44.1956	441.96
	66 Bromoform	173	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
67 Isopropylbenzene	105	8.520	8.520	(1.127)	206541	6.19694	61.969
68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
70 1,2,3-Trichloropropane	110	8.839	8.840	(0.903)	2400	1.21894	12.189
71 Bromobenzene	156	Compound Not Detected.					
72 n-Propylbenzene	120	8.910	8.911	(0.911)	8500	0.92257	9.226
73 2-Chlorotoluene	126	Compound Not Detected.					
74 1,3,5-Trimethylbenzene	105	9.088	9.088	(0.929)	52179	2.28693	22.869
75 4-Chlorotoluene	126	Compound Not Detected.					
76 tert-Butylbenzene	119	Compound Not Detected.					
77 1,2,4-Trimethylbenzene	105	9.443	9.455	(0.965)	172954	8.03765	80.376
78 sec-Butylbenzene	105	Compound Not Detected.					
79 4-Isopropyltoluene	119	Compound Not Detected.					
80 1,3-Dichlorobenzene	146	Compound Not Detected.					
81 1,4-Dichlorobenzene	146	Compound Not Detected.					
82 n-Butylbenzene	91	Compound Not Detected.					
83 1,2-Dichlorobenzene	146	Compound Not Detected.					
84 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86 Hexachlorobutadiene	225	Compound Not Detected.					
87 Naphthalene	128	12.022	12.023	(1.229)	140273	11.4950	114.95
88 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98 Cyclohexane	56	Compound Not Detected.					
143 Methyl Acetate	43	Compound Not Detected.					
144 Methylcyclohexane	83	Compound Not Detected.					
141 1,3,5-Trichlorobenzene	180	Compound Not Detected.					

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00929A.b\UXX3719.D

Date : 29-SEP-2000 12:56

Client ID: L0009094-08

Instrument: a3ux10.i

Sample Info: DKH22101,0.1ML/5ML

Purge Volume: 0.1

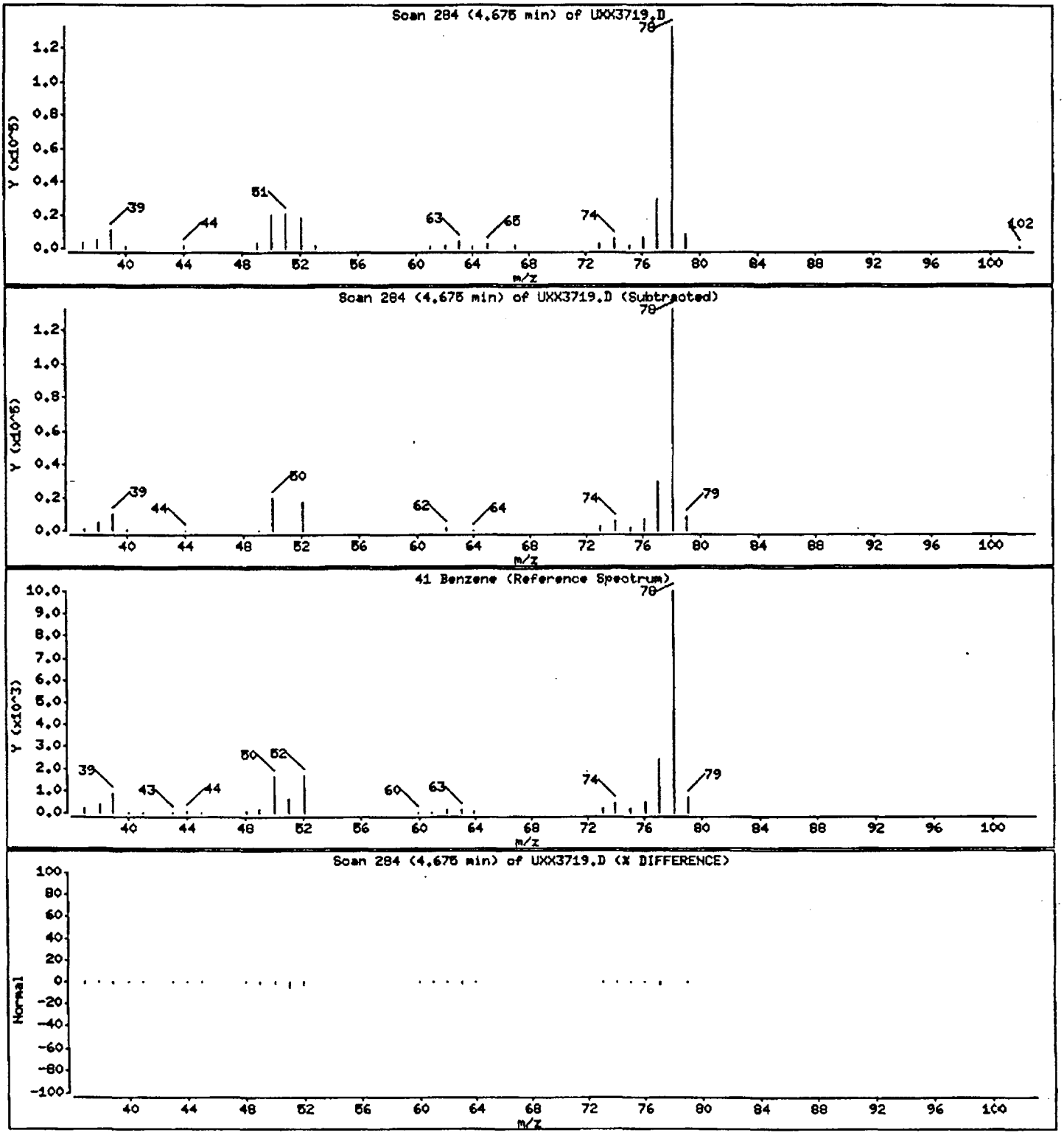
Operator: 1904

Column phase: DB624

Column diameter: 0.18

41 Benzene

Concentration: 100.20 ug/L



STANDARD DATA

Calibration History

Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Start Cal Date: 26-SEP-2000 08:47
End Cal Date : 26-SEP-2000 10:19
Last Cal Level: 1
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.000		
26-SEP-2000 10:19	2-8260	UXX3599.D
Cal Level: 2 , Cal Amount: 25.000		
26-SEP-2000 09:56	2-8260	UXX3598.D
Cal Level: 3 , Cal Amount: 50.000		
26-SEP-2000 09:33	2-8260	UXX3597.D
Cal Level: 4 , Cal Amount: 100.00		
26-SEP-2000 09:09	2-8260	UXX3596.D
Cal Level: 5 , Cal Amount: 200.00		
26-SEP-2000 08:47	2-8260	UXX3595.D

Continuing Calibration

26-SEP-2000 09:33	2-8260	UXX3597.D

STL - North Canton

INITIAL CALIBRATION DATA

rt Cal Date : 26-SEP-2000 08:47
Cal Date : 26-SEP-2000 10:19
nt Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Date : 26-Sep-2000 11:50 quayler

ibration File Names:
el 1: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3599.D
el 2: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3598.D
el 3: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3597.D
el 4: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3596.D
el 5: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3595.D

ompound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2	
8 Dichlorodifluoromethane	0.09610	0.09404	0.09865	0.09812	0.08751	AVRG		0.09489		4.75056	
9 Chloromethane	0.14074	0.12782	0.12744	0.13230	0.12367	AVRG		0.13039		5.01835	
0 Vinyl Chloride	0.13292	0.12878	0.13291	0.13282	0.12293	AVRG		0.13007		3.36024	
1 Bromomethane	0.08961	0.07561	0.07789	0.08237	0.07971	AVRG		0.08104		6.65447	
2 Chloroethane	0.07107	0.07491	0.07424	0.07708	0.07366	AVRG		0.07419		2.92660	
3 Trichlorofluoromethane	0.12295	0.14538	0.15402	0.16443	0.15889	AVRG		0.14913		10.87640	
4 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
5 Acrolein	0.02619	0.02629	0.02746	0.02796	0.02621	AVRG		0.02682		3.10309	
6 Acetone	26748	68924	131264	241583	459144	LINR	-0.14713	0.06424		0.99968	
7 1,1-Dichloroethene	0.14469	0.16049	0.16035	0.17242	0.16392	AVRG		0.16038		6.26330	

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

rt Cal Date : 26-SEP-2000 08:47
Cal Date : 26-SEP-2000 10:19
nt Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Date : 26-Sep-2000 11:50 quayler

ompound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Freon-113	10108	68602	152616	303311	622085	LINR	0.04932	0.09081		0.99989
9 Iodomethane	33103	231275	486924	1043426	2082279	LINR	0.05476	0.30551		0.99974
0 Carbon Disulfide	0.35761	0.39104	0.38847	0.42164	0.40458	AVRG		0.39267		6.01378
1 Methylene Chloride	0.25056	0.21895	0.20768	0.21378	0.20526	AVRG		0.21925		8.34717
2 Acetonitrile	0.02447	0.02133	0.02191	0.02227	0.02001	AVRG		0.02200		7.38791
3 Acrylonitrile	0.08049	0.07428	0.07662	0.07792	0.07351	AVRG		0.07656		3.68095
4 Methyl tert-butyl ether	0.56024	0.54057	0.54539	0.56326	0.53427	AVRG		0.54875		2.28760
5 trans-1,2-Dichloroethene	0.23672	0.23205	0.23495	0.25443	0.23822	AVRG		0.23928		3.66902
6 Hexane	0.04954	0.05461	0.06004	0.05922	0.06205	AVRG		0.05709		8.80050
7 Vinyl acetate	0.18662	0.17984	0.20062	0.21225	0.20846	AVRG		0.19756		7.05709
8 1,1-Dichloroethane	0.35622	0.36514	0.35966	0.37316	0.35749	AVRG		0.36233		1.91732
9 tert-Butyl Alcohol	0.01271	0.01161	0.01325	0.01328	0.01103	AVRG		0.01238		8.18055
0 2-Butanone	0.09667	0.08680	0.09317	0.08917	0.08235	AVRG		0.08963		6.19589
1 1,2-Dichloroethene (total)	0.24002	0.23985	0.24427	0.25573	0.24173	AVRG		0.24432		2.71124
2 cis-1,2-dichloroethene	0.24331	0.24765	0.25358	0.25704	0.24523	AVRG		0.24936		2.31504
3 2,2-Dichloropropane	0.17649	0.19330	0.19653	0.20693	0.17683	AVRG		0.19002		6.94296
4 Bromochloromethane	0.12706	0.12592	0.12585	0.12958	0.12395	AVRG		0.12647		1.63106

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

rt Cal Date : 26-SEP-2000 08:47
Cal Date : 26-SEP-2000 10:19
nt Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
5 Chloroform	0.39477	0.36374	0.36585	0.37040	0.35385	AVRG		0.36972		4.12579	
6 Tetrahydrofuran	0.05315	0.04880	0.05215	0.05282	0.05066	AVRG		0.05152		3.47998	
7 1,1,1-Trichloroethane	0.27003	0.28745	0.28432	0.30148	0.26991	AVRG		0.28264		4.68730	
8 1,1-Dichloropropene	0.27144	0.27801	0.28099	0.29334	0.27987	AVRG		0.28073		2.83533	
9 Carbon Tetrachloride	0.23244	0.25033	0.25132	0.26869	0.24865	AVRG		0.25029		5.13591	
10 1,2-Dichloroethane	0.27379	0.27261	0.26959	0.27472	0.26231	AVRG		0.27060		1.85597	
11 Benzene	1.00517	0.95542	0.93927	0.96943	0.92227	AVRG		0.95831		3.29524	
12 Trichloroethene	0.26429	0.27895	0.27634	0.28876	0.27505	AVRG		0.27668		3.16831	
13 1,2-Dichloropropane	0.22799	0.22489	0.22585	0.23157	0.22026	AVRG		0.22611		1.83808	
14 1,4-Dioxane	0.00170	0.00160	0.00179	0.00172	0.00140	AVRG		0.00164		9.08091	<-
15 Dibromomethane	0.11794	0.12186	0.12462	0.12781	0.12204	AVRG		0.12285		2.97719	
16 Bromodichloromethane	0.26145	0.26475	0.26960	0.27742	0.27029	AVRG		0.26870		2.26051	
17 2-Chloroethyl vinyl ether	0.11785	0.12181	0.12846	0.13544	0.12956	AVRG		0.12662		5.44038	
18 cis-1,3-Dichloropropene	0.29807	0.33097	0.34336	0.35960	0.34662	AVRG		0.33573		6.96550	
19 4-Methyl-2-pentanone	0.16188	0.16261	0.17781	0.18066	0.16981	AVRG		0.17055		5.02516	
30 Toluene	1.44079	1.41201	1.37844	1.43637	1.38277	AVRG		1.41008		2.06299	
31 trans-1,3-Dichloropropene	0.31878	0.35706	0.36914	0.40645	0.39460	AVRG		0.36921		9.30660	

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

irt Cal Date : 26-SEP-2000 08:47
l Cal Date : 26-SEP-2000 10:19
int Method : ISTD
rget Version : 4.04
tegrator : HP RTE
thod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
l Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
52 Ethyl Methacrylate	0.29630	0.32372	0.34605	0.37516	0.36057	AVRG		0.34036		9.13885
53 1,1,2-Trichloroethane	0.26972	0.26841	0.26306	0.27217	0.25876	AVRG		0.26642		2.03760
54 1,3-Dichloropropane	0.44857	0.44762	0.44811	0.46272	0.44189	AVRG		0.44978		1.71715
55 Tetrachloroethene	0.30260	0.30971	0.30486	0.31562	0.30355	AVRG		0.30727		1.76100
56 2-Hexanone	0.12112	0.13427	0.15154	0.15715	0.14688	AVRG		0.14219		10.19043
57 Dibromochloromethane	0.27206	0.27407	0.28912	0.30320	0.29522	AVRG		0.28674		4.69298
58 1,2-Dibromoethane	0.25322	0.25952	0.25863	0.27186	0.25847	AVRG		0.26034		2.65114
59 Chlorobenzene	0.94774	0.91326	0.90850	0.94436	0.91226	AVRG		0.92522		2.06779
60 1,1,1,2-Tetrachloroethane	0.29238	0.30277	0.30541	0.32293	0.31183	AVRG		0.30706		3.68078
61 Ethylbenzene	0.51539	0.50470	0.50377	0.52306	0.49683	AVRG		0.50875		2.04268
62 m + p-Xylene	0.59038	0.60791	0.61144	0.63315	0.59936	AVRG		0.60845		2.63540
63 Xylenes (total)	0.58696	0.60199	0.60278	0.62466	0.58771	AVRG		0.60082		2.54793
64 Xylene-o	0.58011	0.59016	0.58548	0.60767	0.56443	AVRG		0.58557		2.68164
65 Styrene	0.88246	0.95555	0.97262	1.03105	0.94516	AVRG		0.95737		5.58243
66 Bromoform	0.13924	0.15880	0.17306	0.18945	0.17832	AVRG		0.16777		11.55708
67 Isopropylbenzene	1.40055	1.45302	1.43243	1.50178	1.35451	AVRG		1.42846		3.87290
68 1,1,2,2-Tetrachloroethane	0.74129	0.68029	0.67506	0.70229	0.68496	AVRG		0.69678		3.86100

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

art Cal Date : 26-SEP-2000 08:47
l Cal Date : 26-SEP-2000 10:19
int Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
l Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
69 1,4-Dichloro-2-butene	3932	31598	78526	166907	315022	LINR	0.14612	0.18777		0.99792
70 1,2,3-Trichloropropane	0.24506	0.24508	0.23605	0.24574	0.24283	AVRG		0.24295		1.65049
71 Bromobenzene	1.00445	1.02019	0.99750	1.05055	1.06050	AVRG		1.02664		2.71222
72 n-Propylbenzene	1.06516	1.07547	1.05217	1.12614	1.11628	AVRG		1.08704		2.98506
73 2-Chlorotoluene	0.98280	0.94884	0.91252	0.96033	0.94731	AVRG		0.95036		2.68013
74 1,3,5-Trimethylbenzene	2.68240	2.69308	2.71523	2.77479	2.57614	AVRG		2.68833		2.68522
75 4-Chlorotoluene	0.94598	0.93490	0.91271	0.97214	0.94111	AVRG		0.94137		2.27284
76 tert-Butylbenzene	2.43204	2.42189	2.38835	2.51809	2.27930	AVRG		2.40793		3.58695
77 1,2,4-Trimethylbenzene	2.56718	2.55051	2.53267	2.63069	2.40317	AVRG		2.53685		3.28628
78 sec-Butylbenzene	3.05989	3.11878	3.11864	3.24496	2.96024	AVRG		3.10050		3.33839
79 4-Isopropyltoluene	2.25908	2.39741	2.37245	2.48194	2.32408	AVRG		2.36699		3.51277
80 1,3-Dichlorobenzene	1.42864	1.47057	1.47212	1.50074	1.44985	AVRG		1.46438		1.84153
81 1,4-Dichlorobenzene	1.53857	1.46719	1.44555	1.46798	1.44518	AVRG		1.47289		2.60434
82 n-Butylbenzene	1.71271	1.73386	1.71745	1.85358	1.92169	AVRG		1.78786		5.28787
83 1,2-Dichlorobenzene	1.28571	1.22286	1.19186	1.22450	1.25617	AVRG		1.23622		2.89717
84 1,2-Dibromo-3-chloropropane	3078	18229	43780	91144	183813	LINR	0.17119	0.10936		0.99420
85 1,2,4-Trichlorobenzene	0.76284	0.72486	0.74314	0.79811	0.88729	AVRG		0.78325		8.19479

STL - North Canton

INITIAL CALIBRATION DATA

art Cal Date : 26-SEP-2000 08:47
i Cal Date : 26-SEP-2000 10:19
ant Method : ISTD
rget Version : 4.04
tegrator : HP RTE
thod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
l Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2	
86 Hexachlorobutadiene	0.35514	0.31225	0.29963	0.31968	0.34158	AVRG		0.32566		6.89294	
87 Naphthalene	1.48918	1.42536	1.48209	1.59283	1.77628	AVRG		1.55315		8.92350	
88 1,2,3-Trichlorobenzene	0.69626	0.63142	0.63865	0.66968	0.71527	AVRG		0.67026		5.38451	
89 Ethyl Ether	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
90 Ethanol	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
91 3-Chloropropene	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
92 Isopropyl Ether	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
93 2-Chloro-1,3-butadiene	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
94 Propionitrile	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
95 Ethyl Acetate	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
96 Methacrylonitrile	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
97 Isobutanol	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
98 Cyclohexane	0.28108	0.30632	0.31802	0.31202	0.30742	AVRG		0.30497		4.63369	
99 n-Butanol	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
00 Methyl Methacrylate	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
01 2-Nitropropane	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
02 Chloropicrin	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

irt Cal Date : 26-SEP-2000 08:47
l Cal Date : 26-SEP-2000 10:19
int Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
l Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2	
03 Cyclohexanone	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
04 Pentachloroethane	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
05 Benzyl Chloride	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
34 Thiophene	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
35 Crotononitrile(1st Isomer)	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
36 Crotononitrile(2nd Isomer)	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
37 Total Crotononitrile	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
38 Paraldehyde	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
39 3,3,5-Trimethylcyclohexanone	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
40 1-Chlorohexane	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
41 1,3,5-Trichlorobenzene	0.76600	0.80963	0.81777	0.84035	1.02622	AVRG		0.85200		11.86154	
43 Methyl Acetate	0.21484	0.19930	0.20777	0.20727	0.20126	AVRG		0.20609		2.97447	
44 Methylcyclohexane	0.34345	0.38490	0.38633	0.38432	0.39750	AVRG		0.37930		5.47126	
45 Dimethoxymethane	*****	*****	*****	*****	*****	AVRG		0.000e+000		0.000e+000	<-
4 Dibromofluoromethane	0.20266	0.20241	0.20583	0.21535	0.20229	AVRG		0.20571		2.71681	
5 1,2-Dichloroethane-d4	0.21031	0.20907	0.22135	0.22544	0.19949	AVRG		0.21313		4.86261	

STL North Canton

STL - North Canton

INITIAL CALIBRATION DATA

rt Cal Date : 26-SEP-2000 08:47
Cal Date : 26-SEP-2000 10:19
nt Method : ISTD
get Version : 4.04
egrator : HP RTE
hod file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Date : 26-Sep-2000 11:50 quayler

Compound	5.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Toluene-d8	1.13683	1.12129	1.11652	1.17127	1.11757	AVRG		1.13269		2.03535
7 Bromofluorobenzene	0.35537	0.35358	0.35794	0.37701	0.33195	AVRG		0.35517		4.50943

ve	Formula	Units
raged	Amt = Rsp/m1	Response
ear	Amt = b + Rsp/m1	Response

STL North Canton

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P000926A.b\UXX3595.D

Page 5

Date : 26-SEP-2000 08:47

Client ID:

Instrument: a3ux10.i

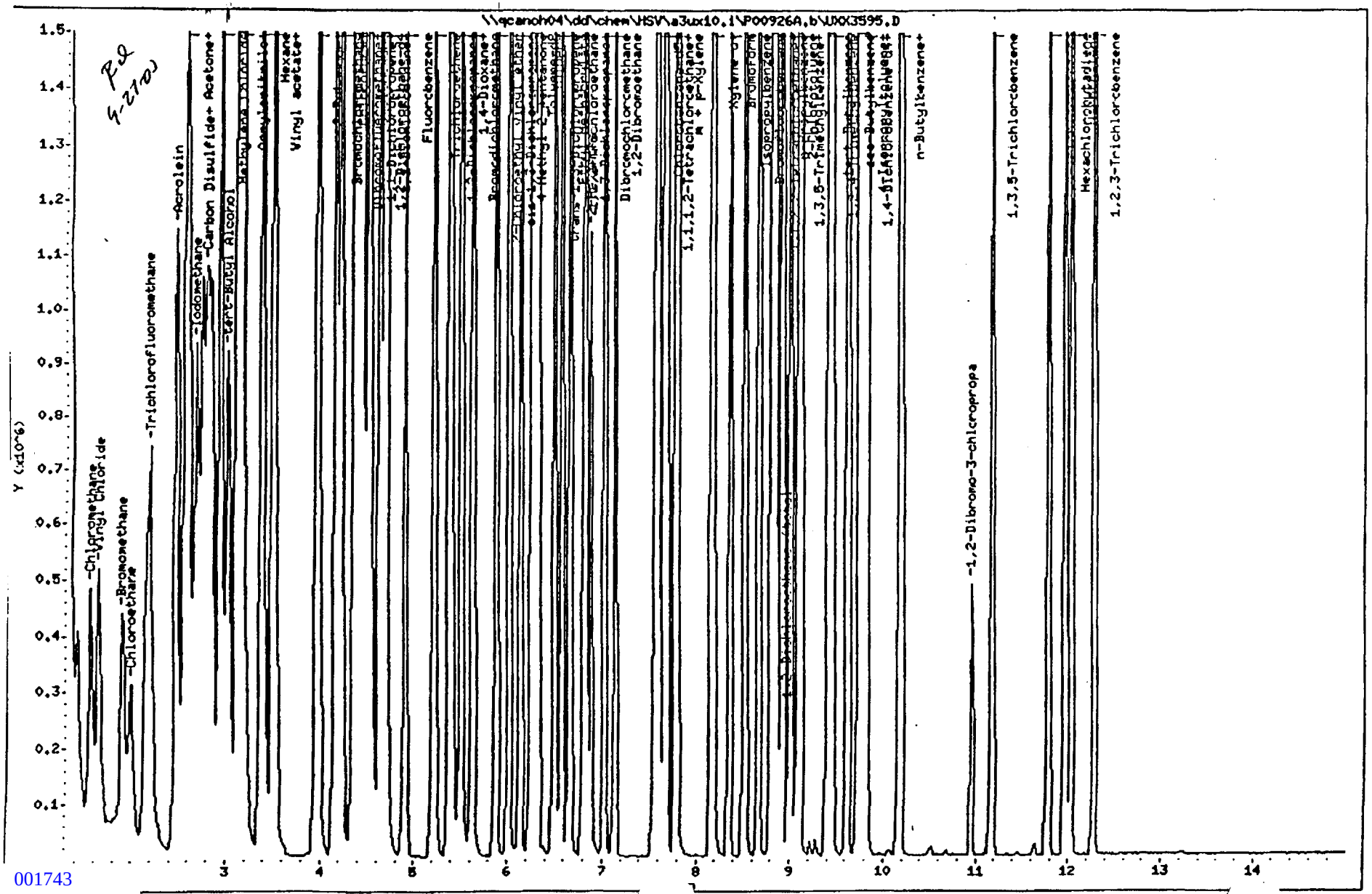
Sample Info: 200NC-IC

Purge Volume: 5.0

Operator: 1904

Column phase: DB624

Column diameter: 0.18



001743

STL North Canton

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3595.D
Lab Smp Id: 200NG-IC
Inj Date : 26-SEP-2000 08:47
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 200NG-IC
Misc Info : P00926A,8260LLUX10,2-8260.SUB,1904,1,5
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Meth Date : 26-Sep-2000 16:01 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 08:47 Cal File: UXX3595.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 Fluorobenzene	96	4.900	4.900	(1.000)	1731285	50.0000	
*	2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1303422	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	429983	50.0000	
$	4 Dibromofluoromethane	113	4.343	4.343	(0.887)	1400864	200.000	196.67
$	5 1,2-Dichloroethane-d4	65	4.616	4.616	(0.942)	1381527	200.000	187.20
$	6 Toluene-d8	98	6.249	6.249	(0.826)	5826649	200.000	197.33
$	7 Bromofluorobenzene	95	8.662	8.662	(1.146)	1730706	200.000	186.93
	8 Dichlorodifluoromethane	85	1.421	1.421	(0.290)	606014	200.000	184.45
	9 Chloromethane	50	1.563	1.563	(0.319)	856404	200.000	189.68
	10 Vinyl Chloride	62	1.646	1.646	(0.336)	851303	200.000	189.01
	11 Bromomethane	94	1.894	1.894	(0.387)	551979	200.000	196.71
	12 Chloroethane	64	1.989	1.989	(0.406)	510078	200.000	198.56
	13 Trichlorofluoromethane	101	2.143	2.143	(0.437)	1100326	200.000	213.08(A)
	15 Acrolein	56	2.462	2.462	(0.503)	1815225	2000.00	1954.4
	16 Acetone	43	2.580	2.580	(0.527)	459144	200.000	199.07
	17 1,1-Dichloroethene	96	2.557	2.557	(0.522)	1135184	200.000	204.42(A)
	18 Freon-113	151	2.604	2.604	(0.532)	622085	200.000	200.31(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.687	2.687	(0.548)	2082279	200.000	199.58
	20 Carbon Disulfide	76	2.746	2.746	(0.561)	2801762	200.000	206.07 (A)
	21 Methylene Chloride	84	2.935	2.935	(0.599)	1421447	200.000	187.24
	22 Acetonitrile	41	2.805	2.805	(0.573)	1386013	2000.00	1819.6
	23 Acrylonitrile	53	3.113	3.113	(0.635)	5090839	2000.00	1920.3
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	3699916	200.000	194.72
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	1649717	200.000	199.12
	26 Hexane	86	3.373	3.373	(0.688)	429697	200.000	217.36 (A)
	27 Vinyl acetate	43	3.515	3.515	(0.717)	1443587	200.000	211.03 (A)
	28 1,1-Dichloroethane	63	3.492	3.492	(0.713)	2475661	200.000	197.32
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	1527560	4000.00	3564.9 (A)
	30 2-Butanone	43	3.953	3.953	(0.807)	570272	200.000	183.74
M	31 1,2-Dichloroethene (total)	96				3347992	400.000	395.81
	32 cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	1698275	200.000	196.69
	33 2,2-Dichloropropane	77	3.965	3.965	(0.809)	1224575	200.000	186.12
	34 Bromochloromethane	128	4.154	4.154	(0.848)	858403	200.000	196.02
	35 Chloroform	83	4.213	4.213	(0.860)	2450431	200.000	191.41
	36 Tetrahydrofuran	42	4.190	4.190	(0.855)	350851	200.000	196.69
	37 1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	1869151	200.000	190.99
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	1938145	200.000	199.39
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	1721960	200.000	198.70
	40 1,2-Dichloroethane	62	4.687	4.687	(0.957)	1816533	200.000	193.87
	41 Benzene	78	4.675	4.675	(0.954)	6386862	200.000	192.48
	42 Trichloroethene	130	5.207	5.207	(1.063)	1904750	200.000	198.82
	43 1,2-Dichloropropane	63	5.397	5.397	(1.101)	1525318	200.000	194.82
	44 1,4-Dioxane	88	5.503	5.503	(1.123)	486033	10000.0	8557.2 (A)
	45 Dibromomethane	93	5.491	5.491	(1.121)	845132	200.000	198.67
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	1871817	200.000	201.18 (A)
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	1794443	400.000	409.28 (A)
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	2400389	200.000	206.49 (A)
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	1175962	200.000	199.13
	50 Toluene	91	6.308	6.308	(0.834)	7209342	200.000	196.13
	51 trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	2057347	200.000	213.76 (A)
	52 Ethyl Methacrylate	69	6.568	6.568	(0.869)	1879896	200.000	211.88 (A)
	53 1,1,2-Trichloroethane	97	6.663	6.663	(0.881)	1349083	200.000	194.24
	54 1,3-Dichloropropane	76	6.817	6.817	(0.901)	2303877	200.000	196.49
	55 Tetrachloroethene	164	6.805	6.805	(0.900)	1582611	200.000	197.58
	56 2-Hexanone	43	6.876	6.876	(0.909)	765773	200.000	206.59 (A)
	57 Dibromochloromethane	129	7.018	7.018	(0.928)	1539202	200.000	205.92 (A)
	58 1,2-Dibromoethane	107	7.136	7.136	(0.944)	1347601	200.000	198.56
	59 Chlorobenzene	112	7.586	7.586	(1.003)	4756233	200.000	197.20
	60 1,1,1,2-Tetrachloroethane	131	7.657	7.657	(1.013)	1625770	200.000	203.10 (A)
	61 Ethylbenzene	106	7.680	7.680	(1.016)	2590331	200.000	195.31
	62 m + p-Xylene	106	7.787	7.787	(1.030)	6249710	400.000	394.02 (A)
M	63 Xylenes (total)	106				9192454	600.000	586.80
	64 Xylene-o	106	8.165	8.165	(1.080)	2942744	200.000	192.78
	65 Styrene	104	8.177	8.177	(1.081)	4927749	200.000	197.45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.355	8.355	(1.105)	929713	200.000	212.58 (A)
67 Isopropylbenzene	105	8.520	8.520	(1.127)	7061990	200.000	189.85
68 1,1,2,2-Tetrachloroethane	83	8.793	8.793	(0.897)	1178087	200.000	196.61
69 1,4-Dichloro-2-butene	53	8.852	8.852	(0.903)	315022	200.000	202.39 (A)
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	417651	200.000	199.90
71 Bromobenzene	156	8.816	8.816	(0.900)	1823995	200.000	206.60 (A)
72 n-Propylbenzene	120	8.911	8.911	(0.909)	1919918	200.000	205.38 (A)
73 2-Chlorotoluene	126	9.006	9.006	(0.919)	1629308	200.000	199.36
74 1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	4430781	200.000	191.65
75 4-Chlorotoluene	126	9.100	9.100	(0.929)	1618644	200.000	199.94
76 tert-Butylbenzene	119	9.408	9.408	(0.960)	3920239	200.000	189.32
77 1,2,4-Trimethylbenzene	105	9.443	9.443	(0.964)	4133289	200.000	189.46
78 sec-Butylbenzene	105	9.621	9.621	(0.982)	5091412	200.000	190.95
79 4-Isopropyltoluene	119	9.763	9.763	(0.996)	3997267	200.000	196.37
80 1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	2493649	200.000	198.02
81 1,4-Dichlorobenzene	146	9.822	9.822	(1.002)	2485609	200.000	196.24
82 n-Butylbenzene	91	10.165	10.165	(1.037)	3305173	200.000	214.97 (A)
83 1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	2160527	200.000	203.23 (A)
84 1,2-Dibromo-3-chloropropane	157	10.958	10.958	(1.118)	183813	200.000	204.00 (A)
85 1,2,4-Trichlorobenzene	180	11.786	11.786	(1.203)	1526072	200.000	226.57 (A)
86 Hexachlorobutadiene	225	11.964	11.964	(1.221)	587488	200.000	209.78 (A)
87 Naphthalene	128	12.023	12.023	(1.227)	3055086	200.000	228.73 (A)
88 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	1230224	200.000	213.43 (A)
98 Cyclohexane	56	4.426	4.426	(0.903)	2128945	200.000	201.61 (A)
143 Methyl Acetate	43	2.841	2.841	(0.580)	1393737	200.000	195.31
144 Methylcyclohexane	83	5.385	5.385	(1.099)	2752718	200.000	209.60
141 1,3,5-Trichlorobenzene	180	11.171	11.171	(1.140)	1765036	200.000	240.90

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P000926A.b\UUU3596.D

Page 5

Date : 26-SEP-2000 09:09

Client ID:

Instrument: a3ux10.i

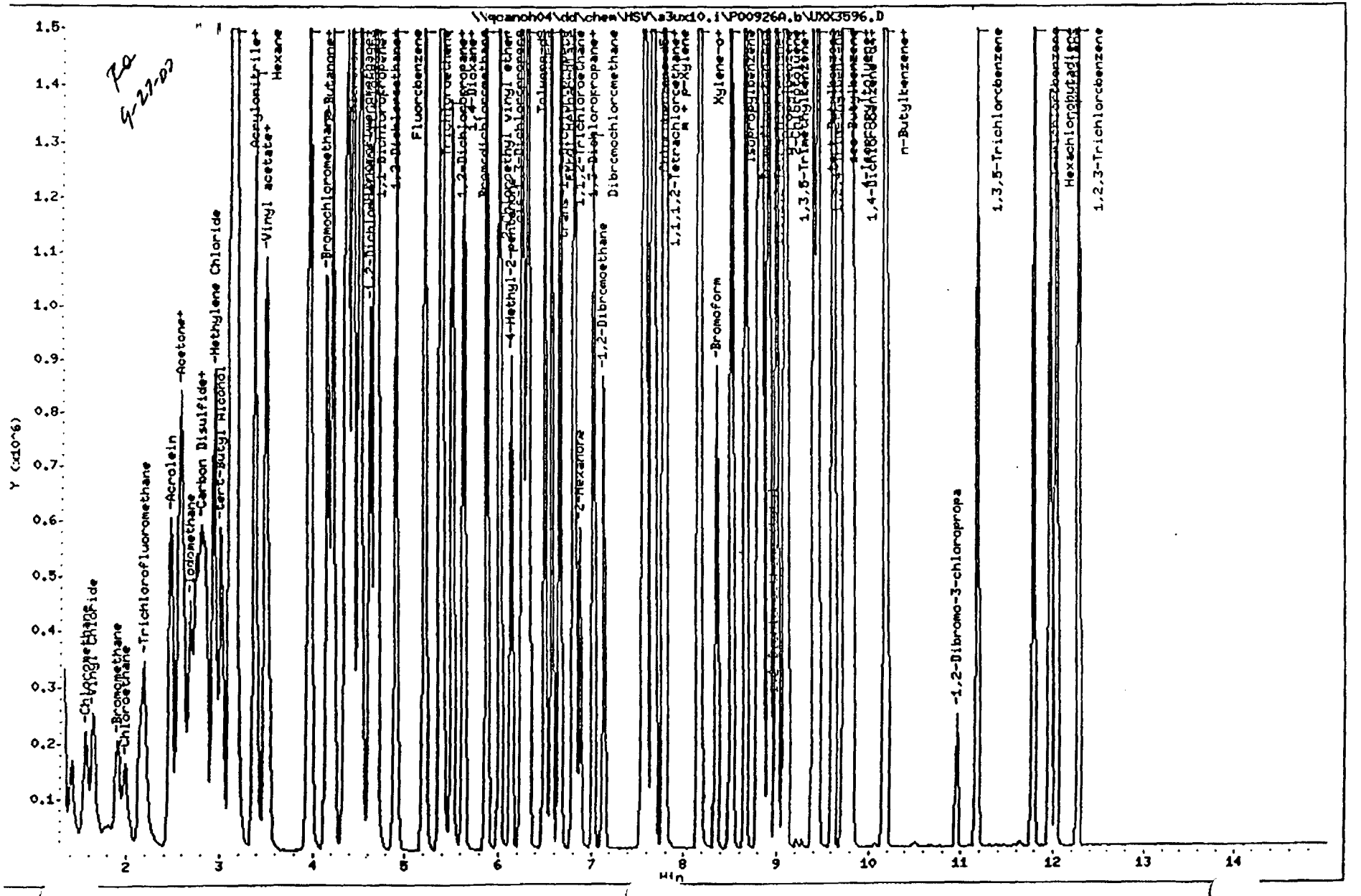
Sample Info: 100NG-IC

Purge Volume: 5.0

Operator: 1904

Column phase: DB624

Column diameter: 0.18



STL North Canton

0017
47

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3596.D
Lab Smp Id: 100NG-IC
Inj Date : 26-SEP-2000 09:09
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 100NG-IC
Misc Info : P00926A,8260LLUX10,2-8260.SUB,1904,1,4
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Meth Date : 26-Sep-2000 16:01 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 08:47 Cal File: UXX3595.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 Fluorobenzene	96	4.902	4.902	(1.000)	1726653	50.0000	
* 2 Chlorobenzene-d5	117	7.552	7.552	(1.000)	1313708	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.789	9.789	(1.000)	502839	50.0000	
$ 4 Dibromofluoromethane	113	4.334	4.334	(0.884)	743683	100.000	104.69
$ 5 1,2-Dichloroethane-d4	65	4.618	4.618	(0.942)	778519	100.000	105.78
$ 6 Toluene-d8	98	6.251	6.251	(0.828)	3077420	100.000	103.40
$ 7 Bromofluorobenzene	95	8.665	8.665	(1.147)	990553	100.000	106.15
8 Dichlorodifluoromethane	85	1.411	1.411	(0.288)	338852	100.000	103.41
9 Chloromethane	50	1.565	1.565	(0.319)	456863	100.000	101.46
10 Vinyl Chloride	62	1.648	1.648	(0.336)	458682	100.000	102.11
11 Bromomethane	94	1.896	1.896	(0.387)	284460	100.000	101.65
12 Chloroethane	64	1.979	1.979	(0.404)	266177	100.000	103.89
13 Trichlorofluoromethane	101	2.145	2.145	(0.438)	567826	100.000	110.26
15 Acrolein	56	2.464	2.464	(0.503)	965700	1000.00	1042.5
16 Acetone	43	2.583	2.583	(0.527)	241583	100.000	101.55
17 1,1-Dichloroethene	96	2.559	2.559	(0.522)	595418	100.000	107.51
18 Freon-113	151	2.594	2.594	(0.529)	303311	100.000	99.187

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	19 Iodomethane	142	2.677	2.677	(0.546)	1043426	100.000	101.64
	20 Carbon Disulfide	76	2.748	2.748	(0.561)	1456066	100.000	107.38
	21 Methylene Chloride	84	2.938	2.938	(0.599)	738244	100.000	97.506
	22 Acetonitrile	41	2.807	2.807	(0.573)	768959	1000.00	1012.2
	23 Acrylonitrile	53	3.115	3.115	(0.636)	2690754	1000.00	1017.7
	24 Methyl tert-butyl ether	73	3.151	3.151	(0.643)	1945102	100.000	102.64
	25 trans-1,2-Dichloroethene	96	3.162	3.162	(0.645)	878639	100.000	106.33
	26 Hexane	86	3.375	3.375	(0.689)	204500	100.000	103.72
	27 Vinyl acetate	43	3.517	3.517	(0.718)	732958	100.000	107.44
	28 1,1-Dichloroethane	63	3.494	3.494	(0.713)	1288632	100.000	102.99
	29 tert-Butyl Alcohol	59	3.020	3.020	(0.616)	917494	2000.00	2146.9(A)
	30 2-Butanone	43	3.955	3.955	(0.807)	307943	100.000	99.487
M	31 1,2-Dichloroethene (total)	96				1766262	200.000	209.41
	32 cis-1,2-dichloroethene	96	3.955	3.955	(0.807)	887623	100.000	103.08
	33 2,2-Dichloropropane	77	3.955	3.955	(0.807)	714606	100.000	108.90
	34 Bromochloromethane	128	4.156	4.156	(0.848)	447477	100.000	102.46
	35 Chloroform	83	4.204	4.204	(0.858)	1279109	100.000	100.18
	36 Tetrahydrofuran	42	4.192	4.192	(0.855)	182392	100.000	102.52
	37 1,1,1-Trichloroethane	97	4.369	4.369	(0.891)	1041105	100.000	106.67
	38 1,1-Dichloropropene	75	4.500	4.500	(0.918)	1012987	100.000	104.49
	39 Carbon Tetrachloride	117	4.511	4.511	(0.920)	927874	100.000	107.35
	40 1,2-Dichloroethane	62	4.677	4.677	(0.954)	948683	100.000	101.52
	41 Benzene	78	4.677	4.677	(0.954)	3347723	100.000	101.16
	42 Trichloroethene	130	5.210	5.210	(1.063)	997163	100.000	104.37
	43 1,2-Dichloropropane	63	5.399	5.399	(1.101)	799667	100.000	102.41
	44 1,4-Dioxane	88	5.505	5.505	(1.123)	296264	5000.00	5230.1(A)
	45 Dibromomethane	93	5.494	5.494	(1.121)	441382	100.000	104.04
	46 Bromodichloromethane	83	5.624	5.624	(1.147)	958029	100.000	103.24
	47 2-Chloroethyl vinyl ether	63	5.872	5.872	(1.198)	535415	200.000	213.92(A)
	48 cis-1,3-Dichloropropene	75	6.002	6.002	(1.224)	1241825	100.000	107.11
	49 4-Methyl-2-pentanone	43	6.133	6.133	(1.251)	623876	100.000	105.92
	50 Toluene	91	6.310	6.310	(0.836)	3773951	100.000	101.86
	51 trans-1,3-Dichloropropene	75	6.487	6.487	(0.859)	1067903	100.000	110.09
	52 Ethyl Methacrylate	69	6.570	6.570	(0.870)	985713	100.000	110.22
	53 1,1,2-Trichloroethane	97	6.653	6.653	(0.881)	715098	100.000	102.16
	54 1,3-Dichloropropane	76	6.807	6.807	(0.901)	1215760	100.000	102.88
	55 Tetrachloroethene	164	6.807	6.807	(0.901)	829273	100.000	102.72
	56 2-Hexanone	43	6.878	6.878	(0.911)	412905	100.000	110.52
	57 Dibromochloromethane	129	7.020	7.020	(0.929)	796622	100.000	105.74
	58 1,2-Dibromoethane	107	7.126	7.126	(0.944)	714291	100.000	104.42
	59 Chlorobenzene	112	7.588	7.588	(1.005)	2481220	100.000	102.07
	60 1,1,1,2-Tetrachloroethane	131	7.659	7.659	(1.014)	848463	100.000	105.17
	61 Ethylbenzene	106	7.683	7.683	(1.017)	1374292	100.000	102.81
	62 m + p-Xylene	106	7.789	7.789	(1.031)	3327102	200.000	208.12(A)
M	63 Xylenes (total)	106				4923702	300.000	311.89
	64 Xylene-o	106	8.168	8.168	(1.081)	1596600	100.000	103.77
	65 Styrene	104	8.180	8.180	(1.083)	2708993	100.000	107.70

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.357	8.357	(1.107)	497754	100.000	112.92
67 Isopropylbenzene	105	8.511	8.511	(1.127)	3945806	100.000	105.13
68 1,1,2,2-Tetrachloroethane	83	8.795	8.795	(0.898)	706277	100.000	100.79
69 1,4-Dichloro-2-butene	53	8.854	8.854	(0.905)	166907	100.000	95.693
70 1,2,3-Trichloropropane	110	8.842	8.842	(0.903)	247135	100.000	101.15
71 Bromobenzene	156	8.819	8.819	(0.901)	1056513	100.000	102.33
72 n-Propylbenzene	120	8.913	8.913	(0.911)	1132532	100.000	103.60
73 2-Chlorotoluene	126	8.996	8.996	(0.919)	965779	100.000	101.05
74 1,3,5-Trimethylbenzene	105	9.079	9.079	(0.927)	2790545	100.000	103.22
75 4-Chlorotoluene	126	9.103	9.103	(0.930)	977658	100.000	103.27
76 tert-Butylbenzene	119	9.398	9.398	(0.960)	2532385	100.000	104.57
77 1,2,4-Trimethylbenzene	105	9.446	9.446	(0.965)	2645628	100.000	103.70
78 sec-Butylbenzene	105	9.611	9.611	(0.982)	3263388	100.000	104.66
79 4-Isopropyltoluene	119	9.753	9.753	(0.996)	2496033	100.000	104.86
80 1,3-Dichlorobenzene	146	9.730	9.730	(0.994)	1509262	100.000	102.48
81 1,4-Dichlorobenzene	146	9.813	9.813	(1.002)	1476318	100.000	99.666
82 n-Butylbenzene	91	10.167	10.167	(1.039)	1864105	100.000	103.68
83 1,2-Dichlorobenzene	146	10.179	10.179	(1.040)	1231452	100.000	99.052
84 1,2-Dibromo-3-chloropropane	157	10.948	10.948	(1.118)	91144	100.000	91.430
85 1,2,4-Trichlorobenzene	180	11.789	11.789	(1.204)	802637	100.000	101.90
86 Hexachlorobutadiene	225	11.954	11.954	(1.221)	321497	100.000	98.165
87 Naphthalene	128	12.025	12.025	(1.228)	1601877	100.000	102.56
88 1,2,3-Trichlorobenzene	180	12.274	12.274	(1.254)	673480	100.000	99.913
98 Cyclohexane	56	4.429	4.429	(0.903)	1077502	100.000	102.31
143 Methyl Acetate	43	2.843	2.843	(0.580)	715770	100.000	100.57
144 Methylcyclohexane	83	5.375	5.375	(1.097)	1327168	100.000	101.32
141 1,3,5-Trichlorobenzene	180	11.173	11.173	(1.141)	845121	100.000	98.633

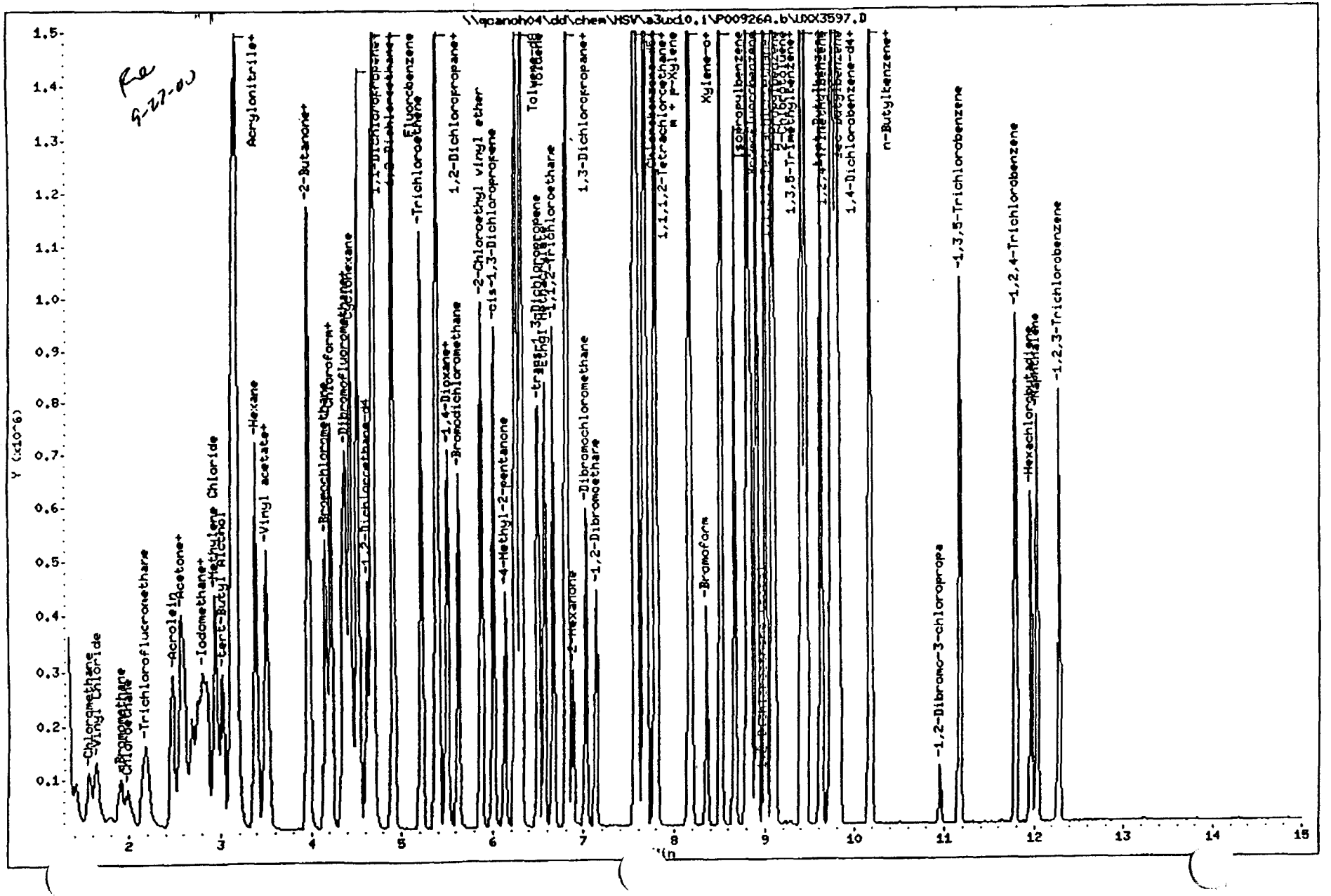
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P000926A.b\UUU3597.D
Date : 26-SEP-2000 09:33
Client ID:
Sample Info: 50NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux10.i

Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3597.D
Lab Smp Id: 50NG-IC
Inj Date : 26-SEP-2000 09:33
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 50NG-IC
Misc Info : P00926A,8260LLUX10,2-8260.SUB,1904,1,3
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Meth Date : 26-Sep-2000 16:03 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 1 Fluorobenzene	96	4.899	4.899	(1.000)	1741213	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1337890	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	516207	50.0000	
$ 4 Dibromofluoromethane	113	4.343	4.343	(0.886)	358388	50.0000	50.029
$ 5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	385426	50.0000	51.929
$ 6 Toluene-d8	98	6.248	6.248	(0.826)	1493778	50.0000	49.286
$ 7 Bromofluorobenzene	95	8.662	8.662	(1.146)	478886	50.0000	50.390
8 Dichlorodifluoromethane	85	1.409	1.409	(0.288)	171777	50.0000	51.985
9 Chloromethane	50	1.562	1.562	(0.319)	221900	50.0000	48.867
10 Vinyl Chloride	62	1.645	1.645	(0.336)	231431	50.0000	51.092
11 Bromomethane	94	1.906	1.906	(0.389)	135626	50.0000	48.058
12 Chloroethane	64	1.988	1.988	(0.406)	129261	50.0000	50.030
13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	268177	50.0000	51.637
15 Acrolein	56	2.474	2.474	(0.505)	478165	500.000	511.90
16 Acetone	43	2.580	2.580	(0.527)	131264	50.0000	51.322
17 1,1-Dichloroethene	96	2.556	2.556	(0.522)	279212	50.0000	49.993
18 Freon-113	151	2.604	2.604	(0.531)	152616	50.0000	50.726

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.687	2.687	(0.548)	486924	50.0000	48.505
	20 Carbon Disulfide	76	2.758	2.758	(0.563)	676401	50.0000	49.465
	21 Methylene Chloride	84	2.935	2.935	(0.599)	361621	50.0000	47.363
	22 Acetonitrile	41	2.805	2.805	(0.573)	381487	500.000	497.98
	23 Acrylonitrile	53	3.124	3.124	(0.638)	1334120	500.000	500.37
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	949644	50.0000	49.694
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	409094	50.0000	49.096
	26 Hexane	86	3.373	3.373	(0.688)	104543	50.0000	52.582
	27 Vinyl acetate	43	3.515	3.515	(0.717)	349330	50.0000	50.776
	28 1,1-Dichloroethane	63	3.491	3.491	(0.713)	626251	50.0000	49.632
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	461376	1000.00	1070.6(A)
	30 2-Butanone	43	3.953	3.953	(0.807)	162228	50.0000	51.973
M	31 1,2-Dichloroethene (total)	96				850639	100.000	99.942
	32 cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	441545	50.0000	50.847
	33 2,2-Dichloropropane	77	3.965	3.965	(0.809)	342202	50.0000	51.714
	34 Bromochloromethane	128	4.154	4.154	(0.848)	219135	50.0000	49.754
	35 Chloroform	83	4.213	4.213	(0.860)	637015	50.0000	49.476
	36 Tetrahydrofuran	42	4.201	4.201	(0.858)	90805	50.0000	50.615
	37 1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	495054	50.0000	50.297
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	489271	50.0000	50.047
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	437598	50.0000	50.206
	40 1,2-Dichloroethane	62	4.686	4.686	(0.957)	469417	50.0000	49.813
	41 Benzene	78	4.675	4.675	(0.954)	1635461	50.0000	49.006
	42 Trichloroethene	130	5.207	5.207	(1.063)	481165	50.0000	49.939
	43 1,2-Dichloropropane	63	5.396	5.396	(1.101)	393245	50.0000	49.941
	44 1,4-Dioxane	88	5.503	5.503	(1.123)	155682	2500.00	2725.4(A)
	45 Dibromomethane	93	5.491	5.491	(1.121)	216988	50.0000	50.718
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	469433	50.0000	50.167
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	447358	100.000	101.45
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	597858	50.0000	51.136
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	309610	50.0000	52.128
	50 Toluene	91	6.307	6.307	(0.834)	1844199	50.0000	48.878
	51 trans-1,3-Dichloropropene	75	6.497	6.497	(0.859)	493874	50.0000	49.992
	52 Ethyl Methacrylate	69	6.568	6.568	(0.869)	462973	50.0000	50.835
	53 1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	351946	50.0000	49.369
	54 1,3-Dichloropropane	76	6.816	6.816	(0.901)	599522	50.0000	49.814
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	407874	50.0000	49.608
	56 2-Hexanone	43	6.875	6.875	(0.909)	202744	50.0000	53.287
	57 Dibromochloromethane	129	7.017	7.017	(0.928)	386816	50.0000	50.416
	58 1,2-Dibromoethane	107	7.136	7.136	(0.944)	346020	50.0000	49.672
	59 Chlorobenzene	112	7.585	7.585	(1.003)	1215467	50.0000	49.096
	60 1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	408600	50.0000	49.730
	61 Ethylbenzene	106	7.680	7.680	(1.016)	673994	50.0000	49.511
	62 m + p-Xylene	106	7.787	7.787	(1.030)	1636070	100.000	100.49
M	63 Xylenes (total)	106				2419373	150.000	150.48
	64 Xylene-o	106	8.165	8.165	(1.080)	783303	50.0000	49.992
	65 Styrene	104	8.177	8.177	(1.081)	1301258	50.0000	50.796

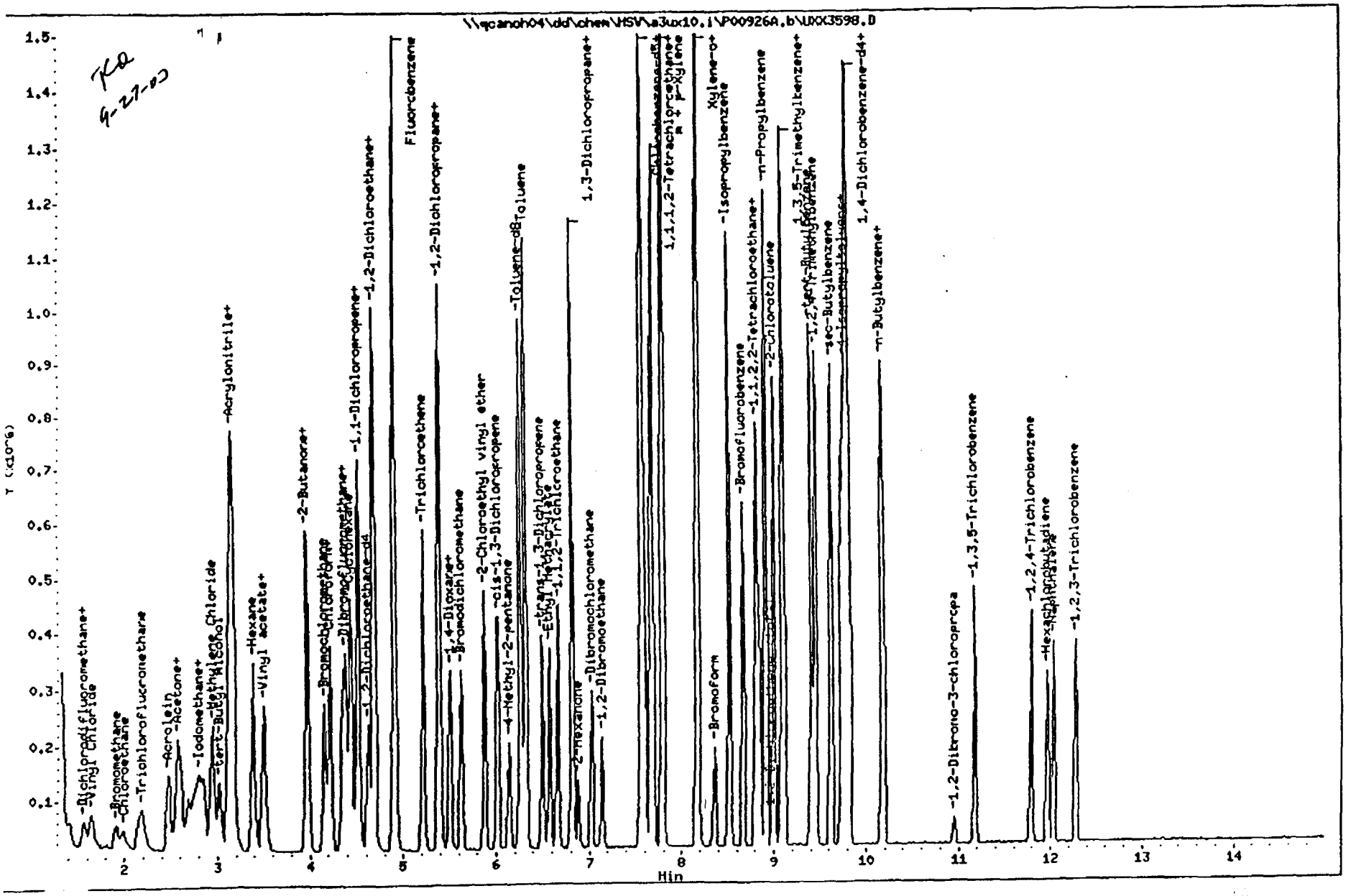
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.355	8.355	(1.105)	231531	50.0000	51.575
67 Isopropylbenzene	105	8.520	8.520	(1.127)	1916428	50.0000	50.139
68 1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.897)	348472	50.0000	48.448
69 1,4-Dichloro-2-butene	53	8.851	8.851	(0.903)	78526	50.0000	47.813
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	121853	50.0000	48.580
71 Bromobenzene	156	8.816	8.816	(0.900)	514918	50.0000	48.581
72 n-Propylbenzene	120	8.911	8.911	(0.909)	543137	50.0000	48.396
73 2-Chlorotoluene	126	9.005	9.005	(0.919)	471048	50.0000	48.009
74 1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	1401623	50.0000	50.500
75 4-Chlorotoluene	126	9.100	9.100	(0.929)	471149	50.0000	48.478
76 tert-Butylbenzene	119	9.408	9.408	(0.960)	1232885	50.0000	49.593
77 1,2,4-Trimethylbenzene	105	9.455	9.455	(0.965)	1307382	50.0000	49.918
78 sec-Butylbenzene	105	9.621	9.621	(0.982)	1609863	50.0000	50.292
79 4-Isopropyltoluene	119	9.763	9.763	(0.996)	1224673	50.0000	50.115
80 1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	759917	50.0000	50.264
81 1,4-Dichlorobenzene	146	9.822	9.822	(1.002)	746205	50.0000	49.072
82 n-Butylbenzene	91	10.165	10.165	(1.037)	886561	50.0000	48.031
83 1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	615245	50.0000	48.206
84 1,2-Dibromo-3-chloropropane	157	10.958	10.958	(1.118)	43780	50.0000	47.335
85 1,2,4-Trichlorobenzene	180	11.786	11.786	(1.203)	383614	50.0000	47.440
86 Hexachlorobutadiene	225	11.964	11.964	(1.221)	154671	50.0000	46.004
87 Naphthalene	128	12.023	12.023	(1.227)	765066	50.0000	47.712
88 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	329677	50.0000	47.642
98 Cyclohexane	56	4.426	4.426	(0.903)	553740	50.0000	52.139
143 Methyl Acetate	43	2.852	2.852	(0.582)	361773	50.0000	50.408
144 Methylcyclohexane	83	5.384	5.384	(1.099)	672686	50.0000	50.927
141 1,3,5-Trichlorobenzene	180	11.171	11.171	(1.140)	422141	50.0000	47.992

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00926A.b\UXX3598.D
Date : 26-SEP-2000 09:56
Client ID:
Sample Info: 25NC-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux10.i
Operator: 1904
Column diameter: 0.18



STL North Canton
0017
55

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3598.D
Lab Smp Id: 25NG-IC
Inj Date : 26-SEP-2000 09:56
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 25NG-IC
Misc Info : P00926A,8260LLUX10,2-8260.SUB,1904,1,2
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Meth Date : 26-Sep-2000 16:02 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 08:47 Cal File: UXX3595.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 Fluorobenzene	96	4.901	4.901	(1.000)	1747068	50.0000	
*	2 Chlorobenzene-d5	117	7.563	7.563	(1.000)	1305218	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	9.788	9.788	(1.000)	489088	50.0000	
$	4 Dibromofluoromethane	113	4.345	4.345	(0.887)	176813	25.0000	24.599
$	5 1,2-Dichloroethane-d4	65	4.617	4.617	(0.942)	182626	25.0000	24.523
$	6 Toluene-d8	98	6.250	6.250	(0.826)	731761	25.0000	24.748
$	7 Bromofluorobenzene	95	8.664	8.664	(1.145)	230747	25.0000	24.888
	8 Dichlorodifluoromethane	85	1.410	1.410	(0.288)	82151	25.0000	24.778
	9 Chloromethane	50	1.564	1.564	(0.319)	111658	25.0000	24.507
	10 Vinyl Chloride	62	1.647	1.647	(0.336)	112498	25.0000	24.752
	11 Bromomethane	94	1.907	1.907	(0.389)	66051	25.0000	23.326
	12 Chloroethane	64	1.990	1.990	(0.406)	65436	25.0000	25.242
	13 Trichlorofluoromethane	101	2.156	2.156	(0.440)	126995	25.0000	24.371
	15 Acrolein	56	2.464	2.464	(0.503)	229646	250.000	245.02
	16 Acetone	43	2.594	2.594	(0.529)	68924	25.0000	23.351
	17 1,1-Dichloroethene	96	2.558	2.558	(0.522)	140197	25.0000	25.018
	18 Freon-113	151	2.594	2.594	(0.529)	68602	25.0000	24.086

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	
	19 Iodomethane	142	2.688	2.688	(0.549)	231275	25.0000	24.403	
	20 Carbon Disulfide	76	2.759	2.759	(0.563)	341584	25.0000	24.898	
	21 Methylene Chloride	84	2.937	2.937	(0.599)	191262	25.0000	24.966	
	22 Acetonitrile	41	2.807	2.807	(0.573)	186331	250.000	242.42	
	23 Acrylonitrile	53	3.126	3.126	(0.638)	648837	250.000	242.54	
	24 Methyl tert-butyl ether	73	3.162	3.162	(0.645)	472208	25.0000	24.628	
	25 trans-1,2-Dichloroethene	96	3.162	3.162	(0.645)	202707	25.0000	24.245	
	26 Hexane	86	3.386	3.386	(0.691)	47707	25.0000	23.915	
	27 Vinyl acetate	43	3.517	3.517	(0.718)	157096	25.0000	22.758	
	28 1,1-Dichloroethane	63	3.493	3.493	(0.713)	318960	25.0000	25.193	
	29 tert-Butyl Alcohol	59	3.020	3.020	(0.616)	202798	500.000	469.00	
	30 2-Butanone	43	3.966	3.966	(0.809)	75823	25.0000	24.210	
M	31 1,2-Dichloroethene (total)	96				419034	50.0000	49.073	
	32 cis-1,2-dichloroethene	96	3.954	3.954	(0.807)	216327	25.0000	24.828	
	33 2,2-Dichloropropane	77	3.966	3.966	(0.809)	168855	25.0000	25.432	
	34 Bromochloromethane	128	4.156	4.156	(0.848)	109998	25.0000	24.891	
	35 Chloroform	83	4.215	4.215	(0.860)	317736	25.0000	24.595	
	36 Tetrahydrofuran	42	4.203	4.203	(0.858)	42630	25.0000	23.683	
	37 1,1,1-Trichloroethane	97	4.380	4.380	(0.894)	251097	25.0000	25.426	
	38 1,1-Dichloropropene	75	4.511	4.511	(0.920)	242850	25.0000	24.758	
	39 Carbon Tetrachloride	117	4.511	4.511	(0.920)	218671	25.0000	25.004	
	40 1,2-Dichloroethane	62	4.688	4.688	(0.957)	238130	25.0000	25.185	
	41 Benzene	78	4.676	4.676	(0.954)	834593	25.0000	24.925	
	42 Trichloroethene	130	5.209	5.209	(1.063)	243672	25.0000	25.205	
	43 1,2-Dichloropropane	63	5.398	5.398	(1.101)	196452	25.0000	24.865	
	44 1,4-Dioxane	88	5.505	5.505	(1.123)	69731	1250.00	1216.6	(A)
	45 Dibromomethane	93	5.493	5.493	(1.121)	106446	25.0000	24.797	
	46 Bromodichloromethane	83	5.623	5.623	(1.147)	231269	25.0000	24.632	
	47 2-Chloroethyl vinyl ether	63	5.871	5.871	(1.198)	212807	50.0000	48.098	
	48 cis-1,3-Dichloropropene	75	6.013	6.013	(1.227)	289116	25.0000	24.646	
	49 4-Methyl-2-pentanone	43	6.132	6.132	(1.251)	142044	25.0000	23.835	
	50 Toluene	91	6.309	6.309	(0.834)	921489	25.0000	25.034	
	51 trans-1,3-Dichloropropene	75	6.487	6.487	(0.858)	233019	25.0000	24.177	
	52 Ethyl Methacrylate	69	6.569	6.569	(0.869)	211261	25.0000	23.778	
	53 1,1,2-Trichloroethane	97	6.664	6.664	(0.881)	175166	25.0000	25.186	
	54 1,3-Dichloropropane	76	6.806	6.806	(0.900)	292123	25.0000	24.880	
	55 Tetrachloroethene	164	6.806	6.806	(0.900)	202117	25.0000	25.198	
	56 2-Hexanone	43	6.877	6.877	(0.909)	87624	25.0000	23.607	
	57 Dibromochloromethane	129	7.019	7.019	(0.928)	178863	25.0000	23.896	
	58 1,2-Dibromoethane	107	7.137	7.137	(0.944)	169366	25.0000	24.921	
	59 Chlorobenzene	112	7.587	7.587	(1.003)	595999	25.0000	24.677	
	60 1,1,1,2-Tetrachloroethane	131	7.658	7.658	(1.013)	197593	25.0000	24.651	
	61 Ethylbenzene	106	7.682	7.682	(1.016)	329373	25.0000	24.801	
	62 m - p-Xylene	106	7.788	7.788	(1.030)	793454	50.0000	49.956	
M	63 Xylenes (total)	106				1178596	75.0000	75.152	
	64 Xylene-o	106	8.167	8.167	(1.080)	385142	25.0000	25.196	
	65 Styrene	104	8.179	8.179	(1.081)	623603	25.0000	24.953	

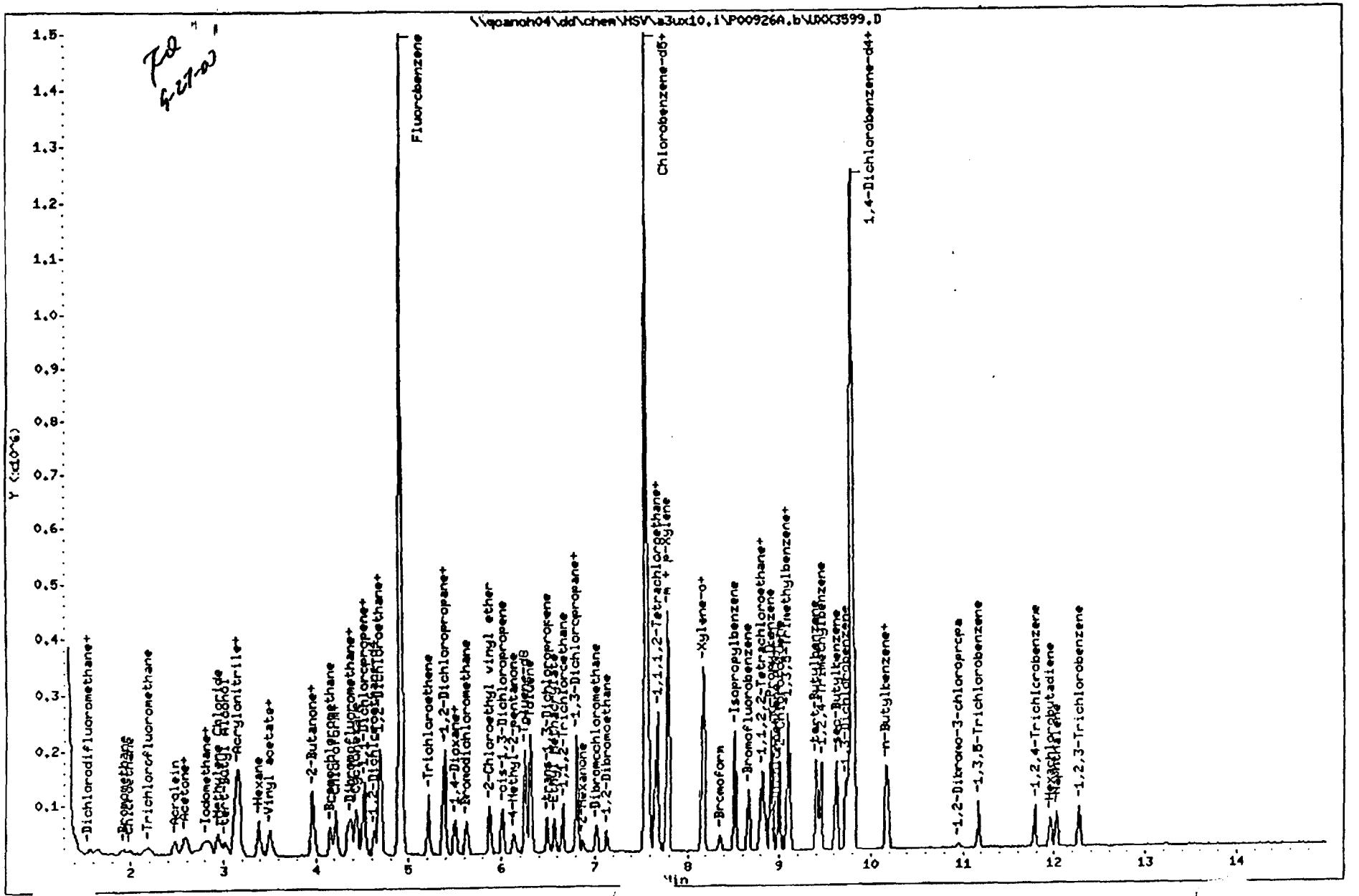
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.356	8.356	(1.105)	103632	25.0000	23.682
67 Isopropylbenzene	105	8.510	8.510	(1.125)	948253	25.0000	25.430
68 1,1,2,2-Tetrachloroethane	83	8.794	8.794	(0.898)	166362	25.0000	24.408
69 1,4-Dichloro-2-butene	53	8.853	8.853	(0.905)	31598	25.0000	24.509
70 1,2,3-Trichloropropane	110	8.841	8.841	(0.903)	59933	25.0000	25.219
71 Bromobenzene	156	8.818	8.818	(0.901)	249481	25.0000	24.843
72 n-Propylbenzene	120	8.912	8.912	(0.911)	263000	25.0000	24.734
73 2-Chlorotoluene	126	9.007	9.007	(0.920)	232034	25.0000	24.960
74 1,3,5-Trimethylbenzene	105	9.078	9.078	(0.927)	658577	25.0000	25.044
75 4-Chlorotoluene	126	9.102	9.102	(0.930)	228624	25.0000	24.828
76 tert-Butylbenzene	119	9.398	9.398	(0.960)	592258	25.0000	25.145
77 1,2,4-Trimethylbenzene	105	9.445	9.445	(0.965)	623712	25.0000	25.135
78 sec-Butylbenzene	105	9.622	9.622	(0.983)	762679	25.0000	25.147
79 4-Isopropyltoluene	119	9.764	9.764	(0.998)	586272	25.0000	25.321
80 1,3-Dichlorobenzene	146	9.729	9.729	(0.994)	359619	25.0000	25.106
81 1,4-Dichlorobenzene	146	9.812	9.812	(1.002)	358792	25.0000	24.903
82 n-Butylbenzene	91	10.167	10.167	(1.039)	424004	25.0000	24.245
83 1,2-Dichlorobenzene	146	10.190	10.190	(1.041)	299043	25.0000	24.730
84 1,2-Dibromo-3-chloropropane	157	10.959	10.959	(1.120)	18229	25.0000	25.600
85 1,2,4-Trichlorobenzene	180	11.788	11.788	(1.204)	177260	25.0000	23.136
86 Hexachlorobutadiene	225	11.953	11.953	(1.221)	76360	25.0000	23.971
87 Naphthalene	128	12.024	12.024	(1.228)	348564	25.0000	22.943
88 1,2,3-Trichlorobenzene	180	12.273	12.273	(1.254)	154411	25.0000	23.552
98 Cyclohexane	56	4.428	4.428	(0.903)	267578	25.0000	25.110
143 Methyl Acetate	43	2.842	2.842	(0.580)	174091	25.0000	24.176
144 Methylcyclohexane	83	5.386	5.386	(1.099)	336221	25.0000	25.369
141 1,3,5-Trichlorobenzene	180	11.172	11.172	(1.141)	197989	25.0000	23.757

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00926A.b\UX03599.D
Date : 26-SEP-2000 10:19
Client ID:
Sample Info: 5NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux10.i
Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00926A.b\UXX3599.D
Lab Smp Id: 5NG-IC
Inj Date : 26-SEP-2000 10:19
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 5NG-IC
Misc Info : P00926A,8260LLUX10,2-8260.SUB,1904,1,1
Comment :
Method : \\QCANOH04\dd\chem\MSV\a3ux10.i\P00926A.b\8260LLUX10.m
Meth Date : 26-Sep-2000 16:03 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 1 Fluorobenzene	96	4.899	4.899	(1.000)	1725516	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1268127	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	458549	50.0000	
$ 4 Dibromofluoromethane	113	4.343	4.343	(0.886)	34969	5.00000	4.926
$ 5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	36289	5.00000	4.934
$ 6 Toluene-d8	98	6.248	6.248	(0.826)	144164	5.00000	5.018
$ 7 Bromofluorobenzene	95	8.662	8.662	(1.146)	45065	5.00000	5.003
8 Dichlorodifluoromethane	85	1.420	1.420	(0.290)	16582	5.00000	5.064
9 Chloromethane	50	1.574	1.574	(0.321)	24285	5.00000	5.397
10 Vinyl Chloride	62	1.645	1.645	(0.336)	22935	5.00000	5.109
11 Bromomethane	94	1.917	1.917	(0.391)	15462	5.00000	5.529
12 Chloroethane	64	1.988	1.988	(0.406)	12264	5.00000	4.790
13 Trichlorofluoromethane	101	2.166	2.166	(0.442)	21216	5.00000	4.122
15 Acrolein	56	2.474	2.474	(0.505)	45189	50.0000	48.817
16 Acetone	43	2.592	2.592	(0.529)	26748	5.00000	4.709
17 1,1-Dichloroethene	96	2.568	2.568	(0.524)	24967	5.00000	4.511
18 Freon-113	151	2.604	2.604	(0.531)	10108	5.00000	5.691

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.710	2.710	(0.553)	33103	5.00000	5.878
	20 Carbon Disulfide	76	2.781	2.781	(0.568)	61707	5.00000	4.554
	21 Methylene Chloride	84	2.935	2.935	(0.599)	43234	5.00000	5.714
	22 Acetonitrile	41	2.805	2.805	(0.573)	42221	50.0000	55.615
	23 Acrylonitrile	53	3.124	3.124	(0.638)	138882	50.0000	52.563
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	96671	5.00000	5.105
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	40847	5.00000	4.947
	26 Hexane	86	3.385	3.385	(0.691)	8548	5.00000	4.338
	27 Vinyl acetate	43	3.515	3.515	(0.717)	32202	5.00000	4.723
	28 1,1-Dichloroethane	63	3.491	3.491	(0.713)	61466	5.00000	4.916
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	43848	100.000	102.67
	30 2-Butanone	43	3.965	3.965	(0.809)	16681	5.00000	5.393
M	31 1,2-Dichloroethene (total)	96				82831	10.0000	9.825
	32 cis-1,2-dichloroethene	96	3.965	3.965	(0.809)	41984	5.00000	4.879
	33 2,2-Dichloropropane	77	3.965	3.965	(0.809)	30454	5.00000	4.644
	34 Bromochloromethane	128	4.154	4.154	(0.848)	21924	5.00000	5.023
	35 Chloroform	83	4.213	4.213	(0.860)	68118	5.00000	5.339
	36 Tetrahydrofuran	42	4.201	4.201	(0.858)	9171	5.00000	5.158
	37 1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	46594	5.00000	4.777
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	46838	5.00000	4.834
	39 Carbon Tetrachloride	117	4.521	4.521	(0.923)	40108	5.00000	4.643
	40 1,2-Dichloroethane	62	4.686	4.686	(0.957)	47243	5.00000	5.059
	41 Benzene	78	4.674	4.674	(0.954)	173443	5.00000	5.244
	42 Trichloroethene	130	5.207	5.207	(1.063)	45603	5.00000	4.776
	43 1,2-Dichloropropane	63	5.396	5.396	(1.101)	39340	5.00000	5.042
	44 1,4-Dioxane	88	5.515	5.515	(1.126)	14645	250.000	258.71(A)
	45 Dibromomethane	93	5.503	5.503	(1.123)	20351	5.00000	4.800
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	45114	5.00000	4.865
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	40671	10.0000	9.307
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	51433	5.00000	4.439
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	27932	5.00000	4.746
	50 Toluene	91	6.307	6.307	(0.834)	182710	5.00000	5.109
	51 trans-1,3-Dichloropropene	75	6.497	6.497	(0.859)	40425	5.00000	4.317
	52 Ethyl Methacrylate	69	6.568	6.568	(0.869)	37575	5.00000	4.353
	53 1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	34204	5.00000	5.062
	54 1,3-Dichloropropane	76	6.816	6.816	(0.901)	56885	5.00000	4.986
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	38374	5.00000	4.924
	56 2-Hexanone	43	6.875	6.875	(0.909)	15360	5.00000	4.259
	57 Dibromochloromethane	129	7.017	7.017	(0.928)	34501	5.00000	4.744
	58 1,2-Dibromoethane	107	7.136	7.136	(0.944)	32111	5.00000	4.863
	59 Chlorobenzene	112	7.585	7.585	(1.003)	120185	5.00000	5.122
	60 1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	37078	5.00000	4.761
	61 Ethylbenzene	106	7.680	7.680	(1.016)	65358	5.00000	5.065
	62 m + p-Xylene	106	7.787	7.787	(1.030)	149736	10.0000	9.703
M	63 Xylenes (total)	106				223301	15.0000	14.656
	64 Xylene-o	106	8.165	8.165	(1.080)	73565	5.00000	4.953
	65 Styrene	104	8.177	8.177	(1.081)	111907	5.00000	4.609

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.354	8.354	(1.105)	17657	5.00000	4.150
67 Isopropylbenzene	105	8.520	8.520	(1.127)	177608	5.00000	4.902
68 1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.897)	33992	5.00000	5.319
69 1,4-Dichloro-2-butene	53	8.851	8.851	(0.903)	3932	5.00000	9.589
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	11237	5.00000	5.043
71 Bromobenzene	156	8.816	8.816	(0.900)	46059	5.00000	4.892
72 n-Propylbenzene	120	8.911	8.911	(0.909)	48843	5.00000	4.899
73 2-Chlorotoluene	126	9.005	9.005	(0.919)	45066	5.00000	5.171
74 1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	123001	5.00000	4.989
75 4-Chlorotoluene	126	9.100	9.100	(0.929)	43378	5.00000	5.024
76 tert-Butylbenzene	119	9.408	9.408	(0.960)	111521	5.00000	5.050
77 1,2,4-Trimethylbenzene	105	9.455	9.455	(0.965)	117718	5.00000	5.060
78 sec-Butylbenzene	105	9.621	9.621	(0.982)	140311	5.00000	4.934
79 4-Isopropyltoluene	119	9.763	9.763	(0.996)	103590	5.00000	4.772
80 1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	65510	5.00000	4.878
81 1,4-Dichlorobenzene	146	9.822	9.822	(1.002)	70551	5.00000	5.223
82 n-Butylbenzene	91	10.165	10.165	(1.037)	78536	5.00000	4.790
83 1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	58956	5.00000	5.200
84 1,2-Dibromo-3-chloropropane	157	10.958	10.958	(1.118)	3078	5.00000	11.629
85 1,2,4-Trichlorobenzene	180	11.786	11.786	(1.203)	34980	5.00000	4.870
86 Hexachlorobutadiene	225	11.952	11.952	(1.220)	16285	5.00000	5.453
87 Naphthalene	128	12.023	12.023	(1.227)	68286	5.00000	4.794
88 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	31927	5.00000	5.194
98 Cyclohexane	56	4.426	4.426	(0.903)	48500	5.00000	4.608
143 Methyl Acetate	43	2.852	2.852	(0.582)	37071	5.00000	5.212
144 Methylcyclohexane	83	5.384	5.384	(1.099)	59262	5.00000	4.527
141 1,3,5-Trichlorobenzene	180	11.171	11.171	(1.140)	35125	5.00000	4.495

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Calibration History

Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Start Cal Date: 28-SEP-2000 10:44
End Cal Date : 28-SEP-2000 12:20
Last Cal Level: 5
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.000		
28-SEP-2000 10:44	2-8260	UXX3670.D
Cal Level: 2 , Cal Amount: 25.000		
28-SEP-2000 11:07	2-8260	UXX3671.D
Cal Level: 3 , Cal Amount: 50.000		
28-SEP-2000 11:29	2-8260	UXX3672.D
Cal Level: 4 , Cal Amount: 100.00		
28-SEP-2000 11:57	2-8260	UXX3673.D
Cal Level: 5 , Cal Amount: 200.00		
28-SEP-2000 12:20	2-8260	UXX3674.D

Continuing Calibration

28-SEP-2000 11:29	2-8260	UXX3672.D

Report Date: 09/29/2000

INITIAL CALIBRATION REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3672.D
Analysis Type: WATER

Injection Date: 28-SEP-2000 11:29
Lab Sample ID: 50NG-IC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A

COMPOUND	%RSD
Dichlorodifluoromethane	5.0
Chloromethane	2.8
Vinyl Chloride	3.3
Bromomethane	3.3
Chloroethane	2.3
Trichlorofluoromethane	4.6
Acrolein	7.2
1,1-Dichloroethene	5.6
Acetone	22.0
Freon-113	11.7
Iodomethane	4.2
Carbon Disulfide	3.6
Acetonitrile	3.6
Methyl Acetate	7.9
Methylene Chloride	19.0
tert-Butyl Alcohol	16.6
Acrylonitrile	5.3
Methyl tert-butyl ether	3.7
trans-1,2-Dichloroethene	4.1
Hexane	4.0
1,1-Dichloroethane	2.5
Vinyl acetate	12.1
2-Butanone	7.5
cis-1,2-dichloroethene	2.8
2,2-Dichloropropane	2.8
Bromochloromethane	3.3
Tetrahydrofuran	6.4
Chloroform	3.0
Dibromofluoromethane	2.8
1,1,1-Trichloroethane	2.2
Cyclohexane	3.3
1,1-Dichloropropene	2.0
Carbon Tetrachloride	3.7
1,2-Dichloroethane-d4	4.5
Benzene	3.8
1,2-Dichloroethane	2.8
Trichloroethene	2.5
Methylcyclohexane	2.8
1,2-Dichloropropane	2.9

Data File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

Report Date: 09/29/2000

INITIAL CALIBRATION REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3672.D
Analysis Type: WATER

Injection Date: 28-SEP-2000 11:29
Lab Sample ID: 50NG-IC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

COMPOUND	%RSD
Dibromomethane	2.3
1,4-Dioxane	5.0
Bromodichloromethane	3.1
2-Chloroethyl vinyl ether	9.4
cis-1,3-Dichloropropene	5.8
4-Methyl-2-pentanone	15.3
Toluene-d8	1.1
Toluene	4.1
trans-1,3-Dichloropropene	6.3
Ethyl Methacrylate	13.9
1,1,2-Trichloroethane	2.5
Tetrachloroethene	4.9
1,3-Dichloropropane	2.8
2-Hexanone	18.3
Dibromochloromethane	3.9
1,2-Dibromoethane	2.5
Chlorobenzene	2.7
1,1,1,2-Tetrachloroethane	3.2
Ethylbenzene	3.0
m + p-Xylene	2.8
Xylene-o	3.2
Styrene	4.7
Bromoform	9.7
Isopropylbenzene	2.4
Bromofluorobenzene	2.2
1,1,2,2-Tetrachloroethane	4.2
Bromobenzene	4.6
1,2,3-Trichloropropane	5.5
1,4-Dichloro-2-butene	20.2
n-Propylbenzene	3.8
1,2-Dichloroethene (total)	3.4
2-Chlorotoluene	6.3
1,3,5-Trimethylbenzene	3.1
4-Chlorotoluene	6.1
tert-Butylbenzene	2.9
1,2,4-Trimethylbenzene	3.3
sec-Butylbenzene	3.6
1,3-Dichlorobenzene	3.1
4-Isopropyltoluene	3.5

Report Date: 09/29/2000

INITIAL CALIBRATION REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3672.D
Analysis Type: WATER

Injection Date: 28-SEP-2000 11:29
Lab Sample ID: 50NG-IC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

COMPOUND	%RSD
1,4-Dichlorobenzene	4.0
n-Butylbenzene	3.3
1,2-Dichlorobenzene	3.5
1,2-Dibromo-3-chloropropane	16.3
1,3,5-Trichlorobenzene	5.7
1,2,4-Trichlorobenzene	7.1
Hexachlorobutadiene	8.4
Naphthalene	11.8
1,2,3-Trichlorobenzene	6.4
Xylenes (total)	2.9

The average of all %RSD's in the initial calibration is 5.6

STL - North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-SEP-2000 10:44
End Cal Date : 28-SEP-2000 12:20
Quant Method : ISTD
Origin : Disabled
Target Version : 4.04
Integrator : HP RTE
Method file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Cal Date : 29-Sep-2000 09:57 quayler
Curve Type : Average

Calibration File Names:
Level 1: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3670.D
Level 2: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3671.D
Level 3: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3672.D
Level 4: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3673.D
Level 5: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3674.D

	Compound	5.000 Level 1	25.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
	8 Dichlorodifluoromethane	0.10920	0.11297	0.12095	0.10807	0.10735	0.11171	5.013	
	9 Chloromethane	0.13977	0.13549	0.14010	0.13516	0.13092	0.13629	2.779	
	10 Vinyl Chloride	0.14290	0.13952	0.14040	0.13589	0.13120	0.13798	3.295	
	11 Bromomethane	0.08236	0.08316	0.08296	0.08276	0.07680	0.08161	3.315	
	12 Chloroethane	0.07604	0.07786	0.07726	0.07604	0.08040	0.07752	2.316	
	13 Trichlorofluoromethane	0.15375	0.16273	0.17194	0.16485	0.17179	0.16501	4.557	
	14 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	15 Acrolein	0.02722	0.02944	0.03012	0.03185	0.03286	0.03030	7.239	
	16 Acetone	0.08808	0.05868	0.05513	0.05713	0.05741	0.06329	21.993	
	17 1,1-Dichloroethene	0.20594	0.19490	0.17899	0.18384	0.18575	0.18988	5.617	
	18 Freon-113	0.07130	0.08452	0.09099	0.09721	0.09395	0.08759	11.691	
	19 Iodomethane	0.28581	0.30782	0.31134	0.32112	0.30466	0.30615	4.227	
	20 Carbon Disulfide	0.51052	0.52774	0.48959	0.49321	0.48277	0.50077	3.640	
	21 Methylene Chloride	0.32920	0.24433	0.22260	0.21924	0.22032	0.24714	19.024	
	22 Acetonitrile	0.01991	0.02066	0.02122	0.02190	0.02126	0.02099	3.558	
	23 Acrylonitrile	0.07186	0.07367	0.07555	0.07999	0.08137	0.07649	5.320	
	24 Methyl tert-butyl ether	0.56874	0.56713	0.54653	0.58138	0.60507	0.57377	3.747	
	25 trans-1,2-Dichloroethene	0.27051	0.25165	0.24378	0.24703	0.25528	0.25365	4.097	
	26 Hexane	0.05610	0.06041	0.06102	0.06253	0.05923	0.05986	4.036	
	27 Vinyl acetate	0.19348	0.19938	0.21220	0.24031	0.25538	0.22015	12.132	
	28 1,1-Dichloroethane	0.39685	0.38815	0.37452	0.38179	0.39704	0.38767	2.514	
	29 tert-Butyl Alcohol	0.00946	0.01099	0.01211	0.01409	0.01415	0.01216	16.639	<-
	30 2-Butanone	0.07218	0.08089	0.08019	0.08635	0.08760	0.08144	7.513	
M	31 1,2-Dichloroethene (total)	0.27255	0.25789	0.24931	0.25403	0.26109	0.25897	3.387	
	32 cis-1,2-dichloroethene	0.27459	0.26414	0.25484	0.26104	0.26690	0.26430	2.760	
	33 2,2-Dichloropropane	0.20046	0.21562	0.20463	0.20664	0.21111	0.20769	2.822	

001767

STL - North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-SEP-2000 10:44
End Cal Date : 28-SEP-2000 12:20
Quant Method : ISTD
Origin : Disabled
Target Version : 4.04
Integrator : HP RTE
Method file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Cal Date : 29-Sep-2000 09:57 quayler
Curve Type : Average

	Compound	5.000 Level 1	25.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
	34 Bromochloromethane	0.13596	0.13224	0.12540	0.13186	0.13646	0.13239	3.346	
	35 Chloroform	0.39172	0.38812	0.36410	0.37431	0.38425	0.38050	2.953	
	36 Tetrahydrofuran	0.04822	0.05127	0.05134	0.05536	0.05642	0.05252	6.366	
	37 1,1,1-Trichloroethane	0.30940	0.31234	0.29577	0.30550	0.31076	0.30675	2.166	
	38 1,1-Dichloropropene	0.30736	0.30207	0.29113	0.30007	0.30449	0.30102	2.049	
	39 Carbon Tetrachloride	0.27014	0.27584	0.25625	0.27239	0.28391	0.27171	3.717	
	40 1,2-Dichloroethane	0.29008	0.28440	0.27315	0.28592	0.29421	0.28555	2.773	
	41 Benzene	1.06060	1.00349	0.95491	0.98646	1.00116	1.00132	3.833	
	42 Trichloroethene	0.30489	0.29273	0.28486	0.29303	0.29852	0.29481	2.527	
	43 1,2-Dichloropropane	0.24144	0.23637	0.22352	0.23051	0.23620	0.23361	2.928	
	44 1,4-Dioxane	0.00165	0.00174	0.00170	0.00188	0.00181	0.00176	5.024	<-
	45 Dibromomethane	0.12727	0.12987	0.12396	0.13044	0.13089	0.12849	2.252	
	46 Bromodichloromethane	0.27060	0.27262	0.26318	0.27521	0.28642	0.27361	3.087	
	47 2-Chloroethyl vinyl ether	0.11160	0.12337	0.13147	0.13884	0.14144	0.12934	9.402	
	48 cis-1,3-Dichloropropene	0.31760	0.34475	0.33456	0.35321	0.37113	0.34425	5.823	
	49 4-Methyl-2-pentanone	0.12362	0.16114	0.16892	0.18259	0.18715	0.16468	15.309	
	50 Toluene	1.48789	1.44847	1.34295	1.37411	1.40393	1.41147	4.094	
	51 trans-1,3-Dichloropropene	0.34564	0.35746	0.35483	0.37783	0.40390	0.36793	6.330	
	52 Ethyl Methacrylate	0.25953	0.31690	0.31667	0.35372	0.37957	0.32528	13.939	
	53 1,1,2-Trichloroethane	0.26590	0.26111	0.24967	0.25454	0.26243	0.25873	2.523	
	54 1,3-Dichloropropane	0.46580	0.44900	0.43180	0.44358	0.45417	0.44887	2.805	
	55 Tetrachloroethene	0.33474	0.32993	0.29734	0.30764	0.31665	0.31726	4.872	
	56 2-Hexanone	0.09372	0.12977	0.13961	0.15050	0.15556	0.13383	18.336	
	57 Dibromochloromethane	0.28352	0.27775	0.27449	0.28647	0.30329	0.28511	3.929	
	58 1,2-Dibromoethane	0.25769	0.25695	0.25131	0.26021	0.26924	0.25908	2.526	
	59 Chlorobenzene	0.93507	0.93166	0.87834	0.89338	0.91678	0.91105	2.698	
	60 1,1,1,2-Tetrachloroethane	0.29924	0.31340	0.29555	0.30100	0.31804	0.30545	3.182	
	61 Ethylbenzene	0.51287	0.51503	0.47929	0.49283	0.50537	0.50108	2.985	
	62 m + p-Xylene	0.58871	0.62506	0.58369	0.59226	0.60800	0.59955	2.821	
M	63 Xylenes (total)	0.57585	0.61601	0.57693	0.58515	0.59990	0.59077	2.891	
	64 Xylene-o	0.55011	0.59790	0.56340	0.57091	0.58370	0.57320	3.211	
	65 Styrene	0.87231	0.97119	0.92559	0.95853	0.98330	0.94219	4.733	
	66 Bromoform	0.14982	0.15770	0.16107	0.17944	0.18883	0.16737	9.669	

STL - North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-SEP-2000 10:44
End Cal Date : 28-SEP-2000 12:20
Quant Method : ISTD
Origin : Disabled
Target Version : 4.04
Integrator : HP RTE
Method file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Cal Date : 29-Sep-2000 09:57 quayler
Curve Type : Average

Compound	5.000 Level 1	25.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
67 Isopropylbenzene	1.38569	1.46664	1.38506	1.41237	1.40386	1.41072	2.368	
68 1,1,2,2-Tetrachloroethane	0.64840	0.63818	0.59235	0.64208	0.66410	0.63702	4.216	
69 1,4-Dichloro-2-butene	0.10921	0.12586	0.13886	0.16992	0.17798	0.14437	20.171	
70 1,2,3-Trichloropropane	0.20965	0.22289	0.20900	0.22760	0.23744	0.22131	5.486	
71 Bromobenzene	1.01112	0.97826	0.92140	0.97125	1.04094	0.98459	4.568	
72 n-Propylbenzene	1.06422	1.04766	0.97550	1.01865	1.07207	1.03562	3.800	
73 2-Chlorotoluene	0.97290	0.91221	0.82443	0.86121	0.91735	0.89762	6.340	
74 1,3,5-Trimethylbenzene	2.62461	2.66249	2.46800	2.52259	2.54538	2.56462	3.061	
75 4-Chlorotoluene	0.96520	0.89952	0.81599	0.86945	0.90661	0.89135	6.122	
76 tert-Butylbenzene	2.32467	2.39446	2.22137	2.27570	2.26852	2.29695	2.859	
77 1,2,4-Trimethylbenzene	2.47825	2.52730	2.33666	2.38589	2.36538	2.41869	3.333	
78 sec-Butylbenzene	2.93948	3.12155	2.84744	2.94419	2.87832	2.94619	3.606	
79 4-Isopropyltoluene	2.16605	2.35628	2.18152	2.27150	2.21310	2.23769	3.469	
80 1,3-Dichlorobenzene	1.44689	1.41905	1.32884	1.38933	1.39481	1.39578	3.139	
81 1,4-Dichlorobenzene	1.46253	1.43140	1.32472	1.36131	1.37922	1.39184	3.961	
82 n-Butylbenzene	1.61513	1.69760	1.57644	1.64887	1.70520	1.64865	3.313	
83 1,2-Dichlorobenzene	1.15974	1.18373	1.09151	1.12685	1.18529	1.14942	3.489	
84 1,2-Dibromo-3-chloropropane	0.07240	0.06886	0.07161	0.08329	0.10023	0.07928	16.323	
85 1,2,4-Trichlorobenzene	0.72057	0.69308	0.64573	0.71158	0.78466	0.71112	7.066	
86 Hexachlorobutadiene	0.33893	0.29964	0.27328	0.28361	0.30598	0.30029	8.381	
87 Naphthalene	1.22893	1.28842	1.27013	1.45200	1.61878	1.37165	11.819	
88 1,2,3-Trichlorobenzene	0.65610	0.57950	0.56712	0.62021	0.64637	0.61386	6.437	
89 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
92 Isopropyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
93 2-Chloro-1,3-butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
94 Propionitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
95 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
96 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
97 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
98 Cyclohexane	0.30858	0.31992	0.31766	0.33560	0.31222	0.31880	3.262	
99 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

0017
69

STL - North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-SEP-2000 10:44
End Cal Date : 28-SEP-2000 12:20
Quant Method : ISTD
Origin : Disabled
Target Version : 4.04
Integrator : HP RTE
Method file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Cal Date : 29-Sep-2000 09:57 quayler
Curve Type : Average

	Compound	5.000 Level 1	25.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
	100 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	101 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	103 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M	137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	141 1,3,5-Trichlorobenzene	0.83097	0.81792	0.79211	0.85366	0.91784	0.84250	5.654	
	143 Methyl Acetate	0.13888	0.15660	0.16018	0.16889	0.17026	0.15896	7.937	
	144 Methylcyclohexane	0.38907	0.40005	0.39537	0.41290	0.38452	0.39638	2.768	
	145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	4 Dibromofluoromethane	0.20583	0.20665	0.21437	0.21278	0.22038	0.21200	2.823	
$	5 1,2-Dichloroethane-d4	0.20800	0.22281	0.22993	0.23088	0.23243	0.22481	4.492	
$	6 Toluene-d8	1.14217	1.13653	1.16226	1.12761	1.14418	1.14255	1.116	
$	7 Bromofluorobenzene	0.34594	0.35579	0.36759	0.36099	0.35723	0.35751	2.214	

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00928A.b\UXX3670.D

Date : 28-SEP-2000 10:44

Client ID:

Sample Info: 5HG-IC

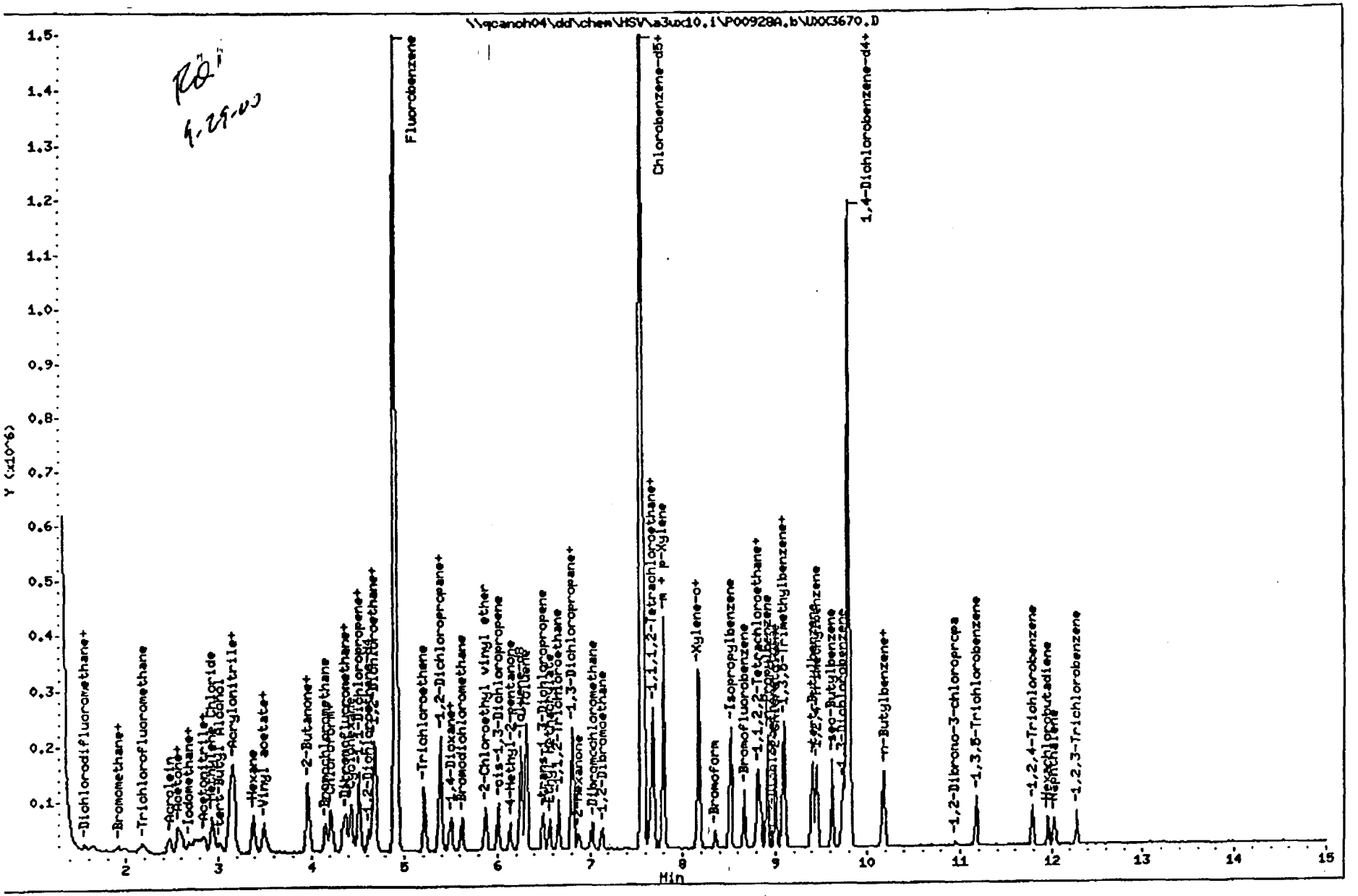
Purge Volume: 5.0

Column phase: DB624

Instrument: a3ux10.i

Operator: 1904

Column diameter: 0.18



RO 9-29-00

STL North Canton

0017
71

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3670.D
Lab Smp Id: 5NG-IC
Inj Date : 28-SEP-2000 10:44
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 5NG-IC
Misc Info : P00928A,8260LLUX10,2-8260.SUB,1904,1,1
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 10:43 quayler Quant Type: ISTD
Cal Date : 28-SEP-2000 10:44 Cal File: UXX3670.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1	Fluorobenzene	96	4.899	4.899	(1.000)	1696043	50.0000	
* 2	Chlorobenzene-d5	117	7.561	7.561	(1.000)	1259614	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	438789	50.0000	
$ 4	Dibromofluoromethane	113	4.343	4.343	(0.886)	34909	5.00000	4.854
$ 5	1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	35277	5.00000	4.626
$ 6	Toluene-d8	98	6.248	6.248	(0.826)	143869	5.00000	4.998
$ 7	Bromofluorobenzene	95	8.662	8.662	(1.146)	43575	5.00000	4.838
8	Dichlorodifluoromethane	85	1.408	1.408	(0.288)	18521	5.00000	4.888
9	Chloromethane	50	1.562	1.562	(0.319)	23706	5.00000	5.128
10	Vinyl Chloride	62	1.645	1.645	(0.336)	24236	5.00000	5.178
11	Bromomethane	94	1.917	1.917	(0.391)	13969	5.00000	5.046
12	Chloroethane	64	1.988	1.988	(0.406)	12896	5.00000	4.904
13	Trichlorofluoromethane	101	2.154	2.154	(0.440)	26076	5.00000	4.659
15	Acrolein	56	2.473	2.473	(0.505)	46167	50.0000	44.921
16	Acetone	43	2.591	2.591	(0.529)	29878	10.0000	13.918
17	1,1-Dichloroethene	96	2.556	2.556	(0.522)	34928	5.00000	5.423
18	Freon-113	151	2.603	2.603	(0.531)	12092	5.00000	4.070

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.686	2.686	(0.548)	48475	5.00000	4.668
	20 Carbon Disulfide	76	2.757	2.757	(0.563)	86586	5.00000	5.097
	21 Methylene Chloride	84	2.935	2.935	(0.599)	55834	5.00000	6.660
	22 Acetonitrile	41	2.816	2.816	(0.575)	33772	50.0000	47.429
	23 Acrylonitrile	53	3.124	3.124	(0.638)	121884	50.0000	46.978
	24 Methyl tert-butyl ether	73	3.159	3.159	(0.645)	96461	5.00000	4.956
	25 trans-1,2-Dichloroethene	96	3.159	3.159	(0.645)	45879	5.00000	5.332
	26 Hexane	86	3.372	3.372	(0.688)	9514	5.00000	4.686
	27 Vinyl acetate	43	3.514	3.514	(0.717)	32815	5.00000	4.394
	28 1,1-Dichloroethane	63	3.491	3.491	(0.713)	67308	5.00000	5.118
	29 tert-Butyl Alcohol	59	3.017	3.017	(0.616)	32074	100.000	77.748
	30 2-Butanone	43	3.964	3.964	(0.809)	24484	10.0000	8.862
M	31 1,2-Dichloroethene (total)	96				92450	10.0000	10.527
	32 cis-1,2-dichloroethene	96	3.964	3.964	(0.809)	46571	5.00000	5.194
	33 2,2-Dichloropropane	77	3.964	3.964	(0.809)	33999	5.00000	4.826
	34 Bromochloromethane	128	4.153	4.153	(0.848)	23060	5.00000	5.135
	35 Chloroform	83	4.212	4.212	(0.860)	66437	5.00000	5.147
	36 Tetrahydrofuran	42	4.201	4.201	(0.858)	8179	5.00000	4.591
	37 1,1,1-Trichloroethane	97	4.378	4.378	(0.894)	52476	5.00000	5.043
	38 1,1-Dichloropropene	75	4.508	4.508	(0.920)	52130	5.00000	5.105
	39 Carbon Tetrachloride	117	4.520	4.520	(0.923)	45817	5.00000	4.971
	40 1,2-Dichloroethane	62	4.686	4.686	(0.957)	49199	5.00000	5.079
	41 Benzene	78	4.674	4.674	(0.954)	179882	5.00000	5.296
	42 Trichloroethene	130	5.206	5.206	(1.063)	51711	5.00000	5.171
	43 1,2-Dichloropropane	63	5.396	5.396	(1.101)	40950	5.00000	5.168
	44 1,4-Dioxane	88	5.514	5.514	(1.126)	14031	250.000	235.37(A)
	45 Dibromomethane	93	5.502	5.502	(1.123)	21586	5.00000	4.953
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	45895	5.00000	4.945
	47 2-Chloroethyl vinyl ether	63	5.869	5.869	(1.198)	37855	10.0000	8.628
	48 cis-1,3-Dichloropropene	75	6.011	6.011	(1.227)	53866	5.00000	4.613
	49 4-Methyl-2-pentanone	43	6.141	6.141	(1.254)	41932	10.0000	7.506
	50 Toluene	91	6.307	6.307	(0.834)	187417	5.00000	5.271
	51 trans-1,3-Dichloropropene	75	6.496	6.496	(0.859)	43537	5.00000	4.697
	52 Ethyl Methacrylate	69	6.567	6.567	(0.869)	32691	5.00000	3.989
	53 1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	33493	5.00000	5.138
	54 1,3-Dichloropropane	76	6.816	6.816	(0.901)	58673	5.00000	5.189
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	42164	5.00000	5.275
	56 2-Hexanone	43	6.875	6.875	(0.909)	23610	10.0000	7.003
	57 Dibromochloromethane	129	7.029	7.029	(0.930)	35712	5.00000	4.972
	58 1,2-Dibromoethane	107	7.135	7.135	(0.944)	32459	5.00000	4.973
	59 Chlorobenzene	112	7.585	7.585	(1.003)	117783	5.00000	5.132
	60 1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	37693	5.00000	4.898
	61 Ethylbenzene	106	7.679	7.679	(1.016)	64602	5.00000	5.118
	62 m + p-Xylene	106	7.786	7.786	(1.030)	148310	10.0000	9.819
M	63 Xylenes (total)	106				217603	15.0000	14.618
	64 Xylene-o	106	8.165	8.165	(1.080)	69293	5.00000	4.798
	65 Styrene	104	8.176	8.176	(1.081)	109878	5.00000	4.629

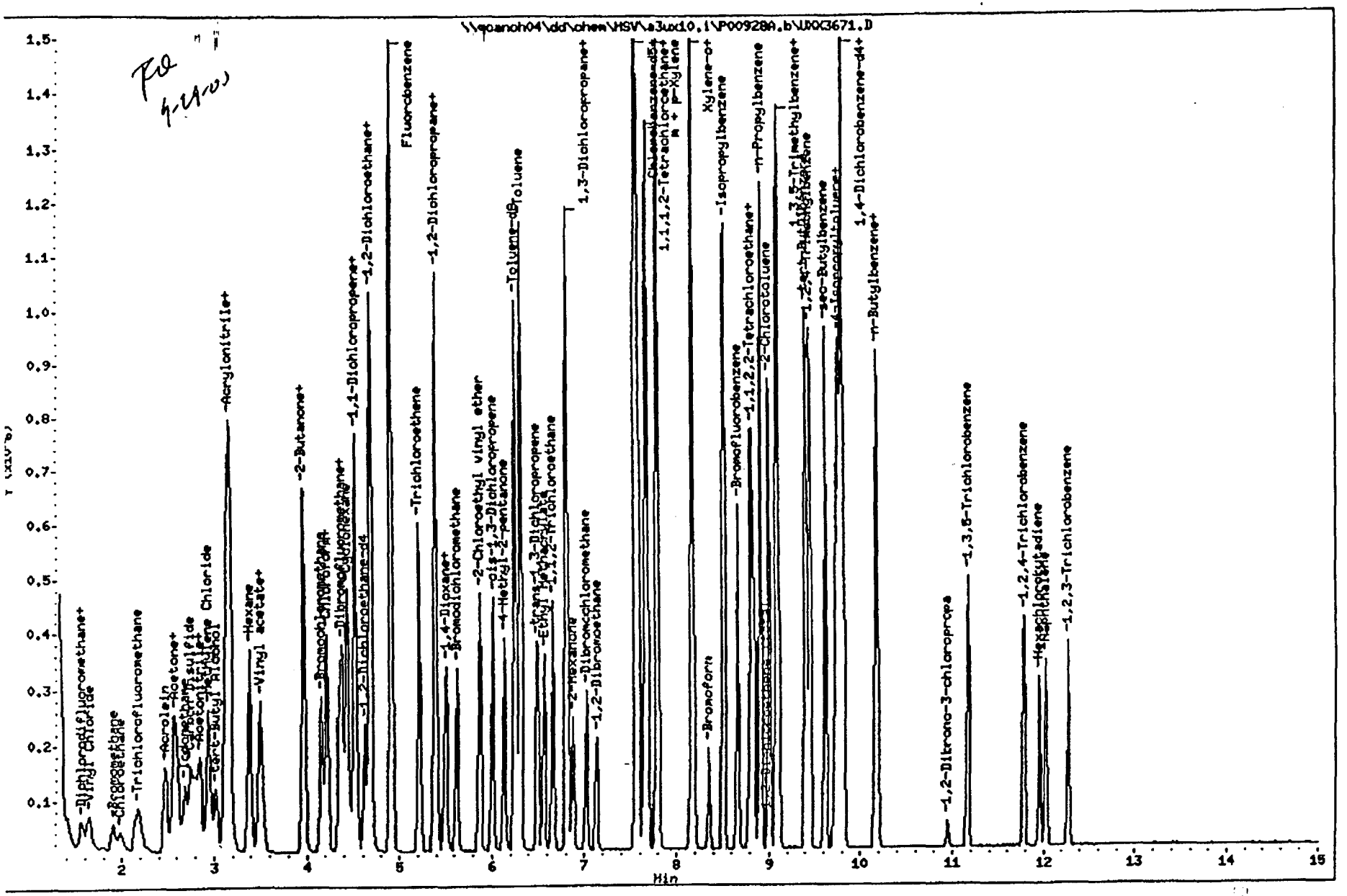
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
66	Bromoform	173	8.354	8.354	(1.105)	18871	5.00000	4.476
67	Isopropylbenzene	105	8.520	8.520	(1.127)	174543	5.00000	4.911
68	1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.897)	28451	5.00000	5.089
69	1,4-Dichloro-2-butene	53	8.851	8.851	(0.903)	4792	5.00000	3.782
70	1,2,3-Trichloropropane	110	8.839	8.839	(0.902)	9199	5.00000	4.736
71	Bromobenzene	156	8.815	8.815	(0.900)	44367	5.00000	5.135
72	n-Propylbenzene	120	8.910	8.910	(0.909)	46697	5.00000	5.138
73	2-Chlorotoluene	126	9.005	9.005	(0.919)	42690	5.00000	5.419
74	1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	115165	5.00000	5.117
75	4-Chlorotoluene	126	9.111	9.111	(0.930)	42352	5.00000	5.414
76	tert-Butylbenzene	119	9.407	9.407	(0.960)	102004	5.00000	5.060
77	1,2,4-Trimethylbenzene	105	9.454	9.454	(0.965)	108743	5.00000	5.123
78	sec-Butylbenzene	105	9.620	9.620	(0.982)	128981	5.00000	4.988
79	4-Isopropyltoluene	119	9.762	9.762	(0.996)	95044	5.00000	4.840
80	1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	63488	5.00000	5.183
81	1,4-Dichlorobenzene	146	9.821	9.821	(1.002)	64174	5.00000	5.254
82	n-Butylbenzene	91	10.164	10.164	(1.037)	70870	5.00000	4.898
83	1,2-Dichlorobenzene	146	10.188	10.188	(1.040)	50888	5.00000	5.045
84	1,2-Dibromo-3-chloropropane	157	10.945	10.945	(1.117)	3177	5.00000	4.566
85	1,2,4-Trichlorobenzene	180	11.785	11.785	(1.203)	31618	5.00000	5.066
86	Hexachlorobutadiene	225	11.963	11.963	(1.221)	14872	5.00000	5.643
87	Naphthalene	128	12.022	12.022	(1.227)	53924	5.00000	4.480
88	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	28789	5.00000	5.344
98	Cyclohexane	56	4.425	4.425	(0.903)	52337	5.00000	4.840
143	Methyl Acetate	43	2.852	2.852	(0.582)	47108	10.0000	8.736
144	Methylcyclohexane	83	5.384	5.384	(1.099)	65988	5.00000	4.908
141	1,3,5-Trichlorobenzene	180	11.170	11.170	(1.140)	36462	5.00000	4.932

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00928A.b\UOX3671.D
Date : 28-SEP-2000 11:07
Client ID:
Sample Info: 25NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux10.i
Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3671.D
Lab Smp Id: 25NG-IC
Inj Date : 28-SEP-2000 11:07
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 25NG-IC
Misc Info : P00928A,8260LLUX10,2-8260.SUB,1904,1,2
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 10:43 quayler Quant Type: ISTD
Cal Date : 28-SEP-2000 10:44 Cal File: UXX3670.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 Fluorobenzene	96	4.899	4.899	(1.000)	1725199	50.0000	
*	2 Chlorobenzene-d5	117	7.561	7.561	(1.000)	1319796	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	9.786	9.786	(1.000)	516311	50.0000	
$	4 Dibromofluoromethane	113	4.343	4.343	(0.886)	178257	25.0000	24.369
$	5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	192197	25.0000	24.778
$	6 Toluene-d8	98	6.248	6.248	(0.826)	749995	25.0000	24.868
$	7 Bromofluorobenzene	95	8.662	8.662	(1.146)	234788	25.0000	24.880
	8 Dichlorodifluoromethane	85	1.408	1.408	(0.288)	97451	25.0000	25.283
	9 Chloromethane	50	1.562	1.562	(0.319)	116877	25.0000	24.854
	10 Vinyl Chloride	62	1.645	1.645	(0.336)	120351	25.0000	25.279
	11 Bromomethane	94	1.905	1.905	(0.389)	71737	25.0000	25.476
	12 Chloroethane	64	1.988	1.988	(0.406)	67162	25.0000	25.110
	13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	140368	25.0000	24.654
	15 Acrolein	56	2.462	2.462	(0.503)	253934	250.000	242.91
	16 Acetone	43	2.592	2.592	(0.529)	101230	50.0000	46.358
	17 1,1-Dichloroethene	96	2.556	2.556	(0.522)	168118	25.0000	25.660
	18 Freon-113	151	2.604	2.604	(0.531)	72907	25.0000	24.123

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
19	Iodomethane	142	2.686	2.686	(0.548)	265525	25.0000	25.136
20	Carbon Disulfide	76	2.746	2.746	(0.560)	455232	25.0000	26.347
21	Methylene Chloride	84	2.935	2.935	(0.599)	210756	25.0000	24.716
22	Acetonitrile	41	2.805	2.805	(0.573)	178229	250.000	246.07
23	Acrylonitrile	53	3.124	3.124	(0.638)	635477	250.000	240.79
24	Methyl tert-butyl ether	73	3.160	3.160	(0.645)	489209	25.0000	24.711
25	trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	217076	25.0000	24.803
26	Hexane	86	3.385	3.385	(0.691)	52106	25.0000	25.229
27	Vinyl acetate	43	3.515	3.515	(0.717)	171989	25.0000	22.642
28	1,1-Dichloroethane	63	3.491	3.491	(0.713)	334820	25.0000	25.031
29	tert-Butyl Alcohol	59	3.018	3.018	(0.616)	189675	500.000	452.01
30	2-Butanone	43	3.964	3.964	(0.809)	139558	50.0000	49.662
M 31	1,2-Dichloroethane (total)	96				444919	50.0000	49.788
32	cis-1,2-dichloroethene	96	3.952	3.952	(0.807)	227843	25.0000	24.984
33	2,2-Dichloropropane	77	3.964	3.964	(0.809)	185997	25.0000	25.955
34	Bromochloromethane	128	4.154	4.154	(0.848)	114073	25.0000	24.973
35	Chloroform	83	4.213	4.213	(0.860)	334788	25.0000	25.500
36	Tetrahydrofuran	42	4.201	4.201	(0.858)	44227	25.0000	24.404
37	1,1,1-Trichloroethane	97	4.378	4.378	(0.894)	269422	25.0000	25.455
38	1,1-Dichloropropene	75	4.509	4.509	(0.920)	260565	25.0000	25.087
39	Carbon Tetrachloride	117	4.520	4.520	(0.923)	237942	25.0000	25.380
40	1,2-Dichloroethane	62	4.686	4.686	(0.957)	245321	25.0000	24.899
41	Benzene	78	4.674	4.674	(0.954)	865608	25.0000	25.054
42	Trichloroethene	130	5.207	5.207	(1.063)	252507	25.0000	24.824
43	1,2-Dichloropropane	63	5.396	5.396	(1.101)	203896	25.0000	25.296
44	1,4-Dioxane	88	5.503	5.503	(1.123)	75218	1250.00	1240.5(A)
45	Dibromomethane	93	5.491	5.491	(1.121)	112022	25.0000	25.268
46	Bromodichloromethane	83	5.621	5.621	(1.147)	235164	25.0000	24.910
47	2-Chloroethyl vinyl ether	63	5.869	5.869	(1.198)	212838	50.0000	47.691
48	cis-1,3-Dichloropropene	75	6.011	6.011	(1.227)	297382	25.0000	25.036
49	4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	277996	50.0000	48.923
50	Toluene	91	6.307	6.307	(0.834)	955844	25.0000	25.655
51	trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	235888	25.0000	24.289
52	Ethyl Methacrylate	69	6.568	6.568	(0.869)	209121	25.0000	24.356
53	1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	172309	25.0000	25.230
54	1,3-Dichloropropane	76	6.816	6.816	(0.901)	296296	25.0000	25.007
55	Tetrachloroethene	164	6.804	6.804	(0.900)	217721	25.0000	25.998
56	2-Hexanone	43	6.875	6.875	(0.909)	171272	50.0000	48.483
57	Dibromochloromethane	129	7.017	7.017	(0.928)	183289	25.0000	24.355
58	1,2-Dibromoethane	107	7.136	7.136	(0.944)	169563	25.0000	24.795
59	Chlorobenzene	112	7.585	7.585	(1.003)	614801	25.0000	25.566
60	1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	206812	25.0000	25.651
61	Ethylbenzene	106	7.680	7.680	(1.016)	339865	25.0000	25.696
62	m + p-Xylene	106	7.786	7.786	(1.030)	824956	50.0000	52.128
M 63	Xylenes (total)	106				1219512	75.0000	78.205
64	Xylene-o	106	8.165	8.165	(1.080)	394556	25.0000	26.077
65	Styrene	104	8.177	8.177	(1.081)	640887	25.0000	25.770

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66	Bromoform	173	8.354	8.354	(1.105)	104068	25.0000	23.556
67	Isopropylbenzene	105	8.520	8.520	(1.127)	967835	25.0000	25.991
68	1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.898)	164749	25.0000	25.045
69	1,4-Dichloro-2-butene	53	8.851	8.851	(0.904)	32491	25.0000	21.795
70	1,2,3-Trichloropropane	110	8.839	8.839	(0.903)	57539	25.0000	25.177
71	Bromobenzene	156	8.816	8.816	(0.901)	252544	25.0000	24.839
72	n-Propylbenzene	120	8.910	8.910	(0.911)	270459	25.0000	25.291
73	2-Chlorotoluene	126	9.005	9.005	(0.920)	235491	25.0000	25.406
74	1,3,5-Trimethylbenzene	105	9.076	9.076	(0.927)	687337	25.0000	25.954
75	4-Chlorotoluene	126	9.100	9.100	(0.930)	232215	25.0000	25.229
76	tert-Butylbenzene	119	9.396	9.396	(0.960)	618144	25.0000	26.061
77	1,2,4-Trimethylbenzene	105	9.443	9.443	(0.965)	652436	25.0000	26.122
78	sec-Butylbenzene	105	9.620	9.620	(0.983)	805845	25.0000	26.488
79	4-Isopropyltoluene	119	9.762	9.762	(0.998)	608286	25.0000	26.325
80	1,3-Dichlorobenzene	146	9.727	9.727	(0.994)	366335	25.0000	25.417
81	1,4-Dichlorobenzene	146	9.810	9.810	(1.002)	369524	25.0000	25.711
82	n-Butylbenzene	91	10.165	10.165	(1.039)	438244	25.0000	25.742
83	1,2-Dichlorobenzene	146	10.188	10.188	(1.041)	305587	25.0000	25.746
84	1,2-Dibromo-3-chloropropane	157	10.958	10.958	(1.120)	17777	25.0000	21.715
85	1,2,4-Trichlorobenzene	180	11.786	11.786	(1.204)	178923	25.0000	24.366
86	Hexachlorobutadiene	225	11.963	11.963	(1.222)	77353	25.0000	24.946
87	Naphthalene	128	12.022	12.022	(1.229)	332612	25.0000	23.483
88	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.254)	149601	25.0000	23.601
98	Cyclohexane	56	4.426	4.426	(0.903)	275967	25.0000	25.088
143	Methyl Acetate	43	2.852	2.852	(0.582)	270173	50.0000	49.258
144	Methylcyclohexane	83	5.384	5.384	(1.099)	345083	25.0000	25.231
141	1,3,5-Trichlorobenzene	180	11.170	11.170	(1.141)	211151	25.0000	24.271

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ucd10.i\P00928A.b\U0X3672.D

Page 5

Date : 28-SEP-2000 11:29

Client ID:

Instrument: a3ucd10.i

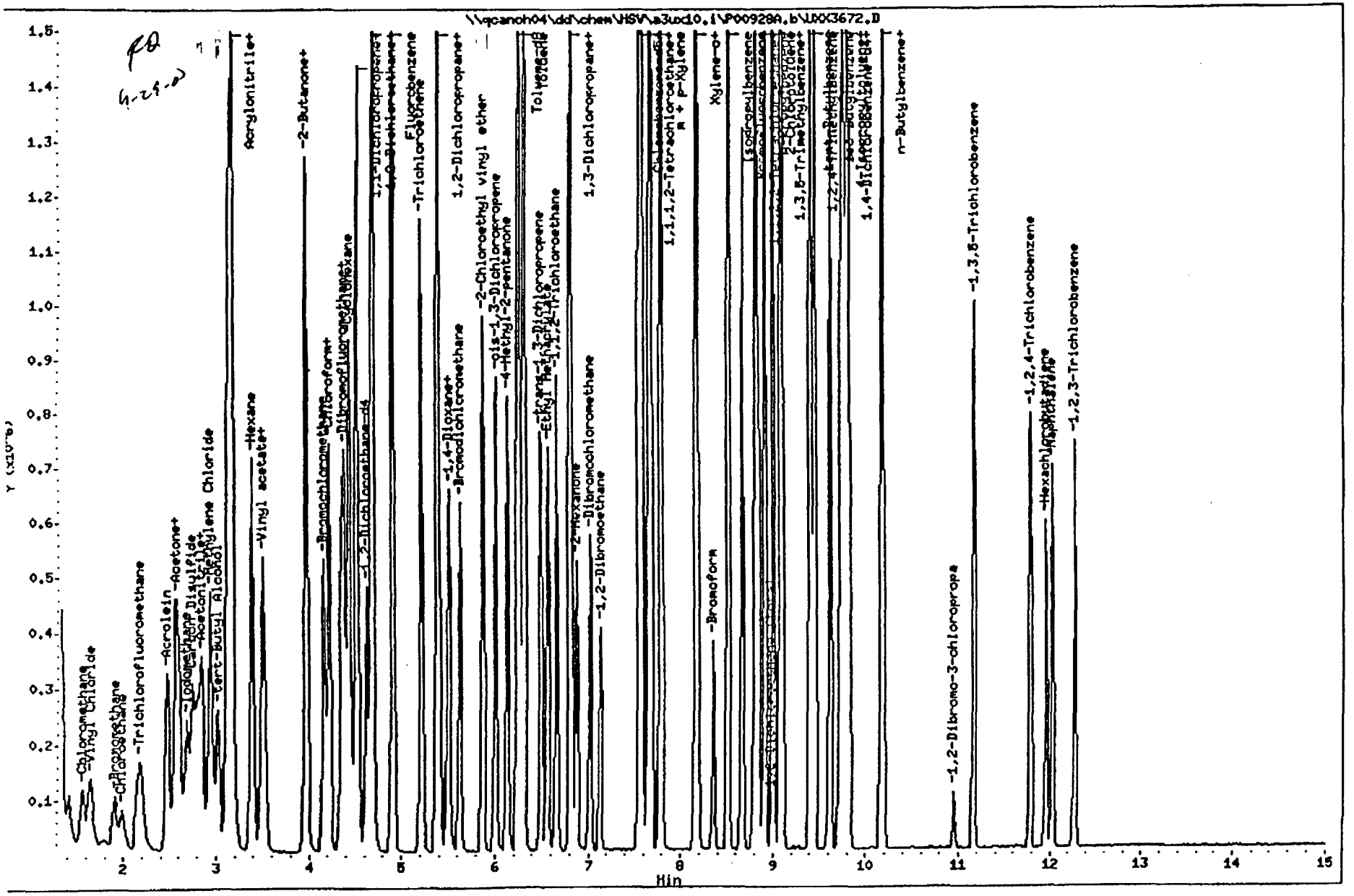
Sample Info: 50NG-IC

Operator: 1904

Purge Volume: 5.0

Column phase: DB624

Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3672.D
Lab Smp Id: 50NG-IC
Inj Date : 28-SEP-2000 11:29
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 50NG-IC
Misc Info : P00928A,8260LLUX10,2-8260.SUB,1904,1,3
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 10:45 quayler Quant Type: ISTD
Cal Date : 28-SEP-2000 12:20 Cal File: UXX3674.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 Fluorobenzene	96	4.899	4.899	(1.000)	1703912	50.0000	
*	2 Chlorobenzene-d5	117	7.561	7.561	(1.000)	1328558	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	9.786	9.786	(1.000)	537955	50.0000	
$	4 Dibromofluoromethane	113	4.343	4.343	(0.886)	365276	50.0000	50.559
$	5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	391775	50.0000	51.138
$	6 Toluene-d8	98	6.248	6.248	(0.826)	1544125	50.0000	50.862
$	7 Bromofluorobenzene	95	8.662	8.662	(1.146)	488367	50.0000	51.410
	8 Dichlorodifluoromethane	85	1.420	1.420	(0.290)	206081	50.0000	54.135
	9 Chloromethane	50	1.562	1.562	(0.319)	238712	50.0000	51.397
	10 Vinyl Chloride	62	1.645	1.645	(0.336)	239226	50.0000	50.875
	11 Bromomethane	94	1.905	1.905	(0.389)	141361	50.0000	50.830
	12 Chloroethane	64	1.988	1.988	(0.406)	131647	50.0000	49.834
	13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	292973	50.0000	52.100
	15 Acrolein	56	2.461	2.461	(0.502)	513139	500.000	496.99
	16 Acetone	43	2.580	2.580	(0.527)	187884	100.000	87.116
	17 1,1-Dichloroethene	96	2.556	2.556	(0.522)	304987	50.0000	47.132
	18 Freon-113	151	2.603	2.603	(0.531)	155047	50.0000	51.941

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	19 Iodomethane	142	2.686	2.686	(0.548)	530489	50.0000	50.847
	20 Carbon Disulfide	76	2.745	2.745	(0.560)	834223	50.0000	48.884
	21 Methylene Chloride	84	2.935	2.935	(0.599)	379293	50.0000	45.036
	22 Acetonitrile	41	2.805	2.805	(0.573)	361566	500.000	505.44
	23 Acrylonitrile	53	3.112	3.112	(0.635)	1287326	500.000	493.88
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	931240	50.0000	47.626
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	415378	50.0000	48.055
	26 Hexane	86	3.384	3.384	(0.691)	103976	50.0000	50.973
	27 Vinyl acetate	43	3.515	3.515	(0.717)	361573	50.0000	48.194
	28 1,1-Dichloroethane	63	3.491	3.491	(0.713)	638152	50.0000	48.304
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	412811	1000.00	996.04
	30 2-Butanone	43	3.952	3.952	(0.807)	273264	100.000	98.457
M	31 1,2-Dichloroethene (total)	96				849598	100.000	96.264
	32 cis-1,2-dichloroethene	96	3.952	3.952	(0.807)	434220	50.0000	48.210
	33 2,2-Dichloropropane	77	3.964	3.964	(0.809)	348668	50.0000	49.262
	34 Bromochloromethane	128	4.154	4.154	(0.848)	213673	50.0000	47.362
	35 Chloroform	83	4.213	4.213	(0.860)	620395	50.0000	47.845
	36 Tetrahydrofuran	42	4.201	4.201	(0.858)	87474	50.0000	48.871
	37 1,1,1-Trichloroethane	97	4.378	4.378	(0.894)	503964	50.0000	48.209
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	496053	50.0000	48.356
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	436629	50.0000	47.155
	40 1,2-Dichloroethane	62	4.686	4.686	(0.957)	465424	50.0000	47.828
	41 Benzene	78	4.674	4.674	(0.954)	1627084	50.0000	47.682
	42 Trichloroethene	130	5.207	5.207	(1.063)	485370	50.0000	48.312
	43 1,2-Dichloropropane	63	5.396	5.396	(1.101)	380857	50.0000	47.840
	44 1,4-Dioxane	88	5.502	5.502	(1.123)	144879	2500.00	2419.1(A)
	45 Dibromomethane	93	5.491	5.491	(1.121)	211212	50.0000	48.238
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	448435	50.0000	48.095
	47 2-Chloroethyl vinyl ether	63	5.869	5.869	(1.198)	448027	100.000	101.64
	48 cis-1,3-Dichloropropene	75	6.011	6.011	(1.227)	570055	50.0000	48.592
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	575648	100.000	102.57
	50 Toluene	91	6.307	6.307	(0.834)	1784181	50.0000	47.572
	51 trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	471410	50.0000	48.219
	52 Ethyl Methacrylate	69	6.567	6.567	(0.869)	420717	50.0000	48.677
	53 1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	331703	50.0000	48.250
	54 1,3-Dichloropropane	76	6.804	6.804	(0.900)	573668	50.0000	48.098
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	395035	50.0000	46.861
	56 2-Hexanone	43	6.875	6.875	(0.909)	370957	100.000	104.32
	57 Dibromochloromethane	129	7.017	7.017	(0.928)	364681	50.0000	48.139
	58 1,2-Dibromoethane	107	7.135	7.135	(0.944)	333874	50.0000	48.500
	59 Chlorobenzene	112	7.585	7.585	(1.003)	1166930	50.0000	48.205
	60 1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	392654	50.0000	48.380
	61 Ethylbenzene	106	7.680	7.680	(1.016)	636771	50.0000	47.826
	62 m + p-Xylene	106	7.786	7.786	(1.030)	1550938	100.000	97.356
M	63 Xylenes (total)	106				2299441	150.000	146.50
	64 Xylene-o	106	8.165	8.165	(1.080)	748503	50.0000	49.144
	65 Styrene	104	8.177	8.177	(1.081)	1229706	50.0000	49.120

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.354	8.354	(1.105)	213986	50.0000	48.116
67 Isopropylbenzene	105	8.520	8.520	(1.127)	1840131	50.0000	49.890
68 1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.898)	318655	50.0000	46.493
69 1,4-Dichloro-2-butene	53	8.851	8.851	(0.904)	74701	50.0000	48.093
70 1,2,3-Trichloropropane	110	8.839	8.839	(0.903)	112435	50.0000	47.219
71 Bromobenzene	156	8.816	8.816	(0.901)	495670	50.0000	46.791
72 n-Propylbenzene	120	8.910	8.910	(0.911)	524774	50.0000	47.097
73 2-Chlorotoluene	126	9.005	9.005	(0.920)	443505	50.0000	45.923
74 1,3,5-Trimethylbenzene	105	9.076	9.076	(0.927)	1327675	50.0000	48.116
75 4-Chlorotoluene	126	9.100	9.100	(0.930)	438967	50.0000	45.773
76 tert-Butylbenzene	119	9.395	9.395	(0.960)	1194996	50.0000	48.355
77 1,2,4-Trimethylbenzene	105	9.443	9.443	(0.965)	1257016	50.0000	48.304
78 sec-Butylbenzene	105	9.620	9.620	(0.983)	1531792	50.0000	48.324
79 4-Isopropyltoluene	119	9.762	9.762	(0.998)	1173559	50.0000	48.745
80 1,3-Dichlorobenzene	146	9.727	9.727	(0.994)	714857	50.0000	47.602
81 1,4-Dichlorobenzene	146	9.810	9.810	(1.002)	712640	50.0000	47.589
82 n-Butylbenzene	91	10.165	10.165	(1.039)	848055	50.0000	47.810
83 1,2-Dichlorobenzene	146	10.188	10.188	(1.041)	587182	50.0000	47.481
84 1,2-Dibromo-3-chloropropane	157	10.946	10.946	(1.118)	38521	50.0000	45.161
85 1,2,4-Trichlorobenzene	180	11.786	11.786	(1.204)	347371	50.0000	45.402
86 Hexachlorobutadiene	225	11.951	11.951	(1.221)	147014	50.0000	45.504
87 Naphthalene	128	12.022	12.022	(1.229)	683274	50.0000	46.299
88 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.254)	305087	50.0000	46.193
98 Cyclohexane	56	4.426	4.426	(0.903)	541270	50.0000	49.822
143 Methyl Acetate	43	2.840	2.840	(0.580)	545859	100.000	100.76
144 Methylcyclohexane	83	5.384	5.384	(1.099)	673674	50.0000	49.872
141 1,3,5-Trichlorobenzene	180	11.170	11.170	(1.141)	426122	50.0000	47.010

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3ucd10.i\P00928A.b\U0C3673.D

Page 5

Date : 28-SEP-2000 11:57

Client ID:

Instrument: a3ucd10.i

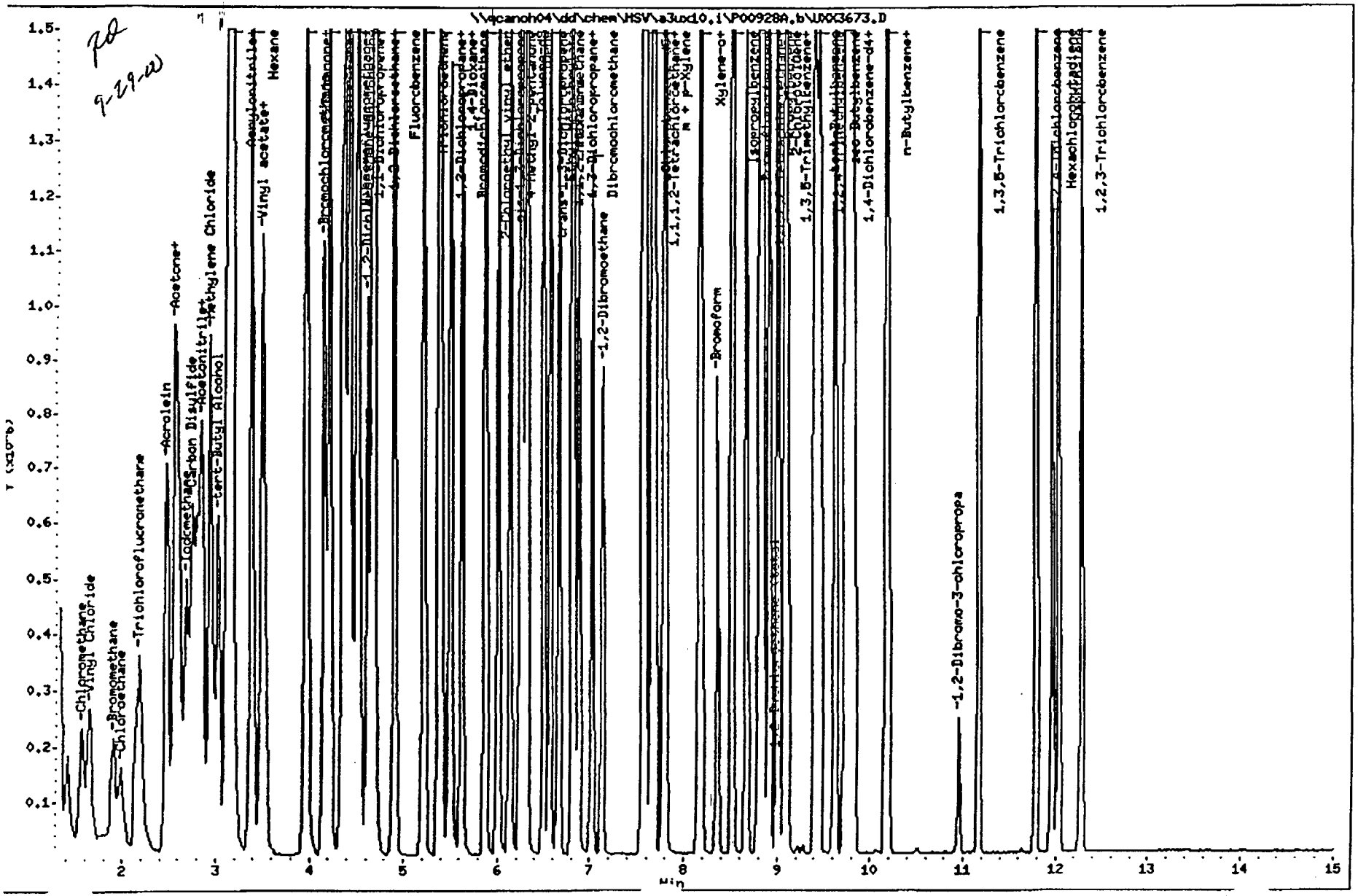
Sample Info: 100NG-IC

Operator: 1904

Purge Volume: 5.0

Column phase: DB624

Column diameter: 0.18



0017
83

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3673.D
Lab Smp Id: 100NG-IC
Inj Date : 28-SEP-2000 11:57
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 100NG-IC
Misc Info : P00928A,8260LLUX10,2-8260.SUB,1904,1,4
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 10:44 quayler Quant Type: ISTD
Cal Date : 28-SEP-2000 10:44 Cal File: UXX3670.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 Fluorobenzene	96	4.899	4.899	(1.000)	1758547	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1392576	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	549665	50.0000	
$ 4 Dibromofluoromethane	113	4.343	4.343	(0.886)	748369	100.000	100.37
$ 5 1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	812031	100.000	102.70
$ 6 Toluene-d8	98	6.248	6.248	(0.826)	3140556	100.000	98.692
$ 7 Bromofluorobenzene	95	8.662	8.662	(1.146)	1005407	100.000	100.97
8 Dichlorodifluoromethane	85	1.409	1.409	(0.288)	380092	100.000	96.743
9 Chloromethane	50	1.562	1.562	(0.319)	475356	100.000	99.169
10 Vinyl Chloride	62	1.645	1.645	(0.336)	477945	100.000	98.485
11 Bromomethane	94	1.894	1.894	(0.387)	291061	100.000	101.41
12 Chloroethane	64	1.988	1.988	(0.406)	267432	100.000	98.089
13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	579783	100.000	99.901
15 Acrolein	56	2.462	2.462	(0.503)	1120267	1000.00	1051.3
16 Acetone	43	2.580	2.580	(0.527)	401850	200.000	180.54
17 1,1-Dichloroethene	96	2.556	2.556	(0.522)	646588	100.000	96.818
18 Freon-113	151	2.604	2.604	(0.531)	341892	100.000	110.98

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.687	2.687	(0.548)	1129423	100.000	104.89
	20 Carbon Disulfide	76	2.746	2.746	(0.560)	1734655	100.000	98.490
	21 Methylene Chloride	84	2.935	2.935	(0.599)	771082	100.000	88.711
	22 Acetonitrile	41	2.805	2.805	(0.573)	770416	1000.00	1043.5
	23 Acrylonitrile	53	3.113	3.113	(0.635)	2813205	1000.00	1045.7
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	2044757	100.000	101.32
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	868813	100.000	97.389
	26 Hexane	86	3.373	3.373	(0.688)	219927	100.000	104.47
	27 Vinyl acetate	43	3.515	3.515	(0.717)	845180	100.000	109.16
	28 1,1-Dichloroethane	63	3.491	3.491	(0.713)	1342796	100.000	98.483
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	991274	2000.00	2317.5(A)
	30 2-Butanone	43	3.953	3.953	(0.807)	607423	200.000	212.06(A)
M	31 1,2-Dichloroethene (total)	96				1786903	200.000	196.15
	32 cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	918090	100.000	98.765
	33 2,2-Dichloropropane	77	3.965	3.965	(0.809)	726755	100.000	99.492
	34 Bromochloromethane	128	4.154	4.154	(0.848)	463756	100.000	99.601
	35 Chloroform	83	4.213	4.213	(0.860)	1316484	100.000	98.374
	36 Tetrahydrofuran	42	4.201	4.201	(0.858)	194709	100.000	105.40
	37 1,1,1-Trichloroethane	97	4.367	4.367	(0.891)	1074475	100.000	99.591
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	1055380	100.000	99.684
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	958038	100.000	100.25
	40 1,2-Dichloroethane	62	4.675	4.675	(0.954)	1005593	100.000	100.13
	41 Benzene	78	4.675	4.675	(0.954)	3469457	100.000	98.515
	42 Trichloroethene	130	5.207	5.207	(1.063)	1030612	100.000	99.398
	43 1,2-Dichloropropane	63	5.396	5.396	(1.101)	810723	100.000	98.673
	44 1,4-Dioxane	88	5.503	5.503	(1.123)	330131	5000.00	5341.2(A)
	45 Dibromomethane	93	5.491	5.491	(1.121)	458775	100.000	101.52
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	967935	100.000	100.58
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	976620	200.000	214.68(A)
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	1242283	100.000	102.60
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	1284386	200.000	221.75(A)
	50 Toluene	91	6.307	6.307	(0.834)	3827112	100.000	97.353
	51 trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	1052312	100.000	102.69
	52 Ethyl Methacrylate	69	6.568	6.568	(0.869)	985168	100.000	108.74
	53 1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	708921	100.000	98.379
	54 1,3-Dichloropropane	76	6.804	6.804	(0.900)	1235432	100.000	98.821
	55 Tetrachloroethene	164	6.804	6.804	(0.900)	856837	100.000	96.969
	56 2-Hexanone	43	6.875	6.875	(0.909)	838313	200.000	224.91(A)
	57 Dibromochloromethane	129	7.017	7.017	(0.928)	797859	100.000	100.48
	58 1,2-Dibromoethane	107	7.136	7.136	(0.944)	724726	100.000	100.44
	59 Chlorobenzene	112	7.585	7.585	(1.003)	2488207	100.000	98.061
	60 1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	838330	100.000	98.544
	61 Ethylbenzene	106	7.680	7.680	(1.016)	1372599	100.000	98.353
	62 m + p-Xylene	106	7.787	7.787	(1.030)	3299095	200.000	197.57
M	63 Xylenes (total)	106				4889156	300.000	297.17
	64 Xylene-o	106	8.165	8.165	(1.080)	1590061	100.000	99.599
	65 Styrene	104	8.177	8.177	(1.081)	2669639	100.000	101.73

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
66	Bromoform	173	8.355	8.355	(1.105)	499775	100.000	107.21
67	Isopropylbenzene	105	8.520	8.520	(1.127)	3933669	100.000	100.12
68	1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.897)	705859	100.000	100.79
69	1,4-Dichloro-2-butene	53	8.851	8.851	(0.903)	186795	100.000	117.70
70	1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	250211	100.000	102.84
71	Bromobenzene	156	8.816	8.816	(0.900)	1067722	100.000	98.644
72	n-Propylbenzene	120	8.911	8.911	(0.909)	1119834	100.000	98.362
73	2-Chlorotoluene	126	9.005	9.005	(0.919)	946753	100.000	95.944
74	1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	2773155	100.000	98.361
75	4-Chlorotoluene	126	9.100	9.100	(0.929)	955807	100.000	97.542
76	tert-Butylbenzene	119	9.408	9.408	(0.960)	2501749	100.000	99.075
77	1,2,4-Trimethylbenzene	105	9.443	9.443	(0.964)	2622877	100.000	98.644
78	sec-Butylbenzene	105	9.621	9.621	(0.982)	3236638	100.000	99.932
79	4-Isopropyltoluene	119	9.763	9.763	(0.996)	2497123	100.000	101.51
80	1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	1527332	100.000	99.538
81	1,4-Dichlorobenzene	146	9.822	9.822	(1.002)	1496530	100.000	97.807
82	n-Butylbenzene	91	10.165	10.165	(1.037)	1812647	100.000	100.01
83	1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	1238777	100.000	98.036
84	1,2-Dibromo-3-chloropropane	157	10.946	10.946	(1.117)	91566	100.000	105.06
85	1,2,4-Trichlorobenzene	180	11.786	11.786	(1.203)	782263	100.000	100.06
86	Hexachlorobutadiene	225	11.952	11.952	(1.220)	311776	100.000	94.445
87	Naphthalene	128	12.023	12.023	(1.227)	1596229	100.000	105.86
88	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	681815	100.000	101.03
98	Cyclohexane	56	4.426	4.426	(0.903)	1180343	100.000	105.27
143	Methyl Acetate	43	2.840	2.840	(0.580)	1188023	200.000	212.49
144	Methylcyclohexane	83	5.384	5.384	(1.099)	1452213	100.000	104.17
141	1,3,5-Trichlorobenzene	180	11.171	11.171	(1.140)	938458	100.000	101.32

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\qcanoh04\dd\chem\HSV\a3uxd10.i\P000928A.b\UXX3674.D

Page 5

Date : 28-SEP-2000 12:20

Client ID:

Instrument: a3uxd10.i

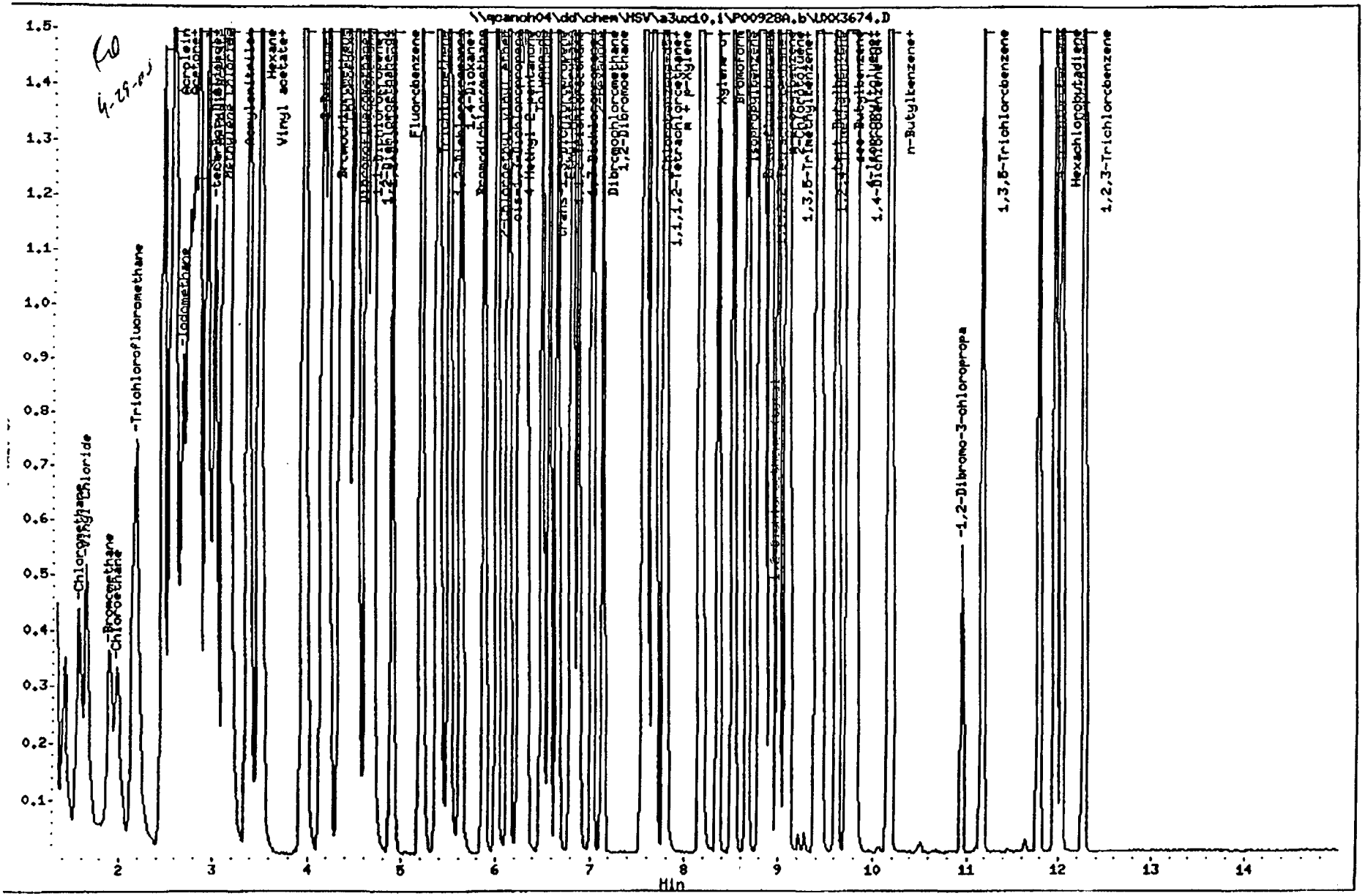
Sample Info: 200NC-IC

Operator: 1904

Purge Volume: 5.0

Column diameter: 0.18

Column phase: DB624



001787

STL North Canton

Report Date: 29-Sep-2000 10:45

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\UXX3674.D
Lab Smp Id: 200NG-IC
Inj Date : 28-SEP-2000 12:20
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 200NG-IC
Misc Info : P00928A,8260LLUX10,2-8260.SUB,1904,1,5
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 10:45 quayler Quant Type: ISTD
Cal Date : 28-SEP-2000 12:20 Cal File: UXX3674.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 Fluorobenzene	96	4.901	4.901	(1.000)	1764218	50.0000	
* 2 Chlorobenzene-d5	117	7.552	7.552	(1.000)	1386433	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.788	9.788	(1.000)	505304	50.0000	
$ 4 Dibromofluoromethane	113	4.333	4.333	(0.884)	1555221	200.000	207.91(A)
$ 5 1,2-Dichloroethane-d4	65	4.617	4.617	(0.942)	1640233	200.000	206.78(A)
$ 6 Toluene-d8	98	6.250	6.250	(0.828)	6345320	200.000	200.28(A)
$ 7 Bromofluorobenzene	95	8.664	8.664	(1.147)	1981101	200.000	199.84
8 Dichlorodifluoromethane	85	1.410	1.410	(0.288)	757547	200.000	192.20
9 Chloromethane	50	1.552	1.552	(0.317)	923889	200.000	192.12
10 Vinyl Chloride	62	1.635	1.635	(0.334)	925888	200.000	190.17
11 Bromomethane	94	1.884	1.884	(0.384)	541957	200.000	188.21
12 Chloroethane	64	1.978	1.978	(0.404)	567387	200.000	207.44(A)
13 Trichlorofluoromethane	101	2.144	2.144	(0.438)	1212324	200.000	208.22(A)
15 Acrolein	56	2.463	2.463	(0.503)	2319115	2000.00	2169.3(A)
16 Acetone	43	2.582	2.582	(0.527)	810337	400.000	362.88(A)
17 1,1-Dichloroethene	96	2.558	2.558	(0.522)	1310810	200.000	195.64
18 Freon-113	151	2.594	2.594	(0.529)	662988	200.000	214.51(A)

001788

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	19 Iodomethane	142	2.676	2.676	(0.546)	2149914	200.000	199.02
	20 Carbon Disulfide	76	2.747	2.747	(0.561)	3406837	200.000	192.81
	21 Methylene Chloride	84	2.925	2.925	(0.597)	1554745	200.000	178.30
	22 Acetonitrile	41	2.807	2.807	(0.573)	1500206	2000.00	2025.5(A)
	23 Acrylonitrile	53	3.114	3.114	(0.635)	5741837	2000.00	2127.5(A)
	24 Methyl tert-butyl ether	73	3.150	3.150	(0.643)	4269910	200.000	210.91(A)
	25 trans-1,2-Dichloroethene	96	3.150	3.150	(0.643)	1801444	200.000	201.28(A)
	26 Hexane	86	3.375	3.375	(0.689)	417992	200.000	197.91
	27 Vinyl acetate	43	3.517	3.517	(0.718)	1802219	200.000	232.01(A)
	28 1,1-Dichloroethane	63	3.493	3.493	(0.713)	2801880	200.000	204.83(A)
	29 tert-Butyl Alcohol	59	3.020	3.020	(0.616)	1997521	4000.00	4654.9(A)
	30 2-Butanone	43	3.954	3.954	(0.807)	1236433	400.000	430.26(A)
M	31 1,2-Dichloroethene (total)	96				3684949	400.000	403.25
	32 cis-1,2-dichloroethene	96	3.954	3.954	(0.807)	1883505	200.000	201.97(A)
	33 2,2-Dichloropropane	77	3.954	3.954	(0.807)	1489760	200.000	203.29(A)
	34 Bromochloromethane	128	4.156	4.156	(0.848)	962997	200.000	206.16(A)
	35 Chloroform	83	4.203	4.203	(0.858)	2711613	200.000	201.97(A)
	36 Tetrahydrofuran	42	4.191	4.191	(0.855)	398172	200.000	214.85(A)
	37 1,1,1-Trichloroethane	97	4.369	4.369	(0.891)	2193028	200.000	202.61(A)
	38 1,1-Dichloropropene	75	4.499	4.499	(0.918)	2148727	200.000	202.30(A)
	39 Carbon Tetrachloride	117	4.511	4.511	(0.920)	2003546	200.000	208.98(A)
	40 1,2-Dichloroethane	62	4.676	4.676	(0.954)	2076233	200.000	206.07(A)
	41 Benzene	78	4.676	4.676	(0.954)	7065040	200.000	199.97
	42 Trichloroethene	130	5.209	5.209	(1.063)	2106632	200.000	202.52(A)
	43 1,2-Dichloropropane	63	5.386	5.386	(1.099)	1666846	200.000	202.22(A)
	44 1,4-Dioxane	88	5.504	5.504	(1.123)	638835	10000.0	10302(A)
	45 Dibromomethane	93	5.493	5.493	(1.121)	923687	200.000	203.74(A)
	46 Bromodichloromethane	83	5.623	5.623	(1.147)	2021221	200.000	209.36(A)
	47 2-Chloroethyl vinyl ether	63	5.871	5.871	(1.198)	1996220	400.000	437.40(A)
	48 cis-1,3-Dichloropropene	75	6.001	6.001	(1.225)	2619017	200.000	215.62(A)
	49 4-Methyl-2-pentanone	43	6.132	6.132	(1.251)	2641455	400.000	454.58(A)
	50 Toluene	91	6.309	6.309	(0.835)	7785834	200.000	198.93
	51 trans-1,3-Dichloropropene	75	6.487	6.487	(0.859)	2239906	200.000	219.55(A)
	52 Ethyl Methacrylate	69	6.569	6.569	(0.870)	2104981	200.000	233.38(A)
	53 1,1,2-Trichloroethane	97	6.652	6.652	(0.881)	1455348	200.000	202.86(A)
	54 1,3-Dichloropropane	76	6.806	6.806	(0.901)	2518681	200.000	202.36(A)
	55 Tetrachloroethene	164	6.806	6.806	(0.901)	1756033	200.000	199.61
	56 2-Hexanone	43	6.877	6.877	(0.911)	1725362	400.000	464.94(A)
	57 Dibromochloromethane	129	7.019	7.019	(0.929)	1681985	200.000	212.76(A)
	58 1,2-Dibromoethane	107	7.126	7.126	(0.944)	1493115	200.000	207.84(A)
	59 Chlorobenzene	112	7.587	7.587	(1.005)	5084225	200.000	201.26(A)
	60 1,1,1,2-Tetrachloroethane	131	7.658	7.658	(1.014)	1763738	200.000	208.24(A)
	61 Ethylbenzene	106	7.682	7.682	(1.017)	2802643	200.000	201.71(A)
	62 m + p-Xylene	106	7.788	7.788	(1.031)	6743601	400.000	405.64(A)
M	63 Xylenes (total)	106				9980664	600.000	609.30
	64 Xylene-o	106	8.167	8.167	(1.081)	3237063	200.000	203.66(A)
	65 Styrene	104	8.179	8.179	(1.083)	5453118	200.000	208.73(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.356	8.356	(1.107)	1047192	200.000	225.64(A)
67 Isopropylbenzene	105	8.510	8.510	(1.127)	7785434	200.000	199.03
68 1,1,2,2-Tetrachloroethane	83	8.794	8.794	(0.898)	1342284	200.000	208.50(A)
69 1,4-Dichloro-2-butene	53	8.853	8.853	(0.904)	359742	200.000	246.57(A)
70 1,2,3-Trichloropropane	110	8.841	8.841	(0.903)	479908	200.000	214.57(A)
71 Bromobenzene	156	8.818	8.818	(0.901)	2103960	200.000	211.44(A)
72 n-Propylbenzene	120	8.912	8.912	(0.911)	2166877	200.000	207.04(A)
73 2-Chlorotoluene	126	9.007	9.007	(0.920)	1854156	200.000	204.40(A)
74 1,3,5-Trimethylbenzene	105	9.078	9.078	(0.927)	5144768	200.000	198.50
75 4-Chlorotoluene	126	9.102	9.102	(0.930)	1832458	200.000	203.42(A)
76 tert-Butylbenzene	119	9.397	9.397	(0.960)	4585171	200.000	197.52
77 1,2,4-Trimethylbenzene	105	9.445	9.445	(0.965)	4780945	200.000	195.59
78 sec-Butylbenzene	105	9.622	9.622	(0.983)	5817707	200.000	195.39
79 4-Isopropyltoluene	119	9.764	9.764	(0.998)	4473163	200.000	197.80
80 1,3-Dichlorobenzene	146	9.729	9.729	(0.994)	2819215	200.000	199.86
81 1,4-Dichlorobenzene	146	9.812	9.812	(1.002)	2787697	200.000	198.19
82 n-Butylbenzene	91	10.167	10.167	(1.039)	3446587	200.000	206.86(A)
83 1,2-Dichlorobenzene	146	10.178	10.178	(1.040)	2395728	200.000	206.24(A)
84 1,2-Dibromo-3-chloropropane	157	10.948	10.948	(1.118)	202594	200.000	252.86(A)
85 1,2,4-Trichlorobenzene	180	11.788	11.788	(1.204)	1585962	200.000	220.68(A)
86 Hexachlorobutadiene	225	11.953	11.953	(1.221)	618449	200.000	203.79(A)
87 Naphthalene	128	12.024	12.024	(1.228)	3271901	200.000	236.03(A)
88 1,2,3-Trichlorobenzene	180	12.273	12.273	(1.254)	1306445	200.000	210.59(A)
98 Cyclohexane	56	4.428	4.428	(0.903)	2203271	200.000	195.87
143 Methyl Acetate	43	2.842	2.842	(0.580)	2402964	400.000	428.42
144 Methylcyclohexane	83	5.374	5.374	(1.097)	2713500	200.000	194.01
141 1,3,5-Trichlorobenzene	180	11.172	11.172	(1.141)	1855160	200.000	217.88

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Calibration History

Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Start Cal Date: 26-SEP-2000 08:47
End Cal Date : 26-SEP-2000 10:19
Last Cal Level: 1
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.000		
26-SEP-2000 10:19	2-8260	UXX3599.D
Cal Level: 2 , Cal Amount: 25.000		
26-SEP-2000 09:56	2-8260	UXX3598.D
Cal Level: 3 , Cal Amount: 50.000		
26-SEP-2000 09:33	2-8260	UXX3597.D
Cal Level: 4 , Cal Amount: 100.00		
26-SEP-2000 09:09	2-8260	UXX3596.D
Cal Level: 5 , Cal Amount: 200.00		
26-SEP-2000 08:47	2-8260	UXX3595.D

Continuing Calibration

27-SEP-2000 12:24	2-8260	UXX3642.D
27-SEP-2000 11:16	2-8260	UXX3639.D

Report Date: 09/27/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3642.D
Analysis Type: WATER

Injection Date: 27-SEP-2000 12:24
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0	Chlorobenzene	50.0000	46.9595	6.1	50.0
0	Bromodichloromethane	50.0000	45.9893	8.0	50.0
0	1,1,2,2-Tetrachloroethane	50.0000	42.5538	14.9	50.0
0	Bromoform	50.0000	43.7139	12.6	50.0
0	Styrene	50.0000	47.2957	5.4	50.0
0	Xylene-o	50.0000	47.0758	5.8	50.0
0	Xylenes (total)	150.0000	142.6709	4.9	50.0
0	2-Hexanone	50.0000	46.5892	6.8	50.0
0	Chloromethane	50.0000	53.3173	6.6	50.0
0	Vinyl Chloride	50.0000	54.4285	8.9	20.0
0	Bromomethane	50.0000	50.5423	1.1	50.0
0	Chloroethane	50.0000	51.7396	3.5	50.0
0	1,1-Dichloroethane	50.0000	50.1940	0.4	50.0
0	Tetrachloroethene	50.0000	49.7990	0.4	50.0
0	Acetone	50.0000	41.5316	16.9	50.0
0	1,1-Dichloroethene	50.0000	57.2028	14.4	20.0
0	m + p-Xylene	100.0000	95.5951	4.4	50.0
0	Ethylbenzene	50.0000	47.9210	4.2	20.0
0	Carbon Disulfide	50.0000	61.8790	23.8	50.0
0	Methylene Chloride	50.0000	49.9558	0.1	50.0
0	1,2-Dichloropropane	50.0000	48.5685	2.9	20.0
0	1,1,2-Trichloroethane	50.0000	46.2273	7.5	50.0
0	Dibromochloromethane	50.0000	43.1794	13.6	50.0
0	trans-1,2-Dichloroethene	50.0000	48.8855	2.2	50.0
0	trans-1,3-Dichloropropene	50.0000	46.8435	6.3	50.0
0	cis-1,3-Dichloropropene	50.0000	47.7866	4.4	50.0
0	Chloroform	50.0000	47.7563	4.5	20.0
0	Toluene	50.0000	46.9907	6.0	20.0
0	2-Butanone	50.0000	45.7378	8.5	50.0
0	1,2-Dichloroethene (total)	100.0000	97.9785	2.0	50.0
0	cis-1,2-dichloroethene	50.0000	49.0931	1.8	50.0
0	4-Methyl-2-pentanone	50.0000	45.9023	8.2	50.0
0	1,2-Dichloroethane	50.0000	49.0221	2.0	50.0
0	Trichloroethene	50.0000	49.7074	0.6	50.0
0	1,1,1-Trichloroethane	50.0000	50.3156	0.6	50.0
0	Carbon Tetrachloride	50.0000	49.2432	1.5	50.0
0	Benzene	50.0000	48.6094	2.8	50.0
38	Dichlorodifluoromethane	50.0000	63.0640	26.1	50.0
39	Trichlorofluoromethane	50.0000	56.8440	13.7	50.0

Report Date: 09/27/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3642.D
Analysis Type: WATER

Injection Date: 27-SEP-2000 12:24
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
39	Chlorobenzene-d5	50.0000	50.0000	0.0	50.0
40	Acrolein	500.0000	659.4882	31.9	50.0
41	Acrylonitrile	500.0000	492.3196	1.5	50.0
42	Vinyl acetate	50.0000	69.3742	38.7	50.0
43	2-Chloroethyl vinyl ether	100.0000	101.5233	1.5	50.0
47	Freon-113	50.0000	51.7096	3.4	50.0
48	1,3-Dichlorobenzene	50.0000	46.6490	6.7	50.0
49	1,4-Dichlorobenzene	50.0000	45.3753	9.2	50.0
50	1,2-Dichlorobenzene	50.0000	44.3626	11.3	50.0
51	Acetonitrile	500.0000	460.6335	7.9	50.0
52	Iodomethane	50.0000	55.3939	10.8	50.0
59	1,4-Dioxane	2500.0000	2676.6923	7.1	50.0
60	Dibromomethane	50.0000	48.8964	2.2	50.0
62	Ethyl Methacrylate	50.0000	48.1483	3.7	50.0
63	1,2-Dibromoethane	50.0000	46.9243	6.2	50.0
64	1,1,1,2-Tetrachloroethane	50.0000	45.0094	10.0	50.0
65	1,2,3-Trichloropropane	50.0000	43.9267	12.1	50.0
66	1,4-Dichloro-2-butene	50.0000	45.5232	9.0	50.0
69	1,2-Dibromo-3-chloropropane	50.0000	39.7136	20.6	50.0
82	Methyl tert-butyl ether	50.0000	48.9551	2.1	50.0
84	Tetrahydrofuran	50.0000	50.7745	1.5	50.0
98	2,2-Dichloropropane	50.0000	53.3275	6.7	50.0
99	1,1-Dichloropropene	50.0000	51.0520	2.1	50.0
100	1,3-Dichloropropane	50.0000	47.3555	5.3	50.0
102	Bromobenzene	50.0000	45.6822	8.6	50.0
103	2-Chlorotoluene	50.0000	45.0134	10.0	50.0
104	n-Propylbenzene	50.0000	45.4194	9.2	50.0
105	4-Chlorotoluene	50.0000	45.6981	8.6	50.0
106	1,3,5-Trimethylbenzene	50.0000	46.7569	6.5	50.0
107	tert-Butylbenzene	50.0000	47.1540	5.7	50.0
108	1,2,4-Trimethylbenzene	50.0000	46.7397	6.5	50.0
109	sec-Butylbenzene	50.0000	46.9594	6.1	50.0
110	4-Isopropyltoluene	50.0000	47.7719	4.5	50.0
111	n-Butylbenzene	50.0000	46.3314	7.3	50.0
112	1,2,4-Trichlorobenzene	50.0000	43.7153	12.6	50.0
113	Naphthalene	50.0000	41.6240	16.8	50.0
114	Hexachlorobutadiene	50.0000	43.5577	12.9	50.0
115	1,2,3-Trichlorobenzene	50.0000	43.4036	13.2	50.0
124	tert-Butyl Alcohol	1000.0000	1000.0709	0.0	50.0

Report Date: 09/27/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3642.D
Analysis Type: WATER

Injection Date: 27-SEP-2000 12:24
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
125 Hexane	50.0000	52.3437	4.7	50.0
127 Cyclohexane	50.0000	51.7388	3.5	50.0
128 Isopropylbenzene	50.0000	48.4114	3.2	50.0
130 Fluorobenzene	50.0000	50.0000	0.0	50.0
132 1,4-Dichlorobenzene-d4	50.0000	50.0000	0.0	50.0
133 Bromochloromethane	50.0000	49.7493	0.5	50.0
141 1,3,5-Trichlorobenzene	50.0000	49.8734	0.3	50.0
143 Methyl Acetate	50.0000	44.4211	11.2	50.0
144 Methylcyclohexane	50.0000	51.1131	2.2	50.0
22 Toluene-d8	50.0000	50.3743	0.7	50.0
32 Bromofluorobenzene	50.0000	51.9545	3.9	50.0
47 1,2-Dichloroethane-d4	50.0000	50.5672	1.1	50.0
131 Dibromofluoromethane	50.0000	51.5247	3.0	50.0

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i Injection Date: 27-SEP-2000 12:24
Lab File ID: UXX3642.D Init. Cal. Date(s): 26-SEP-2000 26-SEP-2000
Analysis Type: WATER Init. Cal. Times: 08:47 10:19
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
$	4 Dibromofluoromethane	0.20571	0.21198	0.010	3.0	50.0
$	5 1,2-Dichloroethane-d4	0.21313	0.21555	0.010	1.1	50.0
$	6 Toluene-d8	1.13269	1.14117	0.010	0.7	50.0
$	7 Bromofluorobenzene	0.35517	0.36905	0.010	3.9	50.0
	8 Dichlorodifluoromethane	0.09489	0.11968	0.010	26.1	50.0
	9 Chloromethane	0.13039	0.13904	0.100	6.6	50.0
	10 Vinyl Chloride	0.13007	0.14159	0.010	8.9	20.0
	11 Bromomethane	0.08104	0.08192	0.010	1.1	50.0
	12 Chloroethane	0.07419	0.07677	0.010	3.5	50.0
	13 Trichlorofluoromethane	0.14913	0.16955	0.010	13.7	50.0
	15 Acrolein	0.02682	0.03538	0.010	31.9	50.0
	16 Acetone	50.00000	41.53164	0.010	16.9	50.0
	17 1,1-Dichloroethene	0.16038	0.18348	0.010	14.4	20.0
	18 Freon-113	50.00000	51.70962	0.010	-3.4	50.0
	19 Iodomethane	50.00000	55.39387	0.010	-10.8	50.0
	20 Carbon Disulfide	0.39267	0.48596	0.010	23.8	50.0
	21 Methylene Chloride	0.21925	0.21905	0.010	-0.1	50.0
	22 Acetonitrile	0.02200	0.02027	0.010	-7.9	50.0
	23 Acrylonitrile	0.07656	0.07539	0.010	-1.5	50.0
	24 Methyl tert-butyl ether	0.54875	0.53728	0.010	-2.1	50.0
	25 trans-1,2-Dichloroethene	0.23928	0.23394	0.010	-2.2	50.0
	26 Hexane	0.05709	0.05977	0.010	4.7	50.0
	27 Vinyl acetate	0.19756	0.27411	0.010	38.7	50.0
	28 1,1-Dichloroethane	0.36233	0.36374	0.100	0.4	50.0
	29 tert-Butyl Alcohol	0.01238	0.01238	0.010	0.0	50.0
	30 2-Butanone	0.08963	0.08199	0.010	-8.5	50.0
M	31 1,2-Dichloroethene (total)	0.24432	0.23939	0.010	-2.0	50.0
	32 cis-1,2-dichloroethene	0.24936	0.24484	0.010	-1.8	50.0
	33 2,2-Dichloropropane	0.19002	0.20266	0.010	6.7	50.0
	34 Bromochloromethane	0.12647	0.12584	0.010	-0.5	50.0
	35 Chloroform	0.36972	0.35313	0.010	-4.5	20.0
	36 Tetrahydrofuran	0.05152	0.05231	0.010	1.5	50.0
	37 1,1,1-Trichloroethane	0.28264	0.28442	0.010	0.6	50.0
	38 1,1-Dichloropropene	0.28073	0.28664	0.010	2.1	50.0
	39 Carbon Tetrachloride	0.25029	0.24650	0.010	-1.5	50.0
	40 1,2-Dichloroethane	0.27060	0.26531	0.010	-2.0	50.0

001795

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i Injection Date: 27-SEP-2000 12:24
Lab File ID: UXX3642.D Init. Cal. Date(s): 26-SEP-2000 26-SEP-2000
Analysis Type: WATER Init. Cal. Times: 08:47 10:19
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\qcanon04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	41 Benzene	0.95831	0.93166	0.010	-2.8	50.0	
	42 Trichloroethene	0.27668	0.27506	0.010	-0.6	50.0	
	43 1,2-Dichloropropane	0.22611	0.21964	0.010	-2.9	20.0	
	44 1,4-Dioxane	0.00164	0.00176	0.010	7.1	50.0	<-
	45 Dibromomethane	0.12285	0.12014	0.010	-2.2	50.0	
	46 Bromodichloromethane	0.26870	0.24715	0.010	-8.0	50.0	
	47 2-Chloroethyl vinyl ether	0.12662	0.12855	0.010	1.5	50.0	
	48 cis-1,3-Dichloropropene	0.33573	0.32086	0.010	-4.4	50.0	
	49 4-Methyl-2-pentanone	0.17055	0.15658	0.010	-8.2	50.0	
	50 Toluene	1.41008	1.32521	0.010	-6.0	20.0	
	51 trans-1,3-Dichloropropene	0.36921	0.34590	0.010	-6.3	50.0	
	52 Ethyl Methacrylate	0.34036	0.32776	0.010	-3.7	50.0	
	53 1,1,2-Trichloroethane	0.26642	0.24632	0.010	-7.5	50.0	
	54 1,3-Dichloropropane	0.44978	0.42599	0.010	-5.3	50.0	
	55 Tetrachloroethene	0.30727	0.30603	0.010	-0.4	50.0	
	56 2-Hexanone	0.14219	0.13249	0.010	-6.8	50.0	
	57 Dibromochloromethane	0.28674	0.24762	0.010	-13.6	50.0	
	58 1,2-Dibromoethane	0.26034	0.24433	0.010	-6.2	50.0	
	59 Chlorobenzene	0.92522	0.86896	0.300	-6.1	50.0	
	60 1,1,1,2-Tetrachloroethane	0.30706	0.27641	0.010	-10.0	50.0	
	61 Ethylbenzene	0.50875	0.48760	0.010	-4.2	20.0	
	62 m + p-Xylene	0.60845	0.58165	0.010	-4.4	50.0	
M	63 Xylenes (total)	0.60082	0.57154	0.010	-4.9	50.0	
	64 Xylene-o	0.58557	0.55132	0.010	-5.8	50.0	
	65 Styrene	0.95737	0.90559	0.010	-5.4	50.0	
	66 Bromoform	0.16777	0.14668	0.100	-12.6	50.0	
	67 Isopropylbenzene	1.42846	1.38307	0.010	-3.2	50.0	
	68 1,1,2,2-Tetrachloroethane	0.69678	0.59301	0.300	-14.9	50.0	
	69 1,4-Dichloro-2-butene	50.00000	45.52322	0.010	9.0	50.0	
	70 1,2,3-Trichloropropane	0.24295	0.21344	0.010	-12.1	50.0	
	71 Bromobenzene	1.02664	0.93798	0.010	-8.6	50.0	
	72 n-Propylbenzene	1.08704	0.98746	0.010	-9.2	50.0	
	73 2-Chlorotoluene	0.95036	0.85558	0.010	-10.0	50.0	
	74 1,3,5-Trimethylbenzene	2.68833	2.51396	0.010	-6.5	50.0	
	75 4-Chlorotoluene	0.94137	0.86038	0.010	-8.6	50.0	
	76 tert-Butylbenzene	2.40793	2.27087	0.010	-5.7	50.0	

001796

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i Injection Date: 27-SEP-2000 12:24
Lab File ID: UXX3642.D Init. Cal. Date(s): 26-SEP-2000 26-SEP-2000
Analysis Type: WATER Init. Cal. Times: 08:47 10:19
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
77	1,2,4-Trimethylbenzene	2.53685	2.37143	0.010	-6.5	50.0
78	sec-Butylbenzene	3.10050	2.91196	0.010	-6.1	50.0
79	4-Isopropyltoluene	2.36699	2.26151	0.010	-4.5	50.0
80	1,3-Dichlorobenzene	1.46438	1.36624	0.010	-6.7	50.0
81	1,4-Dichlorobenzene	1.47289	1.33666	0.010	-9.2	50.0
82	n-Butylbenzene	1.78786	1.65668	0.010	-7.3	50.0
83	1,2-Dichlorobenzene	1.23622	1.09684	0.010	-11.3	50.0
84	1,2-Dibromo-3-chloropropane	50.00000	39.71363	0.010	20.6	50.0
85	1,2,4-Trichlorobenzene	0.78325	0.68480	0.010	-12.6	50.0
86	Hexachlorobutadiene	0.32566	0.28370	0.010	-12.9	50.0
87	Naphthalene	1.55315	1.29297	0.010	-16.8	50.0
88	1,2,3-Trichlorobenzene	0.67026	0.58183	0.010	-13.2	50.0
98	Cyclohexane	0.30497	0.31558	0.010	3.5	50.0
143	Methyl Acetate	0.20609	0.18309	0.010	-11.2	50.0
144	Methylcyclohexane	0.37930	0.38774	0.010	2.2	50.0
141	1,3,5-Trichlorobenzene	0.85200	0.84984	0.010	-0.3	50.0

001797

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\UUX3642.D

Page 5

Date : 27-SEP-2000 12:24

Client ID:

Instrument: a3ux10.i

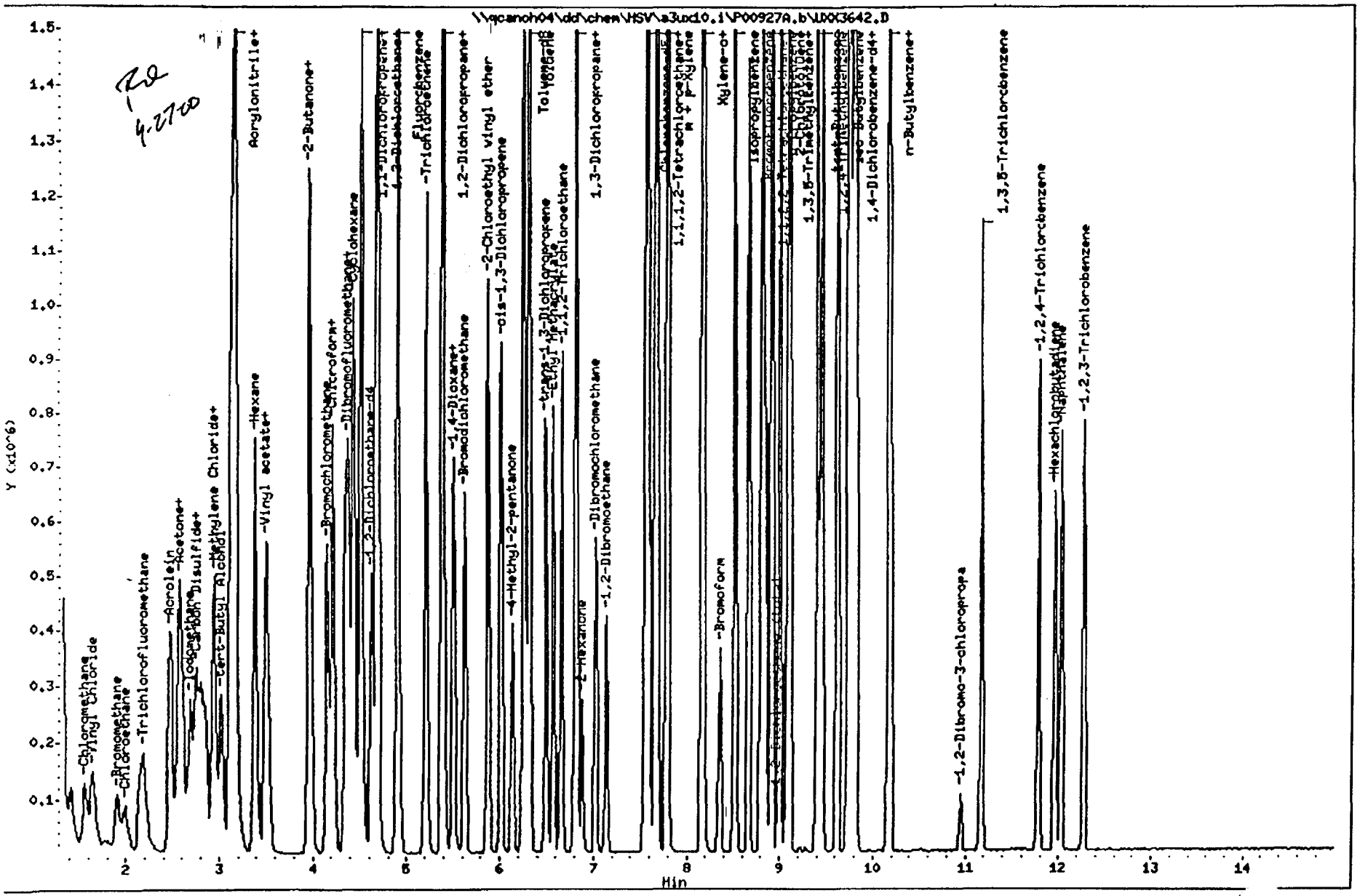
Sample Info: 50NG-CC

Purge Volume: 5.0

Operator: 1904

Column phase: DB624

Column diameter: 0.18



STL North Canton

0017
98

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3642.D
Lab Smp Id: 50NG-CC
Inj Date : 27-SEP-2000 12:24
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 50NG-CC
Misc Info : P00927A,8260LLUX10,,1904,3,2
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 27-Sep-2000 13:28 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 Fluorobenzene	96	4.900	4.900	(1.000)	1851386	50.0000	
*	2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1425658	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	9.787	9.787	(1.000)	563227	50.0000	
$	4 Dibromofluoromethane	113	4.344	4.344	(0.887)	392457	50.0000	51.525
$	5 1,2-Dichloroethane-d4	65	4.616	4.616	(0.942)	399068	50.0000	50.567
$	6 Toluene-d8	98	6.249	6.249	(0.826)	1626923	50.0000	50.374
$	7 Bromofluorobenzene	95	8.662	8.662	(1.146)	526143	50.0000	51.954
	8 Dichlorodifluoromethane	85	1.409	1.409	(0.288)	221570	50.0000	63.064
	9 Chloromethane	50	1.563	1.563	(0.319)	257425	50.0000	53.317
	10 Vinyl Chloride	62	1.646	1.646	(0.336)	262146	50.0000	54.428
	11 Bromomethane	94	1.906	1.906	(0.389)	151661	50.0000	50.542
	12 Chloroethane	64	1.989	1.989	(0.406)	142135	50.0000	51.740
	13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	313898	50.0000	56.844
	15 Acrolein	56	2.474	2.474	(0.505)	655006	500.000	659.49
	16 Acetone	43	2.580	2.580	(0.527)	116283	50.0000	41.532
	17 1,1-Dichloroethene	96	2.557	2.557	(0.522)	339692	50.0000	57.203
	18 Freon-113	151	2.604	2.604	(0.532)	165580	50.0000	51.710

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 Iodomethane	142	2.687	2.687	(0.548)	595667	50.0000	55.394
	20 Carbon Disulfide	76	2.746	2.746	(0.561)	899695	50.0000	61.879
	21 Methylene Chloride	84	2.935	2.935	(0.599)	405550	50.0000	49.956
	22 Acetonitrile	41	2.805	2.805	(0.573)	375203	500.000	460.63
	23 Acrylonitrile	53	3.125	3.125	(0.638)	1395704	500.000	492.32
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	994712	50.0000	48.955
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	433118	50.0000	48.885
	26 Hexane	86	3.373	3.373	(0.688)	110654	50.0000	52.344
	27 Vinyl acetate	43	3.515	3.515	(0.717)	507481	50.0000	69.374
	28 1,1-Dichloroethane	63	3.492	3.492	(0.713)	673422	50.0000	50.194
	29 tert-Butyl Alcohol	59	3.018	3.018	(0.616)	458256	1000.00	1000.1(A)
	30 2-Butanone	43	3.953	3.953	(0.807)	151799	50.0000	45.738
M	31 1,2-Dichloroethene (total)	96				886410	100.000	97.978
	32 cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	453292	50.0000	49.093
	33 2,2-Dichloropropane	77	3.965	3.965	(0.809)	375208	50.0000	53.327
	34 Bromochloromethane	128	4.154	4.154	(0.848)	232977	50.0000	49.749
	35 Chloroform	83	4.213	4.213	(0.860)	653777	50.0000	47.756
	36 Tetrahydrofuran	42	4.202	4.202	(0.858)	96854	50.0000	50.774
	37 1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	526572	50.0000	50.316
	38 1,1-Dichloropropene	75	4.509	4.509	(0.920)	530677	50.0000	51.052
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	456363	50.0000	49.243
	40 1,2-Dichloroethane	62	4.687	4.687	(0.957)	491192	50.0000	49.022
	41 Benzene	78	4.675	4.675	(0.954)	1724856	50.0000	48.609
	42 Trichloroethene	130	5.207	5.207	(1.063)	509236	50.0000	49.707
	43 1,2-Dichloropropane	63	5.397	5.397	(1.101)	406633	50.0000	48.568
	44 1,4-Dioxane	88	5.503	5.503	(1.123)	162577	2500.00	2676.7(A)
	45 Dibromomethane	93	5.491	5.491	(1.121)	222430	50.0000	48.896
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	457571	50.0000	45.989
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	476001	100.000	101.52
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	594042	50.0000	47.786
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	289883	50.0000	45.902
	50 Toluene	91	6.308	6.308	(0.834)	1889296	50.0000	46.991
	51 trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	493132	50.0000	46.843
	52 Ethyl Methacrylate	69	6.568	6.568	(0.869)	467267	50.0000	48.148
	53 1,1,2-Trichloroethane	97	6.663	6.663	(0.881)	351169	50.0000	46.227
	54 1,3-Dichloropropane	76	6.805	6.805	(0.900)	607323	50.0000	47.356
	55 Tetrachloroethene	164	6.805	6.805	(0.900)	436300	50.0000	49.799
	56 2-Hexanone	43	6.876	6.876	(0.909)	188889	50.0000	46.589
	57 Dibromochloromethane	129	7.018	7.018	(0.928)	353024	50.0000	43.179
	58 1,2-Dibromoethane	107	7.136	7.136	(0.944)	348325	50.0000	46.924
	59 Chlorobenzene	112	7.586	7.586	(1.003)	1238838	50.0000	46.960
	60 1,1,1,2-Tetrachloroethane	131	7.657	7.657	(1.013)	394073	50.0000	45.009
	61 Ethylbenzene	106	7.680	7.680	(1.016)	695148	50.0000	47.921
	62 m + p-Xylene	106	7.787	7.787	(1.030)	1658456	100.000	95.595
M	63 Xylenes (total)	106				2444451	150.000	142.67
	64 Xylene-o	106	8.166	8.166	(1.080)	785995	50.0000	47.076
	65 Styrene	104	8.177	8.177	(1.081)	1291058	50.0000	47.296

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66 Bromoform	173	8.355	8.355	(1.105)	209114	50.0000	43.714
67 Isopropylbenzene	105	8.520	8.520	(1.127)	1971791	50.0000	48.411
68 1,1,2,2-Tetrachloroethane	83	8.793	8.793	(0.898)	334001	50.0000	42.554
69 1,4-Dichloro-2-butene	53	8.852	8.852	(0.904)	80835	50.0000	45.523
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.903)	120216	50.0000	43.927
71 Bromobenzene	156	8.816	8.816	(0.901)	528297	50.0000	45.682
72 n-Propylbenzene	120	8.911	8.911	(0.911)	556163	50.0000	45.419
73 2-Chlorotoluene	126	9.006	9.006	(0.920)	481884	50.0000	45.013
74 1,3,5-Trimethylbenzene	105	9.077	9.077	(0.927)	1415930	50.0000	46.757
75 4-Chlorotoluene	126	9.100	9.100	(0.930)	484587	50.0000	45.698
76 tert-Butylbenzene	119	9.396	9.396	(0.960)	1279017	50.0000	47.154
77 1,2,4-Trimethylbenzene	105	9.443	9.443	(0.965)	1335652	50.0000	46.740
78 sec-Butylbenzene	105	9.621	9.621	(0.983)	1640092	50.0000	46.959
79 4-Isopropyltoluene	119	9.763	9.763	(0.998)	1273745	50.0000	47.772
80 1,3-Dichlorobenzene	146	9.727	9.727	(0.994)	769504	50.0000	46.649
81 1,4-Dichlorobenzene	146	9.810	9.810	(1.002)	752844	50.0000	45.375
82 n-Butylbenzene	91	10.165	10.165	(1.039)	933086	50.0000	46.331
83 1,2-Dichlorobenzene	146	10.189	10.189	(1.041)	617768	50.0000	44.362
84 1,2-Dibromo-3-chloropropane	157	10.946	10.946	(1.118)	38379	50.0000	39.714
85 1,2,4-Trichlorobenzene	180	11.786	11.786	(1.204)	385696	50.0000	43.715
86 Hexachlorobutadiene	225	11.952	11.952	(1.221)	159786	50.0000	43.558
87 Naphthalene	128	12.023	12.023	(1.229)	728233	50.0000	41.624
88 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.254)	327704	50.0000	43.404
98 Cyclohexane	56	4.426	4.426	(0.903)	584254	50.0000	51.739
143 Methyl Acetate	43	2.841	2.841	(0.580)	338974	50.0000	44.421
144 Methylcyclohexane	83	5.385	5.385	(1.099)	717860	50.0000	51.113
141 1,3,5-Trichlorobenzene	180	11.171	11.171	(1.141)	478652	50.0000	49.873

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Calibration History

Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m
Start Cal Date: 28-SEP-2000 10:44
End Cal Date : 29-SEP-2000 00:54
Last Cal Level: 1
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.000		
29-SEP-2000 00:54	3-IX	UXX3702.D
28-SEP-2000 10:44	2-8260	UXX3670.D
Cal Level: 2 , Cal Amount: 25.000		
29-SEP-2000 00:31	3-IX	UXX3701.D
28-SEP-2000 11:07	2-8260	UXX3671.D
Cal Level: 3 , Cal Amount: 50.000		
29-SEP-2000 00:09	3-IX	UXX3700.D
28-SEP-2000 11:29	2-8260	UXX3672.D
Cal Level: 4 , Cal Amount: 100.00		
28-SEP-2000 23:46	3-IX	UXX3699.D
28-SEP-2000 11:57	2-8260	UXX3673.D
Cal Level: 5 , Cal Amount: 200.00		
28-SEP-2000 23:23	3-IX	UXX3698.D
28-SEP-2000 12:20	2-8260	UXX3674.D

Continuing Calibration

29-SEP-2000 10:35	2-8260	UXX3713.D
29-SEP-2000 11:20	3-IX	UXX3715.D

Report Date: 09/29/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3713.D
Analysis Type: WATER

Injection Date: 29-SEP-2000 10:35
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0	Chlorobenzene	50.0000	51.1370	2.3	50.0
0	Bromodichloromethane	50.0000	52.6422	5.3	50.0
0	1,1,2,2-Tetrachloroethane	50.0000	51.6427	3.3	50.0
0	Bromoform	50.0000	53.8425	7.7	50.0
0	Styrene	50.0000	52.3709	4.7	50.0
0	Xylene-o	50.0000	52.2515	4.5	50.0
0	Xylenes (total)	150.0000	155.9454	4.0	50.0
0	2-Hexanone	100.0000	118.1957	18.2	50.0
0	Chloromethane	50.0000	51.6084	3.2	50.0
0	Vinyl Chloride	50.0000	52.9569	5.9	20.0
0	Bromomethane	50.0000	50.2275	0.5	50.0
0	Chloroethane	50.0000	51.9924	4.0	50.0
0	1,1-Dichloroethane	50.0000	52.2407	4.5	50.0
0	Tetrachloroethene	50.0000	50.6322	1.3	50.0
0	Acetone	100.0000	109.4334	9.4	50.0
0	1,1-Dichloroethene	50.0000	51.4803	3.0	20.0
0	m + p-Xylene	100.0000	103.6939	3.7	50.0
0	Ethylbenzene	50.0000	51.6227	3.2	20.0
0	Carbon Disulfide	50.0000	50.9540	1.9	50.0
0	Methylene Chloride	50.0000	46.4306	7.1	50.0
0	1,2-Dichloropropane	50.0000	51.7790	3.6	20.0
0	1,1,2-Trichloroethane	50.0000	51.4308	2.9	50.0
0	Dibromochloromethane	50.0000	52.4560	4.9	50.0
0	trans-1,2-Dichloroethene	50.0000	51.2747	2.5	50.0
0	trans-1,3-Dichloropropene	50.0000	52.0536	4.1	50.0
0	cis-1,3-Dichloropropene	50.0000	53.3134	6.6	50.0
0	Chloroform	50.0000	51.6612	3.3	20.0
0	Toluene	50.0000	51.0354	2.1	20.0
0	2-Butanone	100.0000	117.7206	17.7	50.0
0	1,2-Dichloroethene (total)	100.0000	103.3424	3.3	50.0
0	cis-1,2-dichloroethene	50.0000	52.0678	4.1	50.0
0	4-Methyl-2-pentanone	100.0000	115.9529	16.0	50.0
0	1,2-Dichloroethane	50.0000	51.9240	3.8	50.0
0	Trichloroethene	50.0000	51.0846	2.2	50.0
0	1,1,1-Trichloroethane	50.0000	51.3744	2.7	50.0
0	Carbon Tetrachloride	50.0000	53.5957	7.2	50.0
0	Benzene	50.0000	51.1123	2.2	50.0
38	Dichlorodifluoromethane	50.0000	53.6998	7.4	50.0
39	Trichlorofluoromethane	50.0000	54.2724	8.5	50.0

Report Date: 09/29/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3713.D
Analysis Type: WATER

Injection Date: 29-SEP-2000 10:35
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
39	Chlorobenzene-d5	50.0000	50.0000	0.0	50.0
40	Acrolein	500.0000	495.6500	0.9	50.0
41	Acrylonitrile	500.0000	553.8659	10.8	50.0
42	Vinyl acetate	50.0000	49.1379	1.7	50.0
43	2-Chloroethyl vinyl ether	100.0000	108.4360	8.4	50.0
47	Freon-113	50.0000	59.0348	18.1	50.0
48	1,3-Dichlorobenzene	50.0000	50.9735	1.9	50.0
49	1,4-Dichlorobenzene	50.0000	51.0513	2.1	50.0
50	1,2-Dichlorobenzene	50.0000	51.3840	2.8	50.0
51	Acetonitrile	500.0000	552.0480	10.4	50.0
52	Iodomethane	50.0000	50.6045	1.2	50.0
59	1,4-Dioxane	2500.0000	2805.9977	12.2	50.0
60	Dibromomethane	50.0000	53.2584	6.5	50.0
62	Ethyl Methacrylate	50.0000	54.9224	9.8	50.0
63	1,2-Dibromoethane	50.0000	51.3011	2.6	50.0
64	1,1,1,2-Tetrachloroethane	50.0000	51.4670	2.9	50.0
65	1,2,3-Trichloropropane	50.0000	53.1369	6.3	50.0
66	1,4-Dichloro-2-butene	50.0000	56.3739	12.7	50.0
69	1,2-Dibromo-3-chloropropane	50.0000	53.1791	6.4	50.0
82	Methyl tert-butyl ether	50.0000	51.7229	3.4	50.0
84	Tetrahydrofuran	50.0000	55.1017	10.2	50.0
98	2,2-Dichloropropane	50.0000	51.8210	3.6	50.0
99	1,1-Dichloropropene	50.0000	52.8495	5.7	50.0
100	1,3-Dichloropropane	50.0000	51.1797	2.4	50.0
102	Bromobenzene	50.0000	49.1957	1.6	50.0
103	2-Chlorotoluene	50.0000	50.0543	0.1	50.0
104	n-Propylbenzene	50.0000	50.0428	0.1	50.0
105	4-Chlorotoluene	50.0000	50.4769	1.0	50.0
106	1,3,5-Trimethylbenzene	50.0000	51.6445	3.3	50.0
107	tert-Butylbenzene	50.0000	51.8037	3.6	50.0
108	1,2,4-Trimethylbenzene	50.0000	51.7542	3.5	50.0
109	sec-Butylbenzene	50.0000	53.2556	6.5	50.0
110	4-Isopropyltoluene	50.0000	53.8212	7.6	50.0
111	n-Butylbenzene	50.0000	53.9076	7.8	50.0
112	1,2,4-Trichlorobenzene	50.0000	50.9727	1.9	50.0
113	Naphthalene	50.0000	52.5738	5.1	50.0
114	Hexachlorobutadiene	50.0000	51.5288	3.1	50.0
115	1,2,3-Trichlorobenzene	50.0000	51.0401	2.1	50.0
124	tert-Butyl Alcohol	1000.0000	1110.7967	11.1	50.0

Report Date: 09/29/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: a3ux10.i
Lab File ID: UXX3713.D
Analysis Type: WATER

Injection Date: 29-SEP-2000 10:35
Lab Sample ID: 50NG-CC
Method File: \\qcanoh04\dd\chem\MSV\a3ux10.i\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
125 Hexane	50.0000	58.5753	17.2	50.0
127 Cyclohexane	50.0000	56.2465	12.5	50.0
128 Isopropylbenzene	50.0000	52.8236	5.6	50.0
130 Fluorobenzene	50.0000	50.0000	0.0	50.0
132 1,4-Dichlorobenzene-d4	50.0000	50.0000	0.0	50.0
133 Bromochloromethane	50.0000	52.1917	4.4	50.0
141 1,3,5-Trichlorobenzene	50.0000	49.5889	0.8	50.0
143 Methyl Acetate	100.0000	114.3123	14.3	50.0
144 Methylcyclohexane	50.0000	56.0330	12.1	50.0
22 Toluene-d8	50.0000	52.0308	4.1	50.0
32 Bromofluorobenzene	50.0000	54.1178	8.2	50.0
47 1,2-Dichloroethane-d4	50.0000	51.3957	2.8	50.0
131 Dibromofluoromethane	50.0000	52.6342	5.3	50.0

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i
Lab File ID: UXX3713.D
Analysis Type: WATER
Lab Sample ID: 50NG-CC
Method: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m

Injection Date: 29-SEP-2000 10:35
Init. Cal. Date(s): 28-SEP-2000 29-SEP-2000
Init. Cal. Times: 10:44 00:54
Quant Type: ISTD

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
$	4 Dibromofluoromethane	0.21200	0.22317	0.010	5.3	50.0
$	5 1,2-Dichloroethane-d4	0.22481	0.23108	0.010	2.8	50.0
$	6 Toluene-d8	1.14255	1.18895	0.010	4.1	50.0
$	7 Bromofluorobenzene	0.35751	0.38695	0.010	8.2	50.0
	8 Dichlorodifluoromethane	0.11171	0.11997	0.010	7.4	50.0
	9 Chloromethane	0.13629	0.14067	0.100	3.2	50.0
	10 Vinyl Chloride	0.13798	0.14614	0.010	5.9	20.0
	11 Bromomethane	0.08161	0.08198	0.010	0.5	50.0
	12 Chloroethane	0.07752	0.08061	0.010	4.0	50.0
	13 Trichlorofluoromethane	0.16501	0.17911	0.010	8.5	50.0
	15 Acrolein	0.03030	0.03003	0.010	-0.9	50.0
	16 Acetone	0.06329	0.06926	0.010	9.4	50.0
	17 1,1-Dichloroethene	0.18988	0.19551	0.010	3.0	20.0
	18 Freon-113	0.08759	0.10342	0.010	18.1	50.0
	19 Iodomethane	0.30615	0.30985	0.010	1.2	50.0
	20 Carbon Disulfide	0.50077	0.51032	0.010	1.9	50.0
	21 Methylene Chloride	0.24714	0.22949	0.010	-7.1	50.0
	22 Acetonitrile	0.02099	0.02318	0.010	10.4	50.0
	23 Acrylonitrile	0.07649	0.08473	0.010	10.8	50.0
	24 Methyl tert-butyl ether	0.57377	0.59354	0.010	3.4	50.0
	25 trans-1,2-Dichloroethene	0.25365	0.26011	0.010	2.5	50.0
	26 Hexane	0.05986	0.07012	0.010	17.2	50.0
	27 Vinyl acetate	0.22015	0.21636	0.010	-1.7	50.0
	28 1,1-Dichloroethane	0.38767	0.40505	0.100	4.5	50.0
	29 tert-Butyl Alcohol	0.01216	0.01351	0.010	11.1	50.0
	30 2-Butanone	0.08144	0.09588	0.010	17.7	50.0
M	31 1,2-Dichloroethene (total)	0.25897	0.26767	0.010	3.4	50.0
	32 cis-1,2-dichloroethene	0.26430	0.27523	0.010	4.1	50.0
	33 2,2-Dichloropropane	0.20769	0.21526	0.010	3.6	50.0
	34 Bromochloromethane	0.13239	0.13819	0.010	4.4	50.0
	35 Chloroform	0.38050	0.39314	0.010	3.3	20.0
	36 Tetrahydrofuran	0.05252	0.05788	0.010	10.2	50.0
	37 1,1,1-Trichloroethane	0.30675	0.31519	0.010	2.7	50.0
	38 1,1-Dichloropropene	0.30102	0.31818	0.010	5.7	50.0
	39 Carbon Tetrachloride	0.27171	0.29125	0.010	7.2	50.0
	40 1,2-Dichloroethane	0.28555	0.29654	0.010	3.8	50.0

Report Date: 29-Sep-2000 14:46

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i Injection Date: 29-SEP-2000 10:35
Lab File ID: UXX3713.D Init. Cal. Date(s): 28-SEP-2000 29-SEP-2000
Analysis Type: WATER Init. Cal. Times: 10:44 00:54
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m

	COMPOUND	RRF	RFSO	MIN RRF	%D	MAX %D	
	41 Benzene	1.00132	1.02360	0.010	2.2	50.0	
	42 Trichloroethene	0.29481	0.30120	0.010	2.2	50.0	
	43 1,2-Dichloropropane	0.23361	0.24192	0.010	3.6	20.0	
	44 1,4-Dioxane	0.00176	0.00197	0.010	12.2	50.0	<-
	45 Dibromomethane	0.12849	0.13686	0.010	6.5	50.0	
	46 Bromodichloromethane	0.27361	0.28806	0.010	5.3	50.0	
	47 2-Chloroethyl vinyl ether	0.12934	0.14025	0.010	8.4	50.0	
	48 cis-1,3-Dichloropropene	0.34425	0.36706	0.010	6.6	50.0	
	49 4-Methyl-2-pentanone	0.16468	0.19096	0.010	16.0	50.0	
	50 Toluene	1.41147	1.44070	0.010	2.1	20.0	
	51 trans-1,3-Dichloropropene	0.36793	0.38304	0.010	4.1	50.0	
	52 Ethyl Methacrylate	0.32528	0.35730	0.010	9.8	50.0	
	53 1,1,2-Trichloroethane	0.25873	0.26613	0.010	2.9	50.0	
	54 1,3-Dichloropropane	0.44887	0.45946	0.010	2.4	50.0	
	55 Tetrachloroethene	0.31726	0.32127	0.010	1.3	50.0	
	56 2-Hexanone	0.13383	0.15818	0.010	18.2	50.0	
	57 Dibromochloromethane	0.28511	0.29911	0.010	4.9	50.0	
	58 1,2-Dibromoethane	0.25908	0.26582	0.010	2.6	50.0	
	59 Chlorobenzene	0.91105	0.93177	0.300	2.3	50.0	
	60 1,1,1,2-Tetrachloroethane	0.30545	0.31441	0.010	2.9	50.0	
	61 Ethylbenzene	0.50108	0.51734	0.010	3.2	20.0	
	62 m + p-Xylene	0.59955	0.62169	0.010	3.7	50.0	
M	63 Xylenes (total)	0.59077	0.61413	0.010	4.0	50.0	
	64 Xylene-o	0.57320	0.59902	0.010	4.5	50.0	
	65 Styrene	0.94219	0.98686	0.010	4.7	50.0	
	66 Bromoform	0.16737	0.18023	0.100	7.7	50.0	
	67 Isopropylbenzene	1.41072	1.49039	0.010	5.6	50.0	
	68 1,1,2,2-Tetrachloroethane	0.63702	0.65795	0.300	3.3	50.0	
	69 1,4-Dichloro-2-butene	0.14437	0.16277	0.010	12.7	50.0	
	70 1,2,3-Trichloropropane	0.22131	0.23520	0.010	6.3	50.0	
	71 Bromobenzene	0.98459	0.96876	0.010	-1.6	50.0	
	72 n-Propylbenzene	1.03562	1.03651	0.010	0.1	50.0	
	73 2-Chlorotoluene	0.89762	0.89859	0.010	0.1	50.0	
	74 1,3,5-Trimethylbenzene	2.56462	2.64896	0.010	3.3	50.0	
	75 4-Chlorotoluene	0.89135	0.89986	0.010	1.0	50.0	
	76 tert-Butylbenzene	2.29695	2.37981	0.010	3.6	50.0	

Report Date: 29-Sep-2000 14:46

STL - North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux10.i Injection Date: 29-SEP-2000 10:35
Lab File ID: UXX3713.D Init. Cal. Date(s): 28-SEP-2000 29-SEP-2000
Analysis Type: WATER Init. Cal. Times: 10:44 00:54
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
77	1,2,4-Trimethylbenzene	2.41869	2.50355	0.010	3.5	50.0
78	sec-Butylbenzene	2.94619	3.13803	0.010	6.5	50.0
79	4-Isopropyltoluene	2.23769	2.40871	0.010	7.6	50.0
80	1,3-Dichlorobenzene	1.39578	1.42296	0.010	1.9	50.0
81	1,4-Dichlorobenzene	1.39184	1.42110	0.010	2.1	50.0
82	n-Butylbenzene	1.64865	1.77749	0.010	7.8	50.0
83	1,2-Dichlorobenzene	1.14942	1.18124	0.010	2.8	50.0
84	1,2-Dibromo-3-chloropropane	0.07928	0.08432	0.010	6.4	50.0
85	1,2,4-Trichlorobenzene	0.71112	0.72496	0.010	1.9	50.0
86	Hexachlorobutadiene	0.30029	0.30947	0.010	3.1	50.0
87	Naphthalene	1.37165	1.44226	0.010	5.1	50.0
88	1,2,3-Trichlorobenzene	0.61386	0.62663	0.010	2.1	50.0
98	Cyclohexane	0.31880	0.35863	0.010	12.5	50.0
143	Methyl Acetate	0.15896	0.18171	0.010	14.3	50.0
144	Methylcyclohexane	0.39638	0.44421	0.010	12.1	50.0
141	1,3,5-Trichlorobenzene	0.84250	0.83558	0.010	-0.8	50.0

Data File: \\qoanoh04\dd\chem\HSV\a3ux10.i\P00929A.b\UXX3713.D

Page 5

Date : 29-SEP-2000 10:35

Client ID:

Instrument: a3ux10.i

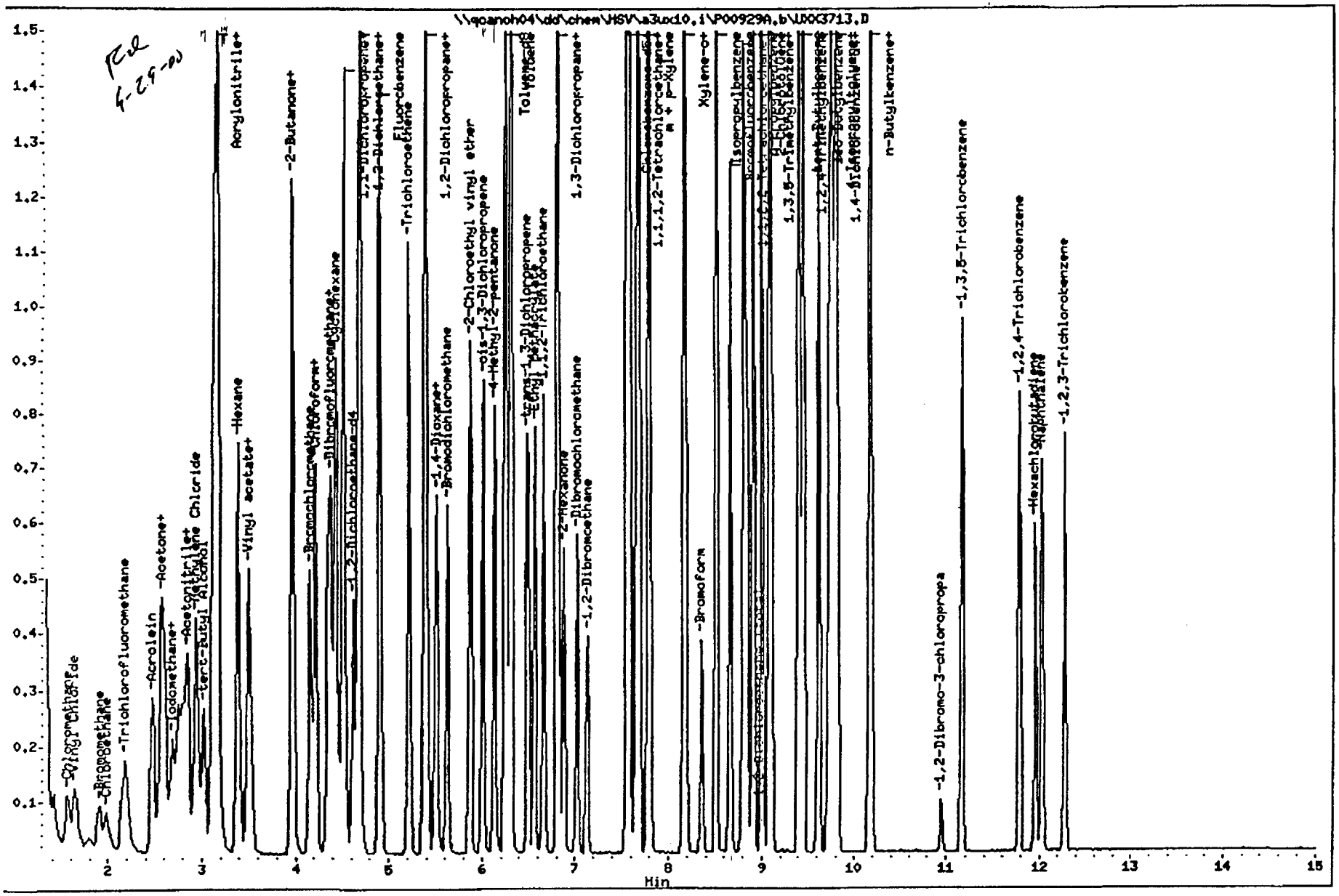
Sample Info: 50HG-CC

Purge Volume: 5.0

Operator: 1904

Column phase: DB624

Column diameter: 0.18



STL North Canton

0018
09

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\UXX3713.D
Lab Smp Id: 50NG-CC
Inj Date : 29-SEP-2000 10:35
Operator : 1904 Inst ID: a3ux10.i
Smp Info : 50NG-CC
Misc Info : P00929A,8260LLUX10,2-8260.SUB,1904,2
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\8260LLUX10.m
Meth Date : 29-Sep-2000 14:46 quayler Quant Type: ISTD
Cal Date : 29-SEP-2000 00:54 Cal File: UXX3702.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1	Fluorobenzene	96	4.899	4.899	(1.000)	1512113	50.0000	
* 2	Chlorobenzene-d5	117	7.562	7.562	(1.000)	1197407	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	9.798	9.798	(1.000)	480975	50.0000	
$ 4	Dibromofluoromethane	113	4.343	4.343	(0.886)	337462	50.0000	52.634
$ 5	1,2-Dichloroethane-d4	65	4.615	4.615	(0.942)	349426	50.0000	51.396
$ 6	Toluene-d8	98	6.248	6.248	(0.826)	1423662	50.0000	52.031
$ 7	Bromofluorobenzene	95	8.662	8.662	(1.146)	463339	50.0000	54.118
8	Dichlorodifluoromethane	85	1.409	1.409	(0.288)	181414	50.0000	53.700
9	Chloromethane	50	1.562	1.562	(0.319)	212712	50.0000	51.608
10	Vinyl Chloride	62	1.645	1.645	(0.336)	220984	50.0000	52.957
11	Bromomethane	94	1.894	1.894	(0.387)	123963	50.0000	50.228
12	Chloroethane	64	1.977	1.977	(0.403)	121889	50.0000	51.992
13	Trichlorofluoromethane	101	2.154	2.154	(0.440)	270836	50.0000	54.272
15	Acrolein	56	2.462	2.462	(0.503)	454152	500.000	495.65
16	Acetone	43	2.592	2.592	(0.529)	209449	100.000	109.43
17	1,1-Dichloroethene	96	2.556	2.556	(0.522)	295626	50.0000	51.480
18	Freon-113	151	2.592	2.592	(0.529)	156385	50.0000	59.035

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
19	Iodomethane	142	2.686	2.686	(0.548)	468529	50.0000	50.604
20	Carbon Disulfide	76	2.746	2.746	(0.560)	771662	50.0000	50.954
21	Methylene Chloride	84	2.935	2.935	(0.599)	347021	50.0000	46.430
22	Acetonitrile	41	2.805	2.805	(0.573)	350457	500.000	552.05
23	Acrylonitrile	53	3.112	3.112	(0.635)	1281175	500.000	553.86
24	Methyl tert-butyl ether	73	3.160	3.160	(0.645)	897502	50.0000	51.723
25	trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	393322	50.0000	51.275
26	Hexane	86	3.373	3.373	(0.688)	106034	50.0000	58.575
27	Vinyl acetate	43	3.515	3.515	(0.717)	327154	50.0000	49.138
28	1,1-Dichloroethane	63	3.491	3.491	(0.713)	612474	50.0000	52.241
29	tert-Butyl Alcohol	59	3.018	3.018	(0.616)	408550	1000.00	1110.8(A)
30	2-Butanone	43	3.953	3.953	(0.807)	289951	100.000	117.72
M 31	1,2-Dichloroethene (total)	96				809501	100.000	103.34
32	cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	416179	50.0000	52.068
33	2,2-Dichloropropane	77	3.964	3.964	(0.809)	325490	50.0000	51.821
34	Bromochloromethane	128	4.154	4.154	(0.848)	208957	50.0000	52.492
35	Chloroform	83	4.213	4.213	(0.860)	594473	50.0000	51.661
36	Tetrahydrofuran	42	4.201	4.201	(0.858)	87525	50.0000	55.102
37	1,1,1-Trichloroethane	97	4.367	4.367	(0.891)	476598	50.0000	51.374
38	1,1-Dichloropropene	75	4.509	4.509	(0.920)	481122	50.0000	52.849
39	Carbon Tetrachloride	117	4.509	4.509	(0.920)	440400	50.0000	53.596
40	1,2-Dichloroethane	62	4.686	4.686	(0.957)	448402	50.0000	51.924
41	Benzene	78	4.674	4.674	(0.954)	1547796	50.0000	51.112
42	Trichloroethene	130	5.207	5.207	(1.063)	455449	50.0000	51.084
43	1,2-Dichloropropane	63	5.396	5.396	(1.101)	365813	50.0000	51.779
44	1,4-Dioxane	88	5.503	5.503	(1.123)	149131	2500.00	2806.0(A)
45	Dibromomethane	93	5.491	5.491	(1.121)	206946	50.0000	53.258
46	Bromodichloromethane	83	5.621	5.621	(1.147)	435586	50.0000	52.642
47	2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	424161	100.000	108.44
48	cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	555040	50.0000	53.313
49	4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	577495	100.000	115.95
50	Toluene	91	6.307	6.307	(0.834)	1725103	50.0000	51.035
51	trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	458658	50.0000	52.054
52	Ethyl Methacrylate	69	6.568	6.568	(0.869)	427835	50.0000	54.922
53	1,1,2-Trichloroethane	97	6.662	6.662	(0.881)	318670	50.0000	51.431
54	1,3-Dichloropropane	76	6.804	6.804	(0.900)	550160	50.0000	51.180
55	Tetrachloroethene	164	6.804	6.804	(0.900)	384693	50.0000	50.632
56	2-Hexanone	43	6.875	6.875	(0.909)	378817	100.000	118.20
57	Dibromochloromethane	129	7.017	7.017	(0.928)	358156	50.0000	52.456
58	1,2-Dibromoethane	107	7.136	7.136	(0.944)	318296	50.0000	51.301
59	Chlorobenzene	112	7.585	7.585	(1.003)	1115702	50.0000	51.137
60	1,1,1,2-Tetrachloroethane	131	7.656	7.656	(1.013)	376473	50.0000	51.467
61	Ethylbenzene	106	7.680	7.680	(1.016)	619466	50.0000	51.623
62	m + p-Xylene	106	7.786	7.786	(1.030)	1488839	100.000	103.69
M 63	Xylenes (total)	106				2206105	150.000	155.94
64	Xylene-o	106	8.165	8.165	(1.080)	717266	50.0000	52.252
65	Styrene	104	8.177	8.177	(1.081)	1181675	50.0000	52.371

Report Date: 29-Sep-2000 14:46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
66	Bromoform	173	8.354	8.354	(1.105)	215813	50.0000	53.842
67	Isopropylbenzene	105	8.520	8.520	(1.127)	1784604	50.0000	52.824
68	1,1,2,2-Tetrachloroethane	83	8.792	8.792	(0.897)	316457	50.0000	51.643
69	1,4-Dichloro-2-butene	53	8.851	8.851	(0.903)	78288	50.0000	56.374
70	1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	113125	50.0000	53.137
71	Bromobenzene	156	8.816	8.816	(0.900)	465947	50.0000	49.196
72	n-Propylbenzene	120	8.911	8.911	(0.909)	498534	50.0000	50.043
73	2-Chlorotoluene	126	9.005	9.005	(0.919)	432201	50.0000	50.054
74	1,3,5-Trimethylbenzene	105	9.088	9.088	(0.928)	1274085	50.0000	51.644
75	4-Chlorotoluene	126	9.100	9.100	(0.929)	432808	50.0000	50.477
76	tert-Butylbenzene	119	9.408	9.408	(0.960)	1144628	50.0000	51.804
77	1,2,4-Trimethylbenzene	105	9.455	9.455	(0.965)	1204146	50.0000	51.754
78	sec-Butylbenzene	105	9.621	9.621	(0.982)	1509313	50.0000	53.256
79	4-Isopropyltoluene	119	9.763	9.763	(0.996)	1158527	50.0000	53.821
80	1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	684408	50.0000	50.973
81	1,4-Dichlorobenzene	146	9.822	9.822	(1.002)	683514	50.0000	51.051
82	n-Butylbenzene	91	10.165	10.165	(1.037)	854930	50.0000	53.908
83	1,2-Dichlorobenzene	146	10.188	10.188	(1.040)	568146	50.0000	51.384
84	1,2-Dibromo-3-chloropropane	157	10.958	10.958	(1.118)	40556	50.0000	53.179
85	1,2,4-Trichlorobenzene	180	11.786	11.786	(1.203)	348687	50.0000	50.973
86	Hexachlorobutadiene	225	11.952	11.952	(1.220)	148847	50.0000	51.529
87	Naphthalene	128	12.023	12.023	(1.227)	693690	50.0000	52.574
88	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.252)	301393	50.0000	51.040
98	Cyclohexane	56	4.426	4.426	(0.903)	542282	50.0000	56.246
143	Methyl Acetate	43	2.840	2.840	(0.580)	549540	100.000	114.31
144	Methylcyclohexane	83	5.384	5.384	(1.099)	671695	50.0000	56.033
141	1,3,5-Trichlorobenzene	180	11.171	11.171	(1.140)	401891	50.0000	49.589

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

RAW QC DATA

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P000926A.b\BFB146.D

Date : 26-SEP-2000 08:33

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

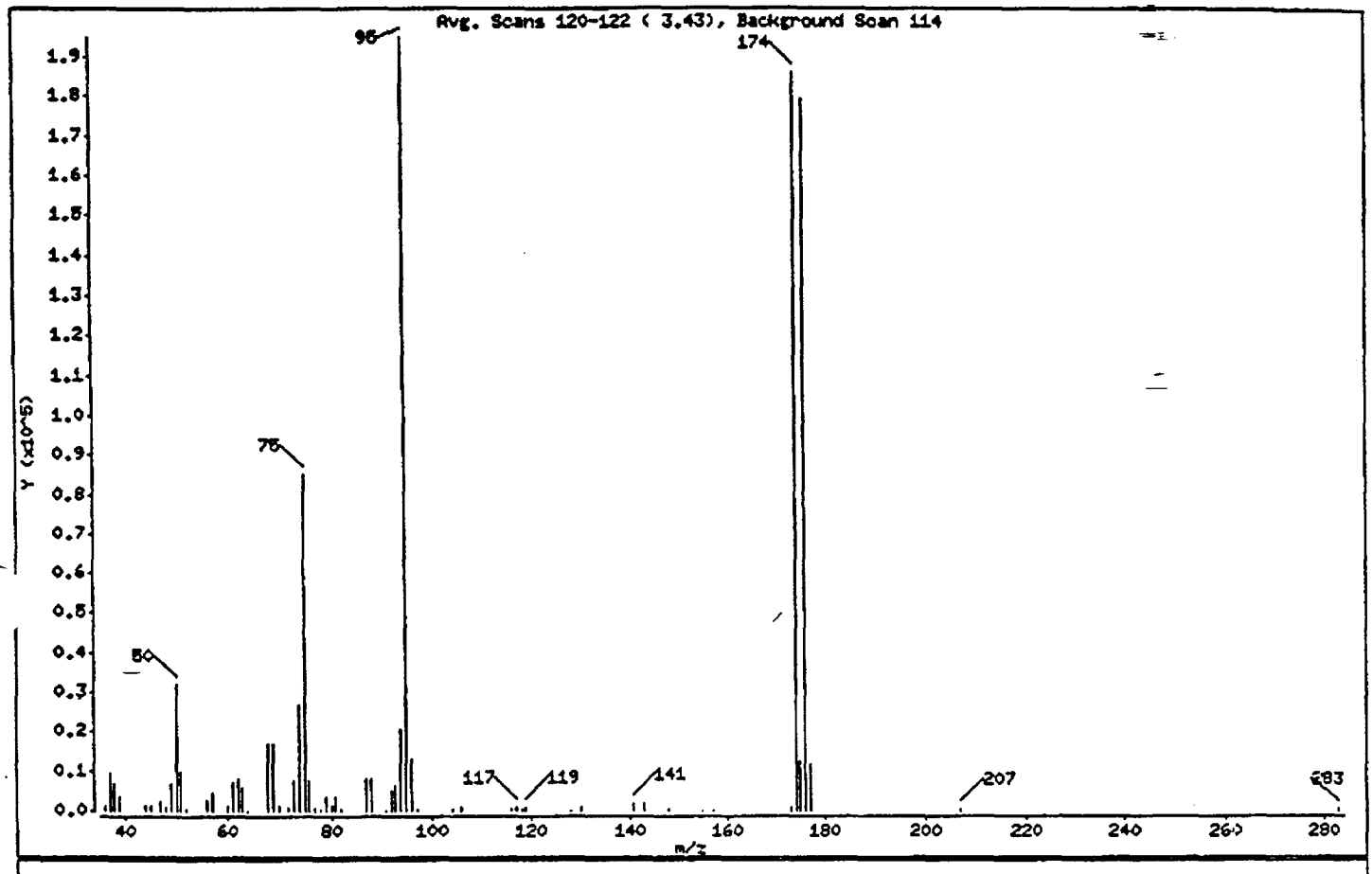
Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.36
75	30.00 - 60.00% of mass 95	43.89
96	5.00 - 9.00% of mass 95	6.66
173	Less than 2.00% of mass 174	0.45 (0.47)
174	50.00 - 120.00% of mass 95	96.38
175	5.00 - 9.00% of mass 174	6.37 (6.68)
176	95.00 - 101.00% of mass 174	92.04 (96.49)
177	5.00 - 9.00% of mass 176	6.02 (6.54)

Data File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P000926A.b\BFB146.D

Date : 26-SEP-2000 08:33

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB146.D

Spectrum: Avg. Scans 120-122 (3.43), Background Scan 114

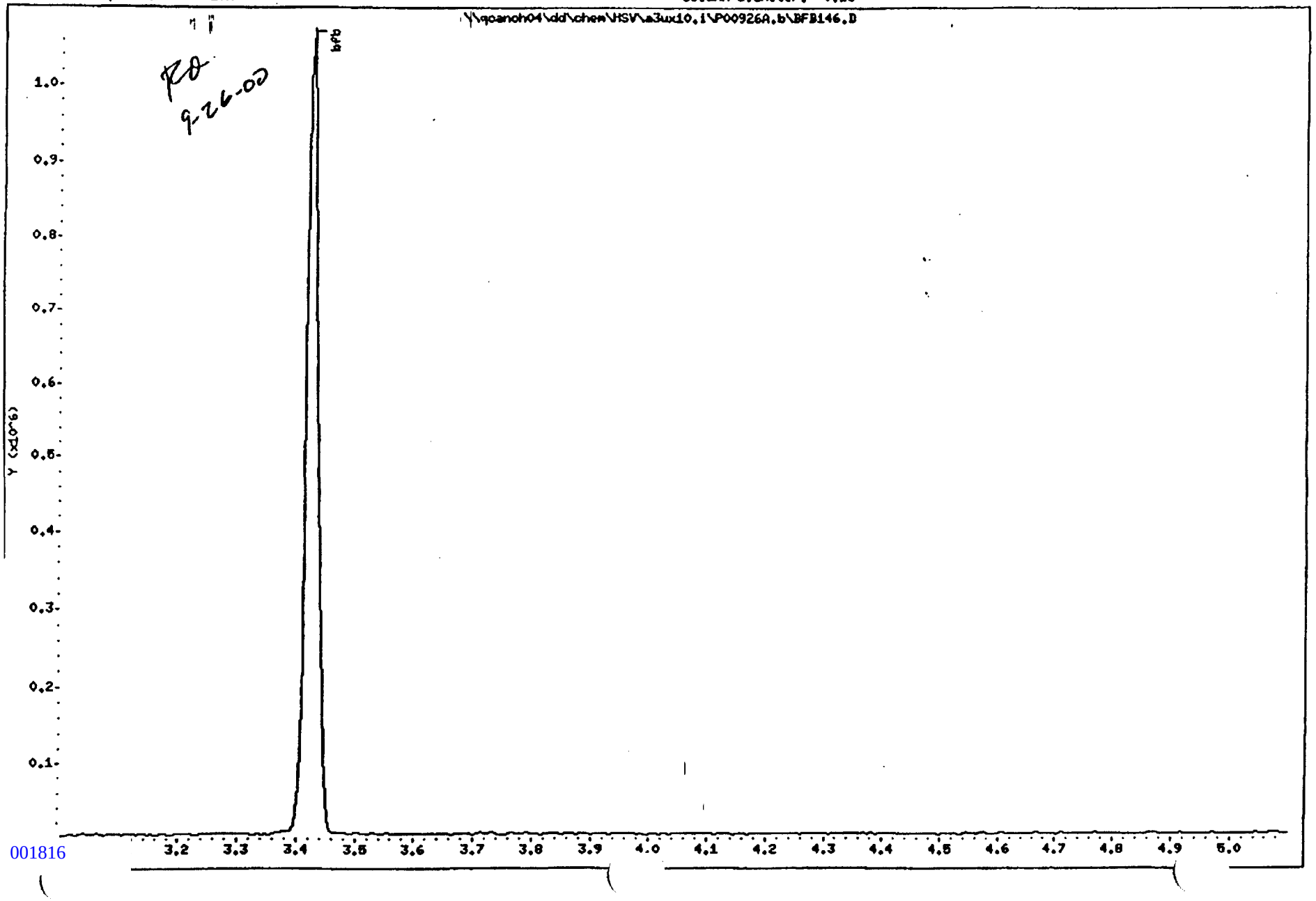
Location of Maximum: 96.00

Number of points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1494	62.00	7864	82.00	606	128.00	183
37.00	9413	63.00	5867	87.00	8074	130.00	799
38.00	6933	64.00	203	88.00	7976	141.00	1929
39.00	3623	68.00	17048	91.00	201	143.00	1865
44.00	1308	69.00	16992	92.00	4819	148.00	392
45.00	1350	70.00	1213	93.00	6499	155.00	201
47.00	2133	72.00	1010	94.00	20800	157.00	180
48.00	932	73.00	7811	95.00	195008	173.00	881
49.00	6897	74.00	26920	96.00	12990	174.00	185984
50.00	31896	75.00	85000	97.00	389	175.00	12416
51.00	9914	76.00	7615	104.00	666	176.00	179456
52.00	406	77.00	921	106.00	679	177.00	11743
56.00	2513	78.00	637	116.00	569	207.00	248
57.00	4531	79.00	3430	117.00	886	283.00	460
60.00	1313	80.00	1193	118.00	574		
61.00	7014	81.00	3508	119.00	922		

Data File: \\qoanoh04\dd\chem\HSV\a3ux10.i\P00926A.b\BFB146.D
Date : 26-SEP-2000 08:33
Client ID: 50NG BFB
Sample Info:
Volume Injected (uL): 1.0
Column phase: DB624 20M

Instrument: a3ux10.i
Operator: 1904
Column diameter: 0.18



001816

137
STL North Canton

Data File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\BFB148.D

Date : 27-SEP-2000 10:53

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

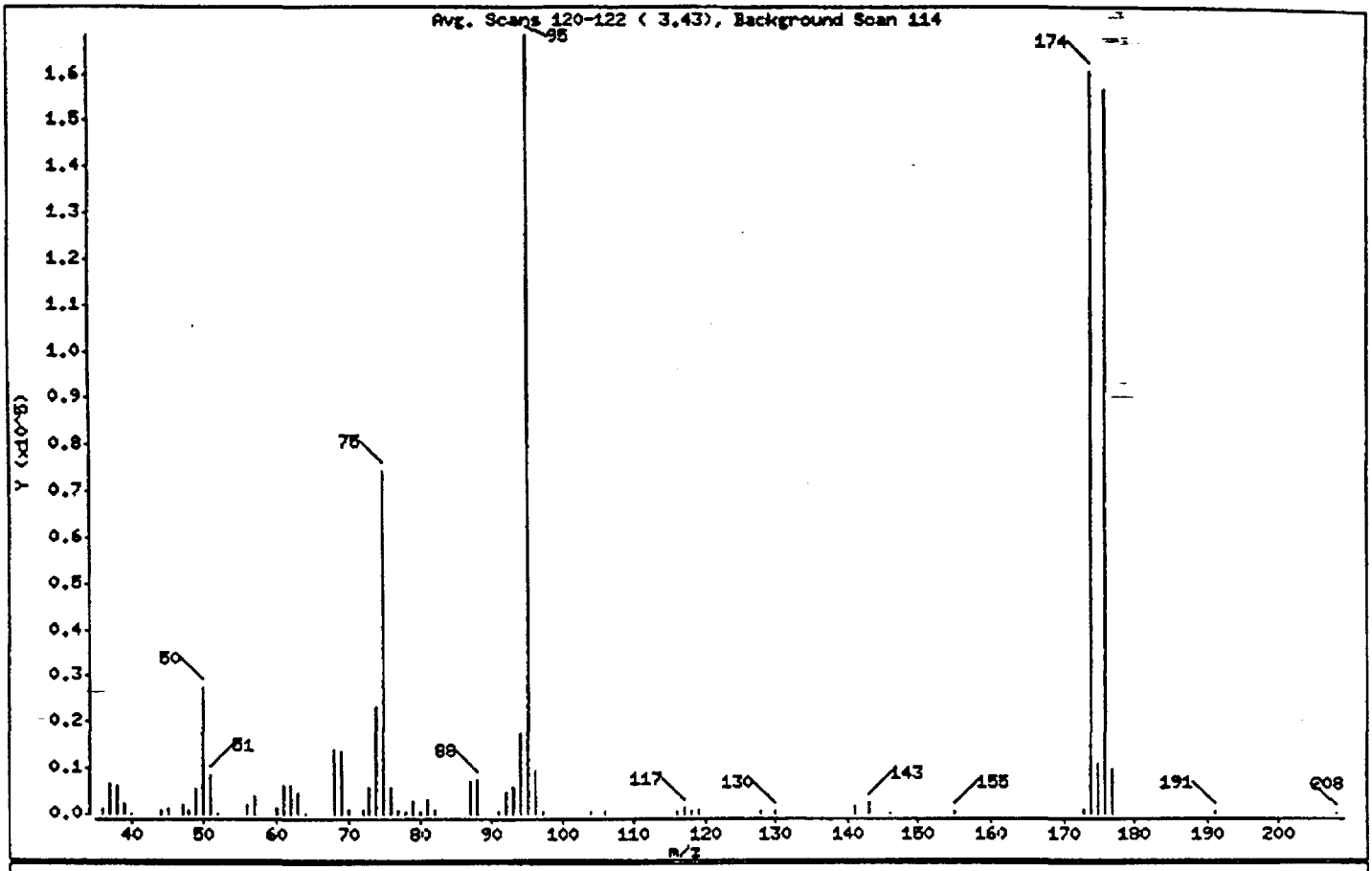
Volume Injected (uL): 1.0

Operator: 1903

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.36
75	30.00 - 60.00% of mass 95	44.25
96	5.00 - 9.00% of mass 95	5.45
173	Less than 2.00% of mass 174	0.57 (0.60)
174	50.00 - 120.00% of mass 95	96.33
175	5.00 - 9.00% of mass 174	6.37 (6.68)
176	95.00 - 101.00% of mass 174	93.17 (97.74)
177	5.00 - 9.00% of mass 176	5.81 (6.23)

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00927A.b\BFB148.D

Date : 27-SEP-2000 10:53

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1903

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB148.D

Spectrum: Avg. Scans 120-122 (3.43), Background Scan 114

Location of Maximum: 95.00

Number of points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1314	61.00	6090	81.00	3142	119.00	600
37.00	6719	62.00	6113	82.00	689	128.00	427
38.00	6041	63.00	4498	87.00	6948	130.00	559
39.00	2396	64.00	181	88.00	7431	141.00	1467
40.00	146	68.00	13767	91.00	414	143.00	2130
44.00	920	69.00	13356	92.00	4462	146.00	184
45.00	1000	70.00	900	93.00	5739	155.00	274
47.00	1825	72.00	688	94.00	17676	173.00	964
48.00	841	73.00	5940	95.00	168384	174.00	160512
49.00	5406	74.00	23216	96.00	9174	175.00	10727
50.00	27552	75.00	74512	97.00	407	176.00	156864
51.00	8552	76.00	5834	104.00	447	177.00	9780
52.00	171	77.00	831	106.00	388	191.00	446
56.00	1979	78.00	446	116.00	481	208.00	167
57.00	3825	79.00	2524	117.00	1099		
60.00	1169	80.00	520	118.00	448		

Data File: \\qcanoh04\dd\chem\HSV\a3uxi0.i\P00927A.b\BFB148.D

Page 2

Date : 27-SEP-2000 10:53

Client ID: 50NG BFB

Instrument: a3uxi0.i

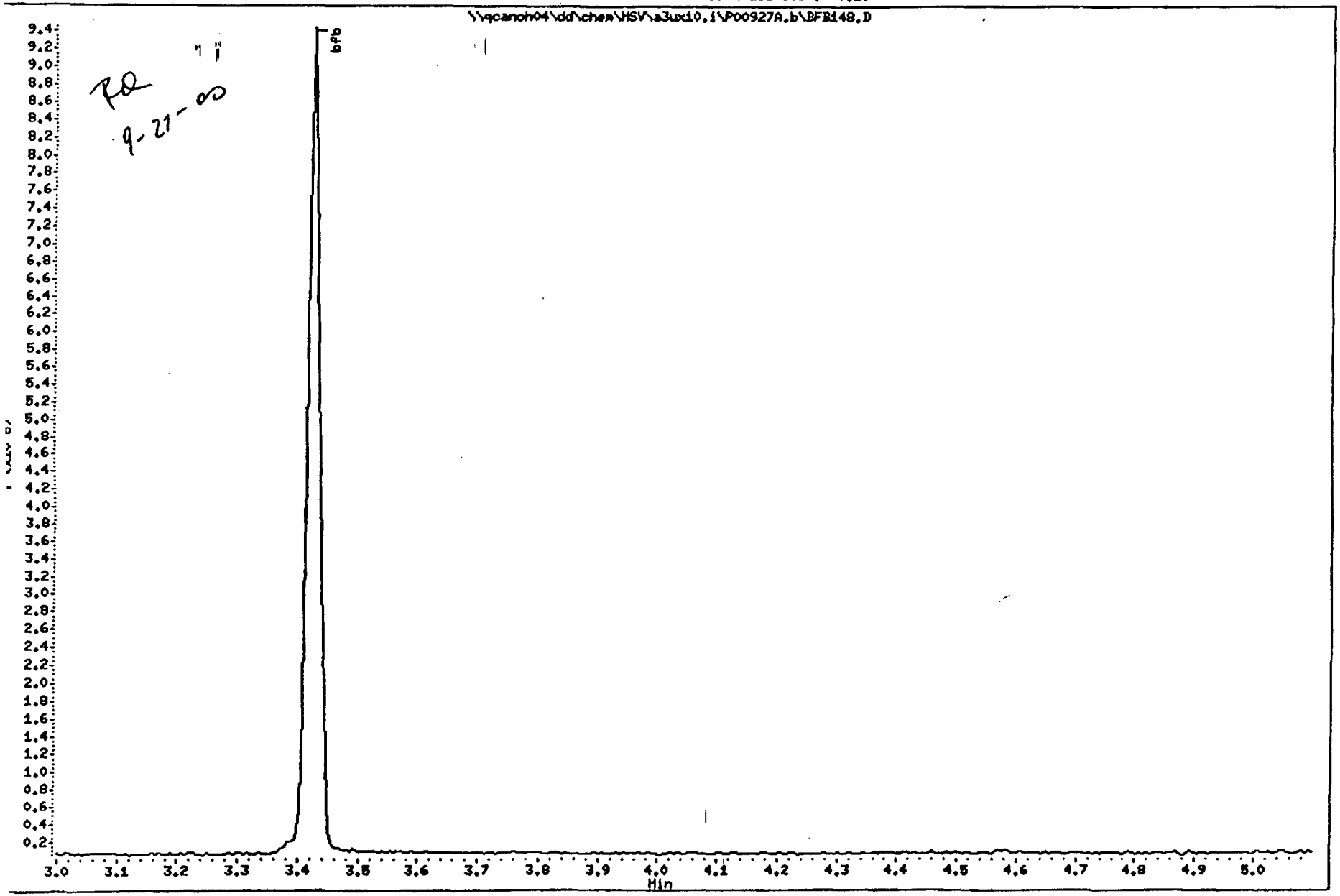
Sample Info:

Volume Injected (uL): 1.0

Operator: 1903

Column phase: DB624 20H

Column diameter: 0.18



RQ
9-27-00

001819

STL North Canton

Data File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\BFB149.D

Date : 28-SEP-2009 10:15

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

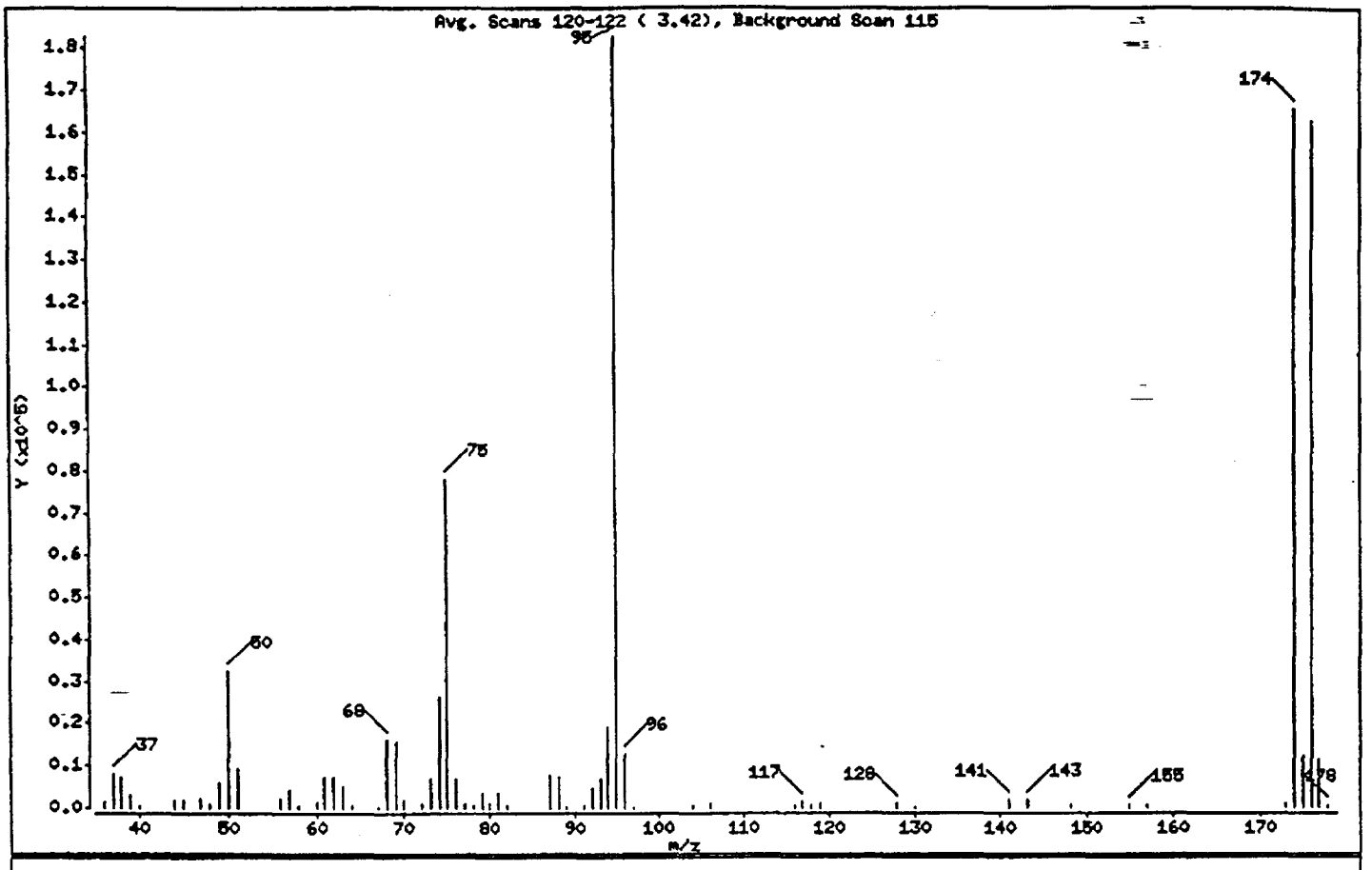
Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.69
75	30.00 - 60.00% of mass 95	42.69
96	5.00 - 9.00% of mass 95	6.98
173	Less than 2.00% of mass 174	0.46 (0.51)
174	50.00 - 120.00% of mass 95	90.88
175	5.00 - 9.00% of mass 174	6.74 (7.42)
176	95.00 - 101.00% of mass 174	89.08 (98.02)
177	5.00 - 9.00% of mass 176	6.25 (7.02)

Data File: \\qoanoh04\dd\chem\MSV\a3ux10.i\P000928A.b\BFB149.D

Date : 28-SEP-2000 10:15

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB149.D

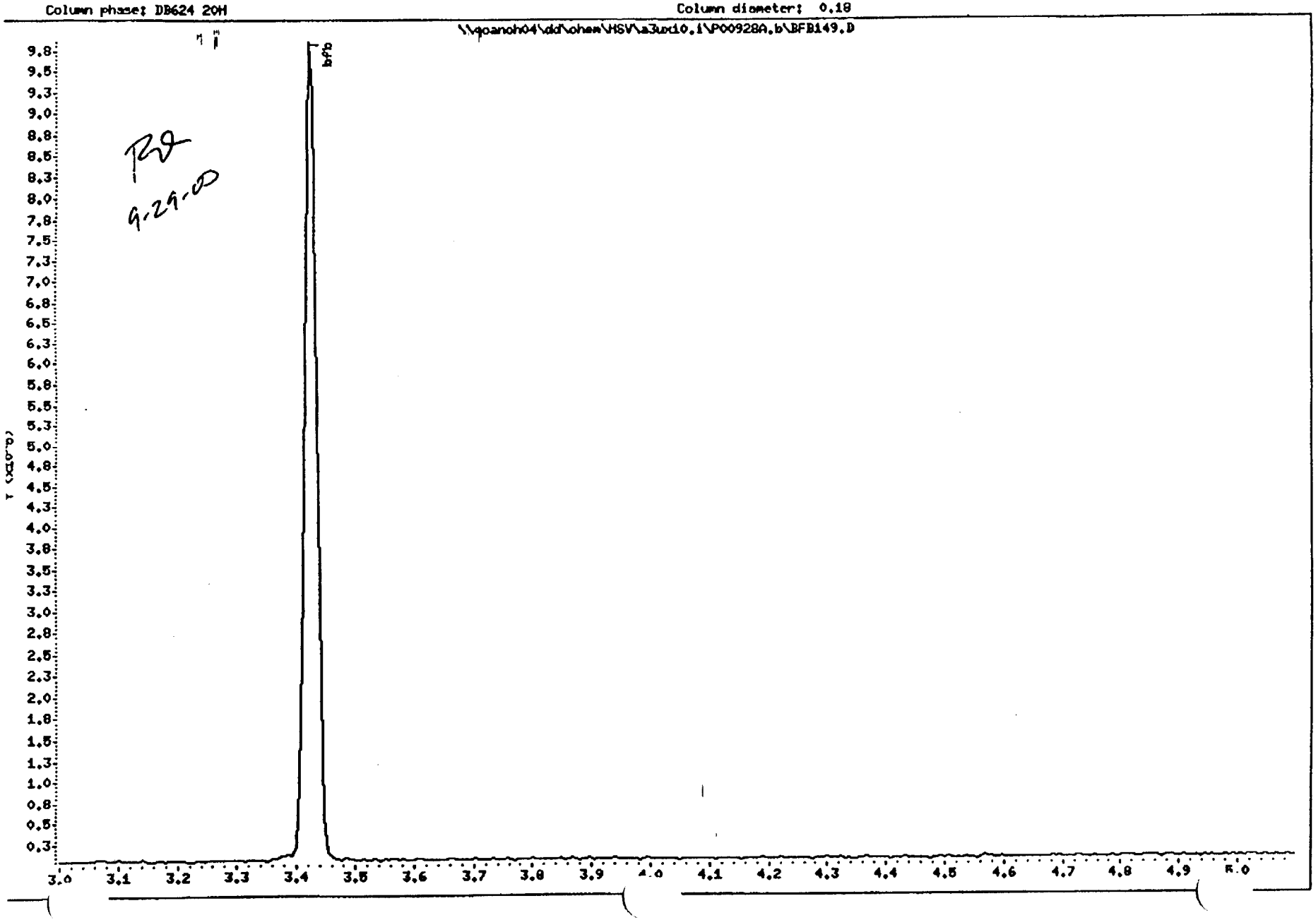
Spectrum: Avg. Scans 120-122 (3.42), Background Scan 115

Location of Maximum: 95.00

Number of points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1248	62.00	6966	82.00	570	128.00	742
37.00	8155	63.00	5017	87.00	7453	130.00	201
38.00	7347	64.00	214	88.00	7076	141.00	1711
39.00	2833	67.00	181	89.00	172	143.00	1583
40.00	584	68.00	15989	91.00	382	148.00	279
44.00	1518	69.00	15468	92.00	4615	155.00	409
45.00	1593	70.00	1535	93.00	6852	157.00	231
47.00	2221	72.00	750	94.00	19016	173.00	849
48.00	993	73.00	6770	95.00	182656	174.00	165962
49.00	5978	74.00	25962	96.00	12753	175.00	12314
50.00	32312	75.00	77968	97.00	170	176.00	162688
51.00	9414	76.00	6867	104.00	499	177.00	11421
56.00	2034	77.00	989	106.00	724	178.00	368
57.00	4060	78.00	407	116.00	484		
58.00	293	79.00	3428	117.00	1107		
60.00	1329	80.00	860	118.00	624		
61.00	7123	81.00	3492	119.00	684		

Data File: \\qoanoh04\dd\chem\MSV\a3ux10.i\P00928A.b\BFB149.D
Date : 28-SEP-2000 10:15
Client ID: 50NG BFB
Instrument: a3ux10.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 1904
Column phase: DB624 20M
Column diameter: 0.18



RD
9.29.00

STL North Canton

Data File: \\qcanoh04\dd\chem\HSV\a3ux10.i\P00929A.b\BFB151.D

Date : 29-SEP-2009 10:12

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

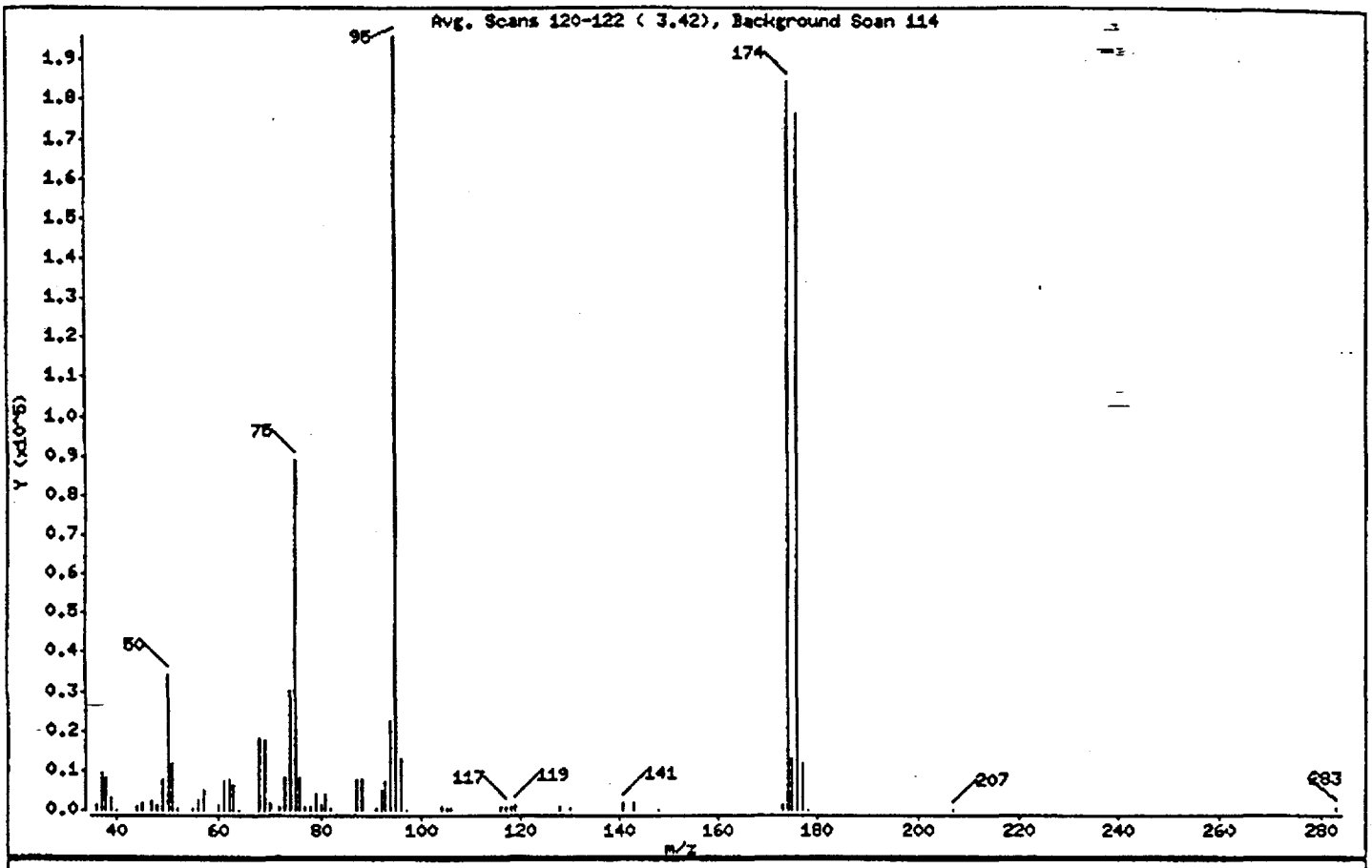
Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.51
75	30.00 - 60.00% of mass 95	45.45
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.58 (0.62)
174	50.00 - 120.00% of mass 95	93.97
175	5.00 - 9.00% of mass 174	6.57 (6.99)
176	95.00 - 101.00% of mass 174	89.85 (95.61)
177	5.00 - 9.00% of mass 176	6.03 (6.71)

Data File: \\qcanoh04\dd\chem\MSV\a3ux10.i\P00929A.b\BFB151.D

Date : 29-SEP-2000 10:12

Client ID: 50NG BFB

Instrument: a3ux10.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1904

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB151.D

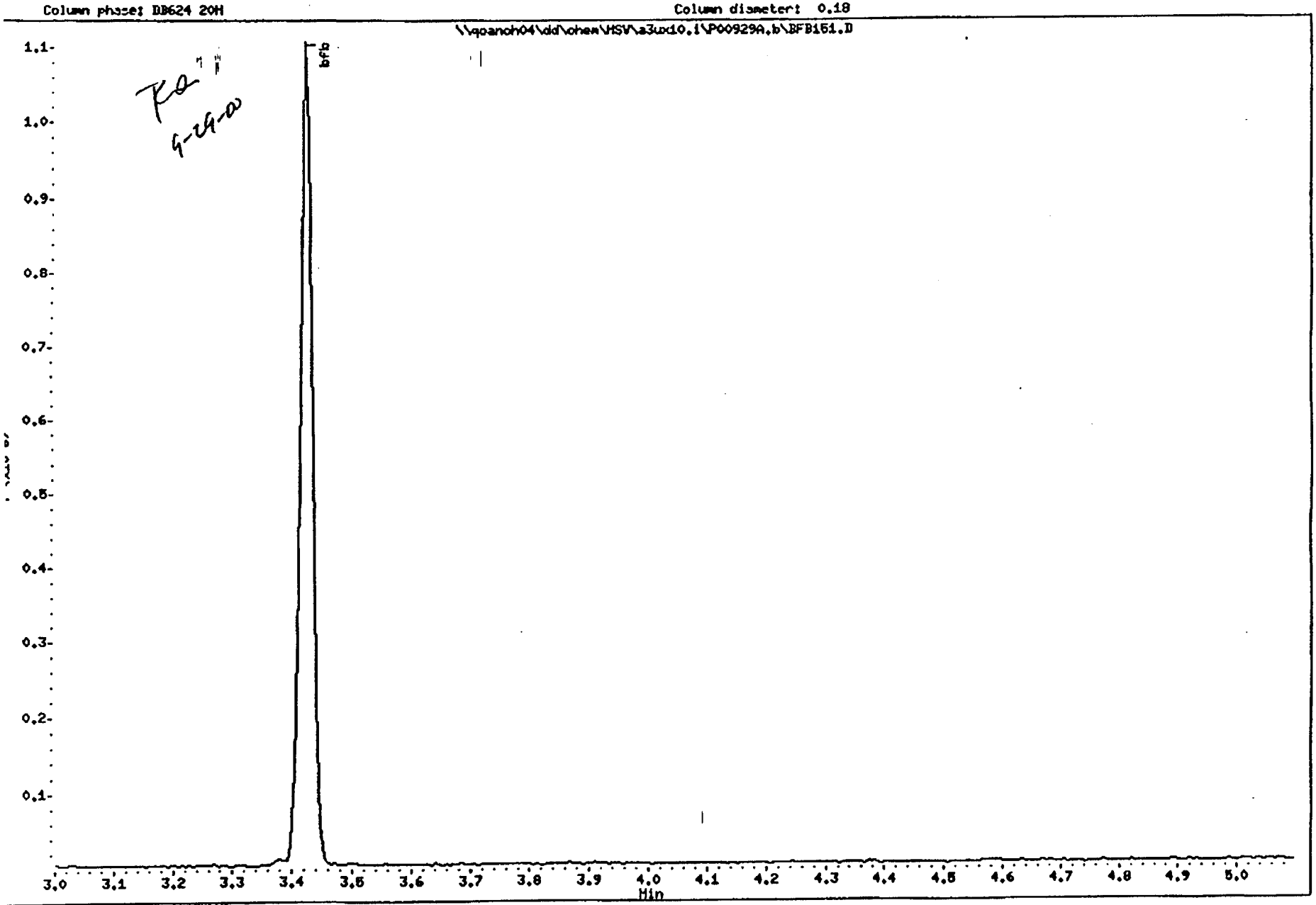
Spectrum: Avg. Scans 120-122 (3.42), Background Scan 114

Location of Maximum: 95.00

Number of points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1548	61.00	7217	82.00	653	128.00	690
37.00	9293	62.00	7744	87.00	7890	130.00	838
38.00	8035	63.00	6236	88.00	7703	141.00	1809
39.00	3154	64.00	215	91.00	669	143.00	1761
40.00	197	68.00	18064	92.00	4882	148.00	192
44.00	1028	69.00	17680	93.00	7340	173.00	1140
45.00	1701	70.00	1841	94.00	22368	174.00	184192
47.00	2279	72.00	684	95.00	196032	175.00	12885
48.00	1189	73.00	8319	96.00	13037	176.00	176128
49.00	7659	74.00	30320	97.00	188	177.00	11817
50.00	34328	75.00	89096	104.00	812	178.00	178
51.00	11787	76.00	8056	105.00	226	207.00	150
52.00	296	77.00	1087	106.00	586	283.00	271
55.00	398	78.00	761	116.00	807		
56.00	2683	79.00	4062	117.00	1116		
57.00	4972	80.00	1397	118.00	777		
60.00	1503	81.00	4061	119.00	1193		

Data File: \\qcanoh04\dd\chem\HSV\a3ud10.i\P00929A.b\BFB151.D
Date : 29-SEP-2000 10:12
Client ID: 50NG BFB
Instrument: a3ud10.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 1904
Column phase: DB624 20M
Column diameter: 0.18



KEMRON ENVIRONMENTAL
CHECK SAMPLE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID:A0I280000 140
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DL6DT102 Date Extracted:09/27/00
Dilution factor: 1 Date Analyzed: 09/27/00
Moisture %:NA

QC Batch: 0272140

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.48	
108-90-7	Chlorobenzene	0.49	
75-35-4	1,1-Dichloroethylene	0.56	
79-01-6	Trichloroethylene	0.51	
108-88-3	Toluene	0.48	

Data File: \\qcanoh04\dd\chem\HSV\a3uxd0.i\P00927A.b\UXX3647.D

Page 7

Date : 27-SEP-2000 14:16

Client ID: DL6DT102

Instrument: a3uxd0.i

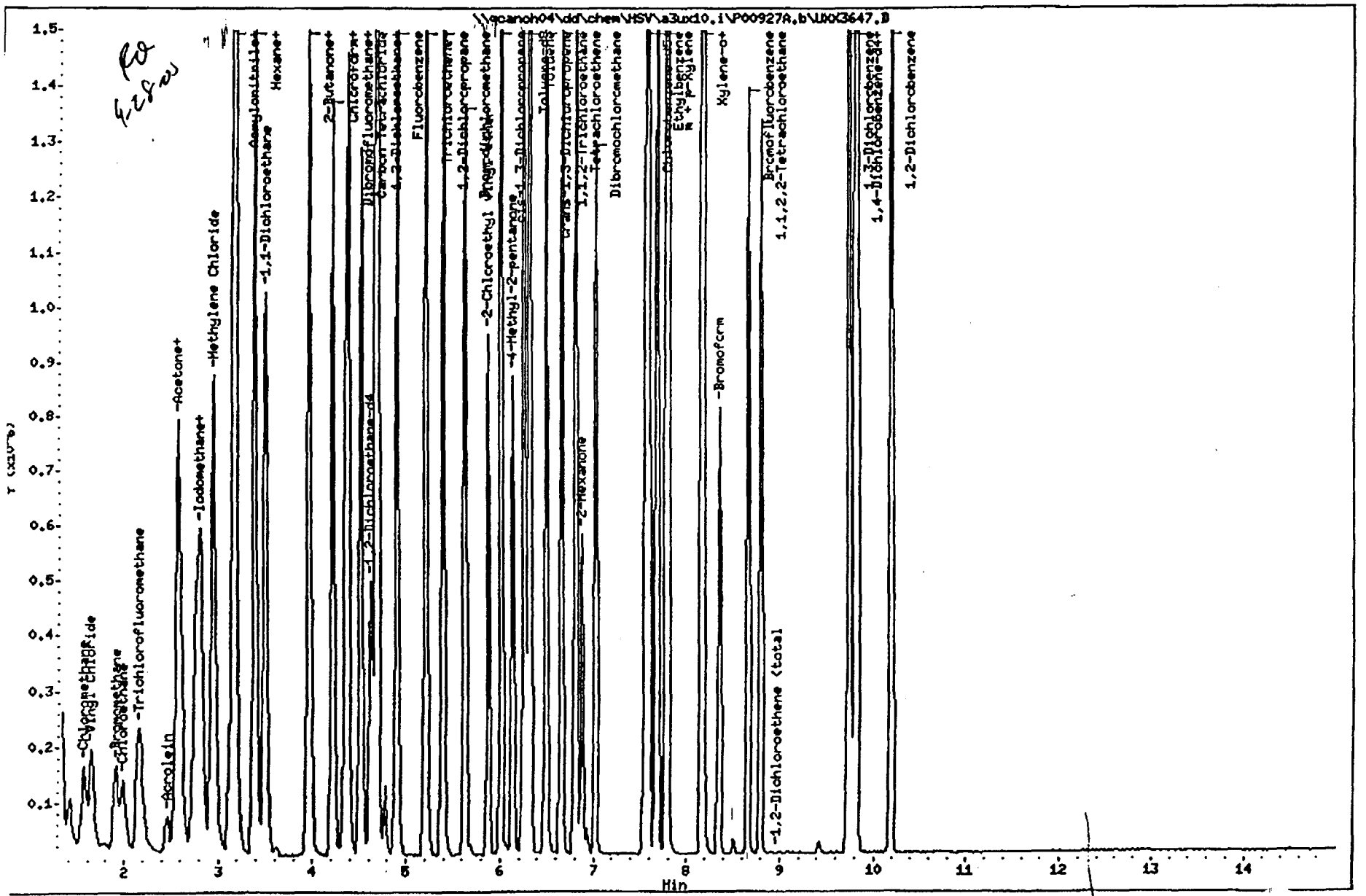
Sample Info: SPLPCK,0.2HL/5HL

Purge Volume: 0.2

Operator: 1904

Column phase: DB624

Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3647.D
Lab Smp Id: SPLPCK
Inj Date : 27-SEP-2000 14:16
Operator : 1904 Inst ID: a3ux10.i
Smp Info : SPLPCK,0.2ML/5ML
Misc Info : P00927A,8260LLUX10,,1904,3
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 28-Sep-2000 08:51 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.200	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	4.903	4.900	(1.000)	1835194	50.0000	
* 2 Chlorobenzene-d5	117	7.553	7.562	(1.000)	1407808	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.790	9.787	(1.000)	550595	50.0000	
$ 4 Dibromofluoromethane	113	4.335	4.344	(0.884)	376504	49.8664	249.33
$ 5 1,2-Dichloroethane-d4	65	4.619	4.616	(0.942)	386498	49.4066	247.03
$ 6 Toluene-d8	98	6.252	6.249	(0.828)	1587031	49.7622	248.81
$ 7 Bromofluorobenzene	95	8.666	8.662	(1.147)	498546	49.8536	249.27
8 Dichlorodifluoromethane	85	1.412	1.409	(0.288)	201729	57.9234	289.62
9 Chloromethane	50	1.566	1.563	(0.319)	337193	70.4549	352.27
10 Vinyl Chloride	62	1.637	1.646	(0.334)	390691	81.8336	409.17
11 Bromomethane	94	1.909	1.906	(0.389)	238983	80.3458	401.73
12 Chloroethane	64	1.992	1.989	(0.406)	243587	89.4522	447.26
13 Trichlorofluoromethane	101	2.158	2.154	(0.440)	539415	98.5448	492.72
15 Acrolein	56	2.465	2.474	(0.503)	96218	97.7312	488.66
16 Acetone	43	2.584	2.581	(0.527)	303612	121.416	607.08
17 1,1-Dichloroethene	96	2.560	2.557	(0.522)	654504	111.188	555.94
18 Freon-113	151	Compound Not Detected.					

