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March 27, 2018

Nigel N. Crawford, P.E.
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

Re: Edgewater Realty, LLC (Owner)
Former Dexter Chemical, LLC Site
819-845 Edgewater Road
810-842 Whittier Street
Bronx, New York
VCP #V00186-2
Whitman Project #97-09-10
Periodic Review Report

Dear Mr. Crawford:

Attached please find paper and electronic copies (on the enclosed Compact Disc (CD)) of the 2nd Annual Period Review Report (PRR) for the above-referenced Site. The following items are also provided as Attachments to the report, in hard copy and on the attached CD in electronic format:

- Site Management Periodic Review Report Institutional and Engineering Controls Certification Forms;
- Annual Monitoring Report Form for Institutional & Engineering Controls – Field Form;
- Groundwater Sampling Purge Sheets;
- Laboratory Data Packages – May 23, 2017 Groundwater Sampling; and
- Laboratory Data Package – December 7, 2017 Groundwater Sampling.

In addition, full electronic copies of the final approved Site Management Plan (SMP) and final approved Final Engineering Report (FER) are also provided on the enclosed CD for ease of reference, which contain additional detailed maps, figures, historic data, site history and relevant site information. The full laboratory data packages for the sampling reported or completed over

the PRR reporting period (March 2, 2017 through March 2, 2018) are also provided on the enclosed CD.

Should you have any questions please contact me at (732) 390-5858.

Very truly yours,



Edward Huss, P.E.
Vice President, Environmental Engineering and Remediation Services

EH/ks
Attachments

cc: Jane O'Connell, NYSDEC
Gary Litwin, NYSDOH
Dawn Hettrick, NYSDOH
Rosalie K. Rusinko, Esq., NYSDEC
Bernard Tivnan, Edgewater Realty, LLC
Leonard Sitver, Formerly of Dexter Chemical, LLC
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Former Dexter Chemical Site
819-845 Edgewater Road &
810-842 Whittier Street
BRONX, NEW YORK

Periodic Review Report

NYSDEC Site Number: V00186-2
Index Number: W2-0864-03-08

Prepared for:
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MARCH 2018

FORMER DEXTER CHEMICAL SITE
BRONX, NEW YORK
PERIODIC REVIEW REPORT
MARCH 2018

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Attachment 1

Site Management Periodic Review Report Institutional and Engineering Controls Certification Forms

Attachment 2

Annual Monitoring Report Form for Institutional & Engineering Controls - Field Form

Attachment 3

Groundwater Sampling Purge Sheets

Attachment 4

Laboratory QA/QC Data Package – May 23, 2017 Groundwater Sampling

Attachment 5

Laboratory QA/QC Data Package – December 7, 2017 Groundwater Sampling

PROVIDED ON THE ENCLOSED COMPACT DISC

- A Full Copy of This Periodic Review Report (PRR), Including All Attachments;
- The Final Approved Site Management Plan (SMP);
- The Final Approved Final Engineering Report (FER); and
- The full laboratory data packages for the sampling completed over the PRR reporting period (March 2, 2017 through March 2, 2018).

FORMER DEXTER CHEMICAL SITE
BRONX, NEW YORK
PERIODIC REVIEW REPORT
MARCH 2018

1.0 EXECUTIVE SUMMARY AND SITE OVERVIEW

Dexter Chemical, LLC completed a Remedial Action at the former Dexter Chemical site located at 819-845 Edgewater Road and 810-842 Whittier Street, Bronx, New York (the Site) under the New York State Department of Environmental Conservation's (NYSDEC) Voluntary Cleanup Program (VCP). The Site was remediated in accordance with the Voluntary Cleanup Agreement (VCA) Site #V00186-2, Index #W2-0864-03-08, which was executed on December 3, 2003.

The Site is located in the County of Bronx, (New York City), New York and is identified as 819-845 Edgewater Road, (Block 2762, Lots 294, 299 and 300) and 810-842 Whittier Street, (Block 2762, Lots 257 and 272) on the Bronx, New York City Tax Map. The Site is bounded by an industrial/commercial lot to the north, a commercial lot to the south, Edgewater Road to the east, and Whittier Street to the west. Maps showing the site features are presented on the Figures and in the Attachments of this report.