001828

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	19 Iodomethane	142	2.749	2.687	(0.561)	2724	2.98106	14.905
	20 Carbon Disulfide	76	2.749	2.746	(0.561)	1686028	116.984	584.92
	21 Methylene Chloride	84	2.939	2.935	(0.599)	759433	94.3726	471.86
	22 Acetonitrile	41	2.808	2.805	(0.573)	745759	923.640	4618.2
	23 Acrylonitrile	53	3.116	3.125	(0.636)	289764	103.113	515.56
	24 Methyl tert-butyl ether	73	3.152	3.160	(0.643)	1932067	95.9262	479.63
	25 trans-1,2-Dichloroethene	96	3.163	3.160	(0.645)	846544	96.3914	481.96
	26 Hexane	86	3.376	3.373	(0.689)	230111	109.812	549.06
	27 Vinyl acetate	43	3.376	3.515	(0.689)	659872	91.0024	455.01
	28 1,1-Dichloroethane	63	3.495	3.492	(0.713)	1359520	102.227	511.13
	29 tert-Butyl Alcohol	59	3.163	3.018	(0.645)	34025	74.9093	374.55
	30 2-Butanone	43	3.956	3.953	(0.807)	372837	113.329	566.64
M	31 1,2-Dichloroethene (total)	96				1723380	192.194	960.97
	32 cis-1,2-dichloroethene	96	3.956	3.953	(0.807)	876836	95.8022	479.01
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	4.205	4.213	(0.858)	1325017	97.6421	488.21
	36 Tetrahydrofuran	42	4.217	4.202	(0.860)	3095	1.63683	8.184
	37 1,1,1-Trichloroethane	97	4.370	4.379	(0.891)	1077009	103.819	519.10
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	4.512	4.503	(0.920)	954789	103.934	519.67
	40 1,2-Dichloroethane	62	4.678	4.687	(0.954)	990168	99.6929	498.46
	41 Benzene	78	4.678	4.675	(0.954)	3362725	95.6034	478.02
	42 Trichloroethene	130	5.210	5.207	(1.063)	1028081	101.238	506.19
	43 1,2-Dichloropropane	63	5.388	5.397	(1.099)	794019	95.6750	478.37
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	5.625	5.621	(1.147)	965199	97.8657	489.33
	47 2-Chloroethyl vinyl ether	63	5.873	5.870	(1.198)	456061	98.1286	490.64
	48 cis-1,3-Dichloropropene	75	6.003	6.012	(1.224)	1254979	101.845	509.22
	49 4-Methyl-2-pentanone	43	6.133	6.133	(1.251)	594937	95.0381	475.19
	50 Toluene	91	6.311	6.308	(0.836)	3804592	95.8280	479.14
	51 trans-1,3-Dichloropropene	75	6.488	6.485	(0.859)	1083993	104.276	521.38
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	6.654	6.663	(0.881)	722978	96.3784	481.89
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	6.808	6.805	(0.901)	882929	102.055	510.27
	56 2-Hexanone	43	6.879	6.876	(0.911)	439717	109.831	549.15
	57 Dibromochloromethane	129	7.021	7.018	(0.929)	775439	96.0488	480.24
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	7.589	7.586	(1.005)	2530126	97.1233	485.62
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	7.684	7.680	(1.017)	1374948	95.9859	479.93
	62 m + p-Xylene	106	7.790	7.787	(1.031)	3281786	191.564	957.82
M	63 Xylenes (total)	106				4847775	286.545	1432.7
	64 Xylene-o	106	8.169	8.166	(1.081)	1565989	94.9814	474.91
	65 Styrene	104	8.181	8.177	(1.083)	2559835	94.9642	474.82

001829

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
66	Bromoform	173	8.358	8.355	(1.107)	459881	97.3540	486.77
67	Isopropylbenzene	105	Compound Not Detected.					
68	1,1,2,2-Tetrachloroethane	83	8.796	8.793	(0.898)	685432	89.3318	446.66
69	1,4-Dichloro-2-butene	53	Compound Not Detected.					
70	1,2,3-Trichloropropane	110	Compound Not Detected.					
71	Bromobenzene	156	Compound Not Detected.					
72	n-Propylbenzene	120	Compound Not Detected.					
73	2-Chlorotoluene	126	Compound Not Detected.					
74	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
75	4-Chlorotoluene	126	Compound Not Detected.					
76	tert-Butylbenzene	119	Compound Not Detected.					
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	9.731	9.727	(0.994)	1559998	96.7402	483.70
81	1,4-Dichlorobenzene	146	9.813	9.810	(1.002)	1540245	94.9633	474.82
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	10.180	10.189	(1.040)	1265920	92.9927	464.96
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	5.210	5.385	(1.063)	8695	0.62456	3.123
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					

001830

KEMRON ENVIRONMENTAL
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID:A0I280000 140
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DL6DT101 Date Extracted:09/27/00
Dilution factor: 1 Date Analyzed: 09/27/00
Moisture %:NA

QC Batch: 0272140

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.025	U
56-23-5	Carbon tetrachloride	0.025	U
108-90-7	Chlorobenzene	0.025	U
67-66-3	Chloroform	0.025	U
107-06-2	1,2-Dichloroethane	0.025	U
75-35-4	1,1-Dichloroethylene	0.070	U
78-93-3	Methyl ethyl ketone	20	U
127-18-4	Tetrachloroethylene	0.070	U
79-01-6	Trichloroethylene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: \\qcanoh04\dd\chem\HSV\a3ucd0.i\P00927A.b\U0X3643.D

Page 7

Date : 27-SEP-2000 12:46

Client ID: DL6DT101

Instrument: a3ucd0.i

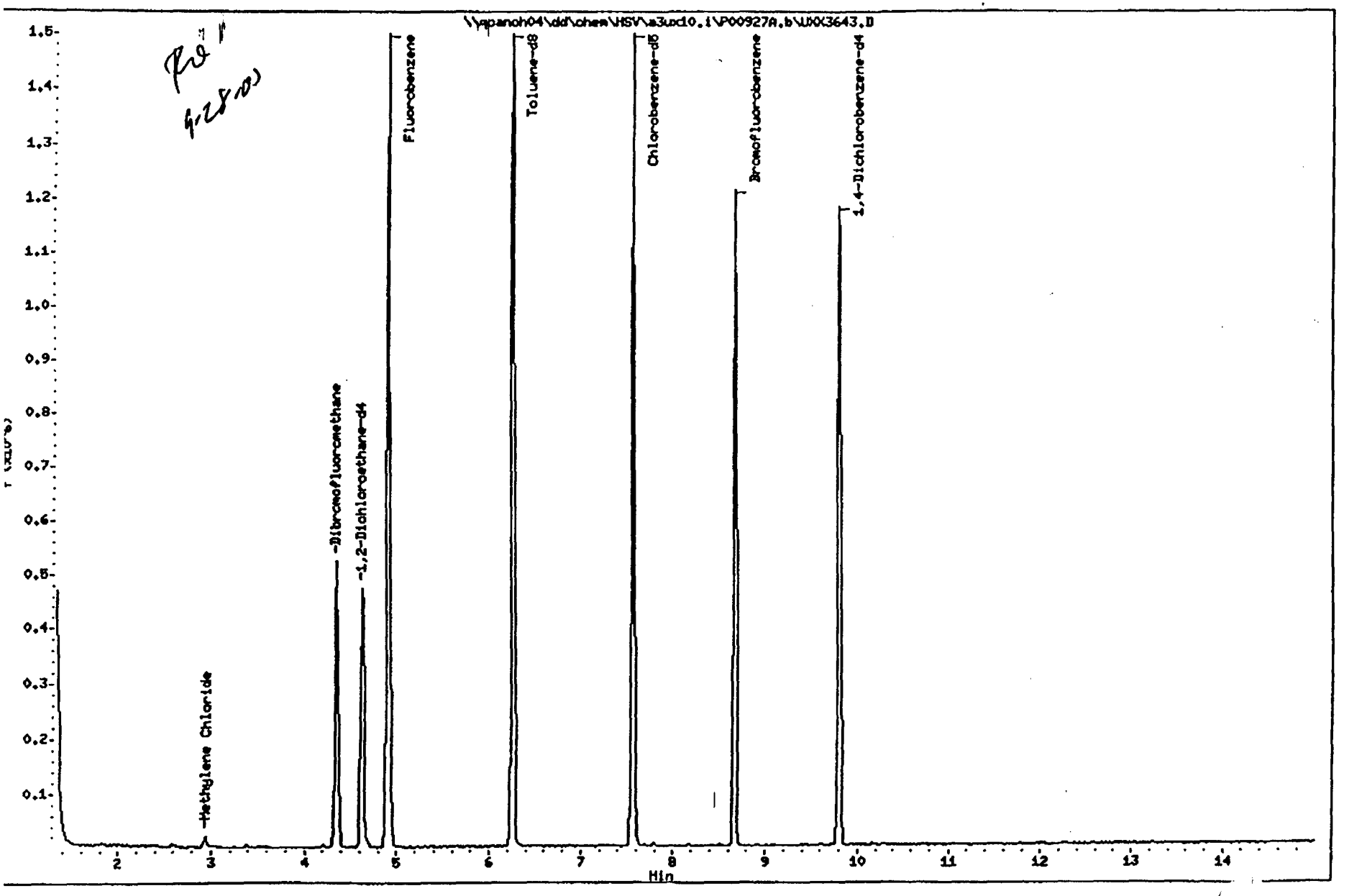
Sample Info: BLANK,0.2HL/5HL

Operator: 1904

Purge Volume: 0.2

Column phase: DB624

Column diameter: 0.18



153

STL North Canton

0018
32

STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3643.D
Lab Smp Id: BLANK
Inj Date : 27-SEP-2000 12:46
Operator : 1904 Inst ID: a3ux10.i
Smp Info : BLANK,0.2ML/5ML
Misc Info : P00927A,8260LLUX10,,1904,3,,BLANK,,0
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 28-Sep-2000 08:51 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.200	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	4.900	4.900	(1.000)	1814601	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1339209	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.799	9.787	(1.000)	445912	50.0000	
$ 4 Dibromofluoromethane	113	4.344	4.344	(0.887)	378697	50.7260	253.63
$ 5 1,2-Dichloroethane-d4	65	4.616	4.616	(0.942)	386999	50.0320	250.16
$ 6 Toluene-d8	98	6.249	6.249	(0.826)	1562942	51.5172	257.58
$ 7 Bromofluorobenzene	95	8.663	8.662	(1.146)	449025	47.2016	236.01
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	Compound Not Detected.					
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	19 Iodomethane	142	Compound Not Detected.					
	20 Carbon Disulfide	76	Compound Not Detected.					
	21 Methylene Chloride	84	2.936	2.935	(0.599)	14304	1.79769	8.988
	22 Acetonitrile	41	Compound Not Detected.					
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					

001834

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
66	Bromoform	173	Compound Not Detected.					
67	Isopropylbenzene	105	Compound Not Detected.					
68	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
69	1,4-Dichloro-2-butene	53	Compound Not Detected.					
70	1,2,3-Trichloropropane	110	Compound Not Detected.					
71	Bromobenzene	156	Compound Not Detected.					
72	n-Propylbenzene	120	Compound Not Detected.					
73	2-Chlorotoluene	126	Compound Not Detected.					
74	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
75	4-Chlorotoluene	126	Compound Not Detected.					
76	tert-Butylbenzene	119	Compound Not Detected.					
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					

KEMRON ENVIRONMENTAL
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I190260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM1X102 Date Extracted:09/27/00
Dilution factor: 4 Date Analyzed: 09/27/00
Moisture %:

QC Batch: 0272140

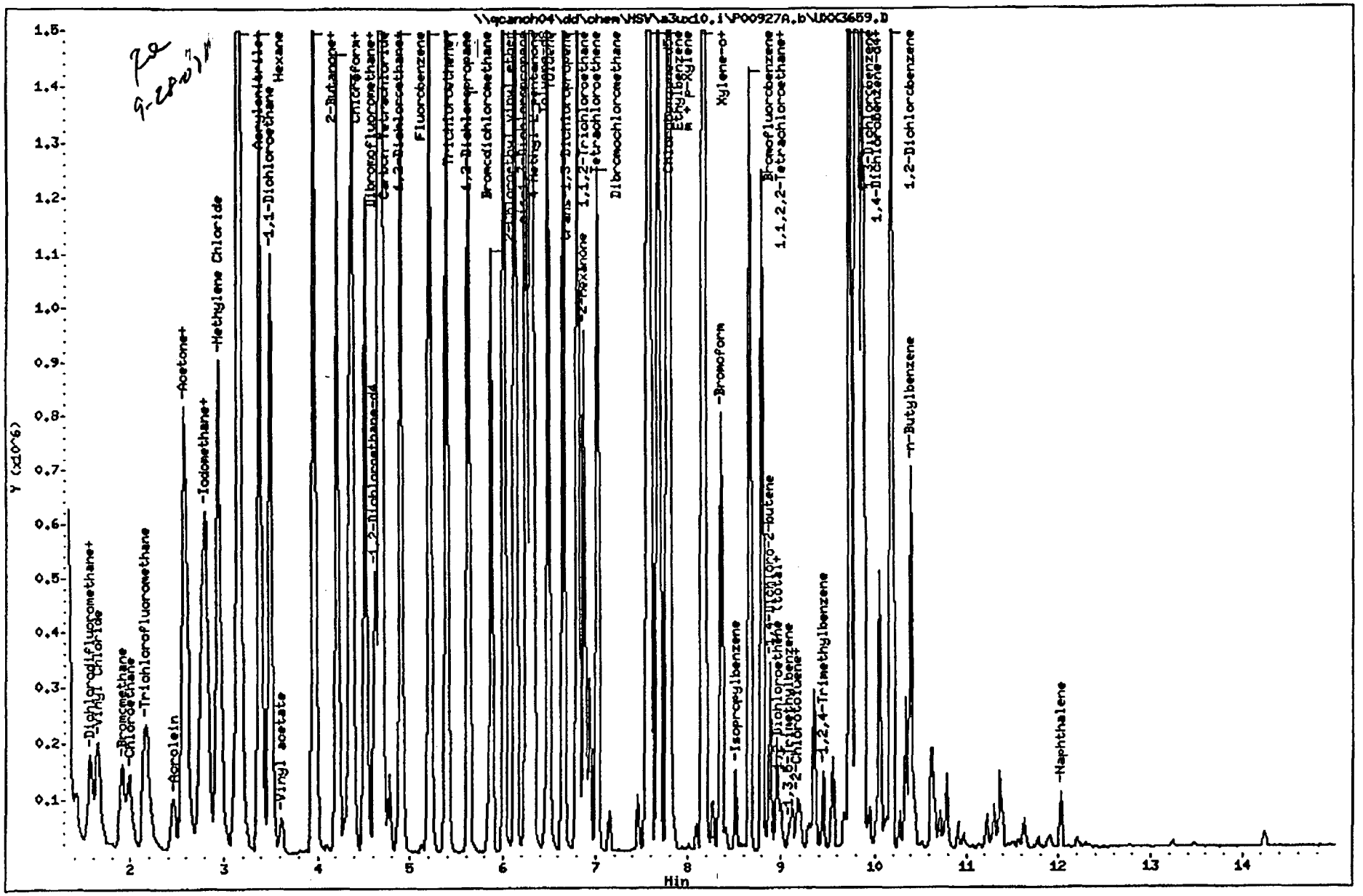
Client Sample Id: L0009094-04

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	3.5	
108-90-7	Chlorobenzene	2.0	
75-35-4	1,1-Dichloroethylene	2.2	
79-01-6	Trichloroethylene	2.3	
108-88-3	Toluene	4.6	

FORM I

Data File: \\qcanoh04\dd\chem\HSV\a3ucd10.i\P00927A.b\U0C3659.D
Date : 27-SEP-2000 19:08
Client ID:
Sample Info: IKHLX-HS,0.05ML/5ML
Purge Volume: 0.1
Column phase: DB624

Instrument: a3ucd10.i
Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3659.D
Lab Smp Id: DKM1X-MS
Inj Date : 27-SEP-2000 19:08
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM1X-MS,0.05ML/5ML
Misc Info : P00927A,8260LLUX10,,1904,3,,MS
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 28-Sep-2000 08:51 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.050	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
* 1 Fluorobenzene	96	4.900	4.900	(1.000)	1798793	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1407186	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.799	9.787	(1.000)	560836	50.0000	
$ 4 Dibromofluoromethane	113	4.344	4.344	(0.887)	389495	52.6309	1052.6
$ 5 1,2-Dichloroethane-d4	65	4.616	4.616	(0.942)	398932	52.0280	1040.6
$ 6 Toluene-d8	98	6.249	6.249	(0.826)	1634233	51.2649	1025.3
$ 7 Bromofluorobenzene	95	8.663	8.662	(1.146)	520824	52.1044	1042.1
8 Dichlorodifluoromethane	85	1.421	1.409	(0.290)	192370	56.3539	1127.1
9 Chloromethane	50	1.563	1.563	(0.319)	361334	77.0268	1540.5
10 Vinyl Chloride	62	1.646	1.646	(0.336)	407959	87.1798	1743.6
11 Bromomethane	94	1.906	1.906	(0.389)	249431	85.5554	1711.1
12 Chloroethane	64	1.989	1.989	(0.406)	254519	95.3582	1907.2
13 Trichlorofluoromethane	101	2.155	2.154	(0.440)	535343	99.7801	1995.6
15 Acrolein	56	2.462	2.474	(0.503)	97292	100.822	2016.4
16 Acetone	43	2.581	2.581	(0.527)	508769	212.796	4255.9(A)
17 1,1-Dichloroethene	96	2.557	2.557	(0.522)	644255	111.662	2233.2
18 Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
19	Iodomethane	142	2.734	2.687	(0.558)	947	2.82430	56.486
20	Carbon Disulfide	76	2.758	2.746	(0.563)	1643111	116.314	2326.3
21	Methylene Chloride	84	2.936	2.935	(0.599)	784952	99.5177	1990.4
22	Acetonitrile	41	2.805	2.805	(0.573)	780658	986.429	19728
23	Acrylonitrile	53	3.125	3.125	(0.638)	304810	110.662	2213.2
24	Methyl tert-butyl ether	73	3.160	3.160	(0.645)	2025018	102.576	2051.5
25	trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	888401	103.204	2064.1
26	Hexane	86	3.373	3.373	(0.689)	227902	110.959	2219.2
27	Vinyl acetate	43	3.610	3.515	(0.737)	17091	2.40470	48.094
28	1,1-Dichloroethane	63	3.492	3.492	(0.713)	1415030	108.554	2171.1
29	tert-Butyl Alcohol	59	3.160	3.018	(0.645)	38177	85.7512	1715.0
30	2-Butanone	43	3.953	3.953	(0.807)	631676	195.892	3917.8
M 31	1,2-Dichloroethene (total)	96				1801185	204.952	4099.0
32	cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	912784	101.748	2035.0
33	2,2-Dichloropropane	77	Compound Not Detected.					
34	Bromochloromethane	128	Compound Not Detected.					
35	Chloroform	83	4.214	4.213	(0.860)	1382319	103.926	2078.5
36	Tetrahydrofuran	42	4.225	4.202	(0.862)	8116	4.37911	87.582
37	1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	1090074	107.205	2144.1
38	1,1-Dichloropropene	75	Compound Not Detected.					
39	Carbon Tetrachloride	117	4.509	4.509	(0.920)	944264	104.868	2097.4
40	1,2-Dichloroethane	62	4.687	4.687	(0.957)	1060784	108.964	2179.3
41	Benzene	78	4.675	4.675	(0.954)	6067178	175.983	3519.6(R)
42	Trichloroethene	130	5.207	5.207	(1.063)	1145624	115.096	2301.9
43	1,2-Dichloropropane	63	5.397	5.397	(1.101)	854038	104.989	2099.8
44	1,4-Dioxane	88	Compound Not Detected.					
45	Dibromomethane	93	Compound Not Detected.					
46	Bromodichloromethane	83	5.622	5.621	(1.147)	987193	102.121	2042.4
47	2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	488462	107.227	2144.5
48	cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	1264835	104.722	2094.4
49	4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	1827367	297.820	5956.4(A)
50	Toluene	91	6.308	6.308	(0.834)	9115210	229.690	4593.8(AR)
51	trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	1083479	104.273	2085.4
52	Ethyl Methacrylate	69	Compound Not Detected.					
53	1,1,2-Trichloroethane	97	6.663	6.663	(0.881)	739993	98.6902	1973.8
54	1,3-Dichloropropane	76	Compound Not Detected.					
55	Tetrachloroethene	164	6.805	6.805	(0.900)	893093	103.275	2065.5
56	2-Hexanone	43	6.876	6.876	(0.909)	665647	166.336	3326.7
57	Dibromochloromethane	129	7.018	7.018	(0.928)	790555	97.9644	1959.3
58	1,2-Dibromoethane	107	Compound Not Detected.					
59	Chlorobenzene	112	7.586	7.586	(1.003)	2615388	100.441	2008.8
60	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
61	Ethylbenzene	106	7.681	7.680	(1.016)	1763917	123.194	2463.9
62	m + p-Xylene	106	7.787	7.787	(1.030)	4368452	255.108	5102.2(A)
M 63	Xylenes (total)	106				6676941	395.185	7903.7
64	Xylene-o	106	8.166	8.166	(1.080)	2308489	140.078	2801.6
65	Styrene	104	8.177	8.177	(1.081)	3429978	127.301	2546.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
66 Bromoform	173	8.355	8.355	(1.105)	454756	96.3116	1926.2
67 Isopropylbenzene	105	8.521	8.520	(1.127)	122342	3.04317	60.863
68 1,1,2,2-Tetrachloroethane	83	8.793	8.793	(0.897)	655351	83.8517	1677.0
69 1,4-Dichloro-2-butene	53	8.887	8.852	(0.907)	4014	9.21184	184.24
70 1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	3372	1.23737	24.747
71 Bromobenzene	156	Compound Not Detected.					
72 n-Propylbenzene	120	8.994	8.911	(0.918)	25721	2.10948	42.190
73 2-Chlorotoluene	126	9.183	9.006	(0.937)	16766	1.57281	31.456
74 1,3,5-Trimethylbenzene	105	9.089	9.077	(0.928)	27546	0.91350	18.270
75 4-Chlorotoluene	126	9.183	9.100	(0.937)	16766	1.58783	31.756
76 tert-Butylbenzene	119	Compound Not Detected.					
77 1,2,4-Trimethylbenzene	105	9.444	9.443	(0.964)	88208	3.09990	61.998
78 sec-Butylbenzene	105	Compound Not Detected.					
79 4-Isopropyltoluene	119	Compound Not Detected.					
80 1,3-Dichlorobenzene	146	9.728	9.727	(0.993)	1583023	96.3755	1927.5
81 1,4-Dichlorobenzene	146	9.822	9.810	(1.002)	1580307	95.6542	1913.1
82 n-Butylbenzene	91	10.390	10.165	(1.060)	26778	1.33530	26.706
83 1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	1312329	94.6415	1892.8
84 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86 Hexachlorobutadiene	225	Compound Not Detected.					
87 Naphthalene	128	12.023	12.023	(1.227)	100964	5.79545	115.91
88 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98 Cyclohexane	56	Compound Not Detected.					
143 Methyl Acetate	43	Compound Not Detected.					
144 Methylcyclohexane	83	5.207	5.385	(1.063)	9823	0.71987	14.397
141 1,3,5-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

KEMRON ENVIRONMENTAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I190260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 0.2 / mL Date Received: 09/19/00
Work Order: DKM1X103 Date Extracted:09/27/00
Dilution factor: 4 Date Analyzed: 09/27/00
Moisture %:

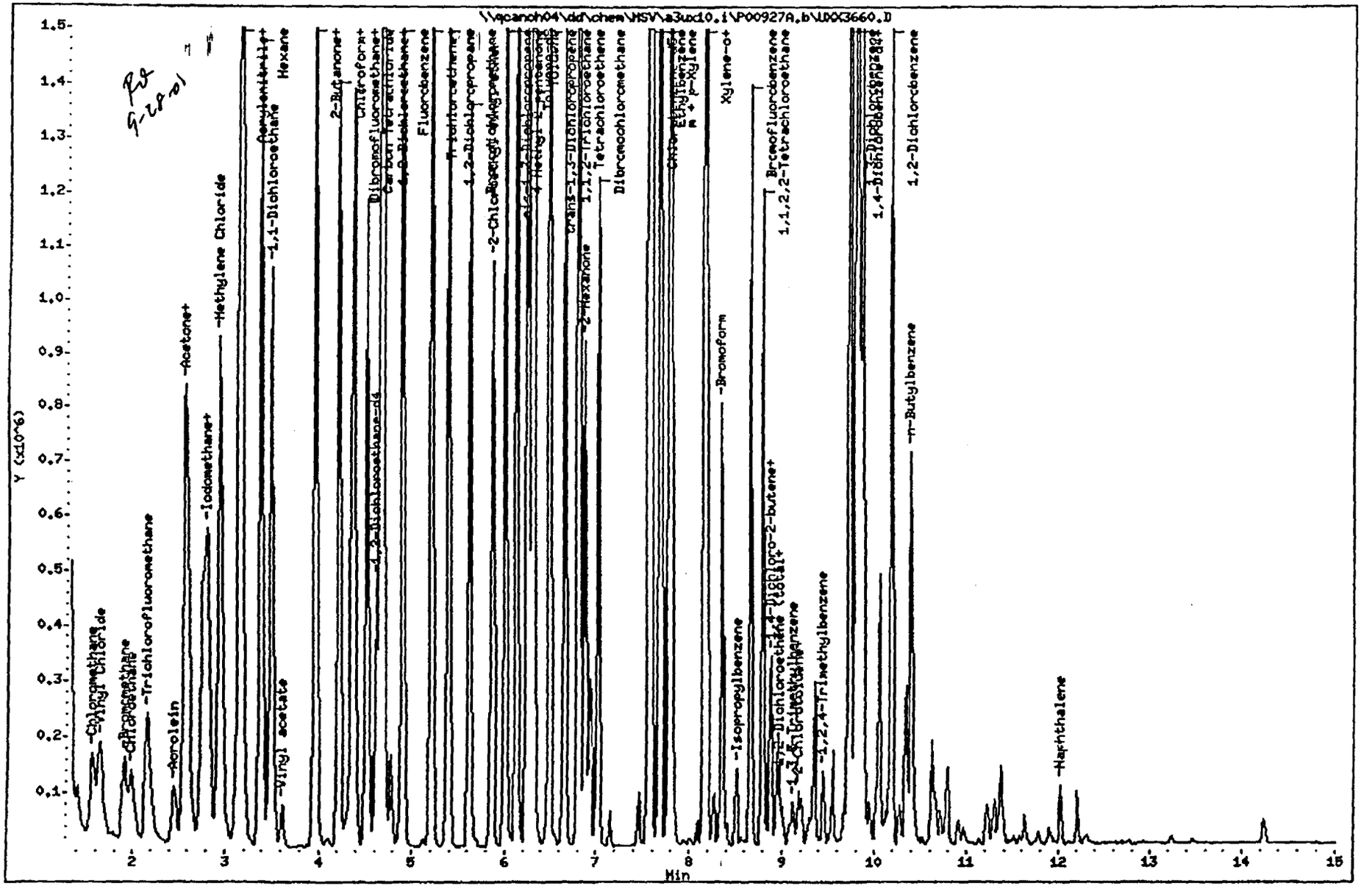
QC Batch: 0272140

Client Sample Id: L0009094-04

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	3.4	
108-90-7	Chlorobenzene	2.0	
75-35-4	1,1-Dichloroethylene	2.2	
79-01-6	Trichloroethylene	2.2	
108-88-3	Toluene	4.3	

Data File: \\qcanoh04\dd\chem\MSV\a3ucl0.i\P00927A.b\U0O3660.D
Date : 27-SEP-2000 19:31
Client ID:
Sample Info: DKHLX-HSD,0.05HL/5HL
Purge Volume: 0.1
Column phase: DB624

Instrument: a3ucl0.i
Operator: 1904
Column diameter: 0.18



STL - North Canton

VOLATILE REPORT SW-846 Method

Data file : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\UXX3660.D
Lab Smp Id: DKM1X-MSD
Inj Date : 27-SEP-2000 19:31
Operator : 1904 Inst ID: a3ux10.i
Smp Info : DKM1X-MSD,0.05ML/5ML
Misc Info : P00927A,8260LLUX10,,1904,3,,MSD
Comment :
Method : \\qcanoh04\dd\chem\MSV\a3ux10.i\P00927A.b\8260LLUX10.m
Meth Date : 28-Sep-2000 08:51 quayler Quant Type: ISTD
Cal Date : 26-SEP-2000 10:19 Cal File: UXX3599.D
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8-8260.sub
Target Version: 4.04
Processing Host: CANPMSV02

Concentration Formula: Amt * DF * 1/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	0.050	Sample volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	4.899	4.900	(1.000)	1796824	50.0000	
* 2 Chlorobenzene-d5	117	7.562	7.562	(1.000)	1409114	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	9.798	9.787	(1.000)	564464	50.0000	
$ 4 Dibromofluoromethane	113	4.343	4.344	(0.886)	366215	49.5394	990.79
$ 5 1,2-Dichloroethane-d4	65	4.615	4.616	(0.942)	384015	50.1374	1002.7
$ 6 Toluene-d8	98	6.248	6.249	(0.826)	1560292	48.8784	977.57
$ 7 Bromofluorobenzene	95	8.662	8.662	(1.146)	501970	50.1495	1003.0
8 Dichlorodifluoromethane	85	1.409	1.409	(0.288)	192851	56.5567	1131.1
9 Chloromethane	50	1.562	1.563	(0.319)	347582	74.1765	1483.5
10 Vinyl Chloride	62	1.645	1.646	(0.336)	393695	84.2238	1684.5
11 Bromomethane	94	1.906	1.906	(0.389)	242105	83.1335	1662.7
12 Chloroethane	64	1.988	1.989	(0.406)	245407	92.0450	1840.9
13 Trichlorofluoromethane	101	2.154	2.154	(0.440)	532908	99.4351	1988.7
15 Acrolein	56	2.474	2.474	(0.505)	87545	90.8206	1816.4
16 Acetone	43	2.580	2.581	(0.527)	459297	191.607	3832.1
17 1,1-Dichloroethene	96	2.556	2.557	(0.522)	646024	112.091	2241.8
18 Freon-113	151	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	19 Iodomethane	142	2.746	2.687	(0.560)	1307	2.85718	57.144
	20 Carbon Disulfide	76	2.758	2.746	(0.563)	1674645	118.676	2373.5
	21 Methylene Chloride	84	2.935	2.935	(0.599)	770446	97.7856	1955.7
	22 Acetonitrile	41	2.805	2.805	(0.573)	754780	954.775	19096
	23 Acrylonitrile	53	3.124	3.125	(0.638)	295128	107.264	2145.3
	24 Methyl tert-butyl ether	73	3.160	3.160	(0.645)	1959293	99.3553	1987.1
	25 trans-1,2-Dichloroethene	96	3.160	3.160	(0.645)	862206	100.271	2005.4
	26 Hexane	86	3.385	3.373	(0.691)	217318	105.922	2118.4
	27 Vinyl acetate	43	3.621	3.515	(0.739)	22499	3.16908	63.382
	28 1,1-Dichloroethane	63	3.491	3.492	(0.713)	1362550	104.643	2092.8
	29 tert-Butyl Alcohol	59	3.160	3.018	(0.645)	34121	76.7248	1534.5
	30 2-Butanone	43	3.953	3.953	(0.807)	568217	176.405	3528.1
M	31 1,2-Dichloroethene (total)	96				1749682	199.306	3986.1
	32 cis-1,2-dichloroethene	96	3.953	3.953	(0.807)	887476	99.0353	1980.7
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	4.213	4.213	(0.860)	1326826	99.8633	1997.3
	36 Tetrahydrofuran	42	4.201	4.202	(0.858)	6047	3.26633	65.326
	37 1,1,1-Trichloroethane	97	4.379	4.379	(0.894)	1068712	105.220	2104.4
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	4.509	4.509	(0.920)	931215	103.533	2070.6
	40 1,2-Dichloroethane	62	4.686	4.687	(0.957)	1029261	105.842	2116.8
	41 Benzene	78	4.674	4.675	(0.954)	5780225	167.843	3356.8(R)
	42 Trichloroethene	130	5.207	5.207	(1.063)	1114996	112.142	2242.8
	43 1,2-Dichloropropane	63	5.396	5.397	(1.101)	822935	101.277	2025.5
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	5.621	5.621	(1.147)	952999	98.6921	1973.8
	47 2-Chloroethyl vinyl ether	63	5.870	5.870	(1.198)	469366	103.148	2063.0
	48 cis-1,3-Dichloropropene	75	6.012	6.012	(1.227)	1242284	102.968	2059.4
	49 4-Methyl-2-pentanone	43	6.130	6.130	(1.251)	1774128	289.460	5789.2(A)
	50 Toluene	91	6.307	6.308	(0.834)	8610717	216.681	4333.6(AR)
	51 trans-1,3-Dichloropropene	75	6.485	6.485	(0.858)	1058733	101.752	2035.0
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	6.662	6.663	(0.881)	713469	95.0226	1900.4
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	6.804	6.805	(0.900)	866181	100.026	2000.5
	56 2-Hexanone	43	6.875	6.876	(0.909)	647420	161.560	3231.2
	57 Dibromochloromethane	129	7.017	7.018	(0.928)	764637	94.6231	1892.5
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	7.585	7.586	(1.003)	2566500	98.4282	1968.6
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	7.680	7.680	(1.016)	1705734	118.968	2379.4
	62 m + p-Xylene	106	7.786	7.787	(1.030)	4208378	245.423	4908.5(A)
M	63 Xylenes (total)	106				6414776	379.123	7582.5
	64 Xylene-o	106	8.165	8.166	(1.080)	2206398	133.700	2674.0
	65 Styrene	104	8.177	8.177	(1.081)	3308374	122.620	2452.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
66	Bromoform	173	8.354	8.355	(1.105)	457913	96.8475	1937.0
67	Isopropylbenzene	105	8.520	8.520	(1.127)	117256	2.91267	58.253
68	1,1,2,2-Tetrachloroethane	83	8.792	8.793	(0.897)	634867	80.7087	1614.2
69	1,4-Dichloro-2-butene	53	8.887	8.852	(0.907)	4845	9.59161	191.83
70	1,2,3-Trichloropropane	110	8.840	8.840	(0.902)	3931	1.43323	28.665
71	Bromobenzene	156	Compound Not Detected.					
72	n-Propylbenzene	120	8.993	8.911	(0.918)	23990	1.95487	39.097
73	2-Chlorotoluene	126	9.183	9.006	(0.937)	16564	1.54387	30.877
74	1,3,5-Trimethylbenzene	105	9.076	9.077	(0.926)	26538	0.87442	17.488
75	4-Chlorotoluene	126	9.183	9.100	(0.937)	16564	1.55862	31.172
76	tert-Butylbenzene	119	Compound Not Detected.					
77	1,2,4-Trimethylbenzene	105	9.443	9.443	(0.964)	87908	3.06950	61.390
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	9.727	9.727	(0.993)	1564771	94.6520	1893.0
81	1,4-Dichlorobenzene	146	9.810	9.810	(1.001)	1542426	92.7612	1855.2
82	n-Butylbenzene	91	10.390	10.165	(1.060)	26235	1.29982	25.996
83	1,2-Dichlorobenzene	146	10.189	10.189	(1.040)	1280203	91.7312	1834.6
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	12.023	12.023	(1.227)	101916	5.81250	116.25
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	5.207	5.385	(1.063)	10022	0.73526	14.705
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

MISCELLANEOUS DATA

Column	BFB	Analysis	Purge & Trap
Type: DB624 MS# 0272047	100C for 0.1 min	45C for 2 min	Trap: 10
Length 20 M	to 200C @ 20 C/min	to 200 C @ 15 C/min	Purge: 11
I.D. 0.18 mm	Hold — min	to — C @ — C/min	Desorb: 1 min @ 240C
Flow Rate 0.4 mL/min		Hold 2 min	Bake: 5 min @ 250C
			Heated Purge: Yes (No)

10/4

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Sample prep	Comments	Sample status
	BFB		BFB146	50ng	DIR INJ	0833	ok
	8260 STD		UXX3595	200ng	V7614,5,6,7		ok
			UXX3596	100ng	V7623,4 V7631		ok
			UXX3597	50ng		V00926LL	ok
			UXX3598	25ng			ok
			UXX3599	5ng			ok
	(DL2N2102) ICAL CK		UXX3600	100ng			ok
	CHECK-DIP		UXX3601	100ng		R - DCET	
	(DL2N2101) BLANK		UXX3602	5mL			ok
	(DL2N2103) CHECK-DIP		UXX3603	100ng			ok
	DKHOM101	ARMY	UXX3604	5mL			ok
	DKHCG101		UXX3605	5mL			ok
	DKROF101		06	5mL			ok
	DKRSC101		07	5mL			ok
	DKKGE101	F.I.	08	1mL/5mL			ok
	DKRSE101	ARMY	09	5mL			ok
	DKRHG101		10			R - 1mL	
	DKRHT101		11				ok
	DKRHG101		12	1mL/5mL			ok
	DKRHG 12H	MS	13		+ 100ng		ok
	DKRHG12J	MSD	14				ok
	DKRNL101		15	1mL/5mL			ok

9-9-18

Analyst: FQ

Second level Review: [illegible]

№ 055

N:\QAQC\Lab Form\voa run logs

STL North Canton

Column	BFB	Analysis	Purge & Trap
Type: DB624	100 C for 0.1 min	45 C for 2 min	Trap: 10
Length 20 M	to 200 C @ 20 C/min	to 200 C @ 15 C/min	Purge: 11
I.D. 0.18 mm	Hold — min	to — C @ — C/min	Desorb: 1 min @ 240 C
Flow Rate 0.4 mL/min		Hold 3 min	Bake: 5 min @ 250 C
			Heated Purge: Yes (No)

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Sample prep	Comments	Sample status
	BFB		BFB148	50mL	DIW 1-5	1053	OK
	PLRO STD		UXX3639	50mL		DCE?	OK 9-27-00
	(DL6DX102) MLSCHACK	4C	UXX3640	20uL/5mL	9-27-00		OK
	(DL6DX103) MLSCHK-DW	"	UXX3641	"	"		OK
	8260 STD		UXX3642	50mL		V0092611	OK
	SPLF(DL6DT101) BLANK	5ml	UXX3643	0.2mL/5mL		(0272140)	OK
	(DL6DX101) MLSVBLK	4C	44	20uL/5mL			OK
	(DL4UX101) TOXICK	ZHC	45	0.2mL/5mL	+100ng	0271308	OK
	(DL4UX102) TOXICK-DW	"	46	"	"	"	OK
	SPLF-CHK(DL6DT102) TOXI BK	5ml	47	0.2mL/5mL	+100ng	(0272140)	OK
	(DL03T101) TOXI BK	ZHC	48	0.2mL/5mL		0271308	OK
	DKMIR101	5ml	49	0.2mL/5mL		(0272140)	OK
	DKMIX101		50	0.05mL/5mL			OK
	DKM21101		51				OK
	DKMSRT		52			(100ng)	OK
	(DL5IR102) MLSCHECK	4C	53	20uL/5mL	9-27-00	0271399	OK
	(DL5IR103) MLSCHK-DW	"	54	"	"	"	OK
	(DL5IR101) MLSVBLK	"	55	"	"	"	OK
	DKRR3101	ZHC	56	0.2mL/5mL		55 RR	OK 9-27-00
	DKK9F103	"	57	"		0271308	OK
	DL409102	13	58	6uL/5mL	10X	0271399	OK
	DKMIX 102	MS	59	0.05mL/5mL	+100ng	(0272140)	OK
	DKMIX 103	MSD	60	"	"	"	OK
	DKRREX102	4C	61	5uL/5mL	(RR 10ng/mL)	(0272140)	OK
	DKRGJ10V	4C	62	20uL/5mL	9.18g/25mL		OK
	DKRR3101	ZHC	63	0.2mL/5mL		0271308	OK
	DKRHJ10W	4C	64	20uL/5mL	10.15g/25mL		OK
	DKRHX10W	"	65	15uL/5mL	9.76g/25mL	RR 20uL	
	DKRH310U	"	UXX3666	20uL/5mL	10.41g/25mL		OK
	DKRJ3101	BLK	UXX3667	20uL/5mL	10g/25mL		OK
	DKRJ6101	BLK	UXX3668	20uL/5mL		OK 10g/25mL	
	DKR11X10W	"	UXX3669	20uL/5mL	9.76g/25mL	OUT-OF-TUNE	

Analyst: RO/TC

Second level Review: SAM 9/27/00

№ 057

N:\QAQC\Lab Forms\voa run logs

Column	BFB	Analysis	Purge & Trap
Type: DB624 MS II 0273130	100 C for 0.1 min	45 C for 2 min	Trap: 10
Length 20 M	to 200 C @ 20 C/min	to 200 C @ 15 C/min	Purge: 11
I.D. 0.18 mm	Hold ___ min	to ___ C @ ___ C/min	Desorb: 1 min @ 240 C
Flow Rate 0.4 mL/m.		Hold 3 min	Bake: 5 min @ 200 C
			Heated Purge: Yes (No)

10/5

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Sample prep	Comments	Sample status
	BFB		BFB149	50ng	DIK LST	1015	ok
	8260 STB		UXX3670	5ng	V7631, 35, 40 V7642	2x [illegible], MA.	ok
			UXX3671	25ng	V7647, 4, 49 V7652		ok
			UXX3672	50ng		V0092FLL	ok
			UXX3673	100ng			ok
			UXX3674	200ng			ok
	ICAL CK DLE08 (DL9JW102)		UXX3675	100ng			ok
	BLANK		UXX3676	5mL		(R)	
	BLANK DLE08 (DL7JW101)		UXX3677	5mL			OK
	DL2J3104		UXX3678	5mL			ok
	DL2HV102		79	5mL			OK
	DL2J3107	MS	80	5mL	+100ng		OK
	DL2J3108	MSD	81	5mL	⊥		ok
	DL2J6102		82	5mL			ok
	DL2JK104 ~~DL2J[illegible]~~		83	5mL ~~0.3mL/5mL~~		~~[illegible]~~	ok
	DL2JD102 ~~DL2JF101~~		84	0.3mL/5mL ~~0.4mL/5mL~~			ok
	DL2JF102 ~~DL2JK101~~		85	0.4mL/5mL ~~5mL~~			ok
	DL2JP104		86	5mL			ok
	DL2JW102		87				ok
	DL2JX102		88				ok
	DL2K0102		89				ok
	DL2K2102		90				ok
	DL2K4102		91				ok
	DL2K6102		92				ok
	DL2K8102		93				ok
	DKRHX10W	9.76	94	20ul/5mL		0272142	ok
	DKRFQ102	11.04	95	20ul/5mL		0270539	ok
	DKRFH102	14.40	96	5ul/5mL		⊥ TIC's	ok
	DKM22101	SPLP	UXX3697	0.1mL/5mL		R- OUT OF TUNE	

Analyst: [signature]

Second level Review: [signature]

№ 058

N:\QAQC\Lab Form\voa run logs

Batch # 0276286 I-13

GC/MS VOA Run Log

Column	BFB	Analysis	Purge & Trap
MS# 0276132			
Type: DB624	100 C for 0.1 min	45 C for 2 min	Trap: 10
Length 20 M	to 200C @ 20 C/min	to 200C @ 15 C/min	Purge: 11
I.D. 0.18 mm	Hold — min	to — C @ — C/min	Desorb: 1 min @ 240C
Flow Rate 0.4 mL/min		Hold 3 min	Bake: 5 min @ 250 C
			Heated Purge: Yes (No)

10/2

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Sample prep	Comments	Sample status
	BFB		BFB151	50ng	DIR INJ	(1012)	ok
	F260 STD		UXX3713	50ng		V00928LL	ok
	MRL CHK		UXX3714	5ng			ok
	APP IX STD		15	50ng			ok
	(DL21C103 CHECK	DLDJAK	16	100ng			ok
	CHOL-DUP		17	100ng			ok
	BLANK		18	5mL			ok
	DKM22101	SPP	19	0.1mL/5mL		(027214D TICS)	ok
	DL4F2101	I25	20	1.5mL/5mL			ok
	DL4F7101		21	1.5mL/5mL			ok
	DL4F8101		22	5mL			ok
	DL4F9101		23	5mL			ok
	DL93C101		24	5mL			ok
	DL93F101		25	5mL			ok
	DL93J101		26	5mL			ok
	DL4FA101		27	5mL			ok
	DL4LE101		28	0.15mL/5mL			ok
	DL4LJ101		29	5mL			ok
	DL4LK101		30	5mL			ok
	DL4DH101		31	1.5mL/5mL		R- 3mL	
	DL4DX101		32	5mL			ok
	(DL21C101) BLANK		33	1mL/5mL			ok
	DL6VA101	I15	34	1mL/5mL			ok
	DL6VE101		35				ok
	DL6VJ101		36				ok
	DL6VK101		37				ok
	DL6VM101		38				ok
	DL6VP101		39				ok
	DL6VA102	MS	UXX3740		+ 100ng		ok
	DL6VA103	MSD	UXX3741				ok

Analyst: RD

Second level Review: VL

№ 060

N:\QAQC\Lab Form\voa run logs

L North Canton

001850

10/03/00 06:30:47 Sample Control Chain of Custody - STL North Canton PAGE 1

LOT NUMBER	SAMPLE	LAB ID	ANALYSIS TYPE	ANALYSIS DATE	ANALYST
A01190260	1	D1041R101	MS8260SE	9/27/00	Richard Gueyle
A01190260	2	D1041X101	MS8260SE	9/27/00	Richard Gueyle
A01190260	3	D1042I101	MS8260SE	9/27/00	Richard Gueyle
A01190260	4	D1042Z101	MS8260SE	9/29/00	Richard Gueyle

*** END OF REPORT ***

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Kiber Environmental Services
3145 Medlock Bridge Road
Norcross, GA 30071

Attention: Mr. Mark Clark

PO Number:
Account Number: KIBER-601

Login #: L0009094
Report Date: 10/06/00
Work ID: SHERIDEN PHASE II
Date Received: 09/07/00

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0009094-01	3230-032	L0009094-02	3230-032/SPLP EXTRACT
L0009094-03	3230-033	L0009094-04	3230-033/SPLP EXTRACT
L0009094-05	3230-034	L0009094-06	3230-034/SPLP EXTRACT
L0009094-07	3230-035	L0009094-08	3230-035/SPLP EXTRACT

** Volatiles analyses were performed by STL **

All results on solids/sludges are reported on a wet weight basis (AS RECEIVED), unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

David L. Bumgarner

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0009094

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The temperature of the cooler was 14 ° C.

SAMPLE MANAGEMENT:

All samples were received intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie L Lepe DATE: 10/6/00

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The batch LCS yielded a % recovery for benzoic acid that was above advisory limits. This analyte was not found in any samples.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All samples in this sample delivery group yielded % recoveries for nitrobenzene-d5 and 2,4,6-tribromophenol that were above acceptable limits. This can be attributed to the sample matrix interfering with these surrogates. All other acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: MDC REVIEWED Stephanie Hope DATE: 10/6/00

Rev. 6/00

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.:L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met

SAMPLES

Surrogates: Sample fractions 02 and 04 yielded % recoveries for T-M-X that were above acceptable limits. There were no positive hits in these samples. The % recoveries for DCB for these samples were within limits. All other acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: Stephanie Lepe DATE: 10/16/00

Rev. 7/14/00

REPORT NARRATIVE
GC PCB

KEMRON Report No.:L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction 04 was chosen internally for MS/MSD analysis. The MS and MSD yielded % recoveries that were below the advisory limits, possibly due to sample matrix interference. The LCS was acceptable.

SAMPLES

Surrogates: Sample fraction 04 yielded a % recovery for T-M-X that was below the acceptable limits. The MS and MSD of this sample fraction yielded the same results, demonstrating sample matrix interference. All other acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: Stephanie L Sipe DATE: 10/6/00

Rev. 7/14/00

REPORT NARRATIVE
METALS

KEMRON Login No: L0009094

METHOD

Analysis: SW-846 6010/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: SLP REVIEWED: Stephanie L Sipe DATE: 10/6/00

Rev. 6/00

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Silver, Total	mg/L		ND	0.01	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Arsenic, Total	mg/L	0.033		0.004	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Barium, Total	mg/L	0.039		0.01	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Chromium, Total	mg/L		ND	0.02	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Mercury, Total	mg/L	0.00026		0.0002	1	N/A	DMD	09/15/00	10:13	7470A\7470A
Lead, Total	mg/L	0.12		0.005	1	N/A	SLP	09/13/00	23:58	6010B\3005A
Selenium, Total	mg/L		ND	0.004	1	N/A	ALT	09/15/00	14:09	7740\METHOD

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 18:29

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11885

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 18:29

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11885

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		433	*,SMI (13 - 154%)		
	Decachlorobiphenyl		128	(25 - 140%)		

Product: 8082 - PCB

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 16:27

Instrument: HP4
Analyst: ECL
Lab File ID: 4GF5266

Method: 8082\3510C
Run ID: R101552
Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.55	1.1
11104-28-2	Aroclor-1221	ug/L		ND	0.55	1.1
11141-16-5	Aroclor-1232	ug/L		ND	0.55	1.1
53469-21-9	Aroclor-1242	ug/L		ND	0.55	1.1
12672-29-6	Aroclor-1248	ug/L		ND	0.55	1.1
11097-69-1	Aroclor-1254	ug/L		ND	0.55	1.1
11096-82-5	Aroclor-1260	ug/L		ND	0.55	1.1

R Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8082 - PCB

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 16:27

Instrument: HP4
Analyst: ECL
Lab File ID: 4GF5266

Method: 8082\3510C
Run ID: R101552
Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....		41.5	(13 - 154%)		
	Decachlorobiphenyl.....		102	(25 - 140%)		

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 22:31

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9776

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol.....	ug/L	33000		160	31.6
111-44-4	Bis(2-Chloroethyl)ether.....	ug/L		ND	160	31.6
95-57-8	2-Chlorophenol.....	ug/L		ND	160	31.6
541-73-1	1,3-Dichlorobenzene.....	ug/L		ND	160	31.6
106-46-7	1,4-Dichlorobenzene.....	ug/L		ND	160	31.6
100-51-6	Benzyl alcohol.....	ug/L		ND	160	31.6
95-50-1	1,2-Dichlorobenzene.....	ug/L		ND	160	31.6
95-48-7	2-Methylphenol.....	ug/L	8300		160	31.6
108-39-4	3-Methylphenol.....	ug/L		Z	160	31.6
108-60-1	bis(2-Chloroisopropyl)ether.....	ug/L		ND	160	31.6
106-44-5	4-Methylphenol.....	ug/L	25000	Z	160	31.6
621-64-7	N-Nitroso-di-n-propylamine.....	ug/L		ND	160	31.6
67-72-1	Hexachloroethane.....	ug/L		ND	160	31.6
98-95-3	Nitrobenzene.....	ug/L		ND	160	31.6

= Reporting Limit

001862

Login #L0009094
October 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

CLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 22:31

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9776

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
78-59-1	Isophorone	ug/L		ND	160	31.6
88-75-5	2-Nitrophenol	ug/L		ND	160	31.6
105-67-9	2,4-Dimethylphenol	ug/L	6900		160	31.6
65-85-0	Benzoic acid	ug/L		ND	790	31.6
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	160	31.6
120-83-2	2,4-Dichlorophenol	ug/L		ND	160	31.6
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	160	31.6
91-20-3	Naphthalene	ug/L	75	J	160	31.6
106-47-8	4-Chloroaniline	ug/L		ND	160	31.6
87-68-3	Hexachlorobutadiene	ug/L		ND	160	31.6
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	160	31.6
91-57-6	2-Methylnaphthalene	ug/L		ND	160	31.6
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	160	31.6
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	160	31.6
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	160	31.6
91-58-7	2-Chloronaphthalene	ug/L		ND	160	31.6
88-74-4	2-Nitroaniline	ug/L		ND	790	31.6
131-11-3	Dimethylphthalate	ug/L		ND	160	31.6
208-96-8	Acenaphthylene	ug/L		ND	160	31.6
606-20-2	2,6-Dinitrotoluene	ug/L		ND	160	31.6
99-09-2	3-Nitroaniline	ug/L		ND	790	31.6
83-32-9	Acenaphthene	ug/L		ND	160	31.6
51-28-5	2,4-Dinitrophenol	ug/L		ND	790	31.6
100-02-7	4-Nitrophenol	ug/L		ND	790	31.6
132-64-9	Dibenzofuran	ug/L		ND	160	31.6
121-14-2	2,4-Dinitrotoluene	ug/L		ND	160	31.6
84-66-2	Diethylphthalate	ug/L		ND	160	31.6
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	160	31.6
86-73-7	Fluorene	ug/L		ND	160	31.6
100-01-6	4-Nitroaniline	ug/L		ND	790	31.6
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	790	31.6
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	160	31.6
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	160	31.6
118-74-1	Hexachlorobenzene	ug/L		ND	160	31.6
87-86-5	Pentachlorophenol	ug/L		ND	790	31.6
85-01-8	Phenanthrene	ug/L		ND	160	31.6
120-12-7	Anthracene	ug/L		ND	160	31.6
84-74-2	Di-N-Butylphthalate	ug/L		ND	160	31.6
206-44-0	Fluoranthene	ug/L		ND	160	31.6

= Reporting Limit

0018
63

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-02
Client Sample ID: 3230-032/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 22:31

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9776

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
129-00-0	Pyrene	ug/L		ND	160	31.6
85-68-7	Butylbenzylphthalate	ug/L		ND	160	31.6
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	320	31.6
56-55-3	Benzo(a)anthracene	ug/L		ND	160	31.6
218-01-9	Chrysene	ug/L		ND	160	31.6
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	160	31.6
117-84-0	Di-n-octylphthalate	ug/L		ND	160	31.6
205-99-2	Benzo(b)fluoranthene	ug/L		ND	160	31.6
207-08-9	Benzo(k)fluoranthene	ug/L		ND	160	31.6
50-32-8	Benzo(a)pyrene	ug/L		ND	160	31.6
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	160	31.6
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	160	31.6
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	160	31.6

SURROGATES- In Percent Recovery:

2-Fluorophenol	35.3		(21 - 100%)
Phenol-d5	32.4		(10 - 94%)
Nitrobenzene-d5	16700	*SMI	(35 - 114%)
2-Fluorobiphenyl	64.3		(43 - 116%)
2,4,6-Tribromophenol	147	*SMI	(10 - 123%)
p-Terphenyl-d14	107		(33 - 141%)

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Silver, Total	mg/L		ND	0.01	1	N/A	SLP	09/14/00	00:25	6010B\3005A
Arsenic, Total	mg/L	0.046		0.004	1	N/A	SLP	09/14/00	00:25	6010B\3005A
Barium, Total	mg/L	0.12		0.01	1	N/A	SLP	09/14/00	00:25	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	SLP	09/14/00	00:25	6010B\3005A

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Chromium, Total	mg/L		ND	0.02	1	N/A	SLP	09/14/00	00:25	6010B\3005A
Mercury, Total	mg/L	0.00022		0.0002	1	N/A	DMD	09/15/00	10:13	7470A\7470A
Lead, Total	mg/L	0.067		0.005	1	N/A	SLP	09/14/00	00:25	6010B\3005A
Selenium, Total	mg/L		ND	0.004	1	N/A	ALT	09/15/00	14:09	7740\METHOD

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 18:53

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11886

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

CLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 18:53

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11886

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....		155	*,SMI (13 - 154%)		
	Decachlorobiphenyl.....		97.9	(25 - 140%)		

Product: 8082 - PCB

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

CLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 16:46

Instrument: HP4
Analyst: ECL
Lab File ID: 4GF5267

Method: 8082\3510C
Run ID: R101552
Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.50	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.50	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.50	1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.50	1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.50	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.50	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.50	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....		12.9 *	(13 - 154%)		
	Decachlorobiphenyl.....		40.1	(25 - 140%)		

= Reporting Limit

ogin #L0009094
ctober 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

CLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 23:03

Dil. Type: N/A
COC Info: N/A

Date Collected: 09/06/00

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9777

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L	23000		250	50
111-44-4	Bis(2-Chloroethyl)ether	ug/L		ND	250	50
95-57-8	2-Chlorophenol	ug/L		ND	250	50
541-73-1	1,3-Dichlorobenzene	ug/L		ND	250	50
106-46-7	1,4-Dichlorobenzene	ug/L		ND	250	50
100-51-6	Benzyl alcohol	ug/L		ND	250	50
95-50-1	1,2-Dichlorobenzene	ug/L		ND	250	50
95-48-7	2-Methylphenol	ug/L	12000		250	50
108-39-4	3-Methylphenol	ug/L		Z	250	50
108-60-1	bis(2-Chloroisopropyl)ether	ug/L		ND	250	50
106-44-5	4-Methylphenol	ug/L	22000	Z	250	50
621-64-7	N-Nitroso-di-n-propylamine	ug/L		ND	250	50
67-72-1	Hexachloroethane	ug/L		ND	250	50
98-95-3	Nitrobenzene	ug/L		ND	250	50
78-59-1	Isophorone	ug/L	350		250	50
88-75-5	2-Nitrophenol	ug/L		ND	250	50
105-67-9	2,4-Dimethylphenol	ug/L	13000		250	50
65-85-0	Benzoic acid	ug/L		ND	1300	50
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	250	50
120-83-2	2,4-Dichlorophenol	ug/L		ND	250	50
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	250	50
91-20-3	Naphthalene	ug/L	120	J	250	50
106-47-8	4-Chloroaniline	ug/L		ND	250	50
87-68-3	Hexachlorobutadiene	ug/L		ND	250	50
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	250	50
91-57-6	2-Methylnaphthalene	ug/L		ND	250	50
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	250	50
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	250	50
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	250	50
91-58-7	2-Chloronaphthalene	ug/L		ND	250	50
88-74-4	2-Nitroaniline	ug/L		ND	1300	50
131-11-3	Dimethylphthalate	ug/L		ND	250	50
208-96-8	Acenaphthylene	ug/L		ND	250	50
606-20-2	2,6-Dinitrotoluene	ug/L		ND	250	50
99-09-2	3-Nitroaniline	ug/L		ND	1300	50
83-32-9	Acenaphthene	ug/L		ND	250	50
51-28-5	2,4-Dinitrophenol	ug/L		ND	1300	50
100-02-7	4-Nitrophenol	ug/L		ND	1300	50
132-64-9	Dibenzofuran	ug/L		ND	250	50

= Reporting Limit

0018
67

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-04
Client Sample ID: 3230-033/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

CLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 23:03

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9777

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
121-14-2	2,4-Dinitrotoluene	ug/L		ND	250	50
84-66-2	Diethylphthalate	ug/L		ND	250	50
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	250	50
86-73-7	Fluorene	ug/L		ND	250	50
100-01-6	4-Nitroaniline	ug/L		ND	1300	50
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	1300	50
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	250	50
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	250	50
118-74-1	Hexachlorobenzene	ug/L		ND	250	50
87-86-5	Pentachlorophenol	ug/L		ND	1300	50
85-01-8	Phenanthrene	ug/L		ND	250	50
120-12-7	Anthracene	ug/L		ND	250	50
84-74-2	Di-N-Butylphthalate	ug/L		ND	250	50
206-44-0	Fluoranthene	ug/L		ND	250	50
129-00-0	Pyrene	ug/L		ND	250	50
85-68-7	Butylbenzylphthalate	ug/L		ND	250	50
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	500	50
56-55-3	Benzo(a)anthracene	ug/L		ND	250	50
218-01-9	Chrysene	ug/L		ND	250	50
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	250	50
117-84-0	Di-n-octylphthalate	ug/L		ND	250	50
205-99-2	Benzo(b)fluoranthene	ug/L		ND	250	50
207-08-9	Benzo(k)fluoranthene	ug/L		ND	250	50
50-32-8	Benzo(a)pyrene	ug/L		ND	250	50
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	250	50
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	250	50
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	250	50

SURROGATES- In Percent Recovery:

2-Fluorophenol	51.4		(21 - 100%)
Phenol-d5	32.9		(10 - 94%)
Nitrobenzene-d5	59100	*SMI	(35 - 114%)
2-Fluorobiphenyl	74.1		(43 - 116%)
2,4,6-Tribromophenol	182	*SMI	(10 - 123%)
p-Terphenyl-d14	111		(33 - 141%)

L = Reporting Limit

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Silver, Total	mg/L		ND	0.01	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Arsenic, Total	mg/L	0.042		0.004	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Barium, Total	mg/L	0.15		0.01	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Chromium, Total	mg/L		ND	0.02	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Mercury, Total	mg/L		ND	0.0002	1	N/A	DMD	09/15/00	10:13	7470A\7470A
Lead, Total	mg/L	0.03		0.005	1	N/A	SLP	09/14/00	00:29	6010B\3005A
Selenium, Total	mg/L		ND	0.004	1	N/A	ALT	09/15/00	14:09	7740\METHOD

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 19:18

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11887

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1

L = Reporting Limit

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 19:18

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11887

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		82.5	(13 - 154%)		
	Decachlorobiphenyl		93.6	(25 - 140%)		

Product: 8082 - PCB

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 17:42

Instrument: HP4
Analyst: ECL
Lab File ID: 4GF5270

Method: 8082\3510C
Run ID: R101552
Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.50	1
11104-28-2	Aroclor-1221	ug/L		ND	0.50	1
11141-16-5	Aroclor-1232	ug/L		ND	0.50	1
53469-21-9	Aroclor-1242	ug/L		ND	0.50	1
12672-29-6	Aroclor-1248	ug/L		ND	0.50	1
11097-69-1	Aroclor-1254	ug/L		ND	0.50	1
11096-82-5	Aroclor-1260	ug/L		ND	0.50	1

L = Reporting Limit

Product: 8082 - PCB

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 17:42

Instrument: HP4
Analyst: ECL
Lab File ID: 4GF5270

Method: 8082\3510C
Run ID: R101552
Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....	30.0		(13 - 154%)		
	Decachlorobiphenyl.....	86.5		(25 - 140%)		

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 23:35

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9778

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol.....	ug/L	23000		250	50
111-44-4	Bis(2-Chloroethyl)ether.....	ug/L		ND	250	50
95-57-8	2-Chlorophenol.....	ug/L		ND	250	50
541-73-1	1,3-Dichlorobenzene.....	ug/L		ND	250	50
106-46-7	1,4-Dichlorobenzene.....	ug/L		ND	250	50
100-51-6	Benzyl alcohol.....	ug/L		ND	250	50
95-50-1	1,2-Dichlorobenzene.....	ug/L		ND	250	50
95-48-7	2-Methylphenol.....	ug/L	13000		250	50
108-39-4	3-Methylphenol.....	ug/L		Z	250	50
108-60-1	bis(2-Chloroisopropyl)ether.....	ug/L		ND	250	50
106-44-5	4-Methylphenol.....	ug/L	25000	Z	250	50
621-64-7	N-Nitroso-di-n-propylamine.....	ug/L		ND	250	50
67-72-1	Hexachloroethane.....	ug/L		ND	250	50
98-95-3	Nitrobenzene.....	ug/L		ND	250	50

RL = Reporting Limit

ogin #L0009094
ctober 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

CLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 23:35

Dil. Type: N/A
COC Info: N/A

Date Collected: 09/06/00

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9778

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
78-59-1	Isophorone	ug/L	430		250	50
88-75-5	2-Nitrophenol	ug/L		ND	250	50
105-67-9	2,4-Dimethylphenol	ug/L	17000		250	50
65-85-0	Benzoic acid	ug/L		ND	1300	50
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	250	50
120-83-2	2,4-Dichlorophenol	ug/L		ND	250	50
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	250	50
91-20-3	Naphthalene	ug/L	130	J	250	50
106-47-8	4-Chloroaniline	ug/L		ND	250	50
87-68-3	Hexachlorobutadiene	ug/L		ND	250	50
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	250	50
91-57-6	2-Methylnaphthalene	ug/L		ND	250	50
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	250	50
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	250	50
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	250	50
91-58-7	2-Chloronaphthalene	ug/L		ND	250	50
88-74-4	2-Nitroaniline	ug/L		ND	1300	50
131-11-3	Dimethylphthalate	ug/L		ND	250	50
208-96-8	Acenaphthylene	ug/L		ND	250	50
606-20-2	2,6-Dinitrotoluene	ug/L		ND	250	50
99-09-2	3-Nitroaniline	ug/L		ND	1300	50
83-32-9	Acenaphthene	ug/L		ND	250	50
51-28-5	2,4-Dinitrophenol	ug/L		ND	1300	50
100-02-7	4-Nitrophenol	ug/L		ND	1300	50
132-64-9	Dibenzofuran	ug/L		ND	250	50
121-14-2	2,4-Dinitrotoluene	ug/L		ND	250	50
84-66-2	Diethylphthalate	ug/L		ND	250	50
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	250	50
86-73-7	Fluorene	ug/L		ND	250	50
100-01-6	4-Nitroaniline	ug/L		ND	1300	50
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	1300	50
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	250	50
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	250	50
118-74-1	Hexachlorobenzene	ug/L		ND	250	50
87-86-5	Pentachlorophenol	ug/L		ND	1300	50
85-01-8	Phenanthrene	ug/L		ND	250	50
120-12-7	Anthracene	ug/L		ND	250	50
84-74-2	Di-N-Butylphthalate	ug/L		ND	250	50
206-44-0	Fluoranthene	ug/L		ND	250	50

= Reporting Limit

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-06
Client Sample ID: 3230-034/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/14/00 Time: 23:35

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9778

Method: 8270C\3510C
Run ID: R101483
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
129-00-0	Pyrene	ug/L		ND	250	50
85-68-7	Butylbenzylphthalate	ug/L		ND	250	50
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	500	50
56-55-3	Benzo(a)anthracene	ug/L		ND	250	50
218-01-9	Chrysene	ug/L		ND	250	50
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	250	50
117-84-0	Di-n-octylphthalate	ug/L		ND	250	50
205-99-2	Benzo(b)fluoranthene	ug/L		ND	250	50
207-08-9	Benzo(k)fluoranthene	ug/L		ND	250	50
50-32-8	Benzo(a)pyrene	ug/L		ND	250	50
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	250	50
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	250	50
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	250	50

SURROGATES- In Percent Recovery:

2-Fluorophenol	57.4		(21 - 100%)
Phenol-d5	40.6		(10 - 94%)
Nitrobenzene-d5	72900	*SMI	(35 - 114%)
2-Fluorobiphenyl	79.2		(43 - 116%)
2,4,6-Tribromophenol	198	*SMI	(10 - 123%)
p-Terphenyl-d14	112		(33 - 141%)

Lab Sample ID: L0009094-08
Client Sample ID: 3230-035/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Silver, Total	mg/L		ND	0.01	1	N/A	SLP	09/13/00	23:44	6010B\3005A
Arsenic, Total	mg/L	0.016		0.004	1	N/A	SLP	09/13/00	23:44	6010B\3005A
Barium, Total	mg/L	0.069		0.01	1	N/A	SLP	09/13/00	23:44	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	SLP	09/13/00	23:44	6010B\3005A

* = Reporting Limit

Lab Sample ID: L0009094-08
Client Sample ID: 3230-035/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II

Matrix: Water
Collected: 09/06/00 00:00

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Chromium, Total	mg/L		ND	0.02	1	N/A	SLP	09/13/00	23:44	6010B\3005A
Mercury, Total	mg/L		ND	0.0002	1	N/A	DMD	09/15/00	10:13	7470A\7470A
Lead, Total	mg/L		ND	0.005	1	N/A	SLP	09/13/00	23:44	6010B\3005A
Selenium, Total	mg/L		ND	0.004	1	N/A	ALT	09/15/00	14:09	7740\METHOD

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L0009094-08
Client Sample ID: 3230-035/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/13/00
Analysis Date: 09/14/00 Time: 19:42

Instrument: HP9
Analyst: ECL
Lab File ID: 9G11888

Method: 8081A\3510C
Run ID: R101543
Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1

RL = Reporting Limit

Product: 8081P - Organochlorine Pesticides

Lab Sample ID:	L0009094-08	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	3230-035/SPLP EXTRACT	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	SHERIDEN PHASE II		
Matrix:	Water	Date Collected: 09/06/00	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HP9	Method: 8081A\3510C
Extract Date:	09/13/00	Analyst: ECL	Run ID: R101543
Analysis Date:	09/14/00 Time: 19:42	Lab File ID: 9G11888	Batch : WG84197

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		65.7	(13 - 154%)		
	Decachlorobiphenyl		65.2	(25 - 140%)		

Product: 8082 - PCB

Lab Sample ID:	L0009094-08	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	3230-035/SPLP EXTRACT	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	SHERIDEN PHASE II		
Matrix:	Water	Date Collected: 09/06/00	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HP4	Method: 8082\3510C
Extract Date:	09/13/00	Analyst: ECL	Run ID: R101552
Analysis Date:	09/14/00 Time: 18:01	Lab File ID: 4GF5271	Batch : WG84193

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.50	1
11104-28-2	Aroclor-1221	ug/L		ND	0.50	1
11141-16-5	Aroclor-1232	ug/L		ND	0.50	1
53469-21-9	Aroclor-1242	ug/L		ND	0.50	1
12672-29-6	Aroclor-1248	ug/L		ND	0.50	1
11097-69-1	Aroclor-1254	ug/L		ND	0.50	1
11096-82-5	Aroclor-1260	ug/L		ND	0.50	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		25.6	(13 - 154%)		
	Decachlorobiphenyl		47.5	(25 - 140%)		

L = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-08
Client Sample ID: 3230-035/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/15/00 Time: 00:08

Dil. Type: N/A
COC Info: N/A

Date Collected: 09/06/00

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9779

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8270C\3510C
Run ID: R101484
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L	6800		50	10
111-44-4	Bis(2-Chloroethyl)ether	ug/L		ND	50	10
95-57-8	2-Chlorophenol	ug/L		ND	50	10
541-73-1	1,3-Dichlorobenzene	ug/L		ND	50	10
106-46-7	1,4-Dichlorobenzene	ug/L		ND	50	10
100-51-6	Benzyl alcohol	ug/L		ND	50	10
95-50-1	1,2-Dichlorobenzene	ug/L		ND	50	10
95-48-7	2-Methylphenol	ug/L	2900		50	10
108-39-4	3-Methylphenol	ug/L		Z	50	10
108-60-1	bis(2-Chloroisopropyl)ether	ug/L		ND	50	10
106-44-5	4-Methylphenol	ug/L	6300	Z	50	10
621-64-7	N-Nitroso-di-n-propylamine	ug/L		ND	50	10
67-72-1	Hexachloroethane	ug/L		ND	50	10
98-95-3	Nitrobenzene	ug/L		ND	50	10
78-59-1	Isophorone	ug/L	110		50	10
88-75-5	2-Nitrophenol	ug/L		ND	50	10
105-67-9	2,4-Dimethylphenol	ug/L	2300		50	10
65-85-0	Benzoic acid	ug/L		ND	250	10
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	50	10
120-83-2	2,4-Dichlorophenol	ug/L		ND	50	10
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	50	10
91-20-3	Naphthalene	ug/L	100		50	10
106-47-8	4-Chloroaniline	ug/L		ND	50	10
87-68-3	Hexachlorobutadiene	ug/L		ND	50	10
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	50	10
91-57-6	2-Methylnaphthalene	ug/L	32	J	50	10
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	50	10
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	50	10
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	50	10
91-58-7	2-Chloronaphthalene	ug/L		ND	50	10
88-74-4	2-Nitroaniline	ug/L		ND	250	10
131-11-3	Dimethylphthalate	ug/L		ND	50	10
208-96-8	Acenaphthylene	ug/L		ND	50	10
606-20-2	2,6-Dinitrotoluene	ug/L		ND	50	10
99-09-2	3-Nitroaniline	ug/L		ND	250	10
83-32-9	Acenaphthene	ug/L		ND	50	10
51-28-5	2,4-Dinitrophenol	ug/L		ND	250	10
100-02-7	4-Nitrophenol	ug/L		ND	250	10
132-64-9	Dibenzofuran	ug/L		ND	50	10

RL = Reporting Limit

0018
76

Login #L0009094
October 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L0009094-08
Client Sample ID: 3230-035/SPLP EXTRACT
Site/Work ID: SHERIDEN PHASE II
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/06/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 09/12/00
Analysis Date: 09/15/00 Time: 00:08

Instrument: HPMS7
Analyst: MDC
Lab File ID: 7M9779

Method: 8270C\3510C
Run ID: R101484
Batch : WG84284

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
121-14-2	2,4-Dinitrotoluene	ug/L		ND	50	10
84-66-2	Diethylphthalate	ug/L		ND	50	10
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	50	10
86-73-7	Fluorene	ug/L		ND	50	10
100-01-6	4-Nitroaniline	ug/L		ND	250	10
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	250	10
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	50	10
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	50	10
118-74-1	Hexachlorobenzene	ug/L		ND	50	10
87-86-5	Pentachlorophenol	ug/L		ND	250	10
85-01-8	Phenanthrene	ug/L	40	J	50	10
120-12-7	Anthracene	ug/L		ND	50	10
84-74-2	Di-N-Butylphthalate	ug/L		ND	50	10
206-44-0	Fluoranthene	ug/L		ND	50	10
129-00-0	Pyrene	ug/L		ND	50	10
85-68-7	Butylbenzylphthalate	ug/L		ND	50	10
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	100	10
56-55-3	Benzo(a)anthracene	ug/L		ND	50	10
218-01-9	Chrysene	ug/L		ND	50	10
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	50	10
117-84-0	Di-n-octylphthalate	ug/L		ND	50	10
205-99-2	Benzo(b)fluoranthene	ug/L		ND	50	10
207-08-9	Benzo(k)fluoranthene	ug/L		ND	50	10
50-32-8	Benzo(a)pyrene	ug/L		ND	50	10
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	50	10
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	50	10
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	50	10

SURROGATES- In Percent Recovery:

2-Fluorophenol	56.6		(21 - 100%)
Phenol-d5	41.2		(10 - 94%)
Nitrobenzene-d5	16600	*SMI	(35 - 114%)
2-Fluorobiphenyl	82.8		(43 - 116%)
2,4,6-Tribromophenol	125	*SMI	(10 - 123%)
p-Terphenyl-d14	120		(33 - 141%)

L = Reporting Limit

001877

Order #: 00-09-094
October 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG84038	R101483	L0009094-02		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Extraction
WG84038	R101483	L0009094-04		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Extraction
WG84038	R101483	L0009094-06		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Extraction
WG84038	R101484	L0009094-08		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Extraction
WG84064	R101541	L0009094-02		Water	DIG-METALS	7470A\7470A	06-SEP-2000	Digestion
WG84064	R101541	L0009094-04		Water	DIG-METALS	7470A\7470A	06-SEP-2000	Digestion
WG84064	R101541	L0009094-06		Water	DIG-METALS	7470A\7470A	06-SEP-2000	Digestion
WG84064	R101541	L0009094-08		Water	DIG-METALS	7470A\7470A	06-SEP-2000	Digestion
WG84110	R101525	L0009094-02		Water	DIG-METALS	6010B\3015	06-SEP-2000	Digestion
WG84110	R101529	L0009094-04		Water	DIG-METALS	6010B\3015	06-SEP-2000	Digestion
WG84110	R101529	L0009094-06		Water	DIG-METALS	6010B\3015	06-SEP-2000	Digestion
WG84110	R101525	L0009094-08		Water	DIG-METALS	6010B\3015	06-SEP-2000	Digestion
WG84115	R101543	L0009094-02		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Extraction
WG84115	R101543	L0009094-04		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Extraction
WG84115	R101543	L0009094-06		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Extraction
WG84115	R101543	L0009094-08		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Extraction
WG84116	R101552	L0009094-02		Water	PCB	8082\3510C	06-SEP-2000	Extraction
WG84116	R101552	L0009094-04		Water	PCB	8082\3510C	06-SEP-2000	Extraction
WG84116	R101552	L0009094-06		Water	PCB	8082\3510C	06-SEP-2000	Extraction
WG84116	R101552	L0009094-08		Water	PCB	8082\3510C	06-SEP-2000	Extraction
WG84184	R101525	L0009094-02		Water	ICP-METALS	6010B\3015	06-SEP-2000	Metals - ICP
WG84184	R101529	L0009094-04		Water	ICP-METALS	6010B\3015	06-SEP-2000	Metals - ICP
WG84184	R101529	L0009094-06		Water	ICP-METALS	6010B\3015	06-SEP-2000	Metals - ICP
WG84184	R101525	L0009094-08		Water	ICP-METALS	6010B\3015	06-SEP-2000	Metals - ICP
WG84193	R101552	L0009094-02		Water	PCB	8082\3510C	06-SEP-2000	Semivolatile - GC
WG84193	R101552	L0009094-04		Water	PCB	8082\3510C	06-SEP-2000	Semivolatile - GC
WG84193	R101552	L0009094-06		Water	PCB	8082\3510C	06-SEP-2000	Semivolatile - GC
WG84193	R101552	L0009094-08		Water	PCB	8082\3510C	06-SEP-2000	Semivolatile - GC
WG84197	R101543	L0009094-02		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Semivolatile - GC
WG84197	R101543	L0009094-04		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Semivolatile - GC
WG84197	R101543	L0009094-06		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Semivolatile - GC
WG84197	R101543	L0009094-08		Water	Organochlorine Pesticides	8081A\3510C	06-SEP-2000	Semivolatile - GC
WG84214	R101555	L0009094-02		Water	DIG-METALS	7740\7740	06-SEP-2000	Digestion
WG84214	R101555	L0009094-04		Water	DIG-METALS	7740\7740	06-SEP-2000	Digestion
WG84214	R101555	L0009094-06		Water	DIG-METALS	7740\7740	06-SEP-2000	Digestion
WG84214	R101555	L0009094-08		Water	DIG-METALS	7740\7740	06-SEP-2000	Digestion

001878

Order #: 00-09-094
October 6, 2000 03:16 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG84284	R101483	L0009094-02		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Semivolatile - GC/MS
WG84284	R101483	L0009094-04		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Semivolatile - GC/MS
WG84284	R101483	L0009094-06		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Semivolatile - GC/MS
WG84284	R101484	L0009094-08		Water	Semivolatile Compounds	8270C\3510C	06-SEP-2000	Semivolatile - GC/MS
WG84291	R101541	L0009094-02		Water	Mercury, Total	7470A\7470A	06-SEP-2000	Metals - AA
WG84291	R101541	L0009094-04		Water	Mercury, Total	7470A\7470A	06-SEP-2000	Metals - AA
WG84291	R101541	L0009094-06		Water	Mercury, Total	7470A\7470A	06-SEP-2000	Metals - AA
WG84291	R101541	L0009094-08		Water	Mercury, Total	7470A\7470A	06-SEP-2000	Metals - AA
WG84329	R101555	L0009094-02		Water	Selenium, Total	7740\7740	06-SEP-2000	Metals - AA
WG84329	R101555	L0009094-04		Water	Selenium, Total	7740\7740	06-SEP-2000	Metals - AA
WG84329	R101555	L0009094-06		Water	Selenium, Total	7740\7740	06-SEP-2000	Metals - AA
WG84329	R101555	L0009094-08		Water	Selenium, Total	7740\7740	06-SEP-2000	Metals - AA

001879

SHERIDAN SITE SLUDGE STABILIZATION

BENCH-SCALE TREATABILITY STUDY

FINAL REPORT

VOLUME II
Appendix E

PRESENTED TO:

SHERIDAN SITE TRUST

Sheridan Site Trust
P.O. Box 440005
Houston, Texas 77244-0005
(281) 496-4224

PRESENTED BY:

KIBER
ENVIRONMENTAL
SERVICES

3145 Medlock Bridge Road
Norcross, Georgia 30071
(770) 242-4090

FEBRUARY 2001

SHERIDAN SITE SLUDGE STABILIZATION
BENCH-SCALE TREATABILITY STUDY
FINAL REPORT

TABLE OF CONTENTS

VOLUME II

Appendix E Verification Stabilization Data (Part 2)

1.2 Attachments

001882

KEMRON ANALYST LIST

Ohio Valley Laboratory

06/01/00

ABW - Angela B. Wigal
AJN - Amanda J. Noland
ALT - Ann L. Thayer
ARS - Angelina (Nina) R. Scott
BKL - Brian K. LeMasters
BRG - Brenda R. Gregory
CAG - Cheryl A. Graham
CAK - Cheryl A. Koelsch
CBN - Charles B. Noll
CEB - Chad E. Barnes
CLC - Chrys L. Crawford
CLK - Carl L. King
CLW - Charissa L. Winters
CMS - Crystal M. Stevens
CRC - Carla R. Cochran
CSH - Chris S. Hill
CWS - Clark W. Stanley
DAM - Dan A. Musgrave
DAS - Dallas A. Sullivan
DAT - Debbie A. Tornes
DEL - Don E. Lightfritz
DEV - David E. Vandenberg
DGB - Douglas G. Butcher
DIB - Dalia I. Brown
DIH - Deanna I. Hesson

DLA - Denise L. Adams
DLB - David L. Bumgarner
DLN - Deanna L. Norton
DLP - Dorothy L. Payne
DLR - Dianna L. Rauch
DMD - David M. Dye
DP - Deanna L. Pierson
DST - Dennis S. Tepe
EAH - Elizabeth A. Heldmen
EAW - Elizabeth (Beth) A. Weber
ECL - Eric C. Lawson
EIE - Elizabeth (Betsy) I. Eagle
GSG - Galen S. George
GWH - George W. Hutchinson
HD - Heath Dennis
HV - Hema Vilasagar
JCR - Jennifer C. Randall
JDN - Jamie D. Newell
JEA - Josh E. Arnold
JKM - June K. Morris
JKW - Jane K. Warden
JLH - Janice L. Holland
JMT - Joy M. Thomas
JMW - John M. Wass
JRM - Jay R. McDougal

JWR - John W. Richards
JWS - Jack W. Sheaves
JYH - Ji Y. Hu
KDS - Kristi D. Stone
KHR - Kim H. Rhodes
KRA - Kathy R. Albertson
KSL - Kelly S. Lauer
LKM - Laura K Morris
LKN - Linda K. Nedeff
LLB - Lori L. Bradley
LSA - Lucinda (Cindy) S. Arnold
LSB - Leslie S. Bucina
MDA - Mike D. Albertson
MDC - Michael D. Cochran
MDG - Melissa D. Grimes
MEF - Mike E. Flanagan
MES - Mary E. Schilling
MFB - Mike F. Barrow
MKD - Marissa K. Dye
MLS - Michael L. Schimmel
MMB- Maren M. Beery
MSW - Matt S. Wilson
MWS - Matt W. Sowards
NJB - Natalie J. Booth
PML - Paula M. Leidy

RDC - Rebecca D. Cutlip
REF - Ron E. Fertile
REK - Robert E. Kyer
RJW - Rhonda J. Wittekind
RLW - Ron L. Watson
RSH - Renee S. Hennes
RSS - Regina S. Simmons
RWC - Rod W. Campbell
SJK - Sindy J. Kinney
SLP - Sheri L. Pfalzgraf
SLT - Stephanie L. Tepe
SMW - Shauna M. Welch
SPL - Steve P. Learn
SPS - Steve P. Swatzel
TAY - Todd A. Yoak
TJH - Tim J. Hoeflich
TLD - Teresa L. Davis
TMM- Tammy M. Morris
VC - Vicki Collier

KEMRON Environmental Services, Inc.
LIST OF VALID QUALIFIERS
September 7, 2000

Qualifier	Description
A	See the report narrative
NA	Not applicable
+	Correlation coefficient for the MSA is less than 0.995
<	Less than
>	Greater than
B	Present in the method blank
C	Confirmed by GC/MS
*	Surrogate or spike compound out of range
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
F	Present below nominal reporting limit (AFCEE only)
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration > 40% difference between the two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out of control limits
Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

KIBER ENVIRONMENTAL SERVICES

SAMPLE CHAIN-OF-CUSTO. RECORD

COC#

3145 MEDLOCK BRIDGE ROAD
NORCROSS, GEORGIA 30071
(770) 242-4090 FAX (770) 242-9198

CLIENT NAME:	PROJECT NAME:	KES PROJECT #:
Kiber	Sheridan Phase II	3230-8991

TAT or DUE DATE:	CONTACT:	KES PROJECT MANAGER:
9/18/00	Robert Semchak	Robert Semchak

PHONE#:	EXT.	RECEIVING LAB:	PO#:
(770) 242-4090	235	Kemron	8991

SAMPLED BY:

PRINTED NAME SIGNATURE COMPANY

ANALYSES (indicate target list)

SAMPLE NUMBER	SAMPLE DESCRIPTION	SAMPLE DATE/TIME	Sample Matrix	Preservative	# / Size of Cont.	SPLP VOC's	SPLP SVOC's	SPLP Pest./PCB's	SPLP RCRA Metals					Remarks
3230-032		6/9/00	S	NA	1x 8oz	V	V	V	V					
3230-033		↓	↓	↓	↓	V	V	V	V					
3230-034		↓	↓	↓	↓	V	V	V	V					
3230-035		↓	↓	↓	↓	V	V	V	V					

KIBER QA/QC LEVEL REQUESTED: I II III IV

CASE NARRATIVE REQUESTED: YES NO PM INITIALS

SAMPLES RELINQUISHED BY:	DATE/ TIME	SAMPLES ACCEPTED BY:	DATE/ TIME
Chara [signature]	9/6/00	Glenda Gregory	9/7/00 @ 1012

COMMENTS:
C/C sealed
Sp intact
Cooler Temp 14
(bg)

001885

KEMRON Internal Laboratory Chain of Custody

Work Order: L0009094 **Client:** Kiber **# of Samples:** 8 **Due Date:** 9/15 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01,03,05,07	TCLP	EXT	RWC 9-11-00 @1200	WALKIN	TCLP	Brg	01,03,05,07	Archive	NS	Archive
02,04,06,08	—	Storage	RWC 9-12-00 @1045	TCLP	WALKIN	Brg				
02,04,06,08	RNA	EXT	DSN 9/12/00 @1055	walkin	S/NB	Brg	DLP 09/13/00 @ 0855	Dumpster	CAG	Disposal
02,04,06,08	met	DIG	BWH 09/12/00 @1215	walk-in	met	Brg	ID 09-14-00 @1630	Archive	Brg	Archive
2,4,6,8	SPLP	anal	RWS 9-12-00 @1255	walkin	VOA	Brg	Brg 9-19-00 @1400	109in	JKW	SUB Samples
2,4,6,8	PST/NB	EXT	DSN 9/13/00 @0706	walkin	S/NB	ASN	DLP 09/14/00 @ 0850	Dumpster	JW	Disposal
2,4,6,8	8260	SUB	Brg 9-19-00 @ 1430	10G-In (Brg) ~~VOA~~ 9-19-00	STL	Brg				

001886

NO. 147 1/2

SAMPLE LOG-OUT FORM

KEMRON ENVIRONMENTAL SERVICES, INC.
109 STARLITE PARK
MARIETTA, OHIO 45750
(740) 373-4071

TO: STL

REPORT TO ATTN: _____

TURNAROUND: _____

PO #: _____

SHIPPED VIA: Kemron

CHARGE TO: ____IH ____LAB ____SI

Kemron Work Order	Sample ID	Analysis	Date/Time Collected	Price
L0009094-02	3230-032/SPLP EXTRACT	8260	9/6/00	
04	3230-033/SPLP EXT.	"	"	
06	3230-034/SPLP EXT.	"	"	
08	3230-035/SPLP EXT.	"	"	
L0009119-01	RW-2	8260 (APP IV)	9/7/00 @1520	
02	Trip Blank	"	9/7/00	
L0009132-01	SVE-8	8260	9/7/00 @1345	
02	SVE-7	"	1430	
03	Trip Blank	"	"	

Relinquished by: Brenda Gregory	Date 9-19-00	Time 1430
Received by:	Date	Time

Logout

Revised 01/08/98

001887

2.0 Full Sample Data Package

001888

2.2 Semivolatiles Data

001889

2.2.1 Semivolatiles GC MS Data (8270)

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The batch LCS yielded a % recovery for benzoic acid that was above advisory limits. This analyte was not found in any samples.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All samples in this sample delivery group yielded % recoveries for nitrobenzene-d5 and 2,4,6-tribromophenol that were above acceptable limits. This can be attributed to the sample matrix interfering with these surrogates. All other acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: MDC REVIEWED: Stephanie Hope DATE: 10/6/00

Rev. 6/00

001891

SEMIVOLATILES GC/MS DATA

Login Number: L0009094

A. QC Summary

- ✓ Batch QC Summary Forms
- ✓ Internal Standard/Surrogate Summary Forms

B. Sample Data

- ____ Target Compound List Results - See Summary Report
- ____ Tentatively Identified Compounds (TICs) - See Summary Report (c) (if requested)
- ✓ Reconstructed total ion chromatogram (RIC) and quantitation report for each sample.
- ✓ Raw spectra and background subtracted mass spectra of target compounds identified.
- ____ Mass spectra of all reported TICs with three best library matches (if requested)

C. Standards Data

- ✓ Initial calibration data summary form.
- ✓ Chromatograms and quantitation reports for initial calibration standards
- ✓ Continuing calibration data summary form
- ✓ Chromatogram and quantitation report for continuing calibration standard

D. Raw QC Data

- ✓ GC/MS Instrument Performance Check (DFTPP).
- ✓ Blank chromatogram and quantitation report.
- ✓ Laboratory Control Sample chromatogram and quantitation report.
- ____ Matrix Spike/Matrix Spike Duplicate chromatograms and quantitation reports (if not reported as samples)
- ✓ Instrument runlogs
- ✓ Extraction Bench Sheets

Checked By: _____ Date: 9/15/00

001892

2.2.1.1 Q C Summary

001893

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG84284 EXT DATE : 09/12/00 RUN DATE : 09/14/00 INSTRUMENT : HPMS7
METHOD : 8270 BENCH SHEET : V147P47 SMPL ID : L0009176-01 ANALYST : mdc
MATRIX : WATER BLK FLNM : 7M9763 SMPL FLNM : 7M9767
CONCENTRATION UNITS : ug/ml LCS FLNM : 7M9764 MS FLNM : 7M9768
PREP WORK GRP : WG84038 MSD FLNM : 7M9769

	CONCENTRATION , ug / ml								PERCENT RECOVERY , %									PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPD UCL	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
PYRIDINE	5.0	ND	50	17.0	NA	50	4	0	NA	33.9	10	150	NA	8.9	0.0	10	150	200	40	*				L	L
N-NITROSODIMETHYLAMINE	5.0	ND	50	19.8	NA	50	23.9	23.1	NA	39.5	10	150	NA	47.8	46.1	10	150	4	40						
ANILINE	10.0	ND	50	29.2	NA	50	25.4	14.6	NA	58.4	10	150	NA	50.8	29.2	10	150	54	40	*					
PHENOL	5.0	ND	50	12.1	NA	50	15.6	14.9	NA	24.2	10	62	NA	31.3	29.9	10	62	5	40						
BIS(2-CHLOROETHYL)ETHER	5.0	ND	50	28.2	NA	50	35.4	33.2	NA	56.4	25	104	NA	70.7	66.4	25	104	6	40						
2-CHLOROPHENOL	5.0	ND	50	26.1	NA	50	32.7	31.2	NA	52.2	26	99	NA	65.4	62.4	26	99	5	40						
1,3-DICHLOROBENZENE	5.0	ND	50	17.3	NA	50	27.9	22.1	NA	34.6	22	89	NA	55.9	44.2	22	89	23	40						
1,4-DICHLOROBENZENE	10.0	ND	50	16.4	NA	50	25.7	20.4	NA	32.8	22	91	NA	51.4	40.8	22	91	23	40						
BENZYL ALCOHOL	5.0	ND	50	28.1	NA	50	34.7	33.4	NA	56.2	22	96	NA	69.5	66.9	22	96	4	40						
1,2-DICHLOROBENZENE	5.0	ND	50	19.1	NA	50	29.6	23.9	NA	38.1	23	94	NA	59.1	47.7	23	94	21	40						
2-METHYLPHENOL	5.0	ND	50	25.5	NA	50	33.2	31.8	NA	51.1	21	105	NA	66.4	63.5	21	105	5	40						
BIS(2-CHLOROISOPROPYL)ETHE	5.0	ND	50	23.4	NA	50	30.6	27.8	NA	46.9	23	99	NA	61.1	55.6	23	99	10	40						
3- & 4-METHYLPHENOL	5.0	ND	50	23.0	NA	50	30.3	29.3	NA	46.1	22	99	NA	60.7	58.7	22	99	3	40						
N-NITROSO-DI-N-PROPYLAMINE	5.0	ND	50	28.0	NA	50	35.9	33.4	NA	56.0	24	113	NA	71.7	66.9	24	113	7	40						
HEXACHLOROETHANE	5.0	ND	50	13.6	NA	50	24.0	18.8	NA	27.1	20	93	NA	48.0	37.7	20	93	24	40						
NITROBENZENE	5.0	ND	50	27.2	NA	50	34.8	32.1	NA	54.3	26	109	NA	69.6	64.1	26	109	8	40						
ISOPHORONE	5.0	ND	50	32.8	NA	50	42.1	39.4	NA	65.7	24	126	NA	84.2	78.7	24	126	7	40						
2-NITROPHENOL	5.0	ND	50	28.1	NA	50	36.3	33.8	NA	56.2	23	114	NA	72.5	67.6	23	114	7	40						
2,4-DIMETHYLPHENOL	5.0	ND	50	30.8	NA	50	39.4	37.3	NA	61.6	27	121	NA	78.8	74.6	27	121	6	40						
BIS(2-CHLOROETHOXY)METHAN	25.0	ND	50	29.1	NA	50	37.5	34.9	NA	58.2	26	120	NA	75.0	69.9	26	120	7	40						
BENZOIC ACID	5.0	ND	50	55.9	NA	50	17.6	18.7	NA	111.9	10	106	NA	35.2	37.4	10	106	6	40				H		
2,4-DICHLOROPHENOL	5.0	ND	50	29.0	NA	50	37.2	35.0	NA	58.0	27	116	NA	74.4	69.9	27	116	6	40						
1,2,4-TRICHLOROBENZENE	5.0	ND	50	18.0	NA	50	27.4	22.0	NA	36.0	21	100	NA	54.9	44.1	21	100	22	40						
NAPHTHALENE	5.0	ND	50	24.6	NA	50	35.4	30.0	NA	49.2	27	107	NA	70.7	60.0	27	107	16	40						
4-CHLOROANILINE	5.0	ND	50	31.0	NA	50	36.2	24.9	NA	61.9	10	109	NA	72.5	49.8	10	109	37	40						
HEXACHLOROBUTADIENE	10.0	ND	50	16.6	NA	50	30.0	23.4	NA	33.3	22	107	NA	60.0	46.7	22	107	25	40						
4-CHLORO-3-METHYLPHENOL	5.0	ND	50	32.8	NA	50	40.6	39.2	NA	65.6	39	111	NA	81.2	78.3	39	111	4	40						
2-METHYLNAPHTHALENE	5.0	ND	50	24.3	NA	50	33.5	28.9	NA	48.7	27	109	NA	66.9	57.7	27	109	15	40						
HEXACHLOROCYCLOPENTADIEN	5.0	ND	50	14.6	NA	50	22.3	19.5	NA	29.2	10	102	NA	44.6	39.1	10	102	13	40						
2,4,6-TRICHLOROPHENOL	25.0	ND	50	31.7	NA	50	38.9	36.5	NA	63.4	37	103	NA	77.9	73.0	37	103	6	40						
2,4,5-TRICHLOROPHENOL	5.0	ND	50	35.1	NA	50	42.4	40.0	NA	70.1	42	115	NA	84.9	80.0	42	115	6	40						
2-CHLORONAPHTHALENE	25.0	ND	50	25.3	NA	50	33.4	29.7	NA	50.7	24	115	NA	66.8	59.4	24	115	12	40						
2-NITROANILINE	5.0	ND	50	37.7	NA	50	43.8	42.1	NA	75.3	46	110	NA	87.6	84.2	46	110	4	40						
DIMETHYLPHTHALATE	5.0	ND	50	35.9	NA	50	41.5	38.5	NA	71.7	29	116	NA	83.0	77.0	29	116	7	40						
ACENAPHTHYLENE	5.0	ND	50	29.3	NA	50	37.1	34.1	NA	58.6	37	120	NA	74.1	68.3	37	120	8	40						
2,6-DINITROTOLUENE	5.0	ND	50	37.2	NA	50	43.5	40.4	NA	74.4	45	117	NA	87.1	80.8	45	117	8	40						
3-NITROANILINE	25.0	ND	50	46.1	NA	50	50.3	45.5	NA	92.2	44	121	NA	100.5	91.0	44	121	10	40						
ACENAPHTHENE	5.0	ND	50	33.0	NA	50	41.2	38.2	NA	65.9	30	127	NA	82.4	76.3	30	127	8	40						
2,4-DINITROPHENOL	25.0	ND	50	36.4	NA	50	42.7	40.8	NA	72.8	22	109	NA	85.4	81.6	22	109	4	40						
4-NITROPHENOL	25.0	ND	50	19.1	NA	50	22.4	21.6	NA	38.3	10	81	NA	44.9	43.2	10	81	4	40						
DIBENZOFURAN	5.0	ND	50	31.1	NA	50	37.8	35.1	NA	62.1	36	122	NA	75.6	70.3	36	122	7	40						
2,4-DINITROTOLUENE	5.0	ND	50	49.8	NA	50	55.5	51.2	NA	99.6	58	128	NA	110.9	102.4	58	128	8	40						

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit

001894

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG84284 | EXT DATE : 09/12/00 | RUN DATE : 09/14/00 | INSTRUMENT : HPMS7
METHOD : 8270 | BENCH SHEET : V147P47 | SMPL ID : L0009176-01 | ANALYST : mdc
MATRIX : WATER | BLK FLNM : 7M9763 | SMPL FLNM : 7M9767
CONCENTRATION UNITS : ug/ml | LCS FLNM: 7M9764 | MS FLNM : 7M9768
PREP WORK GRP : WG84038 | MSD FLNM : 7M9769

	CONCENTRATION , ug / ml								PERCENT RECOVERY , %									PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPD UCL	BEYOND RPD LIMIT	SAMPLE	BLANK	LCS	MS	MSD
DIETHYLPHTHALATE	5.0	ND	50	47.3	NA	50	53.1	48.9	NA	94.5	37	130	NA	106.3	97.7	37	130	8	40						
FLUORENE	5.0	ND	50	37.4	NA	50	43.5	41.0	NA	74.9	39	111	NA	87.0	82.0	39	111	6	40						
4-CHLOROPHENYL-PHENYL ETH	5.0	ND	50	32.6	NA	50	38.5	35.7	NA	65.2	25	106	NA	77.0	71.4	25	106	8	40						
4-NITROANILINE	25.0	ND	50	48.7	NA	50	52.8	48.4	NA	97.3	45	147	NA	105.6	96.8	45	147	9	40						
1,2-DIPHENYLHYDRAZINE *	5.0	ND	50	36.6	NA	50	42.6	39.8	NA	73.2	42	120	NA	85.1	79.6	42	120	7	40						
4,6-DINITRO-2-METHYLPHENOL	25.0	ND	50	48.1	NA	50	55.1	51.7	NA	96.2	33	135	NA	110.2	103.4	33	135	6	40						
N-NITROSODIPHENYLAMINE **	5.0	ND	50	40.8	NA	50	44.3	40.8	NA	81.6	36	119	NA	88.5	81.7	36	119	8	40						
4-BROMOPHENYL-PHENYL ETHE	5.0	ND	50	32.9	NA	50	37.8	35.4	NA	65.8	31	104	NA	75.5	70.8	31	104	6	40						
HEXACHLOROBENZENE	5.0	ND	50	45.9	NA	50	51.6	47.9	NA	91.7	55	119	NA	103.2	95.8	55	119	7	40						
PENTACHLOROPHENOL	25.0	ND	50	45.1	NA	50	51.3	48.7	NA	90.1	40	131	NA	102.7	97.3	40	131	5	40						
PHENANTHRENE	5.0	ND	50	42.9	NA	50	48.1	45.0	NA	85.9	50	125	NA	96.2	90.0	50	125	7	40						
ANTHRACENE	5.0	ND	50	45.7	NA	50	50.6	47.0	NA	91.4	52	120	NA	101.2	94.0	52	120	7	40						
CARBAZOLE	5.0	ND	50	53.9	NA	50	60.1	55.7	NA	107.8	36	181	NA	120.2	111.4	36	181	8	40						
DI-N-BUTYLPHTHALATE	5.0	ND	50	52.2	NA	50	58.0	54.2	NA	104.5	37	139	NA	116.0	108.4	37	139	7	40						
FLUORANTHENE	5.0	ND	50	49.4	NA	50	55.0	50.8	NA	98.9	52	137	NA	109.9	101.6	52	137	8	40						
PYRENE	5.0	ND	50	55.1	NA	50	61.1	57.3	NA	110.2	55	127	NA	122.2	114.7	55	127	6	40						
BUTYLBENZYLPHTHALATE	5.0	ND	50	54.1	NA	50	60.5	56.9	NA	108.2	28	150	NA	121.1	113.9	28	150	6	40						
BENZO(A)ANTHRACENE	10.0	ND	50	50.6	NA	50	56.3	52.6	NA	101.2	58	131	NA	112.6	105.1	58	131	7	40						
3,3'-DICHLOROBENZIDINE	5.0	ND	50	46.3	NA	50	49.8	26.9	NA	92.6	41	172	NA	99.6	53.8	41	172	60	40						
CHRYSENE	5.0	ND	50	50.4	NA	50	55.9	52.1	NA	100.8	67	176	NA	111.8	104.2	67	176	7	40						
BIS(2-ETHYLHEXYL)PHTHALATE	5.0	ND	50	52.6	NA	50	59.6	55.9	NA	105.1	32	149	NA	119.2	111.9	32	149	6	40						
DI-N-OCTYLPHTHALATE	5.0	ND	50	53.9	NA	50	60.0	56.2	NA	107.9	32	149	NA	120.0	112.4	32	149	7	40						
BENZO[B]FLUORANTHENE	5.0	ND	50	54.0	NA	50	59.6	52.9	NA	107.9	48	129	NA	119.1	105.8	48	129	12	40						
BENZO[K]FLUORANTHENE	5.0	ND	50	52.3	NA	50	57.5	55.8	NA	104.7	55	127	NA	115.1	111.7	55	127	3	40						
BENZO[A]PYRENE	5.0	ND	50	50.5	NA	50	56.2	52.2	NA	101.1	55	132	NA	112.3	104.5	55	132	7	40						
INDENO[1,2,3-CD]PYRENE	5.0	ND	50	50.9	NA	50	56.4	52.2	NA	101.8	43	140	NA	112.9	104.3	43	140	8	40						
DIBENZ[A,H]ANTHRACENE	5.0	ND	50	53.8	NA	50	59.8	55.4	NA	107.7	37	167	NA	119.6	110.7	37	167	8	40						
BENZO[G,H,I]PERYLENE	5.0	ND	50	51.4	NA	50	57.0	52.6	NA	102.9	42	143	NA	114.0	105.2	42	143	8	40						
SURROGATES																									
2-FLUOROPHENOL		33.2	100	34.9	43.5	100	45.5	43.7	33.2	34.9	21	100	43.5	45.5	43.7	21	100								
PHENOL - D5		24.4	100	25.4	30.0	100	32.8	31.4	24.4	25.4	10	94	30.0	32.8	31.4	10	94								
NITROBENZENE - D5		27.7	50	30.3	34.9	50	38.7	36.2	55.4	60.7	35	114	69.8	77.5	72.4	35	114								
2-FLUOROBIPHENYL		24.9	50	28.6	31.9	50	36.1	34.3	49.8	57.3	43	116	63.7	72.1	68.5	43	116								
2,4,6-TRIBROMOPHENOL		60.0	100	88.0	75.6	100	99.4	94.0	60.0	88.0	10	123	75.6	99.4	94.0	10	123								
p-TERPHENYL - D14		49.3	50	57.4	53.1	50	56.9	56.8	98.6	114.7	33	141	106.1	113.8	113.6	33	141								

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit

GC/MS QA-QC Check Report

une File : C:\HPCHEM\1\DATA\091400\7M9758.D
une Time : 14 Sep 2000 13:06

a[illegible]v Calibration File : C:\HPCHEM\1\DATA\091400\7M9759.D

{2FP}PHL NBZ FBP	DCB	NPT	ANT
	137976	545583	303894
tbp TPH	PHN	CRY	PRY
	522164	432043	378664

ile	Sample	Surrogate Recovery %				Internal Standard Responses		
M9761.D	BLK 9/11	47	33	73	70	119991	474083	261567
		80	103			447582	365517	312681
M9762.D	L0009160	28	22	62	61	116086	462106	255678
		60	56			433632	356388	313362
M9763.D	WG84038-	33	24	55	50	113820	456640	252569
		60	99			431918	342352	294758
M9764.D	WG84038-	35	25	61	57	110699	441948	243773
		88	115			420277	350370	306116
M9765.D	WG84038-	44	33	64	58	116174	458253	253654
		77	111			430618	347551	298108
M9766.D	WG84019-	39	34	77	77	115867	452856	250491
		68	87			427029	341554	291475
M9767.D	L0009176	43	30	70	64	113900	456358	251561
		76	106			425642	342190	299948
M9768.D	WG84038-	45	33	77	72	110159	435307	241361
		99	114			412606	343609	303816
M9769.D	WG84038-	44	31	72	69	118718	471808	261375
		94	114			446535	368170	328900
M9770.D	L0009176	53	38	78	73	111502	443799	244112
		84	94			414808	335648	290817
M9771.D	L0009185	44	30	71	67	115450	456331	252763
		85	102			427137	345042	296287
M9772.D	L0009103	32	25	60	57	120994	476596	263223
		63	101			446961	362210	310187
M9773.D	L0009125	35	26	62	54	123352	487741	272060
		81	84			465625	386776	336818
M9774.D	L0009127	38	28	63	55	122686	484671	266236
		69	88			453445	367227	314920
9775.D	L0009002	30	19	77	72	120166	475736	263816
		57	103			449036	366491	316083
M9776.D	L0009094	35	32	16681*	64	114116	457002	256488
		147*	107			436165	371352	318655

001896

19777.D	L0009094	51	33	59061*	74	115967	492902	276959
		182*	111			459436	387084	334655
19778.D	L0009094	57	41	72869*	79	112005	473788	266065
		198*	112			439406	371118	321322
1. 9.D	L0009094	57	41	16607*	83	111182	471143	265121
		125*	120			441976	375077	314139

t - fails 12hr time check * - fails criteria

Created: Fri Sep 15 08:50:27 2000 HPMS7

001897

GC/MS QA-QC Check Report

ıe File : C:\HPCHEM\1\DATA\091500\7M9780.D
ıe Time : 15 Sep 2000 8:20

Calibration File : C:\HPCHEM\1\DATA\091500\7M9781.D

		{2FP}PHL	NBZ	FBP		DCB	NPT	ANT
						139409	546021	298003
		tbp	TPH			PHN	CRY	PRY
						503479	400294	332447

le	Sample	Surrogate Recovery %				Internal Standard Responses		
9782.D	L0009094	0*	0*	18239*	161*	110387	428977	247711
		0*	73			381399	302854	249928
9783.D	L0009094	0*	0*	65284*	26*	108769	426766	249986
		0*	95			382086	299934	249988
9784.D	L0009094	0*	0*	86534*	50	109899	433357	259088
		0*	90			390839	305652	256453
9785.D	L0009094	20*	31	21237*	78	109715	429392	251686
		0*	129			384519	303479	252704

t - fails 12hr time check * - fails criteria

Created: Fri Sep 15 11:59:20 2000 HPMS7

2.2.1.2 Sample Data

001899

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9776.D Vial: 28
Acq On : 14 Sep 2000 22:31 Operator: mdc
Sample : L0009094-02 10X Inst : HPMS7
Misc : WATER,30 Multiplr: 30.00
Integration Params: rteint.p
Quant Time: Sep 15 8:02 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	114116	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	457002	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	256488	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	436165	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	371352	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	318655	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	4513	35.27	ug/ml	0.01
Spiked Amount 100.000	Range 21 - 100		Recovery = 35.27%			
6) Phenol-d5	8.73	99	4840	32.39	ug/ml	0.01
Spiked Amount 100.000	Range 10 - 94		Recovery = 32.39%			
20) Nitrobenzene-d5	9.81	82	1060408	8340.41	ug/ml	0.07
Spiked Amount 50.000	Range 35 - 114		Recovery = 16680.82%#			
38) 2-Fluorobiphenyl	11.55	172	9264	32.13	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 64.26%			
55) 2,4,6-Tribromophenol	13.12	330	2607	146.51	ug/ml	0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 146.51%#			
70) p-Terphenyl-d14	15.41	244	16826	53.35	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 106.70%			
Target Compounds						Qvalue
7) Phenol	8.75	94	4053949	24810.56	ug/ml	95
14) 2-Methylphenol	9.37	107	746775	7192.02	ug/ml#	85
16) 4-Methylphenol	9.52	107	2777344	18347.34	ug/ml#	76
24) 2,4-Dimethylphenol	10.08	122	748518	6226.02	ug/ml	95
29) Naphthalene	10.50	128	26310	71.59	ug/ml# J	73

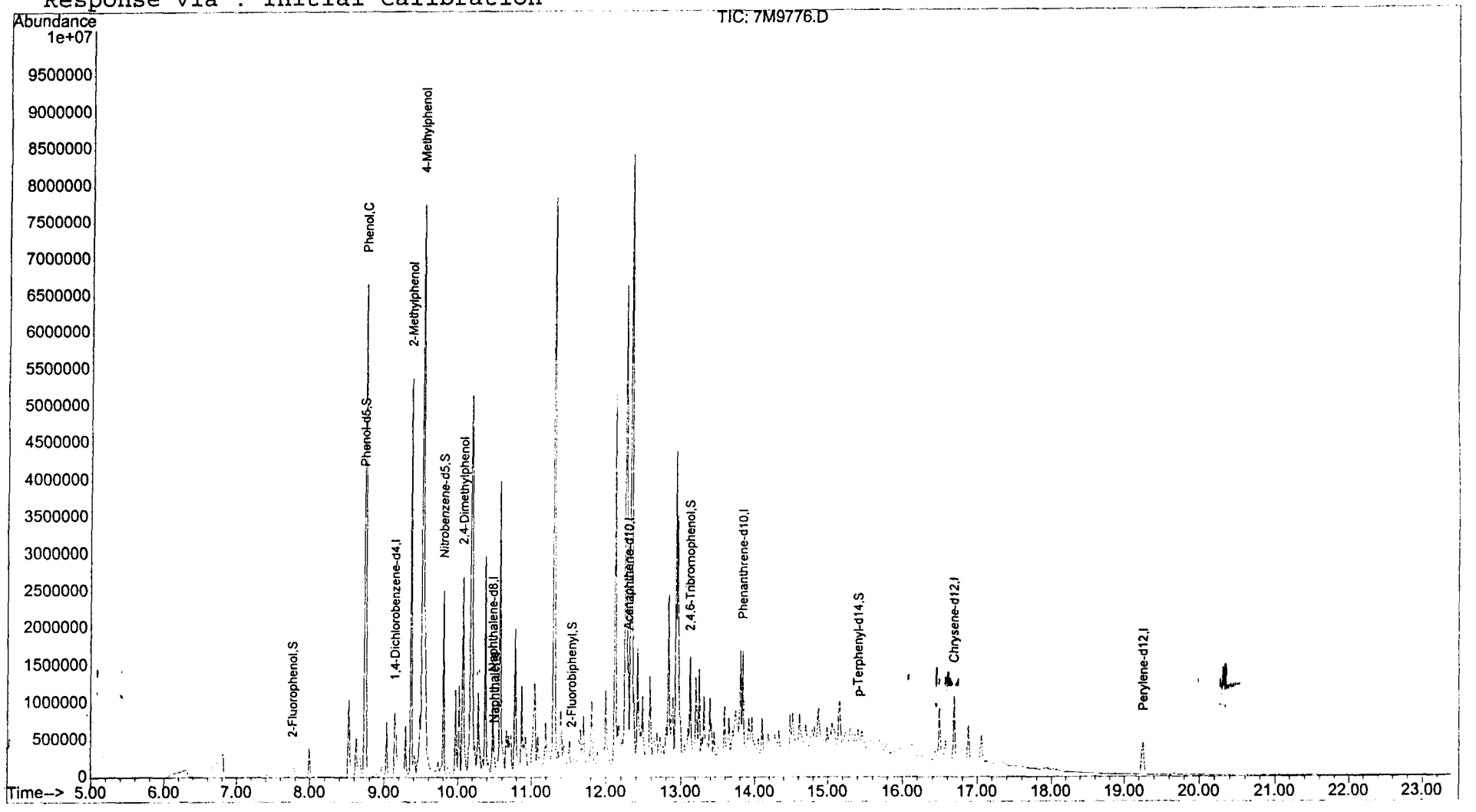
(#) = qualifier out of range (m) = manual integration

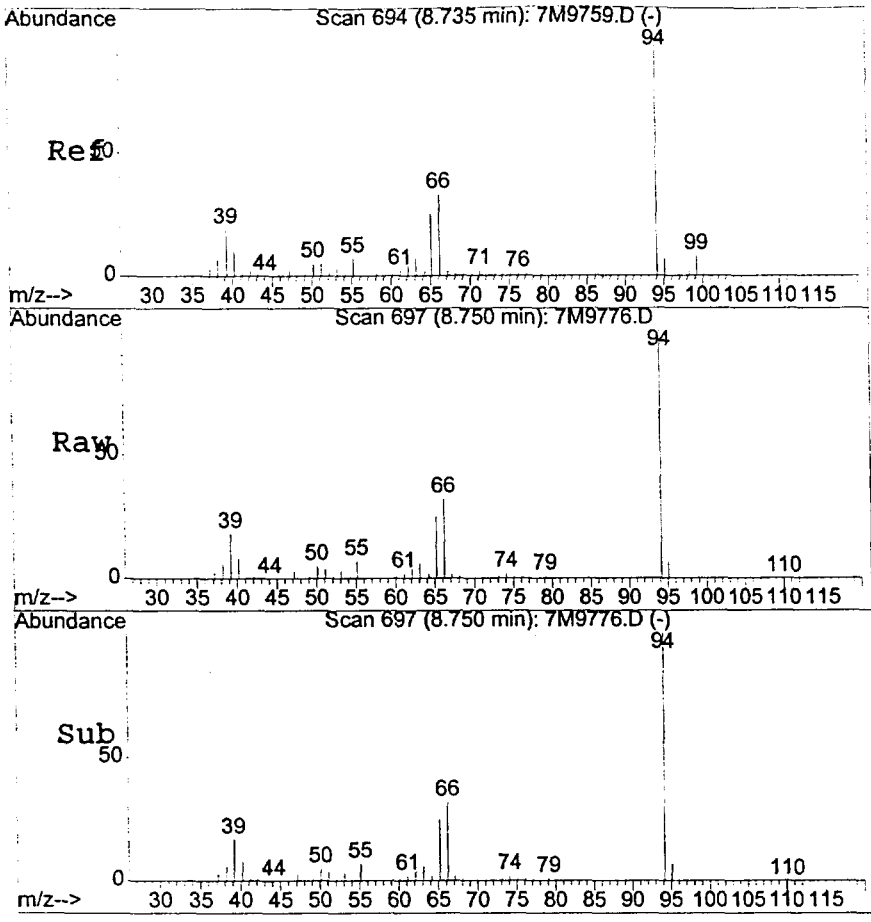
Data File : C:\HPCHEM\1\DATA\091400\7M9776.D
Acq On : 14 Sep 2000 22:31
Sample : L0009094-02 10X
Misc : WATER,30
MS Integration Params: rteint.p
Quant Time: Sep 15 8:02 2000

Vial: 28
Operator: mdc
Inst : HPMS7
Multiplr: 30.00

Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration

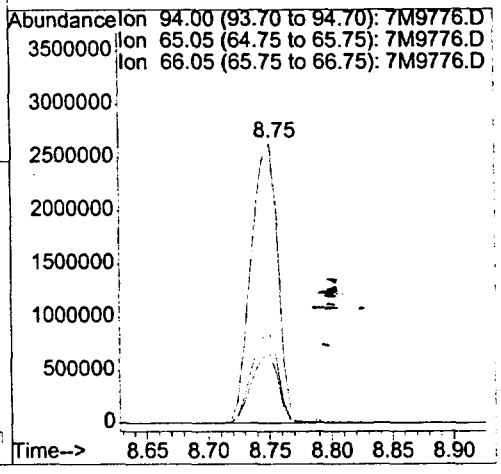


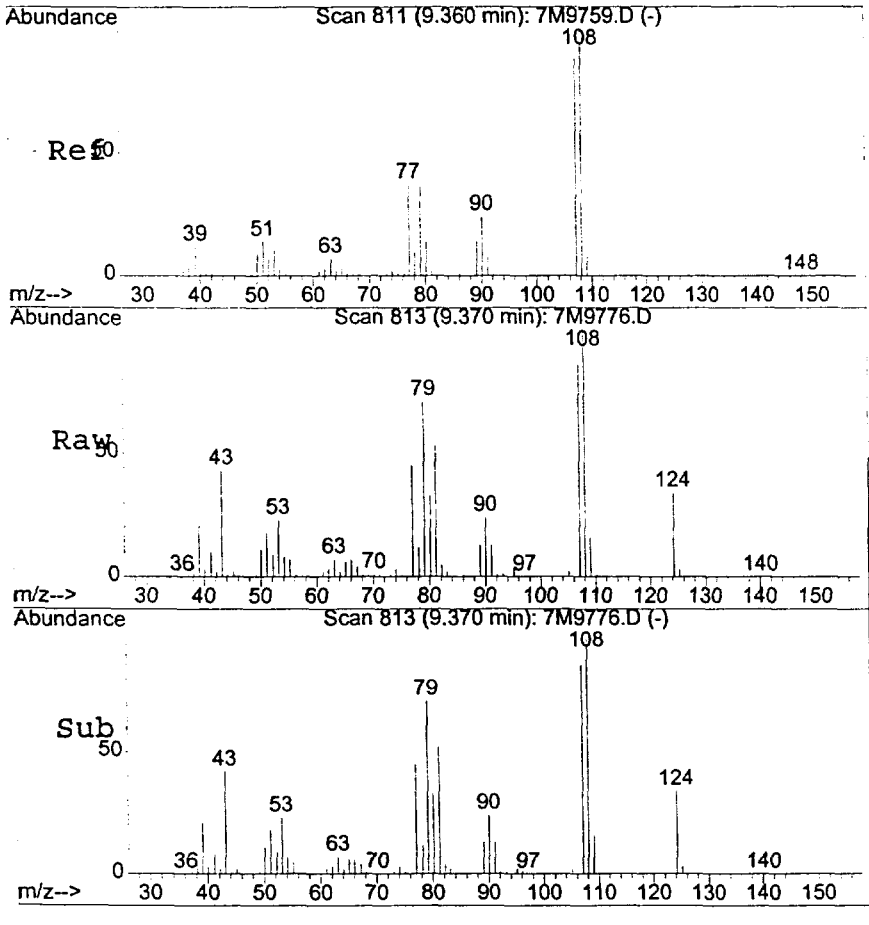


#7
Phenol
Concen: 24810.56 ug/ml
RT: 8.75 min Scan# 697
Delta R.T. 0.02 min
Lab File: 7M9776.D
Acq: 14 Sep 2000 22:31

Tgt Ion: 94 Resp: 4053949

Ion	Ratio	Lower	Upper
94	100		
65	24.8	20.5	30.7
66	32.1	29.4	44.0

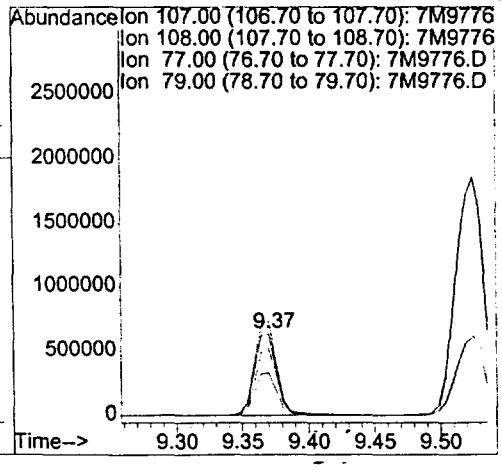


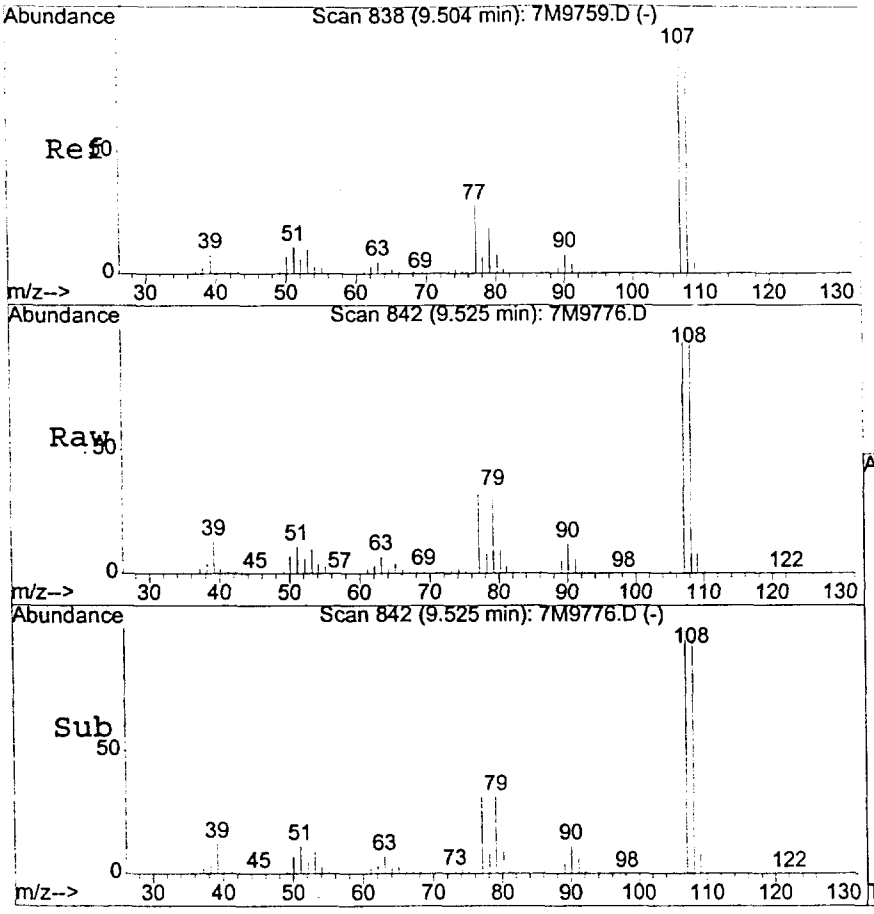


#14
2-Methylphenol
Concen: 7192.02 ug/ml
RT: 9.37 min Scan# 813
Delta R.T. 0.01 min
Lab File: 7M9776.D
Acq: 14 Sep 2000 22:31

Tgt Ion:107 Resp: 746775

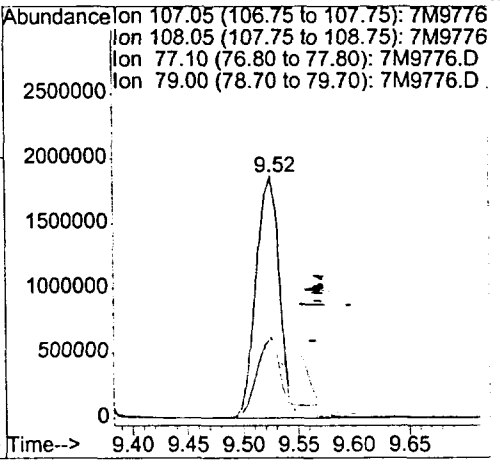
Ion	Ratio	Lower	Upper
107	100		
108	115.0	92.6	138.8
77	52.4	35.3	52.9
79	79.7	34.2	51.4#

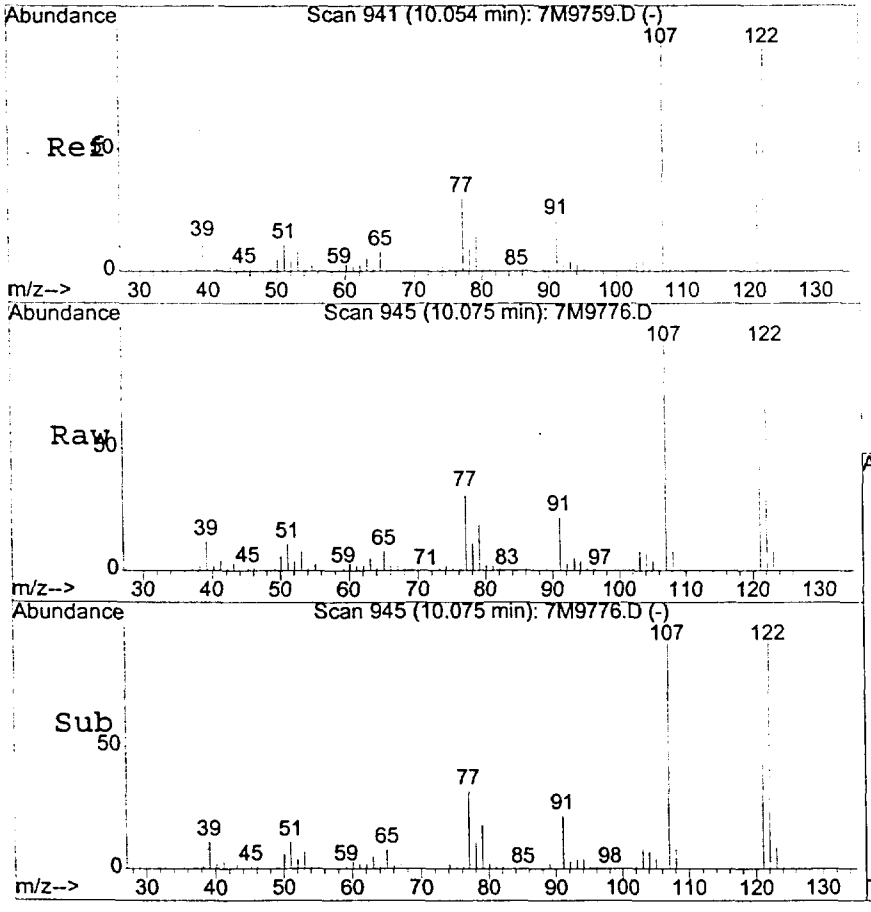




#16
4-Methylphenol
Concen: 18347.34 ug/ml
RT: 9.52 min Scan# 842
Delta R.T. 0.02 min
Lab File: 7M9776.D
Acq: 14 Sep 2000 22:31

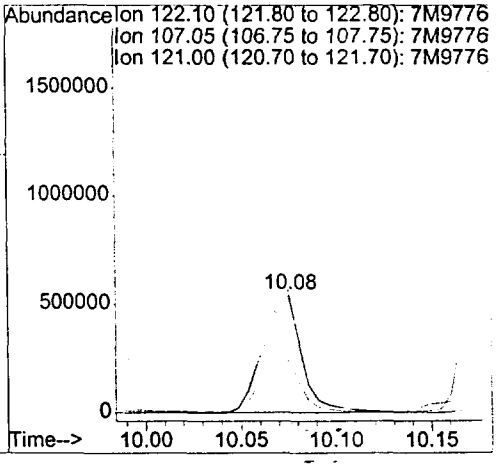
Tgt Ion:107	Resp:	2777344	
Ion	Ratio	Lower	Upper
107	100		
108	107.3	65.7	98.5#
77	36.2	23.1	34.7#
79	33.5	17.3	25.9#

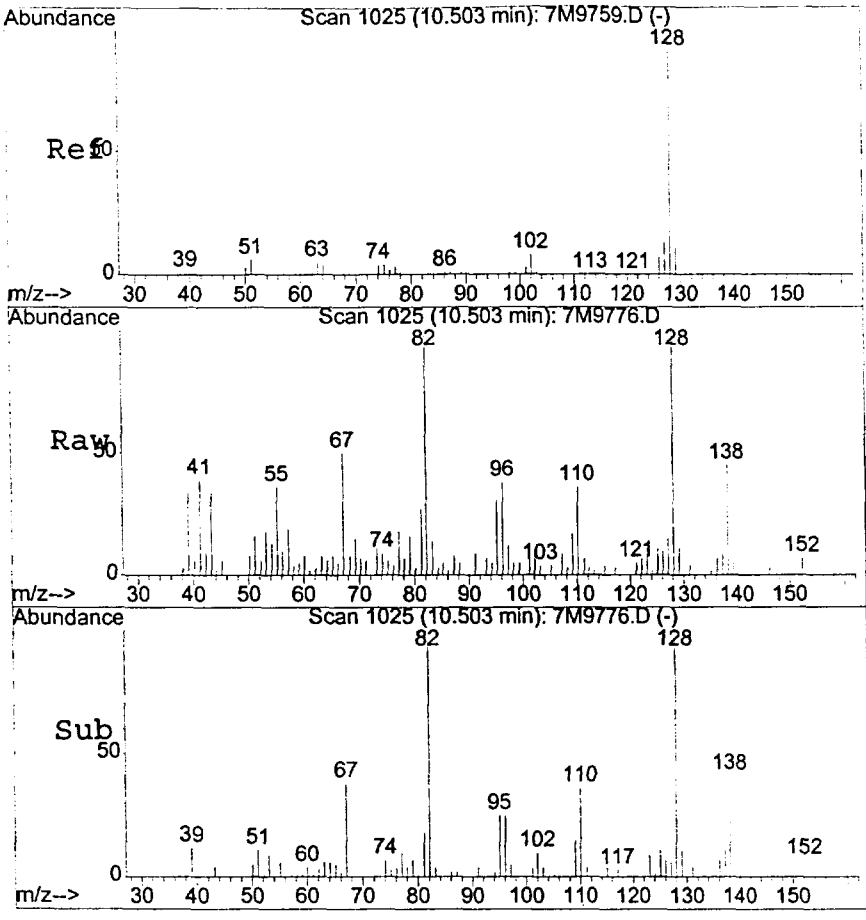




#24
2,4-Dimethylphenol
Concen: 6226.02 ug/ml
RT: 10.08 min Scan# 945
Delta R.T. 0.02 min
Lab File: 7M9776.D
Acq: 14 Sep 2000 22:31

Tgt Ion:122	Resp:	748518	
Ion	Ratio	Lower	Upper
122	100		
107	104.7	85.7	128.5
121	48.6	45.4	68.2

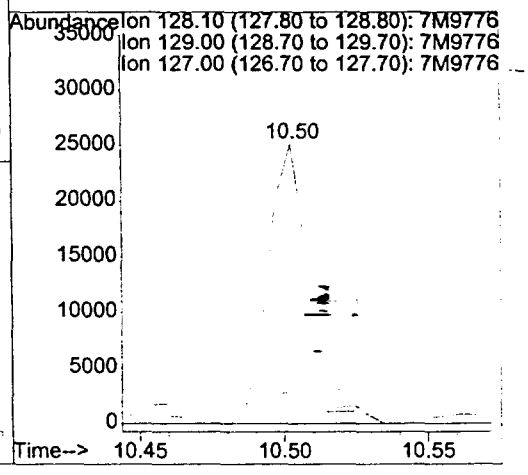




#29
Naphthalene
Concen: 71.59 ug/ml
RT: 10.50 min Scan# 1025
Delta R.T. -0.00 min
Lab File: 7M9776.D
Acq: 14 Sep 2000 22:31

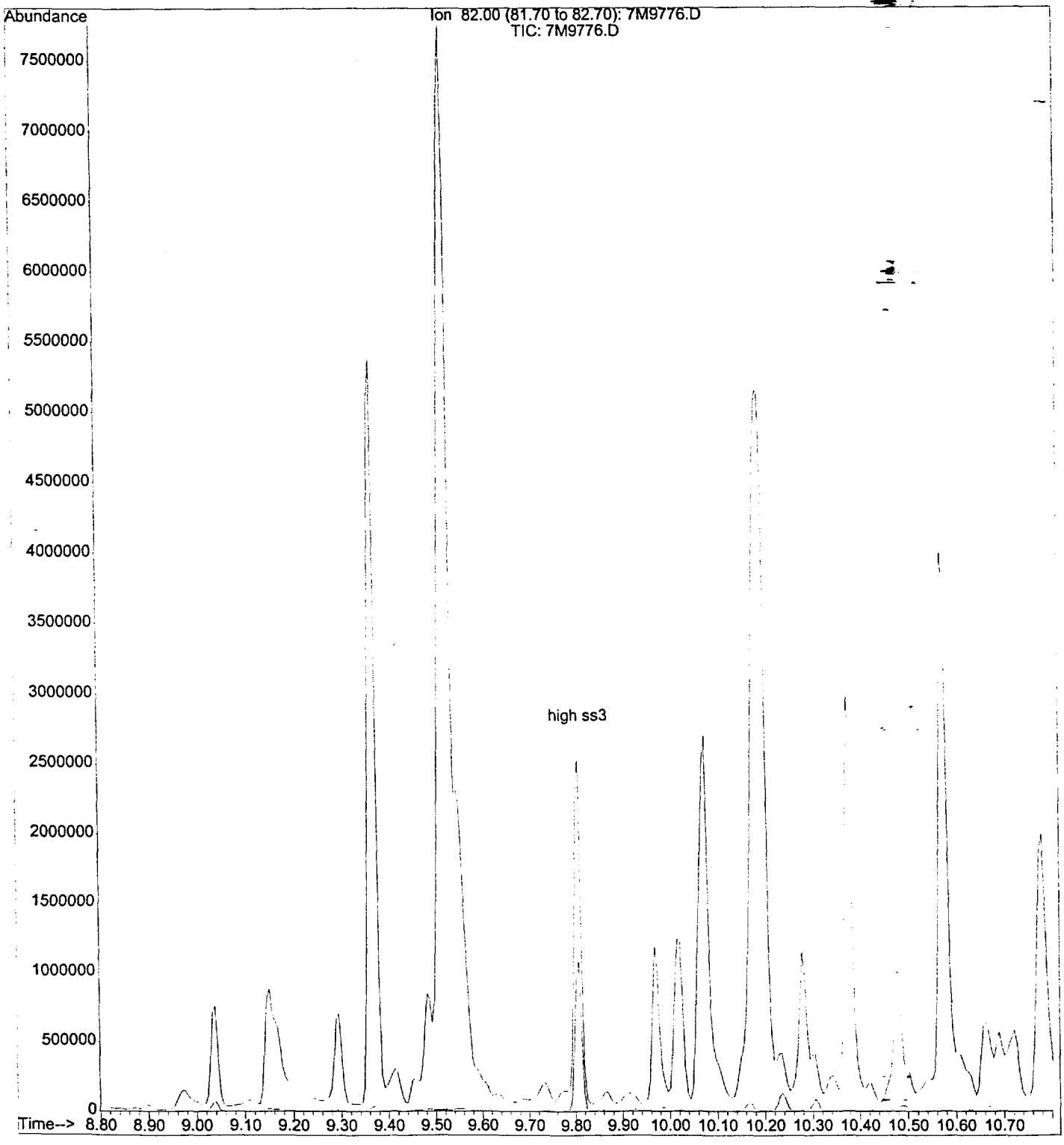
Tgt Ion:128 Resp: 26310

Ion	Ratio	Lower	Upper
128	100		
129	15.8	11.1	16.7
127	22.2	35.6	53.4#



001904

File : C:\HPCHEM\1\DATA\091400\7M9776.D
Operator : mdc
Acquired : 14 Sep 2000 22:31 using AcqMethod BNA
Instrument : HPMS7
Sample Name: L0009094-02 10X
Misc Info : WATER,30
Vial Number: 28



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091500\7M9782.D Vial: 3
Acq On : 15 Sep 2000 9:11 Operator: mdc
Sample : L0009094-02 200X Inst : HPMS7
[illegible] : WATER,600 Multiplr: 600.00
[illegible]ntegration Params: rteint.p
Quant Time: Sep 15 10:45 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	110387	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	428977	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	247711	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.83	188	381399	40.00	ug/ml	0.00
67) Chrysene-d12	16.68	240	302854	40.00	ug/ml	0.00
76) Perylene-d12	19.24	264	249928	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery = 0.00%#			
20) Nitrobenzene-d5	9.79	82	54419	9119.66	ug/ml	0.05
Spiked Amount 50.000	Range 35 - 114		Recovery = 18239.32%#			
38) 2-Fluorobiphenyl	11.63	172	1119	80.38	ug/ml	0.08
Spiked Amount 50.000	Range 43 - 116		Recovery = 160.76%#			
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.00%#			
70) p-Terphenyl-d14	15.41	244	470	36.54	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 73.08%			
Target Compounds						Qvalue
5) Aniline	8.73	66	80433	25724.28	ug/ml#	1
7) Phenol	8.74	94	257042	32525.27	ug/ml	94
8) bis(2-Chloroethyl)ether	8.74	63	16127	4031.92	ug/ml#	1
12) Benzyl Alcohol	9.36	108	46799	13027.74	ug/ml#	57
14) 2-Methylphenol	9.36	107	41440	8251.63	ug/ml#	84
16) 4-Methylphenol	9.51	107	185206	25296.31	ug/ml#	76
24) 2,4-Dimethylphenol	10.07	122	39159	6939.92	ug/ml#	92
26) Benzoic Acid	10.07	122	39159	15753.82	ug/ml#	1
46) 2,4-Dinitrophenol	12.41	184	3033	7531.10	ug/ml#	1
57) 4,6-Dinitro-2-Methylphenol	12.88	198	1175	6636.10	ug/ml#	22

(#) = qualifier out of range (m) = manual integration
7M9782.D BNA.M Fri Sep 15 10:45:07 2000 HPMS7 Page 1

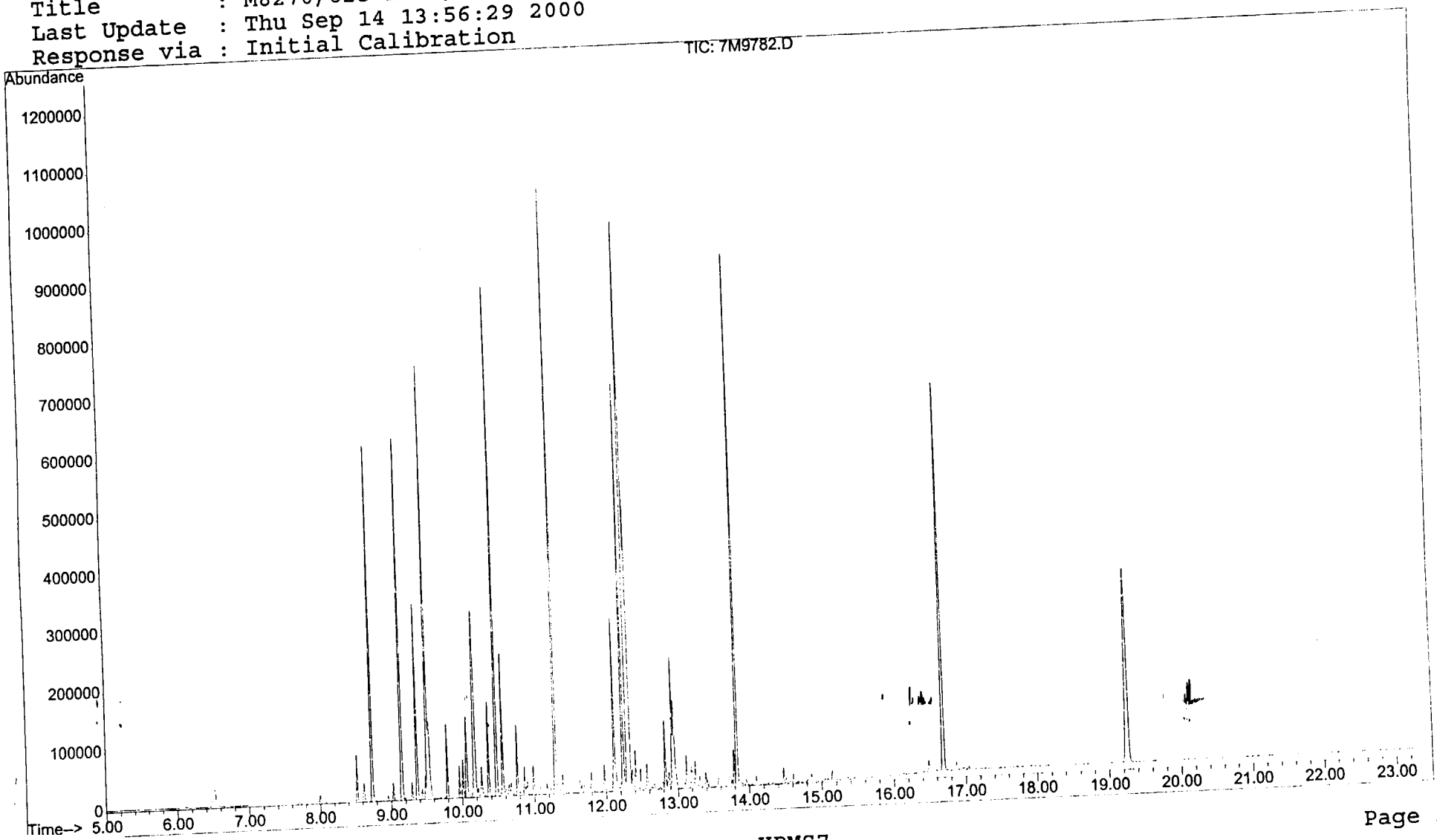
001906

Data File : C:\HPCHEM\1\DATA\091500\7M9782.D
Acq On : 15 Sep 2000 9:11
Sample : L0009094-02 200X
Misc : WATER,600
MS Integration Params: rteint.p
Quant Time: Sep 15 10:45 2000

Vial: 3
Operator: mdc
Inst : HPMS7
Multiplr: 600.00

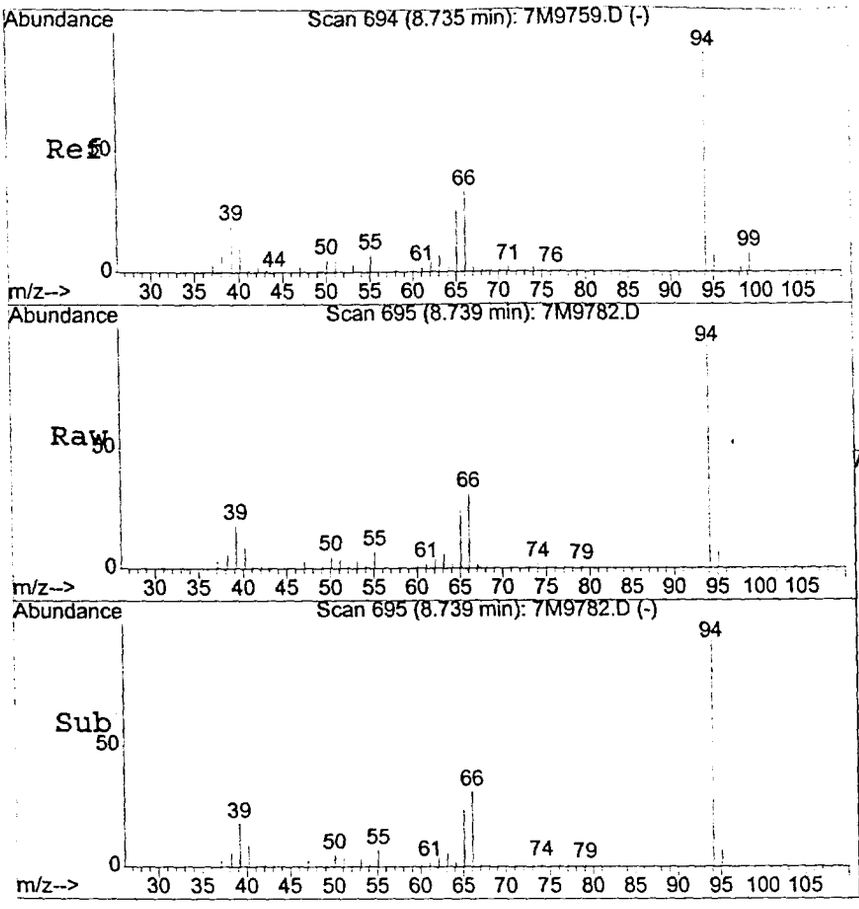
Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



001907

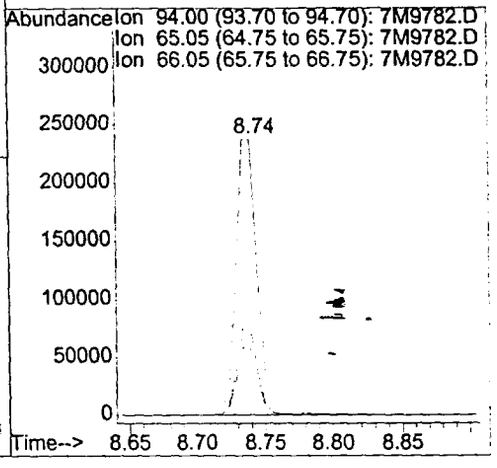
7M9782.D BNA.M Fri Sep 15 10:45:08 2000 HPMS7

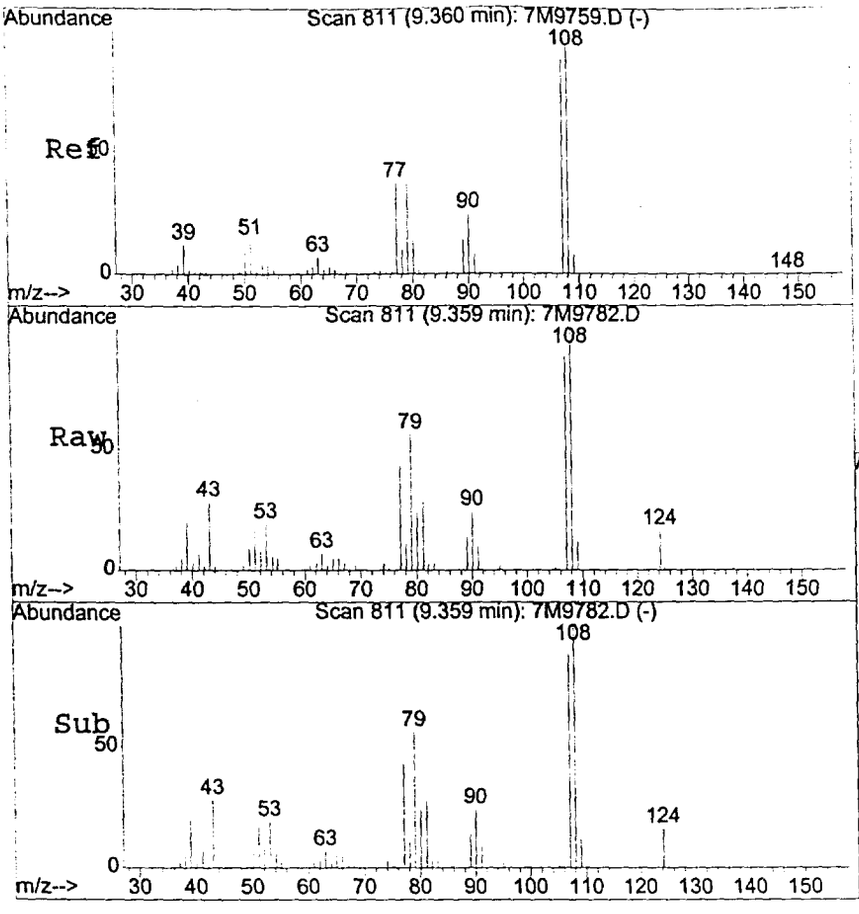


#7
Phenol
Concen: 32525.27 ug/ml
RT: 8.74 min Scan# 695
Delta R.T. 0.00 min
Lab File: 7M9782.D
Acq: 15 Sep 2000 9:11

Tgt Ion: 94 Resp: 257042

Ion	Ratio	Lower	Upper
94	100		
65	24.2	20.5	30.7
66	31.3	29.4	44.0

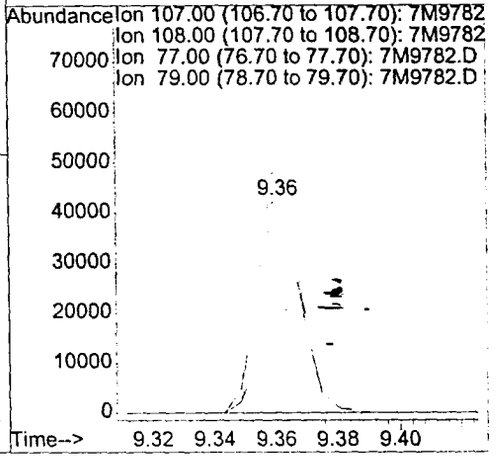


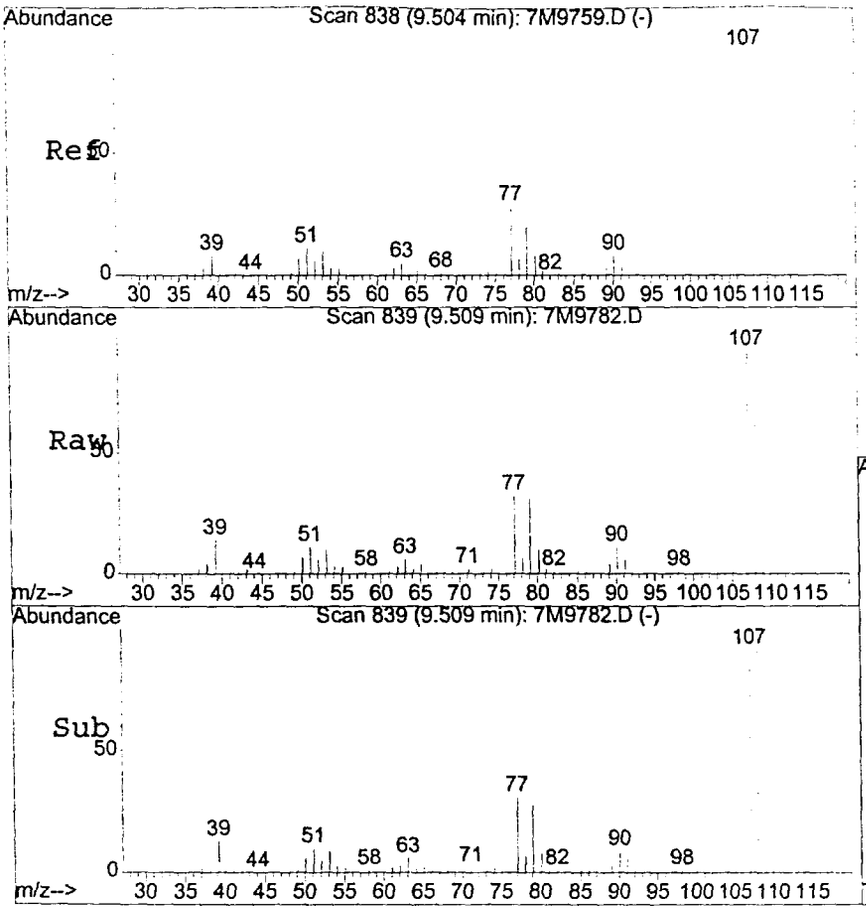


#14
2-Methylphenol
Concen: 8251.63 ug/ml
RT: 9.36 min Scan# 811
Delta R.T. -0.00 min
Lab File: 7M9782.D
Acq: 15 Sep 2000 9:11

Tgt Ion:107 Resp: 41440

Ion	Ratio	Lower	Upper
107	100		
108	112.9	92.6	138.8
77	52.6	35.3	52.9
79	79.1	34.2	51.4#

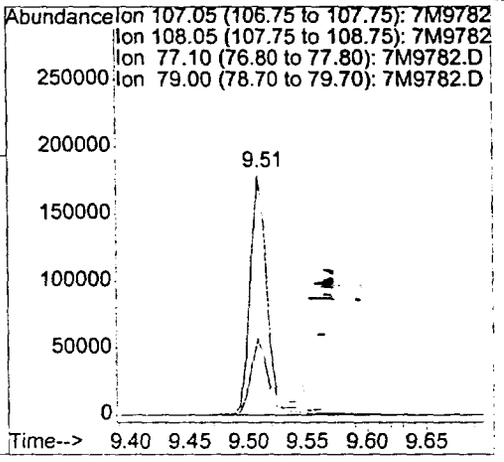




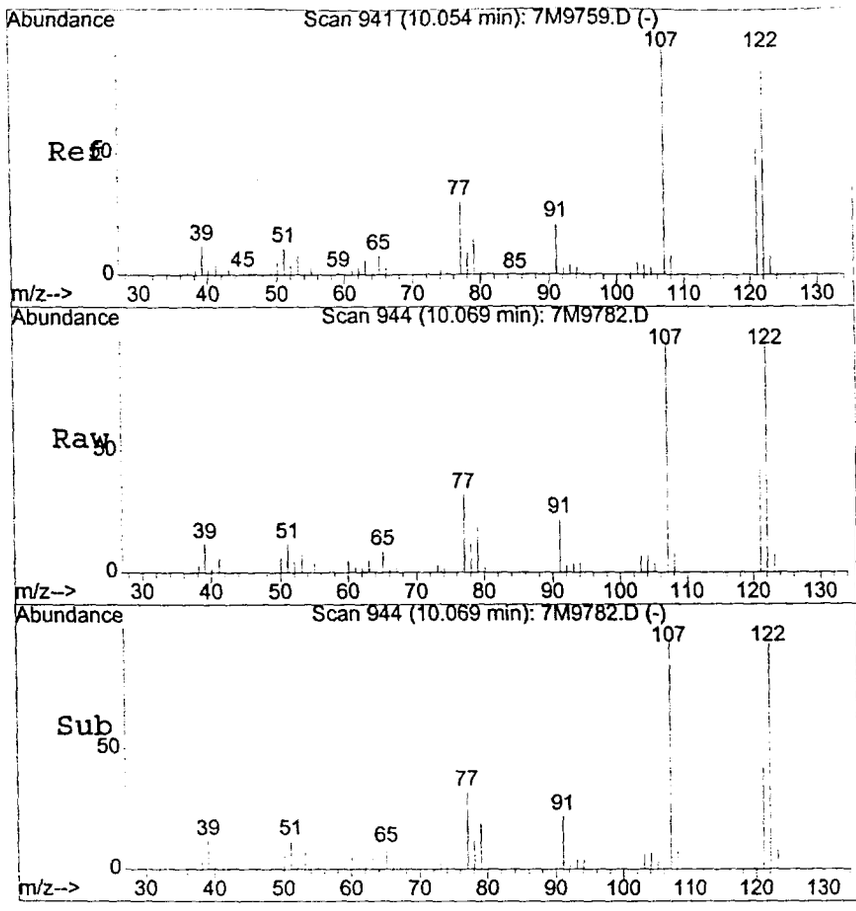
#16
4-Methylphenol
Concen: 25296.31 ug/ml
RT: 9.51 min Scan# 839
Delta R.T. 0.00 min
Lab File: 7M9782.D
Acq: 15 Sep 2000 9:11

Tgt Ion:107 Resp: 185206

Ion	Ratio	Lower	Upper
107	100		
108	104.8	65.7	98.5#
77	38.5	23.1	34.7#
79	33.8	17.3	25.9#



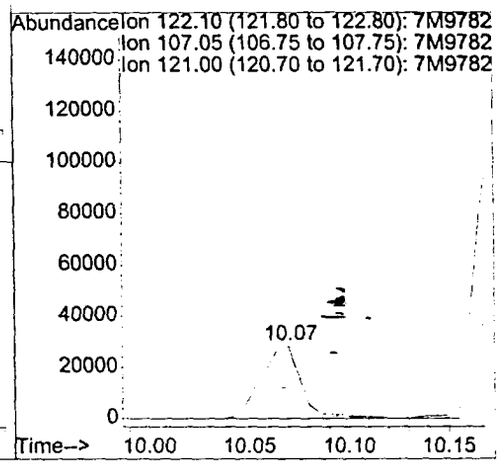
001910



#24
2,4-Dimethylphenol
Concen: 6939.92 ug/ml
RT: 10.07 min Scan# 944
Delta R.T. 0.02 min
Lab File: 7M9782.D
Acq: 15 Sep 2000 9:11

Tgt Ion:122 Resp: 39159

Ion	Ratio	Lower	Upper
122	100		
107	103.1	85.7	128.5
121	44.9	45.4	68.2#



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9777.D Vial: 29
Acq On : 14 Sep 2000 23:03 Operator: mdc
Sample : L0009094-04 10X Inst : HPMS7
Misc : WATER,50 Multiplr: 50.00
Integration Params: rteint.p
Quant Time: Sep 15 8:14 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

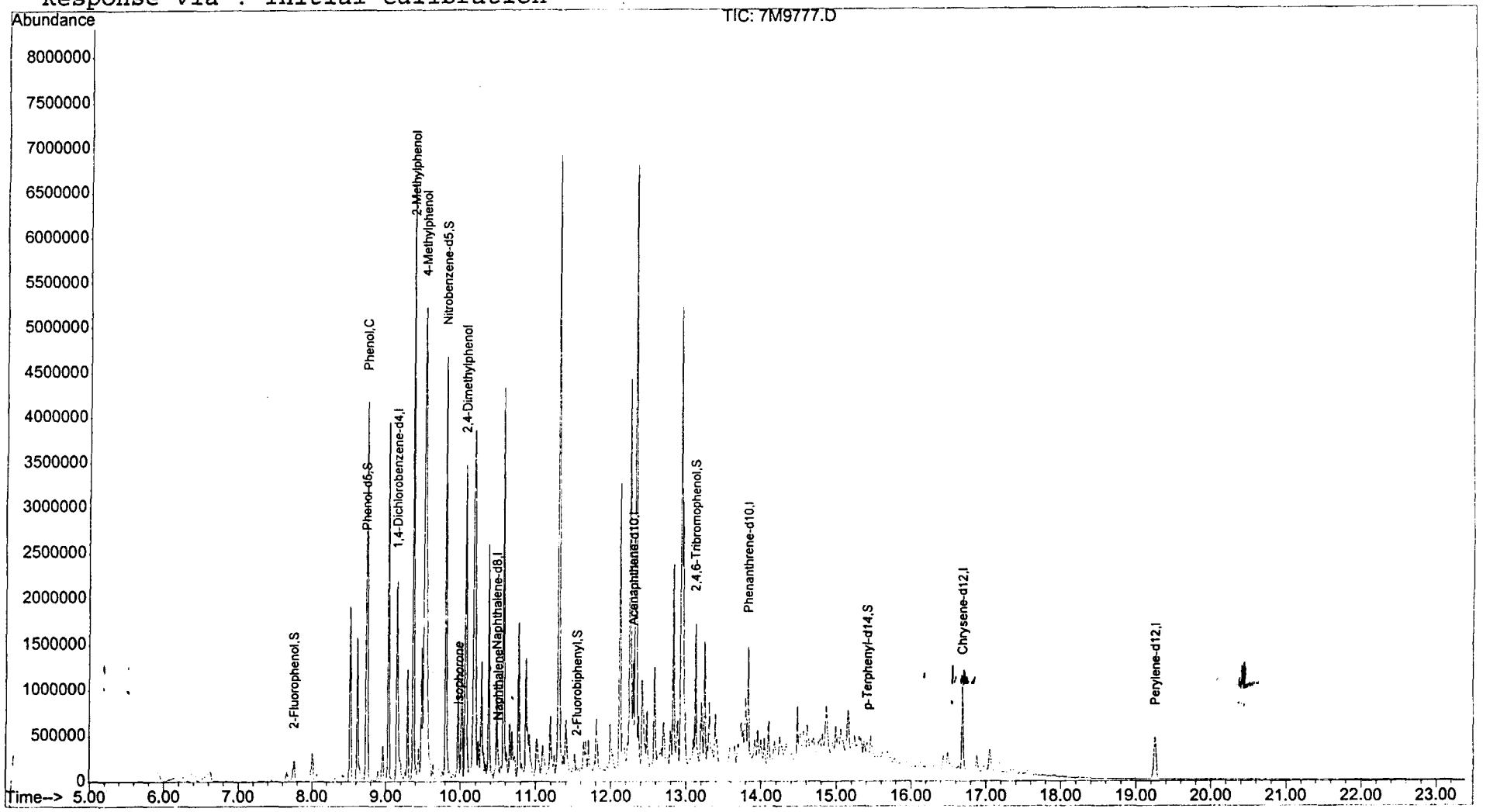
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	115967	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	492902	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	276959	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	459436	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	387084	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	334655	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	4009	51.38	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 51.38%			
6) Phenol-d5	8.73	99	2997	32.89	ug/ml	0.02
Spiked Amount 100.000	Range 10 - 94		Recovery = 32.89%			
20) Nitrobenzene-d5	9.81	82	2429681	29530.43	ug/ml	0.07
Spiked Amount 50.000	Range 35 - 114		Recovery = 59060.86%#			
38) 2-Fluorobiphenyl	11.55	172	6920	37.05	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 74.10%			
55) 2,4,6-Tribromophenol	13.12	330	1466	181.84	ug/ml	0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 181.84%#			
70) p-Terphenyl-d14	15.41	244	10918	55.35	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 110.70%			
Target Compounds						Qvalue
7) Phenol	8.75	94	2344397	23531.54	ug/ml	94
14) 2-Methylphenol	9.37	107	689147	10885.14	ug/ml#	73
16) 4-Methylphenol	9.52	107	2013534	21815.41	ug/ml#	56
22) Isophorone	9.98	82	51214	354.05	ug/ml#	1
24) 2,4-Dimethylphenol	10.07	122	963697	12386.69	ug/ml	94
29) Naphthalene	10.50	128	29681	124.81	ug/ml#	66

(#) = qualifier out of range (m) = manual integration
7M9777.D BNA.M Fri Sep 15 08:14:15 2000 HPMS7 Page 1

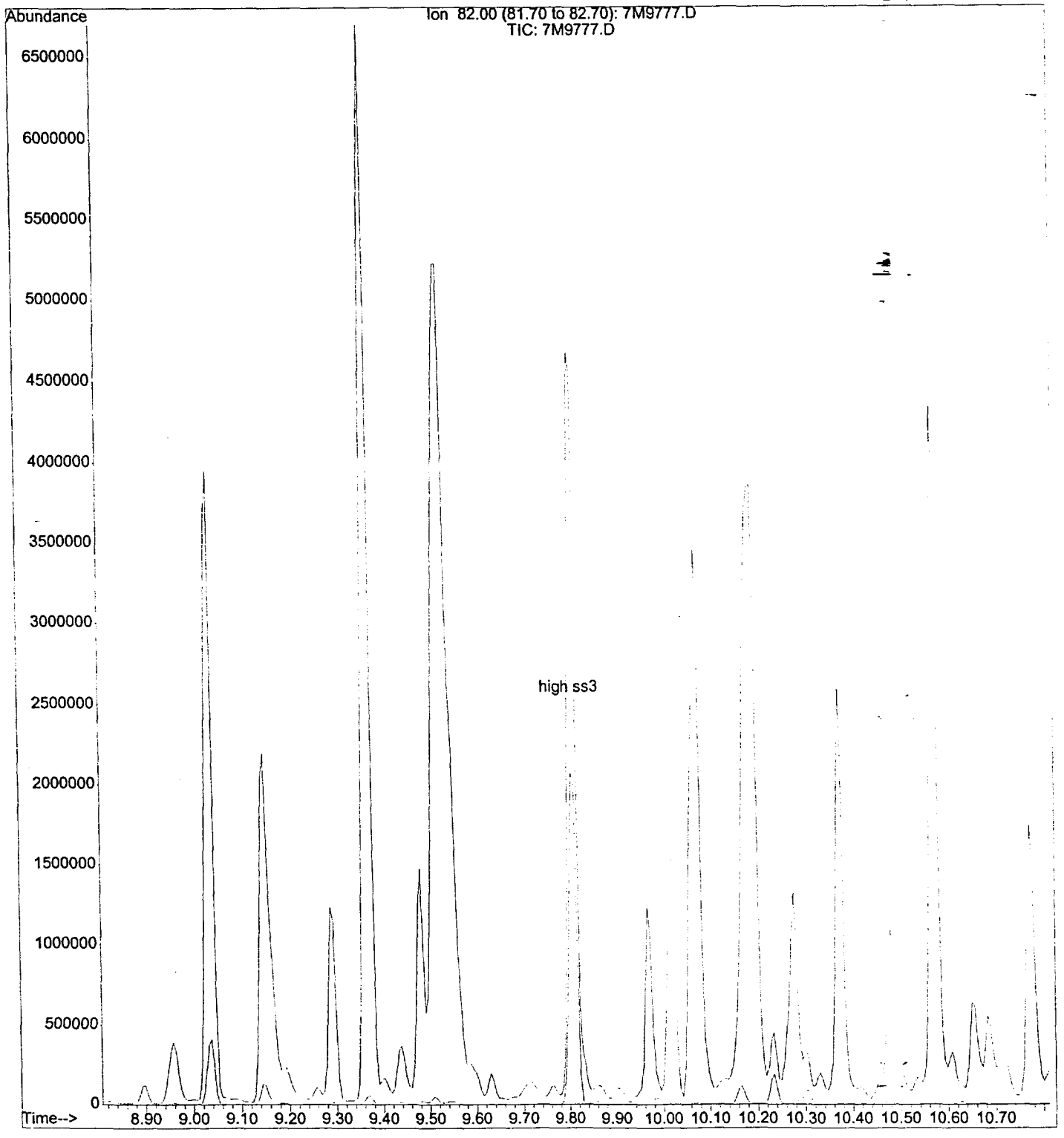
Data File : C:\HPCHEM\1\DATA\091400\7M9777.D
Acq On : 14 Sep 2000 23:03
Sample : L0009094-04 10X
Misc : WATER,50
MS Integration Params: rteint.p
Quant Time: Sep 15 8:14 2000

Vial: 29
Operator: mdc
Inst : HPMS7
Multiplr: 50.00
Quant Results File: BNA.RES

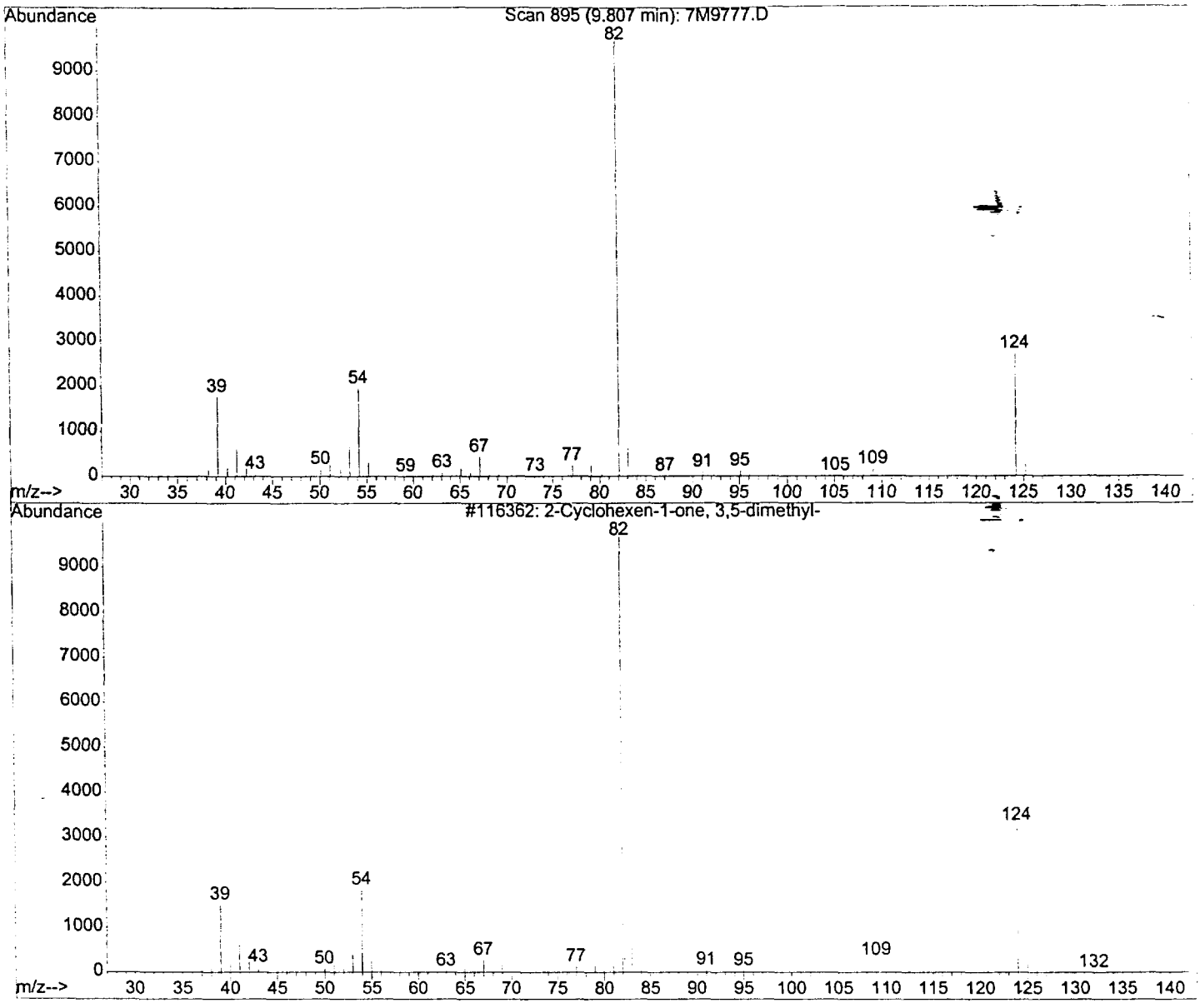
Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



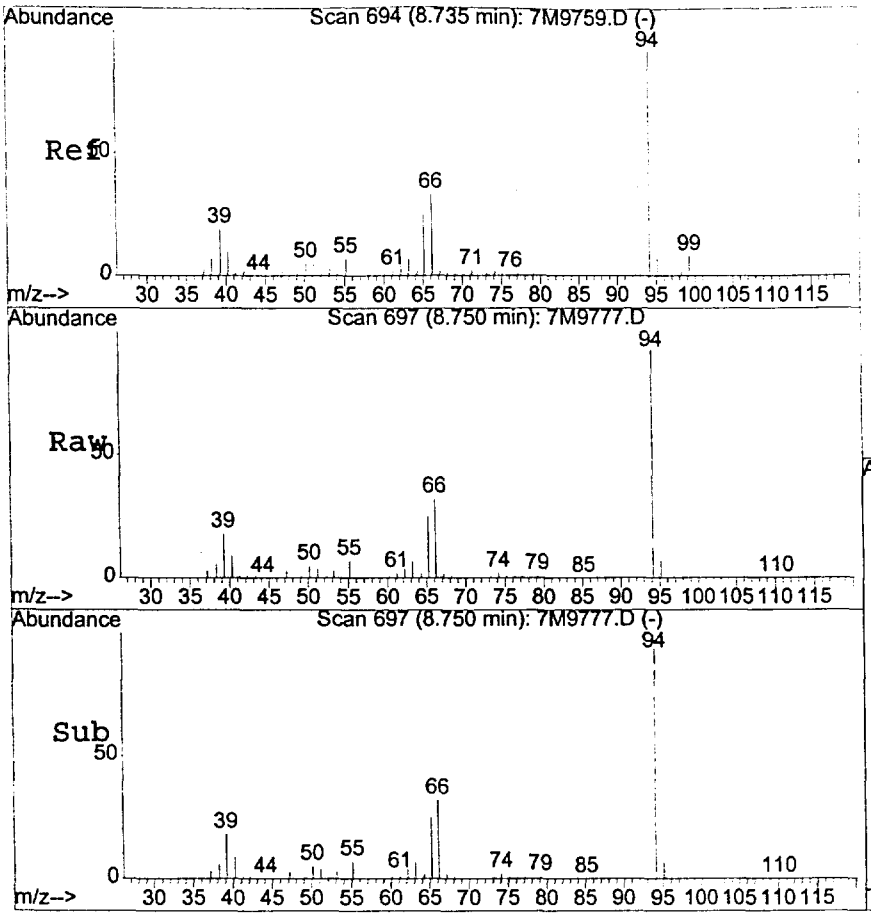
File : C:\HPCHEM\1\DATA\091400\7M9777.D
Operator : mdc
Acquired : 14 Sep 2000 23:03 using AcqMethod BNA
Instrument : HPMS7
Sample Name: L0009094-04 10X
Misc Info : WATER,50
Vial Number: 29



Library Searched : C:\DATABASE\NIST98.L
Quality : 91
ID : 2-Cyclohexen-1-one, 3,5-dimethyl-



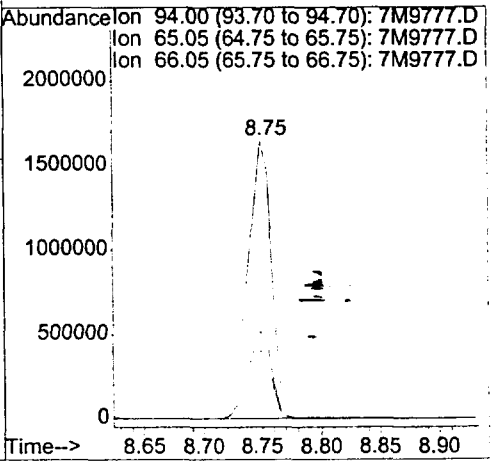
001915

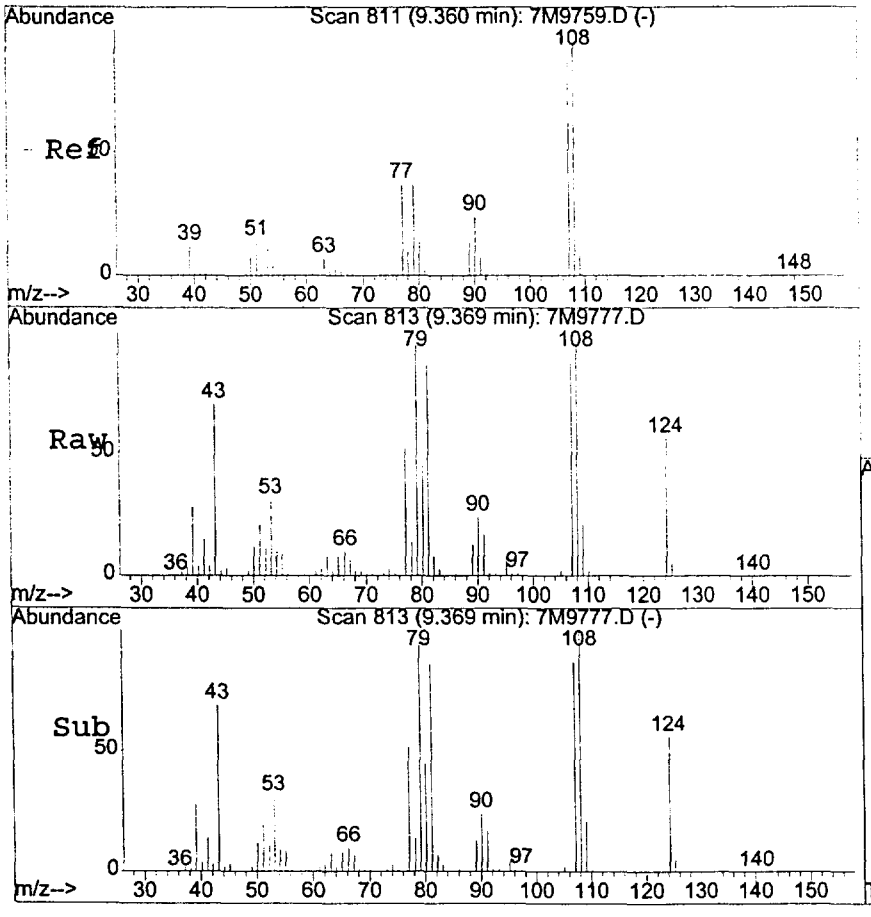


#7
Phenol
Concen: 23531.54 ug/ml
RT: 8.75 min Scan# 697
Delta R.T. 0.02 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion: 94 Resp: 2344397

Ion	Ratio	Lower	Upper
94	100		
65	24.5	20.5	30.7
66	31.7	29.4	44.0

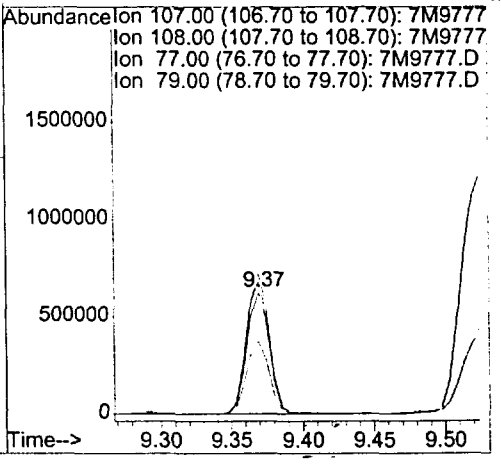




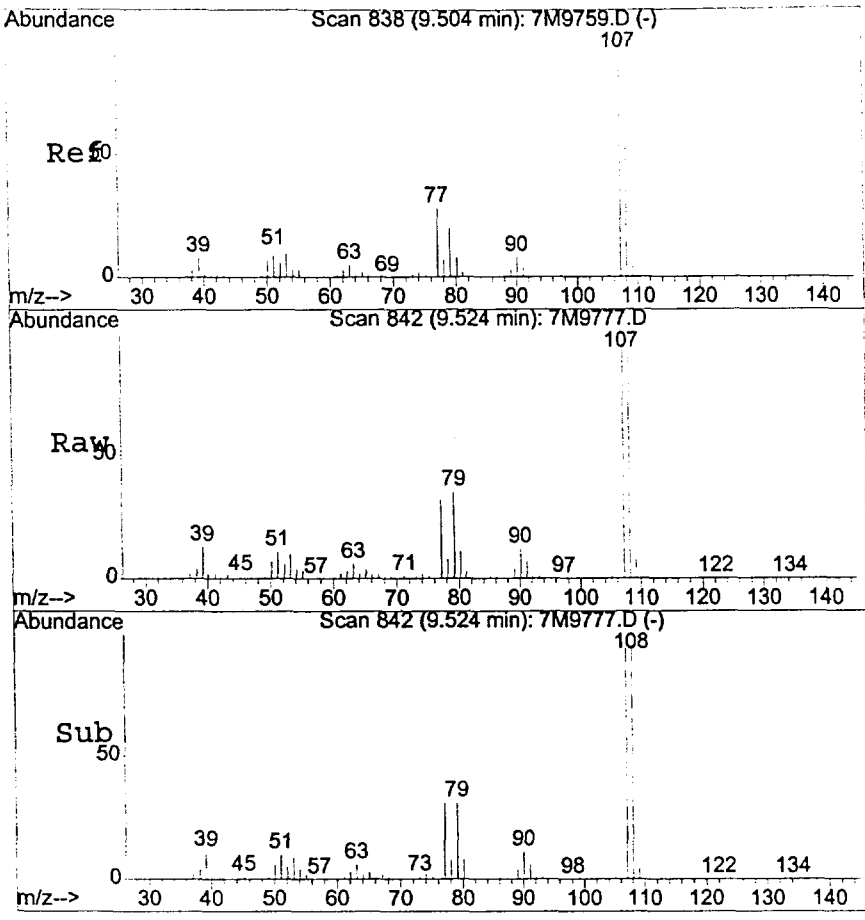
#14
2-Methylphenol
Concen: 10885.14 ug/ml
RT: 9.37 min Scan# 813
Delta R.T. 0.01 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion:107 Resp: 689147

Ion	Ratio	Lower	Upper
107	100		
108	114.8	92.6	138.8
77	59.8	35.3	52.9#
79	108.3	34.2	51.4#



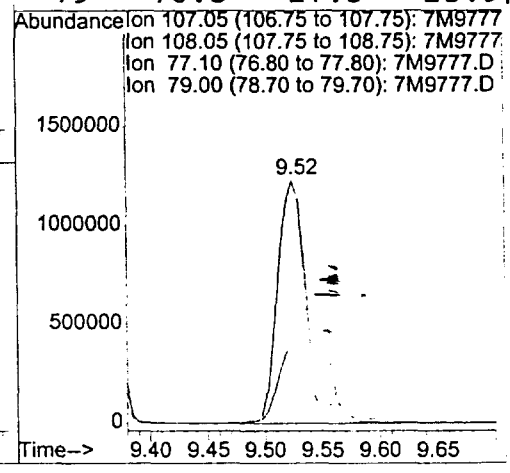
001916

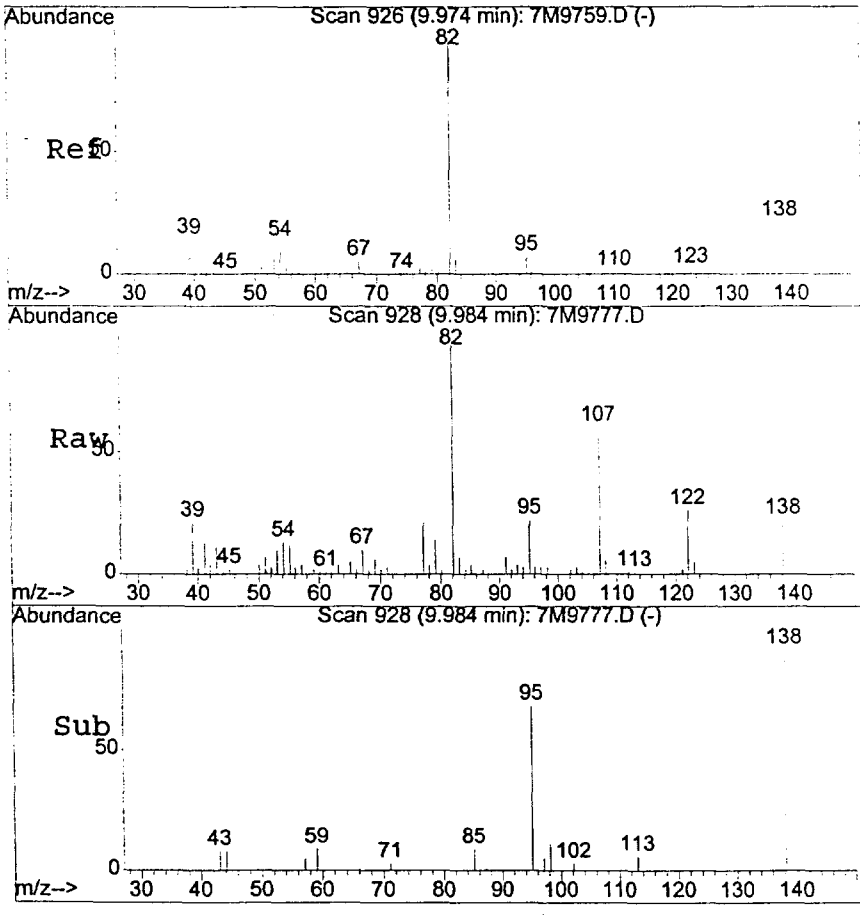


#16
4-Methylphenol
Concen: 21815.41 ug/ml
RT: 9.52 min Scan# 842
Delta R.T. 0.02 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion:107 Resp: 2013534

Ion	Ratio	Lower	Upper
107	100		
108	109.5	65.7	98.5#
77	43.7	23.1	34.7#
79	76.5	17.3	25.9#

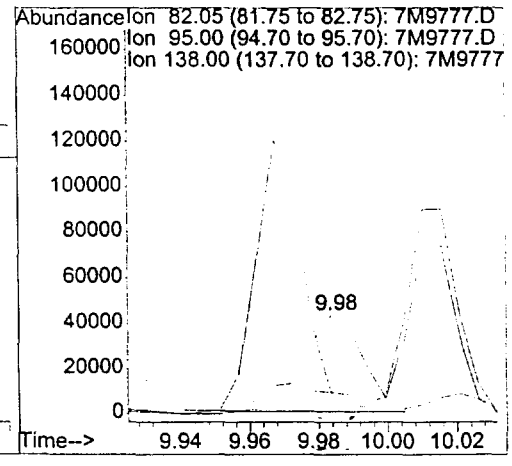


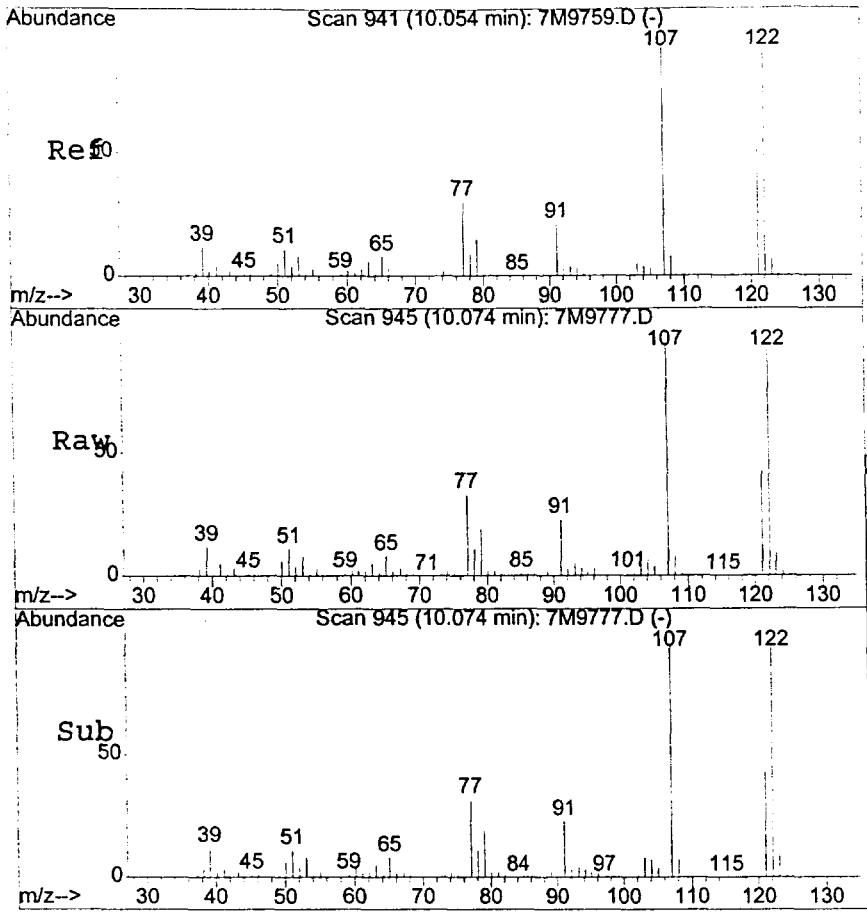


#22
Isophorone
Concen: 354.05 ug/ml
RT: 9.98 min Scan# 928
Delta R.T. 0.01 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion: 82 Resp: 51214

Ion	Ratio	Lower	Upper
82	100		
95	228.8	5.3	7.9#
138	43.0	17.1	25.7#

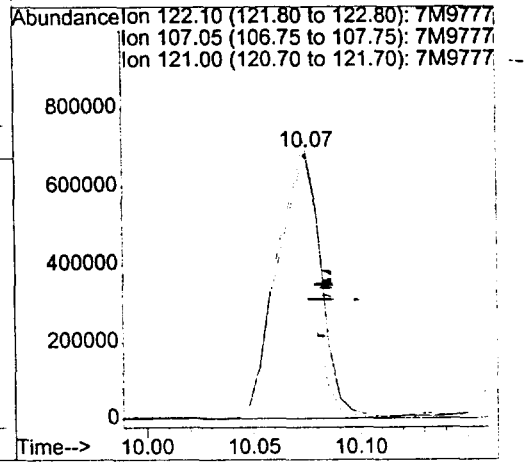


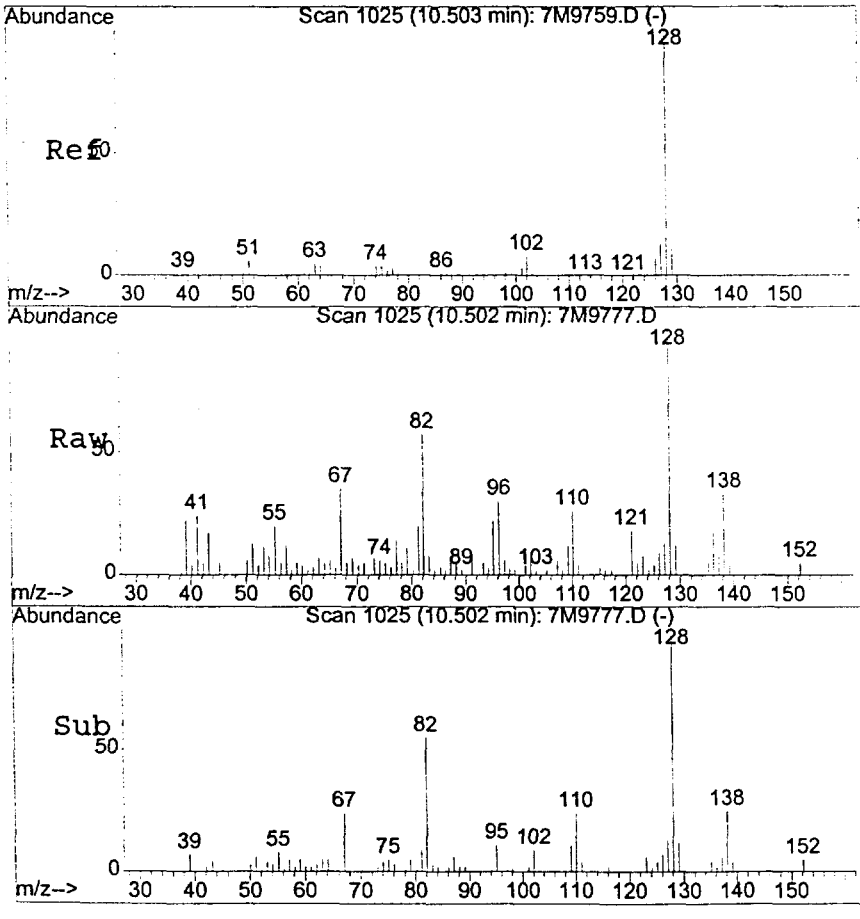


#24
2,4-Dimethylphenol
Concen: 12386.69 ug/ml
RT: 10.07 min Scan# 945
Delta R.T. 0.02 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion:122 Resp: 963697

Ion	Ratio	Lower	Upper
122	100		
107	103.9	85.7	128.5
121	48.7	45.4	68.2

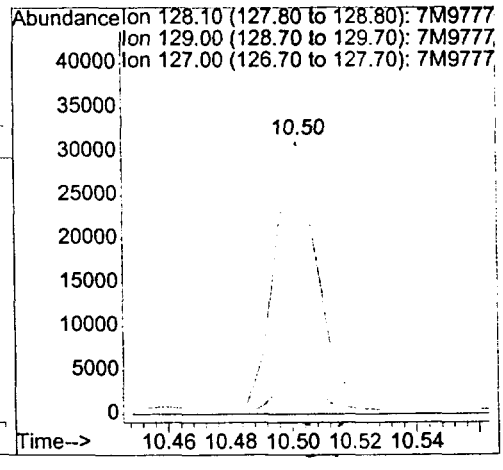




#29
Naphthalene
Concen: 124.81 ug/ml
RT: 10.50 min Scan# 1025
Delta R.T. -0.00 min
Lab File: 7M9777.D
Acq: 14 Sep 2000 23:03

Tgt Ion:128 Resp: 29681

Ion	Ratio	Lower	Upper
128	100		
129	12.8	11.1	16.7
127	15.9	35.6	53.4#



Quantitation Report (Not Reviewed)

ata File : C:\HPCHEM\1\DATA\091500\7M9783.D
cq On : 15 Sep 2000 9:43
ample : L0009094-04 100X
: WATER,500
Integration Params: rteint.p
Quant Time: Sep 15 10:49 2000

Vial: 4
Operator: mdc
Inst : HPMS7
Multiplr: 500.00
Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	108769	40.00 ug/ml	0.00
19) Naphthalene-d8	10.48	136	426766	40.00 ug/ml	0.00
34) Acenaphthene-d10	12.30	164	249986	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.83	188	382086	40.00 ug/ml	0.00
67) Chrysene-d12	16.69	240	299934	40.00 ug/ml	0.00
76) Perylene-d12	19.25	264	249988	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0	0.00 ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0	0.00 ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery = 0.00%#		
20) Nitrobenzene-d5	9.79	82	232533	32641.93 ug/ml	0.05
Spiked Amount 50.000	Range 35 - 114		Recovery = 65283.86%#		
8) 2-Fluorobiphenyl	11.55	172	215	12.75 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 25.50%#		
55) 2,4,6-Tribromophenol	0.00	330	0	0.00 ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.00%#		
70) p-Terphenyl-d14	15.41	244	726	47.50 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 95.00%		
Target Compounds					Qvalue
5) Aniline	8.74	66	67639	18295.22 ug/ml#	1
7) Phenol	8.74	94	214466	22951.28 ug/ml	94
8) bis(2-Chloroethyl)ether	8.74	63	13592	2873.91 ug/ml#	1
12) Benzyl Alcohol	9.36	108	77539	18255.10 ug/ml#	76
14) 2-Methylphenol	9.36	107	68449	11527.06 ug/ml#	71
16) 4-Methylphenol	9.51	107	191078	22072.13 ug/ml#	73
24) 2,4-Dimethylphenol	10.07	122	84780	12585.75 ug/ml	94
26) Benzoic Acid	10.07	122	84780	23612.34 ug/ml#	1
46) 2,4-Dinitrophenol	12.41	184	2870	6141.39 ug/ml#	1
47) 4-Nitrophenol	12.31	65	10649	4126.17 ug/ml#	1
57) 4,6-Dinitro-2-Methylphenol	12.88	198	1175	5529.33 ug/ml#	32

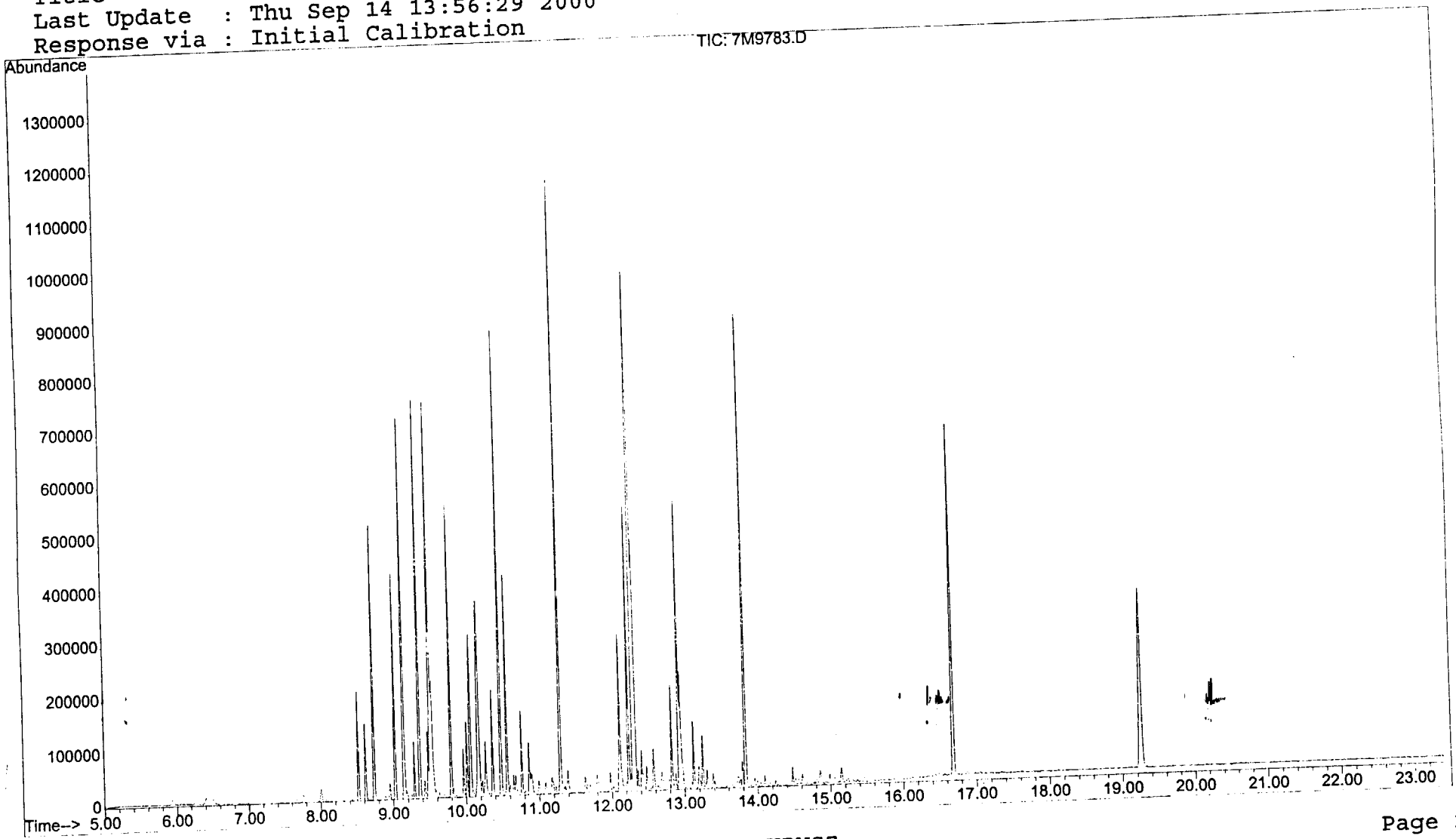
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091500\7M9783.D
Acq On : 15 Sep 2000 9:43
Sample : L0009094-04 100X
Misc : WATER,500
MS Integration Params: rteint.p
Quant Time: Sep 15 10:49 2000

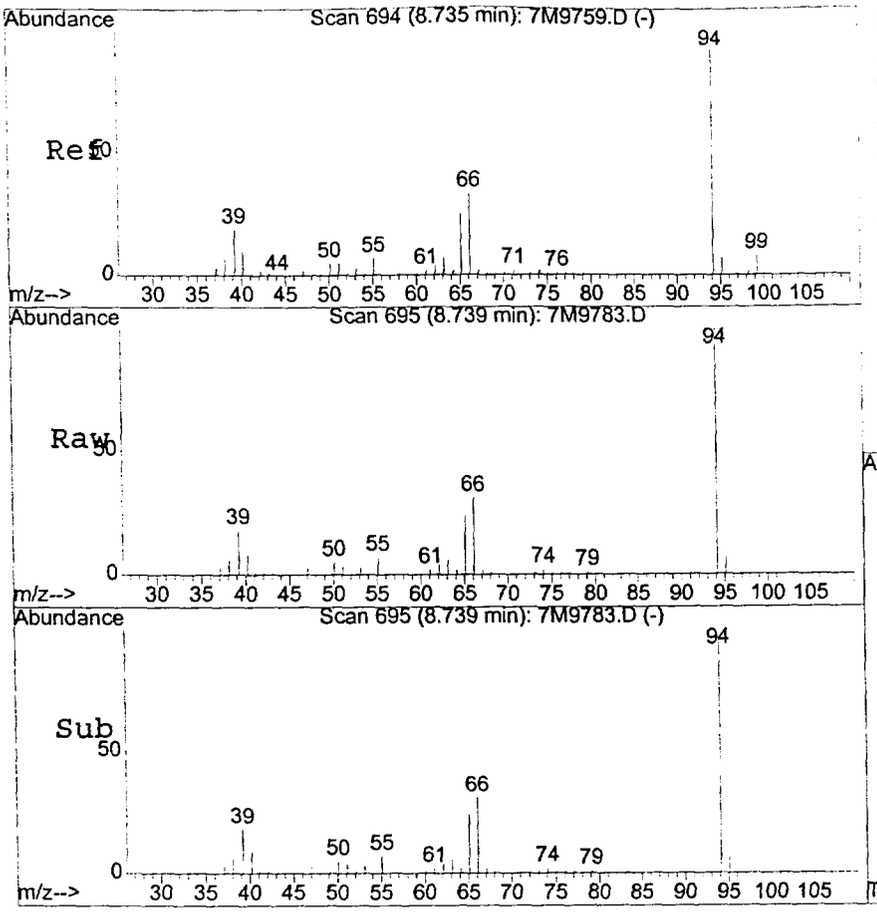
Vial: 4
Operator: mdc
Inst : HPMS7
Multiplr: 500.00

Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



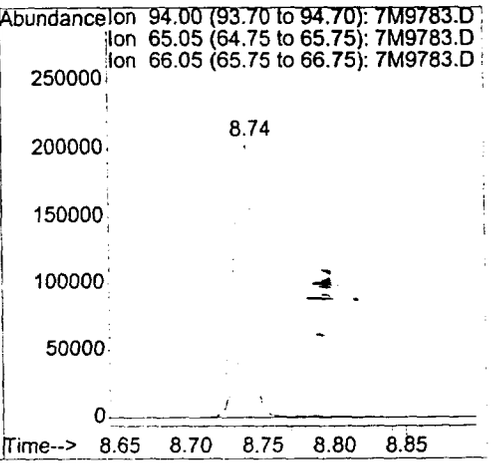
001920 D BNA.M Fri Sep 15 10:49:38 2000 HPMS7

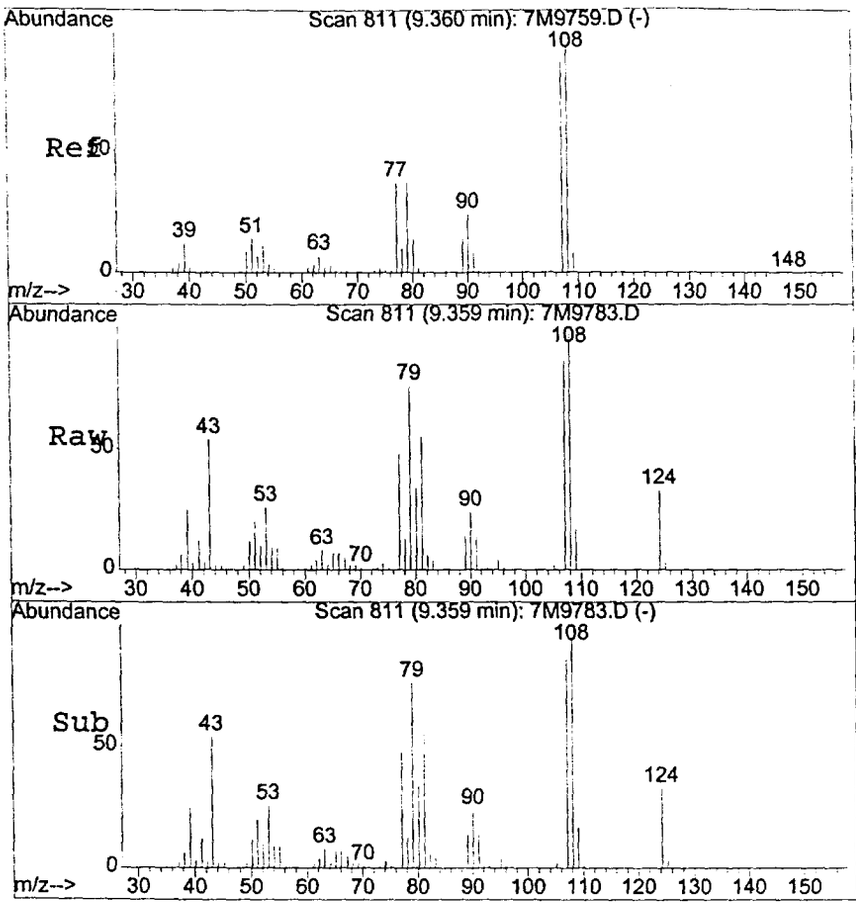


#7
Phenol
Concen: 22951.28 ug/ml
RT: 8.74 min Scan# 695
Delta R.T. 0.00 min
Lab File: 7M9783.D
Acq: 15 Sep 2000 9:43

Tgt Ion: 94 Resp: 214466

Ion	Ratio	Lower	Upper
94	100		
65	24.2	20.5	30.7
66	31.5	29.4	44.0

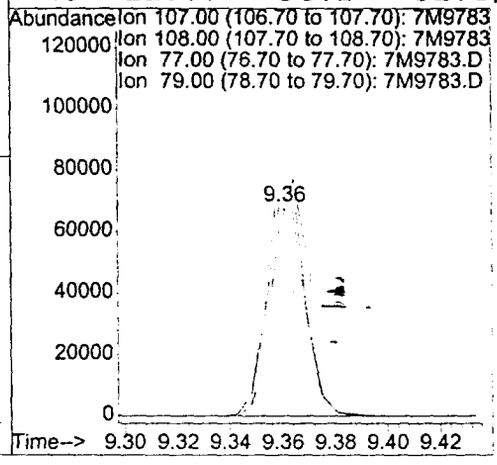




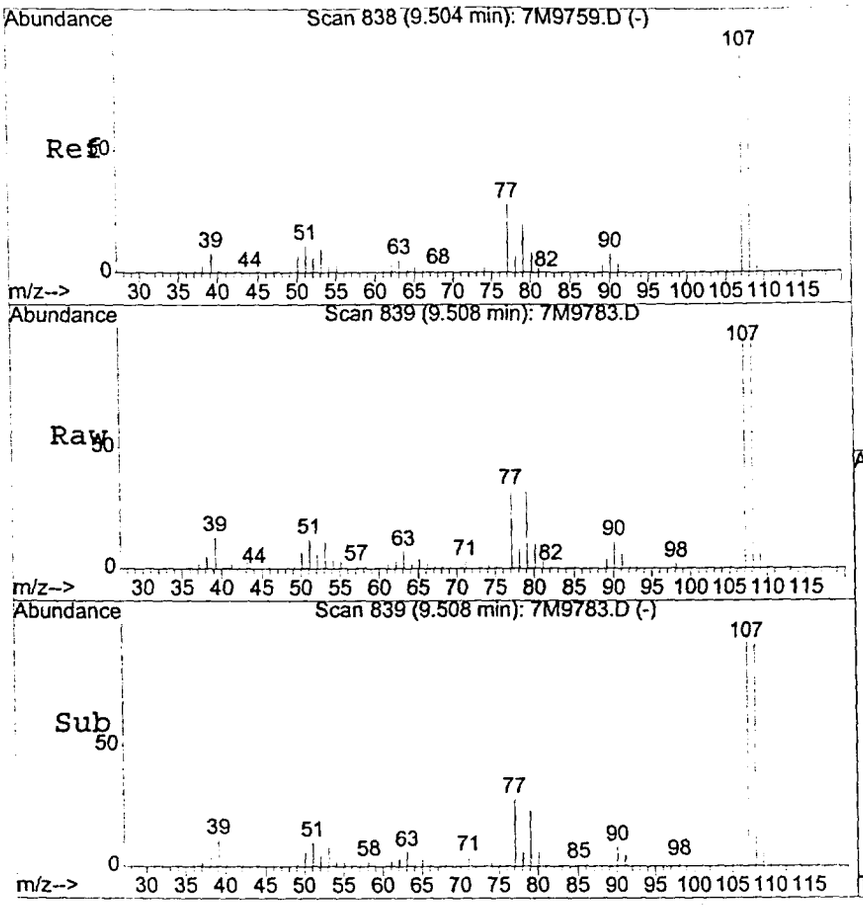
#14
2-Methylphenol
Concen: 11527.06 ug/ml
RT: 9.36 min Scan# 811
Delta R.T. -0.00 min
Lab File: 7M9783.D
Acq: 15 Sep 2000 9:43

Tgt Ion:107 Resp: 68449

Ion	Ratio	Lower	Upper
107	100		
108	113.3	92.6	138.8
77	60.6	35.3	52.9#
79	110.7	34.2	51.4#



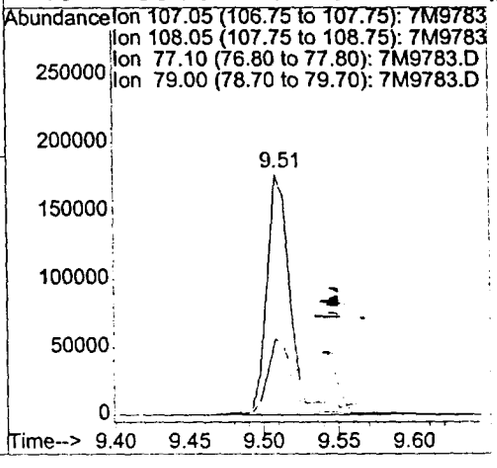
001922

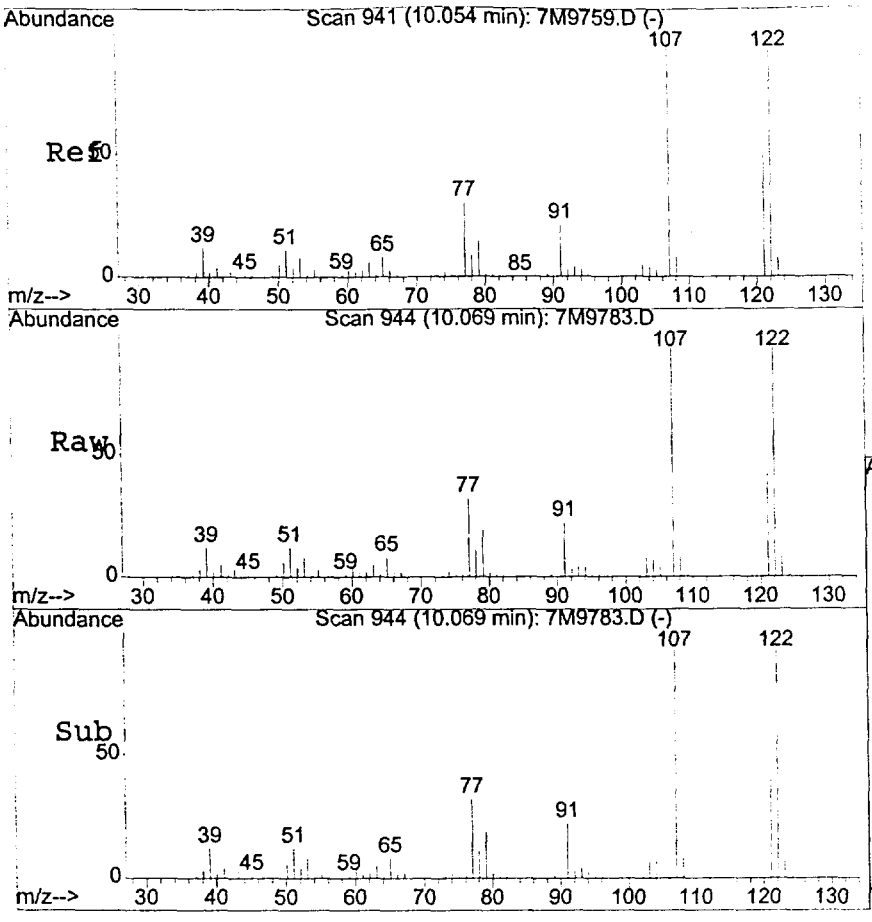


#16
4-Methylphenol
Concen: 22072.13 ug/ml
RT: 9.51 min Scan# 839
Delta R.T. 0.00 min
Lab File: 7M9783.D
Acq: 15 Sep 2000 9:43

Tgt Ion:107 Resp: 191078

Ion	Ratio	Lower	Upper
107	100		
108	109.8	65.7	98.5#
77	38.7	23.1	34.7#
79	31.6	17.3	25.9#

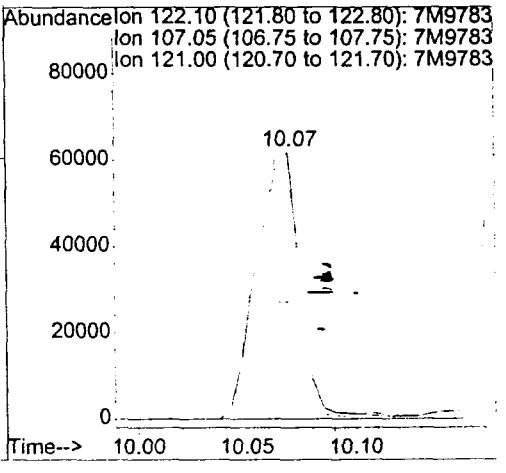




#24
2,4-Dimethylphenol
Concen: 12585.75 ug/ml
RT: 10.07 min Scan# 944
Delta R.T. 0.02 min
Lab File: 7M9783.D
Acq: 15 Sep 2000 9:43

Tgt Ion:122 Resp: 84780

Ion	Ratio	Lower	Upper
122	100		
107	104.0	85.7	128.5
121	47.8	45.4	68.2



001924

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9778.D
Acq On : 14 Sep 2000 23:35
Sample : L0009094-06 10X
Misc : WATER,50
Integration Params: rteint.p
Quant Time: Sep 15 8:22 2000

Vial: 30
Operator: mdc
Inst : HPMS7
Multiplr: 50.00

Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	112005	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	473788	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	266065	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	439406	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	371118	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	321322	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	4326	57.41	ug/ml	0.01
Spiked Amount 100.000	Range 21 - 100		Recovery = 57.41%			
6) Phenol-d5	8.74	99	3574	40.61	ug/ml	0.02
Spiked Amount 100.000	Range 10 - 94		Recovery = 40.61%			
20) Nitrobenzene-d5	9.81	82	2881463	36434.27	ug/ml	0.07
Spiked Amount 50.000	Range 35 - 114		Recovery = 72868.54%#			
38) 2-Fluorobiphenyl	11.55	172	7105	39.60	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 79.20%			
55) 2,4,6-Tribromophenol	13.12	330	1742	197.89	ug/ml	0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 197.89%#			
70) p-Terphenyl-d14	15.41	244	10546	55.76	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 111.52%			

Target Compounds						Qvalue
7) Phenol	8.75	94	2224414	23117.02	ug/ml	94
14) 2-Methylphenol	9.37	107	693345	11338.84	ug/ml#	70
16) 4-Methylphenol	9.52	107	2067956	23197.58	ug/ml#	53
22) Isophorone	9.99	82	59498	427.91	ug/ml#	1
24) 2,4-Dimethylphenol	10.07	122	1158385	15489.74	ug/ml	94
29) Naphthalene	10.50	128	30829	134.86	ug/ml#	67

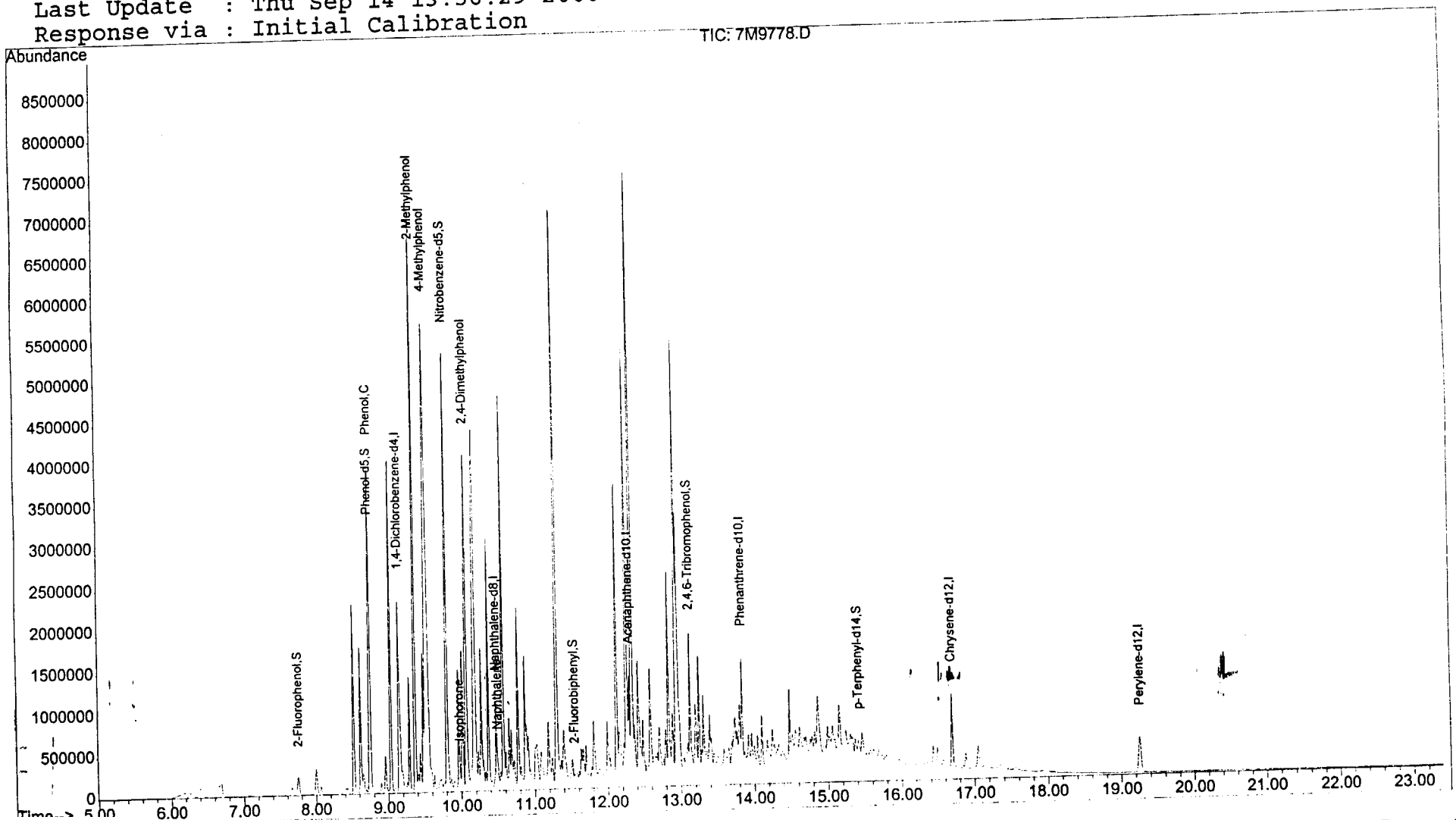
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9778.D
Acq On : 14 Sep 2000 23:35
Sample : L0009094-06 10X
Misc : WATER,50
MS Integration Params: rteint.p
Quant Time: Sep 15 8:22 2000

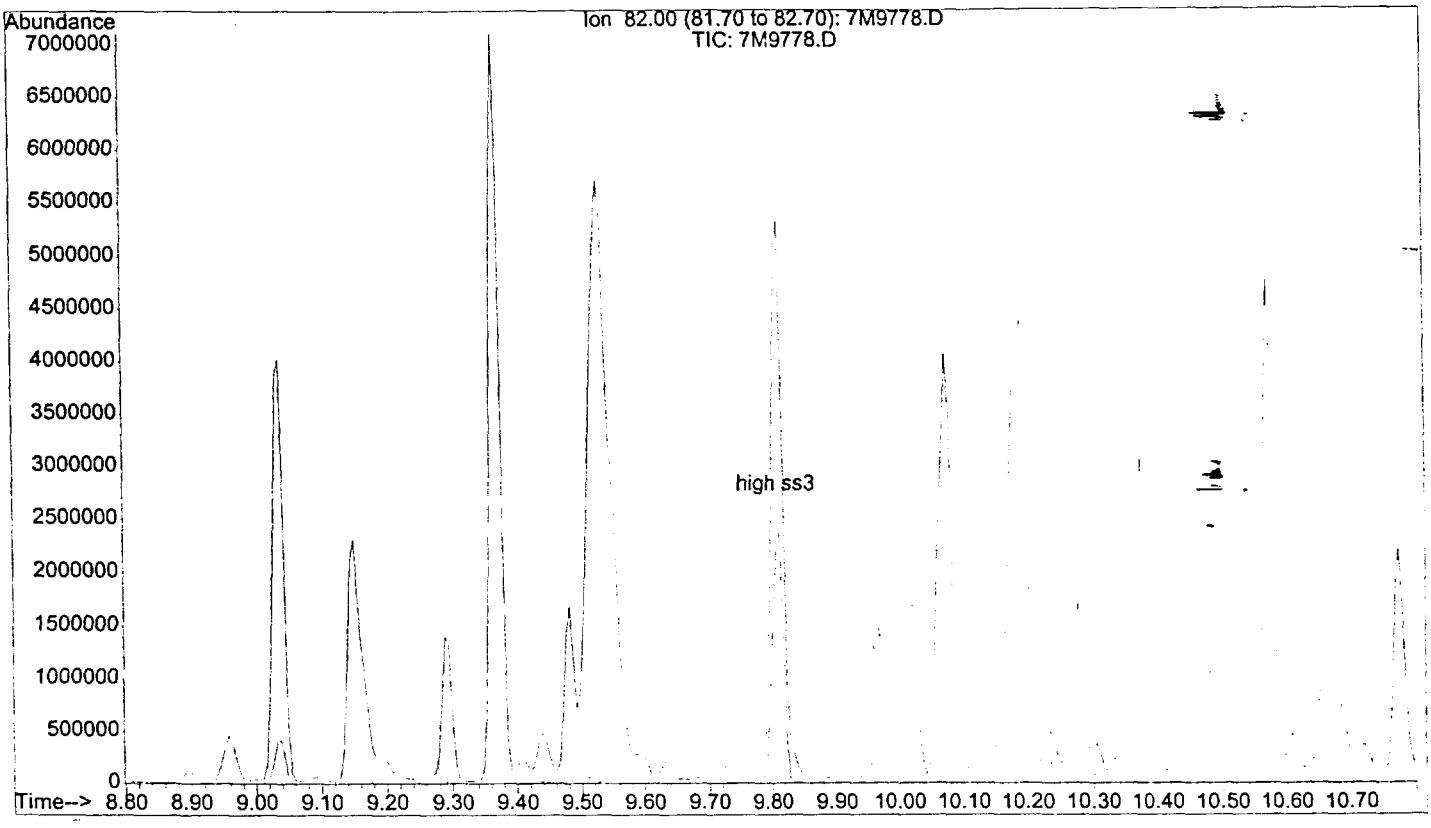
Vial: 30
Operator: mdc
Inst : HPMS7
Multiplr: 50.00

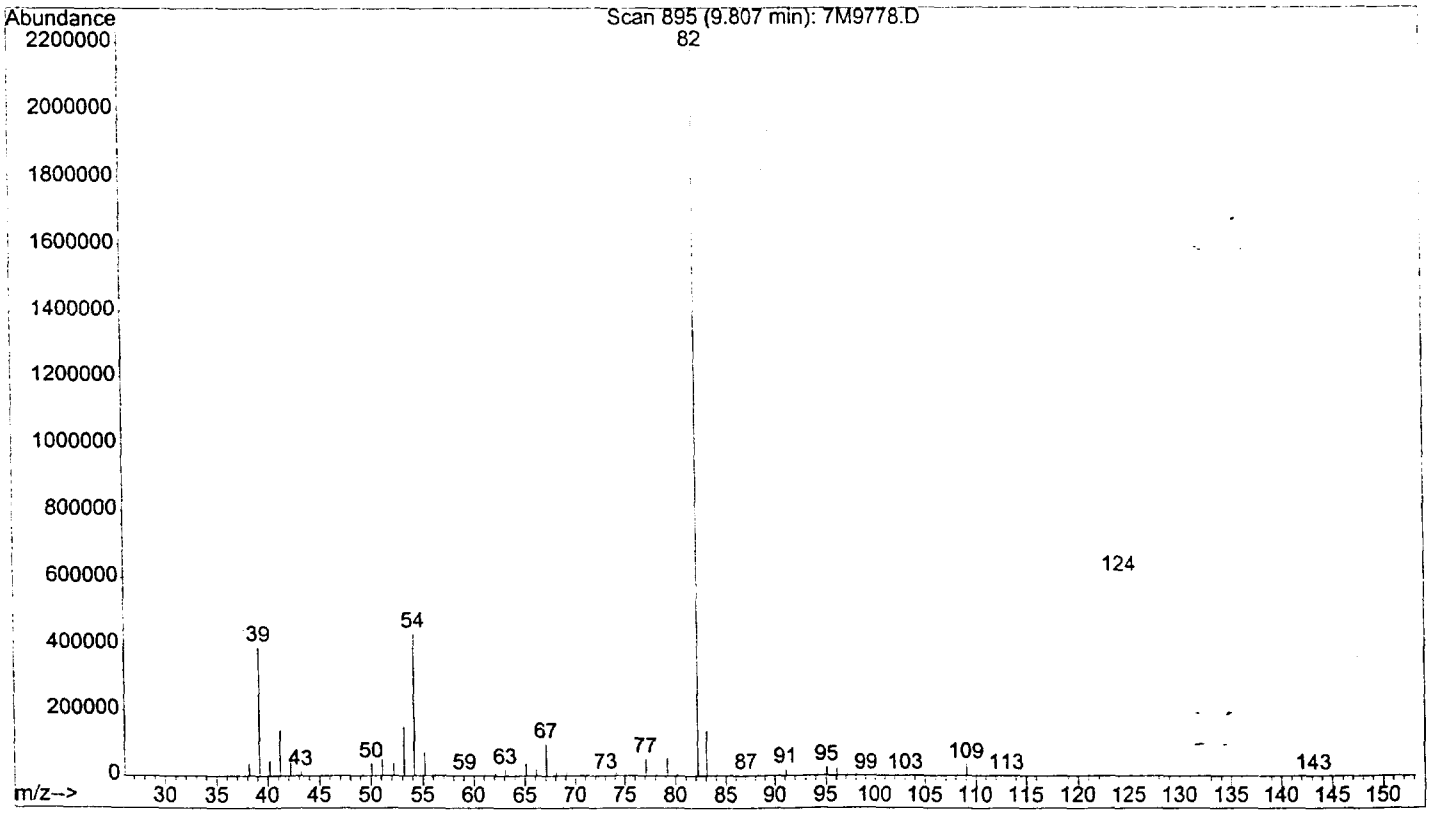
Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



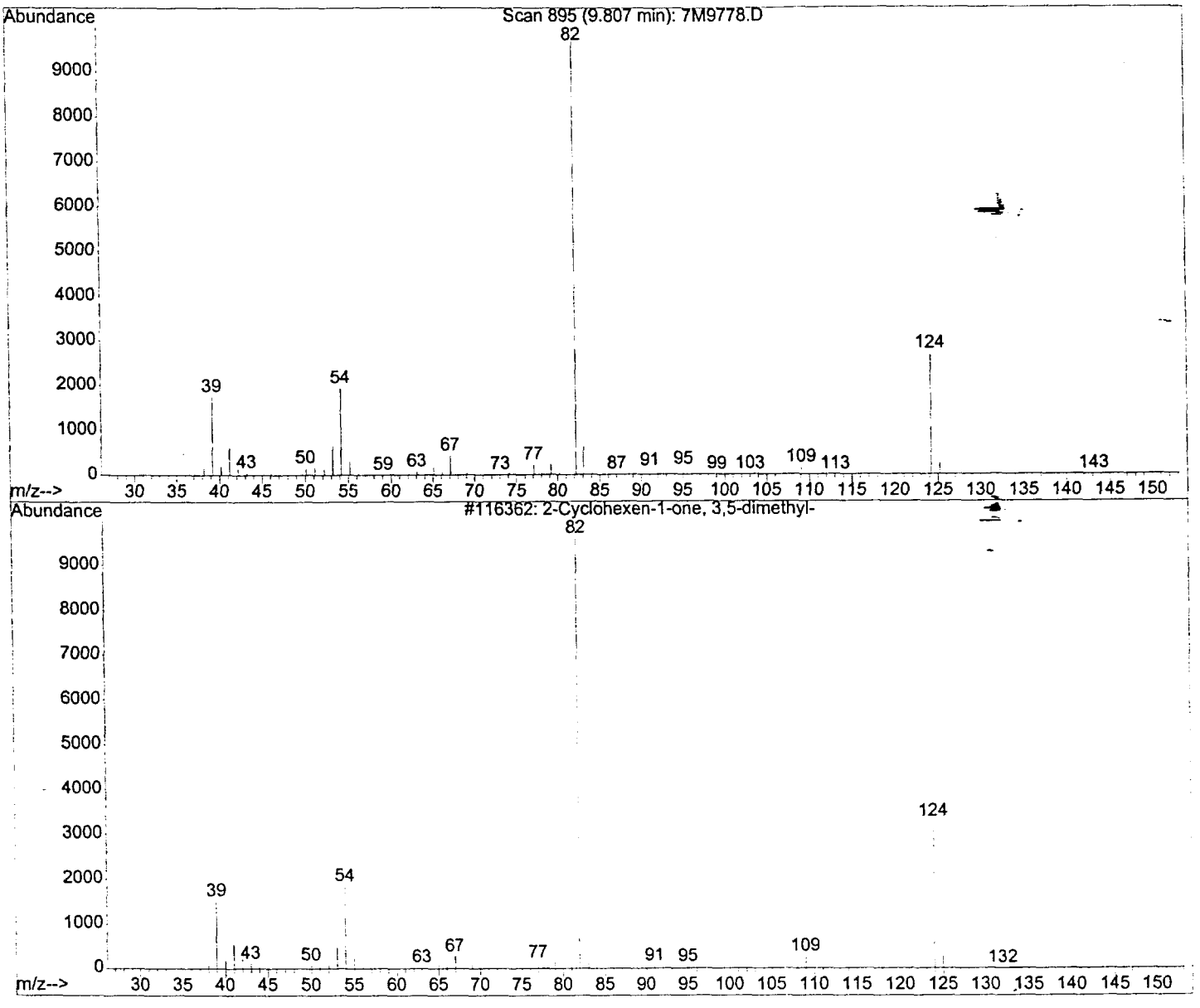
File : C:\HPCHEM\1\DATA\091400\7M9778.D
Operator : mdc
Acquired : 14 Sep 2000 23:35 using AcqMethod BNA
Instrument : HPMS7
Sample Name: L0009094-06 10X
Misc Info : WATER,50
Vial Number: 30



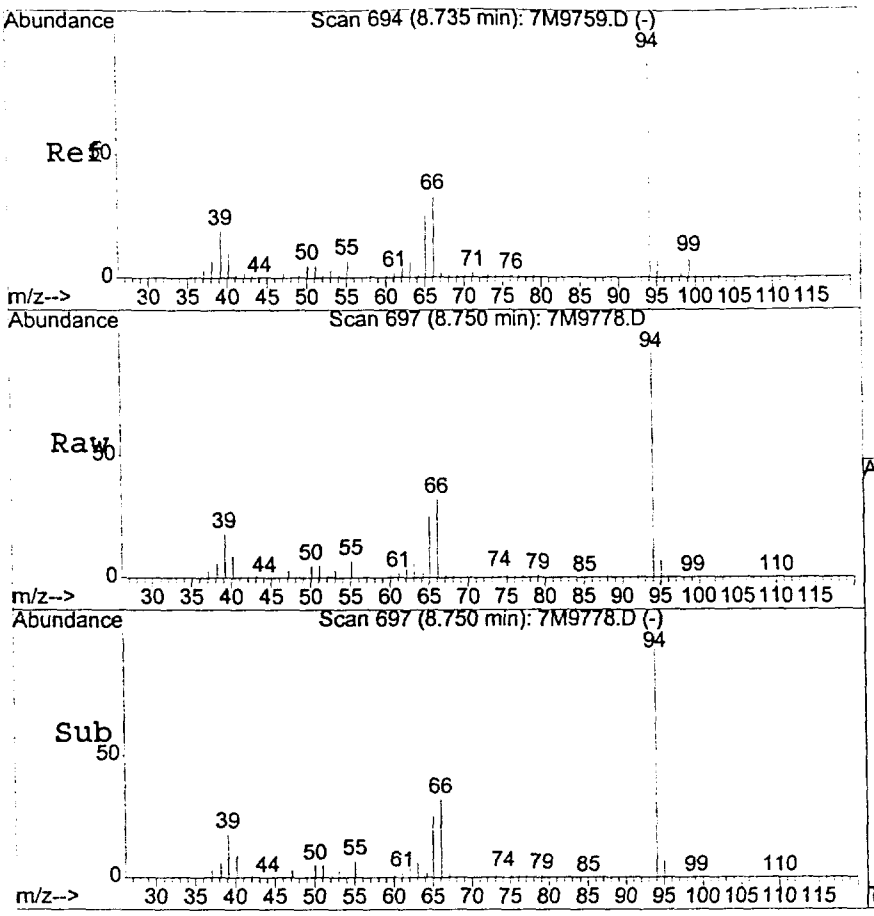


001927

Library Searched : C:\DATABASE\NIST98.L
Quality : 91
ID : 2-Cyclohexen-1-one, 3,5-dimethyl-



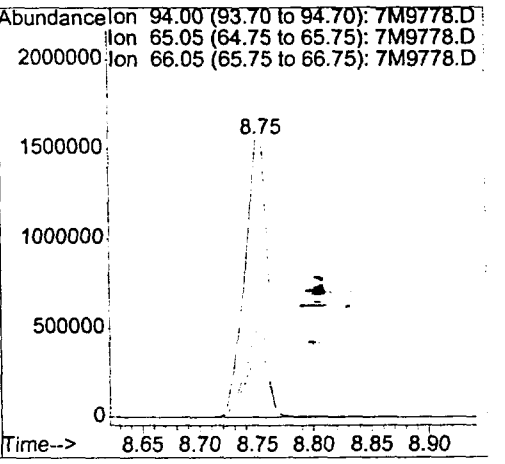
001928

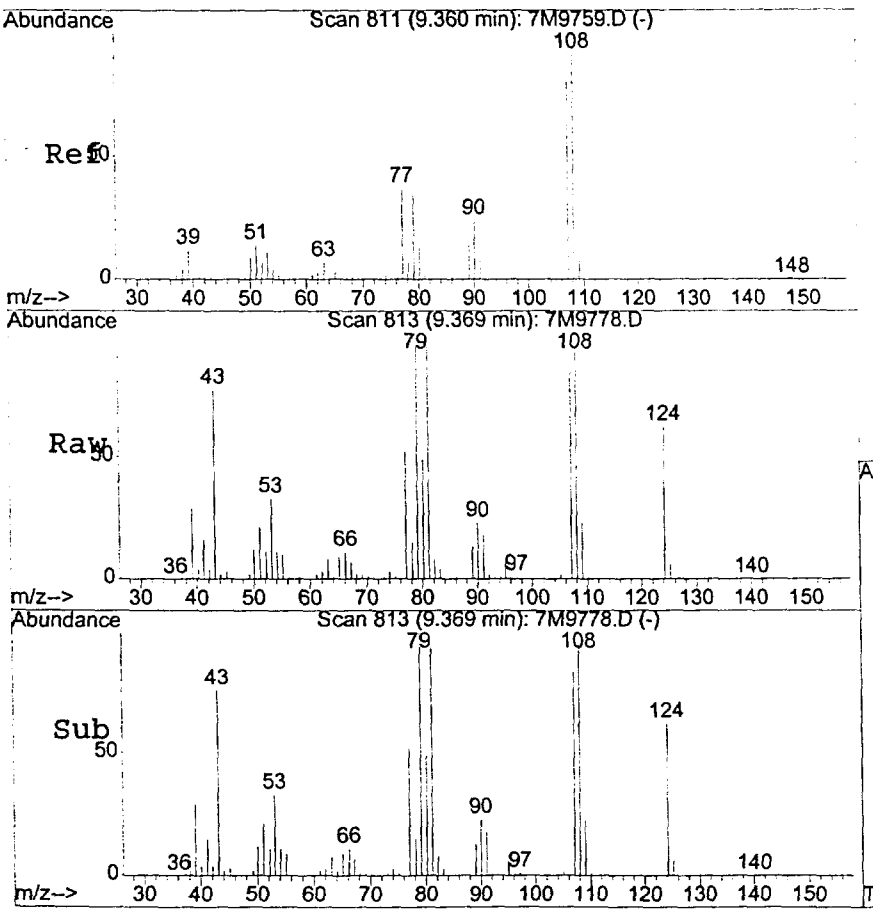


#7
Phenol
Concen: 23117.02 ug/ml
RT: 8.75 min Scan# 697
Delta R.T. 0.02 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion: 94 Resp: 2224414

Ion	Ratio	Lower	Upper
94	100		
65	24.5	20.5	30.7
66	31.7	29.4	44.0

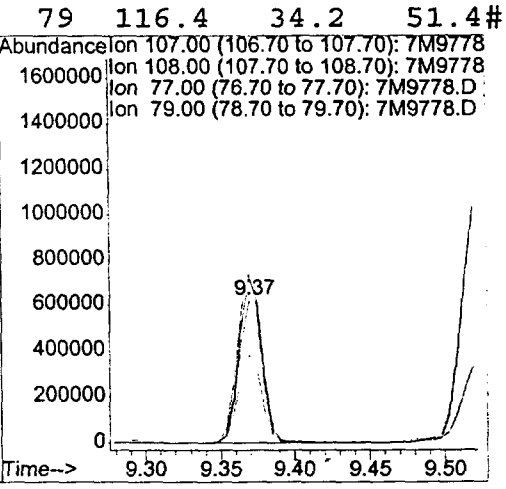




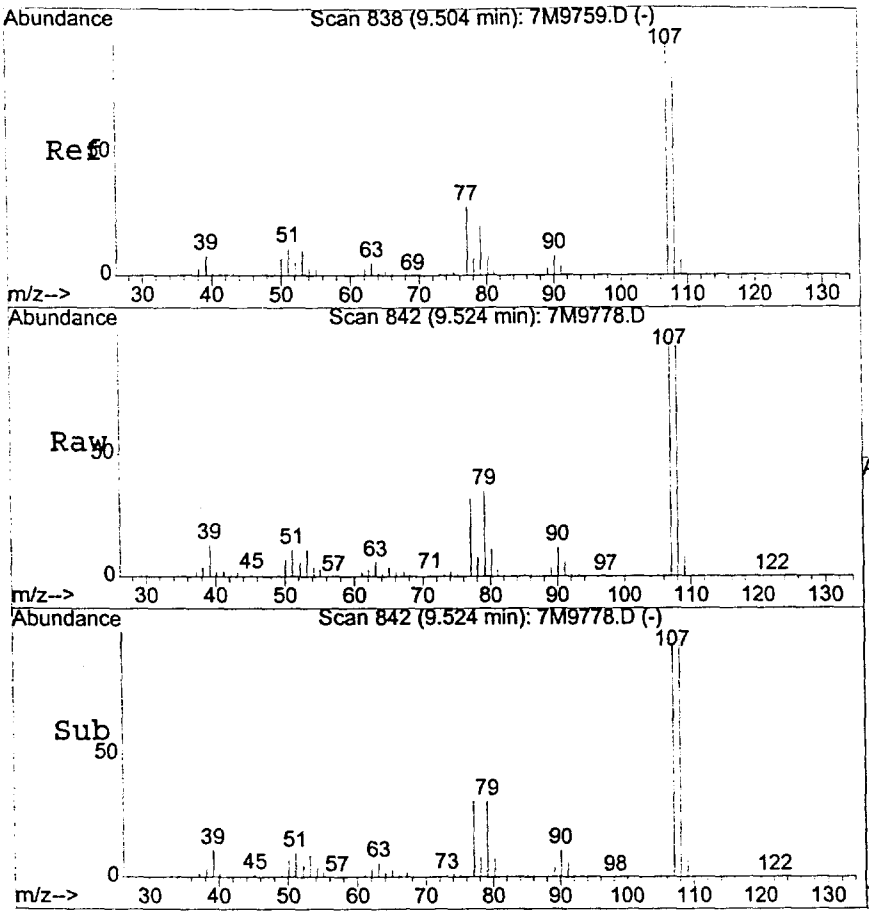
#14
2-Methylphenol
Concen: 11338.84 ug/ml
RT: 9.37 min Scan# 813
Delta R.T. 0.01 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion:107 Resp: 693345

Ion	Ratio	Lower	Upper
107	100		
108	115.0	92.6	138.8
77	61.3	35.3	52.9#
79	116.4	34.2	51.4#



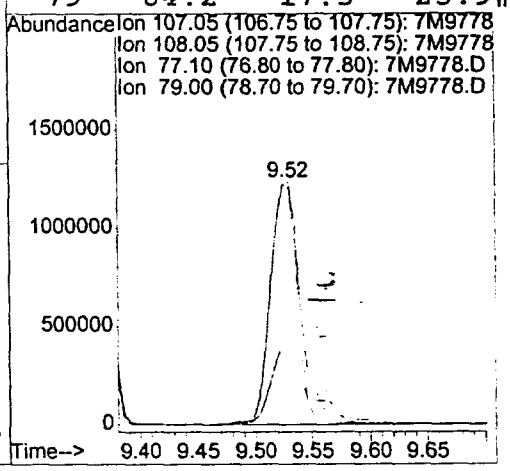
001929

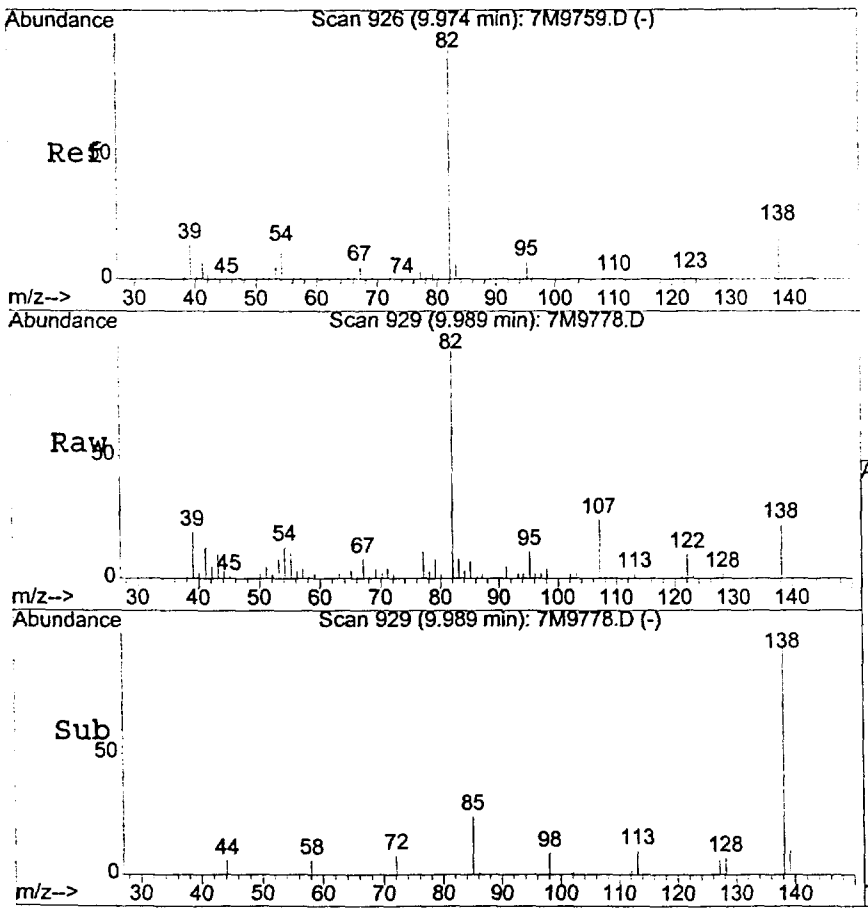


#16
4-Methylphenol
Concen: 23197.58 ug/ml
RT: 9.52 min Scan# 842
Delta R.T. 0.02 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion:107 Resp: 2067956

Ion	Ratio	Lower	Upper
107	100		
108	109.1	65.7	98.5#
77	45.4	23.1	34.7#
79	84.2	17.3	25.9#

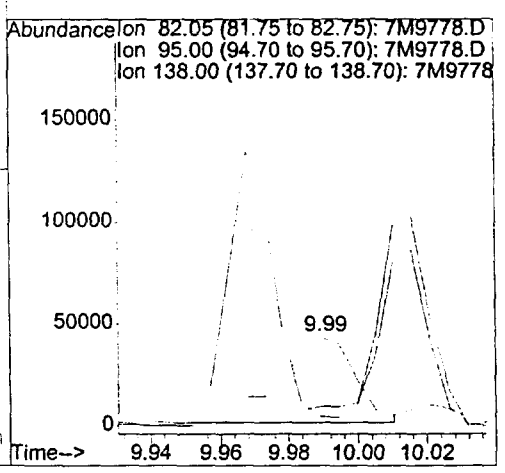




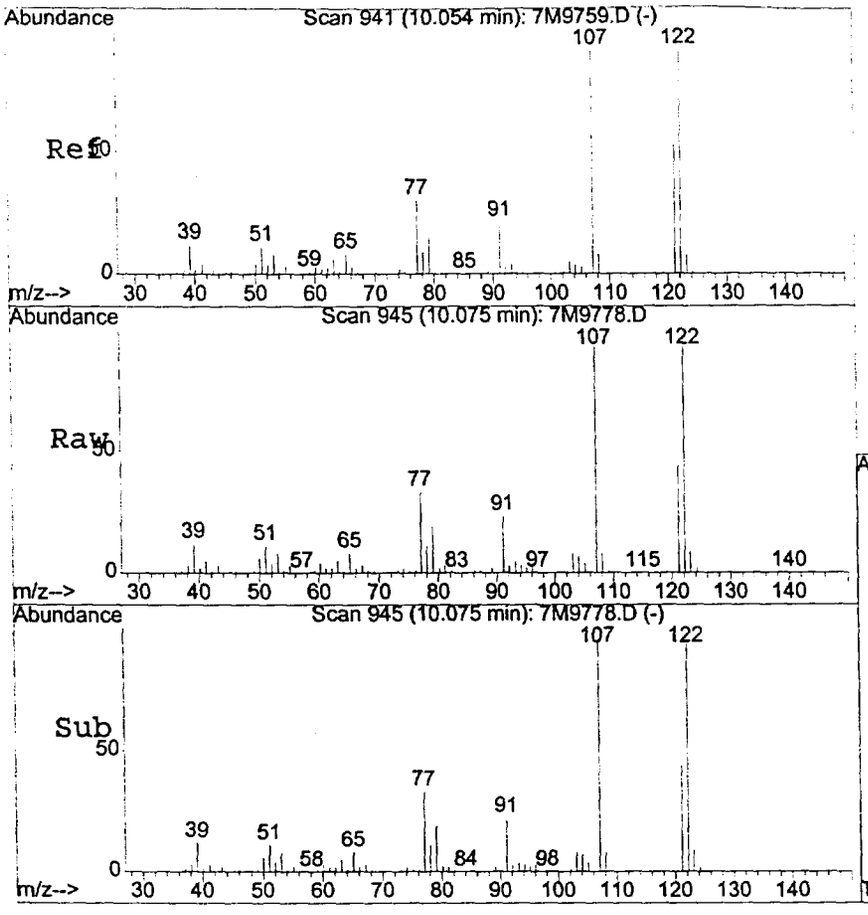
#22
Isophorone
Concen: 427.91 ug/ml
RT: 9.99 min Scan# 929
Delta R.T. 0.02 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion: 82 Resp: 59498

Ion	Ratio	Lower	Upper
82	100		
95	219.8	5.3	7.9#
138	29.6	17.1	25.7#



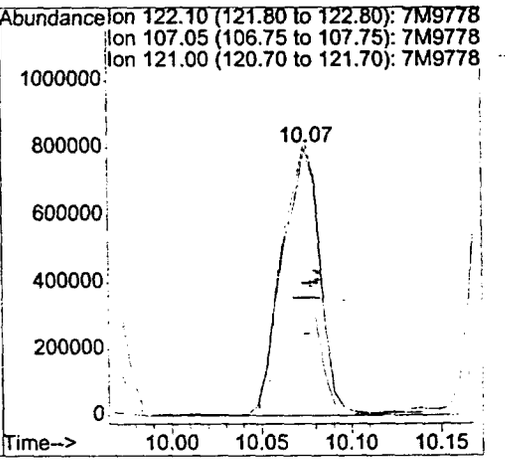
001930

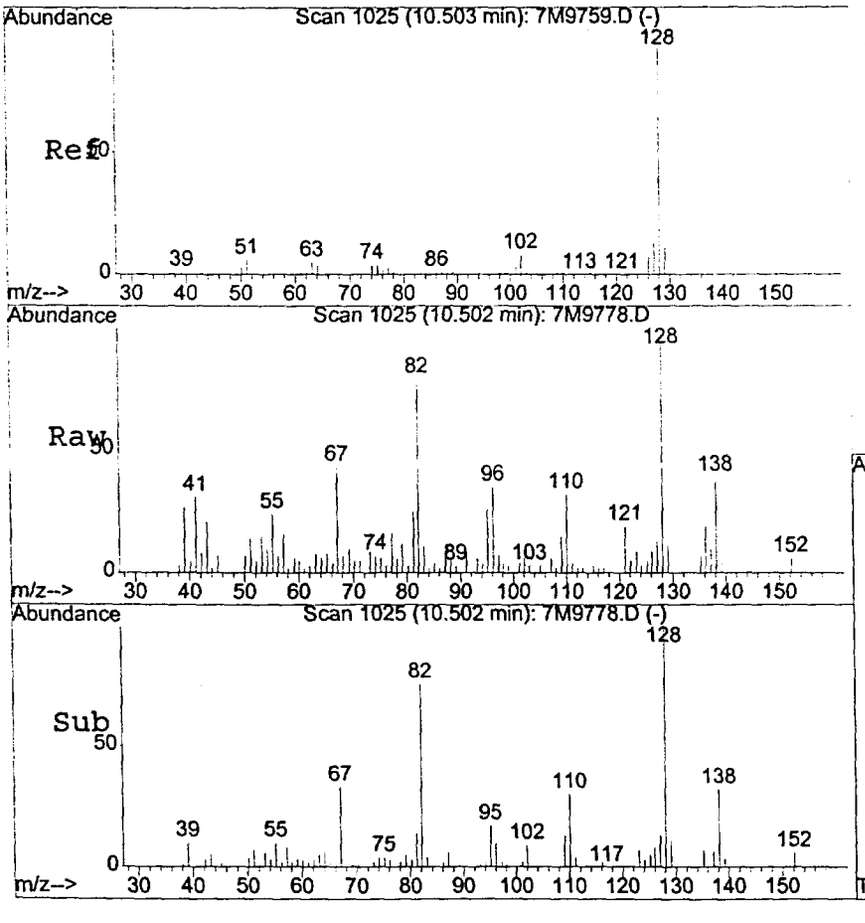


#24
2,4-Dimethylphenol
Concen: 15489.74 ug/ml
RT: 10.07 min Scan# 945
Delta R.T. 0.02 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion:122 Resp: 1158385

Ion	Ratio	Lower	Upper
122	100		
107	103.5	85.7	128.5
121	49.0	45.4	68.2

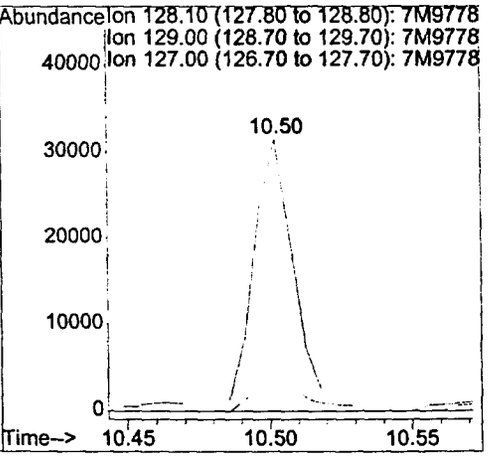




#29
Naphthalene
Concen: 134.86 ug/ml
RT: 10.50 min Scan# 1025
Delta R.T. -0.00 min
Lab File: 7M9778.D
Acq: 14 Sep 2000 23:35

Tgt Ion:128 Resp: 30829

Ion	Ratio	Lower	Upper
128	100		
129	13.3	11.1	16.7
127	16.6	35.6	53.4#



001931

Quantitation Report (Not Reviewed)

ata File : C:\HPCHEM\1\DATA\091500\7M9784.D Vial: 5
cq On : 15 Sep 2000 10:15 Operator: mdc
ample : L0009094-06 100X Inst : HPMS7
: WATER,500 Multiplr: 500.00
ntegration Params: rteint.p
Quant Time: Sep 15 10:52 2000 Quant Results File: BNA.RES

uant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
itle : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
ast Update : Thu Sep 14 13:56:29 2000
esponse via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	109899	40.00 ug/ml	0.00
19) Naphthalene-d8	10.47	136	433357	40.00 ug/ml	0.00
34) Acenaphthene-d10	12.30	164	259088	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.84	188	390839	40.00 ug/ml	0.00
67) Chrysene-d12	16.69	240	305652	40.00 ug/ml	0.00
76) Perylene-d12	19.25	264	256453	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0	0.00 ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#	
6) Phenol-d5	0.00	99	0	0.00 ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#	
20) Nitrobenzene-d5	9.79	82	312983	43266.92 ug/ml	0.05
Spiked Amount 50.000	Range 35 - 114		Recovery =	86533.84%#	
38) 2-Fluorobiphenyl	11.55	172	437	25.01 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	50.02%	
55) 2,4,6-Tribromophenol	0.00	330	0	0.00 ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#	
70) p-Terphenyl-d14	15.41	244	703	45.13 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	90.26%	
Target Compounds					Qvalue
5) Aniline	8.74	66	69286	18548.01 ug/ml#	1
7) Phenol	8.74	94	219581	23257.05 ug/ml	94
8) bis(2-Chloroethyl)ether	8.74	63	13631	2852.52 ug/ml#	1
12) Benzyl Alcohol	9.36	108	87478	20383.29 ug/ml#	81
14) 2-Methylphenol	9.36	107	76412	12735.74 ug/ml#	67
16) 4-Methylphenol	9.51	107	218794	25013.84 ug/ml#	71
24) 2,4-Dimethylphenol	10.07	122	114251	16702.81 ug/ml	95
26) Benzoic Acid	10.07	122	114251	29957.66 ug/ml#	1
43) 2,6-Dinitrotoluene	12.14	165	10207	2676.04 ug/ml#	31
46) 2,4-Dinitrophenol	12.41	184	4558	7210.15 ug/ml#	1
57) 4,6-Dinitro-2-Methylphenol	12.88	198	1797	5736.29 ug/ml#	51

(#) = qualifier out of range (m) = manual integration
7M9784.D BNA.M Fri Sep 15 10:52:36 2000 HPMS7 Page 1

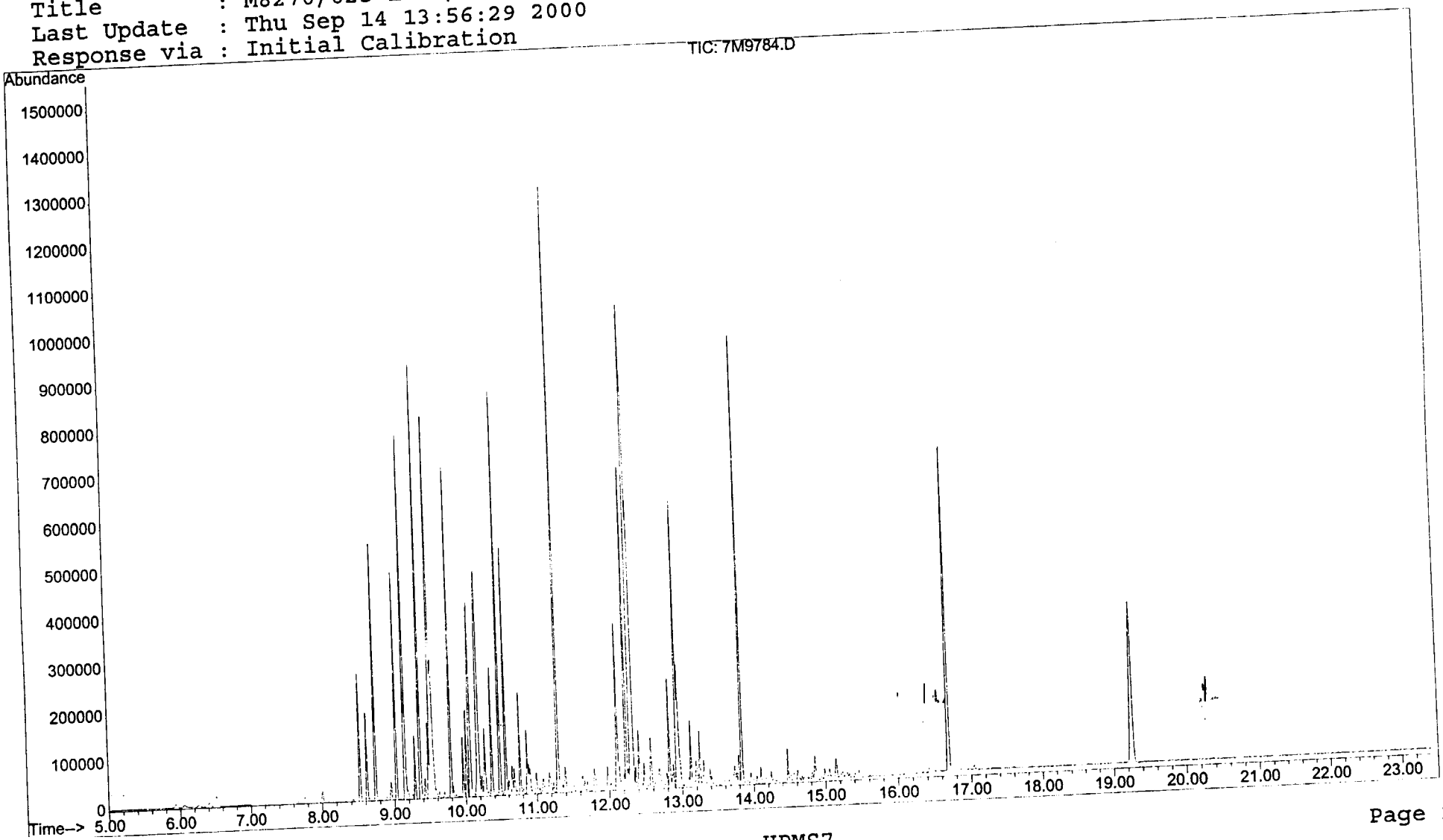
001932

Data File : C:\HPCHEM\1\DATA\091500\7M9784.D
Acq On : 15 Sep 2000 10:15
Sample : L0009094-06 100X
Misc : WATER,500
MS Integration Params: rteint.p
Quant Time: Sep 15 10:52 2000

Vial: 5
Operator: mdc
Inst : HPMS7
Multiplr: 500.00

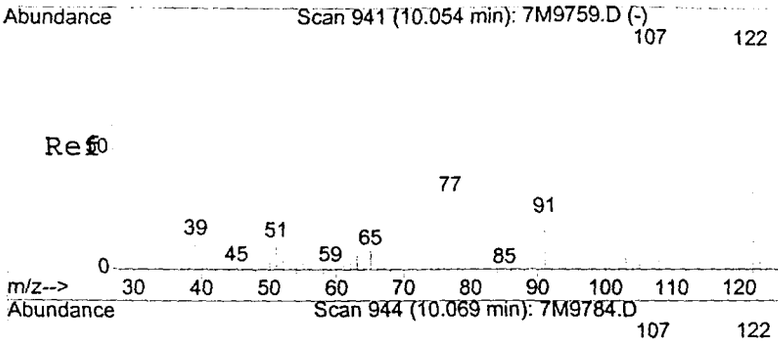
Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



001933

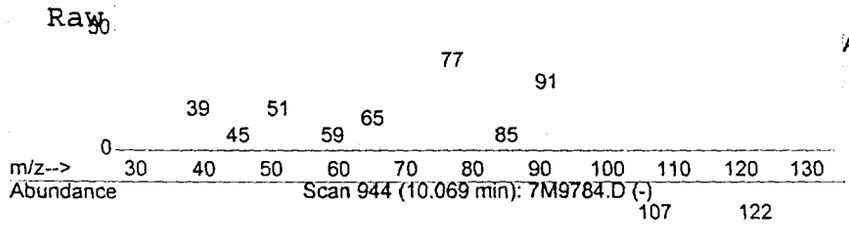
BNA.M Fri Sep 15 10:52:36 2000 HPMS7

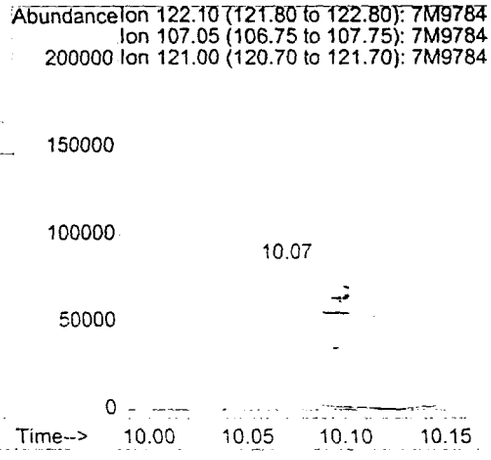


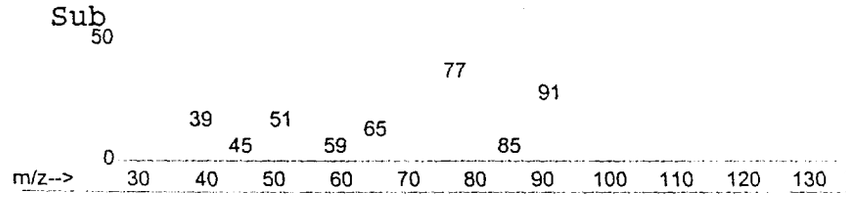
#24
2,4-Dimethylphenol
Concen: 16702.81 ug/ml
RT: 10.07 min Scan# 944
Delta R.T. 0.02 min
Lab File: 7M9784.D
Acq: 15 Sep 2000 10:15

Tgt Ion:122 Resp: 114251

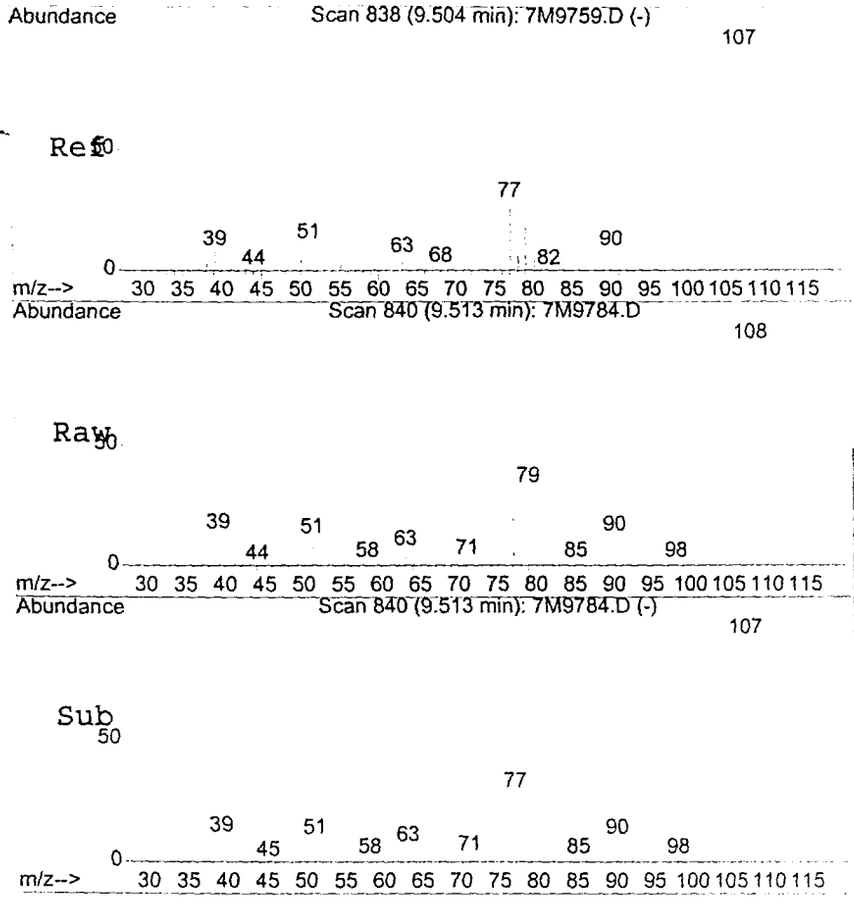
Ion	Ratio	Lower	Upper
122	100		
107	105.4	85.7	128.5
121	48.0	45.4	68.2





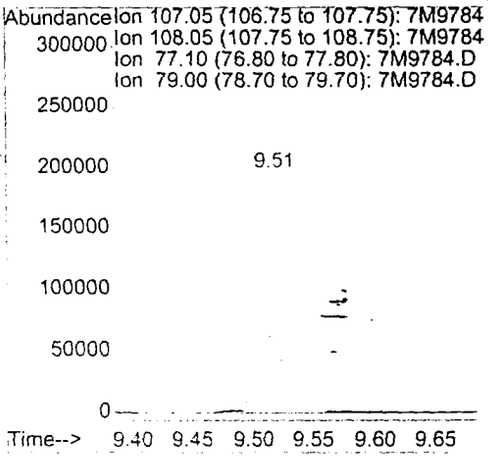


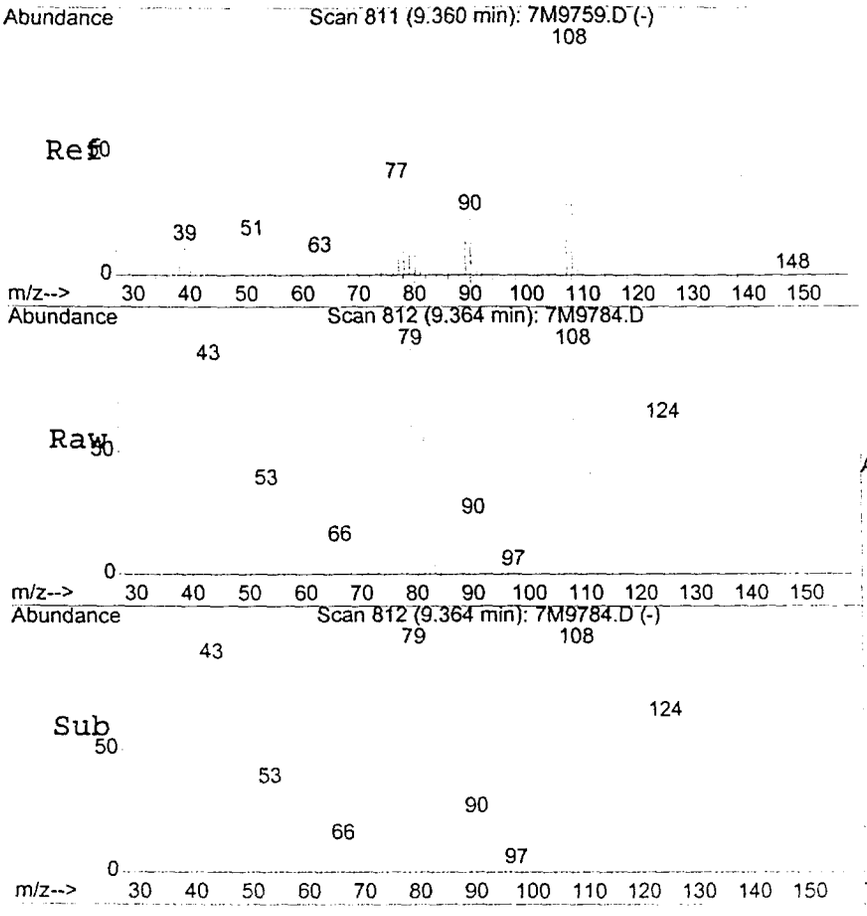
001934



#16
4-Methylphenol
Concen: 25013.84 ug/ml
RT: 9.51 min Scan# 840
Delta R.T. 0.01 min
Lab File: 7M9784.D
Acq: 15 Sep 2000 10:15

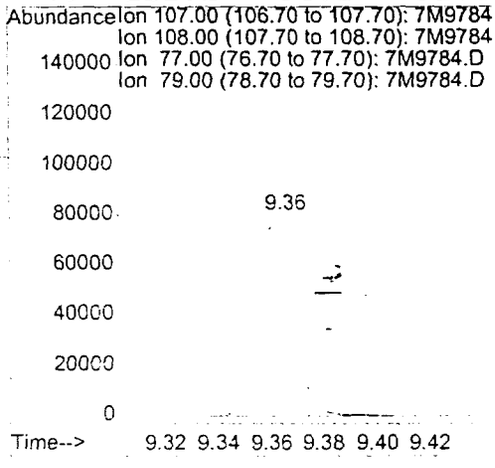
Tgt Ion:107	Resp:	218794	
Ion	Ratio	Lower	Upper
107	100		
108	109.9	65.7	98.5#
77	39.9	23.1	34.7#
79	36.9	17.3	25.9#



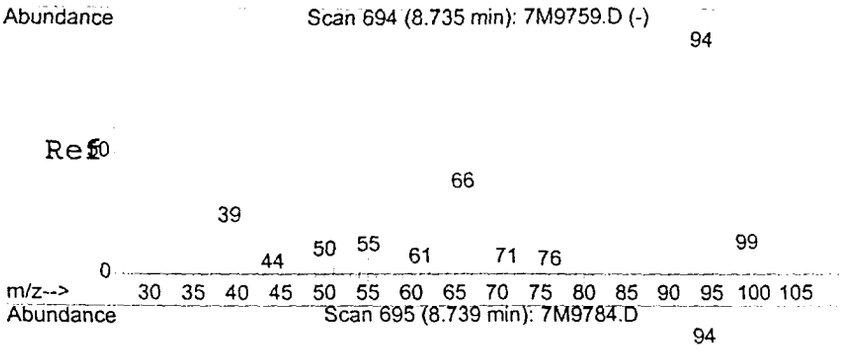


#14
2-Methylphenol
Concen: 12735.74 ug/ml
RT: 9.36 min Scan# 812
Delta R.T. 0.00 min
Lab File: 7M9784.D
Acq: 15 Sep 2000 10:15

Tgt Ion:107	Resp:	76412	
Ion	Ratio	Lower	Upper
107	100		
108	114.5	92.6	138.8
77	63.1	35.3	52.9#
79	121.1	34.2	51.4#



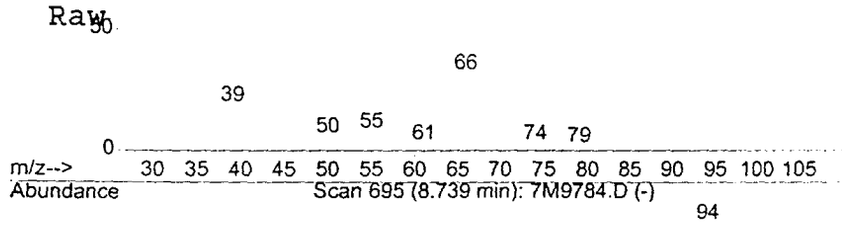
001936

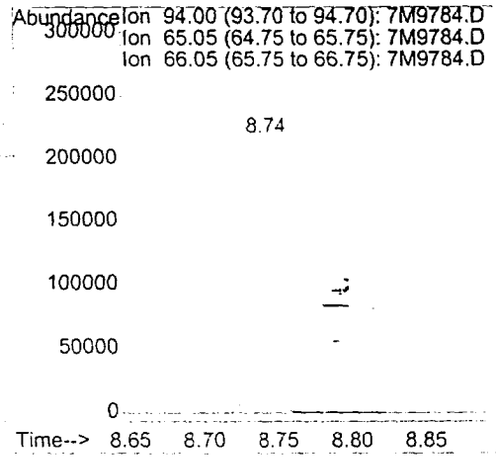


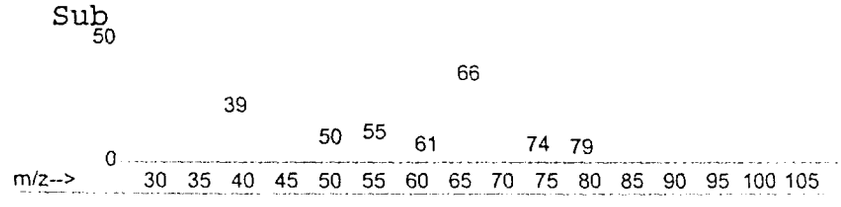
#7
Phenol
Concen: 23257.05 ug/ml
RT: 8.74 min Scan# 695
Delta R.T. 0.00 min
Lab File: 7M9784.D
Acq: 15 Sep 2000 10:15

Tgt Ion: 94 Resp: 219581

Ion	Ratio	Lower	Upper
94	100		
65	24.3	20.5	30.7
66	31.6	29.4	44.0







Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9779.D Vial: 31
Acq On : 15 Sep 2000 00:08 Operator: mdc
Sample : L0009094-08 10X Inst : HPMS7
Misc : WATER,10 Multiplr: 10.00
Integration Params: rteint.p
Quant Time: Sep 15 8:33 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

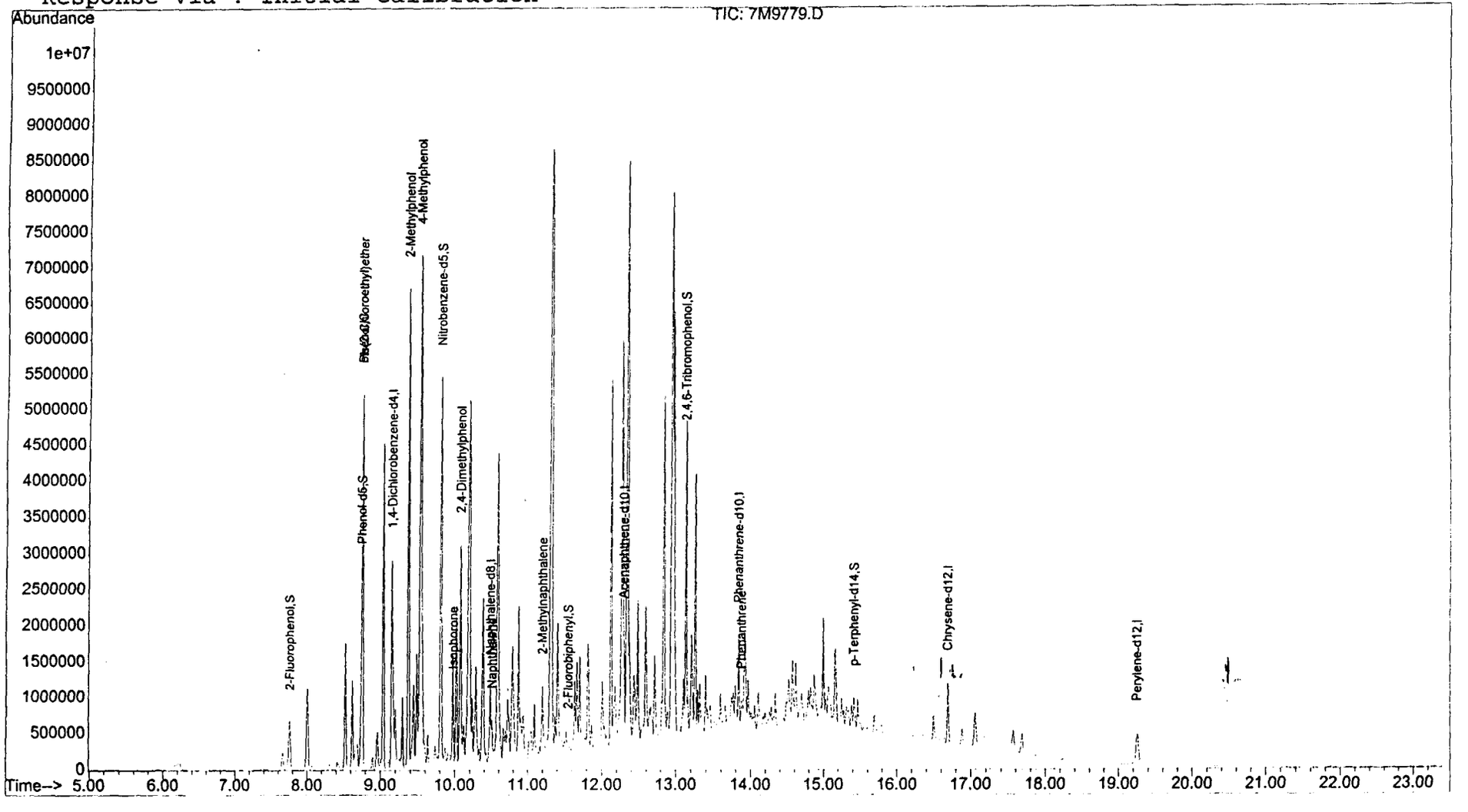
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	111182	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	471143	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	265121	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	441976	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	375077	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	314139	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	21171	56.61	ug/ml	0.01
Spiked Amount 100.000	Range 21 - 100		Recovery = 56.61%			
6) Phenol-d5	8.74	99	18006	41.22	ug/ml	0.02
Spiked Amount 100.000	Range 10 - 94		Recovery = 41.22%			
20) Nitrobenzene-d5	9.81	82	3265175	8303.57	ug/ml	0.07
Spiked Amount 50.000	Range 35 - 114		Recovery = 16607.14%#			
38) 2-Fluorobiphenyl	11.56	172	37021	41.41	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 82.82%			
55) 2,4,6-Tribromophenol	13.13	330	10601	125.18	ug/ml	0.02
Spiked Amount 100.000	Range 10 - 123		Recovery = 125.18%#			
70) p-Terphenyl-d14	15.41	244	57204	59.86	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 119.72%			
Target Compounds						Qvalue
7) Phenol	8.76	94	2959116	6196.00	ug/ml	94
8) bis(2-Chloroethyl)ether	8.76	63	191555	792.47	ug/ml#	1
14) 2-Methylphenol	9.38	107	754592	2486.36	ug/ml#	74
16) 4-Methylphenol	9.53	107	2289980	5175.66	ug/ml#	58
22) Isophorone	9.98	82	79392	114.84	ug/ml#	1
24) 2,4-Dimethylphenol	10.08	122	796709	2142.66	ug/ml	92
29) Naphthalene	10.50	128	114252	100.52	ug/ml#	60
33) 2-Methylnaphthalene	11.20	142	26820	32.12	ug/ml	91
62) Phenanthrene	13.88	178	50753	39.53	ug/ml#	89

(#) = qualifier out of range (m) = manual integration
7M9779.D BNA.M Fri Sep 15 08:33:08 2000 HPMS7 Page 1

001938

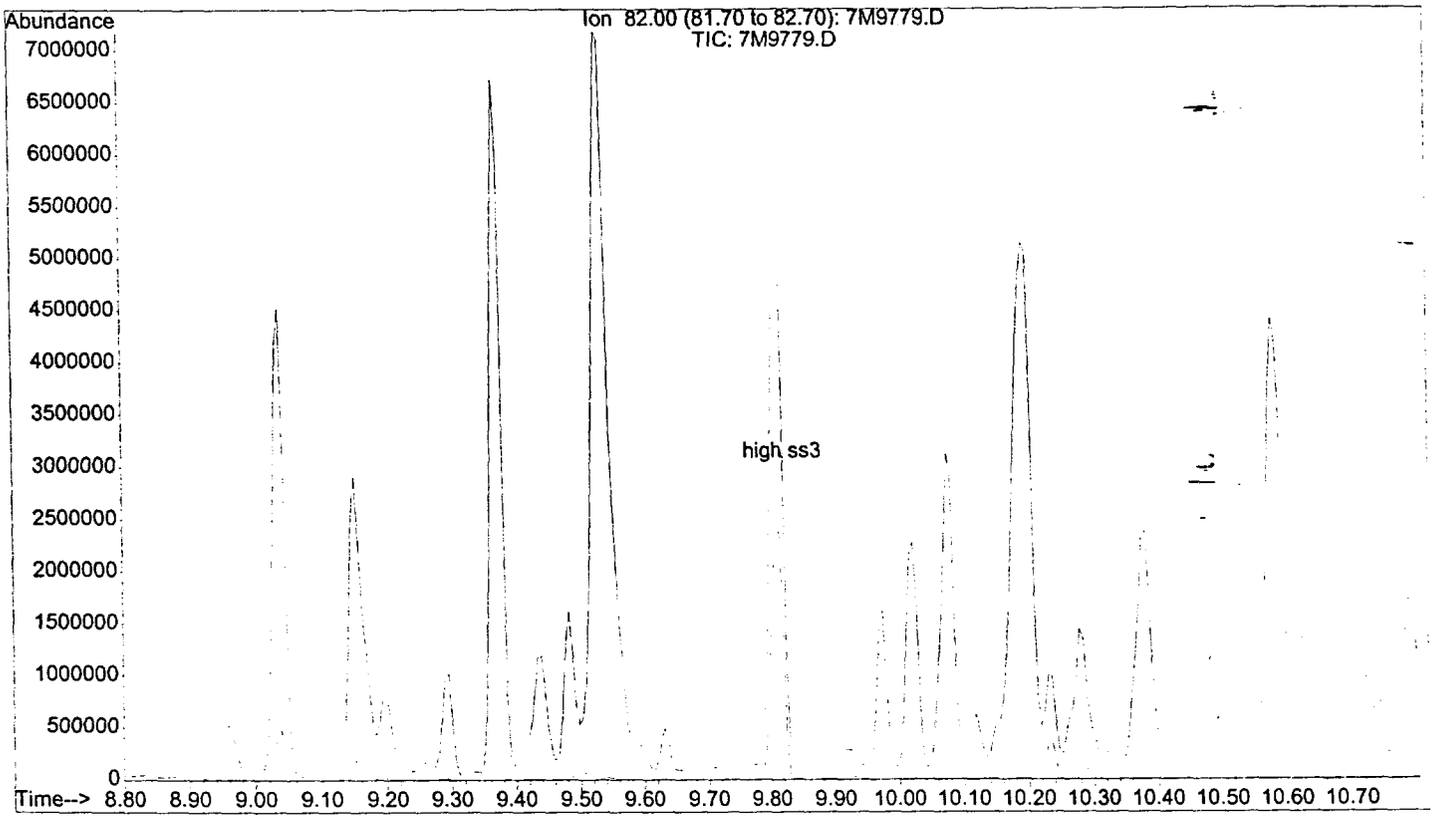
Data File : C:\HPCHEM\1\DATA\091400\7M9779.D Vial: 31
Acq On : 15 Sep 2000 00:08 Operator: mdc
Sample : L0009094-08 10X Inst : HPMS7
Misc : WATER,10 Multiplr: 10.00
MS Integration Params: rteint.p
Quant Time: Sep 15 8:33 2000 Quant Results File: BNA.RES

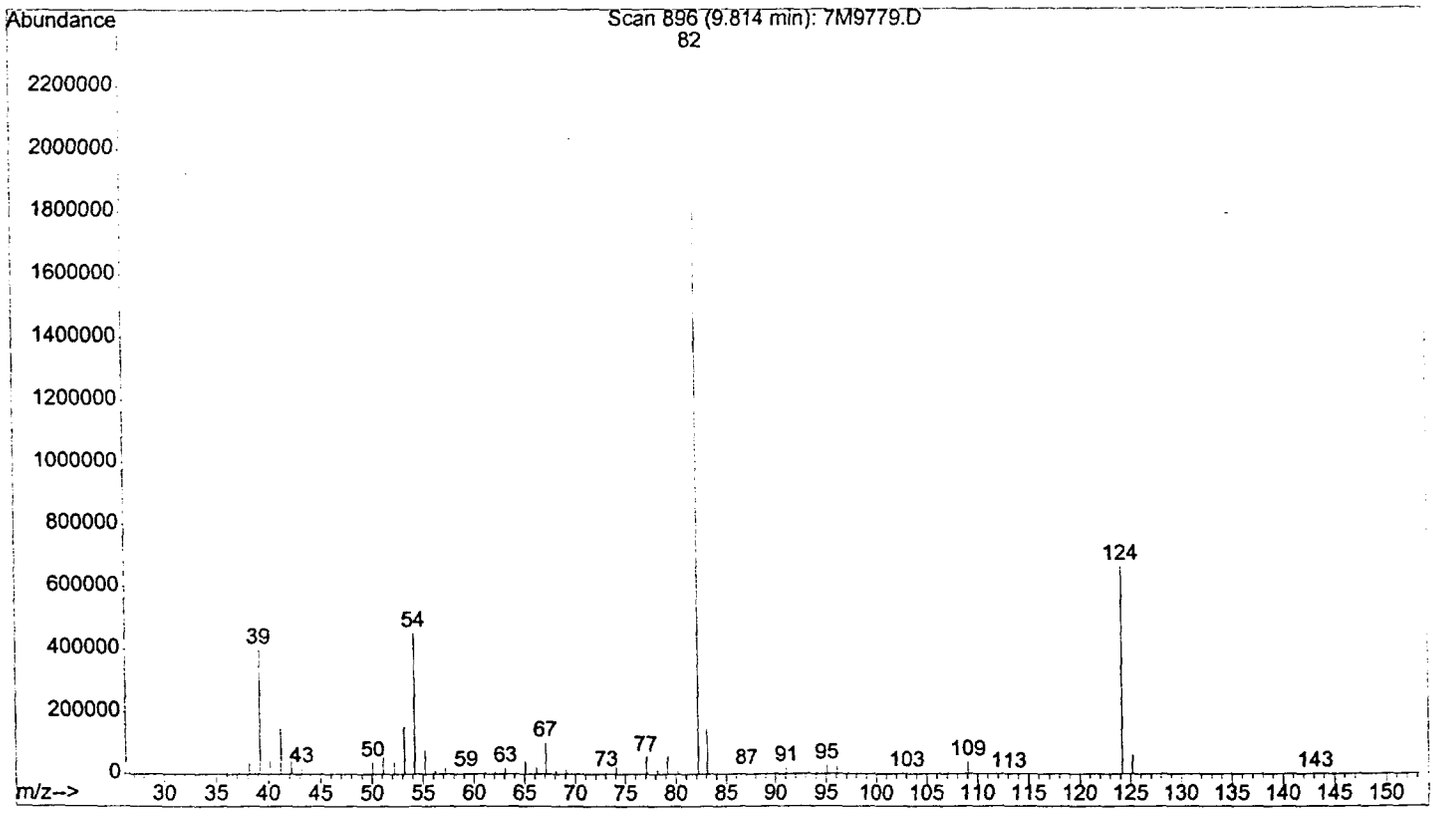
Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



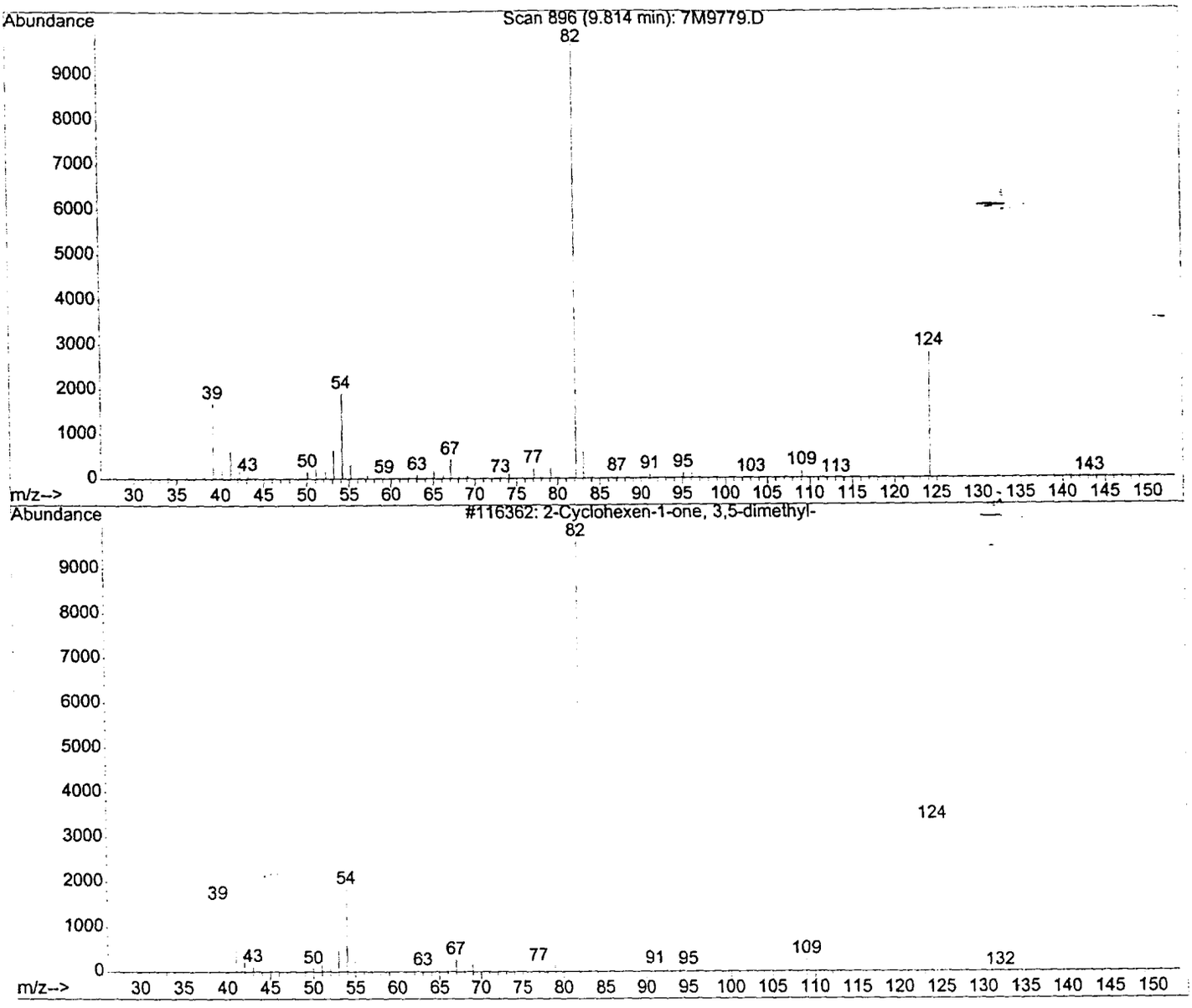
001939

File : C:\HPCHEM\1\DATA\091400\7M9779.D
Operator : mdc
Acquired : 15 Sep 2000 00:08 using AcqMethod BNA
Instrument : HPMS7
Sample Name: L0009094-08 10X
Misc Info : WATER,10
Vial Number: 31

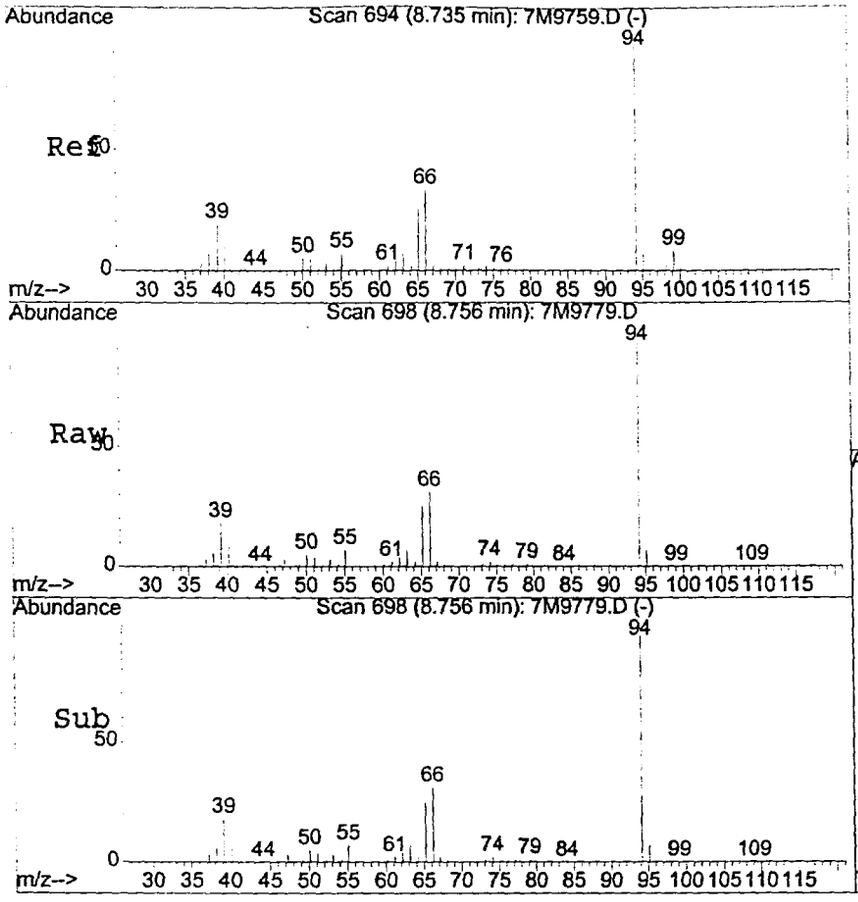




Library Searched : C:\DATABASE\NIST98.L
Quality : 91
ID : 2-Cyclohexen-1-one, 3,5-dimethyl-



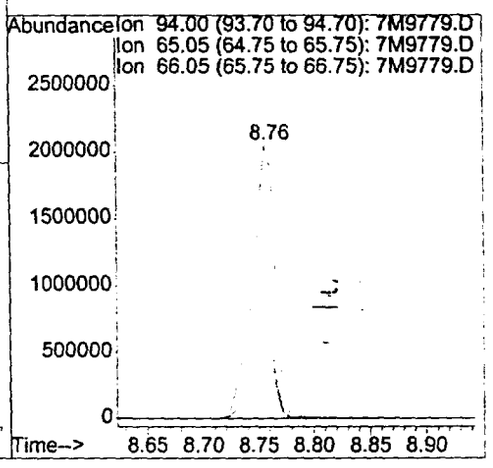
001941

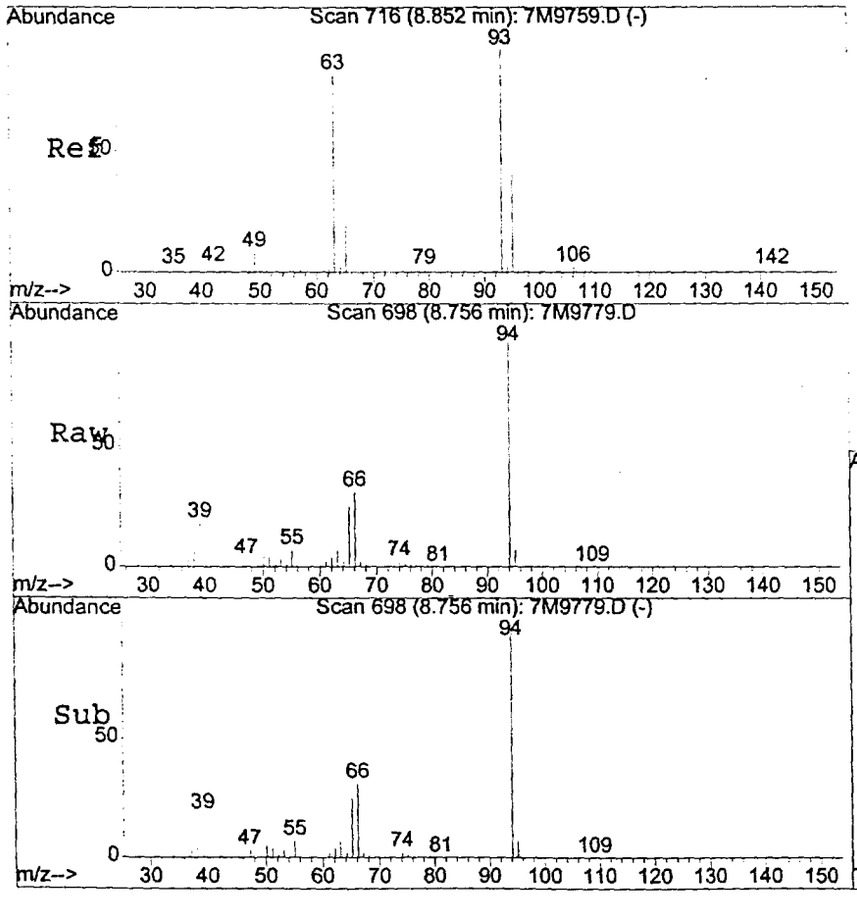


#7
Phenol
Concen: 6196.00 ug/ml
RT: 8.76 min Scan# 698
Delta R.T. 0.02 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion: 94 Resp: 2959116

Ion	Ratio	Lower	Upper
94	100		
65	24.6	20.5	30.7
66	31.7	29.4	44.0

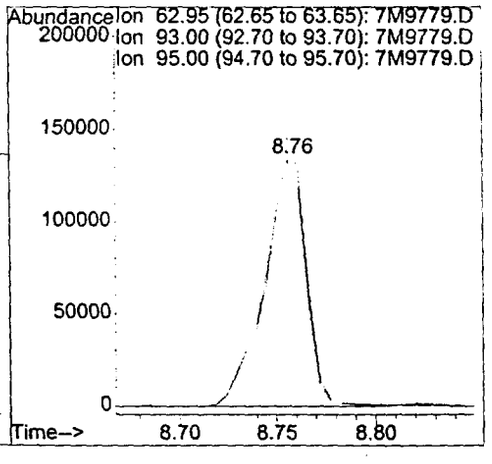




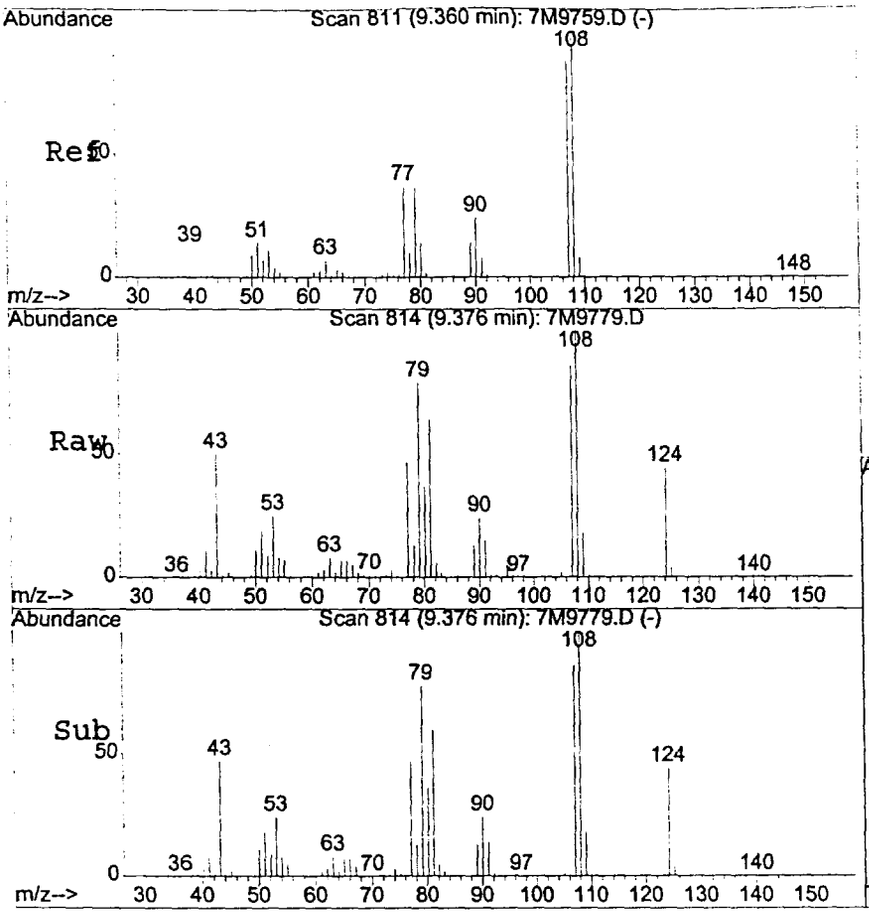
#8
bis(2-Chloroethyl)ether
Concen: 792.47 ug/ml
RT: 8.76 min Scan# 698
Delta R.T. -0.10 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion: 63 Resp: 191555

Ion	Ratio	Lower	Upper
63	100		
93	0.0	122.3	183.5#
95	109.4	39.8	59.8#



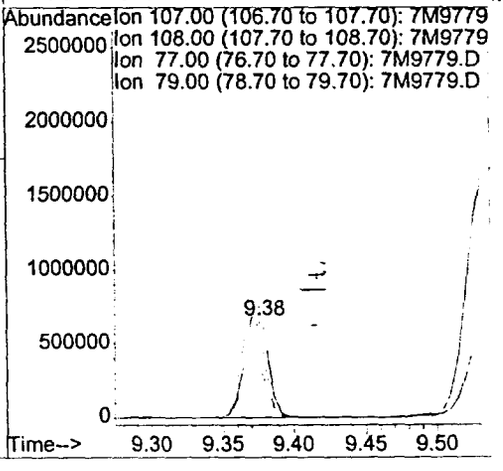
001942

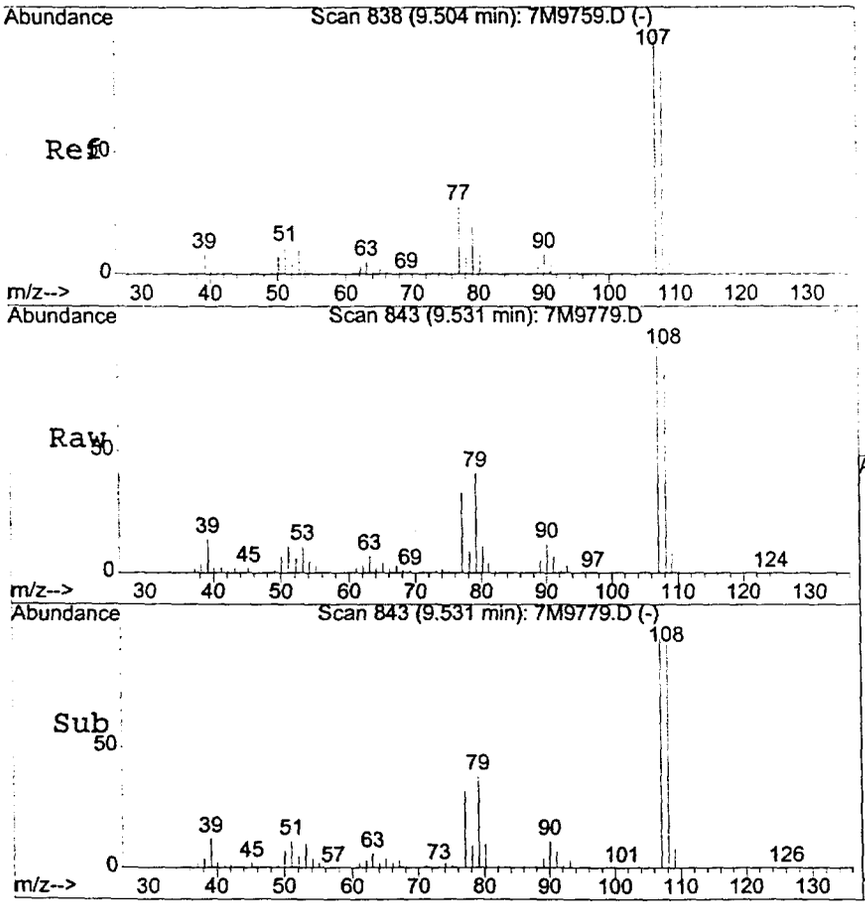


#14
2-Methylphenol
Concen: 2486.36 ug/ml
RT: 9.38 min Scan# 814
Delta R.T. 0.02 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:107 Resp: 754592

Ion	Ratio	Lower	Upper
107	100		
108	115.3	92.6	138.8
77	59.3	35.3	52.9#
79	106.2	34.2	51.4#

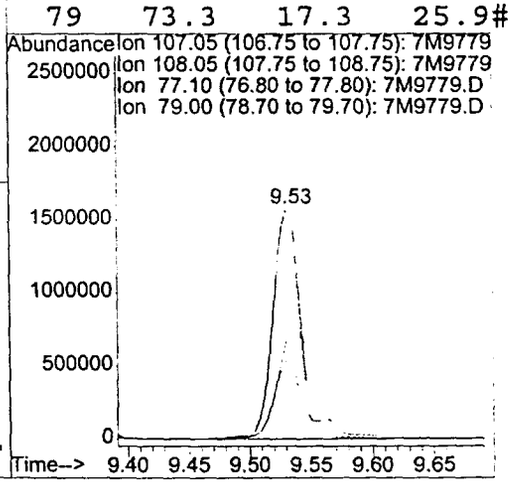




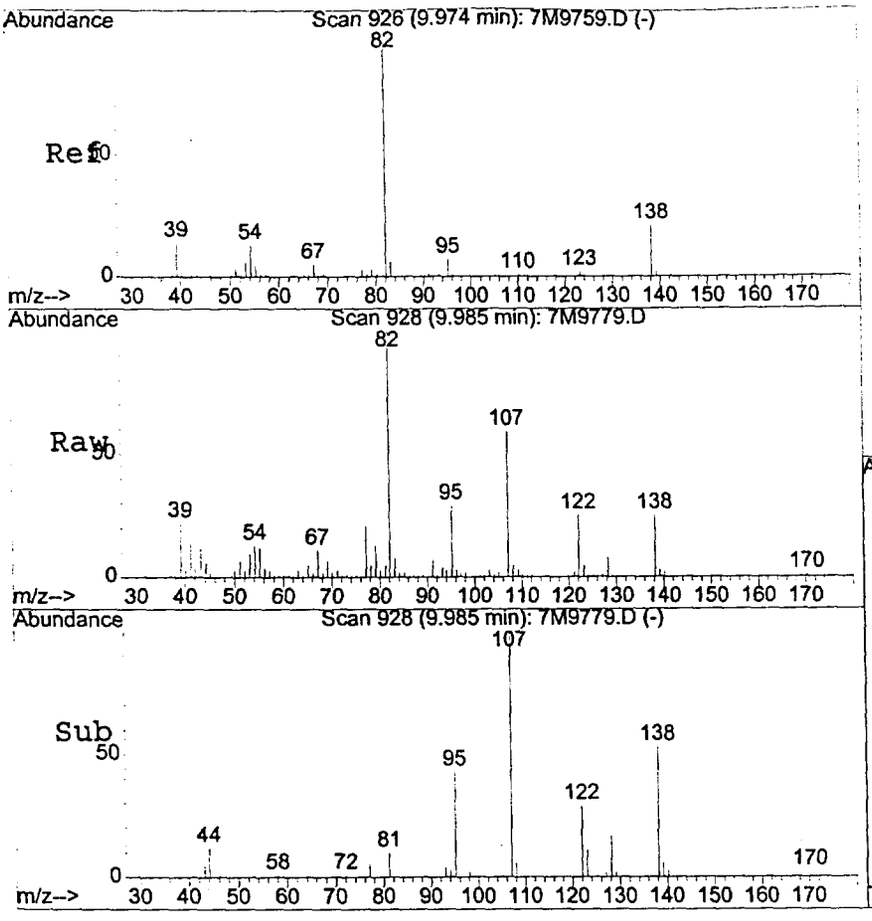
#16
4-Methylphenol
Concen: 5175.66 ug/ml
RT: 9.53 min Scan# 843
Delta R.T. 0.03 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:107 Resp: 2289980

Ion	Ratio	Lower	Upper
107	100		
108	108.5	65.7	98.5#
77	44.1	23.1	34.7#
79	73.3	17.3	25.9#



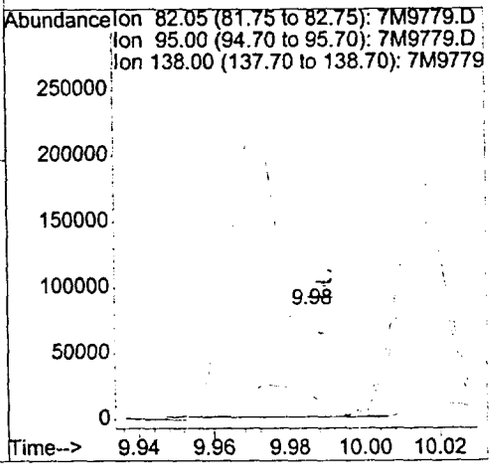
001943

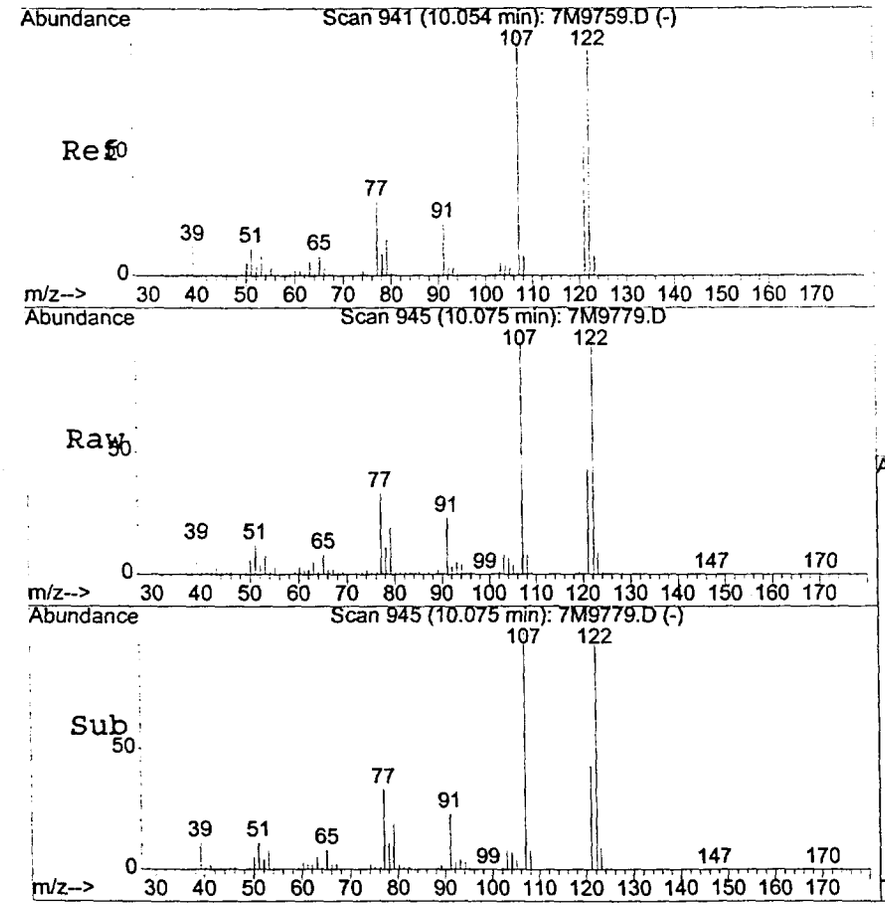


#22
Isophorone
Concen: 114.84 ug/ml
RT: 9.98 min Scan# 928
Delta R.T. 0.01 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion: 82 Resp: 79392

Ion	Ratio	Lower	Upper
82	100		
95	264.5	5.3	7.9#
138	49.0	17.1	25.7#

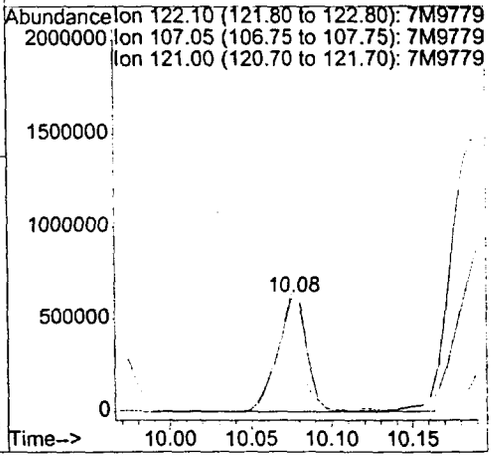


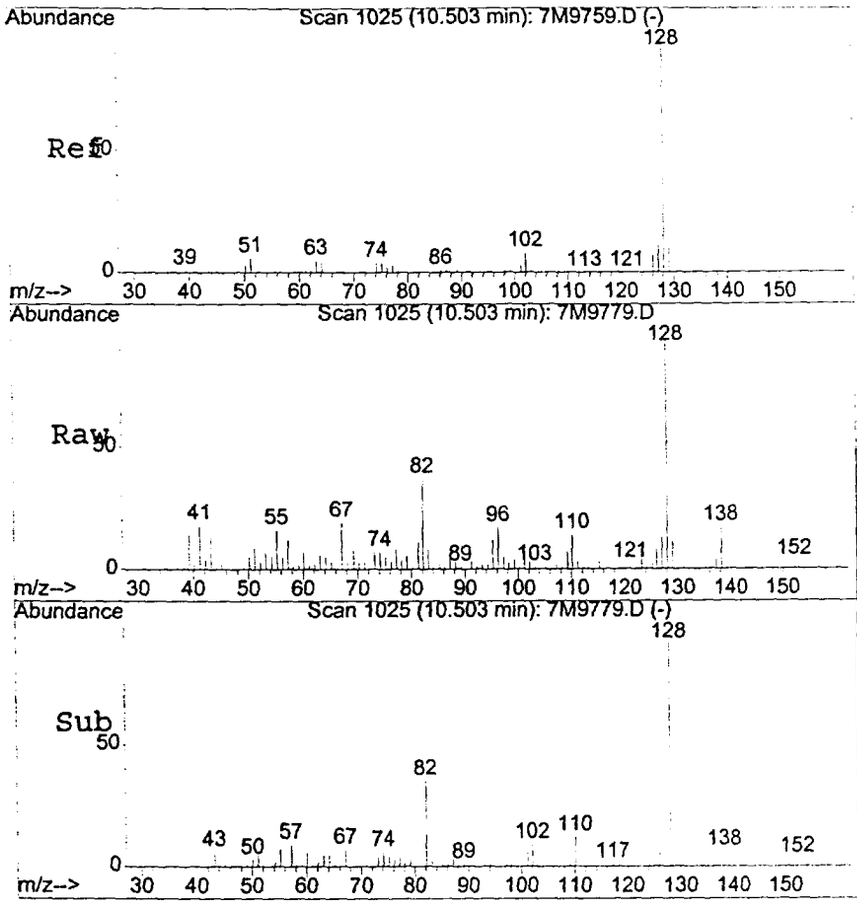


#24
2,4-Dimethylphenol
Concen: 2142.66 ug/ml
RT: 10.08 min Scan# 945
Delta R.T. 0.02 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:122 Resp: 796709

Ion	Ratio	Lower	Upper
122	100		
107	102.1	85.7	128.5
121	46.6	45.4	68.2

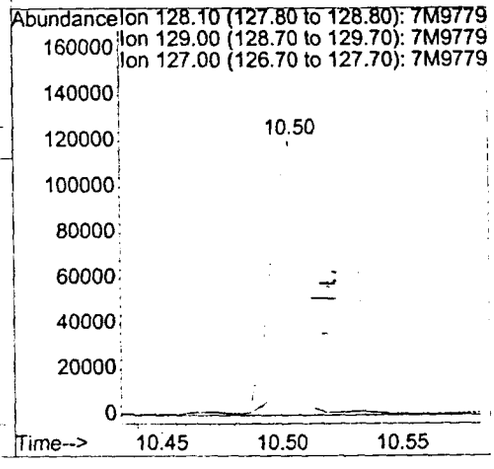


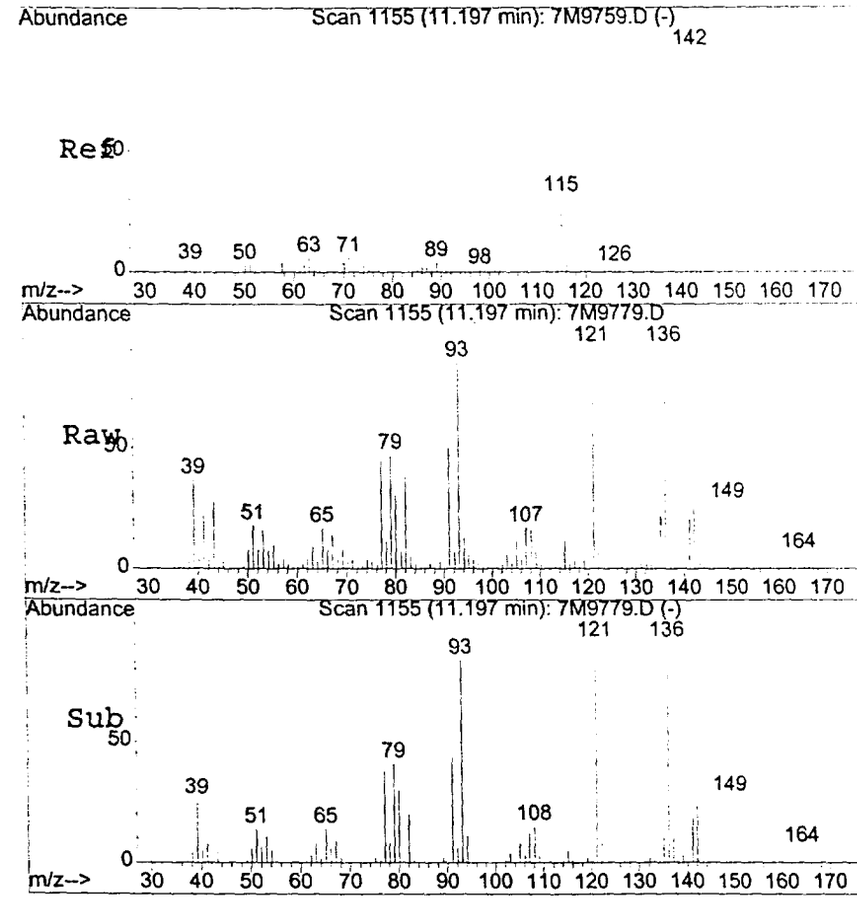


#29
Naphthalene
Concen: 100.52 ug/ml
RT: 10.50 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:128 Resp: 114252

Ion	Ratio	Lower	Upper
128	100		
129	10.8	11.1	16.7#
127	12.3	35.6	53.4#

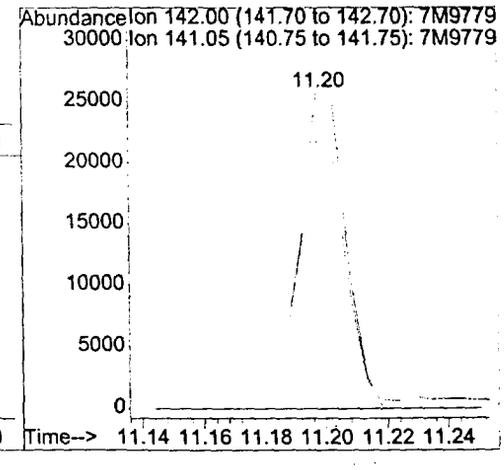


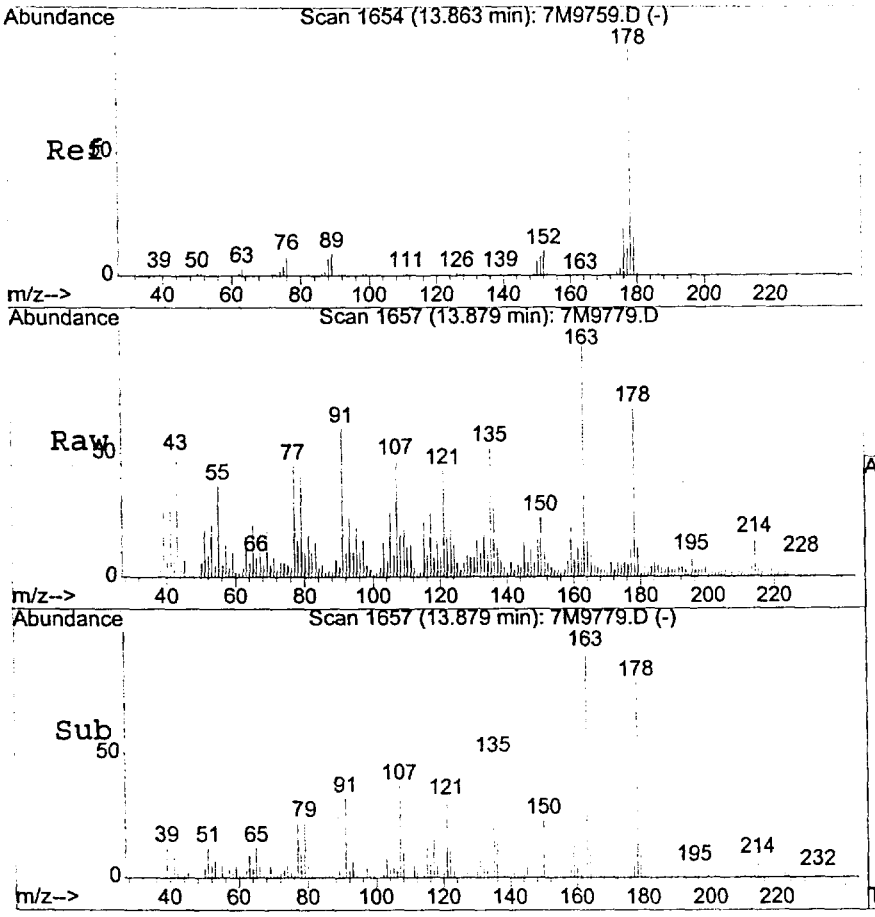


#33
2-Methylnaphthalene
Concen: 32.12 ug/ml
RT: 11.20 min Scan# 1155
Delta R.T. 0.00 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:142 Resp: 26820

Ion	Ratio	Lower	Upper
142	100		
141	92.7	67.7	101.5

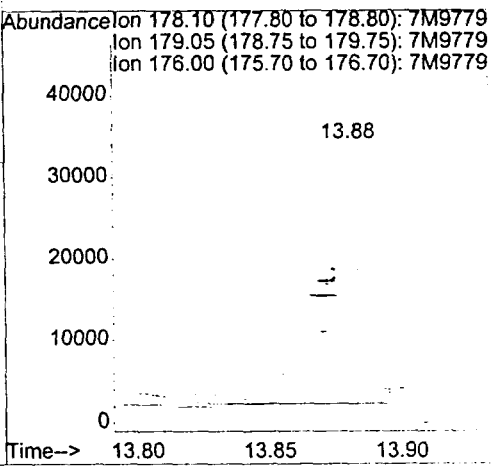




#62
Phenanthrene
Concen: 39.53 ug/ml
RT: 13.88 min Scan# 1657
Delta R.T. 0.02 min
Lab File: 7M9779.D
Acq: 15 Sep 2000 00:08

Tgt Ion:178 Resp: 50753

Ion	Ratio	Lower	Upper
178	100		
179	14.7	12.4	18.6
176	9.5	14.2	21.2#



001946

Quantitation Report (Not Reviewed)

ata File : C:\HPCHEM\1\DATA\091500\7M9785.D
cq On : 15 Sep 2000 10:48
ample : L0009094-08 200X
i : WATER,200
Integration Params: rteint.p
Quant Time: Sep 15 11:12 2000

Vial: 6
Operator: mdc
Inst : HPMS7
Multiplr: 200.00

Quant Results File: BNA.RES

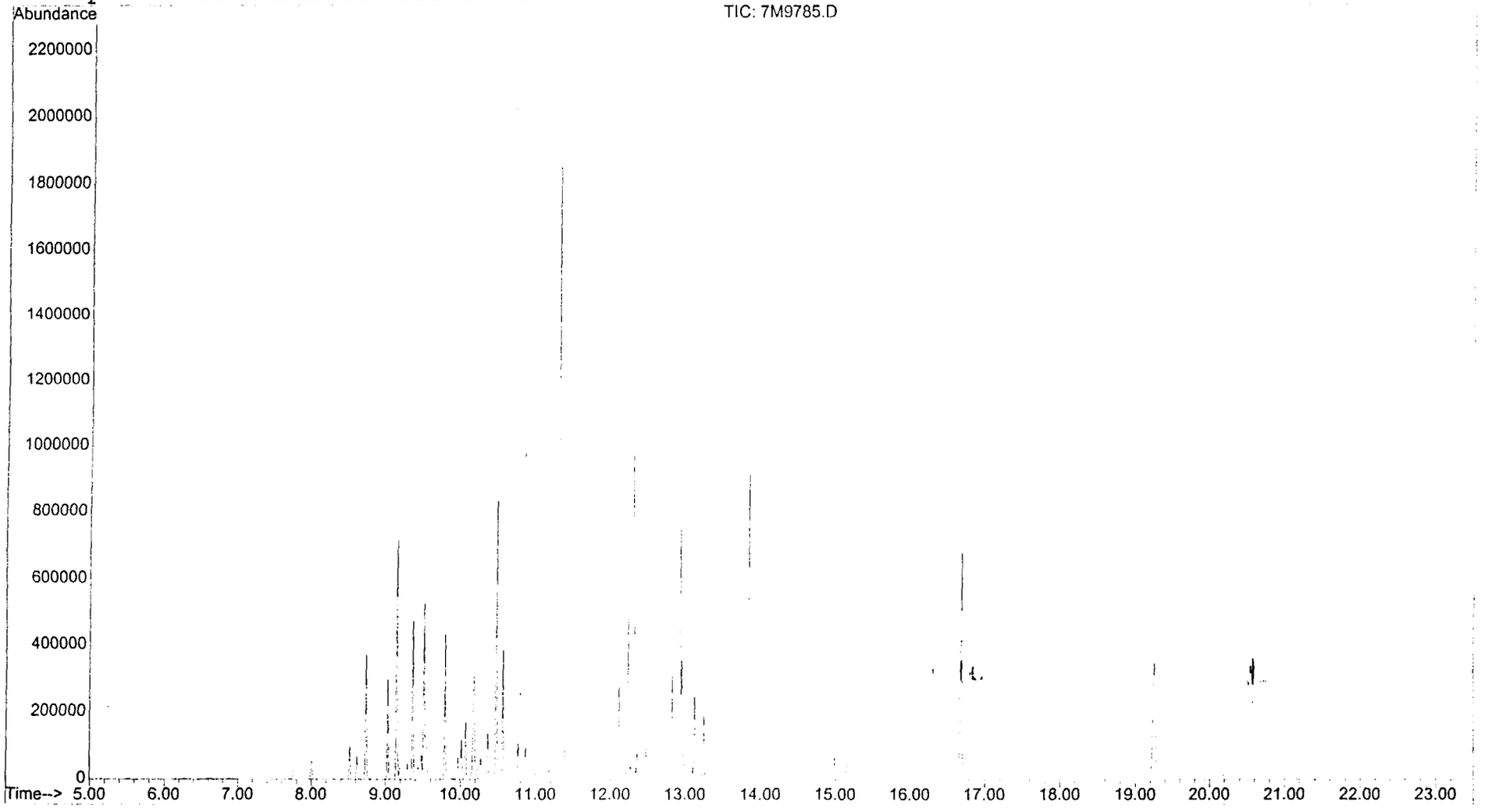
uant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
itle : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
ast Update : Thu Sep 14 13:56:29 2000
esponse via : Initial Calibration
ataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	109715	40.00	ug/ml	0.00
19) Naphthalene-d8	10.47	136	429392	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	251686	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	384519	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	303479	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	252704	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.77	112	361	19.56	ug/ml	0.01
Spiked Amount 100.000	Range 21 - 100		Recovery = 19.56%#			
6) Phenol-d5	8.72	99	659	30.58	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 30.58%			
20) Nitrobenzene-d5	9.79	82	190271	10618.41	ug/ml	0.05
Spiked Amount 50.000	Range 35 - 114		Recovery = 21236.82%#			
8) 2-Fluorobiphenyl	11.55	172	1662	39.17	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 78.34%			
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.00%#			
70) p-Terphenyl-d14	15.41	244	2495	64.53	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 129.06%			
Target Compounds						Qvalue
5) Aniline	8.74	66	50291	5394.24	ug/ml#	1
7) Phenol	8.74	94	160242	6800.23	ug/ml	94
12) Benzyl Alcohol	9.36	108	48941	4569.16	ug/ml#	75
14) 2-Methylphenol	9.36	107	43100	2878.25	ug/ml#	71
16) 4-Methylphenol	9.51	107	138325	6336.27	ug/ml#	72
24) 2,4-Dimethylphenol	10.07	122	39705	2343.29	ug/ml#	91
26) Benzoic Acid	10.07	122	39705	5297.49	ug/ml#	1
46) 2,4-Dinitrophenol	12.41	184	890	1889.43	ug/ml#	1

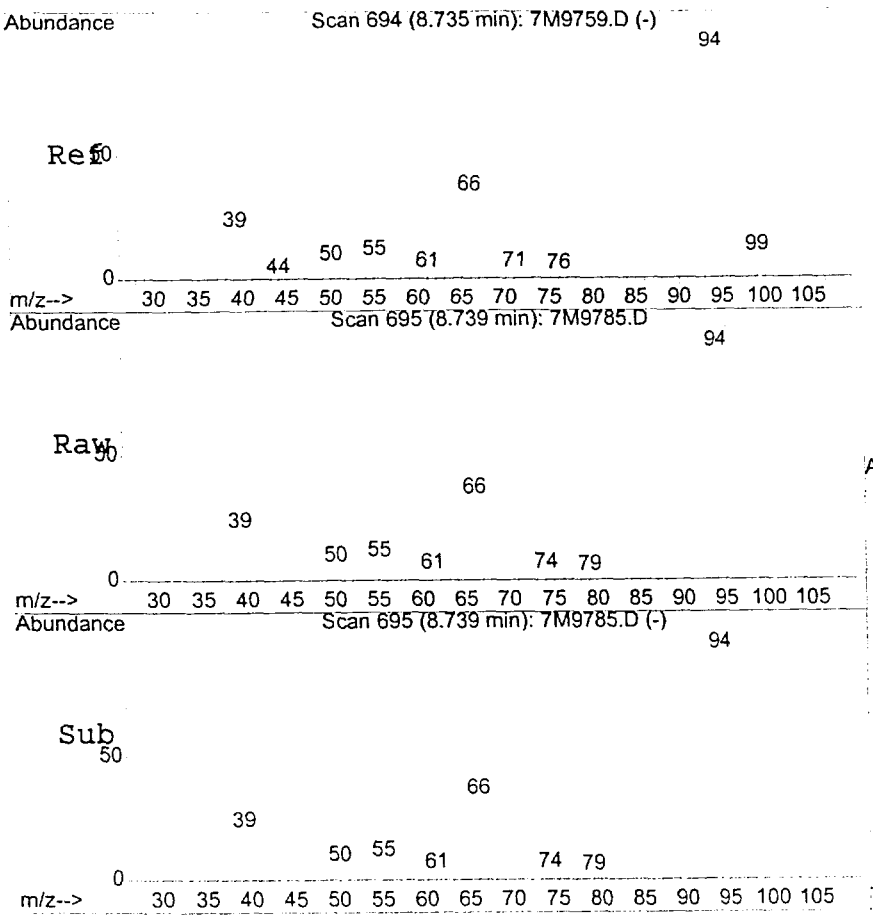
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091500\7M9785.D Vial: 6
Acq On : 15 Sep 2000 10:48 Operator: mdc
Sample : L0009094-08 200X Inst : HPMS7
Misc : WATER,200 Multiplr: 200.00
MS Integration Params: rteint.p
Quant Time: Sep 15 11:12 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



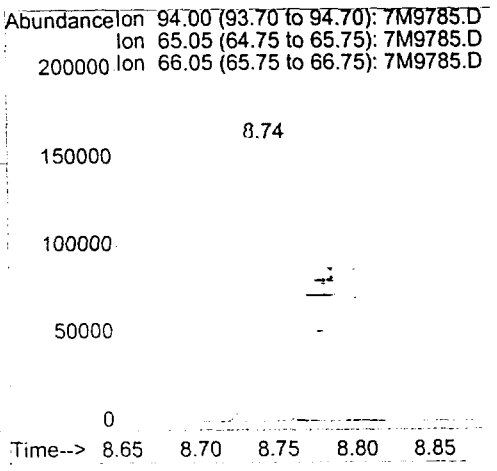
6



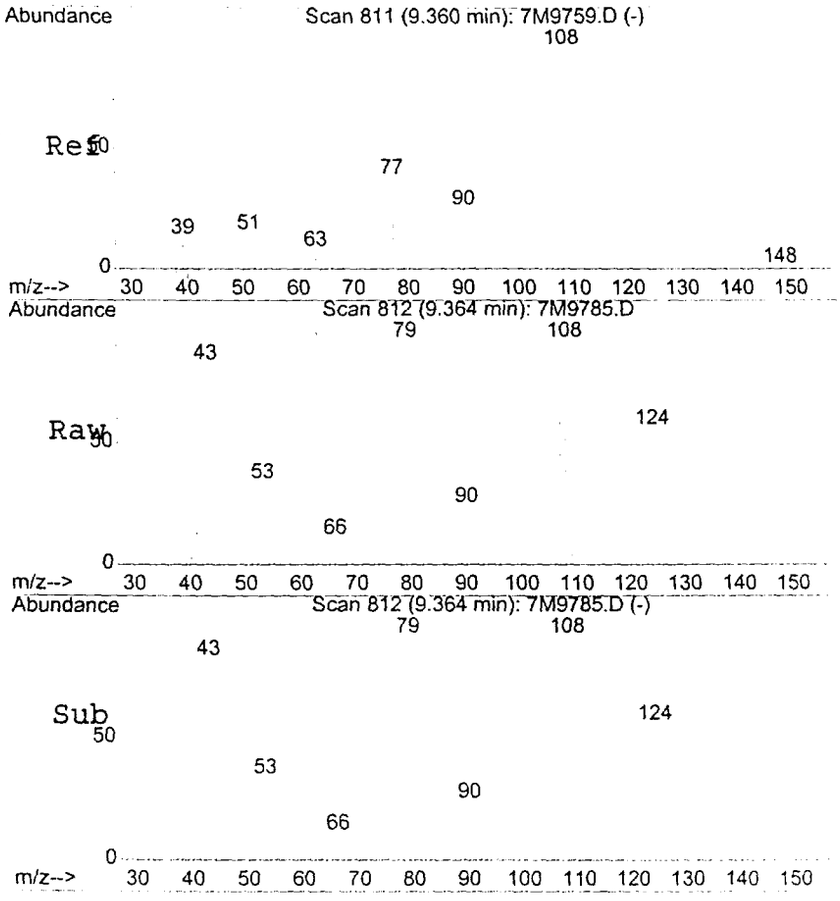
#7
Phenol
Concen: 6800.23 ug/ml
RT: 8.74 min Scan# 695
Delta R.T. 0.00 min
Lab File: 7M9785.D
Acq: 15 Sep 2000 10:48

Tgt Ion: 94 Resp: 160242

Ion	Ratio	Lower	Upper
94	100		
65	24.2	20.5	30.7
66	31.4	29.4	44.0



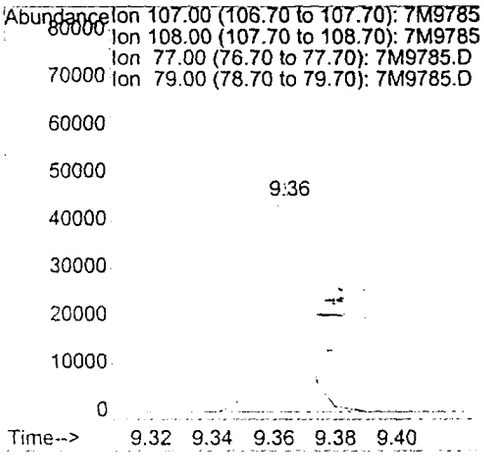
001949

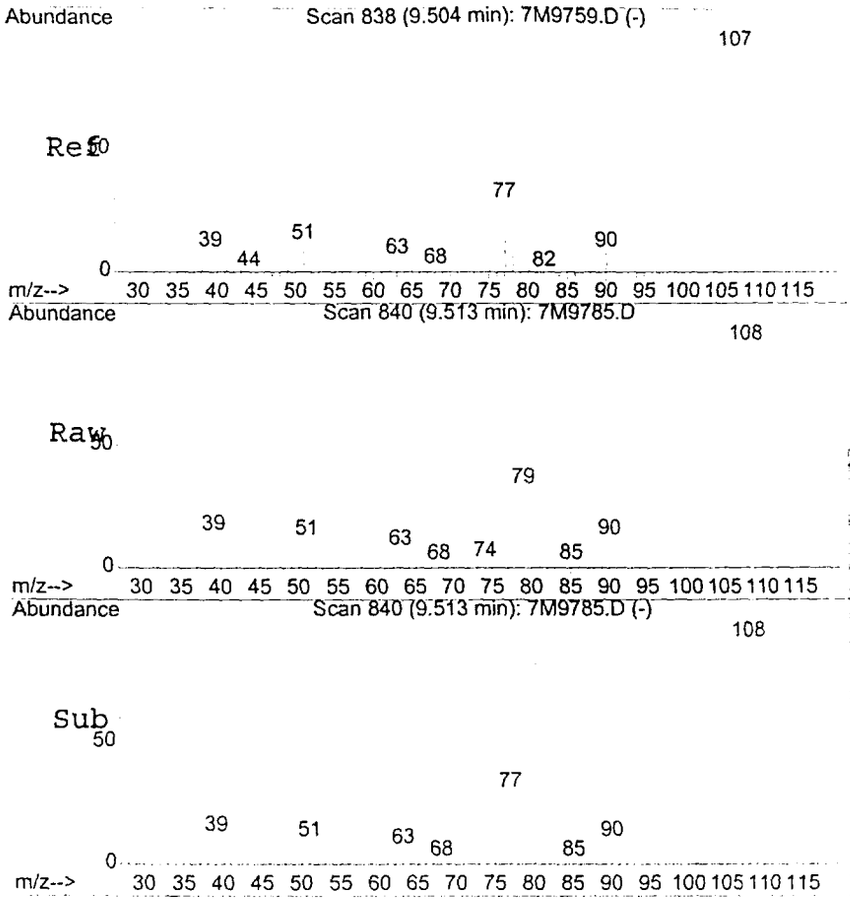


#14
2-Methylphenol
Concen: 2878.25 ug/ml
RT: 9.36 min Scan# 812
Delta R.T. 0.00 min
Lab File: 7M9785.D
Acq: 15 Sep 2000 10:48

Tgt Ion:107 Resp: 43100

Ion	Ratio	Lower	Upper
107	100		
108	113.6	92.6	138.8
77	60.9	35.3	52.9#
79	110.3	34.2	51.4#

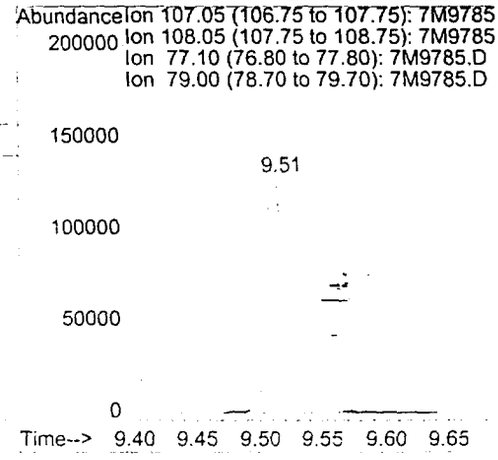


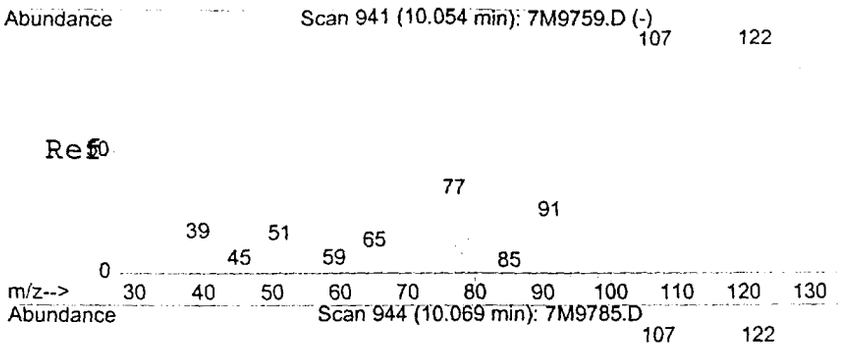


#16
4-Methylphenol
Concen: 6336.27 ug/ml
RT: 9.51 min Scan# 840
Delta R.T. 0.01 min
Lab File: 7M9785.D
Acq: 15 Sep 2000 10:48

Tgt Ion:107 Resp: 138325

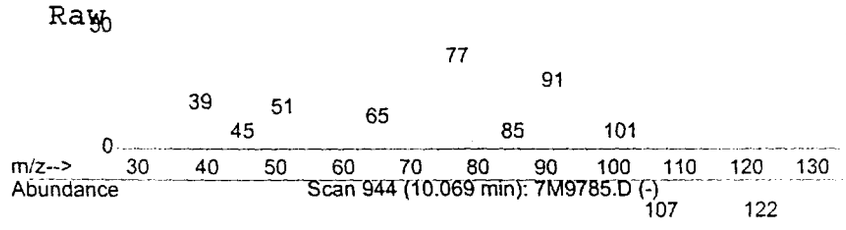
Ion	Ratio	Lower	Upper
107	100		
108	109.5	65.7	98.5#
77	37.9	23.1	34.7#
79	35.8	17.3	25.9#

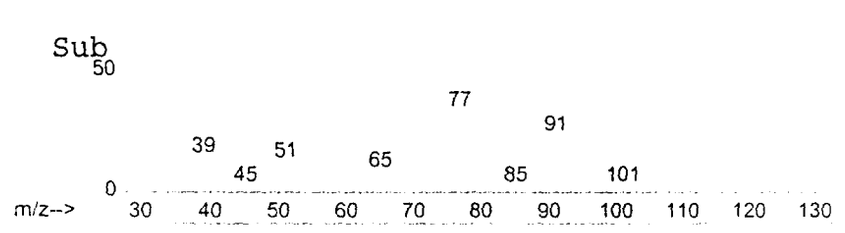


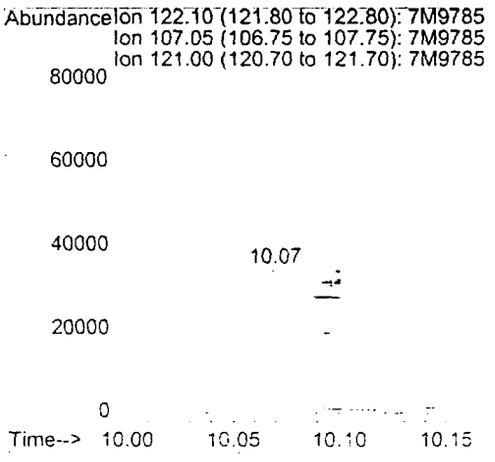


#24
2,4-Dimethylphenol
Concen: 2343.29 ug/ml
RT: 10.07 min Scan# 944
Delta R.T. 0.01 min
Lab File: 7M9785.D
Acq: 15 Sep 2000 10:48

Tgt Ion:122	Resp:	39705	
Ion	Ratio	Lower	Upper
122	100		
107	102.7	85.7	128.5
121	44.3	45.4	68.2#







2.2.1.3 Standards Data

001953

Calibration Table Report
Method: BNA.M
Title: M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Calibration: Thu Sep 14 12:32:04 2000
?MS4
alibration Files

	Compound	3 7M9751.D	10 7M9752.D	20 7M9753.D	50 7M9750.D	80 7M9754.D	100 7M9755.D	120 7M9756.D	Avg	%RSD
I	1,4-Dichlorobenzene-d4	ISTD								
	Pyridine	1.084	1.284	1.290	1.359	1.360	1.366	1.400	1.306	8.2
	n-Nitrosodimethylamine	0.760	0.767	0.747	0.784	0.780	0.784	0.799	0.774	2.3
S	2-Fluorophenol	1.351	1.337	1.289	1.339	1.358	1.363	1.381	1.346	2.1
	Aniline	0.690	0.708	0.677	0.676	0.676	0.661	0.670	0.680	2.2
S	Phenol-d5	1.576	1.571	1.527	1.561	1.583	1.577	1.604	1.571	1.5
C	Phenol	1.745	1.729	1.686	1.715	1.717	1.706	1.730	1.718	1.1
	bis(2-Chloroethyl)ether	0.938	0.897	0.844	0.849	0.852	0.846	0.861	0.870	4.1
	2-Chlorophenol	1.452	1.439	1.383	1.419	1.421	1.423	1.440	1.425	1.6
	1,3-Dichlorobenzene	1.577	1.472	1.386	1.389	1.387	1.384	1.394	1.427	5.1
C	1,4-Dichlorobenzene	1.796	1.709	1.596	1.597	1.594	1.572	1.597	1.637	5.1
	Benzyl Alcohol	0.629	0.745	0.765	0.797	0.833	0.842	0.857	0.781	10.1
	1,2-Dichlorobenzene	1.486	1.392	1.303	1.316	1.311	1.303	1.315	1.347	5.1
	2-Methylphenol	1.121	1.105	1.082	1.077	1.086	1.082	1.089	1.092	1.4
	bis(2-Chloroisopropyl)ether	1.680	1.603	1.509	1.496	1.504	1.483	1.501	1.540	4.8
	4-Methylphenol	1.517	1.612	1.564	1.606	1.612	1.607	1.624	1.592	2.4
P	n-Nitrosodipropylamine	0.938	0.952	0.936	0.962	0.964	0.967	0.973	0.956	1.5
	Hexachloroethane	0.563	0.557	0.537	0.549	0.552	0.550	0.558	0.552	1.5
I	Naphthalene-d8	ISTD								
S	Nitrobenzene-d5	0.323	0.323	0.325	0.339	0.341	0.339	0.348	0.334	3.0
	Nitrobenzene	0.358	0.356	0.351	0.357	0.356	0.352	0.359	0.356	0.9
	sophorone	0.575	0.585	0.578	0.594	0.591	0.588	0.598	0.587	1.4
C	2-Nitrophenol	0.170	0.180	0.184	0.201	0.204	0.205	0.211	0.194	7.8
	2,4-Dimethylphenol	0.312	0.314	0.309	0.306	0.323	0.321	0.325	0.316	2.3
	bis(2-Chloroethoxy)methane	0.427	0.416	0.401	0.400	0.398	0.395	0.403	0.406	2.9
	Benzoic Acid			0.122	0.178	0.175	0.185	0.195	0.171	16.5
C	2,4-Dichlorophenol	0.258	0.265	0.265	0.279	0.281	0.280	0.286	0.273	3.8
	1,2,4-Trichlorobenzene	0.351	0.328	0.313	0.311	0.311	0.307	0.311	0.319	4.9
	Naphthalene	1.082	1.002	0.953	0.938	0.932	0.919	0.928	0.965	6.1
	4-Chloroaniline	0.413	0.427	0.414	0.418	0.417	0.412	0.419	0.417	1.3
C	Hexachlorobutadiene	0.159	0.151	0.144	0.145	0.144	0.142	0.146	0.147	4.1
C	4-Chloro-3-Methylphenol	0.247	0.274	0.280	0.296	0.296	0.295	0.300	0.284	6.7
	2-Methylnaphthalene	0.774	0.733	0.706	0.698	0.687	0.680	0.685	0.709	4.8
I	Acenaphthene-d10	ISTD								
P	Hexachlorocyclopentadiene	0.157	0.216	0.236	0.292	0.301	0.305	0.315	0.260	22.7
C	2,4,6-Trichlorophenol	0.312	0.343	0.338	0.358	0.355	0.355	0.360	0.346	4.9
	2,4,5-Trichlorophenol	0.333	0.356	0.361	0.383	0.388	0.381	0.389	0.370	5.6
S	2-Fluorobiphenyl	1.513	1.419	1.339	1.327	1.291	1.277	1.276	1.349	6.5
	2-Chloronaphthalene	1.278	1.239	1.173	1.178	1.157	1.143	1.154	1.189	4.2
	2-Nitroaniline	0.222	0.265	0.279	0.307	0.309	0.309	0.315	0.286	11.8
	Dimethylphthalate	1.415	1.384	1.324	1.336	1.314	1.301	1.306	1.340	3.2
	Acenaphthylene	1.967	1.957	1.870	1.893	1.850	1.829	1.835	1.886	3.0
	2,6-Dinitrotoluene	0.228	0.274	0.286	0.314	0.314	0.319	0.326	0.294	11.8
	3-Nitroaniline	0.225	0.280	0.294	0.330	0.327	0.331	0.337	0.304	13.4
C	Acenaphthene	1.166	1.110	1.052	1.078	1.062	1.048	1.054	1.081	4.0
P	2,4-Dinitrophenol		0.034	0.056	0.113	0.126	0.141	0.150	0.103	46.1
P	4-Nitrophenol			0.167	0.214	0.217	0.214	0.221	0.206	10.6

Calibration Table Report
Method: BNA.M
Title: M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Calibration: Thu Sep 14 12:32:04 2000
?MS4
alibration Files

	Compound	3 7M9751.D	10 7M9752.D	20 7M9753.D	50 7M9750.D	80 7M9754.D	100 7M9755.D	120 7M9756.D	Avg	%RSD
	Dibenzofuran	1.811	1.713	1.625	1.610	1.584	1.558	1.562	1.637	5.7
	2,4-Dinitrotoluene	0.233	0.292	0.316	0.361	0.363	0.367	0.374	0.329	15.8
	Diethylphthalate	1.266	1.236	1.191	1.211	1.189	1.181	1.185	1.209	2.6
	Fluorene	1.317	1.272	1.206	1.222	1.192	1.181	1.181	1.225	4.2
	4-Chlorophenyl Phenyl Ether	0.699	0.660	0.638	0.634	0.630	0.625	0.623	0.644	4.2
	4-Nitroaniline	0.197	0.274	0.298	0.341	0.334	0.339	0.348	0.304	17.9
	1,2-Diphenylhydrazine	1.315	1.300	1.255	1.268	1.251	1.236	1.240	1.266	2.4
S	2,4,6-Tribromophenol	0.097	0.124	0.130	0.149	0.150	0.152	0.155	0.137	15.3
I	Phenanthrene-d10	ISTD								
	4,6-Dinitro-2-Methylphenol			0.082	0.115	0.124	0.132	0.136	0.118	18.6
C	n-Nitrosodiphenylamine	0.607	0.586	0.562	0.564	0.560	0.549	0.552	0.569	3.6
	4-Bromophenyl Phenyl Ether	0.220	0.209	0.201	0.205	0.204	0.201	0.204	0.206	3.1
	Hexachlorobenzene	0.193	0.188	0.179	0.181	0.181	0.180	0.181	0.183	2.9
C	Pentachlorophenol		0.067	0.086	0.119	0.123	0.127	0.131	0.109	23.9
	Phenanthrene	1.309	1.220	1.159	1.140	1.121	1.089	1.095	1.162	6.8
	Anthracene	1.231	1.185	1.145	1.138	1.112	1.086	1.089	1.141	4.6
	Carbazole	1.044	1.009	0.966	0.969	0.936	0.913	0.924	0.966	4.9
	Di-n-Butyl Phthalate	1.273	1.297	1.261	1.297	1.283	1.249	1.245	1.272	1.7
C	Fluoranthene	1.292	1.243	1.203	1.201	1.169	1.148	1.147	1.200	4.4
I	Chrysene-d12	ISTD								
	Benzidine	0.428	0.448	0.438	0.385	0.383	0.375	0.386	0.406	7.6
	yrene	1.459	1.396	1.336	1.302	1.282	1.266	1.276	1.331	5.4
S	p-Terphenyl-d14	1.118	1.059	1.009	0.996	0.991	0.977	0.985	1.019	5.0
	Butyl Benzyl Phthalate	0.682	0.686	0.684	0.706	0.701	0.694	0.703	0.694	1.4
	Benzo[a]anthracene	1.473	1.386	1.316	1.312	1.304	1.291	1.305	1.341	4.9
	3,3'-Dichlorobenzidine	0.417	0.422	0.421	0.432	0.417	0.420	0.432	0.423	1.5
	Chrysene	1.411	1.342	1.285	1.269	1.258	1.249	1.262	1.297	4.6
	bis(2-Ethylhexyl)phthalate	0.943	0.943	0.946	0.981	0.978	0.972	0.980	0.963	1.9
I	Perylene-d12	ISTD								
C	Di-n-Octyl Phthalate	1.673	1.749	1.769	1.871	1.875	1.855	1.870	1.809	4.4
	Benzo[b]fluoranthene	1.515	1.430	1.337	1.398	1.393	1.404	1.413	1.413	3.8
	Benzo[k]fluoranthene	1.426	1.411	1.379	1.358	1.365	1.314	1.370	1.375	2.7
C	Benzo[a]pyrene	1.342	1.319	1.278	1.300	1.323	1.313	1.340	1.316	1.7
	Indeno[1,2,3-cd]pyrene	1.365	1.362	1.353	1.433	1.453	1.460	1.473	1.414	3.7
	Dibenz[ah]anthracene	1.084	1.096	1.096	1.162	1.178	1.176	1.192	1.141	4.1
	Benzo[ghi]perylene	1.157	1.138	1.120	1.180	1.201	1.208	1.217	1.174	3.1

Thu Sep 14 12:34:07 2000

001955

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9751.D
Acq On : 14 Sep 2000 9:15
Sample : 3PPM BNA STD
c : WATER,1
Integration Params: rteint.p
Quant Time: Sep 14 9:38 2000

Vial: 3
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	122782	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	483051	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	267402	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.83	188	458011	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	373555	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	321753	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	12444	3.62	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 3.62%#			
6) Phenol-d5	8.72	99	14517	3.34	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 3.34%#			
20) Nitrobenzene-d5	9.74	82	11698	2.46	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 4.92%#			
38) 2-Fluorobiphenyl	11.55	172	30336	2.91	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 5.82%#			
55) 2,4,6-Tribromophenol	13.11	330	1953	1.68	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 1.68%#			
70) p-Terphenyl-d14	15.41	244	31326	3.06	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 6.12%#			
Target Compounds						Qvalue
2) Pyridine	6.09	79	9979	2.93	ug/ml#	84
3) n-Nitrosodimethylamine	5.99	74	7003	3.75	ug/ml#	99
5) Aniline	8.82	66	6357	3.28	ug/ml	93
7) Phenol	8.73	94	16066	3.43	ug/ml	98
8) bis(2-Chloroethyl)ether	8.85	63	8642	4.05	ug/ml	98
9) 2-Chlorophenol	8.94	128	13372	3.49	ug/ml	97
10) 1,3-Dichlorobenzene	9.10	146	14521	3.09	ug/ml	99
11) 1,4-Dichlorobenzene	9.17	146	16536	3.13	ug/ml	95
12) Benzyl Alcohol	9.27	108	5793	2.74	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	13681	3.06	ug/ml	98
14) 2-Methylphenol	9.36	107	10326	3.48	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	15474	5.69	ug/ml	97
16) 4-Methylphenol	9.50	107	13967	3.26	ug/ml	98
17) n-Nitrosodipropylamine	9.54	70	8639	3.04	ug/ml#	97
18) Hexachloroethane	9.68	117	5187	2.81	ug/ml	97
21) Nitrobenzene	9.75	77	12959	2.65	ug/ml	95
22) Isophorone	9.97	82	20825	2.87	ug/ml	99
23) 2-Nitrophenol	10.08	139	6175	2.63	ug/ml	96
24) 2,4-Dimethylphenol	10.05	122	11302	3.19	ug/ml	99
25) bis(2-Chloroethoxy)methane	10.16	93	15481	3.32	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9751.D Vial: 3
Acq On : 14 Sep 2000 9:15 Operator: mdc
Sample : 3PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 9:38 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	10.09	122	1877	1.04 ug/ml#	57
27) 2,4-Dichlorophenol	10.31	162	9360	2.44 ug/ml	98
28) 1,2,4-Trichlorobenzene	10.41	180	12715	2.64 ug/ml	98
29) Naphthalene	10.50	128	39205	2.87 ug/ml#	61
30) 4-Chloroaniline	10.54	127	14952	3.29 ug/ml	99
31) Hexachlorobutadiene	10.59	225	5769	1.70 ug/ml	98
32) 4-Chloro-3-Methylphenol	10.98	107	8948	2.32 ug/ml	99
33) 2-Methylnaphthalene	11.20	142	28033	2.83 ug/ml	100
35) Hexachlorocyclopentadiene	11.36	237	3140	1.38 ug/ml#	93
36) 2,4,6-Trichlorophenol	11.48	196	6248	2.29 ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	6682	2.34 ug/ml	97
39) 2-Chloronaphthalene	11.72	162	25638	3.18 ug/ml	99
40) 2-Nitroaniline	11.82	65	4462	2.10 ug/ml	98
41) Dimethylphthalate	11.94	163	28383	2.81 ug/ml	98
42) Acenaphthylene	12.15	152	39451	3.18 ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	4575	2.29 ug/ml	94
44) 3-Nitroaniline	12.24	138	4520	2.94 ug/ml	92
45) Acenaphthene	12.33	154	23377	2.76 ug/ml	96
47) 4-Nitrophenol	12.35	65	1428	0.96 ug/ml	86
48) Dibenzofuran	12.50	168	36320	3.08 ug/ml	100
49) 2,4-Dinitrotoluene	12.46	165	4679	1.89 ug/ml	95
50) Diethylphthalate	12.64	149	25390	2.61 ug/ml	99
51) Fluorene	12.85	166	26404	2.74 ug/ml	98
52) 4-Chlorophenyl Phenyl Ethe	12.80	204	14028	2.64 ug/ml	99
53) 4-Nitroaniline	12.87	138	3947	2.86 ug/ml	94
54) 1,2-Diphenylhydrazine	12.97	77	26373	2.67 ug/ml	97
57) 4,6-Dinitro-2-Methylphenol	12.89	198	1061	0.68 ug/ml	90
58) n-Nitrosodiphenylamine	12.93	169	20859	3.10 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	13.32	248	7548	2.38 ug/ml	98
60) Hexachlorobenzene	13.44	284	6644	2.17 ug/ml	98
61) Pentachlorophenol	13.63	266	1354	0.87 ug/ml#	80
62) Phenanthrene	13.86	178	44964	2.97 ug/ml	99
63) Anthracene	13.91	178	42271	2.89 ug/ml	99
64) Carbazole	14.06	167	35874	3.61 ug/ml	98
65) Di-n-Butyl Phthalate	14.29	149	43713	2.57 ug/ml	99
66) Fluoranthene	15.09	202	44366	2.61 ug/ml	99
68) Benzidine	15.18	184	12005	7.54 ug/ml	100
69) Pyrene	15.34	202	40882	3.31 ug/ml	99
71) Butyl Benzyl Phthalate	15.86	149	19104	3.43 ug/ml	99
72) Benzo[a]anthracene	16.67	228	41270	3.36 ug/ml	97
73) 3,3'-Dichlorobenzidine	16.58	252	11673	3.99 ug/ml	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9751.D Vial: 3
Acq On : 14 Sep 2000 9:15 Operator: mdc
Sample : 3PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 9:38 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

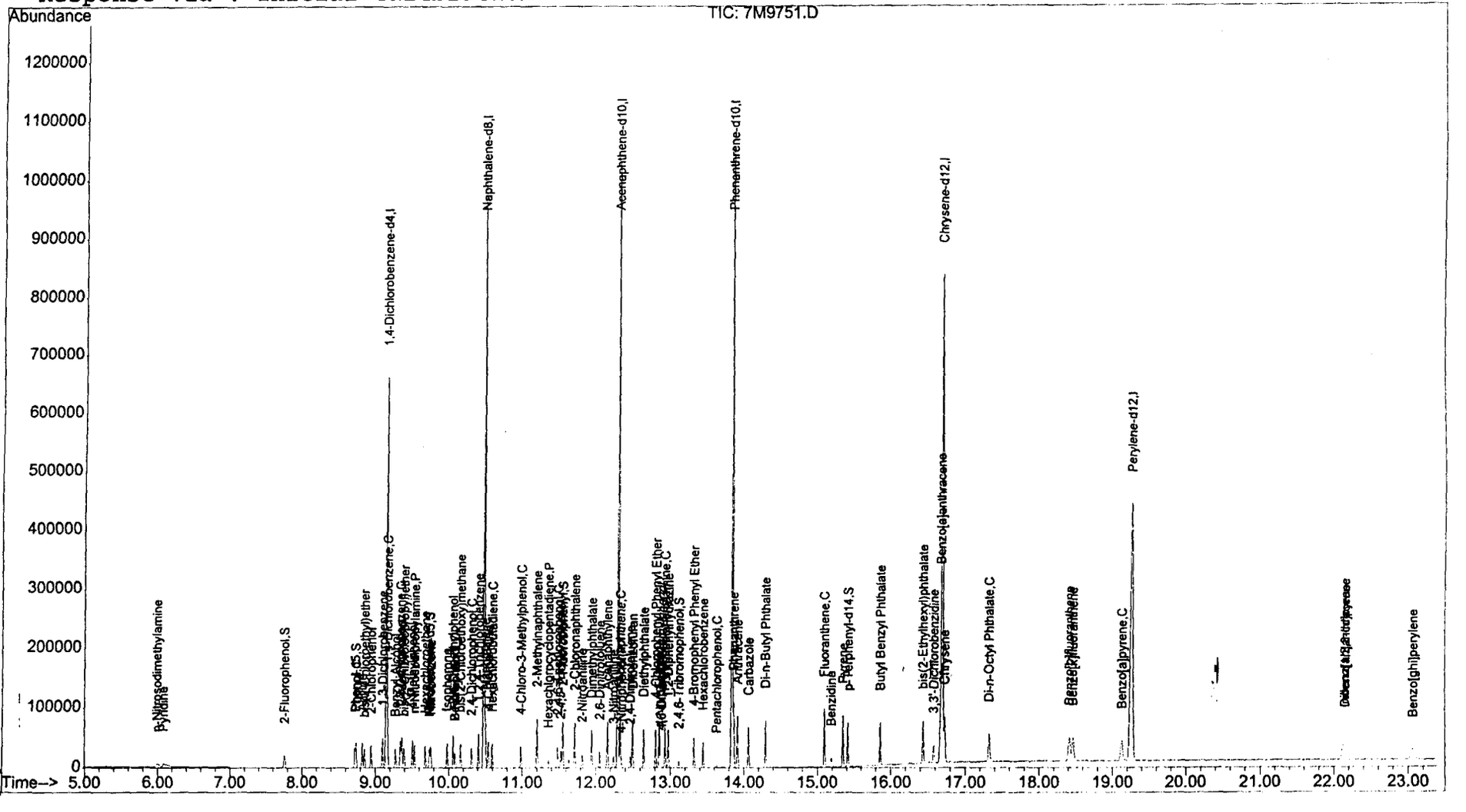
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) Chrysene	16.72	228	39525	3.36	ug/ml	99
75) bis(2-Ethylhexyl)phthalate	16.43	149	26423	3.12	ug/ml	97
77) Di-n-Octyl Phthalate	17.32	149	40365	2.42	ug/ml#	95
78) Benzo[b]fluoranthene	18.41	252	36552	3.00	ug/ml	96
79) Benzo[k]fluoranthene	18.46	252	34418	2.77	ug/ml#	83
80) Benzo[a]pyrene	19.12	252	32383	2.97	ug/ml	97
81) Indeno[1,2,3-cd]pyrene	22.13	276	32941	2.93	ug/ml#	98
82) Dibenz[ah]anthracene	22.13	278	26160	2.88	ug/ml	97
83) Benzo[ghi]perylene	23.06	276	27915	3.33	ug/ml	97

(#) = qualifier out of range (m) = manual integration

001958

Data File : C:\HPCHEM\1\DATA\091400\7M9751.D Vial: 3
Acq On : 14 Sep 2000 9:15 Operator: mdc
Sample : 3PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 9:38 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



001959

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9752.D
Acq On : 14 Sep 2000 9:47
Sample : 10PPM BNA STD
sc : WATER,1
Integration Params: rteint.p
Quant Time: Sep 14 10:11 2000

Vial: 4
Operator: mdc
Inst : HPMS7
Multiplr: 1.00
Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 09:49:47 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	117614	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	464751	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	256584	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	440512	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	363791	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	314597	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	39316	11.46	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 11.46%#			
6) Phenol-d5	8.72	99	46204	10.66	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 10.66%			
20) Nitrobenzene-d5	9.74	82	37566	8.40	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 16.80%#			
38) 2-Fluorobiphenyl	11.55	172	91007	8.86	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 17.72%#			
55) 2,4,6-Tribromophenol	13.11	330	7959	7.38	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 7.38%#			
70) p-Terphenyl-d14	15.41	244	96321	9.46	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 18.92%#			
Target Compounds						Qvalue
2) Pyridine	6.03	79	37767	11.26	ug/ml	99
3) n-Nitrosodimethylamine	5.99	74	22539	11.53	ug/ml#	97
5) Aniline	8.82	66	20819	10.98	ug/ml	99
7) Phenol	8.73	94	50846	10.80	ug/ml	99
8) bis(2-Chloroethyl)ether	8.85	63	26379	12.08	ug/ml	99
9) 2-Chlorophenol	8.94	128	42303	11.09	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	43292	9.52	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	50246	9.87	ug/ml	99
12) Benzyl Alcohol	9.27	108	21892	10.58	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	40917	9.49	ug/ml	100
14) 2-Methylphenol	9.36	107	32486	10.82	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	47134	15.24	ug/ml	98
16) 4-Methylphenol	9.50	107	47391	11.07	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	27999	10.05	ug/ml	98
18) Hexachloroethane	9.68	117	16369	9.26	ug/ml	98
21) Nitrobenzene	9.76	77	41420	8.90	ug/ml	98
22) Isophorone	9.97	82	67934	9.53	ug/ml	100
23) 2-Nitrophenol	10.08	139	20957	9.12	ug/ml	96
24) 2,4-Dimethylphenol	10.05	122	36452	10.21	ug/ml	99
25) bis(2-Chloroethoxy)methane	10.16	93	48346	10.22	ug/ml	99

(#) = qualifier out of range (m) = manual integration

001960

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9752.D Vial: 4
Acq On : 14 Sep 2000 9:47 Operator: mdc
Sample : 10PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 10:11 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 09:49:47 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	10.10	122	11352	6.57	ug/ml#	79
27) 2,4-Dichlorophenol	10.31	162	30799	8.41	ug/ml	98
28) 1,2,4-Trichlorobenzene	10.41	180	38079	8.26	ug/ml	99
29) Naphthalene	10.50	128	116436	8.73	ug/ml#	61
30) 4-Chloroaniline	10.54	127	49667	10.84	ug/ml	99
31) Hexachlorobutadiene	10.59	225	17512	5.80	ug/ml	99
32) 4-Chloro-3-Methylphenol	10.98	107	31825	8.59	ug/ml	98
33) 2-Methylnaphthalene	11.20	142	85208	8.77	ug/ml	100
35) Hexachlorocyclopentadiene	11.35	237	13881	6.50	ug/ml	98
36) 2,4,6-Trichlorophenol	11.48	196	21986	8.45	ug/ml	93
37) 2,4,5-Trichlorophenol	11.52	196	22842	8.37	ug/ml	100
39) 2-Chloronaphthalene	11.72	162	79454	9.86	ug/ml	100
40) 2-Nitroaniline	11.82	65	16976	8.48	ug/ml	97
41) Dimethylphthalate	11.95	163	88758	9.06	ug/ml	100
42) Acenaphthylene	12.15	152	125545	10.09	ug/ml	99
43) 2,6-Dinitrotoluene	12.05	165	17584	9.25	ug/ml	95
44) 3-Nitroaniline	12.24	138	17960	11.65	ug/ml	96
45) Acenaphthene	12.33	154	71204	8.51	ug/ml	97
46) 2,4-Dinitrophenol	12.34	184	2154	2.50	ug/ml#	1
47) 4-Nitrophenol	12.35	65	8738	6.13	ug/ml	98
48) Dibenzofuran	12.50	168	109852	9.39	ug/ml	100
49) 2,4-Dinitrotoluene	12.46	165	18718	8.11	ug/ml	94
50) Diethylphthalate	12.65	149	79289	8.46	ug/ml	99
51) Fluorene	12.85	166	81613	8.67	ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	12.81	204	42317	8.24	ug/ml	99
53) 4-Nitroaniline	12.87	138	17600	12.54	ug/ml	96
54) 1,2-Diphenylhydrazine	12.97	77	83367	8.80	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.89	198	6784	4.54	ug/ml	96
58) n-Nitrosodiphenylamine	12.93	169	64480	9.63	ug/ml	99
59) 4-Bromophenyl Phenyl Ether	13.32	248	23025	7.62	ug/ml	98
60) Hexachlorobenzene	13.44	284	20677	7.22	ug/ml	99
61) Pentachlorophenol	13.63	266	7418	4.97	ug/ml	98
62) Phenanthrene	13.86	178	134393	8.99	ug/ml	99
63) Anthracene	13.91	178	130529	9.01	ug/ml	99
64) Carbazole	14.06	167	111167	11.12	ug/ml	100
65) Di-n-Butyl Phthalate	14.29	149	142813	8.57	ug/ml	100
66) Fluoranthene	15.09	202	136885	8.27	ug/ml	100
68) Benzidine	15.18	184	40776	22.04	ug/ml	100
69) Pyrene	15.34	202	126983	10.20	ug/ml	99
71) Butyl Benzyl Phthalate	15.86	149	62386	10.91	ug/ml	99
72) Benzo[a]anthracene	16.67	228	126065	10.29	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9752.D Vial: 4
Acq On : 14 Sep 2000 9:47 Operator: mdc
Sample : 10PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 10:11 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 09:49:47 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	38359	12.78	ug/ml	98
74)	Chrysene	16.72	228	122090	10.37	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.43	149	85759	10.12	ug/ml	99
77)	Di-n-Octyl Phthalate	17.32	149	137583	8.46	ug/ml	98
78)	Benzo[b]fluoranthene	18.41	252	112486	9.32	ug/ml	98
79)	Benzo[k]fluoranthene	18.46	252	110943	9.20	ug/ml#	86
80)	Benzo[a]pyrene	19.13	252	103769	9.65	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	22.13	276	107110	9.63	ug/ml#	99
82)	Dibenz[ah]anthracene	22.14	278	86174	9.52	ug/ml	99
83)	Benzo[ghi]perylene	23.06	276	89537	10.64	ug/ml	99

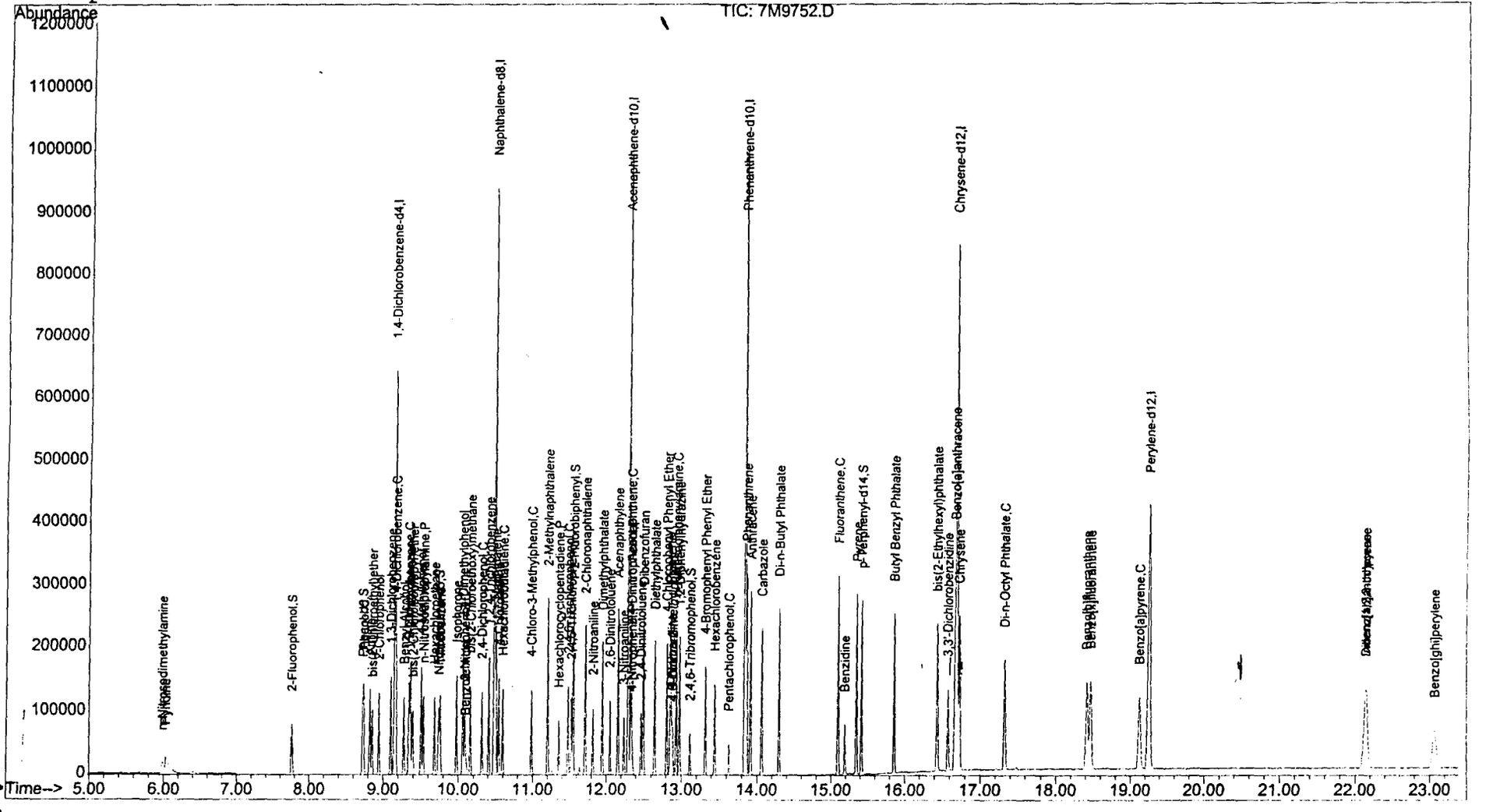
(#) = qualifier out of range (m) = manual integration

001962

Quantitation Report

Data File : C:\HPCHEM\1\DATA\091400\7M9752.D Vial: 4
Acq On : 14 Sep 2000 9:47 Operator: mdc
Sample : 10PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 10:11 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



001963

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9750.D Vial: 2
Acq On : 14 Sep 2000 8:43 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 9:13 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	125481	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	495829	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	275184	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	477196	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	400675	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	354542	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.75	112	210093	59.72	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 59.72%			
6) Phenol-d5	8.72	99	244853	55.17	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 55.17%			
20) Nitrobenzene-d5	9.74	82	209799	43.07	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 86.14%			
38) 2-Fluorobiphenyl	11.55	172	456434	42.54	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 85.08%			
55) 2,4,6-Tribromophenol	13.11	330	51379	42.91	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 42.91%			
70) p-Terphenyl-d14	15.41	244	498837	45.45	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 90.90%			
Target Compounds						Qvalue
2) Pyridine	6.00	79	213138	61.27	ug/ml	100
3) n-Nitrosodimethylamine	5.98	74	122920	64.33	ug/ml	100
5) Aniline	8.82	66	106082	53.60	ug/ml	100
7) Phenol	8.73	94	269027	56.17	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	133130	61.04	ug/ml	100
9) 2-Chlorophenol	8.94	128	222624	56.87	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	217789	45.41	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	250495	46.44	ug/ml	100
12) Benzyl Alcohol	9.27	108	124963	57.94	ug/ml	100
13) 1,2-Dichlorobenzene	9.34	146	206455	45.13	ug/ml	100
14) 2-Methylphenol	9.36	107	168880	55.61	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	234586	84.46	ug/ml	100
16) 4-Methylphenol	9.50	107	251961	57.59	ug/ml	100
17) n-Nitrosodipropylamine	9.54	70	150952	51.91	ug/ml	100
18) Hexachloroethane	9.68	117	86069	45.55	ug/ml	100
21) Nitrobenzene	9.75	77	220958	44.02	ug/ml	100
22) Isophorone	9.97	82	368062	49.40	ug/ml	100
23) 2-Nitrophenol	10.08	139	124468	51.57	ug/ml	100
24) 2,4-Dimethylphenol	10.05	122	189897	52.19	ug/ml	100
25) bis(2-Chloroethoxy)methane	10.16	93	247854	51.77	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9750.D Vial: 2
Acq On : 14 Sep 2000 8:43 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 9:13 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	10.12	122	110043	59.66 ug/ml#	100
27) 2,4-Dichlorophenol	10.31	162	172701	43.88 ug/ml	100
28) 1,2,4-Trichlorobenzene	10.41	180	192463	38.99 ug/ml	100
29) Naphthalene	10.50	128	582693	41.51 ug/ml#	62
30) 4-Chloroaniline	10.54	127	258841	55.55 ug/ml	100
31) Hexachlorobutadiene	10.59	225	89571	25.70 ug/ml	100
32) 4-Chloro-3-Methylphenol	10.98	107	182237	46.04 ug/ml	100
33) 2-Methylnaphthalene	11.20	142	432460	42.58 ug/ml	100
35) Hexachlorocyclopentadiene	11.35	237	100459	43.04 ug/ml	100
36) 2,4,6-Trichlorophenol	11.48	196	122989	43.90 ug/ml	93
37) 2,4,5-Trichlorophenol	11.52	196	131783	44.77 ug/ml	100
39) 2-Chloronaphthalene	11.72	162	405082	48.83 ug/ml	100
40) 2-Nitroaniline	11.82	65	105719	48.34 ug/ml	100
41) Dimethylphthalate	11.95	163	459591	44.23 ug/ml	100
42) Acenaphthylene	12.15	152	651301	51.00 ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	108053	52.54 ug/ml	100
44) 3-Nitroaniline	12.24	138	113409	71.70 ug/ml	100
45) Acenaphthene	12.33	154	370751	42.47 ug/ml	100
46) 2,4-Dinitrophenol	12.34	184	38718	41.92 ug/ml	100
47) 4-Nitrophenol	12.35	65	73449	48.08 ug/ml	100
48) Dibenzofuran	12.50	168	553638	45.65 ug/ml	100
49) 2,4-Dinitrotoluene	12.47	165	124021	48.74 ug/ml	100
50) Diethylphthalate	12.64	149	416661	41.56 ug/ml	100
51) Fluorene	12.85	166	420475	42.38 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.81	204	217970	39.90 ug/ml	100
53) 4-Nitroaniline	12.87	138	117251	82.68 ug/ml	100
54) 1,2-Diphenylhydrazine	12.97	77	436049	42.84 ug/ml	100
57) 4,6-Dinitro-2-Methylphenol	12.89	198	68671	42.39 ug/ml	100
58) n-Nitrosodiphenylamine	12.93	169	336666	48.03 ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	122209	36.95 ug/ml	100
60) Hexachlorobenzene	13.44	284	108027	33.88 ug/ml	100
61) Pentachlorophenol	13.63	266	71262	44.08 ug/ml	100
62) Phenanthrene	13.86	178	680293	43.13 ug/ml	99
63) Anthracene	13.91	178	678787	44.53 ug/ml	100
64) Carbazole	14.06	167	574321	55.52 ug/ml	100
65) Di-n-Butyl Phthalate	14.29	149	773720	43.59 ug/ml	100
66) Fluoranthene	15.09	202	716004	40.45 ug/ml	100
68) Benzidine	15.18	184	192784	112.94 ug/ml	100
69) Pyrene	15.34	202	652346	49.28 ug/ml	100
71) Butyl Benzyl Phthalate	15.86	149	353602	59.13 ug/ml	100
72) Benzo[a]anthracene	16.67	228	656936	49.88 ug/ml	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9750.D Vial: 2
Acq On : 14 Sep 2000 8:43 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 9:13 2000 Quant Results File: BNA.RES

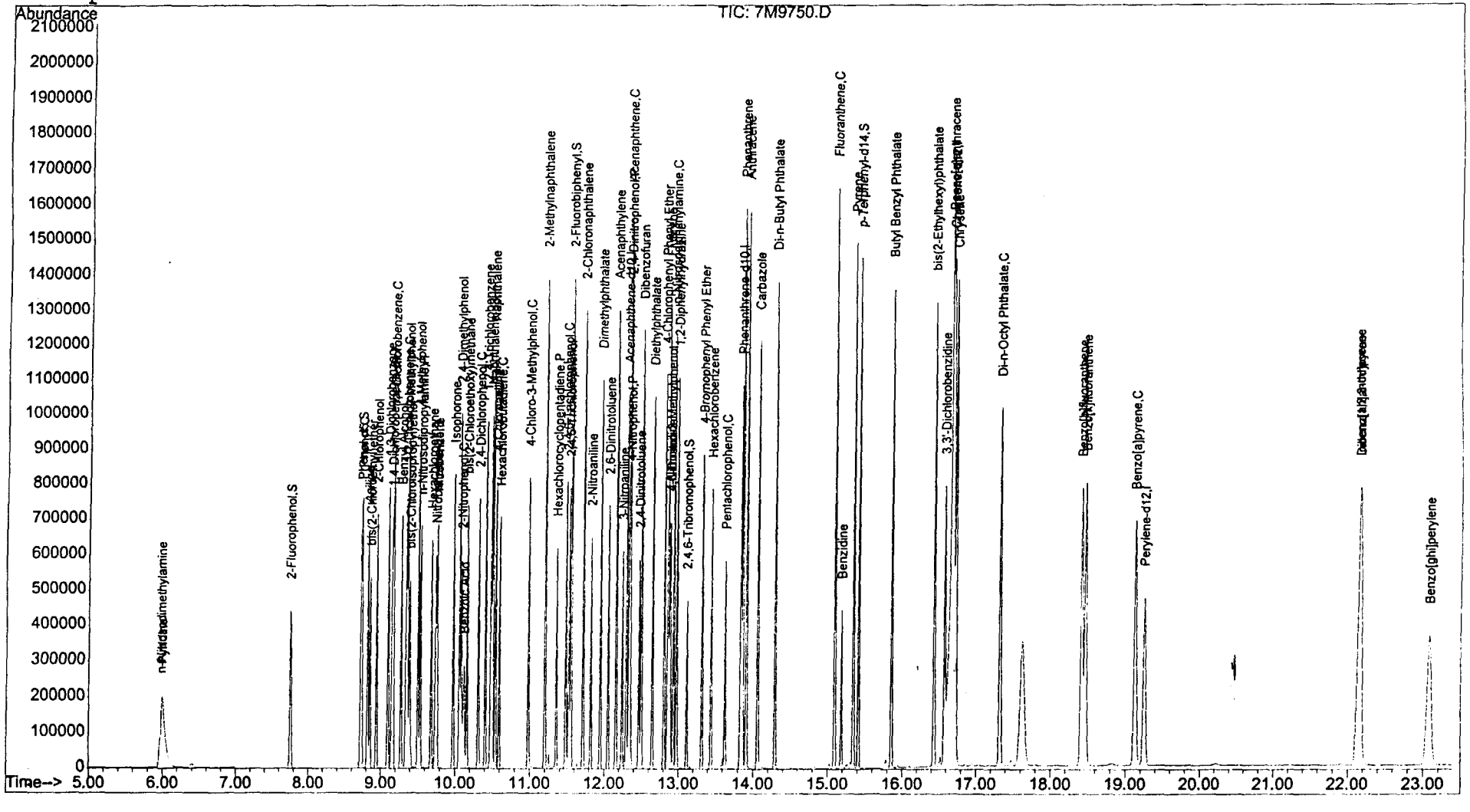
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/11/00
Last Update : Thu Sep 14 09:13:01 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	16.58	252	216298	68.93	ug/ml	100
74) Chrysene	16.73	228	635515	50.34	ug/ml	100
75) bis(2-Ethylhexyl)phthalate	16.43	149	491263	54.05	ug/ml	100
77) Di-n-Octyl Phthalate	17.32	149	828401	45.09	ug/ml	100
78) Benzo[b]fluoranthene	18.41	252	618787	46.15	ug/ml	98
79) Benzo[k]fluoranthene	18.47	252	601181	43.98	ug/ml#	87
80) Benzo[a]pyrene	19.12	252	582822	48.54	ug/ml	99
81) Indeno[1,2,3-cd]pyrene	22.15	276	634664	51.23	ug/ml#	100
82) Dibenz[ah]anthracene	22.15	278	514474	51.42	ug/ml	100
83) Benzo[ghi]perylene	23.08	276	523136	56.70	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9750.D Vial: 2
Acq On : 14 Sep 2000 8:43 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 9:13 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



001967

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9753.D
Acq On : 14 Sep 2000 10:19
Sample : 20PPM BNA STD
Misc : WATER,1
Integration Params: rteint.p
Quant Time: Sep 14 10:42 2000

Vial: 5
Operator: mdc
Inst : HPMS7
Multiplr: 1.00
Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 10:23:33 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	119059	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	465205	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	259346	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	445358	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	367838	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	321160	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	76760	21.11	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 21.11%			
6) Phenol-d5	8.72	99	90919	19.82	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 19.82%			
20) Nitrobenzene-d5	9.74	82	75609	17.15	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 34.30%#			
38) 2-Fluorobiphenyl	11.55	172	173636	16.49	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 32.98%#			
55) 2,4,6-Tribromophenol	13.11	330	16901	15.65	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 15.65%			
70) p-Terphenyl-d14	15.41	244	185514	17.62	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 35.24%			
Target Compounds						Qvalue
2) Pyridine	6.02	79	76811	21.85	ug/ml	100
3) n-Nitrosodimethylamine	5.98	74	44454	21.55	ug/ml	100
5) Aniline	8.82	66	40289	20.44	ug/ml	99
7) Phenol	8.73	94	100348	20.07	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	50224	21.23	ug/ml	98
9) 2-Chlorophenol	8.94	128	82331	20.44	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	82520	17.72	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	95022	18.10	ug/ml	99
12) Benzyl Alcohol	9.27	108	45537	20.77	ug/ml	100
13) 1,2-Dichlorobenzene	9.34	146	77581	17.59	ug/ml	99
14) 2-Methylphenol	9.36	107	64430	20.25	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	89825	25.09	ug/ml	98
16) 4-Methylphenol	9.50	107	93131	20.28	ug/ml	98
17) n-Nitrosodipropylamine	9.54	70	55716	19.19	ug/ml	99
18) Hexachloroethane	9.68	117	31972	17.86	ug/ml	99
21) Nitrobenzene	9.75	77	81532	17.59	ug/ml	98
22) Isophorone	9.97	82	134505	18.52	ug/ml	100
23) 2-Nitrophenol	10.08	139	42817	18.37	ug/ml	95
24) 2,4-Dimethylphenol	10.05	122	71938	19.23	ug/ml	99
25) bis(2-Chloroethoxy)methane	10.15	93	93331	18.86	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9753.D Vial: 5
Acq On : 14 Sep 2000 10:19 Operator: mdc
Sample : 20PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 10:42 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 10:23:33 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	10.10	122	28445	15.83	ug/ml#	90
27)	2,4-Dichlorophenol	10.31	162	61728	16.89	ug/ml	99
28)	1,2,4-Trichlorobenzene	10.41	180	72885	15.97	ug/ml	100
29)	Naphthalene	10.50	128	221579	16.46	ug/ml#	61
30)	4-Chloroaniline	10.54	127	96401	20.05	ug/ml	99
31)	Hexachlorobutadiene	10.59	225	33411	11.95	ug/ml	99
32)	4-Chloro-3-Methylphenol	10.98	107	65203	17.49	ug/ml	98
33)	2-Methylnaphthalene	11.20	142	164282	16.62	ug/ml	100
35)	Hexachlorocyclopentadiene	11.36	237	30667	14.36	ug/ml	99
36)	2,4,6-Trichlorophenol	11.48	196	43836	16.70	ug/ml	94
37)	2,4,5-Trichlorophenol	11.52	196	46866	17.02	ug/ml	99
39)	2-Chloronaphthalene	11.71	162	152135	17.98	ug/ml	100
40)	2-Nitroaniline	11.82	65	36117	17.91	ug/ml	99
41)	Dimethylphthalate	11.94	163	171723	17.10	ug/ml	99
42)	Acenaphthylene	12.16	152	242456	18.48	ug/ml	100
43)	2,6-Dinitrotoluene	12.05	165	37091	18.99	ug/ml	98
44)	3-Nitroaniline	12.24	138	38131	22.86	ug/ml	98
45)	Acenaphthene	12.33	154	136391	15.76	ug/ml	98
46)	2,4-Dinitrophenol	12.34	184	7232	8.23	ug/ml#	1
47)	4-Nitrophenol	12.35	65	21720	15.09	ug/ml	96
48)	Dibenzofuran	12.49	168	210751	17.33	ug/ml	100
49)	2,4-Dinitrotoluene	12.46	165	40978	17.72	ug/ml	97
50)	Diethylphthalate	12.64	149	154489	16.30	ug/ml	100
51)	Fluorene	12.85	166	156427	16.16	ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	12.80	204	82733	15.94	ug/ml	100
53)	4-Nitroaniline	12.87	138	38693	24.98	ug/ml	98
54)	1,2-Diphenylhydrazine	12.97	77	162685	17.04	ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.88	198	18152	12.22	ug/ml	96
58)	n-Nitrosodiphenylamine	12.93	169	125097	17.85	ug/ml	100
59)	4-Bromophenyl Phenyl Ether	13.32	248	44804	14.89	ug/ml	99
60)	Hexachlorobenzene	13.44	284	39760	14.05	ug/ml	99
61)	Pentachlorophenol	13.63	266	19078	12.78	ug/ml	98
62)	Phenanthrene	13.86	178	258168	16.69	ug/ml	99
63)	Anthracene	13.91	178	254863	16.99	ug/ml	99
64)	Carbazole	14.06	167	215099	20.30	ug/ml	100
65)	Di-n-Butyl Phthalate	14.29	149	280905	16.41	ug/ml	100
66)	Fluoranthene	15.09	202	267965	15.87	ug/ml	100
68)	Benzidine	15.18	184	80529	35.77	ug/ml	100
69)	Pyrene	15.34	202	245692	18.90	ug/ml	100
71)	Butyl Benzyl Phthalate	15.85	149	125812	20.67	ug/ml	100
72)	Benzo[a]anthracene	16.67	228	241978	19.03	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9753.D Vial: 5
Acq On : 14 Sep 2000 10:19 Operator: mdc
Sample : 20PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 10:42 2000 Quant Results File: BNA.RES

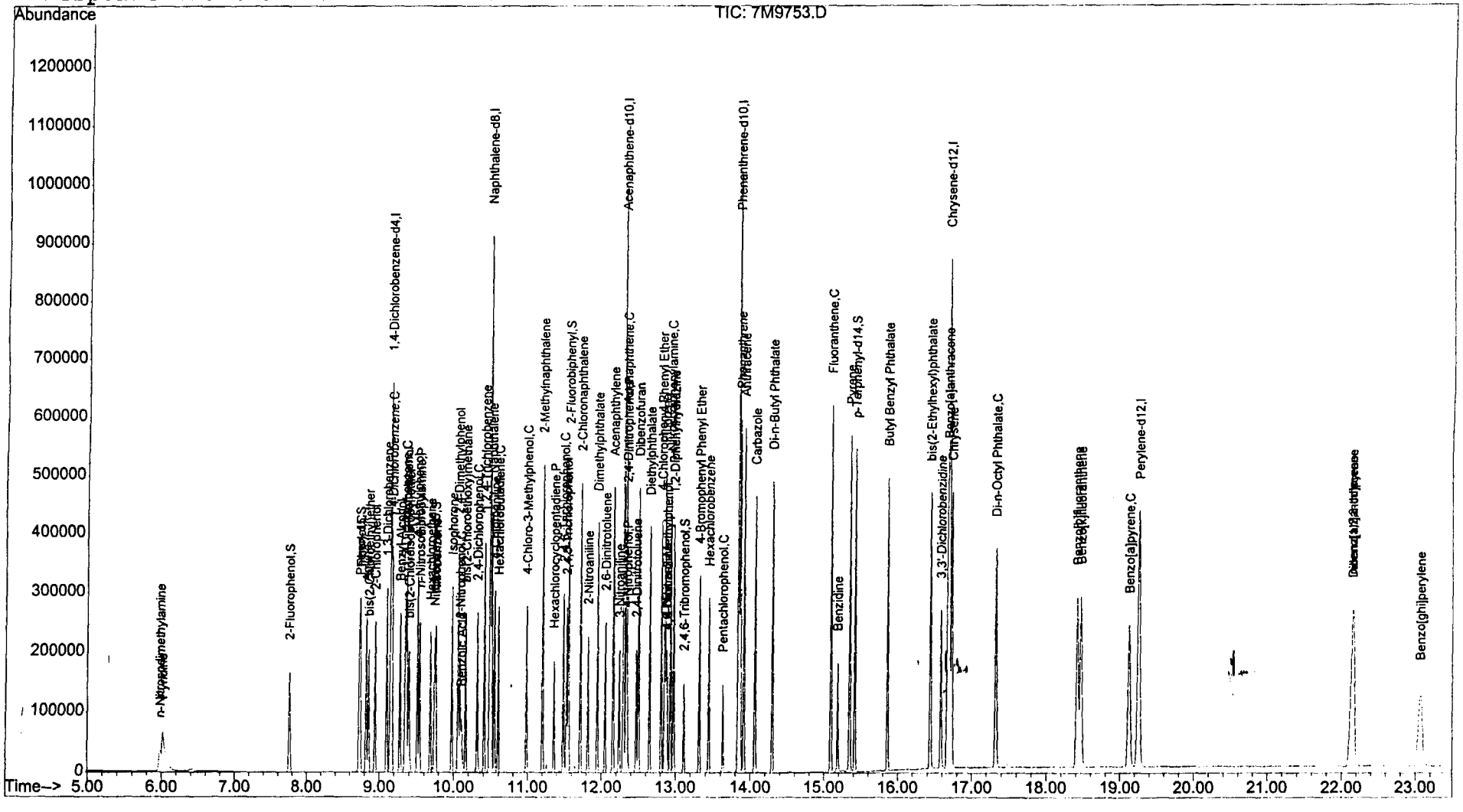
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 10:23:33 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	77439	24.07	ug/ml	100
74)	Chrysene	16.73	228	236267	19.25	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.44	149	173948	19.60	ug/ml	99
77)	Di-n-Octyl Phthalate	17.32	149	284052	17.00	ug/ml	99
78)	Benzo[b]fluoranthene	18.41	252	214740	17.26	ug/ml	96
79)	Benzo[k]fluoranthene	18.46	252	221469	17.85	ug/ml#	88
80)	Benzo[a]pyrene	19.12	252	205235	18.44	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.14	276	217301	18.74	ug/ml#	99
82)	Dibenz[ah]anthracene	22.14	278	175977	18.65	ug/ml	99
83)	Benzo[ghi]perylene	23.07	276	179854	20.29	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9753.D Vial: 5
Acq On : 14 Sep 2000 10:19 Operator: mdc
Sample : 20PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 10:42 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9754.D Vial: 6
Acq On : 14 Sep 2000 10:51 Operator: mdc
Sample : 80PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Sep 14 11:15 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:02:02 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	121096	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	478799	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	267652	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	460950	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	385943	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	339946	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	328836	85.69	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 85.69%			
6) Phenol-d5	8.72	99	383454	79.71	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 79.71%			
20) Nitrobenzene-d5	9.74	82	326093	73.37	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 146.74%#			
38) 2-Fluorobiphenyl	11.55	172	691018	63.27	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 126.54%#			
55) 2,4,6-Tribromophenol	13.11	330	80054	72.83	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 72.83%			
70) p-Terphenyl-d14	15.41	244	764744	68.63	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 137.26%			
Target Compounds						Qvalue
2) Pyridine	6.00	79	329453	89.35	ug/ml	99
3) n-Nitrosodimethylamine	5.98	74	188811	86.48	ug/ml	99
5) Aniline	8.82	66	163661	79.26	ug/ml	98
7) Phenol	8.73	94	415937	78.76	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	206294	81.64	ug/ml	98
9) 2-Chlorophenol	8.94	128	344114	81.11	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	335867	70.86	ug/ml	99
11) 1,4-Dichlorobenzene	9.17	146	386018	71.92	ug/ml	100
12) Benzyl Alcohol	9.27	108	201758	87.44	ug/ml	100
13) 1,2-Dichlorobenzene	9.34	146	317481	70.69	ug/ml	99
14) 2-Methylphenol	9.36	107	263023	78.55	ug/ml	100
15) bis(2-Chloroisopropyl)ethe	9.39	45	364328	89.75	ug/ml	99
16) 4-Methylphenol	9.51	107	390519	80.26	ug/ml	99
17) n-Nitrosodipropylamine	9.53	70	233483	77.66	ug/ml	99
18) Hexachloroethane	9.68	117	133716	73.71	ug/ml	100
21) Nitrobenzene	9.76	77	340756	72.12	ug/ml	100
22) Isophorone	9.97	82	565792	74.92	ug/ml	100
23) 2-Nitrophenol	10.08	139	194931	80.28	ug/ml#	84
24) 2,4-Dimethylphenol	10.06	122	309276	77.71	ug/ml	97
25) bis(2-Chloroethoxy)methane	10.16	93	381531	72.34	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9754.D Vial: 6
Acq On : 14 Sep 2000 10:51 Operator: mdc
Sample : 80PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 11:15 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:02:02 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	10.13	122	167137	88.76	ug/ml#	98
27) 2,4-Dichlorophenol	10.31	162	269165	72.09	ug/ml	100
28) 1,2,4-Trichlorobenzene	10.41	180	297364	64.49	ug/ml	99
29) Naphthalene	10.50	128	892393	64.51	ug/ml#	62
30) 4-Chloroaniline	10.54	127	399493	77.49	ug/ml	100
31) Hexachlorobutadiene	10.59	225	137836	52.27	ug/ml	99
32) 4-Chloro-3-Methylphenol	10.98	107	283115	73.75	ug/ml	100
33) 2-Methylnaphthalene	11.20	142	657962	64.18	ug/ml	100
35) Hexachlorocyclopentadiene	11.36	237	161006	75.36	ug/ml	99
36) 2,4,6-Trichlorophenol	11.48	196	190293	70.42	ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	207634	73.49	ug/ml	99
39) 2-Chloronaphthalene	11.71	162	619128	69.25	ug/ml	100
40) 2-Nitroaniline	11.82	65	165193	79.78	ug/ml	100
41) Dimethylphthalate	11.95	163	703122	67.48	ug/ml	100
42) Acenaphthylene	12.16	152	990441	70.92	ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	168115	81.92	ug/ml	100
44) 3-Nitroaniline	12.24	138	175130	95.04	ug/ml	100
45) Acenaphthene	12.33	154	568478	63.29	ug/ml	99
46) 2,4-Dinitrophenol	12.34	184	67344	76.47	ug/ml	76
47) 4-Nitrophenol	12.35	65	116190	78.50	ug/ml	99
48) Dibenzofuran	12.50	168	848087	66.43	ug/ml	100
49) 2,4-Dinitrotoluene	12.47	165	194131	81.57	ug/ml	99
50) Diethylphthalate	12.65	149	636559	65.24	ug/ml	100
51) Fluorene	12.85	166	638350	63.64	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.80	204	337348	63.26	ug/ml	99
53) 4-Nitroaniline	12.88	138	179005	103.61	ug/ml	99
54) 1,2-Diphenylhydrazine	12.98	77	669580	68.24	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.89	198	114749	76.57	ug/ml	99
58) n-Nitrosodiphenylamine	12.93	169	516151	69.57	ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	187889	61.79	ug/ml	100
60) Hexachlorobenzene	13.45	284	167137	58.98	ug/ml	100
61) Pentachlorophenol	13.63	266	113670	75.04	ug/ml	100
62) Phenanthrene	13.86	178	1033308	63.88	ug/ml	99
63) Anthracene	13.91	178	1025606	65.14	ug/ml	100
64) Carbazole	14.06	167	862996	75.71	ug/ml	99
65) Di-n-Butyl Phthalate	14.29	149	1183146	66.42	ug/ml	100
66) Fluoranthene	15.10	202	1077512	61.74	ug/ml	99
68) Benzidine	15.19	184	295699	100.85	ug/ml	100
69) Pyrene	15.35	202	989194	71.15	ug/ml	99
71) Butyl Benzyl Phthalate	15.86	149	540869	81.04	ug/ml	100
72) Benzo[a]anthracene	16.67	228	1006363	74.02	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9754.D Vial: 6
Acq On : 14 Sep 2000 10:51 Operator: mdc
Sample : 80PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 11:15 2000 Quant Results File: BNA.RES

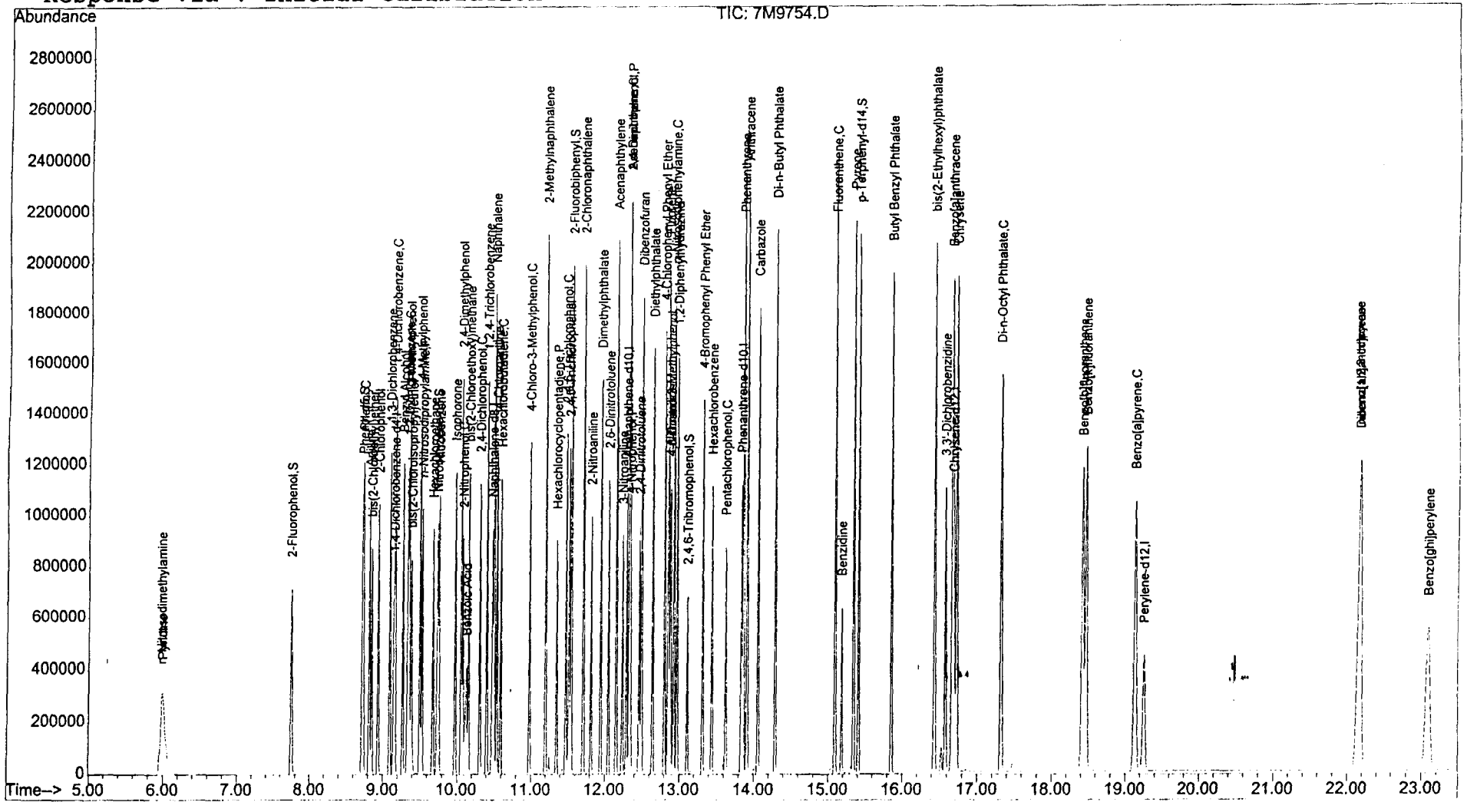
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:02:02 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	322169	89.24	ug/ml	100
74)	Chrysene	16.73	228	971287	73.66	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.44	149	754839	78.72	ug/ml	100
77)	Di-n-Octyl Phthalate	17.33	149	1274605	72.26	ug/ml	100
78)	Benzo[b]fluoranthene	18.42	252	947224	72.15	ug/ml	98
79)	Benzo[k]fluoranthene	18.47	252	927972	70.59	ug/ml#	86
80)	Benzo[a]pyrene	19.13	252	899207	75.80	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.17	276	988192	79.44	ug/ml#	100
82)	Dibenz[ah]anthracene	22.17	278	800995	78.89	ug/ml	100
83)	Benzo[ghi]perylene	23.09	276	816665	84.66	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9754.D Vial: 6
Acq On : 14 Sep 2000 10:51 Operator: mdc
Sample : 80PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 11:15 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9755.D Vial: 7
Acq On : 14 Sep 2000 11:23 Operator: mdc
Sample : 100PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 11:47 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	124444	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	492610	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	274901	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	476500	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	394842	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	350517	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	423938	102.07	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 102.07%#			
6) Phenol-d5	8.72	99	490662	100.85	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 100.85%#			
20) Nitrobenzene-d5	9.74	82	417536	102.72	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 205.44%#			
38) 2-Fluorobiphenyl	11.56	172	877587	92.69	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 185.38%#			
55) 2,4,6-Tribromophenol	13.12	330	104144	116.44	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 116.44%			
70) p-Terphenyl-d14	15.41	244	964343	94.43	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 188.86%#			
Target Compounds						Qvalue
2) Pyridine	6.00	79	424916	107.08	ug/ml	99
3) n-Nitrosodimethylamine	5.98	74	243892	102.15	ug/ml	100
5) Aniline	8.82	66	205790	96.50	ug/ml	100
7) Phenol	8.73	94	530660	99.26	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	263297	96.62	ug/ml	99
9) 2-Chlorophenol	8.94	128	442857	100.05	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	430450	95.94	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	489170	94.81	ug/ml	100
12) Benzyl Alcohol	9.27	108	261959	111.72	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	405422	95.71	ug/ml	100
14) 2-Methylphenol	9.36	107	336705	98.90	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	461506	95.19	ug/ml	99
16) 4-Methylphenol	9.51	107	499822	101.53	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	300757	101.70	ug/ml	99
18) Hexachloroethane	9.68	117	171062	99.69	ug/ml	100
21) Nitrobenzene	9.76	77	434061	99.17	ug/ml	100
22) Isophorone	9.97	82	724249	100.62	ug/ml	100
23) 2-Nitrophenol	10.08	139	252263	109.04	ug/ml#	85
24) 2,4-Dimethylphenol	10.06	122	394985	102.51	ug/ml	97
25) bis(2-Chloroethoxy)methane	10.16	93	486440	96.67	ug/ml#	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9755.D Vial: 7
Acq On : 14 Sep 2000 11:23 Operator: mdc
Sample : 100PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 11:47 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	10.14	122	227833	129.35 ug/ml#	98
27) 2,4-Dichlorophenol	10.31	162	344249	103.64 ug/ml	100
28) 1,2,4-Trichlorobenzene	10.41	180	378551	95.28 ug/ml	100
29) Naphthalene	10.50	128	1132156	93.68 ug/ml#	62
30) 4-Chloroaniline	10.54	127	506823	98.48 ug/ml	100
31) Hexachlorobutadiene	10.59	225	174967	95.73 ug/ml	99
32) 4-Chloro-3-Methylphenol	10.98	107	363530	105.99 ug/ml	100
33) 2-Methylnaphthalene	11.20	142	837014	94.44 ug/ml	99
35) Hexachlorocyclopentadiene	11.35	237	209947	127.04 ug/ml	100
36) 2,4,6-Trichlorophenol	11.48	196	243773	103.99 ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	261821	104.56 ug/ml	99
39) 2-Chloronaphthalene	11.72	162	785861	94.90 ug/ml	100
40) 2-Nitroaniline	11.82	65	212251	111.77 ug/ml	99
41) Dimethylphthalate	11.95	163	894434	96.08 ug/ml	100
42) Acenaphthylene	12.16	152	1256857	95.87 ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	219094	112.53 ug/ml	99
44) 3-Nitroaniline	12.24	138	227648	113.73 ug/ml	99
45) Acenaphthene	12.33	154	720258	95.85 ug/ml	99
46) 2,4-Dinitrophenol	12.34	184	96611	171.58 ug/ml#	56
47) 4-Nitrophenol	12.35	65	146838	107.17 ug/ml	95
48) Dibenzofuran	12.50	168	1070823	93.38 ug/ml	100
49) 2,4-Dinitrotoluene	12.47	165	251987	117.19 ug/ml	99
50) Diethylphthalate	12.65	149	811435	96.88 ug/ml	100
51) Fluorene	12.85	166	811307	95.05 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.81	204	429306	95.78 ug/ml	99
53) 4-Nitroaniline	12.88	138	232647	117.15 ug/ml	98
54) 1,2-Diphenylhydrazine	12.98	77	849547	96.76 ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.89	198	157344	138.05 ug/ml	96
58) n-Nitrosodiphenylamine	12.93	169	653928	95.34 ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	239886	96.94 ug/ml	100
60) Hexachlorobenzene	13.45	284	214022	97.42 ug/ml	99
61) Pentachlorophenol	13.63	266	151566	128.58 ug/ml	99
62) Phenanthrene	13.86	178	1297812	91.56 ug/ml	99
63) Anthracene	13.91	178	1293566	93.44 ug/ml	99
64) Carbazole	14.06	167	1087257	92.66 ug/ml	99
65) Di-n-Butyl Phthalate	14.30	149	1487505	97.38 ug/ml	100
66) Fluoranthene	15.10	202	1367128	93.96 ug/ml	99
68) Benzidine	15.19	184	369710	89.92 ug/ml	100
69) Pyrene	15.35	202	1249407	93.41 ug/ml	100
71) Butyl Benzyl Phthalate	15.86	149	685136	100.34 ug/ml	100
72) Benzo[a]anthracene	16.67	228	1274698	95.09 ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9755.D Vial: 7
Acq On : 14 Sep 2000 11:23 Operator: mdc
Sample : 100PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
} Integration Params: rteint.p
Quant Time: Sep 14 11:47 2000 Quant Results File: BNA.RES

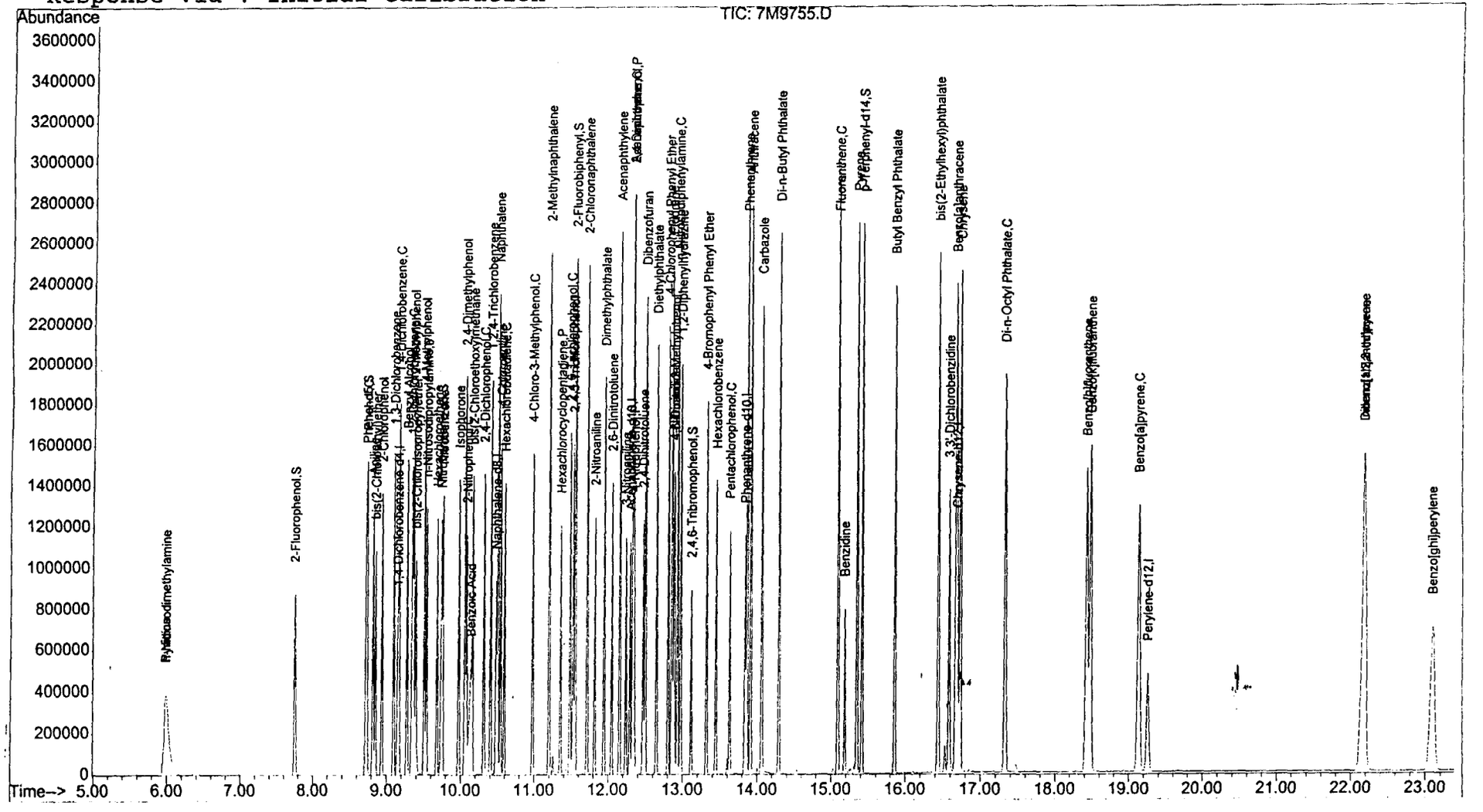
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	414964	99.68	ug/ml	99
74)	Chrysene	16.73	228	1232943	95.13	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.44	149	959453	101.45	ug/ml	100
77)	Di-n-Octyl Phthalate	17.32	149	1625607	103.79	ug/ml	100
78)	Benzo[b]fluoranthene	18.43	252	1230279	99.25	ug/ml	99
79)	Benzo[k]fluoranthene	18.48	252	1151537	94.70	ug/ml#	85
80)	Benzo[a]pyrene	19.14	252	1150543	100.04	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.18	276	1279057	104.75	ug/ml#	100
82)	Dibenz[ah]anthracene	22.18	278	1030367	104.69	ug/ml	100
83)	Benzo[ghi]perylene	23.10	276	1058464	104.18	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9755.D Vial: 7
Acq On : 14 Sep 2000 11:23 Operator: mdc
Sample : 100PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 11:47 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



001979

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9756.D Vial: 8
Acq On : 14 Sep 2000 11:55 Operator: mdc
Sample : 120PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:19 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	118031	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	464639	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	259880	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	450445	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	370629	40.00	ug/ml	0.00
76) Perylene-d12	19.26	264	326758	40.00	ug/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	489096	124.16	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 124.16%#			
6) Phenol-d5	8.72	99	567877	123.06	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 123.06%#			
20) Nitrobenzene-d5	9.74	82	484515	126.37	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 252.74%#			
38) 2-Fluorobiphenyl	11.56	172	995079	111.18	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 222.36%#			
55) 2,4,6-Tribromophenol	13.12	330	121009	143.12	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 143.12%#			
70) p-Terphenyl-d14	15.42	244	1095103	114.24	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 228.48%#			
Target Compounds						Qvalue
2) Pyridine	6.00	79	495856	131.75	ug/ml	100
3) n-Nitrosodimethylamine	5.98	74	283036	124.99	ug/ml	100
5) Aniline	8.82	66	237217	117.28	ug/ml	99
7) Phenol	8.74	94	612446	120.78	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	304970	117.99	ug/ml	99
9) 2-Chlorophenol	8.94	128	509804	121.43	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	493691	116.01	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	565463	115.56	ug/ml	100
12) Benzyl Alcohol	9.27	108	303385	136.42	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	465780	115.94	ug/ml	100
14) 2-Methylphenol	9.36	107	385742	119.46	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	531445	115.57	ug/ml	100
16) 4-Methylphenol	9.51	107	575176	123.19	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	344443	122.80	ug/ml	99
18) Hexachloroethane	9.68	117	197504	121.35	ug/ml	99
21) Nitrobenzene	9.76	77	500818	121.31	ug/ml	99
22) Isophorone	9.98	82	833640	122.78	ug/ml	100
23) 2-Nitrophenol	10.08	139	294228	134.84	ug/ml#	85
24) 2,4-Dimethylphenol	10.06	122	452659	124.55	ug/ml	97
25) bis(2-Chloroethoxy)methane	10.16	93	561302	118.26	ug/ml#	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9756.D Vial: 8
Acq On : 14 Sep 2000 11:55 Operator: mdc
Sample : 120PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:19 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	10.14	122	271426	163.38	ug/ml#	100
27) 2,4-Dichlorophenol	10.32	162	399027	127.36	ug/ml	100
28) 1,2,4-Trichlorobenzene	10.41	180	434175	115.86	ug/ml	100
29) Naphthalene	10.50	128	1294202	113.53	ug/ml#	62
30) 4-Chloroaniline	10.54	127	584628	120.44	ug/ml	100
31) Hexachlorobutadiene	10.59	225	203382	117.97	ug/ml	99
32) 4-Chloro-3-Methylphenol	10.98	107	418818	129.46	ug/ml	100
33) 2-Methylnaphthalene	11.20	142	954846	114.22	ug/ml	100
35) Hexachlorocyclopentadiene	11.36	237	245371	157.06	ug/ml	100
36) 2,4,6-Trichlorophenol	11.48	196	280379	126.52	ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	303281	128.12	ug/ml	99
39) 2-Chloronaphthalene	11.72	162	899877	114.95	ug/ml	100
40) 2-Nitroaniline	11.82	65	245413	136.70	ug/ml	99
41) Dimethylphthalate	11.95	163	1017976	115.67	ug/ml	100
42) Acenaphthylene	12.16	152	1430410	115.42	ug/ml	99
43) 2,6-Dinitrotoluene	12.06	165	253990	138.00	ug/ml	98
44) 3-Nitroaniline	12.24	138	262912	138.94	ug/ml	100
45) Acenaphthene	12.34	154	821643	115.66	ug/ml	98
46) 2,4-Dinitrophenol	12.34	184	117258	220.29	ug/ml#	46
47) 4-Nitrophenol	12.35	65	172032	132.82	ug/ml	95
48) Dibenzofuran	12.50	168	1217582	112.32	ug/ml	100
49) 2,4-Dinitrotoluene	12.47	165	291944	143.63	ug/ml	100
50) Diethylphthalate	12.65	149	923850	116.67	ug/ml	100
51) Fluorene	12.85	166	920918	114.13	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.81	204	485333	114.54	ug/ml	99
53) 4-Nitroaniline	12.89	138	271020	144.36	ug/ml	99
54) 1,2-Diphenylhydrazine	12.98	77	966429	116.43	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.89	198	184327	171.08	ug/ml	96
58) n-Nitrosodiphenylamine	12.93	169	746427	115.12	ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	276081	118.01	ug/ml	99
60) Hexachlorobenzene	13.45	284	244447	117.70	ug/ml	99
61) Pentachlorophenol	13.63	266	176654	158.54	ug/ml	100
62) Phenanthrene	13.86	178	1479163	110.39	ug/ml	99
63) Anthracene	13.92	178	1471553	112.44	ug/ml	99
64) Carbazole	14.06	167	1248513	112.55	ug/ml	98
65) Di-n-Butyl Phthalate	14.30	149	1682766	116.54	ug/ml	100
66) Fluoranthene	15.10	202	1550429	112.72	ug/ml	99
68) Benzidine	15.19	184	429659	111.32	ug/ml	100
69) Pyrene	15.35	202	1419281	113.04	ug/ml	99
71) Butyl Benzyl Phthalate	15.86	149	781781	121.98	ug/ml	99
72) Benzo[a]anthracene	16.67	228	1451082	115.32	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9756.D Vial: 8
Acq On : 14 Sep 2000 11:55 Operator: mdc
Sample : 120PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:19 2000 Quant Results File: BNA.RES

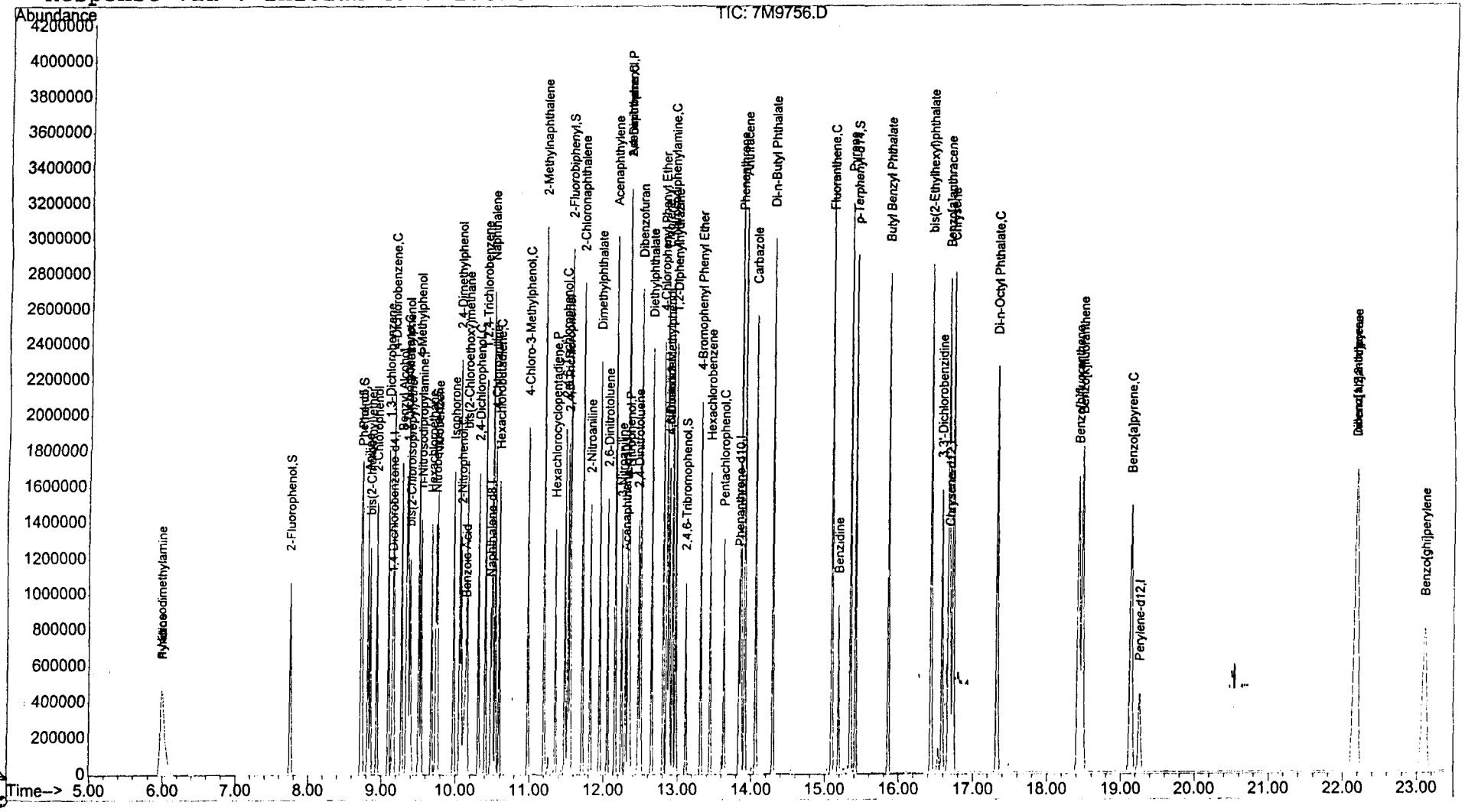
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 11:21:19 2000
Response via : Initial Calibration
DataAcq Meth : BNA

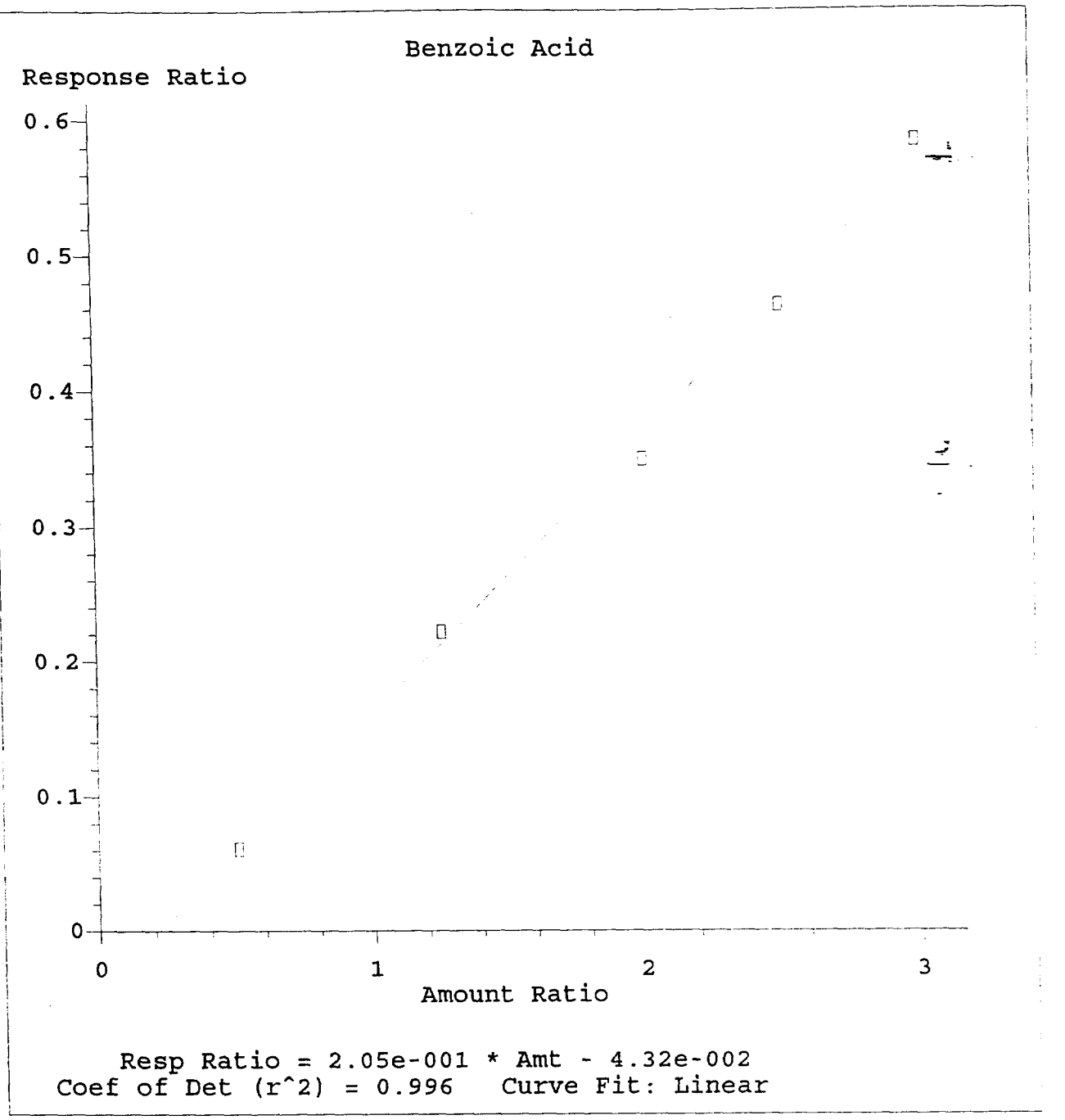
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	480433	122.94	ug/ml	100
74)	Chrysene	16.73	228	1402650	115.29	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.44	149	1090197	122.80	ug/ml	100
77)	Di-n-Octyl Phthalate	17.33	149	1833044	125.54	ug/ml	100
78)	Benzo[b]fluoranthene	18.43	252	1385166	119.86	ug/ml	98
79)	Benzo[k]fluoranthene	18.48	252	1343320	118.50	ug/ml#	86
80)	Benzo[a]pyrene	19.14	252	1313197	122.48	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.19	276	1443577	126.82	ug/ml#	99
82)	Dibenz[ah]anthracene	22.18	278	1168457	127.35	ug/ml	100
83)	Benzo[ghi]perylene	23.10	276	1192514	125.91	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9756.D Vial: 8
Acq On : 14 Sep 2000 11:55 Operator: mdc
Sample : 120PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 12:19 2000 Quant Results File: BNA.RES

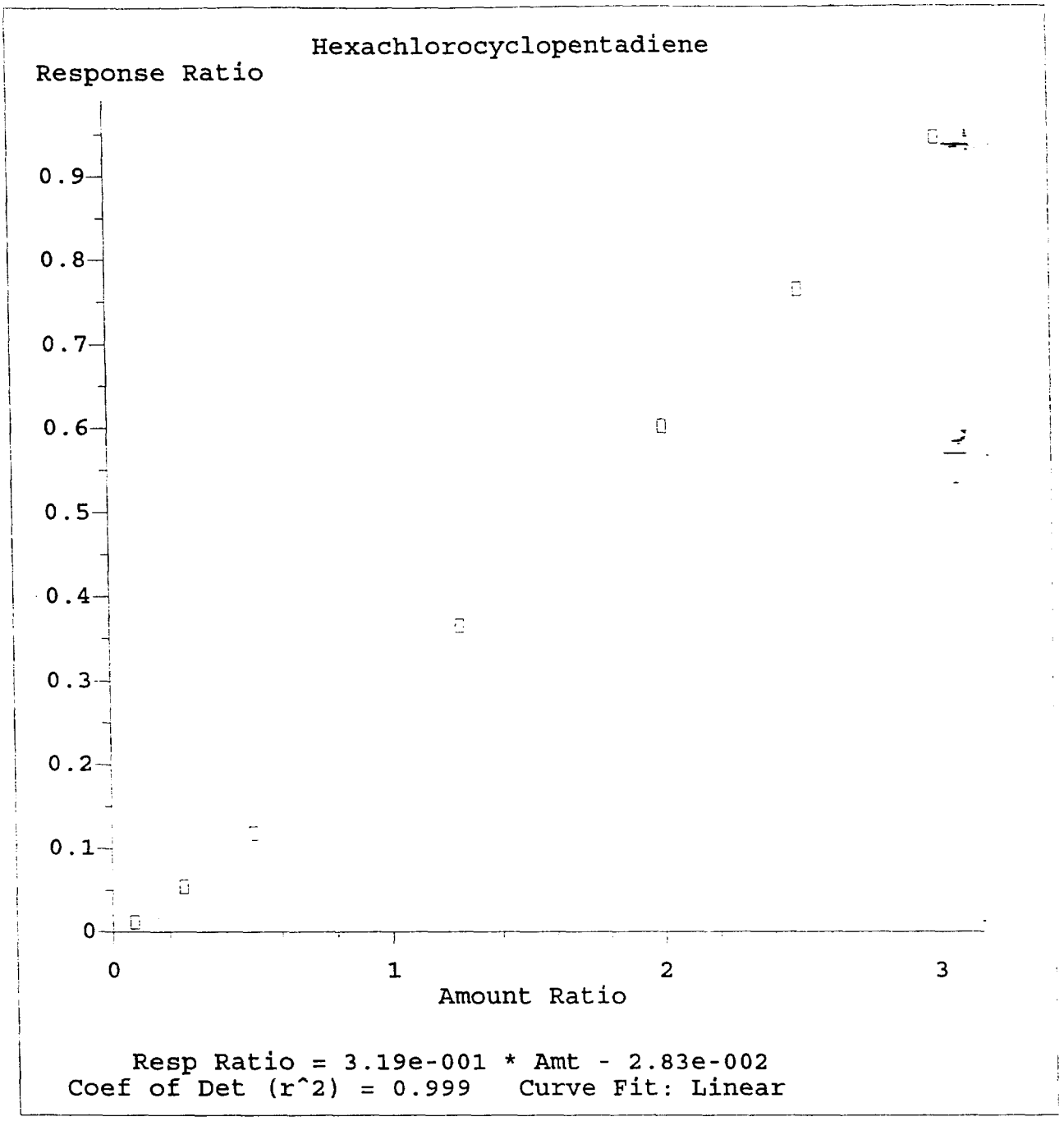
Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



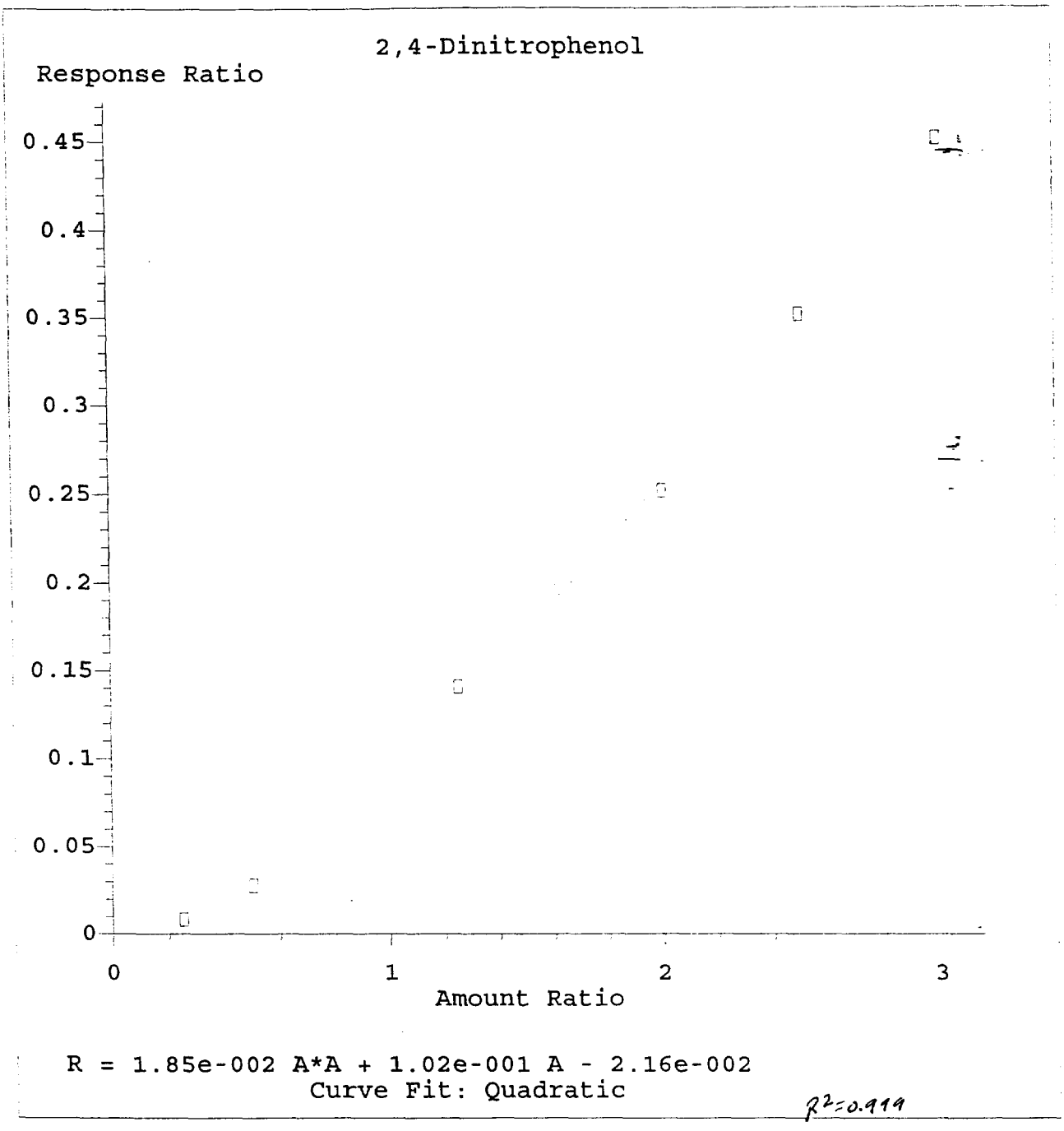


Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:30:24 2000

001984

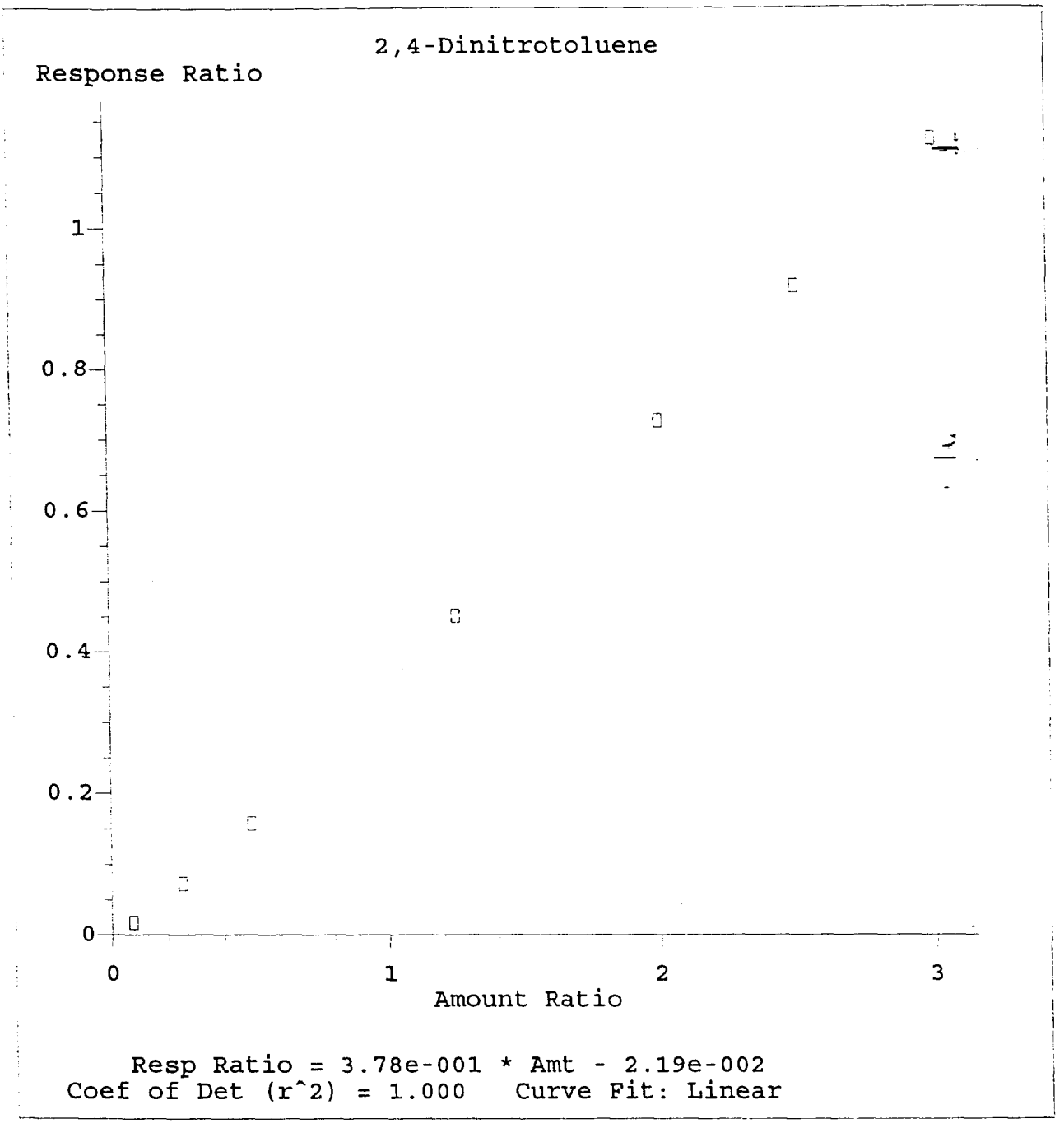


Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:30:41 2000



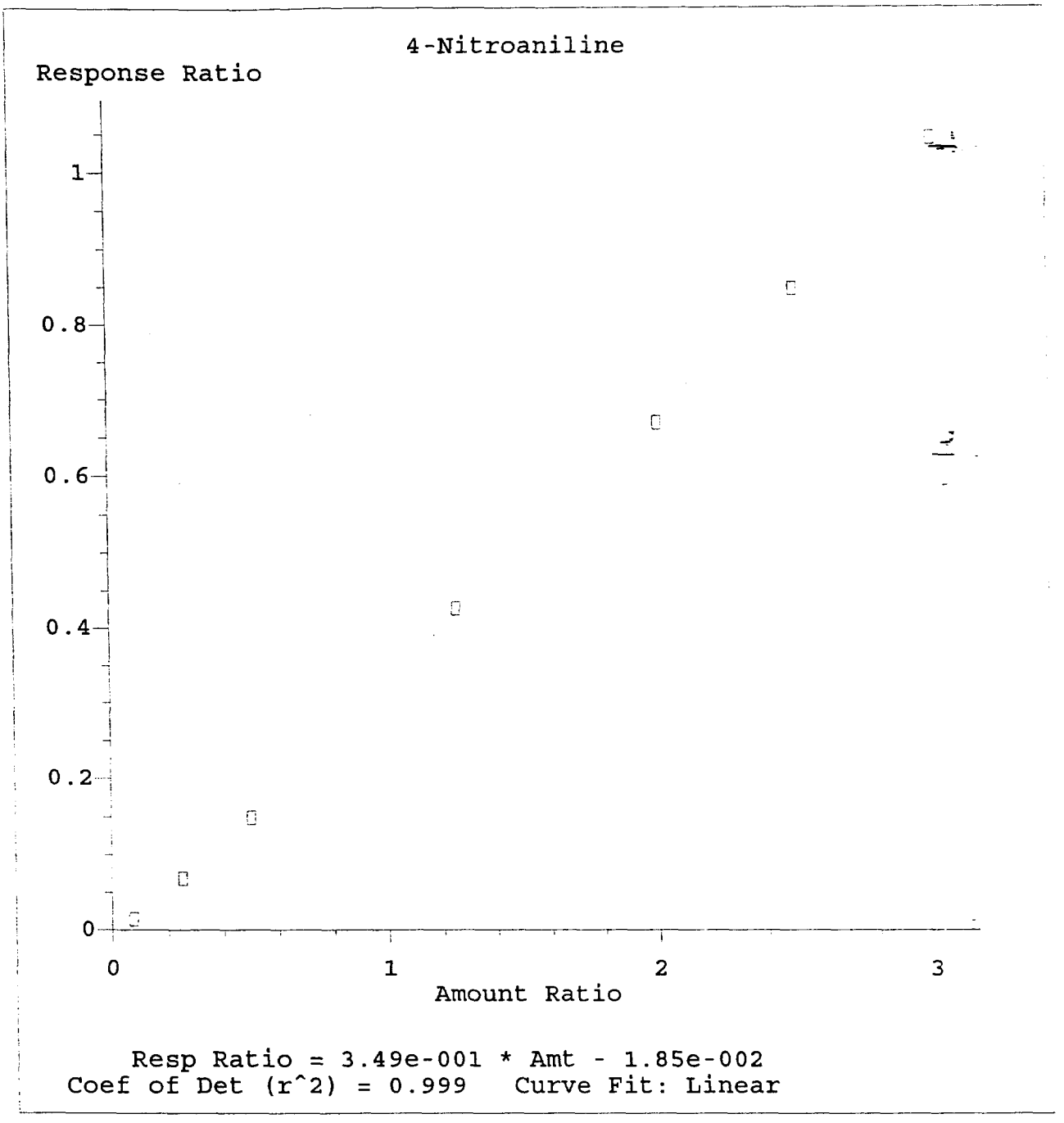
Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:30:49 2000

001986



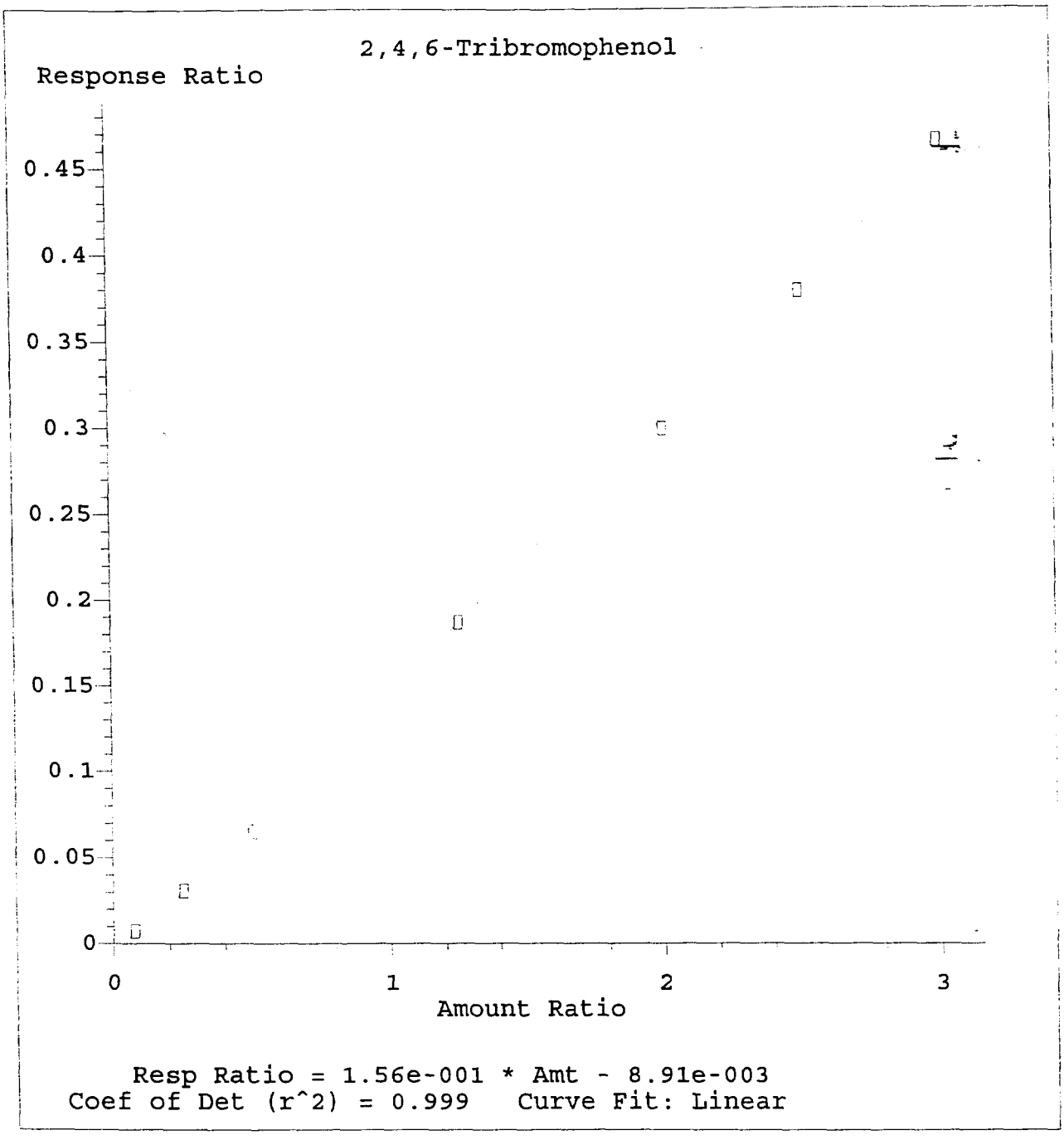
Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:31:17 2000

001987



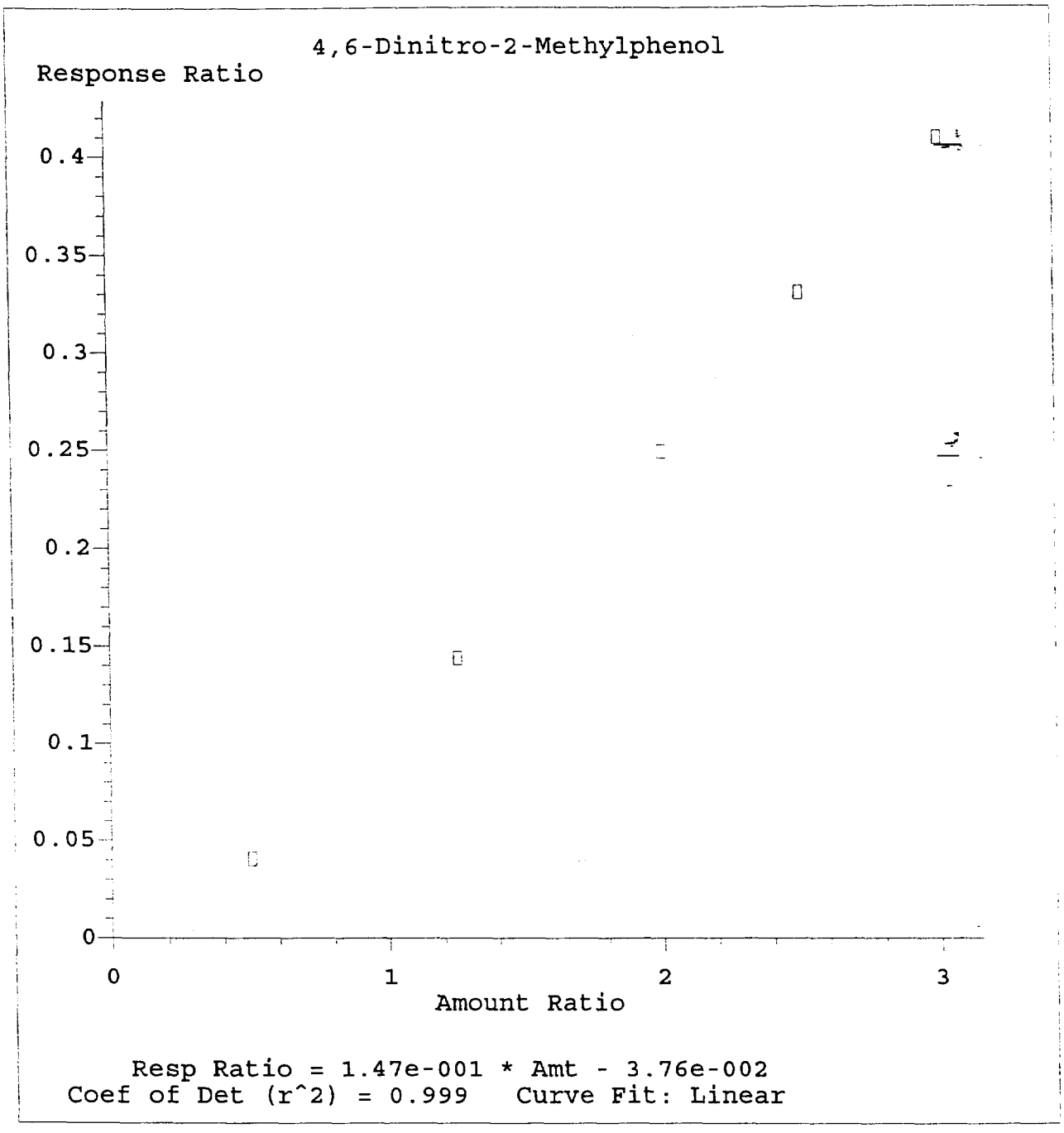
Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:31:25 2000

001988

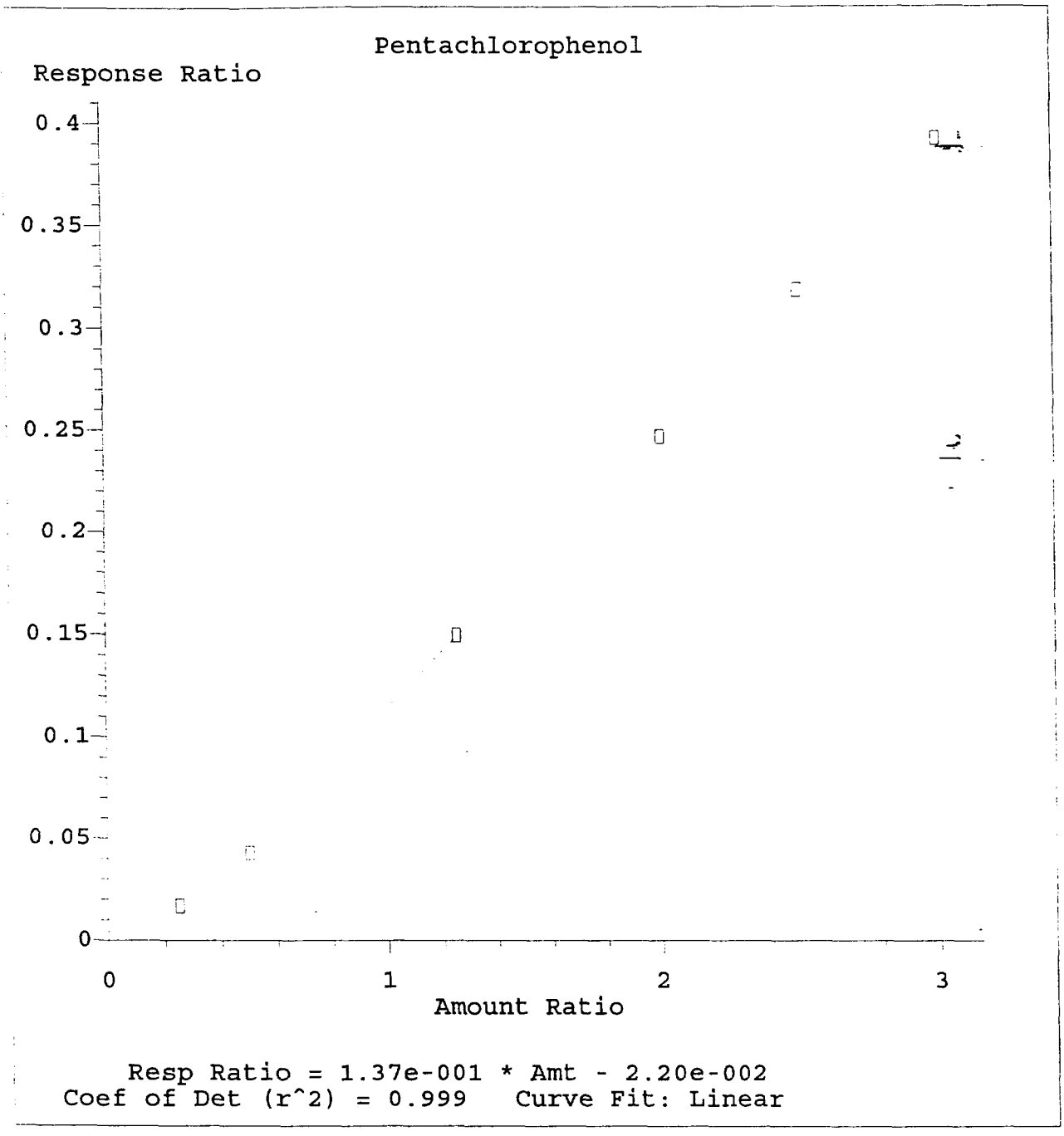


Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:31:32 2000

001989



Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:31:40 2000



Method Name: C:\HPCHEM\1\METHODS\BNA.M
Calibration Table Last Updated: Thu Sep 14 12:31:56 2000