Under the approved Remedial Action Workplan (RAW) for the Site, a remedial action Soil Vapor Extraction / Air Sparging (SVE/AS) treatment system was constructed to treat soil and groundwater impacted by volatile organic compounds (VOCs) at two areas of concern on the Site. The system was completed and tested in 2009 and operated continuously from that time through the spring of 2012. Post-treatment soil and groundwater sampling indicated the system met the goals of the RAW. NYSDEC subsequently approved the decommissioning of the SVE/AS system in August 2013, and all system points and wells not needed for ongoing monitoring were subsequently sealed.

All reports of the remedial action, including quarterly progress reports, were submitted to and retained by NYSDEC's Region 2 office located at 41-40 21st Street, Long Island City, New York in both hard copy and electronic formats.

The Site was sold to Edgewater Realty, LLC (current Owner) in May 2007. A Declaration of Covenants and Restrictions (DCR) for the Site was executed by Edgewater Realty, LLC (Owner) on September 6, 2012, and filed with the County Clerk on September 26, 2012. The County Recording Identifier Number for the DCR filing is 2013022501222001001E6657. The DCR was filed to act as an Institutional Control (IC) to manage residual contamination remaining at the Site in accordance with a Site Management Plan.

Following completion of active remediation under the VCA, subsurface residual contamination remained at the former Dexter site largely as a result of the property having been raised in elevation decades earlier by the use of contaminated historic fill containing compounds such as metals, VOCs and semi-volatile organic compounds (SVOCs). A Site Management Plan (SMP) was developed to manage residual contamination at the site in perpetuity or until extinguishment of the Declaration of Covenants and Restrictions in accordance with the VCA.

The entire site is covered with an impermeable composite cap "Cover System" consisting of asphalt-covered roads and areas, concrete-covered sidewalks and areas and concrete building slabs and floors.

This Cover System acts as the engineering control (EC) and permanent Site remedy across the entire restricted property to prevent human contact with the subsurface residual contamination.

Dexter Chemical, LLC's final Site Management Plan was submitted to NYSDEC in March 2015. The SMP was subsequently approved by NYSDEC on March 23, 2015. Dexter also submitted a Final Engineering Report (FER) summarizing all environmental remediation work conducted at the Site. The NYSDEC approved the FER in December 2015. Pursuant to the VCA, NYSDEC issued the final Release and Covenant Not to Sue for the Site on December 30, 2015.

On March 30, 2017, Edgewater Realty, LLC submitted their 1st Annual Periodic Review Report (PRR) to the NYSDEC which summarized work conducted at the Site, and/or reported to the NYSDEC over the reporting period of December 1, 2015 through March 2, 2017. This report included (as attachments) the previously submitted March 2016 Soil Vapor Monitoring Report, the August 2016 1st Semi-annual Groundwater Sampling Interim Progress Report and the January 2017 2nd Semi-annual Groundwater Sampling Interim Progress Report. The NYSDEC approved this 1st Annual PRR on May 5, 2017.

This 2nd Annual PRR summarizes work conducted at the Site, and/or reported to the NYSDEC over the reporting period of March 2, 2017 through March 2, 2018. In accordance with the SMP, the following work, presented herein, was completed over the above-mentioned review period:

- Two semi-annual groundwater sampling events, conducted in May 2017 and December 2017; and
- A review of required Site IC's, and annual Site-Wide inspection (conducted on December 7, 2017) of the EC Cover/Cap System, including inspection, in accordance with the SMP, was completed to confirm:

1. No vegetable gardens and farming are present/conducted on the controlled property;

2. No groundwater underlying the property is being used;

3. No disturbance / excavation of residual contaminated material / soil has been conducted;

4. The Controlled Property is only being used for commercial or industrial purposes;

5. The Controlled Property is not being used for residential purposes;

6. Compliance with the DCR by the Grantor and the Grantor's successors and assigns with all elements of the SMP;

7. All EC's are operated and maintained as specified in the SMP;

8. Engineering Controls have not been damaged, disturbed or removed, and,

9. All onsite monitoring devices (i.e. monitoring wells) are protected and maintained.

Based on the IC and EC review and inspections, no areas of non-compliance with the SMP or DCR were identified.