001991

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D
Acq On : 14 Sep 2000 12:34
Sample : 50PPM Alt source BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 9
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	106	0.00
2		Pyridine	50.000	61.055	-22.1	125	0.00
3		n-Nitrosodimethylamine	50.000	58.005	-16.0	122	0.00
4	S	2-Fluorophenol	50.000	52.389	-4.8	112	0.00
5		Aniline	50.000	62.002	-24.0	133	0.00
6	S	Phenol-d5	50.000	48.414	3.2	104	0.00
7	C	Phenol	50.000	52.599	-5.2	112	0.00
8		bis(2-Chloroethyl)ether	50.000	49.309	1.4	108	0.00
9		2-Chlorophenol	50.000	48.280	3.4	103	0.00
10		1,3-Dichlorobenzene	50.000	52.940	-5.9	116	0.00
11	C	1,4-Dichlorobenzene	50.000	47.411	5.2	103	0.00
12		Benzyl Alcohol	50.000	52.594	-5.2	110	0.00
13	C	1,2-Dichlorobenzene	50.000	53.187	-6.4	116	0.00
		2-Methylphenol	50.000	55.407	-10.8	120	0.00
15		bis(2-Chloroisopropyl)ether	50.000	46.730	6.5	102	0.00
16		4-Methylphenol	50.000	50.027	-0.1	106	0.00
17	P	n-Nitrosodipropylamine	50.000	46.147	7.7	98	0.00
18		Hexachloroethane	50.000	48.802	2.4	105	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	106	0.00
20	S	Nitrobenzene-d5	50.000	49.371	1.3	103	0.00
21		Nitrobenzene	50.000	49.229	1.5	104	0.00
22		Isophorone	50.000	55.061	-10.1	115	0.00
23	C	2-Nitrophenol	50.000	52.314	-4.6	106	0.00
24		2,4-Dimethylphenol	50.000	47.319	5.4	103	0.00
25		bis(2-Chloroethoxy)methane	50.000	49.879	0.2	107	0.00
26		Benzoic Acid	50.000	47.622	4.8	95	0.00
27	C	2,4-Dichlorophenol	50.000	51.323	-2.6	106	0.00
28		1,2,4-Trichlorobenzene	50.000	47.150	5.7	102	0.00
29		Naphthalene	50.000	49.064	1.9	107	0.00
30		4-Chloroaniline	50.000	50.751	-1.5	107	0.00
31	C	Hexachlorobutadiene	50.000	54.045	-8.1	116	0.00
32	C	4-Chloro-3-Methylphenol	50.000	53.357	-6.7	108	0.00
33		2-Methylnaphthalene	50.000	50.877	-1.8	109	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	106	0.00
35	P	Hexachlorocyclopentadiene	50.000	41.191	17.6	88	0.00
36	C	2,4,6-Trichlorophenol	50.000	51.550	-3.1	106	0.00
37		2,4,5-Trichlorophenol	50.000	54.804	-9.6	113	0.00
38	S	2-Fluorobiphenyl	50.000	49.020	2.0	106	0.00
39		2-Chloronaphthalene	50.000	47.517	5.0	102	0.00

(#) = Out of Range

001992

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	56.513	-13.0	112	0.00
41		Dimethylphthalate	50.000	47.612	4.8	102	0.00
42		Acenaphthylene	50.000	40.585	18.8	86	0.00
43		2,6-Dinitrotoluene	50.000	50.726	-1.5	101	0.00
44		3-Nitroaniline	50.000	55.651	-11.3	109	0.00
45	C	Acenaphthene	50.000	48.212	3.6	103	0.00
46	P	2,4-Dinitrophenol	50.000	59.889	-19.8	131	0.00
47	P	4-Nitrophenol	50.000	50.780	-1.6	104	0.00
48		Dibenzofuran	50.000	51.091	-2.2	111	0.00
49		2,4-Dinitrotoluene	50.000	56.715	-13.4	121	0.00
50		Diethylphthalate	50.000	51.984	-4.0	110	0.00
51		Fluorene	50.000	49.504	1.0	106	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	49.532	0.9	107	0.00
		4-Nitroaniline	50.000	51.339	-2.7	107	0.00
54		1,2-Diphenylhydrazine	50.000	56.664	-13.3	120	0.00
55	S	2,4,6-Tribromophenol	50.000	50.019	-0.0	106	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	106	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	56.021	-12.0	124	0.00
58	C	n-Nitrosodiphenylamine	50.000	51.993	-4.0	111	0.00
59		4-Bromophenyl Phenyl Ether	50.000	61.735	-23.5	132	0.00
60		Hexachlorobenzene	50.000	55.394	-10.8	119	0.00
61	C	Pentachlorophenol	50.000	50.016	-0.0	106	0.00
62		Phenanthrene	50.000	43.031	13.9	93	0.00
63		Anthracene	50.000	44.241	11.5	94	0.00
64		Carbazole	50.000	57.464	-14.9	122	0.00
65		Di-n-Butyl Phthalate	50.000	48.682	2.6	101	0.00
66	C	Fluoranthene	50.000	42.655	14.7	91	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	104	0.00
68		Benzidine	50.000	50.171	-0.3	110	0.00
69		Pyrene	50.000	47.842	4.3	102	0.00
70	S	p-Terphenyl-d14	50.000	45.051	9.9	96	0.00
71		Butyl Benzyl Phthalate	50.000	49.823	0.4	102	0.00
72		Benzo[a]anthracene	50.000	44.072	11.9	94	0.00
73		3,3'-Dichlorobenzidine	50.000	49.969	0.1	102	0.00
74		Chrysene	50.000	44.096	11.8	94	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	48.101	3.8	98	0.00
76	I	Perylene-d12	40.000	40.000	0.0	103	0.01
77	C	Di-n-Octyl Phthalate	50.000	48.289	3.4	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	45.883	8.2	96	0.00
79		Benzo[k]fluoranthene	50.000	45.396	9.2	95	0.00
80	C	Benzo[a]pyrene	50.000	43.403	13.2	91	0.01
81		Indeno[1,2,3-cd]pyrene	50.000	41.542	16.9	84	0.00
82		Dibenz[ah]anthracene	50.000	32.094	35.8	65	0.00
83		Benzo[ghi]perylene	50.000	44.581	10.8	91	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

001994

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D
Acq On : 14 Sep 2000 12:34
Sample : 50PPM Alt source BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 9
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	0.00
2		Pyridine	1.306	1.595	-22.1	125	0.00
3		n-Nitrosodimethylamine	0.774	0.898	-16.0	122	0.00
4	S	2-Fluorophenol	1.346	1.410	-4.8	112	0.00
5		Aniline	0.680	0.843	-24.0	133	0.00
6	S	Phenol-d5	1.571	1.522	3.1	104	0.00
7	C	Phenol	1.718	1.808	-5.2	112	0.00
8		bis(2-Chloroethyl)ether	0.870	0.858	1.4	108	0.00
9		2-Chlorophenol	1.425	1.376	3.4	103	0.00
10		1,3-Dichlorobenzene	1.427	1.511	-5.9	116	0.00
11	C	1,4-Dichlorobenzene	1.637	1.553	5.1	103	0.00
12		Benzyl Alcohol	0.781	0.822	-5.2	110	0.00
13	C	1,2-Dichlorobenzene	1.347	1.432	-6.3	116	0.00
		2-Methylphenol	1.092	1.210	-10.8	120	0.00
15		bis(2-Chloroisopropyl)ether	1.539	1.439	6.5	102	0.00
16		4-Methylphenol	1.592	1.593	-0.1	106	0.00
17	P	n-Nitrosodipropylamine	0.956	0.882	7.7	98	0.00
18		Hexachloroethane	0.552	0.539	2.4	105	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00
20	S	Nitrobenzene-d5	0.334	0.330	1.2	103	0.00
21		Nitrobenzene	0.356	0.350	1.7	104	0.00
22		Isophorone	0.587	0.646	-10.1	115	0.00
23	C	2-Nitrophenol	0.194	0.203	-4.6	106	0.00
24		2,4-Dimethylphenol	0.316	0.299	5.4	103	0.00
25		bis(2-Chloroethoxy)methane	0.406	0.405	0.2	107	0.00
26		Benzoic Acid	0.171	0.161	5.8	95	0.00
27	C	2,4-Dichlorophenol	0.273	0.281	-2.9	106	0.00
28		1,2,4-Trichlorobenzene	0.319	0.301	5.6	102	0.00
29		Naphthalene	0.965	0.947	1.9	107	0.00
30		4-Chloroaniline	0.417	0.423	-1.4	107	0.00
31	C	Hexachlorobutadiene	0.147	0.159	-8.2	116	0.00
32	C	4-Chloro-3-Methylphenol	0.284	0.303	-6.7	108	0.00
33		2-Methylnaphthalene	0.709	0.721	-1.7	109	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	106	0.00
35	P	Hexachlorocyclopentadiene	0.260	0.240	7.7	88	0.00
36	C	2,4,6-Trichlorophenol	0.346	0.356	-2.9	106	0.00
		2,4,5-Trichlorophenol	0.370	0.406	-9.7	113	0.00
38	S	2-Fluorobiphenyl	1.349	1.322	2.0	106	0.00
39		2-Chloronaphthalene	1.189	1.130	5.0	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.286	0.324	-13.3	112	0.00
41		Dimethylphthalate	1.340	1.276	4.8	102	0.00
42		Acenaphthylene	1.886	1.531	18.8	86	0.00
43		2,6-Dinitrotoluene	0.294	0.299	-1.7	101	0.00
44		3-Nitroaniline	0.304	0.338	-11.2	109	0.00
45	C	Acenaphthene	1.081	1.043	3.5	103	0.00
46	P	2,4-Dinitrophenol	0.103	0.138	-34.0	131	0.00
47	P	4-Nitrophenol	0.206	0.210	-1.9	104	0.00
48		Dibenzofuran	1.637	1.673	-2.2	111	0.00
49		2,4-Dinitrotoluene	0.329	0.411	-24.9	121	0.00
50		Diethylphthalate	1.209	1.256	-3.9	110	0.00
51		Fluorene	1.225	1.212	1.1	106	0.00
52		4-Chlorophenyl Phenyl Ether	0.644	0.638	0.9	107	0.00
		4-Nitroaniline	0.304	0.344	-13.2	107	0.00
54		1,2-Diphenylhydrazine	1.266	1.435	-13.3	120	0.00
55	S	2,4,6-Tribromophenol	0.137	0.149	-8.8	106	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.00
57		4,6-Dinitro-2-Methylphenol	0.118	0.135	-14.4	124	0.00
58	C	n-Nitrosodiphenylamine	0.569	0.591	-3.9	111	0.00
59		4-Bromophenyl Phenyl Ether	0.206	0.255	-23.8	132	0.00
60		Hexachlorobenzene	0.183	0.203	-10.9	119	0.00
61	C	Pentachlorophenol	0.109	0.119	-9.2	106	0.00
62		Phenanthrene	1.162	1.000	13.9	93	0.00
63		Anthracene	1.141	1.009	11.6	94	0.00
64		Carbazole	0.966	1.110	-14.9	122	0.00
65		Di-n-Butyl Phthalate	1.272	1.239	2.6	101	0.00
66	C	Fluoranthene	1.200	1.024	14.7	91	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	104	0.00
68		Benzidine	0.406	0.408	-0.5	110	0.00
69		Pyrene	1.331	1.274	4.3	102	0.00
70	S	p-Terphenyl-d14	1.019	0.918	9.9	96	0.00
71		Butyl Benzyl Phthalate	0.694	0.691	0.4	102	0.00
72		Benzo[a]anthracene	1.341	1.182	11.9	94	0.00
73		3,3'-Dichlorobenzidine	0.423	0.423	0.0	102	0.00
74		Chrysene	1.297	1.143	11.9	94	0.00
75		bis(2-Ethylhexyl)phthalate	0.963	0.927	3.7	98	0.00
	I	Perylene-d12	1.000	1.000	0.0	103	0.01
77	C	Di-n-Octyl Phthalate	1.809	1.747	3.4	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.413	1.297	8.2	96	0.00
79		Benzo[k]fluoranthene	1.375	1.248	9.2	95	0.00
80	C	Benzo[a]pyrene	1.316	1.143	13.1	91	0.01
81		Indeno[1,2,3-cd]pyrene	1.414	1.175	16.9	84	0.00
82		Dibenz[ah]anthracene	1.141	0.732	35.8	65	0.00
83		Benzo[ghi]perylene	1.174	1.047	10.8	91	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

001997

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:58 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	133538	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	523327	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	292725	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	506378	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	416737	40.00	ug/ml	0.00
76) Perylene-d12	19.26	264	365102	40.00	ug/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	235337	52.39	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 52.39%			
6) Phenol-d5	8.72	99	253993	48.41	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 48.41%			
20) Nitrobenzene-d5	9.74	82	215643	49.37	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 98.74%			
38) 2-Fluorobiphenyl	11.56	172	483854	49.02	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 98.04%			
55) 2,4,6-Tribromophenol	13.11	330	54588	50.02	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 50.02%			
70) p-Terphenyl-d14	15.41	244	478377	45.05	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 90.10%			
Target Compounds						Qvalue
2) Pyridine	6.01	79	266251	61.06	ug/ml	99
3) n-Nitrosodimethylamine	5.98	74	149946	58.00	ug/ml	100
5) Aniline	8.82	66	140713	62.00	ug/ml	99
7) Phenol	8.73	94	301716	52.60	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	143154	49.31	ug/ml	99
9) 2-Chlorophenol	8.94	128	229735	48.28	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	252192	52.94	ug/ml	99
11) 1,4-Dichlorobenzene	9.17	146	259148	47.41	ug/ml	100
12) Benzyl Alcohol	9.27	108	137134	52.59	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	239105	53.19	ug/ml	100
14) 2-Methylphenol	9.36	107	201969	55.41	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	240169	46.73	ug/ml	99
16) 4-Methylphenol	9.50	107	265854	50.03	ug/ml	98
17) n-Nitrosodipropylamine	9.54	70	147287	46.15	ug/ml	100
18) Hexachloroethane	9.68	117	89969	48.80	ug/ml	100
21) Nitrobenzene	9.76	77	228994	49.23	ug/ml	100
22) Isophorone	9.97	82	422817	55.06	ug/ml	100
23) 2-Nitrophenol	10.08	139	132505	52.31	ug/ml#	85
24) 2,4-Dimethylphenol	10.06	122	195435	47.32	ug/ml	96
25) bis(2-Chloroethoxy)methane	10.16	93	264819	49.88	ug/ml	100

(#) = qualifier out of range (m) = manual integration

001998

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:58 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	10.12	122	105027	47.62	ug/ml#	99
27)	2,4-Dichlorophenol	10.31	162	183633	51.32	ug/ml	100
28)	1,2,4-Trichlorobenzene	10.41	180	196690	47.15	ug/ml	100
29)	Naphthalene	10.50	128	619413	49.06	ug/ml#	62
30)	4-Chloroaniline	10.54	127	277016	50.75	ug/ml	99
31)	Hexachlorobutadiene	10.59	225	104045	54.04	ug/ml	99
32)	4-Chloro-3-Methylphenol	10.98	107	198269	53.36	ug/ml	100
33)	2-Methylnaphthalene	11.20	142	471929	50.88	ug/ml	100
35)	Hexachlorocyclopentadiene	11.36	237	87947	41.19	ug/ml	99
36)	2,4,6-Trichlorophenol	11.48	196	130410	51.55	ug/ml	94
37)	2,4,5-Trichlorophenol	11.52	196	148489	54.80	ug/ml	100
39)	2-Chloronaphthalene	11.72	162	413412	47.52	ug/ml	100
40)	2-Nitroaniline	11.82	65	118470	56.51	ug/ml	99
41)	Dimethylphthalate	11.95	163	466891	47.61	ug/ml	100
42)	Acenaphthylene	12.16	152	560125	40.59	ug/ml	100
43)	2,6-Dinitrotoluene	12.05	165	109300	50.73	ug/ml	100
44)	3-Nitroaniline	12.24	138	123617	55.65	ug/ml	100
45)	Acenaphthene	12.33	154	381508	48.21	ug/ml	99
46)	2,4-Dinitrophenol	12.34	184	50552	59.89	ug/ml#	58
47)	4-Nitrophenol	12.35	65	76730	50.78	ug/ml	99
48)	Dibenzofuran	12.50	168	612247	51.09	ug/ml	100
49)	2,4-Dinitrotoluene	12.47	165	150408	56.71	ug/ml	99
50)	Diethylphthalate	12.65	149	459746	51.98	ug/ml	100
51)	Fluorene	12.85	166	443619	49.50	ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	12.81	204	233452	49.53	ug/ml	99
53)	4-Nitroaniline	12.88	138	125878	51.34	ug/ml	98
54)	1,2-Diphenylhydrazine	12.98	77	525069	56.66	ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.89	198	85308	56.02	ug/ml	98
58)	n-Nitrosodiphenylamine	12.93	169	374248	51.99	ug/ml	100
59)	4-Bromophenyl Phenyl Ether	13.32	248	161260	61.73	ug/ml	100
60)	Hexachlorobenzene	13.45	284	128498	55.39	ug/ml	100
61)	Pentachlorophenol	13.63	266	75357	50.02	ug/ml	100
62)	Phenanthrene	13.86	178	632958	43.03	ug/ml	99
63)	Anthracene	13.91	178	638930	44.24	ug/ml	99
64)	Carbazole	14.06	167	702718	57.46	ug/ml	99
65)	Di-n-Butyl Phthalate	14.30	149	784031	48.68	ug/ml	100
66)	Fluoranthene	15.10	202	648169	42.66	ug/ml	100
68)	Benzidine	15.19	184	212343	50.17	ug/ml	100
69)	Pyrene	15.35	202	663464	47.84	ug/ml	100
71)	Butyl Benzyl Phthalate	15.86	149	360080	49.82	ug/ml	100
72)	Benzo[a]anthracene	16.67	228	615714	44.07	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 12:58 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

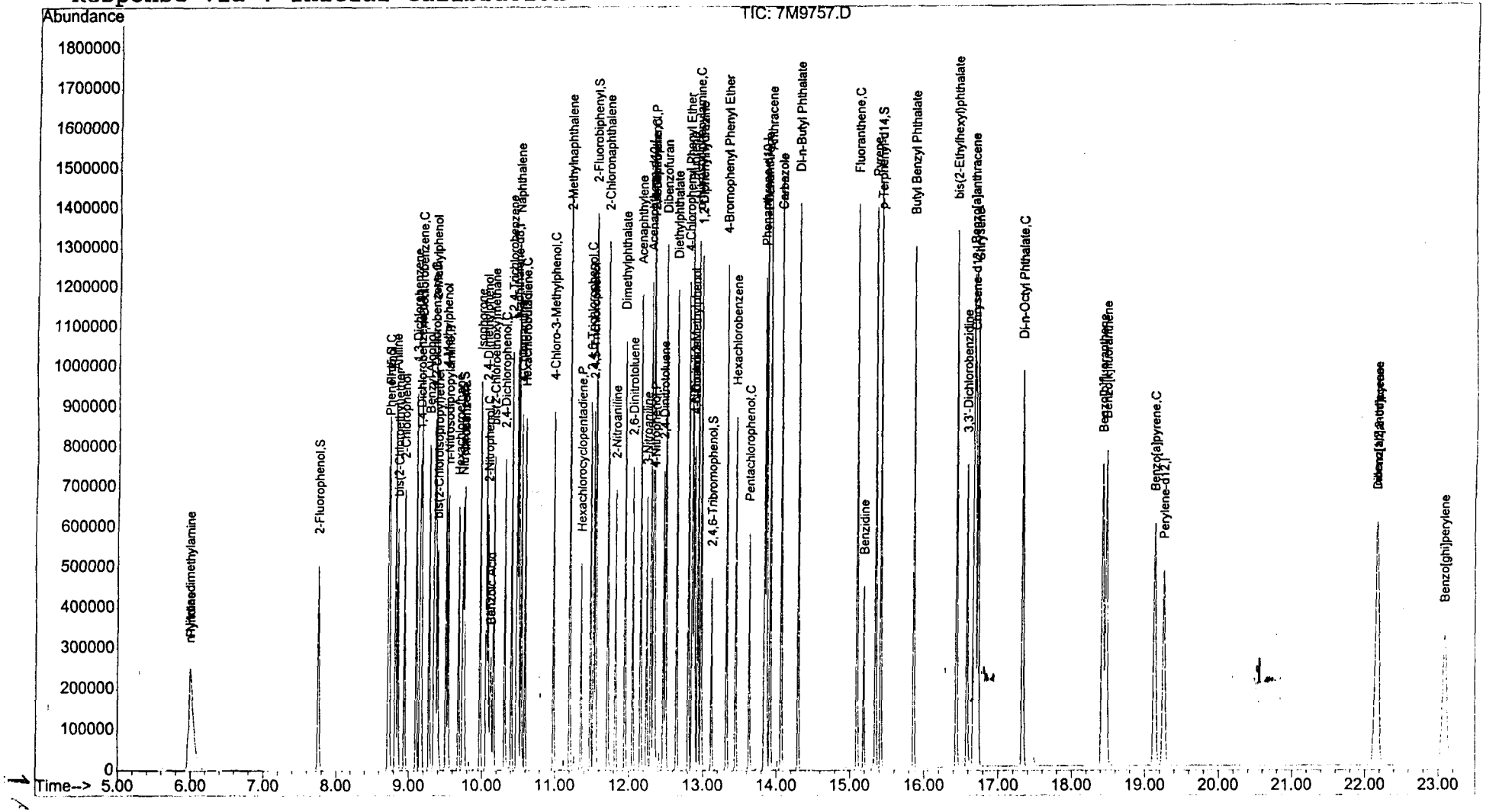
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	220227	49.97	ug/ml	100
74)	Chrysene	16.73	228	595630	44.10	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.44	149	482743	48.10	ug/ml	100
77)	Di-n-Octyl Phthalate	17.33	149	797251	48.29	ug/ml	100
78)	Benzo[b]fluoranthene	18.42	252	591718	45.88	ug/ml	98
79)	Benzo[k]fluoranthene	18.47	252	569613	45.40	ug/ml#	86
80)	Benzo[a]pyrene	19.14	252	521525	43.40	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.16	276	536225	41.54	ug/ml#	96
82)	Dibenz[ah]anthracene	22.15	278	334102	32.09	ug/ml	100
83)	Benzo[ghi]perylene	23.09	276	477908	44.58	ug/ml	99

(#) = qualifier out of range (m) = manual integration

002000

Data File : C:\HPCHEM\1\DATA\091400\7M9757.D Vial: 9
Acq On : 14 Sep 2000 12:34 Operator: mdc
Sample : 50PPM Alt source BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 12:58 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



Continuing calibration Area and RT check

Instrument: HPMS7
Initial cal date: 14 Sep 2000 8:43
CCV date: 14 Sep 2000 13:24
CCV filename: 7M9759.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	125481	9.15	495829	10.48	275184	12.30
CCV	137976	9.15	545583	10.48	303894	12.30

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	477196	13.84	400675	16.69	354542	19.25
CCV	522164	13.84	432043	16.69	378664	19.25

002002

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	110	0.00
2		Pyridine	50.000	52.616	-5.2	111	0.00
3		n-Nitrosodimethylamine	50.000	51.348	-2.7	112	0.00
4	S	2-Fluorophenol	50.000	50.472	-0.9	112	0.00
5		Aniline	50.000	50.102	-0.2	111	0.00
6	S	Phenol-d5	50.000	51.118	-2.2	113	0.00
7	C	Phenol	50.000	50.595	-1.2	111	0.00
8		bis(2-Chloroethyl)ether	50.000	49.658	0.7	112	0.00
9		2-Chlorophenol	50.000	50.409	-0.8	111	0.00
10		1,3-Dichlorobenzene	50.000	48.941	2.1	111	0.00
11	C	1,4-Dichlorobenzene	50.000	49.009	2.0	110	0.00
12		Benzyl Alcohol	50.000	53.235	-6.5	115	0.00
[illegible]	C	1,2-Dichlorobenzene	50.000	49.189	1.6	111	0.00
		2-Methylphenol	50.000	50.362	-0.7	112	0.00
15		bis(2-Chloroisopropyl)ether	50.000	49.827	0.3	113	0.00
16		4-Methylphenol	50.000	51.717	-3.4	113	0.00
17	P	n-Nitrosodipropylamine	50.000	51.107	-2.2	112	0.00
18		Hexachloroethane	50.000	49.857	0.3	110	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	110	0.00
20	S	Nitrobenzene-d5	50.000	51.119	-2.2	111	0.00
21		Nitrobenzene	50.000	50.667	-1.3	111	0.00
22		Isophorone	50.000	50.920	-1.8	111	0.00
23	C	2-Nitrophenol	50.000	52.703	-5.4	112	0.00
24		2,4-Dimethylphenol	50.000	51.211	-2.4	116	0.00
25		bis(2-Chloroethoxy)methane	50.000	49.891	0.2	111	0.00
26		Benzoic Acid	50.000	48.780	2.4	102	0.00
27	C	2,4-Dichlorophenol	50.000	51.761	-3.5	112	0.00
28		1,2,4-Trichlorobenzene	50.000	49.013	2.0	111	0.00
29		Naphthalene	50.000	49.092	1.8	111	0.00
30		4-Chloroaniline	50.000	50.506	-1.0	111	0.00
31	C	Hexachlorobutadiene	50.000	48.929	2.1	110	0.00
32	C	4-Chloro-3-Methylphenol	50.000	52.177	-4.4	110	0.00
33		2-Methylnaphthalene	50.000	49.409	1.2	110	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	110	0.00
35	P	Hexachlorocyclopentadiene	50.000	48.851	2.3	109	0.00
36	C	2,4,6-Trichlorophenol	50.000	50.893	-1.8	109	0.00
[illegible]		2,4,5-Trichlorophenol	50.000	51.680	-3.4	110	0.00
[illegible]8	S	2-Fluorobiphenyl	50.000	48.800	2.4	110	0.00
39		2-Chloronaphthalene	50.000	49.288	1.4	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	53.752	-7.5	111	0.00
41		Dimethylphthalate	50.000	49.444	1.1	110	0.00
42		Acenaphthylene	50.000	49.731	0.5	109	0.00
43		2,6-Dinitrotoluene	50.000	53.800	-7.6	111	0.00
44		3-Nitroaniline	50.000	54.226	-8.5	110	0.00
45	C	Acenaphthene	50.000	49.461	1.1	110	0.00
46	P	2,4-Dinitrophenol	50.000	52.807	-5.6	114	0.00
47	P	4-Nitrophenol	50.000	50.860	-1.7	109	0.00
48		Dibenzofuran	50.000	48.980	2.0	110	0.00
49		2,4-Dinitrotoluene	50.000	49.988	0.0	110	0.00
50		Diethylphthalate	50.000	49.906	0.2	110	0.00
51		Fluorene	50.000	49.246	1.5	109	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	48.937	2.1	110	0.00
		4-Nitroaniline	50.000	49.998	0.0	108	0.00
54		1,2-Diphenylhydrazine	50.000	49.915	0.2	110	0.00
55	S	2,4,6-Tribromophenol	50.000	48.743	2.5	107	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	109	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	50.994	-2.0	114	0.00
58	C	n-Nitrosodiphenylamine	50.000	49.703	0.6	110	0.00
59		4-Bromophenyl Phenyl Ether	50.000	49.512	1.0	109	0.00
60		Hexachlorobenzene	50.000	49.525	1.0	110	0.00
61	C	Pentachlorophenol	50.000	49.969	0.1	109	0.00
62		Phenanthrene	50.000	49.158	1.7	110	0.00
63		Anthracene	50.000	49.769	0.5	109	0.00
64		Carbazole	50.000	49.022	2.0	107	0.00
65		Di-n-Butyl Phthalate	50.000	51.046	-2.1	110	0.00
66	C	Fluoranthene	50.000	49.569	0.9	108	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	108	0.00
68		Benzidine	50.000	50.106	-0.2	114	0.00
69		Pyrene	50.000	49.720	0.6	110	0.00
70	S	p-Terphenyl-d14	50.000	49.280	1.4	109	0.00
71		Butyl Benzyl Phthalate	50.000	51.069	-2.1	108	0.00
72		Benzo[a]anthracene	50.000	49.384	1.2	109	0.00
73		3,3'-Dichlorobenzidine	50.000	51.573	-3.1	109	0.00
74		Chrysene	50.000	49.096	1.8	108	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	50.946	-1.9	108	0.00
76	I	Perylene-d12	40.000	40.000	0.0	107	0.00
77	C	Di-n-Octyl Phthalate	50.000	51.751	-3.5	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	49.494	1.0	107	0.00
79		Benzo[k]fluoranthene	50.000	49.764	0.5	108	0.00
80	C	Benzo[a]pyrene	50.000	50.181	-0.4	109	0.01
81		Indeno[1,2,3-cd]pyrene	50.000	50.820	-1.6	107	0.00
82		Dibenz[ah]anthracene	50.000	51.119	-2.2	107	0.01
83		Benzo[ghi]perylene	50.000	50.455	-0.9	107	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00
2		Pyridine	1.306	1.375	-5.3	111	0.00
3		n-Nitrosodimethylamine	0.774	0.795	-2.7	112	0.00
4	S	2-Fluorophenol	1.346	1.358	-0.9	112	0.00
5		Aniline	0.680	0.681	-0.1	111	0.00
6	S	Phenol-d5	1.571	1.607	-2.3	113	0.00
7	C	Phenol	1.718	1.739	-1.2	111	0.00
8		bis(2-Chloroethyl)ether	0.870	0.864	0.7	112	0.00
9		2-Chlorophenol	1.425	1.437	-0.8	111	0.00
10		1,3-Dichlorobenzene	1.427	1.397	2.1	111	0.00
11	C	1,4-Dichlorobenzene	1.637	1.605	2.0	110	0.00
12		Benzyl Alcohol	0.781	0.832	-6.5	115	0.00
	C	1,2-Dichlorobenzene	1.347	1.325	1.6	111	0.00
		2-Methylphenol	1.092	1.100	-0.7	112	0.00
15		bis(2-Chloroisopropyl)ether	1.539	1.534	0.3	113	0.00
16		4-Methylphenol	1.592	1.646	-3.4	113	0.00
17	P	n-Nitrosodipropylamine	0.956	0.977	-2.2	112	0.00
18		Hexachloroethane	0.552	0.551	0.2	110	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	110	0.00
20	S	Nitrobenzene-d5	0.334	0.341	-2.1	111	0.00
21		Nitrobenzene	0.356	0.360	-1.1	111	0.00
22		Isophorone	0.587	0.598	-1.9	111	0.00
23	C	2-Nitrophenol	0.194	0.204	-5.2	112	0.00
24		2,4-Dimethylphenol	0.316	0.323	-2.2	116	0.00
25		bis(2-Chloroethoxy)methane	0.406	0.405	0.2	111	0.00
26		Benzoic Acid	0.171	0.165	3.5	102	0.00
27	C	2,4-Dichlorophenol	0.273	0.283	-3.7	112	0.00
28		1,2,4-Trichlorobenzene	0.319	0.313	1.9	111	0.00
29		Naphthalene	0.965	0.947	1.9	111	0.00
30		4-Chloroaniline	0.417	0.421	-1.0	111	0.00
31	C	Hexachlorobutadiene	0.147	0.144	2.0	110	0.00
32	C	4-Chloro-3-Methylphenol	0.284	0.296	-4.2	110	0.00
33		2-Methylnaphthalene	0.709	0.701	1.1	110	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00
35	P	Hexachlorocyclopentadiene	0.260	0.289	-11.2	109	0.00
36	C	2,4,6-Trichlorophenol	0.346	0.352	-1.7	109	0.00
37		2,4,5-Trichlorophenol	0.370	0.383	-3.5	110	0.00
38	S	2-Fluorobiphenyl	1.349	1.316	2.4	110	0.00
39		2-Chloronaphthalene	1.189	1.172	1.4	110	0.00

(#) = Out of Range

002006

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D
Acq On : 14 Sep 2000 13:24
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 11
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.286	0.308	-7.7	111	0.00
41		Dimethylphthalate	1.340	1.325	1.1	110	0.00
42		Acenaphthylene	1.886	1.876	0.5	109	0.00
43		2,6-Dinitrotoluene	0.294	0.317	-7.8	111	0.00
44		3-Nitroaniline	0.304	0.329	-8.2	110	0.00
45	C	Acenaphthene	1.081	1.070	1.0	110	0.00
46	P	2,4-Dinitrophenol	0.103	0.116	-12.6	114	0.00
47	P	4-Nitrophenol	0.206	0.210	-1.9	109	0.00
48		Dibenzofuran	1.637	1.604	2.0	110	0.00
49		2,4-Dinitrotoluene	0.329	0.360	-9.4	110	0.00
50		Diethylphthalate	1.209	1.206	0.2	110	0.00
51		Fluorene	1.225	1.206	1.6	109	0.00
		4-Chlorophenyl Phenyl Ether	0.644	0.630	2.2	110	0.00
		4-Nitroaniline	0.304	0.335	-10.2	108	0.00
54		1,2-Diphenylhydrazine	1.266	1.264	0.2	110	0.00
55	S	2,4,6-Tribromophenol	0.137	0.145	-5.8	107	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	109	0.00
57		4,6-Dinitro-2-Methylphenol	0.118	0.120	-1.7	114	0.00
58	C	n-Nitrosodiphenylamine	0.569	0.565	0.7	110	0.00
59		4-Bromophenyl Phenyl Ether	0.206	0.204	1.0	109	0.00
60		Hexachlorobenzene	0.183	0.182	0.5	110	0.00
61	C	Pentachlorophenol	0.109	0.119	-9.2	109	0.00
62		Phenanthrene	1.162	1.142	1.7	110	0.00
63		Anthracene	1.141	1.136	0.4	109	0.00
64		Carbazole	0.966	0.947	2.0	107	0.00
65		Di-n-Butyl Phthalate	1.272	1.299	-2.1	110	0.00
66	C	Fluoranthene	1.200	1.190	0.8	108	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	108	0.00
68		Benzidine	0.406	0.407	-0.2	114	0.00
69		Pyrene	1.331	1.324	0.5	110	0.00
70	S	p-Terphenyl-d14	1.019	1.005	1.4	109	0.00
71		Butyl Benzyl Phthalate	0.694	0.709	-2.2	108	0.00
72		Benzo[a]anthracene	1.341	1.324	1.3	109	0.00
73		3,3'-Dichlorobenzidine	0.423	0.436	-3.1	109	0.00
74		Chrysene	1.297	1.273	1.9	108	0.00
75		bis(2-Ethylhexyl)phthalate	0.963	0.982	-2.0	108	0.00
76	I	Perylene-d12	1.000	1.000	0.0	107	0.00
77	C	Di-n-Octyl Phthalate	1.809	1.872	-3.5	107	0.00

(#) = Out of Range

002007

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D
Acq On : 14 Sep 2000 13:24
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 11
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.413	1.399	1.0	107	0.00
79		Benzo[k]fluoranthene	1.375	1.368	0.5	108	0.00
80	C	Benzo[a]pyrene	1.316	1.321	-0.4	109	0.01
81		Indeno[1,2,3-cd]pyrene	1.414	1.437	-1.6	107	0.00
82		Dibenz[ah]anthracene	1.141	1.166	-2.2	107	0.01
83		Benzo[ghi]perylene	1.174	1.185	-0.9	107	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002008

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 13:48 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	137976	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	545583	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	303894	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	522164	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	432043	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	378664	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	234263	50.47	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 50.47%			
6) Phenol-d5	8.72	99	277095	51.12	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 51.12%			
20) Nitrobenzene-d5	9.74	82	232775	51.12	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 102.24%			
38) 2-Fluorobiphenyl	11.55	172	500061	48.80	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 97.60%			
55) 2,4,6-Tribromophenol	13.12	330	55156	48.74	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 48.74%			
70) p-Terphenyl-d14	15.41	244	542500	49.28	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 98.56%			
Target Compounds						Qvalue
2) Pyridine	6.00	79	237075	52.62	ug/ml	100
3) n-Nitrosodimethylamine	5.98	74	137149	51.35	ug/ml	99
5) Aniline	8.82	66	117486	50.10	ug/ml	100
7) Phenol	8.73	94	299866	50.59	ug/ml	100
8) bis(2-Chloroethyl)ether	8.85	63	148959	49.66	ug/ml	100
9) 2-Chlorophenol	8.94	128	247837	50.41	ug/ml	100
10) 1,3-Dichlorobenzene	9.10	146	240890	48.94	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	276785	49.01	ug/ml	100
12) Benzyl Alcohol	9.27	108	143417	53.23	ug/ml	100
13) 1,2-Dichlorobenzene	9.34	146	228480	49.19	ug/ml	100
14) 2-Methylphenol	9.36	107	189679	50.36	ug/ml	100
15) bis(2-Chloroisopropyl)ethe	9.39	45	264600	49.83	ug/ml	99
16) 4-Methylphenol	9.50	107	283965	51.72	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	168538	51.11	ug/ml	99
18) Hexachloroethane	9.68	117	94969	49.86	ug/ml	100
21) Nitrobenzene	9.75	77	245706	50.67	ug/ml	100
22) Isophorone	9.97	82	407650	50.92	ug/ml	100
23) 2-Nitrophenol	10.08	139	139168	52.70	ug/ml	100
24) 2,4-Dimethylphenol	10.05	122	220505	51.21	ug/ml	96
25) bis(2-Chloroethoxy)methane	10.16	93	276152	49.89	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
sc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 13:48 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	10.12	122	112730	48.78	ug/ml#	96
27) 2,4-Dichlorophenol	10.31	162	193077	51.76	ug/ml	99
28) 1,2,4-Trichlorobenzene	10.41	180	213160	49.01	ug/ml	100
29) Naphthalene	10.50	128	646125	49.09	ug/ml#	62
30) 4-Chloroaniline	10.54	127	287401	50.51	ug/ml	100
31) Hexachlorobutadiene	10.59	225	98203	48.93	ug/ml	100
32) 4-Chloro-3-Methylphenol	10.98	107	202132	52.18	ug/ml	100
33) 2-Methylnaphthalene	11.20	142	477803	49.41	ug/ml	99
35) Hexachlorocyclopentadiene	11.35	237	109881	48.85	ug/ml	99
36) 2,4,6-Trichlorophenol	11.48	196	133659	50.89	ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	145367	51.68	ug/ml	100
39) 2-Chloronaphthalene	11.72	162	445186	49.29	ug/ml	100
40) 2-Nitroaniline	11.82	65	116981	53.75	ug/ml	100
41) Dimethylphthalate	11.95	163	503363	49.44	ug/ml	100
42) Acenaphthylene	12.16	152	712529	49.73	ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	120346	53.80	ug/ml	100
44) 3-Nitroaniline	12.24	138	125049	54.23	ug/ml	99
45) Acenaphthene	12.33	154	406327	49.46	ug/ml	100
46) 2,4-Dinitrophenol	12.34	184	44182	52.81	ug/ml	92
47) 4-Nitrophenol	12.35	65	79783	50.86	ug/ml	98
48) Dibenzofuran	12.50	168	609344	48.98	ug/ml	100
49) 2,4-Dinitrotoluene	12.47	165	136836	49.99	ug/ml	99
50) Diethylphthalate	12.65	149	458206	49.91	ug/ml	100
51) Fluorene	12.85	166	458146	49.25	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.81	204	239445	48.94	ug/ml	99
53) 4-Nitroaniline	12.88	138	127121	50.00	ug/ml	99
54) 1,2-Diphenylhydrazine	12.97	77	480177	49.92	ug/ml	100
57) 4,6-Dinitro-2-Methylphenol	12.89	198	78312	50.99	ug/ml	99
58) n-Nitrosodiphenylamine	12.93	169	368912	49.70	ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	133365	49.51	ug/ml	99
60) Hexachlorobenzene	13.45	284	118466	49.53	ug/ml	100
61) Pentachlorophenol	13.63	266	77624	49.97	ug/ml	98
62) Phenanthrene	13.86	178	745627	49.16	ug/ml	99
63) Anthracene	13.91	178	741166	49.77	ug/ml	100
64) Carbazole	14.06	167	618172	49.02	ug/ml	99
65) Di-n-Butyl Phthalate	14.30	149	847730	51.05	ug/ml	100
66) Fluoranthene	15.10	202	776705	49.57	ug/ml	99
68) Benzidine	15.19	184	219854	50.11	ug/ml	100
69) Pyrene	15.34	202	714829	49.72	ug/ml	100
71) Butyl Benzyl Phthalate	15.86	149	382640	51.07	ug/ml	100
72) Benzo[a]anthracene	16.67	228	715269	49.38	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
.S Integration Params: rteint.p
Quant Time: Sep 14 13:48 2000 Quant Results File: BNA.RES

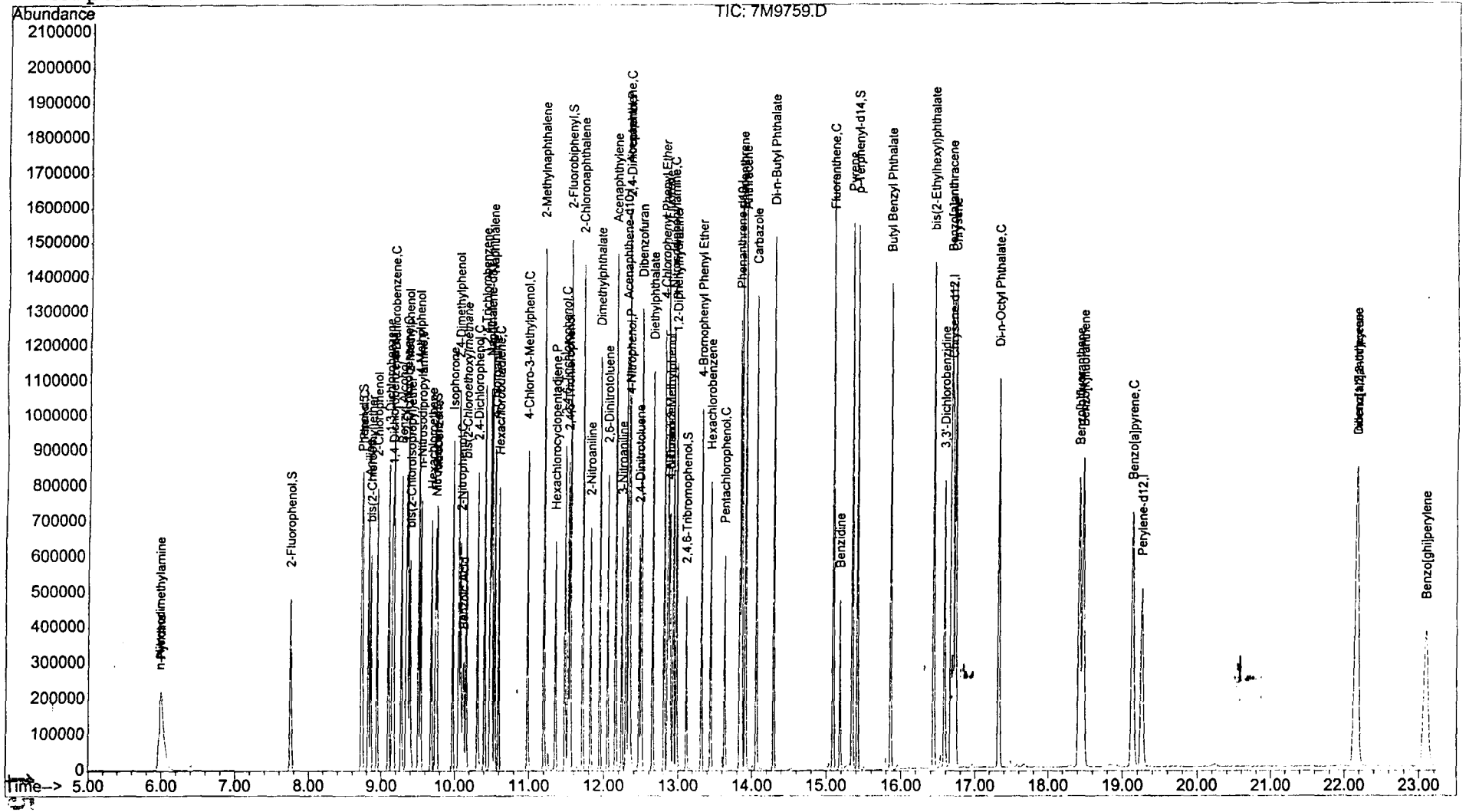
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	235645	51.57	ug/ml	99
74)	Chrysene	16.73	228	687528	49.10	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.44	149	530080	50.95	ug/ml	100
77)	Di-n-Octyl Phthalate	17.32	149	886150	51.75	ug/ml	100
78)	Benzo[b]fluoranthene	18.42	252	661994	49.49	ug/ml	98
79)	Benzo[k]fluoranthene	18.47	252	647622	49.76	ug/ml#	86
80)	Benzo[a]pyrene	19.14	252	625364	50.18	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.16	276	680352	50.82	ug/ml#	99
82)	Dibenz[ah]anthracene	22.16	278	551917	51.12	ug/ml	100
83)	Benzo[ghi]perylene	23.09	276	560971	50.46	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9759.D Vial: 11
Acq On : 14 Sep 2000 13:24 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 13:48 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 12:32:04 2000
Response via : Initial Calibration



002012

Continuing calibration Area and RT check

Instrument: HPMS7
Initial cal date: 14 Sep 2000 8:43
CCV date: 15 Sep 2000 8:38
CCV filename: 7M9781.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	125481	9.15	495829	10.48	275184	12.30
CCV	139409	9.15	546021	10.48	298003	12.30

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	477196	13.84	400675	16.69	354542	19.25
CCV	503479	13.84	400294	16.69	332447	19.25

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	111	0.00
2		Pyridine	50.000	55.501	-11.0	119	0.00
3		n-Nitrosodimethylamine	50.000	53.928	-7.9	118	0.00
4	S	2-Fluorophenol	50.000	52.059	-4.1	116	0.00
5		Aniline	50.000	50.807	-1.6	113	0.00
6	S	Phenol-d5	50.000	51.795	-3.6	116	0.00
7	C	Phenol	50.000	51.719	-3.4	115	0.00
8		bis(2-Chloroethyl)ether	50.000	51.063	-2.1	116	0.00
9		2-Chlorophenol	50.000	50.834	-1.7	113	0.00
10		1,3-Dichlorobenzene	50.000	49.284	1.4	113	0.00
11	C	1,4-Dichlorobenzene	50.000	48.818	2.4	111	0.00
12		Benzyl Alcohol	50.000	55.263	-10.5	120	0.00
	C	1,2-Dichlorobenzene	50.000	49.127	1.7	112	0.00
		2-Methylphenol	50.000	50.815	-1.6	114	0.00
15		bis(2-Chloroisopropyl)ether	50.000	52.340	-4.7	120	0.00
16		4-Methylphenol	50.000	52.157	-4.3	115	0.00
17	P	n-Nitrosodipropylamine	50.000	51.421	-2.8	114	0.00
18		Hexachloroethane	50.000	50.004	-0.0	112	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	110	0.00
20	S	Nitrobenzene-d5	50.000	52.106	-4.2	113	0.00
21		Nitrobenzene	50.000	51.351	-2.7	113	0.00
22		Isophorone	50.000	51.150	-2.3	111	0.00
23	C	2-Nitrophenol	50.000	54.150	-8.3	115	0.00
24		2,4-Dimethylphenol	50.000	50.576	-1.2	115	0.00
25		bis(2-Chloroethoxy)methane	50.000	50.359	-0.7	113	0.00
26		Benzoic Acid	50.000	52.037	-4.1	111	0.00
27	C	2,4-Dichlorophenol	50.000	51.911	-3.8	112	0.00
28		1,2,4-Trichlorobenzene	50.000	48.673	2.7	110	0.00
29		Naphthalene	50.000	49.376	1.2	112	0.00
30		4-Chloroaniline	50.000	49.007	2.0	108	0.00
31	C	Hexachlorobutadiene	50.000	47.874	4.3	107	0.00
32	C	4-Chloro-3-Methylphenol	50.000	52.781	-5.6	112	0.00
33		2-Methylnaphthalene	50.000	48.721	2.6	109	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	108	0.00
35	P	Hexachlorocyclopentadiene	50.000	48.525	3.0	106	0.00
36	C	2,4,6-Trichlorophenol	50.000	52.126	-4.3	109	0.00
		2,4,5-Trichlorophenol	50.000	52.648	-5.3	110	0.00
38	S	2-Fluorobiphenyl	50.000	48.796	2.4	107	0.00
39		2-Chloronaphthalene	50.000	49.298	1.4	108	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	54.627	-9.3	110	0.00
41		Dimethylphthalate	50.000	48.879	2.2	106	0.00
42		Acenaphthylene	50.000	49.786	0.4	107	0.00
43		2,6-Dinitrotoluene	50.000	53.573	-7.1	109	0.00
44		3-Nitroaniline	50.000	52.044	-4.1	104	0.00
45	C	Acenaphthene	50.000	49.815	0.4	108	0.00
46	P	2,4-Dinitrophenol	50.000	51.402	-2.8	108	0.00
47	P	4-Nitrophenol	50.000	49.510	1.0	104	0.00
48		Dibenzofuran	50.000	48.843	2.3	108	0.00
49		2,4-Dinitrotoluene	50.000	49.999	0.0	108	0.00
50		Diethylphthalate	50.000	48.861	2.3	106	0.00
51		Fluorene	50.000	48.755	2.5	106	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	48.374	3.3	106	0.00
		4-Nitroaniline	50.000	48.282	3.4	103	0.00
54		1,2-Diphenylhydrazine	50.000	50.057	-0.1	108	0.00
55	S	2,4,6-Tribromophenol	50.000	48.230	3.5	104	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	106	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	50.872	-1.7	110	0.00
58	C	n-Nitrosodiphenylamine	50.000	50.181	-0.4	107	0.00
59		4-Bromophenyl Phenyl Ether	50.000	49.583	0.8	105	0.00
60		Hexachlorobenzene	50.000	48.517	3.0	104	0.00
61	C	Pentachlorophenol	50.000	50.154	-0.3	105	0.00
62		Phenanthrene	50.000	49.056	1.9	106	0.00
63		Anthracene	50.000	49.522	1.0	105	0.00
64		Carbazole	50.000	50.668	-1.3	107	0.00
65		Di-n-Butyl Phthalate	50.000	50.373	-0.7	104	0.00
66	C	Fluoranthene	50.000	48.917	2.2	103	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	100	0.00
68		Benzidine	50.000	32.568	34.9	69	0.00
69		Pyrene	50.000	50.811	-1.6	104	0.00
70	S	p-Terphenyl-d14	50.000	49.977	0.0	102	0.00
71		Butyl Benzyl Phthalate	50.000	51.812	-3.6	102	0.00
72		Benzo[a]anthracene	50.000	49.031	1.9	100	0.00
73		3,3'-Dichlorobenzidine	50.000	45.978	8.0	90	0.00
74		Chrysene	50.000	49.049	1.9	100	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	51.727	-3.5	102	0.00
76	I	Perylene-d12	40.000	40.000	0.0	94	0.00
77	C	Di-n-Octyl Phthalate	50.000	54.914	-9.8	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D Vial: 2
Acq On : 15 Sep 2000 8:38 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
isc : WATER,1 Multiplr: 1.00
S Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	50.427	-0.9	96	0.00
79		Benzo[k]fluoranthene	50.000	50.902	-1.8	97	0.00
80	C	Benzo[a]pyrene	50.000	50.168	-0.3	95	0.00
81		Indeno[1,2,3-cd]pyrene	50.000	48.421	3.2	90	0.00
82		Dibenz[ah]anthracene	50.000	48.641	2.7	90	0.00
83		Benzo[ghi]perylene	50.000	46.784	6.4	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002016

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00
2		Pyridine	1.306	1.450	-11.0	119	0.00
3		n-Nitrosodimethylamine	0.774	0.835	-7.9	118	0.00
4	S	2-Fluorophenol	1.346	1.401	-4.1	116	0.00
5		Aniline	0.680	0.691	-1.6	113	0.00
6	S	Phenol-d5	1.571	1.628	-3.6	116	0.00
7	C	Phenol	1.718	1.777	-3.4	115	0.00
8		bis(2-Chloroethyl)ether	0.870	0.888	-2.1	116	0.00
9		2-Chlorophenol	1.425	1.449	-1.7	113	0.00
10		1,3-Dichlorobenzene	1.427	1.407	1.4	113	0.00
11	C	1,4-Dichlorobenzene	1.637	1.599	2.3	111	0.00
12		Benzyl Alcohol	0.781	0.863	-10.5	120	0.00
13	C	1,2-Dichlorobenzene	1.347	1.323	1.8	112	0.00
		2-Methylphenol	1.092	1.110	-1.6	114	0.00
15		bis(2-Chloroisopropyl)ether	1.539	1.612	-4.7	120	0.00
16		4-Methylphenol	1.592	1.660	-4.3	115	0.00
17	P	n-Nitrosodipropylamine	0.956	0.983	-2.8	114	0.00
18		Hexachloroethane	0.552	0.552	0.0	112	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	110	0.00
20	S	Nitrobenzene-d5	0.334	0.348	-4.2	113	0.00
21		Nitrobenzene	0.356	0.365	-2.5	113	0.00
22		Isophorone	0.587	0.600	-2.2	111	0.00
23	C	2-Nitrophenol	0.194	0.210	-8.2	115	0.00
24		2,4-Dimethylphenol	0.316	0.319	-0.9	115	0.00
25		bis(2-Chloroethoxy)methane	0.406	0.409	-0.7	113	0.00
26		Benzoic Acid	0.171	0.179	-4.7	111	0.00
27	C	2,4-Dichlorophenol	0.273	0.284	-4.0	112	0.00
28		1,2,4-Trichlorobenzene	0.319	0.310	2.8	110	0.00
29		Naphthalene	0.965	0.953	1.2	112	0.00
30		4-Chloroaniline	0.417	0.409	1.9	108	0.00
31	C	Hexachlorobutadiene	0.147	0.141	4.1	107	0.00
32	C	4-Chloro-3-Methylphenol	0.284	0.300	-5.6	112	0.00
33		2-Methylnaphthalene	0.709	0.691	2.5	109	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00
35	P	Hexachlorocyclopentadiene	0.260	0.287	-10.4	106	0.00
36	C	2,4,6-Trichlorophenol	0.346	0.360	-4.0	109	0.00
37		2,4,5-Trichlorophenol	0.370	0.390	-5.4	110	0.00
38	S	2-Fluorobiphenyl	1.349	1.316	2.4	107	0.00
39		2-Chloronaphthalene	1.189	1.172	1.4	108	0.00

(#) = Out of Range

002017

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D Vial: 2
Acq On : 15 Sep 2000 8:38 Operator: mdc
Sample : 50PPM BNA STD Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.286	0.313	-9.4	110	0.00
41		Dimethylphthalate	1.340	1.310	2.2	106	0.00
42		Acenaphthylene	1.886	1.878	0.4	107	0.00
43		2,6-Dinitrotoluene	0.294	0.315	-7.1	109	0.00
44		3-Nitroaniline	0.304	0.316	-3.9	104	0.00
45	C	Acenaphthene	1.081	1.077	0.4	108	0.00
46	P	2,4-Dinitrophenol	0.103	0.112	-8.7	108	0.00
47	P	4-Nitrophenol	0.206	0.204	1.0	104	0.00
48		Dibenzofuran	1.637	1.600	2.3	108	0.00
49		2,4-Dinitrotoluene	0.329	0.360	-9.4	108	0.00
50		Diethylphthalate	1.209	1.181	2.3	106	0.00
51		Fluorene	1.225	1.194	2.5	106	0.00
52		4-Chlorophenyl Phenyl Ether	0.644	0.623	3.3	106	0.00
		4-Nitroaniline	0.304	0.323	-6.3	103	0.00
54		1,2-Diphenylhydrazine	1.266	1.268	-0.2	108	0.00
55	S	2,4,6-Tribromophenol	0.137	0.144	-5.1	104	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.00
57		4,6-Dinitro-2-Methylphenol	0.118	0.120	-1.7	110	0.00
58	C	n-Nitrosodiphenylamine	0.569	0.571	-0.4	107	0.00
59		4-Bromophenyl Phenyl Ether	0.206	0.205	0.5	105	0.00
60		Hexachlorobenzene	0.183	0.178	2.7	104	0.00
61	C	Pentachlorophenol	0.109	0.119	-9.2	105	0.00
62		Phenanthrene	1.162	1.140	1.9	106	0.00
63		Anthracene	1.141	1.130	1.0	105	0.00
64		Carbazole	0.966	0.979	-1.3	107	0.00
65		Di-n-Butyl Phthalate	1.272	1.282	-0.8	104	0.00
66	C	Fluoranthene	1.200	1.174	2.2	103	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	100	0.00
68		Benzidine	0.406	0.265	34.7	69	0.00
69		Pyrene	1.331	1.353	-1.7	104	0.00
70	S	p-Terphenyl-d14	1.019	1.019	0.0	102	0.00
71		Butyl Benzyl Phthalate	0.694	0.719	-3.6	102	0.00
72		Benzo[a]anthracene	1.341	1.315	1.9	100	0.00
73		3,3'-Dichlorobenzidine	0.423	0.389	8.0	90	0.00
74		Chrysene	1.297	1.272	1.9	100	0.00
75		bis(2-Ethylhexyl)phthalate	0.963	0.997	-3.5	102	0.00
76	I	Perylene-d12	1.000	1.000	0.0	94	0.00
77	C	Di-n-Octyl Phthalate	1.809	1.987	-9.8	100	0.00

(#) = Out of Range

002018

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
:sc : WATER,1
..S Integration Params: rteint.p

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	Benzo[b]fluoranthene	1.413	1.425	-0.8	96	0.00
79	Benzo[k]fluoranthene	1.375	1.399	-1.7	97	0.00
80 C	Benzo[a]pyrene	1.316	1.321	-0.4	95	0.00
81	Indeno[1,2,3-cd]pyrene	1.414	1.370	3.1	90	0.00
82	Dibenz[ah]anthracene	1.141	1.110	2.7	90	0.00
83	Benzo[ghi]perylene	1.174	1.099	6.4	87	0.00

002019

Quantitation Report (RTE Integrator)

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
: WATER,1
Integration Params: rteint.p
Quant Time: Sep 15 9:10 2000

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	9.15	152	139409	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	546021	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	298003	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	503479	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	400294	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	332447	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	244139	52.06	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 52.06%			
6) Phenol-d5	8.72	99	283677	51.79	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 51.79%			
20) Nitrobenzene-d5	9.74	82	237459	52.11	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 104.22%			
8) 2-Fluorobiphenyl	11.55	172	490325	48.80	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 97.60%			
55) 2,4,6-Tribromophenol	13.11	330	53490	48.23	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 48.23%			
70) p-Terphenyl-d14	15.41	244	509742	49.98	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 99.96%			
Target Compounds						Qvalue
2) Pyridine	6.01	79	252670	55.50	ug/ml	99
3) n-Nitrosodimethylamine	5.99	74	145536	53.93	ug/ml	96
5) Aniline	8.82	66	120376	50.81	ug/ml	98
7) Phenol	8.74	94	309713	51.72	ug/ml	98
8) bis(2-Chloroethyl)ether	8.85	63	154765	51.06	ug/ml	100
9) 2-Chlorophenol	8.94	128	252522	50.83	ug/ml	99
10) 1,3-Dichlorobenzene	9.10	146	245101	49.28	ug/ml	100
11) 1,4-Dichlorobenzene	9.17	146	278569	48.82	ug/ml	100
12) Benzyl Alcohol	9.27	108	150428	55.26	ug/ml	99
13) 1,2-Dichlorobenzene	9.34	146	230561	49.13	ug/ml	100
14) 2-Methylphenol	9.36	107	193372	50.81	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	280828	52.34	ug/ml	97
16) 4-Methylphenol	9.51	107	289359	52.16	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	171333	51.42	ug/ml	99
18) Hexachloroethane	9.68	117	96237	50.00	ug/ml	100
21) Nitrobenzene	9.76	77	249225	51.35	ug/ml	100
22) Isophorone	9.97	82	409818	51.15	ug/ml	100
23) 2-Nitrophenol	10.08	139	143103	54.15	ug/ml#	84
24) 2,4-Dimethylphenol	10.06	122	217944	50.58	ug/ml	98
25) bis(2-Chloroethoxy)methane	10.16	93	278961	50.36	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
[illegible] : WATER,1
M[illegible] Integration Params: rteint.p
Quant Time: Sep 15 9:10 2000

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	10.12	122	121927	52.04 ug/ml#	98
27) 2,4-Dichlorophenol	10.31	162	193790	51.91 ug/ml	99
28) 1,2,4-Trichlorobenzene	10.41	180	211851	48.67 ug/ml	100
29) Naphthalene	10.50	128	650383	49.38 ug/ml#	61
30) 4-Chloroaniline	10.54	127	279096	49.01 ug/ml	99
31) Hexachlorobutadiene	10.59	225	96163	47.87 ug/ml	100
32) 4-Chloro-3-Methylphenol	10.98	107	204634	52.78 ug/ml	99
33) 2-Methylnaphthalene	11.20	142	471528	48.72 ug/ml	100
35) Hexachlorocyclopentadiene	11.35	237	106976	48.53 ug/ml	99
36) 2,4,6-Trichlorophenol	11.48	196	134245	52.13 ug/ml	94
37) 2,4,5-Trichlorophenol	11.52	196	145218	52.65 ug/ml	100
39) 2-Chloronaphthalene	11.71	162	436649	49.30 ug/ml	100
40) 2-Nitroaniline	11.82	65	116582	54.63 ug/ml	100
41) Dimethylphthalate	11.94	163	487961	48.88 ug/ml	100
42) Acenaphthylene	12.16	152	699490	49.79 ug/ml	100
43) 2,6-Dinitrotoluene	12.05	165	117515	53.57 ug/ml	98
44) 3-Nitroaniline	12.24	138	117690	52.04 ug/ml	100
45) Acenaphthene	12.33	154	401303	49.82 ug/ml	99
46) 2,4-Dinitrophenol	12.34	184	41752	51.40 ug/ml	99
47) 4-Nitrophenol	12.35	65	76160	49.51 ug/ml	96
48) Dibenzofuran	12.49	168	595857	48.84 ug/ml	99
49) 2,4-Dinitrotoluene	12.47	165	134216	50.00 ug/ml	99
50) Diethylphthalate	12.64	149	439915	48.86 ug/ml	100
51) Fluorene	12.85	166	444791	48.76 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.80	204	232104	48.37 ug/ml	99
53) 4-Nitroaniline	12.87	138	120188	48.28 ug/ml	97
54) 1,2-Diphenylhydrazine	12.97	77	472207	50.06 ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.88	198	75285	50.87 ug/ml	98
58) n-Nitrosodiphenylamine	12.93	169	359133	50.18 ug/ml	100
59) 4-Bromophenyl Phenyl Ether	13.32	248	128777	49.58 ug/ml	99
60) Hexachlorobenzene	13.44	284	111902	48.52 ug/ml	100
61) Pentachlorophenol	13.63	266	75164	50.15 ug/ml	99
62) Phenanthrene	13.86	178	717461	49.06 ug/ml	99
63) Anthracene	13.91	178	711104	49.52 ug/ml	100
64) Carbazole	14.06	167	616064	50.67 ug/ml	97
65) Di-n-Butyl Phthalate	14.29	149	806618	50.37 ug/ml	100
66) Fluoranthene	15.09	202	739063	48.92 ug/ml	99
68) Benzidine	15.18	184	132399	32.57 ug/ml	100
69) Pyrene	15.34	202	676829	50.81 ug/ml	100
71) Butyl Benzyl Phthalate	15.86	149	359677	51.81 ug/ml	100
72) Benzo[a]anthracene	16.67	228	657964	49.03 ug/ml	97

(#) = qualifier out of range (m) = manual integration

002021

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
[illegible] : WATER,1
M. Integration Params: rteint.p
Quant Time: Sep 15 9:10 2000

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.58	252	194643	45.98	ug/ml	99
74)	Chrysene	16.73	228	636394	49.05	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.44	149	498653	51.73	ug/ml	100
77)	Di-n-Octyl Phthalate	17.32	149	825550	54.91	ug/ml	99
78)	Benzo[b]fluoranthene	18.42	252	592154	50.43	ug/ml	98
79)	Benzo[k]fluoranthene	18.47	252	581571	50.90	ug/ml#	86
80)	Benzo[a]pyrene	19.12	252	548895	50.17	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	22.15	276	569124	48.42	ug/ml#	98
82)	Dibenz[ah]anthracene	22.15	278	461068	48.64	ug/ml	99
83)	Benzo[ghi]perylene	23.08	276	456663	46.78	ug/ml	98

(#) = qualifier out of range (m) = manual integration

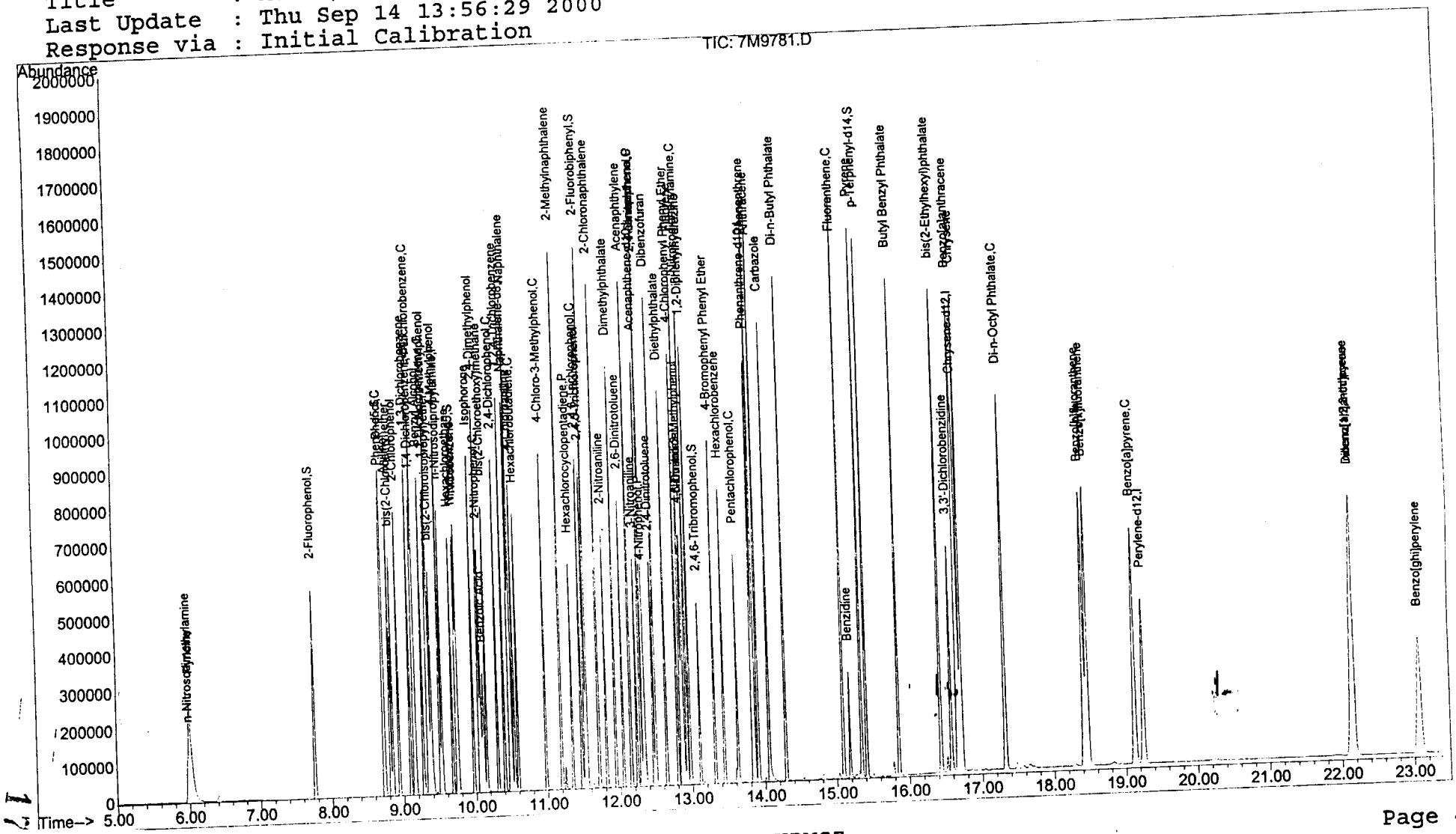
002022

Data File : C:\HPCHEM\1\DATA\091500\7M9781.D
Acq On : 15 Sep 2000 8:38
Sample : 50PPM BNA STD
Misc : WATER,1
MS Integration Params: rteint.p
Quant Time: Sep 15 9:10 2000

Vial: 2
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



002023

7M9781.D BNA.M Fri Sep 15 09:10:20 2000 HPMS7

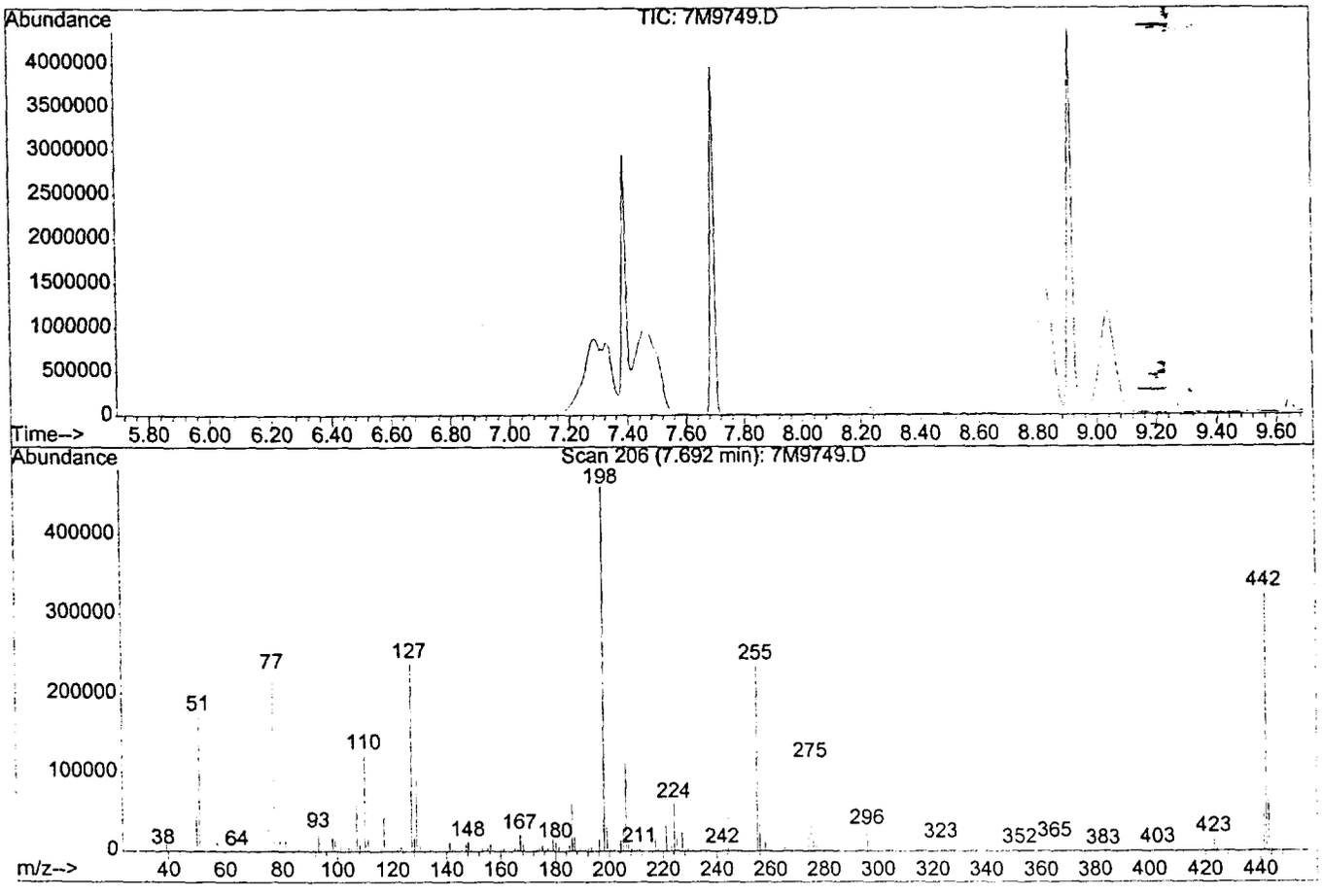
2.2.1.4 Raw QC Data

002024

DFTPP

Data File : C:\HPCHEM\1\DATA\091400\7M9749.D
Acq On : 14 Sep 2000 8:25
Sample : 50PPM DFTPP
Misc : WATER,1
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: mdc
Inst : HPMS7
Multiplr: 1.00



Spectrum Information: Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.4	172224	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	210816	PASS
70	69	0.00	2	0.5	1039	PASS
127	198	40	60	51.7	238272	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	460800	PASS
199	198	5	9	6.8	31512	PASS
275	198	10	30	24.2	111320	PASS
365	198	1	100	2.4	11019	PASS
441	443	0.01	100	73.3	47296	PASS
442	198	40	100	70.3	324160	PASS
443	442	17	23	19.9	64528	PASS

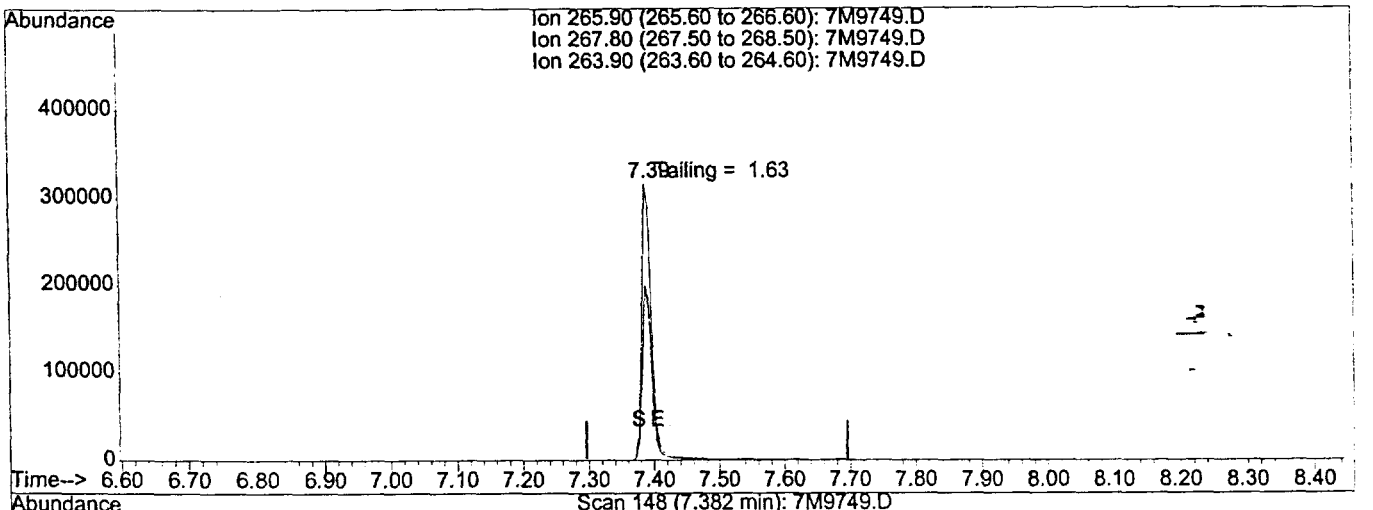
Quantitation Report (Qedit)

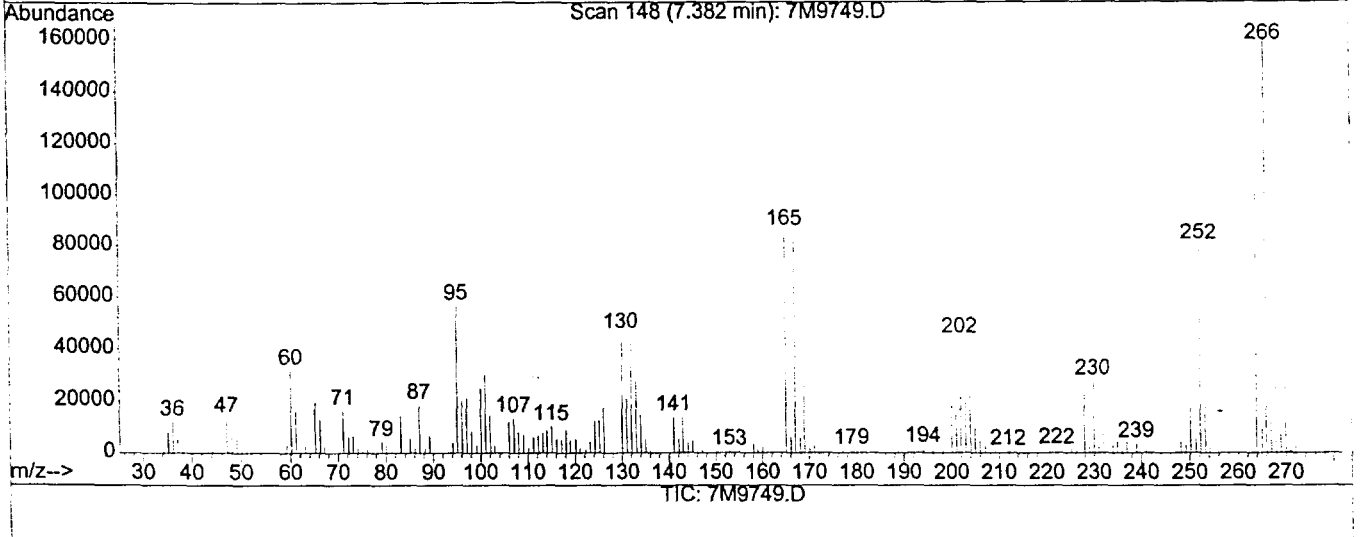
Data File : C:\HPCHEM\1\DATA\091400\7M9749.D
Acq On : 14 Sep 2000 8:25
Sample : 50PPM DFTPP
Misc : WATER,1
MS Integration Params: rteint.p
Quant Time: Sep 14 8:35 2000

Vial: 1
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration





(1) PENTACHLOROPHENOL

7.50min 0.00

response 0

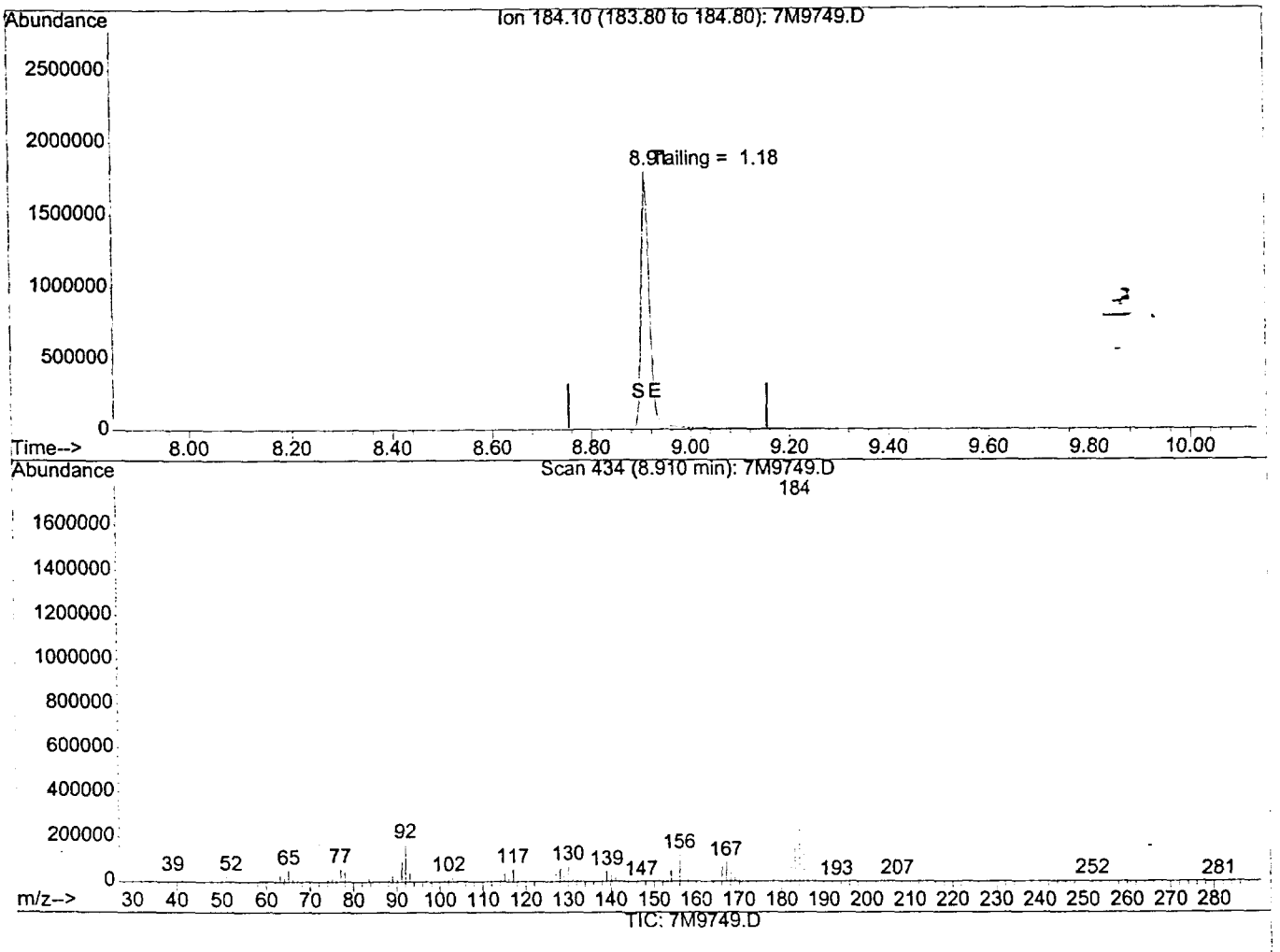
Ion	Exp%	Act%
265.90	100	0.00
267.80	64.60	0.00#
263.90	61.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\7M9749.D
Acq On : 14 Sep 2000 8:25
Sample : 50PPM DFTPP
Misc : WATER,1
MS Integration Params: rteint.p
Quant Time: Sep 14 8:35 2000

Vial: 1
Operator: mdc
Inst : HPMS7
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration



(2) BENZIDINE

8.91min 0.00

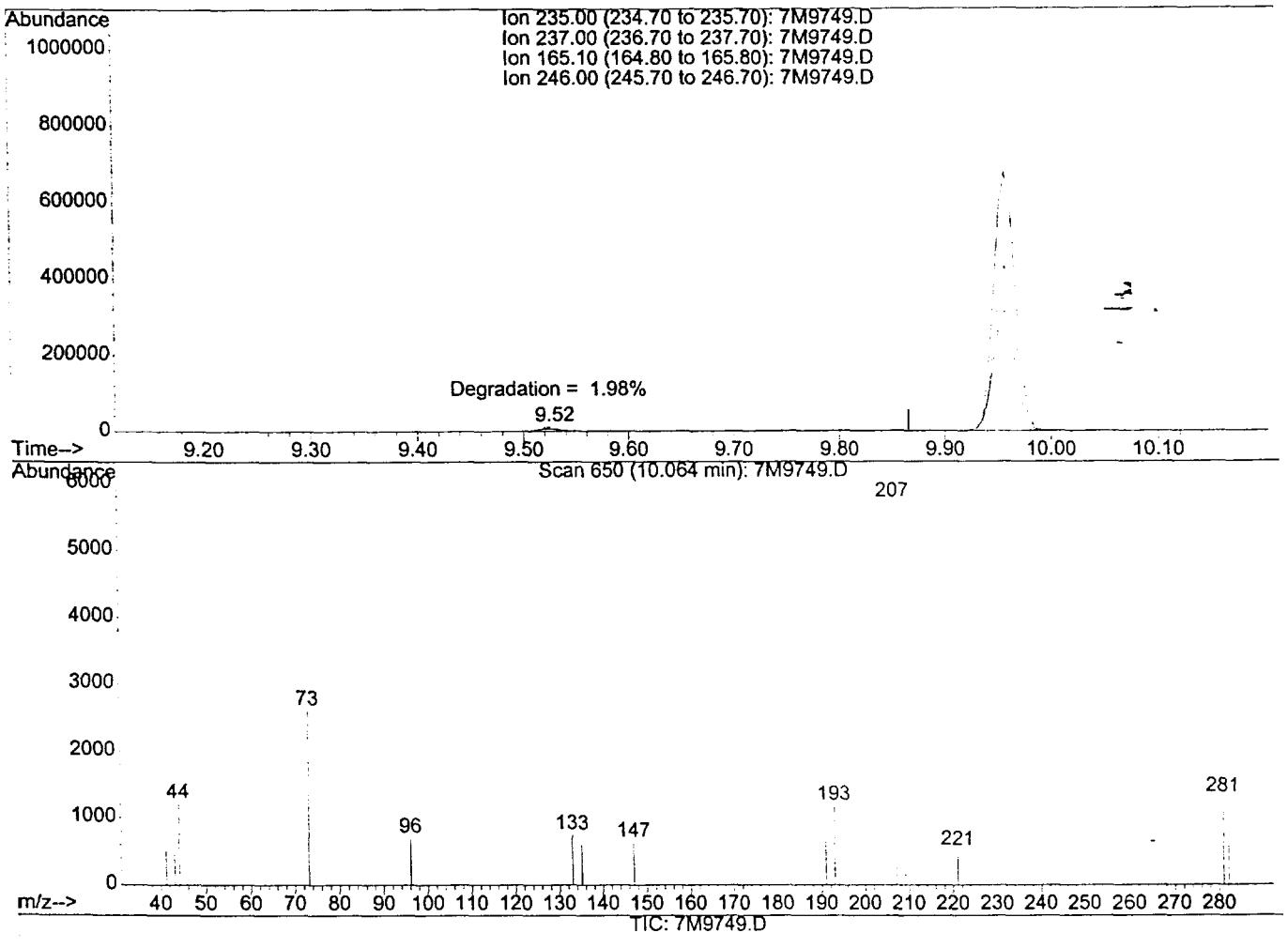
response 2132985

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\7M9749.D Vial: 1
Acq On : 14 Sep 2000 8:25 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 8:35 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration



(3) DDT

10.07min 0.00

response 0

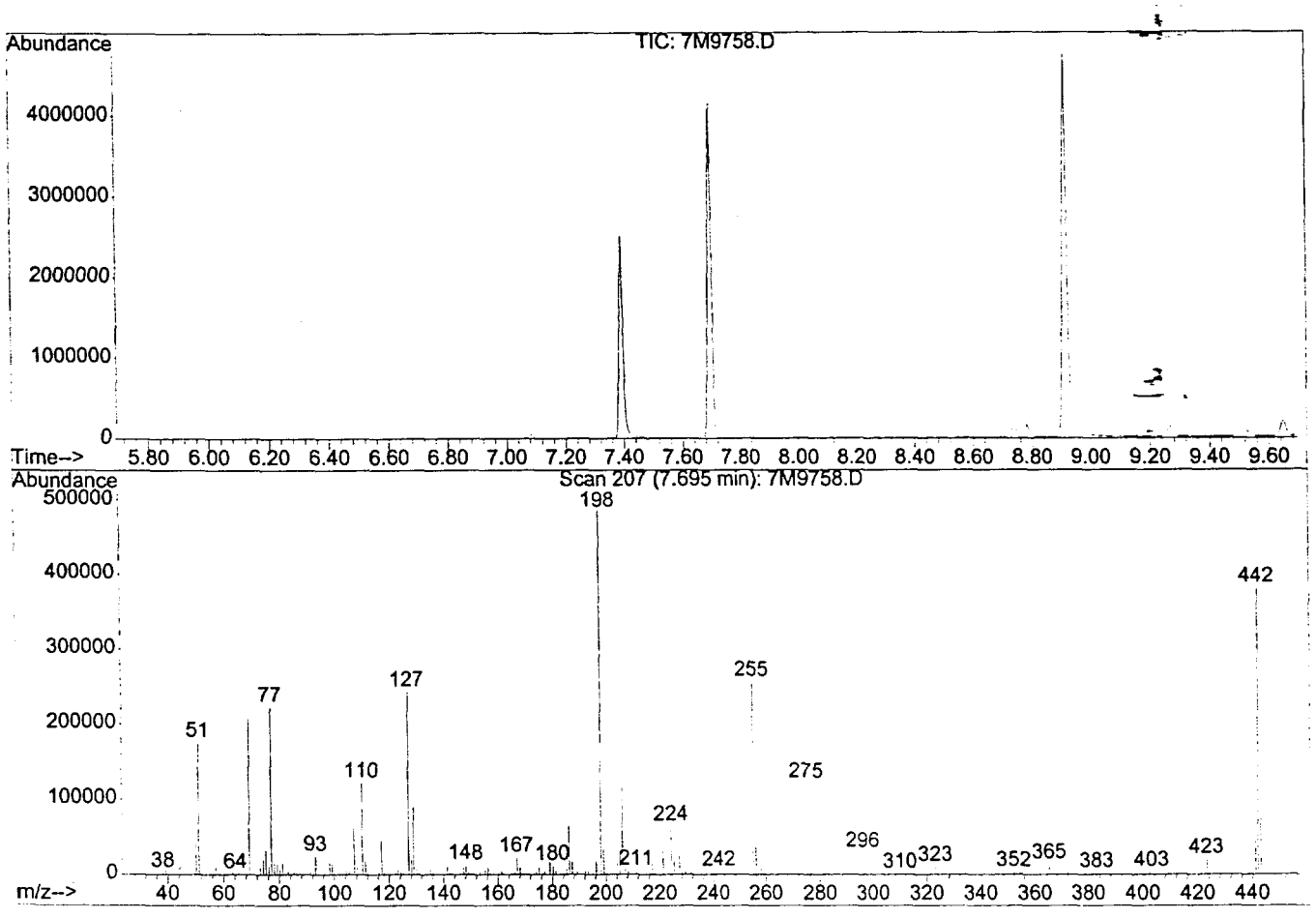
Ion	Exp%	Act%
235.00	100	0.00
237.00	62.60	0.00#
165.10	67.20	0.00#
246.00	8.20	0.00#

002028

DFTPP

Data File : C:\HPCHEM\1\DATA\091400\7M9758.D
Acq On : 14 Sep 2000 13:06
Sample : 50PPM DFTPP
Misc : WATER,1
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP

Vial: 10
Operator: mdc
Inst : HPMS7
Multiplr: 1.00



Spectrum Information: Scan 207

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.0	174976	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.6	207168	PASS
70	69	0.00	2	0.5	1114	PASS
127	198	40	60	49.8	242240	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	486208	PASS
199	198	5	9	6.8	33176	PASS
275	198	10	30	24.7	120160	PASS
365	198	1	100	2.7	13282	PASS
441	443	0.01	100	72.8	55888	PASS
442	198	40	100	78.1	379712	PASS
443	442	17	23	20.2	76776	PASS

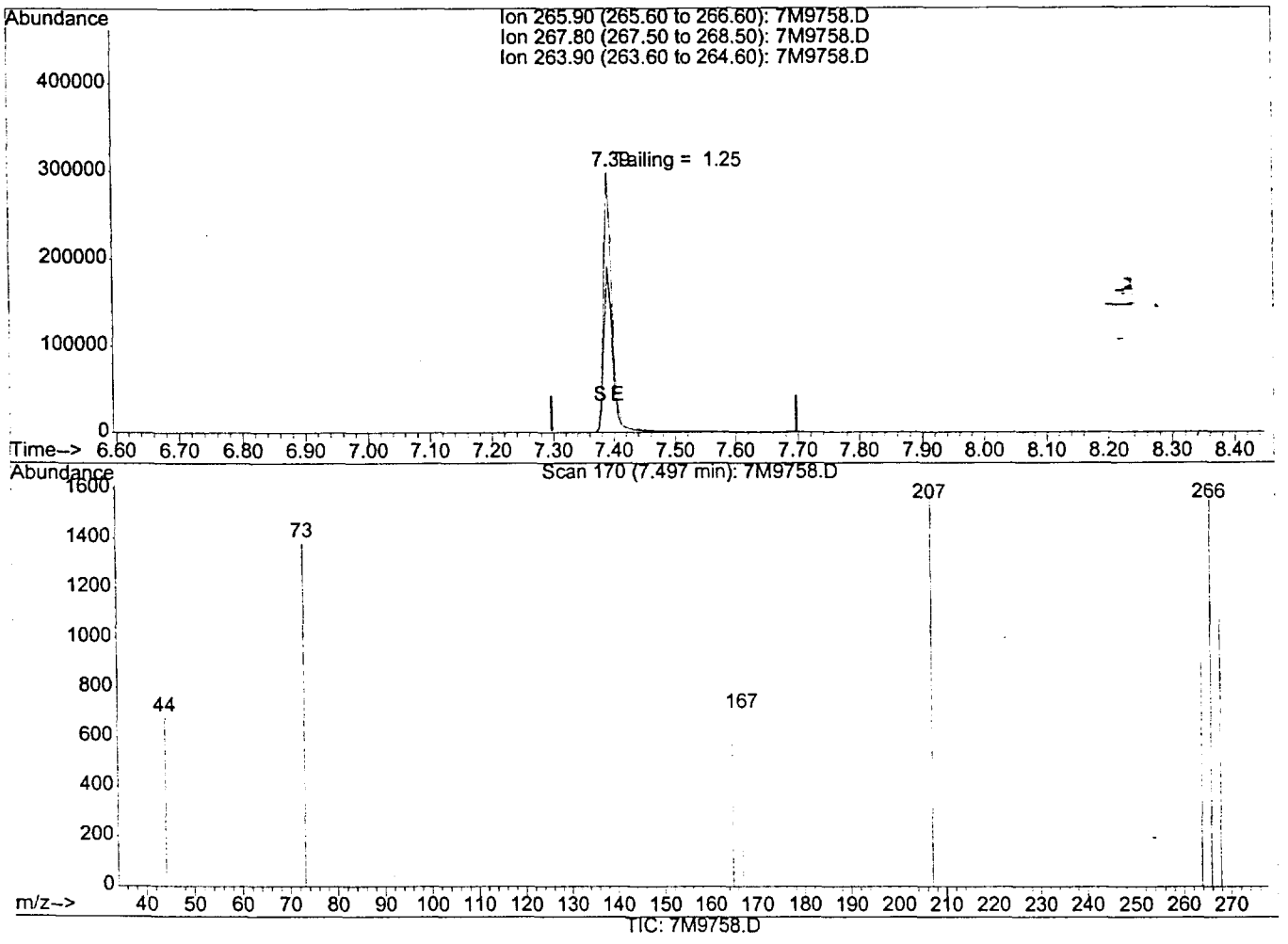
7M9758.D DFTPP.M Thu Sep 14 13:18:09 2000 HPMS7

002029

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\7M9758.D Vial: 10
Acq On : 14 Sep 2000 13:06 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 13:17 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.50min 0.00

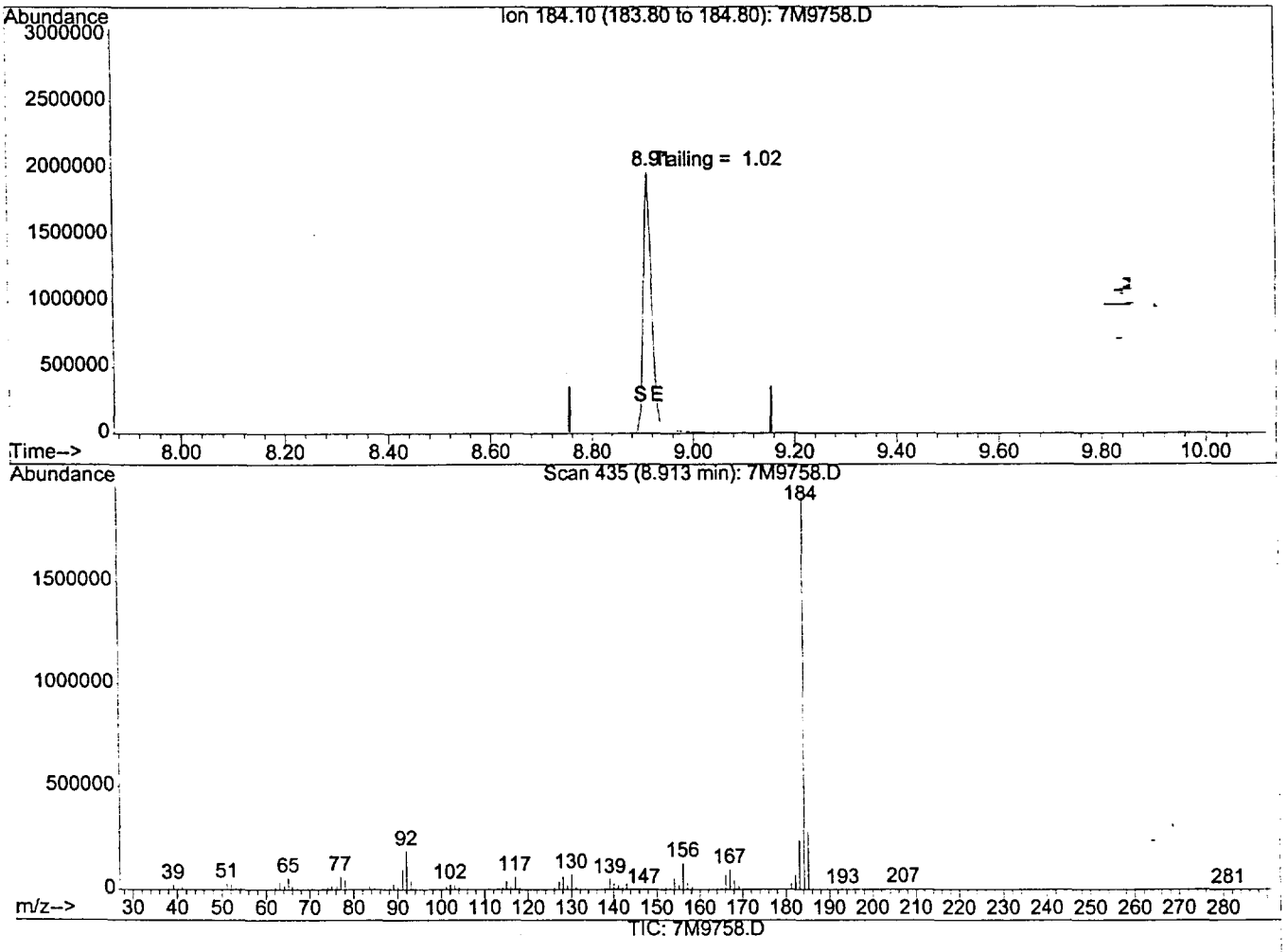
response 0

Ion	Exp%	Act%
265.90	100	0.00
267.80	64.60	0.00#
263.90	61.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\7M9758.D Vial: 10
Acq On : 14 Sep 2000 13:06 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 13:17 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration



(2) BENZIDINE

8.91min 0.00

response 2274973

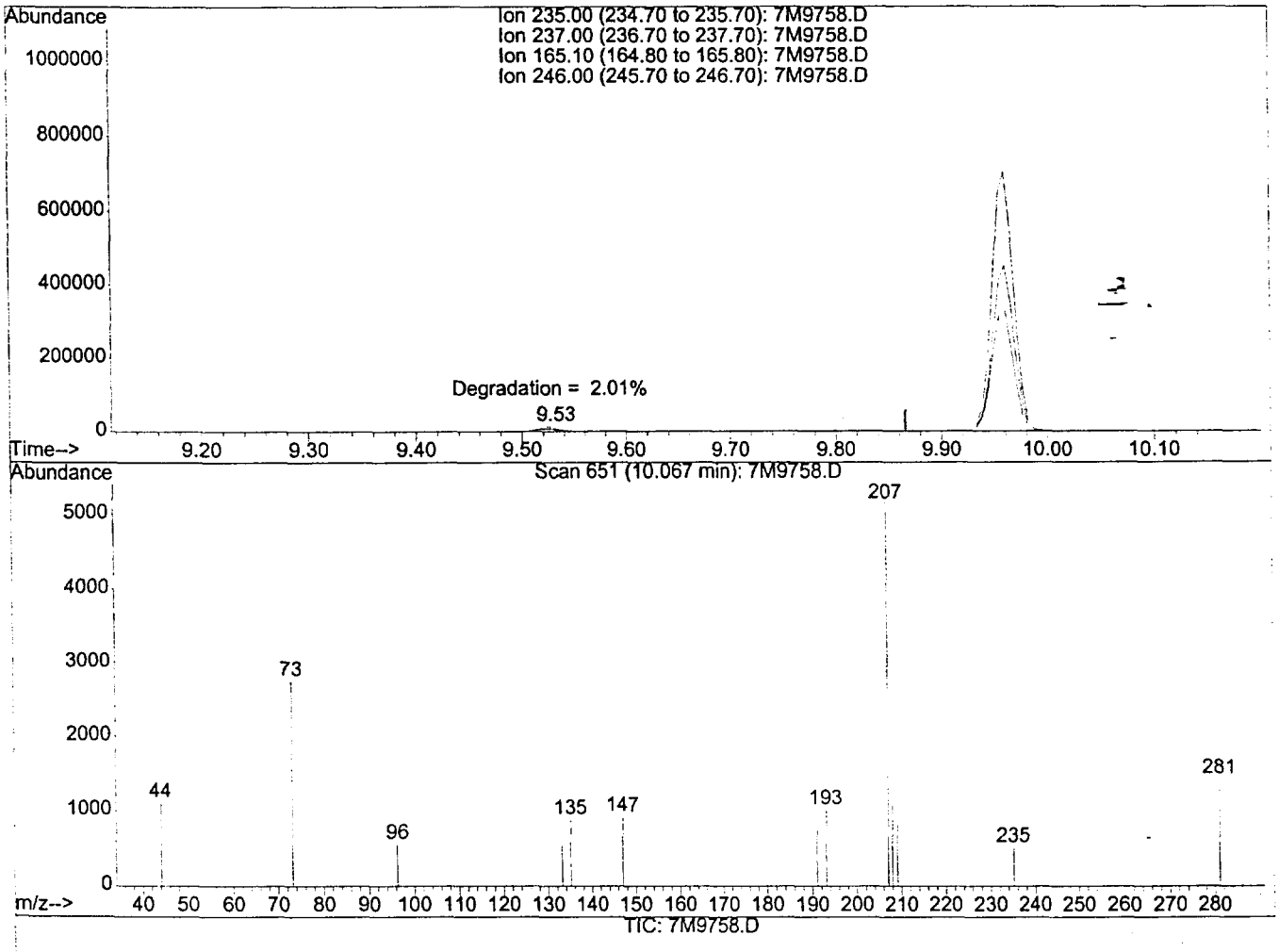
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

002031

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\7M9758.D Vial: 10
Acq On : 14 Sep 2000 13:06 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 13:17 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Aug 28 15:11:57 2000
Response via : Single Level Calibration



(3) DDT

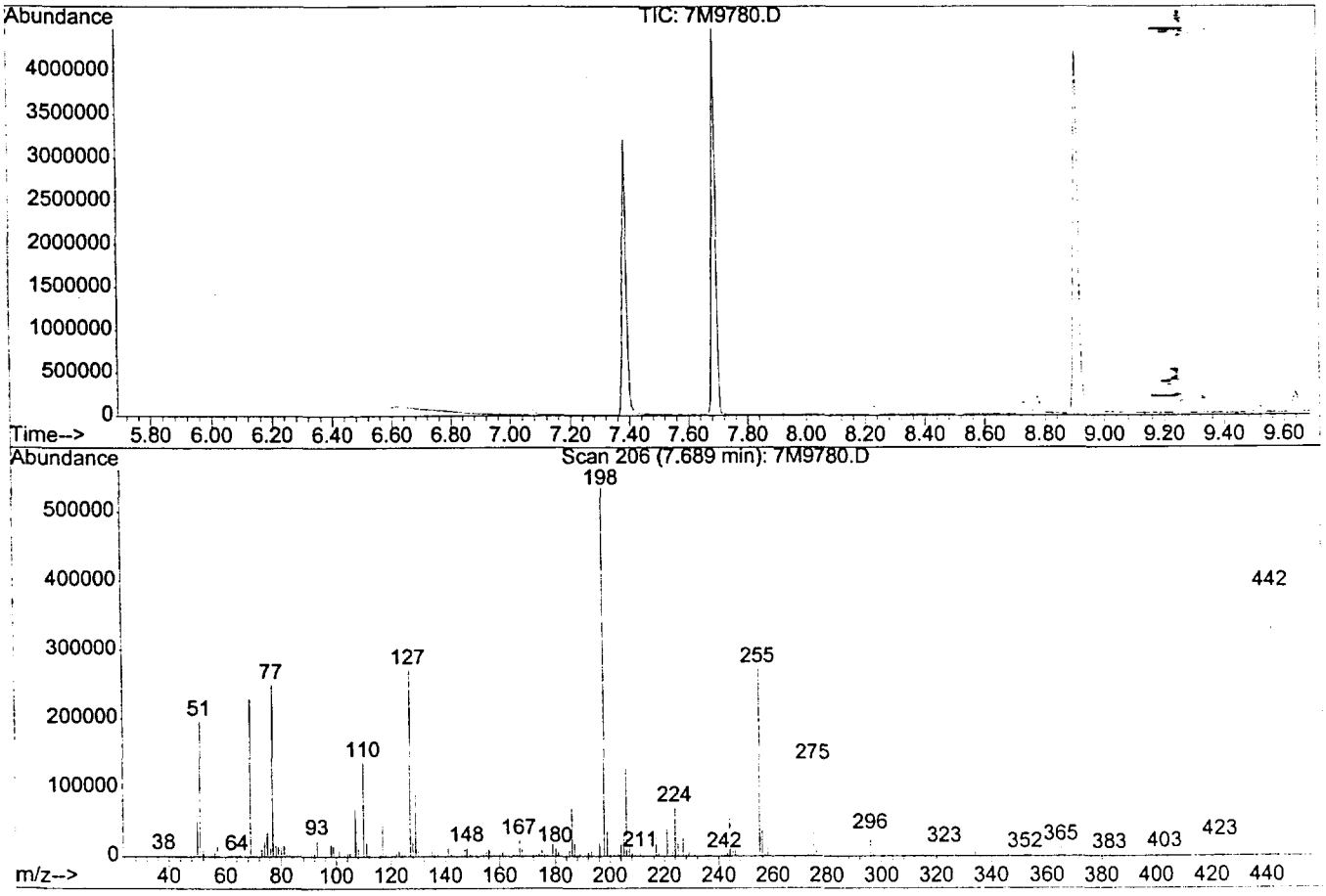
10.07min 0.00

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	62.60	0.00#
165.10	67.20	0.00#
246.00	8.20	0.00#

DFTPP

Data File : C:\HPCHEM\1\DATA\091500\7M9780.D Vial: 1
Acq On : 15 Sep 2000 8:20 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00



Spectrum Information: Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.7	196096	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.0	229760	PASS
70	69	0.00	2	0.7	1539	PASS
127	198	40	60	50.6	270336	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	534016	PASS
199	198	5	9	6.8	36512	PASS
275	198	10	30	24.6	131136	PASS
365	198	1	100	2.5	13577	PASS
441	443	0.01	100	71.6	54280	PASS
442	198	40	100	71.3	380672	PASS
443	442	17	23	19.9	75808	PASS

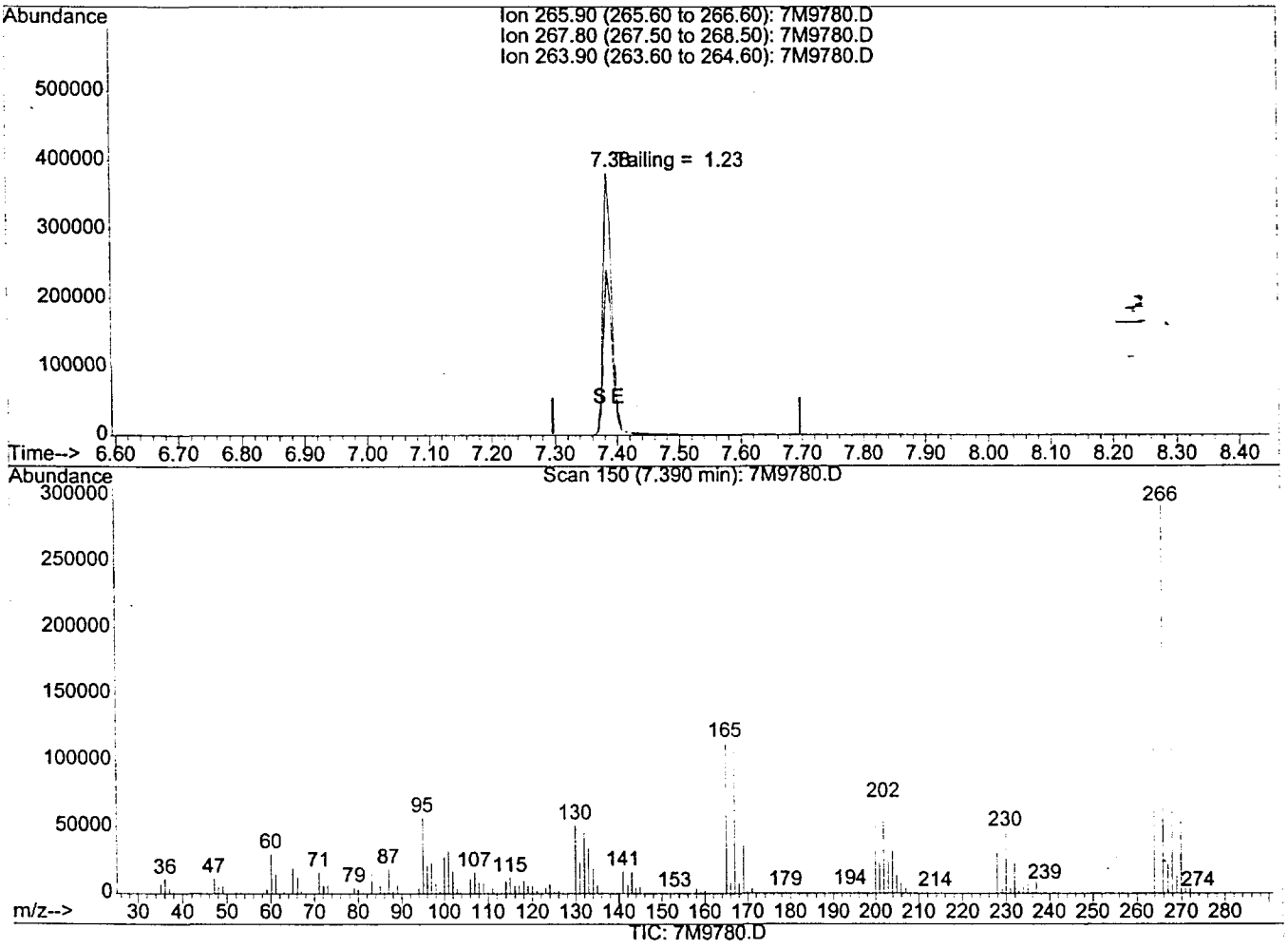
7M9780.D BNA.M Fri Sep 15 10:26:17 2000 HPMS7

002033

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091500\7M9780.D Vial: 1
Acq On : 15 Sep 2000 8:20 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 15 8:30 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.50min 0.00

response 0

Ion	Exp%	Act%
265.90	100	0.00
267.80	64.60	0.00#
263.90	61.60	0.00#
0.00	0.00	0.00

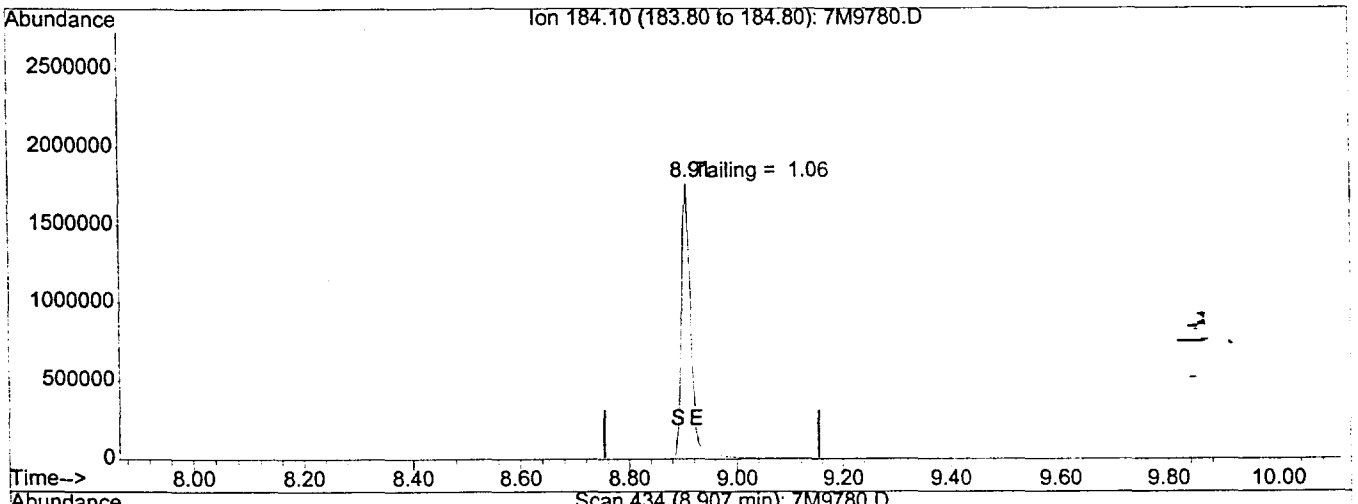
7M9780.D BNA.M Fri Sep 15 10:26:27 2000 HPMS7

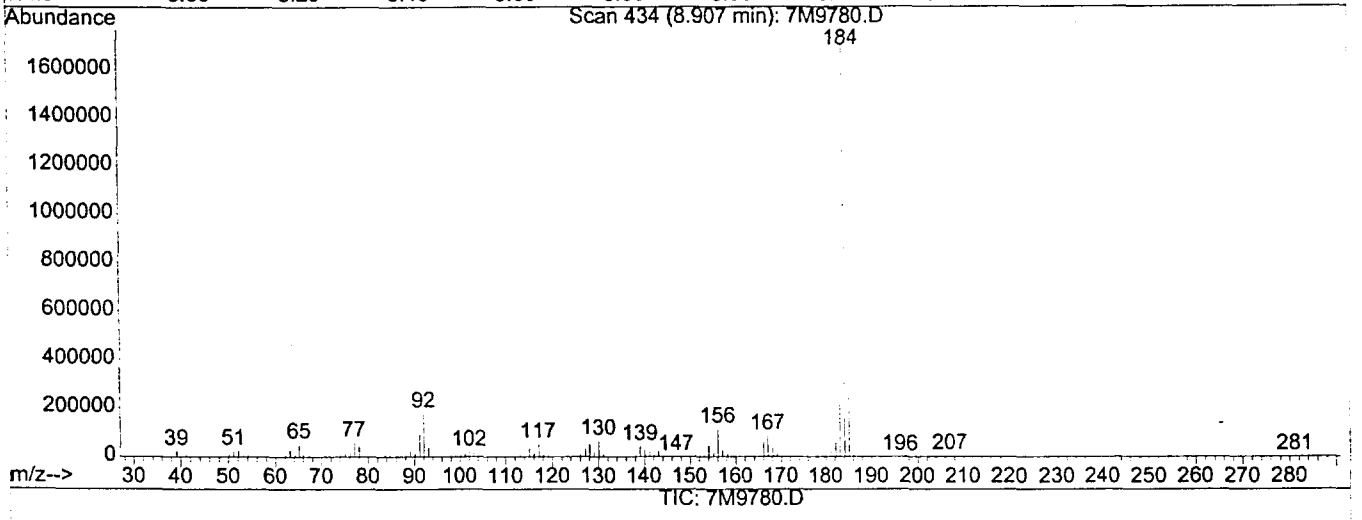
002034

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091500\7M9780.D Vial: 1
Acq On : 15 Sep 2000 8:20 Operator: mdc
Sample : 50PPM DFTPP Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 15 8:30 2000 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Single Level Calibration





(2) BENZIDINE

8.91min 0.00

response 2195534

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7M9780.D BNA.M Fri Sep 15 10:26:33 2000 HPMS7

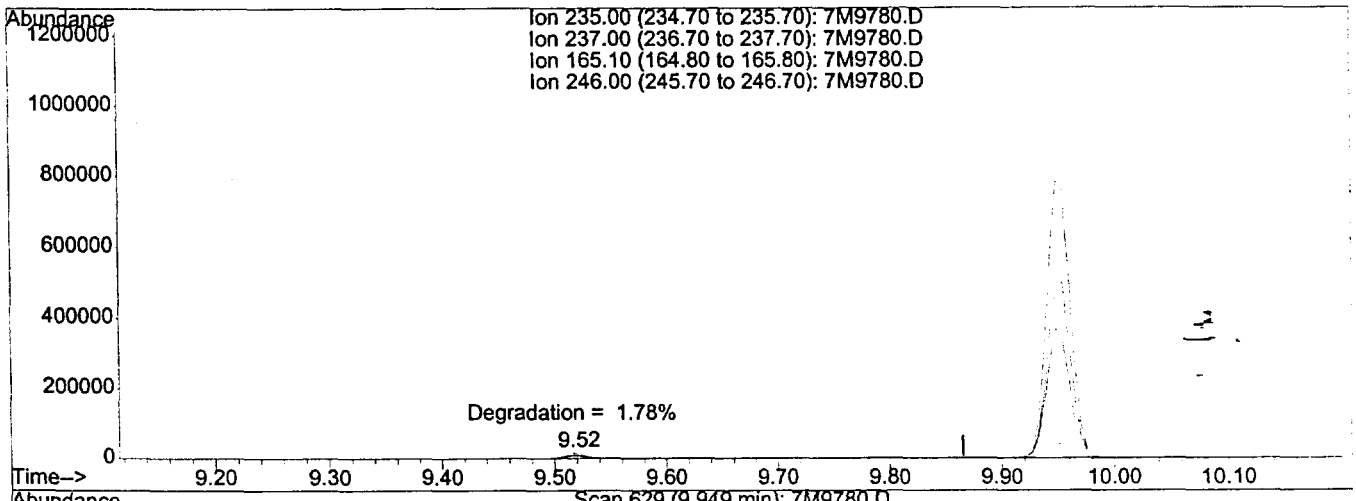
002035

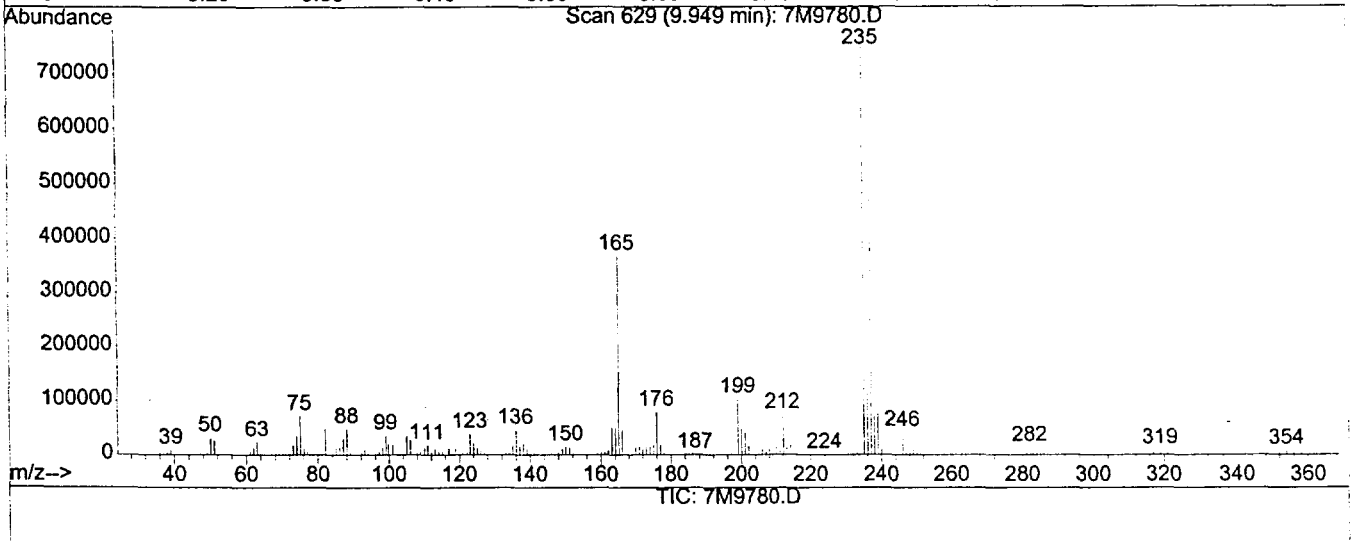
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091500\7M9780.D
Acq On : 15 Sep 2000 8:20
Sample : 50PPM DFTPP
Misc : WATER,1
MS Integration Params: rteint.p
Quant Time: Sep 15 8:30 2000

Vial: 1
Operator: mdc
Inst : HPMS7
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Single Level Calibration





TIC: 7M9780.D

(3) DDT

10.07min 0.00

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	62.60	0.00#
165.10	67.20	0.00#
246.00	8.20	0.00#

7M9780.D BNA.M Fri Sep 15 10:26:43 2000 HPMS7

002036

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9763.D Vial: 15
Acq On : 14 Sep 2000 15:33 Operator: mdc
Sample : WG84038-02 BLK 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 15:56 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

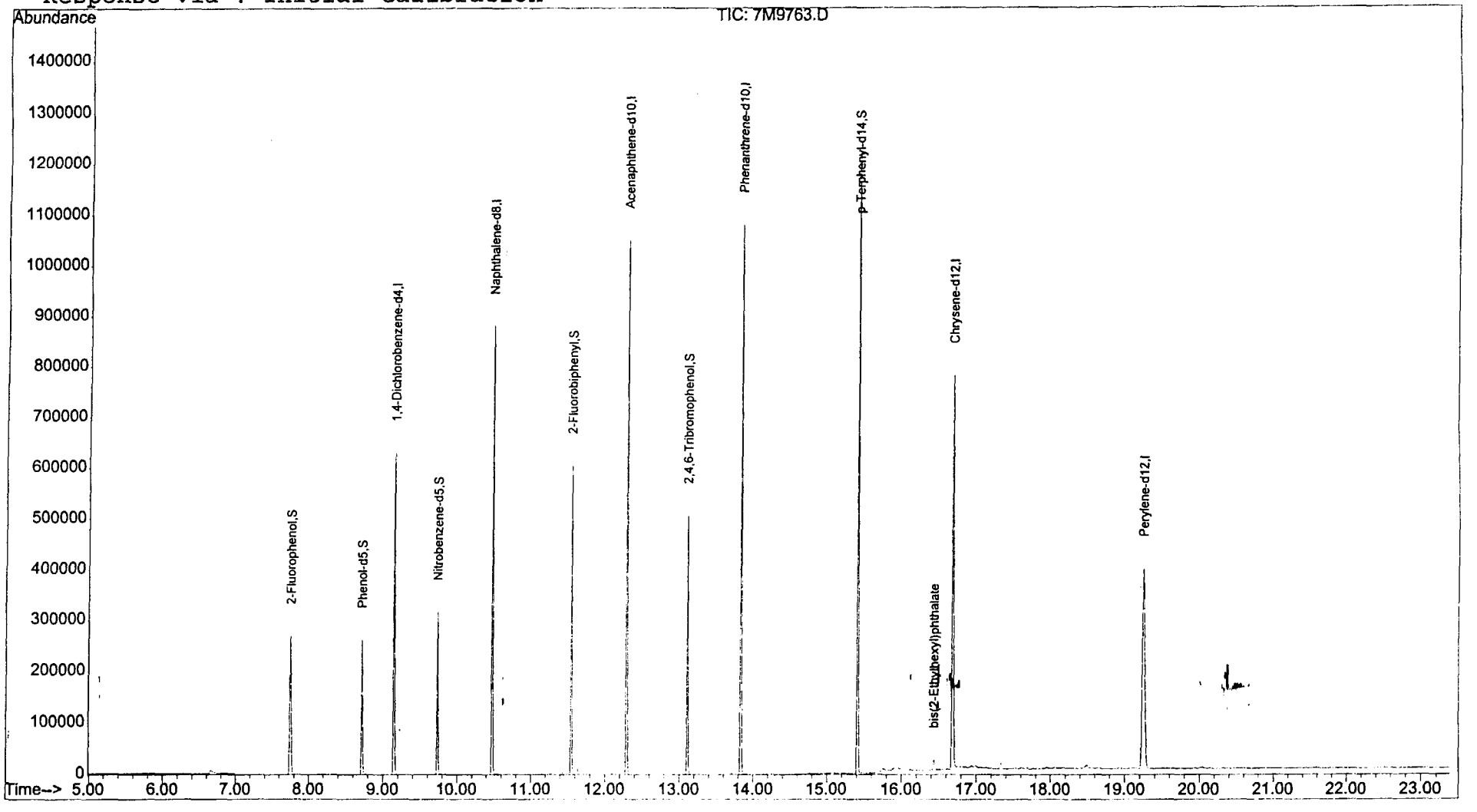
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	113820	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	456640	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	252569	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	431918	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	342352	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	294758	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	127091	33.19	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 33.19%			
6) Phenol-d5	8.72	99	108995	24.37	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 24.37%			
20) Nitrobenzene-d5	9.74	82	105517	27.69	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 55.38%			
38) 2-Fluorobiphenyl	11.55	172	211928	24.88	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 49.76%			
55) 2,4,6-Tribromophenol	13.11	330	56984	60.04	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 60.04%			
70) p-Terphenyl-d14	15.41	244	429999	49.29	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 98.58%			
Target Compounds						Qvalue
75) bis(2-Ethylhexyl)phthalate	16.44	149	12918	1.57	ug/ml#	72

(#) = qualifier out of range (m) = manual integration

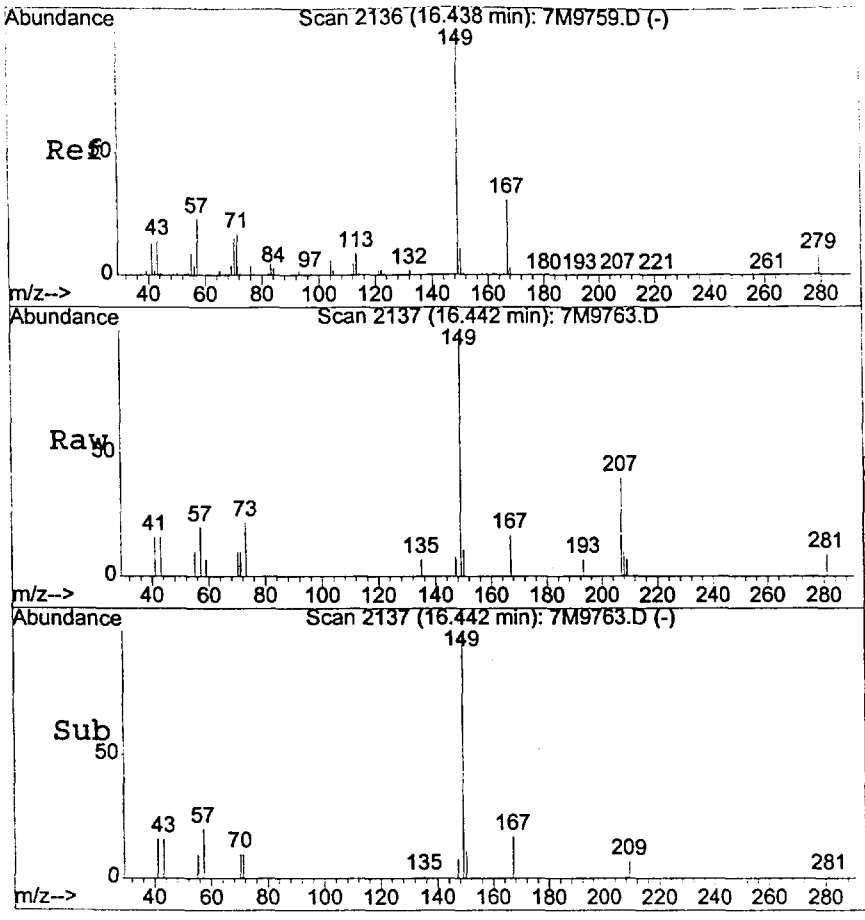
002037

Data File : C:\HPCHEM\1\DATA\091400\7M9763.D Vial: 15
Acq On : 14 Sep 2000 15:33 Operator: mdc
Sample : WG84038-02 BLK 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 15:56 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



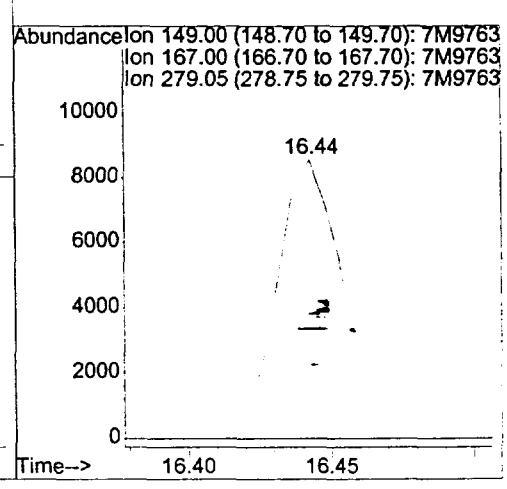
002038



#75
bis(2-Ethylhexyl)phthalate
Concen: 1.57 ug/ml
RT: 16.44 min Scan# 2137
Delta R.T. 0.01 min
Lab File: 7M9763.D
Acq: 14 Sep 2000 15:33

Tgt Ion:149 Resp: 12918

Ion	Ratio	Lower	Upper
149	100		
167	14.6	24.6	36.8#
279	0.0	6.1	9.1#



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9765.D Vial: 17
Acq On : 14 Sep 2000 16:37 Operator: mdc
Sample : WG84038-03 SPLP BLK 9/11 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 17:01 2000 Quant Results File: BNA.RES

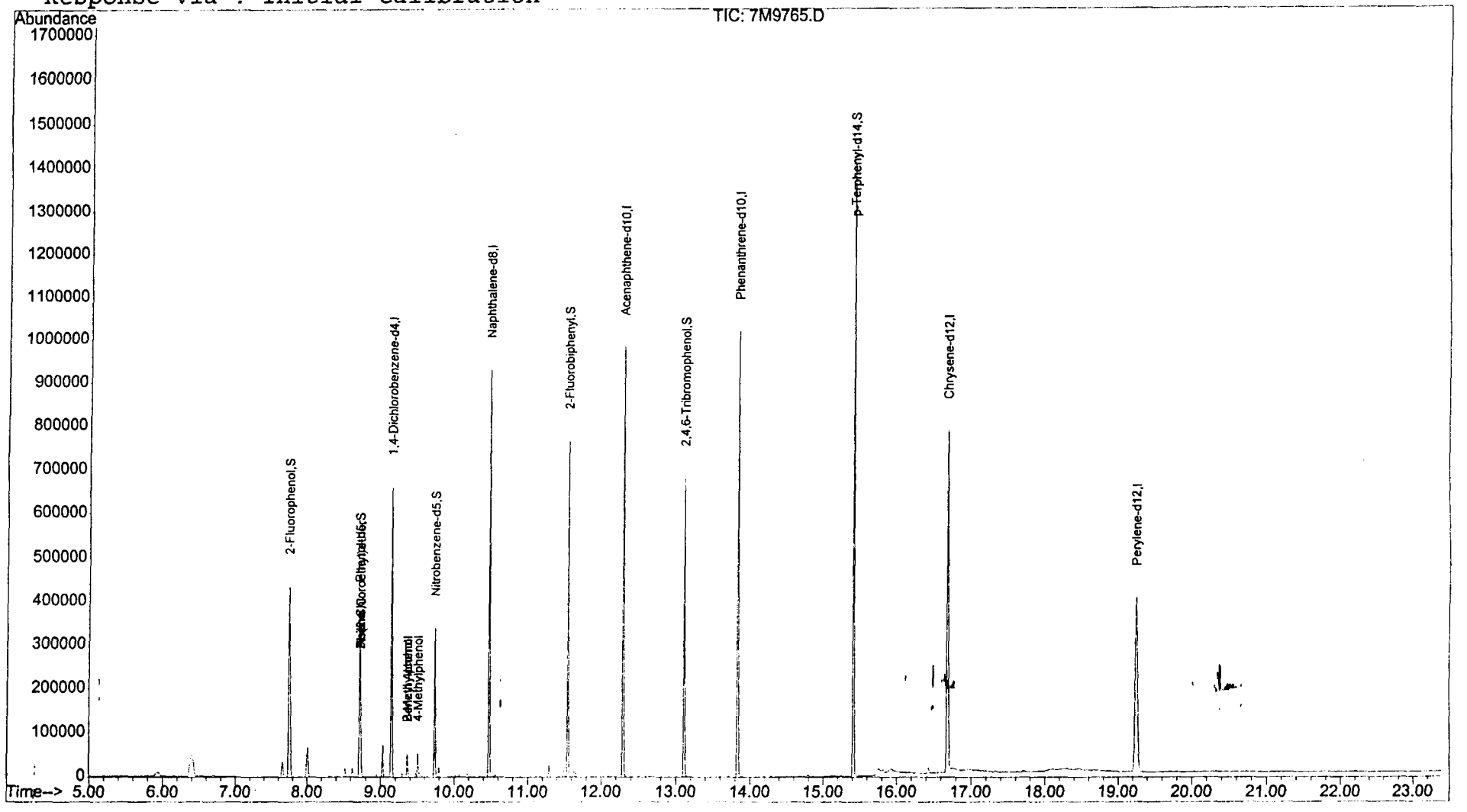
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	116174	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	458253	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	253654	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	430618	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	347551	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	298108	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.75	112	172759	44.21	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 44.21%			
6) Phenol-d5	8.72	99	150063	32.88	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 32.88%			
20) Nitrobenzene-d5	9.74	82	122204	31.95	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 63.90%			
38) 2-Fluorobiphenyl	11.55	172	249383	29.16	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 58.32%			
55) 2,4,6-Tribromophenol	13.11	330	73977	76.94	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 76.94%			
70) p-Terphenyl-d14	15.41	244	493550	55.73	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 111.46%			
Target Compounds						Qvalue
5) Aniline	8.73	66	18757	9.50	ug/ml#	1
7) Phenol	8.73	94	38224	7.66	ug/ml#	86
8) bis(2-Chloroethyl)ether	8.73	63	2799	1.11	ug/ml#	1
12) Benzyl Alcohol	9.36	108	5239	2.31	ug/ml#	90
14) 2-Methylphenol	9.36	107	4518	1.42	ug/ml#J	60
16) 4-Methylphenol	9.51	107	14317	3.10	ug/ml#J	77

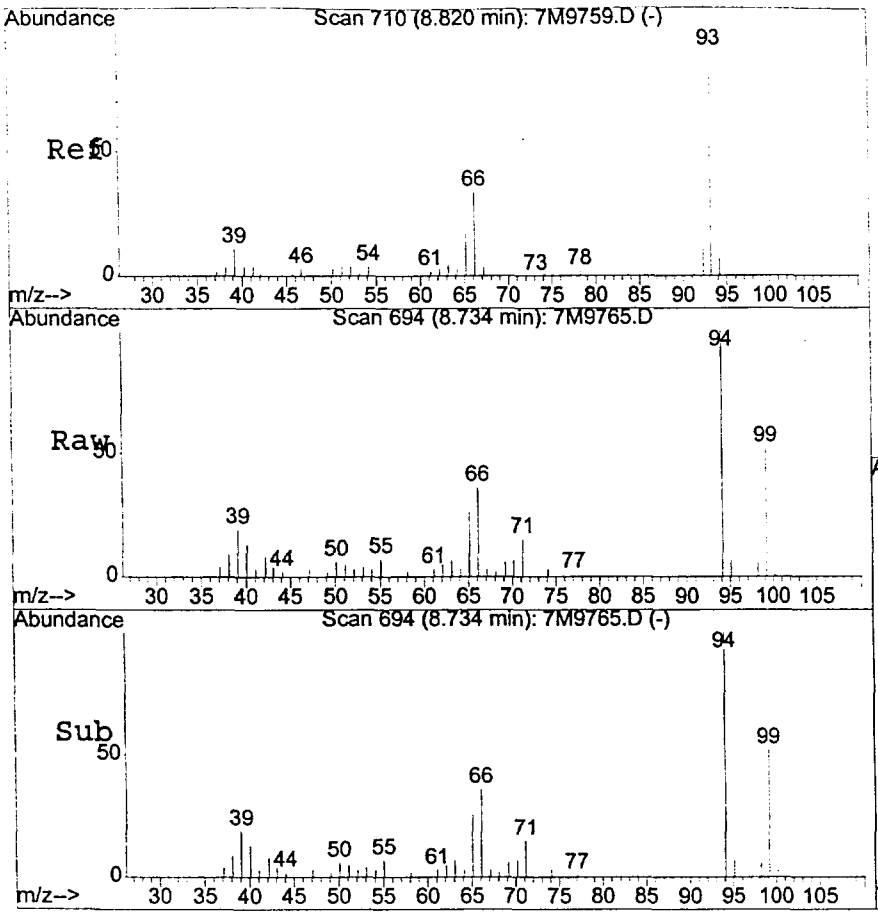
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9765.D Vial: 17
Acq On : 14 Sep 2000 16:37 Operator: mdc
Sample : WG84038-03 SPLP BLK 9/11 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 17:01 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



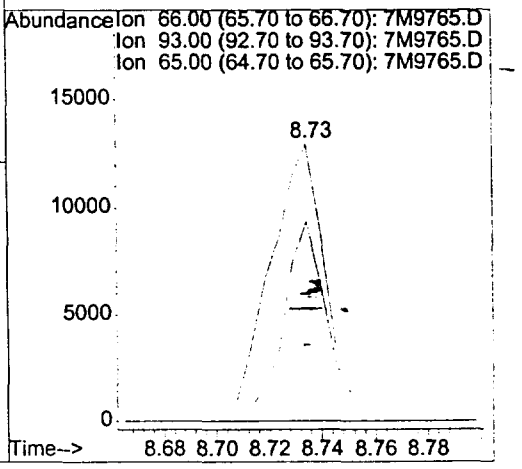
002041

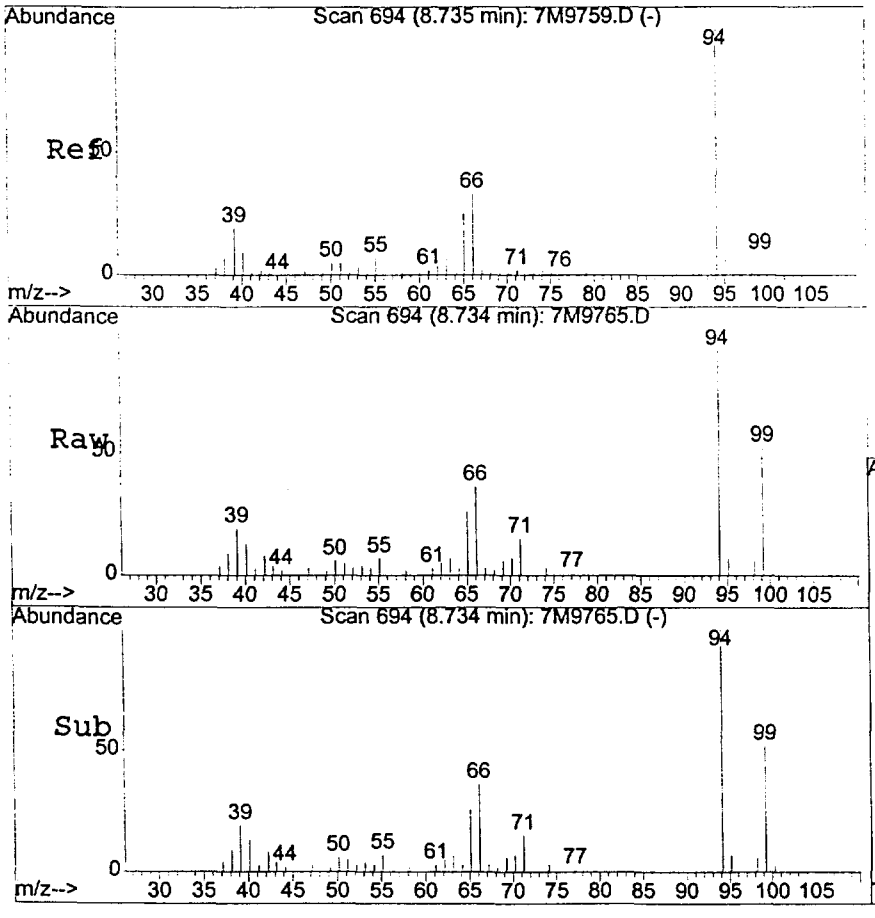


#5
Aniline
Concen: 9.50 ug/ml
RT: 8.73 min Scan# 694
Delta R.T. -0.09 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion: 66 Resp: 18757

Ion	Ratio	Lower	Upper
66	100		
93	0.0	227.0	340.4#
65	55.7	41.0	61.6

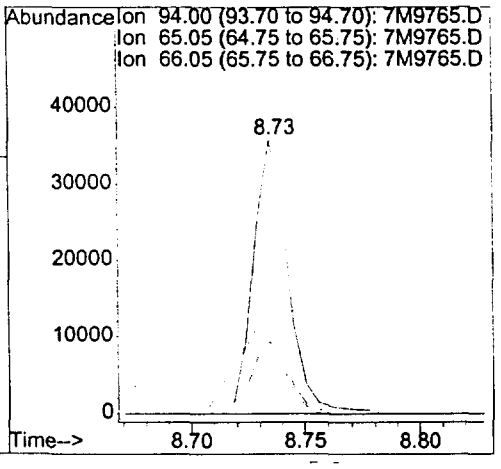




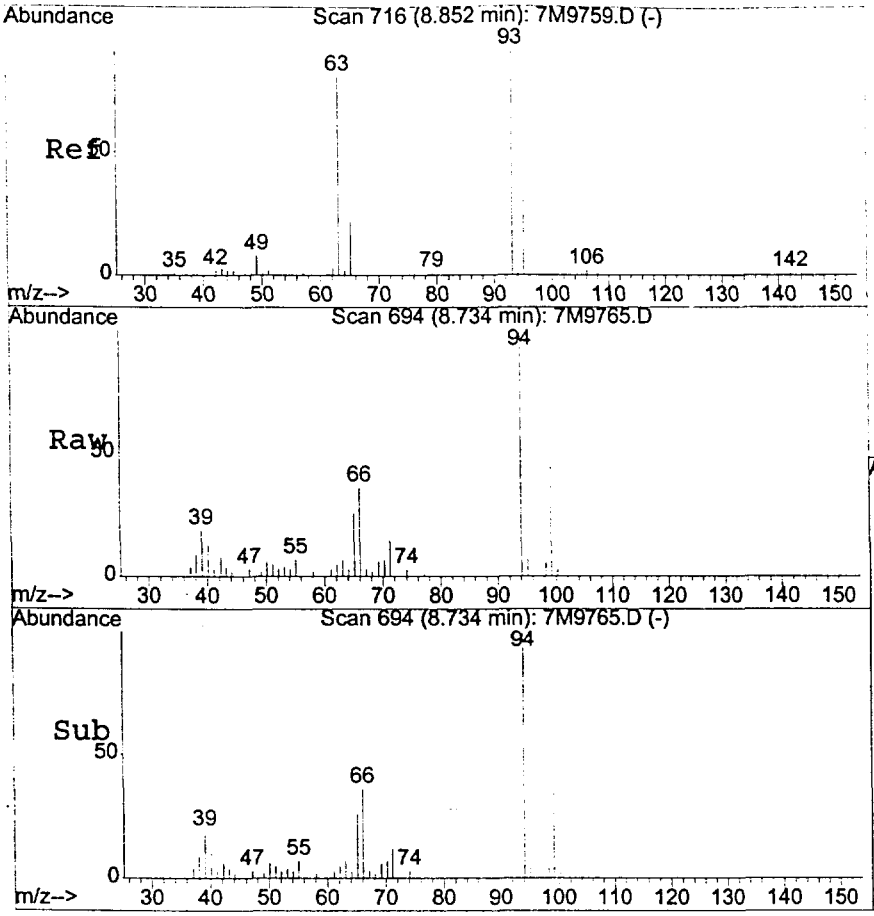
#7
Phenol
Concen: 7.66 ug/ml
RT: 8.73 min Scan# 694
Delta R.T. 0.00 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion: 94 Resp: 38224

Ion	Ratio	Lower	Upper
94	100		
65	27.3	20.5	30.7
66	49.1	29.4	44.0#



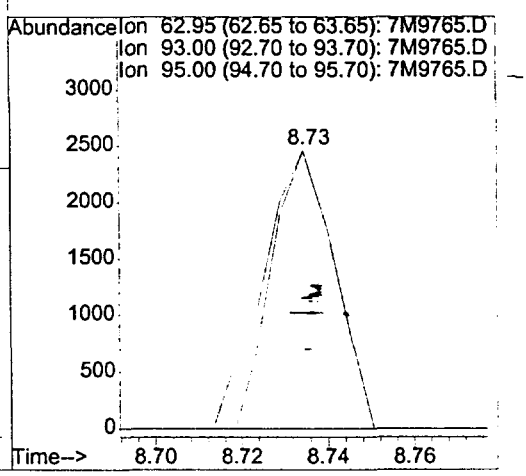
002042

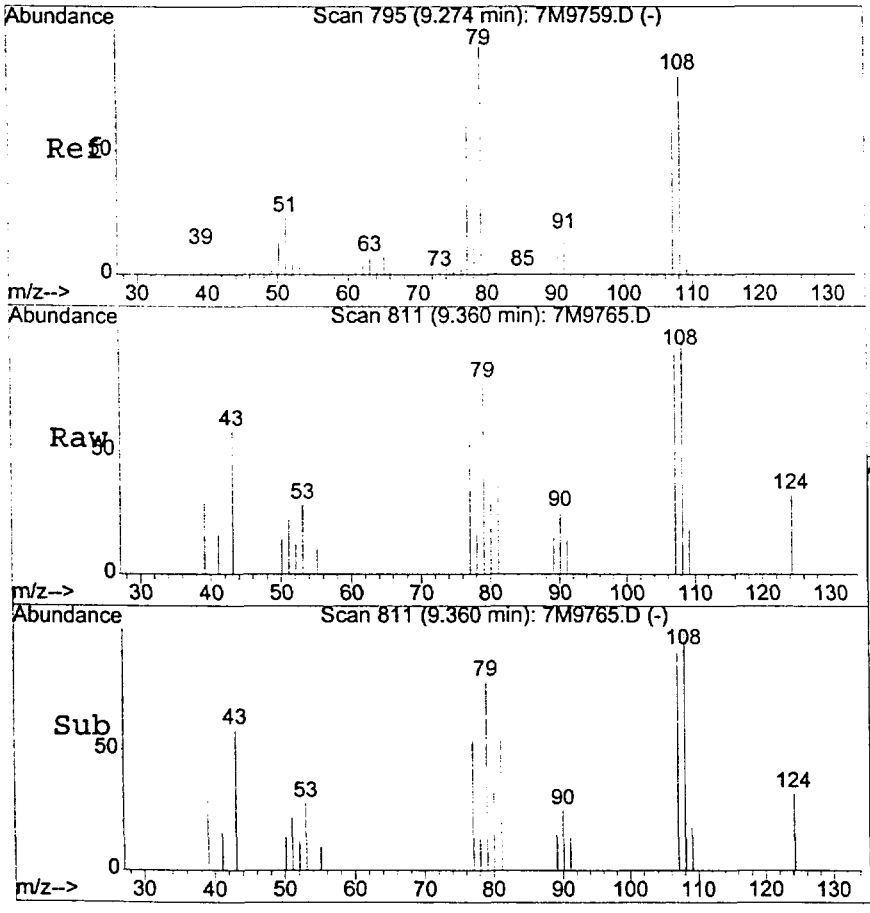


#8
bis(2-Chloroethyl)ether
Concen: 1.11 ug/ml
RT: 8.73 min Scan# 694
Delta R.T. -0.12 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion: 63 Resp: 2799

Ion	Ratio	Lower	Upper
63	100		
93	0.0	122.3	183.5#
95	88.1	39.8	59.8#

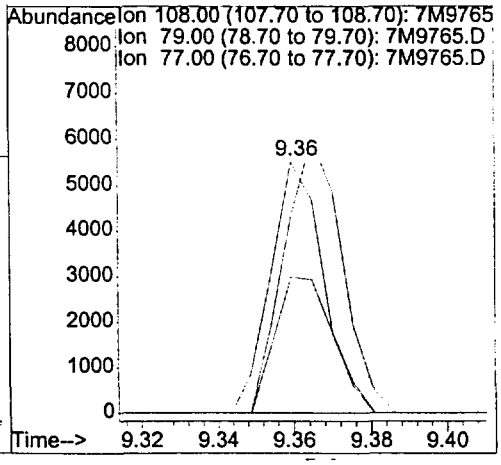




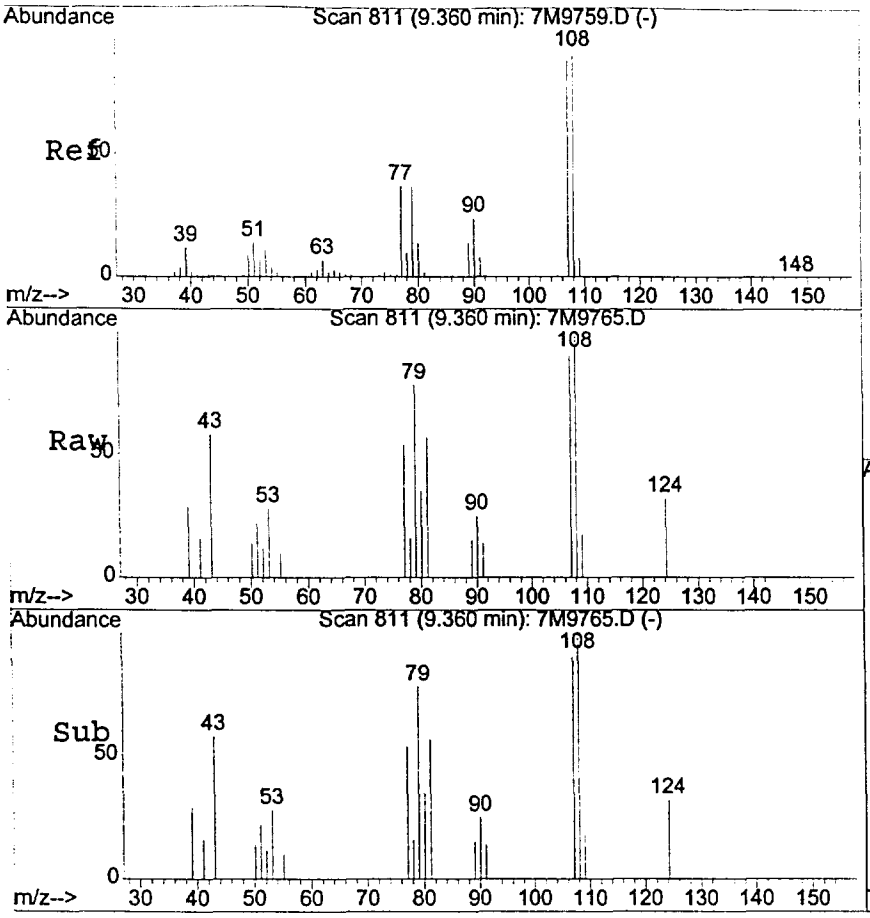
#12
Benzyl Alcohol
Concen: 2.31 ug/ml
RT: 9.36 min Scan# 811
Delta R.T. 0.09 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion:108 Resp: 5239

Ion	Ratio	Lower	Upper
108	100		
79	119.1	99.2	148.8
77	59.8	61.1	91.7#



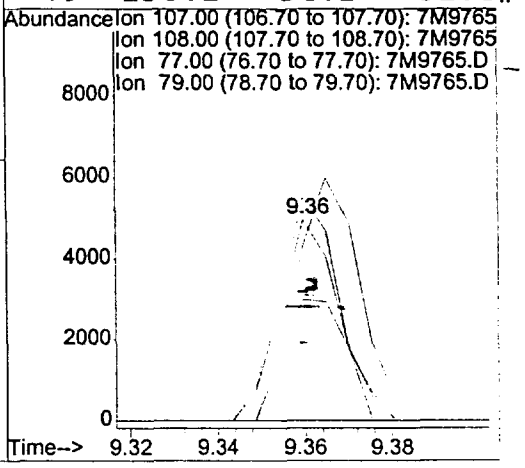
002043

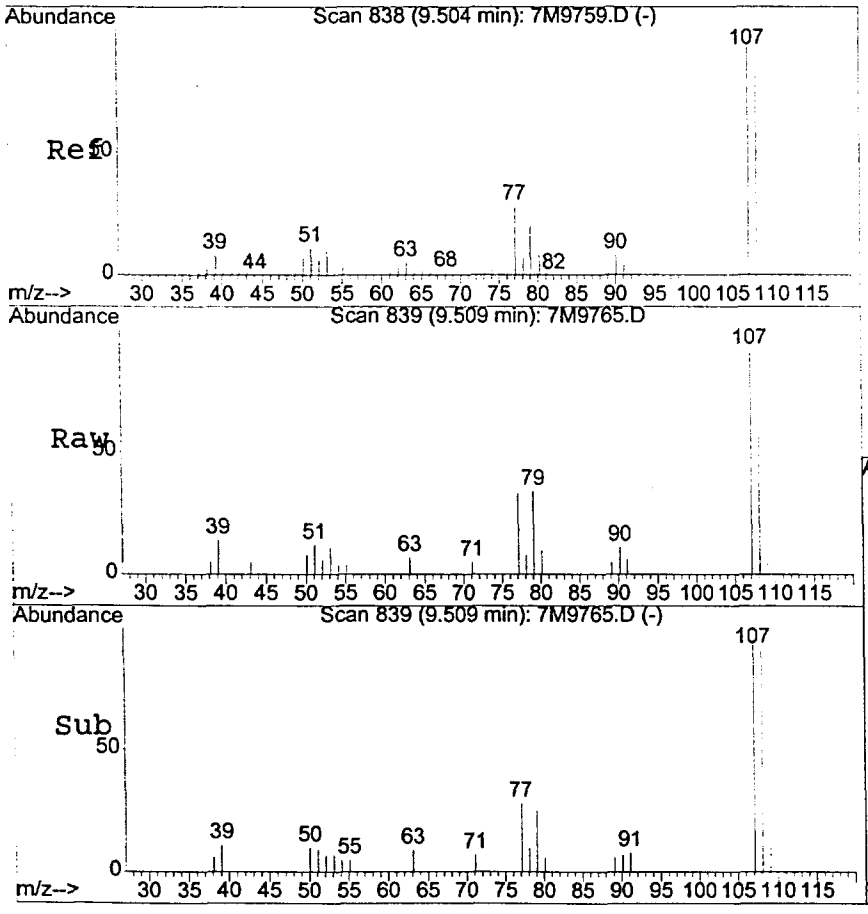


#14
2-Methylphenol
Concen: 1.42 ug/ml
RT: 9.36 min Scan# 811
Delta R.T. 0.00 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion:107 Resp: 4518

Ion	Ratio	Lower	Upper
107	100		
108	116.0	92.6	138.8
77	69.3	35.3	52.9#
79	138.1	34.2	51.4#

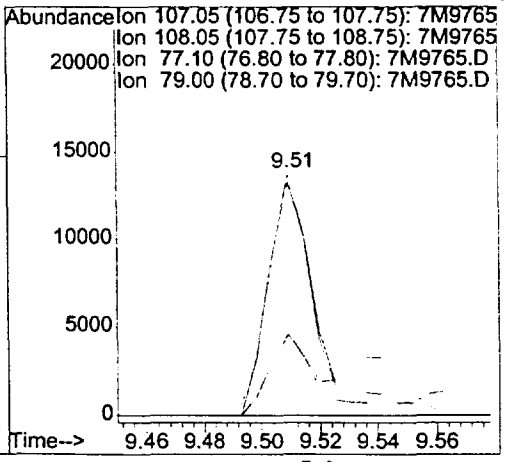




#16
4-Methylphenol
Concen: 3.10 ug/ml
RT: 9.51 min Scan# 839
Delta R.T. 0.01 min
Lab File: 7M9765.D
Acq: 14 Sep 2000 16:37

Tgt Ion:107 Resp: 14317

Ion	Ratio	Lower	Upper
107	100		
108	106.5	65.7	98.5#
77	36.2	23.1	34.7#
79	30.9	17.3	25.9#



002044

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9764.D Vial: 16
Acq On : 14 Sep 2000 16:05 Operator: mdc
Sample : WG84038-04 LCS 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 16:29 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.15	152	110699	40.00	ug/ml	0.00
19) Naphthalene-d8	10.48	136	441948	40.00	ug/ml	0.00
34) Acenaphthene-d10	12.30	164	243773	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.84	188	420277	40.00	ug/ml	0.00
67) Chrysene-d12	16.69	240	350370	40.00	ug/ml	0.00
76) Perylene-d12	19.25	264	306116	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.76	112	129865	34.87	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 34.87%			
6) Phenol-d5	8.72	99	110274	25.36	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 25.36%			
20) Nitrobenzene-d5	9.74	82	111927	30.34	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 60.68%			
38) 2-Fluorobiphenyl	11.55	172	235401	28.64	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 57.28%			
55) 2,4,6-Tribromophenol	13.11	330	81582	87.95	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 87.95%			
70) p-Terphenyl-d14	15.41	244	512035	57.35	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 114.70%			
Target Compounds						Qvalue
2) Pyridine	6.02	79	61263	16.95	ug/ml	99
3) n-Nitrosodimethylamine	5.98	74	42333	19.75	ug/ml#	99
5) Aniline	8.82	66	54948	29.21	ug/ml	99
7) Phenol	8.73	94	57632	12.12	ug/ml	96
8) bis(2-Chloroethyl)ether	8.85	63	67869	28.20	ug/ml	99
9) 2-Chlorophenol	8.94	128	102866	26.08	ug/ml	99
10) 1,3-Dichlorobenzene	9.10	146	68322	17.30	ug/ml	99
11) 1,4-Dichlorobenzene	9.17	146	74235	16.38	ug/ml	99
12) Benzyl Alcohol	9.27	108	60703	28.08	ug/ml	100
13) 1,2-Dichlorobenzene	9.34	146	71073	19.07	ug/ml	100
14) 2-Methylphenol	9.36	107	77143	25.53	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	9.39	45	99821	23.43	ug/ml#	97
16) 4-Methylphenol	9.50	107	101457	23.03	ug/ml	99
17) n-Nitrosodipropylamine	9.54	70	74123	28.02	ug/ml	99
18) Hexachloroethane	9.68	117	20705	13.55	ug/ml	98
21) Nitrobenzene	9.75	77	106696	27.16	ug/ml	99
22) Isophorone	9.97	82	212936	32.84	ug/ml	99
23) 2-Nitrophenol	10.08	139	60062	28.08	ug/ml	96
24) 2,4-Dimethylphenol	10.05	122	107486	30.82	ug/ml	98
25) bis(2-Chloroethoxy)methane	10.16	93	130492	29.10	ug/ml	99

(#) = qualifier out of range (m) = manual integration

002045

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9764.D Vial: 16
Acq On : 14 Sep 2000 16:05 Operator: mdc
Sample : WG84038-04 LCS 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 16:29 2000 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	10.05	122	107486	55.93	ug/ml#	1
27)	2,4-Dichlorophenol	10.31	162	87674	29.02	ug/ml	99
28)	1,2,4-Trichlorobenzene	10.41	180	63328	17.98	ug/ml	99
29)	Naphthalene	10.50	128	262098	24.58	ug/ml#	62
30)	4-Chloroaniline	10.54	127	142725	30.96	ug/ml	99
31)	Hexachlorobutadiene	10.59	225	27044	16.63	ug/ml	99
32)	4-Chloro-3-Methylphenol	10.98	107	102975	32.81	ug/ml	100
33)	2-Methylnaphthalene	11.20	142	190568	24.33	ug/ml	99
35)	Hexachlorocyclopentadiene	11.36	237	21523	14.61	ug/ml	98
36)	2,4,6-Trichlorophenol	11.48	196	66783	31.70	ug/ml	93
37)	2,4,5-Trichlorophenol	11.52	196	79080	35.05	ug/ml	100
39)	2-Chloronaphthalene	11.72	162	183602	25.34	ug/ml	100
40)	2-Nitroaniline	11.82	65	65756	37.67	ug/ml	98
41)	Dimethylphthalate	11.95	163	292800	35.85	ug/ml	100
42)	Acenaphthylene	12.16	152	336779	29.30	ug/ml	100
43)	2,6-Dinitrotoluene	12.05	165	66751	37.20	ug/ml	98
44)	3-Nitroaniline	12.24	138	85242	46.08	ug/ml	98
45)	Acenaphthene	12.33	154	217232	32.96	ug/ml	100
46)	2,4-Dinitrophenol	12.34	184	21103	36.40	ug/ml	84
47)	4-Nitrophenol	12.35	65	24075	19.13	ug/ml	92
48)	Dibenzofuran	12.50	168	309827	31.05	ug/ml	100
49)	2,4-Dinitrotoluene	12.47	165	109390	49.82	ug/ml	99
50)	Diethylphthalate	12.64	149	348046	47.26	ug/ml	100
51)	Fluorene	12.85	166	279375	37.44	ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	12.81	204	128014	32.62	ug/ml	100
53)	4-Nitroaniline	12.87	138	99118	48.66	ug/ml	97
54)	1,2-Diphenylhydrazine	12.97	77	282384	36.59	ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.89	198	58579	48.11	ug/ml	99
58)	n-Nitrosodiphenylamine	12.93	169	243855	40.82	ug/ml	100
59)	4-Bromophenyl Phenyl Ether	13.32	248	71304	32.89	ug/ml	99
60)	Hexachlorobenzene	13.44	284	88300	45.86	ug/ml	99
61)	Pentachlorophenol	13.63	266	55421	45.05	ug/ml	99
62)	Phenanthrene	13.86	178	524117	42.93	ug/ml	99
63)	Anthracene	13.91	178	547547	45.68	ug/ml	99
64)	Carbazole	14.06	167	546935	53.89	ug/ml	98
65)	Di-n-Butyl Phthalate	14.30	149	698270	52.24	ug/ml	100
66)	Fluoranthene	15.09	202	623510	49.44	ug/ml	100
69)	Pyrene	15.34	202	642457	55.10	ug/ml	100
71)	Butyl Benzyl Phthalate	15.86	149	328754	54.11	ug/ml	100
72)	Benzo[a]anthracene	16.67	228	594282	50.60	ug/ml	97
73)	3,3'-Dichlorobenzidine	16.58	252	171502	46.28	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\7M9764.D Vial: 16
Acq On : 14 Sep 2000 16:05 Operator: mdc
Sample : WG84038-04 LCS 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Sep 14 16:29 2000 Quant Results File: BNA.RES

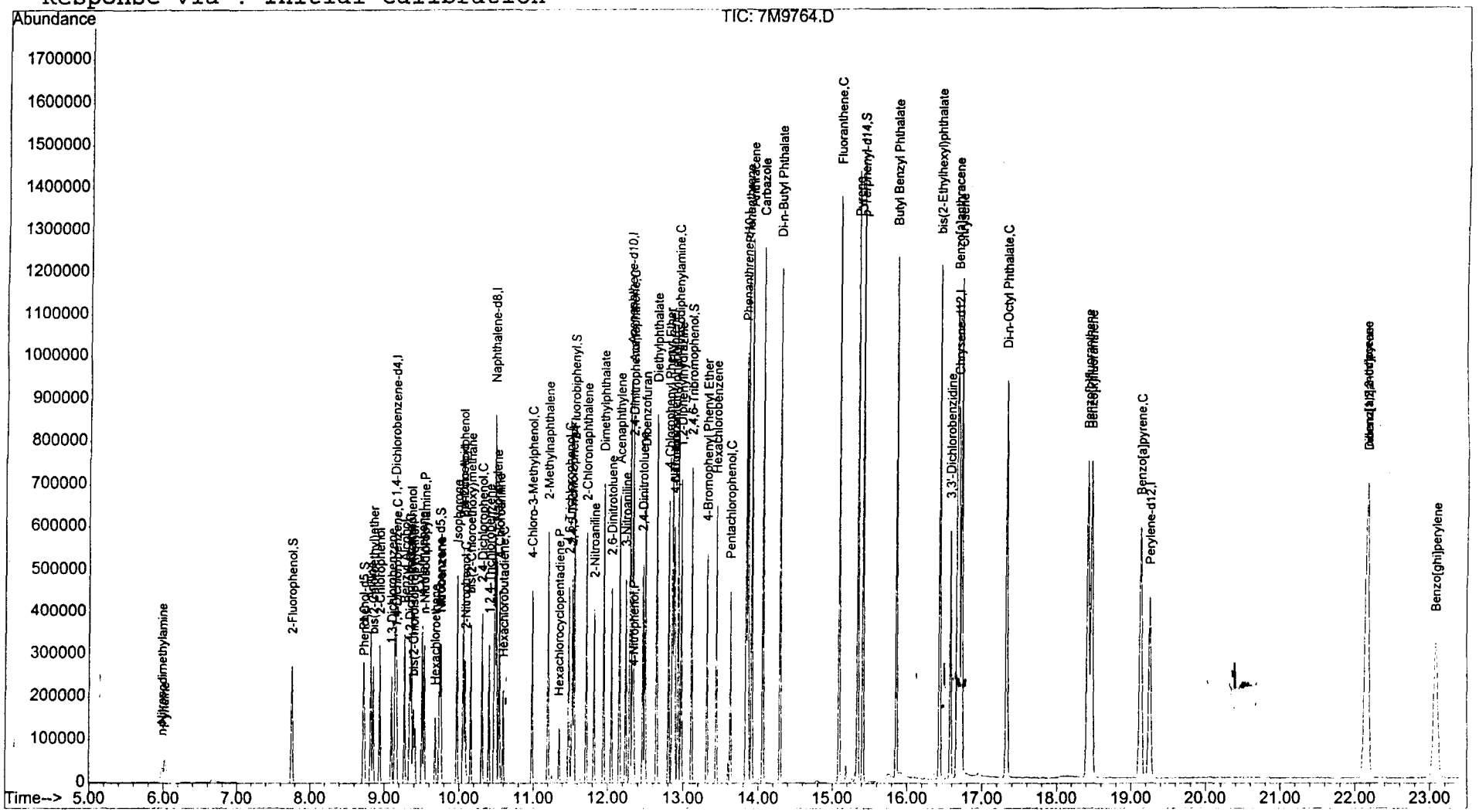
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	Chrysene	16.73	228	572348	50.40	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.44	149	443419	52.55	ug/ml	100
77)	Di-n-Octyl Phthalate	17.32	149	746729	53.94	ug/ml	100
78)	Benzo[b]fluoranthene	18.42	252	583548	53.97	ug/ml	99
79)	Benzo[k]fluoranthene	18.47	252	550689	52.34	ug/ml#	86
80)	Benzo[a]pyrene	19.13	252	509152	50.54	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.16	276	550711	50.88	ug/ml#	99
82)	Dibenz[ah]anthracene	22.16	278	469871	53.83	ug/ml	100
83)	Benzo[ghi]perylene	23.08	276	462335	51.44	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\091400\7M9764.D Vial: 16
Acq On : 14 Sep 2000 16:05 Operator: mdc
Sample : WG84038-04 LCS 9/12 V147P47 Inst : HPMS7
Misc : WATER,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 14 16:29 2000 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625 LIST/INITIAL CALIBRATION 9/14/00
Last Update : Thu Sep 14 13:56:29 2000
Response via : Initial Calibration



KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC/MS Laboratory Maintenance / Runlog

Date 9/14/00 Column ID RTX 5 Silms Analyst nde SOP # MSS01 Rev. # 7 ✓ 8270C
Instrument ID HP MS7 Data Subdirectory 091400 ISTD# _____ SOP # MSS02 Rev. # 2 _____ 625

Daily Check	
helium >500 psi	
change liner	✓
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change helium	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes No Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
7M9741	50ppm DFTPP	1	DFTPP	✓	SV4739
50	50ppm BNA STD		BNA		~~SV48-50~~ SV4938-4
51	3ppm				SV49-38-1
52	10ppm				-2
53	20ppm				-3
54	80ppm				-5
55	100ppm				-6
56	120ppm				-7
57	50ppm Alk source				SV49-7
58	50ppm DFTPP		DFTPP		SV4739
59	50ppm BNA STD		BNA		SV49-38-4
60	45-50ppm Appendix IX std.				SV48-2-4
61	BLC 9/11 V047P33 12R				

002049

Reviewed By: CLK 9/15/00

r SS = Interference with internal and/or surrogate standards CC = Continuing calibration failed

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC/MS Laboratory Maintenance / Runlog

Date 9/14/00 Instrument ID [illegible] Data Subdirectory 091400 Column ID RTX 5 SI-MS

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
7M1762	L0009160-01	1	BNA	✓	
63	W684038-02 BLK 9/12 V147P47				
64	-04 LCS				
65	-03 SPLP BLK 9/11				
66	W684019-01 TCLP BLK				
67	L0009176-01				
68	-01 MS W684038-05				
69	-01 MSD -06				
70	-02				
71	L0009185-01				
72	L0009103-01 TCLP				
73	L0009125-02				
74	L0009127-02				
75	L0009002-02 RE				
76	L0009094-02	10		RR200	SS3,5 high-SM1
77	-04			RR100	
78	-06				
79	-08			RR200	

Comments:

Reviewed By: CLK 9/15/00

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level
S or SS = Interference with internal and/or surrogate standards

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis
CC = Continuing calibration failed

19

002050

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC/MS Laboratory Maintenance / Runlog

Date 9/15/00 Column ID RTX5 Silica Analyst [illegible] SOP # MSS01 Rev. # 7 ✓ 8270C
Instrument ID HPMS7 Data Subdirectory 091500 ISTD# _____ SOP # MSS02 Rev. # 2 _____ 625

Daily Check	
helium >500 psi	
change liner	✓
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change helium	

Additional Maintenance

Problem:

Action Taken:

Returned to Control? Yes No Additional Discussion on Page

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
7M9780	50PPM DFTPP	1	DFTPP	✓	SU47-39
81	50PPM BNA STD	1	BNA	✓	SU49-38-4
82	L0009094-02	200		✓	
83	04	100		✓	
84	06	100		✓	
85	08	200		✓	

Comments:

✓ Compliant Analysis, Reanalysis complete
Rerun
RR# = Rerun at a specified level

SMI Sample matrix interference
MT Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis
CC = Continuing calibration failed

Reviewed By: _____

10

002051

Sample Extract Log Sheet

Volume 147
Page 47

Parameter: BNA-H_2O SOP #: EX4B08 Revision #: 7
Ext Analyst(s): JDN, BEK TV/KD Analyst(s): JDN
Date/Time Ext: 09/12/00 @ 1130 Date TV/KD: 09/12/00
Spike/Surrogate Analyst: JDN Witness: [illegible]
Extract Relinquished By: JDN
Extract Received By: [illegible] Date Ext Received: 9/12/00

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
ASE *	3545					
Separatory Funnel	3510C	—				
Sonication	3550B					
Waste	3580A					

Extraction Work Group WG 84038
Extraction Work Group WG 84284

	Client ID	Sample ID	pH <2	pH N	pH >12	Test Cod	Initial Vol / Wt	Amount of Surrogate Added	Amount of Spike Added	Final Volume	Extract Color	Emulsion A	Emulsion BN	Emulsion N	Comments
1		Blank	✓		✓		1L	500uLESS-0034-03 #1		1mL	T				WG 84038-02
2		LCS	✓		✓				500uLESS-0034-02 #1		C				WG 84038-03
3	ITCORPTX	09-176-01	✓	9/14	✓	827-MAP-10mL					C				
4		-01MS	✓		✓		500mL		500uLESS-0034-02 #1		C				WG84038-04
5		-01MSD	✓		✓						C				WG84038-05
6		-02	✓		✓		1L				T				
7	OAL	09-185-01	✓		✓	~~8270~~ 827-AG					T				
8		SPLPBLK 9/11	✓		✓	8270 9/12	940mL				T				
9	KIBER	09-094-02	✓	9/15	✓		950mL			9/12 3mL	C				
10		-04	✓		✓		1L			5mL	C				
11		-06	✓		✓					5mL	C				
12		-08	✓		✓					1mL	C				
13		TBLK 9/11	✓		✓	827-TC	100mL				T				WG84019-01
14	YERSAR	09-103-01	✓	9/18	✓						T				
15	UCCSCvalley	09-125-02	✓	9/15	✓						T				
16	UCCSCvalley	09-127-02	✓	9/15	✓						T				
17	UCCINSTITUTE	09-002-02	✓	9/14	✓	8270	1L				C				(Re-extout/HOLD)
18															
19															
20															
21															
22															
23															
24															

JDN 09/12/00

Reviewed By: Jamie Newell Date: 09/12/00

*Accelerated Solvent Extractor (ASE)

Color Code
T = Transparent

002052

Sample Ext. .t Log Sheet

Volume 147
Page 48

Extraction Comments / Notes For Extraction Volume #: 147 Page #: 47 Work Group: WG84038

Solvent: CH_2Cl_2 Lot #: 40215 Florisil Lot #: N/A
Solvent: — Lot #: — Silica Gel #: N/A
Acid: 1:1 H_2SO_4 Lot #: EB1251 IR Analyst/Date/Time: N/A
Reagent: — Lot #: — Baked Na_2SO_4 Lot #: EB1242
Reagent: 10N NaOH Lot #: EB1256 Earliest Hold Date #: 9/12

Clean-up		✓	Clean-up		✓
Florisil	3620B		Sulfur	3660B	
Silica Gel	3630C		Other		
GPC	3640A				
Acid	3665A				

General Comments: Nothing to Report.

Extraction Anomalies: NO difficulties during Extraction

Concentration Anomalies: Samples 09-094-02, 04, 06, +08 all became thick and dark in concentration. The concentration stage was very slow for these samples.

Clean-Up Anomalies: N/A

Reviewed By: _____ Date: _____

102

2.2.2 Pesticide GC Data (8081)

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.:L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met

SAMPLES

Surrogates: Sample fractions 02 and 04 yielded % recoveries for T-M-X that were above acceptable limits. There were no positive hits in these samples. The % recoveries for DCB for these samples were within limits. All other acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: Stephanie Klepe DATE: 10/6/00

Rev. 7/14/00

PESTICIDE-GC DATA (8081)

Login Number: 09-094

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Endrin/DDT Breakdown chromatogram and external standard report

✓ Method blank chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: EEZ Date: 9/20/00

002056

2.2.2.1 QC Summary

002057

[illegible] ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / 4081 WATERS , REAR

INSTRUMENT : HP9

EXT'N DATE : 9/13/2000 | ANALYST : ECL | BLK FLNM : 9G11882 | SAMPLE ID : L0009174-01
EXT'N BENCH SHT : v147 p73 | RUN DATE : 9/14/2000 | LCS FLNM : 9G11883 | SMPL FLNM : 9G11889
EXT'N WORK GRP : WG84115 | ANAL WORK GRP : WG84197 | MS FLNM : 9G11890
MSD FLNM : 9G11891

		CONCENTRATION , ug/L					% RECOVERY						PERCENT				
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits
ALPHA-BHC	0.05	ND	0.293	ND	0.742	0.784	NA	58.6	31	144	NA	74.2	78.4	31	144	5.5	0-42
GAMMA-BHC	0.05	ND	0.307	ND	0.769	0.828	NA	61.4	40	144	NA	76.9	82.8	40	144	7.4	0-39
BETA-BHC	0.05	ND	0.357	ND	0.800	0.802	NA	71.4	66	126	NA	80.0	80.2	66	126	0.3	0-36
HEPTACHLOR	0.05	ND	0.267	ND	0.722	0.729	NA	61.4	27	139	NA	72.2	72.9	27	139	1.0	0-41
DELTA-BHC	0.05	ND	0.303	ND	0.654	0.640	NA	70.0	61	140	NA	65.4	64.0	61	140	1.5	0-40
ALDRIN	0.05	ND	0.259	ND	0.691	0.683	NA	51.8	32	139	NA	69.1	68.3	32	139	1.2	0-38
HEPTACHLOR EPOXIDE	0.05	ND	0.392	ND	0.921	0.948	NA	78.4	50	140	NA	92.1	94.8	50	140	2.9	0-42
GAMMA-CHLORDANE	0.05	ND	0.387	ND	0.917	0.933	NA	77.4	70	130	NA	91.7	93.3	70	130	1.7	0-40
ALPHA-CHLORDANE	0.05	ND	0.394	ND	0.903	0.925	NA	78.8	70	130	NA	90.3	92.5	70	130	2.4	0-40
ENDOSULFAN I	0.05	ND	0.283	ND	0.658	0.697	NA	56.6	37	115	NA	65.8	69.7	37	115	5.8	0-38
4,4-DDE	0.10	ND	0.441	ND	0.953	0.954	NA	88.2	58	137	NA	95.3	95.4	58	137	0.1	0-36
DIELDRIN	0.10	ND	0.441	ND	0.977	1.01	NA	88.2	59	147	NA	97.7	101	59	147	3.0	0-39
ENDRIN	0.10	ND	0.521	ND	1.16	1.16	NA	104	60	153	NA	116	116	60	153	0.4	0-40
4,4-DDD	0.10	ND	0.569	ND	1.18	1.13	NA	114	62	145	NA	118	113	62	145	4.3	0-38
ENDOSULFAN II	0.10	ND	0.338	ND	0.753	0.725	NA	67.6	42	112	NA	75.3	72.5	42	112	3.8	0-30
4,4-DDT	0.10	ND	0.511	ND	1.06	1.02	NA	102	64	151	NA	106	102	64	151	4.1	0-31
ENDRIN ALDEHYDE	0.10	ND	0.412	ND	0.841	0.866	NA	82.4	21	131	NA	84.1	86.6	21	131	2.9	0-49
ENDOSULFAN SULFATE	0.10	ND	0.424	ND	0.894	0.880	NA	84.8	15	154	NA	89.4	88.0	15	154	1.6	0-60
METHOXYCHLOR	0.5	ND	0.629	ND	1.40	1.32	NA	126	66	152	NA	140	132	66	152	6.5	0-35
ENDRIN KETONE	0.50	ND	0.473	ND	1.01	0.975	NA	94.6	37	165	NA	101	97.5	37	165	3.3	0-49
Tech-CHLORDANE	1.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-40
TOXAPHENE	1.0	ND	NA	ND	NA	NA	NA	NA	30	128	NA	NA	NA	30	128	NA	0-39
SURROGATES																	
2,4,5,6-TETRACHLORO-M-XYLENE		10.1	8.62	8.57	11.6	11.7	50.5	43.1	13	154	42.8	57.9	58.5	13	154		
DECACHLOROBIPHENYL		16.9	15.9	6.65	9.59	12.2	84.4	79.4	25	140	33.3	48.0	61.1	25	140		

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 0.5 ug/L
SURROGATES spiked at 20 ug/L
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

KEMRON ENVIRONMENTAL SERVICES

MARIETTA, OH

QUALITY CONTROL SUMMARY / 8081 WATERS , FRONT

INSTRUMENT : HP9

EXT'N DATE : 9/13/00 | ANALYST : ECL | BLK FLNM : 9G11882 | SAMPLE ID : L0009174-01

EXT'N BENCH SHT : v147 p73 | RUN DATE : 9/14/00 | LCS FLNM : 9G11883 | SMPL FLNM : 9G11889

EXT'N WORK GRP : WG84115 | ANAL WORK GRP : WG84197 | MS FLNM : 9G11890

MSD FLNM : 9G11891

		CONCENTRATION, ug/L					% RECOVERY							PERCENT			
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Adivsory Limits
ALPHA-BHC	0.05	ND	0.300	ND	0.629	0.716	NA	60.0	31	144	NA	62.9	71.6	31	144	12.9	0-42
GAMMA-BHC	0.05	ND	0.321	ND	0.716	0.792	NA	64.2	40	144	NA	71.6	79.2	40	144	10.1	0-39
DELTA-BHC	0.05	ND	0.382	ND	0.862	0.916	NA	76.4	56	125	NA	86.2	91.5	56	125	6.0	0-35
HEPTACHLOR	0.05	ND	0.275	ND	0.660	0.680	NA	55.0	27	139	NA	66.0	68.0	27	139	2.9	0-41
DELTA-BHC	0.05	ND	0.400	ND	0.841	0.907	NA	80.0	61	148	NA	84.1	90.7	61	148	7.7	0-40
ALDRIN	0.05	ND	0.265	ND	0.663	0.654	NA	53.0	32	139	NA	66.3	65.4	32	139	1.4	0-38
HEPTACHLOR EPOXIDE	0.05	ND	0.413	ND	0.866	0.941	NA	82.6	50	140	NA	86.6	94.1	50	140	8.3	0-42
GAMMA-CHLORDANE	0.05	ND	0.389	ND	0.841	0.860	NA	77.8	70	130	NA	84.1	86.0	70	130	2.2	0-40
ALPHA-CHLORDANE	0.05	ND	0.398	ND	0.835	0.859	NA	79.6	70	130	NA	83.5	85.9	70	130	2.8	0-40
ENDOSULFAN I	0.05	ND	0.223	ND	0.477	0.508	NA	44.6	37	115	NA	47.7	50.8	37	115	6.3	0-38
4,4-DDE	0.10	ND	0.475	ND	0.950	0.953	NA	95.0	58	137	NA	95.0	95.3	58	137	0.3	0-36
DIELDRIN	0.10	ND	0.442	ND	0.897	0.923	NA	88.4	59	147	NA	89.7	92.3	59	147	2.9	0-39
ENDRIN	0.10	ND	0.507	ND	0.997	1.01	NA	101	60	153	NA	99.7	101	60	153	2.6	0-40
4,4-DDD	0.10	ND	0.514	ND	1.02	0.970	NA	103	62	145	NA	102	97.0	62	145	4.8	0-38
ENDOSULFAN II	0.10	ND	0.342	ND	0.702	0.677	NA	68.4	42	112	NA	70.2	67.7	42	112	3.6	0-30
4,4 DDT	0.10	ND	0.502	ND	0.962	0.901	NA	100	64	151	NA	96.2	90.1	64	151	6.5	0-31
ENDRIN ALDEHYDE	0.10	ND	0.393	ND	0.738	0.753	NA	78.6	21	131	NA	73.8	75.3	21	131	2.0	0-49
ENDOSULFAN SULFATE	0.10	ND	0.450	ND	0.876	0.868	NA	90.0	15	154	NA	87.6	86.8	15	154	0.9	0-60
METHOXYCHLOR	0.50	ND	0.503	ND	1.00	0.951	NA	101	66	152	NA	100	95.1	66	152	5.3	0-35
ENDRIN KETONE	0.10	ND	0.472	ND	0.935	0.905	NA	94.4	37	165	NA	93.5	90.5	37	165	3.3	0-49
Tech-CHLORDANE	1.00	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-40
TOXAPHENE	1.00	ND	NA	ND	NA	NA	NA	NA	39	128	NA	NA	NA	39	128	NA	0-39
SURROGATES																	
2,4,5,6-TETRACHLORO-M-XYLENE		10.8	9.14	9.48	12.8	12.4	53.8	45.7	13	154	47.4	63.9	62.2	13	154		
DECACHLOROBIPHENYL		9.18	13.9	5.42	8.79	11.0	45.9	69.4	25	140	27.1	43.9	55.1	25	140		

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 0.5 ug/L

SURROGATES spiked at 20 ug/l

NA = NOT APPLICABLE

DL = DILUTED OUT

ND = NOT DETECTED

RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE

MS=MATRIX SPIKE

MSD=MATRIX SPIKE DUPLICATE

002059

2.2.2.2 Sample Data

002060

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

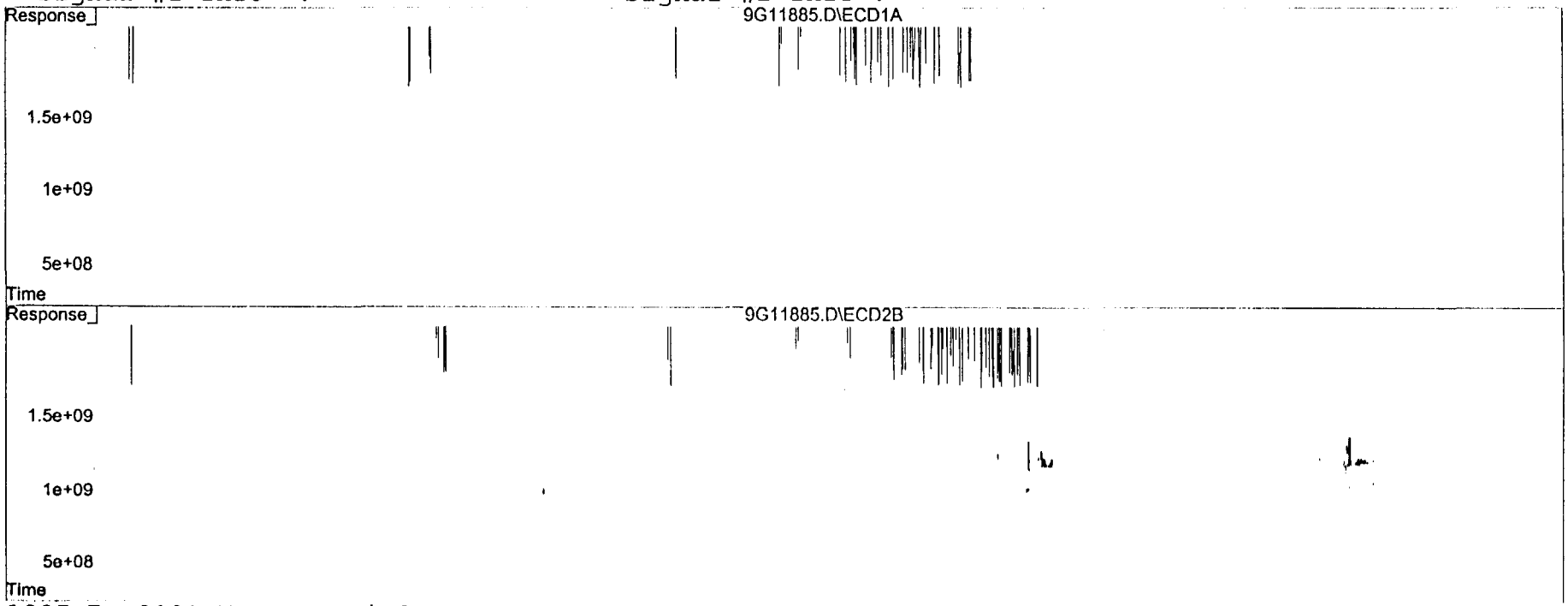
	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.30f	6.83f	11252.3E6	8297.9E6	149.683	86.586 #
	Spiked Amount 20.000	Range 13 - 154		Recovery =		748.41%#	432.93%#
2	S Decachlorobiphen	0.00	14.94	0	1334.4E6	N.D.	25.639 #
	Spiked Amount 20.000	Range 25 - 140		Recovery =		0.00%#	128.19%
	Target Compounds						
2)	alpha-BHC	7.27	7.97	10800.8E6	9108.6E6	1.128	0.757 #
3)	gamma-BHC	0.00	8.62f	0	4959.5E6	N.D.	0.456 #
4)	beta-BHC	7.97	8.78f	7458.3E6	9435.1E6	1.982	1.930
5)	Heptachlor	8.57f	9.29	4976.7E6	8291.2E6	0.609	0.840 #
6)	delta-BHC	8.24	0.00	3341.9E6	0	0.391	N.D. #
7)	Aldrin	8.98	9.81	1852.7E6	4327.8E6	0.251	0.480 #
8)	Heptachlor Epoxi	9.89f	10.68	631.8E6	608.7E6	0.100	- 0.081
9)	gamma-Chlordane	10.12	10.97	96889.5E6	8584.9E6	13.563	0.982 #
10)	alpha-Chlordane	0.00	11.17	0	23475.3E6	N.D.	2.808 #
11)	Endosulfan I	10.49	0.00	19844.3E6	0	3.125	N.D. #
12)	4,4'-DDE	10.49	11.48	19844.3E6	33390.7E6	3.148	4.296 #
13)	Dieldrin	0.00	11.64	0	43579.0E6	N.D.	5.458 #
14)	Endrin	11.20	12.08f	36146.6E6	20447.5E6	5.872	3.404 #
15)	4,4'-DDD	0.00	12.34f	0	10944.1E6	N.D.	1.824 #
16)	Endosulfan II	11.53	12.45f	6566.4E6	37782.7E6	1.182	5.637 #
17)	4,4'-DDT	11.76f	12.70	2605.3E6	19775.0E6	0.475	3.124 #
18)	Endrin Aldehyde	12.08f	12.89	8018.0E6	19383.4E6	2.091	4.964 #
19)	Endosulfan Sulfa	0.00	13.21	0	479.8E6	N.D.	0.082 #
20)	Methoxychlor	12.43	13.54	1526.6E6	549.1E6	0.567	0.203 #
21)	Endrin Ketone	13.02f	13.80	701.5E6	458.8E6	0.131	0.076 #

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

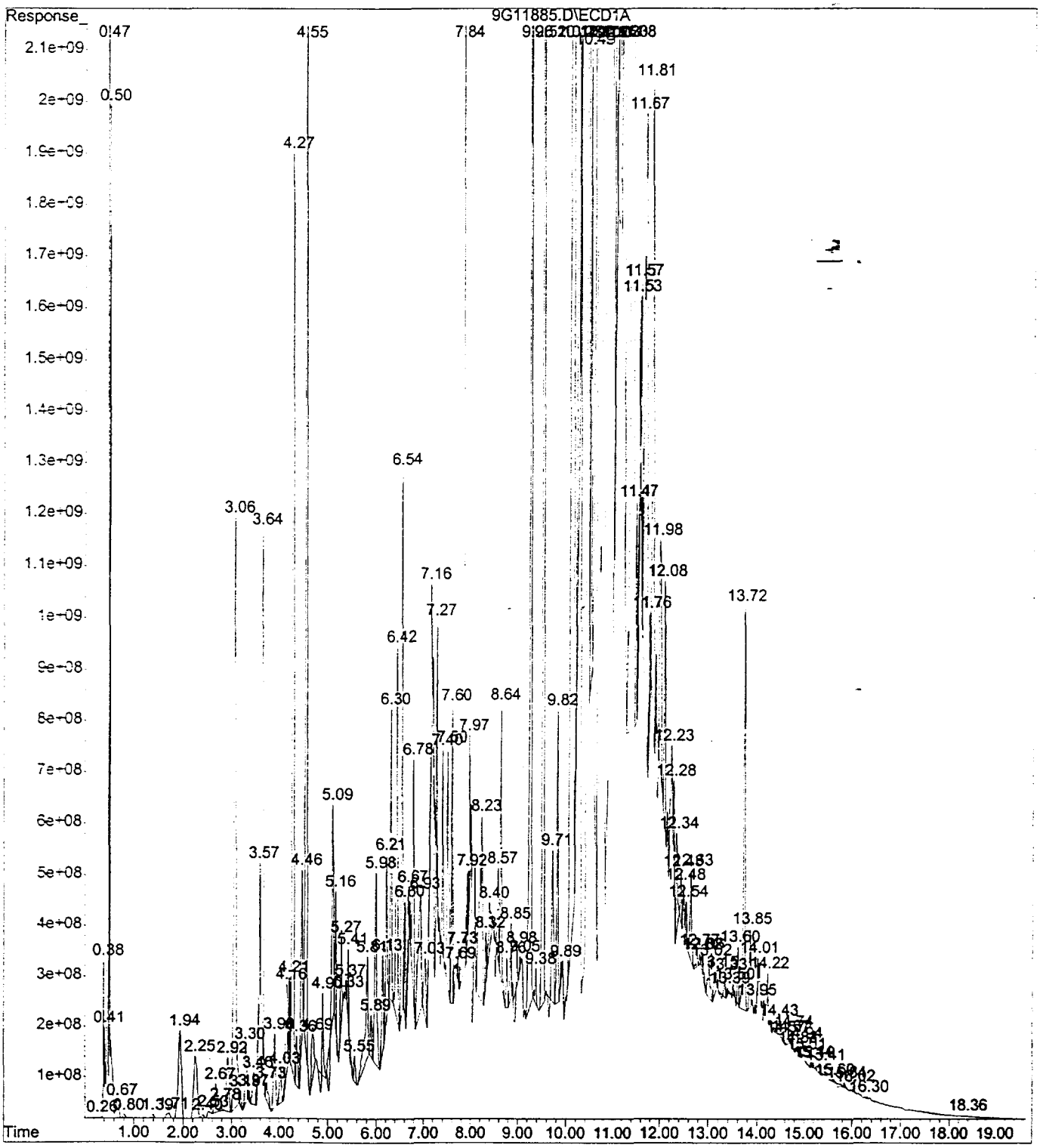
Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



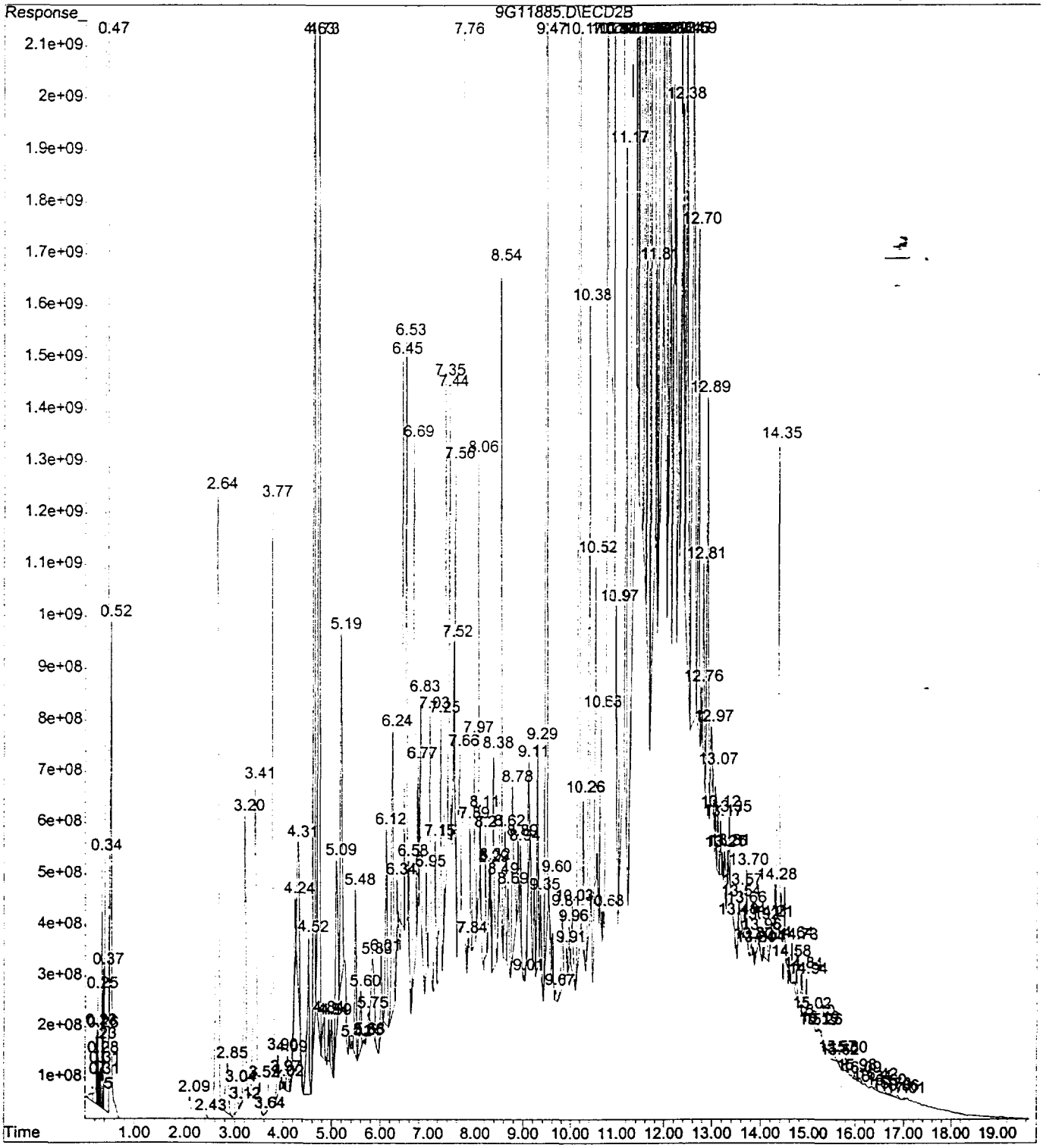
002062

```
File        : C:\HPCHEM\1\DATA\091400\9G11885.D
Operator    : ECL
Acquired    : 14 Sep 2000    18:05  using AcqMethod 8081.M
Instrument  :   HP 9
Sample Name: L0009094-02
Misc Info   : WATER,1
Vial Number: 20
```



002063

File : C:\HPCHEM\1\DATA\091400\9G11885.D
Operator : ECL
Acquired : 14 Sep 2000 18:05 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-02
Misc Info : WATER,1
Vial Number: 20



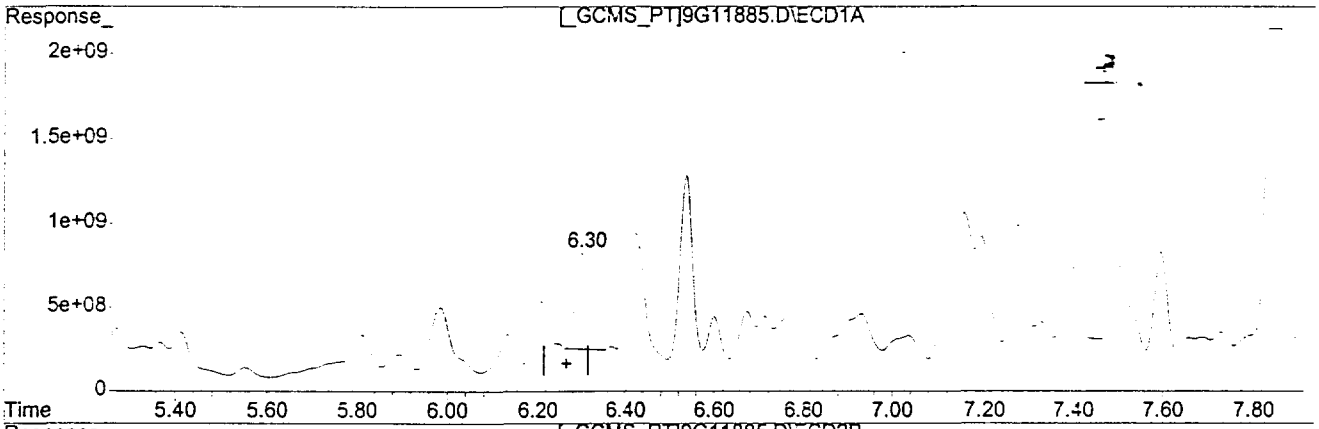
002064

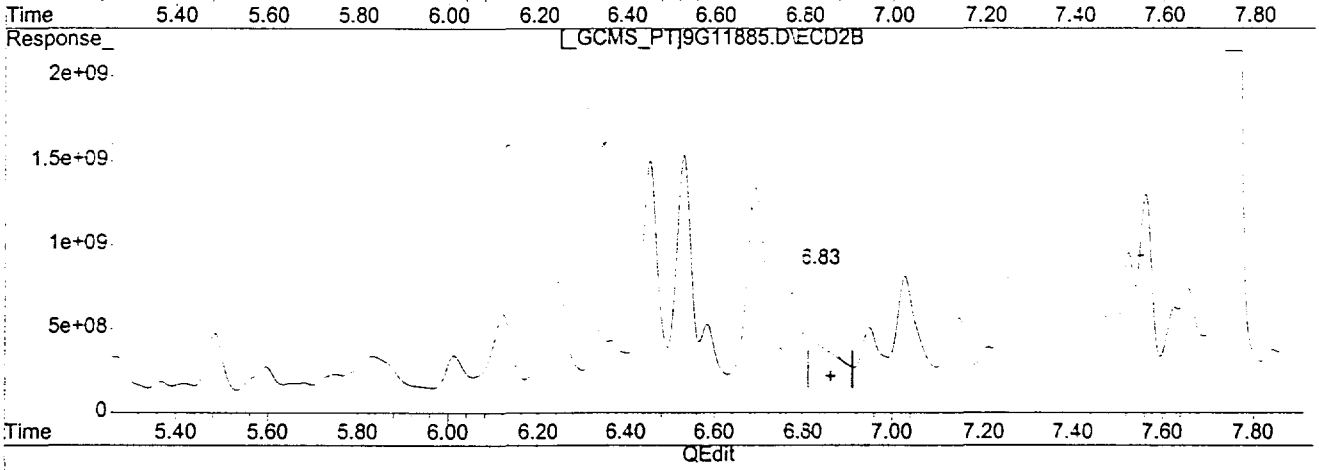
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(1) 2,4,5,6-Tetrachloro-M-Xylene (S)

6.30min 149.683UG/L

response 11252301796

SMI

(1) 2,4,5,6-Tetrachloro-M-Xylene #2 (S)

6.83min 86.586UG/L

response 8297859190

(+) = Expected Retention Time

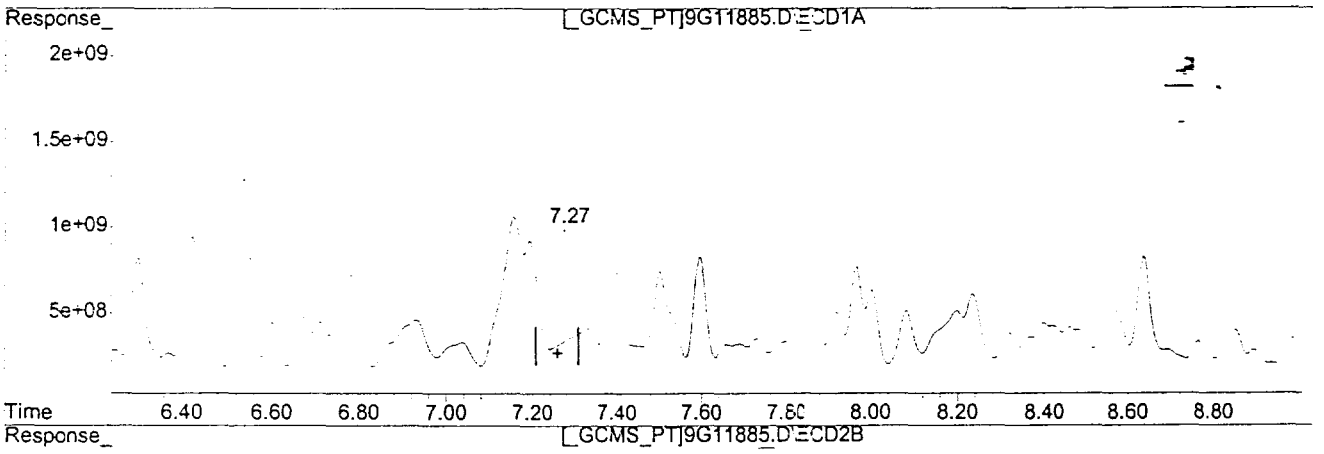
9G11885.D 8081.M Fri Sep 15 11:09:24 2000

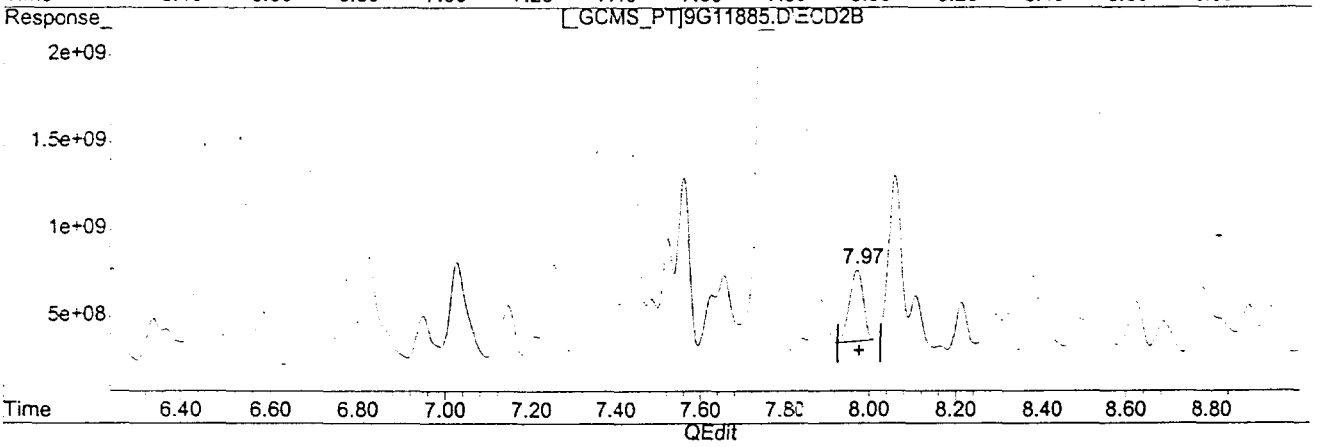
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(2) alpha-BHC
7.27min 1.128UG/L
response 10800824734

RT

(2) alpha-BHC #2
7.97min 0.757UG/L
response 9108597065

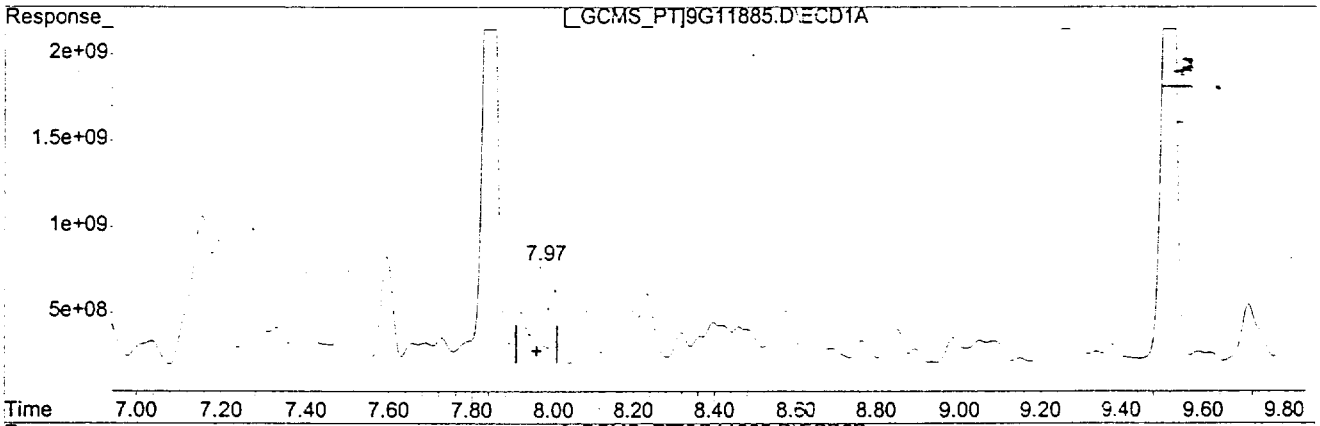
(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:09:30 2000

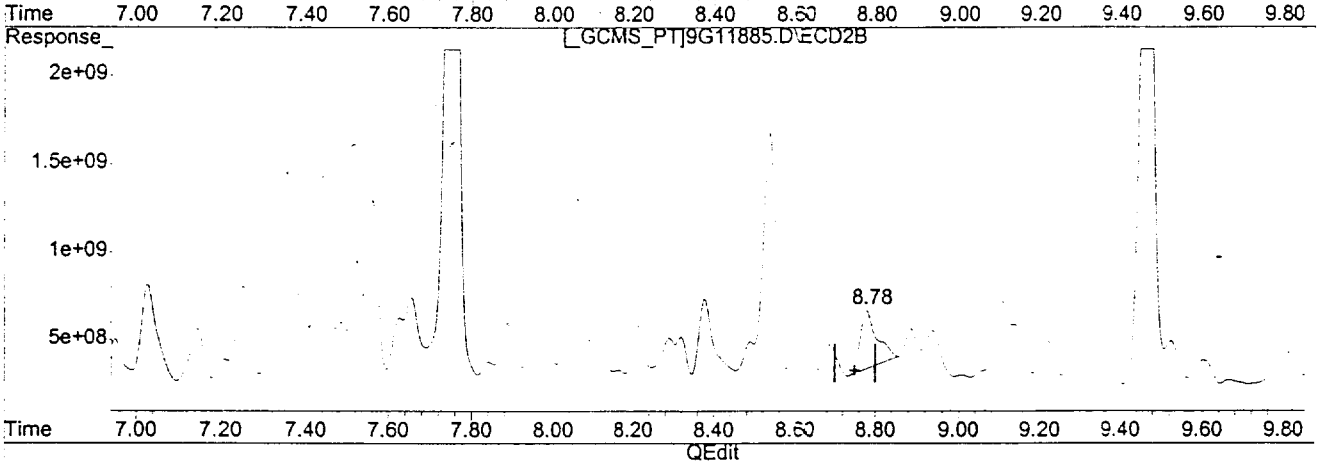
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(4) beta-BHC
7.97min 1.982UG/L
response 7458250801

(4) beta-BHC #2
8.78min 1.930UG/L
response 9435113622

RT

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:09:39 2000

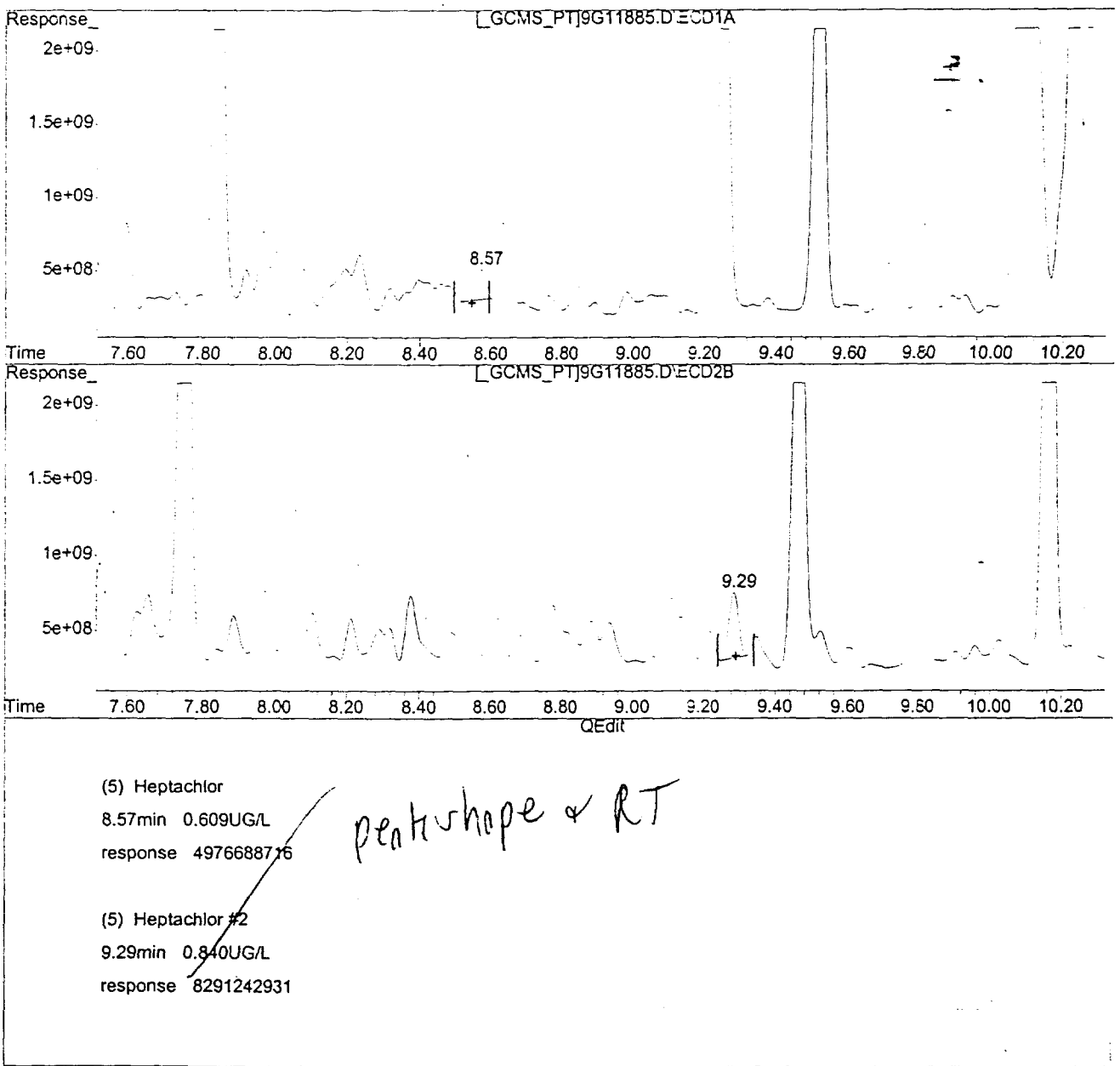
002067

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(5) Heptachlor
8.57min 0.609UG/L
response 4976688716

peak shape & RT

(5) Heptachlor #2
9.29min 0.840UG/L
response 8291242931

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:09:44 2000

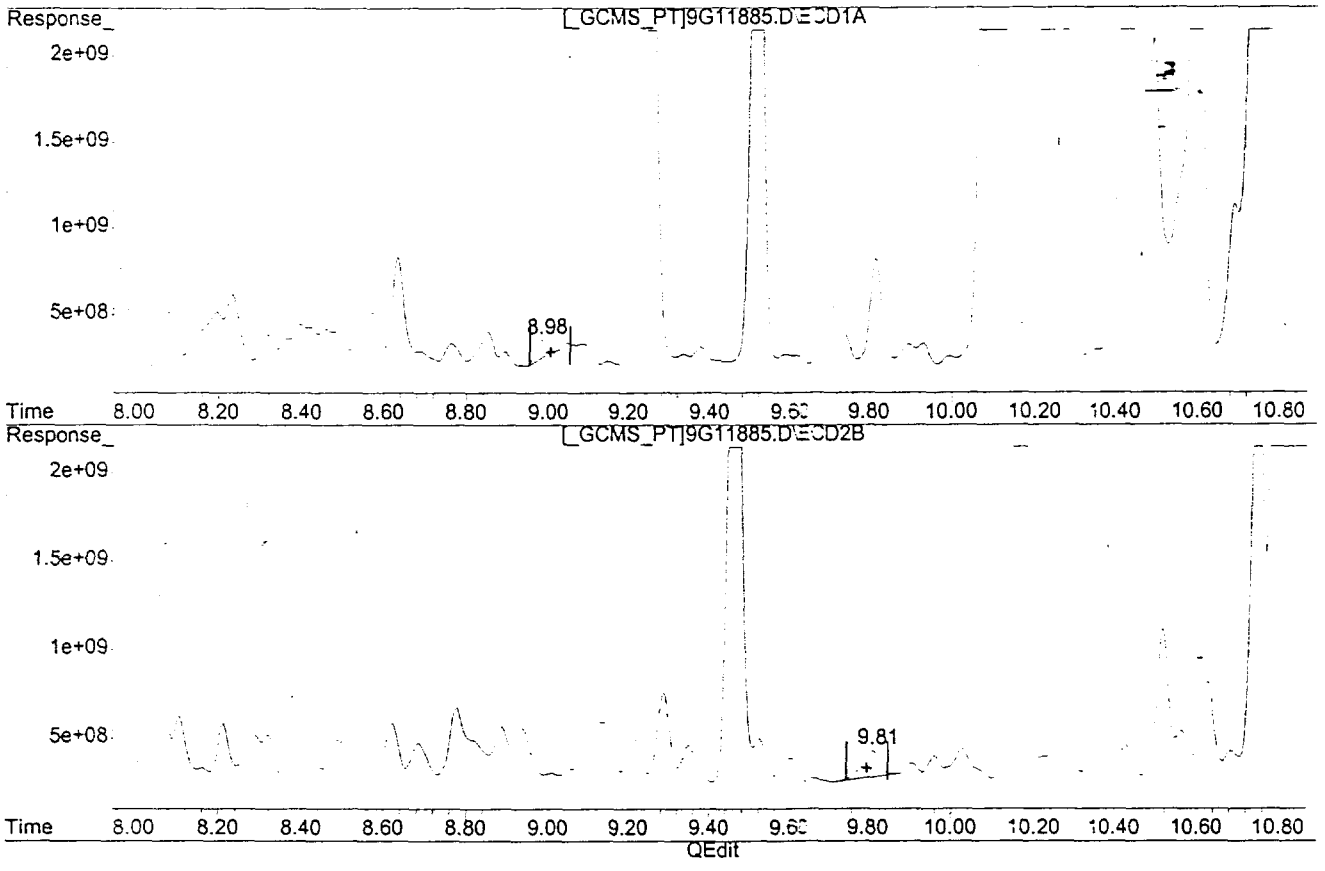
002068

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(7) Aldrin
8.98min 0.251UG/L
response 1852710463

RT

(7) Aldrin #2
9.81min 0.480UG/L
response 4327809169

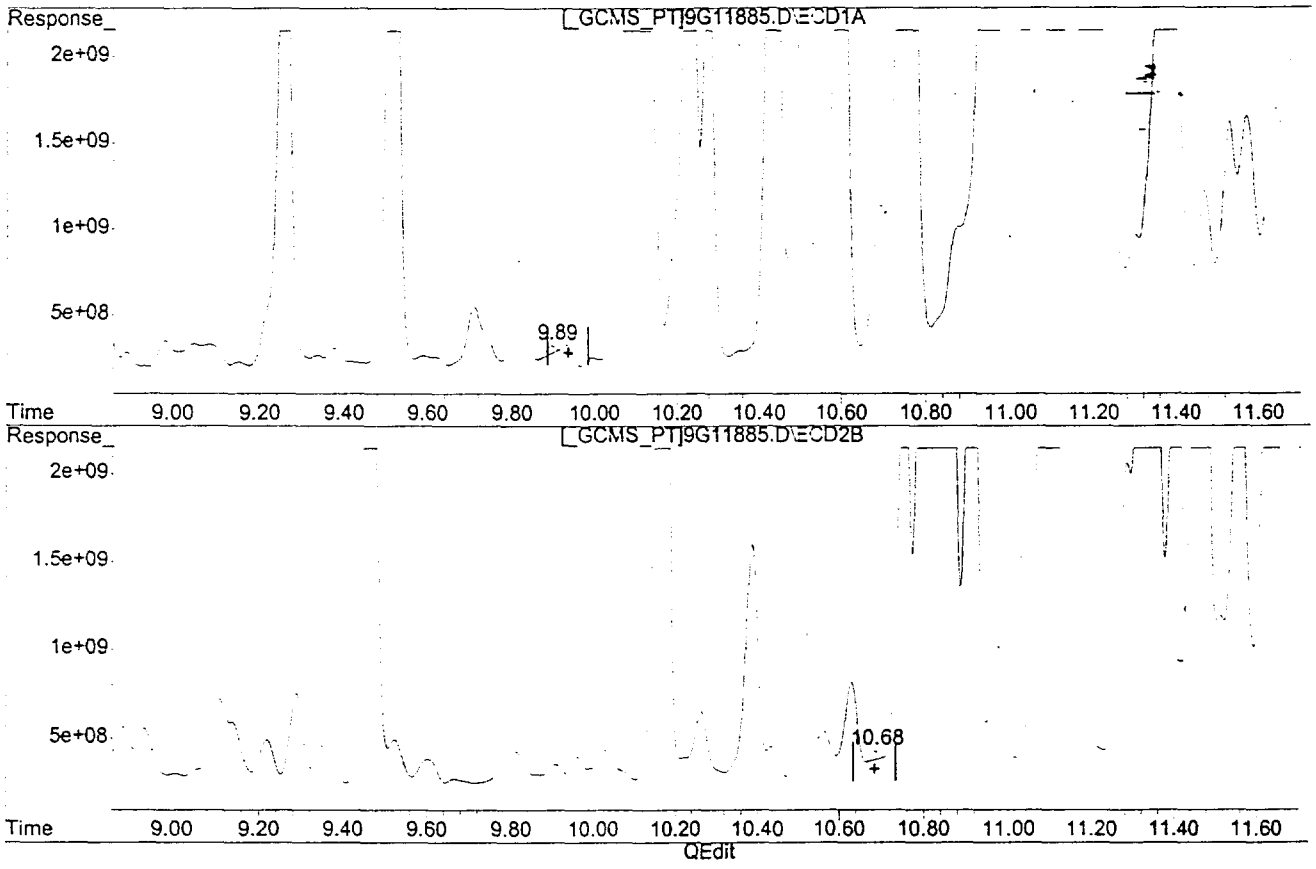
(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:09:52 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(8) Heptachlor Epoxide
9.89min 0.100UG/L
response 631797417

RT

(8) Heptachlor Epoxide #2
10.68min 0.081UG/L
response 608682497

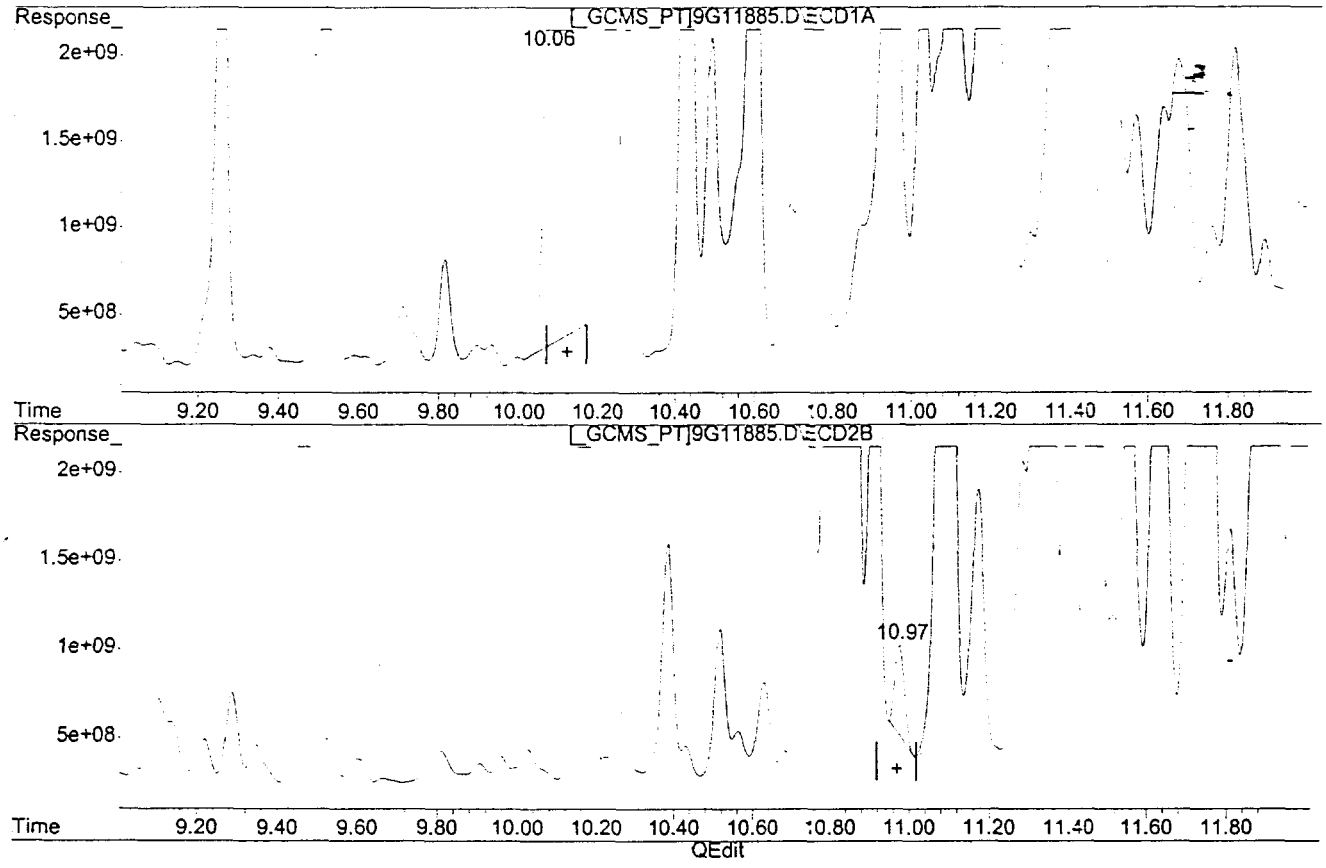
(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:09:57 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(9) gamma-Chlordane
10.12min 13.563UG/L
response 96889522462

RT

(9) gamma-Chlordane #2
10.97min 0.982UG/L
response 8584926361

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:02 2000

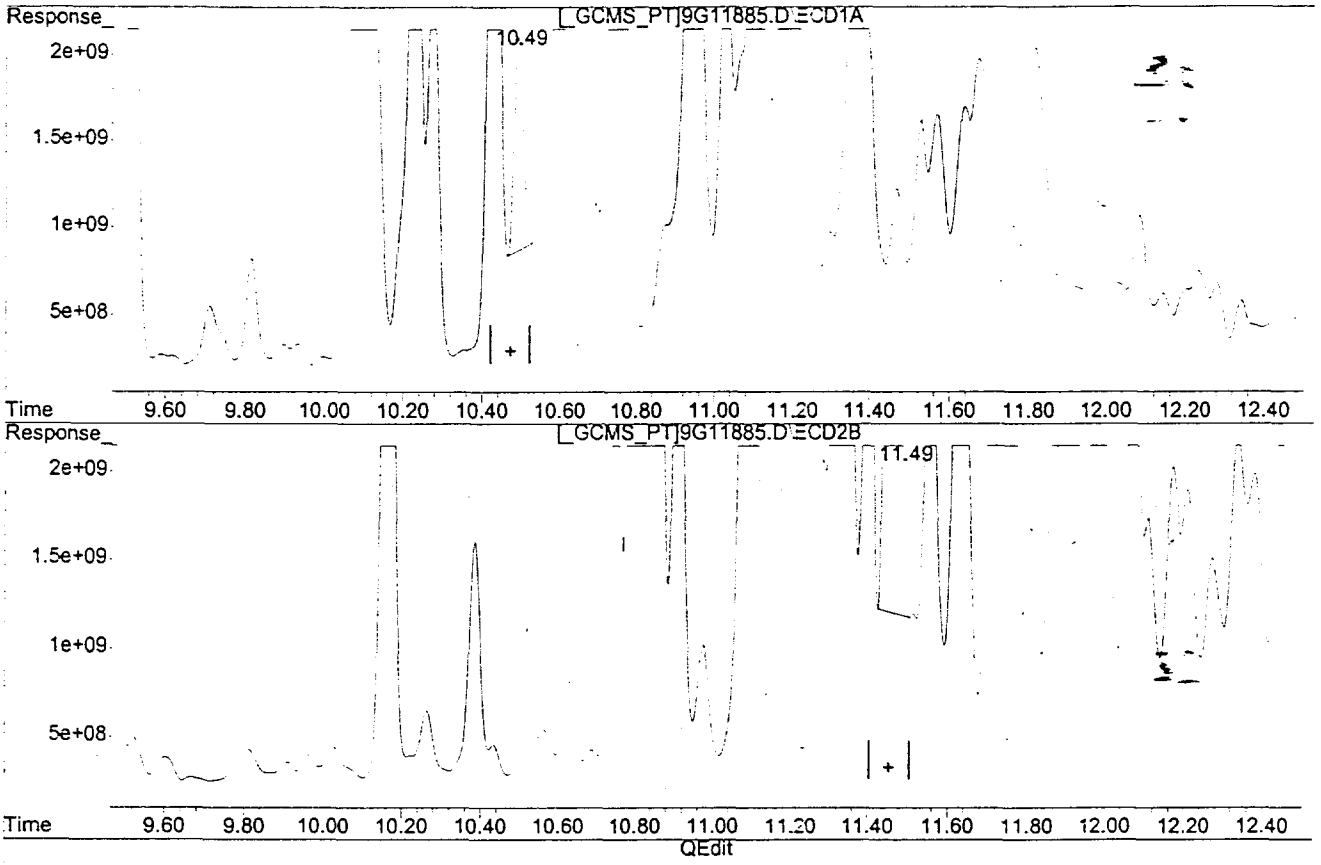
002071

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(12) 4,4'-DDE
10.49min 3.148UG/L
response 19844314533

(12) 4,4'-DDE #2
11.48min 4.296UG/L
response 33390709024

RT

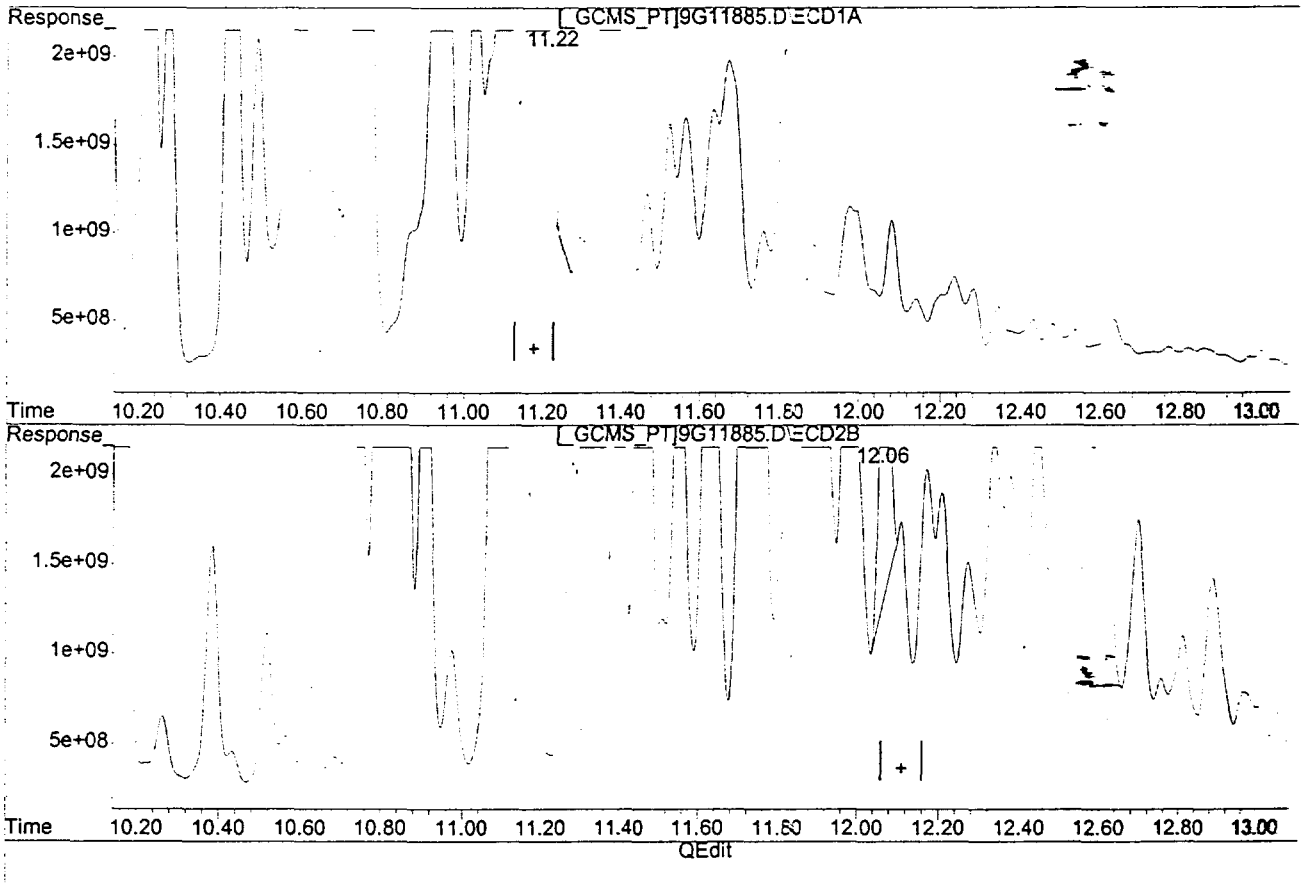
(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:18 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 5
Misc : WATER,1 Multiplr: 0.0
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 5
Misc : WATER,1 Multiplr: 0.0
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(14) Endrin
11.20min 5.872UG/L
response 36146564694

(14) Endrin #2
12.08min 3.404UG/L
response 20447544480

RT

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:28 2000

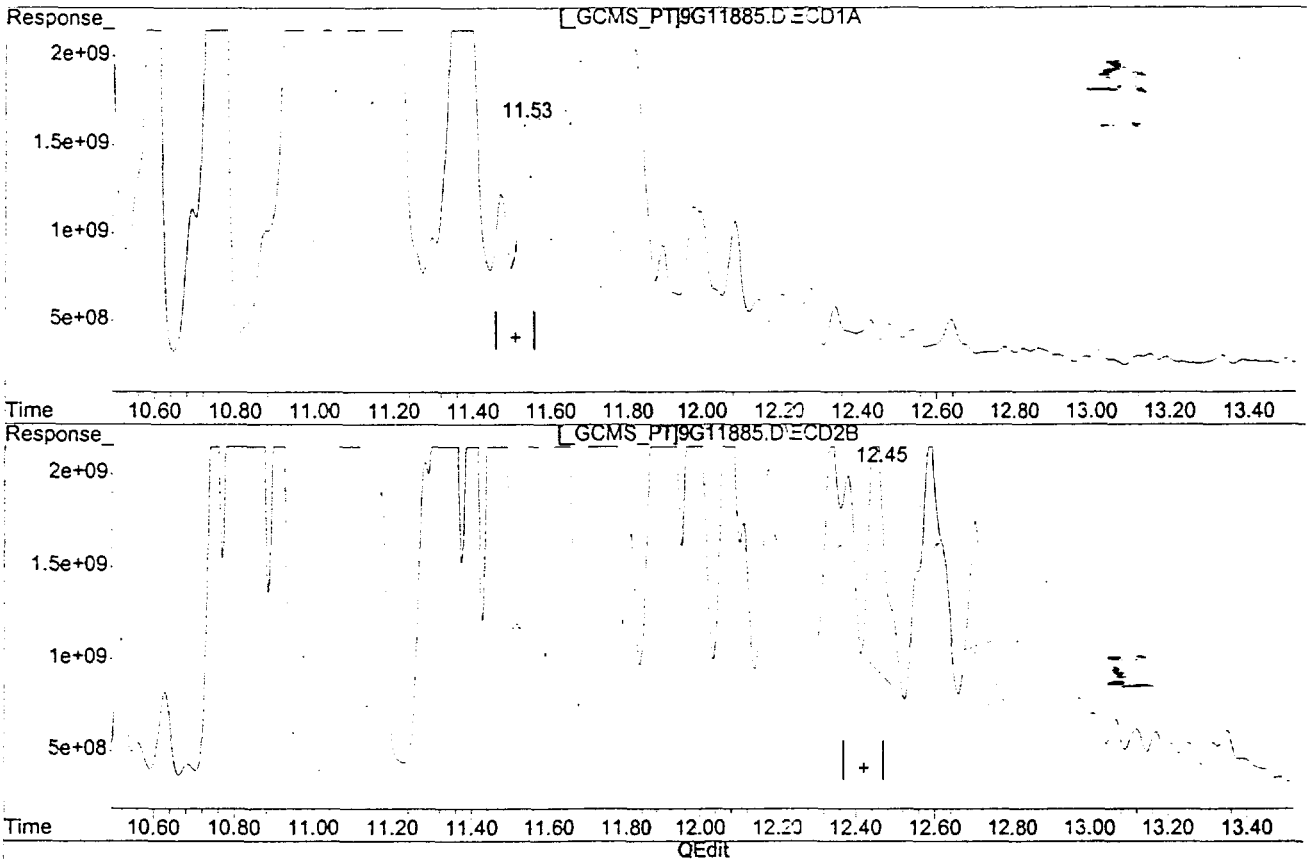
220

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11385.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11385.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(16) Endosulfan II
11.53min 1.182UG/L
response 6566377610

RT

(16) Endosulfan II #2
12.45min 5.637UG/L
response 37782731301

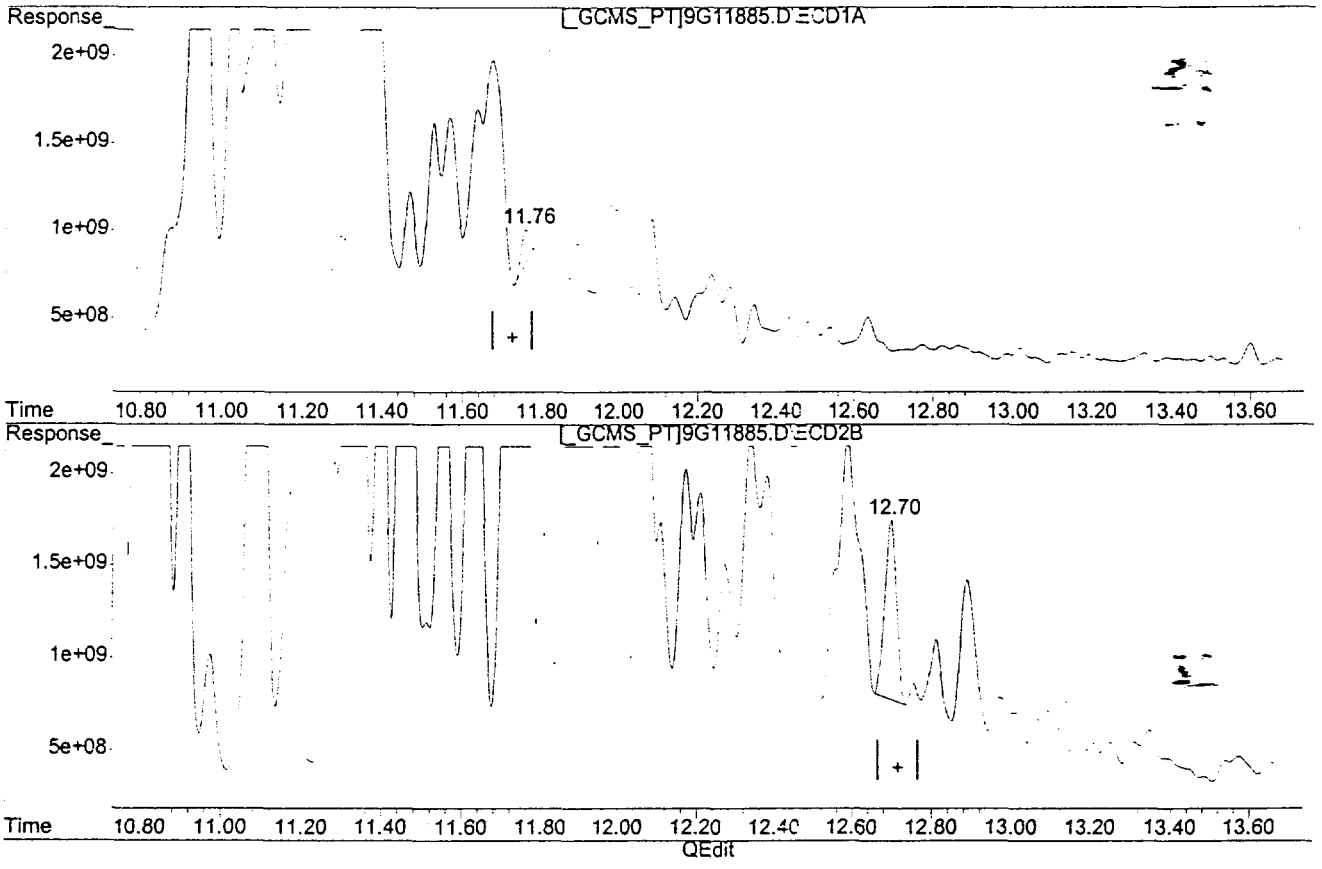
(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:38 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(17) 4,4'-DDT
11.76min 0.475UG/L
response 2605299189

RT

(17) 4,4'-DDT #2
12.70min 3.124UG/L
response 19774954207

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:43 2000

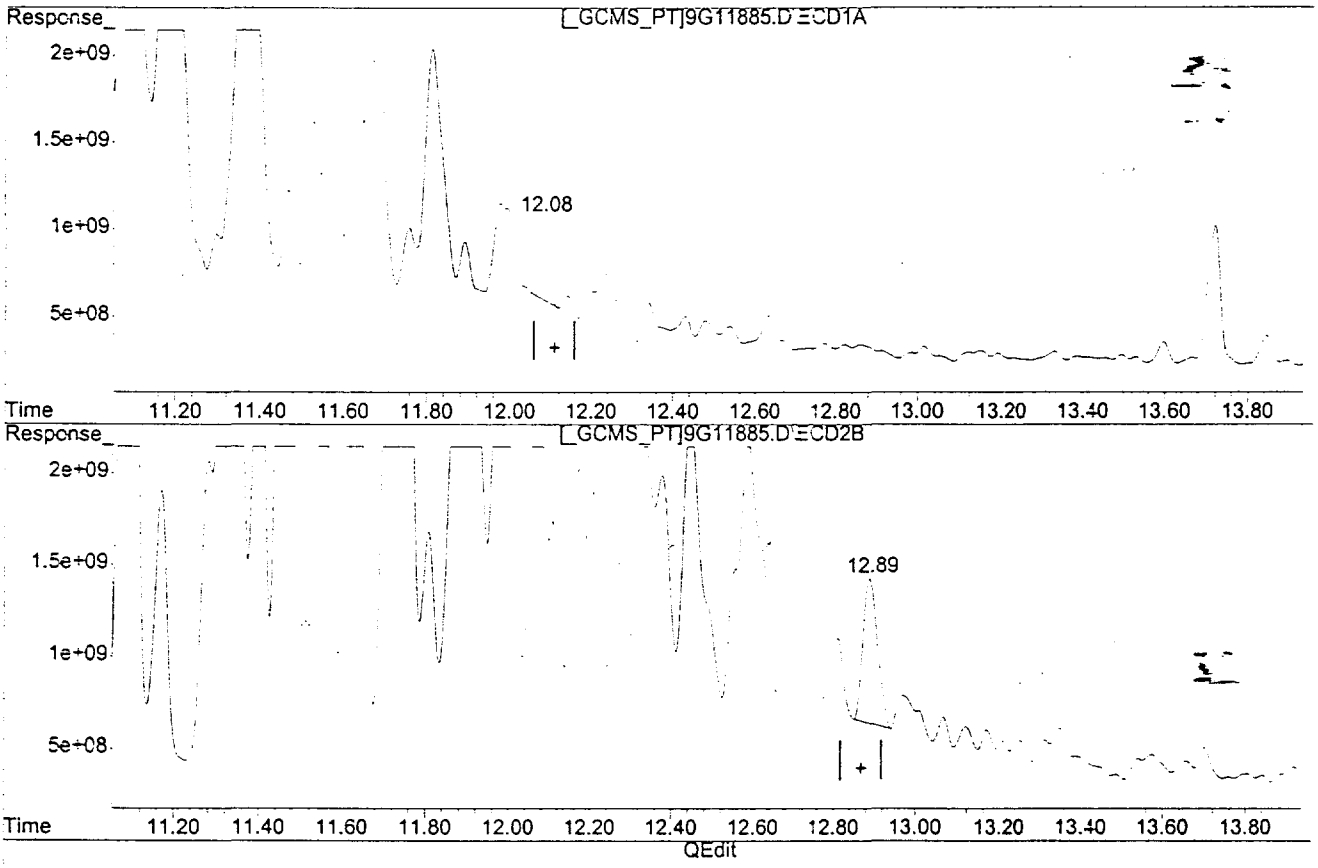
222

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(18) Endrin Aldehyde
12.08min 2.091UG/L
response 8017986625

RT

(18) Endrin Aldehyde #2
12.89min 4.964UG/L
response 19383426489

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:10:52 2000

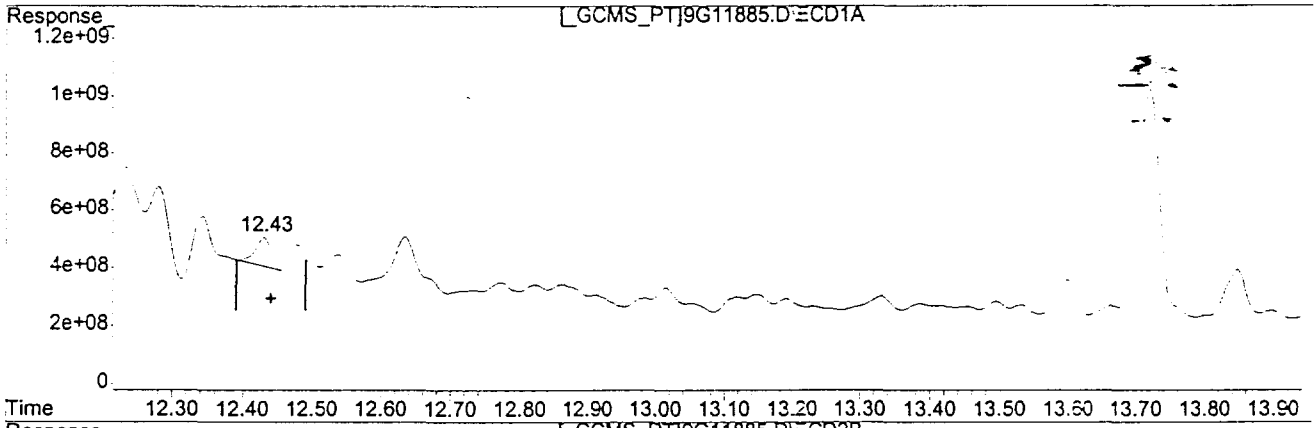
002076

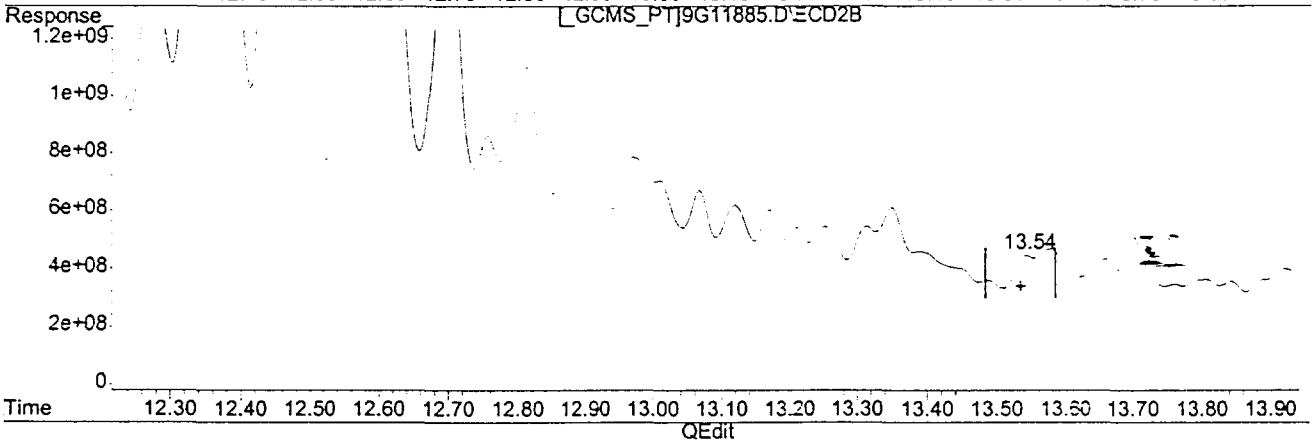
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(20) Methoxychlor
12.43min 0.567UG/L
response 1526586683

(20) Methoxychlor #2
13.54min 0.203UG/L
response 549136664

peak shape

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:11:08 2000

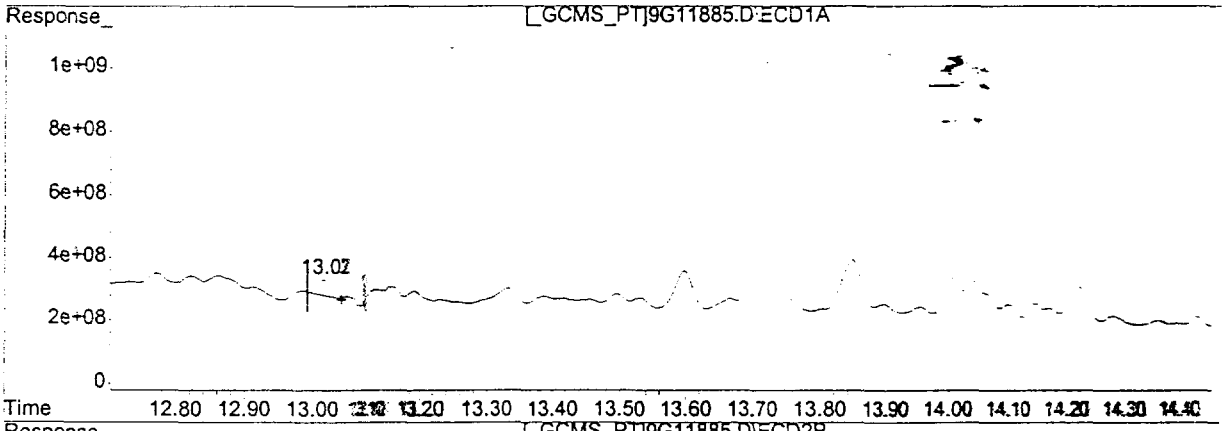
224

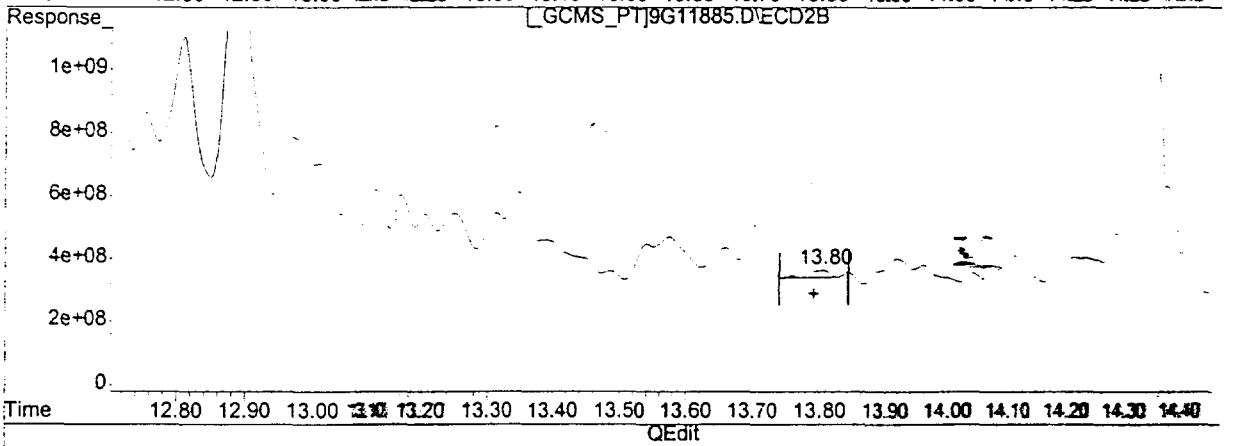
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L000394-02 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L000394-02 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





QEdit

(21) Endrin Ketone
13.02min 0.131UG/L
response 701493729

(21) Endrin Ketone #2
13.80min 0.076UG/L
response 458826691

plate shape

(+) = Expected Retention Time

9G11885.D 8081.M Fri Sep 15 11:11:18 2000

225

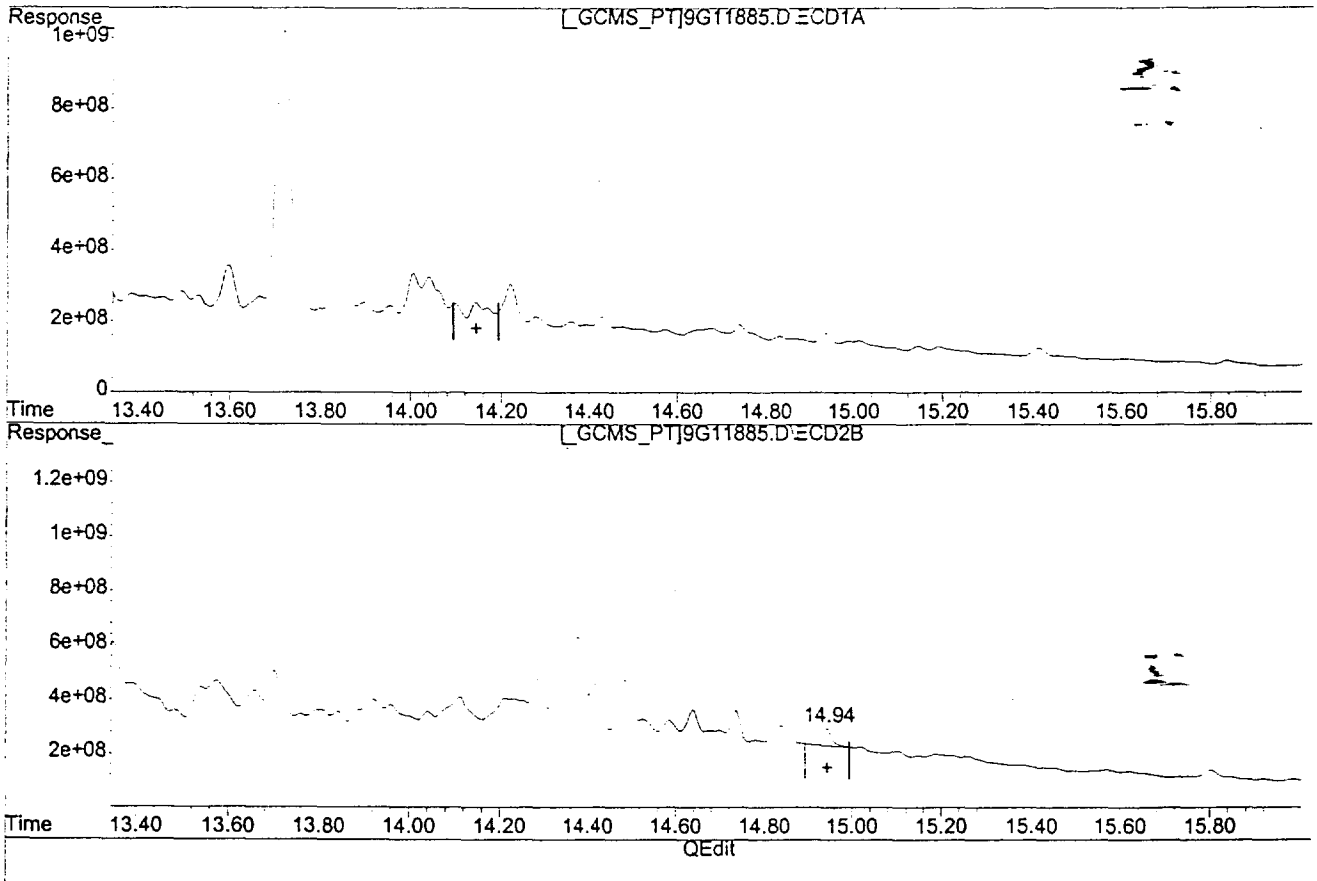
VB 9/24

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD1A.CH Vial: 20
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11885.D\ECD2B.CH Vial: 20
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-02 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:08 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(22) Decachlorobiphenyl (S)
0.00min 0.000UG/L
response 0

SMI.

(22) Decachlorobiphenyl #2 (S)
14.94min 25.639UG/L
response 1334355043

(+) = Expected Retention Time
9G11885.D 8081.M Fri Sep 15 11:11:24 2000

002079

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.30f	6.88	5645.8E6	2963.6E6	75.102	30.924 #
	Spiked Amount 20.000	Range 13 - 154		Recovery =		375.51%#	154.62%#
2)	S Decachlorobiphen	0.00	14.92	0	1019.2E6	N.D.	19.584 #
	Spiked Amount 20.000	Range 25 - 140		Recovery =		0.00%#	97.92%
	Target Compounds						
2)	alpha-BHC	7.29f	7.97	3600.8E6	1812.1E6	0.342	0.137 #
3)	gamma-BHC	7.79	8.62f	369.9E6	4656.1E6	0.039	0.389 #
4)	beta-BHC	7.93f	8.77	1611.7E6	7362.5E6	0.389	1.389 #
5)	Heptachlor	8.57	9.28	5157.3E6	3630.6E6	0.574	0.335 #
6)	delta-BHC	8.25	9.21	737.9E6	1839.2E6	0.078	0.161 #
7)	Aldrin	0.00	9.81	0	4356.8E6	N.D.	0.439 #
8)	Heptachlor Epoxi	9.91	10.68	4564.3E6	3414.5E6	0.658	0.412 #
9)	gamma-Chlordane	10.11	10.97	83599.7E6	8164.3E6	10.639	0.849 #
10)	alpha-Chlordane	10.29f	11.17f	16578.1E6	15577.2E6	2.181	1.694
11)	Endosulfan I	10.50	0.00	20260.4E6	0	2.901	N.D. #
12)	4,4'-DDE	10.45	11.47	39384.1E6	40990.8E6	5.679	4.795
13)	Dieldrin	10.88	11.63f	144.5E6	33627.6E6	0.020	3.329 #
14)	Endrin	11.22f	12.07f	43748.1E6	17075.3E6	6.461	2.584 #
15)	4,4'-DDD	11.31	12.26f	3756.5E6	7652.0E6	0.667	1.160 #
16)	Endosulfan II	11.48f	12.44	9359.7E6	33398.2E6	1.532	4.830 #
17)	4,4'-DDT	11.76f	12.69f	3217.2E6	18836.3E6	0.533	2.705 #
18)	Endrin Aldehyde	12.09	12.88	7676.5E6	17723.2E6	1.820	4.127 #
19)	Endosulfan Sulfa	0.00	13.20	0	496.6E6	N.D.	0.077 #
20)	Methoxychlor	12.43	13.56f	949.0E6	1772.4E6	0.321	0.595 #
21)	Endrin Ketone	13.02	13.80	461.6E6	364.4E6	0.078	0.055 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

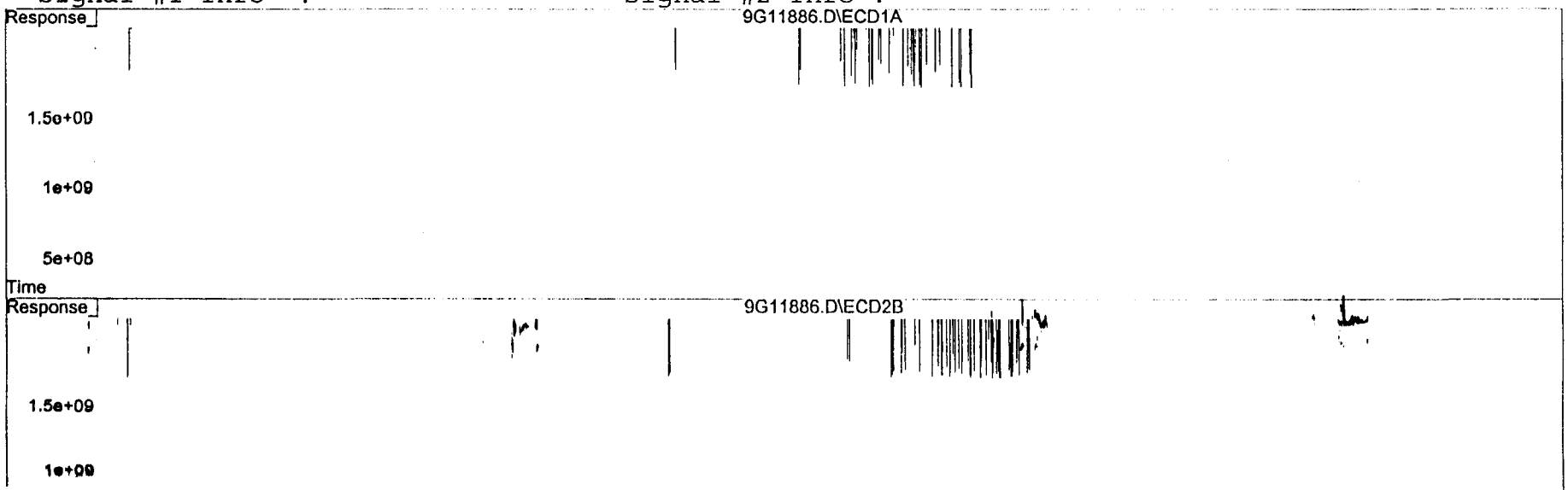
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

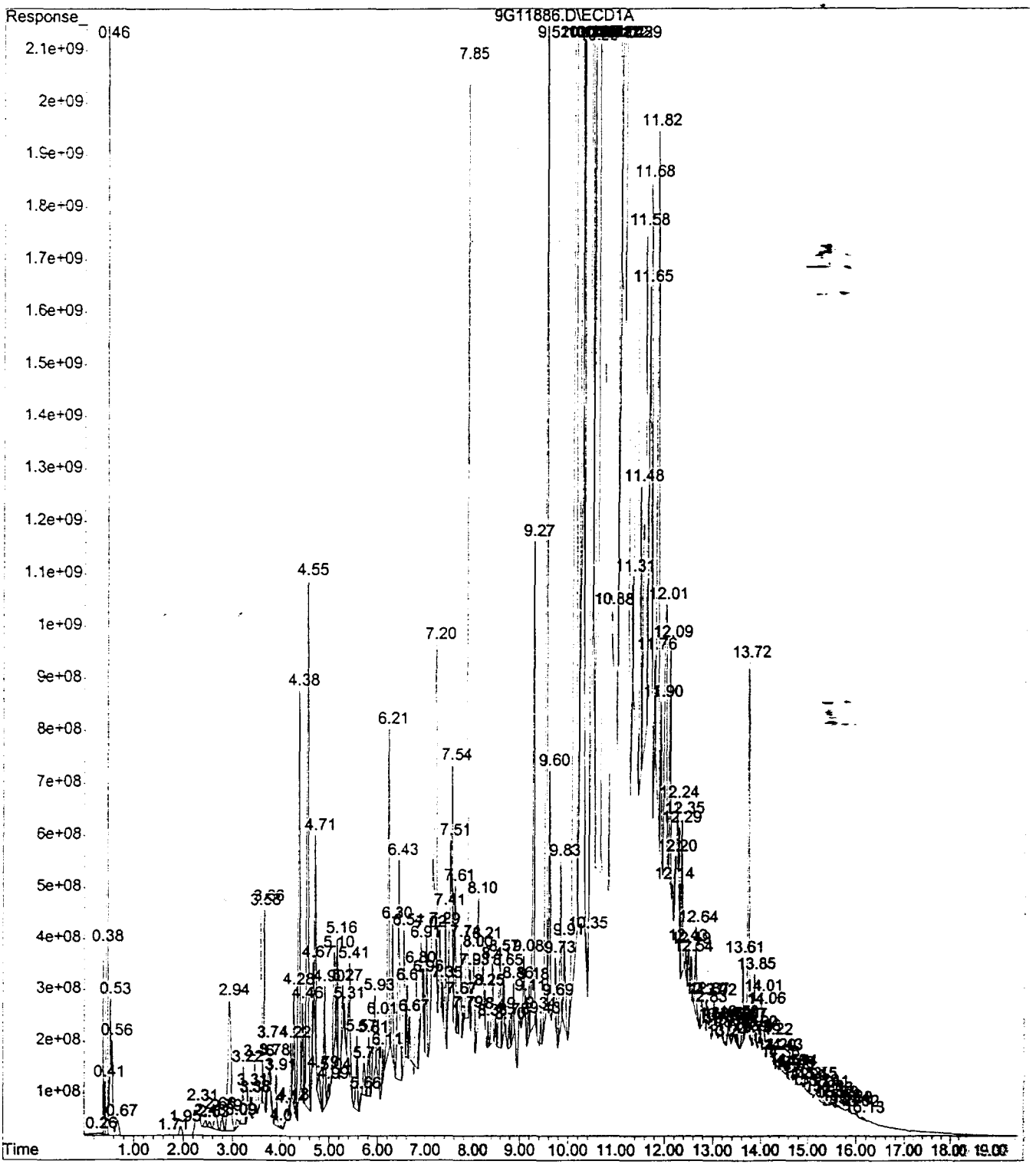
Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

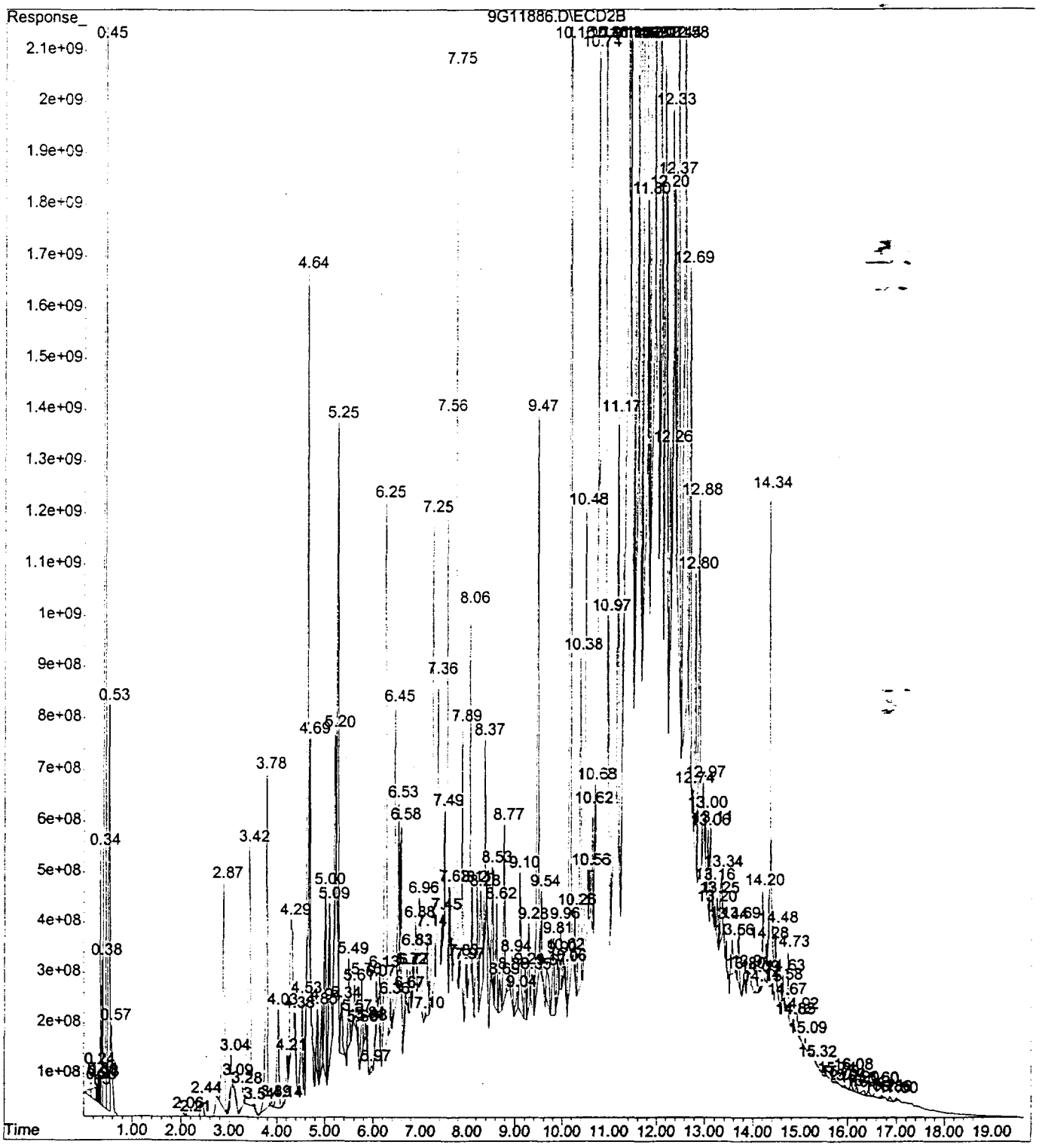


002081

File : C:\HPCHEM\1\DATA\091400\9G11886.D
Operator : ECL
Acquired : 14 Sep 2000 18:29 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-04
Misc Info : WATER,1
Vial Number: 21



File : C:\HPCHEM\1\DATA\091400\9G11886.D
Operator : ECL
Acquired : 14 Sep 2000 18:29 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-04
Misc Info : WATER,1
Vial Number: 21



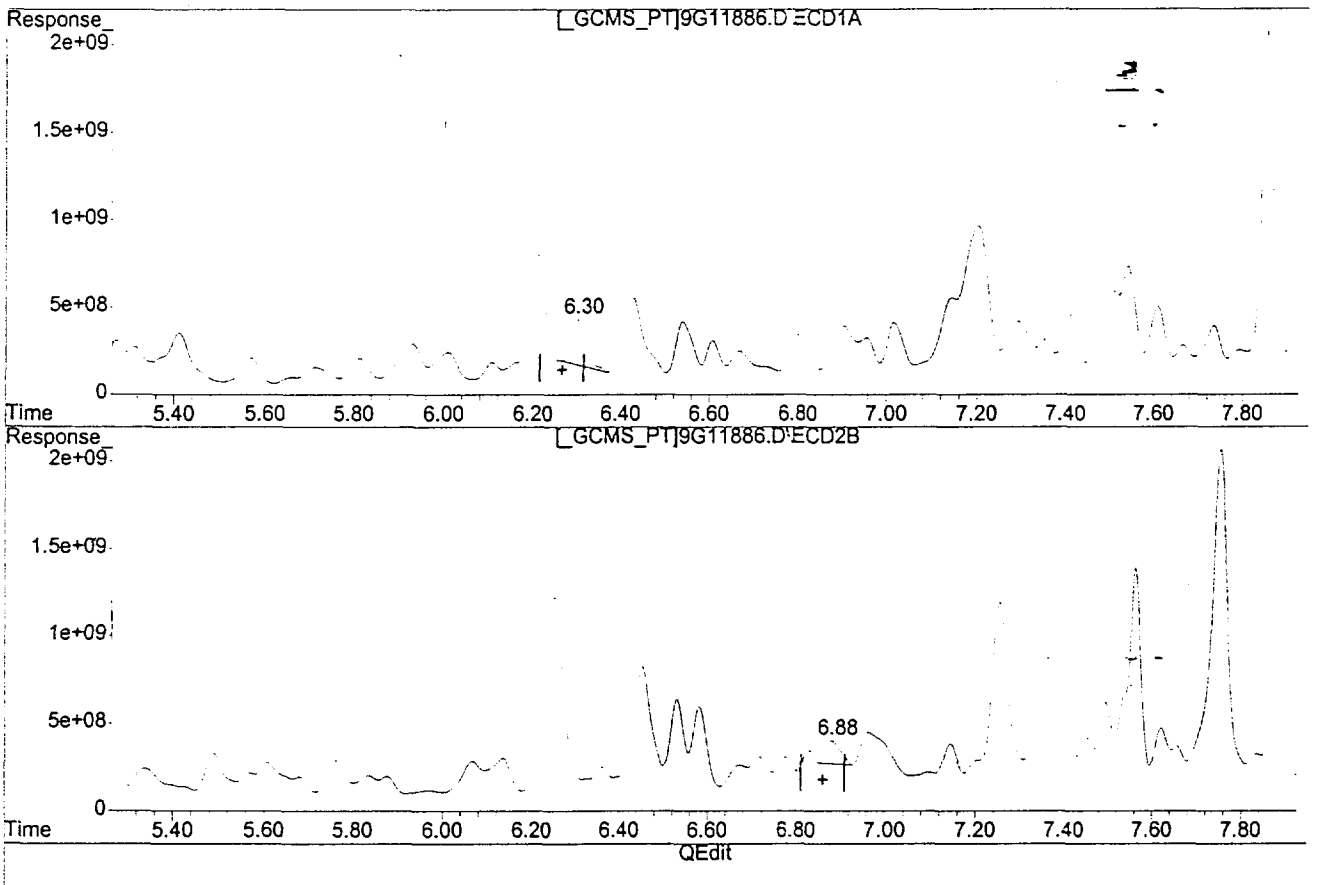
002083

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(1) 2,4,5,6-Tetrachloro-M-Xylene (S)

6.30min 75.102UG/L

response 5645766574

SMI

(1) 2,4,5,6-Tetrachloro-M-Xylene #2 (S)

6.88min 30.924UG/L

response 2963593033

(+) = Expected Retention Time

9G11886.D 8081.M Fri Sep 15 11:13:12 2000

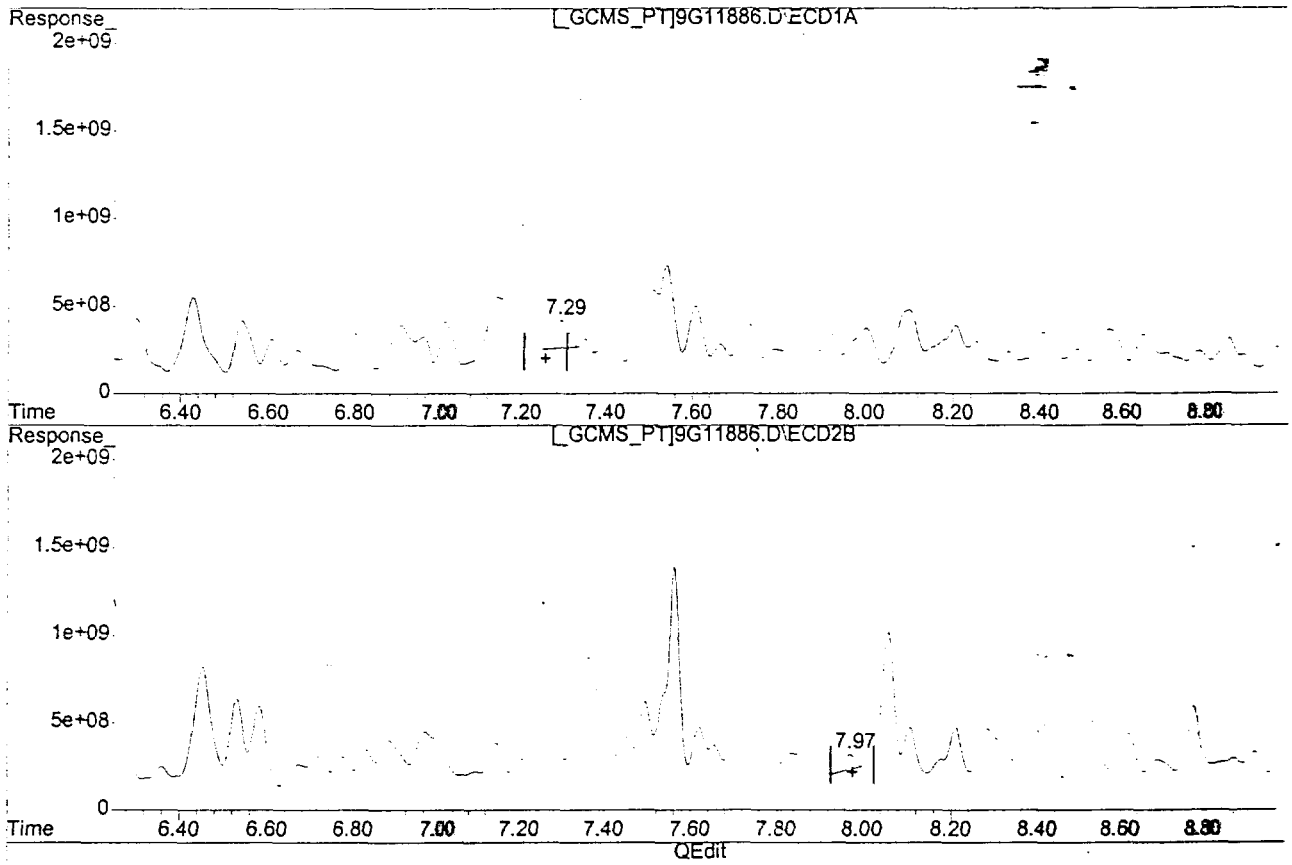
002084

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(2) alpha-BHC
7.29min 0.342UG/L
response 3600836094

RT

(2) alpha-BHC #2
7.97min 0.137UG/L
response 1812056249

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:18 2000

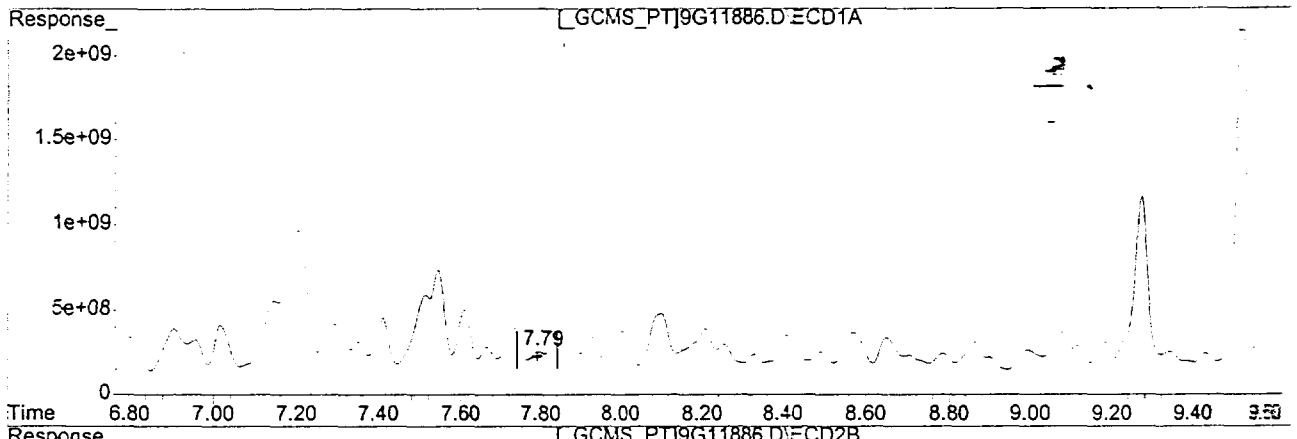
232

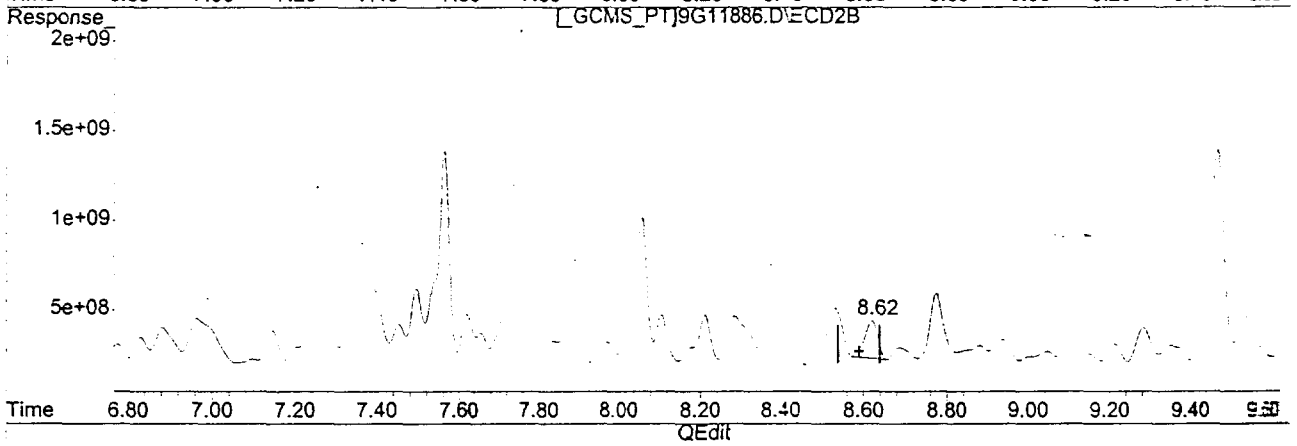
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(3) gamma-BHC
7.79min 0.039UG/L
response 369911479

(3) gamma-BHC #2
8.62min 0.389UG/L
response 4656055412

RT

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:24 2000

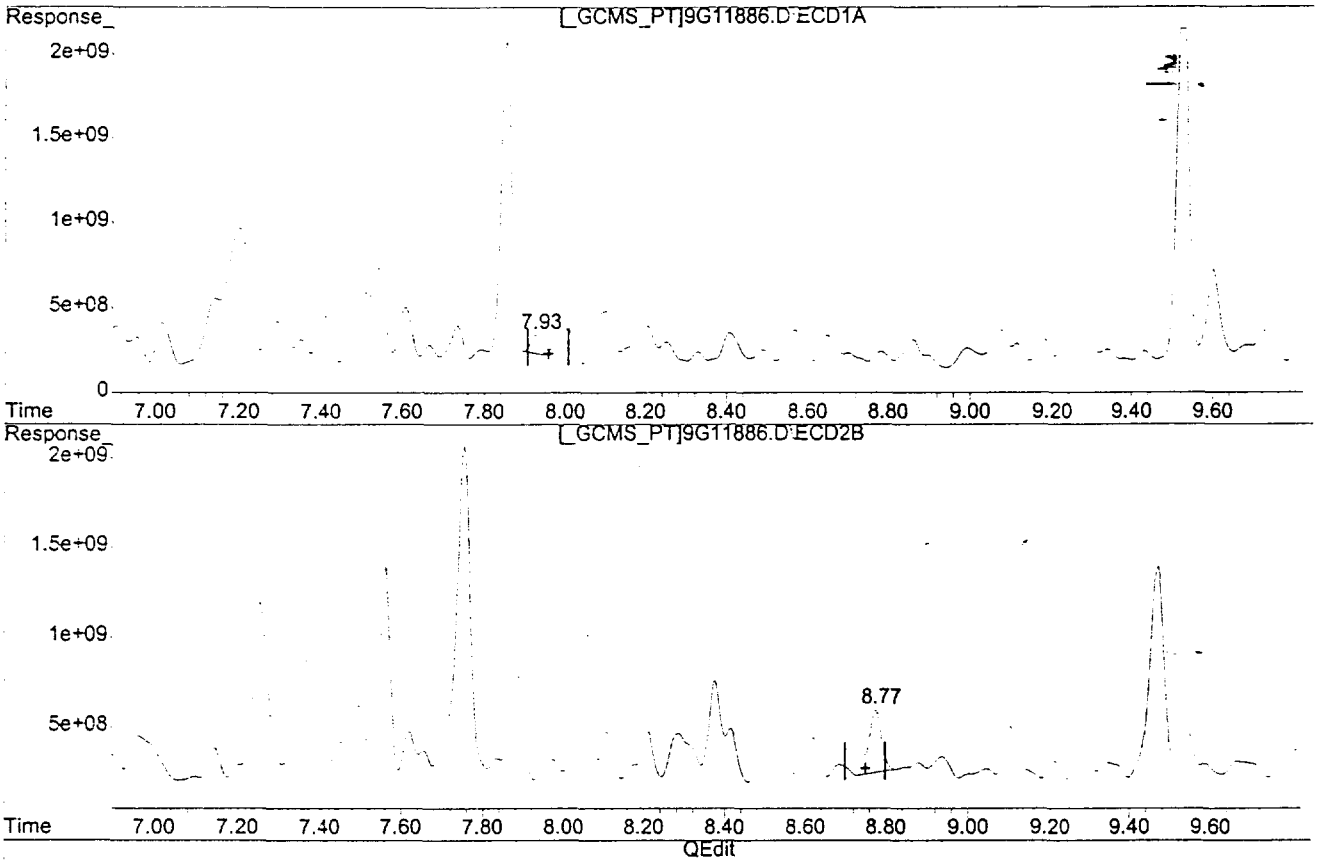
002086

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(4) beta-BHC
7.93min 0.389UG/L
response 1611719405

RT

(4) beta-BHC #2
8.77min 1.369UG/L
response 7362466494

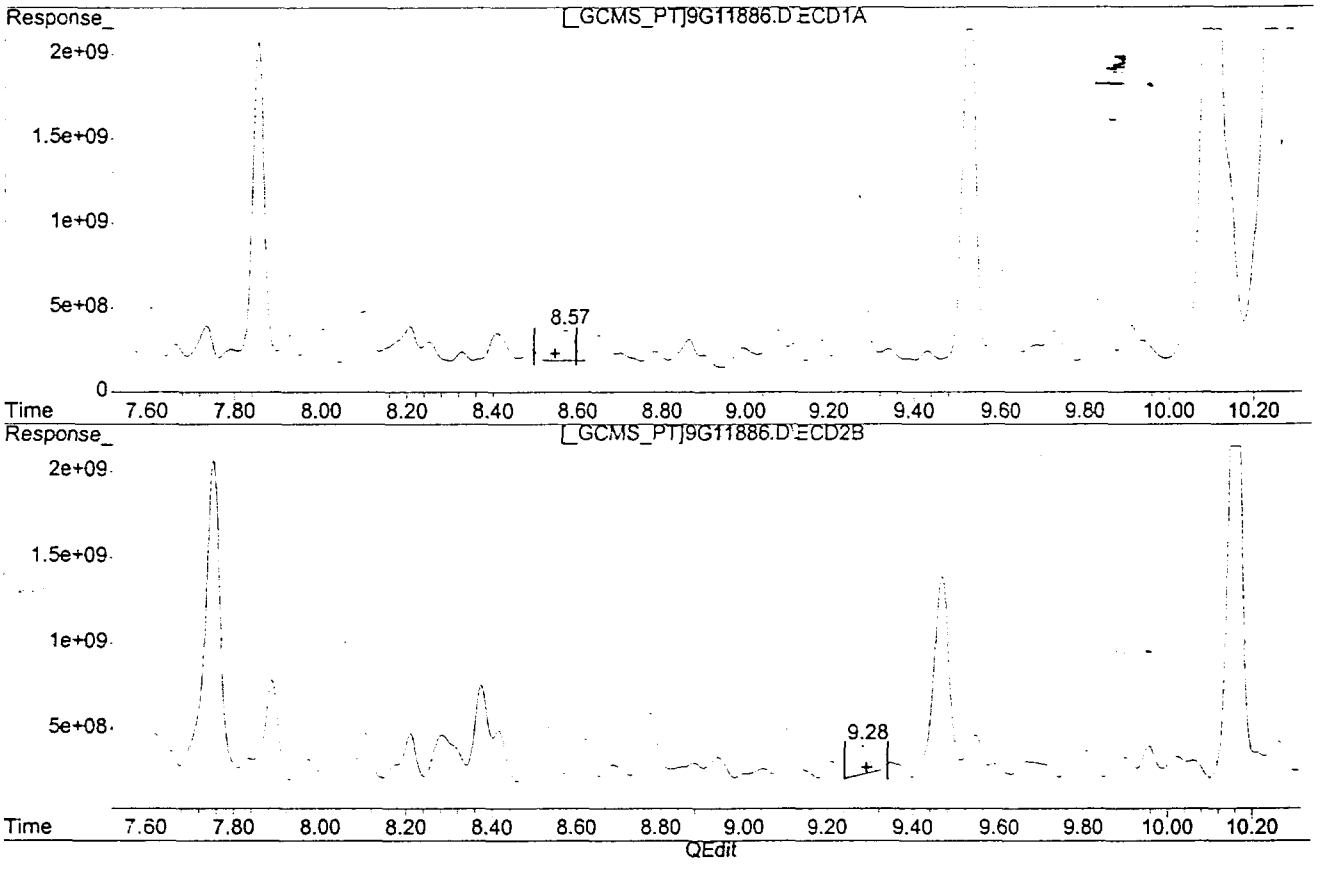
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:31 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(5) Heptachlor
8.57min 0.574UG/L
response 5157289813

RT plateshape

(5) Heptachlor #2
9.28min 0.335UG/L
response 3630567596

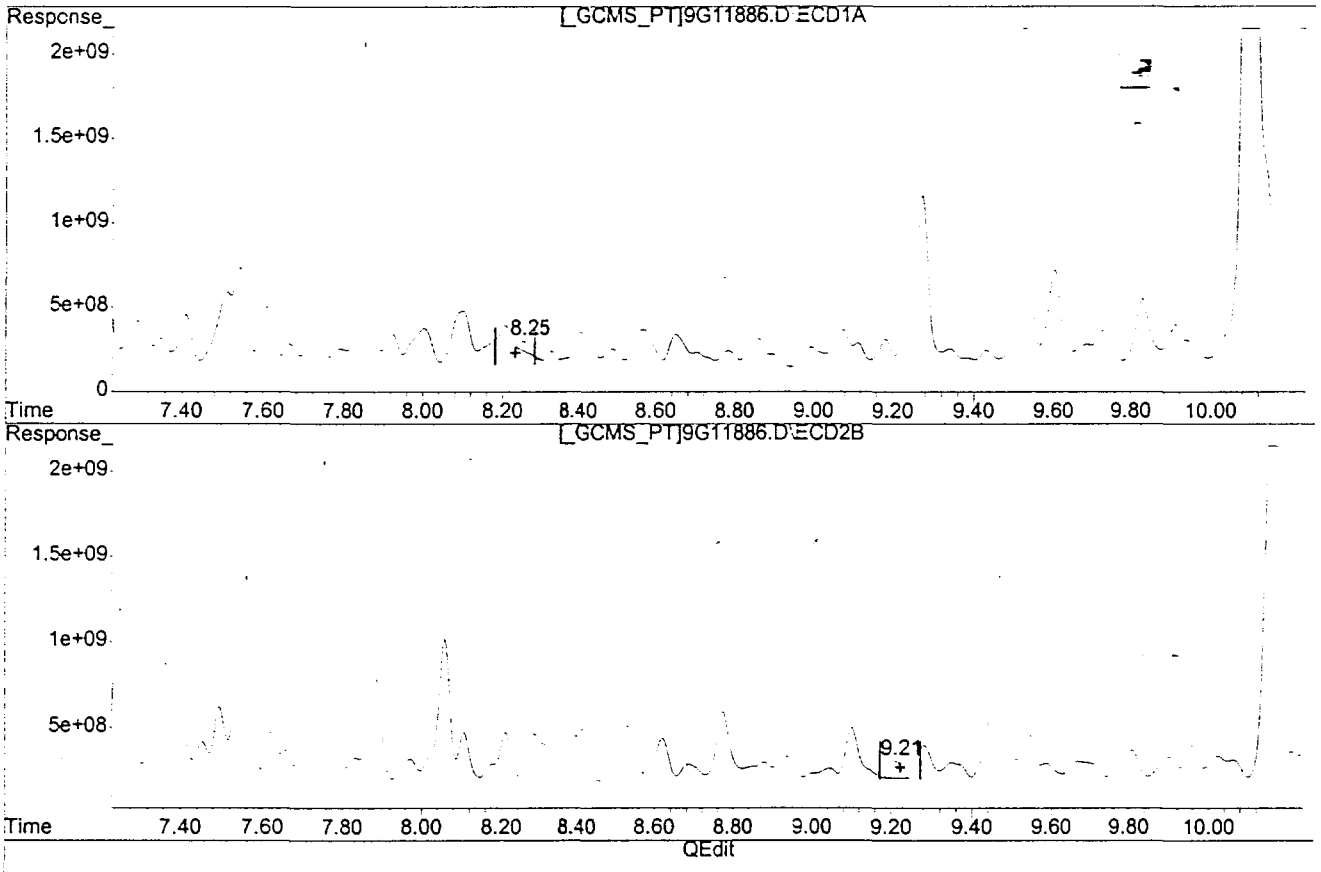
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:37 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 3
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 3
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(6) delta-BHC
8.25min 0.078UG/L
response 737908226

(6) delta-BHC #2
9.21min 0.161UG/L
response 1839222012

RT

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:43 2000

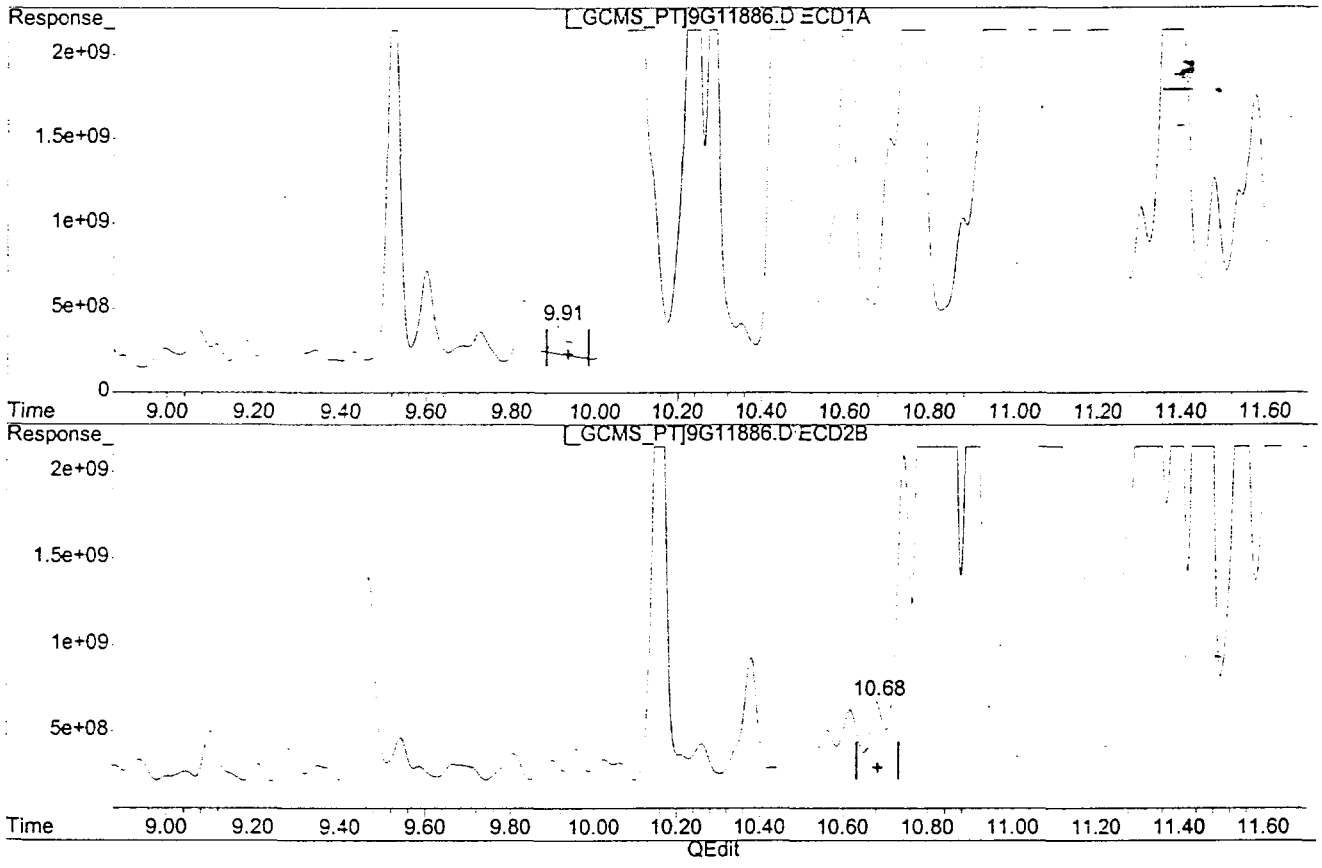
002089

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(8) Heptachlor Epoxide
9.91min 0.658UG/L
response 4564309081

RT

(8) Heptachlor Epoxide #2
10.68min 0.412UG/L
response 3414541079

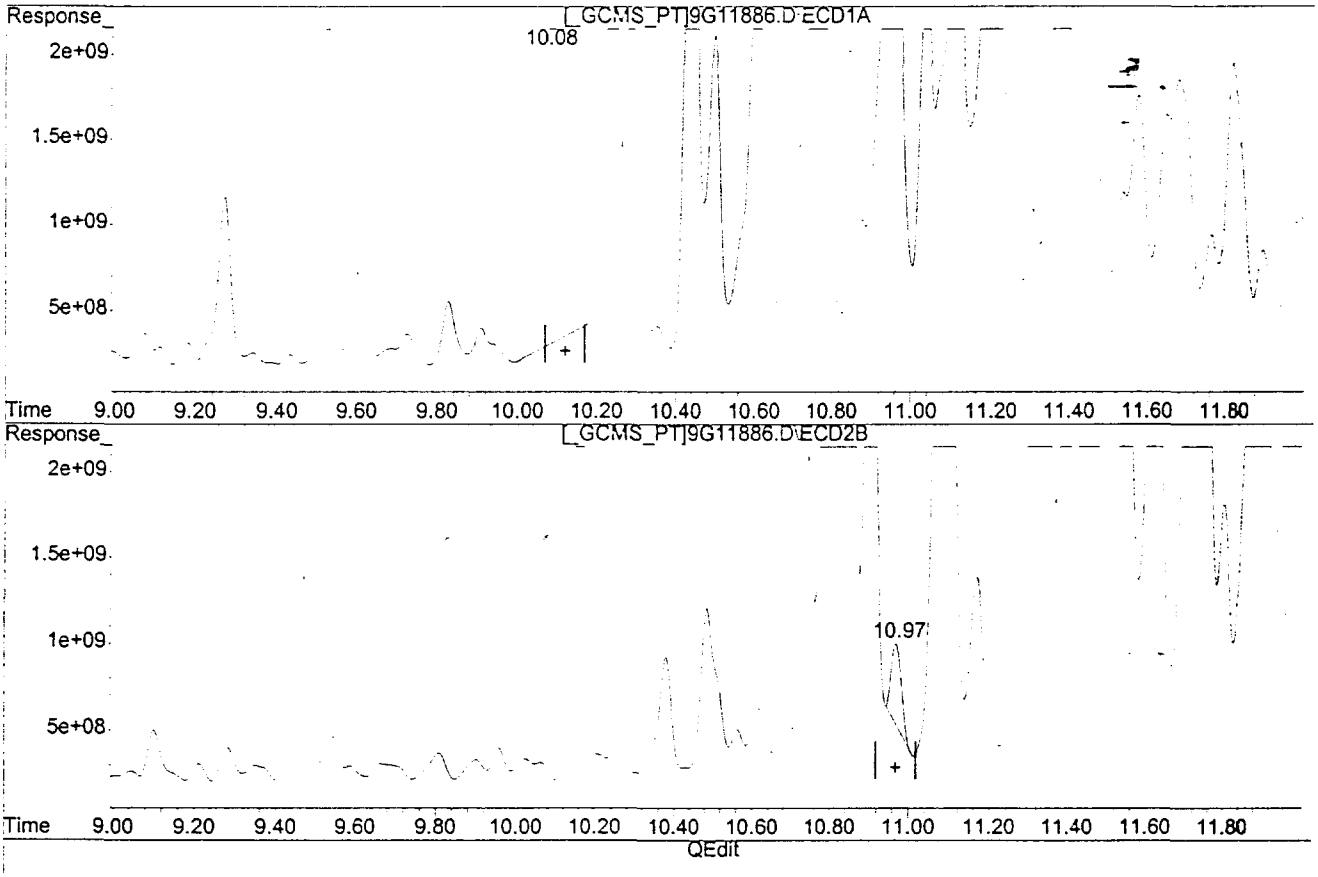
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:53 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(9) gamma-Chlordane
10.11min 10.639UG/L
response 83599737922

(9) gamma-Chlordane #2
10.97min 0.849UG/L
response 8164280906

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:13:58 2000

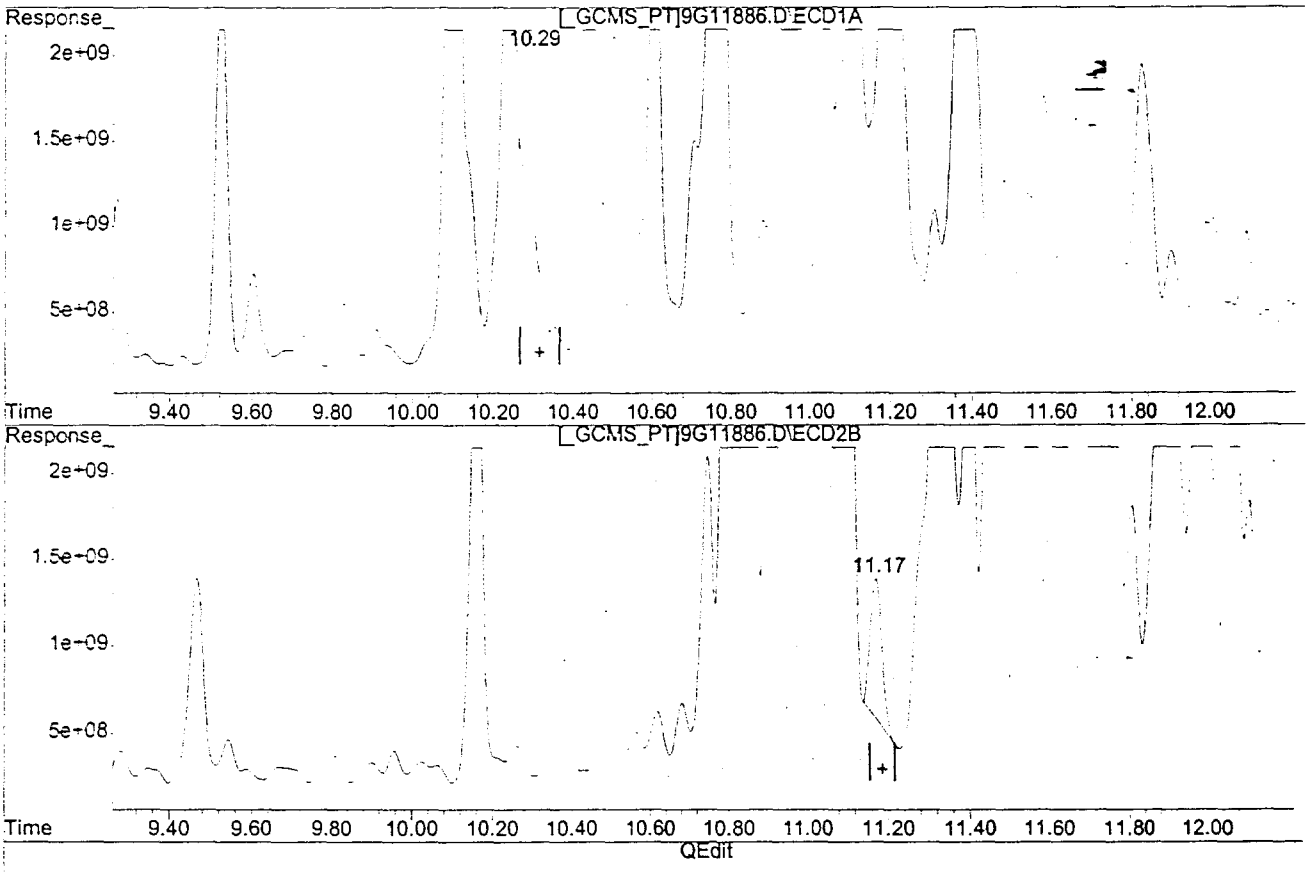
002091

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(10) alpha-Chlordane
10.29min 2.181UG/L
response 16578141984

RT

(10) alpha-Chlordane #2
11.17min 1.694UG/L
response 15577231910

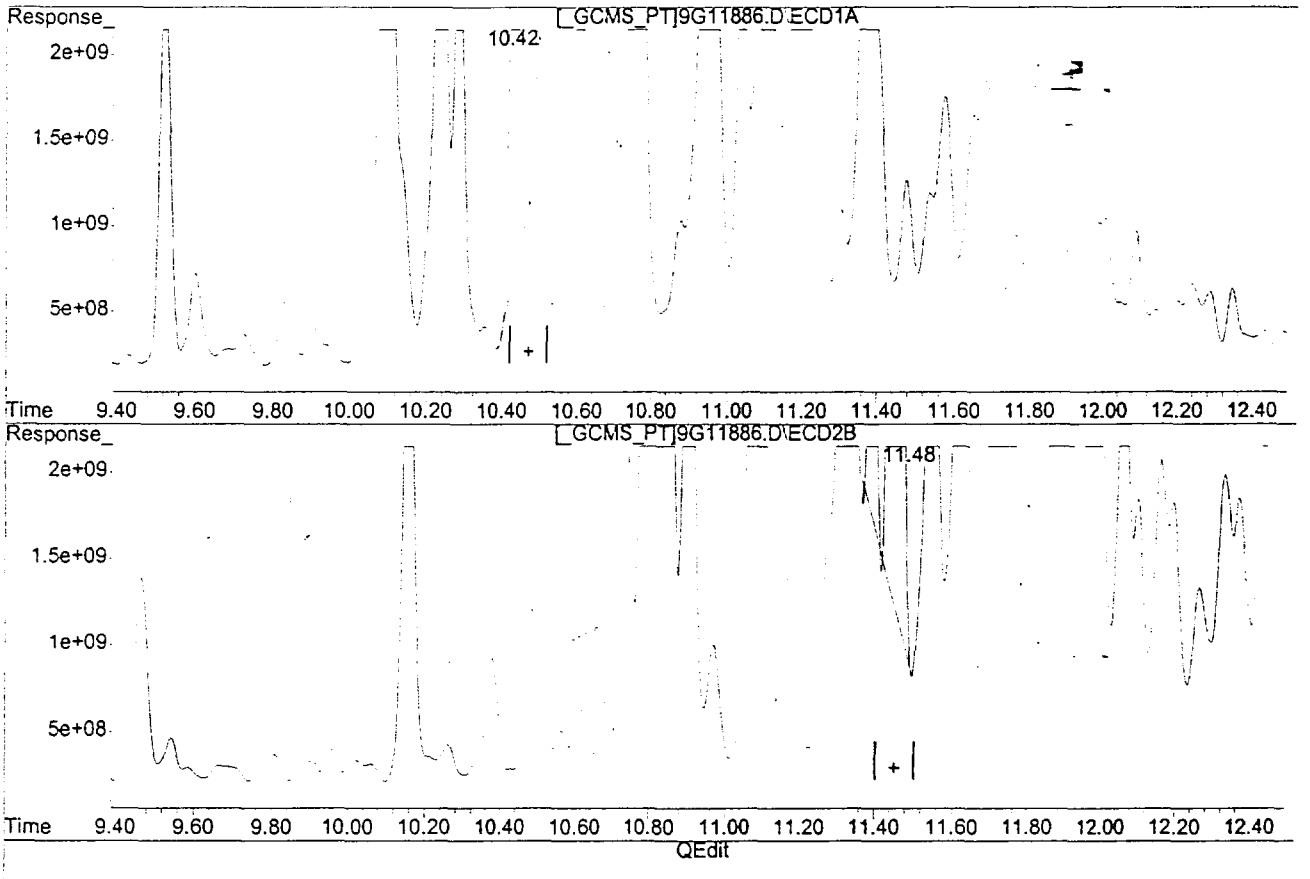
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:04 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(12) 4,4'-DDE
10.45min 5.679UG/L
response 39384073118

RT

(12) 4,4'-DDE #2
11.47min 4.795UG/L
response 40990782969

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:17 2000

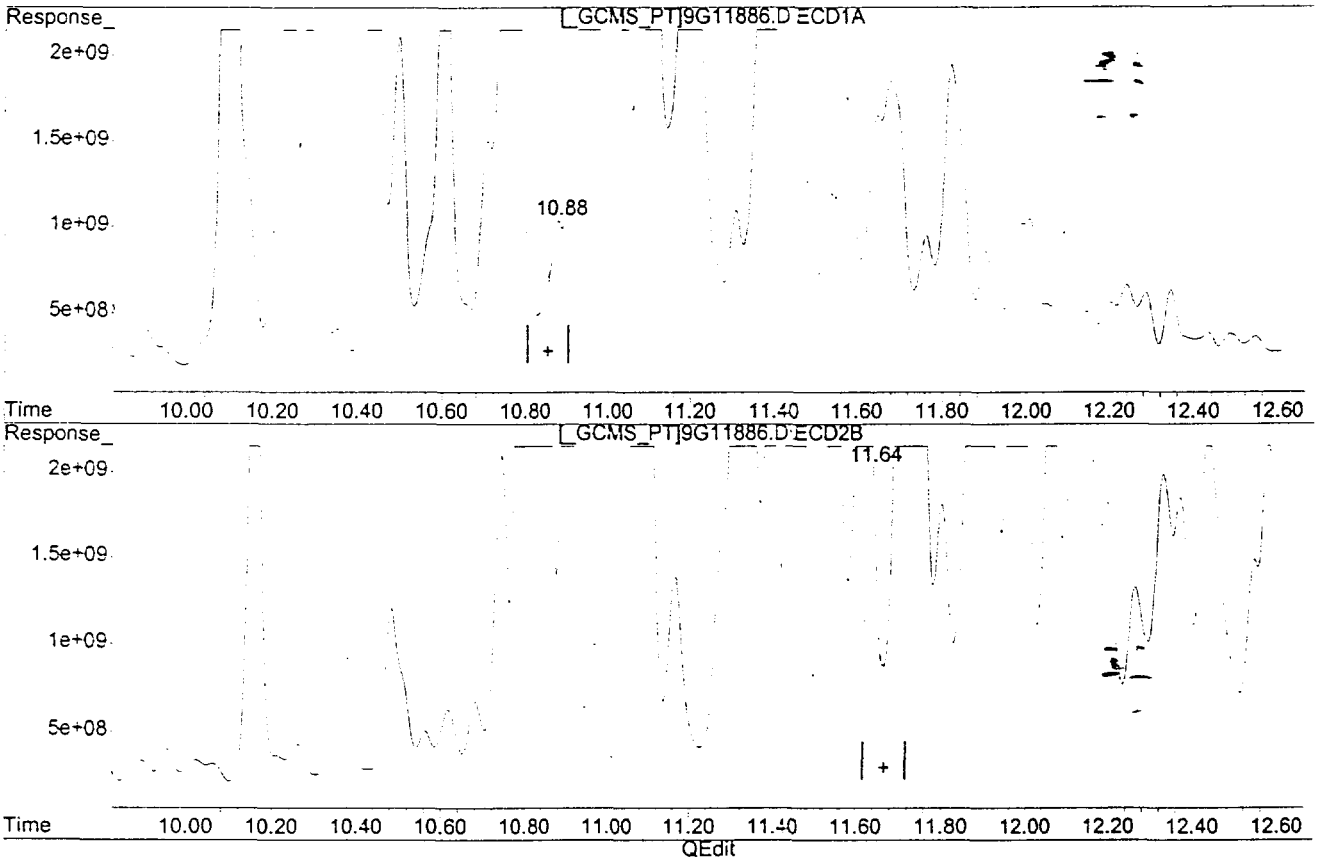
240

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(13) Dieldrin
10.88min 0.020UG/L
response 144501555

peak

(13) Dieldrin #2
11.63min 3.829UG/L
response 33627619439

RT

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:23 2000

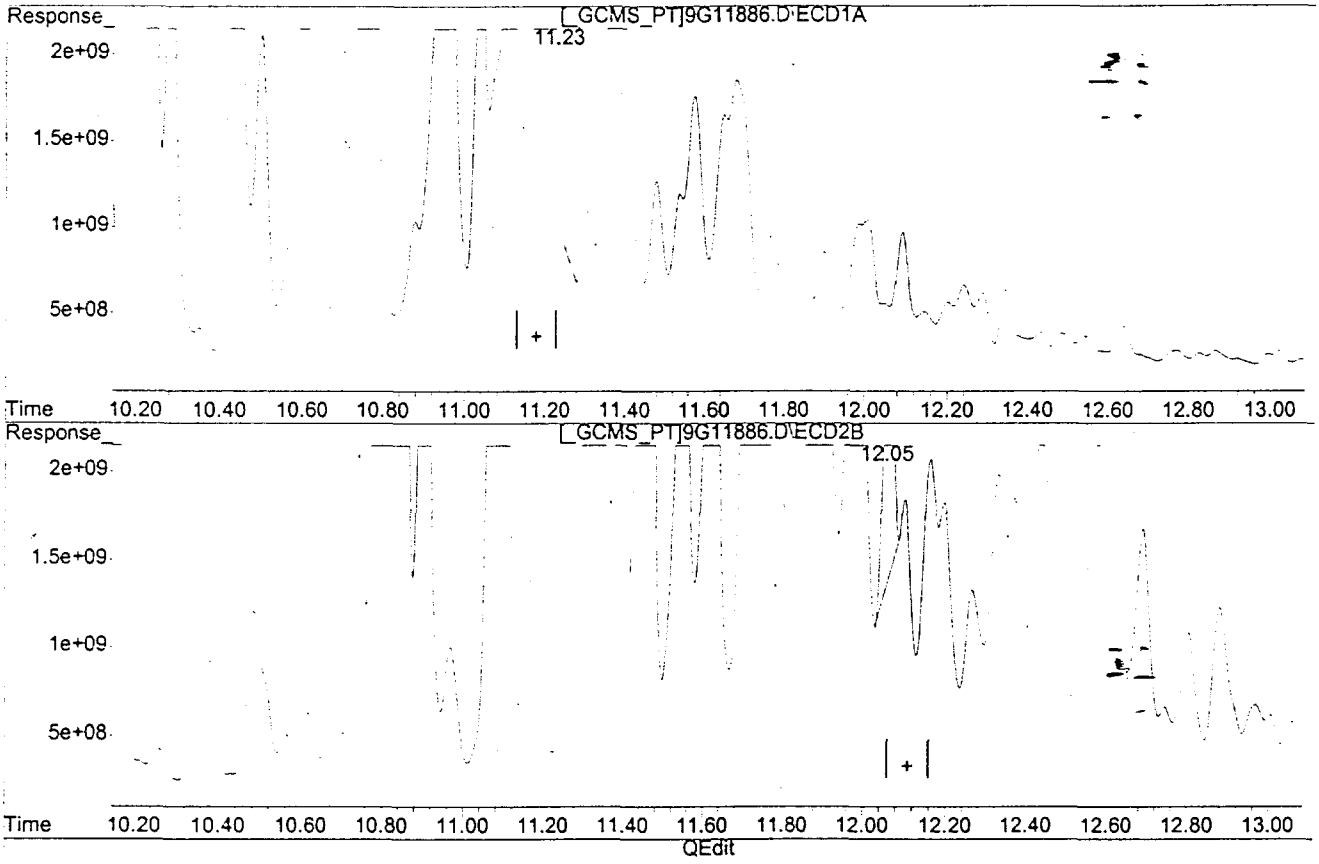
241

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(14) Endrin
11.22min 6.461UG/L
response 43748136856

(14) Endrin #2
12.07min 2.584UG/L
response 17075257770

RT

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:29 2000

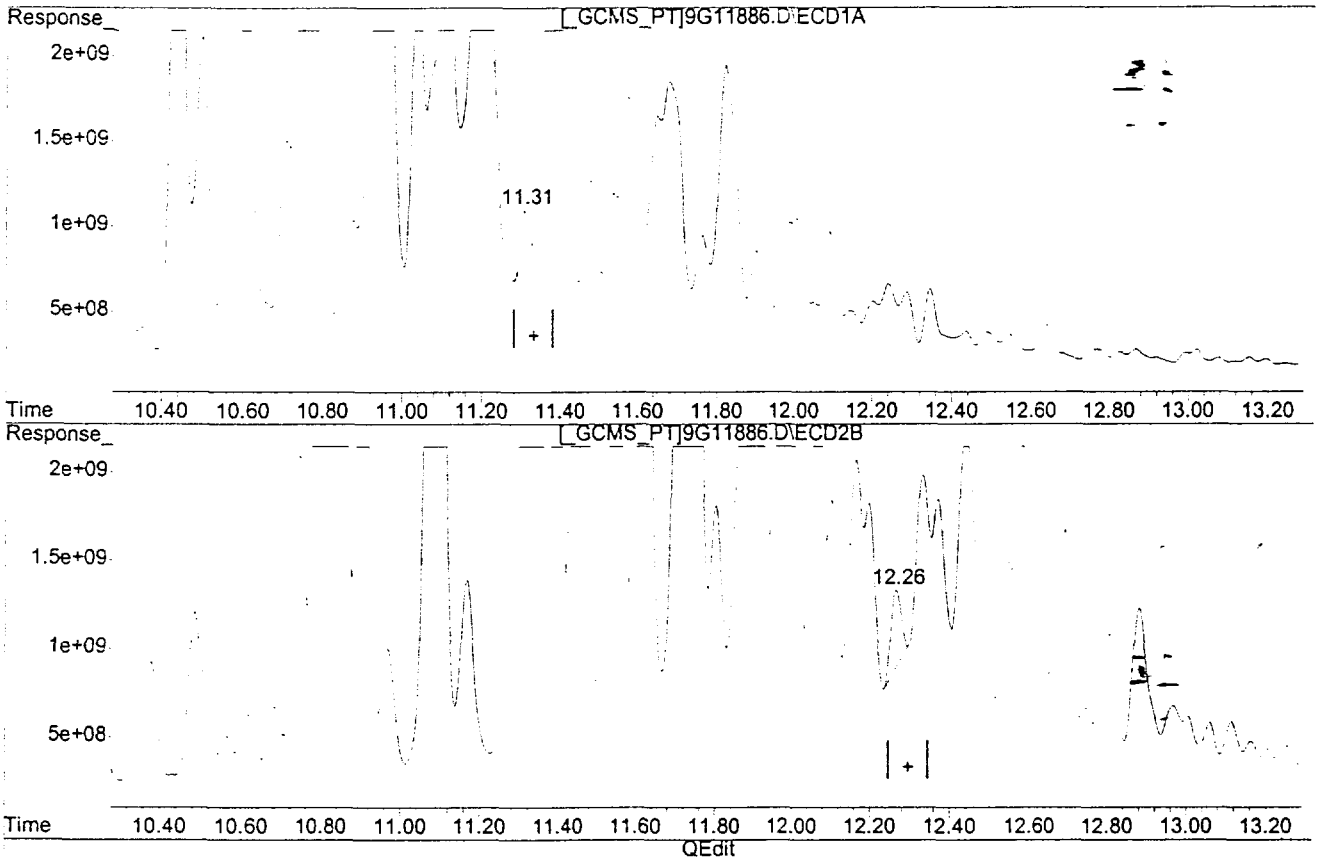
242

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(15) 4,4'-DDD
11.31min 0.667UG/L
response 3756485999

(15) 4,4'-DDD #2
12.26min 4.160UG/L
response 7651983056

RT

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:35 2000

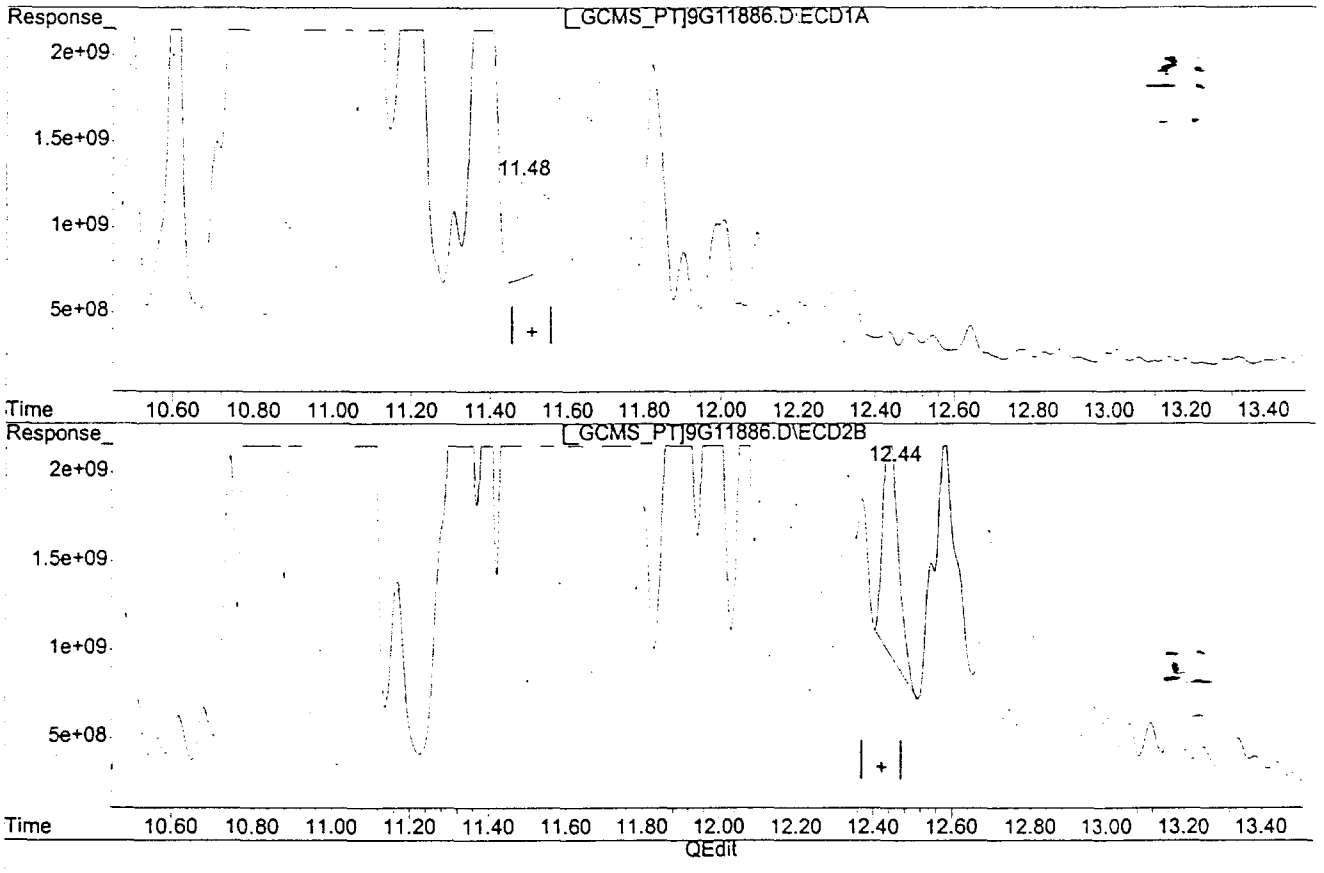
002096

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(16) Endosulfan II
11.48min 1.532UG/L
response 9359674233

RT

(16) Endosulfan II #2
12.44min 4.530UG/L
response 33398189880

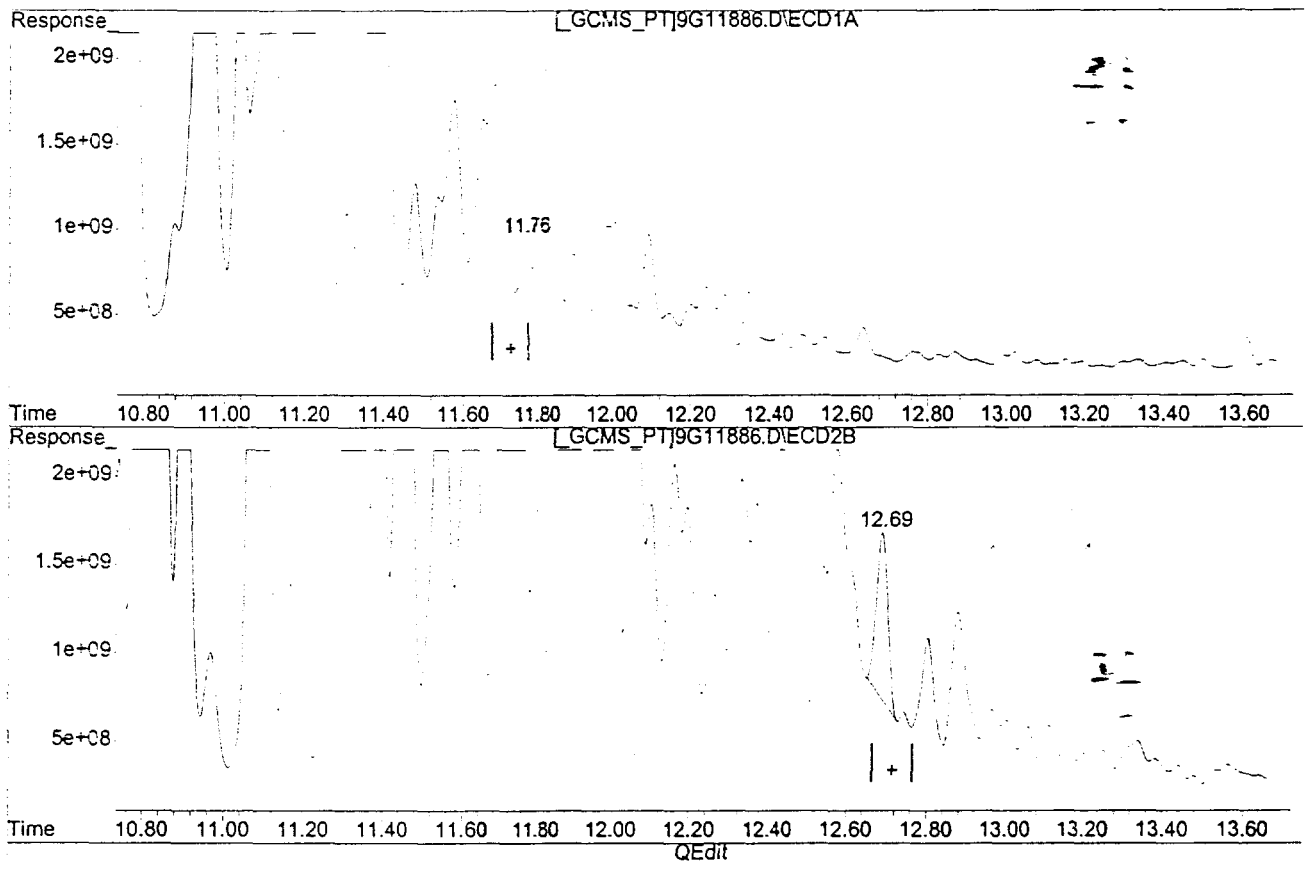
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:41 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.0
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.0
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(17) 4,4'-DDT
11.76min 0.533UG/L
response 3217169368

(17) 4,4'-DDT #2
12.69min 2.705UG/L
response 18836333546

RT

(+) = Expected Retention Time

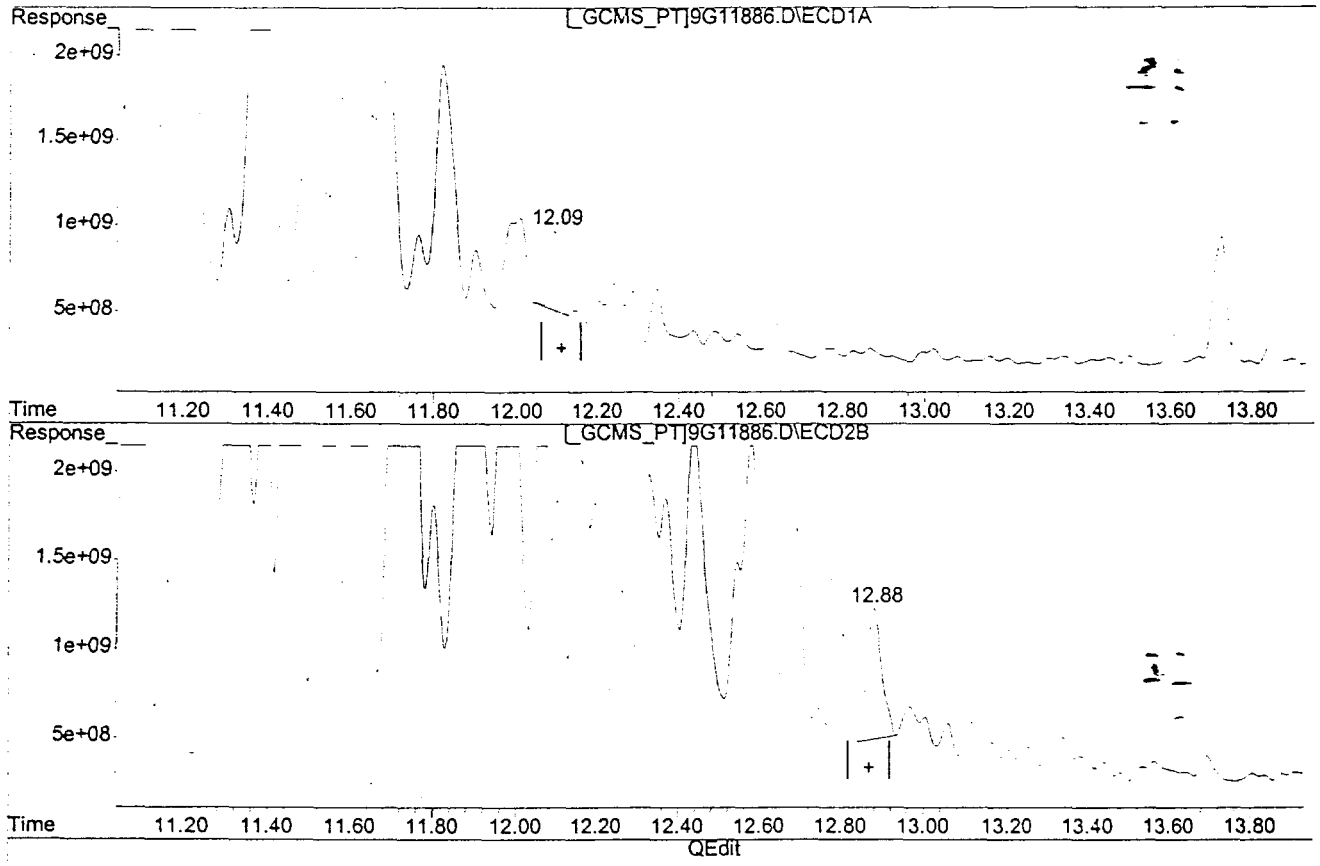
002098

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(18) Endrin Aldehyde
12.09min 1.820UG/L
response 7676458303

RT

(18) Endrin Aldehyde #2
12.88min 4.127UG/L
response 17723152989

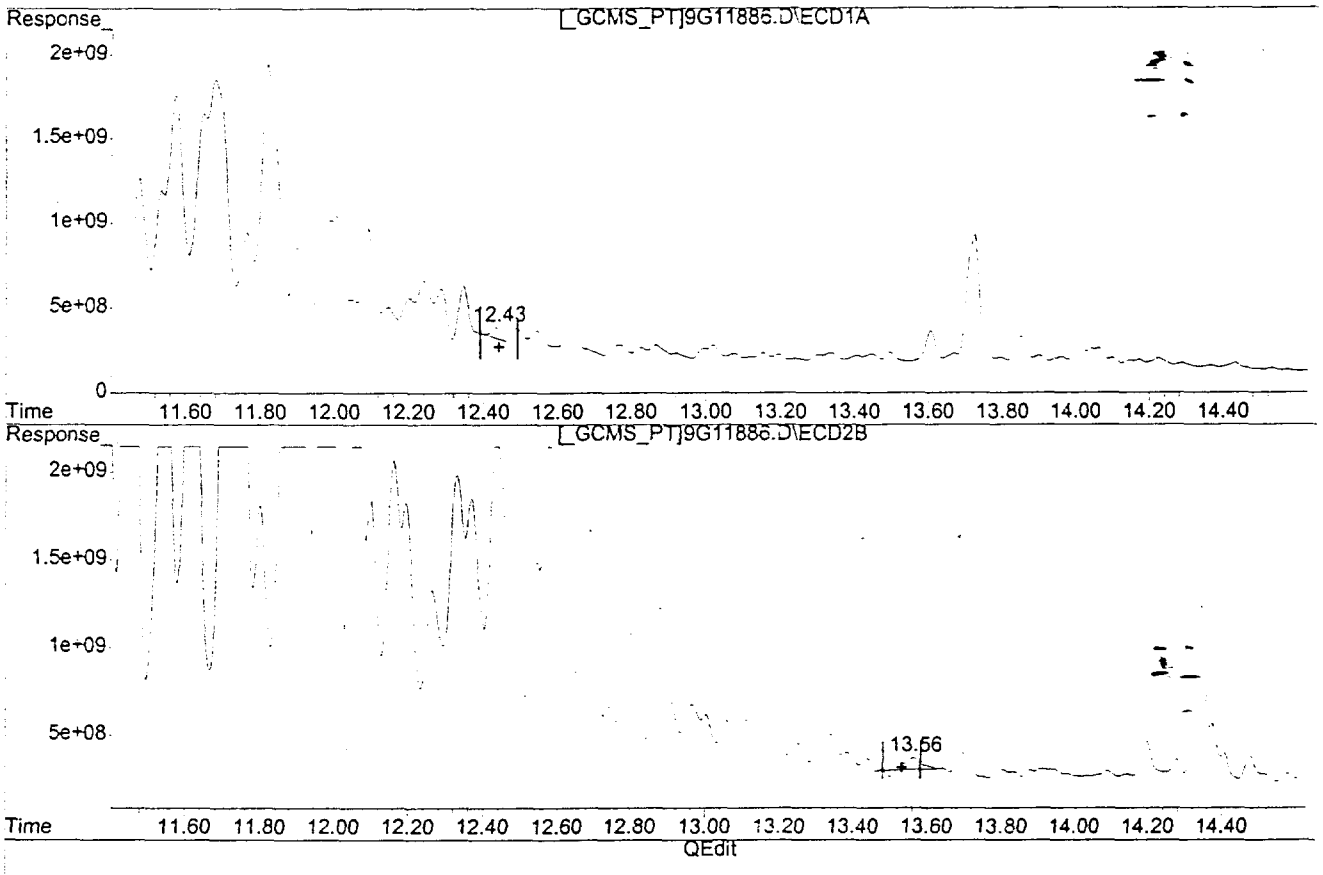
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:14:54 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(20) Methoxychlor
12.43min 0.321UG/L
response 948988803

(20) Methoxychlor #2
13.56min 0.595UG/L
response 1772414069

peak shape

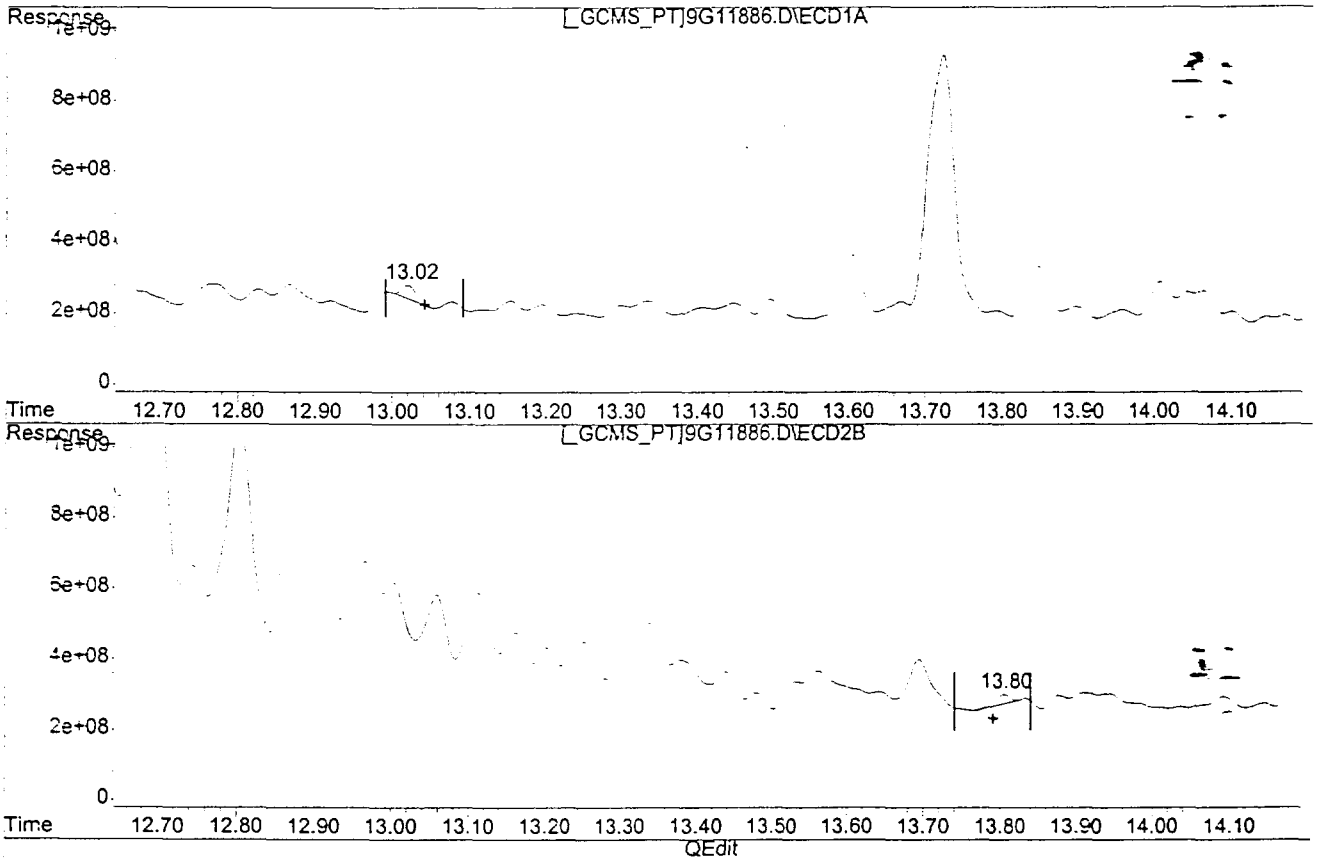
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multipl: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(21) Endrin Ketone
13.02min 0.078UG/L
response 461614295

RT

(21) Endrin Ketone #2
13.80min 0.055UG/L
response 364427527

peak shape

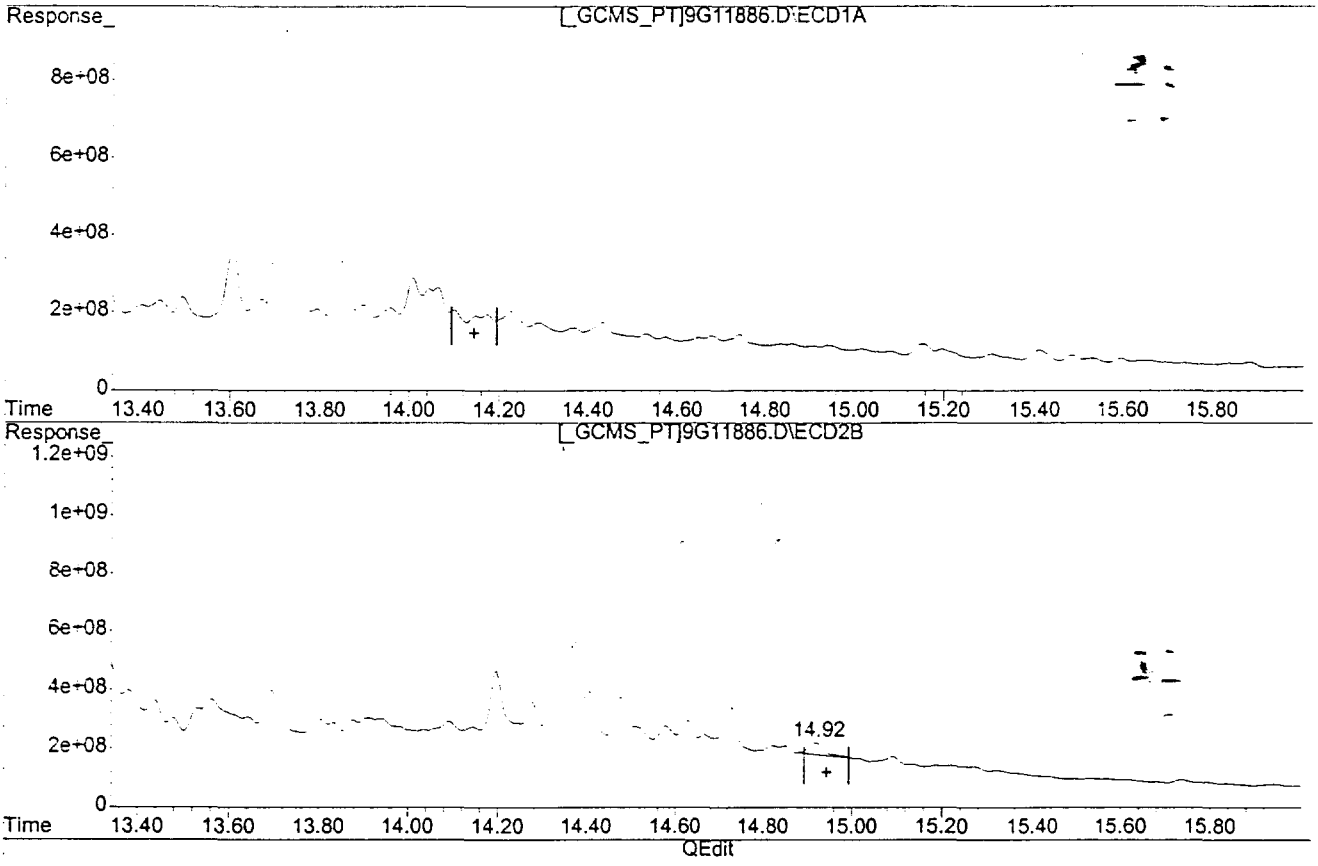
(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:15:20 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD1A.CH Vial: 21
Acq On : 14 Sep 2000 18:29 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11886.D\ECD2B.CH Vial: 21
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-04 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:12 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(22) Decachlorobiphenyl (S)
0.00min 0.000UG/L
response 0

(22) Decachlorobiphenyl #2 (S)
14.92min 19.584UG/L
response 1019227772

(+) = Expected Retention Time
9G11886.D 8081.M Fri Sep 15 11:15:28 2000

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	6.30f	6.84	6230.2E6	1580.2E6	82.877	16.489 #
Spiked Amount 20.000	Range 13 - 154		Recovery =		414.38%#	82.45%
22) S Decachlorobiphen	14.17	14.94	297.3E6	974.2E6	6.907	18.718 #
Spiked Amount 20.000	Range 25 - 140		Recovery =		34.53%	93.59%
Target Compounds						
2) alpha-BHC	7.30f	7.98	15829.6E6	1966.3E6	1.503	0.149 #
3) gamma-BHC	0.00	8.63f	0	4837.7E6	N.D.	0.404 #
4) beta-BHC	7.97	8.78f	1045.0E6	8803.1E6	0.253	1.637 #
5) Heptachlor	8.57	9.29	5115.4E6	4703.7E6	0.569	0.433
6) delta-BHC	8.25	9.22	1869.5E6	1936.6E6	0.199	0.170
7) Aldrin	9.00	9.81	2293.1E6	6445.2E6	0.283	0.650 #
8) Heptachlor Epoxi	9.90f	10.69	13459.9E6	12608.5E6	1.940	1.522
9) gamma-Chlordane	10.11	10.98	83184.5E6	6074.3E6	10.586	0.632 #
10) alpha-Chlordane	0.00	11.18	0	17094.3E6	N.D.	1.859 #
11) Endosulfan I	10.50	0.00	20763.5E6	0	2.973	N.D. #
12) 4,4'-DDE	10.50	11.48f	20763.5E6	23098.1E6	2.994	2.702
13) Dieldrin	0.00	11.64	0	22585.8E6	N.D.	2.571 #
14) Endrin	11.21f	12.08f	31189.8E6	13500.5E6	4.606	2.043 #
15) 4,4'-DDD	11.30f	12.34f	3609.6E6	8319.2E6	0.641	1.261 #
16) Endosulfan II	11.53	12.45f	2686.7E6	32739.7E6	0.440	4.441 #
17) 4,4'-DDT	11.75f	12.70	3368.1E6	18882.6E6	0.558	2.712 #
18) Endrin Aldehyde	12.08f	12.88	8017.4E6	23592.0E6	1.901	5.493 #
19) Endosulfan Sulfa	0.00	13.21	0	344.3E6	N.D.	0.054 #
20) Methoxychlor	12.42	13.57f	3121.3E6	13098.9E6	1.054	4.396 #
21) Endrin Ketone	13.01f	13.81	711.2E6	964.8E6	0.121	0.145

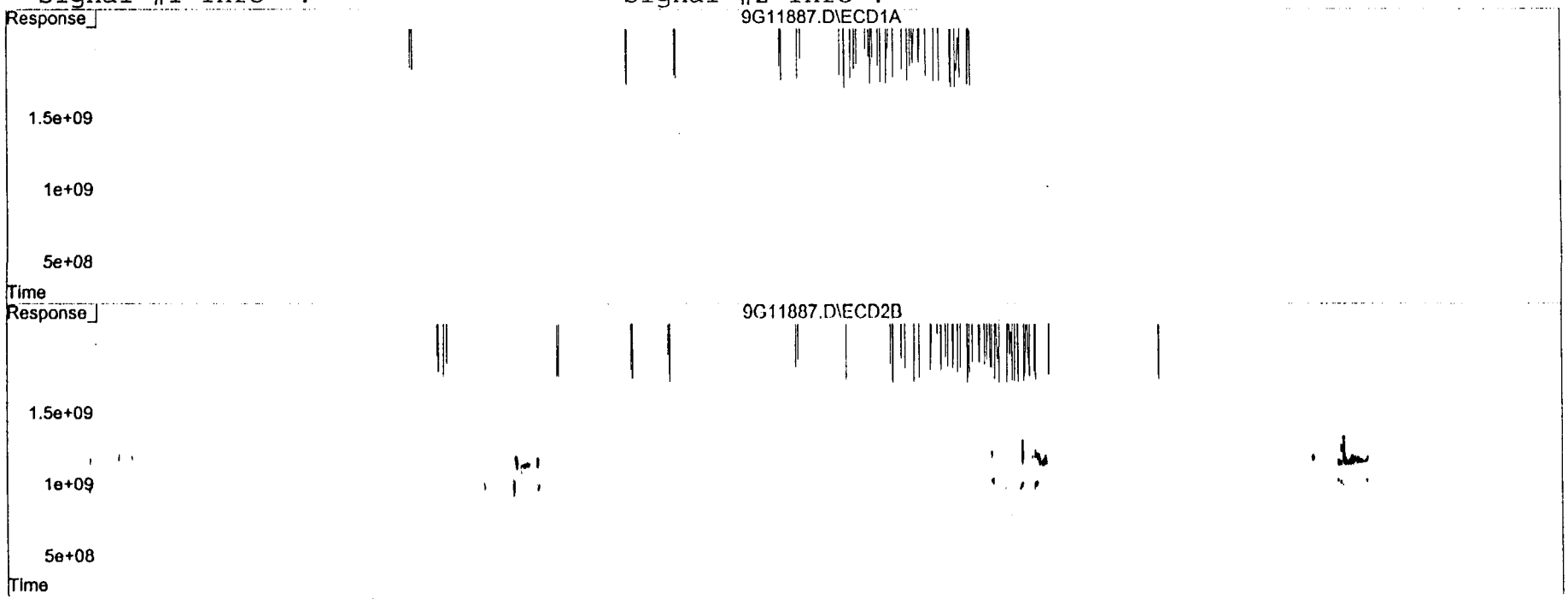
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

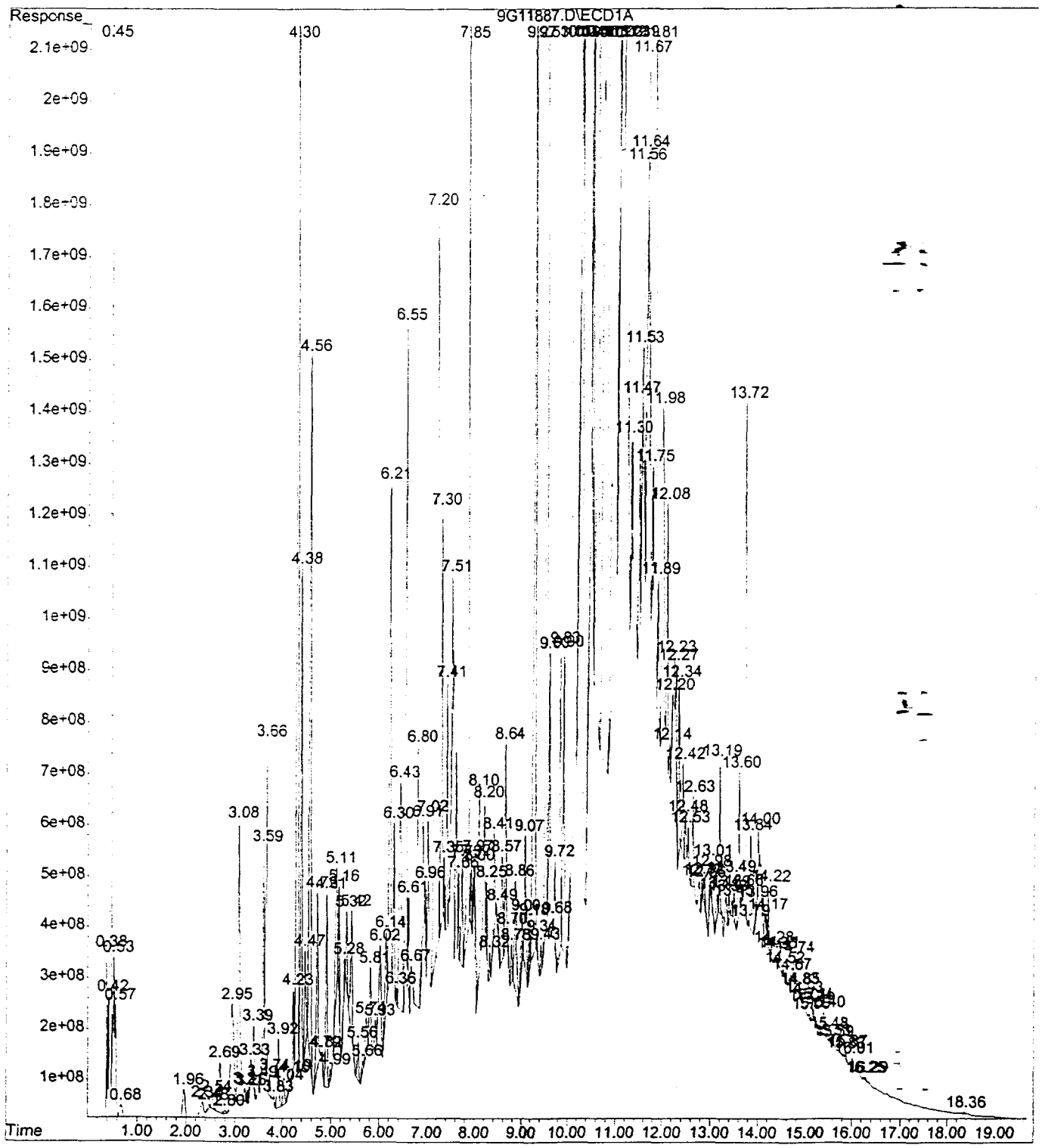
Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



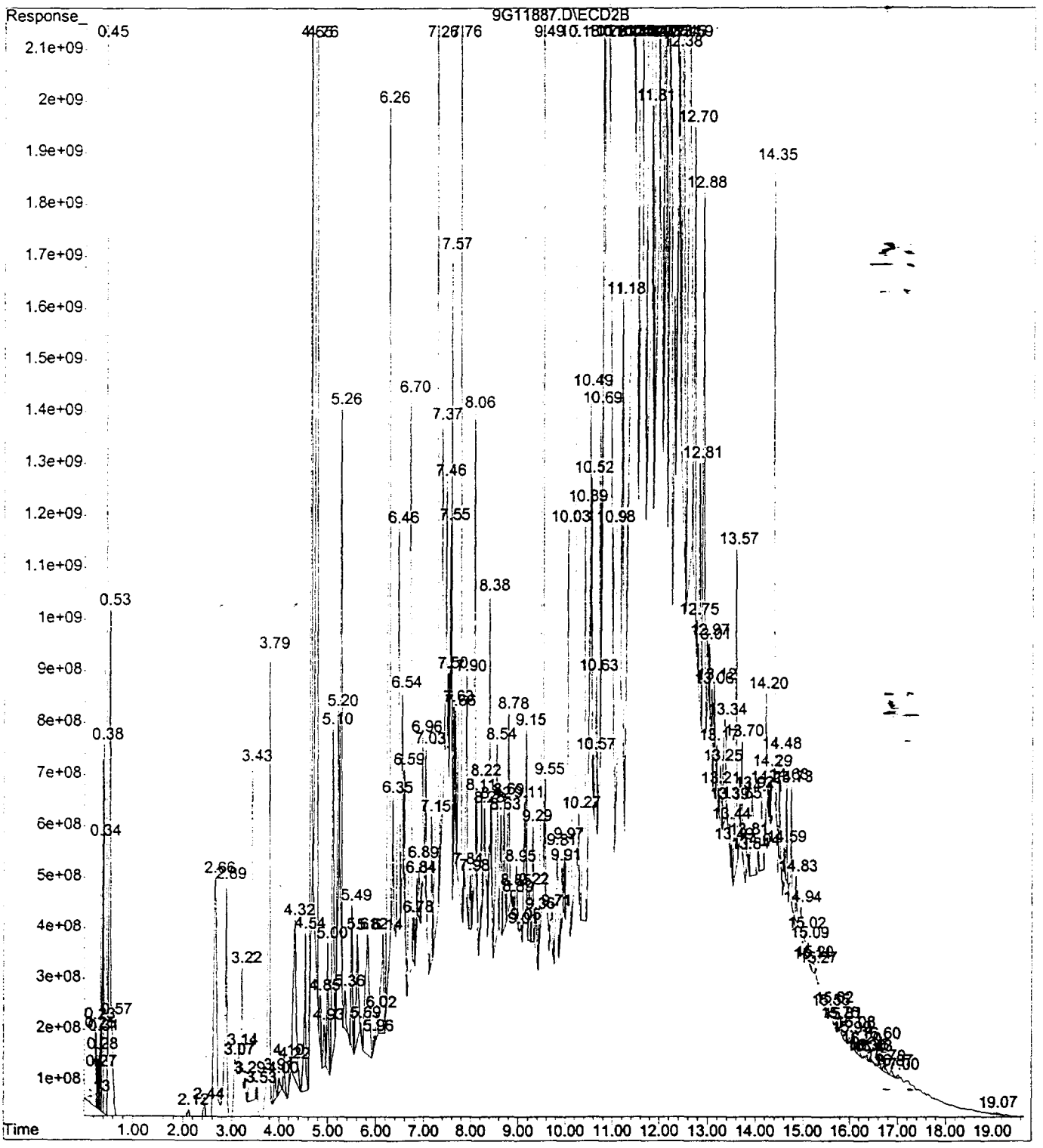
002104

File : C:\HPCHEM\1\DATA\091400\9G11887.D
Operator : ECL
Acquired : 14 Sep 2000 18:53 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-06
Misc Info : WATER,1
Vial Number: 22



002105

File : C:\HPCHEM\1\DATA\091400\9G11887.D
Operator : ECL
Acquired : 14 Sep 2000 18:53 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-06
Misc Info : WATER,1
Vial Number: 22



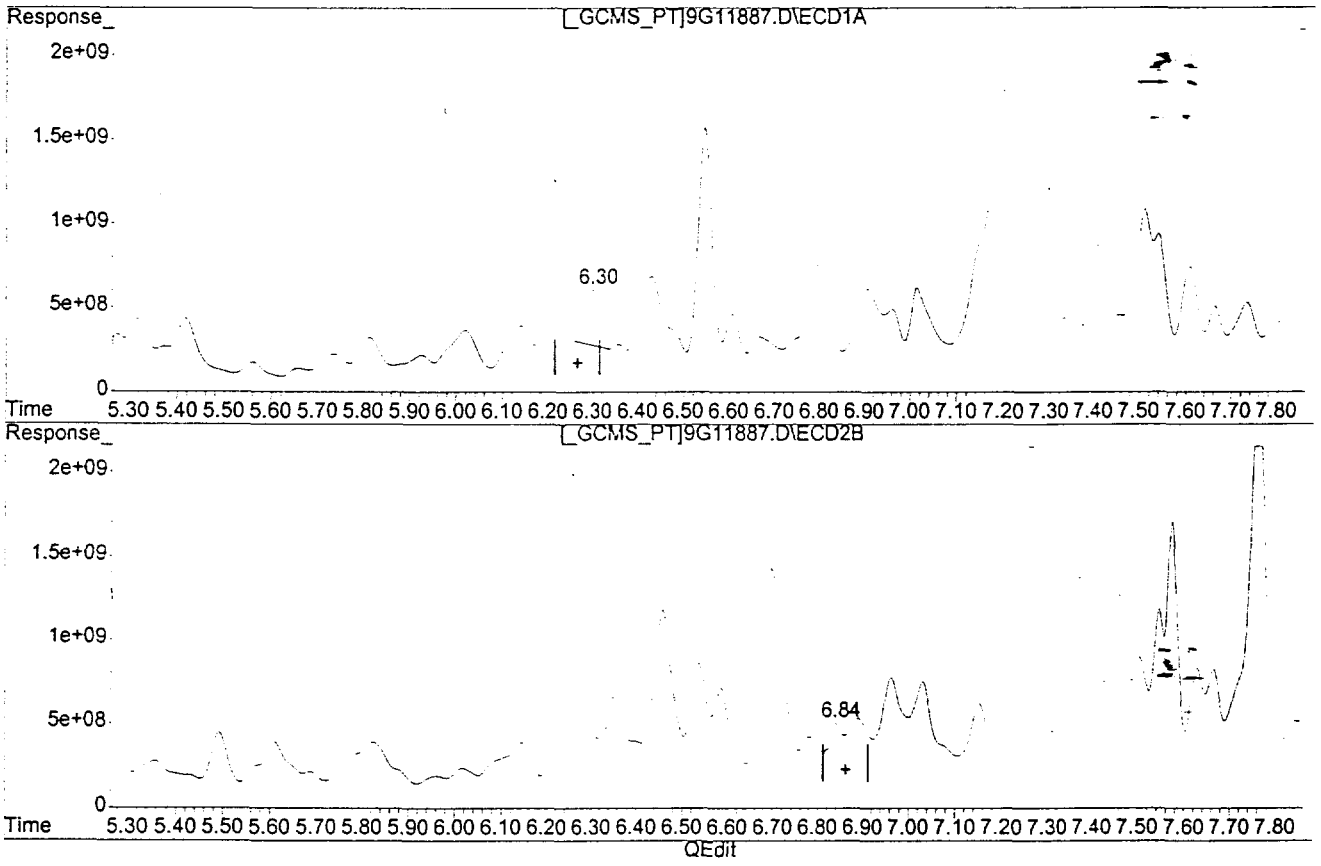
002106

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(1) 2,4,5,6-Tetrachloro-M-Xylene (S)
6.30min 82.877UG/L
response 6230184125

(1) 2,4,5,6-Tetrachloro-M-Xylene #2 (S)
6.84min 16.489UG/L
response 1580154925

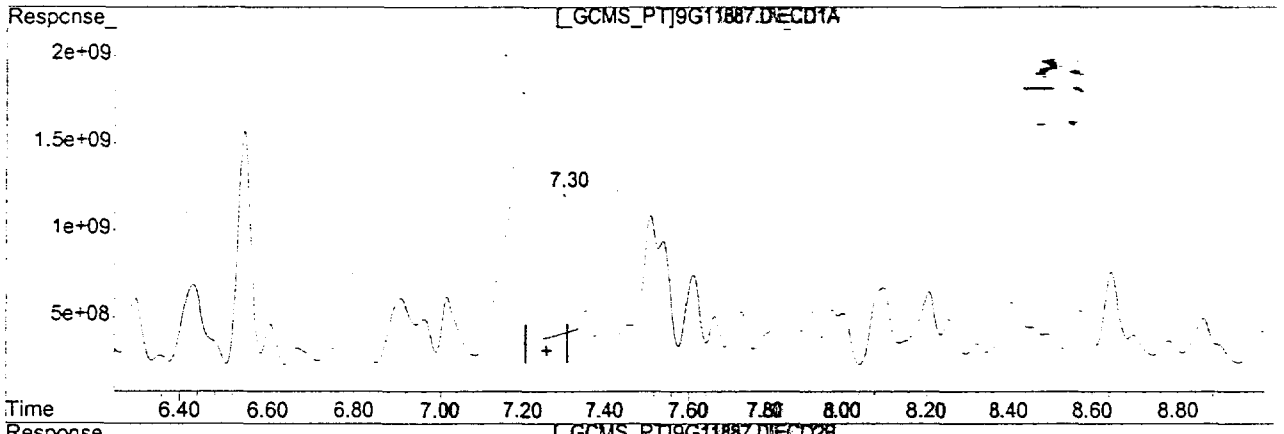
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:18:31 2000

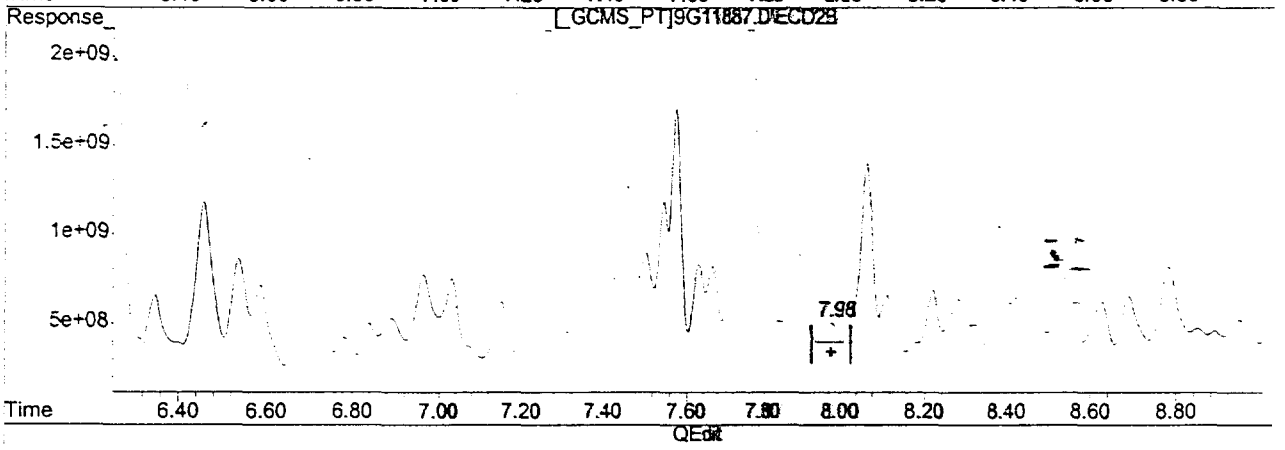
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(2) alpha-BHC
7.30min 1.503UG/L
response 15829575177

RT

(2) alpha-BHC #2
7.98min 0.149UG/L
response 1966310148

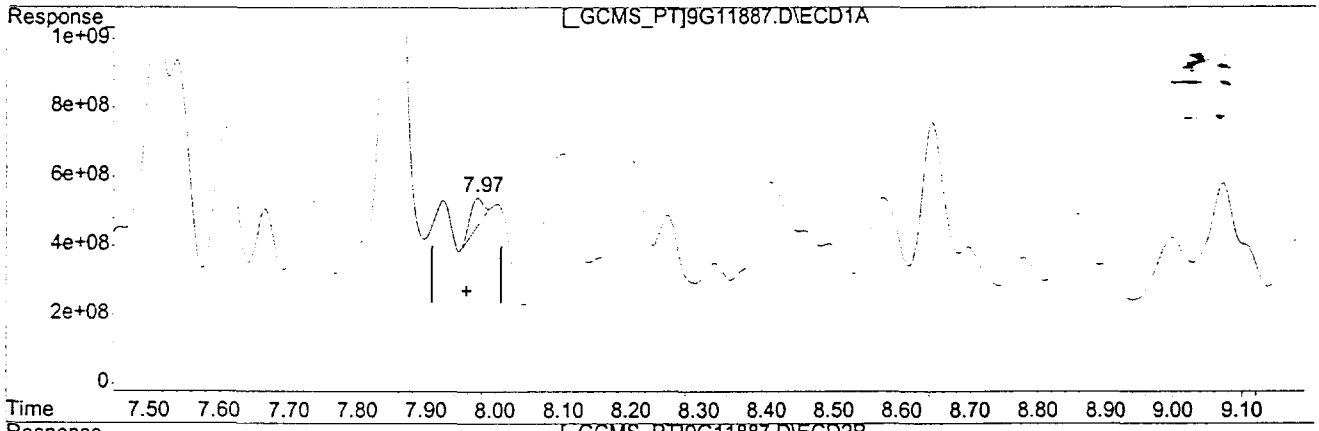
(+) = Expected Retention Time

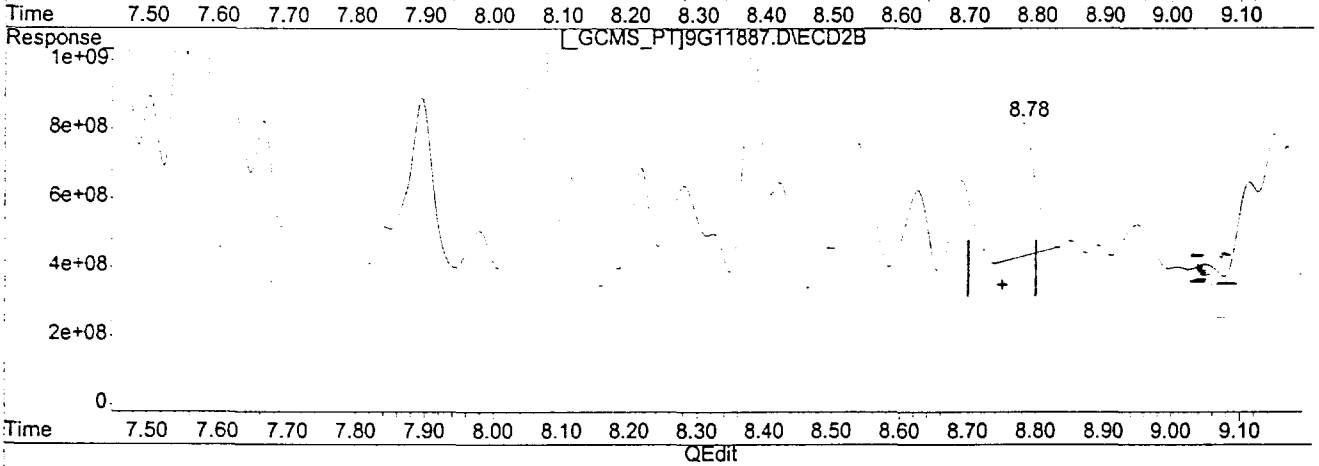
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multipl: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(4) beta-BHC
7.97min 0.253UG/L
response 1044982401

(4) beta-BHC #2
8.78min 1.637UG/L
response 8803146312

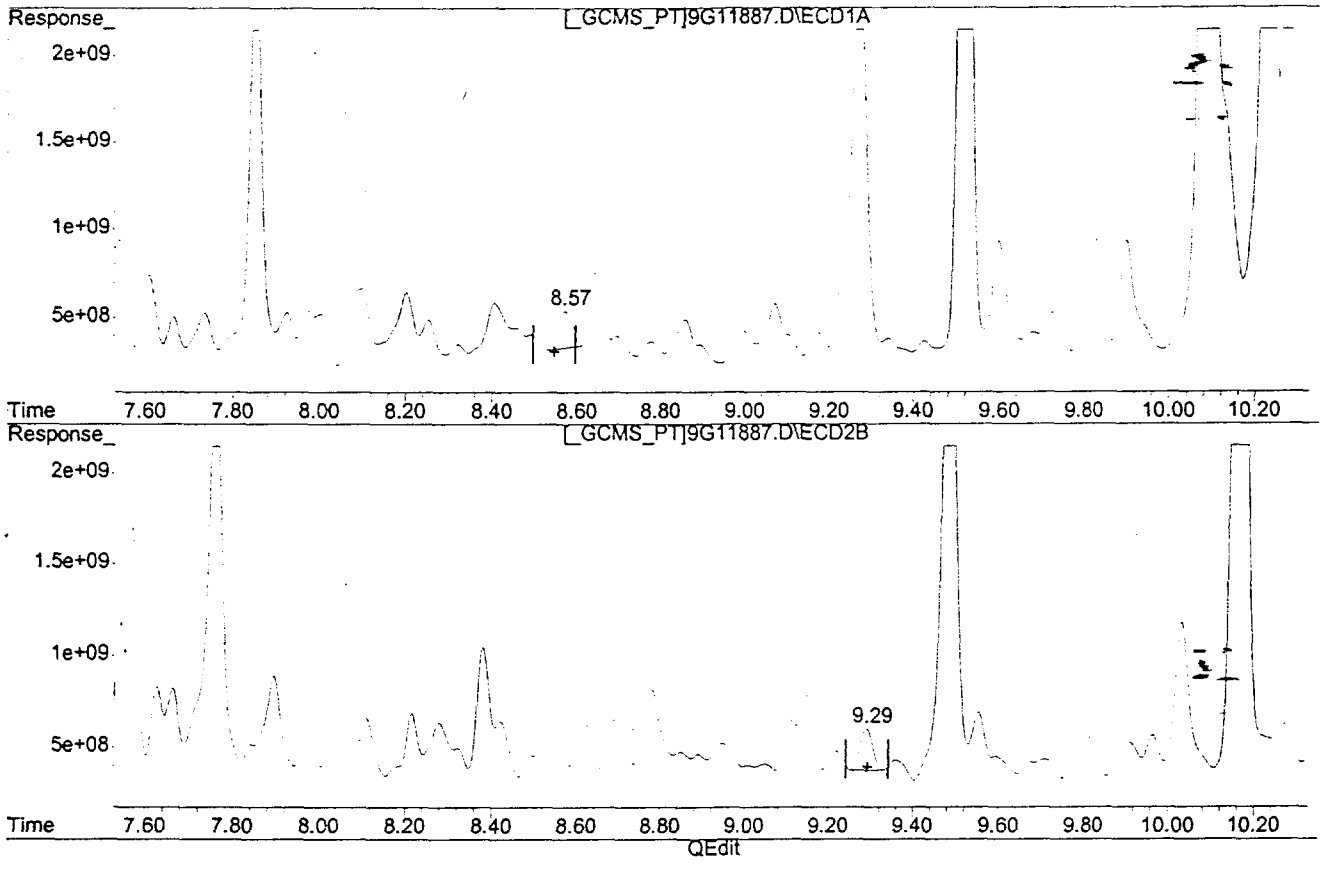
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:18:50 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multipl: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(5) Heptachlor
8.57min 0.569UG/L
response 5115429899

peak RT

(5) Heptachlor #2
9.29min 0.433UG/L
response 4703651252

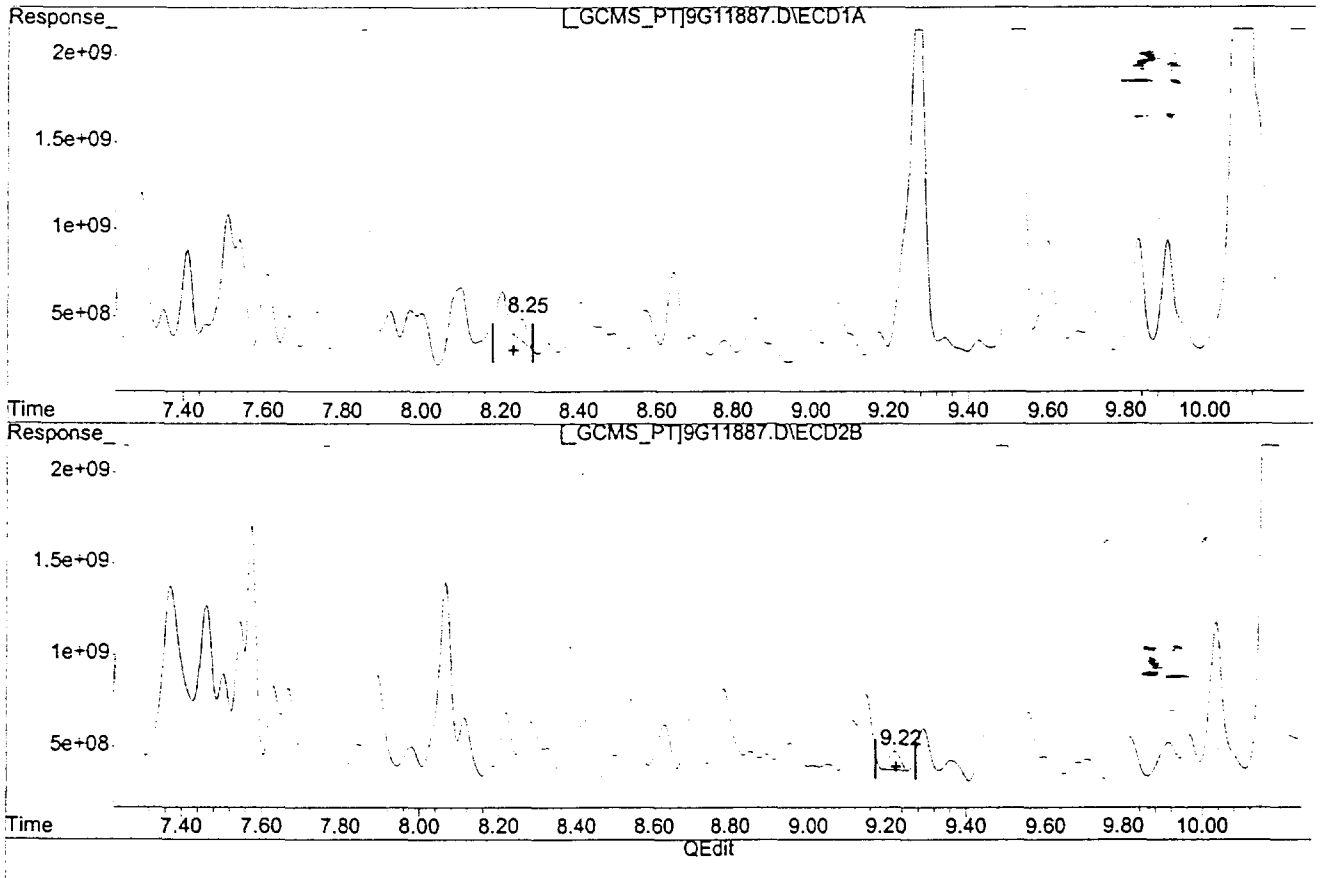
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:18:55 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(6) delta-BHC
8.25min 0.199UG/L
response 1869540186

RT

(6) delta-BHC #2
9.22min 0.170UG/L
response 1936594094

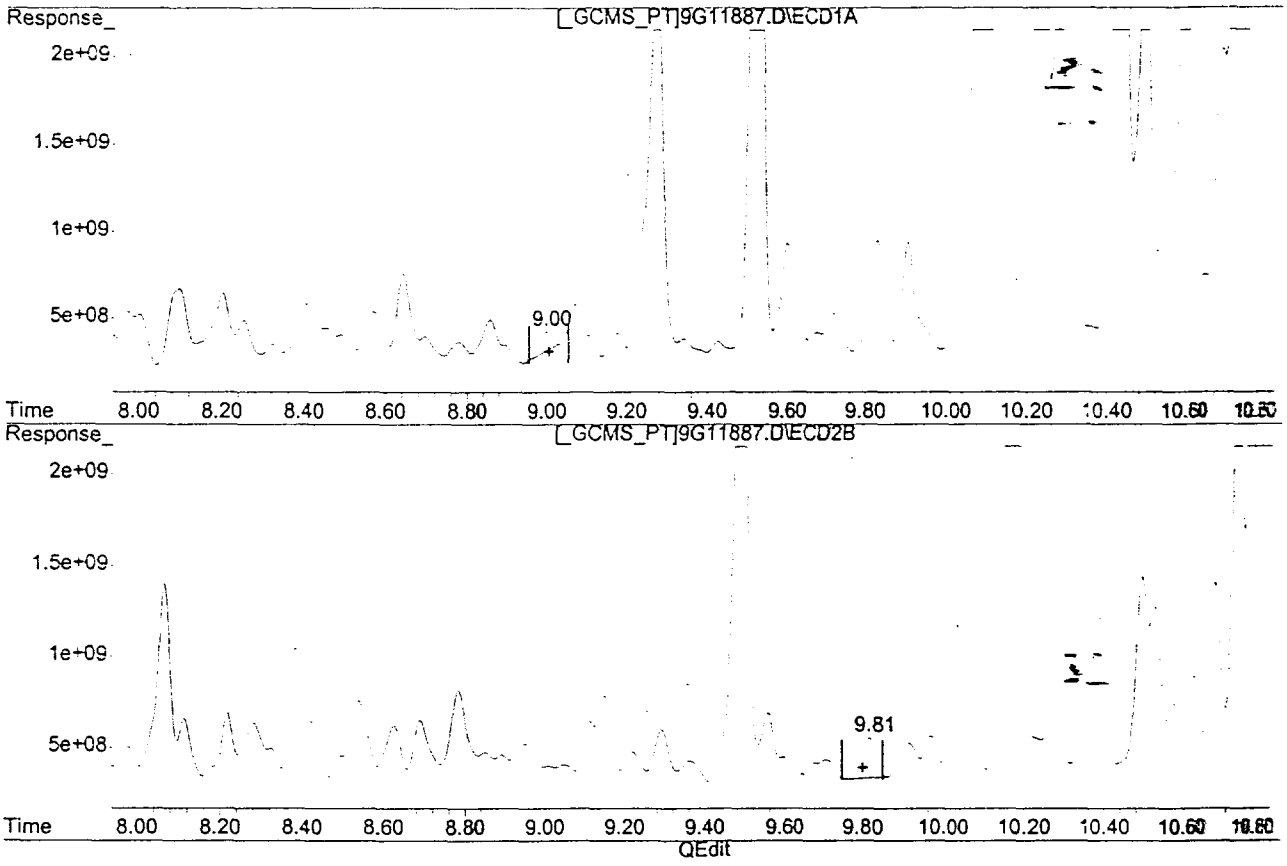
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:01 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(7) Aldrin
9.00min 0.283UG/L
response 2293062426

(7) Aldrin #2
9.81min 0.650UG/L
response 6445224670

peakshape

(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:06 2000

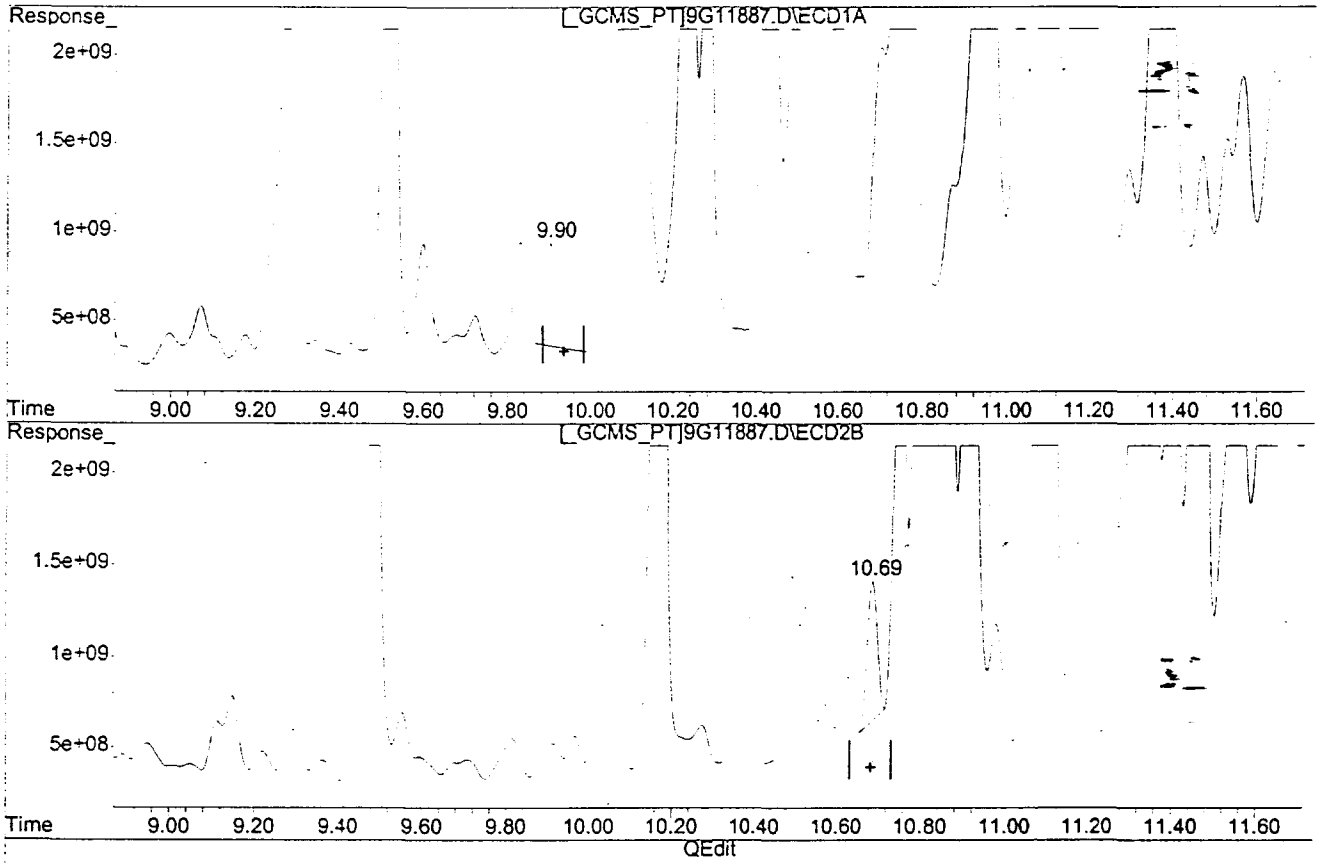
002112

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(8) Heptachlor Epoxide
9.90min 1.940UG/L
response 13459898407

RT

(8) Heptachlor Epoxide #2
10.69min 1.522UG/L
response 12608487031

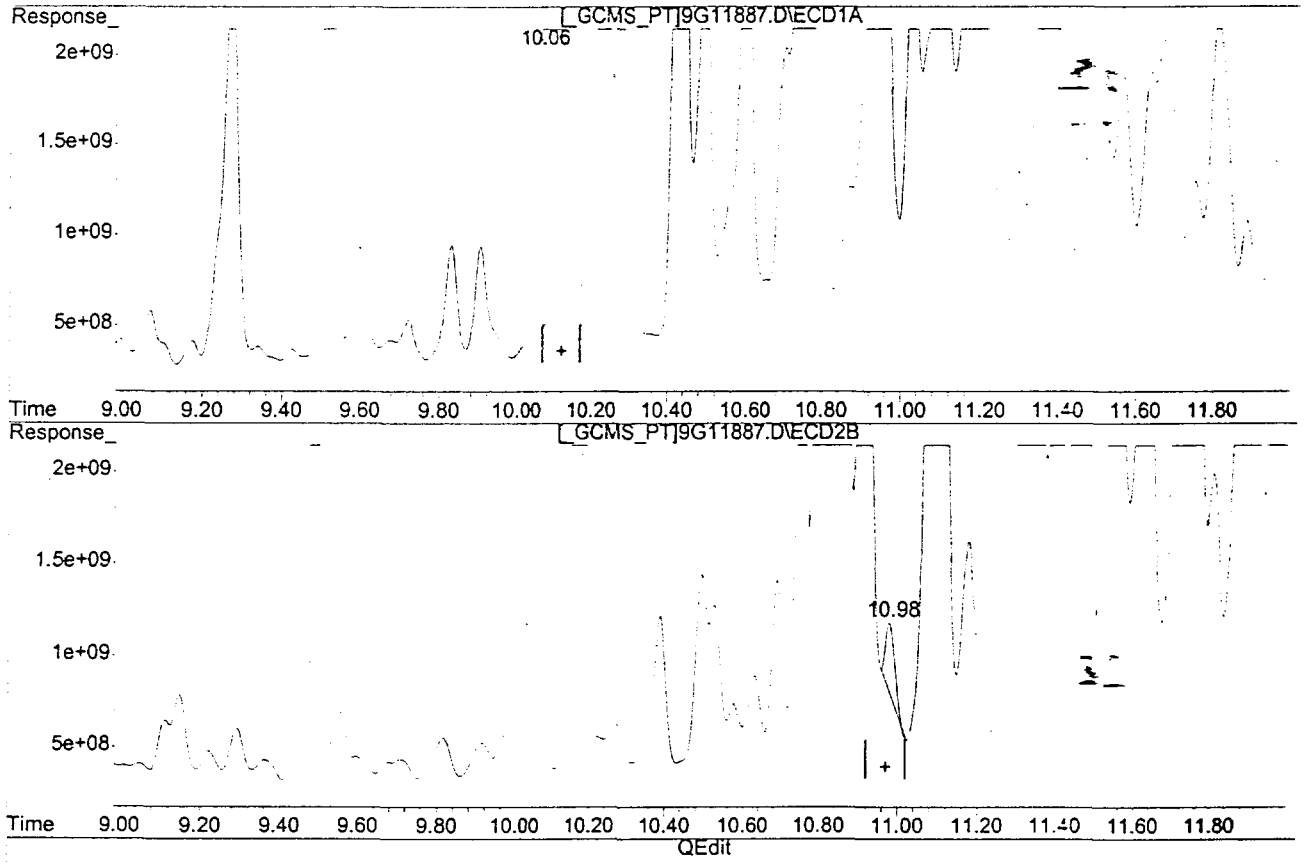
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:13 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(9) gamma-Chlordane
10.11min 10.586UG/L
response 83184525474

(9) gamma-Chlordane #2
10.98min 0.632UG/L
response 6074328076

(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:18 2000

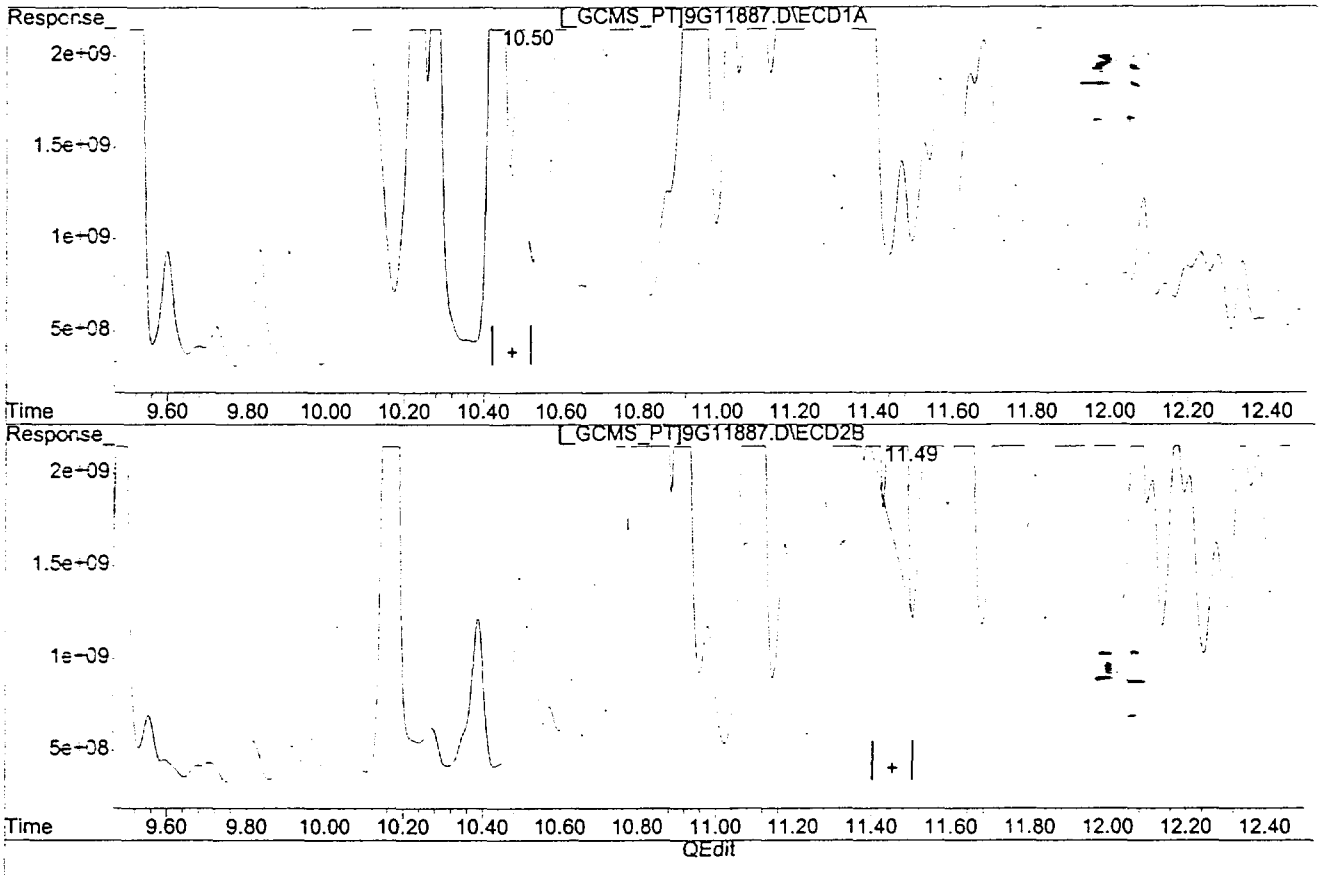
002114

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(12) 4,4'-DDE
10.50min 2.994UG/L
response 20763488319

(12) 4,4'-DDE #2
11.48min 2.702UG/L
response 23098099562

RT

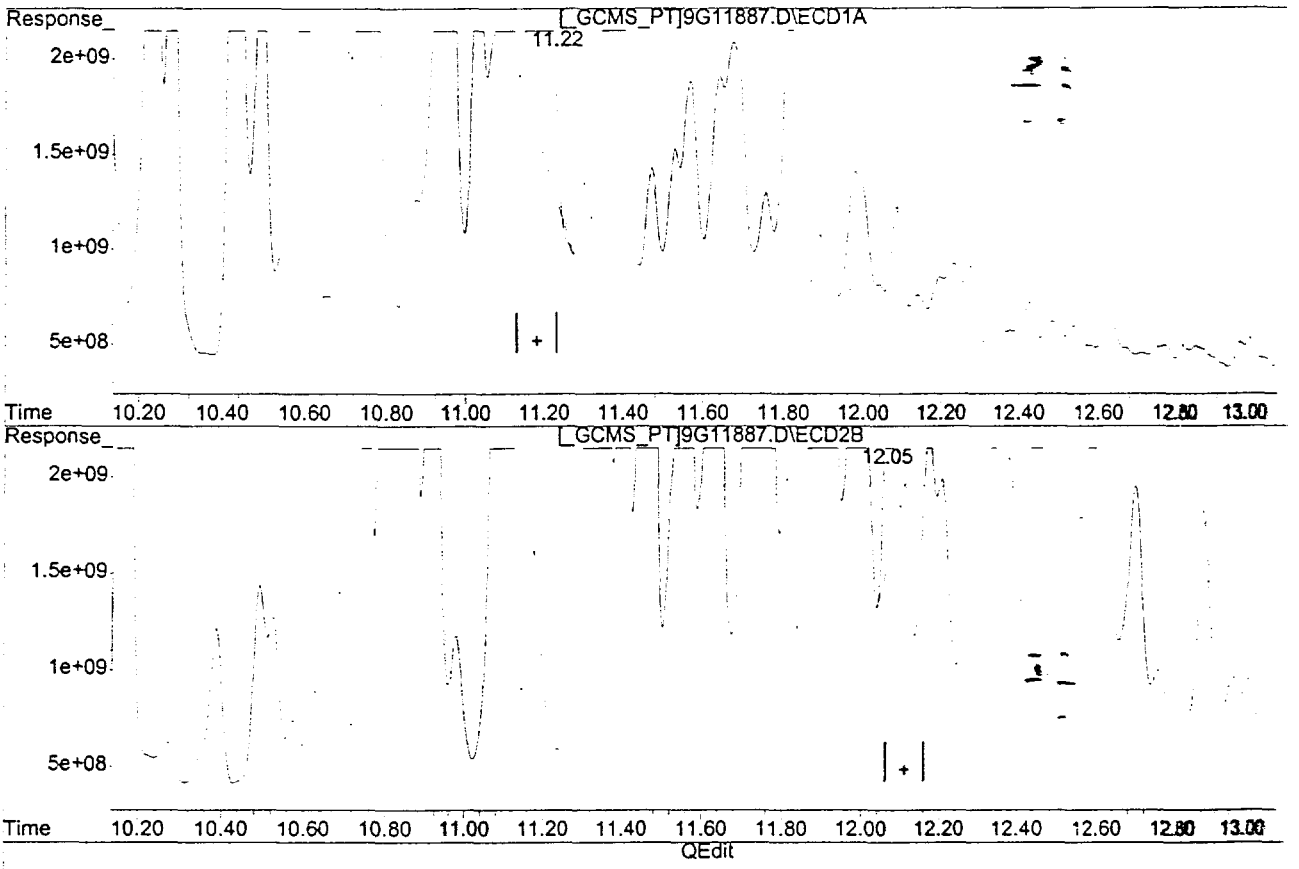
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:32 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(14) Endrin
11.21min 4.606UG/L
response 31189811556

(14) Endrin #2
12.08min 2.043UG/L
response 13500546653

RT

(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:43 2000

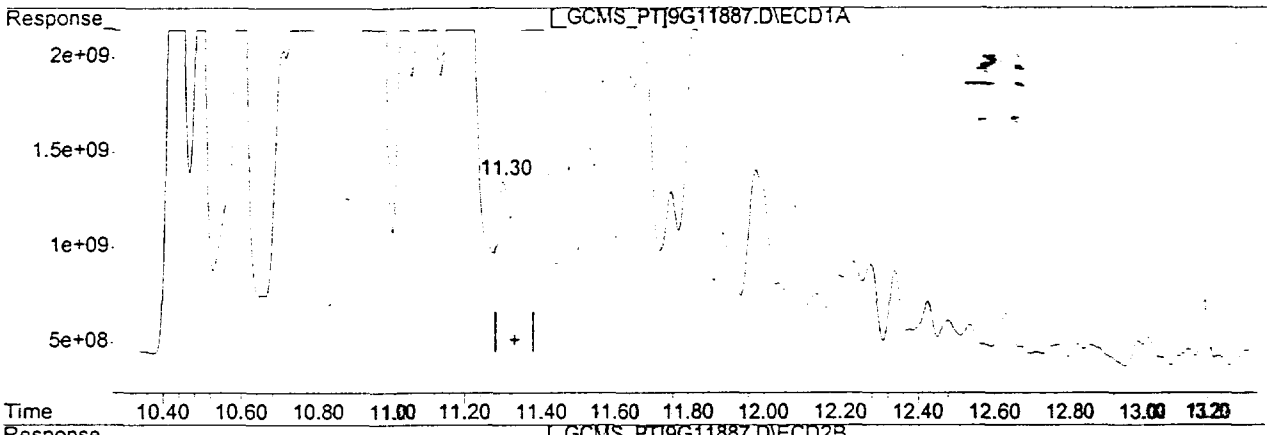
002116

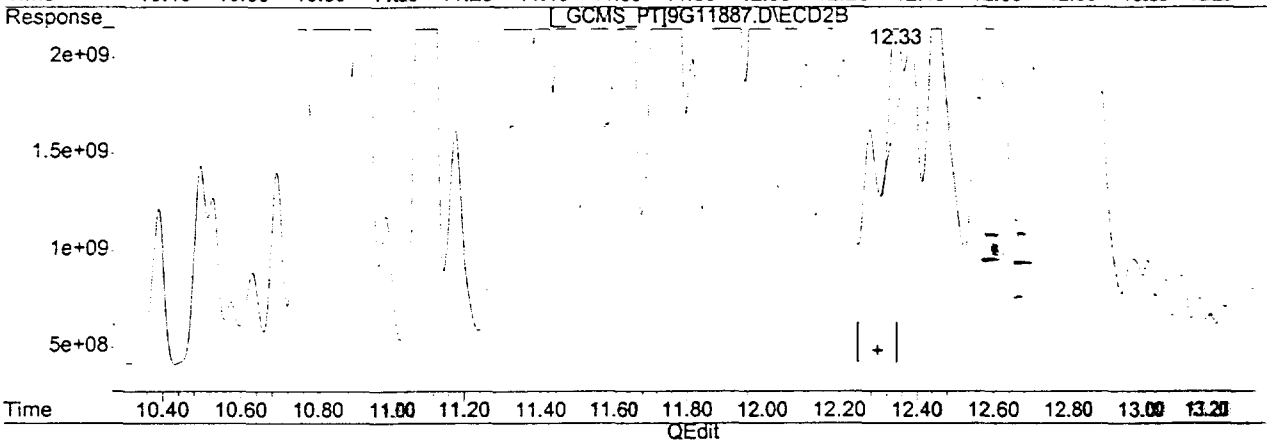
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(15) 4,4'-DDD
11.30min 0.641UG/L
response 3609611624

(15) 4,4'-DDD #2
12.34min 1.261UG/L
response 8319173886

(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:49 2000

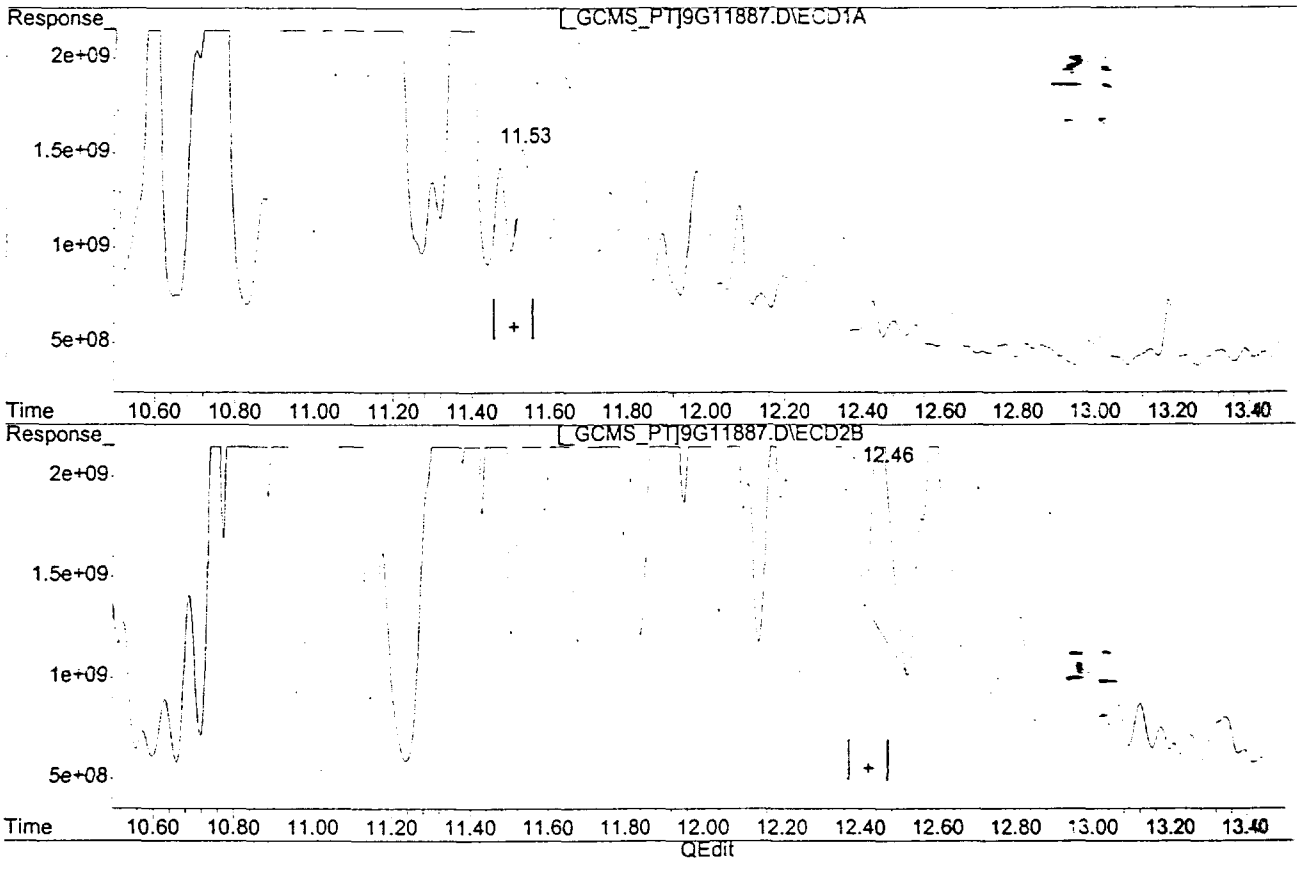
002117

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(16) Endosulfan II
11.53min 0.440UG/L
response 2686690933

(16) Endosulfan II #2
12.45min 4.441UG/L
response 32739660469

RT

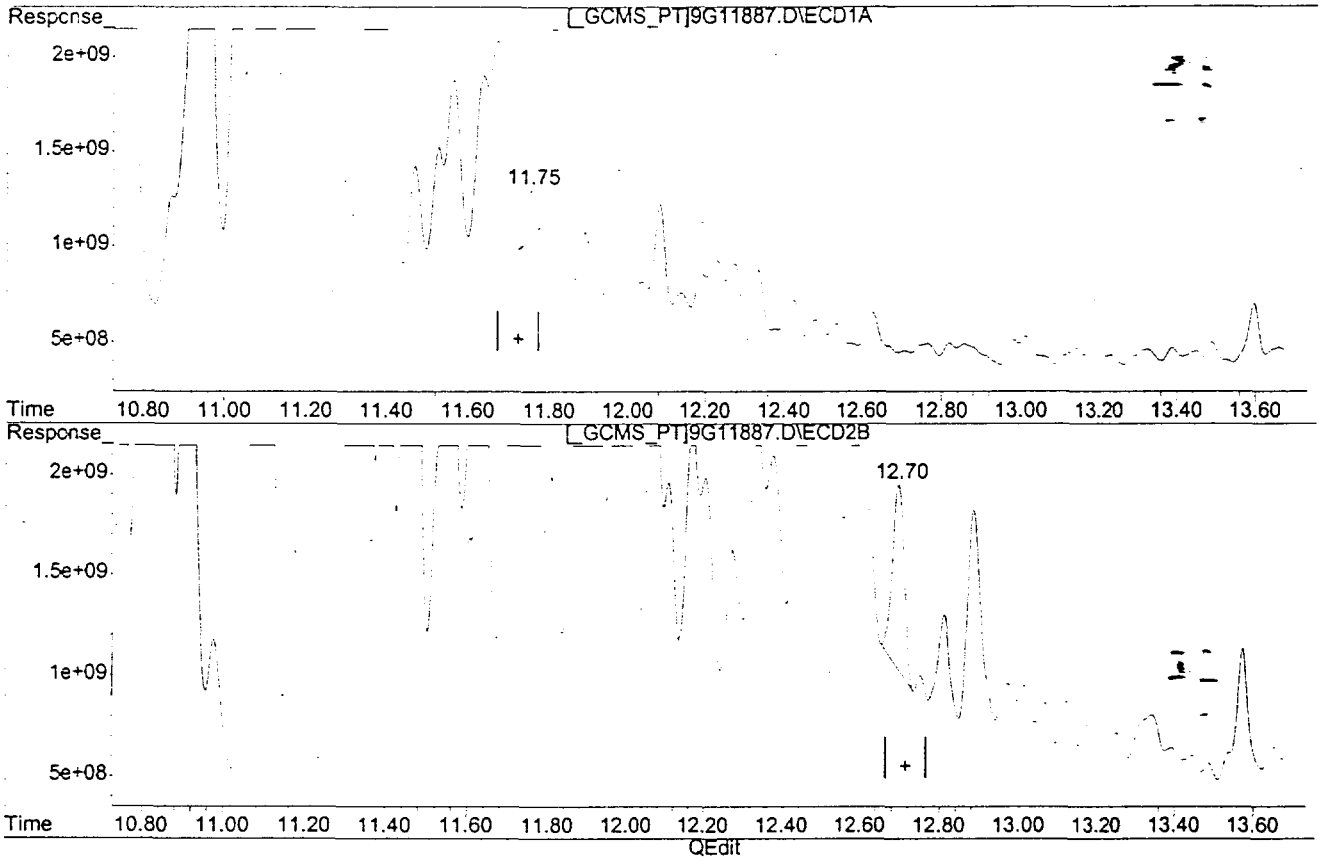
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:19:55 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(17) 4,4'-DDT
11.75min 0.558UG/L
response 3368102760

(17) 4,4'-DDT #2
12.70min 2.712UG/L
response 18882566806

RT

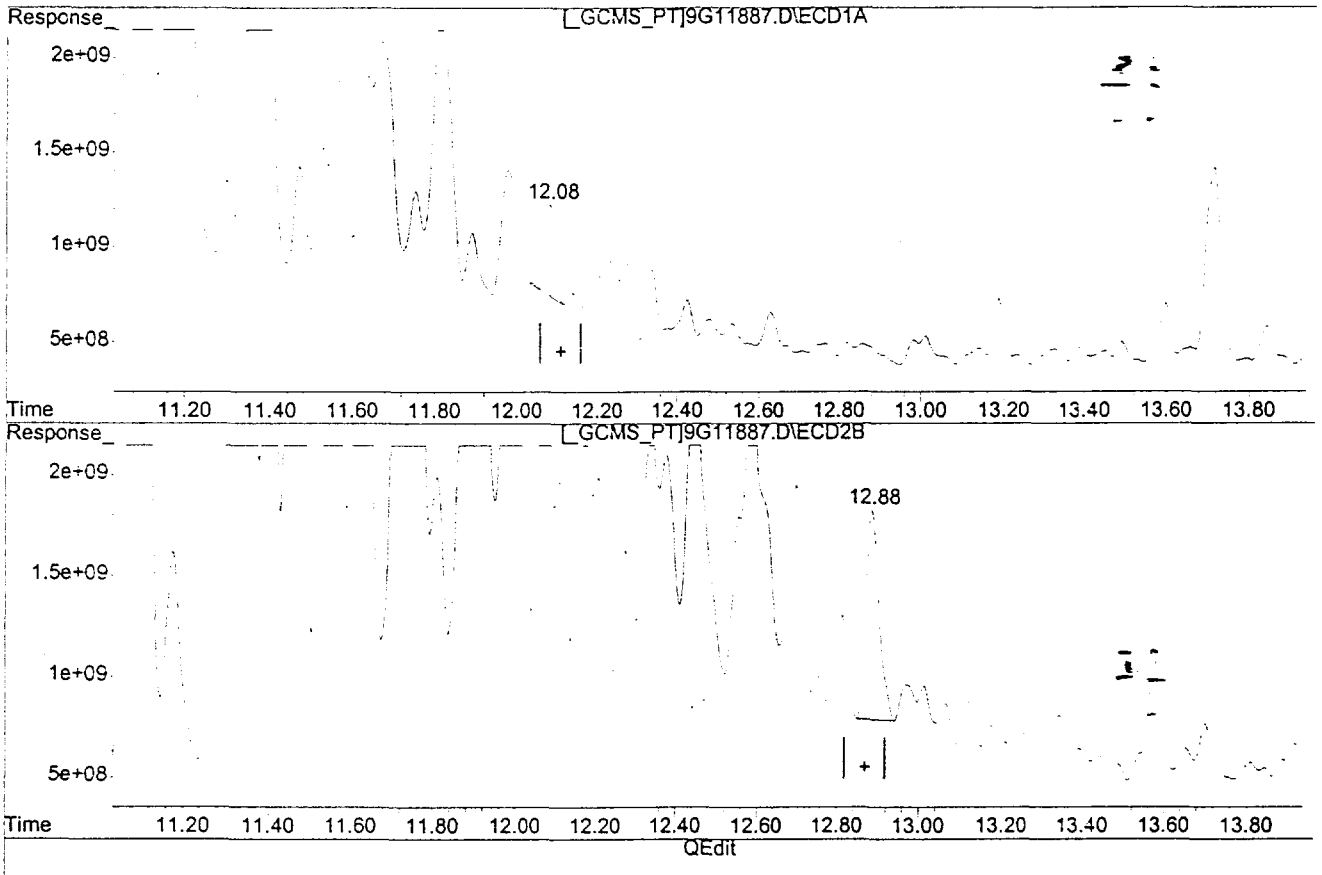
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:20:02 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(18) Endrin Aldehyde
12.08min 1.901UG/L
response 8017382963

RT

(18) Endrin Aldehyde #2
12.88min 5.493UG/L
response 23592007818

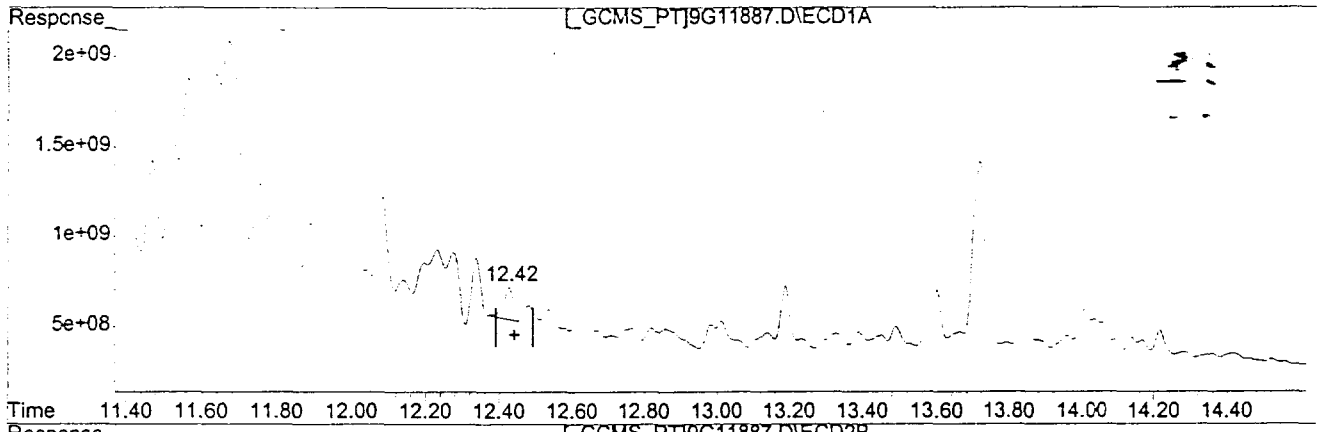
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:20:08 2000

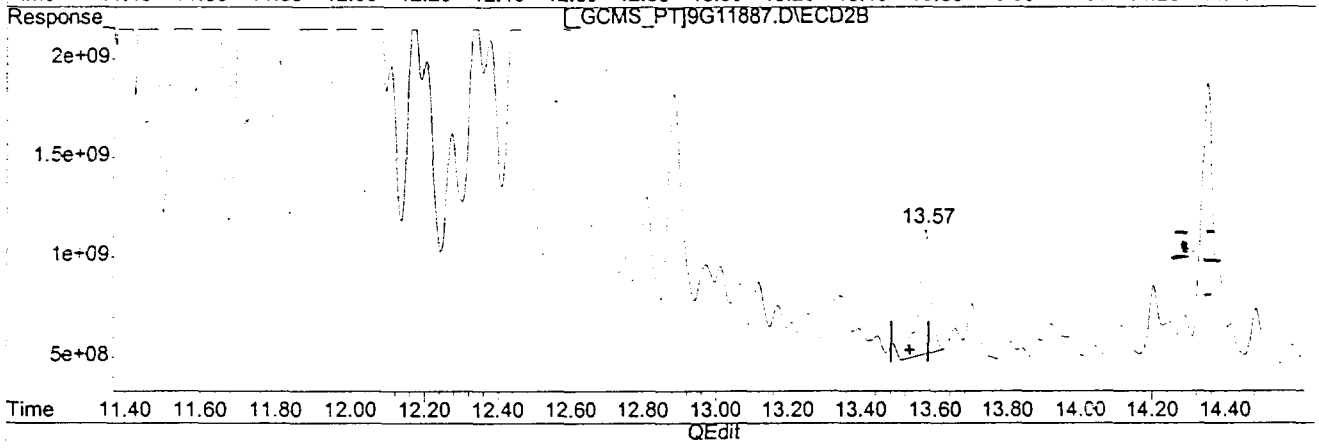
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(20) Methoxychlor
12.42min 1.054UG/L
response 3121312125

(20) Methoxychlor #2
13.57min 4.396UG/L
response 13098925395

RT

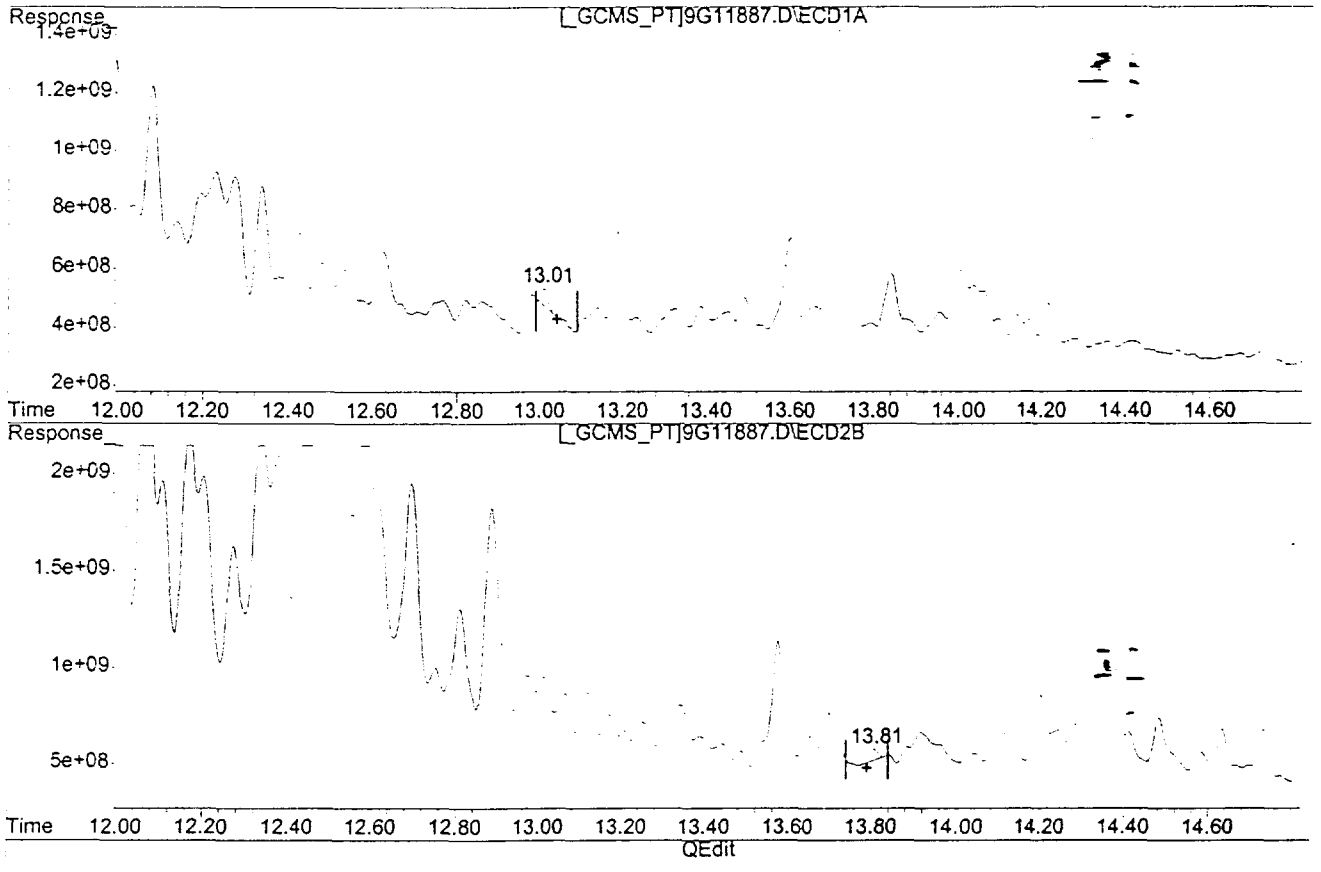
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:20:19 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(21) Endrin Ketone
13.01min 0.121UG/L
response 711217700

RT

(21) Endrin Ketone #2
13.81min 0.145UG/L
response 964768211

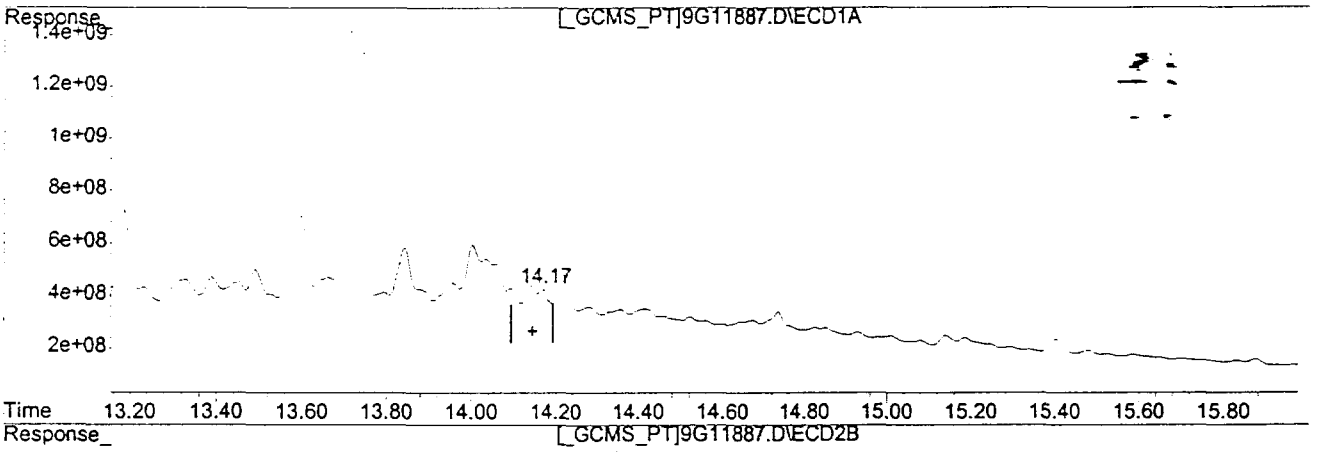
(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:20:24 2000

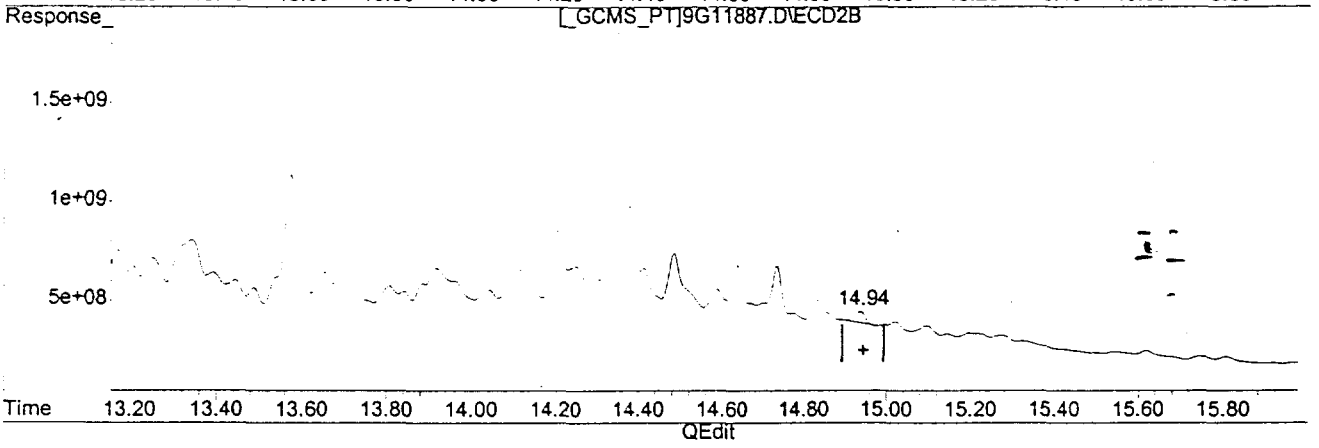
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD1A.CH Vial: 22
Acq On : 14 Sep 2000 18:53 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11887.D\ECD2B.CH Vial: 22
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-06 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:17 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(22) Decachlorobiphenyl (S)
14.17min 6.907UG/L
response 297326009

SMI.

(22) Decachlorobiphenyl #2 (S)
14.94min 18.718UG/L
response 974168254

(+) = Expected Retention Time
9G11887.D 8081.M Fri Sep 15 11:20:31 2000

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.29f	6.87	1857.1E6	1258.8E6	24.703	13.135 #
	Spiked Amount 20.000	Range 13 - 154		Recovery =		123.52%	65.67%
22)	S Decachlorobiphen	14.17	14.94	48052344	678.2E6	1.116	13.032 #
	Spiked Amount 20.000	Range 25 - 140		Recovery =		5.58%#	65.16%
	Target Compounds						
2)	alpha-BHC	7.29f	8.01f	29803.9E6	26199.2E6	2.830	1.980
3)	gamma-BHC	7.81	8.60	59249.5E6	2945.4E6	6.200	0.246 #
4)	beta-BHC	7.96	8.77	3707.5E6	8331.4E6	0.896	1.550 #
5)	Heptachlor	8.57	9.28	1016.6E6	3715.6E6	0.113	0.342 #
6)	delta-BHC	8.22	9.19f	6218.9E6	2267.9E6	0.661	0.199 #
7)	Aldrin	9.00	9.80	4156.3E6	1500.2E6	0.512	0.181 #
8)	Heptachlor Epoxi	9.95	10.68	111.5E6	2943.4E6	0.016	0.355 #
9)	gamma-Chlordane	10.09f	10.97	33531.0E6	1416.6E6	4.267	0.147 #
10)	alpha-Chlordane	10.35f	11.20	499.9E6	713.5E6	0.066	0.078
11)	Endosulfan I	10.49	0.00	11422.8E6	0	1.636	N.D. #
12)	4,4'-DDE	10.49	11.45	11422.8E6	21264.6E6	1.647	2.487
13)	Dieldrin	10.86	11.62f	1234.3E6	20972.7E6	0.167	2.388 #
14)	Endrin	11.20	12.10	10317.7E6	8447.0E6	1.524	1.278
15)	4,4'-DDD	11.29f	12.26f	618.5E6	419.9E6	0.110	0.064 #
16)	Endosulfan II	0.00	12.43	0	1687.1E6	N.D.	0.229 #
17)	4,4'-DDT	11.75f	12.69	1195.7E6	1678.0E6	0.198	0.241
18)	Endrin Aldehyde	12.09	0.00	527.3E6	0	0.125	N.D. #
19)	Endosulfan Sulfa	12.68f	13.18	411.4E6	662.7E6	0.081	0.103 #
20)	Methoxychlor	12.42	13.58f	620.9E6	754.6E6	0.210	0.253
21)	Endrin Ketone	13.01f	13.76f	203.4E6	345.4E6	0.035	0.052 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002124

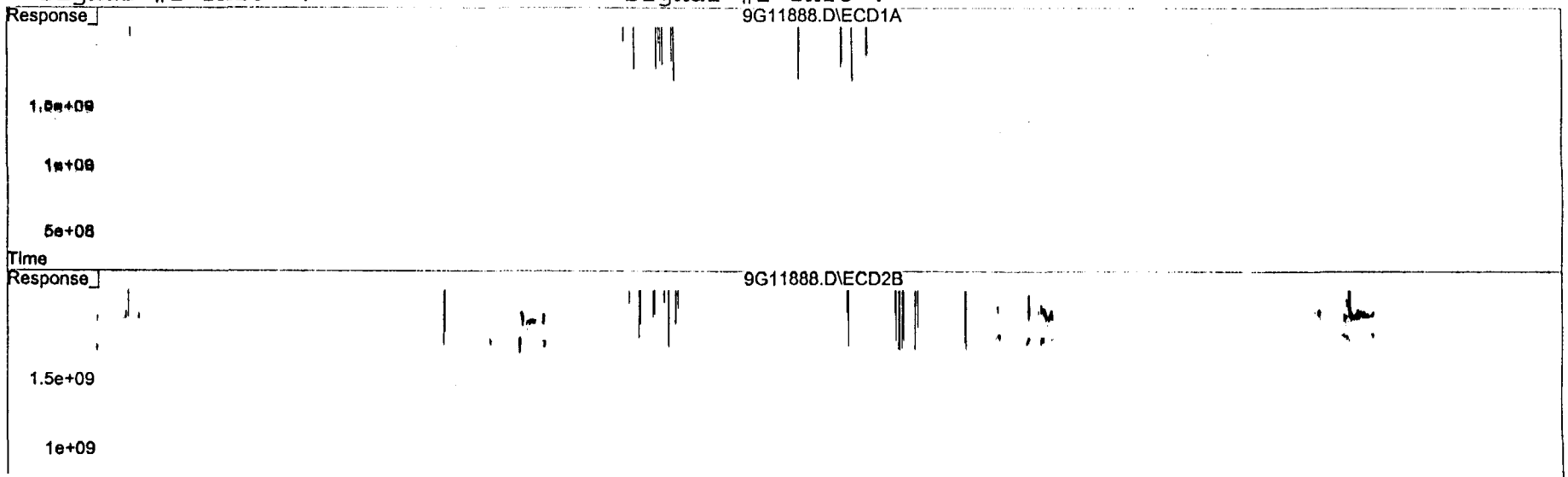
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

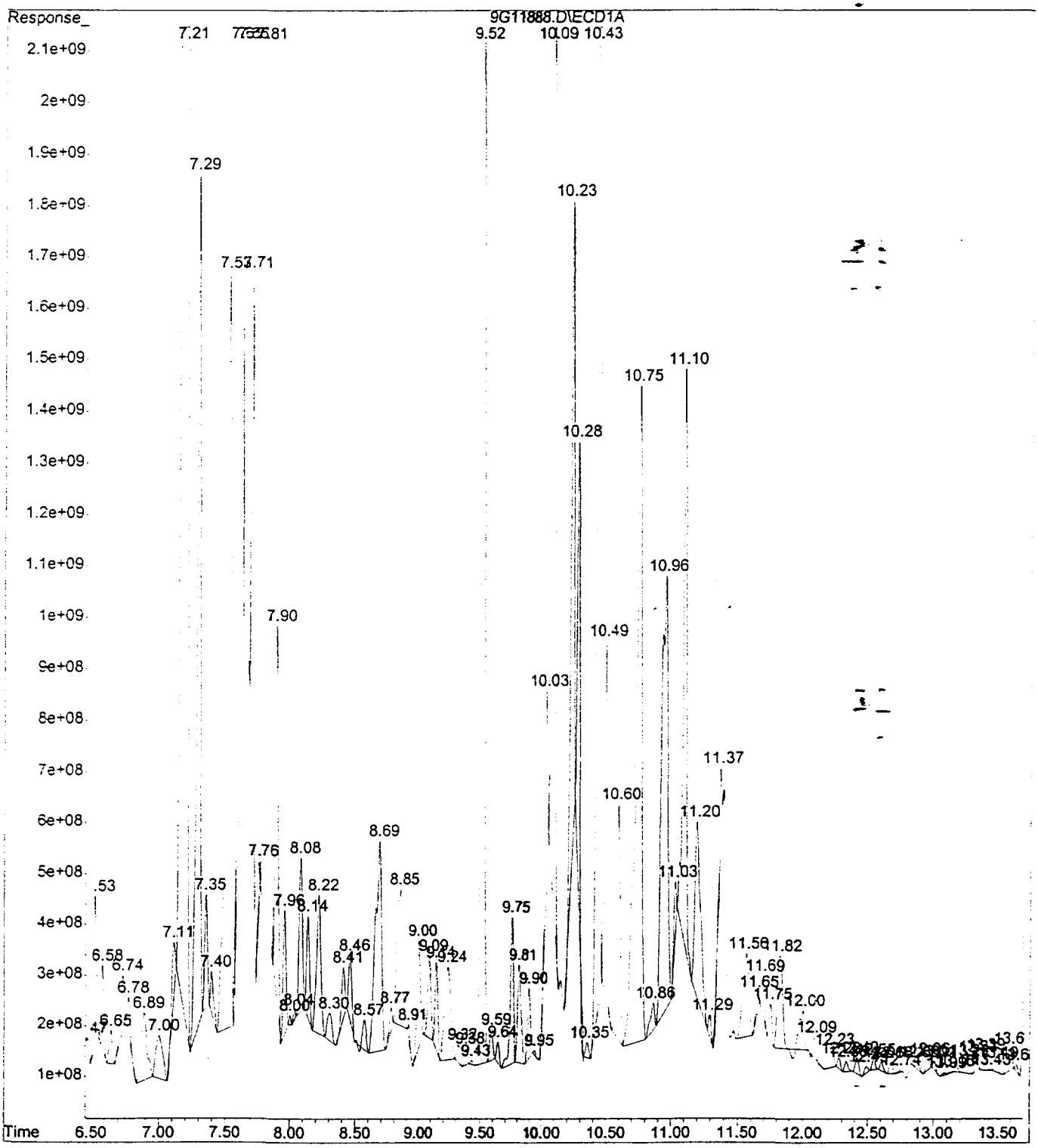
Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



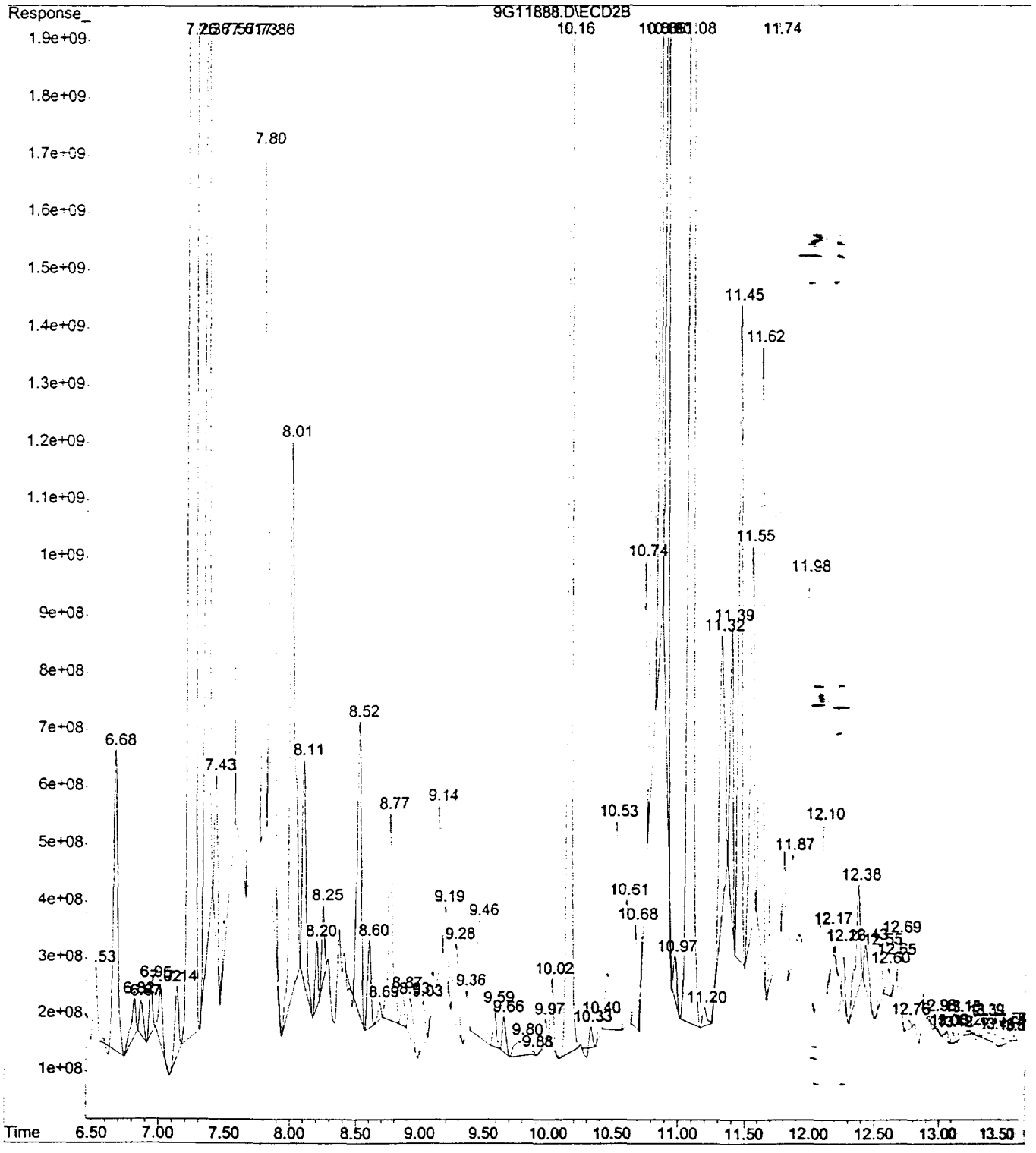
Time
9G11888.D 8081.M Fri Sep 15 11:22:20 2000 Page 2

File : C:\HPCHEM\1\DATA\091400\9G11888.D
Operator : ECL
Acquired : 14 Sep 2000 19:18 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-08
Misc Info : WATER,1
Vial Number: 23



002126

File : C:\HPCHEM\1\DATA\091400\9G11888.D
Operator : ECL
Acquired : 14 Sep 2000 19:18 using AcqMethod 8081.M
Instrument : HP 9
Sample Name: L0009094-08
Misc Info : WATER,1
Vial Number: 23



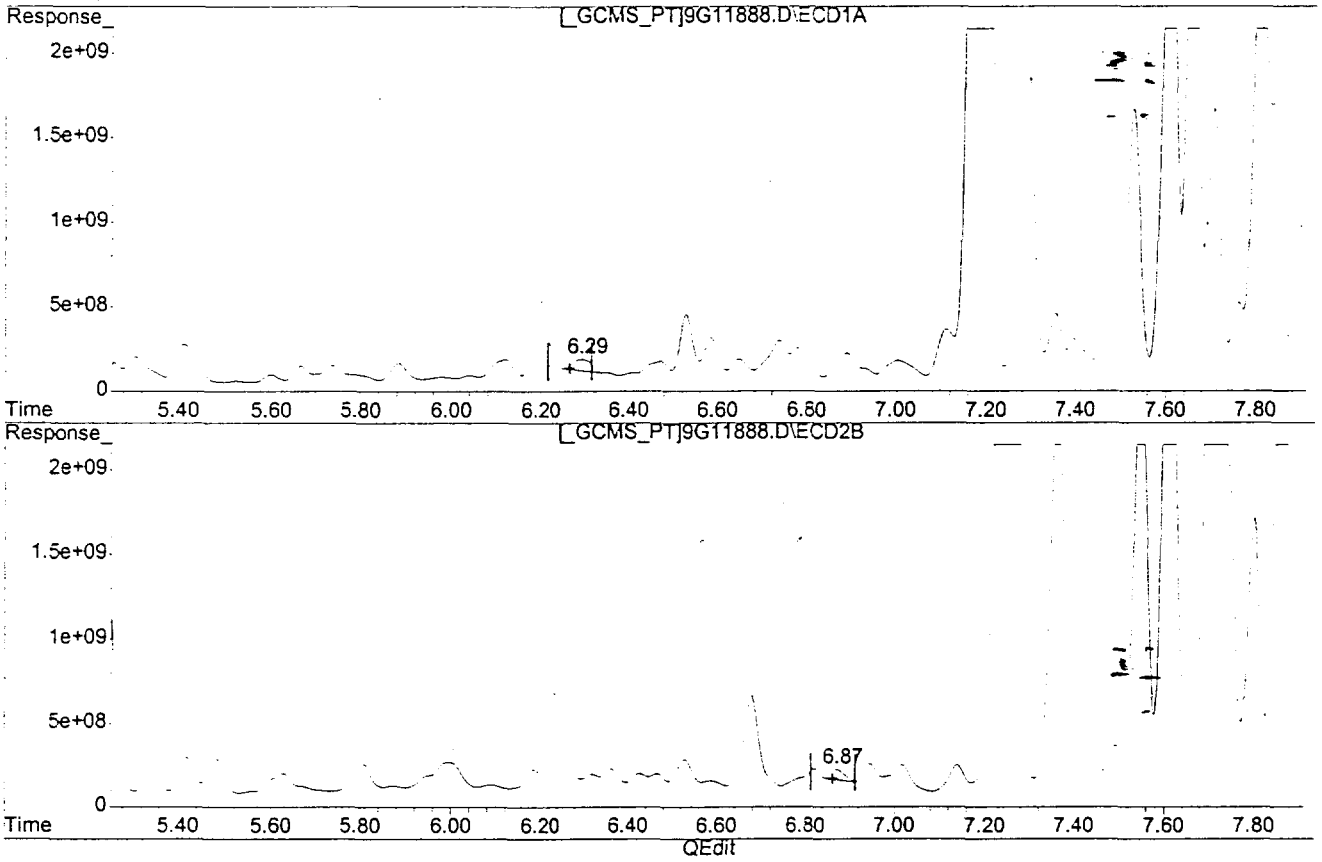
002127

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(1) 2,4,5,6-Tetrachloro-M-Xylene (S)

6.29min 24.703UG/L

response 1857059118

(1) 2,4,5,6-Tetrachloro-M-Xylene #2 (S)

6.87min 13.135UG/L

response 1258769135

(+) = Expected Retention Time

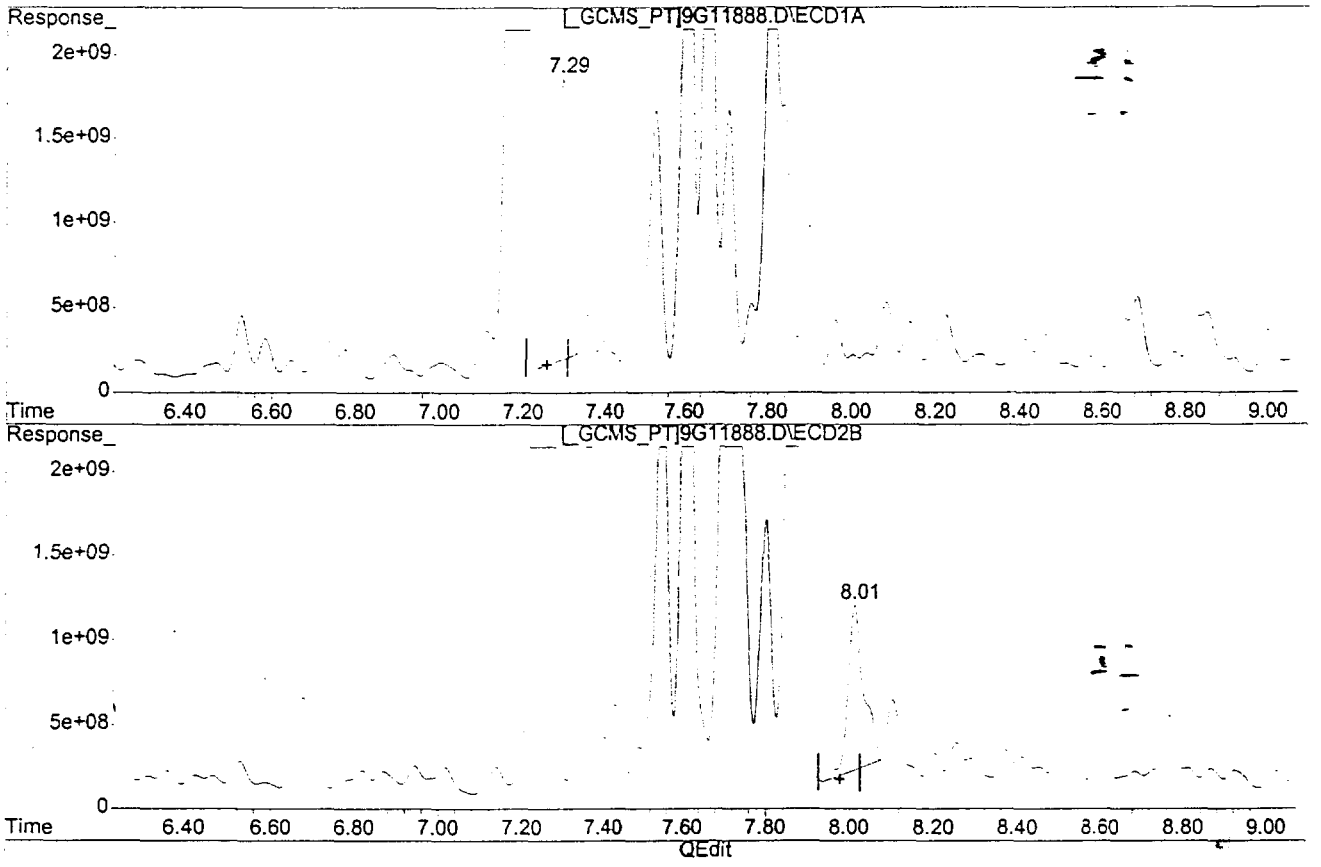
9G11888.D 8081.M Fri Sep 15 11:23:05 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(2) alpha-BHC
7.29min 2.830UG/L
response 29803907235

(2) alpha-BHC #2
8.01min 1.980UG/L
response 26199231051

RT

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:10 2000

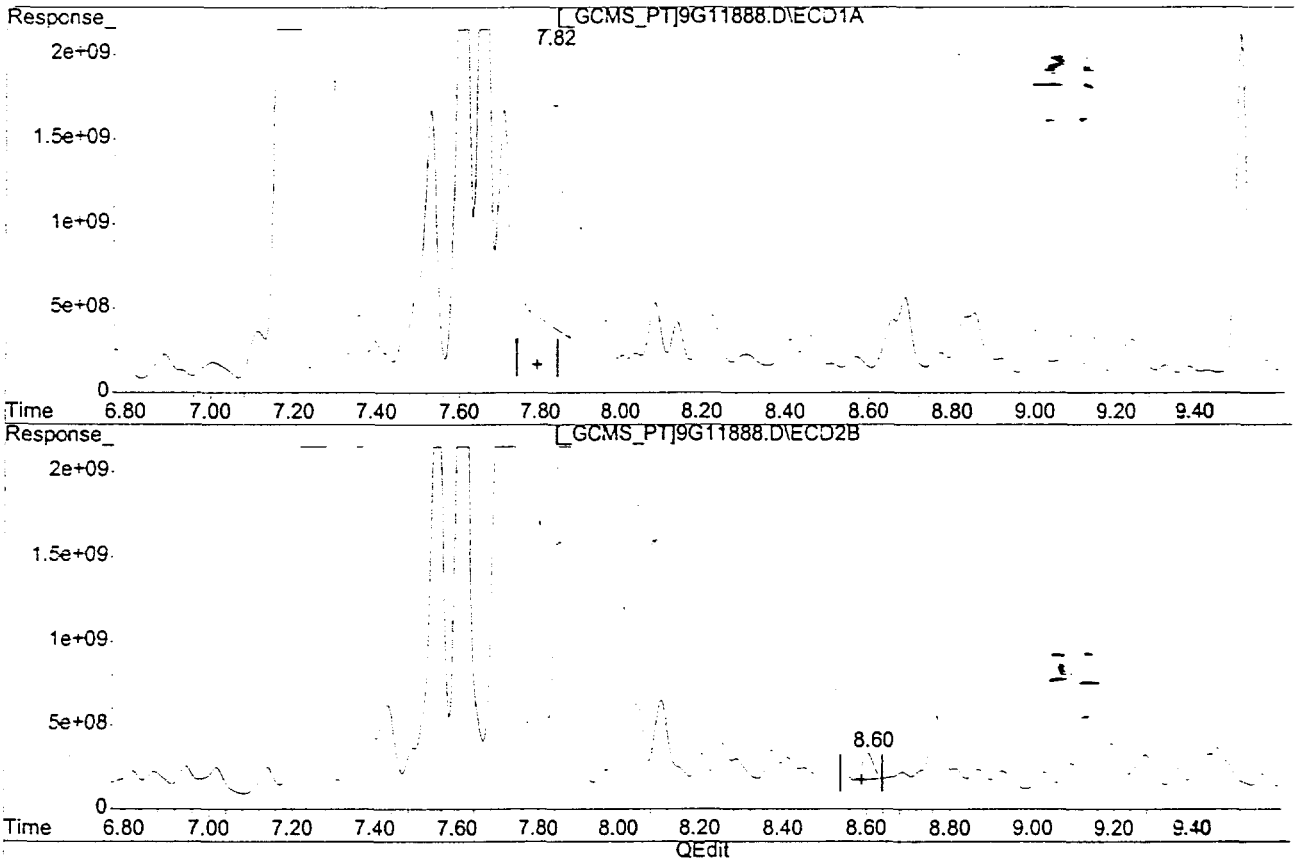
002129

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(3) gamma-BHC
7.81min 6.200UG/L
response 59249522213

RT

(3) gamma-BHC #2
8.60min 0.246UG/L
response 2945395908

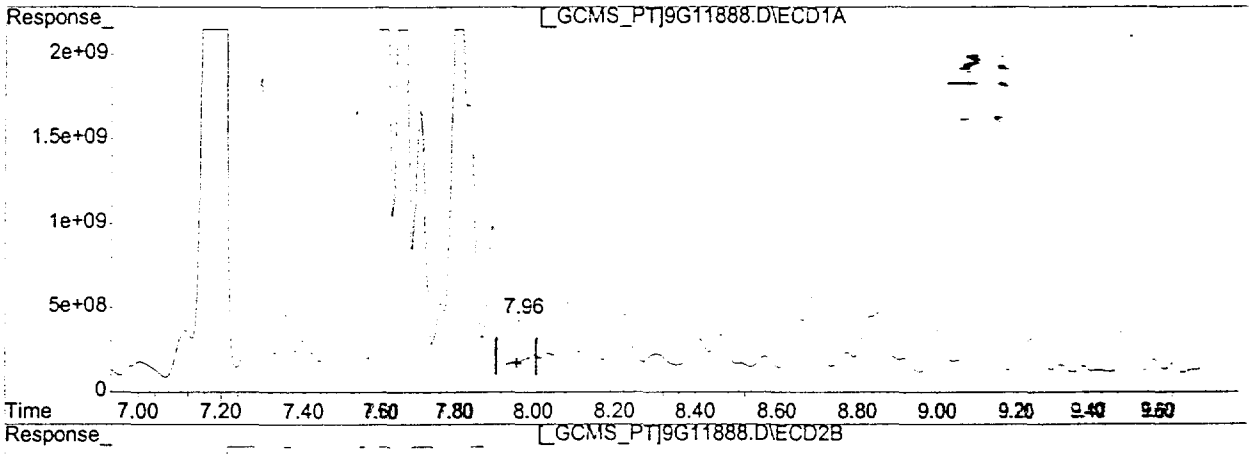
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:15 2000

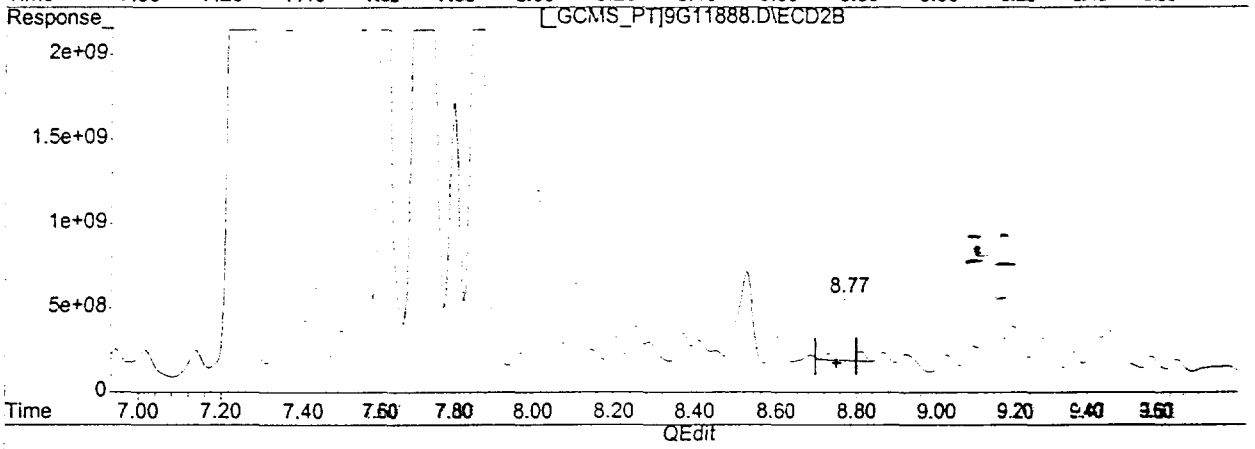
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 5
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(4) beta-BHC
7.96min 0.896UG/L
response 3707549382

(4) beta-BHC #2
8.77min 1.650UG/L
response 8331427575

RT

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:21 2000

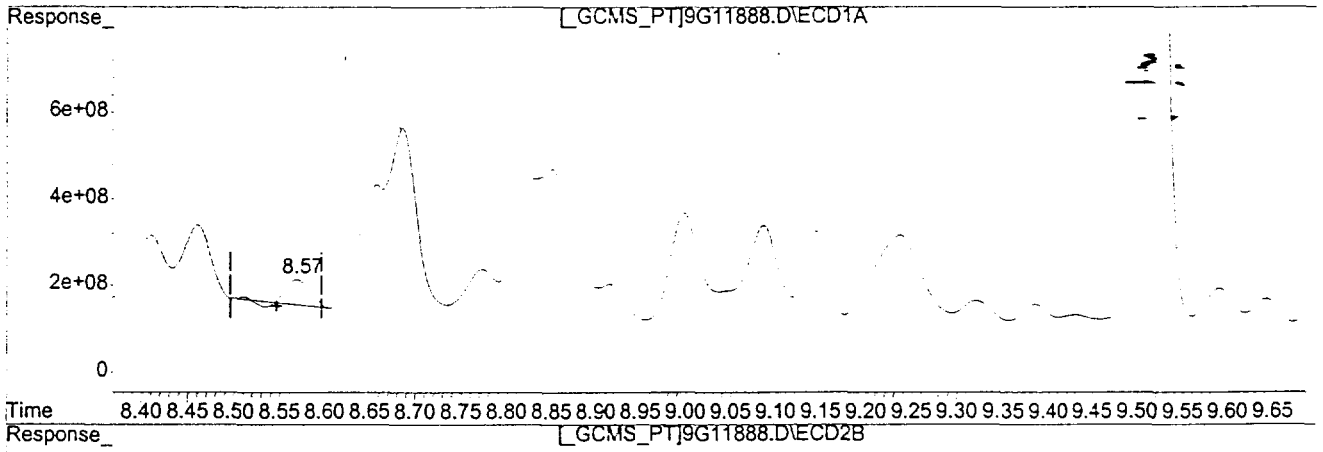
002131

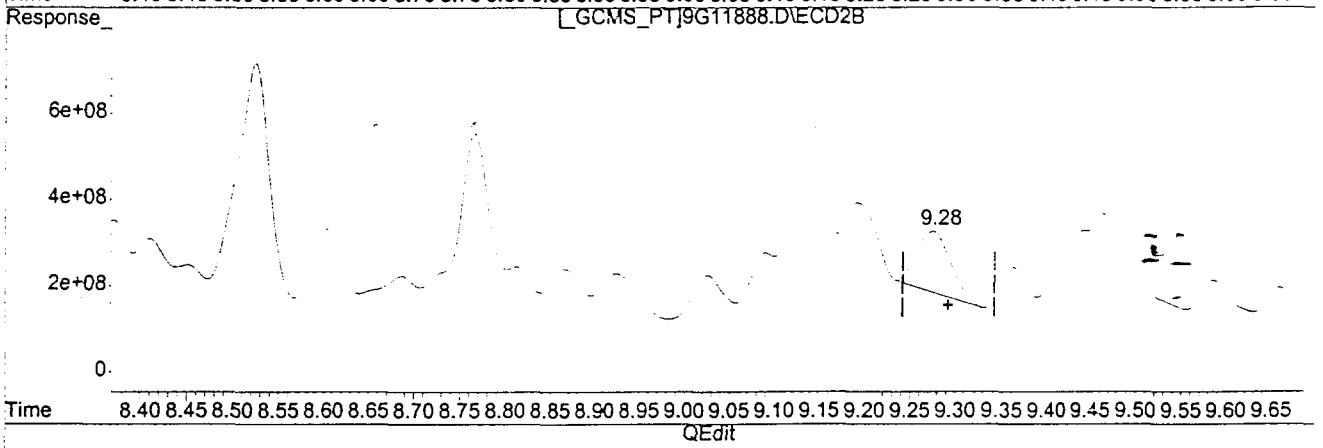
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(5) Heptachlor
8.57min 0.113UG/L
response 1016631765

(5) Heptachlor #2
9.28min 0.342UG/L
response 3715606180

RT

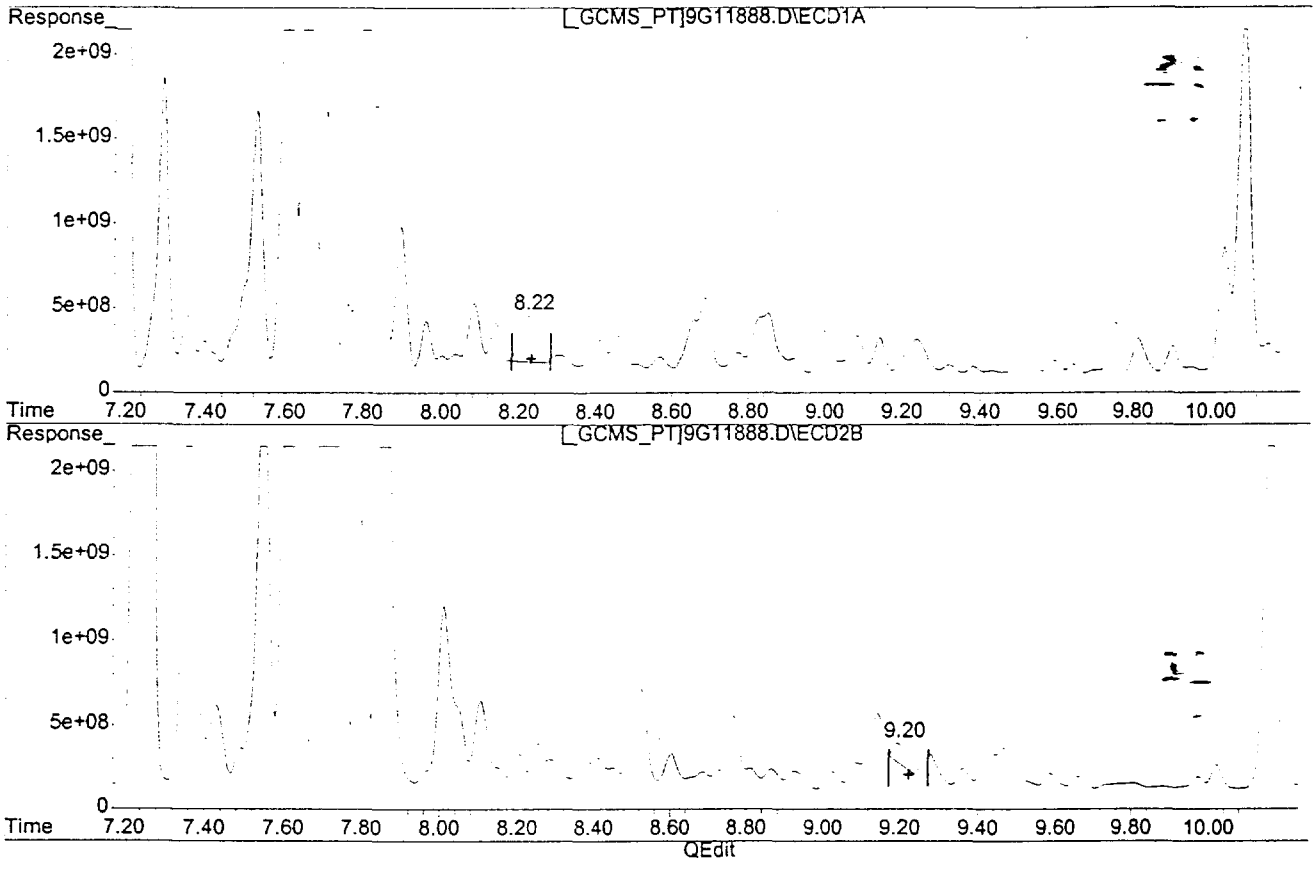
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:29 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(6) delta-BHC
8.22min 0.661UG/L
response 6218902626

(6) delta-BHC #2
9.19min 0.199UG/L
response 2267916522

peak shape

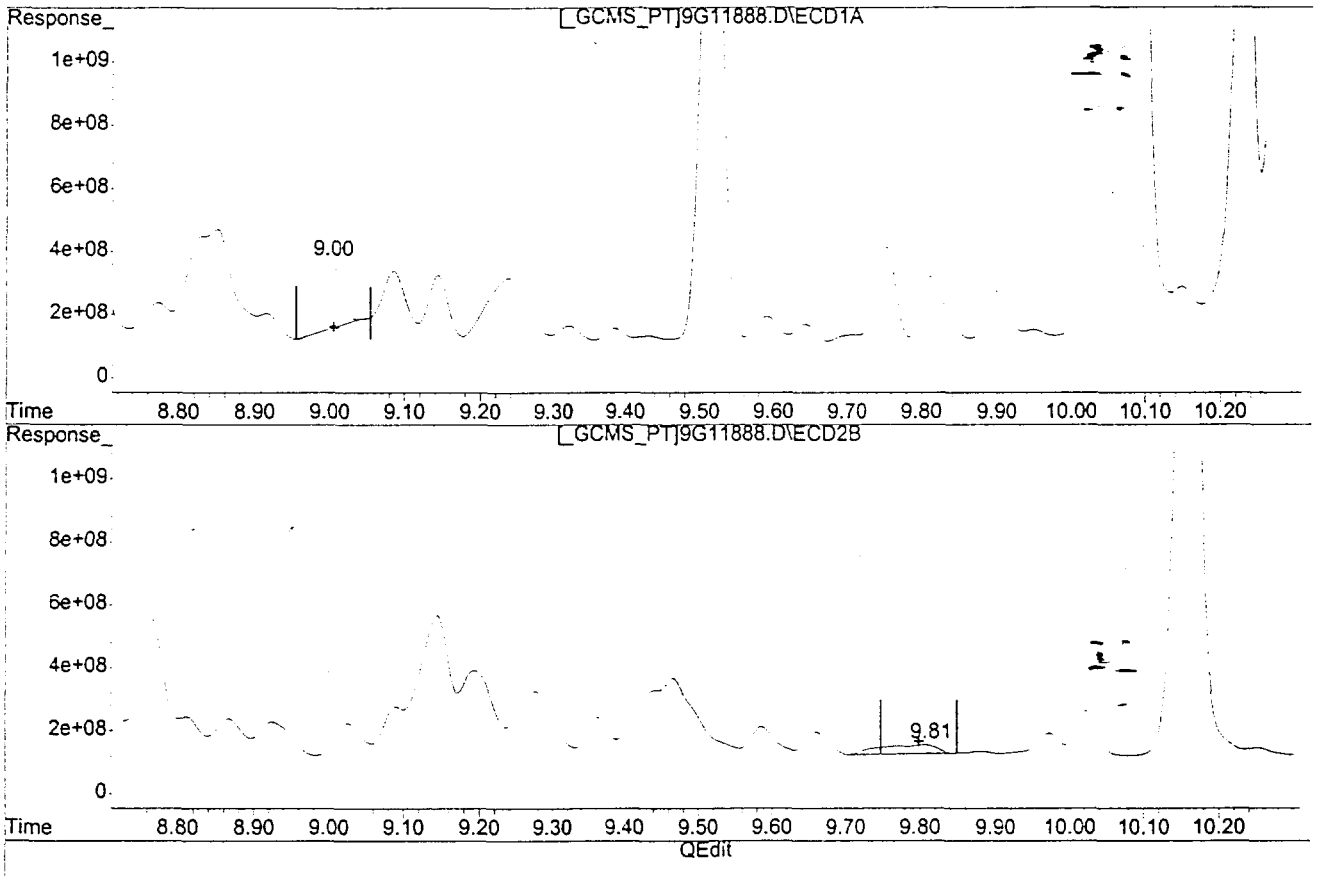
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:34 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(7) Aldrin
9.00min 0.512UG/L
response 4156290670

(7) Aldrin #2
9.80min 0.151UG/L
response 1500181772

peakshape

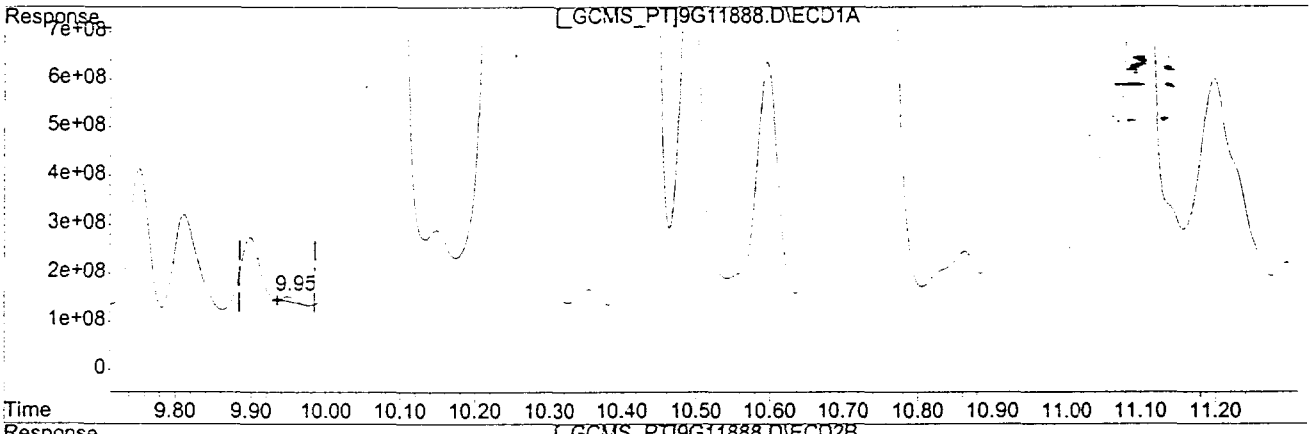
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:42 2000

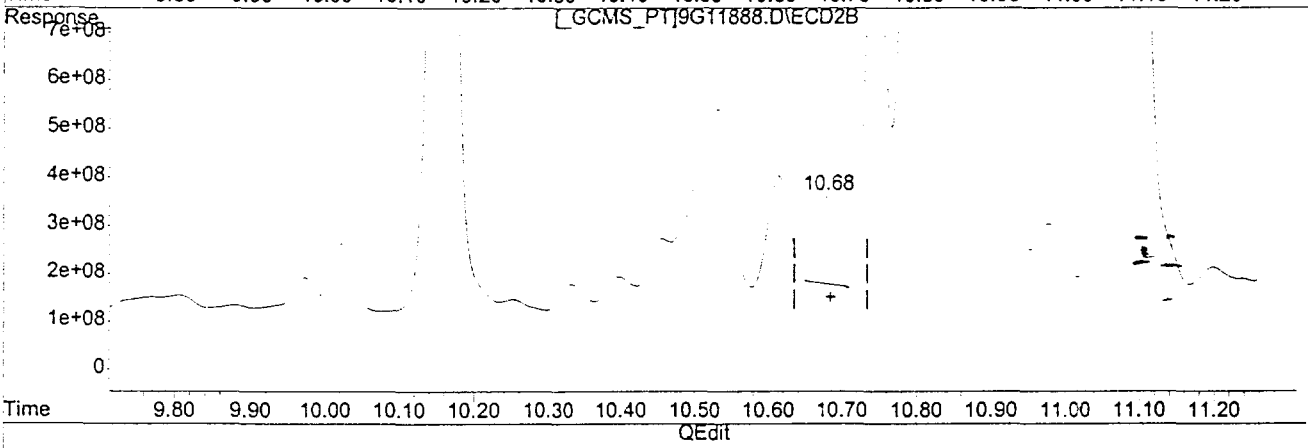
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





QEdit

(8) Heptachlor Epoxide
9.95min 0.016UG/L
response 111498539

RT peak shape

(8) Heptachlor Epoxide #2
10.68min 0.355UG/L
response 2943383363

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:50 2000

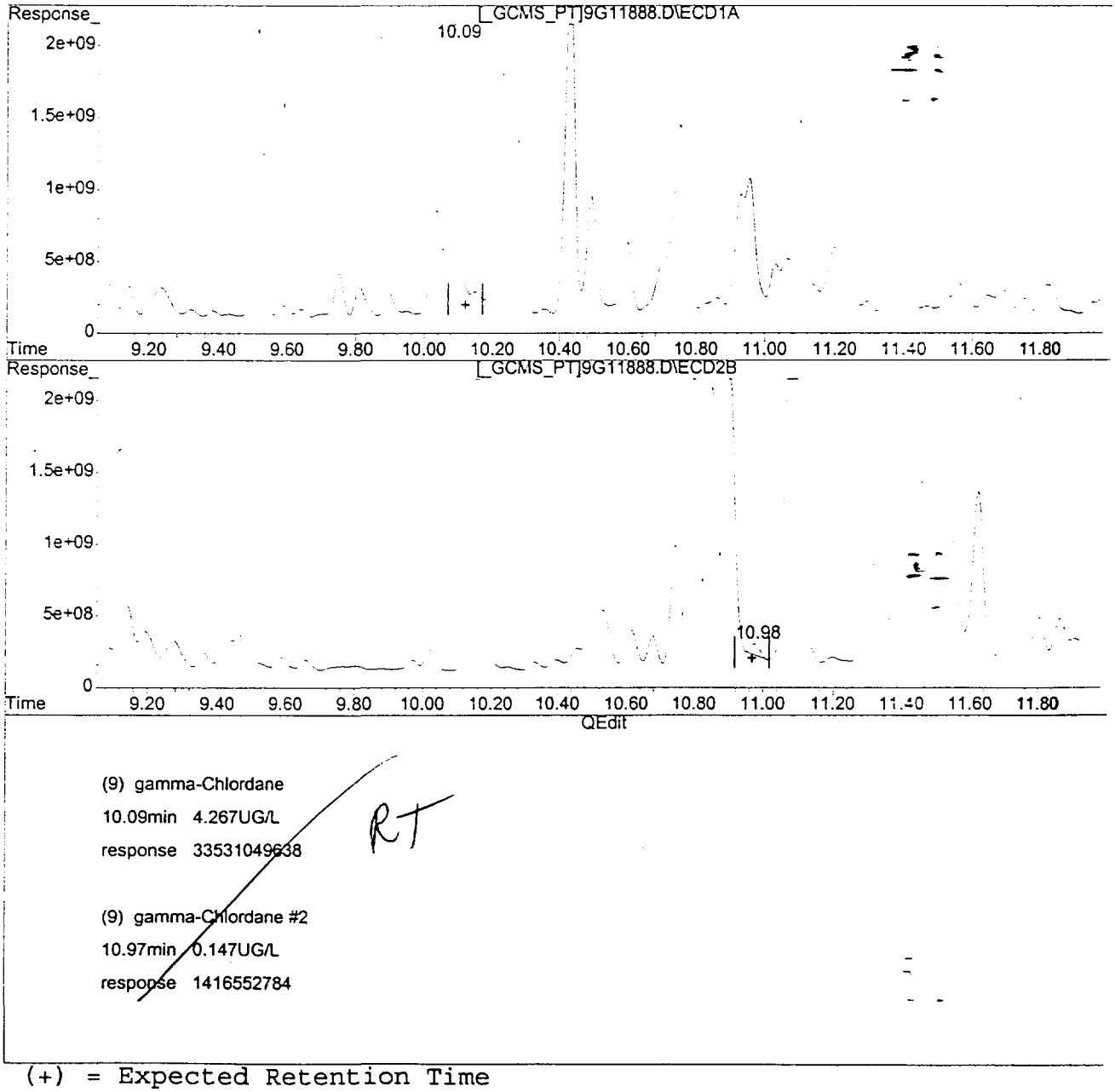
282

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:23:55 2000

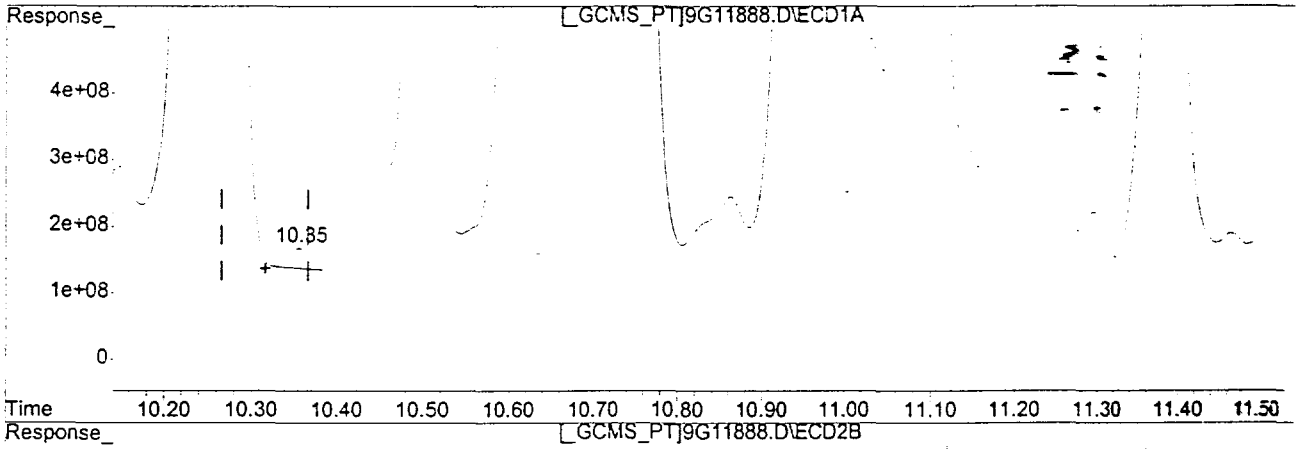
283

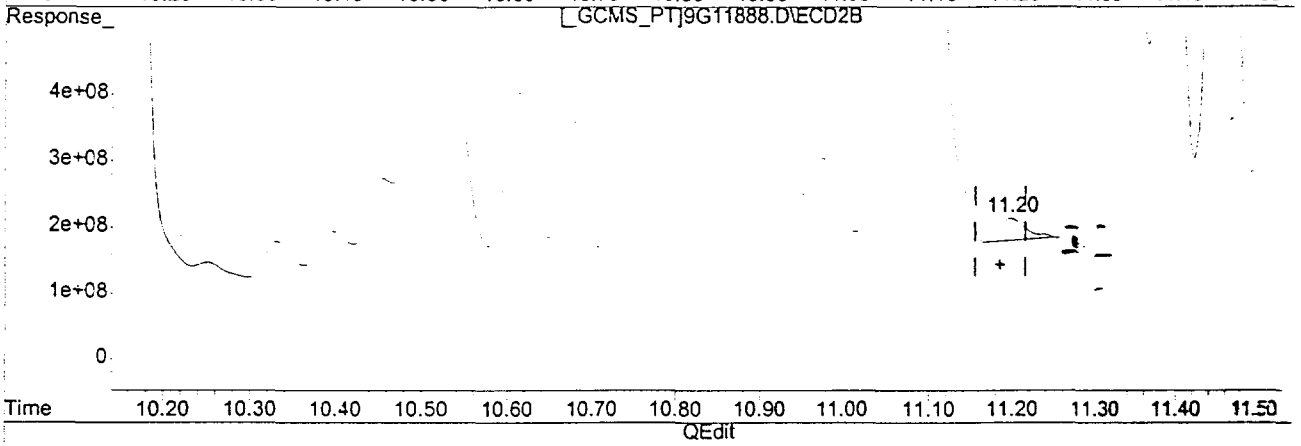
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





QEdit

(10) alpha-Chlordane
10.35min 0.066UG/L
response 499887947

(10) alpha-Chlordane #2
11.20min 0.078UG/L
response 713500577

RT

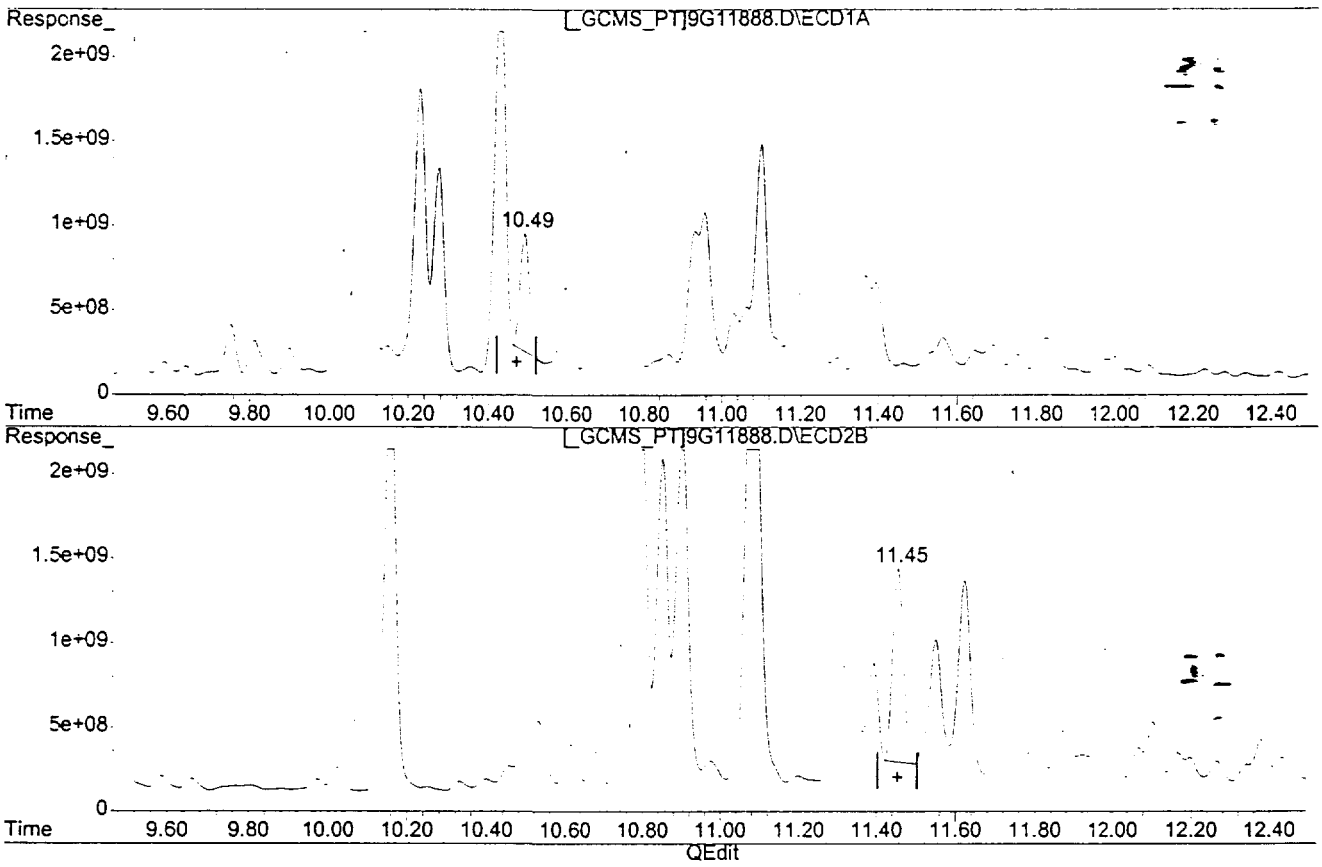
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:24:03 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(12) 4,4'-DDE
10.49min 1.647UG/L
response 11422771489

(12) 4,4'-DDE #2
11.45min 2.487UG/L
response 21264637721

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:24:13 2000

285

9G11888.D 8081.M Fri Sep 15 11:24:18 2000

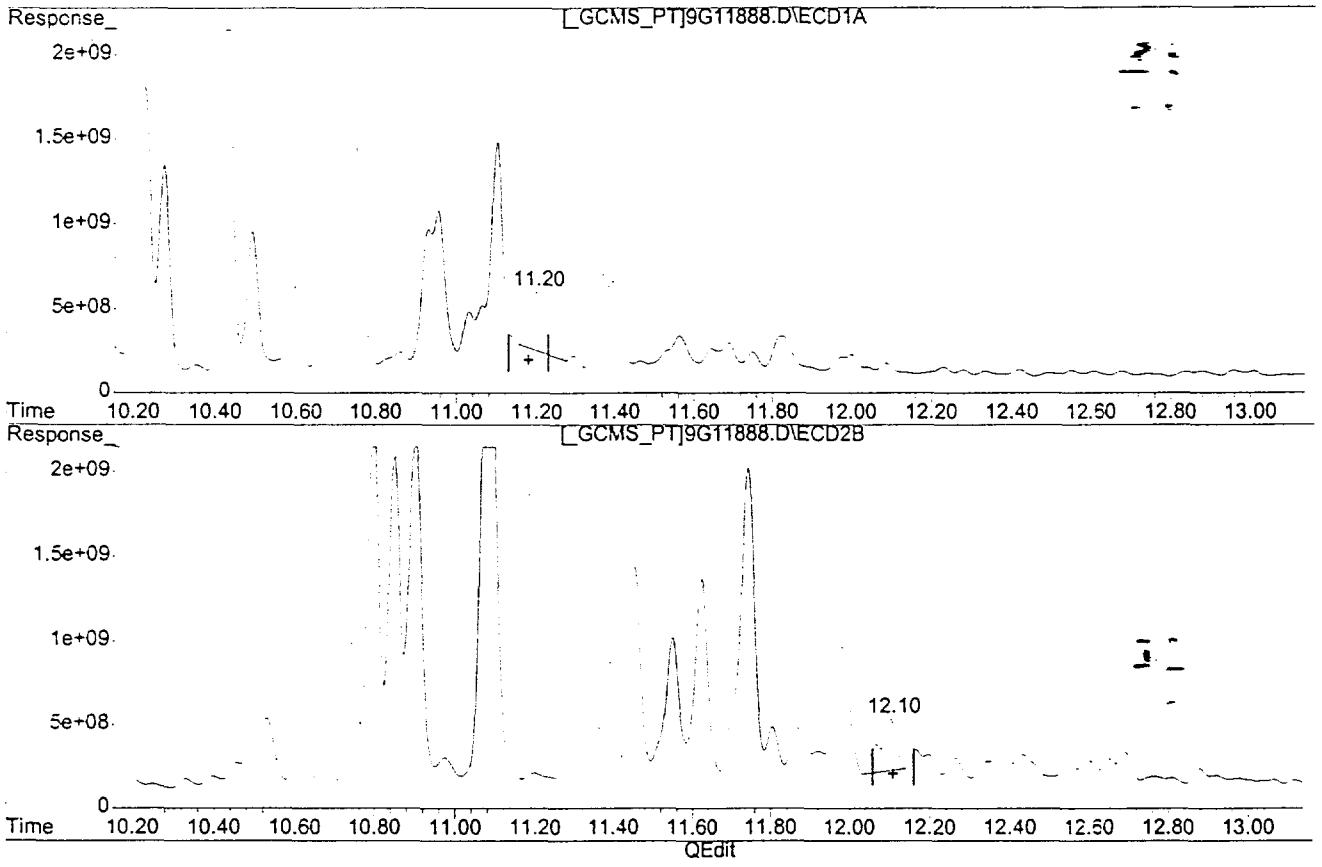
002138

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(14) Endrin
11.20min 1.524UG/L
response 10317721389

peak shape

(14) Endrin #2
12.10min 1.278UG/L
response 8447015440

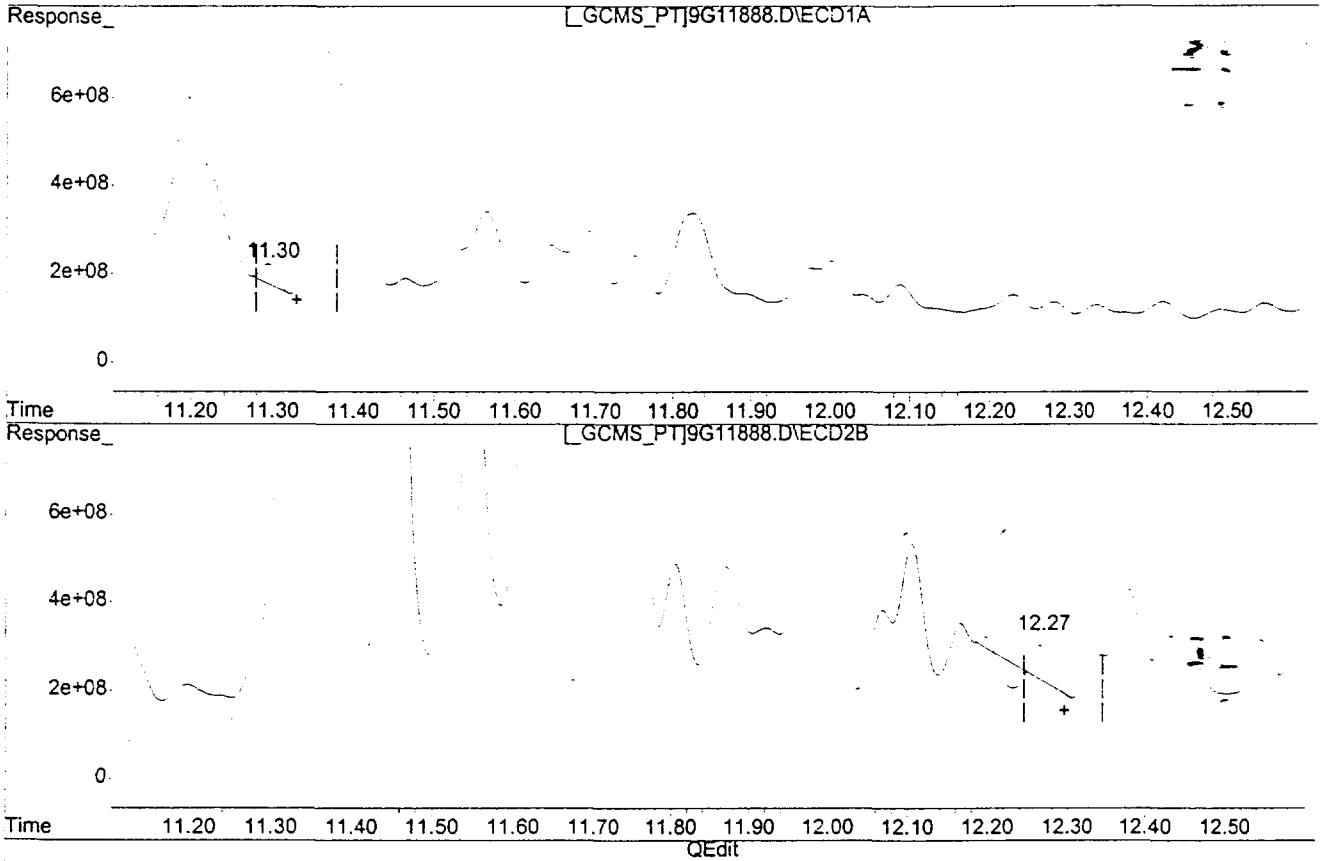
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:24:23 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(15) 4,4'-DDD
11.29min 0.110UG/L
response 618539235