As detailed in Section 5.0 of this PRR, groundwater sampling event results documented over this reporting period remained consistent with SVE/AS post-treatment data results. Therefore, no additions to the monitoring and sampling frequencies or requirements specified in the SMP are recommended. Pursuant to the approved SMP, which required four (4) post treatment semiannual groundwater sampling events (only), all of which have been completed, (in May and November of 2016 and in May and December of 2017), no further groundwater sampling is required for this Site. Following NYSDEC approval of this 2018 PRR (this report), all remaining monitoring wells will be properly sealed by a licensed driller.

Therefore, <u>no</u> changes to the SMP, frequency of site inspection or monitoring, sampling or review of IC compliance or EC inspection, or frequency of PRR submission are recommended.

In addition to this full PRR and all of its Attachments, full electronic copies of the final approved Site Management Plan and final approved Final Engineering Report are also provided on the enclosed CD for ease of reference, which contain additional detailed maps, figures, historic data and site history, and relevant site information. The full laboratory data packages for the sampling completed over the PRR reporting period (March 2, 2017 through March 2, 2018) are also provided on the enclosed CD.

2.0 INSTITUTIONAL CONTROL (IC) / ENGINEERING CONTROL (EC) PLAN COMPLIANCE REPORT

This section summarizes compliance with the SMP-required ICs and ECs applicable to the Site. Compliance with the ICs and ECs were verified over the reporting period (March 2, 2017 through March 2, 2018) via a site-wide annual inspection conducted across the entire property on December 7, 2017, and through interview and discussion with the property owner.

Certification forms verifying compliance with the ICs and ECs for the property are provided in ***Attachment 1 - Site Management Periodic Review Report Institutional and Engineering Controls Certification Forms.*** Certification is provided by the Owner of the Property, Bernard Tivnan, of Edgewater Realty, LLC, and the New York State Certifying Professional Engineer, Barry I. Skoultchi, P.E., of Barry I. Skoultchi P.E., LLC.

The annual SMP field inspection form verifying the site-wide inspection conducted on December 7, 2017 is provided in ***Attachment 2 - Annual Monitoring Report Form for Institutional & Engineering Controls - Field Form.***

2.1 Institutional Control (IC) and Engineering Control (EC) Compliance and Remedy Protection and Effectiveness

Compliance with the ICs and ECs applicable to the Site are conducted through compliance with the SMP and the DCR filed for the property. The ICs and ECs in place at the Site represent the permanent Site remedies. As detailed below in this Section, this permanent Site remedy has been effective and is protective of human health and the environment.

2.2 Institutional and Engineering Controls

A series of Institutional Controls are required under the RAWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent and/or regulate future exposure to residual contamination by controlling disturbances of the subsurface contamination; and, (3) restrict the use of the Site to commercial and industrial uses only. Adherence to these Institutional Controls

on the Site (Controlled Property) is required under the DCR and are implemented under the Site Management Plan. These Institutional Controls are:

- Compliance with the DCR by the Grantor and the Grantor's successors and assigns with all elements of this SMP. The Site, nor any portions of the Site were sold during the reporting period, verifying compliance with this requirement.

- All Engineering Controls must be operated and maintained as specified in this SMP. The entire site is covered with an impermeable composite cap "Cover System" (the only Site EC) consisting of asphalt-covered roads and areas, concrete-covered sidewalks and areas and concrete building slabs and floors. Some minor cracks were identified during the annual December 7, 2017 inspection which were promptly sealed and repaired with concrete sealant. Therefore, the EC continues to provide protection of human health to prevent contact with subsurface impacted material, verifying compliance with this requirement.