RT

(15) 4,4'-DDD #2
12.26min 0.064UG/L
response 419947914

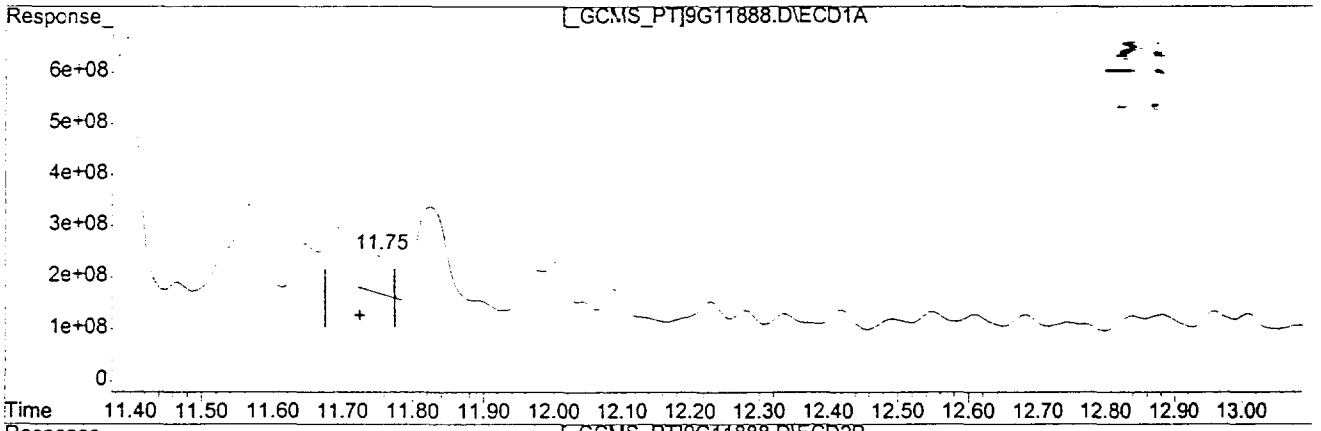
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:24:32 2000

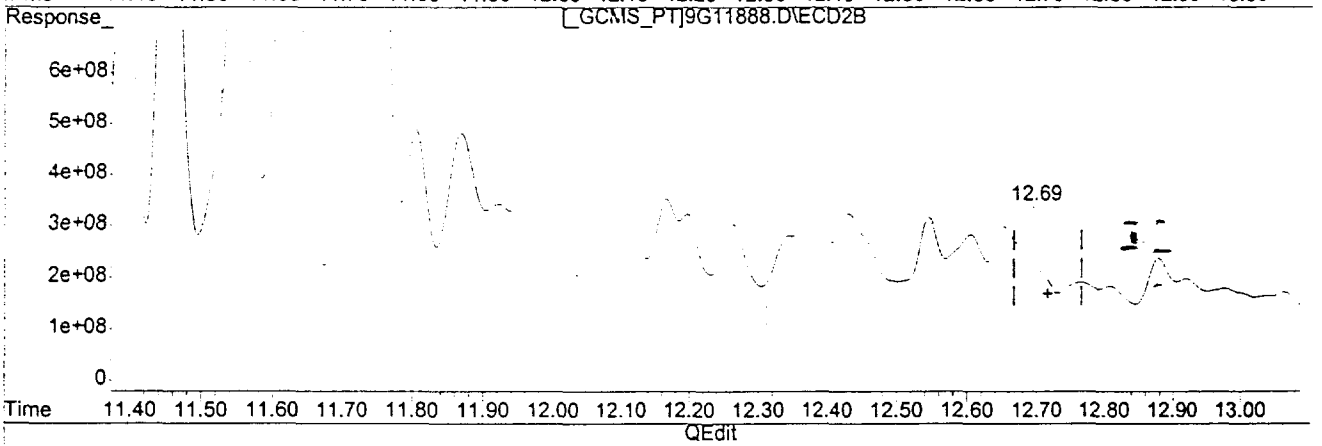
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





QEdit

(17) 4,4'-DDT
11.75min 0.198UG/L
response 1195697421

(17) 4,4'-DDT #2
12.69min 0.241UG/L
response 1677985438

RT

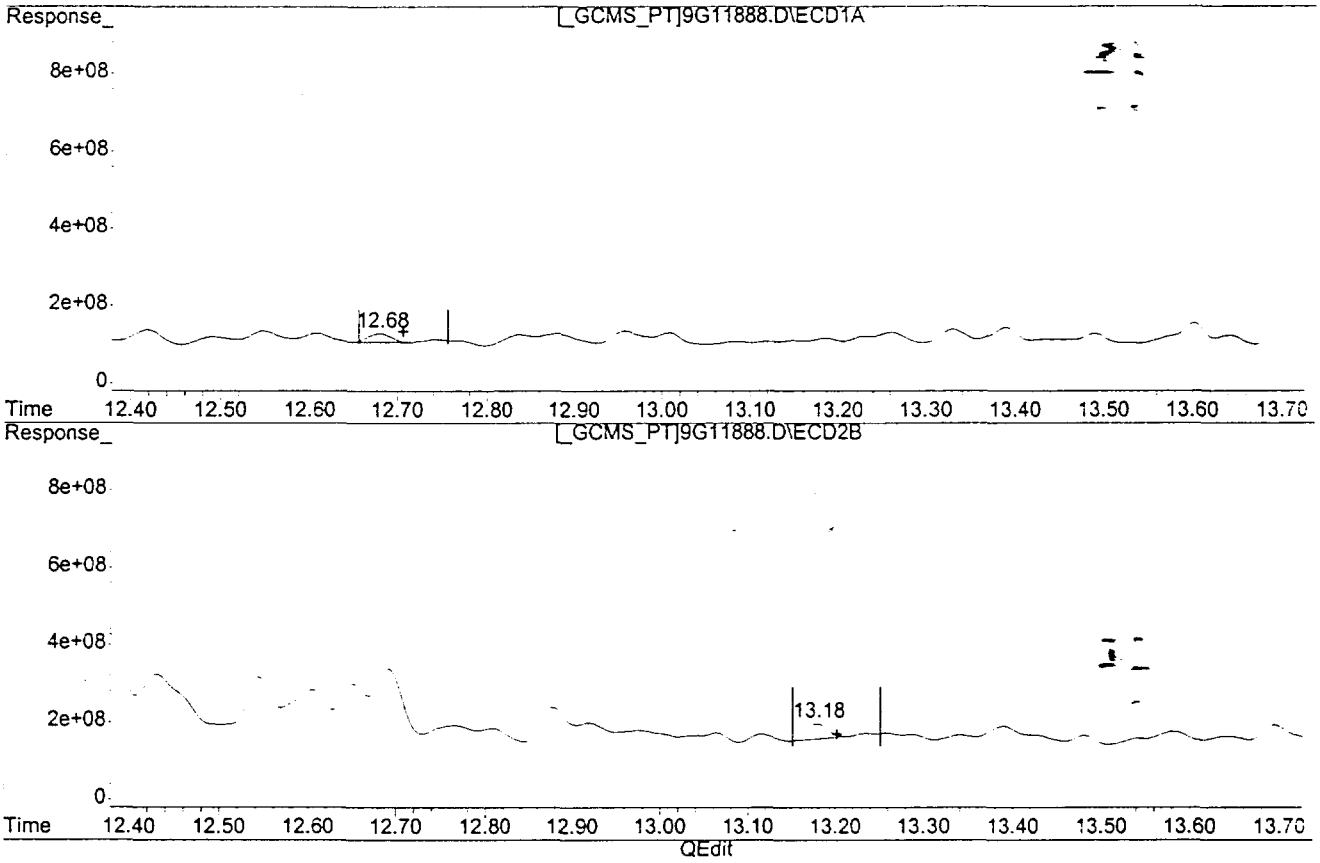
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:24:47 2000

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(19) Endosulfan Sulfate
12.68min 0.081UG/L
response 411388037

(19) Endosulfan Sulfate #2
13.18min 0.103UG/L
response 662682678

RT

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:25:01 2000

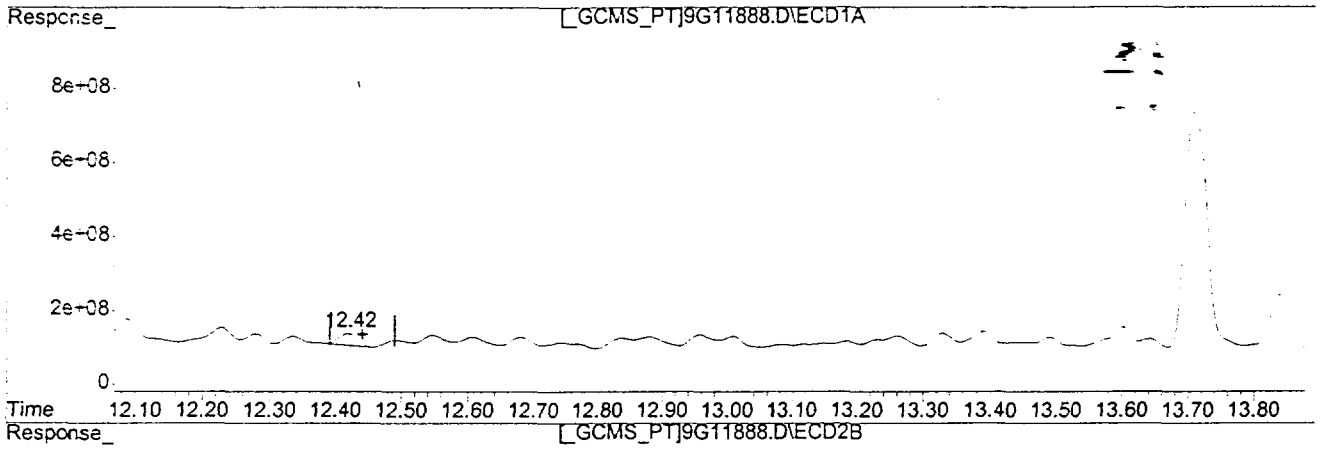
290

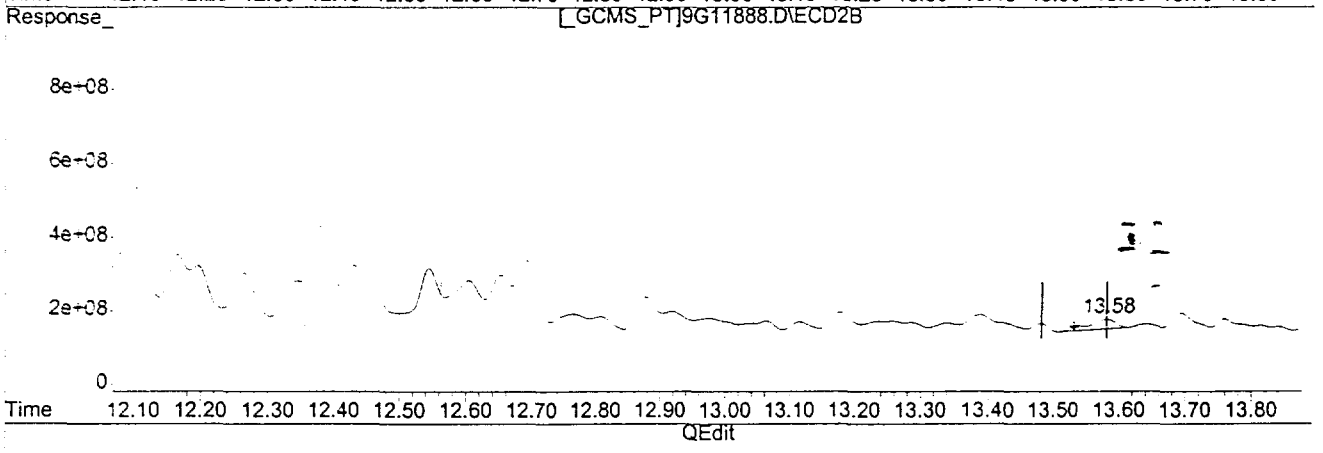
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(20) Methoxychlor
12.42min 0.210UG/L
response 620913422

(20) Methoxychlor #2
13.58min 0.253UG/L
response 754605207

RT

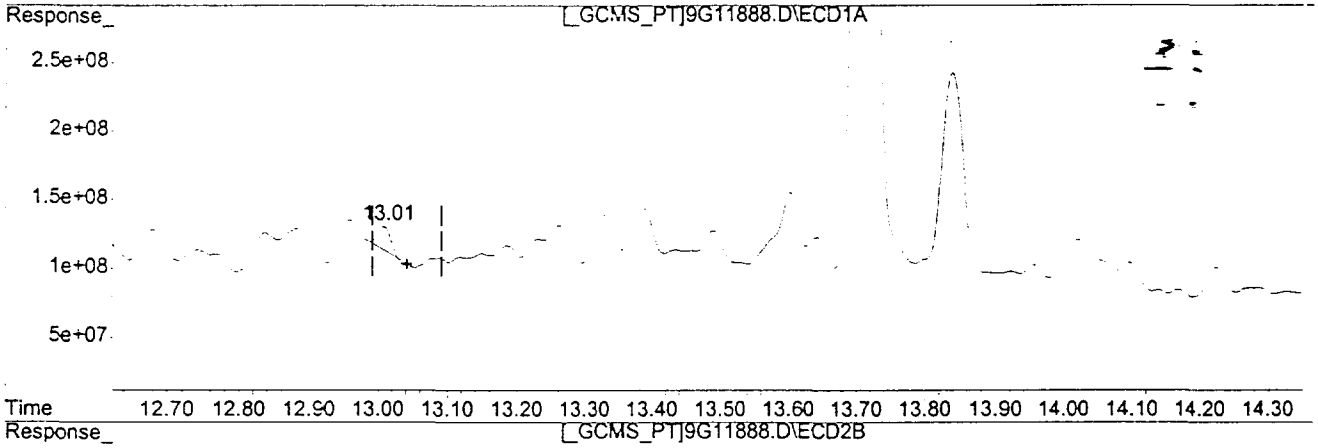
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:25:11 2000

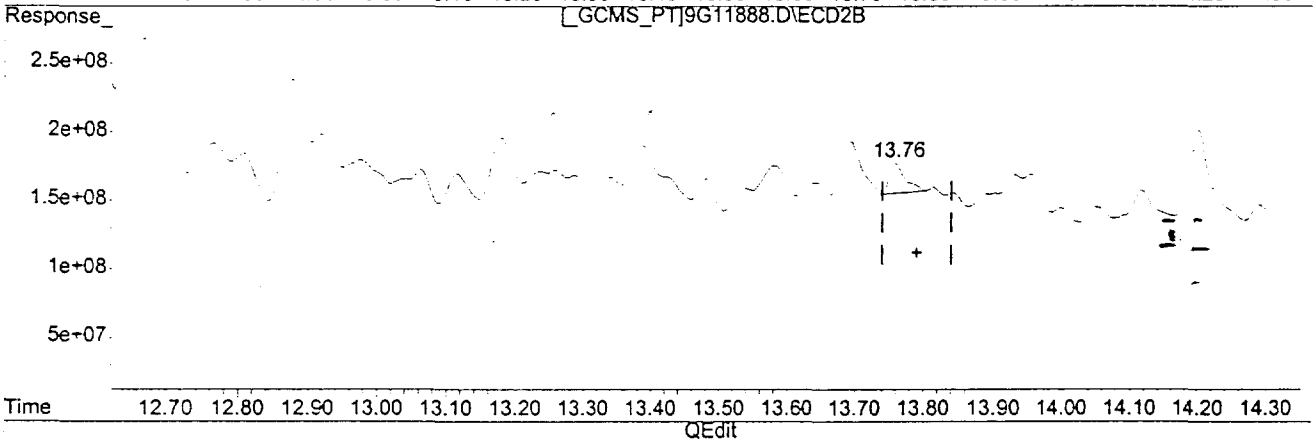
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(21) Endrin Ketone
13.01min 0.035UG/L
response 203374882

RT

(21) Endrin Ketone #2
13.76min 0.052UG/L
response 345362702

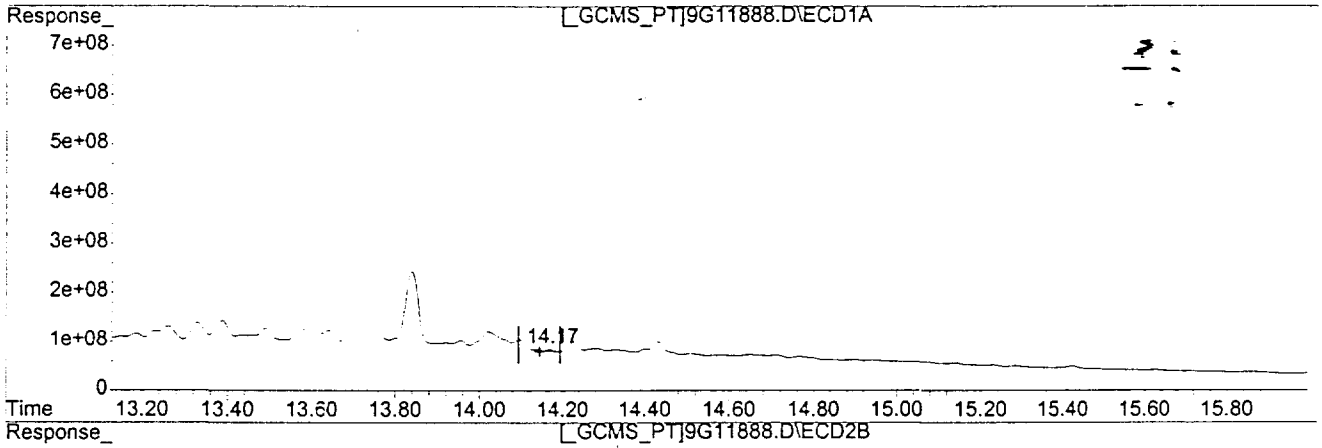
(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:25:19 2000

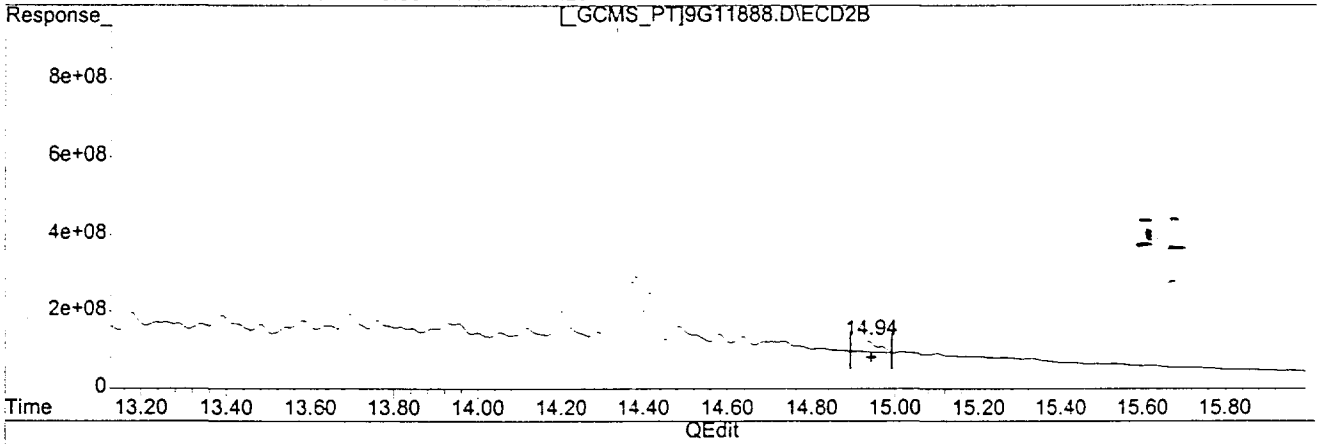
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD1A.CH Vial: 23
Acq On : 14 Sep 2000 19:18 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11888.D\ECD2B.CH Vial: 23
Acq On : 14 Sep 2000 19:42 Operator: ECL
Sample : L0009094-08 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:21 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration





(22) Decachlorobiphenyl (S)
14.17min 1.116UG/L
response 48052344

SM I

(22) Decachlorobiphenyl #2 (S)
14.94min 13.032UG/L
response 678232235

(+) = Expected Retention Time
9G11888.D 8081.M Fri Sep 15 11:25:26 2000

2.2.2.3 Standards Data

002146

Response Factor Report HP 9

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000

Calibration Files
1 =9G11873.D 2 =9G11872.D 3 =9G11871.D
4 =9G11870.D 5 =9G11869.D

	Compound	1	2	3	4	5	Avg		%RSD
1) L1	TOXAPHENE-1	5.307	5.093	5.440	5.164	5.313	5.263	E5	2.60
2) L1	TOXAPHENE-2	8.425	7.834	8.101	7.865	7.879	8.021	E5	3.11
3) L1	TOXAPHENE-3	1.790	1.690	1.775	1.698	1.672	1.725	E6	3.12
4) L1	TOXAPHENE-4	1.183	1.133	1.184	1.147	1.155	1.160	E6	1.94
5) L1	TOXAPHENE-5	8.931	8.622	9.288	9.162	9.274	9.056	E5	3.10

Signal #2 Calibration Files
1 =9G11873.D 2 =9G11872.D 3 =9G11871.D
4 =9G11870.D 5 =9G11869.D

	Compound	1	2	3	4	5	Avg		%RSD
1) L1	TOXAPHENE-1	2.492	2.510	2.733	2.572	2.565	2.574	E6	3.70
2) L1	TOXAPHENE-2	1.327	1.249	1.549	1.361	1.523	1.402	E6	9.24
3) L1	TOXAPHENE-3	1.512	1.411	1.651	1.417	1.572	1.512	E6	6.77
4) L1	TOXAPHENE-4	1.020	1.077	1.201	1.127	1.154	1.116	E6	6.28
5) L1	TOXAPHENE-5	7.659	7.680	8.231	7.941	8.003	7.903	E5	3.02

(#) = Out of Range

002147

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11869.D\ECD1A.CH Vial: 4
Acq On : 14 Sep 2000 11:37 Operator: ECL
Sample : TOXAPHENE 2.0 PPM Inst : HP 5
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11869.D\ECD2B.CH Vial: 4
Acq On : 14 Sep 2000 12:02 Operator: ECL
Sample : TOXAPHENE 2.0 PPM Inst : HP 5
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds						
1) L1 TOXAPHENE-1	10.97	12.53	1062.7E6	5129.8E6	2019.065	1992.684
2) L1 TOXAPHENE-2	11.65	12.87	1575.9E6	3046.0E6	1964.732	2172.907
3) L1 TOXAPHENE-3	12.54	13.47	3343.5E6	3143.4E6	1938.225	2078.368
4) L1 TOXAPHENE-4	13.00	13.53	2310.0E6	2308.7E6	1991.088	2069.120
5) L1 TOXAPHENE-5	13.19	13.89	1854.8E6	1600.6E6	2048.203	2025.318
Sum TOXAPHENE-1			10146.9E6	15228.6E6	9961.313	10338.398
Average TOXAPHENE-1					1992.263	2067.680

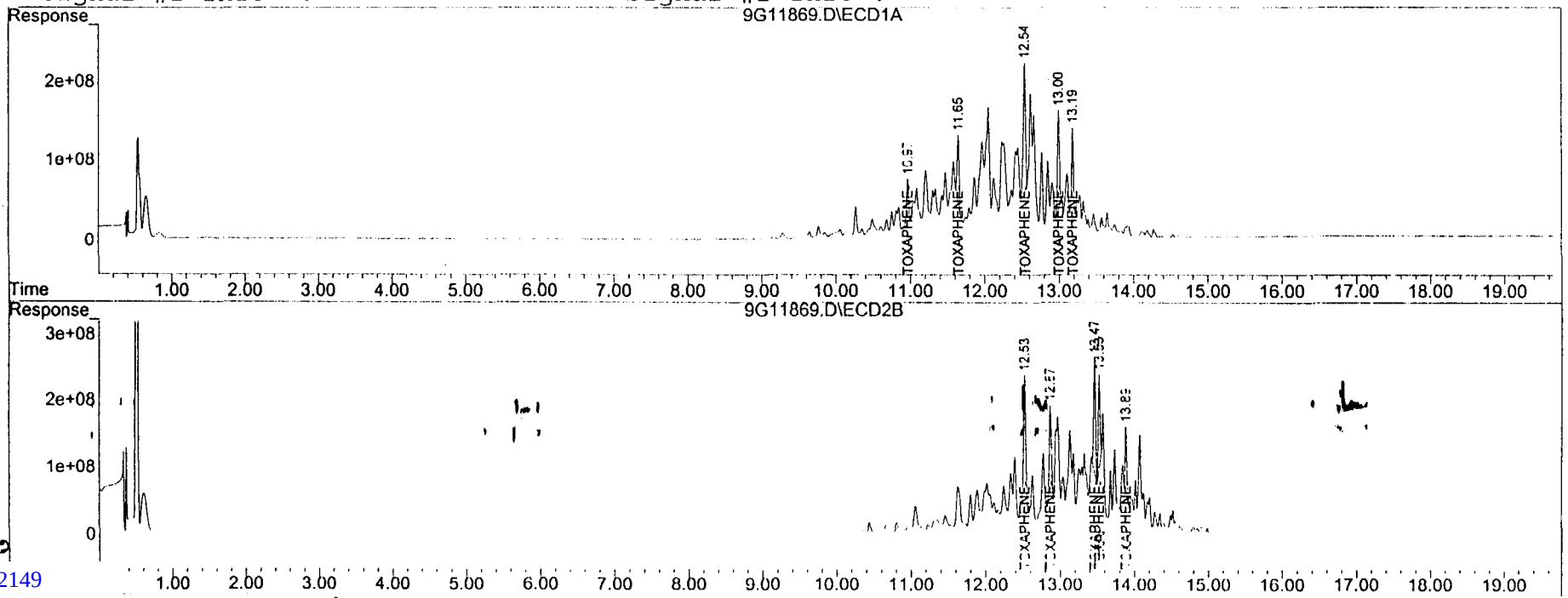
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11869.D\ECD1A.CH Vial: 4
Acq On : 14 Sep 2000 11:37 Operator: ECL
Sample : TOXAPHENE 2.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11869.D\ECD2B.CH Vial: 4
Acq On : 14 Sep 2000 12:02 Operator: ECL
Sample : TOXAPHENE 2.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



002149

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11870.D\ECD1A.CH Vial: 5
Acq On : 14 Sep 2000 12:02 Operator: ECL
Sample : TOXAPHENE 1.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11870.D\ECD2B.CH Vial: 5
Acq On : 14 Sep 2000 12:26 Operator: ECL
Sample : TOXAPHENE 1.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 TOXAPHENE-1	10.98	12.53	516.4E6	2572.1E6	981.052	999.142
2)	L1 TOXAPHENE-2	11.65	12.88	786.5E6	1361.2E6	980.516	971.000
3)	L1 TOXAPHENE-3	12.55	13.48	1697.7E6	1417.3E6	984.136	937.097
4)	L1 TOXAPHENE-4	13.00	13.54	1146.7E6	1127.0E6	988.388	1009.992
5)	L1 TOXAPHENE-5	13.19	13.89	916.2E6	794.1E6	1011.781	1004.804
	Sum TOXAPHENE-1			5063.4E6	7271.6E6	4945.872	4922.035
	Average TOXAPHENE-1					989.174	984.407

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002150

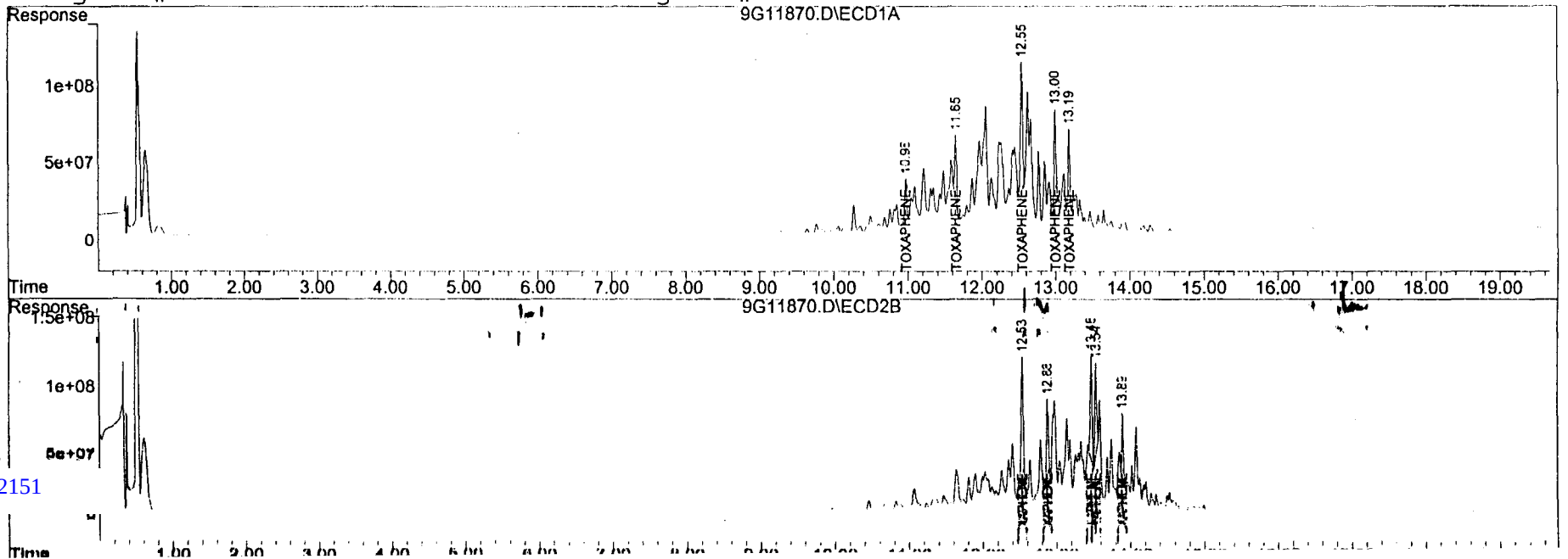
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11870.D\ECD1A.CH Vial: 5
Acq On : 14 Sep 2000 12:02 Operator: ECL
Sample : TOXAPHENE 1.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11870.D\ECD2B.CH Vial: 5
Acq On : 14 Sep 2000 12:26 Operator: ECL
Sample : TOXAPHENE 1.0 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11871.D\ECD1A.CH Vial: 6
Acq On : 14 Sep 2000 12:26 Operator: ECL
Sample : TOXAPHENE 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11871.D\ECD2B.CH Vial: 6
Acq On : 14 Sep 2000 12:50 Operator: ECL
Sample : TOXAPHENE 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds							
1) L1	TOXAPHENE-1	10.98	12.53	272.0E6	1366.5E6	516.800	530.813
2) L1	TOXAPHENE-2	11.66	12.87	405.1E6	774.6E6	505.025	552.584
L1	TOXAPHENE-3	12.56	13.47	887.7E6	825.3E6	514.609	545.704
4) L1	TOXAPHENE-4	13.01	13.53	591.8E6	600.6E6	510.074	538.258
5) L1	TOXAPHENE-5	13.20	13.89	464.4E6	411.6E6	512.839	520.765
Sum	TOXAPHENE-1			2621.0E6	3978.6E6	2559.347	2688.124
Average	TOXAPHENE-1					511.869	537.625

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002152

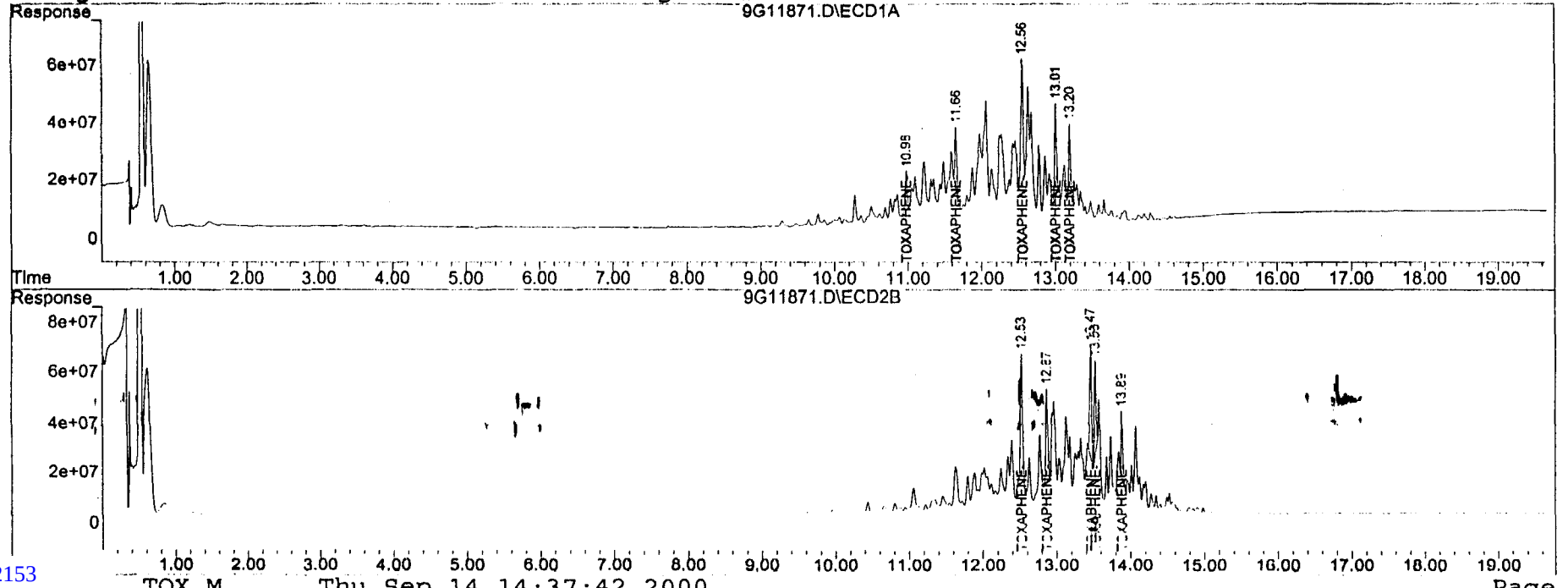
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11871.D\ECD1A.CH Vial: 6
Acq On : 14 Sep 2000 12:26 Operator: ECL
Sample : TOXAPHENE 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11871.D\ECD2B.CH Vial: 6
Acq On : 14 Sep 2000 12:50 Operator: ECL
Sample : TOXAPHENE 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11872.D\ECD1A.CH Vial: 7
Acq On : 14 Sep 2000 12:50 Operator: ECL
Sample : TOXAPHENE 0.25 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11872.D\ECD2B.CH Vial: 7
Acq On : 14 Sep 2000 13:14 Operator: ECL
Sample : TOXAPHENE 0.25 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds						
1) L1 TOXAPHENE-1	10.98	12.53	127.3E6	627.4E6	241.893	243.726
2) L1 TOXAPHENE-2	11.66	12.87	195.8E6	312.3E6	244.171	222.768
3) L1 TOXAPHENE-3	12.55	13.47	422.5E6	352.7E6	244.949	233.229
4) L1 TOXAPHENE-4	13.01	13.53	283.2E6	269.2E6	244.076	241.252
5) L1 TOXAPHENE-5	13.20	13.89	215.6E6	192.0E6	238.038	242.959
Sum TOXAPHENE-1			1244.4E6	1753.7E6	1213.127	1183.934
Average TOXAPHENE-1					242.625	236.787

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

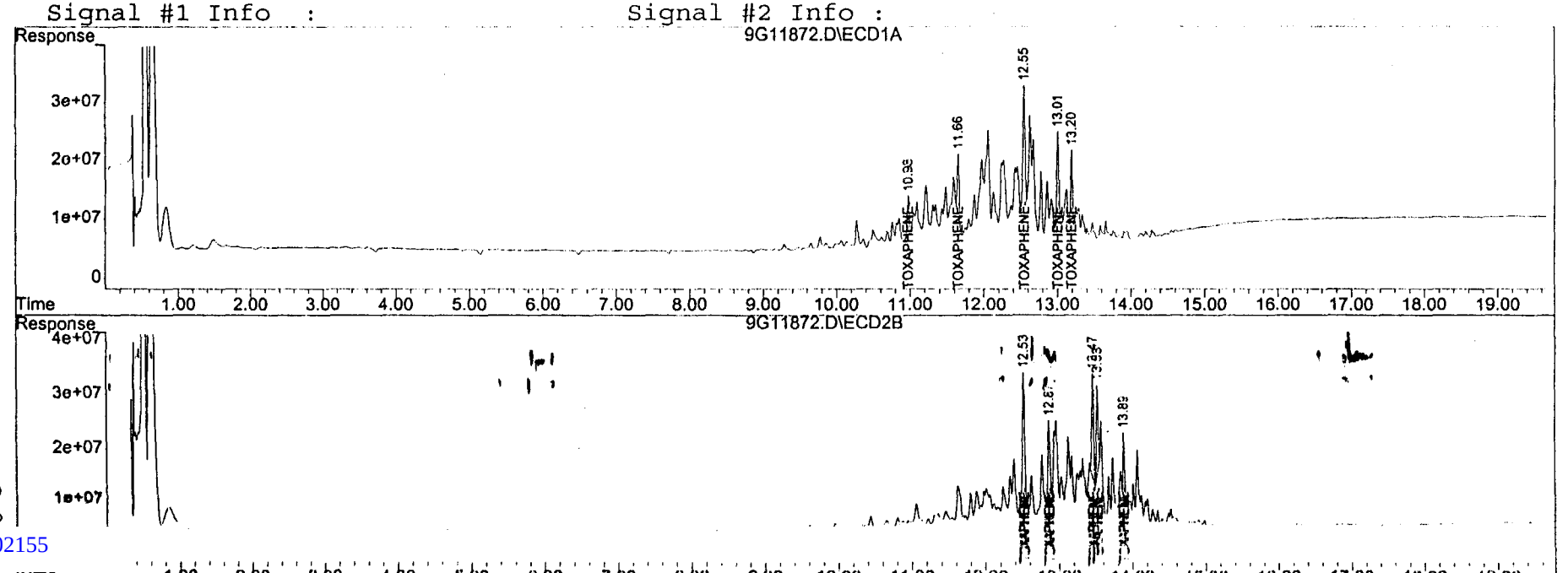
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11872.D\ECD1A.CH Vial: 7
Acq On : 14 Sep 2000 12:50 Operator: ECL
Sample : TOXAPHENE 0.25 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11872.D\ECD2B.CH Vial: 7
Acq On : 14 Sep 2000 13:14 Operator: ECL
Sample : TOXAPHENE 0.25 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:37 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



002155

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11873.D\ECD1A.CH Vial: 8
Acq On : 14 Sep 2000 13:14 Operator: ECL
Sample : TOXAPHENE 0.1 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11873.D\ECD2B.CH Vial: 8
Acq On : 14 Sep 2000 13:39 Operator: ECL
Sample : TOXAPHENE 0.1 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:38 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 TOXAPHENE-1	10.98	12.52	53066251	249.2E6	100.824	96.798
	L1 TOXAPHENE-2	11.66	12.87	84248855	132.7E6	105.038	94.631
	L1 TOXAPHENE-3	12.55	13.46	179.0E6	151.2E6	103.774	99.940
4)	L1 TOXAPHENE-4	13.01	13.53	118.3E6	102.0E6	101.962	91.392
5)	L1 TOXAPHENE-5	13.20	13.88	89314525	76592348	98.629	96.917
	Sum TOXAPHENE-1			523.9E6	711.6E6	510.227	479.678
Average	TOXAPHENE-1					102.045	95.936

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002156

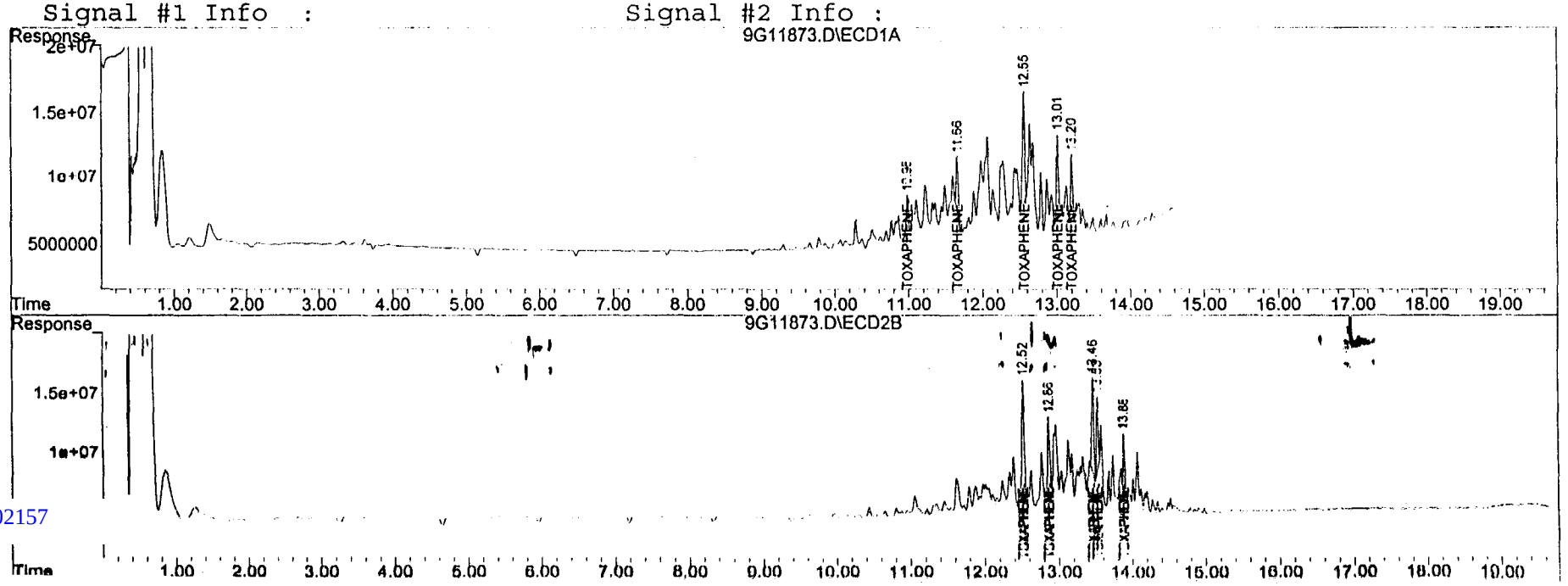
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11873.D\ECD1A.CH Vial: 8
Acq On : 14 Sep 2000 13:14 Operator: ECL
Sample : TOXAPHENE 0.1 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11873.D\ECD2B.CH Vial: 8
Acq On : 14 Sep 2000 13:39 Operator: ECL
Sample : TOXAPHENE 0.1 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:38 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD1A.CH Vial: 9
Acq On : 14 Sep 2000 13:39 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD2B.CH Vial: 9
Acq On : 14 Sep 2000 14:03 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	TOXAPHENE-1	500.000	471.470	5.7	91	0.00
2	L1	TOXAPHENE-2	500.000	496.353	0.7	98	0.00
3	L1	TOXAPHENE-3	500.000	503.722	-0.7	98	0.00
4	L1	TOXAPHENE-4	500.000	488.440	2.3	96	0.00
5	L1	TOXAPHENE-5	500.000	469.110	6.2	91	0.00
		Signal #2					
1	L1	TOXAPHENE-1	500.000	500.221	-0.0	94	0.00
2	L1	TOXAPHENE-2	500.000	543.148	-8.6	98	0.00
3	L1	TOXAPHENE-3	500.000	508.336	-1.7	93	0.00
4	L1	TOXAPHENE-4	500.000	519.337	-3.9	96	0.00
5	L1	TOXAPHENE-5	500.000	496.162	0.8	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD1A.CH Vial: 9
Acq On : 14 Sep 2000 13:39 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD2B.CH Vial: 9
Acq On : 14 Sep 2000 14:03 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:38 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 TOXAPHENE-1	10.98	12.52	248.1E6	1287.7E6	471.470	500.221
)	L1 TOXAPHENE-2	11.66	12.87	398.1E6	761.4E6	496.353	543.148
)	L1 TOXAPHENE-3	12.55	13.47	868.9E6	768.8E6	503.722	508.336
4)	L1 TOXAPHENE-4	13.00	13.53	566.7E6	579.5E6	488.440	519.337
5)	L1 TOXAPHENE-5	13.19	13.88	424.8E6	392.1E6	469.110	496.162
	Sum TOXAPHENE-1			2506.7E6	3789.5E6	2429.094	2567.204
	Average TOXAPHENE-1					485.819	513.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002159

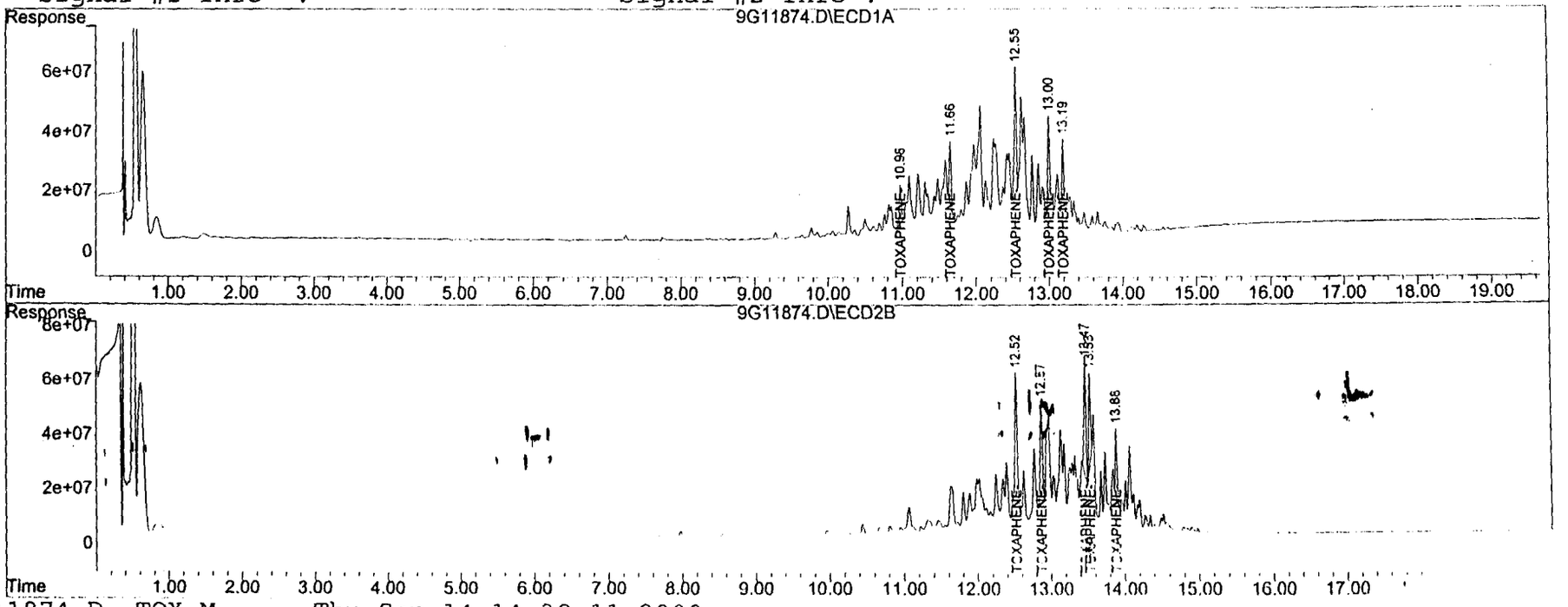
Quantit ion Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD1A.CH Vial: 9
Acq On : 14 Sep 2000 13:39 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11874.D\ECD2B.CH Vial: 9
Acq On : 14 Sep 2000 14:03 Operator: ECL
Sample : TOXAPHENE ALT 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 14 14:38 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Response Factor Report HP 9

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000

Calibration Files
1 =9G11880.D 2 =9G11879.D 3 =9G11878.D
4 =9G11877.D 5 =9G11876.D 6 =9G11875.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	7.705	7.970	7.560	7.591	7.269	7.010	7.517	E7	4.47
2)		alpha-BHC	0.989	1.094	1.069	1.077	1.054	1.035	1.053	E8	3.55
3)		gamma-BHC	9.202	9.971	9.701	9.708	9.479	9.273	9.556	E7	3.06
4)		beta-BHC	4.275	4.347	4.167	4.089	3.991	3.962	4.138	E7	3.72
5)		Heptachlor	0.969	1.001	0.938	0.894	0.826	0.761	0.898	E8	10.09
6)		delta-BHC	8.858	9.681	9.449	9.576	9.492	9.385	9.407	E7	3.06
7)		Aldrin	8.183	8.799	8.429	8.221	7.750	7.297	8.113	E7	6.49
8)		Heptachlor Epoxide	7.496	7.796	7.242	6.899	6.411	5.784	6.938	E7	10.69
9)		gamma-Chlordane	8.059	8.322	7.927	7.845	7.595	7.401	7.858	E7	4.18
10)		alpha-Chlordane	8.198	8.084	7.645	7.464	7.183	7.030	7.601	E7	6.20
11)		Endosulfan I	7.815	7.884	7.478	6.828	6.208	5.692	6.984	E7	12.87
12)		4,4'-DDE	6.803	7.200	6.896	7.105	6.914	6.689	6.935	E7	2.73
13)		Dieldrin	7.788	7.961	7.586	7.405	7.011	6.672	7.404	E7	6.56
14)		Endrin	7.005	7.329	6.966	6.791	6.429	6.106	6.771	E7	6.48
15)		4,4'-DDD	5.489	5.855	5.797	5.735	5.541	5.393	5.635	E7	3.31
16)		Endosulfan II	6.462	6.550	6.338	6.072	5.740	5.492	6.109	E7	6.91
17)		4,4'-DDT	5.925	6.413	6.159	6.131	5.941	5.668	6.040	E7	4.21
18)		Endrin Aldehyde	4.822	4.702	3.944	4.118	3.926	3.798	4.218	E7	10.31
19)		Endosulfan Sulfate	5.447	5.509	5.159	5.018	4.786	4.473	5.065	E7	7.81
20)		Methoxychlor	3.373	3.246	3.014	2.839	2.690	2.600	2.960	E7	10.39
21)		Endrin Ketone	6.278	6.252	5.938	5.802	5.660	5.437	5.894	E7	5.63
22)	S	Decachlorobiphenyl	4.763	4.637	4.215	4.144	4.032	4.036	4.305	E7	7.36

Signal #2 Calibration Files
1 =9G11880.D 2 =9G11879.D 3 =9G11878.D
4 =9G11877.D 5 =9G11876.D 6 =9G11875.D

		Compound	1	2	3	4	5	6	Avg.		%RSD
1)	S	2,4,5,6-Tetrachloro	0.906	1.036	0.996	0.981	0.940	0.891	0.958	E8	5.83
2)		alpha-BHC	1.137	1.393	1.378	1.365	1.359	1.308	1.323	E8	7.25
3)		gamma-BHC	1.070	1.275	1.249	1.224	1.204	1.159	1.197	E8	6.14
4)		beta-BHC	5.158	5.820	5.516	5.366	5.291	5.110	5.377	E7	4.87
5)		Heptachlor	1.136	1.255	1.171	1.068	0.987	0.894	1.085	E8	12.05
6)		delta-BHC	0.971	1.193	1.183	1.175	1.176	1.149	1.141	E8	7.41
7)		Aldrin	0.925	1.097	1.057	1.013	0.965	0.894	0.992	E8	7.86
8)		Heptachlor Epoxide	7.919	9.244	8.696	8.365	8.136	7.351	8.285	E7	7.87
9)		gamma-Chlordane	0.900	1.037	0.996	0.968	0.953	0.915	0.962	E8	5.28
10)		alpha-Chlordane	0.875	1.004	0.953	0.920	0.901	0.863	0.920	E8	5.69
11)		Endosulfan I	6.698	7.643	7.313	6.797	6.784	6.034	6.878	E7	8.05
12)		4,4'-DDE	7.422	9.117	8.985	8.839	8.671	8.264	8.550	E7	7.33
13)		Dieldrin	8.138	9.722	9.373	8.875	8.542	8.050	8.783	E7	7.64
14)		Endrin	5.972	7.035	6.965	6.643	6.808	6.222	6.608	E7	6.44
15)		4,4'-DDD	5.770	6.927	6.856	6.777	6.732	6.533	6.599	E7	6.48
16)		Endosulfan II	7.264	8.206	7.744	7.329	7.042	6.649	7.372	E7	7.38

#) = Out of Range

309

002161

Response Factor Report HP 9

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000

Calibration Files
1 =9G11880.D 2 =9G11879.D 3 =9G11878.D
4 =9G11877.D 5 =9G11876.D 6 =9G11875.D

		Compound	1	2	3	4	5	6	Avg		%RSI
17)		4,4'-DDT	6.145	7.322	7.175	7.123	7.118	6.891	6.962	E7	6.0
18)		Endrin Aldehyde	4.333	4.686	4.455	4.211	4.223	3.862	4.295	E7	6.4
19)		Endosulfan Sulfate	6.249	7.016	6.602	6.364	6.243	5.995	6.412	E7	5.5
20)		Methoxychlor	2.905	3.120	2.998	2.947	2.974	2.933	2.980	E7	2.5
21)		Endrin Ketone	6.346	7.184	6.815	6.610	6.509	6.330	6.632	E7	4.8
22)	S	Decachlorobiphenyl	5.459	5.686	5.194	4.972	4.983	4.934	5.204	E7	5.9

(#) = Out of Range

002162

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11875.D\ECD1A.CH Vial: 10
Acq On : 14 Sep 2000 14:03 Operator: ECL
Sample : PESTICIDE 200 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11875.D\ECD2B.CH Vial: 10
Acq On : 14 Sep 2000 14:27 Operator: ECL
Sample : PESTICIDE 200 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:45 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.26	6.86	14020.9E6	17812.4E6	186.511	185.868
	Spiked Amount 20.000	Range 13 - 154		Recovery =		932.55%#	929.34%#
)	S Decachlorobiphen	14.14	14.94	8071.8E6	9867.3E6	187.519	189.592
	Spiked Amount 20.000	Range 25 - 140		Recovery =		937.59%#	947.96%#
	Target Compounds						
2)	alpha-BHC	7.25	7.98	20705.3E6	26151.0E6	196.626	197.619
3)	gamma-BHC	7.78	8.59	18546.8E6	23185.6E6	194.090	193.736
4)	beta-BHC	7.95	8.74	7923.1E6	10219.5E6	191.458	190.066
5)	Heptachlor	8.54	9.29	15228.1E6	17880.9E6	169.531	164.784
6)	delta-BHC	8.22	9.22	18770.6E6	22970.9E6	199.543	201.333
7)	Aldrin	9.00	9.80	14593.6E6	17886.4E6	179.873	180.336
8)	Heptachlor Epoxi	9.93	10.68	11568.9E6	14702.1E6	166.741	177.450
9)	gamma-Chlordane	10.11	10.97	14801.7E6	18294.7E6	188.359	190.254
10)	alpha-Chlordane	10.31	11.18	14061.0E6	17264.1E6	184.991	187.746
11)	Endosulfan I	10.49	11.26	11384.3E6	12068.6E6	163.003	175.462
12)	4,4'-DDE	10.46	11.45	13378.3E6	16527.4E6	192.919	193.314
13)	Dieldrin	10.85	11.66	13344.7E6	16100.9E6	180.243	183.310
14)	Endrin	11.17	12.11	12212.8E6	12444.4E6	180.364	188.331
15)	4,4'-DDD	11.32	12.29	10785.4E6	13065.5E6	191.393	197.986
16)	Endosulfan II	11.50	12.42	10983.1E6	13299.0E6	179.790	180.393
17)	4,4'-DDT	11.72	12.71	11336.3E6	13782.3E6	187.699	197.952
18)	Endrin Aldehyde	12.10	12.86	7596.9E6	7723.7E6	180.087	179.835
19)	Endosulfan Sulfa	12.70	13.20	8946.2E6	11990.2E6	176.614	187.009
20)	Methoxychlor	12.43	13.53	5200.0E6	5866.7E6	175.655	196.895
21)	Endrin Ketone	13.03	13.79	10873.4E6	12659.9E6	184.474	190.885

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
9G11875.D 8081.M Fri Sep 15 10:45:52 2000 Page 1

311

002163

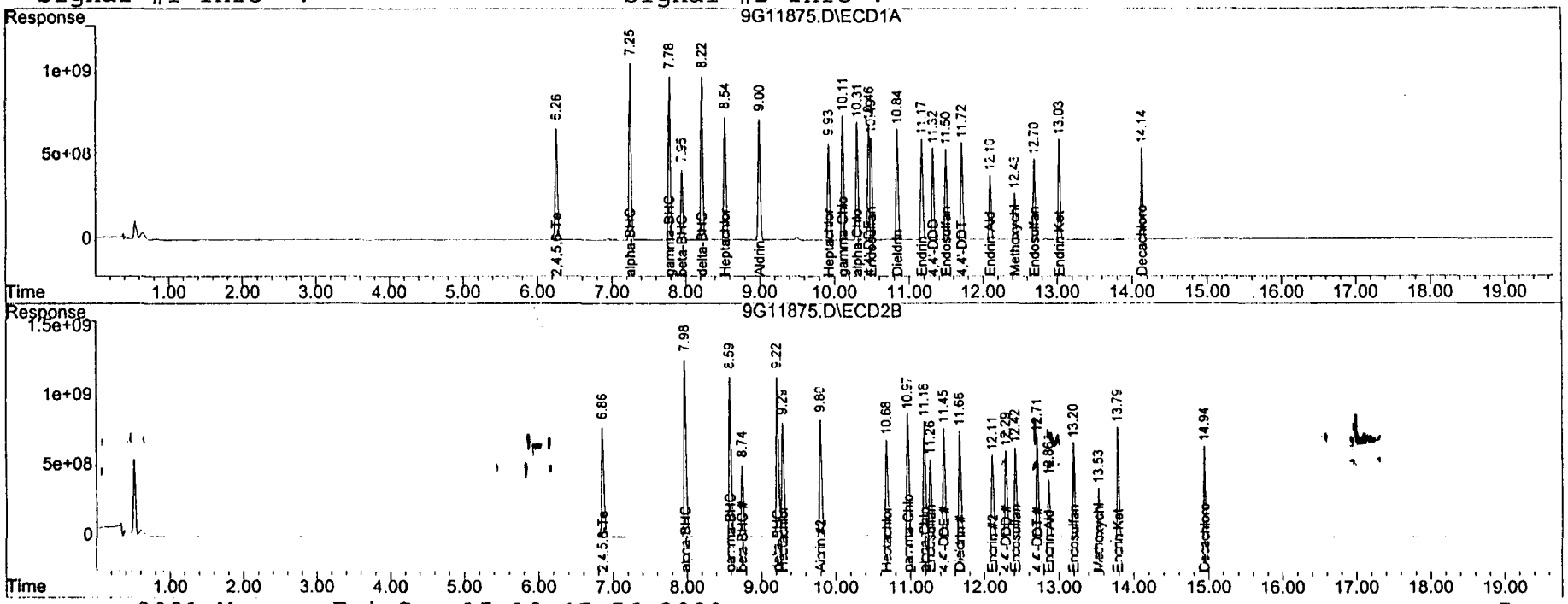
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11875.D\ECD1A.CH Vial: 10
Acq On : 14 Sep 2000 14:03 Operator: ECL
Sample : PESTICIDE 200 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11875.D\ECD2B.CH Vial: 10
Acq On : 14 Sep 2000 14:27 Operator: ECL
Sample : PESTICIDE 200 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:45 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11876.D\ECD1A.CH Vial: 11
Acq On : 14 Sep 2000 14:27 Operator: ECL
Sample : PESTICIDE 100 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11876.D\ECD2B.CH Vial: 11
Acq On : 14 Sep 2000 14:51 Operator: ECL
Sample : PESTICIDE 100 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.26	6.86	7269.5E6	9398.7E6	96.702	98.073
	piked Amount 20.000	Range 13 - 154		Recovery =		483.51%#	490.37%#
	S Decachlorobiphen	14.14	14.94	4031.7E6	4983.0E6	93.661	95.744
	Spiked Amount 20.000	Range 25 - 140		Recovery =		468.30%#	478.72%#
	Target Compounds						
2)	alpha-BHC	7.26	7.97	10539.8E6	13586.3E6	100.090	102.669
3)	gamma-BHC	7.79	8.58	9479.2E6	12035.2E6	99.199	100.564
4)	beta-BHC	7.96	8.74	3990.9E6	5291.2E6	96.438	98.409
5)	Heptachlor	8.54	9.29	8261.3E6	9866.0E6	91.970	90.921
6)	delta-BHC	8.23	9.22	9491.6E6	11756.2E6	100.901	103.039
7)	Aldrin	9.00	9.79	7749.9E6	9650.6E6	95.522	97.301
8)	Heptachlor Epoxi	9.93	10.68	6411.4E6	8136.5E6	92.407	98.205
9)	gamma-Chlordane	10.12	10.96	7595.0E6	9534.2E6	96.651	99.150
10)	alpha-Chlordane	10.31	11.18	7183.4E6	9014.7E6	94.507	98.035
11)	Endosulfan I	10.50	11.26	6207.7E6	6784.0E6	88.883	98.631
12)	4,4'-DDE	10.47	11.44	6914.2E6	8671.0E6	99.705	101.421
13)	Dieldrin	10.85	11.66	7010.6E6	8542.1E6	94.690	97.253
14)	Endrin	11.18	12.10	6429.1E6	6808.2E6	94.948	103.034
15)	4,4'-DDD	11.33	12.28	5541.3E6	6732.1E6	98.335	102.014
16)	Endosulfan II	11.50	12.41	5739.7E6	7041.7E6	93.957	95.516
17)	4,4'-DDT	11.72	12.71	5941.2E6	7118.4E6	98.371	102.239
18)	Endrin Aldehyde	12.11	12.86	3925.5E6	4222.7E6	93.057	98.318
19)	Endosulfan Sulfa	12.70	13.20	4786.5E6	6243.1E6	94.494	97.372
20)	Methoxychlor	12.44	13.53	2689.7E6	2974.4E6	90.859	99.825
21)	Endrin Ketone	13.04	13.79	5659.7E6	6508.9E6	96.020	98.141

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

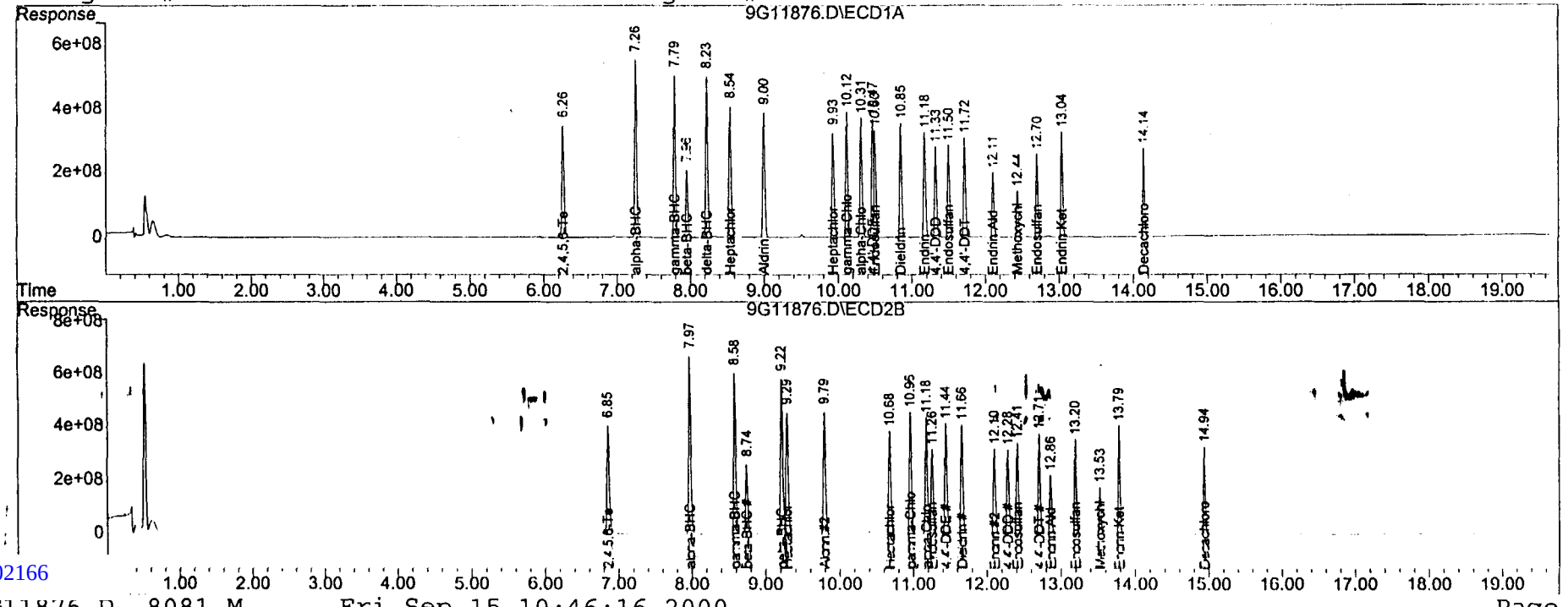
002165

Data File : C:\HPCHEM\1\DATA\091400\9G11876.D\ECD1A.CH Vial: 11
Acq On : 14 Sep 2000 14:27 Operator: ECL
Sample : PESTICIDE 100 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11876.D\ECD2B.CH Vial: 11
Acq On : 14 Sep 2000 14:51 Operator: ECL
Sample : PESTICIDE 100 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11877.D\ECD1A.CH Vial: 12
Acq On : 14 Sep 2000 14:51 Operator: ECL
Sample : PESTICIDE 50 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11877.D\ECD2B.CH Vial: 12
Acq On : 14 Sep 2000 15:16 Operator: ECL
Sample : PESTICIDE 50 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.26	6.86	3795.3E6	4903.9E6	50.486	51.170
	Spiked Amount 20.000	Range 13 - 154		Recovery =		252.43%#	255.85%#
2)	S Decachlorobiphen	14.14	14.94	2072.2E6	2486.0E6	46.140	47.766
	Spiked Amount 20.000	Range 25 - 140		Recovery =		240.70%#	238.83%#
	Target Compounds						
2)	alpha-BHC	7.25	7.97	5383.1E6	6827.2E6	51.120	51.592
3)	gamma-BHC	7.79	8.58	4854.0E6	6121.6E6	50.796	51.151
4)	beta-BHC	7.95	8.74	2044.3E6	2683.2E6	49.400	49.904
5)	Heptachlor	8.54	9.29	4467.9E6	5338.4E6	49.739	49.196
6)	delta-BHC	8.23	9.21	4788.0E6	5874.3E6	50.899	51.486
7)	Aldrin	9.00	9.79	4110.7E6	5064.3E6	50.667	51.059
8)	Heptachlor Epoxi	9.93	10.67	3449.6E6	4182.3E6	49.718	50.479
9)	gamma-Chlordane	10.12	10.96	3922.5E6	4842.2E6	49.916	50.356
10)	alpha-Chlordane	10.31	11.13	3732.1E6	4601.1E6	49.101	50.036
11)	Endosulfan I	10.50	11.26	3413.8E6	3398.4E6	48.879	49.409
12)	4,4'-DDE	10.47	11.44	3552.7E6	4419.4E6	51.231	51.692
13)	Dieldrin	10.85	11.66	3702.4E6	4437.3E6	50.007	50.519
14)	Endrin	11.17	12.10	3395.4E6	3321.7E6	50.145	50.270
15)	4,4'-DDD	11.32	12.28	2867.6E6	3388.6E6	50.388	51.349
16)	Endosulfan II	11.50	12.41	3035.8E6	3664.3E6	49.695	49.704
17)	4,4'-DDT	11.72	12.71	3065.4E6	3561.6E6	50.755	51.154
18)	Endrin Aldehyde	12.10	12.86	2059.1E6	2105.7E6	48.813	49.028
19)	Endosulfan Sulfa	12.70	13.19	2508.9E6	3182.2E6	49.529	49.631
20)	Methoxychlor	12.43	13.52	1419.4E6	1473.5E6	47.946	49.455
21)	Endrin Ketone	13.04	13.78	2900.9E6	3305.0E6	49.216	49.832

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002167

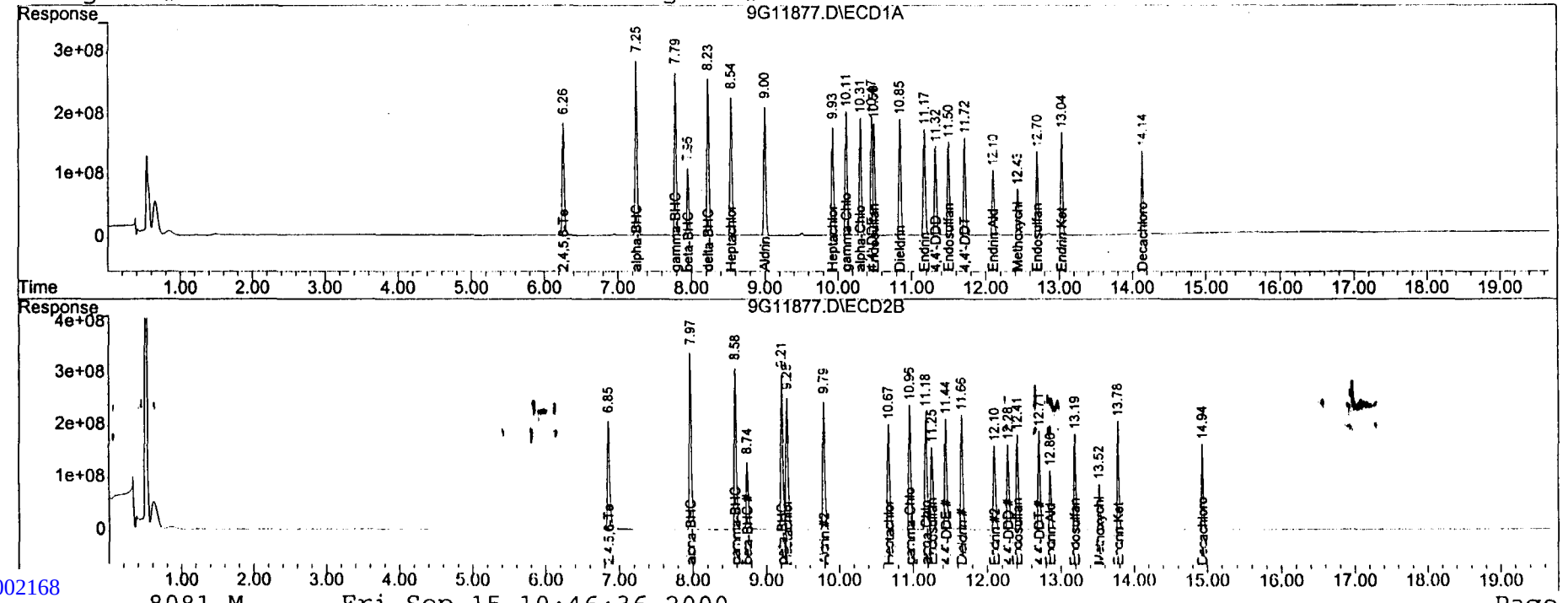
Quantitat Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11877.D\ECD1A.CH Vial: 12
Acq On : 14 Sep 2000 14:51 Operator: ECL
Sample : PESTICIDE 50 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11877.D\ECD2B.CH Vial: 12
Acq On : 14 Sep 2000 15:16 Operator: ECL
Sample : PESTICIDE 50 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11878.D\ECD1A.CH Vial: 13
Acq On : 14 Sep 2000 15:16 Operator: ECL
Sample : PESTICIDE 20 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11878.D\ECD2B.CH Vial: 13
Acq On : 14 Sep 2000 15:40 Operator: ECL
Sample : PESTICIDE 20 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	6.26	6.86	1511.9E6	1992.5E6	20.112	20.731
	Spiked Amount 20.000	Range 13 - 154		Recovery =		100.56%	103.96%
2) S	Decachlorobiphen	14.14	14.94	842.9E6	1038.8E6	19.583	19.960
	Spiked Amount 20.000	Range 25 - 140		Recovery =		97.91%	99.80%
	Target Compounds						
2)	alpha-BHC	7.25	7.97	2138.2E6	2757.0E6	20.305	20.834
3)	gamma-BHC	7.78	8.58	1940.2E6	2497.6E6	20.304	20.870
4)	beta-BHC	7.95	8.75	833.4E6	1103.2E6	20.138	20.517
5)	Heptachlor	8.54	9.29	1876.9E6	2342.7E6	20.895	21.589
6)	delta-BHC	8.22	9.22	1889.8E6	2365.4E6	20.089	20.732
7)	Aldrin	9.00	9.79	1685.8E6	2113.9E6	20.779	21.313
8)	Heptachlor Epoxi	9.92	10.68	1448.4E6	1739.2E6	20.876	20.991
9)	gamma-Chlordane	10.11	10.96	1585.4E6	1991.3E6	20.175	20.708
10)	alpha-Chlordane	10.31	11.18	1529.1E6	1905.5E6	20.117	20.722
11)	Endosulfan I	10.49	11.26	1495.6E6	1462.6E6	21.414	21.265
12)	4,4'-DDE	10.46	11.45	1379.2E6	1797.0E6	19.888	21.019
13)	Dieldrin	10.84	11.66	1517.3E6	1874.6E6	20.494	21.343
14)	Endrin	11.17	12.10	1393.2E6	1393.0E6	20.575	21.082
15)	4,4'-DDD	11.32	12.29	1159.5E6	1371.2E6	20.576	20.778
16)	Endosulfan II	11.50	12.41	1267.7E6	1548.9E6	20.751	21.009
17)	4,4'-DDT	11.71	12.71	1231.9E6	1435.0E6	20.396	20.610
18)	Endrin Aldehyde	12.10	12.86	788.8E6	891.0E6	18.698	20.746
19)	Endosulfan Sulfa	12.70	13.19	1031.8E6	1320.3E6	20.370	20.593
20)	Methoxychlor	12.43	13.53	602.8E6	599.6E6	20.363	20.122
21)	Endrin Ketone	13.03	13.78	1187.5E6	1362.9E6	20.147	20.550

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

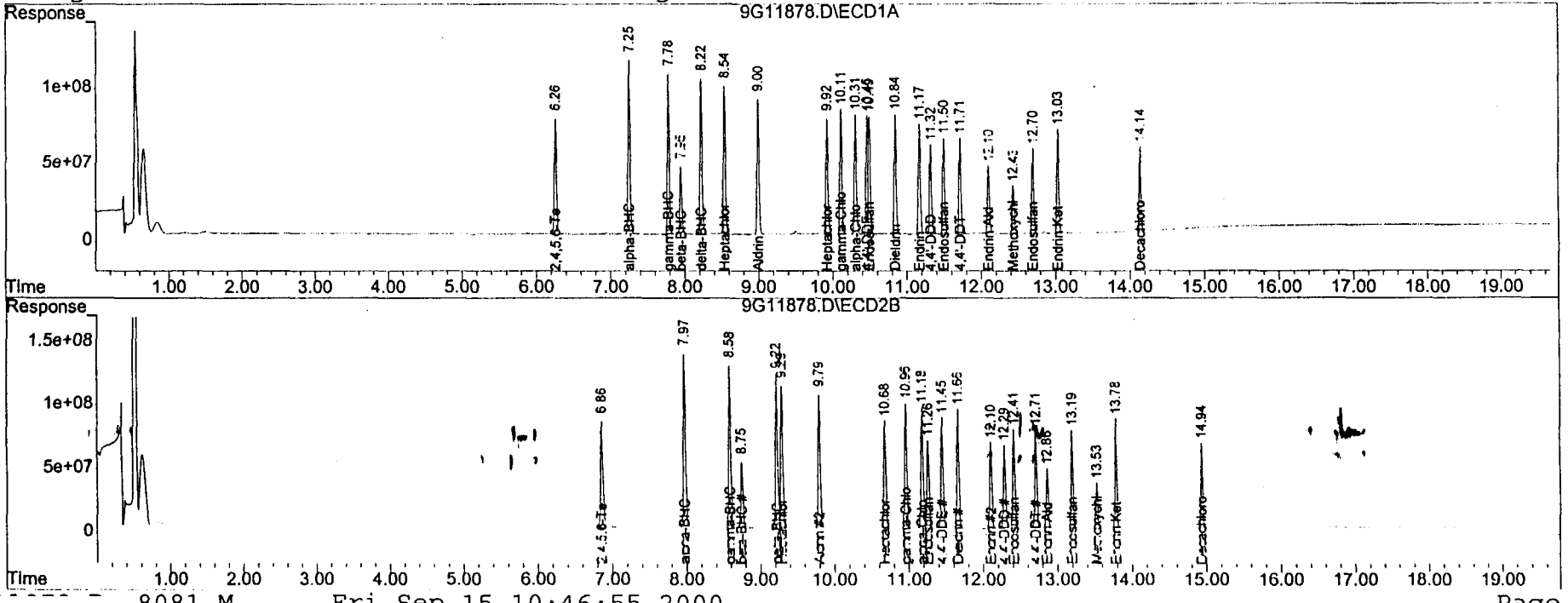
Quantitat n Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11878.D\ECD1A.CH Vial: 13
Acq On : 14 Sep 2000 15:16 Operator: ECL
Sample : PESTICIDE 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11878.D\ECD2B.CH Vial: 13
Acq On : 14 Sep 2000 15:40 Operator: ECL
Sample : PESTICIDE 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:46 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



002170

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11879.D\ECD1A.CH Vial: 14
Acq On : 14 Sep 2000 15:40 Operator: ECL
Sample : PESTICIDE 10 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11879.D\ECD2B.CH Vial: 14
Acq On : 14 Sep 2000 16:04 Operator: ECL
Sample : PESTICIDE 10 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:47 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.26	6.86	797.0E6	1036.1E6	10.602	10.811
	Spiked Amount 20.000	Range 13 - 154		Recovery =		53.01%	54.06%
22)	S Decachlorobiphen	14.14	14.94	463.7E6	568.6E6	10.773	10.925
	Spiked Amount 20.000	Range 25 - 140		Recovery =		53.86%	54.63%
	Target Compounds						
2)	alpha-BHC	7.25	7.98	1094.5E6	1393.1E6	10.394	10.527
3)	gamma-BHC	7.79	8.59	997.1E6	1274.6E6	10.435	10.651
4)	beta-BHC	7.95	8.75	434.7E6	582.0E6	10.504	10.824
5)	Heptachlor	8.54	9.29	1000.5E6	1255.4E6	11.139	11.569
6)	delta-BHC	8.23	9.22	968.1E6	1192.8E6	10.292	10.455
7)	Aldrin	9.00	9.80	879.9E6	1096.8E6	10.845	11.058
8)	Heptachlor Epoxi	9.93	10.68	779.6E6	924.4E6	11.236	11.158
9)	gamma-Chlordane	10.12	10.97	832.2E6	1037.0E6	10.590	10.764
10)	alpha-Chlordane	10.31	11.18	808.4E6	1004.1E6	10.635	10.920
11)	Endosulfan I	10.50	11.26	788.4E6	764.3E6	11.289	11.111
12)	4,4'-DDE	10.47	11.45	720.0E6	911.7E6	10.383	10.663
13)	Dieldrin	10.85	11.67	796.1E6	972.2E6	10.752	11.069
14)	Endrin	11.17	12.11	732.9E6	703.5E6	10.824	10.647
15)	4,4'-DDD	11.32	12.29	585.5E6	692.7E6	10.390	10.497
16)	Endosulfan II	11.50	12.42	655.0E6	820.6E6	10.721	11.131
17)	4,4'-DDT	11.72	12.71	641.3E6	732.2E6	10.618	10.517
18)	Endrin Aldehyde	12.10	12.87	470.2E6	468.6E6	11.147	10.910
19)	Endosulfan Sulfa	12.70	13.20	550.9E6	701.6E6	10.875	10.943
20)	Methoxychlor	12.43	13.53	324.6E6	312.0E6	10.967	10.472
21)	Endrin Ketone	13.04	13.79	625.2E6	718.4E6	10.607	10.832

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
9G11879.D 8081.M Fri Sep 15 10:47:10 2000 Page 31

002171

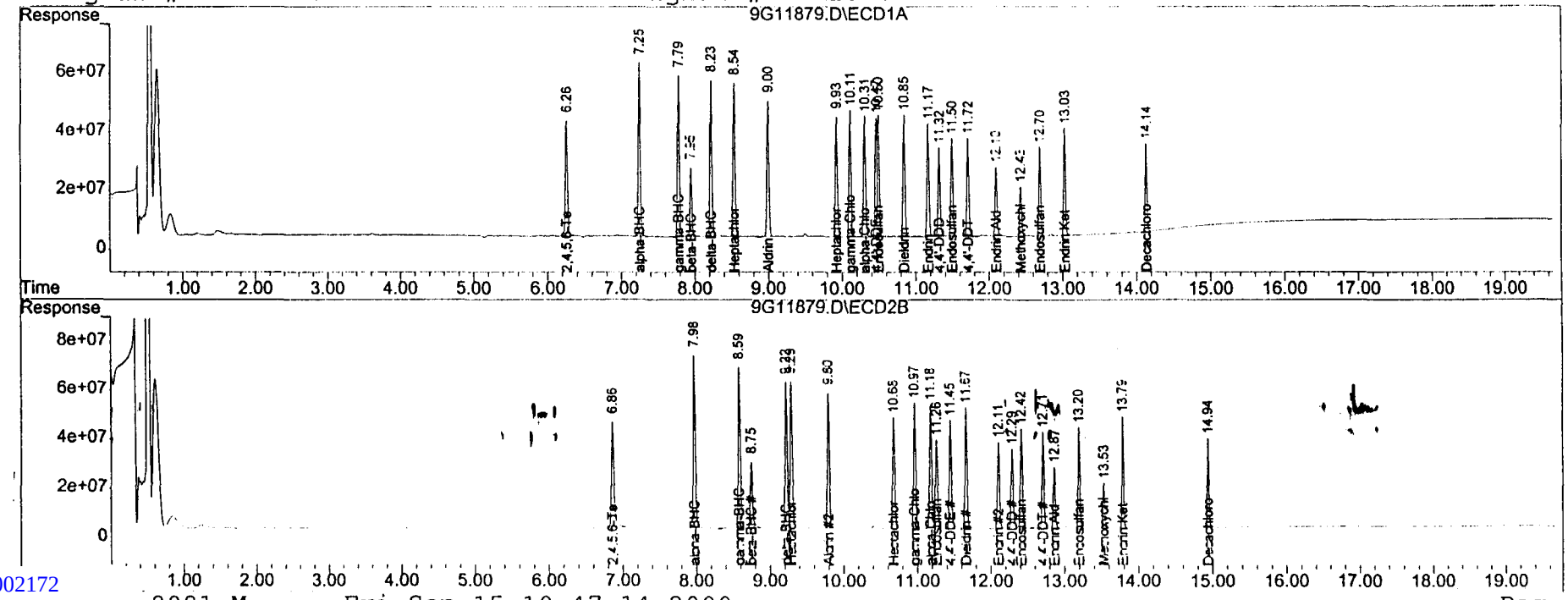
Quantitat. Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11879.D\ECD1A.CH Vial: 14
Acq On : 14 Sep 2000 15:40 Operator: ECL
Sample : PESTICIDE 10 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11879.D\ECD2B.CH Vial: 14
Acq On : 14 Sep 2000 16:04 Operator: ECL
Sample : PESTICIDE 10 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:47 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11880.D\ECD1A.CH Vial: 15
Acq On : 14 Sep 2000 16:04 Operator: ECL
Sample : PESTICIDE 4 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11880.D\ECD2B.CH Vial: 15
Acq On : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE 4 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:47 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.27	6.86	308.2E6	362.6E6	4.100	3.783
	Spiked Amount 20.000	Range 13 - 154			Recovery =	20.50%	18.91%
	S Decachlorobiphen	14.14	14.94	190.5E6	218.3E6	4.426	4.195
	Spiked Amount 20.000	Range 25 - 140			Recovery =	22.13%#	20.98%#
	Target Compounds						
2)	alpha-BHC	7.26	7.98	395.5E6	454.6E6	3.756	3.436
3)	gamma-BHC	7.79	8.59	368.1E6	428.0E6	3.852	3.576
4)	beta-BHC	7.96	8.75	171.0E6	206.3E6	4.132	3.837
5)	Heptachlor	8.55	9.29	387.8E6	454.3E6	4.317	4.186
6)	delta-BHC	8.23	9.22	354.3E6	388.4E6	3.767	3.404
7)	Aldrin	9.00	9.80	327.3E6	370.0E6	4.035	3.731
8)	Heptachlor Epoxi	9.93	10.68	299.9E6	316.8E6	4.322	3.823
9)	gamma-Chlordane	10.12	10.97	322.4E6	360.1E6	4.102	3.745
10)	alpha-Chlordane	10.32	11.18	327.9E6	350.2E6	4.314	3.808
11)	Endosulfan I	10.50	11.26	312.6E6	267.9E6	4.476	3.895
12)	4,4'-DDE	10.47	11.45	272.1E6	296.9E6	3.924	3.472
13)	Dieldrin	10.85	11.67	311.5E6	325.5E6	4.207	3.706
14)	Endrin	11.18	12.11	280.2E6	238.9E6	4.138	3.615
15)	4,4'-DDD	11.33	12.29	219.6E6	230.8E6	3.896	3.497
16)	Endosulfan II	11.51	12.42	258.5E6	290.5E6	4.232	3.941
17)	4,4'-DDT	11.72	12.72	237.0E6	245.8E6	3.924	3.530
18)	Endrin Aldehyde	12.11	12.87	192.9E6	173.3E6	4.572	4.035
19)	Endosulfan Sulfa	12.71	13.20	217.9E6	250.0E6	4.302	3.898
20)	Methoxychlor	12.44	13.53	134.9E6	116.2E6	4.558	3.900
21)	Endrin Ketone	13.04	13.79	251.1E6	253.8E6	4.260	3.827

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

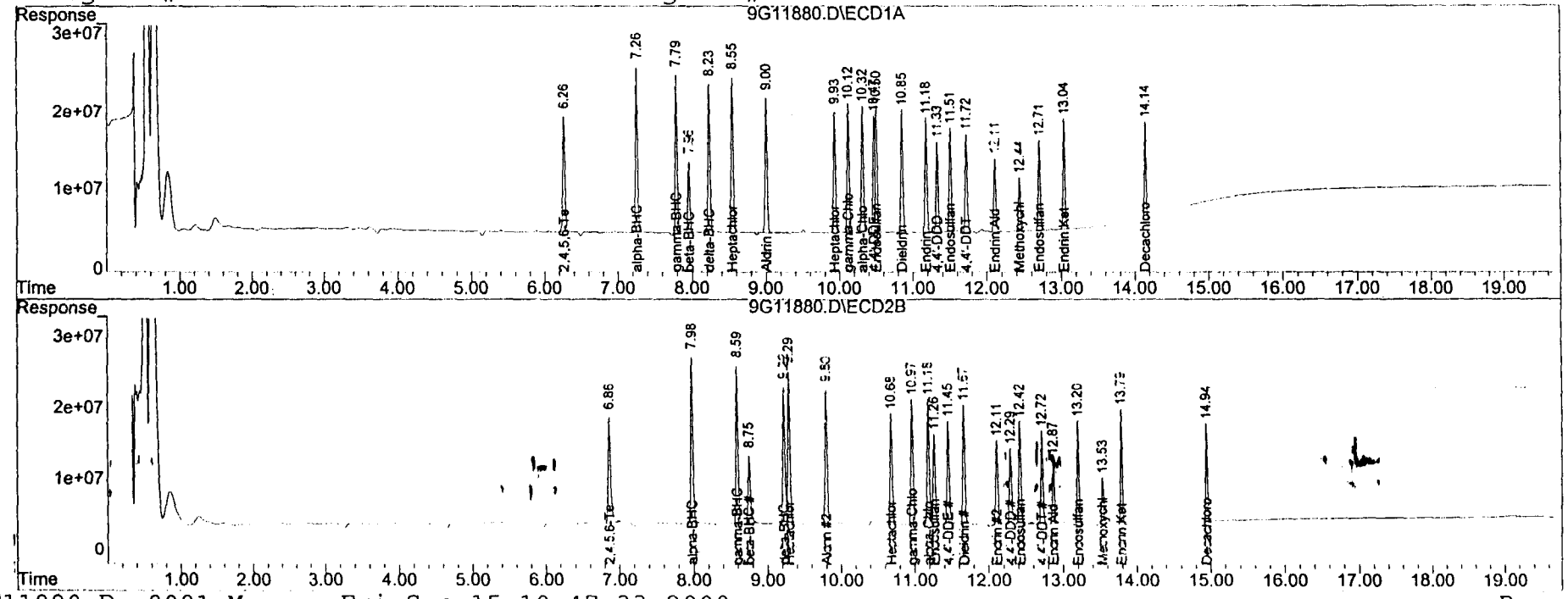
002173

Data File : C:\HPCHEM\1\DATA\091400\9G11880.D\ECD1A.CH Vial: 15
Acq On : 14 Sep 2000 16:04 Operator: ECL
Sample : PESTICIDE 4 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11880.D\ECD2B.CH Vial: 15
Acq On : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE 4 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:47 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



002174

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD1A.CH Vial: 16
Acq On : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD2B.CH Vial: 16
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	19.870	0.6	98	0.00
3	gamma-BHC	20.000	19.925	0.4	98	0.00
4	beta-BHC	20.000	19.516	2.4	97	0.00
5	Heptachlor	20.000	20.326	-1.6	97	0.00
6	delta-BHC	20.000	19.626	1.9	98	0.00
7	Aldrin	20.000	20.515	-2.6	99	0.00
8	Heptachlor Epoxide	20.000	21.118	-5.6	101	0.00
	gamma-Chlordane	20.000	19.861	0.7	98	0.00
10	alpha-Chlordane	20.000	19.631	1.8	98	0.00
11	Endosulfan I	20.000	20.693	-3.5	97	0.00
12	4,4'-DDE	20.000	19.659	1.7	99	0.00
13	Dieldrin	20.000	19.944	0.3	97	0.00
14	Endrin	20.000	19.421	2.9	94	0.00
15	4,4'-DDD	20.000	19.876	0.6	97	0.00
16	Endosulfan II	20.000	19.958	0.2	96	0.00
17	4,4'-DDT	20.000	20.039	-0.2	98	0.00
18	Endrin Aldehyde	20.000	21.445	-7.2	115	0.00
19	Endosulfan Sulfate	20.000	20.332	-1.7	101	0.00
20	Methoxychlor	20.000	20.208	-1.0	99	0.00
21	Endrin Ketone	20.000	19.760	1.2	98	0.00
	Signal #2					
2	alpha-BHC	20.000	20.384	-1.9	98	0.00
3	gamma-BHC	20.000	20.382	-1.9	98	0.00
4	beta-BHC	20.000	19.946	0.3	97	0.00
5	Heptachlor	20.000	21.100	-5.5	98	0.00
6	delta-BHC	20.000	20.243	-1.2	98	0.00
7	Aldrin	20.000	21.080	-5.4	99	0.00
8	Heptachlor Epoxide	20.000	21.364	-6.8	102	0.00
9	gamma-Chlordane	20.000	20.298	-1.5	98	0.00
10	alpha-Chlordane	20.000	20.280	-1.4	98	0.00
	Endosulfan I	20.000	22.269	-11.3	105	0.00
	4,4'-DDE	20.000	20.495	-2.5	98	0.00
13	Dieldrin	20.000	20.725	-3.6	97	0.00

(#) = Out of Range

002175

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD1A.CH Vial: 16
Acq On : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD2B.CH Vial: 16
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
14	Endrin	20.000	21.305	-6.5	101	0.00
15	4,4'-DDD	20.000	20.461	-2.3	98	0.00
16	Endosulfan II	20.000	20.851	-4.3	99	0.00
17	4,4'-DDT	20.000	20.241	-1.2	98	0.00
18	Endrin Aldehyde	20.000	22.705	-13.5	109	0.00
19	Endosulfan Sulfate	20.000	20.102	-0.5	98	0.00
20	Methoxychlor	20.000	19.756	1.2	98	0.00
	Endrin Ketone	20.000	20.255	-1.3	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G11881.D 8081.M Fri Sep 15 10:48:54 2000 Page 2

224

002176

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD1A.CH Vial: 16
Acq On : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD2B.CH Vial: 16
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:48 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 13 - 154		Recovery =		0.00%#	0.00%#
22) S	Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 25 - 140		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	7.26	7.97	2092.4E6	2697.4E6	19.870	20.384
3)	gamma-BHC	7.79	8.58	1904.0E6	2439.2E6	19.925	20.382
4)	beta-BHC	7.96	8.74	807.6E6	1072.5E6	19.516	19.946
5)	Heptachlor	8.55	9.29	1825.7E6	2289.6E6	20.326	21.100
6)	delta-BHC	8.23	9.22	1846.2E6	2309.6E6	19.626	20.243
7)	Aldrin	9.01	9.79	1664.4E6	2090.8E6	20.515	21.080
8)	Heptachlor Epoxi	9.94	10.68	1465.2E6	1770.1E6	21.118	21.364
9)	gamma-Chlordane	10.12	10.96	1560.8E6	1951.9E6	19.861	20.238
10)	alpha-Chlordane	10.32	11.18	1492.2E6	1864.9E6	19.631	20.280
11)	Endosulfan I	10.50	11.26	1445.2E6	1531.7E6	20.693	22.269
12)	4,4'-DDE	10.47	11.45	1363.3E6	1752.2E6	19.659	20.495
13)	Dieldrin	10.86	11.66	1476.6E6	1820.3E6	19.944	20.725
14)	Endrin	11.18	12.11	1315.0E6	1407.8E6	19.421	21.305
15)	4,4'-DDD	11.33	12.29	1120.1E6	1350.2E6	19.876	20.461
16)	Endosulfan II	11.51	12.42	1219.2E6	1537.2E6	19.958	20.851
17)	4,4'-DDT	11.73	12.71	1210.3E6	1409.3E6	20.039	20.241
18)	Endrin Aldehyde	12.11	12.86	904.6E6	975.2E6	21.445	22.705
19)	Endosulfan Sulfa	12.71	13.20	1029.9E6	1288.9E6	20.332	20.102
20)	Methoxychlor	12.44	13.53	598.2E6	588.7E6	20.208	19.756
21)	Endrin Ketone	13.04	13.79	1164.7E6	1343.4E6	19.760	20.255

325

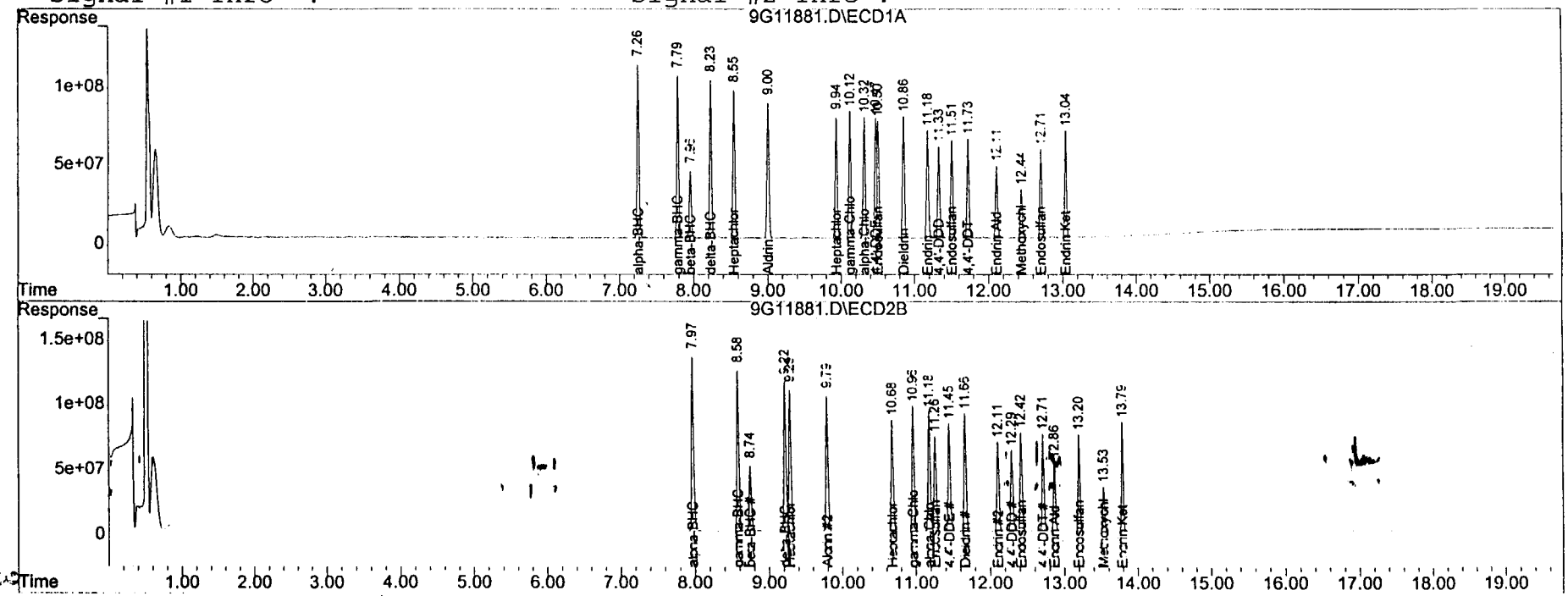
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
9G11881.D 8081.M Fri Sep 15 10:48:45 2000 Page 1

Dat ile : C:\HPCHEM\1\DATA\091400\9G11881.D\ 01A.CH Vial: 16
Acq on : 14 Sep 2000 16:28 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11881.D\ECD2B.CH Vial: 16
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : PESTICIDE ALT 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:48 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



002178

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD1A.CH Vial: 28
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD2B.CH Vial: 28
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	19.134	4.3	95	0.00
2		alpha-BHC	20.000	19.195	4.0	95	0.00
3		gamma-BHC	20.000	19.510	2.4	96	0.00
4		beta-BHC	20.000	19.397	3.0	96	0.00
5		Heptachlor	20.000	19.771	1.1	95	0.00
6		delta-BHC	20.000	19.358	3.2	96	0.00
7		Aldrin	20.000	19.836	0.8	95	0.00
		Heptachlor Epoxide	20.000	19.009	5.0	91	0.00
9		gamma-Chlordane	20.000	19.148	4.3	95	0.00
10		alpha-Chlordane	20.000	19.204	4.0	95	0.00
11		Endosulfan I	20.000	19.836	0.8	93	0.00
12		4,4'-DDE	20.000	19.605	2.0	99	0.00
13		Dieldrin	20.000	19.516	2.4	95	0.00
14		Endrin	20.000	20.561	-2.8	100	0.00
15		4,4'-DDD	20.000	19.966	0.2	97	0.00
16		Endosulfan II	20.000	19.993	0.0	96	0.00
17		4,4'-DDT	20.000	19.113	4.4	94	0.00
18		Endrin Aldehyde	20.000	19.709	1.5	105	0.00
19		Endosulfan Sulfate	20.000	18.697	6.5	92	0.00
20		Methoxychlor	20.000	19.312	3.4	95	0.00
21		Endrin Ketone	20.000	19.123	4.4	95	0.00
22	S	Decachlorobiphenyl	20.000	18.898	5.5	97	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	20.487	-2.4	99	0.00
2		alpha-BHC	20.000	20.312	-1.6	97	0.00
3		gamma-BHC	20.000	20.237	-1.2	97	0.00
4		beta-BHC	20.000	20.116	-0.6	98	0.00
5		Heptachlor	20.000	20.812	-4.1	96	0.00
6		delta-BHC	20.000	20.620	-3.1	99	0.00
7		Aldrin	20.000	20.814	-4.1	98	0.00
		Heptachlor Epoxide	20.000	18.108	9.5	86	0.00
		gamma-Chlordane	20.000	20.066	-0.3	97	0.00
10		alpha-Chlordane	20.000	20.040	-0.2	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD1A.CH Vial: 28
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD2B.CH Vial: 28
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
11		Endosulfan I	20.000	19.161	4.2	90	0.00
12		4,4'-DDE	20.000	20.587	-2.9	98	0.00
13		Dieldrin	20.000	20.424	-2.1	96	0.00
14		Endrin	20.000	19.364	3.2	92	0.00
15		4,4'-DDD	20.000	20.800	-4.0	100	0.00
16		Endosulfan II	20.000	20.339	-1.7	97	0.00
17		4,4'-DDT	20.000	20.260	-1.3	98	0.00
		Endrin Aldehyde	20.000	19.208	4.0	93	0.00
19		Endosulfan Sulfate	20.000	20.005	-0.0	97	0.00
20		Methoxychlor	20.000	20.942	-4.7	104	0.00
21		Endrin Ketone	20.000	20.076	-0.4	98	0.00
22	S	Decachlorobiphenyl	20.000	19.653	1.7	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G11893.D 8081.M Fri Sep 15 10:50:14 2000 Page 2

328

002180

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD1A.CH Vial: 28
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD2B.CH Vial: 28
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:49 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	6.27	6.86	1438.4E6	1963.4E6	19.134	20.487
Spiked Amount 20.000	Range 13 - 154			Recovery =	95.67%	102.43%
) S Decachlorobiphen	14.14	14.95	813.5E6	1022.9E6	18.898	19.653
Spiked Amount 20.000	Range 25 - 140			Recovery =	94.49%	98.26%
Target Compounds						
2) alpha-BHC	7.26	7.98	2021.3E6	2688.0E6	19.195	20.312
3) gamma-BHC	7.79	8.59	1864.3E6	2421.9E6	19.510	20.237
4) beta-BHC	7.96	8.75	802.7E6	1081.6E6	19.397	20.116
5) Heptachlor	8.55	9.29	1775.9E6	2258.3E6	19.771	20.612
6) delta-BHC	8.23	9.22	1821.0E6	2352.6E6	19.358	20.620
7) Aldrin	9.01	9.80	1609.3E6	2064.5E6	19.836	20.814
8) Heptachlor Epoxi	9.94	10.68	1318.9E6	1500.3E6	19.009	18.108
9) gamma-Chlordane	10.12	10.97	1504.7E6	1929.5E6	19.148	20.066
10) alpha-Chlordane	10.32	11.19	1459.7E6	1842.8E6	19.204	20.040
11) Endosulfan I	10.50	11.26	1385.4E6	1317.9E6	19.836	19.161
12) 4,4'-DDE	10.47	11.45	1359.6E6	1760.1E6	19.605	20.587
13) Dieldrin	10.85	11.67	1444.9E6	1793.9E6	19.516	20.424
14) Endrin	11.18	12.11	1392.2E6	1279.5E6	20.561	19.364
15) 4,4'-DDD	11.33	12.29	1125.1E6	1372.7E6	19.966	20.800
16) Endosulfan II	11.51	12.42	1221.3E6	1499.4E6	19.993	20.339
17) 4,4'-DDT	11.72	12.72	1154.4E6	1410.6E6	19.113	20.260
18) Endrin Aldehyde	12.11	12.87	831.4E6	825.0E6	19.709	19.208
19) Endosulfan Sulfa	12.71	13.20	947.1E6	1282.6E6	18.697	20.005
20) Methoxychlor	12.44	13.53	571.7E6	624.0E6	19.312	20.942
21) Endrin Ketone	13.04	13.79	1127.2E6	1331.5E6	19.123	20.076

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

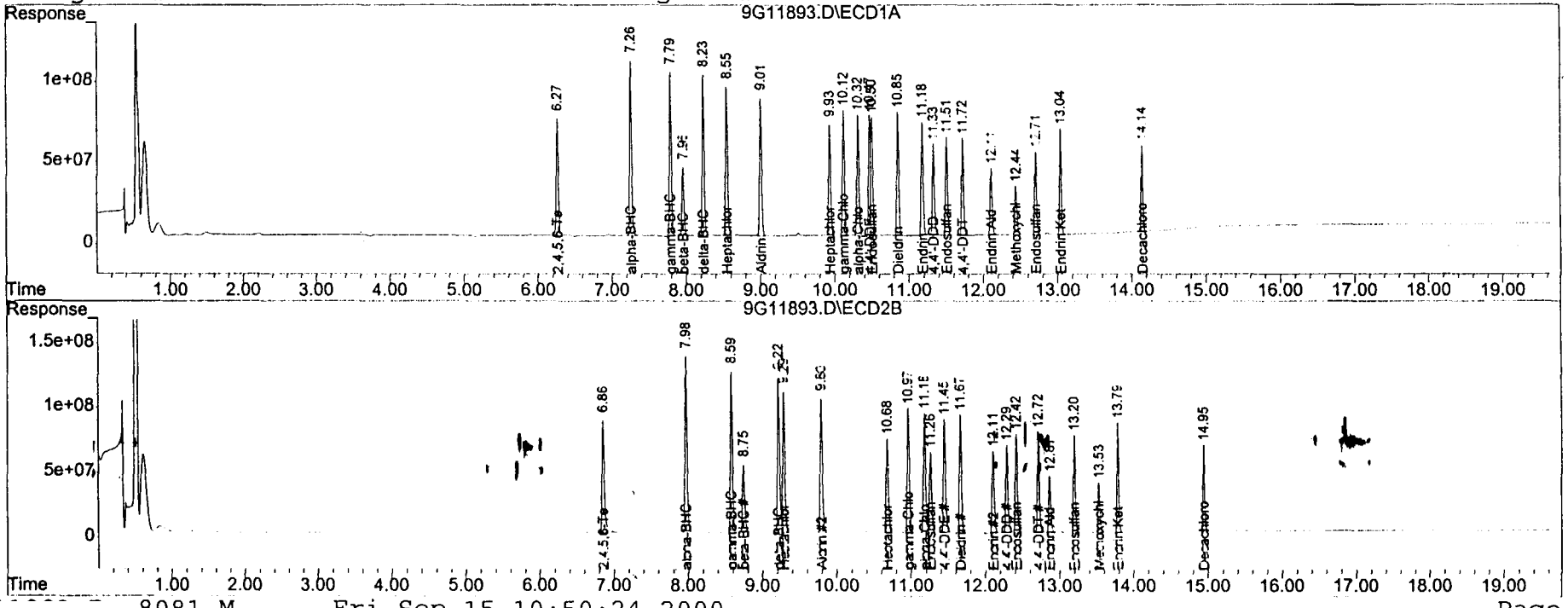
002181

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD1A.CH Vial: 28
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11893.D\ECD2B.CH Vial: 28
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : PESTICIDE CHECK 20 PPB Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:49 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD1A.CH Vial: 29
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD2B.CH Vial: 29
Acq On : 14 Sep 2000 22:07 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev.	Area%	Dev(min)
1	L1	TOXAPHENE-1	500.000	478.511	4.3	93	0.00
2	L1	TOXAPHENE-2	500.000	486.715	2.7	96	0.00
3	L1	TOXAPHENE-3	500.000	490.572	1.9	95	0.00
4	L1	TOXAPHENE-4	500.000	488.110	2.4	96	0.00
5	L1	TOXAPHENE-5	500.000	486.780	2.6	95	0.00
		Signal #2					
1	L1	TOXAPHENE-1	500.000	513.285	-2.7	97	0.00
2	L1	TOXAPHENE-2	500.000	477.904	4.4	86	0.00
3	L1	TOXAPHENE-3	500.000	484.887	3.0	89	0.00
4	L1	TOXAPHENE-4	500.000	516.372	-3.3	96	0.00
5	L1	TOXAPHENE-5	500.000	506.371	-1.3	97	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002183

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD1A.CH Vial: 29
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 3
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD2B.CH Vial: 29
Acq On : 14 Sep 2000 22:07 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 15 10:51 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 TOXAPHENE-1	10.98	12.53	251.9E6	1321.4E6	478.511	513.285
2)	L1 TOXAPHENE-2	11.66	12.87	390.4E6	669.9E6	486.715	477.904
3)	L1 TOXAPHENE-3	12.55	13.47	846.3E6	733.4E6	490.572	484.887
4)	L1 TOXAPHENE-4	13.01	13.53	566.3E6	576.2E6	488.110	516.372
5)	L1 TOXAPHENE-5	13.20	13.89	440.8E6	400.2E6	486.780	506.371
	Sum TOXAPHENE-1			2495.6E6	3701.0E6	2430.687	2498.819
	Average TOXAPHENE-1					486.137	499.764

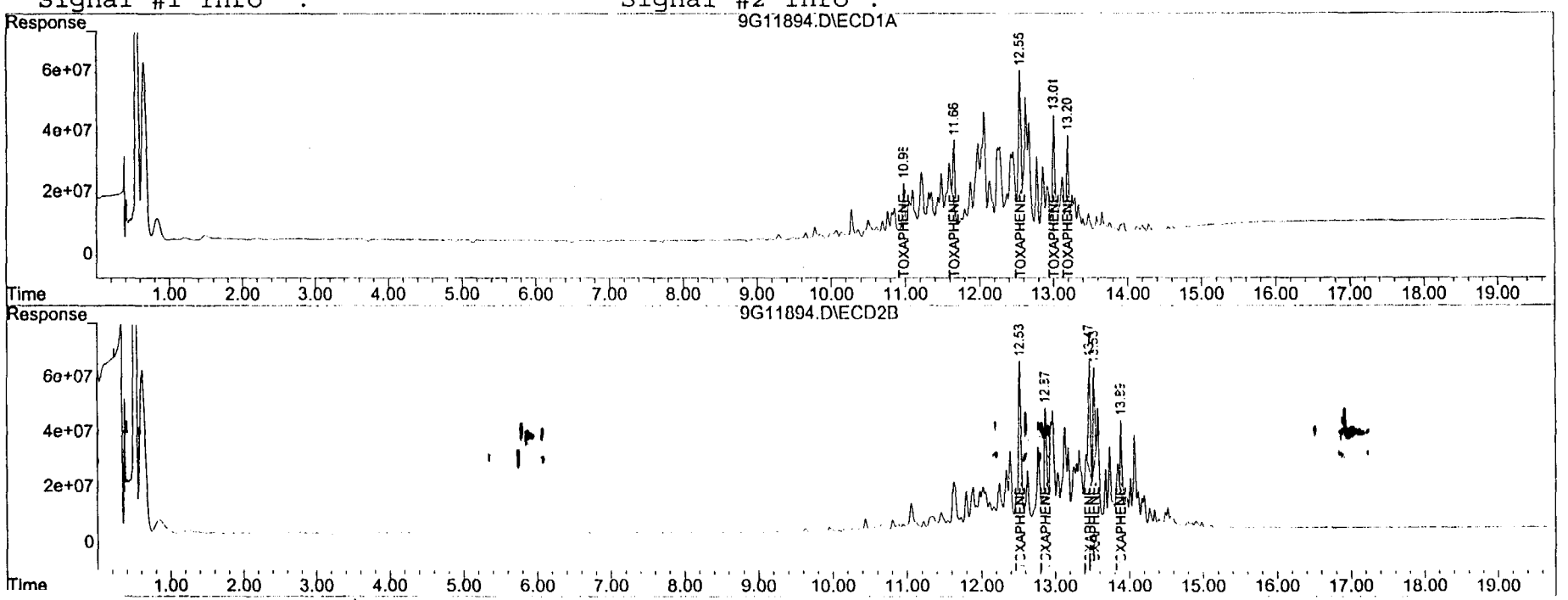
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD1A.CH Vial: 29
Acq On : 14 Sep 2000 21:43 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\091400\9G11894.D\ECD2B.CH Vial: 29
Acq On : 14 Sep 2000 22:07 Operator: ECL
Sample : TOXAPHENE CHECK 0.5 PPM Inst : HP 9
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 15 10:51 2000 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Thu Sep 14 14:35:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



2.2.2.4 Raw QC Data

002186

ENDRIN/ 4-4' DDT BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G11866.D

ENDRIN	ENDRIN ALDEHYDE	ENDRIN KETONE	ENDRIN BREAKDOWN
3466677916	0	0	0.00 %

4-4' DDT	4-4' DDE	4-4' DDD	4-4' DDT BREAKDOWN
3236156763	0	0	0.00 %

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G11866.D

ENDRIN #2	ENDRIN ALDEHYDE #2	ENDRIN KETONE #2	ENDRIN #2 BREAKDOWN
3555591440	0	57835525	1.60 %

4-4' DDT #2	4-4' DDE #2	4-4' DDD #2	4-4' DDT #2 BREAKDOWN
3630117927	0	0	0.00 %

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11866.D\ECD1A.CH Vial: 1
Acq On : 14 Sep 2000 9:51 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11866.D\ECD2B.CH Vial: 1
Acq On : 14 Sep 2000 10:15 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 5
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 14 11:29 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION August 29, 2000
Last Update : Tue Sep 12 08:37:18 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 13 - 154		Recovery =	0.00%#		0.00%=
2.	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 25 - 140		Recovery =	0.00%#		0.00%=
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	11.17	12.10	3466.7E6	3535.6E6	53.993	54.935
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	11.71	12.71	3236.2E6	3630.1E6	57.505	57.293
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	13.78	0	57335525	N.D.	0.966 #

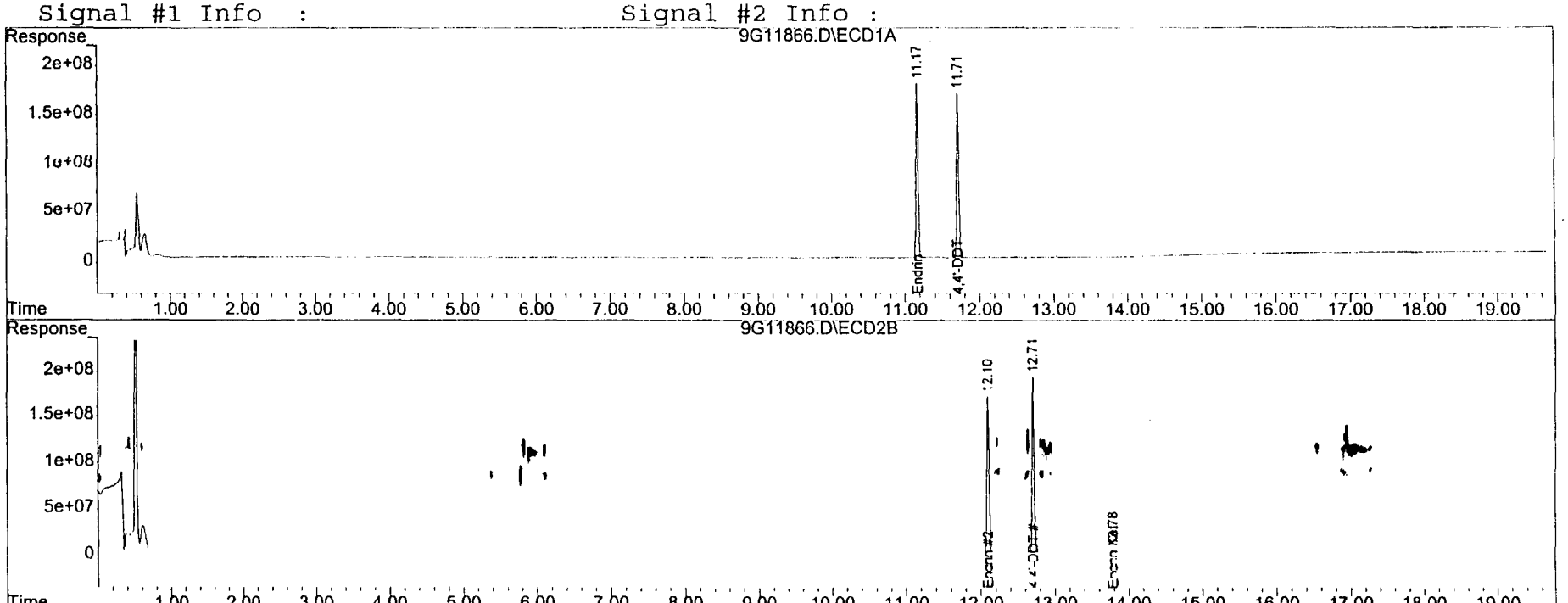
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11866.D\ECD1A.CH Vial: 1
Acq On : 14 Sep 2000 9:51 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11866.D\ECD2B.CH Vial: 1
Acq On : 14 Sep 2000 10:15 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 14 11:29 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION August 29, 2000
Last Update : Tue Sep 12 08:37:18 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



ENDRIN/ 4-4' DDT BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G11892.D

ENDRIN	ENDRIN ALDEHYDE	ENDRIN KETONE	ENDRIN BREAKDOWN
3126801528	0	0	0.00 %

4-4' DDT	4-4' DDE	4-4' DDD	4-4' DDT BREAKDOWN
2753632404	0	0	0.00 %

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G11892.D

ENDRIN #2	ENDRIN ALDEHYDE #2	ENDRIN KETONE #2	ENDRIN #2 BREAKDOWN
3214847658	0	0	0.00 %

4-4' DDT #2	4-4' DDE #2	4-4' DDD #2	4-4' DDT #2 BREAKDOWN
3511335995	0	0	0.00 %

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11892.D\ECD1A.CH Vial: 27
Acq On : 14 Sep 2000 20:55 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11892.D\ECD2B.CH Vial: 27
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:50 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 13 - 154		Recovery =		0.00%#	0.00%#
22) S	Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 25 - 140		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	11.18	12.11	3126.8E6	3214.8E6	46.178	48.653
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	11.72	12.72	2753.6E6	3511.3E6	45.593	50.432
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

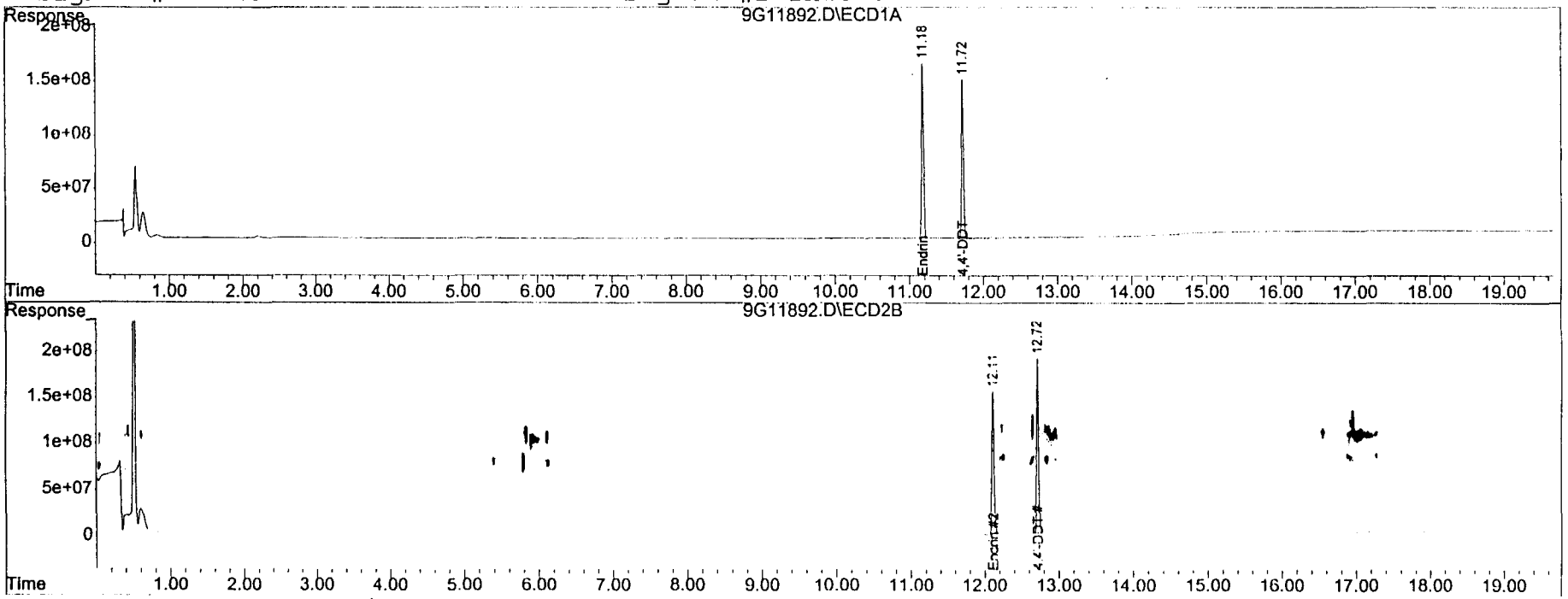
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11892.D\ECD1A.CH Vial: 27
Acq On : 14 Sep 2000 20:55 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11892.D\ECD2B.CH Vial: 27
Acq On : 14 Sep 2000 21:19 Operator: ECL
Sample : ENDRIN/DDT Inst : HP 9
Misc : Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Sep 15 10:50 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD1A.CH Vial: 17
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD2B.CH Vial: 17
Acq On : 14 Sep 2000 17:17 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:00 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	6.26	6.86	809.3E6	968.6E6	10.765	10.107	
	Spiked Amount 20.000	Range 13 - 154			Recovery =	53.83%	50.53%	
22)	S Decachlorobiphen	14.14	14.94	395.1E6	878.4E6	9.179	16.878	#
	Spiked Amount 20.000	Range 25 - 140			Recovery =	45.90%	84.39%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	8.01f	0.00	48489107	0	0.012	N.D.	#
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	10.12	0.00	73514128	0	0.009	N.D.	#
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	12.12	12.91f	48296196	116.7E6	0.011	0.027	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

002193

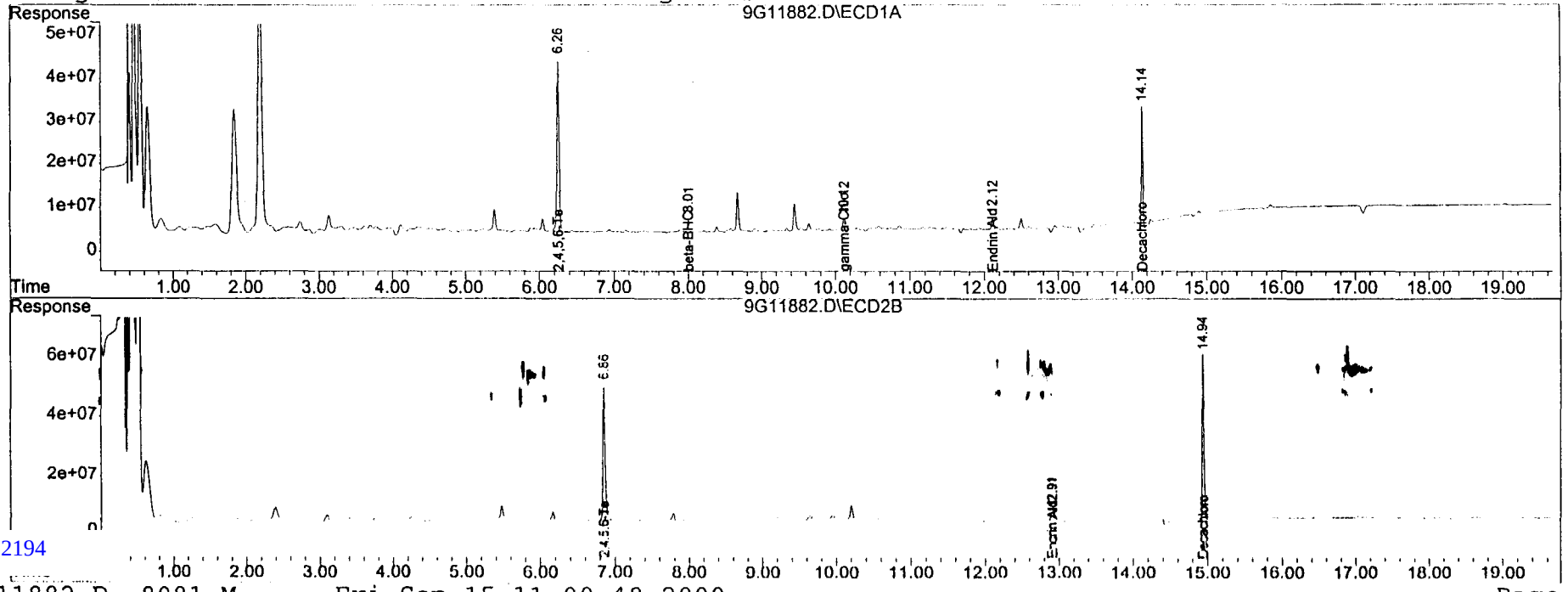
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD1A.CH Vial: 17
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD2B.CH Vial: 17
Acq On : 14 Sep 2000 17:17 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:00 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



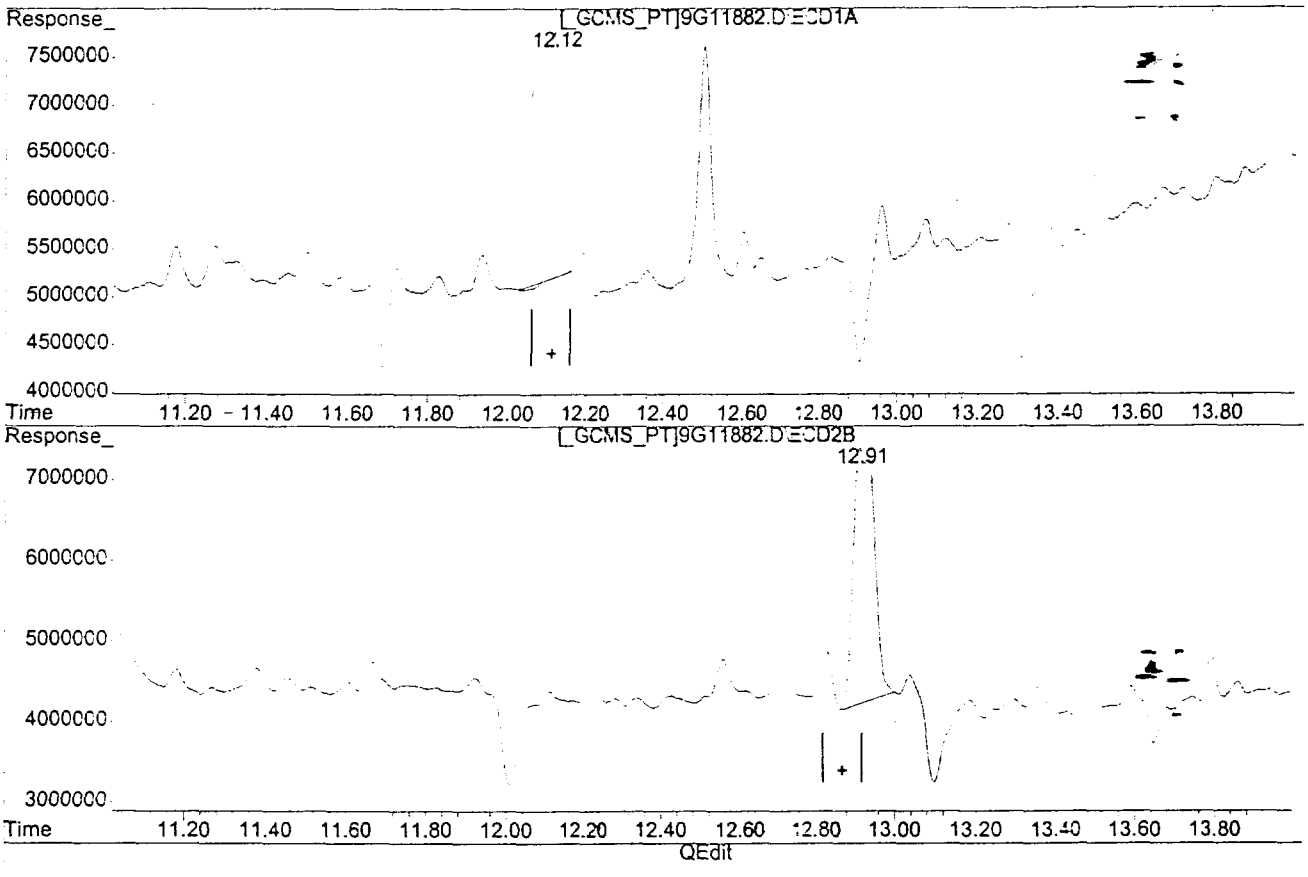
002194

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD1A.CH Vial: 17
Acq On : 14 Sep 2000 16:52 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11882.D\ECD2B.CH Vial: 17
Acq On : 14 Sep 2000 17:17 Operator: ECL
Sample : WG84115-02 BLANK V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:00 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(18) Endrin Aldehyde
12.12min 0.011UG/L
response 48296196

(18) Endrin Aldehyde #2
12.91min 0.027UG/L
response 116660572

RT

(+) = Expected Retention Time
9G11882.D 8081.M Fri Sep 15 11:01:01 2000

002195

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD1A.CH Vial: 19
Acq On : 14 Sep 2000 17:41 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD2B.CH Vial: 19
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst. : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 10:55 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	6.26	6.86	730.2E6	886.8E6	9.713	9.253	
	Spiked Amount 20.000	Range 13 - 154			Recovery =	48.56%	46.27%	
22)	S Decachlorobiphen	14.14	14.94	233.2E6	305.2E6	5.418	5.864	
	Spiked Amount 20.000	Range 25 - 140			Recovery =	27.09%	29.32%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	10.12	0.00	114.4E6	0	0.015	N.D.	#
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	12.12	12.91f	38199700	64855540	0.009	0.015	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

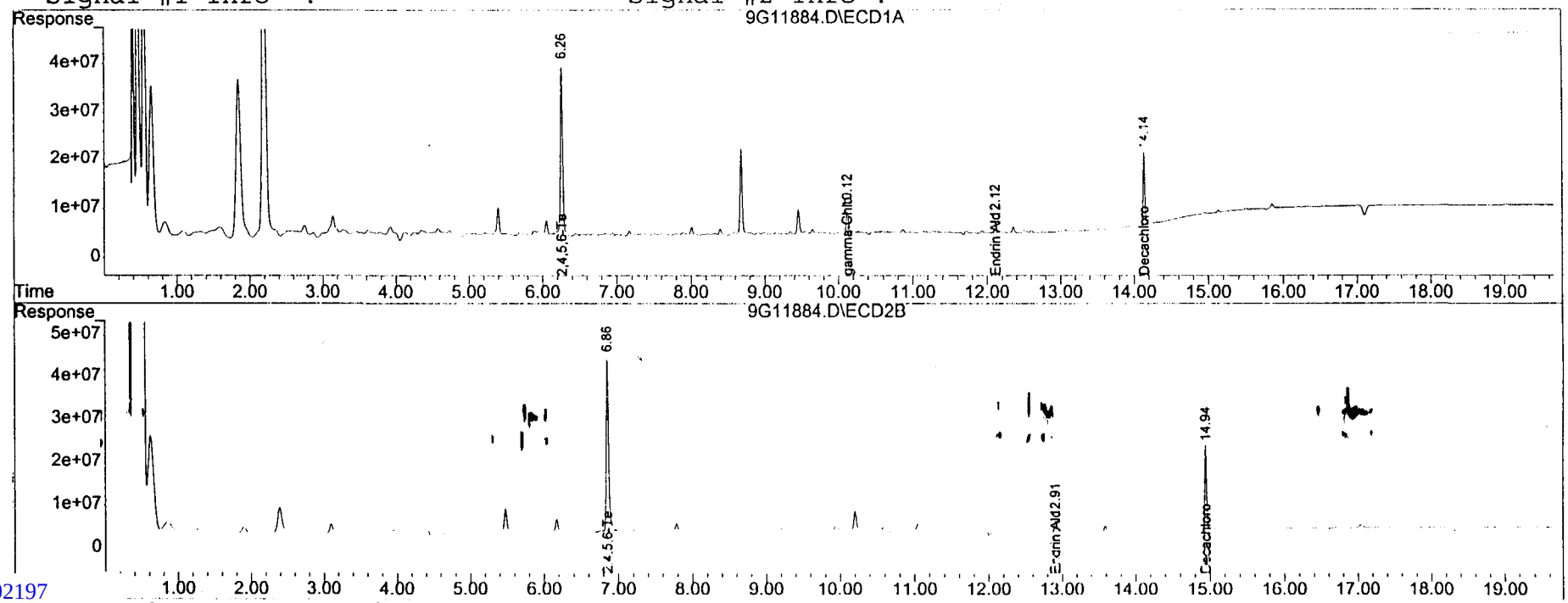
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD1A.CH Vial: 19
Acq On : 14 Sep 2000 17:41 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD2B.CH Vial: 19
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 10:55 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

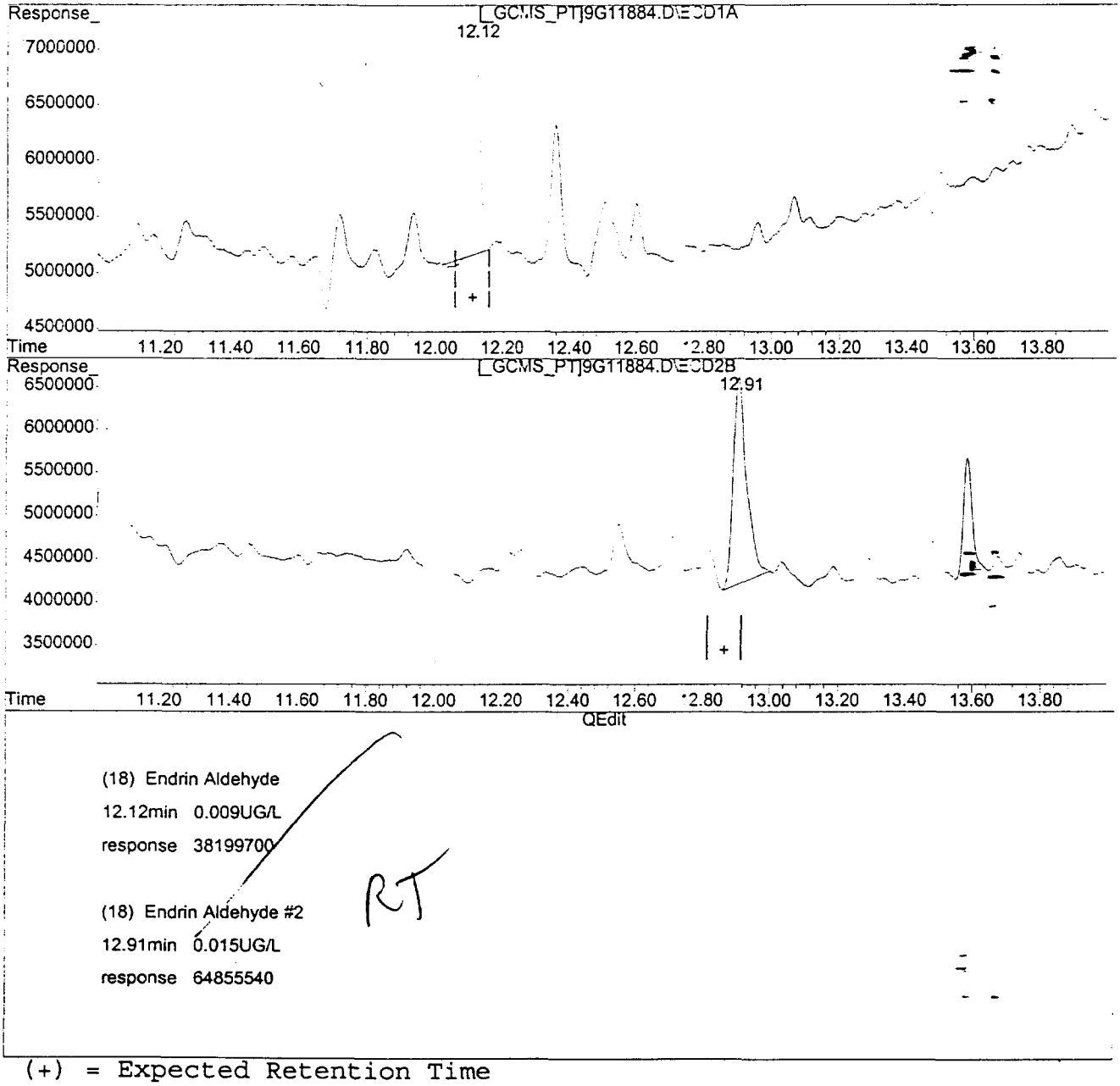


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD1A.CH Vial: 19
Acq On : 14 Sep 2000 17:41 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst : HP 3
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11884.D\ECD2B.CH Vial: 19
Acq On : 14 Sep 2000 18:05 Operator: ECL
Sample : WG84115-06 SPLP BLANK 9/11 Inst : HP 3
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 10:55 2000 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration



(18) Endrin Aldehyde
12.12min 0.009UG/L
response 38199700

(18) Endrin Aldehyde #2
12.91min 0.015UG/L
response 64855540

RT

(+) = Expected Retention Time
9G11884.D 8081.M Fri Sep 15 11:02:38 2000

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\091400\9G11883.D\ECD1A.CH Vial: 18
Acq On : 14 Sep 2000 17:17 Operator: ECL
Sample : WG84115-03 LCS V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11883.D\ECD2B.CH Vial: 18
Acq On : 14 Sep 2000 17:41 Operator: ECL
Sample : WG84115-03 LCS V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:02 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	6.26	6.86	687.4E6	826.4E6	9.144	8.623
	Spiked Amount 20.000	Range 13 - 154		Recovery =		45.72%	43.11%
22)	S Decachlorobiphen	14.14	14.94	597.7E6	826.5E6	13.885	15.881
	Spiked Amount 20.000	Range 25 - 140		Recovery =		69.42%	79.41%
	Target Compounds						
2)	alpha-BHC	7.26	7.97	3159.0E6	3874.1E6	0.300	0.293
3)	gamma-BHC	7.79	8.58	3063.0E6	3679.8E6	0.321	0.307
4)	beta-BHC	7.96	8.74	1582.5E6	1917.2E6	0.382	0.357
5)	Heptachlor	8.55	9.29	2467.2E6	2792.7E6	0.275	0.257
6)	delta-BHC	8.23	9.22	3760.3E6	4486.0E6	0.400	0.393
7)	Aldrin	9.00	9.79	2150.1E6	2573.5E6	0.265	0.259
8)	Heptachlor Epoxi	9.93	10.68	2866.8E6	3250.6E6	0.413	0.392
9)	gamma-Chlordane	10.12	10.96	3053.3E6	3717.8E6	0.389	0.387
10)	alpha-Chlordane	10.32	11.18	3028.8E6	3627.3E6	0.398	0.394
11)	Endosulfan I	10.50	11.26	1559.2E6	1946.8E6	0.223	0.283 #
12)	4,4'-DDE	10.47	11.45	3294.1E6	3773.1E6	0.475	0.441
13)	Dieldrin	10.85	11.66	3272.3E6	3871.5E6	0.442	0.441
14)	Endrin	11.18	12.10	3435.0E6	3443.1E6	0.507	0.521
15)	4,4'-DDD	11.33	12.29	2895.5E6	3752.6E6	0.514	0.569
16)	Endosulfan II	11.51	12.41	2091.4E6	2492.0E6	0.342	0.338
17)	4,4'-DDT	11.72	12.71	3030.3E6	3554.6E6	0.502	0.511
18)	Endrin Aldehyde	12.11	12.86	1658.8E6	1768.8E6	0.393	0.412
19)	Endosulfan Sulfa	12.71	13.20	2278.8E6	2716.5E6	0.450	0.424
20)	Methoxychlor	12.44	13.53	1489.4E6	1872.7E6	0.503	0.629
21)	Endrin Ketone	13.04	13.79	2781.5E6	3140.2E6	0.472	0.473

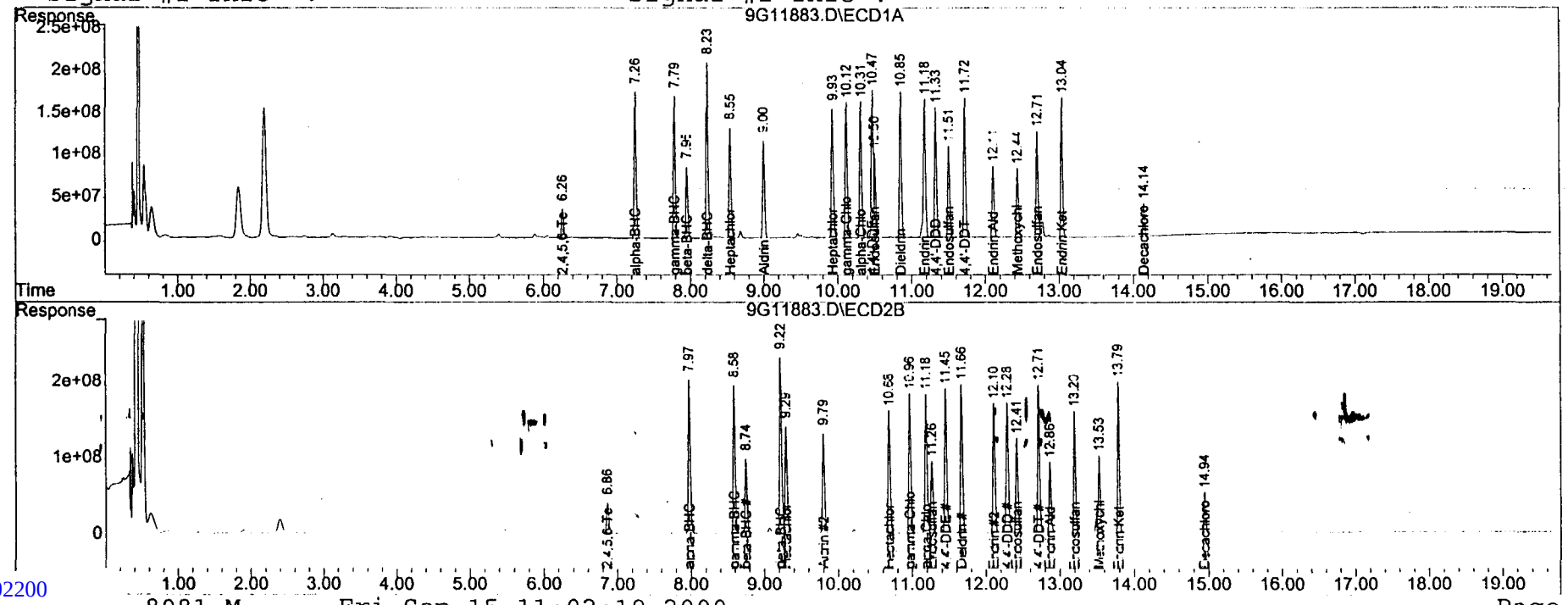
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\091400\9G11883.D\ECD1A.CH Vial: 18
Acq On : 14 Sep 2000 17:17 Operator: ECL
Sample : WG84115-03 LCS V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\091400\9G11883.D\ECD2B.CH Vial: 18
Acq On : 14 Sep 2000 17:41 Operator: ECL
Sample : WG84115-03 LCS V147 P73 Inst : HP 9
Misc : WATER,1 Multiplr: 0.01
IntFile : autoint2.e
Quant Time: Sep 15 11:02 2000 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION Sept. 14, 2000
Last Update : Fri Sep 15 10:43:36 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 9/14/00 Column ID RTX-CLP Analyst ECL SOP # GCS09 Rev. # 1 ✓ 8081A
Instrument ID HP9 Data Subdirectory 091400 SOP # GCS10 Rev. # 3 _____ 8082
SOP # GCS01 Rev. # 1 _____ 8100 SOP # GCS02 Rev. # 2 _____ 8015B Mod (DRO) SOP # GCS04 Rev. # 1 _____ 8151
SOP # GCS03 Rev. # 1 _____ PRO SOP # GCS02 Rev. # 2 _____ 8015B Mod (Alcohol) SOP # GCS07 Rev. # 3 _____ 8011

Daily Check	✓
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem:

Action Taken:

Returned to Control? Yes No Additional Discussion on Page

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G11866	Endrin/ODT	NA	8081	✓	SV 48-15
67	Pesticide ✓ 20 PPB			X	CC SV 46-41 failed
68	Toxaphene ✓ 0.5 PPM			X	CC SV 48-01 failed
69	Toxaphene 2.0 PPM			✓	
70	1.0				
71	0.5				
72	0.25				
73	0.1				
74	Alt. ✓ 0.5 PPM				SV 47-45
75	Pesticides 200 PPB				SV 46-41
76	100				
77	50				

Comments:

Reviewed By: [signature] 9/14/00

002201

npliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Date 9/14/00 Instrument ID HP 9 Data Subdirectory 091400 Column ID RTX-CLP

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
96 11878	Pesticides 20 PPB	NA	8081	✓	
79	10				
80	4				
81	Alt. Source ✓ 20 PPB				SV 47-29
82	Blank V147 P73 WG 84115-02				
83	LCS -03				
84	SPLP Blank 9/11 -06				
85	L0009094-02				
86	04				
87	06				
88	08				
89	L0009174-01				
90	01MS WG 84115-04				
91	01MSD 05			✓	
92	Endrin/DDT			✓	SV 48-15
93	Pesticide ✓ 20 PPB			✓	SV 46-41
94	Toxaphene ✓ 0.5 PPM			✓	SV 48-01
95	TCLP Blank 9/11 WG 84020-01				
96	L0009103-01				
97	Pesticide ✓ 20 PPB				SV 46-41
98	Toxaphene ✓ 0.5 PPM				SV 48-01
	~~CC~~ 9/15/00				

Comments:

Reviewed By: 9/19/00

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sampl matrix interference
MT = Missed tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

002202

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance / Runlog

Date 9/14/00 Column ID RTx-CLP II Analyst ECL SOP # GCS09 Rev. # 1 ✓ 8081A
Instrument ID HP9 Data Subdirectory 091400 SOP # GCS10 Rev. # 3 _____ 8082
SOP # GCS01 Rev. # 1 _____ 8100 SOP # GCS02 Rev. # 2 _____ 8015B Mod (DRO) SOP # GCS04 Rev. # 1 _____ 8151
SOP # GCS03 Rev. # 1 _____ PRO SOP # GCS02 Rev. # 2 _____ 8015B Mod (Alcohol) SOP # GCS07 Rev. # 3 _____ 8011

Daily Check	
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes No Additional Discussion on Page

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G11866	Endrin / DDT	NA	8081	✓	SV 48-15
67	Pesticide ✓ 20 PPB				CC SV 46-41
68	Toxaphene ✓ 0.5 PPM				CC SV 48-01
69	Toxaphene 2.0 PPM			✓	
70	1.0				
71	0.5				
72	0.25				
73	0.1				
74	Alt. Sodzle ✓ 0.5 PPM				SV 47-45
75	Pesticides 200 PPB				SV 46-41
76	100				
77	50				

Reviewed By: [signature] 9/14/00

002203

✓ = Compliant Analysis, Reanalysis complete

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Semivolatile GC Laboratory Maintenance / Runlog

Date 9/14/00 Instrument ID HP9 Data Subdirectory 091400 Column ID RTX-CLP II

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
9G11878	Pesticides 20 PPB	NA	8081	✓	
79	10				
80	4 EC 9/15/00				
81	Alt. ~~Alt.~~ ✓ 20 PPB				SV 47-29
82	Blank V147 P73 WG84115-02				
83	LCS -03				
84	SPLP Blank 9/11 -06				
85	L0009094-02				
86	04				
87	06				
88	08				
89	L0009174-01				
90	01 MS				
91	01 MSD			✓	
92	Endrin / DDT			✓	SV 48-15
93	Pesticide ✓ 20 PPB			✓	SV 46-41
94	Toxaphene ✓ 0.5 PPM			✓	SV 48-01
95	TCLP Blank 9/11 WG84020-01				
96	L0009103-01				
97	Pesticide ✓ 20 PPB				SV 46-41
98	Toxaphene ✓ 0.5 PPM				SV 48-01
	EC 9/15/00				

Comments:

Reviewed By: 9/15/00

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Time, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Sample Extract Log Sheet

Parameter: Pest-H_2O SOP #: EXP01 Revision #: 8
Ext Analyst(s): DLP/CAG, JDN TV/KD Analyst(s): DLP
Date/Time Ext: 09/13/00@0985 Date TV/KD: 09/13/00
Spike/Surrogate Analyst: CAG / JDN Witness: DLP
Extract Relinquished By: DLP
Extract Received By: [illegible] Date Ext Received: 9/13/00

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
ASE *	3545					
Separatory Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

Extraction Work Group WG 84115
Extraction Work Group WG 84197

	Client ID	Sample ID	pH <2	pH N ✓	pH >12	Test Cod	Initial Vol / Wt	Amount of Surrogate Added	Amount of Spike Added	Final Volume	Extract Color	Emulsion A	Emulsion BN	Emulsion N ✓	Comments
1		Blank		✓			1L	200uL ESS-0033-42		10mL	T				WG 84115-02
2		LCS		✓			1L		250uL ESS-0033-08*2		T				WG 84115-03
3		SPKPBLK 9/11		✓		8081P	960mL				T				WG 84115-06
4	K1 BEB	09-094-02		✓			950mL				C				
5	"	-04		✓			1L				C				
6	"	-06		✓			"				C				
7	"	-08		✓			"				C				
8	KARBEN	09-174-01		✓			965mL				T				
9	"	-01MS		✓			500mL		250uL ESS-0033-08*2		T				WG 84115-04
10	"	-01MSD		✓			"		"		T				WG 84115-05
11		TBLK 9/11		✓		8181-TC	100mL				T				WG 84020-01
12	KEBSAR-PA	09-103-01		✓		"	"	"		"	C				
13															
14															
15															
16															
17															
18															
19							DLP	09/13/00							
20															
21															
22															
23															
24															

Reviewed By: Cheryl Graham Date: 9-13-00

*Accelerated Solvent Extractor (ASE)

Color Code
T = Transparent
C=Colored

Sample Extraction Log Sheet

Volume 147
Page 74

Extraction Comments / Notes For Extraction Volume #: 147 Page #: 73 Work Group: WG84115

Solvent: CH_2Cl_2	Lot #: 110215	Florisil Lot #: T12550			
Solvent: Hexane	Lot #: 110160	Silica Gel #: —			
Acid: —	Lot #: —	IR Analyst/Date/Time: —			
Reagent: 94:6	Lot #: CP1262	Baked Na_2SO_4 Lot #: EB1242			
Reagent: 50:50	Lot #: CP1232	Earliest Hold Date #: 9/14			

Clean-up		✓	Clean-up		✓
Florisil	3620B	✓	Sulfur	3660B	
Silica Gel	3630C		Other		
GPC	3640A				
Acid	3665A				

General Comments: None to report

Extraction Anomalies:
Samples 09-094-02, 01, ~~04MS, 04MSD~~, DLC 09/13/00 06 were very basic (pH 12) and required pH adjustment prior to extraction.

Concentration Anomalies:
Samples 09-094-02 01, ~~04MS 04MSD~~, DLC 09/13/00 06, 08 thickened during concentration. A viscous film formed on the sides of the Zymark tube and could not be rinsed off with solvent. Therefore this film was not included in the ~~extract~~ DLC 09/13/00 extract after this point.

Clean-Up Anomalies: None to report

Reviewed By: [signature] Date: 9/14/00

2.2.3 PCB GC Data (8082)

002207

REPORT NARRATIVE
GC PCB

KEMRON Report No.:L0009094

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction 04 was chosen internally for MS/MSD analysis. The MS and MSD yielded % recoveries that were below the advisory limits, possibly due to sample matrix interference. The LCS was acceptable.

SAMPLES

Surrogates: Sample fraction 04 yielded a % recovery for T-M-X that was below the acceptable limits. The MS and MSD of this sample fraction yielded the same results, demonstrating sample matrix interference. All other acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: Stephanie L Sepe DATE: 10/6/00

Rev. 7/14/00

PCB-GC DATA (8082)

Login Number: 09-094

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: EC2 Date: 9/20/00

002209

2.2.3.1 QC Summary

002210

MARIETTA, OH

QUALITY CONTROL SUMMARY / PCB WATERS , FRONT

INSTRUMENT : HP4 | SMPL ID : L0009094-04

EXT'N DATE : 9/13/00 | ANALYST : ECL | BLK FLNM : 4GF5263 | SMPL FLNM : 4GF5267

EXT'N BENCH SHT : v147 p75 | RUN DATE : 9/14/00 | LCS FLNM : 4GF5264 | MS FLNM : 4GF5268

EXT'N WORK GRP : WG84116 | ANAL WORK GRP : WG84193 | MSD FLNM : 4GF5269

		CONCENTRATION , ug/L					% RECOVERY								PERCENT						
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	0.5	ND	2.16	ND	1.28	2.00	NA	86.3	39	113	NA	25.6	40.0	39	113	43.7	0-46				L	
AROCLOR 1221	0.5	ND	NA	ND	NA	NA	NA	NA	15	175	NA	NA	NA	15	175	NA	0-38					
AROCLOR 1232	0.5	ND	NA	ND	NA	NA	NA	NA	15	210	NA	NA	NA	15	210	NA	0-35					
AROCLOR 1242	0.5	ND	NA	ND	NA	NA	NA	NA	35	154	NA	NA	NA	35	154	NA	0-35					
AROCLOR 1248	0.5	ND	NA	ND	NA	NA	NA	NA	34	116	NA	NA	NA	34	116	NA	0-31					
AROCLOR 1254	0.5	ND	NA	ND	NA	NA	NA	NA	25	135	NA	NA	NA	25	135	NA	0-36					
AROCLOR 1260	0.5	ND	3.08	ND	1.45	1.94	NA	123	44	129	NA	28.9	38.7	44	129	29.0	0-41				L	L
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		10.9	11.7	2.58	1.33	2.75	54.3	58.7	13	154	12.9	6.7	13.7	13	154					L	L	
DECACHLOROBIPHENYL		18.2	20.3	8.02	6.83	8.32	91.2	102	25	140	40.1	34.1	41.6	25	140							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 2.5 ug/L — LCS=LABORATORY CONTROL SAMPLE

SURROGATES spiked at 20 ug/L — MS=MATRIX SPIKE

NA = NOT APPLICABLE — MSD=MATRIX SPIKE DUPLICATE

DL = DILUTED OUT

ND = NOT DETECTED

RDL=REPORTING DETECTION LIMIT

2.2.3.2 Sample Data

002212

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5266.D Vial: 5
Acq On : 14 Sep 2000 16:27 Operator: ECL
Sample : L0009094-02 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:53 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:54 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.07	258560	8.299 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	41.49%
12) S DECACHLOROBIPHENYL	9.44	509344	20.428 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	102.14%
Target Compounds			
2) L1 PCB 1016-1	3.76	109088	2.457 UG/L
3) L1 PCB 1016-2	4.34	22450	0.194 UG/L
4) L1 PCB 1016-3	0.00	0	N.D. UG/L
5) L1 PCB 1016-4	5.02	46721	0.257 UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		178259	2.909 UG/L
Average PCB 1016-1			0.970 UG/L
7) L2 PCB 1260-1	0.00	0	N.D. UG/L
8) L2 PCB 1260-2	0.00	0	N.D. UG/L
9) L2 PCB 1260-3	7.61	22704	0.133 UG/L
10) L2 PCB 1260-4	8.22	65092	0.330 UG/L
11) L2 PCB 1260-5	9.09f	158192	2.504 UG/L
Sum PCB 1260-1		245988	2.967 UG/L
Average PCB 1260-1			0.989 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

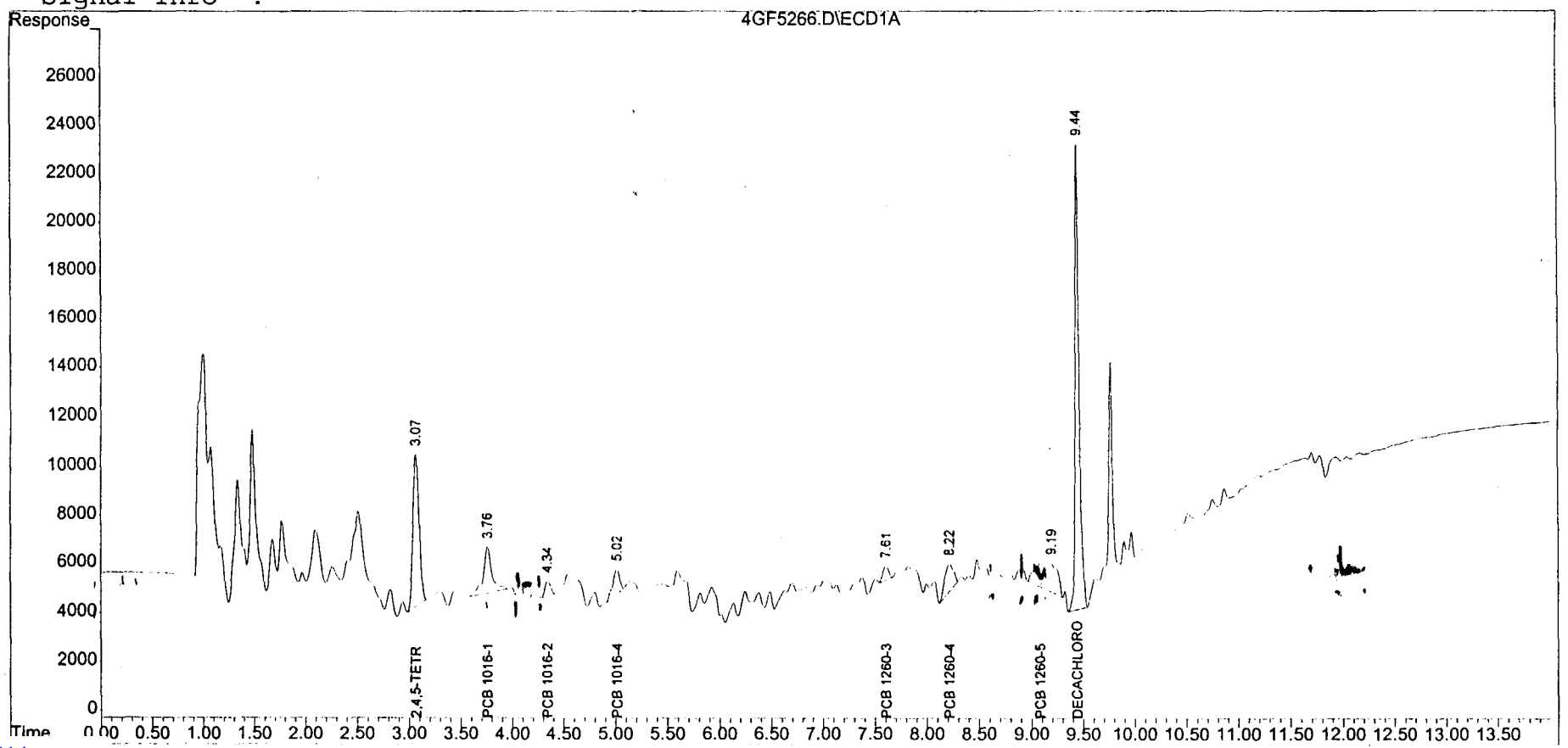
002213

Quantita n Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5266.D Vial: 5
Acq On : 14 Sep 2000 16:27 Operator: ECL
Sample : L0009094-02 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:53 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:54 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002214

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5267.D Vial: 6
Acq On : 14 Sep 2000 16:46 Operator: ECL
Sample : L0009094-04 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:53 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.06	80299	2.577 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	12.89%#
12) S DECACHLOROBIPHENYL	9.44	199995	8.021 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	40.11%
Target Compounds			
2) L1 PCB 1016-1	3.76	34133	0.699 UG/L
3) L1 PCB 1016-2	0.00	0	N.D. UG/L
4) L1 PCB 1016-3	0.00	0	N.D. UG/L
5) L1 PCB 1016-4	5.01	54365	0.272 UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		88498	0.971 UG/L
Average PCB 1016-1			0.486 UG/L
7) L2 PCB 1260-1	7.00f	26499	0.211 UG/L
8) L2 PCB 1260-2	7.37	40483	0.200 UG/L
9) L2 PCB 1260-3	7.61	33928	0.181 UG/L
10) L2 PCB 1260-4	8.22	58121	0.268 UG/L
11) L2 PCB 1260-5	0.00	0	N.D. UG/L
Sum PCB 1260-1		159030	0.860 UG/L
Average PCB 1260-1			0.215 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

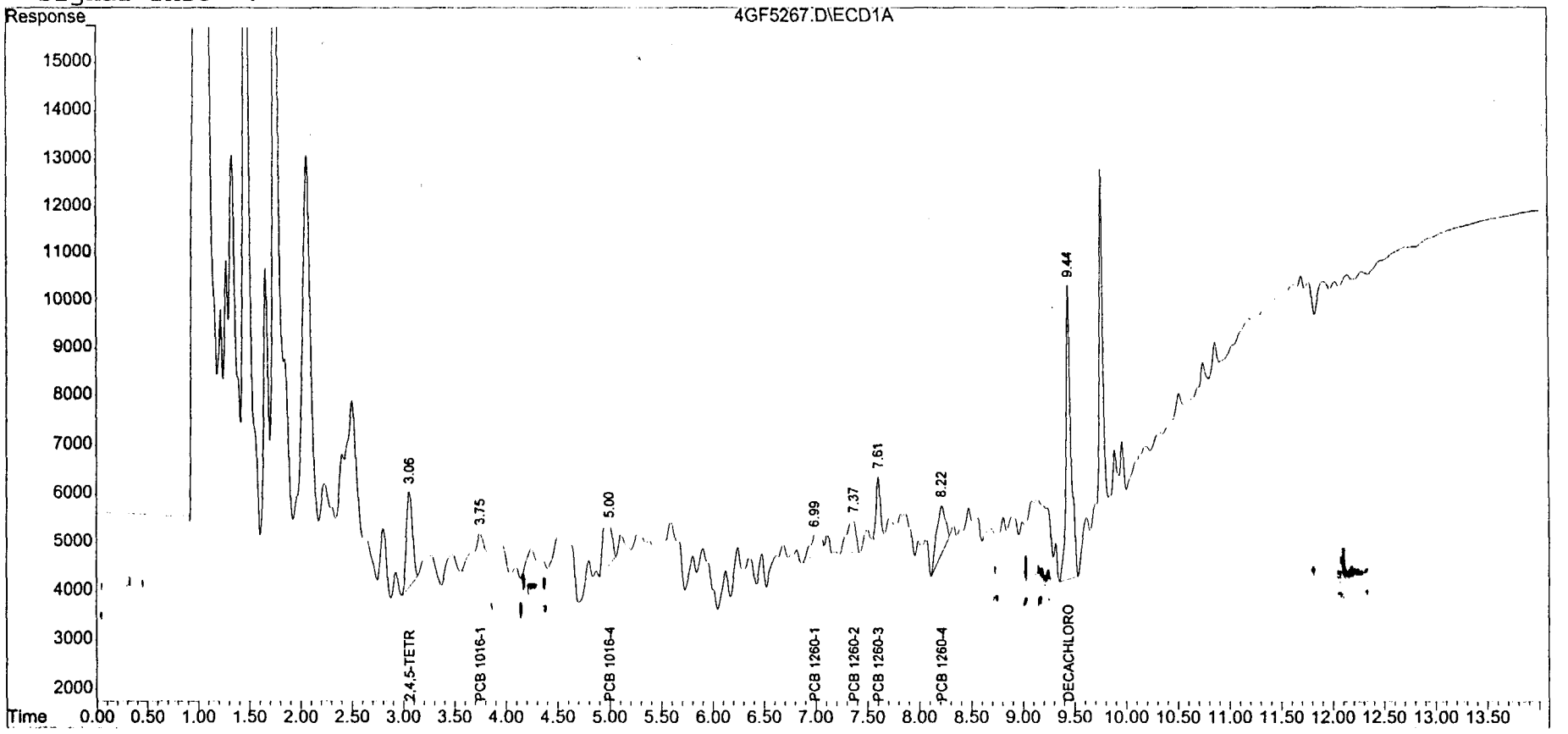
002215

Quantita' n Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5267.D Vial: 6
Acq On : 14 Sep 2000 16:46 Operator: ECL
Sample : L0009094-04 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:53 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5270.D Vial: 9
Acq On : 14 Sep 2000 17:42 Operator: ECL
Sample : L0009094-06 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:55 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:55:21 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.02	186769	5.995 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	29.98%
12) S DECACHLOROBIPHENYL	9.42	431567	17.308 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	86.54%
Target Compounds			
2) L1 PCB 1016-1	3.71	96959	1.986 UG/L
3) L1 PCB 1016-2	0.00	0	N.D. UG/L
4) L1 PCB 1016-3	0.00	0	N.D. UG/L
5) L1 PCB 1016-4	4.97	76555	0.383 UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		173514	2.369 UG/L
Average PCB 1016-1			1.184 UG/L
7) L2 PCB 1260-1	0.00	0	N.D. UG/L
8) L2 PCB 1260-2	7.35f	42729	0.211 UG/L
9) L2 PCB 1260-3	7.58	25325	0.135 UG/L
10) L2 PCB 1260-4	8.19	68553	0.316 UG/L
11) L2 PCB 1260-5	0.00	0	N.D. UG/L
Sum PCB 1260-1		136607	0.662 UG/L
Average PCB 1260-1			0.221 UG/L

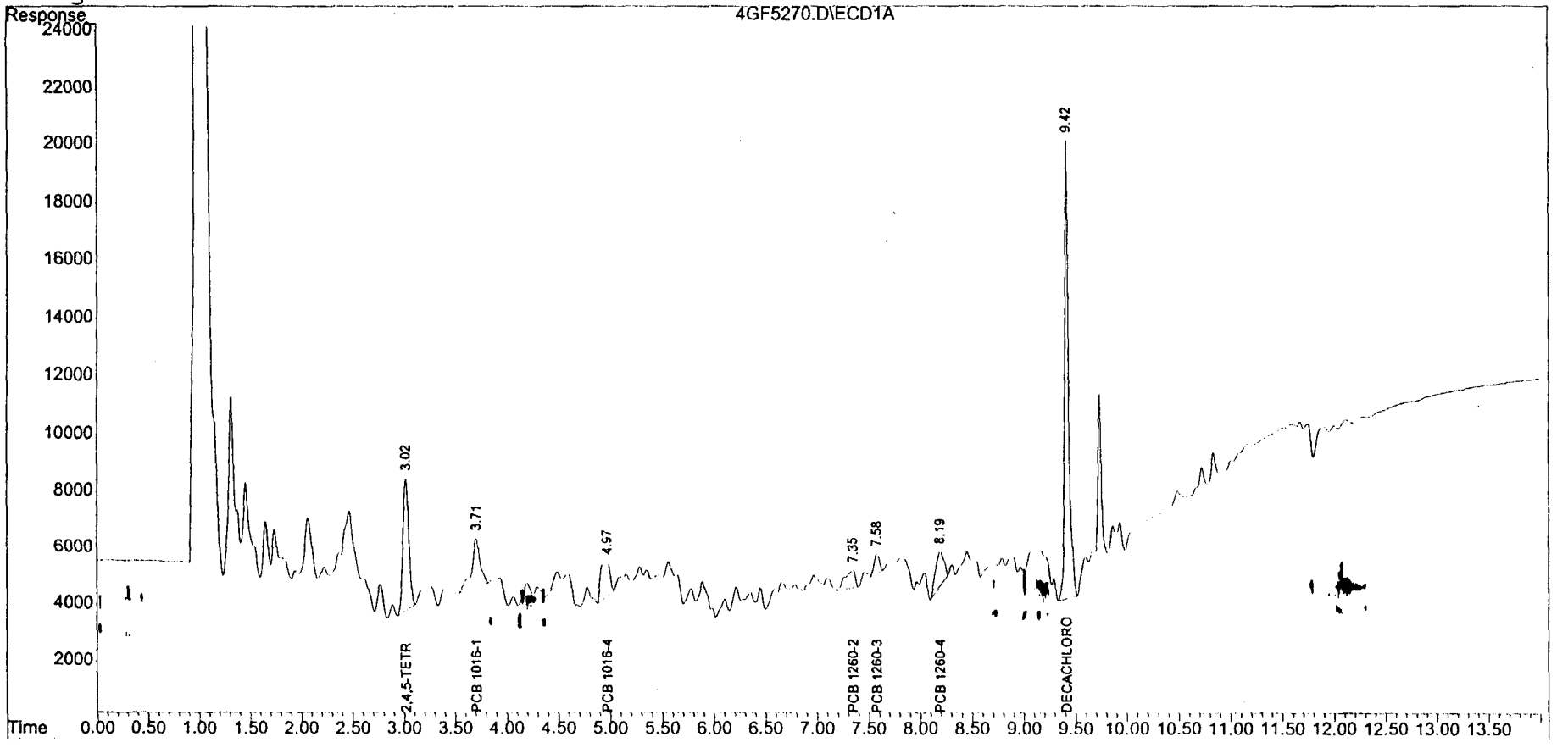
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat[illegible] Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5270.D Vial: 9
Acq On : 14 Sep 2000 17:42 Operator: ECL
Sample : L0009094-06 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:55 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:55:21 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5271.D Vial: 10
Acq On : 14 Sep 2000 18:01 Operator: ECL
Sample : L0009094-08 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:55 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:55:21 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

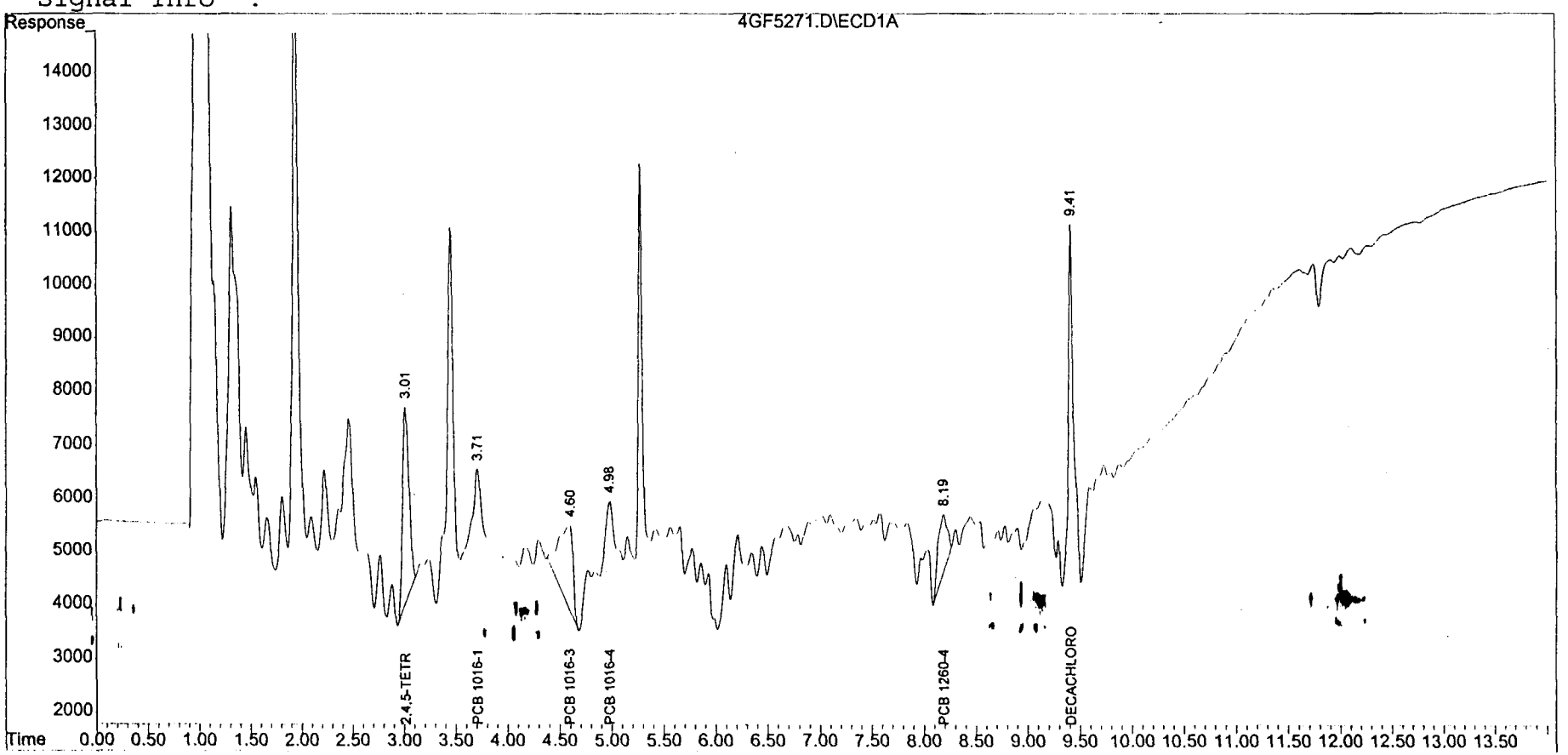
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.01	159310	5.113 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	25.57%
12) S DECACHLOROBIPHENYL	9.41	236857	9.499 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	47.50%
Target Compounds			
2) L1 PCB 1016-1	3.71	127179	2.604 UG/L
3) L1 PCB 1016-2	0.00	0	N.D. UG/L
4) L1 PCB 1016-3	4.59	141359	1.954 UG/L
5) L1 PCB 1016-4	4.98	72424	0.363 UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		340962	4.921 UG/L
Average PCB 1016-1			1.640 UG/L
7) L2 PCB 1260-1	0.00	0	N.D. UG/L
8) L2 PCB 1260-2	0.00	0	N.D. UG/L
9) L2 PCB 1260-3	0.00	0	N.D. UG/L
10) L2 PCB 1260-4	8.19	68263	0.315 UG/L
11) L2 PCB 1260-5	0.00	0	N.D. UG/L
Sum PCB 1260-1		68263	0.315 UG/L
Average PCB 1260-1			0.315 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\091400\4GF5271.D Vial: 10
Acq On : 14 Sep 2000 18:01 Operator: ECL
Sample : L0009094-08 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:55 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:55:21 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.3.3 Standards Data

002221

Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 15:50:33 2000

Calibration Files
6 =4GF4976.D 5 =4GF4977.D 4 =4GF4978.D
3 =4GF4979.D 2 =4GF4980.D 1 =4GF4981.D

		Compound	6	5	4	3	2	1	Avg	
1)	S	2,4,5-TETRACHLORO-M	2.771	3.062	3.021	3.096	3.320	3.424	3.116#E4	
2)	L1	PCB 1016-1	3.625	4.189	4.502	5.129	5.670	6.183	4.883#E2	1
3)	L1	PCB 1016-2	0.949	1.112	1.183	1.297	1.452	1.639	1.272#E3	1
4)	L1	PCB 1016-3	5.559	6.392	6.684	7.249	8.256	9.262	7.234#E2	1
5)	L1	PCB 1016-4	1.573	1.803	1.879	2.018	2.214	2.498	1.997#E3	1
6)	L1	PCB 1016-5	0.603	0.689	0.804	0.828	0.915	1.060	0.816#E3	1
7)	L2	PCB 1260-1	0.953	1.099	1.153	1.268	1.438	1.632	1.257#E3	1
8)	L2	PCB 1260-2	1.538	1.762	1.853	2.035	2.305	2.646	2.023#E3	1
9)	L2	PCB 1260-3	1.534	1.720	1.763	1.876	2.036	2.308	1.873#E3	1
10)	L2	PCB 1260-4	1.839	2.038	1.964	2.094	2.359	2.718	2.169#E3	1
11)	L2	PCB 1260-5	5.901	6.624	6.787	7.123	7.453	7.812	6.950#E2	
12)	S	DECACHLOROBIPHENYL	1.943	2.230	2.362	2.573	2.784	3.068	2.493#E4	1

(#) = Out of Range

002222

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4976.D Vial: 1
Acq On : 27 Jul 2000 15:08 Operator: ECL
Sample : 1660 2.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:44 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:42:46 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.13	2770786	88.932 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	444.66%#
12) S DECACHLOROBIPHENYL	9.49	1943182	77.933 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	389.67%#
Target Compounds			
2) L1 PCB 1016-1	3.82	725067	1068.353 UG/L
3) L1 PCB 1016-2	4.40	1897331	1491.424 UG/L
4) L1 PCB 1016-3	4.69	1111891	1537.035 UG/L
5) L1 PCB 1016-4	5.07	3145389	1574.850 UG/L
6) L1 PCB 1016-5	5.77	1206484	1477.705 UG/L
Sum PCB 1016-1		8086162	7149.367 UG/L
Average PCB 1016-1			1429.873 UG/L
7) L2 PCB 1260-1	7.10	1905063	1519.547 UG/L
8) L2 PCB 1260-2	7.38	3075686	1517.778 UG/L
9) L2 PCB 1260-3	7.64	3067913	1638.110 UG/L
10) L2 PCB 1260-4	8.26	3678468	1724.566 UG/L
11) L2 PCB 1260-5	9.07	1180265	1698.239 UG/L
Sum PCB 1260-1		12907394	8098.241 UG/L
Average PCB 1260-1			1619.648 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
4GF4976.D 1660F.M Fri Jul 28 15:51:17 2000 Page 1

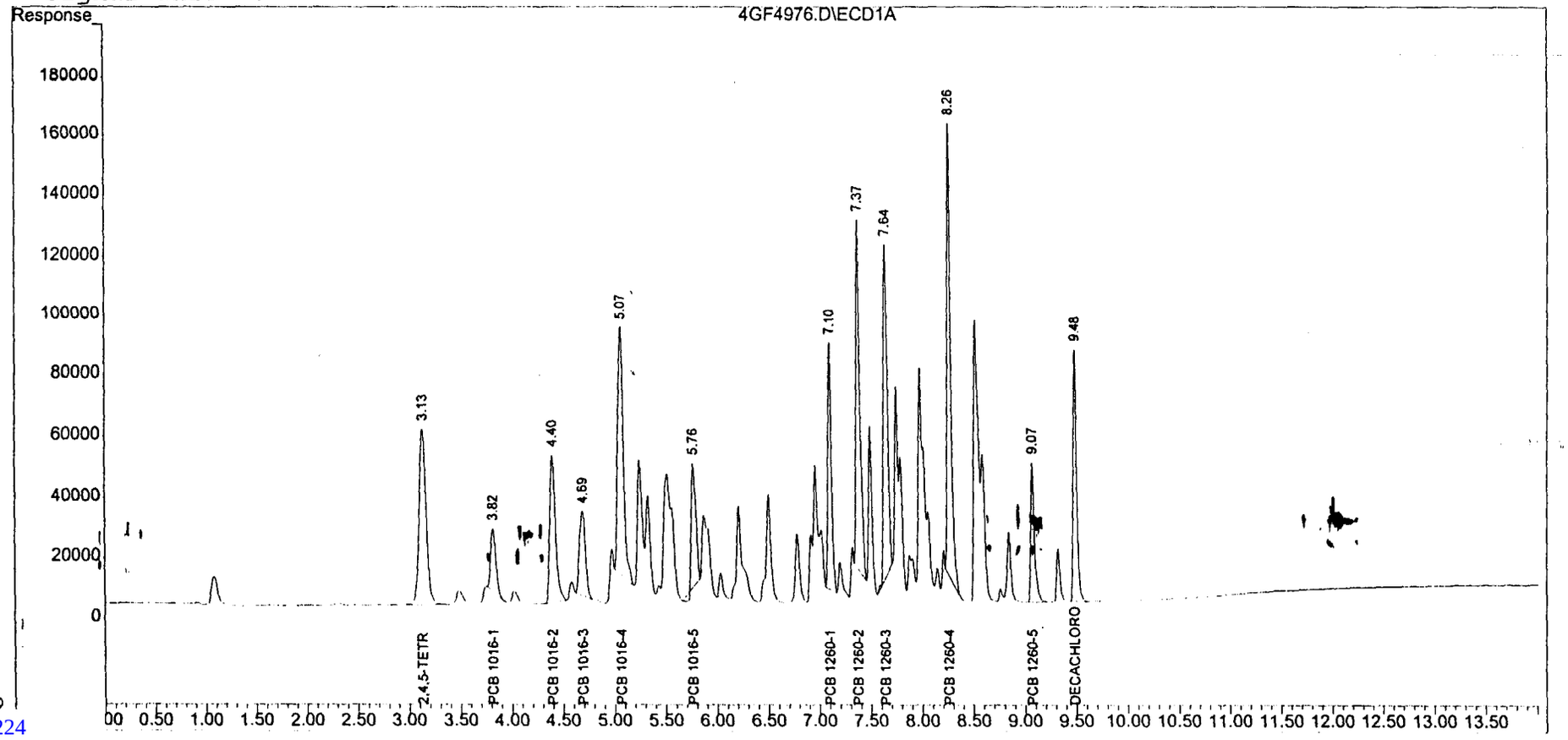
002223

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4976.D Vial: 1
Acq On : 27 Jul 2000 15:08 Operator: ECL
Sample : 1660 2.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:44 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:42:46 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002224

4GF4976.D 1660F.M Fri Jul 28 15:51:18 2000

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4977.D Vial: 2
Acq On : 27 Jul 2000 15:26 Operator: ECL
Sample : 1660 1.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:45 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:45:09 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.12	1531122	49.144 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	245.72%#
12) S DECACHLOROBIPHENYL	9.49	1115035	44.720 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	223.60%#
Target Compounds			
2) L1 PCB 1016-1	3.81	418924	655.735 UG/L
3) L1 PCB 1016-2	4.39	1112316	874.352 UG/L
4) L1 PCB 1016-3	4.68	639212	883.621 UG/L
5) L1 PCB 1016-4	5.06	1802591	902.530 UG/L
6) L1 PCB 1016-5	5.76	689228	844.169 UG/L
Sum PCB 1016-1		4662271	4160.407 UG/L
Average PCB 1016-1			832.081 UG/L
7) L2 PCB 1260-1	7.09	1098718	875.527 UG/L
8) L2 PCB 1260-2	7.37	1762104	869.557 UG/L
9) L2 PCB 1260-3	7.64	1720029	918.408 UG/L
10) L2 PCB 1260-4	8.26	2038197	946.799 UG/L
11) L2 PCB 1260-5	9.07	662427	953.142 UG/L
Sum PCB 1260-1		7281476	4563.433 UG/L
Average PCB 1260-1			912.687 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

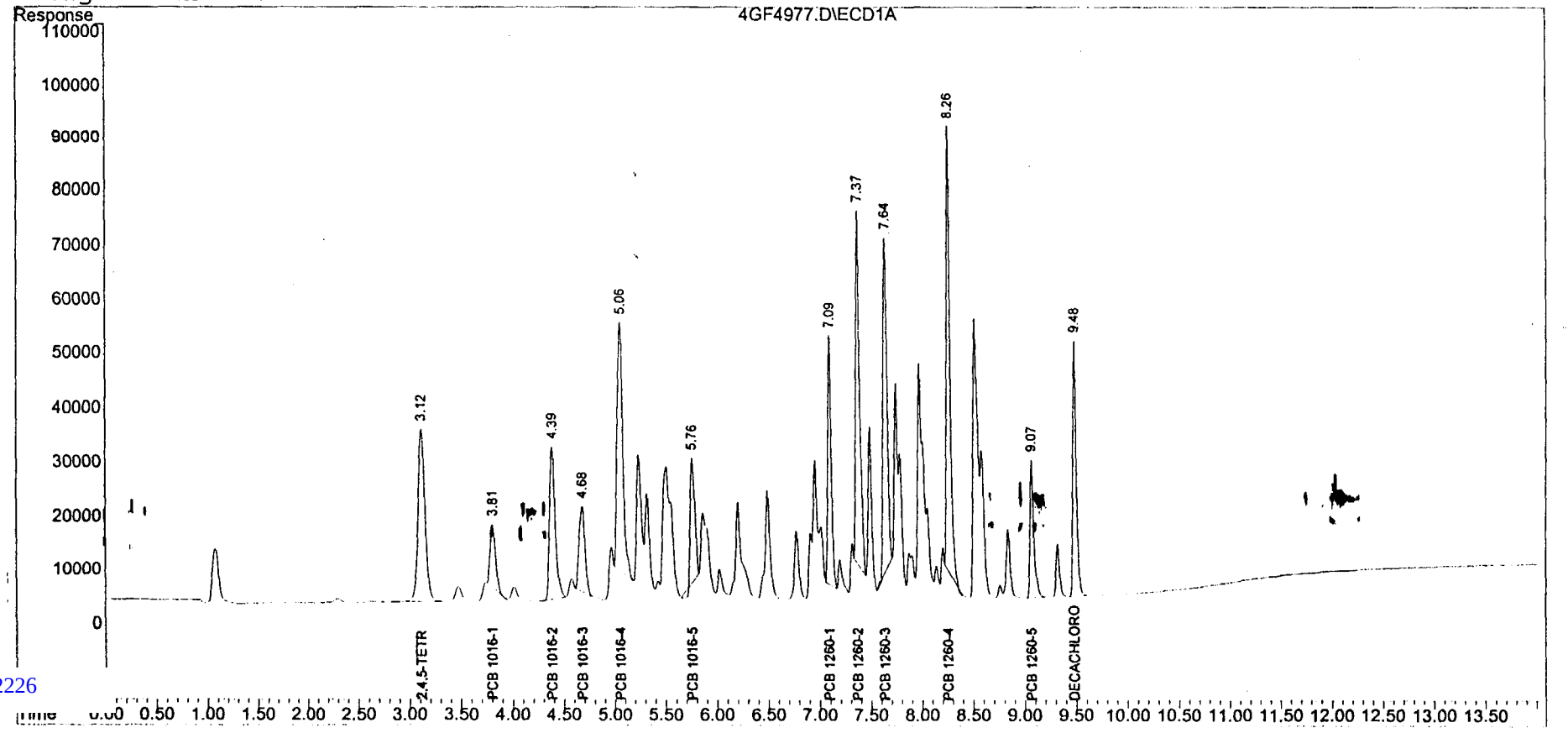
002225

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4977.D Vial: 2
Acq On : 27 Jul 2000 15:26 Operator: ECL
Sample : 1660 1.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:45 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:45:09 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4978.D Vial: 3
Acq On : 27 Jul 2000 15:45 Operator: ECL
Sample : 1660 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:40 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:40:19 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.12	755357	25.899 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	129.50%
12) S DECACHLOROBIPHENYL	9.48	590378	28.293 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	141.47%#
Target Compounds			
2) L1 PCB 1016-1	3.81	225092	441.207 UG/L
3) L1 PCB 1016-2	4.39	591607	574.102 UG/L
4) L1 PCB 1016-3	4.69	334223	559.295 UG/L
5) L1 PCB 1016-4	5.06	939639	556.776 UG/L
6) L1 PCB 1016-5	5.76	401776	621.719 UG/L
Sum PCB 1016-1		2492337	2753.099 UG/L
Average PCB 1016-1			550.620 UG/L
7) L2 PCB 1260-1	7.10	576323	566.545 UG/L
8) L2 PCB 1260-2	7.37	926501	561.525 UG/L
9) L2 PCB 1260-3	7.64	881581	541.847 UG/L
10) L2 PCB 1260-4	8.26	982177	538.037 UG/L
11) L2 PCB 1260-5	9.07	339333	541.824 UG/L
Sum PCB 1260-1		3705914	2749.778 UG/L
Average PCB 1260-1			549.956 UG/L

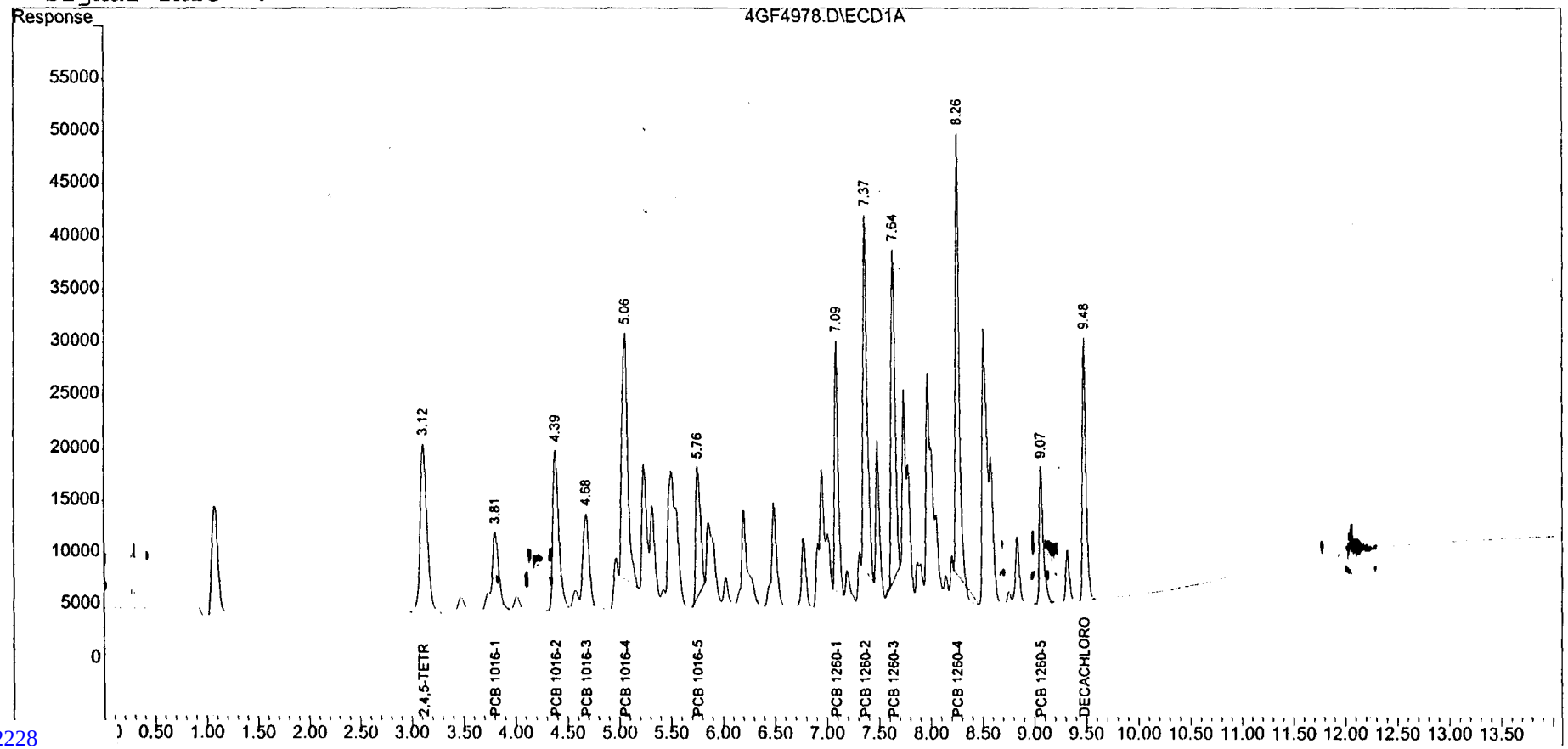
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat. n Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4978.D Vial: 3
Acq On : 27 Jul 2000 15:45 Operator: ECL
Sample : 1660 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:40 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:40:19 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002228

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4979.D Vial: 4
Acq On : 27 Jul 2000 16:03 Operator: ECL
Sample : 1660 0.25 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:46 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:46:22 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.11	386987	12.421 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery	= 62.10%
12) S DECACHLOROBIPHENYL	9.48	321673	12.901 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery	= 64.50%
Target Compounds			
2) L1 PCB 1016-1	3.80	128231	200.717 UG/L
3) L1 PCB 1016-2	4.39	324255	254.885 UG/L
4) L1 PCB 1016-3	4.68	181234	250.531 UG/L
5) L1 PCB 1016-4	5.05	504441	252.566 UG/L
6) L1 PCB 1016-5	5.76	206916	253.431 UG/L
Sum PCB 1016-1		1345077	1212.131 UG/L
Average PCB 1016-1			242.426 UG/L
7) L2 PCB 1260-1	7.10	317084	252.356 UG/L
8) L2 PCB 1260-2	7.37	508823	251.092 UG/L
9) L2 PCB 1260-3	7.64	468875	250.356 UG/L
10) L2 PCB 1260-4	8.26	523616	241.217 UG/L
11) L2 PCB 1260-5	9.07	178070	256.218 UG/L
Sum PCB 1260-1		1996468	1251.239 UG/L
Average PCB 1260-1			250.248 UG/L

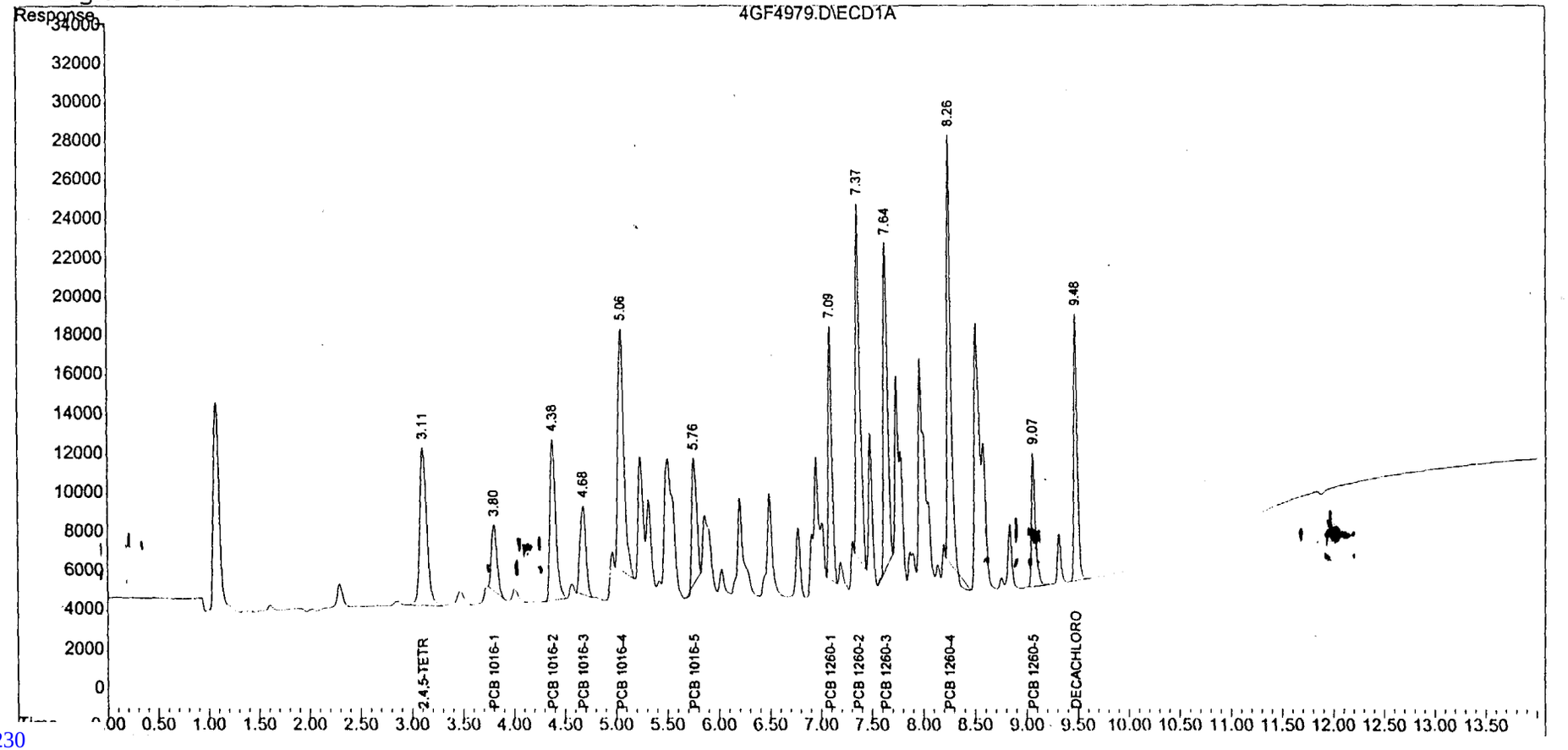
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4979.D Vial: 4
Acq On : 27 Jul 2000 16:03 Operator: ECL
Sample : 1660 0.25 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:46 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:46:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002230

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4980.D Vial: 5
Acq On : 27 Jul 2000 16:22 Operator: ECL
Sample : 1660 0.1 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:47 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:46:55 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.11	165979	5.327 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	26.63%
12) S DECACHLOROBIPHENYL	9.48	139220	5.584 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	27.92%
Target Compounds			
2) L1 PCB 1016-1	3.81	56704	95.963 UG/L
3) L1 PCB 1016-2	4.39	145239	114.167 UG/L
4) L1 PCB 1016-3	4.68	82562	114.131 UG/L
5) L1 PCB 1016-4	5.06	221359	110.831 UG/L
6) L1 PCB 1016-5	5.76	91495	112.063 UG/L
Sum PCB 1016-1		597358	547.154 UG/L
Average PCB 1016-1			109.431 UG/L
7) L2 PCB 1260-1	7.09	143774	114.425 UG/L
8) L2 PCB 1260-2	7.37	230529	113.761 UG/L
9) L2 PCB 1260-3	7.64	203628	108.727 UG/L
10) L2 PCB 1260-4	8.26	235903	108.675 UG/L
11) L2 PCB 1260-5	9.07	74525	107.232 UG/L
Sum PCB 1260-1		888360	552.819 UG/L
Average PCB 1260-1			110.564 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
4GF4980.D 1660F.M Fri Jul 28 15:51:30 2000 Page

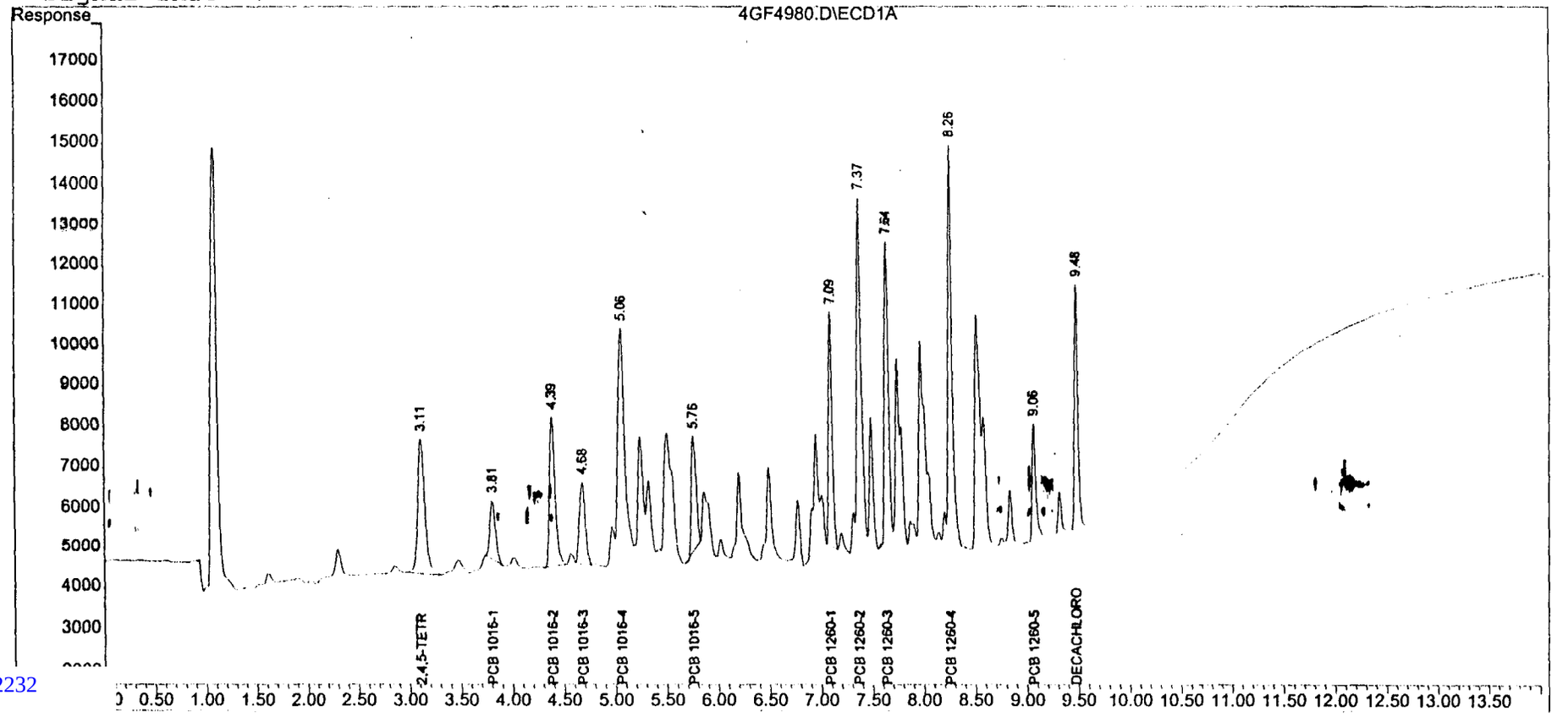
002231

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4980.D Vial: 5
Acq On : 27 Jul 2000 16:22 Operator: ECL
Sample : 1660 0.1 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:47 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:46:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002232

4GF4980.D 1660F.M

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4981.D Vial: 6
Acq On : 27 Jul 2000 16:41 Operator: ECL
Sample : 1660 0.05 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:50 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:49:24 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.11	85594	2.747 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	13.73%
12) S DECACHLOROBIPHENYL	9.47	76695	3.076 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	15.38%#
Target Compounds			
2) L1 PCB 1016-1	3.80	30913	63.383 UG/L
3) L1 PCB 1016-2	4.38	81968	64.432 UG/L
4) L1 PCB 1016-3	4.68	46312	64.020 UG/L
5) L1 PCB 1016-4	5.06	124883	62.527 UG/L
6) L1 PCB 1016-5	5.75	53006	64.922 UG/L
Sum PCB 1016-1		337082	319.284 UG/L
Average PCB 1016-1			63.857 UG/L
7) L2 PCB 1260-1	7.09	81608	64.915 UG/L
8) L2 PCB 1260-2	7.36	132303	65.289 UG/L
9) L2 PCB 1260-3	7.64	115405	61.620 UG/L
10) L2 PCB 1260-4	8.25	135882	62.598 UG/L
11) L2 PCB 1260-5	9.06	39060	56.202 UG/L
Sum PCB 1260-1		504258	310.625 UG/L
Average PCB 1260-1			62.125 UG/L

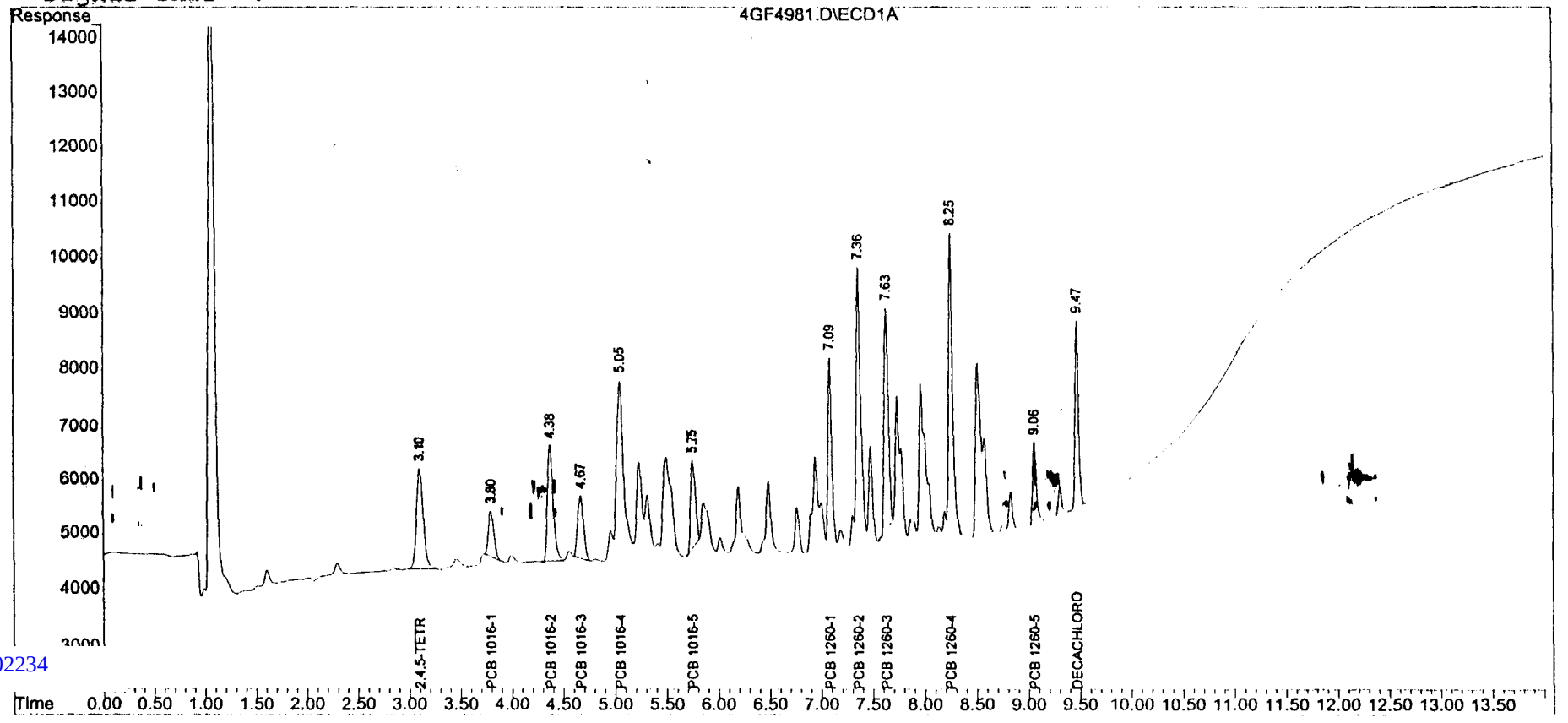
(f)=RT Delta > 1/2 Window (m)=manual int
4GF4981.D 1660F.M Fri Jul 28 15:51:34 2000 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4981.D Vial: 6
Acq On : 27 Jul 2000 16:41 Operator: ECL
Sample : 1660 0.05 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:50 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 15:49:24 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4982.D Vial: 7
Acq On : 27 Jul 2000 17:12 Operator: ECL
Sample : 1660 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 15:50:33 2000
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50mi
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(r
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	1.388	94.4#	6	-0.0
2	L1	PCB 1016-1	500.000	441.501	11.7	96	0.0
3	L1	PCB 1016-2	500.000	441.661	11.7	95	0.0
4	L1	PCB 1016-3	500.000	437.739	12.5	95	0.0
5	L1	PCB 1016-4	500.000	446.218	10.8	95	0.0
6	L1	PCB 1016-5	500.000	467.715	6.5	95	0.0
7	L2	PCB 1260-1	500.000	434.876	13.0	95	0.0
8	L2	PCB 1260-2	500.000	434.711	13.1	95	0.0
9	L2	PCB 1260-3	500.000	450.365	9.9	96	0.0
10	L2	PCB 1260-4	500.000	434.248	13.2	96	0.0
11	L2	PCB 1260-5	500.000	464.722	7.1	95	0.0
12	S	DECACHLOROBIPHENYL	25.000	0.578	97.7#	2	0.0

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002235

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4982.D Vial: 7
Acq On : 27 Jul 2000 17:12 Operator: ECL
Sample : 1660 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:51 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 15:50:33 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.07	43230	[illegible].388 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	[illegible]6.94%#
12) S DECACHLOROBIPHENYL	9.47	14408	[illegible].578 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	2.89%#
Target Compounds			
2) L1 PCB 1016-1	3.79	215590	441.501 UG/L
3) L1 PCB 1016-2	4.38	561863	441.661 UG/L
4) L1 PCB 1016-3	4.67	316660	437.739 UG/L
5) L1 PCB 1016-4	5.05	891215	446.218 UG/L
6) L1 PCB 1016-5	5.75	381869	467.715 UG/L
Sum PCB 1016-1		2367198	2234.834 UG/L
Average PCB 1016-1			446.967 UG/L
7) L2 PCB 1260-1	7.08	546649	434.876 UG/L
8) L2 PCB 1260-2	7.36	879536	434.711 UG/L
9) L2 PCB 1260-3	7.63	843461	450.365 UG/L
10) L2 PCB 1260-4	8.25	941805	434.248 UG/L
11) L2 PCB 1260-5	9.06	322979	464.922 UG/L
Sum PCB 1260-1		3534430	2218.922 UG/L
Average PCB 1260-1			443.784 UG/L

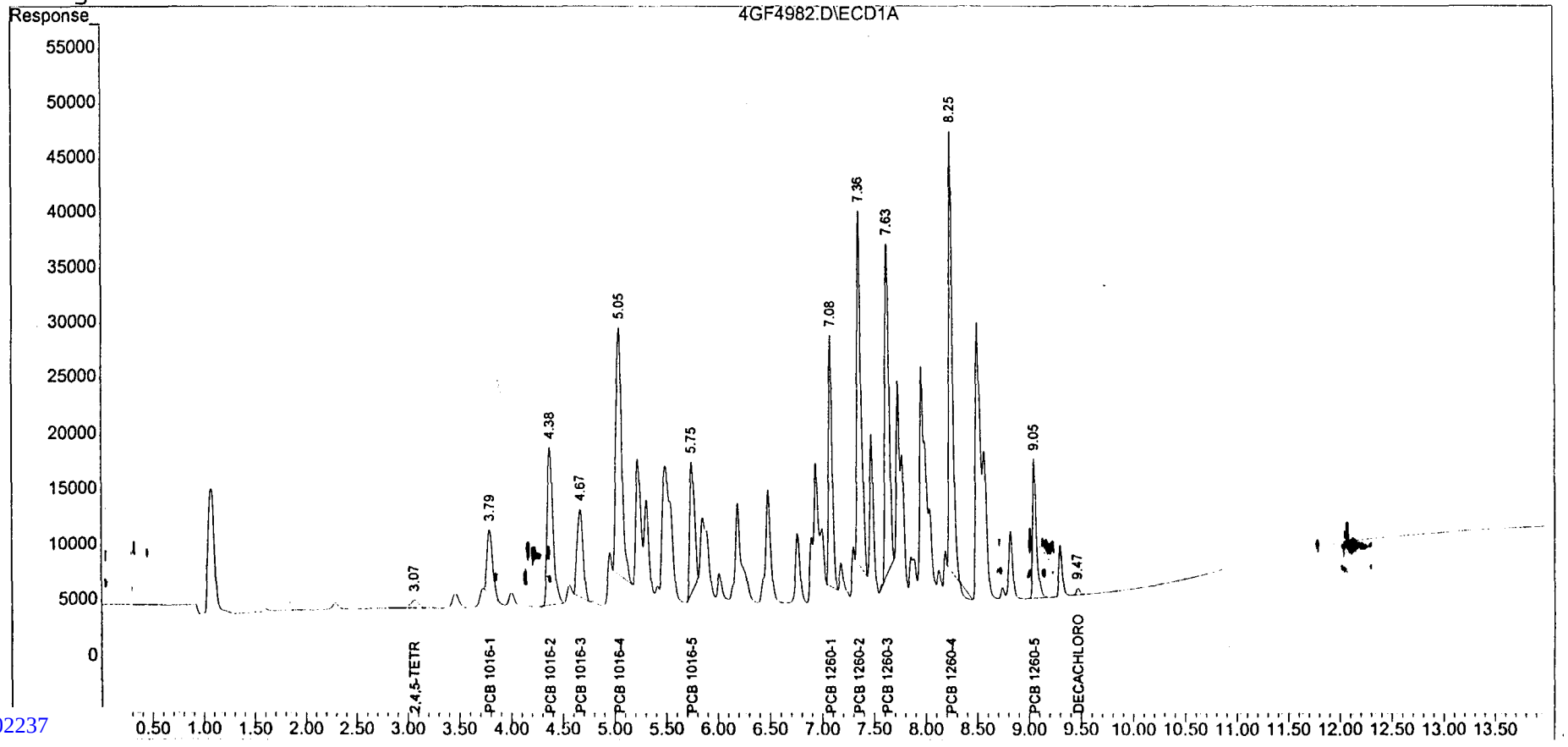
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat. Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4982.D Vial: 7
Acq On : 27 Jul 2000 17:12 Operator: ECL
Sample : 1660 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 15:51 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 15:50:33 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002237

Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000

Calibration Files
6 =4GF4983.D 5 =4GF4984.D 4 =4GF4985.D
3 =4GF4986.D 2 =4GF4987.D 1 =4GF4988.D

		Compound	6	5	4	3	2	1	Avg		%R
1)	S	2,4,5-TETRACHLORO-M	2.803	2.985	2.962	3.071	3.203	3.335	3.060	E4	6.
2)	L1	PCB 1254-1	0.681	0.776	0.841	0.930	1.071	1.092	0.899	E3	18.
3)	L1	PCB 1254-2	1.314	1.454	1.533	1.666	1.880	2.037	1.648	E3	16.
4)	L1	PCB 1254-3	0.883	0.975	0.993	1.070	1.214	1.340	1.079	E3	15.
5)	L1	PCB 1254-4	0.981	0.955	1.028	1.143	1.334	1.479	1.153	E3	18.
6)	L1	PCB 1254-5	1.208	1.327	1.386	1.501	1.712	1.868	1.500	E3	16.
7)	S	DECACHLOROBIPHENYL	2.215	2.498	2.671	2.920	3.280	3.502	2.848	E4	17.