- A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, and concrete building slabs must be inspected, certified and maintained as required in the SMP. As mentioned in the above bullet, the composite cover system has been maintained in accordance with the SMP, verifying compliance with this requirement.

- Engineering Controls may not be disturbed or damaged, except as permitted by this SMP, the DCR, or as permitted or required by NYSDEC. No disturbance to the EC "Cover System" was noted or identified over the reporting period, verifying compliance with this requirement.

- All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP. Pursuant to the SMP, the EC composite "Cover System" was inspected and certified over the reporting period, verifying compliance with this requirement.

- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in this SMP. Section 5.0 of this report describes the monitoring and sampling completed over the reporting period, verifying compliance with this requirement.

- Data and information pertinent to Site Management for the Controlled Property must be reported to NYSDEC at the frequency and in a manner defined in this SMP. No other data, information or reporting triggers not already discussed were required over the

reporting period (i.e. monitoring conducted, as described in Section 5.0 of this report below), verifying compliance with this requirement.

- All ECs and all on-Site environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected, maintained, repaired and replaced as necessary to ensure the ECs and devices function in the manner specified in this SMP. The Site-wide monitoring wells were inspected on December 7, 2017, and any minor repairs were promptly completed as required, verifying compliance with this requirement.

- Engineering Controls may not be removed or otherwise discontinued without an amendment or the extinguishment of the DCR. No ECs (the Site-wide Cover System) were removed or disturbed over the reporting period, verifying compliance with this requirement.

2.3 Adherence to Institutional and Engineering Controls

The Site (Controlled Property) has a series of Institutional Controls in the form of Site use restrictions. Adherence to these Institutional Controls is required by the DCR. Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Controlled Property are prohibited. No farming or gardens were identified on the property during the Site-wide inspection on December 7, 2017 verifying compliance with this requirement.

- The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose, except for investigation or remediation. No groundwater is being used at the Site based on the December 7, 2017 inspection, verifying compliance with this requirement.

- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in this SMP. No residual contaminated material was removed or disturbed over the reporting period, verifying compliance with this requirement.

- The Controlled Property may only be used for commercial and industrial use, provided that the long-term Engineering and Institutional Controls included in this SMP are employed. No residential Site-use was observed during the December 7, 2017 Site-wide inspection, and the ECs and ICs are in-place and employed at the Site. No ECs (the Site-

wide Cover System) were removed or disturbed over the reporting period, verifying compliance with this requirement.

- The Controlled Property may not be used for a higher level of use, such as restricted residential use without an amendment or the extinguishment of this Declaration of Covenants and Restrictions. No residential Site-use was observed during the December 7, 2017 Site-wide inspection, verifying compliance with this requirement.

- Grantor agrees to submit periodically (annually in the Site Management Plan Report) to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This certification must be provided by an expert or professional assigned by the then owner of the site, (the "Remedial Engineer") and this annual statement must be certified by an expert that the NYSDEC finds acceptable or is otherwise authorized by applicable law.

Based on the Site-wide inspection conducted on December 7, 2017, the EC employed at the property remained unchanged from the previous certification. Nothing has occurred which impairs the ability of the Site-wide EC “Cover System” to protect the public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC access is available. The certification forms have been submitted (annually) within this report by the Owner and P.E., (see ***Attachment 1 - Site Management Periodic Review Report Institutional and Engineering Controls Certification Forms).*** The items mentioned in this paragraph verify compliance with this requirement.

2.4 IC and EC Compliance Plan Conclusions and Recommendations

As detailed above, based on a review of the ICs and ECs applicable to the Site under the SMP, compliance with the SMP is verified for this reporting period.

3.0 MONITORING PLAN COMPLIANCE REPORT

3.1 Monitoring and Sampling Completed Over Reporting Period

As required in the SMP, monitoring required or reported over the PRR reporting period included:

- Semi-annual groundwater sampling of select wells.

The semi-annual groundwater sampling events were conducted in May 2017 and December 2017. The results of the groundwater sampling are presented in Section 5.0 of this report.

3.2 Monitoring Results Conclusions and Recommendations

Based on a review of the sampling data collected over the reporting period (as detailed in Section 5.0), results remain consistent with prior SVE/AS post-treatment data results. Therefore, no additions or changes to the monitoring and sampling frequencies or requirements specified in the SMP are recommended. Pursuant to the approved SMP, which required four (4) post treatment semiannual groundwater sampling events (only), all of which have been completed, (in May and November of 2016 and in May and December of 2017), no further groundwater sampling is required for this Site. Following NYSDEC approval of this 2018 PRR (this report), all remaining monitoring wells will be properly sealed by a licensed driller.

4.0 SUMMARY OF PREVIOUS SITE ACTIVITIES AND SAMPLING

As a summary for reference, the following investigations have been conducted on the property prior to this current reporting period of March 2, 2017 to March 2, 2018. The primary activities included soil and groundwater remediation and ground water monitoring.

Historic groundwater sampling results showed select VOCs above the NYSDEC Groundwater Standards (GWS) in two distinct areas of the property identified as Area A and Area I. A SVE/AS system was installed across the property to mitigate the subsurface VOC impacts.

The SVE/AS system began full-time operation starting with Area A in September 2009. In March 2011 when asymptotic levels were reached in Area A, the SVE/AS system in Area I was activated. In December 2011, asymptotic levels were reached in Area I. As per the draft SMP, the entire system operated for another three months and was fully shut down in March 2012.

From initiation of the system and during the system operation, groundwater samples were collected from monitoring wells in both areas to monitor the efficacy of the system. The Area A wells included MW-6, MW-8, PZ-3, PZ-4 and SVE/RW-5 and the Area I wells included MW-3, MW-7, MW-11 and SVE/RW-13I. The groundwater results during system operation showed a general decrease in the VOCs of concern. After the full system shut down in March 2012, two quarters of groundwater samples were collected. These results continued to show an overall reduction in VOC concentrations except for in PZ-4. In April 2013, after a baseline round of groundwater samples were collected in PZ-4 and the wells in Area I, a one-time bioremediation

injection was conducted at PZ-4. Subsequent groundwater sampling events at PZ-4 showed the injection was successful in reducing the VOC concentrations.

Whitman prepared a final Site Management Plan and a Final Engineering Report which were approved by NYSDEC in 2015. The SMP included IC and EC compliance, and four (4) rounds (only) of semi-annual groundwater monitoring in 2016 and 2017.

As part of the final approved SMP, the first two rounds (of four (4)) of the final required semi-annual groundwater monitoring events were conducted in May and November 2016. MW-6, PZ-3 and PZ-4 of Area A and MW-3, MW-7 and MW-11 of Area I were included in the monitoring. The results of the 2016 groundwater sampling were consistent with the prior post-remediation sampling results. The results of the 2017 groundwater sampling events are further discussed below, and they were also consistent with the 2016 groundwater sampling event results and the prior post-remediation sampling results.

5.0 2017 POST-REMEDIAL GROUNDWATER MONITORING

In accordance with the NYSDEC-approved 2015 SMP, Whitman completed the final two (2) required semiannual groundwater sampling events from monitoring wells MW-3, MW-6, MW-7, MW-11, PZ-3 and PZ-4 on May 23, 2017 and December 7, 2017.

A site plan is provided as **Figure 1**. A groundwater sample location map depicting the relevant volatile organic compound (VOC) sampling results (1998 through 2017) is provided as **Figure 2**. The most recent (2017) and historic groundwater VOC results summaries are presented in **Table 1 and Tables 2.0, 2.1 and 2.2**, respectively.

5.1 MAY 2017 SAMPLING

5.1.1 Groundwater Sampling Procedures

As required, groundwater wells were sampled using the low flow purging and sampling procedures outlined in USEPA's Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S-95/504, April 1996 or the most current version). Groundwater samples were analyzed for VOCs+15 via EPA Method 8260C. The wells were sampled from lowest relative VOC concentrations to highest relative concentrations to minimize the possibility of cross-contamination between wells.