(#) = Out of Range

002238

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4983.D Vial: 8
Acq On : 27 Jul 2000 17:30 Operator: ECL
Sample : 1254 2.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:09 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:07:49 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.07	2803399	91.621 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 458.10%#	
7) S DECACHLOROBIPHENYL	9.45	2214758	77.774 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 388.87%#	
Target Compounds			
2) L1 PCB 1254-1	5.45	1361533	1515.336 UG/L
3) L1 PCB 1254-2	6.88	2628568	1595.477 UG/L
4) L1 PCB 1254-3	7.16	1765213	1635.731 UG/L
5) L1 PCB 1254-4	7.34	1961953	1733.643 UG/L
6) L1 PCB 1254-5	7.61	2415096	1609.861 UG/L
Sum PCB 1254-1		10132363	8090.048 UG/L
Average PCB 1254-1			1618.010 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

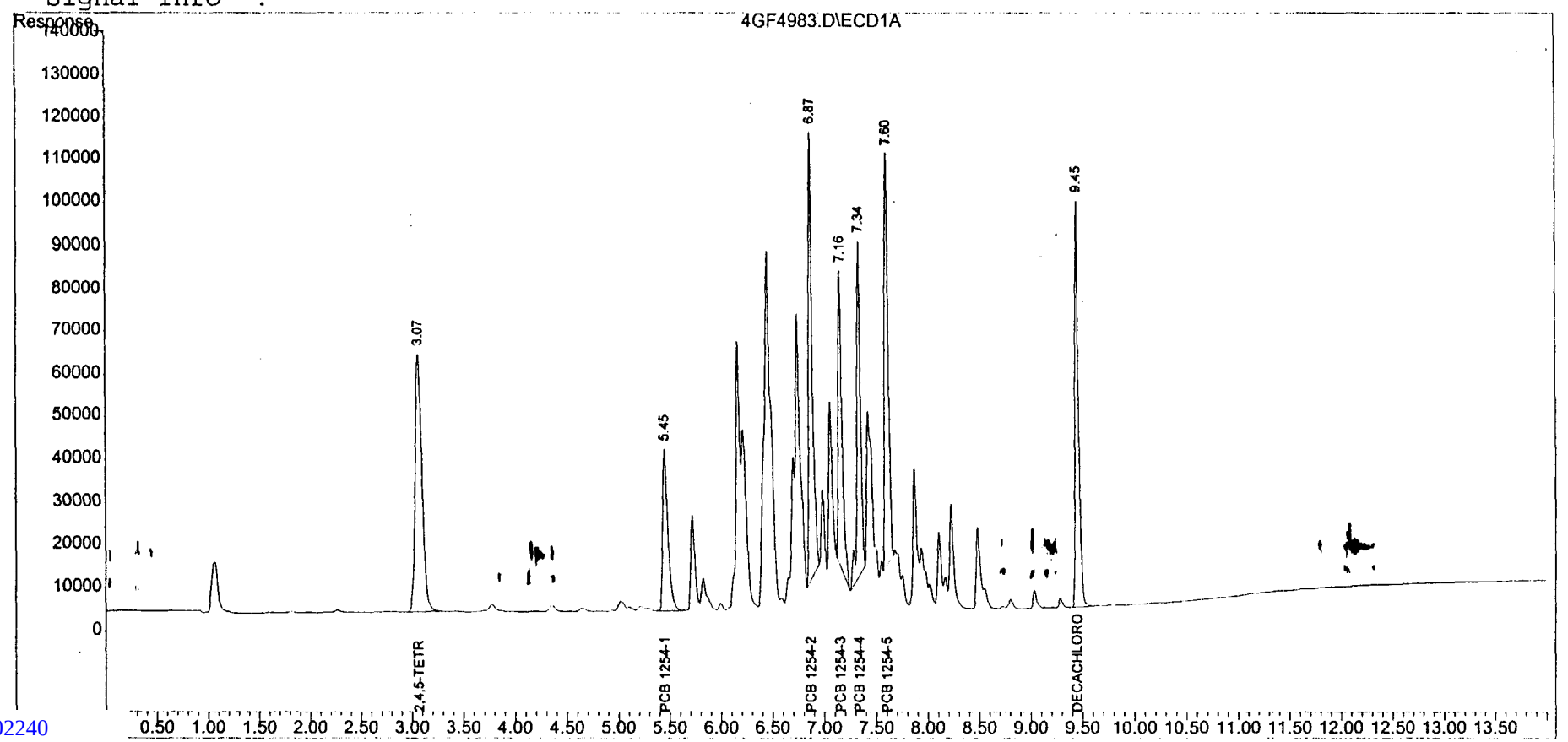
002239

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4983.D Vial: 8
Acq On : 27 Jul 2000 17:30 Operator: ECL
Sample : 1254 2.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:09 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:07:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002240

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4984.D Vial: 9
Acq On : 27 Jul 2000 17:49 Operator: ECL
Sample : 1254 1.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:09 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.06	1492337	48.773 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	243.87%#
7) S DECACHLOROBIPHENYL	9.45	1249007	43.861 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	219.31%#
Target Compounds			
2) L1 PCB 1254-1	5.45	776033	863.696 UG/L
3) L1 PCB 1254-2	6.87	1454260	882.701 UG/L
4) L1 PCB 1254-3	7.15	975055	903.533 UG/L
5) L1 PCB 1254-4	7.33	954919	827.956 UG/L
6) L1 PCB 1254-5	7.60	1327217	884.699 UG/L
Sum PCB 1254-1		5487484	4362.584 UG/L
Average PCB 1254-1			872.517 UG/L

(f)=RT Delta > 1/2 Window (m)=manual_int.
4GF4984.D 1254F.M Fri Jul 28 16:09:59 2000 Page 1

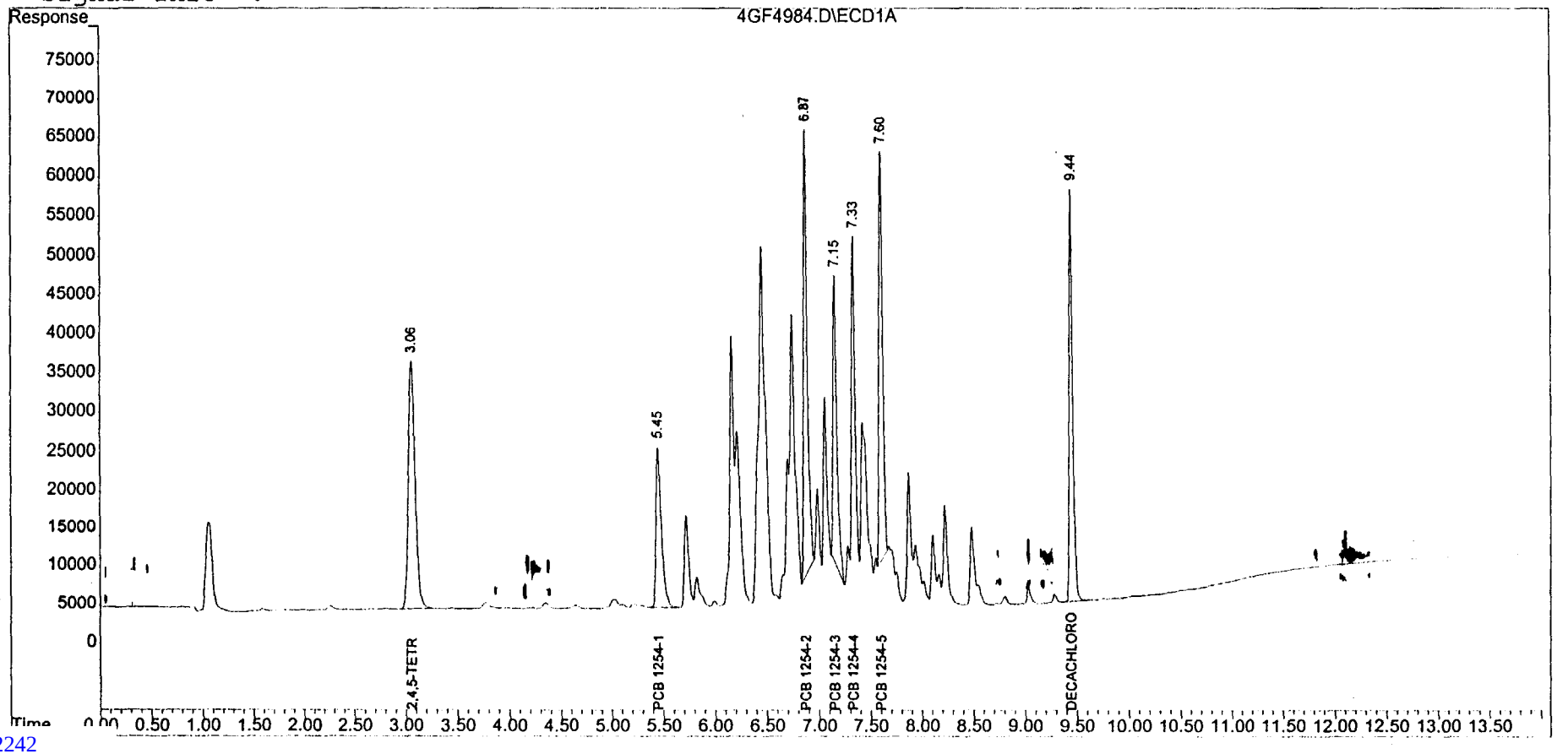
002241

Quantitat h Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4984.D Vial: 9
Acq On : 27 Jul 2000 17:49 Operator: ECL
Sample : 1254 1.0 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:09 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002242

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4985.D Vial: 10
Acq On : 27 Jul 2000 18:08 Operator: ECL
Sample : 1254 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.05	740461	24.200 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	121.00%
7) S DECACHLOROBIPHENYL	9.45	667809	23.451 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	117.26%
Target Compounds			
2) L1 PCB 1254-1	5.44	420328	467.809 UG/L
3) L1 PCB 1254-2	6.87	766595	463.304 UG/L
4) L1 PCB 1254-3	7.15	496493	460.074 UG/L
5) L1 PCB 1254-4	7.33	513859	445.538 UG/L
6) L1 PCB 1254-5	7.60	692807	461.813 UG/L
Sum PCB 1254-1		2890082	2300.539 UG/L
Average PCB 1254-1			460.108 UG/L

391

(f)=RT Delta > 1/2 Window (m)=manual int.
4GF4985.D 1254F.M Fri Jul 28 16:10:04 2000 Page 1

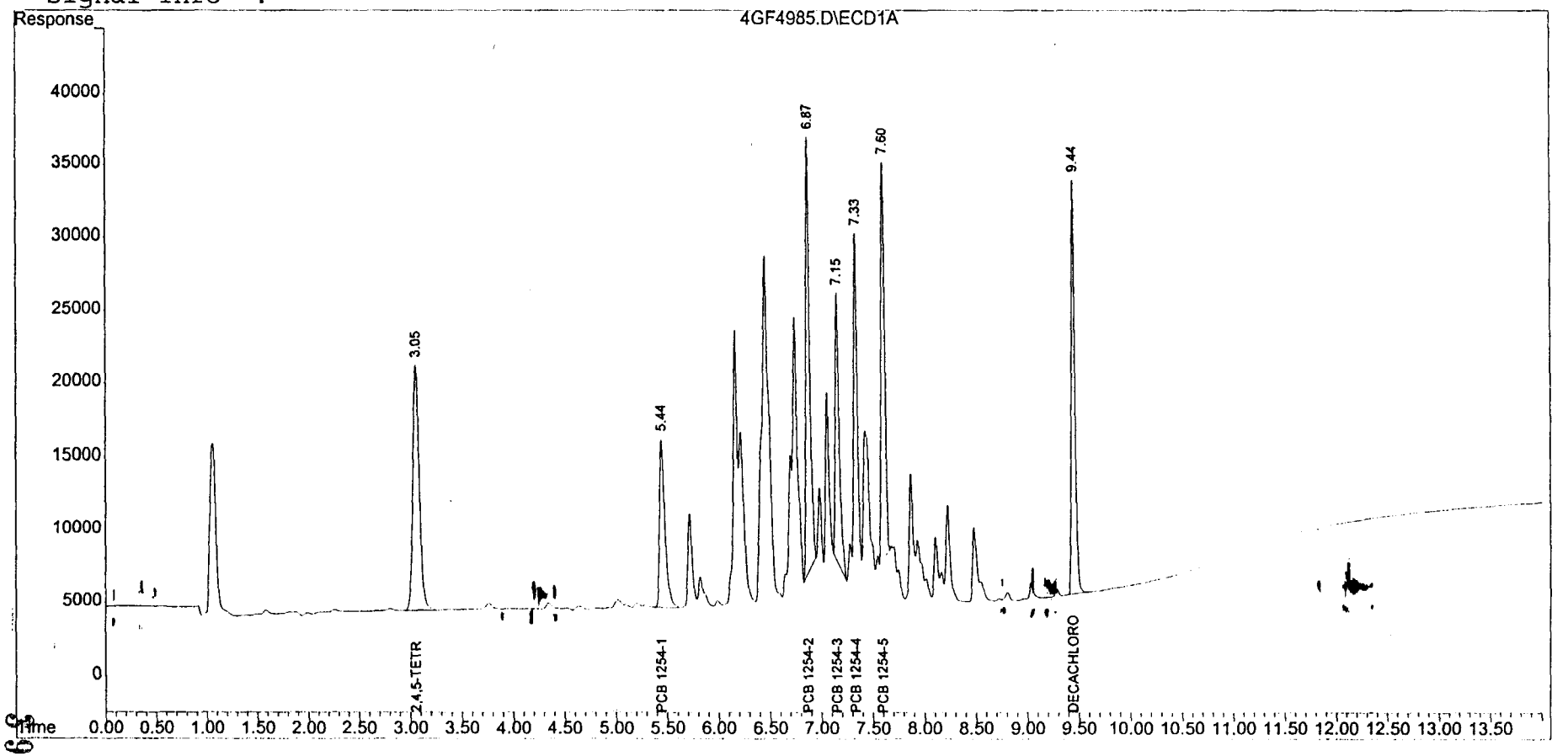
002243

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4985.D Vial: 10
Acq On : 27 Jul 2000 18:08 Operator: ECL
Sample : 1254 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4986.D Vial: 11
Acq On : 27 Jul 2000 18:26 Operator: ECL
Sample : 1254 0.25 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.06	383919	12.547 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	62.74%
7) S DECACHLOROBIPHENYL	9.45	364996	12.817 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	64.09%
Target Compounds			
2) L1 PCB 1254-1	5.45	232586	258.859 UG/L
3) L1 PCB 1254-2	6.87	416590	252.860 UG/L
4) L1 PCB 1254-3	7.16	267432	247.815 UG/L
5) L1 PCB 1254-4	7.34	285663	247.682 UG/L
6) L1 PCB 1254-5	7.60	375341	250.196 UG/L
Sum PCB 1254-1		1577612	1257.412 UG/L
Average PCB 1254-1			251.482 UG/L

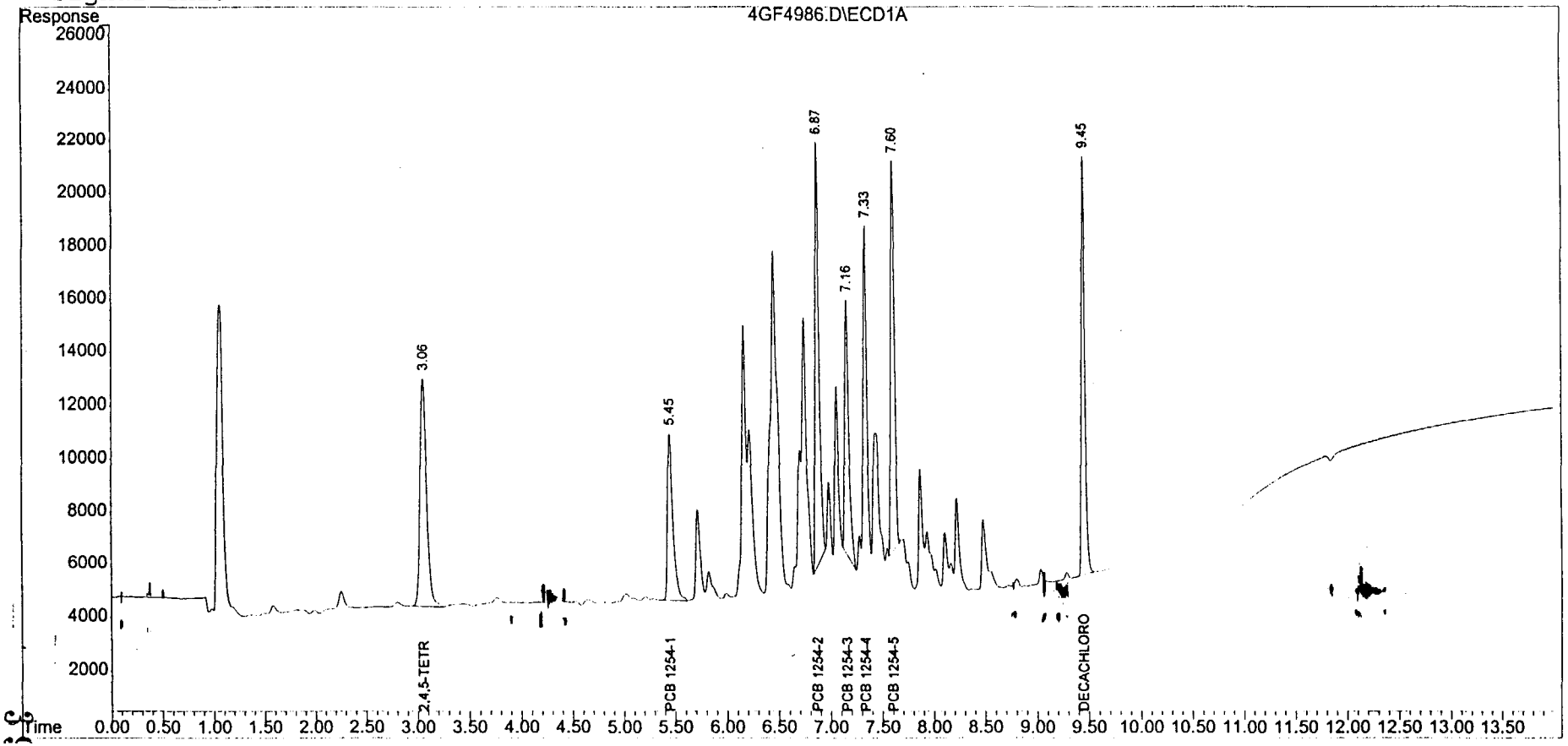
(f)=RT Delta > 1/2 Window (m)=manual int

002245

Data File : C:\HPCHEM\2\DATA\072700\4GF4986.D Vial: 11
Acq On : 27 Jul 2000 18:26 Operator: ECL
Sample : 1254 0.25 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4987.D Vial: 12
Acq On : 27 Jul 2000 18:45 Operator: ECL
Sample : 1254 0.1 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

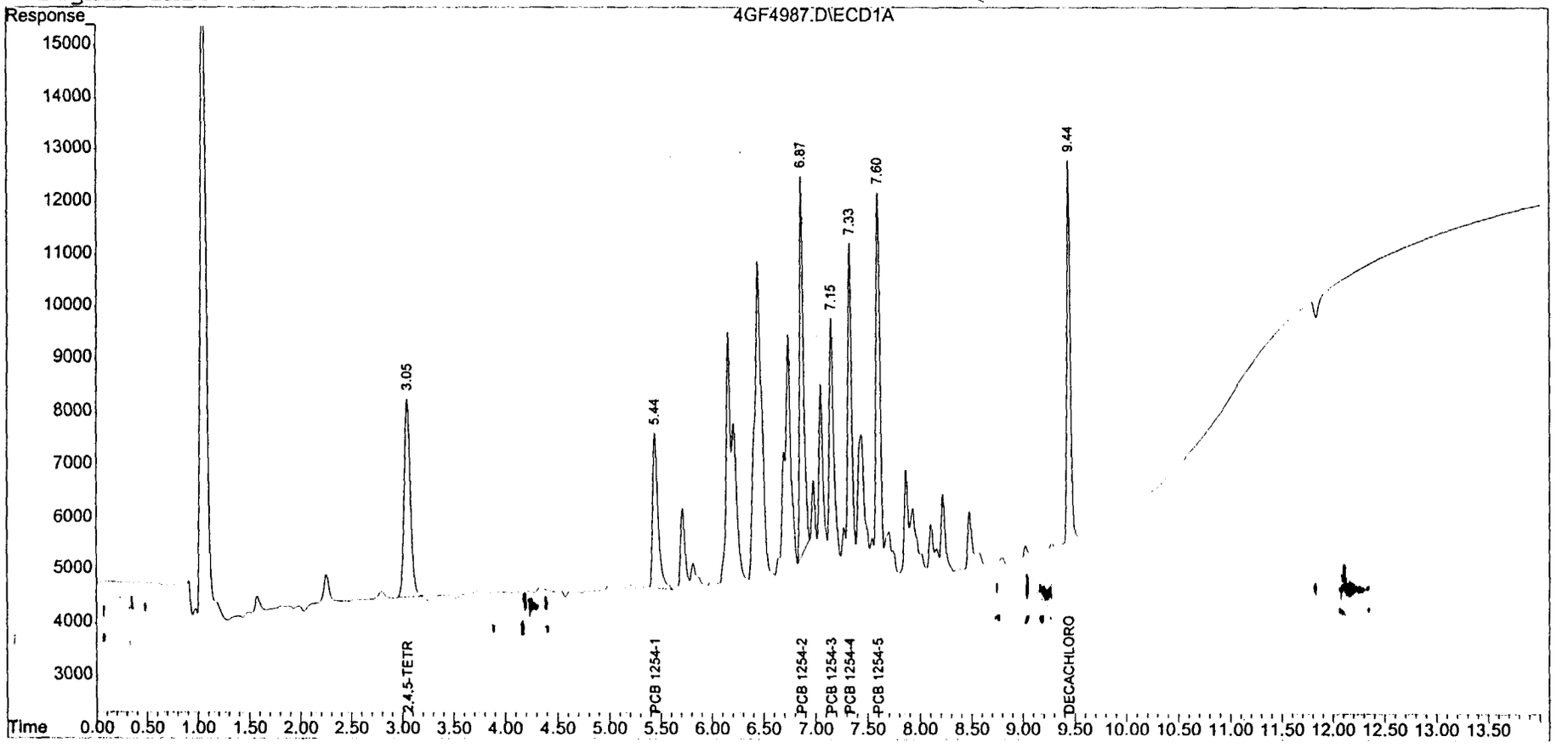
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.05	160138	5.234 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	26.17%#
7) S DECACHLOROBIPHENYL	9.45	163984	5.759 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	28.80%#
Target Compounds			
2) L1 PCB 1254-1	5.44	107132	119.234 UG/L
3) L1 PCB 1254-2	6.87	188024	114.126 UG/L
4) L1 PCB 1254-3	7.16	121426	112.519 UG/L
5) L1 PCB 1254-4	7.33	133446	115.704 UG/L
6) L1 PCB 1254-5	7.60	171188	114.111 UG/L
Sum PCB 1254-1		721216	575.694 UG/L
Average PCB 1254-1			115.139 UG/L

(f)=RT Delta > 1/2 Window (m)=manual in

Data File : C:\HPCHEM\2\DATA\072700\4GF4987.D Vial: 12
Acq On : 27 Jul 2000 18:45 Operator: ECL
Sample : 1254 0.1 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002248

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4988.D Vial: 13
Acq On : 27 Jul 2000 19:03 Operator: ECL
Sample : 1254 0.05 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.05	83366	2.725 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	13.63%#
7) S DECACHLOROBIPHENYL	9.44	87561	3.075 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	15.38%#
Target Compounds			
2) L1 PCB 1254-1	5.44	54595	60.762 UG/L
3) L1 PCB 1254-2	6.87	101837	61.813 UG/L
4) L1 PCB 1254-3	7.16	67016	62.100 UG/L
5) L1 PCB 1254-4	7.33	73967	64.133 UG/L
6) L1 PCB 1254-5	7.60	93376	62.243 UG/L
Sum PCB 1254-1		390791	311.050 UG/L
Average PCB 1254-1			62.210 UG/L

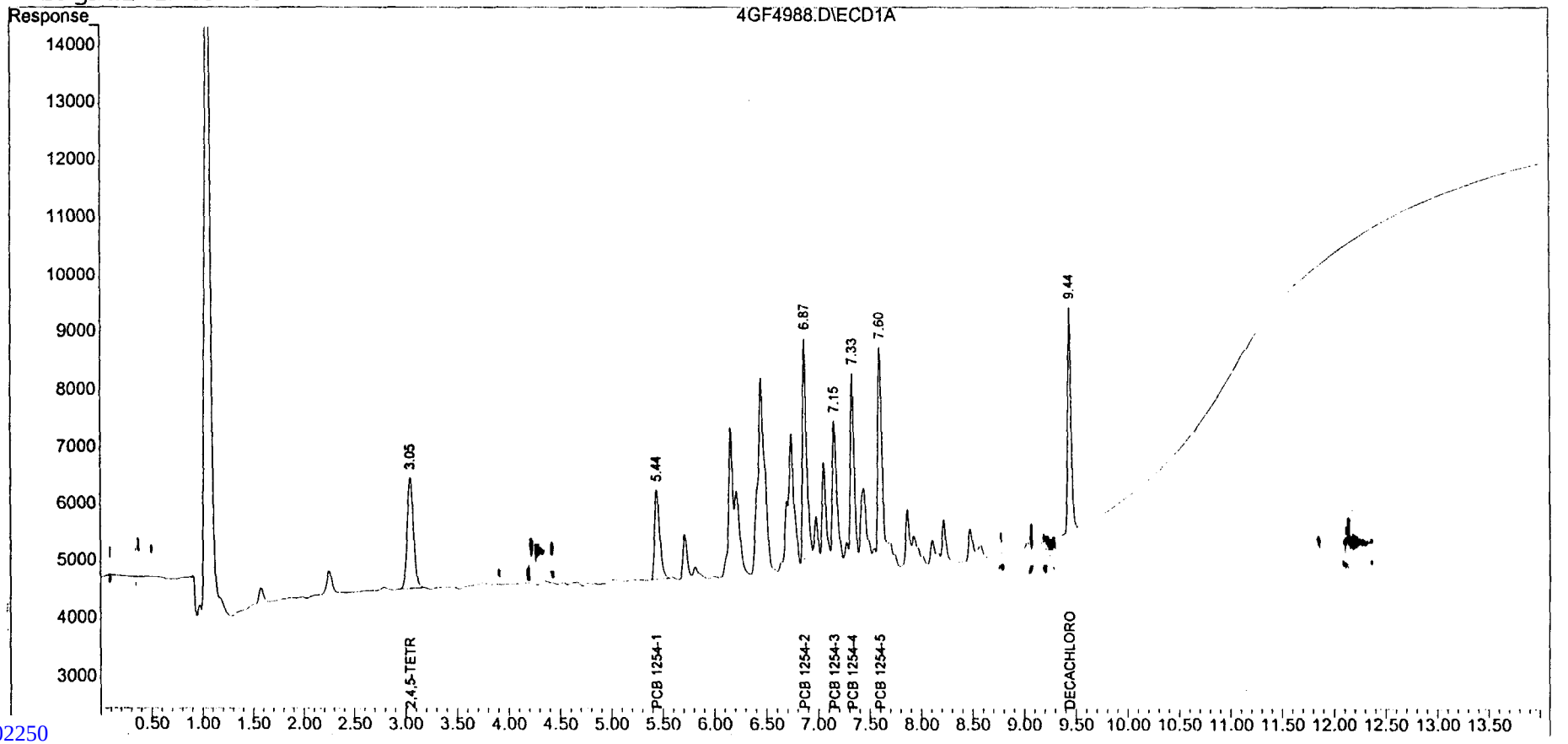
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitati... Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4988.D Vial: 13
Acq On : 27 Jul 2000 19:03 Operator: ECL
Sample : 1254 0.05 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:10 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002250

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4989.D Vial: 14
Acq On : 27 Jul 2000 19:22 Operator: ECL
Sample : 1254 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	21.370	14.5	88	-0.03
2	L1	PCB 1254-1	500.000	463.938	7.2	99	-0.02
3	L1	PCB 1254-2	500.000	436.048	12.8	94	-0.01
4	L1	PCB 1254-3	500.000	469.984	6.0	102	-0.01
5	L1	PCB 1254-4	500.000	442.462	11.5	99	-0.01
6	L1	PCB 1254-5	500.000	478.286	4.3	104	-0.01
7	S	DECACHLOROBIPHENYL	25.000	19.624	21.5#	84	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002251

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4989.D Vial: 14
Acq On : 27 Jul 2000 19:22 Operator: ECL
Sample : 1254 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:11 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

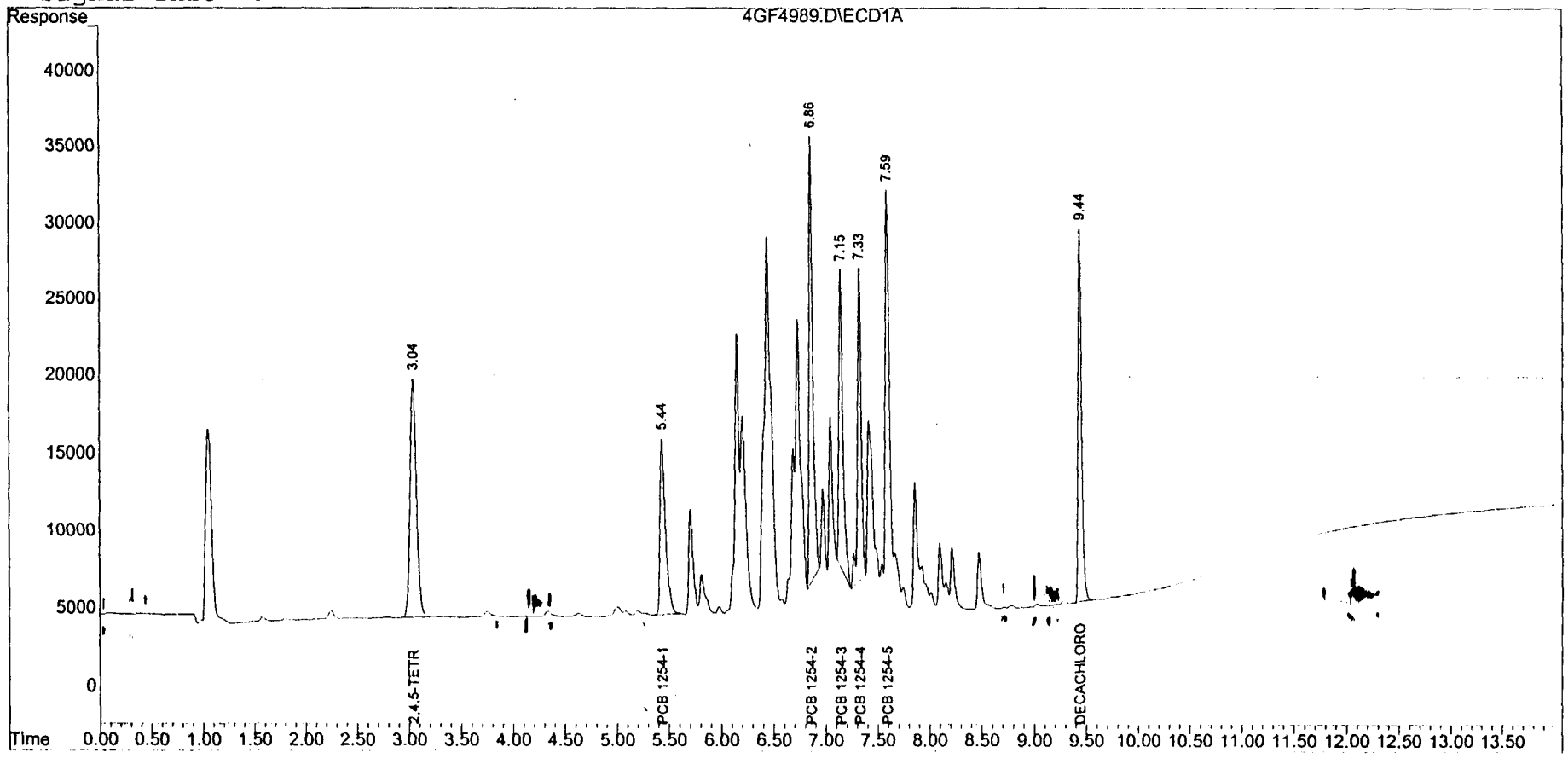
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.05	653860	21.370 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	106.85%
7) S DECACHLOROBIPHENYL	9.44	558839	19.624 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	98.12%
Target Compounds			
2) L1 PCB 1254-1	5.44	416850	463.938 UG/L
3) L1 PCB 1254-2	6.86	718394	436.048 UG/L
4) L1 PCB 1254-3	7.15	507187	469.984 UG/L
5) L1 PCB 1254-4	7.33	510312	442.462 UG/L
6) L1 PCB 1254-5	7.59	717520	478.286 UG/L
Sum PCB 1254-1		2870263	2290.718 UG/L
Average PCB 1254-1			458.144 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\072700\4GF4989.D Vial: 14
Acq On : 27 Jul 2000 19:22 Operator: ECL
Sample : 1254 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:11 2000 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:09:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:12:33 2000

Calibration Files

=	=		=
=	=	1	=4GF4990.D

		Compound	1 - Avg	%RS
1)	S	2,4,5-TETRACHLORO-M 2.764	2.764#E4	0.0
2)	L1	PCB 1248-1 5.095	5.095#E2	0.0
3)	L1	PCB 1248-2 1.385	1.385#E3	0.0
4)	L1	PCB 1248-3 8.562	8.562#E2	0.0
5)	L1	PCB 1248-4 4.007	4.007#E2	0.0
6)	L1	PCB 1248-5 3.285	3.285#E2	0.0
7)	S	DECACHLOROBIPHENYL 2.530	2.530#E4	0.0

(#) = Out of Range

002254

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4990.D Vial: 15
Acq On : 27 Jul 2000 19:41 Operator: ECL
Sample : 1248 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:12 2000 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:12:33 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.04	690878	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
7) S DECACHLOROBIPHENYL	9.44	632512	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
Target Compounds				
2) L1 PCB 1248-1	4.32	254739	500.000	UG/L
3) L1 PCB 1248-2	5.00	692501	500.000	UG/L
4) L1 PCB 1248-3	5.71	428080	500.000	UG/L
5) L1 PCB 1248-4	6.86	200327	500.000	UG/L
6) L1 PCB 1248-5	7.15	164232	500.000	UG/L
Sum PCB 1248-1		1739878	2500.000	UG/L
Average PCB 1248-1			500.000	UG/L

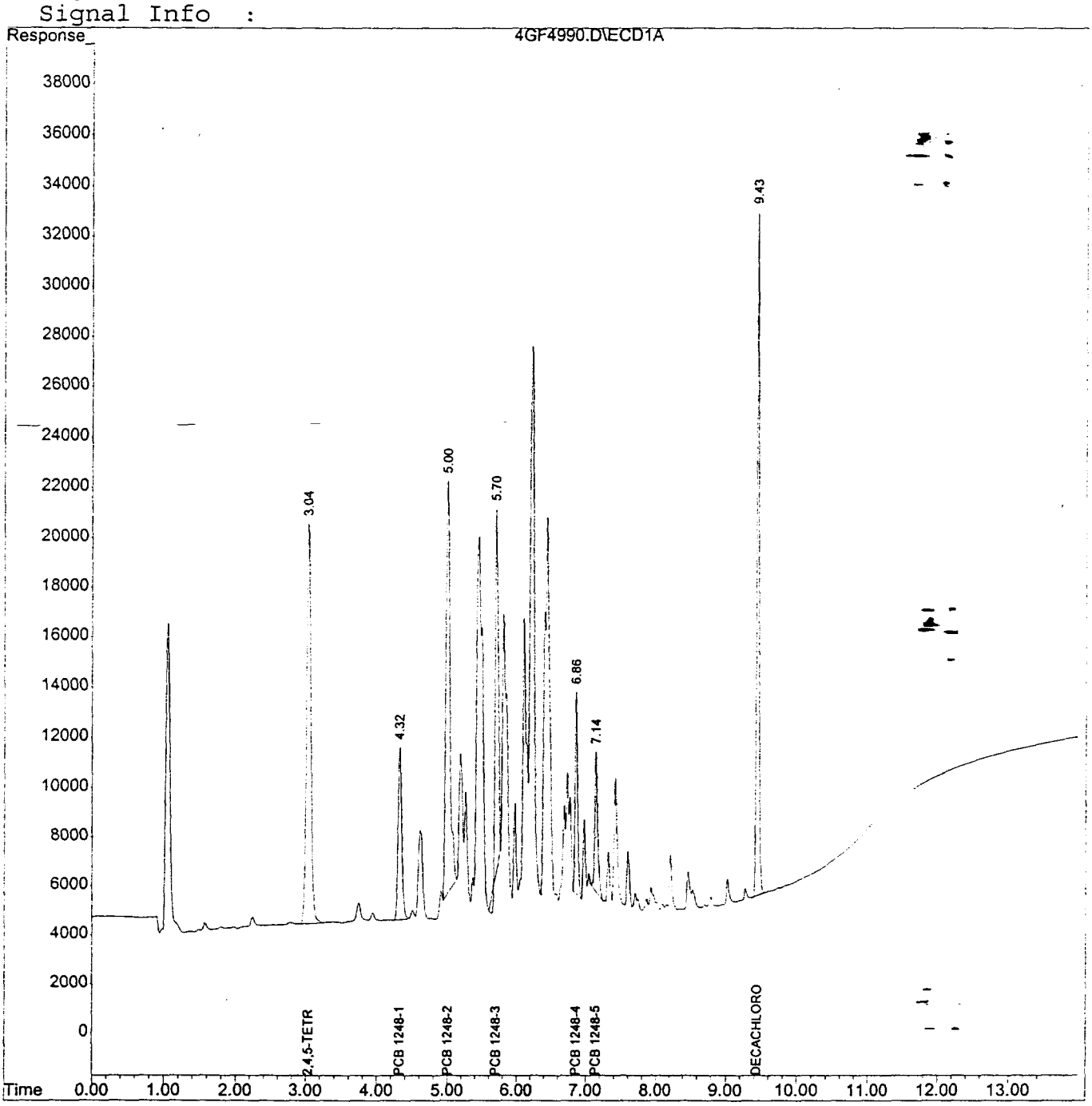
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4990.D Vial: 15
Acq On : 27 Jul 2000 19:41 Operator: ECL
Sample : 1248 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:12 2000 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:12:33 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002256

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4991.D Vial: 16
Acq On : 27 Jul 2000 19:59 Operator: ECL
Sample : 1248 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:12:33 2000
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1 PCB 1248-1	500.000	462.330	7.5	92	0.01
3	L1 PCB 1248-2	500.000	372.020	25.6#	74	0.01
4	L1 PCB 1248-3	500.000	402.275	19.5#	80	0.02
5	L1 PCB 1248-4	500.000	472.760	5.4	95	0.01
6	L1 PCB 1248-5	500.000	521.061	-4.2	104	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

002257

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4991.D Vial: 16
Acq On : 27 Jul 2000 19:59 Operator: ECL
Sample : 1248 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:13 2000 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:12:33 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	0.00	0	N.D.	UG/L
Spiked Amount 20.000		Recovery =	0.00%	
7) S DECACHLOROBIPHENYL	0.00	0	N.D.	UG/L
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
2) L1 PCB 1248-1	4.34	235547	462.330	UG/L
3) L1 PCB 1248-2	5.02	515249	372.020	UG/L
4) L1 PCB 1248-3	5.72	344411	402.275	UG/L
5) L1 PCB 1248-4	6.87	189413	472.760	UG/L
6) L1 PCB 1248-5	7.16	171149	521.061	UG/L
Sum PCB 1248-1		1455770	2230.446	UG/L
Average PCB 1248-1			446.089	UG/L

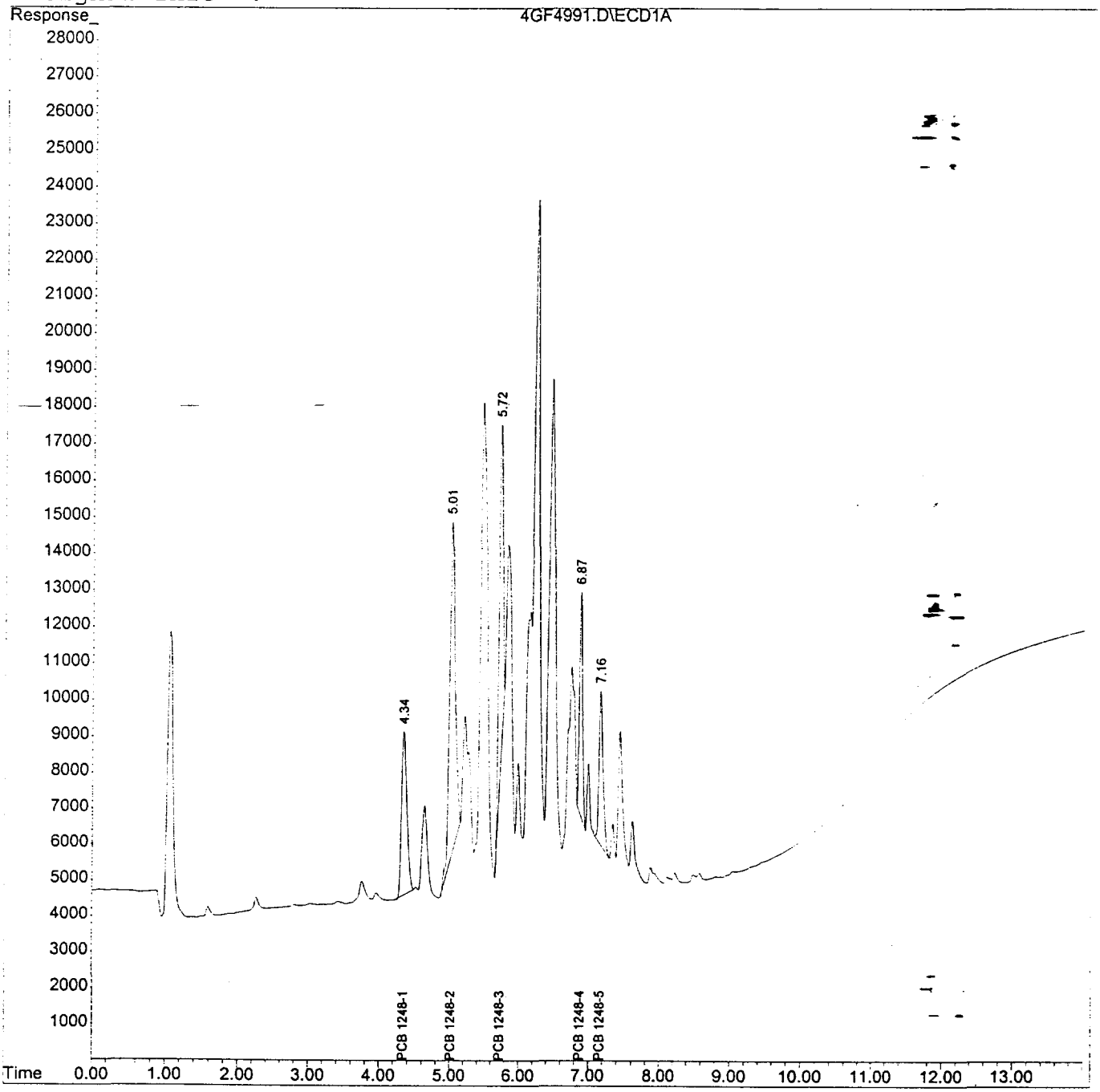
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4991.D Vial: 16
Acq On : 27 Jul 2000 19:59 Operator: ECL
Sample : 1248 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:13 2000 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:12:33 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002259

Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:14:35 2000

Calibration Files
= = =
= = 1 =4GF4992.D

		Compound		1 - Avg	%RS
1)	S	2,4,5-TETRACHLORO-M	2.875	2.875#E4	0.0
2)	L1	PCB 1242-1	3.683	3.683#E2	0.0
3)	L1	PCB 1242-2	9.146	9.146#E2	0.0
4)	L1	PCB 1242-3	5.235	5.235#E2	0.0
5)	L1	PCB 1242-4	1.462	1.462#E3	0.0
6)	L1	PCB 1242-5	6.433	6.433#E2	0.0
7)	S	DECACHLOROBIPHENYL	2.566	2.566#E4	0.0

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4992.D Vial: 17
Acq On : 27 Jul 2000 20:18 Operator: ECL
Sample : 1242 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:14 2000 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:14:35 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.03	718647	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S DECACHLOROBIPHENYL	9.43	641515	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 PCB 1242-1	3.74	184172	500.000	UG/L
3) L1 PCB 1242-2	4.32	457318	500.000	UG/L
4) L1 PCB 1242-3	4.62	261725	500.000	UG/L
5) L1 PCB 1242-4	5.00	731012	500.000	UG/L
6) L1 PCB 1242-5	5.71	321629	500.000	UG/L
Sum PCB 1242-1		1955855	2500.000	UG/L
Average PCB 1242-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

(#) = Out of Range
4GF4993.D 1242SF.M

SPCC's out = 0 CCC's out = 0
Fri Jul 28 16:15:49 2000

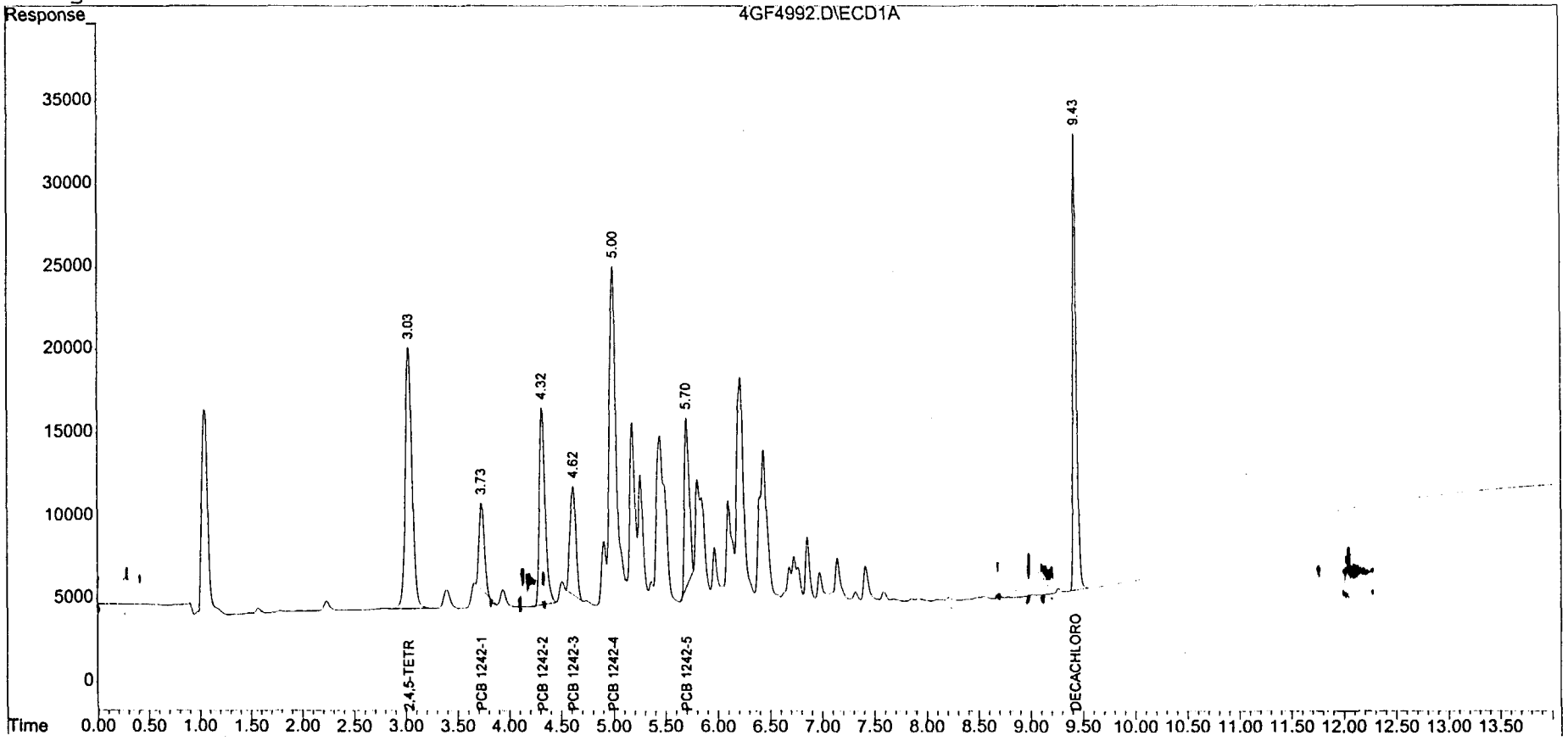
Page 1

Quantitat Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4992.D Vial: 17
Acq On : 27 Jul 2000 20:18 Operator: ECL
Sample : 1242 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:14 2000 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:14:35 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002262

1242SF.M Fri Jul 28 16:15:13 2000 Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4993.D Vial: 18
Acq On : 27 Jul 2000 20:37 Operator: ECL
Sample : 1242 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:14:35 2000
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	1.342	94.6#	5	-0.04
2	L1	PCB 1242-1	500.000	519.036	-3.8	104	0.00
3	L1	PCB 1242-2	500.000	488.466	2.3	98	0.00
4	L1	PCB 1242-3	500.000	489.715	2.1	98	0.00
5	L1	PCB 1242-4	500.000	492.405	1.5	98	0.00
6	L1	PCB 1242-5	500.000	503.970	-0.8	101	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4993.D Vial: 18
Acq On : 27 Jul 2000 20:37 Operator: ECL
Sample : 1242 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:15 2000 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:14:35 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	2.99	38582	1.342	UG/L
Spiked Amount 20.000		Recovery =	6.71%	
7) S DECACHLOROBIPHENYL	0.00	0	N.D.	UG/L
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
2) L1 PCB 1242-1	3.73	191184	519.036	UG/L
3) L1 PCB 1242-2	4.32	446768	488.466	UG/L
4) L1 PCB 1242-3	4.62	256341	489.715	UG/L
5) L1 PCB 1242-4	5.00	719907	492.405	UG/L
6) L1 PCB 1242-5	5.70	324182	503.970	UG/L
Sum PCB 1242-1		1938383	2493.592	UG/L
Average PCB 1242-1			498.718	UG/L

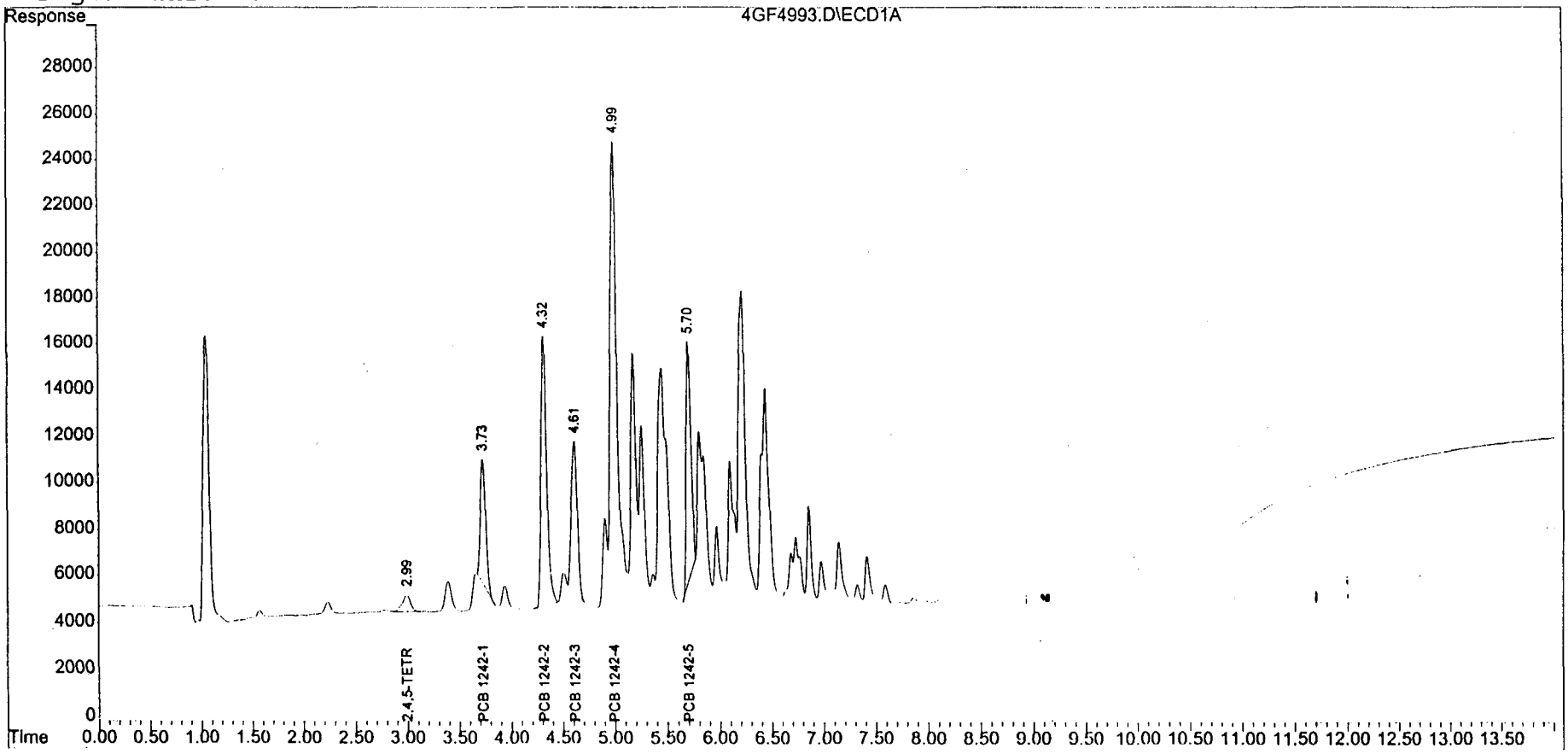
(f)=RT Delta > 1/2 Window (m)=manual int.

002264

Data File : C:\HPCHEM\2\DATA\072700\4GF4993.D Vial: 18
Acq On : 27 Jul 2000 20:37 Operator: ECL
Sample : 1242 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:15 2000 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:14:35 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000

Calibration Files
= = =
= = 1 =4GF4994.D

		Compound	1 - Avg	%R
1)	S	2,4,5-TETRACHLORO-M 2.726	2.726#E4	0.
2)	L1	PCB 1232-1 1.921	1.921#E2	0.
3)	L1	PCB 1232-2 3.798	3.798#E2	0.
4)	L1	PCB 1232-3 5.055	5.055#E2	0.
5)	L1	PCB 1232-4 8.040	8.040#E2	0.
6)	L1	PCB 1232-5 3.848	3.848#E2	0.
7)	S	DECACHLOROBIPHENYL 2.606	2.606#E4	0.

(#) = Out of Range

002266

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4994.D Vial: 19
Acq On : 27 Jul 2000 20:55 Operator: ECL
Sample : 1232 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:18 2000 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.02	681436	25.000	UG/L
Spiked Amount 20.000	Recovery =		125.00%	
7) S DECACHLOROBIPHENYL	9.43	651444	25.000	UG/L
Spiked Amount 20.000	Recovery =		125.00%	
Target Compounds				
2) L1 PCB 1232-1	3.38	96069	500.000	UG/L
3) L1 PCB 1232-2	3.72	189906	500.000	UG/L
4) L1 PCB 1232-3	4.31	252739	500.000	UG/L
5) L1 PCB 1232-4	4.99	401990	500.000	UG/L
6) L1 PCB 1232-5	5.70	192390	500.000	UG/L
Sum PCB 1232-1		1133096	2500.000	UG/L
Average PCB 1232-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

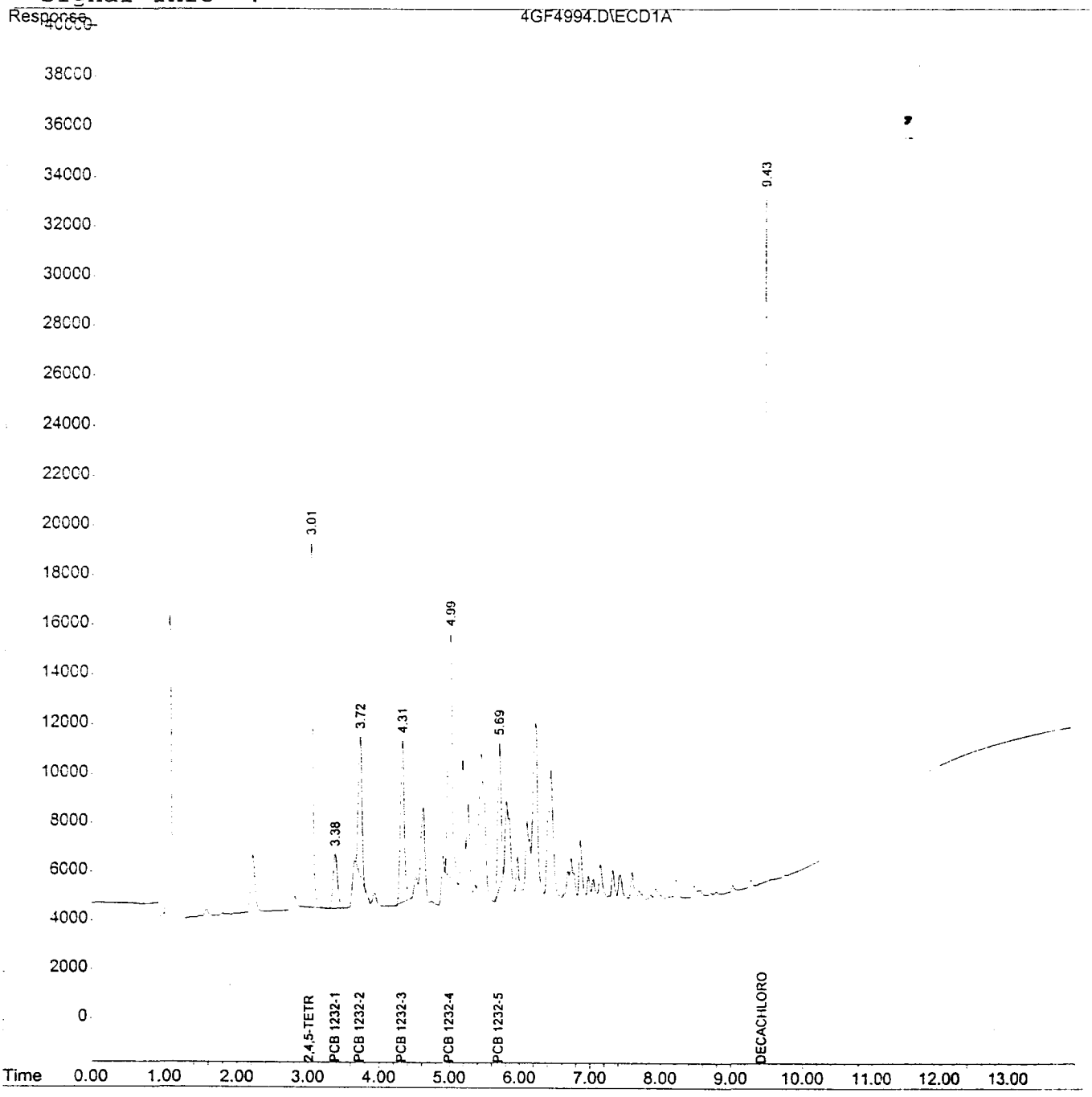
002267

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4994.D Vial: 19
Acq On : 27 Jul 2000 20:55 Operator: ECL
Sample : 1232 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:18 2000 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4995.D Vial: 20
Acq On : 27 Jul 2000 21:14 Operator: ECL
Sample : 1232 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	1.858	92.6#	7	-0.03
2	L1	PCB 1232-1	500.000	653.201	-30.6#	131	0.00
3	L1	PCB 1232-2	500.000	578.038	-15.6#	116	0.00
4	L1	PCB 1232-3	500.000	529.862	-6.0	106	0.00
5	L1	PCB 1232-4	500.000	527.400	-5.5	105	0.00
6	L1	PCB 1232-5	500.000	447.492	10.5	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4995.D Vial: 20
Acq On : 27 Jul 2000 21:14 Operator: ECL
Sample : 1232 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:19 2000 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	2.99	50657	1.858	UG/L
Spiked Amount 20.000		Recovery =	9.29%	
7) S DECACHLOROBIPHENYL	0.00	0	N.D.	UG/L
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
2) L1 PCB 1232-1	3.39	125505	653.201	UG/L
3) L1 PCB 1232-2	3.72	219546	578.038	UG/L
4) L1 PCB 1232-3	4.31	267834	529.862	UG/L
5) L1 PCB 1232-4	4.99	424019	527.400	UG/L
6) L1 PCB 1232-5	5.70	172186	447.492	UG/L
Sum PCB 1232-1		1209091	2735.992	UG/L
Average PCB 1232-1			547.198	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

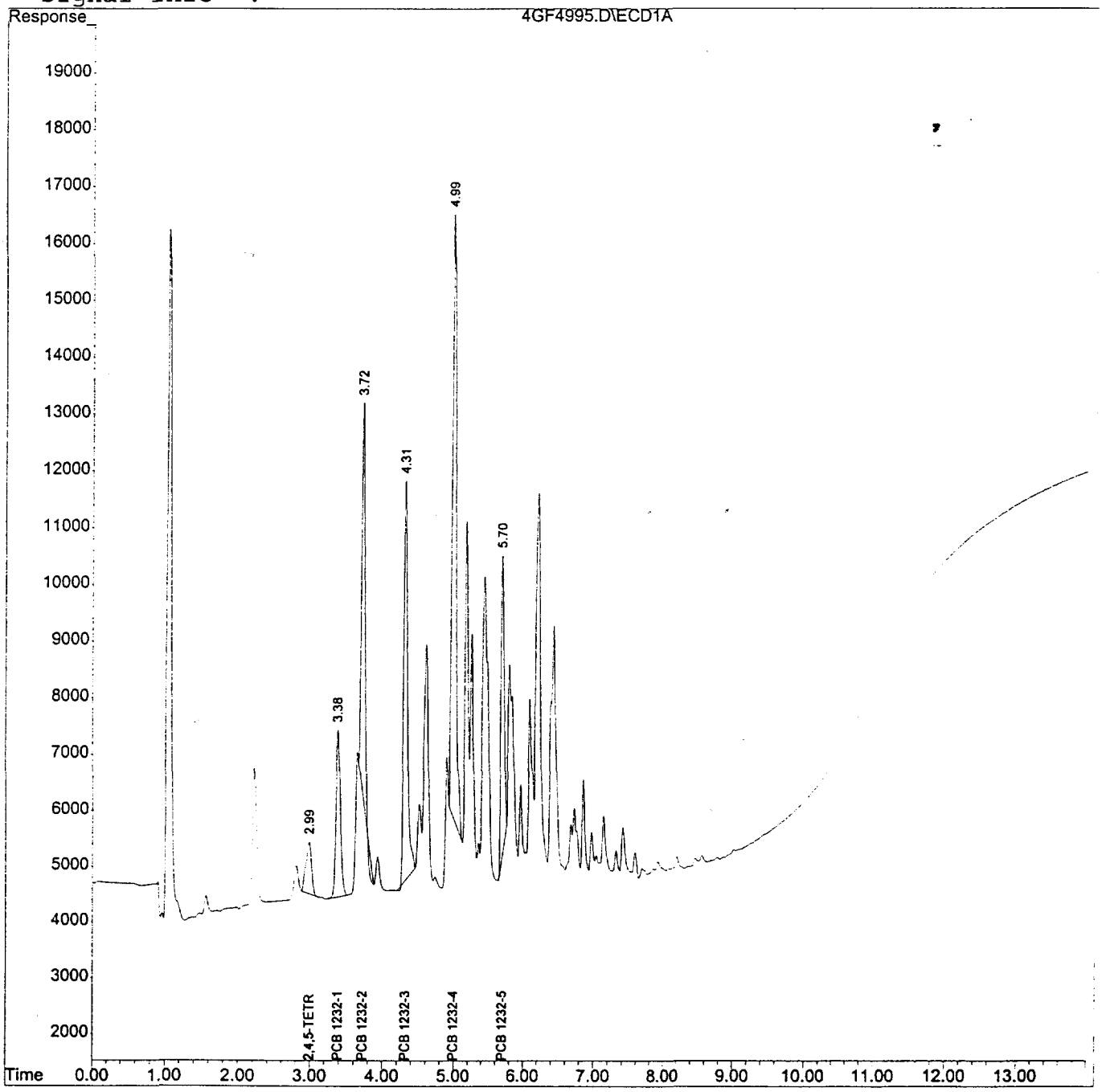
002270

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4995.D Vial: 20
Acq On : 27 Jul 2000 21:14 Operator: ECL
Sample : 1232 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:19 2000 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:18:23 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



410

002271

Response Factor Report HP 4

Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:20:20 2000

Calibration Files

=	=		=
=	=	1	=4GF4996.D

		Compound	1	-Avg	%RSD
1)	S	2,4,5-TETRACHLORO-M	2.971	2.971#E4	0.00
2)	L1	PCB 1221-1	3.153	3.153#E2	0.00
3)	L1	PCB 1221-2	3.486	3.486#E2	0.00
4)	L1	PCB 1221-3	4.676	4.676#E2	0.00
5)	L1	PCB 1221-4	6.076	6.076#E1	0.00
6)	L1	PCB 1221-5	1.246	1.246#E2	0.00
7)	S	DECACHLOROBIPHENYL	2.300	2.300#E4	0.00

(#) = Out of Range

002272

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4996.D Vial: 21
Acq On : 27 Jul 2000 21:32 Operator: ECL
Sample : 1221 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:20 2000 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:20:20 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.02	742786	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S DECACHLOROBIPHENYL	9.43	575115	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 PCB 1221-1	2.21	157669	500.000	UG/L
3) L1 PCB 1221-2	3.38	174282	500.000	UG/L
4) L1 PCB 1221-3	3.72	233784	500.000	UG/L
5) L1 PCB 1221-4	4.52	30382	500.000	UG/L
6) L1 PCB 1221-5	5.00	62322	500.000	UG/L
Sum PCB 1221-1		658439	2500.000	UG/L
Average PCB 1221-1			500.000	UG/L

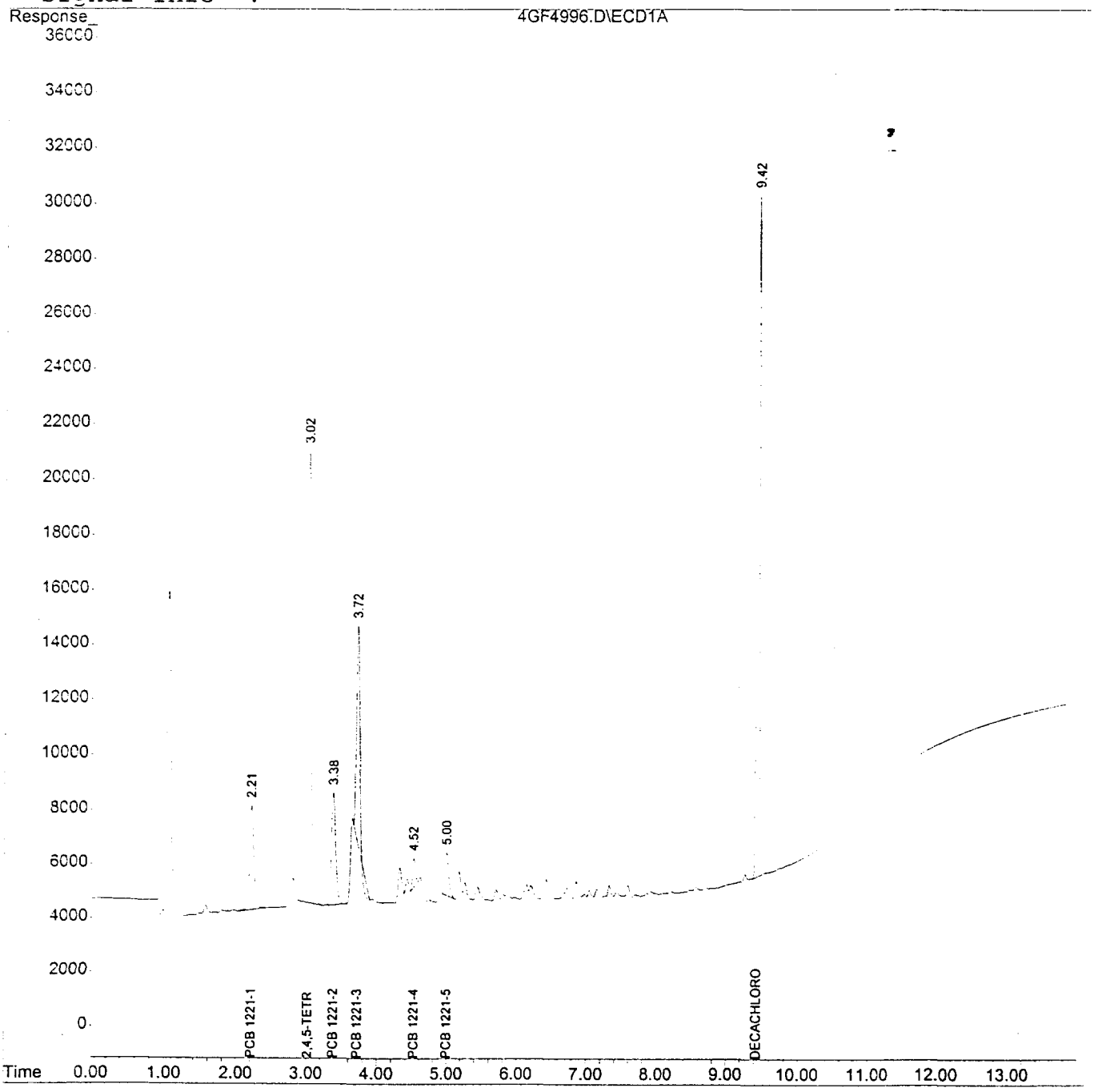
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4996.D Vial: 21
Acq On : 27 Jul 2000 21:32 Operator: ECL
Sample : 1221 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:20 2000 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION June 26, 2000
Last Update : Fri Jul 28 16:20:20 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072700\4GF4997.D Vial: 22
Acq On : 27 Jul 2000 21:51 Operator: ECL
Sample : 1221 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:20:20 2000
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	2.064	91.7#	8	-0.03
2	L1	PCB 1221-1	500.000	512.583	-2.5	103	0.00
3	L1	PCB 1221-2	500.000	516.913	-3.4	103	0.00
4	L1	PCB 1221-3	500.000	502.626	-0.5	101	0.00
5	L1	PCB 1221-4	500.000	486.186	2.8	97	0.00
6	L1	PCB 1221-5	500.000	381.197	23.8#	76	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4997.D Vial: 22
Acq On : 27 Jul 2000 21:51 Operator: ECL
Sample : 1221 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:21 2000 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:20:20 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5-TETRACHLORO-M-XYLENE	2.99	61328	2.064	UG/L
Spiked Amount 20.000	Recovery	=	10.32%	
7) S DECACHLOROBIPHENYL	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 PCB 1221-1	2.22	161637	512.583	UG/L
3) L1 PCB 1221-2	3.38	180177	516.913	UG/L
4) L1 PCB 1221-3	3.72	235012	502.626	UG/L
5) L1 PCB 1221-4	4.52	29542	486.186	UG/L
6) L1 PCB 1221-5	5.00	47514	381.197	UG/L
Sum PCB 1221-1		653883	2399.505	UG/L
Average PCB 1221-1			479.901	UG/L

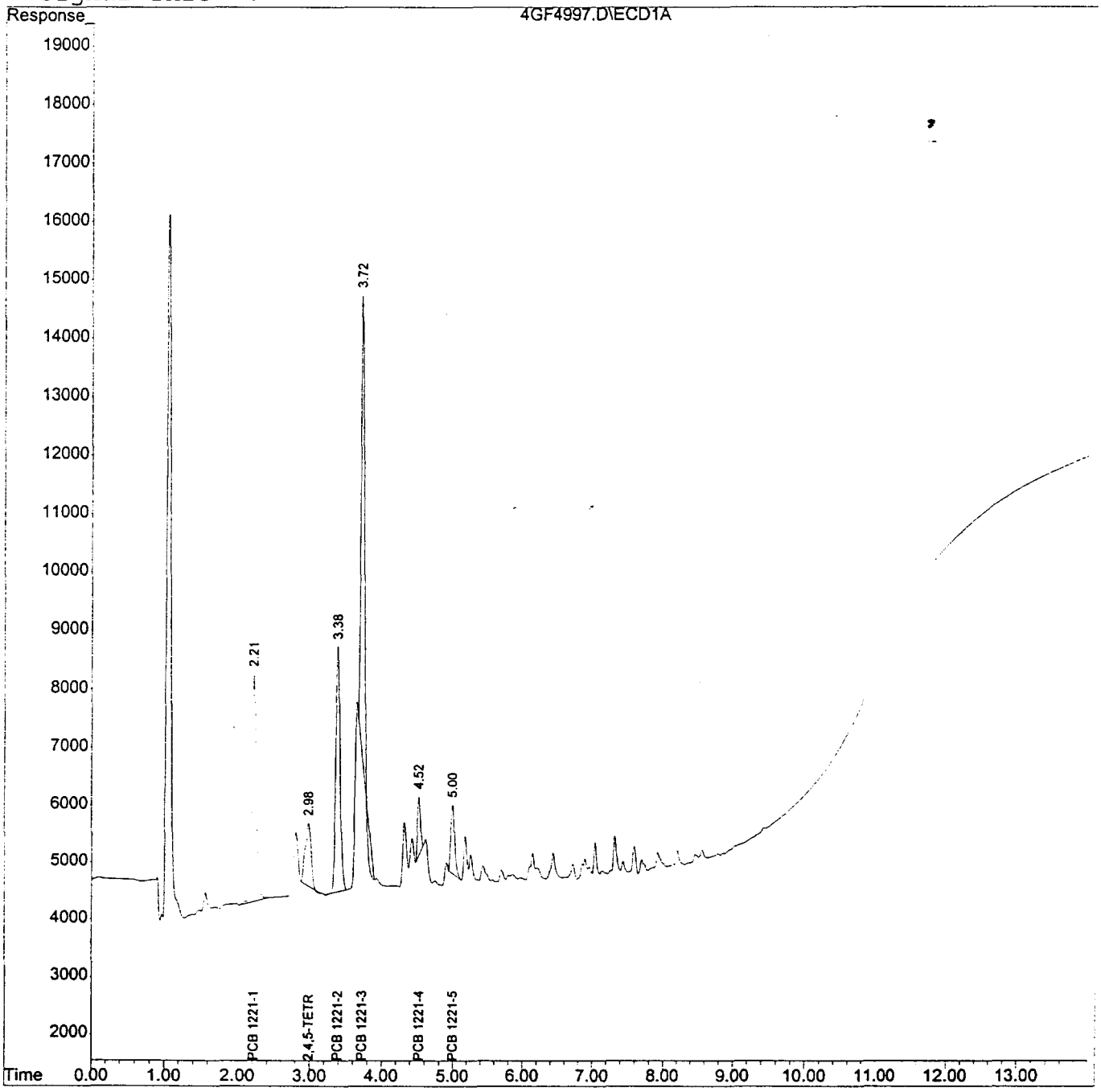
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072700\4GF4997.D Vial: 22
Acq On : 27 Jul 2000 21:51 Operator: ECL
Sample : 1221 ALT 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Jul 28 16:21 2000 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Jul 28 16:20:20 2000
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091400\4GF5262.D Vial: 1
Acq On : 14 Sep 2000 14:54 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Thu Sep 14 15:11:31 2000
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	26.832	-7.3	111	0.01
2	L1	PCB 1016-1	500.000	521.363	-4.3	113	0.00
3	L1	PCB 1016-2	500.000	505.332	-1.1	109	0.00
4	L1	PCB 1016-3	500.000	496.366	0.7	107	0.00
5	L1	PCB 1016-4	500.000	496.162	0.8	105	0.00
6	L1	PCB 1016-5	500.000	498.345	0.3	101	0.00
7	L2	PCB 1260-1	500.000	470.090	6.0	103	0.00
8	L2	PCB 1260-2	500.000	467.828	6.4	102	0.00
9	L2	PCB 1260-3	500.000	456.498	8.7	97	0.00
10	L2	PCB 1260-4	500.000	477.759	4.4	105	0.00
11	L2	PCB 1260-5	500.000	512.638	-2.5	105	0.00
12	S	DECACHLOROBIPHENYL	25.000	25.198	-0.8	106	0.00

002278

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5262.D Vial: 1
Acq On : 14 Sep 2000 14:54 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 14 15:11 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Thu Sep 14 15:11:31 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.15	835974	26.832 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	134.16%
12) S DECACHLOROBIPHENYL	9.50	628284	25.198 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.99%
Target Compounds			
2) L1 PCB 1016-1	3.84	254587	521.363 UG/L
3) L1 PCB 1016-2	4.41	642864	505.332 UG/L
4) L1 PCB 1016-3	4.71	359072	496.366 UG/L
5) L1 PCB 1016-4	5.08	990965	496.162 UG/L
6) L1 PCB 1016-5	5.78	406877	498.345 UG/L
Sum PCB 1016-1		2654365	2517.568 UG/L
Average PCB 1016-1			503.514 UG/L
7) L2 PCB 1260-1	7.11	590914	470.090 UG/L
8) L2 PCB 1260-2	7.39	946540	467.828 UG/L
9) L2 PCB 1260-3	7.66	854947	456.498 UG/L
10) L2 PCB 1260-4	8.28	1036172	477.759 UG/L
11) L2 PCB 1260-5	9.08	356280	512.638 UG/L
Sum PCB 1260-1		3784854	2384.813 UG/L
Average PCB 1260-1			476.963 UG/L

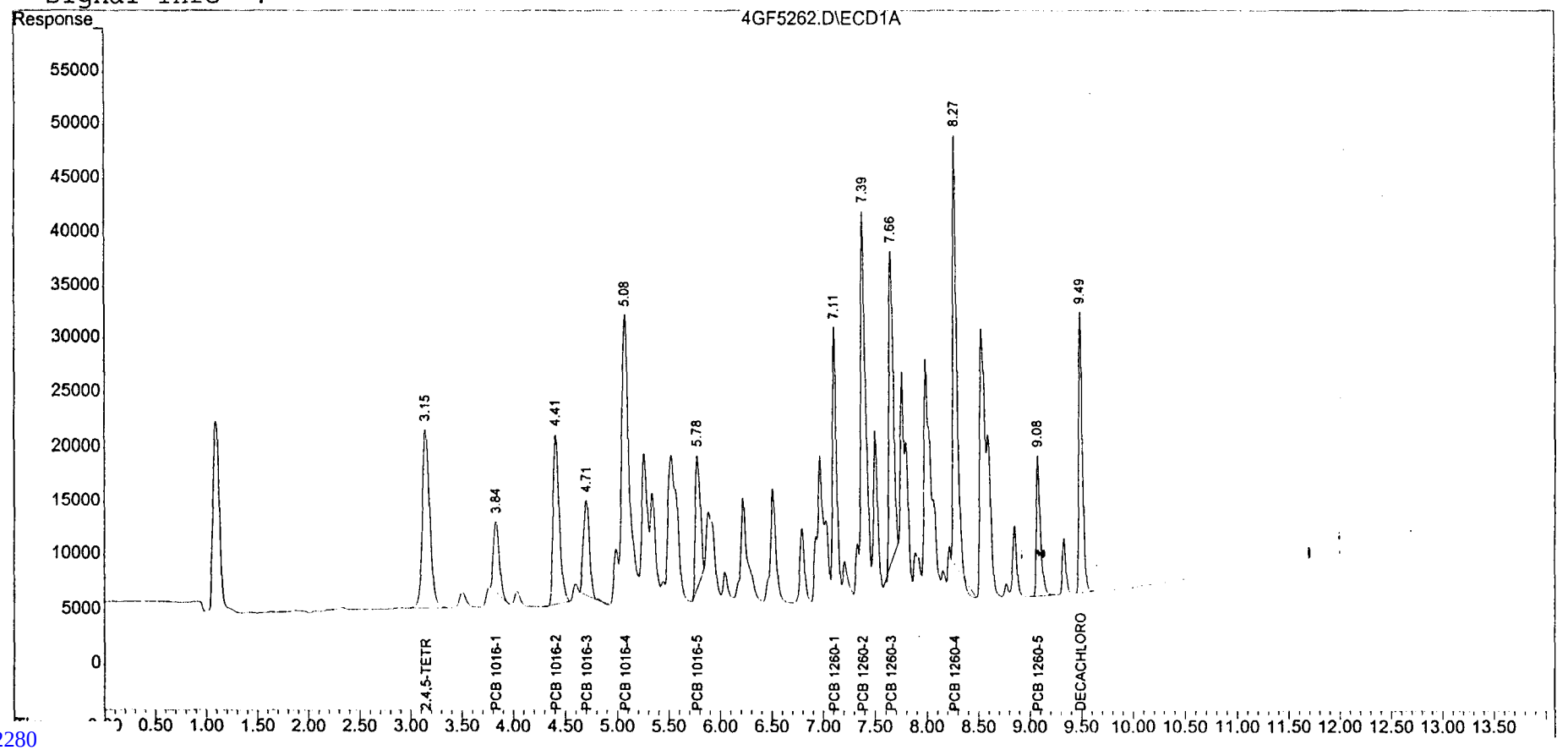
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantita h Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5262.D Vial: 1
Acq On : 14 Sep 2000 14:54 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 14 15:11 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Thu Sep 14 15:11:31 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002280

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091400\4GF5272.D Vial: 11
Acq On : 14 Sep 2000 18:19 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:42:53 2000
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5-TETRACHLORO-M-XYLENE	25.000	25.604	-2.4	106	0.00
2	L1	PCB 1016-1	500.000	511.436	-2.3	111	0.00
3	L1	PCB 1016-2	500.000	462.247	7.6	99	0.00
4	L1	PCB 1016-3	500.000	485.064	3.0	105	0.00
5	L1	PCB 1016-4	500.000	545.389	-9.1	116	0.00
6	L1	PCB 1016-5	500.000	397.254	20.5#	81	0.02
7	L2	PCB 1260-1	500.000	463.097	7.4	101	0.02
8	L2	PCB 1260-2	500.000	463.354	7.3	101	0.02
9	L2	PCB 1260-3	500.000	383.539	23.3#	81	0.02
10	L2	PCB 1260-4	500.000	511.968	-2.4	113	0.02
11	L2	PCB 1260-5	500.000	485.693	2.9	99	0.02
12	S	DECACHLOROBIPHENYL	25.000	25.524	-2.1	108	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5272.D Vial: 11
Acq On : 14 Sep 2000 18:19 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 8:49 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:42:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.03	797712	25.604 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	128.02%
12) S DECACHLOROBIPHENYL	9.42	636407	25.524 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	127.62%
Target Compounds			
2) L1 PCB 1016-1	3.73	249740	511.436 UG/L
3) L1 PCB 1016-2	4.32	588052	462.247 UG/L
4) L1 PCB 1016-3	4.61	350895	485.064 UG/L
5) L1 PCB 1016-4	4.99	1089286	545.389 UG/L
6) L1 PCB 1016-5	5.70	324341	397.254 UG/L
Sum PCB 1016-1		2602313	2401.389 UG/L
Average PCB 1016-1			480.278 UG/L
7) L2 PCB 1260-1	7.03	582124	463.097 UG/L
8) L2 PCB 1260-2	7.31	937488	463.354 UG/L
9) L2 PCB 1260-3	7.58	718306	383.539 UG/L
10) L2 PCB 1260-4	8.20	1110366	511.968 UG/L
11) L2 PCB 1260-5	9.01	337554	485.693 UG/L
Sum PCB 1260-1		3685839	2307.652 UG/L
Average PCB 1260-1			461.530 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

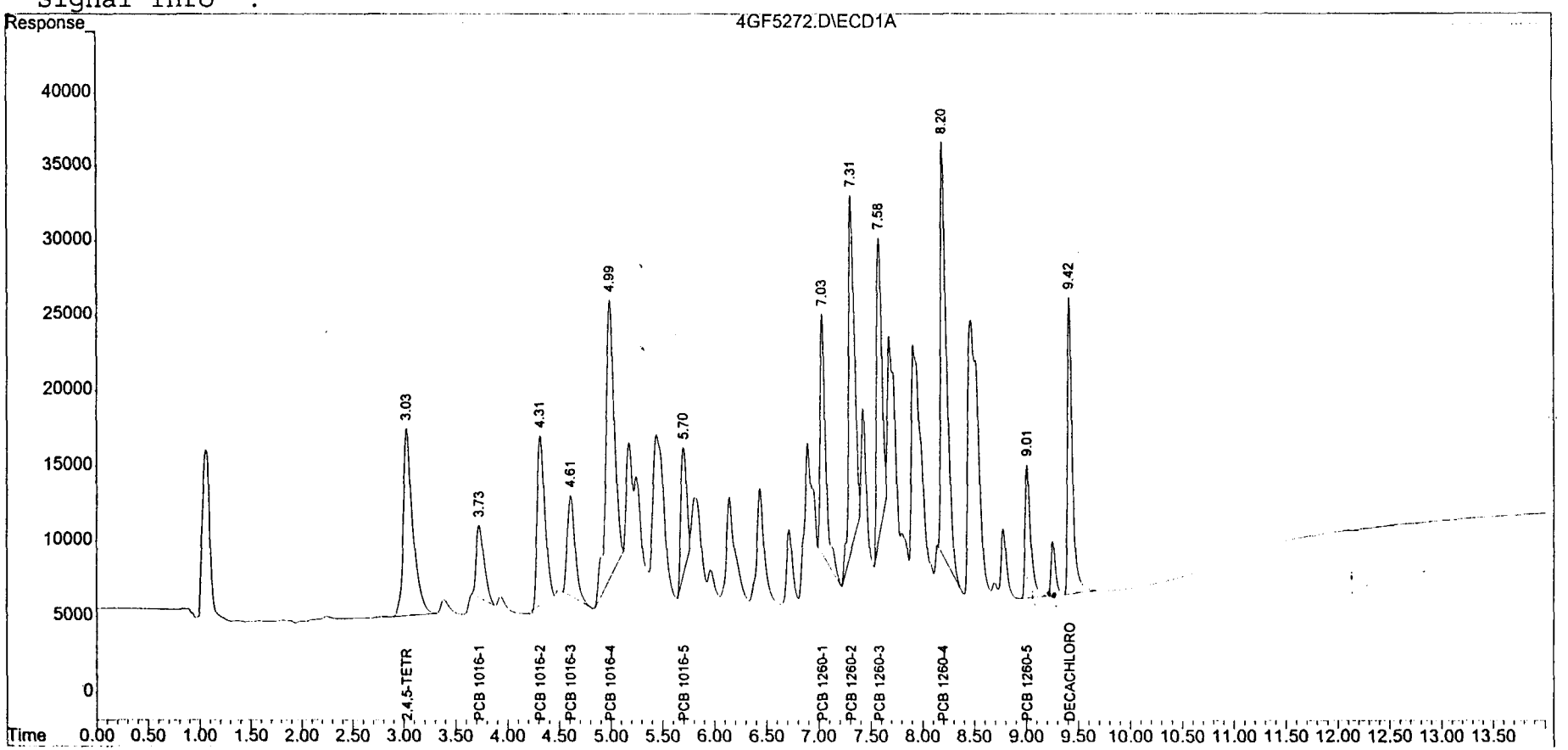
002282

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5272.D Vial: 11
Acq On : 14 Sep 2000 18:19 Operator: ECL
Sample : 1660 CHECK 0.5 PPM Inst : HP 4
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 8:49 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:42:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.3.4 Raw QC Data

002284

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5263.D Vial: 2
Acq On : 14 Sep 2000 15:31 Operator: ECL
Sample : WG84116-02 BLANK V147 P75 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:51 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:51:43 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.13	338614	10.868 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	54.34%
12) S DECACHLOROBIPHENYL	9.48	454989	18.248 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	91.24%
Target Compounds			
2) L1 PCB 1016-1	0.00	0	N.D. UG/L
3) L1 PCB 1016-2	0.00	0	N.D. UG/L
4) L1 PCB 1016-3	0.00	0	N.D. UG/L
5) L1 PCB 1016-4	0.00	0	N.D. UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		0	N.D. UG/L
Average PCB 1016-1			0.000 UG/L
7) L2 PCB 1260-1	0.00	0	N.D. UG/L
8) L2 PCB 1260-2	0.00	0	N.D. UG/L
9) L2 PCB 1260-3	0.00	0	N.D. UG/L
10) L2 PCB 1260-4	0.00	0	N.D. UG/L
11) L2 PCB 1260-5	0.00	0	N.D. UG/L
Sum PCB 1260-1		0	N.D. UG/L
Average PCB 1260-1			0.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

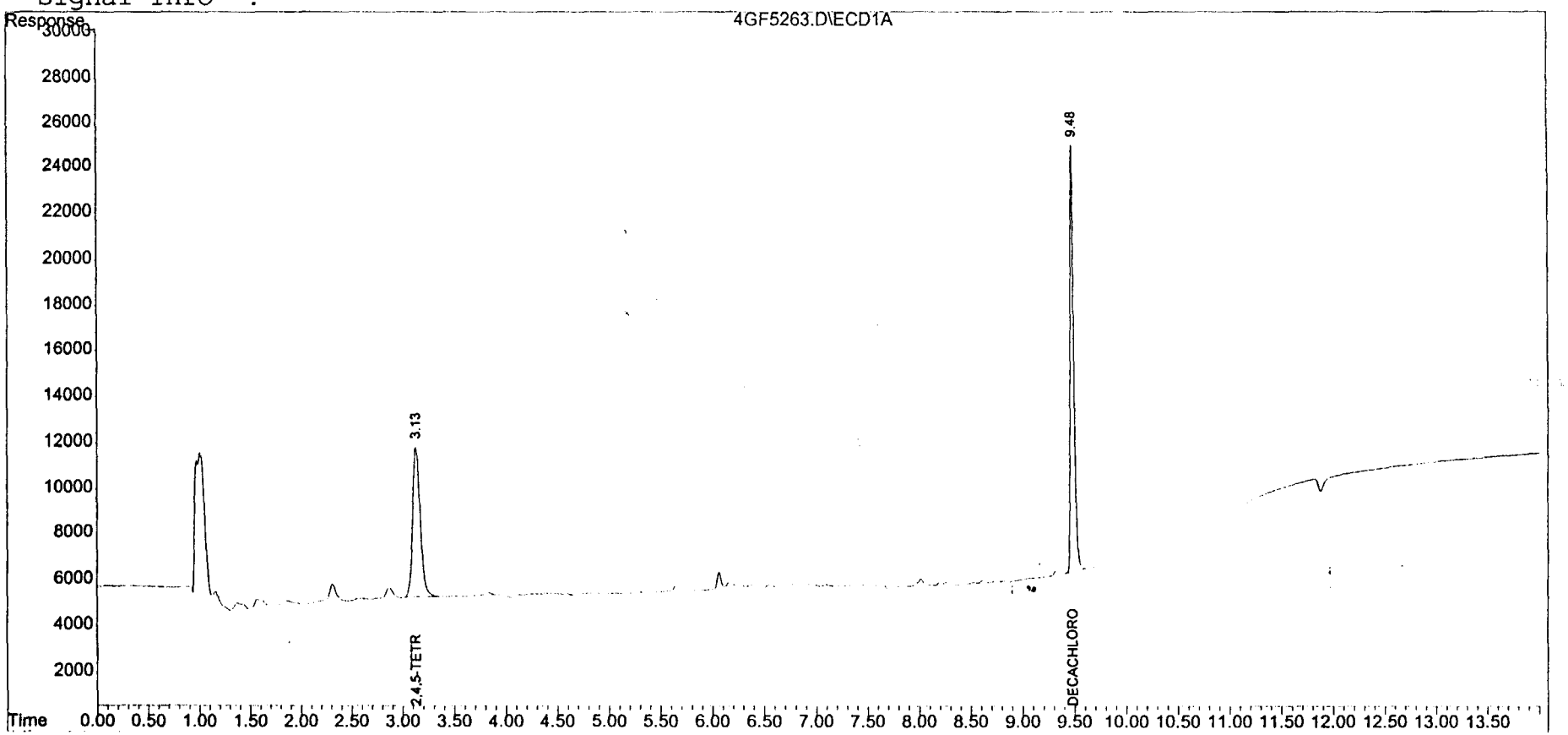
002285

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5263.D Vial: 2
Acq On : 14 Sep 2000 15:31 Operator: ECL
Sample : WG84116-02 BLANK V147 P75 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:51 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:51:43 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5265.D Vial: 4
Acq On : 14 Sep 2000 16:09 Operator: ECL
Sample : WG84116-06 BLANK V147 P75 Inst : HP 4
Misc : WATER SPLP Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:52 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:54 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.07	340578	10.931 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	54.66%
12) S DECACHLOROBIPHENYL	9.45	205118	8.226 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	41.13%
Target Compounds			
2) L1 PCB 1016-1	0.00	0	N.D. UG/L
3) L1 PCB 1016-2	0.00	0	N.D. UG/L
4) L1 PCB 1016-3	0.00	0	N.D. UG/L
5) L1 PCB 1016-4	0.00	0	N.D. UG/L
6) L1 PCB 1016-5	0.00	0	N.D. UG/L
Sum PCB 1016-1		0	N.D. UG/L
Average PCB 1016-1			0.000 UG/L
7) L2 PCB 1260-1	0.00	0	N.D. UG/L
8) L2 PCB 1260-2	0.00	0	N.D. UG/L
9) L2 PCB 1260-3	0.00	0	N.D. UG/L
10) L2 PCB 1260-4	0.00	0	N.D. UG/L
11) L2 PCB 1260-5	0.00	0	N.D. UG/L
Sum PCB 1260-1		0	N.D. UG/L
Average PCB 1260-1			0.000 UG/L

435

(f)=RT Delta > 1/2 Window (m)=manual int.

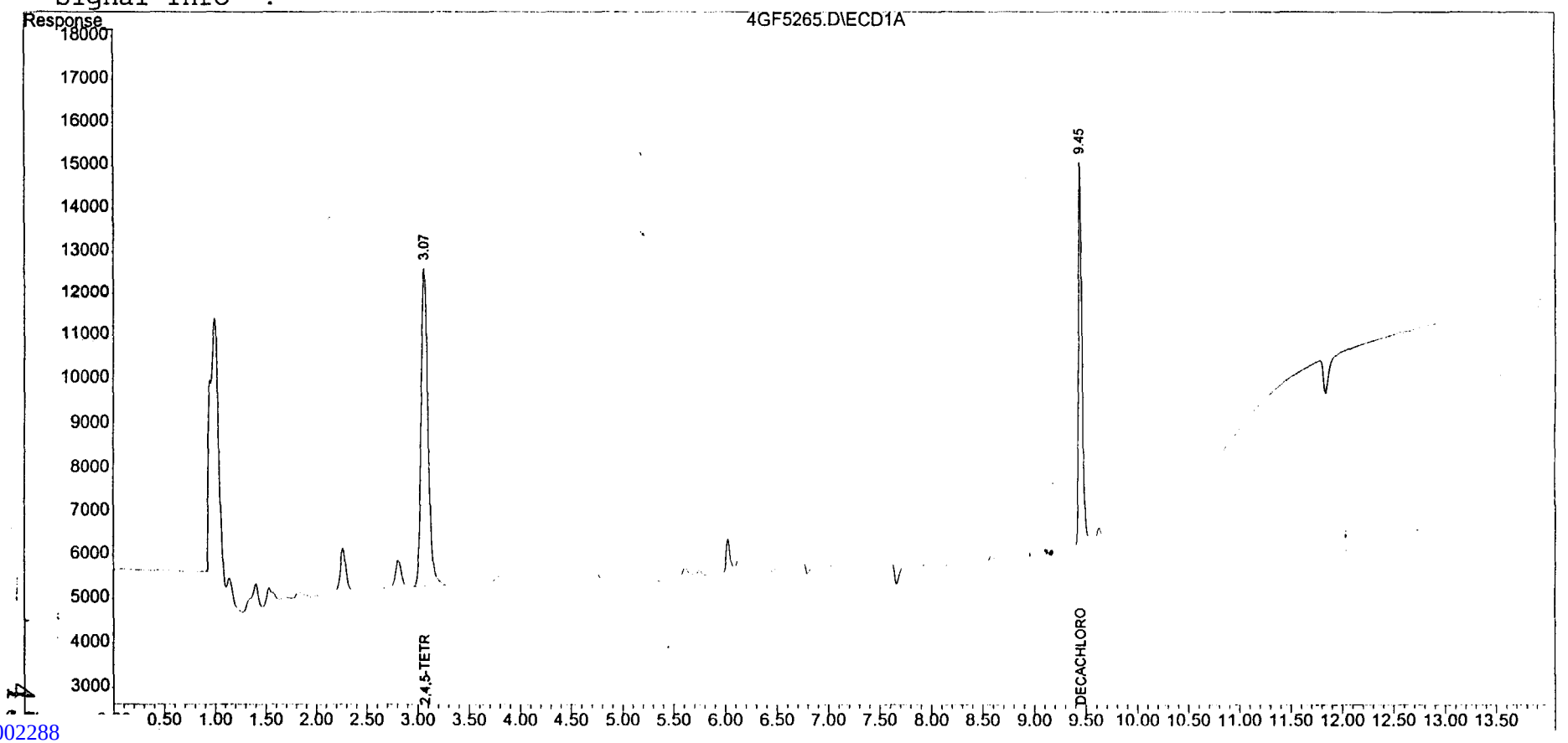
002287

Quantitat) n Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5265.D Vial: 4
Acq On : 14 Sep 2000 16:09 Operator: ECL
Sample : WG84116-06 BLANK V147 P75 Inst : HP 4
Misc : WATER SPLP Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:52 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:54 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002288

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5264.D Vial: 3
Acq On : 14 Sep 2000 15:50 Operator: ECL
Sample : WG84116-03 LCS V147 P75 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:52 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:20 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

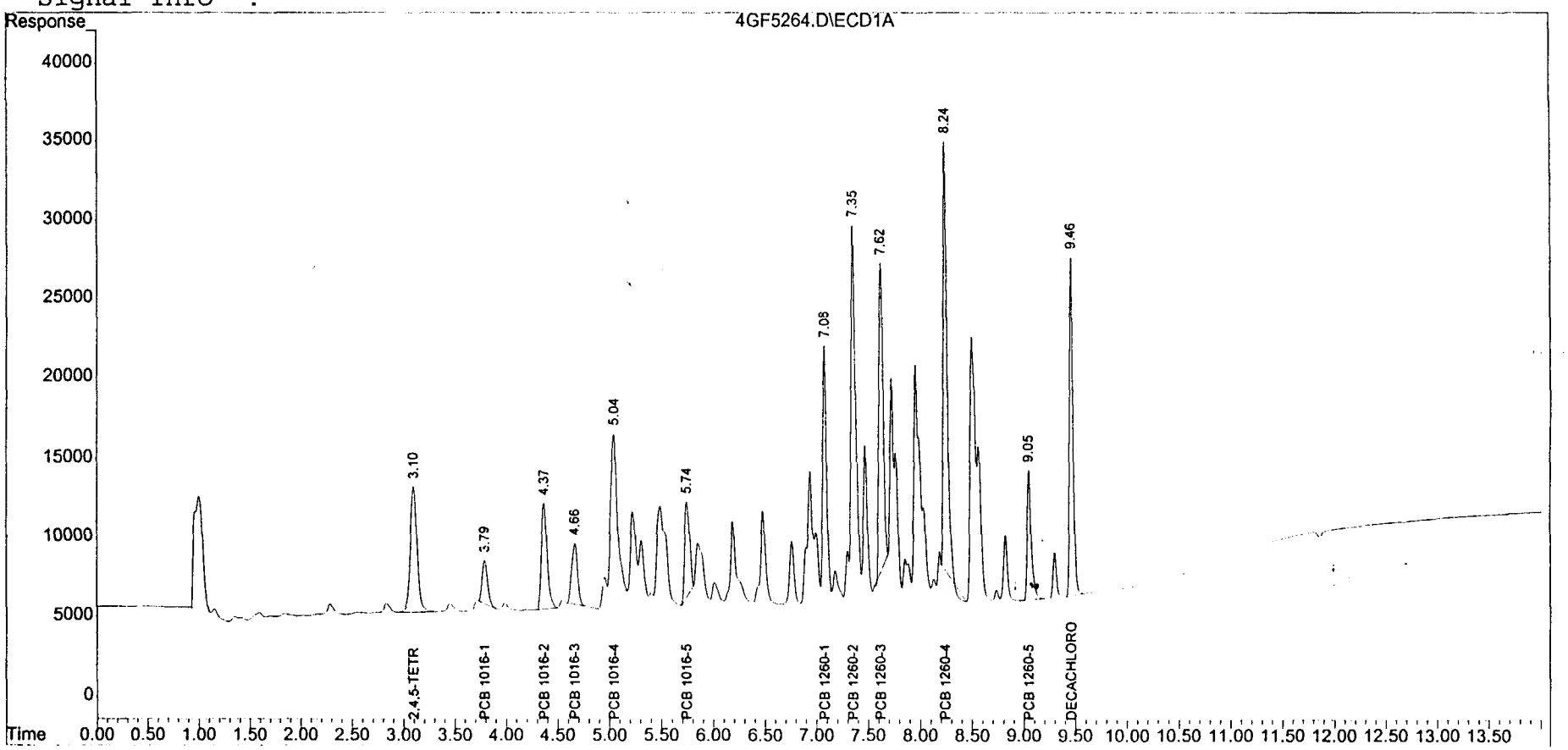
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.10	366065	11.749 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	58.75%
12) S DECACHLOROBIPHENYL	9.46	506352	20.308 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	101.54%
Target Compounds			
2) L1 PCB 1016-1	3.79	99660	2.041 UG/L
3) L1 PCB 1016-2	4.37	260532	2.048 UG/L
4) L1 PCB 1016-3	4.67	152035	2.102 UG/L
5) L1 PCB 1016-4	5.05	424123	2.124 UG/L
6) L1 PCB 1016-5	5.74	201651	2.470 UG/L
Sum PCB 1016-1		1138000	10.784 UG/L
Average PCB 1016-1			2.157 UG/L
7) L2 PCB 1260-1	7.08	376494	2.995 UG/L
8) L2 PCB 1260-2	7.35	616385	3.046 UG/L
9) L2 PCB 1260-3	7.62	558677	2.983 UG/L
10) L2 PCB 1260-4	8.24	683886	3.153 UG/L
11) L2 PCB 1260-5	9.05	224110	3.225 UG/L
Sum PCB 1260-1		2459552	15.403 UG/L
Average PCB 1260-1			3.081 UG/L

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5264.D Vial: 3
Acq On : 14 Sep 2000 15:50 Operator: ECL
Sample : WG84116-03 LCS V147 P75 Inst : HP 4
Misc : WATER Multiplr: 0.01
IntFile : events.e
Quant Time: Sep 15 8:52 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:52:20 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5268.D Vial: 7
Acq On : 14 Sep 2000 17:05 Operator: ECL
Sample : WG84116-04 L0009094-04 MS Inst : HP 4
Misc : WATER Multiplr: 0.02
IntFile : events.e
Quant Time: Sep 15 8:54 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.10	41510	1.332 UG/L
Spiked Amount 20.000	Range 13 - 154	Recovery =	6.66%#
12) S DECACHLOROBIPHENYL	9.44	170163	6.825 UG/L
Spiked Amount 20.000	Range 25 - 140	Recovery =	34.13%
Target Compounds			
2) L1 PCB 1016-1	3.77	53166	2.178 UG/L
3) L1 PCB 1016-2	4.35	68179	1.072 UG/L
4) L1 PCB 1016-3	4.64	43509	1.203 UG/L
5) L1 PCB 1016-4	5.02	129298	1.295 UG/L
6) L1 PCB 1016-5	5.71	27098	0.664 UG/L
Sum PCB 1016-1		321251	6.411 UG/L
Average PCB 1016-1			1.282 UG/L
7) L2 PCB 1260-1	7.05	105398	1.677 UG/L
8) L2 PCB 1260-2	7.32	164978	1.631 UG/L
9) L2 PCB 1260-3	7.60	162926	1.740 UG/L
10) L2 PCB 1260-4	8.21	160511	1.480 UG/L
11) L2 PCB 1260-5	9.02	24284	0.699 UG/L
Sum PCB 1260-1		618098	7.227 UG/L
Average PCB 1260-1			1.445 UG/L

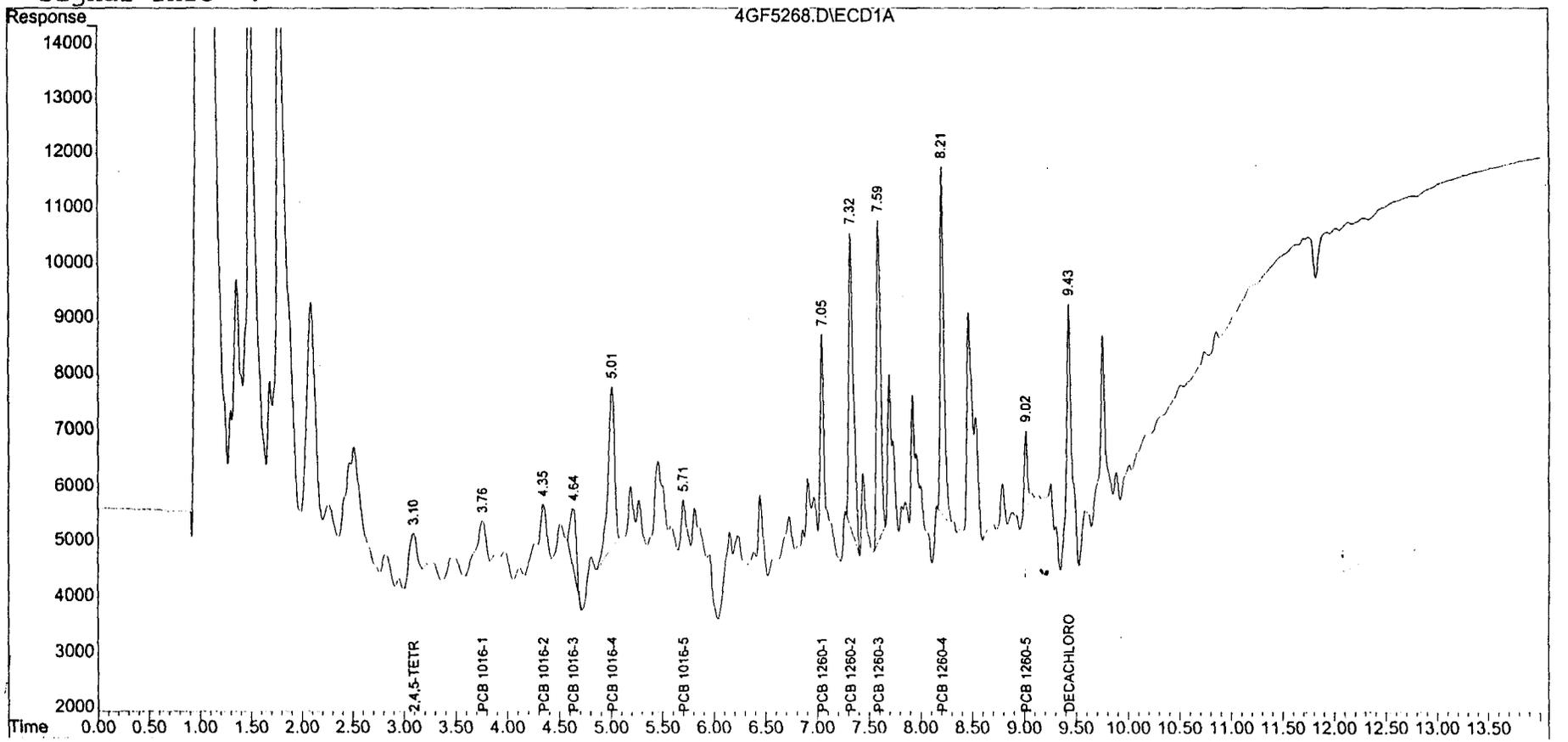
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitat Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5268.D Vial: 7
Acq On : 14 Sep 2000 17:05 Operator: ECL
Sample : WG84116-04 L0009094-04 MS Inst : HP 4
Misc : WATER Multiplr: 0.02
IntFile : events.e
Quant Time: Sep 15 8:54 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5269.D Vial: 8
Acq On : 14 Sep 2000 17:23 Operator: ECL
Sample : WG84116-05 L0009094-04 MSD Inst : HP 4
Misc : WATER Multiplr: 0.02
IntFile : events.e
Quant Time: Sep 15 8:54 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5-TETRACHLORO-M-XYLENE	3.05	85588	2.747 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	13.73%
12) S DECACHLOROBIPHENYL	9.44	207320	8.315 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	41.57%
Target Compounds			
2) L1 PCB 1016-1	3.74	84010	3.441 UG/L
3) L1 PCB 1016-2	4.33	88910	1.398 UG/L
4) L1 PCB 1016-3	4.63	54495	1.507 UG/L
5) L1 PCB 1016-4	5.01	257871	2.582 UG/L
6) L1 PCB 1016-5	5.71	43605	1.068 UG/L
Sum PCB 1016-1		528890	9.996 UG/L
Average PCB 1016-1			1.999 UG/L
7) L2 PCB 1260-1	7.05	115775	1.842 UG/L
8) L2 PCB 1260-2	7.33	231032	2.284 UG/L
9) L2 PCB 1260-3	7.60	168634	1.801 UG/L
10) L2 PCB 1260-4	8.21	296660	2.736 UG/L
11) L2 PCB 1260-5	9.02	35422	1.019 UG/L
Sum PCB 1260-1		847522	9.682 UG/L
Average PCB 1260-1			1.936 UG/L

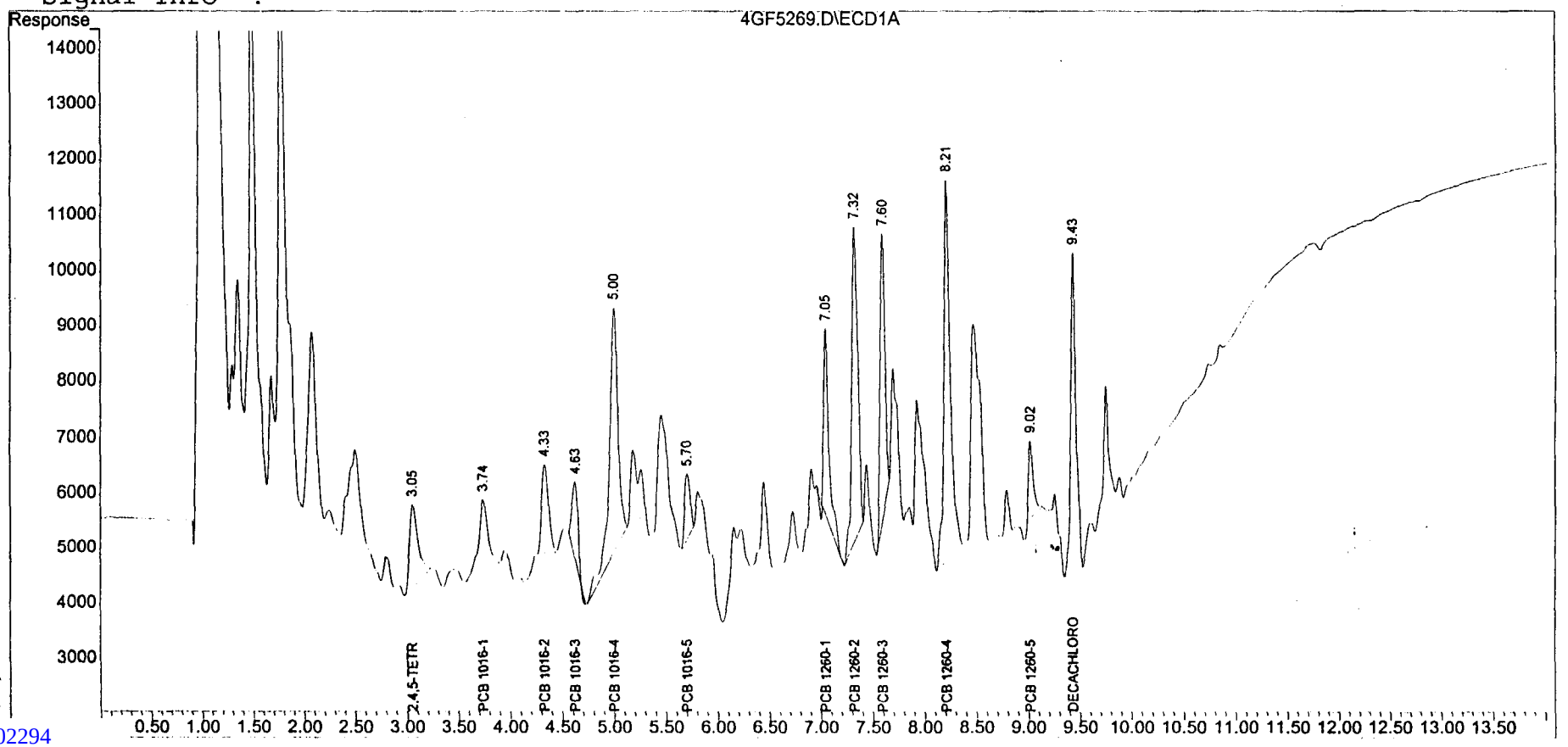
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\091400\4GF5269.D Vial: 8
Acq On : 14 Sep 2000 17:23 Operator: ECL
Sample : WG84116-05 L0009094-04 MSD Inst : HP 4
Misc : WATER Multiplr: 0.02
IntFile : events.e
Quant Time: Sep 15 8:54 2000 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION July 27, 2000
Last Update : Fri Sep 15 08:53:40 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



002294

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 7/27/00 Column ID RTX-CLP Analyst ECL

Instrument ID HP4 Data Subdirectory 072700

SOP # GCS01 Rev. # 0	8100	SOP # GCS02 Rev. # 0	8015B Mod (DRO)	SOP # GCS09 Rev. # 0	8081A
SOP # GCS03 Rev. # 0	PRO	SOP # GCS02 Rev. # 0	8015B Mod (Alcohol)	SOP # GCS10 Rev. # 1 ✓	8082
				SOP # GCS04 Rev. # 2	8151
				SOP # GCS07 Rev. # 0	8011

Daily Check	
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem:

Action Taken: performed wipe test on detector

Returned to Control? Yes No Additional Discussion on Page

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
4GF4976	PCB 1660 2.0 PPM	NA	8082	✓	SV 47-46
77	1.0				
78	0.5				
79	0.25				
80	0.1				
81	0.05				
82	Alt. ✓ 0.5 PPM				SV 48-12
83	PCB 1254 2.0 PPM				SV 46-35
84	1.0				
85	0.5				
86	0.25				
87	0.1				

Comments:

Reviewed By: SMW 8-7-00

002295

Compliant Analysis, Reanalysis complete
= Rerun
RRll = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Date 7/17/00 Instrument ID HP4 Data Subdirectory 072700 Column ID RTX-CLP

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
4FF4988	PCB 1254 0.05 PPM	NA	8082	✓	
89	Alt. ✓ 0.5 PPM				SV 47-47
90	PCB 1248 0.5 PPM				46-39
91	Alt. ✓ 0.5 PPM				45-34
92	PCB 1242 0.5 PPM				46-37
93	Alt. ✓ 0.5 PPM				47-48
94	PCB 1232 0.5 PPM				46-15
95	Alt. ✓ 0.5 PPM				46-16
96	PCB 1221 0.5 PPM				45-35
97	Alt. ✓ 0.5 PPM				46-34

EC 7/28/00

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

Reviewed By: SMW 8-2-00

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 9/14/00 Column ID RTX-CLP Analyst ECL
Instrument ID HP 4 Data Subdirectory 091400
SOP # GCS01 Rev. # 0 _____ 8100
SOP # GCS03 Rev. # 0 _____ PRO
SOP # GCS02 Rev. # 0 _____ 8015B Mod (DRO)
SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol)
SOP # GCS09 Rev. # 0 _____ 8081A
SOP # GCS10 Rev. # 1 ✓ 8082
SOP # GCS04 Rev. # 2 _____ 8151
SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	✓
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (___ cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem:

Action Taken:

Returned to Control? Yes No Additional Discussion on Page

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
4GF5262	PCB 1660 ✓ 0.5 PPM	NA	8082	✓	SV 47-46
63	Blank V147 P75 WG84116-02				
64	LCS " " -03				
65	SPLP Blank 9/11 " -06				
66	L0009094-02				
67	04				
68	04MS WG84116-04				
69	04MSD " 05				
70	06				
71	08			✓	
72	PCB 1660 ✓ 0.5 PPM			✓	SV 47-46 1 peak in Aroclor failed
73	Blank V147 P89 WG84207-02			✓	

Comments:

Reviewed By: CLF 9/15/00

002297

ompliant Analysis, Reanalysis complete
Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Sample Extract Log Sheet

Volume 147
Page 75

Parameter: PCB-H_2O SOP #: EXP01 Revision #: 8
Ext Analyst(s): DLP, CAG, NDP TV/KD Analyst(s): GSG
Date/Time Ext: 09/13/00@0933 pm Date TV/KD: 09/13/00
Spike/Surrogate Analyst: DLP/CAG Witness: PTP
Extract Relinquished By: GSG
Extract Received By: CLK Date Ext Received: 9/13/00

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
ASE*	3545					
Separatory Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

Extraction Work Group WG 84116
Extraction Work Group WG 84193

	Client ID	Sample ID	pH ✓ <2	pH ✓ N	pH ✓ >12	Test Cod	Initial Vol / Wt	Amount of Surrogate Added	Amount of Spike Added	Final Volume	Extract Color	Emulsion ✓ A	Emulsion ✓ BN	Emulsion ✓ N	Comments
1		Blank		✓			1L	200ul ESS-0033-42		10mL	T				WG 84116-02
2		LCS		✓			1L		100ul ESS-0032-50		T				WG 84116-03
3		SPKPBLK 9/11		✓		8082	960mL				T				WG 84116-06
4	KIBER	09-094-02		✓			950mL				T				
5		-04		✓			1L				T				
6		-04MS		✓			500mL		100ul ESS-0032-50		T				WG 84116-04
7		-04MSD		✓			1L		1L		T				WG 84116-05
8		-06		✓			1L				T				
9		-08		✓			1L				T				
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

PTP 09/13/00

Reviewed By: Jamie Newell Date: 09/13/00

*Accelerated Solvent Extractor (ASE)

Color Code
T = Transparent
C=Colored
O = Opaque

002298

Sample Extract Log Sheet

Extraction Comments / Notes For Extraction Volume #: 147 Page #: 78 Work Group: WG 84116

Solvent: CH_2Cl_2 Lot #: 40215 Florisil Lot #: T12530
Solvent: Hexane Lot #: 40160 Silica Gel #: —
Acid: CON H_2SO_4 Lot #: T28059 IR Analyst/Date/Time: —
Reagent: 94.6 Lot #: ER1262 Baked Na_2SO_4 Lot #: EB1242
Reagent: — Lot #: — Earliest Hold Date #: 9/18

Clean-up		✓	Clean-up		✓
Florisil	3620B	✓	Sulfur	3660B	
Silica Gel	3630C		Other		
GPC	3640A				
Acid	3665A	✓			

General Comments:

Extraction Anomalies:

Samples 09-094-02, 04, 04MS, 04MSD, 06 were very basic (pH 12) and required pH adjustment prior to extraction.

Concentration Anomalies:

Samples 09-094-02, 04, 04MS, 04MSD, 06, 08 thickened during concentration. A viscous film formed on the sides of the Zymark tube and could not be rinsed off with Solvent. Therefore, this film was not included in the extract after this point.

Clean-Up Anomalies: Packaging Particle was noted in 40 ml vial during acid shake, on SPLP BLK SX.

Reviewed By: _____ Date: _____

UB 446

2.3 Metals

002300

REPORT NARRATIVE
METALS

KEMRON Login No: L0009094

METHOD

Analysis: SW-846 6010/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: SLP REVIEWED: Stephanie L Sipe DATE: 10/6/00

Rev. 6/00

449

2.3.1 Metals I C P Data

002302

METALS - ICP DATA
Login Number: 00090Q4

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analysis runlog

✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- ICP Interference check sample
- ICP serial dilutions (as needed)
- Post digestion spike sample (if applicable)
- Standard addition results (as needed)

C. Preparation log(s)

Checked By: MMB Date: 09/20/00

002303

2.3.1.1 QC Summary

002304

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG84184 **RUN DATE:** 09/13/2000
METHOD: 6010B **PREP DATE:** 09/12/2000
MATRIX: Water **ANALYST:** SLP
UNITS: mg/L **DUPLICATE:** L0009200-01
INSTRUMENT: Perkin Elmer Optima 3000 DV **MS/MSD:** L0009094-08

			CONCENTRATION PPM								PERCENT RECOVERY							PERCENT		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Silver	0.010	ND	0.200	0.191	ND	ND	ND	0.200	0.170	0.168	95.5	80.0	120.0	85.0	84.0	75.0	125.0	NA	1.2	20
Arsenic	0.004	ND	1.000	0.880	ND	ND	0.016	1.000	0.766	0.754	88.0	80.0	120.0	75.0	73.8	75.0	125.0	NA	1.6	20
Barium	0.010	ND	10.000	8.360	0.045	0.042	0.069	10.000	7.290	7.100	83.6	80.0	120.0	72.2	70.3	75.0	125.0	7.1	2.6	20
Cadmium	0.010	ND	1.000	0.911	ND	ND	ND	1.000	0.796	0.788	91.1	80.0	120.0	79.6	78.8	75.0	125.0	NA	1.0	20
Chromium	0.02000	ND	1.000	0.941	ND	ND	ND	1.000	0.799	0.786	94.1	80.0	120.0	79.9	78.6	75.0	125.0	NA	1.6	20
Lead	0.0050	ND	1.000	0.900	ND	ND	ND	1.000	0.783	0.776	90.0	80.0	120.0	78.3	77.6	75.0	125.0	NA	0.9	20
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	
																		0.0	0.0	

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

2.3.1.2 Raw Data

002306

cont'd on page 42

KEMRON ENVIRONMENTAL SERVICES
ICP RUN LOGBOOK

ALYST SLP DATE 09/13/00 TIME 1809

METHOD # 6010B SOP # MEL00E Rev # 2 WORK GROUP # 83826, 83684, 84181, 83886, 84188

CAL STD SOURCE MI-7-6B ICV/CCV SOURCE MI-7-8B

ICS AB SOURCE MI-7-5B ICS A SOURCE MI-7-6A POST SPK SOURCE 065-23-99

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.	09-015-01			WG84001-01
					28.	01 SD.2	0.2		
				SLP 9/13/00	29.	01 PS.9	0.9		
					30.	02 MS			05
					31.	03 MSD			06
					32.	142-02			CCV/CCB
					33.	~~03~~ 04			
					34.	06			
1.	SD				35.	08			
2.	S1 1/100				36.	151-02			
3.	S2 1/2				37.	04			
4.	S3				38.	156-01			
5.	ICV				39.	015-04			
6.	ICB				40.	07			
7.	ICSA				41.	08			
8.	ICSAB			CCV/CCB	42.	09			CCV/CCB
	PBW SY			WG83755-03	43.	10			
10.	LCSW SY			04	44.	087-01			
11.	09-063-21			02	45.	130-01			CCV/CCB
12.	21 DUP			07	46.	PBW TX			WG83592-03
13.	016-04			01	47.	LCSW TX			04
14.	04 MS			05	48.	08-667-02			02
15.	04 MSD			06	49.	02 DUP			07
16.	065-01				50.	~~065-01~~ 02 SD.2	0.2		
17.	01 SD.2	0.2			51.	~~01~~ 02 PS.9	0.9		
18.	01 PS.9	0.9		CCV/CCB	52.	665-01			01
19.	03				53.	01 MS			05
20.	09-014-02			WG83674-02	54.	01 MSD			(CCV) CCB 06
21.	02 DUP			07	55.	PBW 3C			WG84110-03
22.	SPLP BLK 9/5			CCV/CCB	56.	LCSW 3C			04
23.	PBW D			WG84001-03	57.	09-200-01			02
24.	LCSW D			04	58.	01 DUP			07
25.	09-015-05			02	59.	094-08			01
26.	06 DUP			07	60.	08 MS			05

cont'd

Reviewed by: _____

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank

FRS = Full Recalibration Sequence
R = Analyst Rerun

002307

contid from page 40

KEMRON ENVIRONMENTAL SERVICES
ICP RUN LOGBOOK

ANALYST SLP DATE 09/13/00 TIME 1809

METHOD # 6010B SOP # ME600E Rev # 2 WORK GROUP # 83826, 83684, 84181, 83886, 84184

CAL STD SOURCE MI-7-6B ICV/CCV SOURCE MI-7-8B

ICS AB SOURCE MI-7-6B ICS A SOURCE MI-7-6A POST SPK SOURCE DOS-23-99

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
					28.				
					29.				
					30.				
					31.				
					32.				
					33.				
					34.				
1.	09-094-08 MSD			WG84110-06	35.				
2.	02				36.				
3.	02 SD.2	0.2			37.				
4.	02 PS.9	0.9		(CCV x2)/CCB	38.				
5.	04				39.				
6.	06				40.				
7.	SPLP BLK 9/11			CCV/CCB	41.				
8.					42.				
					43.				
10.					44.				
11.					45.				
12.					46.				
13.					47.				
14.					48.				
15.					49.				
16.					50.				
17.					51.				
18.					52.				
19.					53.				
20.					54.				
21.					55.				
22.					56.				
23.					57.				
24.					58.				
25.					59.				
26.					60.				

SLP 9/13/00

SLP 9/14/00

SLP 9/14/00

Reviewed by: _____

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank

FRS = Full Recalibration Sequence
R = Analyst Rerun

002308

Method - clptstd
SIF File - 091300b

#	A/S Loc	ID	Category
1	1	IS Init	IS Init.
2	1	S0	Calib Blank
3	2	S1	Calib Std.
4	3	S2	Calib Std.
5	4	S3	Calib Std.
6	5	ICV 2nd Vendor	QC
7	1	ICB/CCB	QC
8	6	ICSA	QC
9	7	ICSAB	QC
10	5	CCV	QC
11	1	ICB/CCB	QC
12	9	PBW 5Y/WG83755-03	Sample
13	10	LCSW 5Y/WG83755-04	Recovery
14	11	0906321/WG83755-02	Sample
15	12	21 DUP/WG83755-07	Duplicate
16	13	0901604/WG83755-01	Sample
17	14	04 MS/WG83755-05	Recovery
18	15	04 MSD/WG83755-06	Duplicate
19	16	0906501	Sample
20	17	~~01 SD.2~~	Duplicate
21	18	01 PS.9	Recovery
22	5	CCV SVP 9/13/00	QC
23	1	ICB/CCB	QC
24	19	0906503	Sample
25	20	0906601	Sample
26	21	SPLP BLK 9/5/00	Sample
27	5	CCV	QC
28	1	~~ICB/CCB~~	QC

Sheri L. Pfalzgraf
9/13/00

Method - clptstd
SIF File - 091300b

Seq #	A/S Loc	ID	Category
1	17	01 SD.2	Sample
2	18	01 PS.9	Sample
3	5	CCV	QC
4	1	ICB/CCB	QC
5	19	0906503	Sample
6	20	0901402/WG83674-02	Sample
7	21	02 DUP/WG83674-07	Sample
8	22	SPLP BLK 9/5/00	Sample
9	5	CCV	QC
10	1	ICB/CCB	QC

Calibration Summary
Method: clptstd Date: 9/13/00 6:08:02 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.

Method: clptstd IEC: d4iec.iec MSF:
Results: 091300B Spectra Stored: Yes Method Stored: Yes
Sample Info: 091300b User: User1 Date: 9/13/00 6:08:02 PM
Method Description:

Mean Data
ID: IS Init Seq. No.: 1 A/S Pos: 1
Data: Original Date: 9/13/00 6:09:27 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	3250675.8	19215.15	0.59%

Mean Data
ID: S0 Seq. No.: 2 A/S Pos: 1
Data: Original Date: 9/13/00 6:10:03 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	3197230.6	34326.31	1.07%		
Ag 328.068	1060.5	34.97	3.30%	0	mg/L
Al 237.312	-1541.5	17.73	1.15%	0	mg/L
As 188.979	-6.7	1.83	27.05%	0	mg/L
Ba 230.424	-1178.2	12.51	1.06%	0	mg/L
Be 234.861	-1.1	11.14	>999.9%	0	mg/L
Ca 227.549	-44.3	15.89	35.87%	0	mg/L
28.802	73.8	3.70	5.02%	0	mg/L
228.616	-130.1	0.56	0.43%	0	mg/L
Cr 267.716	278.4	15.01	5.39%	0	mg/L
Cu 327.396	744.2	28.91	3.88%	0	mg/L
Fe 261.387	-1118.0	17.08	1.53%	0	mg/L
K 404.721	-127.5	48.08	37.71%	0	mg/L
k 766.491	361808.7	2456.92	0.68%	0	mg/L
Li 460.286	-1168.6	184.27	15.77%	0	mg/L
Mg 279.079	-1402.3	2.29	0.16%	0	mg/L
Mn 257.610	756.8	6.26	0.83%	0	mg/L
Mo 202.030	33.1	0.73	2.21%	0	mg/L
Na 330.237	298.4	9.38	3.14%	0	mg/L
Ni 231.604	-686.4	6.20	0.90%	0	mg/L
Pb 220.353	82.5	3.40	4.12%	0	mg/L
Sb 206.833	72.7	5.11	7.04%	0	mg/L
Se 196.026	-12.7	4.29	33.80%	0	mg/L
Si 288.158	1400.9	10.20	0.73%	0	mg/L
Sn 189.933	16.4	2.75	16.79%	0	mg/L
Sr 232.235	-34.0	0.17	0.51%	0	mg/L
Ti 337.280	-641.3	30.09	4.69%	0	mg/L
Tl 190.800	-25.6	3.88	15.14%	0	mg/L
V 292.402	-258.3	2.51	0.97%	0	mg/L
Zn 206.200	580.9	9.60	1.65%	0	mg/L

Mean Data
ID: S1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 9/13/00 6:14:20 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	3163900.4	37355.96	1.18%		
Ag 328.068	3912.2	10.43	0.27%	0.0040	mg/L
37.312	199.7	2.47	1.24%	0.10	mg/L
188.979	34.7	1.36	3.92%	0.0040	mg/L
Ba 230.424	3300.2	17.32	0.52%	0.010	mg/L
Be 234.861	1250.3	0.29	0.02%	0.00050	mg/L

Ca	227.549	106.4	4.64	4.37%	0.10 mg/L
Cd	228.802	264.3	1.44	0.54%	0.00050 mg/L
Co	228.616	296.8	1.81	0.61%	0.0020 mg/L
	267.716	2136.6	2.73	0.13%	0.0050 mg/L
	327.396	3053.2	37.26	1.22%	0.0050 mg/L
Fe	261.387	-117.1	10.70	9.13%	0.040 mg/L
K	404.721	-85.6	49.87	58.26%	0.50 mg/L
k	766.491	3141647.0	66358.10	2.11%	0.50 mg/L
Li	460.286	845.3	98.22	11.62%	0.010 mg/L
Mg	279.079	4266.7	158.71	3.72%	0.10 mg/L
Mn	257.610	5730.7	105.57	1.84%	0.0050 mg/L
Mo	202.030	777.4	3.03	0.39%	0.010 mg/L
Na	330.237	1708.0	62.57	3.66%	0.50 mg/L
Ni	231.604	313.3	0.18	0.06%	0.0050 mg/L
Pb	220.353	236.1	6.08	2.57%	0.0050 mg/L
Sb	206.833	358.6	0.75	0.21%	0.012 mg/L
Se	196.026	6.4	3.54	54.97%	0.0040 mg/L
Si	288.158	5944.6	42.29	0.71%	0.050 mg/L
Sn	189.933	158.3	0.89	0.57%	0.010 mg/L
Sr	232.235	-8.2	2.16	26.22%	0.010 mg/L
Ti	337.280	17168.9	452.76	2.64%	0.010 mg/L
Tl	190.800	30.8	7.00	22.75%	0.0050 mg/L
V	292.402	2828.3	95.38	3.37%	0.010 mg/L
Zn	206.200	3184.2	5.36	0.17%	0.010 mg/L

Mean Data

ID: S2 Seq. No.: 4 A/S Pos: 3
Data: Original Date: 9/13/00 6:18:45 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y	360.073	3703546.1	15573.75	0.42%	
Ag	328.068	358957.4	1320.46	0.37%	0.40 mg/L
Al	237.312	199495.5	727.77	0.36%	10 mg/L
As	188.979	5981.7	22.51	0.38%	0.40 mg/L
	230.424	503486.5	101.21	0.02%	1.0 mg/L
	234.861	145320.6	72.80	0.05%	0.050 mg/L
Ca	227.549	17170.8	33.60	0.20%	10 mg/L
Cd	228.802	21623.9	35.38	0.16%	0.050 mg/L
Co	228.616	45233.7	53.40	0.12%	0.20 mg/L
Cr	267.716	205846.1	282.44	0.14%	0.50 mg/L
Cu	327.396	264188.5	1086.18	0.41%	0.50 mg/L
Fe	261.387	132314.6	23.11	0.02%	4.0 mg/L
K	404.721	19656.2	41.68	0.21%	50 mg/L
Li	460.286	117921.8	689.46	0.58%	1.0 mg/L
Mg	279.079	654023.0	179.33	0.03%	10 mg/L
Mn	257.610	549757.7	977.37	0.18%	0.50 mg/L
Mo	202.030	102720.9	680.26	0.66%	1.0 mg/L
Na	330.237	292294.4	168.66	0.06%	50.0 mg/L
Ni	231.604	106678.4	192.08	0.18%	0.50 mg/L
Pb	220.353	16559.6	48.88	0.30%	0.50 mg/L
Sb	206.833	35751.1	94.74	0.26%	1.2 mg/L
Se	196.026	5056.9	14.60	0.29%	0.400 mg/L
Si	288.158	546763.9	1010.43	0.18%	5.0 mg/L
Sn	189.933	29906.9	252.95	0.85%	1.0 mg/L
Sr	232.235	2818.4	20.03	0.71%	1.0 mg/L
Ti	337.280	2011527.7	5272.59	0.26%	1.0 mg/L
Tl	190.800	10365.3	107.48	1.04%	0.50 mg/L
V	292.402	382834.6	910.55	0.24%	1.0 mg/L
Zn	206.200	316200.0	719.46	0.23%	1.0 mg/L

Mean Data

ID: S3 Seq. No.: 5 A/S Pos: 4
Data: Original Date: 9/13/00 6:23:15 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y	360.073	3654146.7	68484.46	1.87%	
Ag	328.068	729548.8	10680.60	1.46%	0.80 mg/L
Al	237.312	411903.4	3128.72	0.76%	20 mg/L
As	188.979	12134.3	85.42	0.70%	0.80 mg/L

002312

Ba 230.424	978383.6	15609.52	1.60%	2.0 mg/L
Be 234.861	290317.5	1925.20	0.66%	0.10 mg/L
[illegible]27.549	33099.3	76.53	0.23%	20 mg/L
[illegible]28.802	44173.9	362.76	0.82%	0.10 mg/L
Co 228.616	88528.2	662.03	0.75%	0.40 mg/L
Cr 267.716	403772.0	2644.93	0.66%	1.0 mg/L
Cu 327.396	524448.8	7980.24	1.52%	1.0 mg/L
Fe 261.387	264767.9	1473.75	0.56%	8.0 mg/L
K 404.721	36546.7	531.83	1.46%	100 mg/L
Li 460.286	201306.6	2623.53	1.30%	2.0 mg/L
Mg 279.079	1325625.5	21884.12	1.65%	20 mg/L
Mn 257.610	1071924.9	16758.19	1.56%	1.0 mg/L
Mo 202.030	201866.3	1291.85	0.64%	2.0 mg/L
Na 330.237	518521.9	5317.09	1.03%	100.0 mg/L
Ni 231.604	209591.3	1264.16	0.60%	1.0 mg/L
Pb 220.353	32825.6	100.84	0.31%	1.0 mg/L
Sb 206.833	72560.7	303.26	0.42%	2.4 mg/L
Se 196.026	10240.6	66.91	0.65%	0.80 mg/L
Si 288.158	1033128.0	275.77	0.03%	10 mg/L
Sn 189.933	59724.6	1229.33	2.06%	2.0 mg/L
Sr 232.235	5633.8	26.43	0.47%	2.0 mg/L
Ti 337.280	3936402.6	57619.51	1.46%	2.0 mg/L
Tl 190.800	20301.0	193.91	0.96%	1.0 mg/L
V 292.402	754906.7	11386.19	1.51%	2.0 mg/L
Zn 206.200	618759.6	10598.86	1.71%	2.0 mg/L

Calibration Summary

Method: clptstd Date: 9/13/00 6:23:54 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
[illegible]88.979	3	Linear	-30.5	15170.9	0.00000	0.999978
[illegible]30.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
Zn 206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Mean Data

ID: ICV 2nd Vendor Seq. No.: 6 Sample No.: 2 A/S Pos: 5

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 9/13/00 6:27:44 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3671805.7							0.63%
Ag 328.068	360658.7	0.397	0.0024	mg/L				0.60%

Al 237.312	199346.3	9.80	0.073 mg/L		0.75%
As 188.979	5920.4	0.400	0.0015 mg/L		0.39%
230.424	500212.5	1.02	0.010 mg/L		0.98%
234.861	143460.6	0.0493	0.00041 mg/L		0.84%
Ca 227.549	17275.5	10.2	0.01 mg/L		0.05%
Cd 228.802	21810.1	0.0496	0.00011 mg/L		0.21%
Co 228.616	45143.9	0.203	0.0025 mg/L		1.25%
Cr 267.716	204889.6	0.508	0.0050 mg/L		0.98%
Cu 327.396	263188.5	0.501	0.0028 mg/L		0.56%
Fe 261.387	131028.2	3.97	0.033 mg/L		0.84%
K 404.721	19664.1	50.0	0.62 mg/L		1.24%
k 766.491	Saturated				
Li 460.286	118842.5	1.11	0.003 mg/L		0.25%
*QC exceeds upper limit for Li 460.286	Recovery = 111.10%	Action = Continue			
Mg 279.079	650795.2	9.87	0.114 mg/L		1.15%
Mn 257.610	547607.9	0.508	0.0043 mg/L		0.84%
Mo 202.030	101492.6	1.00	0.010 mg/L		0.97%
Na 330.237	294078.4	50.3	0.43 mg/L		0.85%
Ni 231.604	105616.5	0.503	0.0061 mg/L		1.21%
Pb 220.353	16348.0	0.498	0.0010 mg/L		0.19%
Sb 206.833	35901.8	1.19	0.002 mg/L		0.16%
Se 196.026	4978.2	0.391	0.0007 mg/L		0.19%
Si 288.158	539250.9	5.14	0.012 mg/L		0.24%
Sn 189.933	28999.5	0.971	0.0154 mg/L		1.58%
Sr 232.235	2791.8	0.968	0.0026 mg/L		0.27%
Ti 337.280	2000149.2	1.01	0.007 mg/L		0.71%
Tl 190.800	10443.8	0.517	0.0034 mg/L		0.65%
V 292.402	385258.6	1.02	0.008 mg/L		0.78%
Zn 206.200	311942.5	1.00	0.016 mg/L		1.64%

Mean Data ----------

ID: ICB/CCB Seq. No.: 7 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 6:31:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3114098.3							0.59%
Ag 328.068	854.7	0.00144	0.000052	mg/L				3.62%
Al 237.312	-1402.4	0.0641	0.00072	mg/L				1.13%
As 188.979	-14.9	0.00103	0.000233	mg/L				22.73%
Ba 230.424	-1053.2	-0.00214	0.000022	mg/L				1.01%
Be 234.861	-2.7	0.00002	0.000002	mg/L				11.85%
Ca 227.549	-42.5	-0.0652	0.00270	mg/L				4.14%
Cd 228.802	78.8	0.00025	0.000004	mg/L				1.48%
Co 228.616	-120.8	-0.00077	0.000016	mg/L				2.06%
Cr 267.716	265.6	0.00066	0.000022	mg/L				3.43%
Cu 327.396	715.9	0.00136	0.000083	mg/L				6.12%
Fe 261.387	-936.2	0.00727	0.000259	mg/L				3.56%
K 404.721	-285.0	-0.169	0.2059	mg/L				121.52%
k 766.491	338725.2	-0.00415	0.000013	mg/L				0.31%
Li 460.286	-1560.4	-0.0399	0.00009	mg/L				0.23%
Mg 279.079	-1294.7	0.0304	0.00033	mg/L				1.10%
Mn 257.610	728.0	0.00068	0.000007	mg/L				1.01%
Mo 202.030	143.9	0.00142	0.000011	mg/L				0.79%
Na 330.237	290.2	0.139	0.0054	mg/L				3.90%
Ni 231.604	-641.7	-0.00160	0.000006	mg/L				0.37%
Pb 220.353	81.8	-0.00047	0.000124	mg/L				26.54%
Sb 206.833	70.4	0.00448	0.000054	mg/L				1.21%
Se 196.026	-15.0	0.00176	0.000574	mg/L				32.54%
Si 288.158	1843.9	-0.0448	0.00014	mg/L				0.32%
Sn 189.933	148.8	0.00659	0.000484	mg/L				7.35%
Sr 232.235	-18.1	0.00483	0.000303	mg/L				6.27%
Ti 337.280	-499.3	-0.00352	0.000032	mg/L				0.91%
Tl 190.800	2.8	0.00037	0.000070	mg/L				18.63%
V 292.402	-208.2	-0.00169	0.000063	mg/L				3.72%
206.200	561.6	0.00181	0.000022	mg/L				1.20%

Mean Data ----------

ID: ICSA Seq. No.: 8 Sample No.: 6 A/S Pos: 6
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 9/13/00 6:36:04 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
[illegible] 360.073	3228652.9							1.47%
Ag 328.068	1427.4	0.00415	0.000063	mg/L				1.51%
Al 237.312	4796294.3	233	2.5	mg/L				1.08%
As 188.979	9.7	0.00031	0.003170	mg/L				>999.9%
Ba 230.424	-4118.0	-0.00618	0.000006	mg/L				0.09%
Be 234.861	17302.2	0.00041	0.000094	mg/L				23.01%
Ca 227.549	416469.2	249	3.0	mg/L				1.22%
Cd 228.802	102.9	0.00014	0.000035	mg/L				25.29%
Co 228.616	-499.3	-0.00248	0.000048	mg/L				1.93%
Cr 267.716	70.7	0.00237	0.000094	mg/L				3.96%
Cu 327.396	-464.5	-0.00088	0.000231	mg/L				26.17%
Fe 261.387	2764685.7	83.2	0.70	mg/L				0.84%
K 404.721	-2168.0	-4.55	0.142	mg/L				3.11%
*QC exceeds lower limit for K 404.721 Action = Continue								
k 766.491	449084.7	0.0157	0.00040	mg/L				2.53%
Li 460.286	55574.8	0.0557	0.00581	mg/L				10.42%
Mg 279.079	15455265.4	233	1.5	mg/L				0.66%
Mn 257.610	8795.6	0.00274	0.000199	mg/L				7.27%
Mo 202.030	119.4	0.00312	0.000090	mg/L				2.90%
Na 330.237	317.8	0.476	0.0096	mg/L				2.01%
Ni 231.604	-1285.5	-0.00399	0.000066	mg/L				1.66%
Pb 220.353	-509.9	-0.00690	0.000877	mg/L				12.72%
Sb 206.833	1759.8	0.0255	0.00053	mg/L				2.08%
Se 196.026	372.5	0.00872	0.003675	mg/L				42.14%
Si 288.158	26990.0	0.198	0.0018	mg/L				0.91%
Sn 189.933	487.1	0.0241	0.00685	mg/L				28.38%
Sr 232.235	-938.1	-0.320	0.0043	mg/L				1.36%
*QC exceeds lower limit for Sr 232.235 Action = Continue								
Ti 337.280	10963.6	0.00229	0.000032	mg/L				1.39%
Tl 190.800	186.3	0.00082	0.006138	mg/L				750.57%
[illegible]92.402	-1924.3	0.00069	0.000046	mg/L				6.70%
[illegible]06.200	2150.9	-0.00471	0.000267	mg/L				5.68%

Mean Data

ID: ICSAB Seq. No.: 9 Sample No.: 7 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 6:39:56 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3183115.6							0.94%
Ag 328.068	441337.4	0.488	0.0057	mg/L				1.17%
Al 237.312	4704918.5	228	2.7	mg/L				1.17%
As 188.979	3889.6	0.259	0.0008	mg/L				0.32%
Ba 230.424	109692.8	0.225	0.0028	mg/L				1.25%
Be 234.861	727916.2	0.245	0.0039	mg/L				1.61%
Ca 227.549	405691.2	242	2.6	mg/L				1.07%
Cd 228.802	202102.7	0.459	0.0052	mg/L				1.14%
Co 228.616	46709.4	0.210	0.0022	mg/L				1.05%
Cr 267.716	90031.3	0.224	0.0025	mg/L				1.11%
Cu 327.396	122255.8	0.233	0.0024	mg/L				1.05%
Fe 261.387	2714124.7	81.7	1.10	mg/L				1.35%
K 404.721	-973.5	-1.78	0.024	mg/L				1.36%
*QC exceeds lower limit for K 404.721 Recovery = -71.09% Action = Continue								
k 766.491	Saturated							
Li 460.286	53948.1	0.0484	0.00051	mg/L				1.05%
Mg 279.079	15310798.2	231	3.3	mg/L				1.44%
Mn 257.610	253224.6	0.230	0.0031	mg/L				1.35%
Mo 202.030	18.4	0.00209	0.000212	mg/L				10.14%
Na 330.237	5433.5	1.26	0.026	mg/L				2.10%
Ni 231.604	89421.2	0.426	0.0035	mg/L				0.82%
Pb 220.353	14239.2	0.443	0.0009	mg/L				0.19%
[illegible] 206.833	16349.8	0.511	0.0015	mg/L				0.29%
[illegible]96.026	3756.6	0.273	0.0000	mg/L				0.01%
Si 288.158	4629.8	-0.0179	0.00044	mg/L				2.44%
Sn 189.933	238.5	0.0157	0.00240	mg/L				15.28%
Sr 232.235	-912.7	-0.311	0.0151	mg/L				4.86%

002315

*QC exceeds lower limit for Sr 232.235 Action = Continue

Ti 337.280	10481.7	0.00205	0.000038	mg/L	1.85%
Tl 190.800	8590.8	0.415	0.0070	mg/L	1.68%
92.402	83088.9	0.225	0.0031	mg/L	1.36%
V 206.200	140740.8	0.442	0.0086	mg/L	1.94%

Mean Data ----------

ID: CCV Seq. No.: 10 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: 9/13/00 6:44:08 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3662653.8							0.00%
Ag 328.068	358252.0	0.394	0.0021	mg/L				0.53%
Al 237.312	197890.4	9.72	0.044	mg/L				0.45%
As 188.979	5800.4	0.392	0.0021	mg/L				0.55%
Ba 230.424	492919.3	1.00	0.007	mg/L				0.65%
Be 234.861	143006.8	0.0491	0.00032	mg/L				0.65%
Ca 227.549	17127.4	10.1	0.05	mg/L				0.51%
Cd 228.802	21601.3	0.0491	0.00033	mg/L				0.68%
Co 228.616	44369.6	0.199	0.0005	mg/L				0.23%
Cr 267.716	201966.2	0.500	0.0027	mg/L				0.55%
Cu 327.396	261225.7	0.497	0.0030	mg/L				0.60%
Fe 261.387	130442.6	3.96	0.032	mg/L				0.81%
K 404.721	19507.1	49.6	0.55	mg/L				1.11%
k 766.491	Saturated							
Li 460.286	118737.5	1.11	0.005	mg/L				0.48%
*QC exceeds upper limit for Li 460.286 Recovery = 111.01% Action = Continue								
Mg 279.079	640667.2	9.71	0.075	mg/L				0.77%
Mn 257.610	542850.2	0.504	0.0022	mg/L				0.45%
Mo 202.030	100093.6	0.988	0.0049	mg/L				0.50%
Na 330.237	293529.7	50.2	0.36	mg/L				0.71%
Ni 231.604	103558.1	0.493	0.0025	mg/L				0.51%
Pb 220.353	16024.1	0.488	0.0025	mg/L				0.51%
206.833	35357.9	1.18	0.006	mg/L				0.55%
Sb 196.026	4902.1	0.385	0.0009	mg/L				0.24%
Si 288.158	547382.5	5.21	0.066	mg/L				1.27%
Sn 189.933	27269.0	0.914	0.0136	mg/L				1.49%
Sr 232.235	2735.2	0.949	0.0051	mg/L				0.54%
Ti 337.280	1983623.7	1.00	0.005	mg/L				0.54%
Tl 190.800	10200.3	0.505	0.0057	mg/L				1.13%
V 292.402	381430.2	1.01	0.005	mg/L				0.50%
Zn 206.200	303633.6	0.977	0.0092	mg/L				0.94%

Mean Data ----------

ID: ICB/CCB Seq. No.: 11 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 6:48:23 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3048255.3							1.36%
Ag 328.068	886.2	0.00147	0.000027	mg/L				1.82%
Al 237.312	-1399.1	0.0642	0.00012	mg/L				0.18%
As 188.979	-14.6	0.00105	0.000241	mg/L				23.00%
Ba 230.424	-1057.0	-0.00215	0.000010	mg/L				0.45%
Be 234.861	-4.0	0.00002	0.000006	mg/L				28.56%
Ca 227.549	-43.0	-0.0655	0.00264	mg/L				4.04%
Cd 228.802	89.5	0.00027	0.000000	mg/L				0.15%
Co 228.616	-119.8	-0.00077	0.000033	mg/L				4.34%
Cr 267.716	253.9	0.00063	0.000006	mg/L				0.98%
Cu 327.396	701.8	0.00134	0.000016	mg/L				1.19%
Fe 261.387	-650.5	0.0159	0.00013	mg/L				0.82%
K 404.721	-178.9	0.0788	0.10056	mg/L				127.56%
k 766.491	333691.9	-0.00506	0.000205	mg/L				4.05%
Li 460.286	-1260.1	-0.0370	0.00184	mg/L				4.99%
279.079	-1304.7	0.0303	0.00045	mg/L				1.48%
Mn 257.610	680.6	0.00063	0.000038	mg/L				5.98%
Mo 202.030	110.4	0.00109	0.000060	mg/L				5.51%
Na 330.237	311.7	0.143	0.0026	mg/L				1.85%

002316

Ni 231.604	-649.3	-0.00163	0.000000 mg/L	0.03%
Pb 220.353	74.8	-0.00068	0.000074 mg/L	10.88%
[illegible] 206.833	64.4	0.00429	0.000156 mg/L	3.64%
196.026	-13.7	0.00187	0.000582 mg/L	31.20%
[illegible] 288.158	1773.7	-0.0454	0.00014 mg/L	0.31%
Sn 189.933	111.0	0.00532	0.000243 mg/L	4.56%
Sr 232.235	-20.2	0.00410	0.001433 mg/L	34.97%
Ti 337.280	-576.7	-0.00356	0.000003 mg/L	0.08%
Tl 190.800	1.4	0.00030	0.000013 mg/L	4.44%
V 292.402	-227.7	-0.00174	0.000021 mg/L	1.20%
Zn 206.200	521.7	0.00168	0.000009 mg/L	0.55%

Mean Data ----------

ID: PBW 5Y/WG83755-03 Seq. No.: 12 Sample No.: 1 A/S Pos: 9
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 6:52:38 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3086384.7							1.49%
Ag 328.068	851.0	0.00143	0.000005	mg/L	0.00143	0.000005	mg/L	0.38%
Al 237.312	-1477.5	0.0604	0.00046	mg/L	0.0604	0.00046	mg/L	0.77%
As 188.979	-12.6	0.00117	0.000370	mg/L	0.00117	0.000370	mg/L	31.47%
Ba 230.424	-1029.3	-0.00209	0.000003	mg/L	-0.00209	0.000003	mg/L	0.14%
Be 234.861	-27.0	0.00001	0.000001	mg/L	0.00001	0.000001	mg/L	6.36%
Ca 227.549	-61.0	-0.0763	0.00214	mg/L	-0.0763	0.00214	mg/L	2.81%
Cd 228.802	89.1	0.00027	0.000004	mg/L	0.00027	0.000004	mg/L	1.35%
Co 228.616	-116.7	-0.00075	0.000011	mg/L	-0.00075	0.000011	mg/L	1.44%
Cr 267.716	253.4	0.00063	0.000047	mg/L	0.00063	0.000047	mg/L	7.44%
Cu 327.396	719.5	0.00137	0.000083	mg/L	0.00137	0.000083	mg/L	6.05%
Fe 261.387	-616.1	0.0169	0.00035	mg/L	0.0169	0.00035	mg/L	2.08%
K 404.721	-164.6	0.112	0.0958	mg/L	0.112	0.0958	mg/L	85.24%
k 766.491	376646.8	0.00267	0.002037	mg/L	0.00267	0.002037	mg/L	76.34%
Li 460.286	-1679.7	-0.0411	0.00347	mg/L	-0.0411	0.00347	mg/L	8.46%
[illegible] 279.079	-1197.6	0.0319	0.00001	mg/L	0.0319	0.00001	mg/L	0.04%
257.610	812.1	0.00075	0.000002	mg/L	0.00075	0.000002	mg/L	0.30%
[illegible] 202.030	84.3	0.00083	0.000005	mg/L	0.00083	0.000005	mg/L	0.63%
Na 330.237	264.4	0.135	0.0025	mg/L	0.135	0.0025	mg/L	1.81%
Ni 231.604	-647.2	-0.00162	0.000073	mg/L	-0.00162	0.000073	mg/L	4.52%
Pb 220.353	88.4	-0.00026	0.000177	mg/L	-0.00026	0.000177	mg/L	66.80%
Sb 206.833	72.7	0.00456	0.000243	mg/L	0.00456	0.000243	mg/L	5.32%
Se 196.026	-25.0	0.00098	0.000201	mg/L	0.00098	0.000201	mg/L	20.39%
Si 288.158	4473.3	-0.0194	0.00030	mg/L	-0.0194	0.00030	mg/L	1.54%
Sn 189.933	59.3	0.00359	0.000007	mg/L	0.00359	0.000007	mg/L	0.18%
Sr 232.235	-16.7	0.00534	0.000731	mg/L	0.00534	0.000731	mg/L	13.67%
Ti 337.280	-522.0	-0.00353	0.000007	mg/L	-0.00353	0.000007	mg/L	0.20%
Tl 190.800	-10.7	-0.00029	0.000032	mg/L	-0.00029	0.000032	mg/L	11.03%
V 292.402	-202.6	-0.00167	0.000018	mg/L	-0.00167	0.000018	mg/L	1.08%
Zn 206.200	542.5	0.00175	0.000005	mg/L	0.00175	0.000005	mg/L	0.27%

Mean Data ----------

ID: LCSW 5Y/WG83755-04 Seq. No.: 13 Sample No.: 2 A/S Pos: 10
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 6:56:46 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3579290.0							0.47%
Ag 328.068	173129.4	0.191	0.0016	mg/L	0.191	0.0016	mg/L	0.82%
Al 237.312	193709.1	9.52	0.055	mg/L	9.52	0.055	mg/L	0.58%
As 188.979	13666.5	0.917	0.0079	mg/L	0.917	0.0079	mg/L	0.86%
Ba 230.424	4271129.7	8.68	0.007	mg/L	8.68	0.007	mg/L	0.08%
Be 234.861	2672306.8	0.920	0.0036	mg/L	0.920	0.0036	mg/L	0.39%
Ca 227.549	16040.5	9.57	0.137	mg/L	9.57	0.137	mg/L	1.43%
Cd 228.802	402529.9	0.914	0.0045	mg/L	0.914	0.0045	mg/L	0.49%
Co 228.616	208197.3	0.937	0.0030	mg/L	0.937	0.0030	mg/L	0.32%
[illegible] 267.716	382573.4	0.946	0.0020	mg/L	0.946	0.0020	mg/L	0.21%
327.396	494302.8	0.941	0.0079	mg/L	0.941	0.0079	mg/L	0.84%
[illegible] 261.387	27118.5	0.861	0.0101	mg/L	0.861	0.0101	mg/L	1.17%
K 404.721	18519.3	46.9	0.18	mg/L	46.9	0.18	mg/L	0.39%
k 766.491	Saturated							

Li 460.286	1180852.9	11.5	0.11	mg/L	11.5	0.11 mg/L	0.95%
Mg 279.079	617007.5	9.36	0.014	mg/L	9.36	0.014 mg/L	0.15%
Mn 257.610	1020031.2	0.947	0.0025	mg/L	0.947	0.0025 mg/L	0.27%
202.030	90613.8	0.895	0.0035	mg/L	0.895	0.0035 mg/L	0.39%
330.237	269011.0	45.6	0.22	mg/L	45.6	0.22 mg/L	0.48%
Ni 231.604	197136.3	0.937	0.0011	mg/L	0.937	0.0011 mg/L	0.11%
Pb 220.353	30429.4	0.928	0.0040	mg/L	0.928	0.0040 mg/L	0.43%
Sb 206.833	28518.7	0.950	0.0090	mg/L	0.950	0.0090 mg/L	0.95%
Se 196.026	11071.7	0.866	0.0060	mg/L	0.866	0.0060 mg/L	0.70%
Si 288.158	1013018.9	9.70	0.063	mg/L	9.70	0.063 mg/L	0.65%
Sn 189.933	-66.3	-0.00061	0.001039	mg/L	-0.00061	0.001039 mg/L	171.26%
Sr 232.235	2406.1	0.835	0.0036	mg/L	0.835	0.0036 mg/L	0.43%
Ti 337.280	1880549.7	0.950	0.0056	mg/L	0.950	0.0056 mg/L	0.59%
Tl 190.800	19401.6	0.960	0.0109	mg/L	0.960	0.0109 mg/L	1.13%
V 292.402	357026.6	0.948	0.0043	mg/L	0.948	0.0043 mg/L	0.46%
Zn 206.200	289447.7	0.931	0.0049	mg/L	0.931	0.0049 mg/L	0.52%

Matrix Check Sample: LCSW 5Y/WG83755-04

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.201	0.191	0.002	mg/L	94.689
Al 237.312	10.1	9.52	0.055	mg/L	94.615
As 188.979	1.00	0.917	0.008	mg/L	91.583
Ba 230.424	10.00	8.68	0.007	mg/L	86.824
Be 234.861	1.00	0.920	0.004	mg/L	92.015
Ca 227.549	9.92	9.57	0.137	mg/L	96.419
Cd 228.802	1.00	0.914	0.004	mg/L	91.410
Co 228.616	0.999	0.937	0.003	mg/L	93.755
Cr 267.716	1.00	0.946	0.002	mg/L	94.523
Cu 327.396	1.00	0.941	0.008	mg/L	93.974
Fe 261.387	1.02	0.861	0.010	mg/L	84.414
K 404.721	50.1	46.9	0.183	mg/L	93.630
K 766.491	50.0		0.000	mg/L	
160.286	9.96	11.5	0.109	mg/L	115.247
279.079	10.0	9.36	0.014	mg/L	93.237
Mn 257.610	1.00	0.947	0.003	mg/L	94.596
Mo 202.030	1.00	0.895	0.003	mg/L	89.376
Na 330.237	50.1	45.6	0.220	mg/L	90.867
Ni 231.604	0.998	0.937	0.001	mg/L	93.866
Pb 220.353	1.000	0.928	0.004	mg/L	92.796
Sb 206.833	1.00	0.950	0.009	mg/L	94.503
Se 196.026	1.00	0.866	0.006	mg/L	86.521
Si 288.158	9.98	9.70	0.063	mg/L	97.219
Sn 189.933	1.00	-0.00061	0.001	mg/L	-0.420
Sr 232.235	1.01	0.835	0.004	mg/L	83.004
Ti 337.280	0.996	0.950	0.006	mg/L	95.342
Tl 190.800	1.000	0.960	0.011	mg/L	96.058
V 292.402	0.998	0.948	0.004	mg/L	94.954
Zn 206.200	1.00	0.931	0.005	mg/L	92.972

Mean Data

ID: 0906321/WG83755-02 Seq. No.: 14 Sample No.: 3 A/S Pos: 11
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:00:47 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3112670.8							0.68%
Ag 328.068	858.0	0.00144	0.000016	mg/L	0.00144	0.000016	mg/L	1.12%
Al 237.312	-1299.4	0.0690	0.00101	mg/L	0.0690	0.00101	mg/L	1.46%
As 188.979	-12.6	0.00118	0.000101	mg/L	0.00118	0.000101	mg/L	8.60%
Ba 230.424	-989.2	-0.00201	0.000007	mg/L	-0.00201	0.000007	mg/L	0.33%
Be 234.861	-18.2	0.00002	0.000002	mg/L	0.00002	0.000002	mg/L	10.68%
Ca 227.549	-40.6	-0.0640	0.00038	mg/L	-0.0640	0.00038	mg/L	0.60%
Cd 228.802	139.5	0.00039	0.000016	mg/L	0.00039	0.000016	mg/L	4.05%
228.616	-109.2	-0.00072	0.000015	mg/L	-0.00072	0.000015	mg/L	2.09%
267.716	276.5	0.00068	0.000004	mg/L	0.00068	0.000004	mg/L	0.60%
Cu 327.396	792.3	0.00151	0.000061	mg/L	0.00151	0.000061	mg/L	4.04%
Fe 261.387	-652.0	0.0158	0.00013	mg/L	0.0158	0.00013	mg/L	0.83%

002318

K 404.721	-130.6	0.192	0.0961	mg/L	0.192	0.0961 mg/L	50.02%
k 766.491	432735.5	0.0128	0.00001	mg/L	0.0128	0.00001 mg/L	0.05%
Li 460.286	-1449.4	-0.0388	0.00541	mg/L	-0.0388	0.00541 mg/L	13.92%
Mg 279.079	-1061.9	0.0339	0.00004	mg/L	0.0339	0.00004 mg/L	0.12%
Mn 257.610	850.2	0.00079	0.000005	mg/L	0.00079	0.000005 mg/L	0.64%
Mo 202.030	125.1	0.00123	0.000094	mg/L	0.00123	0.000094 mg/L	7.61%
Na 330.237	357.9	0.150	0.0033	mg/L	0.150	0.0033 mg/L	2.18%
Ni 231.604	-641.9	-0.00160	0.000056	mg/L	-0.00160	0.000056 mg/L	3.51%
Pb 220.353	88.8	-0.00025	0.000040	mg/L	-0.00025	0.000040 mg/L	15.79%
Sb 206.833	64.1	0.00428	0.000322	mg/L	0.00428	0.000322 mg/L	7.52%
Se 196.026	-14.1	0.00184	0.001044	mg/L	0.00184	0.001044 mg/L	56.77%
Si 288.158	5880.6	-0.00585	0.000677	mg/L	-0.00585	0.000677 mg/L	11.57%
Sn 189.933	50.2	0.00329	0.000069	mg/L	0.00329	0.000069 mg/L	2.10%
Sr 232.235	-15.9	0.00562	0.000934	mg/L	0.00562	0.000934 mg/L	16.62%
Ti 337.280	-333.3	-0.00344	0.000057	mg/L	-0.00344	0.000057 mg/L	1.65%
Tl 190.800	14.2	0.00093	0.000136	mg/L	0.00093	0.000136 mg/L	14.55%
V 292.402	-145.5	-0.00152	0.000034	mg/L	-0.00152	0.000034 mg/L	2.22%
Zn 206.200	1179.7	0.00380	0.000023	mg/L	0.00380	0.000023 mg/L	0.61%

Mean Data

ID: 21 DUP/WG83755-07 Seq. No.: 15 Sample No.: 4 A/S Pos: 12
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:05:05 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3135479.7							0.46%
Ag 328.068	823.9	0.00140	0.000016	mg/L	0.00140	0.000016	mg/L	1.16%
Al 237.312	-1394.1	0.0645	0.00013	mg/L	0.0645	0.00013	mg/L	0.21%
As 188.979	-14.3	0.00107	0.000044	mg/L	0.00107	0.000044	mg/L	4.15%
Ba 230.424	-1029.2	-0.00209	0.000003	mg/L	-0.00209	0.000003	mg/L	0.13%
Be 234.861	-23.2	0.00001	0.000002	mg/L	0.00001	0.000002	mg/L	11.39%
Ca 227.549	-33.5	-0.0597	0.00493	mg/L	-0.0597	0.00493	mg/L	8.25%
Cd 228.802	103.0	0.00030	0.000022	mg/L	0.00030	0.000022	mg/L	7.11%
Co 228.616	-113.9	-0.00074	0.000024	mg/L	-0.00074	0.000024	mg/L	3.30%
Cr 267.716	269.5	0.00066	0.000008	mg/L	0.00066	0.000008	mg/L	1.20%
Cu 327.396	1042.7	0.00199	0.000039	mg/L	0.00199	0.000039	mg/L	1.97%
Fe 261.387	-642.1	0.0161	0.00015	mg/L	0.0161	0.00015	mg/L	0.91%
K 404.721	-188.9	0.0554	0.10818	mg/L	0.0554	0.10818	mg/L	195.19%
k 766.491	447644.1	0.0154	0.00008	mg/L	0.0154	0.00008	mg/L	0.50%
Li 460.286	-1339.0	-0.0378	0.00093	mg/L	-0.0378	0.00093	mg/L	2.47%
Mg 279.079	-1087.6	0.0336	0.00018	mg/L	0.0336	0.00018	mg/L	0.53%
Mn 257.610	850.1	0.00079	0.000009	mg/L	0.00079	0.000009	mg/L	1.13%
Mo 202.030	96.0	0.00095	0.000059	mg/L	0.00095	0.000059	mg/L	6.25%
Na 330.237	341.0	0.147	0.0016	mg/L	0.147	0.0016	mg/L	1.10%
Ni 231.604	-634.6	-0.00156	0.000043	mg/L	-0.00156	0.000043	mg/L	2.77%
Pb 220.353	82.9	-0.00043	0.000159	mg/L	-0.00043	0.000159	mg/L	36.53%
Sb 206.833	72.8	0.00456	0.000013	mg/L	0.00456	0.000013	mg/L	0.28%
Se 196.026	-18.1	0.00153	0.000701	mg/L	0.00153	0.000701	mg/L	45.88%
Si 288.158	4334.5	-0.0208	0.00083	mg/L	-0.0208	0.00083	mg/L	4.01%
Sn 189.933	46.5	0.00316	0.000093	mg/L	0.00316	0.000093	mg/L	2.95%
Sr 232.235	-20.1	0.00414	0.000495	mg/L	0.00414	0.000495	mg/L	11.94%
Ti 337.280	-399.6	-0.00347	0.000023	mg/L	-0.00347	0.000023	mg/L	0.67%
Tl 190.800	-13.9	-0.00045	0.000018	mg/L	-0.00045	0.000018	mg/L	4.01%
V 292.402	-172.5	-0.00160	0.000007	mg/L	-0.00160	0.000007	mg/L	0.46%
Zn 206.200	1234.3	0.00397	0.000023	mg/L	0.00397	0.000023	mg/L	0.57%

Matrix Check Sample: 21 DUP/WG83755-07

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00144	0.00140	0.000	mg/L	2.632
Al 237.312	0.0690	0.0645	0.000	mg/L	6.876
As 188.979	0.00118	0.00107	0.000	mg/L	10.009
Ba 230.424	-0.00201	-0.00209	0.000	mg/L	-3.962
Be 234.861	0.00002	0.00001	0.000	mg/L	12.131
Ca 227.549	-0.0640	-0.0597	0.005	mg/L	-6.907
Cd 228.802	0.00039	0.00030	0.000	mg/L	24.008
Co 228.616	-0.00072	-0.00074	0.000	mg/L	-2.898

002319

Cr 267.716	0.00068	0.00066	0.000	mg/L	2.569
Cu 327.396	0.00151	0.00199	0.000	mg/L	27.285
[illegible]261.387	0.0158	0.0161	0.000	mg/L	1.862
[illegible]04.721	0.192	0.0554	0.108	mg/L	110.448
K 766.491	0.0128	0.0154	0.000	mg/L	19.021
Li 460.286	-0.0388	-0.0378	0.001	mg/L	-2.811
Mg 279.079	0.0339	0.0336	0.000	mg/L	1.147
Mn 257.610	0.00079	0.00079	0.000	mg/L	0.015
Mo 202.030	0.00123	0.00095	0.000	mg/L	26.318
Na 330.237	0.150	0.147	0.002	mg/L	1.743
Ni 231.604	-0.00160	-0.00156	0.000	mg/L	-2.186
Pb 220.353	-0.00025	-0.00043	0.000	mg/L	-52.442
Sb 206.833	0.00428	0.00456	0.000	mg/L	6.465
Se 196.026	0.00184	0.00153	0.001	mg/L	18.457
Si 288.158	-0.00585	-0.0208	0.001	mg/L	-112.029
Sn 189.933	0.00329	0.00316	0.000	mg/L	3.879
Sr 232.235	0.00562	0.00414	0.000	mg/L	30.236
Ti 337.280	-0.00344	-0.00347	0.000	mg/L	-0.974
Tl 190.800	0.00093	-0.00045	0.000	mg/L	566.807
V 292.402	-0.00152	-0.00160	0.000	mg/L	-4.571
Zn 206.200	0.00380	0.00397	0.000	mg/L	4.525

Mean Data ----------

ID: 0901604/WG83755-01 Seq. No.: 16 Sample No.: 5 A/S Pos: 13
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:09:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3149261.6							0.39%
Ag 328.068	1513.4	0.00216	0.000038	mg/L	0.00216	0.000038	mg/L	1.74%
Al 237.312	235.7	0.143	0.0003	mg/L	0.143	0.0003	mg/L	0.21%
As 188.979	5.2	0.00235	0.000147	mg/L	0.00235	0.000147	mg/L	6.23%
Ba 230.424	48943.2	0.0995	0.00194	mg/L	0.0995	0.00194	mg/L	1.95%
[illegible]234.861	140.9	0.00007	0.000007	mg/L	0.00007	0.000007	mg/L	9.79%
[illegible]27.549	203017.3	122	2.0	mg/L	122	2.0	mg/L	1.66%
Cd 228.802	123.9	0.00035	0.000008	mg/L	0.00035	0.000008	mg/L	2.32%
Co 228.616	-132.0	-0.00082	0.000008	mg/L	-0.00082	0.000008	mg/L	0.97%
Cr 267.716	503.4	0.00124	0.000012	mg/L	0.00124	0.000012	mg/L	0.98%
Cu 327.396	1224.7	0.00233	0.000086	mg/L	0.00233	0.000086	mg/L	3.70%
Fe 261.387	6216.8	0.222	0.0009	mg/L	0.222	0.0009	mg/L	0.40%
K 404.721	671.8	2.08	0.124	mg/L	2.08	0.124	mg/L	5.96%
k 766.491	13545593.4	2.37	0.016	mg/L	2.37	0.016	mg/L	0.67%
Li 460.286	130.9	-0.0127	0.00158	mg/L	-0.0127	0.00158	mg/L	12.43%
Mg 279.079	137640.6	2.13	0.034	mg/L	2.13	0.034	mg/L	1.59%
Mn 257.610	49125.7	0.0456	0.00065	mg/L	0.0456	0.00065	mg/L	1.43%
Mo 202.030	354.8	0.00350	0.000003	mg/L	0.00350	0.000003	mg/L	0.09%
Na 330.237	95254.1	15.2	0.24	mg/L	15.2	0.24	mg/L	1.56%
Ni 231.604	-603.9	-0.00142	0.000005	mg/L	-0.00142	0.000005	mg/L	0.32%
Pb 220.353	167.5	0.00215	0.000185	mg/L	0.00215	0.000185	mg/L	8.61%
Sb 206.833	91.3	0.00518	0.000301	mg/L	0.00518	0.000301	mg/L	5.82%
Se 196.026	-8.7	0.00225	0.000124	mg/L	0.00225	0.000124	mg/L	5.48%
Si 288.158	1069372.5	10.2	0.03	mg/L	10.2	0.03	mg/L	0.30%
Sn 189.933	-250.4	-0.00676	0.000202	mg/L	-0.00676	0.000202	mg/L	2.98%
Sr 232.235	134.7	0.0587	0.00204	mg/L	0.0587	0.00204	mg/L	3.48%
Ti 337.280	9463.6	0.00153	0.000056	mg/L	0.00153	0.000056	mg/L	3.67%
Tl 190.800	23.4	0.00086	0.000219	mg/L	0.00086	0.000219	mg/L	25.46%
V 292.402	357.9	-0.00019	0.000019	mg/L	-0.00019	0.000019	mg/L	9.64%
Zn 206.200	1026.9	0.00330	0.000031	mg/L	0.00330	0.000031	mg/L	0.94%

Mean Data ----------

ID: 04 MS/WG83755-05 Seq. No.: 17 Sample No.: 6 A/S Pos: 14
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:13:43 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
[illegible]ment								
[illegible]0.073	3223918.0							0.16%
Ag 328.068	165237.2	0.182	0.0000	mg/L	0.182	0.0000	mg/L	0.01%
Al 237.312	192084.5	9.44	0.002	mg/L	9.44	0.002	mg/L	0.02%
As 188.979	13304.5	0.892	0.0084	mg/L	0.892	0.0084	mg/L	0.94%

Ba 230.424	3798306.6	7.72	0.021 mg/L	7.72	0.021 mg/L	0.27%
Be 234.861	2588616.1	0.891	0.0021 mg/L	0.891	0.0021 mg/L	0.23%
Ca 227.549	210253.8	126	0.0 mg/L	126	0.0 mg/L	0.03%
Cd 228.802	377090.6	0.857	0.0023 mg/L	0.857	0.0023 mg/L	0.27%
Co 228.616	189686.8	0.853	0.0031 mg/L	0.853	0.0031 mg/L	0.36%
Cr 267.716	339697.5	0.840	0.0030 mg/L	0.840	0.0030 mg/L	0.36%
Cu 327.396	490593.3	0.934	0.0015 mg/L	0.934	0.0015 mg/L	0.16%
Fe 261.387	31296.0	0.976	0.0170 mg/L	0.976	0.0170 mg/L	1.74%
K 404.721	17790.2	45.0	0.40 mg/L	45.0	0.40 mg/L	0.89%
k 766.491	Saturated					
Li 460.286	952075.8	9.26	0.000 mg/L	9.26	0.000 mg/L	0.00%
Mg 279.079	697357.9	10.6	0.05 mg/L	10.6	0.05 mg/L	0.43%
Mn 257.610	970663.8	0.901	0.0020 mg/L	0.901	0.0020 mg/L	0.22%
Mo 202.030	81923.0	0.809	0.0007 mg/L	0.809	0.0007 mg/L	0.09%
Na 330.237	320517.9	55.5	0.05 mg/L	55.5	0.05 mg/L	0.10%
Ni 231.604	179994.8	0.856	0.0029 mg/L	0.856	0.0029 mg/L	0.34%
Pb 220.353	27345.3	0.833	0.0079 mg/L	0.833	0.0079 mg/L	0.94%
Sb 206.833	27345.3	0.911	0.0143 mg/L	0.911	0.0143 mg/L	1.57%
Se 196.026	10329.9	0.808	0.0105 mg/L	0.808	0.0105 mg/L	1.30%
Si 288.158	1990328.0	19.1	0.01 mg/L	19.1	0.01 mg/L	0.07%
Sn 189.933	-264.1	-0.00722	0.000413 mg/L	-0.00722	0.000413 mg/L	5.71%
Sr 232.235	2277.6	0.792	0.0064 mg/L	0.792	0.0064 mg/L	0.81%
Ti 337.280	1743460.0	0.880	0.0011 mg/L	0.880	0.0011 mg/L	0.13%
Tl 190.800	16539.3	0.819	0.0171 mg/L	0.819	0.0171 mg/L	2.09%
V 292.402	333147.8	0.884	0.0018 mg/L	0.884	0.0018 mg/L	0.20%
Zn 206.200	255824.1	0.823	0.0055 mg/L	0.823	0.0055 mg/L	0.67%

Matrix Check Sample: 04 MS/WG83755-05

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.202	0.182	0.000	mg/L	89.987
Al 237.312	10.1	9.44	0.002	mg/L	92.997
As 188.979	1.00	0.892	0.008	mg/L	88.920
Ba 230.424	10.1	7.72	0.021	mg/L	76.199
Be 234.861	1.00	0.891	0.002	mg/L	89.117
Ca 227.549	132	126	0.042	mg/L	43.151
Cd 228.802	1.00	0.857	0.002	mg/L	85.624
Co 228.616	0.999	0.853	0.003	mg/L	85.426
Cr 267.716	1.00	0.840	0.003	mg/L	83.870
Cu 327.396	1.00	0.934	0.001	mg/L	93.171
Fe 261.387	1.22	0.976	0.017	mg/L	75.383
K 404.721	52.1	45.0	0.400	mg/L	85.786
k 766.491	52.4		0.000	mg/L	
Li 460.286	9.99	9.26	0.000	mg/L	92.763
Mg 279.079	12.1	10.6	0.045	mg/L	84.416
Mn 257.610	1.05	0.901	0.002	mg/L	85.530
Mo 202.030	1.00	0.809	0.001	mg/L	80.529
Na 330.237	65.2	55.5	0.055	mg/L	80.707
Ni 231.604	0.999	0.856	0.003	mg/L	85.710
Pb 220.353	1.00	0.833	0.008	mg/L	83.123
Sb 206.833	1.01	0.911	0.014	mg/L	90.550
Se 196.026	1.00	0.808	0.011	mg/L	80.610
Si 288.158	20.2	19.1	0.013	mg/L	88.775
Sn 189.933	0.993	-0.00722	0.000	mg/L	-0.046
Sr 232.235	1.06	0.792	0.006	mg/L	73.371
Ti 337.280	1.00	0.880	0.001	mg/L	87.887
Tl 190.800	1.00	0.819	0.017	mg/L	81.805
V 292.402	1.000	0.884	0.002	mg/L	88.435
Zn 206.200	1.00	0.823	0.006	mg/L	81.996

Mean Data ----------

ID: 04 MSD/WG83755-06 Seq. No.: 18 Sample No.: 7 A/S Pos: 15
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:17:37 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3184637.8							0.24%
Ag 328.068	161451.8	0.178	0.0000	mg/L	0.178	0.0000	mg/L	0.02%

002321

Al 237.312	188027.4	9.25	0.005 mg/L	9.25	0.005 mg/L	0.05%
As 188.979	12908.7	0.865	0.0077 mg/L	0.865	0.0077 mg/L	0.89%
[illegible] 230.424	3708083.5	7.54	0.002 mg/L	7.54	0.002 mg/L	0.03%
234.861	2524134.3	0.869	0.0003 mg/L	0.869	0.0003 mg/L	0.03%
[illegible] 227.549	207599.0	125	0.0 mg/L	125	0.0 mg/L	0.00%
Cd 228.802	366467.9	0.832	0.0001 mg/L	0.832	0.0001 mg/L	0.01%
Co 228.616	184413.6	0.830	0.0010 mg/L	0.830	0.0010 mg/L	0.12%
Cr 267.716	330787.0	0.818	0.0007 mg/L	0.818	0.0007 mg/L	0.09%
Cu 327.396	479904.1	0.914	0.0005 mg/L	0.914	0.0005 mg/L	0.05%
Fe 261.387	30587.4	0.955	0.0122 mg/L	0.955	0.0122 mg/L	1.28%
K 404.721	17377.1	43.9	0.22 mg/L	43.9	0.22 mg/L	0.50%
k 766.491	Saturated					
Li 460.286	938421.6	9.13	0.002 mg/L	9.13	0.002 mg/L	0.02%
Mg 279.079	680206.6	10.3	0.00 mg/L	10.3	0.00 mg/L	0.03%
Mn 257.610	946449.7	0.878	0.0001 mg/L	0.878	0.0001 mg/L	0.01%
Mo 202.030	80311.8	0.793	0.0008 mg/L	0.793	0.0008 mg/L	0.10%
Na 330.237	315381.7	54.5	0.02 mg/L	54.5	0.02 mg/L	0.04%
Ni 231.604	174616.9	0.830	0.0016 mg/L	0.830	0.0016 mg/L	0.19%
Pb 220.353	26345.9	0.803	0.0094 mg/L	0.803	0.0094 mg/L	1.17%
Sb 206.833	26314.6	0.876	0.0109 mg/L	0.876	0.0109 mg/L	1.25%
Se 196.026	9933.7	0.777	0.0033 mg/L	0.777	0.0033 mg/L	0.43%
Si 288.158	1973267.7	19.0	0.04 mg/L	19.0	0.04 mg/L	0.19%
Sn 189.933	-220.3	-0.00576	0.000873 mg/L	-0.00576	0.000873 mg/L	15.16%
Sr 232.235	2190.8	0.762	0.0021 mg/L	0.762	0.0021 mg/L	0.28%
Ti 337.280	1704036.9	0.860	0.0005 mg/L	0.860	0.0005 mg/L	0.05%
Tl 190.800	16126.5	0.798	0.0104 mg/L	0.798	0.0104 mg/L	1.31%
V 292.402	325578.4	0.864	0.0002 mg/L	0.864	0.0002 mg/L	0.02%
Zn 206.200	246842.1	0.794	0.0024 mg/L	0.794	0.0024 mg/L	0.30%

Matrix Check Sample: 04 MSD/WG83755-06

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
[illegible] 360.073			0.000		
328.068	0.182	0.178	0.000	mg/L	2.311
[illegible] 237.312	9.44	9.25	0.005	mg/L	2.104
As 188.979	0.892	0.865	0.008	mg/L	3.008
Ba 230.424	7.72	7.54	0.002	mg/L	2.404
Be 234.861	0.891	0.869	0.000	mg/L	2.522
Ca 227.549	126	125	0.000	mg/L	1.271
Cd 228.802	0.857	0.832	0.000	mg/L	2.857
Co 228.616	0.853	0.830	0.001	mg/L	2.819
Cr 267.716	0.840	0.818	0.001	mg/L	2.657
Cu 327.396	0.934	0.914	0.000	mg/L	2.203
Fe 261.387	0.976	0.955	0.012	mg/L	2.206
K 404.721	45.0	43.9	0.221	mg/L	2.486
k 766.491			0.000	mg/L	
Li 460.286	9.26	9.13	0.002	mg/L	1.448
Mg 279.079	10.6	10.3	0.003	mg/L	2.478
Mn 257.610	0.901	0.878	0.000	mg/L	2.526
Mo 202.030	0.809	0.793	0.001	mg/L	1.986
Na 330.237	55.5	54.5	0.024	mg/L	1.846
Ni 231.604	0.856	0.830	0.002	mg/L	3.028
Pb 220.353	0.833	0.803	0.009	mg/L	3.732
Sb 206.833	0.911	0.876	0.011	mg/L	3.830
Se 196.026	0.808	0.777	0.003	mg/L	3.896
Si 288.158	19.1	19.0	0.037	mg/L	0.864
Sn 189.933	-0.00722	-0.00576	0.001	mg/L	-22.541
Sr 232.235	0.792	0.762	0.002	mg/L	3.882
Ti 337.280	0.880	0.860	0.000	mg/L	2.296
Tl 190.800	0.819	0.798	0.010	mg/L	2.527
V 292.402	0.884	0.864	0.000	mg/L	2.303
Zn 206.200	0.823	0.794	0.002	mg/L	3.574

Mean Data ----------

[illegible] 0906501 Seq. No.: 19 Sample No.: 8 A/S Pos: 16
ple Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:21:41 PM

Mean Corr.	Mean	Calib	Mean	Sample

Element	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
Y 360.073	3432880.1							0.20%
328.068	1199.9	0.00182	0.000025	mg/L	0.00182	0.000025	mg/L	1.37%
237.312	596.2	0.161	0.0002	mg/L	0.161	0.0002	mg/L	0.11%
As 188.979	1920.8	0.129	0.0005	mg/L	0.129	0.0005	mg/L	0.41%
Ba 230.424	32876.2	0.0668	0.00080	mg/L	0.0668	0.00080	mg/L	1.20%
Be 234.861	644.1	0.00024	0.000011	mg/L	0.00024	0.000011	mg/L	4.56%
Ca 227.549	72535.8	43.6	0.39	mg/L	43.6	0.39	mg/L	0.89%
Cd 228.802	332.7	0.00083	0.000020	mg/L	0.00083	0.000020	mg/L	2.42%
Co 228.616	200.0	0.00067	0.000004	mg/L	0.00067	0.000004	mg/L	0.67%
Cr 267.716	679.2	0.00168	0.000035	mg/L	0.00168	0.000035	mg/L	2.07%
Cu 327.396	2626.6	0.00500	0.000060	mg/L	0.00500	0.000060	mg/L	1.20%
Fe 261.387	4711.2	0.177	0.0005	mg/L	0.177	0.0005	mg/L	0.29%
K 404.721	1536.6	4.12	0.030	mg/L	4.12	0.030	mg/L	0.72%
k 766.491	Saturated							
Li 460.286	7992.3	0.0570	0.00073	mg/L	0.0570	0.00073	mg/L	1.28%
Mg 279.079	634280.7	9.62	0.050	mg/L	9.62	0.050	mg/L	0.51%
Mn 257.610	73316.4	0.0680	0.00059	mg/L	0.0680	0.00059	mg/L	0.87%
Mo 202.030	4110.4	0.0406	0.00010	mg/L	0.0406	0.00010	mg/L	0.24%
Na 330.237	134288.4	21.6	0.33	mg/L	21.6	0.33	mg/L	1.55%
Ni 231.604	1337.4	0.00779	0.000031	mg/L	0.00779	0.000031	mg/L	0.39%
Pb 220.353	118.1	0.00064	0.000305	mg/L	0.00064	0.000305	mg/L	47.76%
Sb 206.833	45.4	0.00366	0.000054	mg/L	0.00366	0.000054	mg/L	1.48%
Se 196.026	37.4	0.00585	0.000190	mg/L	0.00585	0.000190	mg/L	3.25%
Si 288.158	287975.4	2.71	0.033	mg/L	2.71	0.033	mg/L	1.21%
Sn 189.933	-196.9	-0.00497	0.000142	mg/L	-0.00497	0.000142	mg/L	2.85%
Sr 232.235	584.3	0.217	0.0008	mg/L	0.217	0.0008	mg/L	0.38%
Ti 337.280	9946.8	0.00177	0.000067	mg/L	0.00177	0.000067	mg/L	3.79%
Tl 190.800	149.3	0.00812	0.000981	mg/L	0.00812	0.000981	mg/L	12.08%
V 292.402	4521.2	0.0108	0.00006	mg/L	0.0108	0.00006	mg/L	0.60%
Zn 206.200	2680.3	0.00863	0.000036	mg/L	0.00863	0.000036	mg/L	0.42%

Calibration Summary

Method: clptstd Date: 9/13/00 7:23:50 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Method: clptstd IEC: d4iec.iec MSF:
Results: 091300B Spectra Stored: Yes Method Stored: Yes
Sample Info: 091300b User: User1 Date: 9/13/00 7:23:50 PM

Method Description:

n Data

ID: 01 SD.2 Seq. No.: 1 Sample No.: 1 A/S Pos: 17
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 5.0
Data: Original Date: 9/13/00 7:25:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3325803.6							0.04%
Ag 328.068	932.9	0.00152	0.000016	mg/L	0.00762	0.000082	mg/L	1.07%
Al 237.312	-1047.0	0.0813	0.00021	mg/L	0.406	0.0010	mg/L	0.25%
As 188.979	363.3	0.0260	0.00040	mg/L	0.130	0.0020	mg/L	1.52%
Ba 230.424	5608.0	0.0114	0.00010	mg/L	0.0570	0.00050	mg/L	0.88%
Be 234.861	95.2	0.00005	0.000004	mg/L	0.00027	0.000018	mg/L	6.73%
Ca 227.549	14002.5	8.38	0.068	mg/L	41.9	0.34	mg/L	0.81%
Cd 228.802	148.4	0.00041	0.000005	mg/L	0.00203	0.000025	mg/L	1.25%
Co 228.616	-48.3	-0.00045	0.000007	mg/L	-0.00223	0.000035	mg/L	1.57%
Cr 267.716	498.9	0.00123	0.000025	mg/L	0.00615	0.000123	mg/L	2.00%
Cu 327.396	1422.6	0.00271	0.000019	mg/L	0.0135	0.00009	mg/L	0.70%
Fe 261.387	4327.9	0.166	0.0012	mg/L	0.828	0.0060	mg/L	0.73%
K 404.721	237.0	1.05	0.027	mg/L	5.27	0.135	mg/L	2.56%
k 766.491	6489271.2	1.10	0.011	mg/L	5.51	0.054	mg/L	0.98%
Li 460.286	851.8	-0.0164	0.00313	mg/L	-0.0820	0.01563	mg/L	19.06%
Mg 279.079	121180.4	1.88	0.018	mg/L	9.39	0.089	mg/L	0.95%
Mn 257.610	16396.0	0.0152	0.00010	mg/L	0.0761	0.00050	mg/L	0.65%
Mo 202.030	645.0	0.00637	0.000083	mg/L	0.0318	0.00041	mg/L	1.30%
Na 330.237	19609.4	3.12	0.036	mg/L	15.6	0.18	mg/L	1.15%
Ni 231.604	-187.1	0.00056	0.000066	mg/L	0.00280	0.000328	mg/L	11.71%
Pb 220.353	94.3	-0.00008	0.000148	mg/L	-0.00042	0.000738	mg/L	175.40%
Sb 206.833	66.6	0.00436	0.000161	mg/L	0.0218	0.00081	mg/L	3.70%
Se 196.026	3.3	0.00320	0.000026	mg/L	0.0160	0.00013	mg/L	0.82%
Si 288.158	51047.7	0.430	0.0009	mg/L	2.15	0.004	mg/L	0.20%
[illegible]6 189.933	-105.1	-0.00191	0.000015	mg/L	-0.00953	0.000077	mg/L	0.81%
Cr 2[illegible]32.235	100.8	0.0467	0.00036	mg/L	0.234	0.0018	mg/L	0.76%
[illegible]337.280	1483.0	-0.00252	0.000016	mg/L	-0.0126	0.00008	mg/L	0.66%
Tl 190.800	52.9	0.00283	0.000212	mg/L	0.0141	0.00106	mg/L	7.48%
V 292.402	738.8	0.00081	0.000005	mg/L	0.00407	0.000025	mg/L	0.62%
Zn 206.200	2615.9	0.00842	0.000053	mg/L	0.0421	0.00027	mg/L	0.63%

Mean Data

ID: 01 PS.9 Seq. No.: 2 Sample No.: 2 A/S Pos: 18
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:29:33 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3429292.3							0.62%
Ag 328.068	174056.9	0.192	0.0005	mg/L	0.192	0.0005	mg/L	0.24%
Al 237.312	199670.4	9.81	0.045	mg/L	9.81	0.045	mg/L	0.46%
As 188.979	15644.3	1.05	0.011	mg/L	1.05	0.011	mg/L	1.02%
Ba 230.424	4079858.9	8.29	0.052	mg/L	8.29	0.052	mg/L	0.62%
Be 234.861	2681048.5	0.923	0.0050	mg/L	0.923	0.0050	mg/L	0.54%
Ca 227.549	76180.6	45.7	0.07	mg/L	45.7	0.07	mg/L	0.16%
Cd 228.802	401049.6	0.911	0.0057	mg/L	0.911	0.0057	mg/L	0.62%
Co 228.616	198603.0	0.894	0.0070	mg/L	0.894	0.0070	mg/L	0.79%
Cr 267.716	366154.4	0.905	0.0056	mg/L	0.905	0.0056	mg/L	0.62%
Cu 327.396	494471.1	0.941	0.0031	mg/L	0.941	0.0031	mg/L	0.32%
Fe 261.387	29189.9	0.918	0.0145	mg/L	0.918	0.0145	mg/L	1.59%
K 404.721	19563.2	49.8	0.25	mg/L	49.8	0.25	mg/L	0.51%
k 766.491	Saturated							
Li 460.286	1064235.8	10.4	0.01	mg/L	10.4	0.01	mg/L	0.09%
Mg 279.079	1188082.1	18.0	0.03	mg/L	18.0	0.03	mg/L	0.18%
Mn 257.610	1054943.8	0.979	0.0056	mg/L	0.979	0.0056	mg/L	0.57%
Mo 202.030	91124.1	0.900	0.0064	mg/L	0.900	0.0064	mg/L	0.71%
[illegible]a 330.237	374171.3	66.5	0.07	mg/L	66.5	0.07	mg/L	0.10%
[illegible]l 23231.604	187796.1	0.893	0.0073	mg/L	0.893	0.0073	mg/L	0.81%
[illegible]1[illegible]220.353	29018.8	0.885	0.0080	mg/L	0.885	0.0080	mg/L	0.91%
Sb 206.833	27549.1	0.917	0.0114	mg/L	0.917	0.0114	mg/L	1.24%
Se 196.026	10581.0	0.828	0.0123	mg/L	0.828	0.0123	mg/L	1.48%

K 404	9.3	-0.0625	0.29190	mg/L	0.12%
[illegible]	1.3	-0.00549	0.000173	mg/L	466.70%
[illegible]460.286	-1152.8	-0.0359	0.00206	mg/L	3.15%
Mg 279.079	-1257.9	0.0310	0.00000	mg/L	5.72%
					0.00%

002324

Si 288.158	1207305.4	11.6	0.10	mg/L	11.6	0.10 mg/L	0.84%
Sn 189.933	54463.3	1.82	0.006	mg/L	1.82	0.006 mg/L	0.35%
Sr 232.235	2846.6	0.991	0.0022	mg/L	0.991	0.0022 mg/L	0.23%
Ti 337.280	1862536.0	0.941	0.0051	mg/L	0.941	0.0051 mg/L	0.54%
Tl 190.800	17608.8	0.873	0.0041	mg/L	0.873	0.0041 mg/L	0.47%
V 292.402	355850.1	0.945	0.0061	mg/L	0.945	0.0061 mg/L	0.65%
Zn 206.200	270525.2	0.871	0.0088	mg/L	0.871	0.0088 mg/L	1.02%

Mean Data ----------

ID: CCV Seq. No.: 3 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: 9/13/00 7:33:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3639755.5							0.17%
Ag 328.068	358694.2	0.395	0.0007	mg/L				0.18%
Al 237.312	197427.2	9.70	0.002	mg/L				0.02%
As 188.979	5682.6	0.384	0.0040	mg/L				1.03%
Ba 230.424	486138.1	0.988	0.0008	mg/L				0.08%
Be 234.861	142075.6	0.0488	0.00006	mg/L				0.12%
Ca 227.549	16839.1	9.97	0.071	mg/L				0.71%
Cd 228.802	21354.5	0.0486	0.00040	mg/L				0.82%
Co 228.616	43969.2	0.198	0.0002	mg/L				0.08%
Cr 267.716	199795.5	0.495	0.0001	mg/L				0.01%
Cu 327.396	261174.1	0.497	0.0014	mg/L				0.29%
Fe 261.387	128347.0	3.89	0.003	mg/L				0.08%
K 404.721	19416.0	49.4	0.22	mg/L				0.45%
k 766.491	Saturated							
Li 460.286	119253.4	1.12	0.008	mg/L				0.73%
*QC exceeds upper limit for Li 460.286	Recovery = 111.55%	Action = Continue						
Mg 279.079	633026.2	9.60	0.018	mg/L				0.18%
Mn 257.610	539219.9	0.500	0.0003	mg/L				0.06%
Mo 202.030	98649.3	0.974	0.0014	mg/L				0.14%
Na 330.237	292913.3	50.1	0.01	mg/L				0.03%
Ni 31.604	101652.3	0.484	0.0012	mg/L				0.24%
Pb 220.353	15677.9	0.478	0.0037	mg/L				0.77%
Sb 206.833	34591.8	1.15	0.010	mg/L				0.88%
Se 196.026	4862.8	0.382	0.0022	mg/L				0.57%
Si 288.158	533576.2	5.08	0.023	mg/L				0.46%
Sn 189.933	27735.7	0.929	0.0150	mg/L				1.62%
Sr 232.235	2681.7	0.930	0.0087	mg/L				0.94%
Ti 337.280	1981810.8	1.00	0.001	mg/L				0.06%
Tl 190.800	9911.1	0.491	0.0074	mg/L				1.51%
V 292.402	379214.3	1.00	0.001	mg/L				0.06%
Zn 206.200	294368.4	0.947	0.0035	mg/L				0.37%

Mean Data ----------

ID: ICB/CCB Seq. No.: 4 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:37:55 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3047930.5							1.56%
Ag 328.068	855.9	0.00144	0.000058	mg/L				4.02%
Al 237.312	-1392.4	0.0645	0.00014	mg/L				0.22%
As 188.979	-13.1	0.00114	0.000063	mg/L				5.47%
Ba 230.424	-1034.5	-0.00210	0.000006	mg/L				0.29%
Be 234.861	-22.3	0.00001	0.000001	mg/L				5.48%
Ca 227.549	-36.5	-0.0616	0.00381	mg/L				6.19%
Cd 228.802	100.0	0.00030	0.000015	mg/L				4.93%
Co 228.616	-123.1	-0.00078	0.000010	mg/L				1.28%
Cr 267.716	256.4	0.00063	0.000032	mg/L				5.13%
Cu 327.396	671.9	0.00128	0.000030	mg/L				2.34%
Fe 261.387	-879.6	0.00898	0.000011	mg/L				0.12%
K 404.721	-239.3	-0.0625	0.29190	mg/L				466.70%
Ni 6.491	331301.3	-0.00549	0.000173	mg/L				3.15%
Pb 160.286	-1152.8	-0.0359	0.00206	mg/L				5.72%
Mg 279.079	-1257.9	0.0310	0.00000	mg/L				0.00%
Mn 257.610	677.6	0.00063	0.000003	mg/L				0.49%

Mo 202.030	157.7	0.00156	0.000114 mg/L		7.31%
Na 330.237	253.7	0.134	0.0109 mg/L		8.14%
[illegible]231.604	-622.9	-0.00151	0.000011 mg/L		0.75%
[illegible]220.353	74.4	-0.00069	0.000009 mg/L		1.37%
[illegible]206.833	58.6	0.00409	0.000019 mg/L		0.45%
Se 196.026	-8.4	0.00228	0.000499 mg/L		21.83%
Si 288.158	1883.1	-0.0444	0.00004 mg/L		0.09%
Sn 189.933	102.6	0.00504	0.000375 mg/L		7.44%
Sr 232.235	-11.8	0.00707	0.001897 mg/L		26.82%
Ti 337.280	-535.5	-0.00354	0.000018 mg/L		0.50%
Tl 190.800	2.4	0.00035	0.000094 mg/L		26.84%
V 292.402	-197.9	-0.00166	0.000005 mg/L		0.31%
Zn 206.200	540.8	0.00174	0.000044 mg/L		2.54%

Mean Data

ID: 0906503 Seq. No.: 5 Sample No.: 3 A/S Pos: 19
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:42:13 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	2729973.0							1.28%
Ag 328.068	1214.6	0.00183	0.000012	mg/L	0.00183	0.000012	mg/L	0.64%
Al 237.312	9539.2	0.594	0.0043	mg/L	0.594	0.0043	mg/L	0.72%
As 188.979	46.6	0.00508	0.000187	mg/L	0.00508	0.000187	mg/L	3.68%
Ba 230.424	7737.8	0.0157	0.00005	mg/L	0.0157	0.00005	mg/L	0.35%
Be 234.861	71.7	0.00005	0.000001	mg/L	0.00005	0.000001	mg/L	3.18%
Ca 227.549	62974.0	37.8	0.09	mg/L	37.8	0.09	mg/L	0.23%
Cd 228.802	141.2	0.00039	0.000008	mg/L	0.00039	0.000008	mg/L	2.04%
Co 228.616	9.8	-0.00018	0.000010	mg/L	-0.00018	0.000010	mg/L	5.36%
Cr 267.716	396.4	0.00098	0.000027	mg/L	0.00098	0.000027	mg/L	2.80%
Cu 327.396	1261.3	0.00240	0.000083	mg/L	0.00240	0.000083	mg/L	3.44%
Fe 261.387	10.3	0.0357	0.00128	mg/L	0.0357	0.00128	mg/L	3.58%
K 404.721	2287.4	5.90	0.044	mg/L	5.90	0.044	mg/L	0.75%
[illegible]66.491	Saturated							
[illegible]60.286	1448185.1	14.1	0.27	mg/L	14.1	0.27	mg/L	1.93%
[illegible]279.079	432574.8	6.57	0.000	mg/L	6.57	0.000	mg/L	0.00%
Mn 257.610	5947.7	0.00552	0.000024	mg/L	0.00552	0.000024	mg/L	0.43%
Mo 202.030	2917.6	0.0288	0.00004	mg/L	0.0288	0.00004	mg/L	0.14%
Na 330.237	3580603.7	245	0.0	mg/L	245	0.0	mg/L	0.00%
Ni 231.604	8821.1	0.0433	0.00002	mg/L	0.0433	0.00002	mg/L	0.05%
Pb 220.353	93.3	-0.00012	0.000158	mg/L	-0.00012	0.000158	mg/L	135.30%
Sb 206.833	109.9	0.00579	0.000375	mg/L	0.00579	0.000375	mg/L	6.48%
Se 196.026	3.6	0.00322	0.000946	mg/L	0.00322	0.000946	mg/L	29.40%
Si 288.158	220732.7	2.07	0.000	mg/L	2.07	0.000	mg/L	0.02%
Sn 189.933	440.4	0.0163	0.00281	mg/L	0.0163	0.00281	mg/L	17.17%
Sr 232.235	373.4	0.143	0.0026	mg/L	0.143	0.0026	mg/L	1.80%
Ti 337.280	-718.9	-0.00363	0.000043	mg/L	-0.00363	0.000043	mg/L	1.18%
Tl 190.800	57.8	0.00307	0.000169	mg/L	0.00307	0.000169	mg/L	5.52%
V 292.402	122.9	-0.00081	0.000002	mg/L	-0.00081	0.000002	mg/L	0.21%
Zn 206.200	7222.1	0.0232	0.00016	mg/L	0.0232	0.00016	mg/L	0.67%

Mean Data

ID: 0901402/WG83674-02 Seq. No.: 6 Sample No.: 4 A/S Pos: 20
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:46:33 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3422640.2							1.29%
Ag 328.068	1351.3	0.00198	0.000025	mg/L	0.00198	0.000025	mg/L	1.26%
Al 237.312	13864.7	0.804	0.0021	mg/L	0.804	0.0021	mg/L	0.26%
As 188.979	17.6	0.00317	0.000074	mg/L	0.00317	0.000074	mg/L	2.32%
Ba 230.424	18846.7	0.0383	0.00044	mg/L	0.0383	0.00044	mg/L	1.15%
Be 234.861	401.1	0.00016	0.000003	mg/L	0.00016	0.000003	mg/L	1.61%
Ca 227.549	96282.1	57.8	0.37	mg/L	57.8	0.37	mg/L	0.64%
Cd 228.802	137.2	0.00038	0.000013	mg/L	0.00038	0.000013	mg/L	3.39%
[illegible]28.616	20.5	-0.00014	0.000007	mg/L	-0.00014	0.000007	mg/L	4.97%
[illegible]267.716	758.9	0.00187	0.000018	mg/L	0.00187	0.000018	mg/L	0.98%
Cu 327.396	3139.4	0.00598	0.000087	mg/L	0.00598	0.000087	mg/L	1.45%
Fe 261.387	37056.6	1.15	0.009	mg/L	1.15	0.009	mg/L	0.77%

K 404.721	2423.5	6.23	0.412	mg/L	6.23	0.412 mg/L	6.61%
k 766.491	Saturated						
460.286	874.9	-0.0191	0.00348	mg/L	-0.0191	0.00348 mg/L	18.20%
279.079	875157.7	13.2	0.11	mg/L	13.2	0.11 mg/L	0.83%
Mn 257.610	99277.6	0.0921	0.00081	mg/L	0.0921	0.00081 mg/L	0.88%
Mo 202.030	1109.6	0.0110	0.00000	mg/L	0.0110	0.00000 mg/L	0.01%
Na 330.237	520796.1	101	1.1	mg/L	101	1.1 mg/L	1.07%
Ni 231.604	-39.4	0.00126	0.000050	mg/L	0.00126	0.000050 mg/L	3.99%
Pb 220.353	173.3	0.00232	0.000080	mg/L	0.00232	0.000080 mg/L	3.44%
Sb 206.833	99.4	0.00545	0.000102	mg/L	0.00545	0.000102 mg/L	1.86%
Se 196.026	31.7	0.00541	0.000346	mg/L	0.00541	0.000346 mg/L	6.40%
Si 288.158	462128.8	4.39	0.033	mg/L	4.39	0.033 mg/L	0.75%
Sn 189.933	-210.1	-0.00542	0.000222	mg/L	-0.00542	0.000222 mg/L	4.10%
Sr 232.235	471.5	0.177	0.0002	mg/L	0.177	0.0002 mg/L	0.10%
Ti 337.280	18825.9	0.00627	0.000215	mg/L	0.00627	0.000215 mg/L	3.43%
Tl 190.800	-11.1	0.00046	0.000100	mg/L	0.00046	0.000100 mg/L	21.79%
V 292.402	669.4	0.00063	0.000024	mg/L	0.00063	0.000024 mg/L	3.80%
Zn 206.200	6577.1	0.0212	0.00006	mg/L	0.0212	0.00006 mg/L	0.30%

Mean Data ----------

ID: 02 DUP/WG83674-07 Seq. No.: 7 Sample No.: 5 A/S Pos: 21
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:50:55 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3463288.8							0.94%
Ag 328.068	1335.7	0.00197	0.000018	mg/L	0.00197	0.000018	mg/L	0.92%
Al 237.312	12704.2	0.748	0.0005	mg/L	0.748	0.0005	mg/L	0.07%
As 188.979	20.5	0.00336	0.000009	mg/L	0.00336	0.000009	mg/L	0.27%
Ba 230.424	19232.1	0.0391	0.00021	mg/L	0.0391	0.00021	mg/L	0.53%
Be 234.861	372.1	0.00015	0.000003	mg/L	0.00015	0.000003	mg/L	1.80%
Ca 227.549	98756.9	59.3	0.42	mg/L	59.3	0.42	mg/L	0.71%
Cd 228.802	149.1	0.00041	0.000000	mg/L	0.00041	0.000000	mg/L	0.09%
228.616	31.2	-0.00009	0.000007	mg/L	-0.00009	0.000007	mg/L	7.54%
267.716	712.8	0.00176	0.000003	mg/L	0.00176	0.000003	mg/L	0.18%
Cu 327.396	3230.1	0.00615	0.000049	mg/L	0.00615	0.000049	mg/L	0.80%
Fe 261.387	37389.7	1.16	0.002	mg/L	1.16	0.002	mg/L	0.13%
K 404.721	2562.9	6.56	0.012	mg/L	6.56	0.012	mg/L	0.18%
k 766.491	Saturated							
Li 460.286	1082.0	-0.0171	0.00338	mg/L	-0.0171	0.00338	mg/L	19.80%
Mg 279.079	901053.9	13.6	0.09	mg/L	13.6	0.09	mg/L	0.63%
Mn 257.610	101789.5	0.0945	0.00001	mg/L	0.0945	0.00001	mg/L	0.01%
Mo 202.030	1097.3	0.0108	0.00004	mg/L	0.0108	0.00004	mg/L	0.38%
Na 330.237	534947.4	104	1.4	mg/L	104	1.4	mg/L	1.36%
Ni 231.604	-10.0	0.00140	0.000105	mg/L	0.00140	0.000105	mg/L	7.47%
Pb 220.353	189.2	0.00281	0.000058	mg/L	0.00281	0.000058	mg/L	2.06%
Sb 206.833	103.0	0.00557	0.000138	mg/L	0.00557	0.000138	mg/L	2.49%
Se 196.026	16.2	0.00420	0.000298	mg/L	0.00420	0.000298	mg/L	7.11%
Si 288.158	457551.2	4.35	0.025	mg/L	4.35	0.025	mg/L	0.58%
Sn 189.933	-224.5	-0.00590	0.000021	mg/L	-0.00590	0.000021	mg/L	0.36%
Sr 232.235	479.4	0.180	0.0017	mg/L	0.180	0.0017	mg/L	0.92%
Ti 337.280	17019.8	0.00536	0.000052	mg/L	0.00536	0.000052	mg/L	0.98%
Tl 190.800	-14.0	0.00034	0.000137	mg/L	0.00034	0.000137	mg/L	40.83%
V 292.402	635.3	0.00054	0.000016	mg/L	0.00054	0.000016	mg/L	3.05%
Zn 206.200	7593.1	0.0244	0.00000	mg/L	0.0244	0.00000	mg/L	0.00%

Mean Data ----------

ID: SPLP BLK 9/5/00 Seq. No.: 8 Sample No.: 6 A/S Pos: 22
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 7:55:12 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3038861.0							1.60%
Ag 328.068	884.4	0.00147	0.000078	mg/L	0.00147	0.000078	mg/L	5.32%
237.312	-1469.0	0.0608	0.00050	mg/L	0.0608	0.00050	mg/L	0.82%
188.979	-12.3	0.00119	0.000174	mg/L	0.00119	0.000174	mg/L	14.53%
Ba 230.424	-1029.3	-0.00209	0.000013	mg/L	-0.00209	0.000013	mg/L	0.64%
Be 234.861	-31.2	0.00001	0.000007	mg/L	0.00001	0.000007	mg/L	69.06%
Ca 227.549	-50.6	-0.0700	0.00107	mg/L	-0.0700	0.00107	mg/L	1.53%

002327

Cd 228.802	78.4	0.00025	0.000003 mg/L	0.00025	0.000003 mg/L	1.32%
Co 228.616	-118.3	-0.00076	0.000027 mg/L	-0.00076	0.000027 mg/L	3.57%
267.716	304.4	0.00075	0.000004 mg/L	0.00075	0.000004 mg/L	0.57%
327.396	1115.6	0.00212	0.000015 mg/L	0.00212	0.000015 mg/L	0.71%
261.387	-747.4	0.0129	0.00017 mg/L	0.0129	0.00017 mg/L	1.34%
K 404.721	-189.1	0.0551	0.23122 mg/L	0.0551	0.23122 mg/L	419.87%
k 766.491	431879.8	0.0126	0.00051 mg/L	0.0126	0.00051 mg/L	4.02%
Li 460.286	-897.6	-0.0335	0.00110 mg/L	-0.0335	0.00110 mg/L	3.28%
Mg 279.079	-1163.6	0.0324	0.00087 mg/L	0.0324	0.00087 mg/L	2.69%
Mn 257.610	771.8	0.00072	0.000015 mg/L	0.00072	0.000015 mg/L	2.05%
Mo 202.030	61.7	0.00061	0.000012 mg/L	0.00061	0.000012 mg/L	1.90%
Na 330.237	450.7	0.164	0.0063 mg/L	0.164	0.0063 mg/L	3.85%
Ni 231.604	-626.6	-0.00153	0.000022 mg/L	-0.00153	0.000022 mg/L	1.44%
Pb 220.353	91.4	-0.00017	0.000019 mg/L	-0.00017	0.000019 mg/L	10.91%
Sb 206.833	60.1	0.00414	0.000287 mg/L	0.00414	0.000287 mg/L	6.93%
Se 196.026	-22.7	0.00117	0.000194 mg/L	0.00117	0.000194 mg/L	16.66%
Si 288.158	5509.6	-0.00943	0.000930 mg/L	-0.00943	0.000930 mg/L	9.86%
Sn 189.933	19.8	0.00227	0.000032 mg/L	0.00227	0.000032 mg/L	1.42%
Sr 232.235	-19.7	0.00429	0.000380 mg/L	0.00429	0.000380 mg/L	8.86%
Ti 337.280	-605.5	-0.00357	0.000010 mg/L	-0.00357	0.000010 mg/L	0.27%
Tl 190.800	-17.5	-0.00062	0.000177 mg/L	-0.00062	0.000177 mg/L	28.44%
V 292.402	-195.8	-0.00166	0.000012 mg/L	-0.00166	0.000012 mg/L	0.72%
Zn 206.200	1698.1	0.00546	0.000023 mg/L	0.00546	0.000023 mg/L	0.41%

Mean Data ----------

ID: CCV Seq. No.: 9 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: 9/13/00 7:59:39 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3636706.9							2.36%
Ag 328.068	357651.4	0.394	0.0103	mg/L				2.62%
Al 237.312	196812.4	9.67	0.269	mg/L				2.78%
188.979	5588.6	0.378	0.0005	mg/L				0.13%
230.424	482043.9	0.980	0.0224	mg/L				2.29%
234.861	142177.2	0.0488	0.00116	mg/L				2.37%
Ca 227.549	16705.8	9.89	0.006	mg/L				0.06%
Cd 228.802	21190.3	0.0482	0.00005	mg/L				0.10%
Co 228.616	43921.6	0.197	0.0040	mg/L				2.05%
Cr 267.716	199428.0	0.494	0.0113	mg/L				2.28%
Cu 327.396	259666.1	0.494	0.0121	mg/L				2.45%
Fe 261.387	127593.2	3.87	0.102	mg/L				2.63%
K 404.721	19573.9	49.8	1.00	mg/L				2.01%
k 766.491	Saturated							
Li 460.286	119100.6	1.11	0.023	mg/L				2.06%
*QC exceeds upper limit for Li 460.286 Recovery = 111.42% Action = Continue								
Mg 279.079	630588.3	9.56	0.221	mg/L				2.32%
Mn 257.610	537072.9	0.498	0.0106	mg/L				2.13%
Mo 202.030	97762.5	0.965	0.0192	mg/L				1.99%
Na 330.237	292733.1	50.1	1.29	mg/L				2.57%
Ni 231.604	101162.3	0.482	0.0102	mg/L				2.11%
Pb 220.353	15512.1	0.473	0.0002	mg/L				0.04%
Sb 206.833	34140.4	1.14	0.002	mg/L				0.21%
Se 196.026	4743.9	0.373	0.0008	mg/L				0.22%
Si 288.158	541134.6	5.15	0.139	mg/L				2.70%
Sn 189.933	27063.7	0.907	0.0012	mg/L				0.13%
Sr 232.235	2659.3	0.923	0.0002	mg/L				0.02%
Ti 337.280	1979368.5	1.000	0.0241	mg/L				2.41%
Tl 190.800	9504.2	0.471	0.0022	mg/L				0.47%
V 292.402	378345.1	1.00	0.024	mg/L				2.39%
Zn 206.200	291304.5	0.937	0.0164	mg/L				1.75%

Mean Data ----------

ID: ICB/CCB Seq. No.: 10 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:03:54 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3000753.7							0.75%

002328

Ag 328.068	864.4	0.00145	0.000078 mg/L	5.42%
Al 237.312	-1403.3	0.0640	0.00031 mg/L	0.49%
As 188.979	-14.8	0.00103	0.000135 mg/L	13.14%
230.424	-1045.2	-0.00212	0.000008 mg/L	0.36%
234.861	-28.9	0.00001	0.000002 mg/L	15.76%
Ca 227.549	-48.5	-0.0687	0.00207 mg/L	3.01%
Cd 228.802	87.4	0.00027	0.000004 mg/L	1.49%
Co 228.616	-120.2	-0.00077	0.000018 mg/L	2.31%
Cr 267.716	251.1	0.00062	0.000007 mg/L	1.07%
Cu 327.396	712.0	0.00136	0.000008 mg/L	0.56%
Fe 261.387	-938.2	0.00721	0.000187 mg/L	2.60%
K 404.721	-192.0	0.0483	0.10351 mg/L	214.11%
k 766.491	334950.2	-0.00483	0.000013 mg/L	0.27%
Li 460.286	-1424.4	-0.0386	0.00146 mg/L	3.79%
Mg 279.079	-1282.1	0.0306	0.00000 mg/L	0.01%
Mn 257.610	676.8	0.00063	0.000003 mg/L	0.53%
Mo 202.030	134.4	0.00133	0.000101 mg/L	7.63%
Na 330.237	316.6	0.143	0.0039 mg/L	2.73%
Ni 231.604	-639.2	-0.00159	0.000038 mg/L	2.41%
Pb 220.353	79.5	-0.00054	0.000149 mg/L	27.80%
Sb 206.833	64.9	0.00430	0.000005 mg/L	0.13%
Se 196.026	-16.8	0.00163	0.000459 mg/L	28.21%
Si 288.158	1795.8	-0.0452	0.00023 mg/L	0.51%
Sn 189.933	78.7	0.00424	0.000338 mg/L	7.97%
Sr 232.235	-19.0	0.00454	0.000053 mg/L	1.16%
Ti 337.280	-587.0	-0.00356	0.000019 mg/L	0.53%
Tl 190.800	-11.1	-0.00031	0.000078 mg/L	24.97%
V 292.402	-201.4	-0.00167	0.000002 mg/L	0.11%
Zn 206.200	513.4	0.00165	0.000020 mg/L	1.20%

Method - clptstd
SIF File - 091300b

Seq #	A/S Loc	ID	Category
1	23	PBW D/WG84001-03	Sample
2	24	LCSW D/WG84001-04	Recovery
3	25	0901505/WG84001-02	Sample
4	26	06 DUP/WG84001-07	Duplicate
5	27	0901501/WG84001-01	Sample
6	28	01 SD.2	Duplicate
7	29	01 PS.9	Recovery
8	30	02 MS/WG84001-05	Recovery
9	31	03 MSD/WG84001-06	Duplicate
10	32	0914202	Sample
11	5	CCV	QC
12	1	ICB/CCB	QC
13	33	0914204	Sample
14	34	0914206	Sample
15	35	0914208	Sample
16	36	0815102	Sample
17	37	0915104	Sample
18	38	0915601	Sample
19	39	0901504	Sample
20	40	0901507	Sample
21	41	0901508	Sample
22	42	0901509	Sample
23	5	CCV	QC
24	1	ICB/CCB	QC
25	43	0901510	Sample
26	44	0908701	Sample
27	45	0913001	Sample
28	5	CCV	QC
29	1	ICB/CCB	QC

Calibration Summary

Method: clptstd Date: 9/13/00 8:04:42 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
306.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Method: clptstd IEC: d4iec.iec MSF:
Results: 091300B Spectra Stored: Yes Method Stored: Yes
Sample Info: 091300b User: User1 Date: 9/13/00 8:04:42 PM
Method Description:

Mean Data

ID: PBW D/WG84001-03 Seq. No.: 1 Sample No.: 1 A/S Pos: 23
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:06:13 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3102630.9							1.56%
Ag 328.068	857.6	0.00144	0.000031	mg/L	0.00144	0.000031	mg/L	2.15%
Al 237.312	-1299.4	0.0690	0.00044	mg/L	0.0690	0.00044	mg/L	0.64%
As 188.979	-14.3	0.00107	0.000282	mg/L	0.00107	0.000282	mg/L	26.38%
Ba 230.424	-981.9	-0.00200	0.000012	mg/L	-0.00200	0.000012	mg/L	0.62%
Be 234.861	-26.7	0.00001	0.000002	mg/L	0.00001	0.000002	mg/L	16.69%
Ca 227.549	-54.2	-0.0722	0.00411	mg/L	-0.0722	0.00411	mg/L	5.69%
Cd 228.802	83.8	0.00026	0.000001	mg/L	0.00026	0.000001	mg/L	0.26%
Co 228.616	-120.3	-0.00077	0.000003	mg/L	-0.00077	0.000003	mg/L	0.33%
Cr 267.716	243.8	0.00060	0.000013	mg/L	0.00060	0.000013	mg/L	2.10%
Cu 327.396	823.5	0.00157	0.000046	mg/L	0.00157	0.000046	mg/L	2.92%
Fe 261.387	-858.1	0.00962	0.000290	mg/L	0.00962	0.000290	mg/L	3.02%
K 404.721	-248.9	-0.0850	0.10825	mg/L	-0.0850	0.10825	mg/L	127.43%
k 766.491	431551.9	0.0125	0.00098	mg/L	0.0125	0.00098	mg/L	7.77%
Li 460.286	-1599.2	-0.0403	0.00057	mg/L	-0.0403	0.00057	mg/L	1.41%
Mg 279.079	-1143.2	0.0327	0.00016	mg/L	0.0327	0.00016	mg/L	0.48%
Mn 257.610	1012.0	0.00094	0.000006	mg/L	0.00094	0.000006	mg/L	0.66%
02.030	112.7	0.00111	0.000057	mg/L	0.00111	0.000057	mg/L	5.16%
330.237	486.1	0.169	0.0015	mg/L	0.169	0.0015	mg/L	0.86%
Ni 231.604	-585.9	-0.00133	0.000029	mg/L	-0.00133	0.000029	mg/L	2.21%
Pb 220.353	105.0	0.00024	0.000031	mg/L	0.00024	0.000031	mg/L	12.80%

002331

Sb 206.833	66.8	0.00437	0.000007 mg/L	0.00437	0.000007 mg/L	0.16%
Se 196.026	-11.5	0.00204	0.000140 mg/L	0.00204	0.000140 mg/L	6.84%
Si 288.158	8368.6	0.0181	0.00020 mg/L	0.0181	0.00020 mg/L	1.10%
89.933	59.1	0.00359	0.000055 mg/L	0.00359	0.000055 mg/L	1.52%
Sr 232.235	-19.4	0.00438	0.000226 mg/L	0.00438	0.000226 mg/L	5.16%
Ti 337.280	-374.8	-0.00346	0.000015 mg/L	-0.00346	0.000015 mg/L	0.42%
Tl 190.800	-10.0	-0.00026	0.000083 mg/L	-0.00026	0.000083 mg/L	32.36%
V 292.402	-204.5	-0.00168	0.000006 mg/L	-0.00168	0.000006 mg/L	0.38%
Zn 206.200	1831.1	0.00589	0.000019 mg/L	0.00589	0.000019 mg/L	0.33%

Mean Data ----------

ID: LCSW D/WG84001-04 Seq. No.: 2 Sample No.: 2 A/S Pos: 24
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:10:24 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3534673.1							0.93%
Ag 328.068	175649.6	0.194	0.0013	mg/L	0.194	0.0013	mg/L	0.65%
Al 237.312	197241.5	9.69	0.087	mg/L	9.69	0.087	mg/L	0.90%
As 188.979	13729.7	0.921	0.0071	mg/L	0.921	0.0071	mg/L	0.77%
Ba 230.424	4264717.3	8.67	0.088	mg/L	8.67	0.088	mg/L	1.02%
Be 234.861	2700094.9	0.930	0.0090	mg/L	0.930	0.0090	mg/L	0.97%
Ca 227.549	16271.5	9.70	0.031	mg/L	9.70	0.031	mg/L	0.32%
Cd 228.802	405872.6	0.922	0.0078	mg/L	0.922	0.0078	mg/L	0.85%
Co 228.616	208865.4	0.940	0.0117	mg/L	0.940	0.0117	mg/L	1.25%
Cr 267.716	383481.2	0.948	0.0086	mg/L	0.948	0.0086	mg/L	0.91%
Cu 327.396	499907.8	0.952	0.0063	mg/L	0.952	0.0063	mg/L	0.66%
Fe 261.387	27045.0	0.859	0.0036	mg/L	0.859	0.0036	mg/L	0.42%
K 404.721	19095.7	48.5	0.04	mg/L	48.5	0.04	mg/L	0.07%
k 766.491	Saturated							
Li 460.286	1198086.4	11.7	0.01	mg/L	11.7	0.01	mg/L	0.12%
Mg 279.079	620923.3	9.41	0.115	mg/L	9.41	0.115	mg/L	1.23%
Mn 257.610	1030284.0	0.956	0.0097	mg/L	0.956	0.0097	mg/L	1.02%
Mo 202.030	89963.2	0.888	0.0084	mg/L	0.888	0.0084	mg/L	0.94%
30.237	273411.4	46.4	0.46	mg/L	46.4	0.46	mg/L	0.98%
Na 231.604	196070.7	0.932	0.0110	mg/L	0.932	0.0110	mg/L	1.18%
Pb 220.353	30743.4	0.937	0.0008	mg/L	0.937	0.0008	mg/L	0.08%
Sb 206.833	28313.3	0.943	0.0031	mg/L	0.943	0.0031	mg/L	0.33%
Se 196.026	11304.5	0.884	0.0049	mg/L	0.884	0.0049	mg/L	0.56%
Si 288.158	1098742.5	10.5	0.03	mg/L	10.5	0.03	mg/L	0.33%
Sn 189.933	27079.7	0.907	0.0167	mg/L	0.907	0.0167	mg/L	1.84%
Sr 232.235	2465.7	0.857	0.0146	mg/L	0.857	0.0146	mg/L	1.70%
Ti 337.280	1907966.9	0.964	0.0074	mg/L	0.964	0.0074	mg/L	0.77%
Tl 190.800	18504.2	0.916	0.0175	mg/L	0.916	0.0175	mg/L	1.91%
V 292.402	362122.3	0.961	0.0086	mg/L	0.961	0.0086	mg/L	0.89%
Zn 206.200	289711.7	0.932	0.0140	mg/L	0.932	0.0140	mg/L	1.50%

Matrix Check Sample: LCSW D/WG84001-04

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.201	0.194	0.001	mg/L	96.070
Al 237.312	10.1	9.69	0.087	mg/L	96.241
As 188.979	1.00	0.921	0.007	mg/L	92.014
Ba 230.424	10.00	8.67	0.088	mg/L	86.693
Be 234.861	1.00	0.930	0.009	mg/L	92.972
Ca 227.549	9.93	9.70	0.031	mg/L	97.762
Cd 228.802	1.00	0.922	0.008	mg/L	92.170
Co 228.616	0.999	0.940	0.012	mg/L	94.053
Cr 267.716	1.00	0.948	0.009	mg/L	94.752
Cu 327.396	1.00	0.952	0.006	mg/L	95.021
Fe 261.387	1.01	0.859	0.004	mg/L	84.923
K 404.721	49.9	48.5	0.036	mg/L	97.137
k 766.491	50.0		0.000	mg/L	
Li 460.286	9.96	11.7	0.014	mg/L	116.919
279.079	10.0	9.41	0.115	mg/L	93.820
Mn 257.610	1.00	0.956	0.010	mg/L	95.529
Mo 202.030	1.00	0.888	0.008	mg/L	88.706
Na 330.237	50.2	46.4	0.456	mg/L	92.461

002332

Ni 231.604	0.999	0.932	0.011	mg/L	93.331
Pb 220.353	1.00	0.937	0.001	mg/L	93.703
206.833	1.00	0.943	0.003	mg/L	93.843
196.026	1.00	0.884	0.005	mg/L	88.230
288.158	10.0	10.5	0.034	mg/L	105.106
Sn 189.933	1.00	0.907	0.017	mg/L	90.370
Sr 232.235	1.00	0.857	0.015	mg/L	85.219
Ti 337.280	0.997	0.964	0.007	mg/L	96.724
Tl 190.800	1.000	0.916	0.017	mg/L	91.663
V 292.402	0.998	0.961	0.009	mg/L	96.303
Zn 206.200	1.01	0.932	0.014	mg/L	92.642

Mean Data

ID: 0901505/WG84001-02 Seq. No.: 3 Sample No.: 3 A/S Pos: 25
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:14:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3468356.5							0.26%
Ag 328.068	1015.0	0.00161	0.000050	mg/L	0.00161	0.000050	mg/L	3.11%
Al 237.312	630.5	0.163	0.0008	mg/L	0.163	0.0008	mg/L	0.49%
As 188.979	-1.6	0.00190	0.000135	mg/L	0.00190	0.000135	mg/L	7.11%
Ba 230.424	2188.5	0.00445	0.000022	mg/L	0.00445	0.000022	mg/L	0.50%
Be 234.861	86.3	0.00005	0.000001	mg/L	0.00005	0.000001	mg/L	1.94%
Ca 227.549	2573.2	1.51	0.004	mg/L	1.51	0.004	mg/L	0.25%
Cd 228.802	118.0	0.00034	0.000003	mg/L	0.00034	0.000003	mg/L	0.76%
Co 228.616	-111.5	-0.00073	0.000027	mg/L	-0.00073	0.000027	mg/L	3.75%
Cr 267.716	382.7	0.00094	0.000031	mg/L	0.00094	0.000031	mg/L	3.32%
Cu 327.396	1063.6	0.00203	0.000058	mg/L	0.00203	0.000058	mg/L	2.87%
Fe 261.387	2174.2	0.101	0.0003	mg/L	0.101	0.0003	mg/L	0.31%
K 404.721	371.9	1.37	0.039	mg/L	1.37	0.039	mg/L	2.85%
k 766.491	12142191.7	2.12	0.000	mg/L	2.12	0.000	mg/L	0.02%
Li 460.286	406.9	-0.0207	0.00184	mg/L	-0.0207	0.00184	mg/L	8.90%
279.079	35188.1	0.581	0.0045	mg/L	0.581	0.0045	mg/L	0.78%
257.610	4773.5	0.00443	0.000010	mg/L	0.00443	0.000010	mg/L	0.23%
202.030	665.4	0.00657	0.000088	mg/L	0.00657	0.000088	mg/L	1.34%
Na 330.237	1376694.2	245	0.0	mg/L	245	0.0	mg/L	0.00%
Ni 231.604	-638.3	-0.00158	0.000027	mg/L	-0.00158	0.000027	mg/L	1.72%
Pb 220.353	122.8	0.00078	0.000024	mg/L	0.00078	0.000024	mg/L	3.04%
Sb 206.833	78.2	0.00474	0.000252	mg/L	0.00474	0.000252	mg/L	5.31%
Se 196.026	2.3	0.00312	0.000084	mg/L	0.00312	0.000084	mg/L	2.68%
Si 288.158	169168.0	1.57	0.021	mg/L	1.57	0.021	mg/L	1.36%
Sn 189.933	207.6	0.00855	0.001172	mg/L	0.00855	0.001172	mg/L	13.70%
Sr 232.235	74.6	0.0375	0.00091	mg/L	0.0375	0.00091	mg/L	2.42%
Ti 337.280	343.0	-0.00309	0.000024	mg/L	-0.00309	0.000024	mg/L	0.78%
Tl 190.800	239.4	0.0120	0.00181	mg/L	0.0120	0.00181	mg/L	15.12%
V 292.402	-103.4	-0.00141	0.000013	mg/L	-0.00141	0.000013	mg/L	0.90%
Zn 206.200	6174.4	0.0199	0.00032	mg/L	0.0199	0.00032	mg/L	1.61%

Mean Data

ID: 06 DUP/WG84001-07 Seq. No.: 4 Sample No.: 4 A/S Pos: 26
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:18:54 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3454150.8							0.15%
Ag 328.068	1594.4	0.00225	0.000013	mg/L	0.00225	0.000013	mg/L	0.56%
Al 237.312	-1710.6	0.0491	0.00151	mg/L	0.0491	0.00151	mg/L	3.07%
As 188.979	-19.5	0.00072	0.000969	mg/L	0.00072	0.000969	mg/L	134.72%
Ba 230.424	89963.1	0.183	0.0009	mg/L	0.183	0.0009	mg/L	0.47%
Be 234.861	693.0	0.00002	0.000002	mg/L	0.00002	0.000002	mg/L	11.73%
Ca 227.549	187536.4	113	0.3	mg/L	113	0.3	mg/L	0.29%
Cd 228.802	107.4	0.00031	0.000015	mg/L	0.00031	0.000015	mg/L	4.83%
Co 228.616	-113.2	-0.00074	0.000017	mg/L	-0.00074	0.000017	mg/L	2.31%
267.716	385.8	0.00095	0.000021	mg/L	0.00095	0.000021	mg/L	2.17%
327.396	831.4	0.00158	0.000119	mg/L	0.00158	0.000119	mg/L	7.51%
261.387	118111.6	3.59	0.010	mg/L	3.59	0.010	mg/L	0.27%
K 404.721	1218.6	3.37	0.185	mg/L	3.37	0.185	mg/L	5.50%
k 766.491	Saturated							

Li 460.286	2333.3	-0.0172	0.00218 mg/L	-0.0172	0.00218 mg/L	12.71%
Mg 279.079	1033652.6	15.6	0.14 mg/L	15.6	0.14 mg/L	0.90%
Mn 257.610	457300.4	0.424	0.0033 mg/L	0.424	0.0033 mg/L	0.77%
202.030	276.4	0.00273	0.000045 mg/L	0.00273	0.000045 mg/L	1.65%
330.237	276097.2	46.9	0.29 mg/L	46.9	0.29 mg/L	0.62%
Ni 231.604	-674.0	-0.00175	0.000036 mg/L	-0.00175	0.000036 mg/L	2.06%
Pb 220.353	184.1	0.00265	0.000128 mg/L	0.00265	0.000128 mg/L	4.84%
Sb 206.833	93.2	0.00524	0.000304 mg/L	0.00524	0.000304 mg/L	5.80%
Se 196.026	25.8	0.00495	0.000774 mg/L	0.00495	0.000774 mg/L	15.63%
Si 288.158	719848.4	6.88	0.054 mg/L	6.88	0.054 mg/L	0.78%
Sn 189.933	-246.7	-0.00664	0.000154 mg/L	-0.00664	0.000154 mg/L	2.31%
Sr 232.235	517.7	0.194	0.0008 mg/L	0.194	0.0008 mg/L	0.41%
Ti 337.280	-435.4	-0.00349	0.000047 mg/L	-0.00349	0.000047 mg/L	1.34%
Tl 190.800	-21.9	0.00270	0.000387 mg/L	0.00270	0.000387 mg/L	14.32%
V 292.402	-130.6	-0.00148	0.000004 mg/L	-0.00148	0.000004 mg/L	0.29%
Zn 206.200	5627.9	0.0181	0.00010 mg/L	0.0181	0.00010 mg/L	0.56%

Matrix Check Sample: 06 DUP/WG84001-07

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00161	0.00225	0.000	mg/L	32.958
Al 237.312	0.163	0.0491	0.002	mg/L	107.208
As 188.979	0.00190	0.00072	0.001	mg/L	90.314
Ba 230.424	0.00445	0.183	0.001	mg/L	190.501
Be 234.861	0.00005	0.00002	0.000	mg/L	88.134
Ca 227.549	1.51	113	0.330	mg/L	194.718
Cd 228.802	0.00034	0.00031	0.000	mg/L	7.415
Co 228.616	-0.00073	-0.00074	0.000	mg/L	-1.040
Cr 267.716	0.00094	0.00095	0.000	mg/L	0.808
Cu 327.396	0.00203	0.00158	0.000	mg/L	24.510
Fe 261.387	0.101	3.59	0.010	mg/L	189.066
K 404.721	1.37	3.37	0.185	mg/L	84.244
6.491	2.12		0.000	mg/L	
460.286	-0.0207	-0.0172	0.002	mg/L	-18.822
Mg 279.079	0.581	15.6	0.141	mg/L	185.680
Mn 257.610	0.00443	0.424	0.003	mg/L	195.868
Mo 202.030	0.00657	0.00273	0.000	mg/L	82.598
Na 330.237	245	46.9	0.293	mg/L	135.666
Ni 231.604	-0.00158	-0.00175	0.000	mg/L	-10.182
Pb 220.353	0.00078	0.00265	0.000	mg/L	108.698
Sb 206.833	0.00474	0.00524	0.000	mg/L	9.960
Se 196.026	0.00312	0.00495	0.001	mg/L	45.375
Si 288.158	1.57	6.88	0.054	mg/L	125.720
Sn 189.933	0.00855	-0.00664	0.000	mg/L	1588.300
Sr 232.235	0.0375	0.194	0.001	mg/L	135.116
Ti 337.280	-0.00309	-0.00349	0.000	mg/L	-11.989
Tl 190.800	0.0120	0.00270	0.000	mg/L	126.353
V 292.402	-0.00141	-0.00148	0.000	mg/L	-4.962
Zn 206.200	0.0199	0.0181	0.000	mg/L	9.261

Mean Data ----------

ID: 0901501/WG84001-01 Seq. No.: 5 Sample No.: 5 A/S Pos: 27
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:23:17 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3497458.5							1.60%
Ag 328.068	1218.3	0.00184	0.000117	mg/L	0.00184	0.000117	mg/L	6.38%
Al 237.312	-1007.4	0.0832	0.00088	mg/L	0.0832	0.00088	mg/L	1.05%
As 188.979	160.2	0.0126	0.00008	mg/L	0.0126	0.00008	mg/L	0.61%
Ba 230.424	121120.1	0.246	0.0009	mg/L	0.246	0.0009	mg/L	0.36%
Be 234.861	200.3	0.00009	0.000005	mg/L	0.00009	0.000005	mg/L	5.43%
Ca 227.549	90190.5	54.2	0.41	mg/L	54.2	0.41	mg/L	0.76%
228.802	130.4	0.00037	0.000013	mg/L	0.00037	0.000013	mg/L	3.59%
Co 228.616	-107.1	-0.00071	0.000046	mg/L	-0.00071	0.000046	mg/L	6.46%
Cr 267.716	332.8	0.00082	0.000017	mg/L	0.00082	0.000017	mg/L	2.03%
Cu 327.396	829.4	0.00158	0.000009	mg/L	0.00158	0.000009	mg/L	0.55%

002334

Fe 261.387	21472.1	0.681	0.0035	mg/L	0.681	0.0035 mg/L	0.52%
K 404.721	296.6	1.19	0.116	mg/L	1.19	0.116 mg/L	9.74%
k 766.491	7890519.2	1.35	0.004	mg/L	1.35	0.004 mg/L	0.28%
Li 460.286	1060.0	-0.0144	0.00465	mg/L	-0.0144	0.00465 mg/L	32.36%
Mg 279.079	721293.8	10.9	0.08	mg/L	10.9	0.08 mg/L	0.75%
Mn 257.610	84796.0	0.0787	0.00034	mg/L	0.0787	0.00034 mg/L	0.44%
Mo 202.030	1395.1	0.0138	0.00011	mg/L	0.0138	0.00011 mg/L	0.78%
Na 330.237	54935.0	8.67	0.019	mg/L	8.67	0.019 mg/L	0.22%
Ni 231.604	-653.0	-0.00165	0.000000	mg/L	-0.00165	0.000000 mg/L	0.01%
Pb 220.353	169.6	0.00221	0.000065	mg/L	0.00221	0.000065 mg/L	2.94%
Sb 206.833	78.8	0.00476	0.000393	mg/L	0.00476	0.000393 mg/L	8.25%
Se 196.026	10.9	0.00379	0.000181	mg/L	0.00379	0.000181 mg/L	4.79%
Si 288.158	847276.7	8.10	0.074	mg/L	8.10	0.074 mg/L	0.92%
Sn 189.933	-216.3	-0.00562	0.000057	mg/L	-0.00562	0.000057 mg/L	1.01%
Sr 232.235	391.9	0.149	0.0030	mg/L	0.149	0.0030 mg/L	2.04%
Ti 337.280	323.2	-0.00310	0.000030	mg/L	-0.00310	0.000030 mg/L	0.97%
Tl 190.800	-9.1	0.00044	0.000021	mg/L	0.00044	0.000021 mg/L	4.83%
V 292.402	-90.2	-0.00138	0.000005	mg/L	-0.00138	0.000005 mg/L	0.35%
Zn 206.200	2241.9	0.00721	0.000023	mg/L	0.00721	0.000023 mg/L	0.32%

Mean Data ----------

ID: 01 SD.2 Seq. No.: 6 Sample No.: 6 A/S Pos: 28
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 5.0
Data: Original Date: 9/13/00 8:27:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3324230.2							0.17%
Ag 328.068	953.8	0.00155	0.000052	mg/L	0.00773	0.000260	mg/L	3.36%
Al 237.312	-1300.8	0.0690	0.00082	mg/L	0.345	0.0041	mg/L	1.19%
As 188.979	17.4	0.00315	0.000038	mg/L	0.0158	0.00019	mg/L	1.20%
Ba 230.424	22532.7	0.0458	0.00046	mg/L	0.229	0.0023	mg/L	1.00%
Be 234.861	-5.9	0.00002	0.000022	mg/L	0.00010	0.000111	mg/L	113.75%
Ca 227.549	16727.5	10.0	0.09	mg/L	50.1	0.45	mg/L	0.91%
Cd 228.802	98.7	0.00029	0.000015	mg/L	0.00147	0.000073	mg/L	5.00%
228.616	-117.4	-0.00076	0.000028	mg/L	-0.00378	0.000141	mg/L	3.72%
267.716	288.7	0.00071	0.000009	mg/L	0.00356	0.000045	mg/L	1.26%
Cu 327.396	826.4	0.00157	0.000065	mg/L	0.00787	0.000325	mg/L	4.12%
Fe 261.387	3495.6	0.140	0.0011	mg/L	0.702	0.0057	mg/L	0.81%
K 404.721	40.7	0.594	0.0010	mg/L	2.97	0.005	mg/L	0.17%
k 766.491	1642260.5	0.230	0.0007	mg/L	1.15	0.003	mg/L	0.28%
Li 460.286	-1010.7	-0.0346	0.00024	mg/L	-0.173	0.0012	mg/L	0.70%
Mg 279.079	135830.5	2.10	0.005	mg/L	10.5	0.02	mg/L	0.22%
Mn 257.610	17539.5	0.0163	0.00009	mg/L	0.0814	0.00047	mg/L	0.58%
Mo 202.030	297.3	0.00293	0.000030	mg/L	0.0147	0.00015	mg/L	1.01%
Na 330.237	8294.0	1.37	0.014	mg/L	6.85	0.071	mg/L	1.03%
Ni 231.604	-586.4	-0.00134	0.000032	mg/L	-0.00668	0.000160	mg/L	2.40%
Pb 220.353	113.9	0.00051	0.000101	mg/L	0.00257	0.000505	mg/L	19.67%
Sb 206.833	62.8	0.00423	0.000185	mg/L	0.0212	0.00092	mg/L	4.36%
Se 196.026	-0.6	0.00289	0.000803	mg/L	0.0144	0.00402	mg/L	27.80%
Si 288.158	157634.8	1.46	0.004	mg/L	7.28	0.022	mg/L	0.31%
Sn 189.933	-113.0	-0.00217	0.000078	mg/L	-0.0108	0.00039	mg/L	3.59%
Sr 232.235	63.7	0.0337	0.00214	mg/L	0.168	0.0107	mg/L	6.36%
Ti 337.280	-316.7	-0.00343	0.000019	mg/L	-0.0171	0.00010	mg/L	0.57%
Tl 190.800	1.4	0.00031	0.000114	mg/L	0.00153	0.000570	mg/L	37.32%
V 292.402	-128.6	-0.00148	0.000002	mg/L	-0.00740	0.000008	mg/L	0.11%
Zn 206.200	1508.2	0.00485	0.000033	mg/L	0.0243	0.00017	mg/L	0.69%

Matrix Check Sample: 01 SD.2

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00184	0.00773	0.000	mg/L	123.210
Al 237.312	0.0832	0.345	0.004	mg/L	122.259
As 188.979	0.0126	0.0158	0.000	mg/L	22.597
30.424	0.246	0.229	0.002	mg/L	7.235
Be 234.861	0.00009	0.00010	0.000	mg/L	7.431
Ca 227.549	54.2	50.1	0.454	mg/L	7.861
Cd 228.802	0.00037	0.00147	0.000	mg/L	120.265

002335

Co 228.616	-0.00071	-0.00378	0.000	mg/L	-136.779
Cr 267.716	0.00082	0.00356	0.000	mg/L	125.069
Cu 327.396	0.00158	0.00787	0.000	mg/L	133.131
61.387	0.681	0.702	0.006	mg/L	3.123
K 04.721	1.19	2.97	0.005	mg/L	85.227
k 766.491	1.35	1.15	0.003	mg/L	16.172
Li 460.286	-0.0144	-0.173	0.001	mg/L	-169.268
Mg 279.079	10.9	10.5	0.023	mg/L	4.068
Mn 257.610	0.0787	0.0814	0.000	mg/L	3.364
Mo 202.030	0.0138	0.0147	0.000	mg/L	6.327
Na 330.237	8.67	6.85	0.071	mg/L	23.437
Ni 231.604	-0.00165	-0.00668	0.000	mg/L	-120.692
Pb 220.353	0.00221	0.00257	0.001	mg/L	14.782
Sb 206.833	0.00476	0.0212	0.001	mg/L	126.530
Se 196.026	0.00379	0.0144	0.004	mg/L	116.898
Si 288.158	8.10	7.28	0.022	mg/L	10.655
Sn 189.933	-0.00562	-0.0108	0.000	mg/L	-63.369
Sr 232.235	0.149	0.168	0.011	mg/L	11.967
Ti 337.280	-0.00310	-0.0171	0.000	mg/L	-138.674
Tl 190.800	0.00044	0.00153	0.001	mg/L	109.915
V 292.402	-0.00138	-0.00740	0.000	mg/L	-137.192
Zn 206.200	0.00721	0.0243	0.000	mg/L	108.334

Mean Data ----------

ID: 01 PS.9 Seq. No.: 7 Sample No.: 7 A/S Pos: 29

Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/13/00 8:31:53 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3445705.5							1.17%
Ag 328.068	177130.1	0.195	0.0031	mg/L	0.195	0.0031	mg/L	1.57%
Al 237.312	200395.8	9.85	0.146	mg/L	9.85	0.146	mg/L	1.48%
As 188.979	13816.8	0.926	0.0047	mg/L	0.926	0.0047	mg/L	0.51%
Ba 230.424	4143108.1	8.42	0.087	mg/L	8.42	0.087	mg/L	1.04%
E 34.861	2701218.0	0.930	0.0110	mg/L	0.930	0.0110	mg/L	1.18%
C 27.549	90149.4	54.1	0.23	mg/L	54.1	0.23	mg/L	0.42%
Cd 228.802	402734.0	0.915	0.0114	mg/L	0.915	0.0114	mg/L	1.25%
Co 228.616	194319.7	0.874	0.0078	mg/L	0.874	0.0078	mg/L	0.90%
Cr 267.716	367101.2	0.908	0.0090	mg/L	0.908	0.0090	mg/L	0.99%
Cu 327.396	493258.9	0.939	0.0144	mg/L	0.939	0.0144	mg/L	1.53%
Fe 261.387	42525.2	1.32	0.008	mg/L	1.32	0.008	mg/L	0.62%
K 404.721	19356.9	49.2	0.62	mg/L	49.2	0.62	mg/L	1.27%
k 766.491	Saturated							
Li 460.286	1088462.3	10.6	0.15	mg/L	10.6	0.15	mg/L	1.37%
Mg 279.079	1271859.6	19.2	0.23	mg/L	19.2	0.23	mg/L	1.19%
Mn 257.610	1069236.0	0.992	0.0123	mg/L	0.992	0.0123	mg/L	1.24%
Mo 202.030	89081.2	0.879	0.0084	mg/L	0.879	0.0084	mg/L	0.95%
Na 330.237	311821.7	53.8	0.74	mg/L	53.8	0.74	mg/L	1.37%
Ni 231.604	181844.9	0.864	0.0076	mg/L	0.864	0.0076	mg/L	0.88%
Pb 220.353	29085.4	0.887	0.0009	mg/L	0.887	0.0009	mg/L	0.10%
Sb 206.833	27608.4	0.919	0.0052	mg/L	0.919	0.0052	mg/L	0.57%
Se 196.026	10713.7	0.838	0.0045	mg/L	0.838	0.0045	mg/L	0.53%
Si 288.158	1676996.4	16.1	0.15	mg/L	16.1	0.15	mg/L	0.94%
Sn 189.933	51922.6	1.74	0.004	mg/L	1.74	0.004	mg/L	0.25%
Sr 232.235	2675.2	0.931	0.0109	mg/L	0.931	0.0109	mg/L	1.17%
Ti 337.280	1878167.0	0.949	0.0121	mg/L	0.949	0.0121	mg/L	1.28%
Tl 190.800	17422.9	0.864	0.0008	mg/L	0.864	0.0008	mg/L	0.09%
V 292.402	356630.3	0.947	0.0118	mg/L	0.947	0.0118	mg/L	1.25%
Zn 206.200	265089.7	0.853	0.0057	mg/L	0.853	0.0057	mg/L	0.67%

Matrix Check Sample: 01 PS.9

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.202	0.195	0.003	mg/L	96.686
A 7.312	10.1	9.85	0.146	mg/L	97.628
A 8.979	1.01	0.926	0.005	mg/L	91.377
Ba 230.424	10.2	8.42	0.087	mg/L	81.740
Be 234.861	1.00	0.930	0.011	mg/L	93.003

002336

Ca 227.549	64.2	54.1	0.229	mg/L	-0.875
Cd 228.802	1.00	0.915	0.011	mg/L	91.447
228.616	0.999	0.874	0.008	mg/L	87.500
267.716	1.00	0.908	0.009	mg/L	90.686
Cu 327.396	1.00	0.939	0.014	mg/L	93.754
Fe 261.387	1.68	1.32	0.008	mg/L	63.788
K 404.721	51.2	49.2	0.624	mg/L	95.995
k 766.491	51.4		0.000	mg/L	
Li 460.286	9.99	10.6	0.145	mg/L	106.013
Mg 279.079	20.9	19.2	0.228	mg/L	83.036
Mn 257.610	1.08	0.992	0.012	mg/L	91.368
Mo 202.030	1.01	0.879	0.008	mg/L	86.569
Na 330.237	58.7	53.8	0.738	mg/L	90.269
Ni 231.604	0.998	0.864	0.008	mg/L	86.611
Pb 220.353	1.00	0.887	0.001	mg/L	88.443
Sb 206.833	1.00	0.919	0.005	mg/L	91.451
Se 196.026	1.00	0.838	0.004	mg/L	83.449
Si 288.158	18.1	16.1	0.152	mg/L	79.981
Sn 189.933	0.994	1.74	0.004	mg/L	174.378
Sr 232.235	1.15	0.931	0.011	mg/L	78.131
Ti 337.280	0.997	0.949	0.012	mg/L	95.178
Tl 190.800	1.00	0.864	0.001	mg/L	86.318
V 292.402	0.999	0.947	0.012	mg/L	94.799
Zn 206.200	1.01	0.853	0.006	mg/L	84.587

Mean Data ----------

ID: 02 MS/WG84001-05 Seq. No.: 8 Sample No.: 8 A/S Pos: 30
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:35:47 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3367920.0							1.61%
Ag 328.068	172240.1	0.190	0.0034	mg/L	0.190	0.0034	mg/L	1.80%
237.312	195787.3	9.62	0.184	mg/L	9.62	0.184	mg/L	1.91%
188.979	13486.1	0.904	0.0044	mg/L	0.904	0.0044	mg/L	0.48%
Ba 230.424	4047197.7	8.23	0.127	mg/L	8.23	0.127	mg/L	1.54%
Be 234.861	2627658.9	0.905	0.0162	mg/L	0.905	0.0162	mg/L	1.79%
Ca 227.549	95501.6	57.3	0.14	mg/L	57.3	0.14	mg/L	0.24%
Cd 228.802	392085.7	0.891	0.0158	mg/L	0.891	0.0158	mg/L	1.77%
Co 228.616	189067.2	0.851	0.0141	mg/L	0.851	0.0141	mg/L	1.66%
Cr 267.716	355868.1	0.880	0.0142	mg/L	0.880	0.0142	mg/L	1.62%
Cu 327.396	478612.1	0.911	0.0162	mg/L	0.911	0.0162	mg/L	1.78%
Fe 261.387	42320.7	1.31	0.001	mg/L	1.31	0.001	mg/L	0.05%
K 404.721	18898.3	48.0	0.56	mg/L	48.0	0.56	mg/L	1.16%
k 766.491	Saturated							
Li 460.286	1062308.3	10.3	0.13	mg/L	10.3	0.13	mg/L	1.27%
Mg 279.079	1297689.8	19.6	0.36	mg/L	19.6	0.36	mg/L	1.83%
Mn 257.610	1049994.5	0.975	0.0162	mg/L	0.975	0.0162	mg/L	1.66%
Mo 202.030	86518.8	0.854	0.0134	mg/L	0.854	0.0134	mg/L	1.57%
Na 330.237	307646.7	53.0	0.83	mg/L	53.0	0.83	mg/L	1.57%
Ni 231.604	176340.4	0.838	0.0134	mg/L	0.838	0.0134	mg/L	1.59%
Pb 220.353	28323.5	0.863	0.0044	mg/L	0.863	0.0044	mg/L	0.51%
Sb 206.833	27505.0	0.916	0.0021	mg/L	0.916	0.0021	mg/L	0.23%
Se 196.026	10528.6	0.824	0.0067	mg/L	0.824	0.0067	mg/L	0.81%
Si 288.158	1751041.6	16.8	0.24	mg/L	16.8	0.24	mg/L	1.43%
Sn 189.933	24511.9	0.821	0.0128	mg/L	0.821	0.0128	mg/L	1.56%
Sr 232.235	2642.6	0.920	0.0159	mg/L	0.920	0.0159	mg/L	1.73%
Ti 337.280	1829294.9	0.924	0.0158	mg/L	0.924	0.0158	mg/L	1.71%
Tl 190.800	15405.4	0.765	0.0067	mg/L	0.765	0.0067	mg/L	0.88%
V 292.402	348190.5	0.924	0.0152	mg/L	0.924	0.0152	mg/L	1.65%
Zn 206.200	263176.2	0.847	0.0151	mg/L	0.847	0.0151	mg/L	1.79%

Matrix Check Sample: 02 MS/WG84001-05

ment	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.202	0.190	0.003	mg/L	93.998
Al 237.312	10.1	9.62	0.184	mg/L	95.394
As 188.979	1.01	0.904	0.004	mg/L	89.156

Ba 230.424	10.2	8.23	0.127 mg/L	79.791	
Be 234.861	1.00	0.905	0.016 mg/L	90.470	
[illegible] 227.549	64.2	57.3	0.137 mg/L	31.311	
228.802	1.00	0.891	0.016 mg/L	89.028	
[illegible] 228.616	0.999	0.851	0.014 mg/L	85.136	
Cr 267.716	1.00	0.880	0.014 mg/L	87.910	
Cu 327.396	1.00	0.911	0.016 mg/L	90.965	
Fe 261.387	1.68	1.31	0.001 mg/L	62.667	
K 404.721	51.2	48.0	0.555 mg/L	93.512	
k 766.491	51.4		0.000 mg/L		
Li 460.286	9.99	10.3	0.131 mg/L	103.467	
Mg 279.079	20.9	19.6	0.358 mg/L	86.932	
Mn 257.610	1.08	0.975	0.016 mg/L	89.582	
Mo 202.030	1.01	0.854	0.013 mg/L	84.039	
Na 330.237	58.7	53.0	0.831 mg/L	88.632	
Ni 231.604	0.998	0.838	0.013 mg/L	83.999	
Pb 220.353	1.00	0.863	0.004 mg/L	86.113	
Sb 206.833	1.00	0.916	0.002 mg/L	91.104	
Se 196.026	1.00	0.824	0.007 mg/L	82.006	
Si 288.158	18.1	16.8	0.241 mg/L	87.118	
Sn 189.933	0.994	0.821	0.013 mg/L	82.703	
Sr 232.235	1.15	0.920	0.016 mg/L	77.050	
Ti 337.280	0.997	0.924	0.016 mg/L	92.701	
Tl 190.800	1.00	0.765	0.007 mg/L	76.407	
V 292.402	0.999	0.924	0.015 mg/L	92.552	
Zn 206.200	1.01	0.847	0.015 mg/L	83.971	

Mean Data ----------

ID: 03 MSD/WG84001-06 Seq. No.: 9 Sample No.: 9 A/S Pos: 31
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:39:41 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
[illegible] 360.073	3411514.3							0.30%
328.068	174549.8	0.192	0.0003	mg/L	0.192	0.0003	mg/L	0.17%
[illegible] 237.312	198291.9	9.74	0.033	mg/L	9.74	0.033	mg/L	0.33%
As 188.979	13649.7	0.915	0.0044	mg/L	0.915	0.0044	mg/L	0.48%
Ba 230.424	4098730.6	8.33	0.040	mg/L	8.33	0.040	mg/L	0.48%
Be 234.861	2663287.2	0.917	0.0034	mg/L	0.917	0.0034	mg/L	0.37%
Ca 227.549	95847.1	57.5	0.23	mg/L	57.5	0.23	mg/L	0.40%
Cd 228.802	397290.1	0.902	0.0038	mg/L	0.902	0.0038	mg/L	0.42%
Co 228.616	191431.9	0.861	0.0048	mg/L	0.861	0.0048	mg/L	0.56%
Cr 267.716	360734.0	0.892	0.0035	mg/L	0.892	0.0035	mg/L	0.39%
Cu 327.396	485619.4	0.925	0.0013	mg/L	0.925	0.0013	mg/L	0.14%
Fe 261.387	40941.6	1.27	0.009	mg/L	1.27	0.009	mg/L	0.68%
K 404.721	19285.9	49.0	0.28	mg/L	49.0	0.28	mg/L	0.56%
k 766.491	Saturated							
Li 460.286	1072208.3	10.4	0.00	mg/L	10.4	0.00	mg/L	0.01%
Mg 279.079	1320192.6	20.0	0.10	mg/L	20.0	0.10	mg/L	0.51%
Mn 257.610	1066187.6	0.990	0.0046	mg/L	0.990	0.0046	mg/L	0.46%
Mo 202.030	87779.7	0.867	0.0028	mg/L	0.867	0.0028	mg/L	0.32%
Na 330.237	312463.5	53.9	0.20	mg/L	53.9	0.20	mg/L	0.36%
Ni 231.604	178707.9	0.850	0.0054	mg/L	0.850	0.0054	mg/L	0.63%
Pb 220.353	28641.4	0.873	0.0041	mg/L	0.873	0.0041	mg/L	0.47%
Sb 206.833	27580.4	0.918	0.0028	mg/L	0.918	0.0028	mg/L	0.31%
Se 196.026	10673.8	0.835	0.0075	mg/L	0.835	0.0075	mg/L	0.90%
Si 288.158	1784847.2	17.1	0.02	mg/L	17.1	0.02	mg/L	0.14%
Sn 189.933	24790.2	0.831	0.0034	mg/L	0.831	0.0034	mg/L	0.41%
Sr 232.235	2711.3	0.944	0.0010	mg/L	0.944	0.0010	mg/L	0.11%
Ti 337.280	1853765.2	0.936	0.0026	mg/L	0.936	0.0026	mg/L	0.27%
Tl 190.800	15713.4	0.780	0.0073	mg/L	0.780	0.0073	mg/L	0.94%
V 292.402	353211.8	0.937	0.0030	mg/L	0.937	0.0030	mg/L	0.32%
Zn 206.200	262241.0	0.844	0.0062	mg/L	0.844	0.0062	mg/L	0.73%

[illegible]trix Check Sample: 03 MSD/WG84001-06

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		

Ag 328.068	0.190	0.192	0.000	mg/L	1.329
Al 237.312	9.62	9.74	0.033	mg/L	1.254
As 188.979	0.904	0.915	0.004	mg/L	1.206
Ba 230.424	8.23	8.33	0.040	mg/L	1.265
Be 234.861	0.905	0.917	0.003	mg/L	1.347
Ca 227.549	57.3	57.5	0.230	mg/L	0.362
Cd 228.802	0.891	0.902	0.004	mg/L	1.318
Co 228.616	0.851	0.861	0.005	mg/L	1.244
Cr 267.716	0.880	0.892	0.003	mg/L	1.358
Cu 327.396	0.911	0.925	0.001	mg/L	1.453
Fe 261.387	1.31	1.27	0.009	mg/L	3.221
K 404.721	48.0	49.0	0.275	mg/L	2.164
k 766.491			0.000	mg/L	
Li 460.286	10.3	10.4	0.001	mg/L	0.933
Mg 279.079	19.6	20.0	0.101	mg/L	1.715
Mn 257.610	0.975	0.990	0.005	mg/L	1.530
Mo 202.030	0.854	0.867	0.003	mg/L	1.447
Na 330.237	53.0	53.9	0.196	mg/L	1.765
Ni 231.604	0.838	0.850	0.005	mg/L	1.331
Pb 220.353	0.863	0.873	0.004	mg/L	1.121
Sb 206.833	0.916	0.918	0.003	mg/L	0.276
Se 196.026	0.824	0.835	0.008	mg/L	1.364
Si 288.158	16.8	17.1	0.024	mg/L	1.919
Sn 189.933	0.821	0.831	0.003	mg/L	1.127
Sr 232.235	0.920	0.944	0.001	mg/L	2.563
Ti 337.280	0.924	0.936	0.003	mg/L	1.333
Tl 190.800	0.765	0.780	0.007	mg/L	1.973
V 292.402	0.924	0.937	0.003	mg/L	1.433
Zn 206.200	0.847	0.844	0.006	mg/L	0.356

Mean Data ----------

ID: 0914202 Seq. No.: 10 Sample No.: 10 A/S Pos: 32
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:43:46 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3442205.4							0.33%
Ag 328.068	1639.2	0.00230	0.000017	mg/L	0.00230	0.000017	mg/L	0.75%
Al 237.312	116107.9	5.76	0.042	mg/L	5.76	0.042	mg/L	0.73%
As 188.979	165.5	0.0129	0.00082	mg/L	0.0129	0.00082	mg/L	6.35%
Ba 230.424	58673.0	0.119	0.0003	mg/L	0.119	0.0003	mg/L	0.23%
Be 234.861	2186.5	0.00028	0.000008	mg/L	0.00028	0.000008	mg/L	2.88%
Ca 227.549	246089.5	148	0.7	mg/L	148	0.7	mg/L	0.48%
Cd 228.802	174.9	0.00047	0.000007	mg/L	0.00047	0.000007	mg/L	1.56%
Co 228.616	185.1	0.00061	0.000010	mg/L	0.00061	0.000010	mg/L	1.72%
Cr 267.716	3468.2	0.00856	0.000027	mg/L	0.00856	0.000027	mg/L	0.31%
Cu 327.396	4640.1	0.00883	0.000079	mg/L	0.00883	0.000079	mg/L	0.90%
Fe 261.387	243510.0	7.35	0.061	mg/L	7.35	0.061	mg/L	0.83%
K 404.721	2252.4	5.82	0.067	mg/L	5.82	0.067	mg/L	1.15%
k 766.491	Saturated							
Li 460.286	8225.8	0.0193	0.00012	mg/L	0.0193	0.00012	mg/L	0.62%
Mg 279.079	1219189.3	18.4	0.03	mg/L	18.4	0.03	mg/L	0.16%
Mn 257.610	149692.9	0.139	0.0006	mg/L	0.139	0.0006	mg/L	0.45%
Mo 202.030	474.8	0.00469	0.000142	mg/L	0.00469	0.000142	mg/L	3.02%
Na 330.237	245043.6	41.1	0.22	mg/L	41.1	0.22	mg/L	0.54%
Ni 231.604	587.2	0.00423	0.000035	mg/L	0.00423	0.000035	mg/L	0.82%
Pb 220.353	373.6	0.00844	0.000034	mg/L	0.00844	0.000034	mg/L	0.40%
Sb 206.833	143.6	0.00544	0.000095	mg/L	0.00544	0.000095	mg/L	1.74%
Se 196.026	75.0	0.00879	0.000417	mg/L	0.00879	0.000417	mg/L	4.74%
Si 288.158	2692485.9	25.9	0.13	mg/L	25.9	0.13	mg/L	0.49%
Sn 189.933	-70.5	-0.00075	0.000783	mg/L	-0.00075	0.000783	mg/L	104.93%
Sr 232.235	1605.1	0.577	0.0067	mg/L	0.577	0.0067	mg/L	1.17%
Ti 337.280	102059.2	0.0485	0.00032	mg/L	0.0485	0.00032	mg/L	0.67%
Tl 190.800	328.3	0.0176	0.00197	mg/L	0.0176	0.00197	mg/L	11.15%
V 292.402	4370.7	0.0104	0.00002	mg/L	0.0104	0.00002	mg/L	0.20%
Zn 206.200	13928.3	0.0448	0.00014	mg/L	0.0448	0.00014	mg/L	0.32%