Sample containers for the sampling program were provided by the contracted NYSDEC-certified laboratory, Integrated Analytical Laboratories, LLC, located in Randolph, NJ. Following sample collection, the sample containers were placed in coolers with ice and maintained at 4°C for

delivery to the laboratory. Chain-of-custody documentation was maintained through sample collection, shipment, storage, and analyses.

In accordance with the NYSDEC-approved QAPP, a duplicate groundwater sample was collected at well MW-11, and matrix spike and matrix spike duplicate (MS/MSD) samples were collected at well MW-3. Additionally, field and trip blanks were also collected for quality assurance/quality control (QA/QC) purposes. These QA/QC samples were also analyzed for VOCs.

Depth to water measurements indicated that the groundwater ranged from 4.65 feet below the top of well casing (TOC) at MW-3 to 9.63 feet below TOC at MW-11. Based on previous reports, the predominant groundwater flow direction at the site is northeasterly, toward Edgewater Road.

Geo-chemical field data parameters, including: pH, oxygen reduction potential (ORP) dissolved oxygen (DO), specific conductivity, turbidity and temperature were measured and recorded during the well purging activities. Field sampling parameters, pumping rate and depth to groundwater measurements were recorded on well sampling logs and are included in **Attachment 3.**

A hard copy of the full laboratory data package for the May 2017 sampling event is included in **Attachment 4**. A compact disk (CD) with electronic copies of the May 2017 lab data is also enclosed. The electronic data deliverables (EDDs) were emailed to the NYSDEC case manager and nyenvdata@dec.ny.gov as required. The EDDs were successfully uploaded by the NYSDEC EIMS data team per their March 15, 2018 email.

5.1.2 Groundwater Analytical Data Summary

The results of the May 23, 2017 groundwater sampling data are summarized as follows:

- The sampling results indicated that all analyzed VOCs were below the NYSDEC groundwater standards (GWS) in the samples collected from MW-3, MW-11 and MW-11 duplicate sample;
- The only VOCs detected above the GWS were chloroform in sample MW-6 and chlorobenzene in sample MW-7;
- The sampling results indicated that VOCs were detected above the GWS in PZ-3 and/or PZ-4 including: benzene, toluene, ethylbenzene, total xylenes, isopropylbenzene, cis-1,2-dichloroethene, 1,2-dichloropropane, 1,2-dichlorobenzene and vinyl chloride; and

- The May 2017 sampling results from PZ-3 and PZ-4 indicate that the detected VOCs and their concentration values are in a steady state condition and are consistent with prior (2012-2016) post-treatment groundwater sampling results.

5.1.3 Groundwater Geo-Chemical Data Summary

- Based on the field data sheets (**Attachment 3**) the stabilized pH values ranged from a low of 6.73 at MW-3 to a high of 9.62 at PZ-3 and indicates that the groundwater ranges from slightly acidic to moderately basic conditions.

- The stabilized ORP values indicate a strong reducing environment exists at well PZ-3 (i.e., highly negative ORP value at -431 mv). ORP values in wells MW-3, MW-6, MW-7, MW-11 and PZ-4 indicate that moderately reducing conditions are present (i.e., ORP values ranging between -41 to -175 mv).

- The field data generally show that all stabilized well DO values were generally low, indicating that anoxic conditions are predominant at the site.

5.1.4 Quality Assurance/Quality Control Procedures

In accordance with the NYSDEC-approved QAPP, a duplicate groundwater sample was collected at well MW-11, and MS/MSD samples were collected at well MW-3. Additionally, field and trip blanks were also collected and analyzed for QA/QC purposes. The laboratory included a case narrative in their analytical report that summarizes method performance and any method nonconformance (**Attachment 4**).

The laboratory report case narrative conformance/non-conformance summaries were reviewed to evaluate if any major analytical problems or method issues were documented that would impact the overall usability of the data. Based on a review of the laboratory report narratives, no significant non-conformance issues were identified.