Mean Data ----------

ID: CCV Seq. No.: 11 Sample No.: 3 A/S Pos: 5
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

002339

Data: Original Date: 9/13/00 8:48:12 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
ment								
₋ ₀60.073	3598151.3							0.96%
Ag 328.068	350490.0	0.386	0.0044	mg/L				1.13%
Al 237.312	192409.4	9.46	0.119	mg/L				1.25%
As 188.979	5505.9	0.372	0.0038	mg/L				1.01%
Ba 230.424	470389.0	0.956	0.0135	mg/L				1.42%
Be 234.861	138729.9	0.0476	0.00061	mg/L				1.28%
Ca 227.549	16473.0	9.75	0.052	mg/L				0.53%
Cd 228.802	20923.6	0.0476	0.00030	mg/L				0.63%
Co 228.616	42746.8	0.192	0.0027	mg/L				1.40%
Cr 267.716	194402.1	0.482	0.0063	mg/L				1.31%
Cu 327.396	254564.3	0.485	0.0046	mg/L				0.95%
Fe 261.387	124711.7	3.78	0.055	mg/L				1.46%
K 404.721	19755.2	50.3	0.55	mg/L				1.10%
k 766.491	Saturated							
Li 460.286	117899.2	1.10	0.008	mg/L				0.71%
*QC exceeds upper limit for Li 460.286	Recovery = 110.30%	Action = Continue						
Mg 279.079	615497.1	9.33	0.151	mg/L				1.62%
Mn 257.610	525876.5	0.488	0.0069	mg/L				1.41%
Mo 202.030	95411.2	0.942	0.0150	mg/L				1.59%
Na 330.237	288203.0	49.2	0.63	mg/L				1.27%
Ni 231.604	98386.5	0.468	0.0073	mg/L				1.56%
Pb 220.353	15221.5	0.464	0.0040	mg/L				0.86%
Sb 206.833	33591.9	1.12	0.007	mg/L				0.65%
Se 196.026	4677.7	0.368	0.0036	mg/L				0.97%
Si 288.158	529306.8	5.04	0.019	mg/L				0.37%
Sn 189.933	25637.2	0.859	0.0214	mg/L				2.49%
*QC exceeds lower limit for Sn 189.933	Recovery = 85.90%	Action = Continue						
Sr 232.235	2631.3	0.914	0.0096	mg/L				1.05%
Ti 337.280	1942055.3	0.981	0.0121	mg/L				1.24%
Tl 190.800	9506.7	0.471	0.0075	mg/L				1.59%
Y ₀92.402	371366.0	0.983	0.0119	mg/L				1.21%
'06.200	281158.2	0.905	0.0179	mg/L				1.97%

Mean Data

ID: ICB/CCB Seq. No.: 12 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:52:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	2983168.2							1.37%
Ag 328.068	847.7	0.00143	0.000054	mg/L				3.78%
Al 237.312	-1367.0	0.0658	0.00039	mg/L				0.60%
As 188.979	-13.5	0.00112	0.000091	mg/L				8.18%
Ba 230.424	-1026.6	-0.00209	0.000006	mg/L				0.27%
Be 234.861	-37.0	0.00001	0.000002	mg/L				25.94%
Ca 227.549	-51.3	-0.0704	0.00144	mg/L				2.04%
Cd 228.802	91.0	0.00028	0.000010	mg/L				3.63%
Co 228.616	-121.1	-0.00077	0.000003	mg/L				0.44%
Cr 267.716	255.5	0.00063	0.000001	mg/L				0.18%
Cu 327.396	659.1	0.00125	0.000119	mg/L				9.47%
Fe 261.387	-823.4	0.0107	0.00013	mg/L				1.18%
K 404.721	-228.4	-0.0369	0.09116	mg/L				247.19%
k 766.491	328734.7	-0.00595	0.000250	mg/L				4.20%
Li 460.286	-1186.2	-0.0363	0.00017	mg/L				0.47%
Mg 279.079	-1265.0	0.0309	0.00009	mg/L				0.28%
Mn 257.610	675.0	0.00063	0.000003	mg/L				0.54%
Mo 202.030	169.3	0.00167	0.000060	mg/L				3.59%
Na 330.237	328.6	0.145	0.0013	mg/L				0.91%
Ni 231.604	-641.9	-0.00160	0.000080	mg/L				5.02%
Pb 220.353	79.5	-0.00054	0.000279	mg/L				51.95%
Sb 206.833	60.8	0.00417	0.000329	mg/L				7.89%
S— 196.026	-14.7	0.00179	0.000464	mg/L				25.94%
88.158	1886.6	-0.0444	0.00011	mg/L				0.24%
189.933	102.2	0.00503	0.000433	mg/L				8.61%
Sr 232.235	-12.0	0.00698	0.000896	mg/L				12.83%
Ti 337.280	-478.0	-0.00351	0.000004	mg/L				0.12%

Tl 190.800	9.6	0.00071	0.000284 mg/L		40.22%
V 292.402	-185.8	-0.00163	0.000001 mg/L		0.08%
[illegible] 206.200	495.8	0.00160	0.000031 mg/L		1.92%

Mean Data

ID: 0914204 Seq. No.: 13 Sample No.: 11 A/S Pos: 33
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 8:56:45 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3500148.6							0.61%
Ag 328.068	1586.8	0.00224	0.000053	mg/L	0.00224	0.000053	mg/L	2.34%
Al 237.312	14757.0	0.847	0.0027	mg/L	0.847	0.0027	mg/L	0.32%
As 188.979	23.5	0.00355	0.000200	mg/L	0.00355	0.000200	mg/L	5.64%
Ba 230.424	57195.2	0.116	0.0009	mg/L	0.116	0.0009	mg/L	0.79%
Be 234.861	363.0	0.00015	0.000005	mg/L	0.00015	0.000005	mg/L	3.39%
Ca 227.549	206572.9	124	0.2	mg/L	124	0.2	mg/L	0.17%
Cd 228.802	132.5	0.00037	0.000014	mg/L	0.00037	0.000014	mg/L	3.79%
Co 228.616	-39.1	-0.00040	0.000013	mg/L	-0.00040	0.000013	mg/L	3.25%
Cr 267.716	830.9	0.00205	0.000012	mg/L	0.00205	0.000012	mg/L	0.59%
Cu 327.396	1585.7	0.00302	0.000060	mg/L	0.00302	0.000060	mg/L	2.00%
Fe 261.387	36428.0	1.13	0.005	mg/L	1.13	0.005	mg/L	0.41%
K 404.721	1584.6	4.23	0.033	mg/L	4.23	0.033	mg/L	0.77%
k 766.491	Saturated							
Li 460.286	3408.4	0.0115	0.00309	mg/L	0.0115	0.00309	mg/L	26.87%
Mg 279.079	1009324.4	15.3	0.01	mg/L	15.3	0.01	mg/L	0.07%
Mn 257.610	279160.2	0.259	0.0009	mg/L	0.259	0.0009	mg/L	0.33%
Mo 202.030	376.6	0.00372	0.000015	mg/L	0.00372	0.000015	mg/L	0.41%
Na 330.237	219836.5	36.5	0.09	mg/L	36.5	0.09	mg/L	0.26%
Ni 231.604	-72.3	0.00110	0.000011	mg/L	0.00110	0.000011	mg/L	1.02%
Pb 220.353	194.0	0.00296	0.000002	mg/L	0.00296	0.000002	mg/L	0.08%
Sb 206.833	96.9	0.00536	0.000402	mg/L	0.00536	0.000402	mg/L	7.50%
Se 196.026	29.5	0.00524	0.000945	mg/L	0.00524	0.000945	mg/L	18.04%
[illegible] 288.158	1441282.3	13.8	0.06	mg/L	13.8	0.06	mg/L	0.42%
[illegible] 89.933	-141.0	-0.00311	0.000301	mg/L	-0.00311	0.000301	mg/L	9.70%
Si 232.235	1495.5	0.539	0.0014	mg/L	0.539	0.0014	mg/L	0.26%
Ti 337.280	18142.6	0.00593	0.000193	mg/L	0.00593	0.000193	mg/L	3.26%
Tl 190.800	12.3	0.00247	0.000163	mg/L	0.00247	0.000163	mg/L	6.60%
V 292.402	671.1	0.00063	0.000004	mg/L	0.00063	0.000004	mg/L	0.58%
Zn 206.200	7328.0	0.0236	0.00008	mg/L	0.0236	0.00008	mg/L	0.34%

Mean Data

ID: 0914206 Seq. No.: 14 Sample No.: 12 A/S Pos: 34
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:01:03 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3470623.0							0.72%
Ag 328.068	1561.9	0.00222	0.000114	mg/L	0.00222	0.000114	mg/L	5.15%
Al 237.312	-1122.2	0.0776	0.00059	mg/L	0.0776	0.00059	mg/L	0.76%
As 188.979	-16.6	0.00091	0.000179	mg/L	0.00091	0.000179	mg/L	19.68%
Ba 230.424	35179.4	0.0715	0.00164	mg/L	0.0715	0.00164	mg/L	2.29%
Be 234.861	214.0	0.00010	0.000001	mg/L	0.00010	0.000001	mg/L	1.15%
Ca 227.549	179313.9	108	2.4	mg/L	108	2.4	mg/L	2.21%
Cd 228.802	129.6	0.00036	0.000018	mg/L	0.00036	0.000018	mg/L	4.81%
Co 228.616	-125.1	-0.00079	0.000013	mg/L	-0.00079	0.000013	mg/L	1.68%
Cr 267.716	11655.1	0.0288	0.00010	mg/L	0.0288	0.00010	mg/L	0.34%
Cu 327.396	7426.4	0.0141	0.00022	mg/L	0.0141	0.00022	mg/L	1.54%
Fe 261.387	20427.9	0.649	0.0134	mg/L	0.649	0.0134	mg/L	2.06%
K 404.721	1091.7	3.07	0.269	mg/L	3.07	0.269	mg/L	8.76%
k 766.491	Saturated							
Li 460.286	2554.6	0.00511	0.003235	mg/L	0.00511	0.003235	mg/L	63.26%
Mg 279.079	583594.4	8.85	0.110	mg/L	8.85	0.110	mg/L	1.24%
Mn 257.610	37688.4	0.0350	0.00083	mg/L	0.0350	0.00083	mg/L	2.37%
[illegible] 202.030	270.2	0.00267	0.000148	mg/L	0.00267	0.000148	mg/L	5.56%
[illegible] 330.237	253567.1	42.7	0.39	mg/L	42.7	0.39	mg/L	0.91%
Ni 231.604	-278.8	0.00012	0.000003	mg/L	0.00012	0.000003	mg/L	2.31%
Pb 220.353	373.7	0.00844	0.000280	mg/L	0.00844	0.000280	mg/L	3.31%
Sb 206.833	101.5	0.00552	0.000399	mg/L	0.00552	0.000399	mg/L	7.23%

Se 196.026	35.8	0.00573	0.001061 mg/L	0.00573	0.001061 mg/L	18.53%
Si 288.158	1231589.0	11.8	0.12 mg/L	11.8	0.12 mg/L	1.03%
Sn 189.933	-215.6	-0.00560	0.000305 mg/L	-0.00560	0.000305 mg/L	5.45%
Sr 32.235	1020.9	0.371	0.0035 mg/L	0.371	0.0035 mg/L	0.94%
Ti 337.280	46.9	-0.00324	0.000029 mg/L	-0.00324	0.000029 mg/L	0.89%
Tl 190.800	24.0	0.00141	0.000335 mg/L	0.00141	0.000335 mg/L	23.75%
V 292.402	766.0	0.00089	0.000004 mg/L	0.00089	0.000004 mg/L	0.42%
Zn 206.200	6524.7	0.0210	0.00015 mg/L	0.0210	0.00015 mg/L	0.72%

Mean Data ----------

ID: 0914208 Seq. No.: 15 Sample No.: 13 A/S Pos: 35
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:05:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3511561.2							0.17%
Ag 328.068	1510.1	0.00216	0.000117	mg/L	0.00216	0.000117	mg/L	5.40%
Al 237.312	-1199.2	0.0739	0.00007	mg/L	0.0739	0.00007	mg/L	0.10%
As 188.979	-10.1	0.00134	0.000264	mg/L	0.00134	0.000264	mg/L	19.65%
Ba 230.424	41702.6	0.0848	0.00047	mg/L	0.0848	0.00047	mg/L	0.55%
Be 234.861	112.3	0.00006	0.000001	mg/L	0.00006	0.000001	mg/L	1.67%
Ca 227.549	183124.0	110	0.0	mg/L	110	0.0	mg/L	0.00%
Cd 228.802	107.1	0.00031	0.000002	mg/L	0.00031	0.000002	mg/L	0.59%
Co 228.616	-126.8	-0.00080	0.000010	mg/L	-0.00080	0.000010	mg/L	1.27%
Cr 267.716	7580.9	0.0187	0.00001	mg/L	0.0187	0.00001	mg/L	0.03%
Cu 327.396	1722.0	0.00328	0.000098	mg/L	0.00328	0.000098	mg/L	2.98%
Fe 261.387	2409.1	0.108	0.0003	mg/L	0.108	0.0003	mg/L	0.31%
K 404.721	1013.7	2.88	0.094	mg/L	2.88	0.094	mg/L	3.26%
k 766.491	Saturated							
Li 460.286	2220.0	0.00660	0.001100	mg/L	0.00660	0.001100	mg/L	16.66%
Mg 279.079	604481.8	9.17	0.033	mg/L	9.17	0.033	mg/L	0.36%
Mn 257.610	40515.6	0.0376	0.00005	mg/L	0.0376	0.00005	mg/L	0.14%
Mo 202.030	255.4	0.00252	0.000015	mg/L	0.00252	0.000015	mg/L	0.58%
Na 330.237	262574.4	44.4	0.12	mg/L	44.4	0.12	mg/L	0.27%
Sr 31.604	-352.1	-0.00022	0.000094	mg/L	-0.00022	0.000094	mg/L	41.91%
Ti 220.353	175.4	0.00239	0.000153	mg/L	0.00239	0.000153	mg/L	6.39%
Sb 206.833	92.6	0.00522	0.000059	mg/L	0.00522	0.000059	mg/L	1.13%
Se 196.026	28.4	0.00515	0.000173	mg/L	0.00515	0.000173	mg/L	3.36%
Si 288.158	1269278.4	12.2	0.02	mg/L	12.2	0.02	mg/L	0.14%
Sn 189.933	-234.9	-0.00625	0.000127	mg/L	-0.00625	0.000127	mg/L	2.04%
Sr 232.235	1029.5	0.374	0.0018	mg/L	0.374	0.0018	mg/L	0.49%
Ti 337.280	-369.9	-0.00345	0.000016	mg/L	-0.00345	0.000016	mg/L	0.45%
Tl 190.800	11.1	0.00078	0.000142	mg/L	0.00078	0.000142	mg/L	18.26%
V 292.402	438.2	0.00002	0.000013	mg/L	0.00002	0.000013	mg/L	66.33%
Zn 206.200	5815.5	0.0187	0.00009	mg/L	0.0187	0.00009	mg/L	0.47%

Mean Data ----------

ID: 0815102 Seq. No.: 16 Sample No.: 14 A/S Pos: 36
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:09:41 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3460931.4							0.32%
Ag 328.068	1902.6	0.00259	0.000028	mg/L	0.00259	0.000028	mg/L	1.09%
Al 237.312	-1335.5	0.0673	0.00163	mg/L	0.0673	0.00163	mg/L	2.43%
As 188.979	192.9	0.0147	0.00040	mg/L	0.0147	0.00040	mg/L	2.71%
Ba 230.424	206801.1	0.420	0.0022	mg/L	0.420	0.0022	mg/L	0.52%
Be 234.861	497.0	0.00004	0.000004	mg/L	0.00004	0.000004	mg/L	10.31%
Ca 227.549	240208.6	144	0.1	mg/L	144	0.1	mg/L	0.10%
Cd 228.802	146.3	0.00040	0.000008	mg/L	0.00040	0.000008	mg/L	1.97%
Co 228.616	-68.1	-0.00053	0.000026	mg/L	-0.00053	0.000026	mg/L	4.79%
Cr 267.716	684.9	0.00169	0.000056	mg/L	0.00169	0.000056	mg/L	3.31%
Cu 327.396	16488.0	0.0314	0.00010	mg/L	0.0314	0.00010	mg/L	0.31%
Fe 261.387	75488.7	2.30	0.015	mg/L	2.30	0.015	mg/L	0.63%
K 404.721	1226.6	3.39	0.223	mg/L	3.39	0.223	mg/L	6.58%
6.491	Saturated							
Li 460.286	2349.6	-0.00526	0.000618	mg/L	-0.00526	0.000618	mg/L	11.75%
Mg 279.079	644745.4	9.77	0.068	mg/L	9.77	0.068	mg/L	0.69%
Mn 257.610	1629934.5	1.51	0.007	mg/L	1.51	0.007	mg/L	0.46%

Mo 202.030	193.7	0.00191	0.000013 mg/L	0.00191	0.000013 mg/L	0.66%
Na 330.237	112480.1	18.0	0.08 mg/L	18.0	0.08 mg/L	0.47%
Ni 231.604	297.4	0.00286	0.000025 mg/L	0.00286	0.000025 mg/L	0.86%
220.353	817.0	0.0220	0.00001 mg/L	0.0220	0.00001 mg/L	0.04%
206.833	89.7	0.00513	0.000032 mg/L	0.00513	0.000032 mg/L	0.62%
Se 196.026	4.3	0.00327	0.000706 mg/L	0.00327	0.000706 mg/L	21.57%
Si 288.158	1328786.8	12.7	0.04 mg/L	12.7	0.04 mg/L	0.34%
Sn 189.933	-300.8	-0.00845	0.000133 mg/L	-0.00845	0.000133 mg/L	1.57%
Sr 232.235	607.7	0.225	0.0016 mg/L	0.225	0.0016 mg/L	0.70%
Ti 337.280	-142.6	-0.00334	0.000011 mg/L	-0.00334	0.000011 mg/L	0.32%
Tl 190.800	-163.7	0.00422	0.000558 mg/L	0.00422	0.000558 mg/L	13.22%
V 292.402	-148.7	-0.00153	0.000034 mg/L	-0.00153	0.000034 mg/L	2.19%
Zn 206.200	39360.9	0.127	0.0019 mg/L	0.127	0.0019 mg/L	1.52%

Mean Data

ID: 0915104 Seq. No.: 17 Sample No.: 15 A/S Pos: 37
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:14:01 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3488552.0							1.43%
Ag 328.068	1420.2	0.00206	0.000023	mg/L	0.00206	0.000023	mg/L	1.10%
Al 237.312	-868.3	0.0899	0.00070	mg/L	0.0899	0.00070	mg/L	0.78%
As 188.979	12.2	0.00281	0.000164	mg/L	0.00281	0.000164	mg/L	5.84%
Ba 230.424	902.0	0.00183	0.000001	mg/L	0.00183	0.000001	mg/L	0.08%
Be 234.861	92.9	0.00005	0.000003	mg/L	0.00005	0.000003	mg/L	4.88%
Ca 227.549	137156.5	82.4	0.98	mg/L	82.4	0.98	mg/L	1.18%
Cd 228.802	112.8	0.00033	0.000001	mg/L	0.00033	0.000001	mg/L	0.41%
Co 228.616	-126.6	-0.00080	0.000002	mg/L	-0.00080	0.000002	mg/L	0.21%
Cr 267.716	357.8	0.00088	0.000018	mg/L	0.00088	0.000018	mg/L	2.02%
Cu 327.396	1322.4	0.00252	0.000075	mg/L	0.00252	0.000075	mg/L	2.96%
Fe 261.387	1910.6	0.0928	0.00089	mg/L	0.0928	0.00089	mg/L	0.96%
K 404.721	1623.4	4.33	0.441	mg/L	4.33	0.441	mg/L	10.20%
k 766.491	Saturated							
460.286	1147.5	-0.00628	0.001280	mg/L	-0.00628	0.001280	mg/L	20.38%
279.079	552398.4	8.38	0.124	mg/L	8.38	0.124	mg/L	1.47%
Mn 257.610	120411.9	0.112	0.0012	mg/L	0.112	0.0012	mg/L	1.09%
Mo 202.030	233.0	0.00230	0.000012	mg/L	0.00230	0.000012	mg/L	0.52%
Na 330.237	110252.4	17.6	0.22	mg/L	17.6	0.22	mg/L	1.24%
Ni 231.604	-302.9	0.00001	0.000004	mg/L	0.00001	0.000004	mg/L	41.53%
Pb 220.353	237.8	0.00429	0.000171	mg/L	0.00429	0.000171	mg/L	3.99%
Sb 206.833	88.8	0.00509	0.000243	mg/L	0.00509	0.000243	mg/L	4.78%
Se 196.026	1.9	0.00308	0.000555	mg/L	0.00308	0.000555	mg/L	18.00%
Si 288.158	1346770.1	12.9	0.14	mg/L	12.9	0.14	mg/L	1.11%
Sn 189.933	-260.9	-0.00712	0.000085	mg/L	-0.00712	0.000085	mg/L	1.20%
Sr 232.235	465.7	0.175	0.0000	mg/L	0.175	0.0000	mg/L	0.02%
Ti 337.280	66.2	-0.00323	0.000015	mg/L	-0.00323	0.000015	mg/L	0.48%
Tl 190.800	-0.5	0.00115	0.000103	mg/L	0.00115	0.000103	mg/L	9.00%
V 292.402	381.9	-0.00013	0.000025	mg/L	-0.00013	0.000025	mg/L	19.03%
Zn 206.200	9431.1	0.0304	0.00001	mg/L	0.0304	0.00001	mg/L	0.03%

Mean Data

ID: 0915601 Seq. No.: 18 Sample No.: 16 A/S Pos: 38
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:18:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3392647.4							0.76%
Ag 328.068	1318.7	0.00195	0.000038	mg/L	0.00195	0.000038	mg/L	1.97%
Al 237.312	23011.1	1.25	0.005	mg/L	1.25	0.005	mg/L	0.41%
As 188.979	30.5	0.00402	0.000343	mg/L	0.00402	0.000343	mg/L	8.54%
Ba 230.424	15132.3	0.0308	0.00015	mg/L	0.0308	0.00015	mg/L	0.49%
Be 234.861	473.5	0.00018	0.000000	mg/L	0.00018	0.000000	mg/L	0.18%
Ca 227.549	91466.6	54.9	0.24	mg/L	54.9	0.24	mg/L	0.43%
Cd 228.802	123.2	0.00035	0.000003	mg/L	0.00035	0.000003	mg/L	0.98%
228.616	-66.4	-0.00053	0.000036	mg/L	-0.00053	0.000036	mg/L	6.91%
267.716	3050.5	0.00753	0.000059	mg/L	0.00753	0.000059	mg/L	0.79%
Cu 327.396	1463.6	0.00279	0.000063	mg/L	0.00279	0.000063	mg/L	2.24%
Fe 261.387	33661.4	1.05	0.000	mg/L	1.05	0.000	mg/L	0.02%

K 404.721	538.2	1.76	0.066 mg/L	1.76	0.066 mg/L		3.76%
k 766.491	Saturated						
[illegible] 460.286	2817.6	0.00469	0.000928 mg/L	0.00469	0.000928 mg/L		19.79%
279.079	2358568.5	35.6	0.00 mg/L	35.6	0.00 mg/L		0.00%
Mn 257.610	41139.8	0.0382	0.00006 mg/L	0.0382	0.00006 mg/L		0.16%
Mo 202.030	459.5	0.00454	0.000087 mg/L	0.00454	0.000087 mg/L		1.91%
Na 330.237	1287906.7	245	0.0 mg/L	245	0.0 mg/L		0.00%
Ni 231.604	-448.2	-0.00068	0.000007 mg/L	-0.00068	0.000007 mg/L		1.07%
Pb 220.353	187.8	0.00277	0.000181 mg/L	0.00277	0.000181 mg/L		6.52%
Sb 206.833	112.4	0.00588	0.000104 mg/L	0.00588	0.000104 mg/L		1.77%
Se 196.026	197.6	0.0183	0.00069 mg/L	0.0183	0.00069 mg/L		3.74%
Si 288.158	1953583.5	18.8	0.09 mg/L	18.8	0.09 mg/L		0.49%
Sn 189.933	-120.9	-0.00243	0.000598 mg/L	-0.00243	0.000598 mg/L		24.58%
Sr 232.235	1414.4	0.510	0.0026 mg/L	0.510	0.0026 mg/L		0.51%
Ti 337.280	46385.1	0.0202	0.00014 mg/L	0.0202	0.00014 mg/L		0.68%
Tl 190.800	0.0	0.00024	0.000028 mg/L	0.00024	0.000028 mg/L		11.86%
V 292.402	11545.4	0.0294	0.00006 mg/L	0.0294	0.00006 mg/L		0.20%
Zn 206.200	4335.2	0.0140	0.00013 mg/L	0.0140	0.00013 mg/L		0.96%

Mean Data ----------

ID: 0901504 Seq. No.: 19 Sample No.: 17 A/S Pos: 39
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:22:39 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3529336.8							0.97%
Ag 328.068	1041.4	0.00164	0.000015	mg/L	0.00164	0.000015	mg/L	0.91%
Al 237.312	-977.3	0.0847	0.00100	mg/L	0.0847	0.00100	mg/L	1.18%
As 188.979	28.1	0.00386	0.000163	mg/L	0.00386	0.000163	mg/L	4.23%
Ba 230.424	105802.6	0.215	0.0000	mg/L	0.215	0.0000	mg/L	0.00%
Be 234.861	61.5	0.00004	0.000013	mg/L	0.00004	0.000013	mg/L	30.51%
Ca 227.549	14753.3	8.83	0.091	mg/L	8.83	0.091	mg/L	1.03%
Cd 228.802	119.0	0.00034	0.000008	mg/L	0.00034	0.000008	mg/L	2.32%
[illegible] ?28.616	-70.1	-0.00054	0.000008	mg/L	-0.00054	0.000008	mg/L	1.54%
67.716	392.2	0.00097	0.000010	mg/L	0.00097	0.000010	mg/L	1.06%
Cu 327.396	1005.9	0.00192	0.000090	mg/L	0.00192	0.000090	mg/L	4.69%
Fe 261.387	5917.6	0.213	0.0003	mg/L	0.213	0.0003	mg/L	0.14%
K 404.721	633.6	1.99	0.110	mg/L	1.99	0.110	mg/L	5.55%
k 766.491	Saturated							
Li 460.286	667.6	-0.0182	0.00266	mg/L	-0.0182	0.00266	mg/L	14.59%
Mg 279.079	192749.4	2.96	0.005	mg/L	2.96	0.005	mg/L	0.17%
Mn 257.610	25718.4	0.0239	0.00000	mg/L	0.0239	0.00000	mg/L	0.01%
Mo 202.030	737.4	0.00728	0.000044	mg/L	0.00728	0.000044	mg/L	0.61%
Na 330.237	1267048.3	245	0.0	mg/L	245	0.0	mg/L	0.00%
Ni 231.604	-620.8	-0.00150	0.000008	mg/L	-0.00150	0.000008	mg/L	0.55%
Pb 220.353	124.9	0.00085	0.000045	mg/L	0.00085	0.000045	mg/L	5.31%
Sb 206.833	76.0	0.00467	0.000062	mg/L	0.00467	0.000062	mg/L	1.32%
Se 196.026	-4.8	0.00256	0.000572	mg/L	0.00256	0.000572	mg/L	22.33%
Si 288.158	215165.5	2.01	0.025	mg/L	2.01	0.025	mg/L	1.23%
Sn 189.933	-80.6	-0.00109	0.000176	mg/L	-0.00109	0.000176	mg/L	16.22%
Sr 232.235	431.4	0.163	0.0009	mg/L	0.163	0.0009	mg/L	0.57%
Ti 337.280	89.9	-0.00322	0.000081	mg/L	-0.00322	0.000081	mg/L	2.52%
Tl 190.800	11.0	0.00077	0.000003	mg/L	0.00077	0.000003	mg/L	0.34%
V 292.402	-130.8	-0.00149	0.000016	mg/L	-0.00149	0.000016	mg/L	1.05%
Zn 206.200	4361.9	0.0140	0.00008	mg/L	0.0140	0.00008	mg/L	0.54%

Mean Data ----------

ID: 0901507 Seq. No.: 20 Sample No.: 18 A/S Pos: 40
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:27:01 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3422480.2							0.32%
Ag 328.068	1137.7	0.00175	0.000056	mg/L	0.00175	0.000056	mg/L	3.19%
[illegible] ?37.312	1156.8	0.188	0.0009	mg/L	0.188	0.0009	mg/L	0.49%
88.979	-16.3	0.00093	0.000054	mg/L	0.00093	0.000054	mg/L	5.78%
Ba 230.424	58206.1	0.118	0.0009	mg/L	0.118	0.0009	mg/L	0.77%
Be 234.861	123.5	0.00006	0.000001	mg/L	0.00006	0.000001	mg/L	1.95%
Ca 227.549	5784.5	3.44	0.028	mg/L	3.44	0.028	mg/L	0.82%

Cd 228.802	127.3	0.00036	0.000010 mg/L	0.00036	0.000010 mg/L		2.66%
Co 228.616	39.7	-0.00005	0.000007 mg/L	-0.00005	0.000007 mg/L		14.60%
Cr 267.716	599.3	0.00148	0.000041 mg/L	0.00148	0.000041 mg/L		2.75%
27.396	1009.9	0.00192	0.000013 mg/L	0.00192	0.000013 mg/L		0.67%
261.387	9053.4	0.308	0.0009 mg/L	0.308	0.0009 mg/L		0.28%
K 404.721	1065.0	3.00	0.106 mg/L	3.00	0.106 mg/L		3.54%
k 766.491	Saturated						
Li 460.286	2394.9	-0.00351	0.000689 mg/L	-0.00351	0.000689 mg/L		19.64%
Mg 279.079	114800.8	1.78	0.005 mg/L	1.78	0.005 mg/L		0.30%
Mn 257.610	417888.4	0.388	0.0002 mg/L	0.388	0.0002 mg/L		0.06%
Mo 202.030	411.7	0.00406	0.000024 mg/L	0.00406	0.000024 mg/L		0.58%
Na 330.237	1684200.6	245	0.0 mg/L	245	0.0 mg/L		0.00%
Ni 231.604	-575.3	-0.00128	0.000050 mg/L	-0.00128	0.000050 mg/L		3.90%
Pb 220.353	138.8	0.00127	0.000060 mg/L	0.00127	0.000060 mg/L		4.75%
Sb 206.833	79.8	0.00480	0.000031 mg/L	0.00480	0.000031 mg/L		0.66%
Se 196.026	-11.6	0.00203	0.000241 mg/L	0.00203	0.000241 mg/L		11.85%
Si 288.158	532235.9	5.07	0.006 mg/L	5.07	0.006 mg/L		0.11%
Sn 189.933	50.8	0.00331	0.000022 mg/L	0.00331	0.000022 mg/L		0.68%
Sr 232.235	304.2	0.118	0.0017 mg/L	0.118	0.0017 mg/L		1.44%
Ti 337.280	2276.0	-0.00211	0.000042 mg/L	-0.00211	0.000042 mg/L		1.97%
Tl 190.800	-32.5	0.00188	0.000278 mg/L	0.00188	0.000278 mg/L		14.78%
V 292.402	-72.4	-0.00133	0.000010 mg/L	-0.00133	0.000010 mg/L		0.79%
Zn 206.200	4466.2	0.0144	0.00008 mg/L	0.0144	0.00008 mg/L		0.56%

Mean Data ----------

ID: 0901508 Seq. No.: 21 Sample No.: 19 A/S Pos: 41
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:31:25 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3494712.0							0.34%
Ag 328.068	1574.7	0.00223	0.000081	mg/L	0.00223	0.000081	mg/L	3.62%
Al 237.312	-1518.1	0.0584	0.00300	mg/L	0.0584	0.00300	mg/L	5.13%
As 188.979	-21.8	0.00057	0.000360	mg/L	0.00057	0.000360	mg/L	63.44%
30.424	90283.9	0.183	0.0006	mg/L	0.183	0.0006	mg/L	0.34%
234.861	772.4	0.00001	0.000004	mg/L	0.00001	0.000004	mg/L	28.84%
Ca 227.549	186701.9	112	0.9	mg/L	112	0.9	mg/L	0.80%
Cd 228.802	109.2	0.00032	0.000007	mg/L	0.00032	0.000007	mg/L	2.15%
Co 228.616	-105.2	-0.00070	0.000025	mg/L	-0.00070	0.000025	mg/L	3.56%
Cr 267.716	413.9	0.00102	0.000055	mg/L	0.00102	0.000055	mg/L	5.38%
Cu 327.396	810.9	0.00154	0.000010	mg/L	0.00154	0.000010	mg/L	0.62%
Fe 261.387	135002.7	4.09	0.019	mg/L	4.09	0.019	mg/L	0.46%
K 404.721	1169.5	3.25	0.186	mg/L	3.25	0.186	mg/L	5.72%
k 766.491	Saturated							
Li 460.286	2889.9	-0.0153	0.00283	mg/L	-0.0153	0.00283	mg/L	18.45%
Mg 279.079	1032040.6	15.6	0.08	mg/L	15.6	0.08	mg/L	0.50%
Mn 257.610	461707.6	0.429	0.0014	mg/L	0.429	0.0014	mg/L	0.34%
Mo 202.030	196.9	0.00194	0.000062	mg/L	0.00194	0.000062	mg/L	3.18%
Na 330.237	272571.0	46.2	0.10	mg/L	46.2	0.10	mg/L	0.23%
Ni 231.604	-668.9	-0.00173	0.000022	mg/L	-0.00173	0.000022	mg/L	1.26%
Pb 220.353	201.4	0.00318	0.000061	mg/L	0.00318	0.000061	mg/L	1.93%
Sb 206.833	108.0	0.00573	0.000286	mg/L	0.00573	0.000286	mg/L	4.99%
Se 196.026	2.6	0.00314	0.001550	mg/L	0.00314	0.001550	mg/L	49.41%
Si 288.158	722712.0	6.90	0.014	mg/L	6.90	0.014	mg/L	0.20%
Sn 189.933	-293.4	-0.00820	0.000083	mg/L	-0.00820	0.000083	mg/L	1.01%
Sr 232.235	504.5	0.189	0.0007	mg/L	0.189	0.0007	mg/L	0.39%
Ti 337.280	190.8	-0.00317	0.000054	mg/L	-0.00317	0.000054	mg/L	1.71%
Tl 190.800	-66.2	0.00057	0.000001	mg/L	0.00057	0.000001	mg/L	0.15%
V 292.402	-159.9	-0.00156	0.000005	mg/L	-0.00156	0.000005	mg/L	0.33%
Zn 206.200	8588.1	0.0276	0.00014	mg/L	0.0276	0.00014	mg/L	0.49%

Mean Data ----------

ID: 0901509 Seq. No.: 22 Sample No.: 20 A/S Pos: 42
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:35:48 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3598667.7							0.46%
Ag 328.068	923.7	0.00151	0.000023	mg/L	0.00151	0.000023	mg/L	1.50%

002345

Al 237.312	-1202.6	0.0737	0.00004	mg/L	0.0737	0.00004 mg/L	0.06%
As 188.979	-15.6	0.00098	0.000072	mg/L	0.00098	0.000072 mg/L	7.34%
230.424	5393.7	0.0110	0.00001	mg/L	0.0110	0.00001 mg/L	0.08%
234.861	22.1	0.00003	0.000002	mg/L	0.00003	0.000002 mg/L	5.58%
Ca 227.549	2559.4	1.50	0.003	mg/L	1.50	0.003 mg/L	0.21%
Cd 228.802	100.5	0.00030	0.000009	mg/L	0.00030	0.000009 mg/L	3.14%
Co 228.616	-106.7	-0.00071	0.000004	mg/L	-0.00071	0.000004 mg/L	0.56%
Cr 267.716	348.8	0.00086	0.000008	mg/L	0.00086	0.000008 mg/L	0.97%
Cu 327.396	897.1	0.00171	0.000046	mg/L	0.00171	0.000046 mg/L	2.68%
Fe 261.387	401.0	0.0475	0.00073	mg/L	0.0475	0.00073 mg/L	1.53%
K 404.721	315.4	1.24	0.089	mg/L	1.24	0.089 mg/L	7.21%
k 766.491	11577070.7	2.02	0.037	mg/L	2.02	0.037 mg/L	1.83%
Li 460.286	198.7	-0.0228	0.00364	mg/L	-0.0228	0.00364 mg/L	16.01%
Mg 279.079	31114.8	0.519	0.0035	mg/L	0.519	0.0035 mg/L	0.67%
Mn 257.610	21618.7	0.0201	0.00018	mg/L	0.0201	0.00018 mg/L	0.91%
Mo 202.030	263.3	0.00260	0.000020	mg/L	0.00260	0.000020 mg/L	0.76%
Na 330.237	1012111.8	245	0.0	mg/L	245	0.0 mg/L	0.00%
Ni 231.604	-623.2	-0.00151	0.000036	mg/L	-0.00151	0.000036 mg/L	2.42%
Pb 220.353	108.9	0.00036	0.000167	mg/L	0.00036	0.000167 mg/L	46.27%
Sb 206.833	71.4	0.00452	0.000234	mg/L	0.00452	0.000234 mg/L	5.18%
Se 196.026	-11.5	0.00204	0.000011	mg/L	0.00204	0.000011 mg/L	0.54%
Si 288.158	175698.9	1.63	0.028	mg/L	1.63	0.028 mg/L	1.73%
Sn 189.933	-6.9	0.00138	0.000252	mg/L	0.00138	0.000252 mg/L	18.24%
Sr 232.235	45.2	0.0272	0.00017	mg/L	0.0272	0.00017 mg/L	0.64%
Ti 337.280	-413.2	-0.00348	0.000066	mg/L	-0.00348	0.000066 mg/L	1.91%
Tl 190.800	7.9	0.00062	0.000138	mg/L	0.00062	0.000138 mg/L	22.06%
V 292.402	-164.5	-0.00157	0.000011	mg/L	-0.00157	0.000011 mg/L	0.71%
Zn 206.200	5553.8	0.0179	0.00023	mg/L	0.0179	0.00023 mg/L	1.27%

Mean Data ----------

ID: CCV Seq. No.: 23 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: 9/13/00 9:40:19 PM

ment	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
360.073	3664679.8							0.31%
Ag 328.068	357062.8	0.393	0.0004	mg/L				0.11%
Al 237.312	196837.3	9.67	0.003	mg/L				0.03%
As 188.979	5602.5	0.379	0.0004	mg/L				0.09%
Ba 230.424	478769.0	0.973	0.0016	mg/L				0.16%
Be 234.861	141345.9	0.0485	0.00005	mg/L				0.10%
Ca 227.549	16778.4	9.93	0.036	mg/L				0.36%
Cd 228.802	21488.9	0.0489	0.00015	mg/L				0.30%
Co 228.616	43712.9	0.196	0.0008	mg/L				0.39%
Cr 267.716	199497.2	0.494	0.0004	mg/L				0.09%
Cu 327.396	259620.5	0.494	0.0012	mg/L				0.24%
Fe 261.387	127668.9	3.87	0.005	mg/L				0.13%
K 404.721	20384.8	52.0	0.49	mg/L				0.94%
k 766.491	Saturated							
Li 460.286	120062.3	1.12	0.006	mg/L				0.55%
*QC exceeds upper limit for Li 460.286 Recovery = 112.36% Action = Continue								
Mg 279.079	632355.8	9.59	0.023	mg/L				0.24%
Mn 257.610	530695.2	0.493	0.0000	mg/L				0.00%
Mo 202.030	96663.7	0.954	0.0024	mg/L				0.25%
Na 330.237	292470.6	50.0	0.03	mg/L				0.05%
Ni 231.604	101054.0	0.481	0.0010	mg/L				0.20%
Pb 220.353	15542.6	0.474	0.0011	mg/L				0.23%
Sb 206.833	34029.4	1.13	0.004	mg/L				0.32%
Se 196.026	4687.6	0.368	0.0004	mg/L				0.12%
Si 288.158	544393.5	5.19	0.028	mg/L				0.54%
Sn 189.933	26561.9	0.890	0.0075	mg/L				0.84%
*QC exceeds lower limit for Sn 189.933 Recovery = 89.00% Action = Continue								
Sr 232.235	2666.3	0.926	0.0041	mg/L				0.44%
Ti 337.280	1984192.4	1.00	0.000	mg/L				0.02%
Tl 190.800	9458.0	0.469	0.0040	mg/L				0.85%
292.402	378136.1	1.00	0.001	mg/L				0.06%
206.200	285517.4	0.919	0.0050	mg/L				0.55%

Mean Data ----------

ID: ICB/CCB Seq. No.: 24 Sample No.: 4 A/S Pos: 1

002346

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:44:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3070753.3							1.07%
Ag 328.068	853.8	0.00144	0.000059	mg/L				4.10%
Al 237.312	-1377.7	0.0652	0.00067	mg/L				1.02%
As 188.979	-9.9	0.00136	0.000162	mg/L				11.92%
Ba 230.424	-1029.3	-0.00209	0.000002	mg/L				0.12%
Be 234.861	-40.9	0.00001	0.000015	mg/L				203.01%
Ca 227.549	-45.5	-0.0670	0.00907	mg/L				13.55%
Cd 228.802	70.4	0.00023	0.000000	mg/L				0.05%
Co 228.616	-120.4	-0.00077	0.000032	mg/L				4.18%
Cr 267.716	273.8	0.00068	0.000008	mg/L				1.22%
Cu 327.396	681.8	0.00130	0.000009	mg/L				0.67%
Fe 261.387	-909.3	0.00808	0.000227	mg/L				2.81%
K 404.721	-191.8	0.0487	0.18360	mg/L				376.67%
k 766.491	334170.3	-0.00497	0.000301	mg/L				6.05%
Li 460.286	-1225.4	-0.0366	0.00267	mg/L				7.28%
Mg 279.079	-1317.1	0.0301	0.00009	mg/L				0.31%
Mn 257.610	677.6	0.00063	0.000016	mg/L				2.53%
Mo 202.030	130.5	0.00129	0.000008	mg/L				0.65%
Na 330.237	262.9	0.135	0.0002	mg/L				0.18%
Ni 231.604	-632.6	-0.00155	0.000013	mg/L				0.83%
Pb 220.353	79.2	-0.00055	0.000001	mg/L				0.20%
Sb 206.833	72.2	0.00454	0.000001	mg/L				0.03%
Se 196.026	-18.0	0.00153	0.000108	mg/L				7.09%
Si 288.158	1895.3	-0.0443	0.00005	mg/L				0.12%
Sn 189.933	65.6	0.00380	0.000085	mg/L				2.22%
Sr 232.235	-17.7	0.00497	0.000084	mg/L				1.70%
Ti 337.280	-489.8	-0.00352	0.000017	mg/L				0.47%
Tl 190.800	-16.0	-0.00055	0.000313	mg/L				57.14%
V 292.402	-210.5	-0.00170	0.000034	mg/L				1.99%
306.200	496.0	0.00160	0.000009	mg/L				0.56%

Mean Data

ID: 0901510 Seq. No.: 25 Sample No.: 21 A/S Pos: 43
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:48:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3575969.8							0.35%
Ag 328.068	1117.1	0.00173	0.000023	mg/L	0.00173	0.000023	mg/L	1.31%
Al 237.312	-1259.3	0.0710	0.00056	mg/L	0.0710	0.00056	mg/L	0.79%
As 188.979	35.3	0.00434	0.000015	mg/L	0.00434	0.000015	mg/L	0.35%
Ba 230.424	87002.1	0.177	0.0012	mg/L	0.177	0.0012	mg/L	0.66%
Be 234.861	51.8	0.00004	0.000010	mg/L	0.00004	0.000010	mg/L	24.82%
Ca 227.549	45279.2	27.2	0.06	mg/L	27.2	0.06	mg/L	0.21%
Cd 228.802	116.2	0.00033	0.000009	mg/L	0.00033	0.000009	mg/L	2.76%
Co 228.616	-57.0	-0.00048	0.000016	mg/L	-0.00048	0.000016	mg/L	3.28%
Cr 267.716	358.5	0.00088	0.000046	mg/L	0.00088	0.000046	mg/L	5.23%
Cu 327.396	951.1	0.00181	0.000032	mg/L	0.00181	0.000032	mg/L	1.76%
Fe 261.387	2906.2	0.123	0.0001	mg/L	0.123	0.0001	mg/L	0.07%
K 404.721	400.6	1.44	0.363	mg/L	1.44	0.363	mg/L	25.21%
k 766.491	9738888.4	1.69	0.004	mg/L	1.69	0.004	mg/L	0.22%
Li 460.286	830.9	-0.0142	0.00061	mg/L	-0.0142	0.00061	mg/L	4.30%
Mg 279.079	463052.0	7.03	0.028	mg/L	7.03	0.028	mg/L	0.40%
Mn 257.610	120215.2	0.112	0.0006	mg/L	0.112	0.0006	mg/L	0.50%
Mo 202.030	4022.4	0.0397	0.00018	mg/L	0.0397	0.00018	mg/L	0.45%
Na 330.237	265579.9	44.9	0.16	mg/L	44.9	0.16	mg/L	0.35%
Ni 231.604	-571.0	-0.00126	0.000016	mg/L	-0.00126	0.000016	mg/L	1.23%
Pb 220.353	127.0	0.00091	0.000209	mg/L	0.00091	0.000209	mg/L	22.85%
Sb 206.833	71.2	0.00451	0.000020	mg/L	0.00451	0.000020	mg/L	0.45%
Se 196.026	0.1	0.00295	0.000695	mg/L	0.00295	0.000695	mg/L	23.58%
288.158	543188.3	5.17	0.029	mg/L	5.17	0.029	mg/L	0.56%
189.933	-168.1	-0.00401	0.000100	mg/L	-0.00401	0.000100	mg/L	2.48%
Sr 232.235	939.3	0.342	0.0029	mg/L	0.342	0.0029	mg/L	0.85%
Ti 337.280	-470.9	-0.00351	0.000042	mg/L	-0.00351	0.000042	mg/L	1.19%
Tl 190.800	-8.1	0.00077	0.000321	mg/L	0.00077	0.000321	mg/L	41.67%

002348

V 292.402	-81.6	-0.00135	0.000164 mg/L	-0.00135	0.000164 mg/L	12.08%
Zn 206.200	9754.3	0.0314	0.00011 mg/L	0.0314	0.00011 mg/L	0.36%

Data ----------

. 0908701 Seq. No.: 26 Sample No.: 22 A/S Pos: 44
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:53:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3569524.6							0.28%
Ag 328.068	1526.2	0.00218	0.000056	mg/L	0.00218	0.000056	mg/L	2.56%
Al 237.312	-951.2	0.0859	0.00022	mg/L	0.0859	0.00022	mg/L	0.26%
As 188.979	-17.2	0.00087	0.000280	mg/L	0.00087	0.000280	mg/L	32.10%
Ba 230.424	47622.7	0.0968	0.00040	mg/L	0.0968	0.00040	mg/L	0.42%
Be 234.861	126.9	0.00007	0.000002	mg/L	0.00007	0.000002	mg/L	2.67%
Ca 227.549	182845.7	110	0.4	mg/L	110	0.4	mg/L	0.34%
Cd 228.802	106.7	0.00031	0.000024	mg/L	0.00031	0.000024	mg/L	7.55%
Co 228.616	565.4	0.00232	0.000035	mg/L	0.00232	0.000035	mg/L	1.50%
Cr 267.716	428.9	0.00106	0.000023	mg/L	0.00106	0.000023	mg/L	2.16%
Cu 327.396	1526.6	0.00291	0.000088	mg/L	0.00291	0.000088	mg/L	3.03%
Fe 261.387	-410.3	0.0231	0.00014	mg/L	0.0231	0.00014	mg/L	0.62%
K 404.721	809.9	2.40	0.200	mg/L	2.40	0.200	mg/L	8.32%
k 766.491	15945165.2	2.80	0.007	mg/L	2.80	0.007	mg/L	0.25%
Li 460.286	372.3	-0.00683	0.000264	mg/L	-0.00683	0.000264	mg/L	3.87%
Mg 279.079	2444866.3	36.9	0.06	mg/L	36.9	0.06	mg/L	0.15%
Mn 257.610	1836.2	0.00170	0.000001	mg/L	0.00170	0.000001	mg/L	0.07%
Mo 202.030	380.8	0.00376	0.000093	mg/L	0.00376	0.000093	mg/L	2.46%
Na 330.237	42018.7	6.62	0.030	mg/L	6.62	0.030	mg/L	0.45%
Ni 231.604	-618.1	-0.00149	0.000066	mg/L	-0.00149	0.000066	mg/L	4.46%
Pb 220.353	168.7	0.00219	0.000222	mg/L	0.00219	0.000222	mg/L	10.15%
Sb 206.833	86.6	0.00502	0.000201	mg/L	0.00502	0.000201	mg/L	4.01%
Se 196.026	22.8	0.00471	0.000466	mg/L	0.00471	0.000466	mg/L	9.89%
Si 288.158	714743.9	6.83	0.000	mg/L	6.83	0.000	mg/L	0.00%
S 189.933	-255.0	-0.00692	0.000028	mg/L	-0.00692	0.000028	mg/L	0.40%
32.235	423.4	0.160	0.0008	mg/L	0.160	0.0008	mg/L	0.49%
T 337.280	-170.9	-0.00335	0.000028	mg/L	-0.00335	0.000028	mg/L	0.84%
Tl 190.800	-18.6	-0.00068	0.000280	mg/L	-0.00068	0.000280	mg/L	41.39%
V 292.402	-38.5	-0.00124	0.000004	mg/L	-0.00124	0.000004	mg/L	0.30%
Zn 206.200	3043.4	0.00979	0.000011	mg/L	0.00979	0.000011	mg/L	0.11%

Mean Data ----------

ID: 0913001 Seq. No.: 27 Sample No.: 23 A/S Pos: 45
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 9:57:53 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3531460.2							0.87%
Ag 328.068	1328.9	0.00196	0.000038	mg/L	0.00196	0.000038	mg/L	1.95%
Al 237.312	23732.9	1.28	0.021	mg/L	1.28	0.021	mg/L	1.62%
As 188.979	38.2	0.00452	0.000054	mg/L	0.00452	0.000054	mg/L	1.19%
Ba 230.424	40221.6	0.0817	0.00118	mg/L	0.0817	0.00118	mg/L	1.45%
Be 234.861	1102.0	0.00017	0.000003	mg/L	0.00017	0.000003	mg/L	1.79%
Ca 227.549	44350.9	26.6	0.26	mg/L	26.6	0.26	mg/L	0.97%
Cd 228.802	357.7	0.00088	0.000014	mg/L	0.00088	0.000014	mg/L	1.58%
Co 228.616	443.8	0.00177	0.000007	mg/L	0.00177	0.000007	mg/L	0.38%
Cr 267.716	2841.4	0.00701	0.000016	mg/L	0.00701	0.000016	mg/L	0.22%
Cu 327.396	73636.4	0.140	0.0009	mg/L	0.140	0.0009	mg/L	0.62%
Fe 261.387	112360.2	3.41	0.040	mg/L	3.41	0.040	mg/L	1.17%
K 404.721	2153.3	5.58	0.001	mg/L	5.58	0.001	mg/L	0.02%
k 766.491	Saturated							
Li 460.286	2305.1	-0.0238	0.00026	mg/L	-0.0238	0.00026	mg/L	1.08%
Mg 279.079	366778.8	5.58	0.072	mg/L	5.58	0.072	mg/L	1.29%
Mn 257.610	884628.5	0.821	0.0036	mg/L	0.821	0.0036	mg/L	0.44%
Mo 202.030	345.2	0.00341	0.000051	mg/L	0.00341	0.000051	mg/L	1.50%
Na 330.237	56816.6	8.97	0.153	mg/L	8.97	0.153	mg/L	1.70%
31.604	461.1	0.00364	0.000082	mg/L	0.00364	0.000082	mg/L	2.26%
Pb 220.353	1212.4	0.0340	0.00011	mg/L	0.0340	0.00011	mg/L	0.31%
Sb 206.833	133.0	0.00656	0.000223	mg/L	0.00656	0.000223	mg/L	3.39%
Se 196.026	3.8	0.00323	0.000593	mg/L	0.00323	0.000593	mg/L	18.35%

Si 288.158	635746.4	6.07	0.019	mg/L	6.07	0.019 mg/L	0.31%
Sn 189.933	-188.9	-0.00471	0.000004	mg/L	-0.00471	0.000004 mg/L	0.08%
Sr 232.235	213.2	0.0864	0.00066	mg/L	0.0864	0.00066 mg/L	0.77%
Ti 337.280	64534.0	0.0294	0.00035	mg/L	0.0294	0.00035 mg/L	1.18%
Tl 190.800	-100.2	0.00218	0.000262	mg/L	0.00218	0.000262 mg/L	12.04%
V 292.402	1109.3	0.00179	0.000002	mg/L	0.00179	0.000002 mg/L	0.11%
Zn 206.200	102430.5	0.330	0.0062	mg/L	0.330	0.0062 mg/L	1.89%

Mean Data ----------

ID: CCV Seq. No.: 28 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: 9/13/00 10:02:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3691363.8							0.58%
Ag 328.068	356731.5	0.393	0.0022	mg/L				0.57%
Al 237.312	197238.8	9.69	0.056	mg/L				0.58%
As 188.979	5573.8	0.377	0.0015	mg/L				0.41%
Ba 230.424	477508.3	0.970	0.0087	mg/L				0.90%
Be 234.861	141218.3	0.0485	0.00033	mg/L				0.68%
Ca 227.549	16725.6	9.90	0.008	mg/L				0.08%
Cd 228.802	21495.3	0.0489	0.00003	mg/L				0.07%
Co 228.616	43788.0	0.197	0.0019	mg/L				0.98%
Cr 267.716	199443.6	0.494	0.0040	mg/L				0.80%
Cu 327.396	259261.5	0.494	0.0029	mg/L				0.59%
Fe 261.387	128044.6	3.88	0.025	mg/L				0.63%
K 404.721	20491.0	52.3	0.23	mg/L				0.45%
k 766.491	Saturated							
Li 460.286	119964.2	1.12	0.003	mg/L				0.24%
*QC exceeds upper limit for Li 460.286	Recovery = 112.25% Action = Continue							
Mg 279.079	631292.9	9.57	0.089	mg/L				0.93%
Mn 257.610	529391.7	0.491	0.0045	mg/L				0.91%
Mo 202.030	96408.3	0.952	0.0066	mg/L				0.70%
Na 330.237	291952.3	49.9	0.44	mg/L				0.88%
Ni 231.604	100831.5	0.480	0.0041	mg/L				0.85%
Pb 220.353	15525.3	0.473	0.0010	mg/L				0.22%
Sb 206.833	33919.6	1.13	0.000	mg/L				0.02%
Se 196.026	4666.6	0.367	0.0009	mg/L				0.24%
Si 288.158	543935.7	5.18	0.019	mg/L				0.37%
Sn 189.933	26957.2	0.903	0.0074	mg/L				0.82%
Sr 232.235	2643.0	0.917	0.0026	mg/L				0.28%
Ti 337.280	1987067.9	1.00	0.007	mg/L				0.67%
Tl 190.800	9418.1	0.467	0.0031	mg/L				0.66%
V 292.402	378640.2	1.00	0.006	mg/L				0.64%
Zn 206.200	284268.3	0.915	0.0151	mg/L				1.65%

Mean Data ----------

ID: ICB/CCB Seq. No.: 29 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:06:36 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3036493.3							1.60%
Ag 328.068	851.9	0.00143	0.000095	mg/L				6.61%
Al 237.312	-1387.4	0.0648	0.00019	mg/L				0.29%
As 188.979	-12.8	0.00116	0.000112	mg/L				9.65%
Ba 230.424	-1022.3	-0.00208	0.000039	mg/L				1.90%
Be 234.861	-25.6	0.00001	0.000003	mg/L				24.65%
Ca 227.549	-52.0	-0.0709	0.00954	mg/L				13.46%
Cd 228.802	71.9	0.00023	0.000008	mg/L				3.31%
Co 228.616	-117.0	-0.00075	0.000013	mg/L				1.77%
Cr 267.716	275.8	0.00068	0.000011	mg/L				1.62%
Cu 327.396	670.4	0.00128	0.000086	mg/L				6.75%
Fe 261.387	-907.9	0.00812	0.000299	mg/L				3.68%
K 404.721	-156.9	0.130	0.0866	mg/L				66.43%
k 766.491	329364.0	-0.00584	0.001293	mg/L				22.16%
Li 460.286	-1239.5	-0.0368	0.00044	mg/L				1.19%
Mg 279.079	-1278.1	0.0307	0.00180	mg/L				5.87%
Mn 257.610	698.0	0.00065	0.000004	mg/L				0.60%

Mo 202.030	131.5	0.00130	0.000036 mg/L	2.76%
Na 330.237	304.9	0.142	0.0026 mg/L	1.81%
Ni 231.604	-621.4	-0.00150	0.000026 mg/L	1.70%
?20.353	76.6	-0.00063	0.000066 mg/L	10.47%
206.833	57.0	0.00404	0.000349 mg/L	8.63%
Se 196.026	-20.2	0.00136	0.000245 mg/L	17.99%
Si 288.158	1825.8	-0.0449	0.00014 mg/L	0.31%
Sn 189.933	60.1	0.00362	0.000262 mg/L	7.24%
Sr 232.235	-13.9	0.00632	0.000714 mg/L	11.29%
Ti 337.280	-473.7	-0.00351	0.000042 mg/L	1.18%
Tl 190.800	-17.4	-0.00062	0.000401 mg/L	64.78%
V 292.402	-206.1	-0.00168	0.000012 mg/L	0.68%
Zn 206.200	492.5	0.00158	0.000023 mg/L	1.43%

Method - clptstd
SLF File - 091300b

#	A/S Loc	ID	Category
1	46	PBW TX/WG83592-03	Sample
2	47	LCSW TX/WG83592-04	Recovery
3	48	0866702/WG83592-02	Sample
4	49	02 DUP/WG83592-07	Duplicate
5	50	02 SD.2	Duplicate
6	51	02 PS.9	Recovery
7	52	0866501/WG83592-01	Sample
8	53	01 MS/WG83592-05	Recovery
9	54	01 MSD/WG83592-06	Duplicate
10	5	CCV X2	QC
11	1	ICB/CCB	QC

Calibration Summary

Method: clptstd Date: 9/13/00 10:19:05 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
Zn 206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Method: clptstd
Results: 091300B
Sample Info: 091300b
Method Description:

IEC: d4iec.iec
Spectra Stored: Yes
User: User1

MSF:
Method Stored: Yes
Date: 9/13/00 10:19:05 PM

Mean Data

ID: PBW TX/WG83592-03
Sample Qty: 1.0000 mL

Seq. No.: 1 Sample No.: 1
Prep. Vol.: 1.0 mL
Data: Original

A/S Pos: 46
Dilution: 1.0: 1.0
Date: 9/13/00 10:20:38 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3143760.7							2.38%
Ag 328.068	903.8	0.00149	0.000014	mg/L	0.00149	0.000014	mg/L	0.96%
Al 237.312	-1383.0	0.0650	0.00032	mg/L	0.0650	0.00032	mg/L	0.50%
As 188.979	-16.4	0.00093	0.000051	mg/L	0.00093	0.000051	mg/L	5.54%
Ba 230.424	-981.4	-0.00199	0.000023	mg/L	-0.00199	0.000023	mg/L	1.16%
Be 234.861	-33.6	0.00001	0.000002	mg/L	0.00001	0.000002	mg/L	17.49%
Ca 227.549	-50.8	-0.0701	0.00153	mg/L	-0.0701	0.00153	mg/L	2.19%
Cd 228.802	79.0	0.00025	0.000004	mg/L	0.00025	0.000004	mg/L	1.67%
Co 228.616	-120.9	-0.00077	0.000028	mg/L	-0.00077	0.000028	mg/L	3.63%
Cr 267.716	292.3	0.00072	0.000007	mg/L	0.00072	0.000007	mg/L	0.92%
Cu 327.396	859.7	0.00164	0.000094	mg/L	0.00164	0.000094	mg/L	5.77%
Fe 261.387	-892.6	0.00858	0.000237	mg/L	0.00858	0.000237	mg/L	2.76%
K 404.721	-120.0	0.217	0.2313	mg/L	0.217	0.2313	mg/L	106.65%
k 766.491	428928.7	0.0121	0.00013	mg/L	0.0121	0.00013	mg/L	1.06%
Li 460.286	-1339.7	-0.0378	0.00026	mg/L	-0.0378	0.00026	mg/L	0.69%
Mg 279.079	-1123.1	0.0330	0.00020	mg/L	0.0330	0.00020	mg/L	0.59%
Mn 257.610	1006.8	0.00093	0.000008	mg/L	0.00093	0.000008	mg/L	0.87%
Mo 202.030	74.7	0.00074	0.000030	mg/L	0.00074	0.000030	mg/L	4.07%
Na 330.237	349.5	0.149	0.0025	mg/L	0.149	0.0025	mg/L	1.71%
Ni 231.604	-627.5	-0.00153	0.000050	mg/L	-0.00153	0.000050	mg/L	3.26%
Pb 220.353	87.4	-0.00030	0.000004	mg/L	-0.00030	0.000004	mg/L	1.23%

Sb 206.833	67.5	0.00439	0.000379 mg/L	0.00439	0.000379 mg/L	8.64%
Se 196.026	-21.2	0.00129	0.000446 mg/L	0.00129	0.000446 mg/L	34.66%
Si 288.158	5156.8	-0.0128	0.00026 mg/L	-0.0128	0.00026 mg/L	1.99%
Sn 189.933	5.6	0.00180	0.000035 mg/L	0.00180	0.000035 mg/L	1.95%
Sr 232.235	-15.9	0.00563	0.001818 mg/L	0.00563	0.001818 mg/L	32.30%
Ti 337.280	-353.2	-0.00345	0.000021 mg/L	-0.00345	0.000021 mg/L	0.62%
Tl 190.800	-26.5	-0.00106	0.000193 mg/L	-0.00106	0.000193 mg/L	18.13%
V 292.402	-206.5	-0.00169	0.000009 mg/L	-0.00169	0.000009 mg/L	0.53%
Zn 206.200	2140.3	0.00689	0.000118 mg/L	0.00689	0.000118 mg/L	1.72%

Mean Data ----------

ID: LCSW TX/WG83592-04 Seq. No.: 2 Sample No.: 2 A/S Pos: 47

Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/13/00 10:25:11 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3570802.0							0.22%
Ag 328.068	176950.2	0.195	0.0004	mg/L	0.195	0.0004	mg/L	0.19%
Al 237.312	198927.3	9.77	0.006	mg/L	9.77	0.006	mg/L	0.06%
As 188.979	13797.4	0.926	0.0012	mg/L	0.926	0.0012	mg/L	0.13%
Ba 230.424	4263120.5	8.66	0.039	mg/L	8.66	0.039	mg/L	0.45%
Be 234.861	2716448.2	0.935	0.0064	mg/L	0.935	0.0064	mg/L	0.68%
Ca 227.549	16225.6	9.68	0.003	mg/L	9.68	0.003	mg/L	0.03%
Cd 228.802	410153.1	0.932	0.0007	mg/L	0.932	0.0007	mg/L	0.07%
Co 228.616	209628.3	0.943	0.0004	mg/L	0.943	0.0004	mg/L	0.04%
Cr 267.716	387840.8	0.959	0.0000	mg/L	0.959	0.0000	mg/L	0.01%
Cu 327.396	503292.9	0.958	0.0117	mg/L	0.958	0.0117	mg/L	1.22%
Fe 261.387	27123.9	0.861	0.0017	mg/L	0.861	0.0017	mg/L	0.19%
K 404.721	19687.5	50.1	0.13	mg/L	50.1	0.13	mg/L	0.26%
k 766.491	Saturated							
Li 460.286	1211598.4	11.8	0.15	mg/L	11.8	0.15	mg/L	1.28%
Mg 279.079	625090.5	9.48	0.008	mg/L	9.48	0.008	mg/L	0.09%
Mn 257.610	1028422.9	0.955	0.0068	mg/L	0.955	0.0068	mg/L	0.71%
Mo 202.030	90703.2	0.895	0.0012	mg/L	0.895	0.0012	mg/L	0.13%
Na 330.237	270768.6	45.9	0.03	mg/L	45.9	0.03	mg/L	0.07%
Ni 231.604	196671.7	0.935	0.0002	mg/L	0.935	0.0002	mg/L	0.03%
Pb 220.353	30690.1	0.936	0.0042	mg/L	0.936	0.0042	mg/L	0.45%
Sb 206.833	28517.0	0.950	0.0006	mg/L	0.950	0.0006	mg/L	0.07%
Se 196.026	11154.0	0.873	0.0026	mg/L	0.873	0.0026	mg/L	0.29%
Si 288.158	1105064.4	10.6	0.00	mg/L	10.6	0.00	mg/L	0.01%
Sn 189.933	-112.2	-0.00214	0.000021	mg/L	-0.00214	0.000021	mg/L	0.98%
Sr 232.235	2460.7	0.855	0.0018	mg/L	0.855	0.0018	mg/L	0.21%
Ti 337.280	1934956.1	0.977	0.0092	mg/L	0.977	0.0092	mg/L	0.94%
Tl 190.800	18523.0	0.917	0.0074	mg/L	0.917	0.0074	mg/L	0.81%
V 292.402	367205.3	0.975	0.0006	mg/L	0.975	0.0006	mg/L	0.06%
Zn 206.200	278947.9	0.898	0.0013	mg/L	0.898	0.0013	mg/L	0.14%

Matrix Check Sample: LCSW TX/WG83592-04

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.201	0.195	0.000	mg/L	96.760
Al 237.312	10.1	9.77	0.006	mg/L	97.098
As 188.979	1.00	0.926	0.001	mg/L	92.490
Ba 230.424	10.00	8.66	0.039	mg/L	86.660
Be 234.861	1.00	0.935	0.006	mg/L	93.535
Ca 227.549	9.93	9.68	0.003	mg/L	97.460
Cd 228.802	1.00	0.932	0.001	mg/L	93.144
Co 228.616	0.999	0.943	0.000	mg/L	94.395
Cr 267.716	1.00	0.959	0.000	mg/L	95.819
Cu 327.396	1.00	0.958	0.012	mg/L	95.659
Fe 261.387	1.01	0.861	0.002	mg/L	85.276
K 404.721	50.2	50.1	0.128	mg/L	99.746
k 766.491	50.0		0.000	mg/L	
Li 460.286	9.96	11.8	0.151	mg/L	118.222
Mg 279.079	10.0	9.48	0.008	mg/L	94.445
Mn 257.610	1.00	0.955	0.007	mg/L	95.357
Mo 202.030	1.00	0.895	0.001	mg/L	89.474
Na 330.237	50.1	45.9	0.031	mg/L	91.504

002354

Ni 231.604	0.998	0.935	0.000	mg/L	93.636
Pb 220.353	1.000	0.936	0.004	mg/L	93.595
Sb 206.833	1.00	0.950	0.001	mg/L	94.515
196.026	1.00	0.873	0.003	mg/L	87.132
288.158	9.99	10.6	0.001	mg/L	106.025
Sn 189.933	1.00	-0.00214	0.000	mg/L	-0.394
Sr 232.235	1.01	0.855	0.002	mg/L	84.898
Ti 337.280	0.997	0.977	0.009	mg/L	98.091
Tl 190.800	0.999	0.917	0.007	mg/L	91.837
V 292.402	0.998	0.975	0.001	mg/L	97.653
Zn 206.200	1.01	0.898	0.001	mg/L	89.079

Mean Data

ID: 0866702/WG83592-02 Seq. No.: 3 Sample No.: 3 A/S Pos: 48
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:29:37 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3400665.1							0.36%
Ag 328.068	2905.0	0.00369	0.000020	mg/L	0.00369	0.000020	mg/L	0.55%
Al 237.312	1468.1	0.203	0.0050	mg/L	0.203	0.0050	mg/L	2.47%
As 188.979	100.5	0.00863	0.000226	mg/L	0.00863	0.000226	mg/L	2.62%
Ba 230.424	17143.1	0.0348	0.00018	mg/L	0.0348	0.00018	mg/L	0.52%
Be 234.861	252.5	0.00011	0.000010	mg/L	0.00011	0.000010	mg/L	9.22%
Ca 227.549	151903.0	91.3	0.14	mg/L	91.3	0.14	mg/L	0.16%
Cd 228.802	113.2	0.00033	0.000018	mg/L	0.00033	0.000018	mg/L	5.49%
Co 228.616	698.1	0.00291	0.000032	mg/L	0.00291	0.000032	mg/L	1.10%
Cr 267.716	3255.2	0.00803	0.000080	mg/L	0.00803	0.000080	mg/L	0.99%
Cu 327.396	18911.0	0.0360	0.00003	mg/L	0.0360	0.00003	mg/L	0.07%
Fe 261.387	9710.5	0.327	0.0010	mg/L	0.327	0.0010	mg/L	0.30%
K 404.721	2049.8	5.34	0.082	mg/L	5.34	0.082	mg/L	1.54%
k 766.491	Saturated							
Li 460.286	388.5	-0.0115	0.00120	mg/L	-0.0115	0.00120	mg/L	10.49%
Mg 279.079	1975471.9	29.8	0.03	mg/L	29.8	0.03	mg/L	0.09%
257.610	7892959.3	7.33	0.053	mg/L	7.33	0.053	mg/L	0.73%
202.030	446.4	0.00441	0.000122	mg/L	0.00441	0.000122	mg/L	2.78%
Na 330.237	786921.8	216	2.2	mg/L	216	2.2	mg/L	1.03%
Ni 231.604	1665.1	0.00935	0.000050	mg/L	0.00935	0.000050	mg/L	0.54%
Pb 220.353	689.7	0.0181	0.00021	mg/L	0.0181	0.00021	mg/L	1.17%
Sb 206.833	119.8	0.00612	0.000003	mg/L	0.00612	0.000003	mg/L	0.05%
Se 196.026	86.7	0.00970	0.000448	mg/L	0.00970	0.000448	mg/L	4.62%
Si 288.158	535304.4	5.10	0.011	mg/L	5.10	0.011	mg/L	0.22%
Sn 189.933	-258.2	-0.00703	0.000163	mg/L	-0.00703	0.000163	mg/L	2.31%
Sr 232.235	648.3	0.240	0.0034	mg/L	0.240	0.0034	mg/L	1.43%
Ti 337.280	2042.9	-0.00223	0.000000	mg/L	-0.00223	0.000000	mg/L	0.00%
Tl 190.800	-862.3	0.0191	0.00118	mg/L	0.0191	0.00118	mg/L	6.19%
V 292.402	-23.9	-0.00120	0.000007	mg/L	-0.00120	0.000007	mg/L	0.62%
Zn 206.200	12687.1	0.0408	0.00024	mg/L	0.0408	0.00024	mg/L	0.60%

Mean Data

ID: 02 DUP/WG83592-07 Seq. No.: 4 Sample No.: 4 A/S Pos: 49
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:34:01 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3409717.9							0.04%
Ag 328.068	2938.0	0.00373	0.000001	mg/L	0.00373	0.000001	mg/L	0.02%
Al 237.312	854.3	0.173	0.0011	mg/L	0.173	0.0011	mg/L	0.65%
As 188.979	100.4	0.00862	0.000022	mg/L	0.00862	0.000022	mg/L	0.25%
Ba 230.424	17085.5	0.0347	0.00011	mg/L	0.0347	0.00011	mg/L	0.31%
Be 234.861	210.5	0.00009	0.000006	mg/L	0.00009	0.000006	mg/L	6.75%
Ca 227.549	152278.3	91.5	0.23	mg/L	91.5	0.23	mg/L	0.25%
Cd 228.802	112.7	0.00033	0.000014	mg/L	0.00033	0.000014	mg/L	4.29%
Co 228.616	716.1	0.00300	0.000001	mg/L	0.00300	0.000001	mg/L	0.03%
Cr 267.716	3302.4	0.00815	0.000046	mg/L	0.00815	0.000046	mg/L	0.56%
327.396	18989.4	0.0362	0.00016	mg/L	0.0362	0.00016	mg/L	0.43%
261.387	9388.3	0.318	0.0005	mg/L	0.318	0.0005	mg/L	0.17%
K 404.721	1988.3	5.19	0.029	mg/L	5.19	0.029	mg/L	0.56%
k 766.491	Saturated							

Li 460.286	273.1	-0.0125	0.00012 mg/L	-0.0125	0.00012 mg/L	0.98%
Mg 279.079	1997620.2	30.2	0.17 mg/L	30.2	0.17 mg/L	0.58%
Mn 257.610	8021047.0	7.44	0.030 mg/L	7.44	0.030 mg/L	0.40%
Mo 202.030	360.8	0.00356	0.000107 mg/L	0.00356	0.000107 mg/L	3.01%
Na 330.237	795750.4	235	13.8 mg/L	235	13.8 mg/L	5.87%
Ni 231.604	1612.2	0.00910	0.000078 mg/L	0.00910	0.000078 mg/L	0.86%
Pb 220.353	693.6	0.0182	0.00028 mg/L	0.0182	0.00028 mg/L	1.56%
Sb 206.833	127.5	0.00638	0.000068 mg/L	0.00638	0.000068 mg/L	1.06%
Se 196.026	65.5	0.00804	0.000216 mg/L	0.00804	0.000216 mg/L	2.69%
Si 288.158	527367.1	5.02	0.004 mg/L	5.02	0.004 mg/L	0.09%
Sn 189.933	-274.9	-0.00758	0.000259 mg/L	-0.00758	0.000259 mg/L	3.42%
Sr 232.235	651.8	0.241	0.0002 mg/L	0.241	0.0002 mg/L	0.10%
Ti 337.280	1672.1	-0.00242	0.000005 mg/L	-0.00242	0.000005 mg/L	0.22%
Tl 190.800	-1000.2	0.0133	0.00027 mg/L	0.0133	0.00027 mg/L	2.02%
V 292.402	-80.2	-0.00135	0.000004 mg/L	-0.00135	0.000004 mg/L	0.26%
Zn 206.200	12937.6	0.0416	0.00019 mg/L	0.0416	0.00019 mg/L	0.45%

Matrix Check Sample: 02 DUP/WG83592-07

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00369	0.00373	0.000	mg/L	0.978
Al 237.312	0.203	0.173	0.001	mg/L	15.800
As 188.979	0.00863	0.00862	0.000	mg/L	0.066
Ba 230.424	0.0348	0.0347	0.000	mg/L	0.337
Be 234.861	0.00011	0.00009	0.000	mg/L	14.300
Ca 227.549	91.3	91.5	0.230	mg/L	0.247
Cd 228.802	0.00033	0.00033	0.000	mg/L	0.343
Co 228.616	0.00291	0.00300	0.000	mg/L	2.740
Cr 267.716	0.00803	0.00815	0.000	mg/L	1.439
Cu 327.396	0.0360	0.0362	0.000	mg/L	0.414
Fe 261.387	0.327	0.318	0.001	mg/L	3.004
K 404.721	5.34	5.19	0.029	mg/L	2.775
6.491			0.000	mg/L	
Li 460.286	-0.0115	-0.0125	0.000	mg/L	-8.310
Mg 279.079	29.8	30.2	0.175	mg/L	1.113
Mn 257.610	7.33	7.44	0.030	mg/L	1.610
Mo 202.030	0.00441	0.00356	0.000	mg/L	21.219
Na 330.237	216	235	13.787	mg/L	8.310
Ni 231.604	0.00935	0.00910	0.000	mg/L	2.725
Pb 220.353	0.0181	0.0182	0.000	mg/L	0.651
Sb 206.833	0.00612	0.00638	0.000	mg/L	4.082
Se 196.026	0.00970	0.00804	0.000	mg/L	18.668
Si 288.158	5.10	5.02	0.004	mg/L	1.512
Sn 189.933	-0.00703	-0.00758	0.000	mg/L	-7.646
Sr 232.235	0.240	0.241	0.000	mg/L	0.513
Ti 337.280	-0.00223	-0.00242	0.000	mg/L	-8.080
Tl 190.800	0.0191	0.0133	0.000	mg/L	35.540
V 292.402	-0.00120	-0.00135	0.000	mg/L	-11.645
Zn 206.200	0.0408	0.0416	0.000	mg/L	1.955

Mean Data

ID: 02 SD.2 Seq. No.: 5 Sample No.: 5 A/S Pos: 50
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 5.0
Data: Original Date: 9/13/00 10:38:23 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3502137.7							0.02%
Ag 328.068	1368.9	0.00200	0.000040	mg/L	0.0100	0.00020	mg/L	1.98%
Al 237.312	-652.6	0.100	0.0005	mg/L	0.502	0.0023	mg/L	0.45%
As 188.979	14.7	0.00298	0.000245	mg/L	0.0149	0.00122	mg/L	8.22%
Ba 230.424	2766.8	0.00562	0.000092	mg/L	0.0281	0.00046	mg/L	1.64%
Be 234.861	45.4	0.00004	0.000002	mg/L	0.00019	0.000011	mg/L	6.02%
Ca 227.549	33111.8	19.9	0.17	mg/L	99.3	0.86	mg/L	0.86%
Cd 228.802	90.5	0.00028	0.000001	mg/L	0.00138	0.000003	mg/L	0.24%
Co 228.616	51.2	0.00000	0.000010	mg/L	0.00001	0.000049	mg/L	397.80%
Cr 267.716	927.0	0.00229	0.000033	mg/L	0.0114	0.00016	mg/L	1.44%
Cu 327.396	4444.4	0.00846	0.000190	mg/L	0.0423	0.00095	mg/L	2.25%

002356

Fe 261.387	1511.1	0.0808	0.00018	mg/L	0.404	0.0009	mg/L	0.22%
K 404.721	365.5	1.36	0.074	mg/L	6.78	0.370	mg/L	5.46%
k 766.491	10869150.7	1.89	0.006	mg/L	9.45	0.031	mg/L	0.33%
Li 460.286	-974.5	-0.0342	0.00050	mg/L	-0.171	0.0025	mg/L	1.46%
Mg 279.079	392859.9	5.98	0.022	mg/L	29.9	0.11	mg/L	0.37%
Mn 257.610	1989694.6	1.85	0.005	mg/L	9.23	0.023	mg/L	0.25%
Mo 202.030	148.5	0.00147	0.000055	mg/L	0.00733	0.000275	mg/L	3.76%
Na 330.237	176448.8	28.8	0.15	mg/L	144	0.7	mg/L	0.52%
Ni 231.604	-144.7	0.00076	0.000009	mg/L	0.00380	0.000043	mg/L	1.13%
Pb 220.353	207.8	0.00338	0.000141	mg/L	0.0169	0.00071	mg/L	4.18%
Sb 206.833	70.1	0.00448	0.000034	mg/L	0.0224	0.00017	mg/L	0.77%
Se 196.026	8.1	0.00357	0.000421	mg/L	0.0178	0.00211	mg/L	11.80%
Si 288.158	97854.6	0.881	0.0225	mg/L	4.40	0.113	mg/L	2.56%
Sn 189.933	-202.1	-0.00515	0.000059	mg/L	-0.0258	0.00030	mg/L	1.15%
Sr 232.235	119.5	0.0534	0.00104	mg/L	0.267	0.0052	mg/L	1.95%
Ti 337.280	628.7	-0.00295	0.000006	mg/L	-0.0147	0.00003	mg/L	0.19%
Tl 190.800	-209.9	0.00536	0.000221	mg/L	0.0268	0.00110	mg/L	4.12%
V 292.402	-109.5	-0.00143	0.000011	mg/L	-0.00714	0.000056	mg/L	0.79%
Zn 206.200	2932.1	0.00944	0.000009	mg/L	0.0472	0.00005	mg/L	0.10%

Matrix Check Sample: 02 SD.2

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00369	0.0100	0.000	mg/L	92.269
Al 237.312	0.203	0.502	0.002	mg/L	84.743
As 188.979	0.00863	0.0149	0.001	mg/L	53.258
Ba 230.424	0.0348	0.0281	0.000	mg/L	21.365
Be 234.861	0.00011	0.00019	0.000	mg/L	52.486
Ca 227.549	91.3	99.3	0.855	mg/L	8.448
Cd 228.802	0.00033	0.00138	0.000	mg/L	123.262
Co 228.616	0.00291	0.00001	0.000	mg/L	198.302
Cr 267.716	0.00803	0.0114	0.000	mg/L	34.973
Cu 327.396	0.0360	0.0423	0.001	mg/L	16.099
Fe 261.387	0.327	0.404	0.001	mg/L	21.019
K 404.721	5.34	6.78	0.370	mg/L	23.838
k 766.491		9.45	0.031	mg/L	
Li 460.286	-0.0115	-0.171	0.002	mg/L	-174.838
Mg 279.079	29.8	29.9	0.109	mg/L	0.105
Mn 257.610	7.33	9.23	0.023	mg/L	23.042
Mo 202.030	0.00441	0.00733	0.000	mg/L	49.827
Na 330.237	216	144	0.749	mg/L	39.980
Ni 231.604	0.00935	0.00380	0.000	mg/L	84.354
Pb 220.353	0.0181	0.0169	0.001	mg/L	6.804
Sb 206.833	0.00612	0.0224	0.000	mg/L	114.093
Se 196.026	0.00970	0.0178	0.002	mg/L	59.199
Si 288.158	5.10	4.40	0.113	mg/L	14.606
Sn 189.933	-0.00703	-0.0258	0.000	mg/L	-114.257
Sr 232.235	0.240	0.267	0.005	mg/L	10.655
Ti 337.280	-0.00223	-0.0147	0.000	mg/L	-147.408
Tl 190.800	0.0191	0.0268	0.001	mg/L	33.473
V 292.402	-0.00120	-0.00714	0.000	mg/L	-142.370
Zn 206.200	0.0408	0.0472	0.000	mg/L	14.433

Mean Data ----------

ID: 02 PS.9 Seq. No.: 6 Sample No.: 6 A/S Pos: 51
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:42:37 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3296739.6							0.48%
Ag 328.068	185389.3	0.204	0.0027	mg/L	0.204	0.0027	mg/L	1.33%
Al 237.312	214193.1	10.5	0.11	mg/L	10.5	0.11	mg/L	1.08%
As 188.979	14452.7	0.968	0.0033	mg/L	0.968	0.0033	mg/L	0.35%
Ba 230.424	3999658.1	8.13	0.068	mg/L	8.13	0.068	mg/L	0.84%
Be 234.861	2808812.9	0.967	0.0104	mg/L	0.967	0.0104	mg/L	1.08%
Ca 227.549	149054.9	89.5	0.55	mg/L	89.5	0.55	mg/L	0.62%
Cd 228.802	419931.5	0.954	0.0107	mg/L	0.954	0.0107	mg/L	1.12%

002357

Co 228.616	202515.7	0.911	0.0077 mg/L	0.911	0.0077 mg/L	0.84%
Cr 267.716	370542.5	0.916	0.0088 mg/L	0.916	0.0088 mg/L	0.96%
Cu 327.396	547918.5	1.04	0.013 mg/L	1.04	0.013 mg/L	1.25%
Fe 261.387	35276.5	1.11	0.011 mg/L	1.11	0.011 mg/L	0.95%
K 404.721	21595.2	55.3	0.17 mg/L	55.3	0.17 mg/L	0.30%
k 766.491	Saturated					
Li 460.286	947589.4	9.22	0.131 mg/L	9.22	0.131 mg/L	1.42%
Mg 279.079	2371119.8	35.8	0.13 mg/L	35.8	0.13 mg/L	0.38%
Mn 257.610	7743818.6	7.19	0.020 mg/L	7.19	0.020 mg/L	0.28%
Mo 202.030	86368.6	0.853	0.0083 mg/L	0.853	0.0083 mg/L	0.97%
Na 330.237	834700.7	245	0.0 mg/L	245	0.0 mg/L	0.00%
Ni 231.604	192003.3	0.913	0.0096 mg/L	0.913	0.0096 mg/L	1.05%
Pb 220.353	29736.2	0.906	0.0090 mg/L	0.906	0.0090 mg/L	0.99%
Sb 206.833	28313.2	0.943	0.0055 mg/L	0.943	0.0055 mg/L	0.59%
Se 196.026	11283.7	0.882	0.0064 mg/L	0.882	0.0064 mg/L	0.72%
Si 288.158	1434643.2	13.8	0.15 mg/L	13.8	0.15 mg/L	1.10%
Sn 189.933	52867.6	1.77	0.016 mg/L	1.77	0.016 mg/L	0.89%
Sr 232.235	2891.6	1.01	0.010 mg/L	1.01	0.010 mg/L	1.04%
Ti 337.280	1895612.6	0.958	0.0113 mg/L	0.958	0.0113 mg/L	1.18%
Tl 190.800	15619.8	0.827	0.0055 mg/L	0.827	0.0055 mg/L	0.66%
V 292.402	359047.6	0.953	0.0107 mg/L	0.953	0.0107 mg/L	1.12%
Zn 206.200	272534.7	0.877	0.0058 mg/L	0.877	0.0058 mg/L	0.66%

Matrix Check Sample: 02 PS.9

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.204	0.204	0.003	mg/L	100.298
Al 237.312	10.2	10.5	0.113	mg/L	103.116
As 188.979	1.01	0.968	0.003	mg/L	95.975
Ba 230.424	10.0	8.13	0.068	mg/L	80.938
Be 234.861	1.00	0.967	0.010	mg/L	96.705
Ca 227.549	101	89.5	0.553	mg/L	-17.711
Cd 228.802	1.00	0.954	0.011	mg/L	95.357
Co 228.616	1.00	0.911	0.008	mg/L	90.819
Cr 267.716	1.01	0.916	0.009	mg/L	90.815
Cu 327.396	1.04	1.04	0.013	mg/L	100.718
Fe 261.387	1.33	1.11	0.011	mg/L	77.862
K 404.721	55.3	55.3	0.167	mg/L	99.977
k 766.491			0.000	mg/L	
Li 460.286	9.99	9.22	0.131	mg/L	92.320
Mg 279.079	39.8	35.8	0.134	mg/L	59.671
Mn 257.610	8.33	7.19	0.020	mg/L	-13.842
Mo 202.030	1.00	0.853	0.008	mg/L	84.828
Na 330.237	266	245	0.000	mg/L	56.998
Ni 231.604	1.01	0.913	0.010	mg/L	90.332
Pb 220.353	1.02	0.906	0.009	mg/L	88.836
Sb 206.833	1.01	0.943	0.006	mg/L	93.671
Se 196.026	1.01	0.882	0.006	mg/L	87.197
Si 288.158	15.1	13.8	0.151	mg/L	86.692
Sn 189.933	0.993	1.77	0.016	mg/L	177.679
Sr 232.235	1.24	1.01	0.010	mg/L	76.789
Ti 337.280	0.998	0.958	0.011	mg/L	95.975
Tl 190.800	1.02	0.827	0.005	mg/L	80.778
V 292.402	0.999	0.953	0.011	mg/L	95.425
Zn 206.200	1.04	0.877	0.006	mg/L	83.621

Mean Data ----------

ID: 0866501/WG83592-01 Seq. No.: 7 Sample No.: 7 A/S Pos: 52
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:46:39 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3316666.9							0.84%
Ag 328.068	2227.1	0.00295	0.000084	mg/L	0.00295	0.000084	mg/L	2.85%
Al 237.312	-1695.8	0.0166	0.00053	mg/L	0.0166	0.00053	mg/L	3.20%
As 188.979	-23.8	0.00044	0.000951	mg/L	0.00044	0.000951	mg/L	215.83%
Ba 230.424	149921.1	0.305	0.0033	mg/L	0.305	0.0033	mg/L	1.07%
Be 234.861	319.1	0.00013	0.000000	mg/L	0.00013	0.000000	mg/L	0.36%

002358

Ca 227.549	570741.4	343	2.1 mg/L	343	2.1 mg/L	0.62%
Cd 228.802	146.8	0.00051	0.000002 mg/L	0.00051	0.000002 mg/L	0.40%
Co 228.616	538.7	0.00220	0.000020 mg/L	0.00220	0.000020 mg/L	0.89%
Cr 267.716	978.8	0.00241	0.000021 mg/L	0.00241	0.000021 mg/L	0.89%
Cu 327.396	1405.7	0.00268	0.000067 mg/L	0.00268	0.000067 mg/L	2.50%
Fe 261.387	2493.4	0.136	0.0001 mg/L	0.136	0.0001 mg/L	0.08%
K 404.721	2445.9	6.28	0.002 mg/L	6.28	0.002 mg/L	0.04%
k 766.491	Saturated					
Li 460.286	1638.2	0.0359	0.00008 mg/L	0.0359	0.00008 mg/L	0.23%
Mg 279.079	7726030.3	117	1.2 mg/L	117	1.2 mg/L	1.00%
Mn 257.610	4407.4	0.00409	0.000038 mg/L	0.00409	0.000038 mg/L	0.92%
Mo 202.030	816.8	0.0105	0.00003 mg/L	0.0105	0.00003 mg/L	0.33%
Na 330.237	204805.1	33.8	0.38 mg/L	33.8	0.38 mg/L	1.12%
Ni 231.604	-592.6	-0.00137	0.000045 mg/L	-0.00137	0.000045 mg/L	3.27%
Pb 220.353	251.3	0.00470	0.000189 mg/L	0.00470	0.000189 mg/L	4.01%
Sb 206.833	128.4	0.00641	0.000663 mg/L	0.00641	0.000663 mg/L	10.35%
Se 196.026	127.1	0.0129	0.00126 mg/L	0.0129	0.00126 mg/L	9.82%
Si 288.158	2380033.0	22.9	0.21 mg/L	22.9	0.21 mg/L	0.92%
Sn 189.933	63.0	0.00715	0.001727 mg/L	0.00715	0.001727 mg/L	24.16%
Sr 232.235	1569.9	0.565	0.0162 mg/L	0.565	0.0162 mg/L	2.88%
Ti 337.280	-892.7	-0.00372	0.000019 mg/L	-0.00372	0.000019 mg/L	0.51%
Tl 190.800	89.4	0.00315	0.000568 mg/L	0.00315	0.000568 mg/L	18.03%
V 292.402	-22.6	-0.00120	0.000015 mg/L	-0.00120	0.000015 mg/L	1.26%
Zn 206.200	6787.2	0.0218	0.00004 mg/L	0.0218	0.00004 mg/L	0.18%

Mean Data ----------

ID: 01 MS/WG83592-05 Seq. No.: 8 Sample No.: 8 A/S Pos: 53
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:50:49 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3082101.8							1.11%
Ag 328.068	171627.0	0.189	0.0022	mg/L	0.189	0.0022	mg/L	1.16%
Al 237.312	198491.2	9.72	0.094	mg/L	9.72	0.094	mg/L	0.97%
As 188.979	13454.5	0.901	0.0104	mg/L	0.901	0.0104	mg/L	1.16%
Ba 230.424	3672548.6	7.46	0.065	mg/L	7.46	0.065	mg/L	0.88%
Be 234.861	2580379.2	0.888	0.0085	mg/L	0.888	0.0085	mg/L	0.96%
Ca 227.549	546118.1	328	3.6	mg/L	328	3.6	mg/L	1.09%
Cd 228.802	382492.7	0.869	0.0092	mg/L	0.869	0.0092	mg/L	1.06%
Co 228.616	167577.9	0.754	0.0078	mg/L	0.754	0.0078	mg/L	1.04%
Cr 267.716	327803.6	0.811	0.0075	mg/L	0.811	0.0075	mg/L	0.93%
Cu 327.396	463607.8	0.883	0.0080	mg/L	0.883	0.0080	mg/L	0.91%
Fe 261.387	23085.5	0.756	0.0016	mg/L	0.756	0.0016	mg/L	0.21%
K 404.721	21366.7	54.7	0.82	mg/L	54.7	0.82	mg/L	1.50%
k 766.491	Saturated							
Li 460.286	846670.9	8.27	0.052	mg/L	8.27	0.052	mg/L	0.63%
Mg 279.079	7937429.9	120	1.1	mg/L	120	1.1	mg/L	0.88%
Mn 257.610	877811.4	0.815	0.0068	mg/L	0.815	0.0068	mg/L	0.84%
Mo 202.030	81914.4	0.811	0.0064	mg/L	0.811	0.0064	mg/L	0.79%
Na 330.237	377066.6	67.1	0.45	mg/L	67.1	0.45	mg/L	0.67%
Ni 231.604	157108.1	0.747	0.0066	mg/L	0.747	0.0066	mg/L	0.88%
Pb 220.353	25433.2	0.775	0.0077	mg/L	0.775	0.0077	mg/L	1.00%
Sb 206.833	26978.6	0.898	0.0047	mg/L	0.898	0.0047	mg/L	0.53%
Se 196.026	11920.6	0.932	0.0138	mg/L	0.932	0.0138	mg/L	1.48%
Si 288.158	3154104.2	30.3	0.28	mg/L	30.3	0.28	mg/L	0.93%
Sn 189.933	-80.4	0.00220	0.002810	mg/L	0.00220	0.002810	mg/L	127.47%
Sr 232.235	3499.8	1.22	0.033	mg/L	1.22	0.033	mg/L	2.68%
Ti 337.280	1697826.0	0.857	0.0070	mg/L	0.857	0.0070	mg/L	0.82%
Tl 190.800	12996.2	0.644	0.0191	mg/L	0.644	0.0191	mg/L	2.97%
V 292.402	326229.4	0.866	0.0069	mg/L	0.866	0.0069	mg/L	0.80%
Zn 206.200	226518.8	0.729	0.0074	mg/L	0.729	0.0074	mg/L	1.02%

Matrix Check Sample: 01 MS/WG83592-05

nent	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.203	0.189	0.002	mg/L	93.106
Al 237.312	10.0	9.72	0.094	mg/L	97.053
As 188.979	1.00	0.901	0.010	mg/L	90.057

002359

Ba 230.424	10.3	7.46	0.065	mg/L	71.591
Be 234.861	1.00	0.888	0.009	mg/L	88.828
227.549	353	328	3.587	mg/L	-148.375
228.802	1.00	0.869	0.009	mg/L	86.835
228.616	1.00	0.754	0.008	mg/L	75.176
Cr 267.716	1.00	0.811	0.008	mg/L	80.814
Cu 327.396	1.00	0.883	0.008	mg/L	87.999
Fe 261.387	1.14	0.756	0.002	mg/L	61.966
K 404.721	56.3	54.7	0.819	mg/L	96.829
k 766.491			0.000	mg/L	
Li 460.286	10.0	8.27	0.052	mg/L	82.346
Mg 279.079	127	120	1.054	mg/L	31.899
Mn 257.610	1.00	0.815	0.007	mg/L	81.063
Mo 202.030	1.01	0.811	0.006	mg/L	80.054
Na 330.237	83.8	67.1	0.450	mg/L	66.518
Ni 231.604	0.999	0.747	0.007	mg/L	74.843
Pb 220.353	1.00	0.775	0.008	mg/L	77.033
Sb 206.833	1.01	0.898	0.005	mg/L	89.170
Se 196.026	1.01	0.932	0.014	mg/L	91.953
Si 288.158	32.9	30.3	0.283	mg/L	74.616
Sn 189.933	1.01	0.00220	0.003	mg/L	-0.494
Sr 232.235	1.56	1.22	0.033	mg/L	65.860
Ti 337.280	0.996	0.857	0.007	mg/L	86.099
Tl 190.800	1.00	0.644	0.019	mg/L	64.037
V 292.402	0.999	0.866	0.007	mg/L	86.691
Zn 206.200	1.02	0.729	0.007	mg/L	70.711

Mean Data ----------

ID: 01 MSD/WG83592-06 Seq. No.: 9 Sample No.: 9 A/S Pos: 54
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 10:54:39 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3105741.5							0.15%
328.068	171004.9	0.188	0.0004	mg/L	0.188	0.0004	mg/L	0.20%
237.312	198064.0	9.70	0.017	mg/L	9.70	0.017	mg/L	0.18%
As 188.979	13462.0	0.901	0.0000	mg/L	0.901	0.0000	mg/L	0.00%
Ba 230.424	3643747.2	7.41	0.008	mg/L	7.41	0.008	mg/L	0.10%
Be 234.861	2565812.1	0.883	0.0004	mg/L	0.883	0.0004	mg/L	0.04%
Ca 227.549	552449.2	332	0.3	mg/L	332	0.3	mg/L	0.10%
Cd 228.802	380430.6	0.864	0.0001	mg/L	0.864	0.0001	mg/L	0.01%
Co 228.616	166504.8	0.749	0.0013	mg/L	0.749	0.0013	mg/L	0.17%
Cr 267.716	325377.9	0.805	0.0005	mg/L	0.805	0.0005	mg/L	0.07%
Cu 327.396	462312.0	0.880	0.0025	mg/L	0.880	0.0025	mg/L	0.28%
Fe 261.387	23377.6	0.765	0.0043	mg/L	0.765	0.0043	mg/L	0.56%
K 404.721	21188.0	54.2	0.45	mg/L	54.2	0.45	mg/L	0.84%
k 766.491	Saturated							
Li 460.286	844359.6	8.25	0.032	mg/L	8.25	0.032	mg/L	0.39%
Mg 279.079	8005982.2	121	0.1	mg/L	121	0.1	mg/L	0.09%
Mn 257.610	870128.0	0.808	0.0007	mg/L	0.808	0.0007	mg/L	0.08%
Mo 202.030	81022.8	0.802	0.0021	mg/L	0.802	0.0021	mg/L	0.26%
Na 330.237	378069.1	67.3	0.14	mg/L	67.3	0.14	mg/L	0.20%
Ni 231.604	155865.0	0.741	0.0018	mg/L	0.741	0.0018	mg/L	0.24%
Pb 220.353	25402.2	0.774	0.0016	mg/L	0.774	0.0016	mg/L	0.21%
Sb 206.833	27013.8	0.899	0.0004	mg/L	0.899	0.0004	mg/L	0.05%
Se 196.026	12047.0	0.942	0.0033	mg/L	0.942	0.0033	mg/L	0.35%
Si 288.158	3183117.1	30.6	0.03	mg/L	30.6	0.03	mg/L	0.10%
Sn 189.933	-109.5	0.00127	0.001908	mg/L	0.00127	0.001908	mg/L	150.49%
Sr 232.235	3549.2	1.24	0.013	mg/L	1.24	0.013	mg/L	1.04%
Ti 337.280	1689864.0	0.853	0.0008	mg/L	0.853	0.0008	mg/L	0.09%
Tl 190.800	13331.7	0.660	0.0058	mg/L	0.660	0.0058	mg/L	0.88%
V 292.402	324315.7	0.861	0.0003	mg/L	0.861	0.0003	mg/L	0.04%
Zn 206.200	224491.7	0.722	0.0015	mg/L	0.722	0.0015	mg/L	0.21%

Matrix Check Sample: 01 MSD/WG83592-06

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		

002360

Ag 328.068	0.189	0.188	0.000	mg/L	0.362
Al 237.312	9.72	9.70	0.017	mg/L	0.217
As 188.979	0.901	0.901	0.000	mg/L	0.044
Ba 230.424	7.46	7.41	0.008	mg/L	0.787
Be 234.861	0.888	0.883	0.000	mg/L	0.566
Ca 227.549	328	332	0.343	mg/L	1.153
Cd 228.802	0.869	0.864	0.000	mg/L	0.541
Co 228.616	0.754	0.749	0.001	mg/L	0.644
Cr 267.716	0.811	0.805	0.001	mg/L	0.742
Cu 327.396	0.883	0.880	0.002	mg/L	0.280
Fe 261.387	0.756	0.765	0.004	mg/L	1.185
K 404.721	54.7	54.2	0.453	mg/L	0.907
k 766.491			0.000	mg/L	
Li 460.286	8.27	8.25	0.032	mg/L	0.268
Mg 279.079	120	121	0.105	mg/L	0.860
Mn 257.610	0.815	0.808	0.001	mg/L	0.879
Mo 202.030	0.811	0.802	0.002	mg/L	1.088
Na 330.237	67.1	67.3	0.138	mg/L	0.315
Ni 231.604	0.747	0.741	0.002	mg/L	0.793
Pb 220.353	0.775	0.774	0.002	mg/L	0.125
Sb 206.833	0.898	0.899	0.000	mg/L	0.128
Se 196.026	0.932	0.942	0.003	mg/L	1.052
Si 288.158	30.3	30.6	0.030	mg/L	0.918
Sn 189.933	0.00220	0.00127	0.002	mg/L	53.954
Sr 232.235	1.22	1.24	0.013	mg/L	1.432
Ti 337.280	0.857	0.853	0.001	mg/L	0.472
Tl 190.800	0.644	0.660	0.006	mg/L	2.512
V 292.402	0.866	0.861	0.000	mg/L	0.590
Zn 206.200	0.729	0.722	0.001	mg/L	0.899

Mean Data ----------

ID: CCV Seq. No.: 10 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: 9/13/00 10:58:47 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3673713.7							0.63%
Ag 328.068	353698.9	0.389	0.0030	mg/L				0.76%
Al 237.312	194467.3	9.56	0.065	mg/L				0.68%
As 188.979	5378.2	0.364	0.0012	mg/L				0.33%
Ba 230.424	469136.8	0.953	0.0051	mg/L				0.53%
Be 234.861	138931.1	0.0477	0.00022	mg/L				0.46%
Ca 227.549	16265.6	9.63	0.001	mg/L				0.01%
Cd 228.802	20905.7	0.0476	0.00008	mg/L				0.16%
Co 228.616	43005.7	0.193	0.0007	mg/L				0.37%
Cr 267.716	196713.6	0.487	0.0030	mg/L				0.62%
Cu 327.396	257475.3	0.490	0.0034	mg/L				0.69%
Fe 261.387	125989.9	3.82	0.017	mg/L				0.46%
K 404.721	20172.6	51.4	0.47	mg/L				0.92%
k 766.491	Saturated							
Li 460.286	119178.6	1.12	0.007	mg/L				0.67%
*QC exceeds upper limit for Li 460.286 Recovery = 111.52% Action = Continue								
Mg 279.079	624171.4	9.46	0.045	mg/L				0.48%
Mn 257.610	521309.1	0.484	0.0020	mg/L				0.41%
Mo 202.030	94608.4	0.934	0.0039	mg/L				0.42%
Na 330.237	289332.7	49.4	0.30	mg/L				0.60%
Ni 231.604	99033.7	0.471	0.0030	mg/L				0.64%
Pb 220.353	14960.0	0.456	0.0010	mg/L				0.23%
Sb 206.833	32635.9	1.09	0.000	mg/L				0.04%
Se 196.026	4538.8	0.357	0.0005	mg/L				0.14%
*QC exceeds lower limit for Se 196.026 Recovery = 89.21% Action = Continue								
Si 288.158	537649.9	5.12	0.012	mg/L				0.24%
Sn 189.933	23954.2	0.803	0.0073	mg/L				0.91%
*QC exceeds lower limit for Sn 189.933 Recovery = 80.28% Action = Continue								
Sr 232.235	2570.3	0.892	0.0042	mg/L				0.47%
*QC exceeds lower limit for Sr 232.235 Recovery = 89.22% Action = Continue								
Ti 337.280	1967706.0	0.994	0.0067	mg/L				0.67%
Tl 190.800	9263.4	0.459	0.0026	mg/L				0.56%
V 292.402	374039.9	0.990	0.0068	mg/L				0.69%
Zn 206.200	275851.2	0.888	0.0025	mg/L				0.28%

Reran to verify
SLP 9/13/00

*QC exceeds lower limit for Zn 206.200 Recovery = 88.77% Action = Continue

Calibration Summary
Method: clptstd Date: 9/13/00 11:04:41 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
[illegible]190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
[illegible]2.402	3	Linear	431.0	378268.3	0.00000	0.999970
[illegible] 206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Mean Data
ID: CCV Seq. No.: 10 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: 9/13/00 11:06:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3722556.1							0.52%
Ag 328.068	357631.6	0.394	0.0015	mg/L				0.37%
Al 237.312	196787.2	9.67	0.047	mg/L				0.49%
As 188.979	5467.5	0.370	0.0027	mg/L				0.72%
Ba 230.424	475743.4	0.967	0.0049	mg/L				0.51%
Be 234.861	140265.3	0.0482	0.00026	mg/L				0.53%
Ca 227.549	16440.5	9.73	0.061	mg/L				0.63%
Cd 228.802	21219.0	0.0483	0.00031	mg/L				0.65%
Co 228.616	43652.6	0.196	0.0012	mg/L				0.60%
Cr 267.716	199272.9	0.494	0.0021	mg/L				0.42%
Cu 327.396	260151.5	0.495	0.0013	mg/L				0.26%
Fe 261.387	127611.4	3.87	0.017	mg/L				0.43%
K 404.721	20277.2	51.7	0.14	mg/L				0.27%
k 766.491	Saturated							
Li 460.286	120663.9	1.13	0.004	mg/L				0.32%
*QC exceeds upper limit for Li 460.286 Recovery = 112.94% Action = Continue								
Mg 279.079	632581.2	9.59	0.045	mg/L				0.47%
Mn 257.610	529244.0	0.491	0.0022	mg/L				0.46%
Mo 202.030	95686.2	0.945	0.0050	mg/L				0.53%
Na 330.237	292602.3	50.1	0.29	mg/L				0.58%
Ni 231.604	100363.4	0.478	0.0020	mg/L				0.42%
[illegible]220.353	15216.2	0.464	0.0027	mg/L				0.59%
[illegible]06.833	33021.1	1.10	0.008	mg/L				0.71%
[illegible] 196.026	4623.8	0.363	0.0018	mg/L				0.51%
Si 288.158	528014.9	5.03	0.019	mg/L				0.37%
Sn 189.933	25591.8	0.858	0.0111	mg/L				1.30%

002362

*QC exceeds lower limit for Sn 189.933 Recovery = 85.75% Action = Continue

Sr 232.235	2623.2	0.911	0.0075 mg/L		0.82%
337.280	1992325.0	1.01	0.004 mg/L		0.40%
190.800	9540.7	0.473	0.0041 mg/L		0.86%
V 292.402	378723.1	1.00	0.005 mg/L		0.47%
Zn 206.200	279466.5	0.899	0.0036 mg/L		0.40%

*QC exceeds lower limit for Zn 206.200 Recovery = 89.93% Action = Continue

Mean Data

ID: ICB/CCB Seq. No.: 11 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:10:37 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3072409.5							0.63%
Ag 328.068	896.6	0.00148	0.000065	mg/L				4.39%
Al 237.312	-1397.7	0.0643	0.00014	mg/L				0.22%
As 188.979	-8.7	0.00143	0.000098	mg/L				6.81%
Ba 230.424	-1020.3	-0.00207	0.000015	mg/L				0.70%
Be 234.861	-28.1	0.00001	0.000003	mg/L				28.60%
Ca 227.549	-54.2	-0.0722	0.00321	mg/L				4.44%
Cd 228.802	88.1	0.00027	0.000009	mg/L				3.36%
Co 228.616	-118.7	-0.00076	0.000011	mg/L				1.44%
Cr 267.716	290.1	0.00072	0.000027	mg/L				3.71%
Cu 327.396	658.2	0.00125	0.000041	mg/L				3.28%
Fe 261.387	-906.6	0.00816	0.000109	mg/L				1.33%
K 404.721	-180.7	0.0748	0.08410	mg/L				112.49%
k 766.491	336284.5	-0.00459	0.001364	mg/L				29.70%
Li 460.286	-1208.3	-0.0365	0.00063	mg/L				1.74%
Mg 279.079	-1276.1	0.0307	0.00002	mg/L				0.06%
Mn 257.610	677.5	0.00063	0.000031	mg/L				4.98%
Mo 202.030	317.4	0.00313	0.000367	mg/L				11.71%
Na 330.237	239.1	0.132	0.0026	mg/L				1.99%
?31.604	-631.4	-0.00155	0.000051	mg/L				3.30%
?20.353	80.4	-0.00051	0.000139	mg/L				27.28%
Sb 206.833	71.5	0.00452	0.000290	mg/L				6.42%
Se 196.026	-11.3	0.00206	0.000065	mg/L				3.16%
Si 288.158	2052.9	-0.0427	0.00038	mg/L				0.89%
Sn 189.933	277.0	0.0109	0.00092	mg/L				8.50%
Sr 232.235	-13.9	0.00633	0.000859	mg/L				13.57%
Ti 337.280	-408.8	-0.00347	0.000019	mg/L				0.54%
Tl 190.800	35.5	0.00198	0.000496	mg/L				25.07%
V 292.402	-121.9	-0.00146	0.000036	mg/L				2.47%
Zn 206.200	356.0	0.00115	0.000243	mg/L				21.22%

002363

Method - clptstd
SIF File - 091300b

#	A/S Loc	ID	Category
1	55	PBW 3C/WG84110-03	Sample
2	56	LCSW 3C/WG84110-04	Recovery
3	57	0920001/WG84110-02	Sample
4	58	01 DUP/WG84110-07	Duplicate
5	59	0909408/WG84110-01	Sample
6	60	08 MS/WG84110-05	Recovery
7	61	08 MSD/WG84110-06	Duplicate
8	62	0909402	Sample
9	63	02 SD.2	Duplicate
10	64	02 PS.9	Recovery
11	5	CCV X 2	QC
12	1	ICB/CCB	QC
13	65	0909404	Sample
14	66	0909406	Sample
15	67	SPLP BLK 9/11/00	Sample
16	5	CCV	QC
17	1	ICB/CCB	QC

002364

Calibration Summary

hod: clptstd Date: 9/13/00 11:25:40 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
92.402	3	Linear	431.0	378268.3	0.00000	0.999970
06.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Method: clptstd IEC: d4iec.iec MSF:
Results: 091300B Spectra Stored: Yes Method Stored: Yes
Sample Info: 091300b User: User1 Date: 9/13/00 11:25:40 PM
Method Description:

Mean Data

ID: PBW 3C/WG84110-03 Seq. No.: 1 Sample No.: 1 A/S Pos: 55
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:27:11 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3118646.8							0.57%
Ag 328.068	892.1	0.00148	0.000015	mg/L	0.00148	0.000015	mg/L	1.02%
Al 237.312	-1099.7	0.0787	0.00018	mg/L	0.0787	0.00018	mg/L	0.23%
As 188.979	-15.7	0.00097	0.000014	mg/L	0.00097	0.000014	mg/L	1.40%
Ba 230.424	-1007.7	-0.00205	0.000002	mg/L	-0.00205	0.000002	mg/L	0.08%
Be 234.861	-24.9	0.00001	0.000000	mg/L	0.00001	0.000000	mg/L	0.28%
Ca 227.549	-68.0	-0.0805	0.00183	mg/L	-0.0805	0.00183	mg/L	2.28%
Cd 228.802	76.0	0.00024	0.000007	mg/L	0.00024	0.000007	mg/L	2.68%
Co 228.616	-125.8	-0.00079	0.000018	mg/L	-0.00079	0.000018	mg/L	2.28%
Cr 267.716	288.5	0.00071	0.000001	mg/L	0.00071	0.000001	mg/L	0.18%
Cu 327.396	675.9	0.00129	0.000036	mg/L	0.00129	0.000036	mg/L	2.81%
Fe 261.387	745.2	0.0578	0.00030	mg/L	0.0578	0.00030	mg/L	0.52%
K 404.721	-198.2	0.0337	0.05548	mg/L	0.0337	0.05548	mg/L	164.57%
k 766.491	389824.0	0.00504	0.000314	mg/L	0.00504	0.000314	mg/L	6.23%
Li 460.286	-1244.3	-0.0368	0.00204	mg/L	-0.0368	0.00204	mg/L	5.54%
Mg 279.079	-1087.4	0.0336	0.00019	mg/L	0.0336	0.00019	mg/L	0.57%
257.610	695.8	0.00065	0.000001	mg/L	0.00065	0.000001	mg/L	0.19%
02.030	134.7	0.00133	0.000009	mg/L	0.00133	0.000009	mg/L	0.68%
Na 330.237	312.8	0.143	0.0077	mg/L	0.143	0.0077	mg/L	5.38%
Ni 231.604	-630.2	-0.00154	0.000026	mg/L	-0.00154	0.000026	mg/L	1.66%
Pb 220.353	123.6	0.00081	0.000046	mg/L	0.00081	0.000046	mg/L	5.65%

Sb 206.833	60.3	0.00415	0.000148	mg/L	0.00415	0.000148 mg/L	3.57%
Se 196.026	-25.2	0.00097	0.000051	mg/L	0.00097	0.000051 mg/L	5.28%
288.158	5585.4	-0.00870	0.000287	mg/L	-0.00870	0.000287 mg/L	3.30%
189.933	37.9	0.00288	0.000011	mg/L	0.00288	0.000011 mg/L	0.40%
Sr 232.235	-20.9	0.00384	0.000972	mg/L	0.00384	0.000972 mg/L	25.31%
Ti 337.280	-70.3	-0.00330	0.000021	mg/L	-0.00330	0.000021 mg/L	0.64%
Tl 190.800	-13.5	-0.00043	0.000082	mg/L	-0.00043	0.000082 mg/L	19.30%
V 292.402	-160.9	-0.00156	0.000019	mg/L	-0.00156	0.000019 mg/L	1.22%
Zn 206.200	1749.8	0.00563	0.000092	mg/L	0.00563	0.000092 mg/L	1.63%

Mean Data

ID: LCSW 3C/WG84110-04 Seq. No.: 2 Sample No.: 2 A/S Pos: 56
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:31:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3598330.8							0.44%
Ag 328.068	173132.6	0.191	0.0005	mg/L	0.191	0.0005	mg/L	0.26%
Al 237.312	192319.1	9.45	0.037	mg/L	9.45	0.037	mg/L	0.39%
As 188.979	13107.2	0.880	0.0007	mg/L	0.880	0.0007	mg/L	0.08%
Ba 230.424	4112735.9	8.36	0.005	mg/L	8.36	0.005	mg/L	0.06%
Be 234.861	2619446.2	0.902	0.0002	mg/L	0.902	0.0002	mg/L	0.02%
Ca 227.549	15524.2	9.26	0.002	mg/L	9.26	0.002	mg/L	0.02%
Cd 228.802	400968.3	0.911	0.0014	mg/L	0.911	0.0014	mg/L	0.15%
Co 228.616	205573.5	0.925	0.0015	mg/L	0.925	0.0015	mg/L	0.17%
Cr 267.716	380672.7	0.941	0.0016	mg/L	0.941	0.0016	mg/L	0.17%
Cu 327.396	485430.6	0.924	0.0037	mg/L	0.924	0.0037	mg/L	0.40%
Fe 261.387	25742.6	0.820	0.0005	mg/L	0.820	0.0005	mg/L	0.06%
K 404.721	18747.8	47.5	0.44	mg/L	47.5	0.44	mg/L	0.93%
k 766.491	Saturated							
Li 460.286	1191462.2	11.6	0.03	mg/L	11.6	0.03	mg/L	0.26%
Mg 279.079	615080.2	9.33	0.008	mg/L	9.33	0.008	mg/L	0.08%
Mn 257.610	989004.2	0.918	0.0013	mg/L	0.918	0.0013	mg/L	0.14%
202.030	88268.1	0.871	0.0014	mg/L	0.871	0.0014	mg/L	0.16%
330.237	263447.7	44.5	0.05	mg/L	44.5	0.05	mg/L	0.11%
Ni 231.604	193589.4	0.920	0.0015	mg/L	0.920	0.0015	mg/L	0.16%
Pb 220.353	29512.2	0.900	0.0002	mg/L	0.900	0.0002	mg/L	0.02%
Sb 206.833	27005.3	0.899	0.0000	mg/L	0.899	0.0000	mg/L	0.00%
Se 196.026	10643.4	0.833	0.0010	mg/L	0.833	0.0010	mg/L	0.12%
Si 288.158	1035136.3	9.92	0.050	mg/L	9.92	0.050	mg/L	0.50%
Sn 189.933	-41.5	0.00022	0.000004	mg/L	0.00022	0.000004	mg/L	1.90%
Sr 232.235	2331.3	0.810	0.0017	mg/L	0.810	0.0017	mg/L	0.21%
Ti 337.280	1889436.3	0.954	0.0016	mg/L	0.954	0.0016	mg/L	0.17%
Tl 190.800	17300.2	0.857	0.0101	mg/L	0.857	0.0101	mg/L	1.18%
V 292.402	357346.7	0.949	0.0007	mg/L	0.949	0.0007	mg/L	0.07%
Zn 206.200	272593.3	0.877	0.0010	mg/L	0.877	0.0010	mg/L	0.11%

Matrix Check Sample: LCSW 3C/WG84110-04

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.201	0.191	0.000	mg/L	94.668
Al 237.312	10.1	9.45	0.037	mg/L	93.758
As 188.979	1.00	0.880	0.001	mg/L	87.909
Ba 230.424	10.00	8.36	0.005	mg/L	83.605
Be 234.861	1.00	0.902	0.000	mg/L	90.195
Ca 227.549	9.92	9.26	0.002	mg/L	93.357
Cd 228.802	1.00	0.911	0.001	mg/L	91.058
Co 228.616	0.999	0.925	0.002	mg/L	92.572
Cr 267.716	1.00	0.941	0.002	mg/L	94.045
Cu 327.396	1.00	0.924	0.004	mg/L	92.293
Fe 261.387	1.06	0.820	0.001	mg/L	76.181
K 404.721	50.0	47.5	0.444	mg/L	95.019
k 766.491	50.0		0.000	mg/L	
460.286	9.96	11.6	0.030	mg/L	116.241
279.079	10.0	9.33	0.008	mg/L	92.930
Mn 257.610	1.00	0.918	0.001	mg/L	91.727
Mo 202.030	1.00	0.871	0.001	mg/L	87.011
Na 330.237	50.1	44.5	0.047	mg/L	88.762

002366

Ni 231.604	0.998	0.920	0.001	mg/L	92.174
Pb 220.353	1.00	0.900	0.000	mg/L	89.885
[illegible] 206.833	1.00	0.899	0.000	mg/L	89.524
96.026	1.00	0.833	0.001	mg/L	83.183
[illegible] 288.158	9.99	9.92	0.050	mg/L	99.243
Sn 189.933	1.00	0.00022	0.000	mg/L	-0.266
Sr 232.235	1.00	0.810	0.002	mg/L	80.579
Ti 337.280	0.997	0.954	0.002	mg/L	95.769
Tl 190.800	1.000	0.857	0.010	mg/L	85.745
V 292.402	0.998	0.949	0.001	mg/L	95.025
Zn 206.200	1.01	0.877	0.001	mg/L	87.160

Mean Data ----------

ID: 0920001/WG84110-02 Seq. No.: 3 Sample No.: 3 A/S Pos: 57
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:36:04 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3513703.7							0.45%
Ag 328.068	1093.3	0.00170	0.000029	mg/L	0.00170	0.000029	mg/L	1.72%
Al 237.312	2246.1	0.241	0.0019	mg/L	0.241	0.0019	mg/L	0.80%
As 188.979	-5.9	0.00162	0.000169	mg/L	0.00162	0.000169	mg/L	10.41%
Ba 230.424	22292.7	0.0453	0.00026	mg/L	0.0453	0.00026	mg/L	0.57%
Be 234.861	78.0	0.00005	0.000002	mg/L	0.00005	0.000002	mg/L	4.67%
Ca 227.549	50992.0	30.6	0.27	mg/L	30.6	0.27	mg/L	0.87%
Cd 228.802	118.4	0.00034	0.000002	mg/L	0.00034	0.000002	mg/L	0.46%
Co 228.616	-64.6	-0.00052	0.000012	mg/L	-0.00052	0.000012	mg/L	2.29%
Cr 267.716	457.6	0.00113	0.000019	mg/L	0.00113	0.000019	mg/L	1.67%
Cu 327.396	1427.8	0.00272	0.000046	mg/L	0.00272	0.000046	mg/L	1.69%
Fe 261.387	5848.0	0.211	0.0025	mg/L	0.211	0.0025	mg/L	1.19%
K 404.721	713.0	2.17	0.115	mg/L	2.17	0.115	mg/L	5.30%
k 766.491	14737459.7	2.59	0.008	mg/L	2.59	0.008	mg/L	0.31%
Li 460.286	-673.3	-0.0286	0.00164	mg/L	-0.0286	0.00164	mg/L	5.75%
[illegible] 279.079	539466.4	8.19	0.044	mg/L	8.19	0.044	mg/L	0.54%
57.610	71058.3	0.0660	0.00053	mg/L	0.0660	0.00053	mg/L	0.81%
[illegible] 202.030	100.1	0.00099	0.000047	mg/L	0.00099	0.000047	mg/L	4.79%
Na 330.237	75456.7	12.0	0.16	mg/L	12.0	0.16	mg/L	1.36%
Ni 231.604	-550.9	-0.00117	0.000004	mg/L	-0.00117	0.000004	mg/L	0.38%
Pb 220.353	134.2	0.00113	0.000117	mg/L	0.00113	0.000117	mg/L	10.36%
Sb 206.833	71.2	0.00451	0.000207	mg/L	0.00451	0.000207	mg/L	4.59%
Se 196.026	7.3	0.00351	0.000809	mg/L	0.00351	0.000809	mg/L	23.07%
Si 288.158	167936.0	1.56	0.015	mg/L	1.56	0.015	mg/L	0.94%
Sn 189.933	-174.0	-0.00421	0.000054	mg/L	-0.00421	0.000054	mg/L	1.29%
Sr 232.235	700.0	0.258	0.0023	mg/L	0.258	0.0023	mg/L	0.89%
Ti 337.280	1353.5	-0.00258	0.000051	mg/L	-0.00258	0.000051	mg/L	1.99%
Tl 190.800	117.3	0.00654	0.001078	mg/L	0.00654	0.001078	mg/L	16.49%
V 292.402	49.1	-0.00101	0.000014	mg/L	-0.00101	0.000014	mg/L	1.38%
Zn 206.200	812.7	0.00262	0.000004	mg/L	0.00262	0.000004	mg/L	0.15%

Mean Data ----------

ID: 01 DUP/WG84110-07 Seq. No.: 4 Sample No.: 4 A/S Pos: 58
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:40:30 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3558859.7							0.53%
Ag 328.068	1001.0	0.00160	0.000057	mg/L	0.00160	0.000057	mg/L	3.58%
Al 237.312	1903.9	0.224	0.0016	mg/L	0.224	0.0016	mg/L	0.71%
As 188.979	-9.9	0.00136	0.000127	mg/L	0.00136	0.000127	mg/L	9.37%
Ba 230.424	20766.6	0.0422	0.00053	mg/L	0.0422	0.00053	mg/L	1.26%
Be 234.861	86.0	0.00005	0.000003	mg/L	0.00005	0.000003	mg/L	5.52%
Ca 227.549	47657.6	28.6	0.06	mg/L	28.6	0.06	mg/L	0.21%
Cd 228.802	102.4	0.00030	0.000018	mg/L	0.00030	0.000018	mg/L	5.92%
Co 228.616	-65.8	-0.00052	0.000007	mg/L	-0.00052	0.000007	mg/L	1.31%
[illegible] 267.716	434.6	0.00107	0.000054	mg/L	0.00107	0.000054	mg/L	5.03%
27.396	1369.4	0.00261	0.000121	mg/L	0.00261	0.000121	mg/L	4.64%
[illegible] 261.387	5271.3	0.194	0.0002	mg/L	0.194	0.0002	mg/L	0.12%
K 404.721	649.0	2.02	0.071	mg/L	2.02	0.071	mg/L	3.51%
k 766.491	13585041.4	2.38	0.012	mg/L	2.38	0.012	mg/L	0.49%

Li 460.286	-911.6	-0.0311	0.00251	mg/L	-0.0311	0.00251 mg/L	8.07%
Mg 279.079	502604.4	7.63	0.084	mg/L	7.63	0.084 mg/L	1.10%
257.610	66399.5	0.0616	0.00059	mg/L	0.0616	0.00059 mg/L	0.96%
202.030	63.0	0.00062	0.000009	mg/L	0.00062	0.000009 mg/L	1.46%
Na 330.237	68887.4	10.9	0.12	mg/L	10.9	0.12 mg/L	1.12%
Ni 231.604	-543.3	-0.00113	0.000014	mg/L	-0.00113	0.000014 mg/L	1.23%
Pb 220.353	125.5	0.00087	0.000016	mg/L	0.00087	0.000016 mg/L	1.86%
Sb 206.833	73.8	0.00460	0.000395	mg/L	0.00460	0.000395 mg/L	8.59%
Se 196.026	-16.1	0.00168	0.000453	mg/L	0.00168	0.000453 mg/L	26.98%
Si 288.158	156377.9	1.44	0.018	mg/L	1.44	0.018 mg/L	1.26%
Sn 189.933	-193.7	-0.00487	0.000092	mg/L	-0.00487	0.000092 mg/L	1.88%
Sr 232.235	669.7	0.247	0.0065	mg/L	0.247	0.0065 mg/L	2.61%
Ti 337.280	1220.3	-0.00265	0.000001	mg/L	-0.00265	0.000001 mg/L	0.05%
Tl 190.800	28.0	0.00212	0.000239	mg/L	0.00212	0.000239 mg/L	11.26%
V 292.402	2.9	-0.00113	0.000005	mg/L	-0.00113	0.000005 mg/L	0.47%
Zn 206.200	692.8	0.00223	0.000046	mg/L	0.00223	0.000046 mg/L	2.05%

Matrix Check Sample: 01 DUP/WG84110-07

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.00170	0.00160	0.000	mg/L	6.150
Al 237.312	0.241	0.224	0.002	mg/L	7.131
As 188.979	0.00162	0.00136	0.000	mg/L	17.693
Ba 230.424	0.0453	0.0422	0.001	mg/L	7.088
Be 234.861	0.00005	0.00005	0.000	mg/L	5.549
Ca 227.549	30.6	28.6	0.060	mg/L	6.769
Cd 228.802	0.00034	0.00030	0.000	mg/L	11.366
Co 228.616	-0.00052	-0.00052	0.000	mg/L	-1.079
Cr 267.716	0.00113	0.00107	0.000	mg/L	5.166
Cu 327.396	0.00272	0.00261	0.000	mg/L	4.180
Fe 261.387	0.211	0.194	0.000	mg/L	8.558
04.721	2.17	2.02	0.071	mg/L	7.183
56.491	2.59	2.38	0.012	mg/L	8.351
Li 460.286	-0.0286	-0.0311	0.003	mg/L	-8.378
Mg 279.079	8.19	7.63	0.084	mg/L	7.030
Mn 257.610	0.0660	0.0616	0.001	mg/L	6.779
Mo 202.030	0.00099	0.00062	0.000	mg/L	45.409
Na 330.237	12.0	10.9	0.122	mg/L	9.245
Ni 231.604	-0.00117	-0.00113	0.000	mg/L	-3.174
Pb 220.353	0.00113	0.00087	0.000	mg/L	26.659
Sb 206.833	0.00451	0.00460	0.000	mg/L	1.889
Se 196.026	0.00351	0.00168	0.000	mg/L	70.444
Si 288.158	1.56	1.44	0.018	mg/L	7.425
Sn 189.933	-0.00421	-0.00487	0.000	mg/L	-14.556
Sr 232.235	0.258	0.247	0.006	mg/L	4.229
Ti 337.280	-0.00258	-0.00265	0.000	mg/L	-2.580
Tl 190.800	0.00654	0.00212	0.000	mg/L	101.874
V 292.402	-0.00101	-0.00113	0.000	mg/L	-11.399
Zn 206.200	0.00262	0.00223	0.000	mg/L	15.920

Mean Data

ID: 0909408/WG84110-01 Seq. No.: 5 Sample No.: 5 A/S Pos: 59
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:44:54 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3417057.7							2.40%
Ag 328.068	1224.4	0.00184	0.000061	mg/L	0.00184	0.000061	mg/L	3.31%
Al 237.312	1532.8	0.206	0.0022	mg/L	0.206	0.0022	mg/L	1.07%
As 188.979	205.8	0.0156	0.00115	mg/L	0.0156	0.00115	mg/L	7.40%
Ba 230.424	33769.4	0.0686	0.00053	mg/L	0.0686	0.00053	mg/L	0.78%
Be 234.861	122.3	0.00006	0.000004	mg/L	0.00006	0.000004	mg/L	6.01%
227.549	55662.5	33.4	0.16	mg/L	33.4	0.16	mg/L	0.48%
228.802	107.6	0.00031	0.000006	mg/L	0.00031	0.000006	mg/L	1.85%
Co 228.616	502.7	0.00204	0.000072	mg/L	0.00204	0.000072	mg/L	3.56%
Cr 267.716	1843.4	0.00455	0.000026	mg/L	0.00455	0.000026	mg/L	0.57%
Cu 327.396	9367.0	0.0178	0.00010	mg/L	0.0178	0.00010	mg/L	0.58%

Fe 261.387	2767.7	0.119	0.0013 mg/L	0.119	0.0013 mg/L	1.11%
K 404.721	1257.0	3.46	0.050 mg/L	3.46	0.050 mg/L	1.43%
766.491	Saturated					
460.286	269.0	-0.0191	0.00004 mg/L	-0.0191	0.00004 mg/L	0.23%
Mg 279.079	360306.7	5.48	0.131 mg/L	5.48	0.131 mg/L	2.40%
Mn 257.610	144940.7	0.135	0.0032 mg/L	0.135	0.0032 mg/L	2.35%
Mo 202.030	6967.9	0.0688	0.00364 mg/L	0.0688	0.00364 mg/L	5.29%
Na 330.237	272910.4	46.3	1.20 mg/L	46.3	1.20 mg/L	2.58%
Ni 231.604	2180.0	0.0118	0.00016 mg/L	0.0118	0.00016 mg/L	1.32%
Pb 220.353	128.7	0.00096	0.000226 mg/L	0.00096	0.000226 mg/L	23.41%
Sb 206.833	444.5	0.0169	0.00026 mg/L	0.0169	0.00026 mg/L	1.55%
Se 196.026	321.2	0.0280	0.00777 mg/L	0.0280	0.00777 mg/L	27.78%
Si 288.158	229498.0	2.15	0.053 mg/L	2.15	0.053 mg/L	2.46%
Sn 189.933	-167.4	-0.00399	0.000014 mg/L	-0.00399	0.000014 mg/L	0.34%
Sr 232.235	433.6	0.164	0.0005 mg/L	0.164	0.0005 mg/L	0.31%
Ti 337.280	3633.1	-0.00143	0.000019 mg/L	-0.00143	0.000019 mg/L	1.35%
Tl 190.800	12.8	0.00198	0.000122 mg/L	0.00198	0.000122 mg/L	6.15%
V 292.402	2969.0	0.00671	0.000035 mg/L	0.00671	0.000035 mg/L	0.52%
Zn 206.200	4702.2	0.0151	0.00006 mg/L	0.0151	0.00006 mg/L	0.42%

Mean Data ----------

ID: 08 MS/WG84110-05 Seq. No.: 6 Sample No.: 6 A/S Pos: 60
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:49:26 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3115893.9							1.44%
Ag 328.068	153821.5	0.170	0.0027	mg/L	0.170	0.0027	mg/L	1.57%
Al 237.312	174634.5	8.60	0.118	mg/L	8.60	0.118	mg/L	1.37%
As 188.979	11403.2	0.766	0.0046	mg/L	0.766	0.0046	mg/L	0.60%
Ba 230.424	3586041.8	7.29	0.080	mg/L	7.29	0.080	mg/L	1.10%
Be 234.861	2364026.4	0.814	0.0088	mg/L	0.814	0.0088	mg/L	1.08%
Ca 227.549	60961.9	36.6	0.53	mg/L	36.6	0.53	mg/L	1.46%
228.802	350453.0	0.796	0.0105	mg/L	0.796	0.0105	mg/L	1.31%
228.616	181872.9	0.818	0.0078	mg/L	0.818	0.0078	mg/L	0.95%
Cr 267.716	322956.9	0.799	0.0095	mg/L	0.799	0.0095	mg/L	1.19%
Cu 327.396	470832.7	0.896	0.0150	mg/L	0.896	0.0150	mg/L	1.67%
Fe 261.387	27663.1	0.867	0.0036	mg/L	0.867	0.0036	mg/L	0.41%
K 404.721	17779.7	44.9	0.52	mg/L	44.9	0.52	mg/L	1.17%
k 766.491	Saturated							
Li 460.286	998977.2	9.71	0.079	mg/L	9.71	0.079	mg/L	0.82%
Mg 279.079	859088.3	13.0	0.15	mg/L	13.0	0.15	mg/L	1.18%
Mn 257.610	990868.4	0.920	0.0109	mg/L	0.920	0.0109	mg/L	1.19%
Mo 202.030	85659.9	0.846	0.0109	mg/L	0.846	0.0109	mg/L	1.28%
Na 330.237	447713.0	82.7	1.23	mg/L	82.7	1.23	mg/L	1.48%
Ni 231.604	175694.0	0.835	0.0069	mg/L	0.835	0.0069	mg/L	0.83%
Pb 220.353	25682.4	0.783	0.0043	mg/L	0.783	0.0043	mg/L	0.55%
Sb 206.833	23177.6	0.773	0.0026	mg/L	0.773	0.0026	mg/L	0.34%
Se 196.026	6781.6	0.532	0.0072	mg/L	0.532	0.0072	mg/L	1.36%
Si 288.158	1175115.8	11.3	0.14	mg/L	11.3	0.14	mg/L	1.24%
Sn 189.933	-187.4	-0.00466	0.000090	mg/L	-0.00466	0.000090	mg/L	1.94%
Sr 232.235	2413.1	0.839	0.0008	mg/L	0.839	0.0008	mg/L	0.10%
Ti 337.280	1670043.7	0.843	0.0103	mg/L	0.843	0.0103	mg/L	1.22%
Tl 190.800	13078.2	0.650	0.0057	mg/L	0.650	0.0057	mg/L	0.87%
V 292.402	320333.0	0.850	0.0094	mg/L	0.850	0.0094	mg/L	1.10%
Zn 206.200	241307.7	0.777	0.0041	mg/L	0.777	0.0041	mg/L	0.53%

Matrix Check Sample: 08 MS/WG84110-05

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.202	0.170	0.003	mg/L	83.871
Al 237.312	10.2	8.60	0.118	mg/L	83.909
As 188.979	1.02	0.766	0.005	mg/L	75.004
230.424	10.1	7.29	0.080	mg/L	72.194
234.861	1.00	0.814	0.009	mg/L	81.396
Ca 227.549	43.4	36.6	0.534	mg/L	31.519
Cd 228.802	1.00	0.796	0.010	mg/L	79.577
Co 228.616	1.00	0.818	0.008	mg/L	81.639

Cr 267.716	1.00	0.799	0.010	mg/L	79.402
Cu 327.396	1.02	0.896	0.015	mg/L	87.859
Fe 261.387	1.12	0.867	0.004	mg/L	74.830
K 404.721	53.5	44.9	0.524	mg/L	82.968
k 766.491			0.000	mg/L	
Li 460.286	9.98	9.71	0.079	mg/L	97.326
Mg 279.079	15.5	13.0	0.153	mg/L	75.226
Mn 257.610	1.13	0.920	0.011	mg/L	78.512
Mo 202.030	1.07	0.846	0.011	mg/L	77.690
Na 330.237	96.3	82.7	1.227	mg/L	72.759
Ni 231.604	1.01	0.835	0.007	mg/L	82.348
Pb 220.353	1.00	0.783	0.004	mg/L	78.176
Sb 206.833	1.02	0.773	0.003	mg/L	75.570
Se 196.026	1.03	0.532	0.007	mg/L	50.371
Si 288.158	12.1	11.3	0.139	mg/L	91.153
Sn 189.933	0.996	-0.00466	0.000	mg/L	-0.067
Sr 232.235	1.16	0.839	0.001	mg/L	67.508
Ti 337.280	0.999	0.843	0.010	mg/L	84.462
Tl 190.800	1.00	0.650	0.006	mg/L	64.789
V 292.402	1.01	0.850	0.009	mg/L	84.335
Zn 206.200	1.02	0.777	0.004	mg/L	76.142

Mean Data

ID: 08 MSD/WG84110-06 Seq. No.: 7 Sample No.: 7 A/S Pos: 61
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:53:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	3008169.2							0.74%
Ag 328.068	151993.2	0.168	0.0035	mg/L	0.168	0.0035	mg/L	2.07%
Al 237.312	172399.7	8.49	0.151	mg/L	8.49	0.151	mg/L	1.78%
As 188.979	11226.7	0.754	0.0025	mg/L	0.754	0.0025	mg/L	0.34%
Ba 230.424	3492906.8	7.10	0.046	mg/L	7.10	0.046	mg/L	0.65%
Be 234.861	2296751.8	0.791	0.0090	mg/L	0.791	0.0090	mg/L	1.14%
Ca 27.549	63265.0	38.0	0.67	mg/L	38.0	0.67	mg/L	1.77%
Cd 228.802	346844.0	0.788	0.0116	mg/L	0.788	0.0116	mg/L	1.47%
Co 228.616	178358.5	0.803	0.0103	mg/L	0.803	0.0103	mg/L	1.28%
Cr 267.716	317852.5	0.786	0.0118	mg/L	0.786	0.0118	mg/L	1.50%
Cu 327.396	467990.5	0.891	0.0174	mg/L	0.891	0.0174	mg/L	1.96%
Fe 261.387	27509.8	0.862	0.0032	mg/L	0.862	0.0032	mg/L	0.37%
K 404.721	17589.5	44.4	0.88	mg/L	44.4	0.88	mg/L	1.98%
k 766.491	Saturated							
Li 460.286	968774.2	9.42	0.141	mg/L	9.42	0.141	mg/L	1.50%
Mg 279.079	853859.7	12.9	0.10	mg/L	12.9	0.10	mg/L	0.81%
Mn 257.610	970869.7	0.901	0.0078	mg/L	0.901	0.0078	mg/L	0.87%
Mo 202.030	83845.7	0.828	0.0097	mg/L	0.828	0.0097	mg/L	1.17%
Na 330.237	455866.6	84.6	1.70	mg/L	84.6	1.70	mg/L	2.01%
Ni 231.604	172095.8	0.818	0.0101	mg/L	0.818	0.0101	mg/L	1.23%
Pb 220.353	25457.8	0.776	0.0027	mg/L	0.776	0.0027	mg/L	0.35%
Sb 206.833	22710.9	0.757	0.0037	mg/L	0.757	0.0037	mg/L	0.49%
Se 196.026	6546.4	0.513	0.0000	mg/L	0.513	0.0000	mg/L	0.00%
Si 288.158	1137365.6	10.9	0.13	mg/L	10.9	0.13	mg/L	1.23%
Sn 189.933	-207.6	-0.00533	0.000242	mg/L	-0.00533	0.000242	mg/L	4.53%
Sr 232.235	2405.0	0.837	0.0040	mg/L	0.837	0.0040	mg/L	0.48%
Ti 337.280	1623842.3	0.820	0.0100	mg/L	0.820	0.0100	mg/L	1.22%
Tl 190.800	12782.1	0.635	0.0039	mg/L	0.635	0.0039	mg/L	0.62%
V 292.402	316331.2	0.839	0.0136	mg/L	0.839	0.0136	mg/L	1.61%
Zn 206.200	236613.1	0.761	0.0079	mg/L	0.761	0.0079	mg/L	1.03%

Matrix Check Sample: 08 MSD/WG84110-06

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
Y 360.073			0.000		
Ag 328.068	0.170	0.168	0.003	mg/L	1.192
Al 237.312	8.60	8.49	0.151	mg/L	1.268
As 188.979	0.766	0.754	0.003	mg/L	1.556
Ba 230.424	7.29	7.10	0.046	mg/L	2.631
Be 234.861	0.814	0.791	0.009	mg/L	2.893

Ca 227.549	36.6	38.0	0.671	mg/L	3.716
Cd 228.802	0.796	0.788	0.012	mg/L	1.035
228.616	0.818	0.803	0.010	mg/L	1.950
267.716	0.799	0.786	0.012	mg/L	1.592
Cu 327.396	0.896	0.891	0.017	mg/L	0.605
Fe 261.387	0.867	0.862	0.003	mg/L	0.533
K 404.721	44.9	44.4	0.880	mg/L	1.137
k 766.491			0.000	mg/L	
Li 460.286	9.71	9.42	0.141	mg/L	3.077
Mg 279.079	13.0	12.9	0.104	mg/L	0.608
Mn 257.610	0.920	0.901	0.008	mg/L	2.039
Mo 202.030	0.846	0.828	0.010	mg/L	2.141
Na 330.237	82.7	84.6	1.699	mg/L	2.272
Ni 231.604	0.835	0.818	0.010	mg/L	2.066
Pb 220.353	0.783	0.776	0.003	mg/L	0.885
Sb 206.833	0.773	0.757	0.004	mg/L	2.029
Se 196.026	0.532	0.513	0.000	mg/L	3.509
Si 288.158	11.3	10.9	0.134	mg/L	3.283
Sn 189.933	-0.00466	-0.00533	0.000	mg/L	-13.526
Sr 232.235	0.839	0.837	0.004	mg/L	0.281
Ti 337.280	0.843	0.820	0.010	mg/L	2.816
Tl 190.800	0.650	0.635	0.004	mg/L	2.291
V 292.402	0.850	0.839	0.014	mg/L	1.261
Zn 206.200	0.777	0.761	0.008	mg/L	1.965

Mean Data ----------

ID: 0909402 Seq. No.: 8 Sample No.: 8 A/S Pos: 62
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/13/00 11:58:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	2435566.7							1.28%
Ag 328.068	2722.1	0.00349	0.000093	mg/L	0.00349	0.000093	mg/L	2.67%
237.312	-195.8	0.0587	0.00141	mg/L	0.0587	0.00141	mg/L	2.40%
88.979	475.6	0.0334	0.00007	mg/L	0.0334	0.00007	mg/L	0.22%
Ba 230.424	19311.2	0.0392	0.00002	mg/L	0.0392	0.00002	mg/L	0.04%
Be 234.861	419.9	0.00017	0.000000	mg/L	0.00017	0.000000	mg/L	0.27%
Ca 227.549	1095319.6	658	11.0	mg/L	658	11.0	mg/L	1.67%
Cd 228.802	403.4	0.00118	0.000014	mg/L	0.00118	0.000014	mg/L	1.16%
Co 228.616	1551.7	0.00676	0.000034	mg/L	0.00676	0.000034	mg/L	0.51%
Cr 267.716	5995.5	0.0148	0.00000	mg/L	0.0148	0.00000	mg/L	0.02%
Cu 327.396	148019.1	0.282	0.0045	mg/L	0.282	0.0045	mg/L	1.61%
Fe 261.387	-52.5	0.0338	0.00053	mg/L	0.0338	0.00053	mg/L	1.57%
K 404.721	10065.5	24.9	0.23	mg/L	24.9	0.23	mg/L	0.92%
k 766.491	Saturated							
Li 460.286	2493.6	0.0574	0.00114	mg/L	0.0574	0.00114	mg/L	1.99%
Mg 279.079	-2037.7	-0.0502	0.00086	mg/L	-0.0502	0.00086	mg/L	1.71%
Mn 257.610	10099.5	0.00937	0.000066	mg/L	0.00937	0.000066	mg/L	0.70%
Mo 202.030	17212.7	0.175	0.0000	mg/L	0.175	0.0000	mg/L	0.02%
Na 330.237	548153.1	108	1.8	mg/L	108	1.8	mg/L	1.67%
Ni 231.604	8554.2	0.0420	0.00011	mg/L	0.0420	0.00011	mg/L	0.26%
Pb 220.353	4019.4	0.120	0.0000	mg/L	0.120	0.0000	mg/L	0.00%
Sb 206.833	471.7	0.0178	0.00043	mg/L	0.0178	0.00043	mg/L	2.42%
Se 196.026	212.5	0.0195	0.00036	mg/L	0.0195	0.00036	mg/L	1.85%
Si 288.158	8078.9	0.147	0.0001	mg/L	0.147	0.0001	mg/L	0.10%
Sn 189.933	-299.8	-0.00183	0.000324	mg/L	-0.00183	0.000324	mg/L	17.67%
Sr 232.235	1570.8	0.560	0.0036	mg/L	0.560	0.0036	mg/L	0.64%
Ti 337.280	-904.7	-0.00373	0.000004	mg/L	-0.00373	0.000004	mg/L	0.11%
Tl 190.800	175.7	0.00603	0.000705	mg/L	0.00603	0.000705	mg/L	11.69%
V 292.402	523.2	0.00024	0.000009	mg/L	0.00024	0.000009	mg/L	3.51%
Zn 206.200	44355.6	0.143	0.0003	mg/L	0.143	0.0003	mg/L	0.19%

Mean Data ----------

ID: 02 SD.2 Seq. No.: 9 Sample No.: 9 A/S Pos: 63
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 5.0
Data: Original Date: 9/14/00 12:02:38 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3297261.5							0.43%

002371

Ag 328.068	1833.6	0.00251	0.000039 mg/L	0.0126	0.00020 mg/L	1.56%
Al 237.312	-1078.0	0.0798	0.00056 mg/L	0.399	0.0028 mg/L	0.71%
As 188.979	88.4	0.00783	0.000330 mg/L	0.0392	0.00165 mg/L	4.21%
Ba 230.424	4265.4	0.00867	0.000030 mg/L	0.0433	0.00015 mg/L	0.35%
Be 234.861	87.6	0.00005	0.000001 mg/L	0.00026	0.000005 mg/L	1.89%
Ca 227.549	297483.1	179	0.7 mg/L	894	3.3 mg/L	0.37%
Cd 228.802	156.2	0.00042	0.000002 mg/L	0.00212	0.000009 mg/L	0.42%
Co 228.616	317.1	0.00120	0.000002 mg/L	0.00600	0.000012 mg/L	0.20%
Cr 267.716	1747.1	0.00431	0.000002 mg/L	0.0216	0.00001 mg/L	0.04%
Cu 327.396	38472.2	0.0732	0.00037 mg/L	0.366	0.0019 mg/L	0.51%
Fe 261.387	-750.0	0.0129	0.00058 mg/L	0.0644	0.00290 mg/L	4.50%
K 404.721	2303.8	5.94	0.212 mg/L	29.7	1.06 mg/L	3.57%
k 766.491	Saturated					
Li 460.286	566.3	-0.00348	0.001162 mg/L	-0.0174	0.00581 mg/L	33.36%
Mg 279.079	-1473.4	0.0277	0.00027 mg/L	0.139	0.0013 mg/L	0.96%
Mn 257.610	3077.1	0.00286	0.000003 mg/L	0.0143	0.00001 mg/L	0.09%
Mo 202.030	4755.1	0.0469	0.00009 mg/L	0.235	0.0005 mg/L	0.20%
Na 330.237	192336.3	31.6	0.03 mg/L	158	0.1 mg/L	0.09%
Ni 231.604	1740.7	0.00971	0.000007 mg/L	0.0485	0.00003 mg/L	0.07%
Pb 220.353	1072.6	0.0298	0.00029 mg/L	0.149	0.0015 mg/L	0.98%
Sb 206.833	146.7	0.00701	0.000089 mg/L	0.0351	0.00044 mg/L	1.26%
Se 196.026	67.2	0.00818	0.000181 mg/L	0.0409	0.00090 mg/L	2.21%
Si 288.158	2372.3	-0.0397	0.00028 mg/L	-0.198	0.0014 mg/L	0.70%
Sn 189.933	-335.6	-0.00961	0.000043 mg/L	-0.0481	0.00022 mg/L	0.45%
Sr 232.235	358.5	0.138	0.0007 mg/L	0.688	0.0037 mg/L	0.54%
Ti 337.280	-599.7	-0.00357	0.000041 mg/L	-0.0179	0.00020 mg/L	1.14%
Tl 190.800	83.9	0.00359	0.000512 mg/L	0.0179	0.00256 mg/L	14.27%
V 292.402	138.5	-0.00077	0.000016 mg/L	-0.00387	0.000080 mg/L	2.06%
Zn 206.200	10670.0	0.0343	0.00012 mg/L	0.172	0.0006 mg/L	0.34%

Matrix Check Sample: 02 SD.2

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	Relative % Diff.
0.073			0.000		
Ag 328.068	0.00349	0.0126	0.000	mg/L	113.060
Al 237.312	0.0587	0.399	0.003	mg/L	148.705
As 188.979	0.0334	0.0392	0.002	mg/L	16.025
Ba 230.424	0.0392	0.0433	0.000	mg/L	9.920
Be 234.861	0.00017	0.00026	0.000	mg/L	43.484
Ca 227.549	658	894	3.279	mg/L	30.347
Cd 228.802	0.00118	0.00212	0.000	mg/L	56.833
Co 228.616	0.00676	0.00600	0.000	mg/L	11.937
Cr 267.716	0.0148	0.0216	0.000	mg/L	37.199
Cu 327.396	0.282	0.366	0.002	mg/L	26.054
Fe 261.387	0.0338	0.0644	0.003	mg/L	62.156
K 404.721	24.9	29.7	1.062	mg/L	17.478
k 766.491			0.000	mg/L	
Li 460.286	0.0574	-0.0174	0.006	mg/L	374.323
Mg 279.079	-0.0502	0.139	0.001	mg/L	427.023
Mn 257.610	0.00937	0.0143	0.000	mg/L	41.483
Mo 202.030	0.175	0.235	0.000	mg/L	29.399
Na 330.237	108	158	0.144	mg/L	37.735
Ni 231.604	0.0420	0.0485	0.000	mg/L	14.348
Pb 220.353	0.120	0.149	0.001	mg/L	21.712
Sb 206.833	0.0178	0.0351	0.000	mg/L	65.405
Se 196.026	0.0195	0.0409	0.001	mg/L	70.797
Si 288.158	0.147	-0.198	0.001	mg/L	-1345.213
Sn 189.933	-0.00183	-0.0481	0.000	mg/L	-185.311
Sr 232.235	0.560	0.688	0.004	mg/L	20.447
Ti 337.280	-0.00373	-0.0179	0.000	mg/L	-130.946
Tl 190.800	0.00603	0.0179	0.003	mg/L	99.282
V 292.402	0.00024	-0.00387	0.000	mg/L	-226.931
Zn 206.200	0.143	0.172	0.001	mg/L	18.411

Mean Data ----------

02 PS.9
Sample Qty: 1.0000 mL
Seq. No.: 10 Sample No.: 10 A/S Pos: 64
Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/14/00 12:06:44 AM

002372

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
[illegible]60.073	2363356.8							0.44%
328.068	128730.8	0.142	0.0009	mg/L	0.142	0.0009	mg/L	0.60%
[illegible] 237.312	151221.6	7.40	0.025	mg/L	7.40	0.025	mg/L	0.34%
As 188.979	11792.3	0.789	0.0055	mg/L	0.789	0.0055	mg/L	0.69%
Ba 230.424	2788563.3	5.67	0.036	mg/L	5.67	0.036	mg/L	0.64%
Be 234.861	1961822.2	0.675	0.0039	mg/L	0.675	0.0039	mg/L	0.57%
Ca 227.549	985371.6	592	1.9	mg/L	592	1.9	mg/L	0.32%
Cd 228.802	296597.4	0.674	0.0039	mg/L	0.674	0.0039	mg/L	0.58%
Co 228.616	141431.7	0.637	0.0041	mg/L	0.637	0.0041	mg/L	0.65%
Cr 267.716	256842.4	0.635	0.0033	mg/L	0.635	0.0033	mg/L	0.52%
Cu 327.396	511738.8	0.974	0.0036	mg/L	0.974	0.0036	mg/L	0.37%
Fe 261.387	18784.0	0.600	0.0025	mg/L	0.600	0.0025	mg/L	0.41%
K 404.721	22714.4	58.4	0.55	mg/L	58.4	0.55	mg/L	0.93%
k 766.491	Saturated							
Li 460.286	555217.7	5.44	0.001	mg/L	5.44	0.001	mg/L	0.02%
Mg 279.079	395048.5	5.95	0.042	mg/L	5.95	0.042	mg/L	0.71%
Mn 257.610	688585.5	0.639	0.0039	mg/L	0.639	0.0039	mg/L	0.60%
Mo 202.030	76909.4	0.763	0.0036	mg/L	0.763	0.0036	mg/L	0.48%
Na 330.237	598538.5	122	0.3	mg/L	122	0.3	mg/L	0.25%
Ni 231.604	138739.3	0.660	0.0052	mg/L	0.660	0.0052	mg/L	0.79%
Pb 220.353	23620.5	0.720	0.0013	mg/L	0.720	0.0013	mg/L	0.18%
Sb 206.833	19005.9	0.634	0.0058	mg/L	0.634	0.0058	mg/L	0.92%
Se 196.026	10117.1	0.792	0.0013	mg/L	0.792	0.0013	mg/L	0.16%
Si 288.158	697996.3	6.78	0.036	mg/L	6.78	0.036	mg/L	0.54%
Sn 189.933	46173.3	1.55	0.000	mg/L	1.55	0.000	mg/L	0.02%
Sr 232.235	2999.6	1.05	0.001	mg/L	1.05	0.001	mg/L	0.08%
Ti 337.280	1263184.9	0.637	0.0025	mg/L	0.637	0.0025	mg/L	0.40%
Tl 190.800	11909.0	0.587	0.0005	mg/L	0.587	0.0005	mg/L	0.09%
V 292.402	245398.1	0.651	0.0034	mg/L	0.651	0.0034	mg/L	0.52%
Zn 206.200	235354.7	0.757	0.0092	mg/L	0.757	0.0092	mg/L	1.21%

[illegible]rix Check Sample: 02 PS.9

Element	Expected Conc.	Measured Conc.	Std.Dev.	Sample Units	% Recovery
Ag 328.068	0.203	0.142	0.001	mg/L	69.258
Al 237.312	10.1	7.40	0.025	mg/L	73.462
As 188.979	1.03	0.789	0.005	mg/L	75.546
Ba 230.424	10.0	5.67	0.036	mg/L	56.280
Be 234.861	1.00	0.675	0.004	mg/L	67.528
Ca 227.549	668	592	1.884	mg/L	-661.239
Cd 228.802	1.00	0.674	0.004	mg/L	67.275
Co 228.616	1.01	0.637	0.004	mg/L	62.990
Cr 267.716	1.01	0.635	0.003	mg/L	62.024
Cu 327.396	1.28	0.974	0.004	mg/L	69.249
Fe 261.387	1.03	0.600	0.002	mg/L	56.618
K 404.721	74.9	58.4	0.546	mg/L	67.016
k 766.491			0.000	mg/L	
Li 460.286	10.1	5.44	0.001	mg/L	53.804
Mg 279.079	9.95	5.95	0.042	mg/L	59.958
Mn 257.610	1.01	0.639	0.004	mg/L	62.972
Mo 202.030	1.17	0.763	0.004	mg/L	58.890
Na 330.237	158	122	0.309	mg/L	29.166
Ni 231.604	1.04	0.660	0.005	mg/L	61.784
Pb 220.353	1.12	0.720	0.001	mg/L	59.990
Sb 206.833	1.02	0.634	0.006	mg/L	61.598
Se 196.026	1.02	0.792	0.001	mg/L	77.226
Si 288.158	10.1	6.78	0.036	mg/L	66.372
Sn 189.933	0.998	1.55	0.000	mg/L	155.363
Sr 232.235	1.56	1.05	0.001	mg/L	48.783
Ti 337.280	0.996	0.637	0.003	mg/L	64.070
Tl 190.800	1.01	0.587	0.001	mg/L	58.139
V 292.402	1.00	0.651	0.003	mg/L	65.082
Zn 206.200	1.14	0.757	0.009	mg/L	61.465

[illegible]n Data ----------

ID: CCV Seq. No.: 11 Sample No.: 3 A/S Pos: 5

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

002373

Data: Original Date: 9/14/00 12:10:51 AM

ment	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3587279.4							0.33%
Ag 328.068	347871.8	0.383	0.0002	mg/L				0.06%
Al 237.312	190366.2	9.36	0.016	mg/L				0.17%
As 188.979	5301.2	0.359	0.0002	mg/L				0.05%
*QC exceeds lower limit for As 188.979			Recovery = 89.64%		Action = Continue			
Ba 230.424	455666.7	0.926	0.0091	mg/L				0.99%
Be 234.861	137346.5	0.0472	0.00021	mg/L				0.44%
Ca 227.549	16113.4	9.54	0.035	mg/L				0.36%
Cd 228.802	20771.8	0.0473	0.00008	mg/L				0.17%
Co 228.616	42424.0	0.190	0.0020	mg/L				1.04%
Cr 267.716	192233.8	0.476	0.0042	mg/L				0.88%
Cu 327.396	255870.4	0.487	0.0013	mg/L				0.28%
Fe 261.387	122573.3	3.72	0.041	mg/L				1.11%
K 404.721	19592.2	49.8	0.10	mg/L				0.21%
k 766.491	Saturated							
Li 460.286	118602.7	1.11	0.005	mg/L				0.44%
*QC exceeds upper limit for Li 460.286			Recovery = 111.03%		Action = Continue			
Mg 279.079	610019.5	9.25	0.104	mg/L				1.13%
Mn 257.610	511494.1	0.475	0.0033	mg/L				0.69%
Mo 202.030	91926.6	0.908	0.0090	mg/L				1.00%
Na 330.237	285835.2	48.8	0.21	mg/L				0.43%
Ni 231.604	96949.8	0.462	0.0061	mg/L				1.32%
Pb 220.353	14685.6	0.447	0.0003	mg/L				0.08%
*QC exceeds lower limit for Pb 220.353			Recovery = 89.45%		Action = Continue			
Sb 206.833	31953.9	1.06	0.001	mg/L				0.11%
*QC exceeds lower limit for Sb 206.833			Recovery = 88.63%		Action = Continue			
Se 196.026	4554.6	0.358	0.0021	mg/L				0.58%
*QC exceeds lower limit for Se 196.026			Recovery = 89.51%		Action = Continue			
Si 288.158	531202.8	5.06	0.011	mg/L				0.22%
Sn 189.933	24526.5	0.822	0.0064	mg/L				0.78%
exceeds lower limit for Sn 189.933			Recovery = 82.19%		Action = Continue			
232.235	2531.0	0.879	0.0028	mg/L				0.32%
*QC exceeds lower limit for Sr 232.235			Recovery = 87.91%		Action = Continue			
Ti 337.280	1933144.7	0.977	0.0037	mg/L				0.38%
Tl 190.800	8259.3	0.410	0.0013	mg/L				0.33%
*QC exceeds lower limit for Tl 190.800			Recovery = 82.00%		Action = Continue			
V 292.402	366597.0	0.971	0.0058	mg/L				0.60%
Zn 206.200	263827.5	0.849	0.0189	mg/L				2.22%
*QC exceeds lower limit for Zn 206.200			Recovery = 84.90%		Action = Continue			

Rerun to verify
SP 9/14/00

Calibration Summary

Method: clptstd Date: 9/14/00 12:15:13 AM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978
Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
Cd 228.802	3	Linear	-30.8	440259.1	0.00000	0.999933
Co 228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969

Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
Zn 206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Mean Data ----------

ID: CCV Seq. No.: 11 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: 9/14/00 12:16:54 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3657628.4							0.84%
Ag 328.068	351176.7	0.387	0.0018	mg/L				0.46%
Al 237.312	193162.4	9.50	0.058	mg/L				0.62%
As 188.979	5403.8	0.365	0.0003	mg/L				0.09%
Ba 230.424	464073.5	0.943	0.0052	mg/L				0.55%
Be 234.861	138829.8	0.0477	0.00022	mg/L				0.46%
Ca 227.549	16292.6	9.64	0.003	mg/L				0.03%
Cd 228.802	21082.8	0.0480	0.00002	mg/L				0.04%
Co 228.616	43114.1	0.194	0.0014	mg/L				0.73%
Cr 267.716	195568.9	0.485	0.0027	mg/L				0.57%
Cu 327.396	256664.6	0.489	0.0019	mg/L				0.38%
Fe 261.387	124880.3	3.79	0.025	mg/L				0.66%
K 404.721	19821.5	50.5	0.46	mg/L				0.91%
k 766.491	Saturated							
Li 460.286	118567.9	1.11	0.003	mg/L				0.30%
*QC exceeds upper limit for Li 460.286	Recovery = 110.95%	Action = Continue						
Mg 279.079	622267.7	9.43	0.063	mg/L				0.67%
Mn 257.610	520565.1	0.483	0.0022	mg/L				0.46%
Mo 202.030	93761.0	0.926	0.0039	mg/L				0.42%
330.237	288866.2	49.3	0.33	mg/L				0.67%
231.604	98852.3	0.471	0.0026	mg/L				0.56%
Pb 220.353	14999.5	0.457	0.0006	mg/L				0.13%
Sb 206.833	32411.3	1.08	0.000	mg/L				0.01%
*QC exceeds lower limit for Sb 206.833	Recovery = 89.90%	Action = Continue						
Se 196.026	4615.8	0.363	0.0014	mg/L				0.38%
Si 288.158	530566.4	5.05	0.008	mg/L				0.15%
Sn 189.933	25997.8	0.871	0.0006	mg/L				0.07%
*QC exceeds lower limit for Sn 189.933	Recovery = 87.11%	Action = Continue						
Sr 232.235	2608.0	0.906	0.0063	mg/L				0.69%
Ti 337.280	1961256.9	0.991	0.0049	mg/L				0.49%
Tl 190.800	8582.2	0.426	0.0015	mg/L				0.36%
*QC exceeds lower limit for Tl 190.800	Recovery = 85.19%	Action = Continue						
V 292.402	372778.8	0.987	0.0044	mg/L				0.45%
Zn 206.200	271095.7	0.872	0.0059	mg/L				0.68%
*QC exceeds lower limit for Zn 206.200	Recovery = 87.24%	Action = Continue						

Mean Data ----------

ID: ICB/CCB Seq. No.: 12 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 9/14/00 12:21:09 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3171781.6							0.81%
Ag 328.068	865.2	0.00145	0.000112	mg/L				7.70%
Al 237.312	-1410.0	0.0637	0.00043	mg/L				0.67%
As 188.979	-16.6	0.00091	0.000100	mg/L				10.96%
Ba 230.424	-1035.7	-0.00210	0.000017	mg/L				0.83%
Be 234.861	-56.7	0.00000	0.000000	mg/L				19.27%
Ca 227.549	-60.7	-0.0761	0.00142	mg/L				1.87%
Cd 228.802	80.2	0.00025	0.000005	mg/L				1.90%
228.616	-119.6	-0.00077	0.000029	mg/L				3.73%
267.716	249.2	0.00061	0.000011	mg/L				1.74%
Cu 327.396	612.6	0.00117	0.000085	mg/L				7.26%
Fe 261.387	-1088.7	0.00269	0.000200	mg/L				7.43%

K 404.721	-211.4	0.00292	0.160641	mg/L	>999.9%
k 766.491	327728.3	-0.00613	0.000787	mg/L	12.84%
Li 460.286	-1178.1	-0.0362	0.00139	mg/L	3.83%
279.079	-1300.4	0.0303	0.00016	mg/L	0.54%
257.610	664.5	0.00062	0.000006	mg/L	1.03%
Mo 202.030	278.4	0.00275	0.000074	mg/L	2.70%
Na 330.237	267.7	0.136	0.0084	mg/L	6.17%
Ni 231.604	-644.0	-0.00161	0.000028	mg/L	1.74%
Pb 220.353	79.5	-0.00054	0.000049	mg/L	9.13%
Sb 206.833	56.0	0.00401	0.000203	mg/L	5.08%
Se 196.026	-13.3	0.00190	0.000196	mg/L	10.33%
Si 288.158	1707.4	-0.0461	0.00069	mg/L	1.49%
Sn 189.933	115.8	0.00548	0.000376	mg/L	6.87%
Sr 232.235	-17.2	0.00514	0.000750	mg/L	14.58%
Ti 337.280	-493.9	-0.00352	0.000045	mg/L	1.27%
Tl 190.800	19.3	0.00118	0.000033	mg/L	2.82%
V 292.402	-36.4	-0.00124	0.000029	mg/L	2.37%
Zn 206.200	245.2	0.00079	0.000037	mg/L	4.68%

Mean Data ----------

ID: 0909404 Seq. No.: 13 Sample No.: 11 A/S Pos: 65
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/14/00 12:25:26 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	2752314.6							0.15%
Ag 328.068	2640.1	0.00340	0.000027	mg/L	0.00340	0.000027	mg/L	0.80%
Al 237.312	-782.9	0.0435	0.00165	mg/L	0.0435	0.00165	mg/L	3.79%
As 188.979	667.0	0.0460	0.00016	mg/L	0.0460	0.00016	mg/L	0.34%
Ba 230.424	56932.2	0.116	0.0016	mg/L	0.116	0.0016	mg/L	1.42%
Be 234.861	304.8	0.00013	0.000007	mg/L	0.00013	0.000007	mg/L	5.84%
Ca 227.549	867928.8	522	3.5	mg/L	522	3.5	mg/L	0.66%
Cd 228.802	359.5	0.00104	0.000020	mg/L	0.00104	0.000020	mg/L	1.89%
Co 228.616	1184.6	0.00510	0.000026	mg/L	0.00510	0.000026	mg/L	0.51%
267.716	4558.7	0.0112	0.00000	mg/L	0.0112	0.00000	mg/L	0.01%
327.396	105964.4	0.202	0.0039	mg/L	0.202	0.0039	mg/L	1.91%
Fe 261.387	-263.6	0.0275	0.00006	mg/L	0.0275	0.00006	mg/L	0.24%
K 404.721	6939.4	17.2	0.05	mg/L	17.2	0.05	mg/L	0.30%
k 766.491	Saturated							
Li 460.286	2518.1	0.0456	0.00355	mg/L	0.0456	0.00355	mg/L	7.78%
Mg 279.079	-717.9	-0.0159	0.00068	mg/L	-0.0159	0.00068	mg/L	4.26%
Mn 257.610	1950.6	0.00181	0.000008	mg/L	0.00181	0.000008	mg/L	0.42%
Mo 202.030	18528.6	0.187	0.0030	mg/L	0.187	0.0030	mg/L	1.59%
Na 330.237	265978.1	45.0	0.37	mg/L	45.0	0.37	mg/L	0.83%
Ni 231.604	20357.1	0.0981	0.00094	mg/L	0.0981	0.00094	mg/L	0.96%
Pb 220.353	2285.1	0.0668	0.00018	mg/L	0.0668	0.00018	mg/L	0.27%
Sb 206.833	982.9	0.0347	0.00046	mg/L	0.0347	0.00046	mg/L	1.33%
Se 196.026	95.5	0.0104	0.00031	mg/L	0.0104	0.00031	mg/L	2.96%
Si 288.158	160137.4	1.59	0.028	mg/L	1.59	0.028	mg/L	1.79%
Sn 189.933	-233.4	-0.00098	0.000410	mg/L	-0.00098	0.000410	mg/L	41.94%
Sr 232.235	1456.0	0.520	0.0088	mg/L	0.520	0.0088	mg/L	1.70%
Ti 337.280	-398.2	-0.00347	0.000002	mg/L	-0.00347	0.000002	mg/L	0.06%
Tl 190.800	173.7	0.00652	0.000774	mg/L	0.00652	0.000774	mg/L	11.87%
V 292.402	43387.6	0.114	0.0013	mg/L	0.114	0.0013	mg/L	1.12%
Zn 206.200	12451.7	0.0401	0.00029	mg/L	0.0401	0.00029	mg/L	0.73%

Mean Data ----------

ID: 0909406 Seq. No.: 14 Sample No.: 12 A/S Pos: 66
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/14/00 12:29:41 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	2791118.0							0.58%
Ag 328.068	2687.1	0.00345	0.000086	mg/L	0.00345	0.000086	mg/L	2.48%
Al 237.312	8161.2	0.467	0.0012	mg/L	0.467	0.0012	mg/L	0.26%
88.979	612.2	0.0424	0.00111	mg/L	0.0424	0.00111	mg/L	2.62%
230.424	73081.7	0.149	0.0000	mg/L	0.149	0.0000	mg/L	0.03%
Be 234.861	361.1	0.00015	0.000001	mg/L	0.00015	0.000001	mg/L	0.90%
Ca 227.549	1036255.3	623	3.8	mg/L	623	3.8	mg/L	0.61%

002376

Cd 228.802	285.7	0.00091	0.000005	mg/L	0.00091	0.000005 mg/L	0.53%
Co 228.616	1378.2	0.00598	0.000004	mg/L	0.00598	0.000004 mg/L	0.06%
Cr 267.716	3354.2	0.00827	0.000036	mg/L	0.00827	0.000036 mg/L	0.44%
27.396	93339.0	0.178	0.0011	mg/L	0.178	0.0011 mg/L	0.59%
Fe 261.387	320.5	0.0450	0.00059	mg/L	0.0450	0.00059 mg/L	1.32%
K 404.721	7581.3	18.7	0.15	mg/L	18.7	0.15 mg/L	0.80%
k 766.491	Saturated						
Li 460.286	1720.0	0.0467	0.00247	mg/L	0.0467	0.00247 mg/L	5.29%
Mg 279.079	-1371.3	-0.0364	0.00011	mg/L	-0.0364	0.00011 mg/L	0.30%
Mn 257.610	4196.7	0.00390	0.000030	mg/L	0.00390	0.000030 mg/L	0.77%
Mo 202.030	16501.8	0.167	0.0009	mg/L	0.167	0.0009 mg/L	0.52%
Na 330.237	345544.9	60.5	0.26	mg/L	60.5	0.26 mg/L	0.43%
Ni 231.604	12942.3	0.0629	0.00017	mg/L	0.0629	0.00017 mg/L	0.28%
Pb 220.353	1082.6	0.0301	0.00034	mg/L	0.0301	0.00034 mg/L	1.14%
Sb 206.833	915.0	0.0325	0.00022	mg/L	0.0325	0.00022 mg/L	0.67%
Se 196.026	71.0	0.00848	0.000791	mg/L	0.00848	0.000791 mg/L	9.33%
Si 288.158	28400.4	0.336	0.0034	mg/L	0.336	0.0034 mg/L	1.01%
Sn 189.933	-282.5	-0.00161	0.000131	mg/L	-0.00161	0.000131 mg/L	8.12%
Sr 232.235	1387.0	0.496	0.0014	mg/L	0.496	0.0014 mg/L	0.29%
Ti 337.280	-1215.7	-0.00388	0.000003	mg/L	-0.00388	0.000003 mg/L	0.07%
Tl 190.800	142.1	0.00453	0.000069	mg/L	0.00453	0.000069 mg/L	1.52%
V 292.402	1935.9	0.00398	0.000025	mg/L	0.00398	0.000025 mg/L	0.64%
Zn 206.200	21144.7	0.0680	0.00004	mg/L	0.0680	0.00004 mg/L	0.06%

Mean Data

ID: SPLP BLK 9/11/00 Seq. No.: 15 Sample No.: 13 A/S Pos: 67
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/14/00 12:33:55 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	3132190.2							0.91%
Ag 328.068	870.1	0.00145	0.000056	mg/L	0.00145	0.000056	mg/L	3.86%
Al 237.312	-1379.2	0.0652	0.00089	mg/L	0.0652	0.00089	mg/L	1.37%
As 188.979	-10.5	0.00131	0.000106	mg/L	0.00131	0.000106	mg/L	8.07%
30.424	-972.9	-0.00198	0.000013	mg/L	-0.00198	0.000013	mg/L	0.68%
Ba 234.861	-23.3	0.00001	0.000001	mg/L	0.00001	0.000001	mg/L	6.33%
Ca 227.549	12.8	-0.0319	0.00128	mg/L	-0.0319	0.00128	mg/L	4.00%
Cd 228.802	92.5	0.00028	0.000001	mg/L	0.00028	0.000001	mg/L	0.48%
Co 228.616	-113.6	-0.00074	0.000024	mg/L	-0.00074	0.000024	mg/L	3.21%
Cr 267.716	326.1	0.00080	0.000008	mg/L	0.00080	0.000008	mg/L	0.97%
Cu 327.396	1332.6	0.00254	0.000070	mg/L	0.00254	0.000070	mg/L	2.76%
Fe 261.387	-1055.8	0.00368	0.000203	mg/L	0.00368	0.000203	mg/L	5.51%
K 404.721	-153.8	0.138	0.3871	mg/L	0.138	0.3871	mg/L	280.74%
k 766.491	568137.9	0.0371	0.00122	mg/L	0.0371	0.00122	mg/L	3.29%
Li 460.286	-1151.1	-0.0359	0.00005	mg/L	-0.0359	0.00005	mg/L	0.14%
Mg 279.079	-730.4	0.0389	0.00014	mg/L	0.0389	0.00014	mg/L	0.35%
Mn 257.610	1361.4	0.00126	0.000001	mg/L	0.00126	0.000001	mg/L	0.09%
Mo 202.030	162.0	0.00160	0.000016	mg/L	0.00160	0.000016	mg/L	0.99%
Na 330.237	1267.9	0.289	0.0006	mg/L	0.289	0.0006	mg/L	0.20%
Ni 231.604	-330.6	-0.00012	0.000016	mg/L	-0.00012	0.000016	mg/L	13.02%
Pb 220.353	92.6	-0.00014	0.000018	mg/L	-0.00014	0.000018	mg/L	12.94%
Sb 206.833	66.4	0.00435	0.000115	mg/L	0.00435	0.000115	mg/L	2.64%
Se 196.026	-17.5	0.00157	0.000437	mg/L	0.00157	0.000437	mg/L	27.84%
Si 288.158	7180.2	0.00668	0.000336	mg/L	0.00668	0.000336	mg/L	5.04%
Sn 189.933	37.6	0.00287	0.000138	mg/L	0.00287	0.000138	mg/L	4.81%
Sr 232.235	-23.1	0.00309	0.000030	mg/L	0.00309	0.000030	mg/L	0.97%
Ti 337.280	-518.6	-0.00353	0.000038	mg/L	-0.00353	0.000038	mg/L	1.07%
Tl 190.800	12.2	0.00083	0.000035	mg/L	0.00083	0.000035	mg/L	4.21%
V 292.402	-106.7	-0.00142	0.000020	mg/L	-0.00142	0.000020	mg/L	1.43%
Zn 206.200	2333.9	0.00751	0.000024	mg/L	0.00751	0.000024	mg/L	0.32%

Calibration Summary

Method: clptstd Date: 9/14/00 12:40:05 AM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear	-453.3	909711.1	0.00000	0.999962
Al 237.312	3	Linear	-2723.8	20629.6	0.00000	0.999902
As 188.979	3	Linear	-30.5	15170.9	0.00000	0.999978

002377

Ba 230.424	3	Linear-thru-Zero	0.0	492047.5	0.00000	0.999875
Be 234.861	3	Linear	-62.5	2904566.5	0.00000	1.000000
Ca 227.549	3	Linear	65.9	1663.4	0.00000	0.999799
?28.802	3	Linear	-30.8	440259.1	0.00000	0.999933
228.616	3	Linear	50.7	222136.2	0.00000	0.999927
Cr 267.716	3	Linear-thru-Zero	0.0	405356.5	0.00000	0.999944
Cu 327.396	3	Linear-thru-Zero	0.0	525236.2	0.00000	0.999991
Fe 261.387	3	Linear	-1178.2	33269.1	0.00000	0.999997
K 404.721	3	Non-Linear	-212.6	427.1	-0.59487	0.999143
k 766.491	1	Linear	361808.7	5559676.7	0.00000	1.000000
Li 460.286	3	Linear	2533.9	102581.2	0.00000	0.996098
Mg 279.079	3	Linear	-3312.6	66304.4	0.00000	0.999981
Mn 257.610	3	Linear-thru-Zero	0.0	1077444.4	0.00000	0.999904
Mo 202.030	3	Linear-thru-Zero	0.0	101290.2	0.00000	0.999953
Na 330.237	3	Non-Linear	-619.3	6524.3	-13.32888	0.997878
Ni 231.604	3	Linear	-305.0	210708.7	0.00000	0.999940
Pb 220.353	3	Linear	97.1	32767.7	0.00000	0.999994
Sb 206.833	3	Linear	-65.0	30178.0	0.00000	0.999969
Se 196.026	3	Linear	-37.7	12825.5	0.00000	0.999984
Si 288.158	3	Linear	6487.6	103740.0	0.00000	0.999565
Sn 189.933	3	Linear	-48.1	29899.9	0.00000	0.999997
Sr 232.235	3	Linear	-31.8	2836.3	0.00000	0.999994
Ti 337.280	3	Linear	6446.5	1972980.6	0.00000	0.999933
Tl 190.800	3	Linear	-4.8	20392.4	0.00000	0.999925
V 292.402	3	Linear	431.0	378268.3	0.00000	0.999970
Zn 206.200	3	Linear-thru-Zero	0.0	310744.0	0.00000	0.999930

Mean Data ----------

ID: CCV Seq. No.: 16 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: 9/14/00 12:41:47 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3693817.9							0.44%
228.068	354417.3	0.390	0.0027	mg/L				0.69%
Al 237.312	193688.2	9.52	0.076	mg/L				0.79%
As 188.979	5358.0	0.362	0.0010	mg/L				0.27%
Ba 230.424	462955.3	0.941	0.0072	mg/L				0.76%
Be 234.861	139207.9	0.0478	0.00038	mg/L				0.79%
Ca 227.549	16207.2	9.59	0.004	mg/L				0.04%
Cd 228.802	21024.1	0.0478	0.00007	mg/L				0.15%
Co 228.616	42859.6	0.192	0.0017	mg/L				0.90%
Cr 267.716	195506.7	0.484	0.0044	mg/L				0.90%
Cu 327.396	258650.1	0.492	0.0033	mg/L				0.67%
Fe 261.387	125228.8	3.80	0.040	mg/L				1.05%
K 404.721	19865.4	50.6	0.23	mg/L				0.45%
k 766.491	Saturated							
Li 460.286	119721.8	1.12	0.006	mg/L				0.52%
*QC exceeds upper limit for Li 460.286	Recovery = 112.07%	Action = Continue						
Mg 279.079	622067.3	9.43	0.079	mg/L				0.84%
Mn 257.610	521397.4	0.484	0.0039	mg/L				0.80%
Mo 202.030	93125.1	0.919	0.0077	mg/L				0.84%
Na 330.237	290033.6	49.6	0.43	mg/L				0.87%
Ni 231.604	98317.5	0.468	0.0041	mg/L				0.88%
Pb 220.353	14903.0	0.454	0.0009	mg/L				0.20%
Sb 206.833	32132.1	1.07	0.001	mg/L				0.07%
*QC exceeds lower limit for Sb 206.833	Recovery = 89.13%	Action = Continue						
Se 196.026	4572.3	0.359	0.0004	mg/L				0.10%
*QC exceeds lower limit for Se 196.026	Recovery = 89.86%	Action = Continue						
Si 288.158	532061.1	5.07	0.030	mg/L				0.59%
Sn 189.933	25804.3	0.865	0.0022	mg/L				0.25%
*QC exceeds lower limit for Sn 189.933	Recovery = 86.46%	Action = Continue						
Sr 232.235	2590.3	0.900	0.0004	mg/L				0.04%
Ti 337.280	1969957.2	0.995	0.0070	mg/L				0.70%
Tl 190.800	8592.9	0.426	0.0002	mg/L				0.05%
*QC exceeds lower limit for Tl 190.800	Recovery = 85.29%	Action = Continue						
V 292.402	374250.7	0.991	0.0074	mg/L				0.75%
Zn 206.200	267223.7	0.860	0.0087	mg/L				1.01%
*QC exceeds lower limit for Zn 206.200	Recovery = 85.99%	Action = Continue						

002378

Mean Data ----------

ID: ICB/CCB Seq. No.: 17 Sample No.: 4 A/S Pos: 1

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 9/14/00 12:46:02 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	3185399.8							0.85%
Ag 328.068	870.8	0.00146	0.000024	mg/L				1.64%
Al 237.312	-1425.4	0.0629	0.00072	mg/L				1.15%
As 188.979	-10.5	0.00132	0.000172	mg/L				13.05%
Ba 230.424	-1055.3	-0.00214	0.000016	mg/L				0.74%
Be 234.861	-26.9	0.00001	0.000000	mg/L				1.77%
Ca 227.549	-53.3	-0.0716	0.00452	mg/L				6.31%
Cd 228.802	75.7	0.00024	0.000002	mg/L				0.90%
Co 228.616	-127.5	-0.00080	0.000030	mg/L				3.69%
Cr 267.716	257.6	0.00064	0.000015	mg/L				2.36%
Cu 327.396	690.6	0.00131	0.000132	mg/L				10.01%
Fe 261.387	-1093.2	0.00256	0.000166	mg/L				6.48%
K 404.721	-269.8	-0.134	0.2007	mg/L				149.84%
k 766.491	334547.5	-0.00490	0.000294	mg/L				6.01%
Li 460.286	-1029.4	-0.0347	0.00046	mg/L				1.33%
Mg 279.079	-1321.1	0.0300	0.00026	mg/L				0.87%
Mn 257.610	652.7	0.00061	0.000003	mg/L				0.50%
Mo 202.030	263.3	0.00260	0.000173	mg/L				6.66%
Na 330.237	247.5	0.133	0.0032	mg/L				2.45%
Ni 231.604	-639.1	-0.00159	0.000060	mg/L				3.76%
Pb 220.353	76.9	-0.00062	0.000223	mg/L				36.07%
Sb 206.833	58.1	0.00408	0.000006	mg/L				0.16%
Se 196.026	-17.9	0.00154	0.000363	mg/L				23.54%
Si 288.158	1688.6	-0.0463	0.00040	mg/L				0.86%
Sn 189.933	107.2	0.00519	0.000300	mg/L				5.77%
Sr 232.235	-19.7	0.00426	0.000501	mg/L				11.78%
Ti 337.280	-541.0	-0.00354	0.000020	mg/L				0.57%
Tl 190.800	29.4	0.00167	0.000164	mg/L				9.80%
V 2.402	-19.7	-0.00119	0.000025	mg/L				2.14%
Zn 206.200	291.3	0.00094	0.000072	mg/L				7.71%

002379

2.3.1.3 Preparation Log(s)

002380

Metals Digestion Log

Analyst(s): HD
Date: 09.12.00 @ 2045
LCS: 10mL DSS 25.16
MS/MSD: 10mL DSS 25.16
Witness: SLP

Box: 3C
HNO_3 Lot #: N10
HCl Lot #: H08
H_2O_2 Lot#: N/A
Earliest Sample Due Date: 09.15.00

Digestion Work Group: WG 84110
Analytical Work Group: WG

#	KEMRON Number	Initial Wt / Vol	Final Volume	Due Date	Comments
1	BLK	100mL	100mL		WG84110 -03
2	LCS				-04
3	09.094.02			09.15.00	level 4
4	.04				
5	.06				
6	.08				-01
7	.08 MS				-05
8	.08 MSD				-06
9	SPLP BLK 9/11				
10	09.195.01			09.27.00	NPDES
11	09.200.01			09.21.00	NPDES -02
12	.01 DUP				-07
13	09.201.01			09.27.00	NPDES
14	.02				
15	09.203.01			09.27.00	NPDES
16	09.208.03			09.22.00	NPDES
17	-05				
18	.06				
19	.07				
20	09.211.01			09.22.00	NPDES
21					
22					
23					
24					
25					
26					
27					

HD 09.12.00

General Digestion

ME401 Revision # 7 - Method 3005A - Water [X]
ME403 Revision # ____ - Method 3050B - Soil [ ]

Furnace Digestion

ME402 Revision # ____ - Method 3020A - Water [ ]
ME403 Revision # ____ - Method 3050B - Soil [ ]

As / Se Digestion

ME410 Revision # ____ - Method 7060/7740 - Water [ ]

Comments:

002381

Sheri L. Pfalzgraf

2.3.2 Metals GFAA Data

002382

METALS - GFAA DATA

Login Number: L0009094

Metal: Se

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analysis run log

✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- Post digestion spike (if applicable)
- Serial dilution (as needed)
- Standard additions results (as needed)

C. Preparation log(s)

Checked By: DAI MMB Date: 09/20/00

002383

2.3.2.1 QC Summary

002384

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG84329
METHOD: 7740
MATRIX: Water
UNITS: mg/L
INSTRUMENT: Perkin Elmer

RUN DATE: 9/15,18/00
PREP DATE: 09/14/2000
Analyst: ALT
DUPLICATE: L0009119-01
MS/MSD L0009158-01

			CONCENTRATION PPB								PERCENT RECOVERY							PERCENT RPD		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Selenium	0.0020	ND	0.0250	0.0288	ND	ND	ND	0.0250	0.0148	0.0140	115.2	80.0	120.0	59.2	56.0	75.0	125.0	NA	5.56	20

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = % RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

2.3.2.2 Raw Data

002386

Se KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST Chris L Thrasher DATE 9/15/00 TIME 1315
METHOD # 7740 SOP # ME-503C REV. # 3 WORK GROUP # 84329, 84330
CAL STD SOURCE mw-2-6-3 ICV/CCV SOURCE ~~ME-30A~~ Alt 9/15/00 MI-6-30A
POST SPK SOURCE MI-6-30B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
					28.				
					29.				
					30.				
					31.				
	S0				32.				
	S4				33.				
	S10				34.				
1.	S20				35.				
2.	S50				36.				
3.	ICV				37.				
4.	ICB			CCV,CCB	38.				
5.	BLKW C				39.				
6.	LCSW C				40.				
7.	09 23301				41.				
8.	09 094 08	0.9			42.				
	SP 08	0.9			43.				
	02				44.				
11.	04				45.				
12.	06				46.				
13.	SPLP BLK 9/11				47.				
14.	BLKW			CCV,CCB	48.				
15.	LCSW				49.				
16.	09156 01				50.				
17.	SP01	0.9		CCV,CCB	51.				
18.	01	0.5			52.				
19.	SP 01	0.5			53.				
20.	SP 01	0.5		CCV, CCB	54.				
21.					55.				
22.					56.				
23.					57.				
24.	ALT 9/15/00				58.				
25.					59.				
26.					60.				

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%
ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun
ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

Method Name: SEKEM Element: Se
Method Description: SEKEM

Date: 09/15/2000
Technique: Furnace Calibration Equation: Zero Intercept: Linear
Wavelength: 196.0 nm Slit Width: 2.00 nm
Lamp Current: 0 Energy: 51
Sample Info File: SE091500.SIF Results Data Set: SE091500

Element: Se Seq. No.: 1 AS Loc.: 1 Date: 09/15/2000
Sample ID: S0
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.000	0.002	0.008	0.013	0.009	13:15:44	No
2			-0.002	0.001	0.008	0.014	0.010	13:18:40	Yes
Mean:			-0.001						
SD :			0.001						
%RSD:			76.26						

Auto-zero performed.

Element: Se Seq. No.: 2 AS Loc.: 2 Date: 09/15/2000
Sample ID: S4
µL dispensed: 16 from 1, 3 from 40, 4 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.018	0.020	0.043	0.021	0.015	13:21:44	No
2			0.020	0.021	0.041	0.019	0.013	13:24:47	Yes
Mean:			0.019						
SD :			0.001						
%RSD:			5.67						

Standard number 1 applied. [4.000]
Correlation Coefficient: 1.0000 Slope: 0.0048

Element: Se Seq. No.: 3 AS Loc.: 2 Date: 09/15/2000
Sample ID: S10
µL dispensed: 10 from 1, 3 from 40, 10 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.044	0.046	0.088	0.024	0.022	13:27:50	No
2			0.046	0.048	0.091	0.022	0.021	13:30:53	Yes
Mean:			0.045						
SD :			0.001						
%RSD:			3.30						

Standard number 2 applied. [10.000]
Correlation Coefficient: 0.9989 Slope: 0.0046

002388

Element: Se Seq. No.: 4 AS Loc.: 2 Date: 09/15/2000
Sample ID: S20
µL dispensed: 3 from 40, 20 from 2

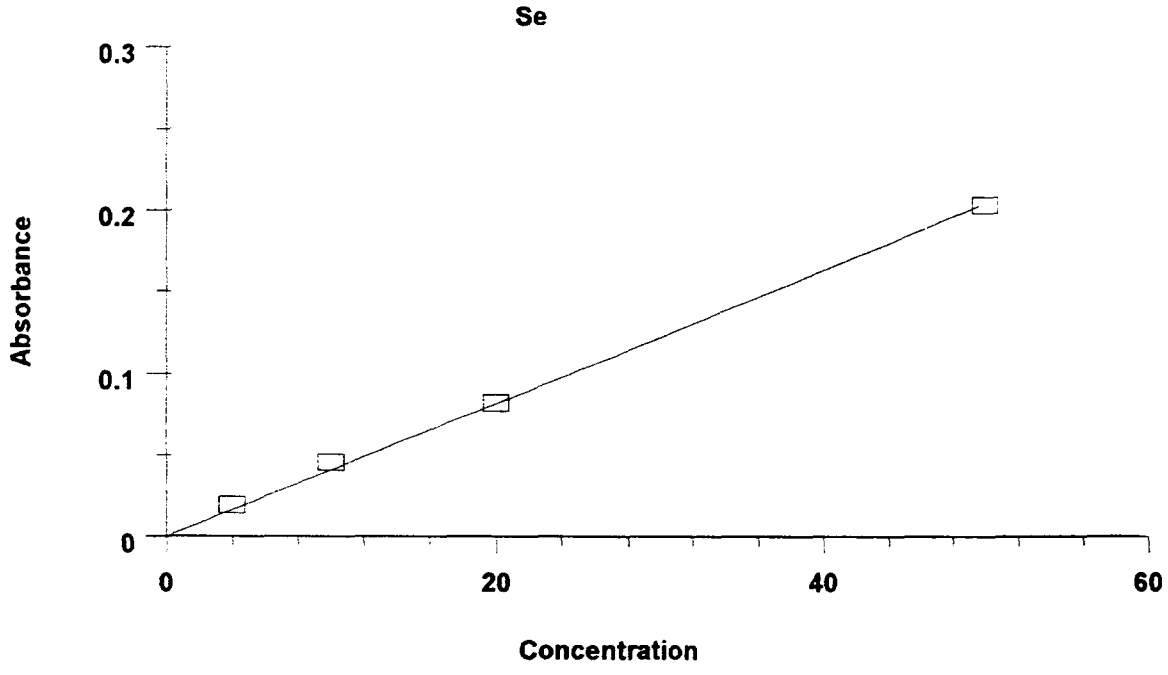
Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.082	0.083	0.175	0.028	0.038	13:33:51	No
2			0.082	0.083	0.173	0.031	0.037	13:36:48	Yes
Mean:			0.082						
SD :			0.000						
%RSD:			0.02						

Standard number 3 applied. [20.000]
Correlation Coefficient: 0.9956 Slope: 0.0042

Element: Se Seq. No.: 5 AS Loc.: 3 Date: 09/15/2000
Sample ID: S50
µL dispensed: 3 from 40, 20 from 3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.204	0.205	0.408	0.053	0.090	13:39:47	No
2			0.202	0.203	0.400	0.056	0.088	13:42:45	Yes
Mean:			0.203						
SD :			0.001						
%RSD:			0.72						

The calibration curve may not be linear.
Standard number 4 applied. [50.000]
Correlation Coefficient: 0.9993 Slope: 0.0041



002389

Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.000	----	0.000	0.0008	76.2614
S4	0.019	4.000	4.668	0.0011	5.6669
S10	0.045	10.000	11.08	0.0015	3.2997
S20	0.082	20.000	20.04	0.0000	0.0232
S50	0.203	50.000	49.68	0.0015	0.7186

Correlation Coefficient: 0.99931 Slope: 0.00408

Element: Se Seq. No.: 6 AS Loc.: 4 Date: 09/15/2000
Sample ID: ICV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.95	25.95	0.106	0.107	0.208	0.033	0.046	13:45:47	No
2	26.14	26.14	0.107	0.108	0.212	0.033	0.049	13:48:47	Yes
Mean:	26.04	26.04	0.106						
SD :	0.1380	0.1380	0.001						
%RSD:	0.53	0.53	0.53						

QC value within specified limits.

Element: Se Seq. No.: 7 AS Loc.: 1 Date: 09/15/2000
Sample ID: ICB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.9629	0.9629	0.004	0.006	0.009	0.013	0.011	13:51:45	No
2	0.9751	0.9751	0.004	0.006	0.008	0.012	0.009	13:54:41	Yes
Mean:	0.9690	0.9690	0.004						
SD :	0.0086	0.0086	0.000						
%RSD:	0.89	0.89	0.89						

QC value within specified limits.

Element: Se Seq. No.: 8 AS Loc.: 4 Date: 09/15/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.00	26.00	0.106	0.108	0.200	0.031	0.046	13:57:40	No
2	25.33	25.33	0.103	0.105	0.193	0.036	0.045	14:00:40	Yes
Mean:	25.67	25.67	0.105						
SD :	0.4744	0.4744	0.002						
%RSD:	1.85	1.85	1.85						

QC value within specified limits.

002390

Element: Se Seq. No.: 9 AS Loc.: 1 Date: 09/15/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.8011	0.8011	0.003	0.005	0.009	0.011	0.008	14:03:38	No
2	0.7122	0.7122	0.003	0.005	0.010	0.010	0.008	14:06:36	Yes
Mean:	0.7567	0.7567	0.003						
SD :	0.0628	0.0628	0.000						
%RSD:	8.30	8.30	8.30						

QC value within specified limits.

Element: Se Seq. No.: 10 AS Loc.: 5 Date: 09/15/2000
Sample ID: BLKW C WG84214-03
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.2234	0.2234	0.001	0.003	0.009	0.013	0.009	14:09:35	No
2	0.7907	0.7907	0.003	0.005	0.008	0.012	0.010	14:12:38	Yes
Mean:	0.5070	0.5070	0.002						
SD :	0.4011	0.4011	0.002						
%RSD:	79.12	79.12	79.12						

Element: Se Seq. No.: 11 AS Loc.: 6 Date: 09/15/2000
Sample ID: LCSW C WG84214-04
µL dispensed: 3 from 40, 20 from 6

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	28.77	28.77	0.117	0.119	0.242	0.036	0.055	14:15:40	No
2	28.86	28.86	0.118	0.119	0.243	0.038	0.055	14:18:43	Yes
Mean:	28.81	28.81	0.118						
SD :	0.0621	0.0621	0.000						
%RSD:	0.22	0.22	0.22						

Element: Se Seq. No.: 12 AS Loc.: 7 Date: 09/15/2000
Sample ID: 0923301
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.025	2.025	0.008	0.010	0.020	0.052	0.033	14:21:46	No
2	2.287	2.287	0.009	0.011	0.019	0.052	0.033	14:24:48	Yes
Mean:	2.156	2.156	0.009						
SD :	0.1856	0.1856	0.001						
%RSD:	8.61	8.61	8.61						

Element: Se Seq. No.: 13 AS Loc.: 8 Date: 09/15/2000
Sample ID: 0909408.9
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.029	2.029	0.008	0.010	0.011	0.079	0.051	14:27:50	No
2	2.045	2.045	0.008	0.010	0.013	0.078	0.053	14:30:52	Yes
Mean:	2.037	2.037	0.008						
SD :	0.0113	0.0113	0.000						
%RSD:	0.55	0.55	0.55						

Element: Se Seq. No.: 14 AS Loc.: 9 Date: 09/15/2000
Sample ID: 08 SP.9
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	132.4	26.48	0.108	0.110	0.131	0.107	0.074	14:33:55	No
2	134.5	26.90	0.110	0.111	0.132	0.108	0.076	14:36:54	Yes
Mean:	133.5	26.69	0.109						
SD :	1.505	0.3009	0.001						
%RSD:	1.13	1.13	1.13						

Element: Se Seq. No.: 15 AS Loc.: 10 Date: 09/15/2000
Sample ID: 0909402
µL dispensed: 3 from 40, 20 from 10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.426	2.426	0.010	0.011	0.011	0.139	0.067	14:39:54	No
2	2.577	2.577	0.011	0.012	0.013	0.124	0.057	14:42:52	Yes
Mean:	2.501	2.501	0.010						
SD :	0.1069	0.1069	0.000						
%RSD:	4.27	4.27	4.27						

Element: Se Seq. No.: 16 AS Loc.: 11 Date: 09/15/2000
Sample ID: 0909404
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.268	2.268	0.009	0.011	0.011	0.196	0.102	14:45:51	No
2	1.612	1.612	0.007	0.008	0.015	0.201	0.103	14:48:48	Yes
Mean:	1.940	1.940	0.008						
SD :	0.4639	0.4639	0.002						
%RSD:	23.91	23.91	23.91						

Element: Se Seq. No.: 17 AS Loc.: 12 Date: 09/15/2000
Sample ID: 0909[illegible]
µL dispensed: 3 from 40, 20 from 12

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.532	1.532	0.006	0.008	0.011	0.104	0.046	14:51:45	No
2	1.383	1.383	0.006	0.007	0.010	0.097	0.040	14:54:42	Yes
Mean:	1.457	1.457	0.006						
SD :	0.1055	0.1055	0.000						
%RSD:	7.24	7.24	7.24						

Element: Se Seq. No.: 18 AS Loc.: 13 Date: 09/15/2000
Sample ID: SPLP BLK 9/11
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.2552	0.2552	0.001	0.003	0.008	0.023	0.019	14:57:39	No
2	0.3122	0.3122	0.001	0.003	0.009	0.017	0.013	15:00:34	Yes
Mean:	0.2837	0.2837	0.001						
SD :	0.0403	0.0403	0.000						
%RSD:	14.22	14.22	14.22						

Element: Se Seq. No.: 19 AS Loc.: 14 Date: 09/15/2000
Sample ID: BLKW W WG84003-03
µL dispensed: 3 from 40, 20 from 14

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.0395	0.0395	0.000	0.002	0.007	0.015	0.010	15:03:28	No
2	0.1863	0.1863	0.001	0.002	0.009	0.015	0.009	15:06:21	Yes
Mean:	0.1129	0.1129	0.000						
SD :	0.1038	0.1038	0.000						
%RSD:	91.97	91.97	91.97						

Element: Se Seq. No.: 20 AS Loc.: 4 Date: 09/15/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.21	24.21	0.099	0.100	0.203	0.035	0.048	15:09:19	No
2	24.75	24.75	0.101	0.103	0.204	0.033	0.045	15:12:18	Yes
Mean:	24.48	24.48	0.100						
SD :	0.3838	0.3838	0.002						
%RSD:	1.57	1.57	1.57						

QC value within specified limits.

Element: Se Seq. No.: 21 AS Loc.: 1 Date: 09/15/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.3573	0.3573	0.001	0.003	0.008	0.012	0.008	15:15:17	No
2	0.5323	0.5323	0.002	0.004	0.010	0.011	0.010	15:18:12	Yes
Mean:	0.4448	0.4448	0.002						
SD :	0.1238	0.1238	0.001						
%RSD:	27.83	27.83	27.83						

QC value within specified limits.

Element: Se Seq. No.: 22 AS Loc.: 15 Date: 09/15/2000
Sample ID: LCSW W WG84003-04
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	27.35	27.35	0.112	0.113	0.228	0.034	0.049	15:21:07	No
2	27.25	27.25	0.111	0.113	0.225	0.034	0.049	15:23:59	Yes
Mean:	27.30	27.30	0.111						
SD :	0.0744	0.0744	0.000						
%RSD:	0.27	0.27	0.27						

Element: Se Seq. No.: 23 AS Loc.: 16 Date: 09/15/2000
Sample ID: 0915601
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.56	12.56	0.051	0.053	0.058	0.213	0.119	15:26:51	No
2	12.49	12.49	0.051	0.053	0.057	0.223	0.117	15:29:42	Yes
Mean:	12.52	12.52	0.051						
SD :	0.0467	0.0467	0.000						
%RSD:	0.37	0.37	0.37						

Element: Se Seq. No.: 24 AS Loc.: 17 Date: 09/15/2000
Sample ID: 01 SP.9
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	31.97	31.97	0.130	0.132	0.139	0.245	0.133	15:32:35	No
2	32.22	32.22	0.131	0.133	0.144	0.248	0.138	15:35:26	Yes
Mean:	32.09	32.09	0.131						
SD :	0.1752	0.1752	0.001						
%RSD:	0.55	0.55	0.55						

Review w/ Spike @ Dilution

Element: Se Seq. No.: 25 AS Loc.: 4 Date: 09/15/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.62	25.62	0.105	0.106	0.190	0.037	0.043	15:38:22	No
2	26.73	26.73	0.109	0.111	0.193	0.034	0.045	15:41:22	Yes
Mean:	26.17	26.17	0.107						
SD :	0.7869	0.7869	0.003						
%RSD:	3.01	3.01	3.01						

QC value within specified limits.

Element: Se Seq. No.: 26 AS Loc.: 1 Date: 09/15/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.3486	0.3486	0.001	0.003	0.007	0.014	0.010	15:44:23	No
2	0.2379	0.2379	0.001	0.003	0.009	0.015	0.011	15:47:19	Yes
Mean:	0.2933	0.2933	0.001						
SD :	0.0783	0.0783	0.000						
%RSD:	26.69	26.69	26.69						

QC value within specified limits.

Method Name: SEKEM Element: Se
Method Description: SEKEM

Date: 09/15/2000
Technique: Furnace Calibration Equation: Zero Intercept: Linear
Wavelength: 196.0 nm Slit Width: 2.00 nm
Lamp Current: 0 Energy: 51
Sample Info File: SE091500.SIF Results Data Set: SE091500

Element: Se Seq. No.: 27 AS Loc.: 16 Date: 09/15/2000
Sample ID: 0915601.5
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.09	7.045	0.029	0.030	0.041	0.119	0.063	15:54:58	No
2	15.60	7.798	0.032	0.033	0.043	0.124	0.069	15:57:49	Yes
Mean:	14.84	7.421	0.030						
SD :	1.065	0.5326	0.002						
%RSD:	7.18	7.18	7.18						

Element: Se Seq. No.: 28 AS Loc.: 17 Date: 09/15/2000
Sample ID: 01 SP.5
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	27.91	27.91	0.114	0.115	0.157	0.143	0.089	16:00:41	No
2	28.46	28.46	0.116	0.118	0.155	0.143	0.088	16:03:32	Yes
Mean:	28.18	28.18	0.115						
SD :	0.3849	0.3849	0.002						
%RSD:	1.37	1.37	1.37						

Review to Verify

002396

Element: Se Seq. No.: 29 AS Loc.: 17 Date: 09/15/2000
Sample ID: 01 SP.5
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	30.73	30.73	0.125	0.127	0.166	0.146	0.086	16:08:23	No
2	31.33	31.33	0.128	0.129	0.166	0.145	0.090	16:11:16	Yes
Mean:	31.03	31.03	0.127						
SD :	0.4256	0.4256	0.002						
%RSD:	1.37	1.37	1.37						

Element: Se Seq. No.: 30 AS Loc.: 4 Date: 09/15/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.68	26.68	0.109	0.110	0.192	0.041	0.046	16:14:13	No
2	27.27	27.27	0.111	0.113	0.206	0.038	0.052	16:17:12	Yes
Mean:	26.98	26.98	0.110						
SD :	0.4143	0.4143	0.002						
%RSD:	1.54	1.54	1.54						

QC value within specified limits.

Element: Se Seq. No.: 31 AS Loc.: 1 Date: 09/15/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.8255	0.8255	0.003	0.005	0.010	0.014	0.010	16:20:10	No
2	0.5834	0.5834	0.002	0.004	0.008	0.013	0.009	16:23:06	Yes
Mean:	0.7044	0.7044	0.003						
SD :	0.1712	0.1712	0.001						
%RSD:	24.30	24.30	24.30						

QC value within specified limits.

Se

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST Ann L Thayer DATE 9/18/00 TIME 1225

THOD # 7740 Rev. SOP # ME503C REV. # 3 WORK GROUP # 84329

Cal STD SOURCE MW-A 2-6-5 ICV/CCV SOURCE MI-6-50A

POST SPK SOURCE MI-6-50B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
	ALT 9/18/00				28.				
					29.				
					30.				
					31.				
	S0				32.				
	S4				33.				
	S10				34.				
1.	S20				35.				
2.	S50				36.				
3.	ICV				37.				
4.	ICB			CCV, CCB	38.				
5.	0915801				39.				
6.	MS01				40.				
7.	MSD01				41.				
8.	04				42.				
9.	10				43.				
	0917601				44.				
11.	02				45.				
12.	0911901				46.				
13.	Du 01				47.				
14.	0901401			CCV, CCB	48.				
15.	02				49.				
16.	0924301				50.				
17.	02			%D, ID2	51.				
18.	06			%D CCV, CCB	52.				
19.	0924301	0.2		%D	53.				
20.	02	1			54.				
21.	06			%D² CCV, CCB	55.				
22.	01	0.1			56.				
23.	02				57.				
24.	06	↓		CCV, CCB	58.				
25.	ALT 9/18/00				59.				
26.					60.				

ALT 9/18/00

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution

ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

002398

Ann L Thayer 9/18/00 WA 84329 Box C

Method Name: SEKEM
Method Description: SEKEM

Element: Se

Date: 09/18/2000
Technique: Furnace
Wavelength: 196.0 nm
Lamp Current: 0
Sample Info File: SE091800.SIF

Calibration Equation: Zero Intercept: Linear
Slit Width: 2.00 nm
Energy: 50
Results Data Set: SE091800

Element: Se Seq. No.: 1 AS Loc.: 1 Date: 09/18/2000
Sample ID: S0
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.007	0.007	0.011	0.018	0.013	12:25:00	No
2			0.007	0.007	0.008	0.016	0.010	12:27:58	Yes
Mean:			0.007						
SD :			0.000						
%RSD:			3.36						

Auto-zero performed.

Element: Se Seq. No.: 2 AS Loc.: 2 Date: 09/18/2000
Sample ID: S4
µL dispensed: 16 from 1, 3 from 40, 4 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.016	0.023	0.046	0.024	0.014	12:31:01	No
2			0.014	0.021	0.041	0.024	0.016	12:34:04	Yes
Mean:			0.015						
SD :			0.001						
%RSD:			9.77						

Standard number 1 applied. [4.000]
Correlation Coefficient: 1.0000 Slope: 0.0037

Element: Se Seq. No.: 3 AS Loc.: 2 Date: 09/18/2000
Sample ID: S10
µL dispensed: 10 from 1, 3 from 40, 10 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.040	0.046	0.085	0.026	0.023	12:37:07	No
2			0.038	0.045	0.088	0.026	0.023	12:40:11	Yes
Mean:			0.039						
SD :			0.001						
%RSD:			2.91						

Standard number 2 applied. [10.000]
Correlation Coefficient: 0.9993 Slope: 0.0039

Element: Se Seq. No.: 4 AS Loc.: 2 Date: 09/18/2000
Sample ID: S20
µL dispensed: 3 from 40, 20 from 2

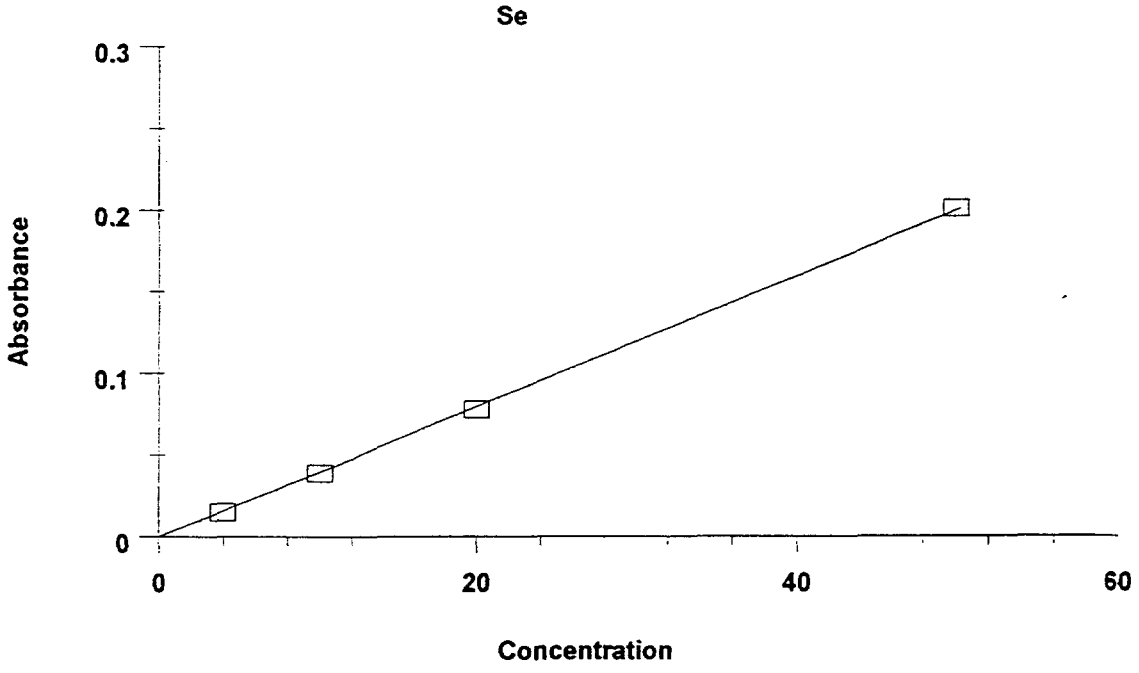
Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.077	0.084	0.163	0.032	0.035	12:43:10	No
2			0.078	0.085	0.157	0.032	0.038	12:46:09	Yes
Mean:			0.078						
SD :			0.000						
%RSD:			0.41						

Standard number 3 applied. [20.000]
Correlation Coefficient: 0.9999 Slope: 0.0039

Element: Se Seq. No.: 5 AS Loc.: 3 Date: 09/18/2000
Sample ID: S50
µL dispensed: 3 from 40, 20 from 3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.203	0.210	0.393	0.055	0.085	12:49:08	No
2			0.197	0.204	0.385	0.058	0.084	12:52:05	Yes
Mean:			0.200						
SD :			0.004						
%RSD:			2.10						

Standard number 4 applied. [50.000]
Correlation Coefficient: 0.9998 Slope: 0.0040



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.000	----	0.000	0.0002	3.3621
S4	0.015	4.000	3.726	0.0015	9.7726
S10	0.039	10.000	9.723	0.0011	2.9088
S20	0.078	20.000	19.45	0.0003	0.4064
S50	0.200	50.000	50.29	0.0042	2.1006

Correlation Coefficient: 0.99979 Slope: 0.00399

Element: Se Seq. No.: 6 AS Loc.: 4 Date: 09/18/2000
Sample ID: ICV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.66	25.66	0.102	0.109	0.199	0.036	0.047	12:55:06	No
2	25.95	25.95	0.103	0.110	0.196	0.035	0.044	12:58:05	Yes
Mean:	25.80	25.80	0.103						
SD :	0.2027	0.2027	0.001						
%RSD:	0.79	0.79	0.79						

QC value within specified limits.

Element: Se Seq. No.: 7 AS Loc.: 1 Date: 09/18/2000
Sample ID: ICB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.1210	-0.1210	0.000	0.006	0.009	0.011	0.011	13:01:04	No
2	-0.7928	-0.7928	-0.003	0.004	0.009	0.014	0.009	13:04:00	Yes
Mean:	-0.4569	-0.4569	-0.002						
SD :	0.4750	0.4750	0.002						
%RSD:	104.0	104.0	103.96						

QC value within specified limits.

Element: Se Seq. No.: 8 AS Loc.: 4 Date: 09/18/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.03	26.03	0.104	0.111	0.197	0.035	0.044	13:06:59	No
2	25.21	25.21	0.100	0.107	0.192	0.038	0.044	13:09:58	Yes
Mean:	25.62	25.62	0.102						
SD :	0.5850	0.5850	0.002						
%RSD:	2.28	2.28	2.28						

QC value within specified limits.

Element: Se Seq. No.: 9 AS Loc.: 1 Date: 09/18/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.7217	-0.7217	-0.003	0.004	0.007	0.013	0.007	13:12:57	No
2	-1.224	-1.224	-0.005	0.002	0.007	0.013	0.008	13:15:53	Yes
Mean:	-0.9730	-0.9730	-0.004						
SD :	0.3553	0.3553	0.001						
%RSD:	36.52	36.52	36.52						

QC value within specified limits.

Element: Se Seq. No.: 10 AS Loc.: 5 Date: 09/18/2000
Sample ID: 0915801 WG84214-01
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.2354	-0.2354	-0.001	0.006	0.010	0.110	0.055	13:18:52	No
2	-0.2183	-0.2183	-0.001	0.006	0.010	0.112	0.055	13:21:53	Yes
Mean:	-0.2268	-0.2268	-0.001						
SD :	0.0121	0.0121	0.000						
%RSD:	5.33	5.33	5.33						

Element: Se Seq. No.: 11 AS Loc.: 6 Date: 09/18/2000
Sample ID: 01 MS WG84214-05
µL dispensed: 3 from 40, 20 from 6

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.90	14.90	0.059	0.066	0.094	0.125	0.073	13:24:56	No
2	14.65	14.65	0.058	0.065	0.091	0.122	0.073	13:28:00	Yes
Mean:	14.77	14.77	0.059						
SD :	0.1777	0.1777	0.001						
%RSD:	1.20	1.20	1.20						

Element: Se Seq. No.: 12 AS Loc.: 7 Date: 09/18/2000
Sample ID: 01 MSD WG84214-06
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.80	13.80	0.055	0.062	0.085	0.122	0.072	13:31:04	No
2	14.11	14.11	0.056	0.063	0.086	0.125	0.070	13:34:07	Yes
Mean:	13.95	13.95	0.056						
SD :	0.2220	0.2220	0.001						
%RSD:	1.59	1.59	1.59						

Element: Se Seq. No.: 13 AS Loc.: 8 Date: 09/18/2000
Sample ID: 0915804
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.0398	0.0398	0.000	0.007	0.012	0.060	0.032	13:37:10	No
2	-0.1415	-0.1415	-0.001	0.006	0.013	0.060	0.035	13:40:11	Yes
Mean:	-0.0508	-0.0508	0.000						
SD :	0.1282	0.1282	0.001						
%RSD:	252.3	252.3	252.26						

Element: Se Seq. No.: 14 AS Loc.: 9 Date: 09/18/2000
Sample ID: 0915810
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.0841	-0.0841	0.000	0.007	0.010	0.116	0.059	13:43:12	No
2	-0.0855	-0.0855	0.000	0.007	0.012	0.121	0.060	13:46:12	Yes
Mean:	-0.0848	-0.0848	0.000						
SD :	0.0010	0.0010	0.000						
%RSD:	1.15	1.15	1.15						

Element: Se Seq. No.: 15 AS Loc.: 10 Date: 09/18/2000
Sample ID: 0917601
µL dispensed: 3 from 40, 20 from 10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	6.893	6.893	0.027	0.034	0.040	0.186	0.093	13:49:11	No
2	6.675	6.675	0.027	0.033	0.038	0.186	0.091	13:52:11	Yes
Mean:	6.784	6.784	0.027						
SD :	0.1543	0.1543	0.001						
%RSD:	2.27	2.27	2.27						

Element: Se Seq. No.: 16 AS Loc.: 11 Date: 09/18/2000
Sample ID: 0917602
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.8553	-0.8553	-0.003	0.003	0.009	0.119	0.053	13:55:11	No
2	-0.5639	-0.5639	-0.002	0.005	0.009	0.117	0.057	13:58:08	Yes
Mean:	-0.7096	-0.7096	-0.003						
SD :	0.2061	0.2061	0.001						
%RSD:	29.04	29.04	29.04						

Element: Se Seq. No.: 17 AS Loc.: 12 Date: 09/18/2000
Sample ID: 0911901 WG84214-02
µL dispensed: 3 from 40, 20 from 12

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.5607	-0.5607	-0.002	0.005	0.009	0.187	0.088	14:01:06	Nc
2	-0.3024	-0.3024	-0.001	0.006	0.008	0.191	0.088	14:04:01	Yes
Mean:	-0.4315	-0.4315	-0.002						
SD :	0.1827	0.1827	0.001						
%RSD:	42.33	42.33	42.33						

Element: Se Seq. No.: 18 AS Loc.: 13 Date: 09/18/2000
Sample ID: 01 DUP WG84214-07
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.382	-1.382	-0.006	0.001	0.009	0.198	0.090	14:06:58	Nc
2	-1.044	-1.044	-0.004	0.003	0.008	0.198	0.090	14:09:53	Yes
Mean:	-1.213	-1.213	-0.005						
SD :	0.2389	0.2389	0.001						
%RSD:	19.70	19.70	19.70						

Element: Se Seq. No.: 19 AS Loc.: 14 Date: 09/18/2000
Sample ID: 0901401
µL dispensed: 3 from 40, 20 from 14

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.029	-1.029	-0.004	0.003	0.008	0.068	0.033	14:12:47	Nc
2	-0.4192	-0.4192	-0.002	0.005	0.009	0.063	0.037	14:15:41	Yes
Mean:	-0.7240	-0.7240	-0.003						
SD :	0.4310	0.4310	0.002						
%RSD:	59.53	59.53	59.53						

Element: Se Seq. No.: 20 AS Loc.: 4 Date: 09/18/2000
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.99	24.99	0.100	0.106	0.188	0.038	0.042	14:18:40	Nc
2	24.95	24.95	0.099	0.106	0.186	0.036	0.043	14:21:40	Yes
Mean:	24.97	24.97	0.099						
SD :	0.0277	0.0277	0.000						
%RSD:	0.11	0.11	0.11						

QC value within specified limits.

Element: Se Seq. No.: 21 AS Loc.: 1 Date: 09/18/2000
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.9862	-0.9862	-0.004	0.003	0.008	0.015	0.011	14:24:38	No
2	-1.017	-1.017	-0.004	0.003	0.007	0.015	0.009	14:27:34	Yes
Mean:	-1.001	-1.001	-0.004						
SD :	0.0215	0.0215	0.000						
%RSD:	2.15	2.15	2.15						

QC value within specified limits.

Element: Se Seq. No.: 22 AS Loc.: 15 Date: 09/18/2000
Sample ID: 0901402
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.5630	-0.5630	-0.002	0.005	0.011	0.059	0.035	14:30:29	No
2	-1.120	-1.120	-0.004	0.002	0.008	0.063	0.034	14:33:23	Yes
Mean:	-0.8413	-0.8413	-0.003						
SD :	0.3936	0.3936	0.002						
%RSD:	46.79	46.79	46.79						

Element: Se Seq. No.: 23 AS Loc.: 16 Date: 09/18/2000
Sample ID: 0924301
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	44.26	44.26	0.176	0.183	2.239	1.844	3.246	14:36:15	No
2	49.20	49.20	0.196	0.203	2.475	2.016	2.841	14:39:06	Yes
Mean:	46.73	46.73	0.186						
SD :	3.498	3.498	0.014						
%RSD:	7.48	7.48	7.48						

Element: Se Seq. No.: 24 AS Loc.: 17 Date: 09/18/2000
Sample ID: 0924302
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	39.36	39.36	0.157	0.164	2.494	2.195	5.020	14:41:58	No
2	18.90	18.90	0.075	0.082	2.414	2.361	5.021	14:44:51	Yes
Mean:	29.13	29.13	0.116						
SD :	14.47	14.47	0.058						
%RSD:	49.68	49.68	49.68						

RSD is over the limit.

AL 9/18/00

Reanal a dil due to high Background

002405

2.3.2.3 Preparation Log(s)

002406

Metals Digestion Log

Analyst(s): SJK
Date: 09-14-00 @ 09:45
LCS: 5ml OSS-25-17
MS/MSD: 5ml OSS-25-17
Witness: GWH

Box: C
HNO_3 Lot #: N-10
HCl Lot #: N/A
H_2O_2 Lot#: PO-01
Earliest Sample Due Date: 09-15-00

Digestion Work Group: WG 84214
Analytical Work Group: WG

#	KEMRON Number	Initial Wt / Vol	Final Volume	Due Date	Comments
1	BLK	100ml	100ml		WG84214-03
2	LCS				-04
3	09-014-01			9-18	
4	-02			〃	
5	09-119-01			9-18	-02
6	-01DUP			〃	-07
7	09-158-01			9-18	NPDES -01
8	-01MS				-05
9	-01MSD				-06
10	-04				
11	-10			〃	〃
12	09-176-01			9-18	
13	-02			〃	
14	09-230-01			9-15	NPDES
15	-02			〃	〃
16	09-233-01			9-15	NPDES
17	09-243-01			9-20	level4
18	-02			〃	〃
19	-06			〃	〃
20	SPLP BLK 9/11				
21	09-094-02			9-15	level4
22	-04				
23	-06				
24	-08	〃	〃	〃	〃
25					
26		09-14-00 SJK			
27					

General Digestion

ME401 Revision # ____ - Method 3005A - Water [ ]
ME403 Revision # ____ - Method 3050B - Soil [ ]

Furnace Digestion

ME402 Revision # ____ - Method 3020A - Water [ ]
ME403 Revision # ____ - Method 3050B - Soil [ ]

As / Se Digestion

ME410 Revision # 3 - Method 7060/7740 - Water [X]

Comments:

9/14/00

2.3.3 Metals CVAA (Mercury) Data

METALS - CVAA (MERCURY) DATA
Login Number: 80009094

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analysis run log

✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank data
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- Post digestion spike (if applicable)
- Serial dilution (as needed)
- Standard additions results (as needed)

C. Preparation log(s)

Checked By: MMB Date: 09/20/00

2.3.3.1 QC Summary

002410

KEMRC RONMENTAL SERVICES
OHIO V. LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG84291
METHOD: 7470A
MATRIX: Water
UNITS: mg/L
INSTRUMENT: Leeman PS 202

RUN DATE: 09/15/2000
PREP DATE: 09/12/2000
ANALYST: DMD/AMT
DUPLICATE: L0009127-02
MS/MSD L0009099-01

			CONCENTRATION PPB								PERCENT RECOVERY							PERCENT RPD		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Mercury	0.000200	ND	0.001000	0.001100	ND	ND	ND	0.010000	0.011200	0.011400	110.0	80.0	120.0	112.0	114.0	75.0	125.0	NA	1.8	20

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
DL = DILUTED OUT
NA = NOT APPLICABLE

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

2.3.3.2 Raw Data

002412

KEMRON ENVIRONMENTAL SERVICES
MERCURY RUN LOGBOOK

ANALYST DmD / AmT DATE 09-15-00 TIME 1013
METHOD # 7470A SOP # ME404 REV. # 4 WORK GROUP # 84291 / 84292
CAL STD SOURCE DSS25-20 ICV/CCV SOURCE DSS25-21
POST SPK SOURCE DSS25-20 (10ppb Sp#1)

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S 0				27.	PBW X			WG84063 -03
	S 0.2				28.	LCSW X			-04
	S 1.0				29.	09104-01	0.9		
	S 2.0				30.	01 Spk ~~01 Spk~~			
	S 5.0				31.	02 03			
	S 10.0				32.	03 04 MSD			-01
	ICV				33.	04 MSD 08 MS			-05
	ICB			CCV/CCB	34.	08 MS 05			-06
	PBW H			WG84064-03	35.	05 06			
	LCSW H			-04	36.	06 07		*	CCV/CCB
	~~09094-03~~ SPLPBLK 9/11				37.	07 09 at 9:45			
	09094-02 ~~Spk~~	0.9			38.	09 10			
	02 Spk ~~04 02 Spk~~	~~0.9~~			39.	10			
	04 ~~06 06~~				40.	11			
	06 ~~08~~				41.	09142-03			
	~~at 9:45~~ 08 ~~MS~~				42.	04			-02
	~~09173-07~~ 08 MS				43.	04 Dup			-07
10.	~~TC BLK 9/11~~ 09173-07			CCV/CCB	44.	06			
11.	TC ~~09099-01 BLK 9/11~~			WG84018@1500	45.	08			
12.	09099-01 ~~01 MSD~~		5/50ml	WG84064-01	46.	156-01			CCV/CCB
13.	01 ~~MSD~~ 2nd			-05	47.	158-01			
14.	01 MSD			-06	48.	04			
15.	TC09100-01	0.9			49.	10			
16.	01 SPK ~~0.9~~				50.	168-03			
17.	103-01	0.9			51.	176-01			
18.	01 SPK ~~0.9~~				52.	-02			CCV/CCB
19.	01 MS				53.				
20.	125-02			CCV/CCB -02	54.				
21.	127-02			-07	55.				
22.	02 Dup				56.				
23.	149-01				57.				
24.	157-01	0.9	1/50ml		58.				
25.	01 Spk	"			59.				
26.	01 MS			CCV/CCB	60.				

Comments: _____

Note: No entry for Dil represents 1X Dilution

sampler Run Key:

CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
% D = Automatic Instrument Rerun due to % RSD > 20%
FRS = Rull Recalibration Sequence

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

Reviewed By: _____

002413

```
*** Standard: 1 Rep: 1                Seq:  464     10:13:39 15 Sep 2000 HG

Hg     .000     ppb       1596

*** Standard: 2 Rep: 1                Seq:  465     10:14:48 15 Sep 2000 HG

Hg     .200     ppb       16581

*** Standard: 3 Rep: 1                Seq:  466     10:15:58 15 Sep 2000 HG

Hg     1.00     ppb       75592

*** Standard: 4 Rep: 1                Seq:  467     10:17:09 15 Sep 2000 HG

Hg     2.00     ppb       144967

*** Standard: 5 Rep: 1                Seq:  468     10:18:30 15 Sep 2000 HG

Hg     5.00     ppb       353062

*** Standard: 6 Rep: 1                Seq:  469     10:19:50 15 Sep 2000 HG

Hg     10.0     ppb       705748
```


002414

```
RunProt: CLP2        Hg analysis in the ppb range
RunFold: 090700    Seq: 470  Batch:
                   Prnt: R/T On                        Pump: On
                   Rev: 4.2    10:23:53 15 Sep 2000 Xmit: Off Gas:      0.70 LPM
State: Idle                                             User: DMD PS202    A/S: On
```

CALIBRATION: Accepted Values protocol: CLP2

	Current	Accepted	Type	A	B	C	r
Hg	Yes	10:23 15-Sep-00	0	3.1499e-14	1.42541e-5	-6.85125e-2	.999929

```
Update coefficients
For help on <hotkey> press Shift <hotkey>
```


002415

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2ICV Seq: 470 10:25:21 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		106.	1.06	1.00	ppb	.000 %

see retry

*** Check Standard: 3 Ck3ICB Seq: 471 10:27:21 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-17.9	-.036	.200	ppb	.000 %

*** Check Standard: 2 Ck2ICV Seq: 472 10:45:53 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.	1.04	1.00	ppb	.000 %

*** Check Standard: 3 Ck3 ICB Seq: 473 10:47:21 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-22.6	-.045	.200	ppb	.000 %

*** Check Standard: 2 Ck2CCV Seq: 474 10:50:21 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	1.03	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 475 10:51:28 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-28.7	-.057	.200	ppb	.000 %

*** Sample ID: PBW H Seq: 476 10:52:35 15 Sep 2000 HG
WG84064-03

Hg	-.038	ppb	.000	%	-.038

*** Sample ID: LCSW H Seq: 477 10:54:16 15 Sep 2000 HG
WG84064-04

Hg	1.10	ppb	.000	%	1.10

*** Sample ID: SPLP BLK Seq: 478 10:55:44 15 Sep 2000 HG
9/11

Hg	-.041	ppb	.000	%	-.041

*** Sample ID: 09094-02 Seq: 479 10:57:01 15 Sep 2000 HG
UNSPIKED 0.9 Wgt 1.0000 Vol 1.1100

Hg	.262	ppb	.000	%	.262

*** Sample ID: 02SPK Seq: 480 10:58:08 15 Sep 2000 HG
SPIKED

Hg	1.35	ppb	.000	%	1.35

*** %Rec. ID: 02SPK Seq: 481 10:58:08 15 Sep 2000 HG
Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	111.	.236	.000	1.35	.000

002416

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 09094-04 Seq: 482 10:59:13 15 Sep 2000 HG

Hg	.216	ppb	.000	%	.216			

*** Sample ID: 09094-06 Seq: 483 11:00:29 15 Sep 2000 HG

Hg	.163	ppb	.000	%	.163			

*** Sample ID: 09094-08 Seq: 484 11:01:39 15 Sep 2000 HG
UNSPIKED

Hg	-.030	ppb	.000	%	-.030			

*** Sample ID: 08MS Seq: 485 11:03:05 15 Sep 2000 HG
SPIKED

Hg	1.12	ppb	.000	%	1.12			

*** %Rec. ID: 08MS Seq: 486 11:03:05 15 Sep 2000 HG
Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	115.	-.030	.000	1.12	.000

*** Sample ID: 09173-07 Seq: 487 11:05:02 15 Sep 2000 HG

Hg	.809	ppb	.000	%	.809			

*** Check Standard: 2 Ck2CCV Seq: 488 11:06:09 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		102.	1.02	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 489 11:07:16 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-28.8	-.058	.200	ppb	.000 %

*** Sample ID: TC BLK Seq: 490 11:09:03 15 Sep 2000 HG
9/11

Hg	-.025	ppb	.000	%	-.025			

*** Sample ID: TC09099-01 Seq: 491 11:10:33 15 Sep 2000 HG
UNSPIKED WG84064-01 Wgt 5.0000 Vol 50.000

Hg	-.288	ppb	.000	%	-.288			

*** Sample ID: 01MS Seq: 492 11:11:41 15 Sep 2000 HG
SPIKED WG84064-05 Wgt 5.0000 Vol 50.000

Hg	11.2	ppb	.000	%	11.2			

002417

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** %Rec. ID: 01MS Seq: 493 11:11:41 15 Sep 2000 HG

Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	115.	-.029	.000	1.12	.000

*** DUP ID: 01MSD 01MS Seq: 494 11:13:01 15 Sep 2000 HG

	RPD		Orig.	Dup.
Hg	2.19	%	11.2	11.4

*** Sample ID: 01MSD Seq: 495 11:13:01 15 Sep 2000 HG

DUP WG84064-06 Wgt 5.0000 Vol 50.000

Hg	11.4	ppb	.000	%	11.4

*** Sample ID: TC90100-01 Seq: 496 11:14:08 15 Sep 2000 HG

UNSPIKED 0.9 Wgt 5.0000 Vol 55.500

Hg	-.568	ppb	.000	%	-.568

*** Sample ID: 01SPK Seq: 497 11:15:14 15 Sep 2000 HG

SPIKED Wgt 5.0000 Vol 50.000

Hg	10.7	ppb	.000	%	10.7

*** %Rec. ID: 01SPK Seq: 498 11:15:14 15 Sep 2000 HG

Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	113.	-.051	.000	1.07	.000

*** Sample ID: TC09103-01 Seq: 499 11:16:33 15 Sep 2000 HG

UNSPIKED 0.9 Wgt 5.0000 Vol 55.500

Hg	-.453	ppb	.000	%	-.453

*** Sample ID: 01SPK Seq: 500 11:17:38 15 Sep 2000 HG

SPIKED Wgt 5.0000 Vol 50.000

Hg	10.9	ppb	.000	%	10.9

*** %Rec. ID: 01SPK Seq: 501 11:17:38 15 Sep 2000 HG

Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	113.	-.041	.000	1.09	.000

*** Sample ID: 01MS Seq: 502 11:19:06 15 Sep 2000 HG

Wgt 1.0000 Vol 50.000

Hg	~~56.5~~ 11.3	ppb	.000	%	56.5

acc 9-15-00 (wrong prep factor used)

Dil 5/50

*** Sample ID: TC09125-02 Seq: 503 11:20:25 15 Sep 2000 HG

Wgt 5.0000 Vol 50.000

Hg	-.413	ppb	.000	%	-.413

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2CCV Seq: 504 11:21:37 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.	1.04	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 505 11:22:45 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-31.5	-.063	.200	ppb	.000 %

*** Sample ID: TC09127-02 Seq: 506 11:24:02 15 Sep 2000 HG
WG84064-02 Wgt 5.0000 Vol 50.000

Hg	-.224	ppb	.000	%	-.224

*** Sample ID: 02DUP Seq: 507 11:25:07 15 Sep 2000 HG
WG84064-07 Wgt 5.0000 Vol 50.000

Hg	-.286	ppb	.000	%	-.286

*** Sample ID: TC09149-01 Seq: 508 11:26:14 15 Sep 2000 HG
Wgt 5.0000 Vol 50.000

Hg	-.298	ppb	.000	%	-.298

*** Sample ID: ~~TC09157-01~~ W Seq: 509 11:27:21 15 Sep 2000 HG
UNSPIKED 0.9 Wgt 1.0000 Vol 55.500

Hg	20.9	ppb	.000	%	20.9

*** Sample ID: 01SPK Seq: 510 11:28:42 15 Sep 2000 HG
SPIKED Wgt 1.0000 Vol 50.000

Hg	73.0	ppb	.000	%	73.0

*** %Rec. ID: 01SPK Seq: 511 11:28:42 15 Sep 2000 HG
Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	108.	.377	.000	1.46	.000

*** Sample ID: 01MS Seq: 512 11:29:57 15 Sep 2000 HG
Wgt 1.0000 Vol 50.000

Hg	45.0	ppb	.000	%	45.0

*** Check Standard: 2 Ck2CCV Seq: 513 11:31:19 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		99.4	.994	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 514 11:32:40 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-23.5	-.047	.200	ppb	.000 %

*** Check Standard: 2 Ck2CCV Seq: 515 12:10:28 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.	1.04	1.00	ppb	.000 %

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 3 Ck3CCB Seq: 516 12:12:01 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-13.4	-.027	.200	ppb	.000 %

*** Sample ID: PBW X Seq: 517 12:13:19 15 Sep 2000 HG
WG84063-03

Hg	-.016	ppb	.000	%	-.016

*** Sample ID: LCSW X Seq: 518 12:14:30 15 Sep 2000 HG
WG84063-04

Hg	1.12	ppb	.000	%	1.12

*** Sample ID: 09104-01 Seq: 519 12:16:38 15 Sep 2000 HG
0.9 Wgt 1.0000 Vol 1.1100

Hg	-.034	ppb	.000	%	-.034

*** Sample ID: 01SPK Seq: 520 12:17:58 15 Sep 2000 HG

Hg	1.07	ppb	.000	%	1.07

*** Sample ID: 09104-02 Seq: 521 12:19:25 15 Sep 2000 HG

Hg	-.050	ppb	.000	%	-.050

*** Sample ID: 09104-03 Seq: 522 12:20:41 15 Sep 2000 HG
WG84063-01

Hg	-.041	ppb	.000	%	-.041

*** Sample ID: 04MSD Seq: 523 12:21:56 15 Sep 2000 HG
WG84063-05

Hg	1.11	ppb	.000	%	1.11

*** Sample ID: 08MS Seq: 524 12:23:03 15 Sep 2000 HG
WG84063-06

Hg	1.09	ppb	.000	%	1.09

*** Sample ID: 09104-05 Seq: 525 12:24:23 15 Sep 2000 HG

Hg	-.037	ppb	.000	%	-.037

*** Sample ID: 09104-06 Seq: 526 12:25:40 15 Sep 2000 HG

Hg	-.042	ppb	.000	%	-.042

*** Check Standard: 2 Ck2CCV Seq: 527 12:26:58 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	1.03	1.00	ppb	.000 %

002420

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 3 Ck3CCB Seq: 528 12:28:10 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-29.2	-.058	.200	ppb	.000 %

*** Sample ID: 09104-07 Seq: 529 12:29:20 15 Sep 2000 HG

Hg -.046 ppb .000 % -.046

*** Sample ID: 09104-09 Seq: 530 12:30:56 15 Sep 2000 HG

Hg -.028 ppb .000 % -.028

*** Sample ID: 09104-10 Seq: 531 12:32:13 15 Sep 2000 HG

Hg -.037 ppb .000 % -.037

*** Sample ID: 09104-11 Seq: 532 12:33:20 15 Sep 2000 HG

Hg -.040 ppb .000 % -.040

*** Sample ID: 09142-02 Seq: 533 12:34:24 15 Sep 2000 HG

Hg -.019 ppb .000 % -.019

*** Sample ID: 09142-04 Seq: 534 12:35:59 15 Sep 2000 HG
WG84063-02
Hg -.034 ppb .000 % -.034

*** DUP ID: 04DUP 09142-04 Seq: 535 12:37:15 15 Sep 2000 HG

	RPD		Orig.	Dup.
Hg	25.7	%	-.034	-.026

*** Sample ID: 04DUP Seq: 536 12:37:15 15 Sep 2000 HG
DUP WG84063-07
Hg -.026 ppb .000 % -.026

*** Sample ID: 09142-06 Seq: 537 12:38:31 15 Sep 2000 HG

Hg -.037 ppb .000 % -.037

*** Sample ID: 09142-08 Seq: 538 12:39:59 15 Sep 2000 HG

Hg -.039 ppb .000 % -.039

*** Sample ID: 09156-01 Seq: 539 12:41:05 15 Sep 2000 HG

Hg -.042 ppb .000 % -.042

002421

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2CCV Seq: 540 12:42:12 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.	1.04	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 541 12:43:20 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-23.0	-.046	.200	ppb	.000 %

*** Sample ID: 09158-01 Seq: 542 12:44:51 15 Sep 2000 HG

Hg	.214	ppb	.000	%	.214

*** Sample ID: 09158-04 Seq: 543 12:46:09 15 Sep 2000 HG

Hg	.114	ppb	.000	%	.114

*** Sample ID: 09158-10 Seq: 544 12:47:27 15 Sep 2000 HG

Hg	.304	ppb	.000	%	.304

*** Sample ID: 09168-03 Seq: 545 12:49:18 15 Sep 2000 HG

Hg	-.013	ppb	.000	%	-.013

*** Sample ID: 09176-01 Seq: 546 12:50:27 15 Sep 2000 HG

Hg	-.023	ppb	.000	%	-.023

*** Sample ID: 09176-02 Seq: 547 12:51:33 15 Sep 2000 HG

Hg	-.036	ppb	.000	%	-.036

*** Check Standard: 2 Ck2CCV Seq: 548 12:53:21 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	1.03	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 549 12:54:34 15 Sep 2000 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-28.1	-.056	.200	ppb	.000 %

002422

2.3.3.3 Preparation Log(s)

002423

Mercury Prep tion Log

V he # 72
age # 8

Analyst(s): GWH
Date: 09-12-00 @ 1231
LCS: 0.5ml DSS 25-18
MS/MSD: 0.5ml DSS 25-18
Witness: [signature]

ME404 Revision # 4 - Method 7470A - Water [X]
ME405 Revision # ____ - Method 7471A - Soil
H_2SO_4 Lot #: S-02
$K_2S_2O_8$ Lot #: PS-20
$KMnO_4$ Lot #: PM-26
HNO_3 Lot #: N-16

Box: H
Due Date: 09-15-00
Digestion Work Group #: 84064
Pressure & Time N/A
Bath Temp/Time@ start: 94°C @1300
Bath Temp/Time @ end: 95°C @1500

	KEMRON Number	Initial Wt/Vol	Final Volume	Hg, TC Hg, Hg-D	Comments	Due Date
1	BLK	50ml	50ml		WG 84064-03	
2	LCS				04	
3	SPLP BLK 9/11					
4	09-094-02			HG	KIBER-601-SPLP-Level-4	9-15
5	.04					
6	06					
7	08					
8	08 MS					
9	173-07			HG		9-19
10	TC BLK 9/11			&	WG-94018-@1500	
11	TC 09-099-01	5ml		TC-HG	01	9-15
12	01 MS				05	
13	01 MSD				06	
14	100-01			TC-HG		9-15
15	103-01			TC-HG		9-18
16	01 MS					
17	125-02			TC-HG		9-15
18	127-02			TC-HG	02	9-15
19	02 DUP				07	
20	149-01			TC-HG		9-16
21	157-01 *	1.027		HG	*LIQUID WASTE	9-18
22	01 MS					
23						
24						
25				GWH 09-12-00		
26						

ICV / CCV: DSS 25-21
Stds: 0, 0.2, 1.0, 2.0, 5.0, 10: DSS 25-20
Reviewed By: [signature] 9/12/00

002424