5.2 DECEMBER 2017 SAMPLING

5.2.1 Groundwater Sampling Procedures

As required, groundwater wells were sampled using the low flow purging and sampling procedures outlined in USEPA's Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S-95/504, April 1996 or the most current version). Groundwater samples were analyzed for VOCs+15 via EPA Method 8260C. The wells were sampled from lowest relative VOC concentrations to highest relative concentrations to minimize the possibility of cross-contamination between wells.

Sample containers for the sampling program were provided by the contracted NYSDEC-certified laboratory, Integrated Analytical Laboratories, LLC, located in Randolph, NJ. Following sample collection, the sample containers were placed in coolers with ice and maintained at 4°C for delivery to the laboratory. Chain-of-custody documentation was maintained through sample collection, shipment, storage, and analyses.

In accordance with the NYSDEC-approved QAPP, a duplicate groundwater sample was collected at well MW-11, and matrix spike and matrix spike duplicate (MS/MSD) samples were collected at well MW-3. Additionally, field and trip blanks were also collected for quality assurance/quality control (QA/QC) purposes. These QA/QC samples were also analyzed for VOCs.

Depth to water measurements indicated that the groundwater ranged from 5.39 feet below the top of well casing (TOC) at PZ-3 to 9.58 feet below TOC at MW-11. Based on previous reports, the predominant groundwater flow direction at the site is northeasterly, toward Edgewater Road.

Geo-chemical field data parameters, including: pH, oxygen reduction potential (ORP) dissolved oxygen (DO), specific conductivity, turbidity and temperature were measured and recorded during the well purging activities. Field sampling parameters, pumping rate and depth to groundwater measurements were recorded on well sampling logs and are included in **Attachment 3.**

A hard copy of the laboratory data package for the December 2017 sampling event is included in **Attachment 5**. A compact disk (CD) with electronic copies of the December 2017 lab data is also enclosed. The EDDs were emailed to the NYSDEC case manager and nyenvdata@dec.ny.gov as required. The EDDs were successfully uploaded by the NYSDEC EIMS data team per their March 15, 2018 email.

5.2.2 Groundwater Analytical Data Summary

The results of the December 7, 2017 groundwater sampling data are summarized as follows:

- The sampling results indicated that all analyzed VOCs were below the NYSDEC groundwater standards (GWS) in the samples collected from MW-3, MW-6, MW-11 and MW-11 duplicate sample;
- The only VOC detected above the GWS was chlorobenzene in sample MW-7;

- The sampling results indicated that VOCs were detected above the GWS in PZ-3 and/or PZ-4 including: benzene, toluene, ethylbenzene, total xylenes, isopropylbenzene, cis-1,2-dichloroethene, 1,2-dichloropropane, 1,2-dichlorobenzene; and

- The December 2017 sampling results from PZ-3 and PZ-4 indicate that the detected VOCs and their concentration values are in a steady state condition and are consistent with prior (2012-2016) post-treatment groundwater sampling results and with the May 2017 sampling results.

5.2.3 Groundwater Geo-Chemical Data Summary

- Based on the field data sheets (**Attachment 3**) the stabilized pH values ranged from a low of 6.92 at MW-11 to a high of 9.55 at PZ-3 and indicates that the groundwater ranges from slightly acidic to moderately basic conditions.

- The stabilized ORP values indicate a strong reducing environment exists at well PZ-3 (i.e., highly negative ORP value at -425 mv). ORP values in wells MW-3, MW-6, MW-7, MW-11 and PZ-4 indicate that moderately reducing conditions are present (i.e., ORP values ranging between -57 to -165 mv).

- The field data generally show that all stabilized well DO values were generally low, (except at PZ-3) indicating that anoxic conditions are predominant at the site.

5.2.4 Quality Assurance/Quality Control Procedures

In accordance with the NYSDEC-approved QAPP, a duplicate groundwater sample was collected at well MW-11, and MS/MSD samples were collected at well MW-3. Additionally, field and trip blanks were also collected and analyzed for QA/QC purposes. The laboratory included a case narrative in their analytical report that summarizes method performance and any method nonconformance (**Attachment 5**).

The laboratory report case narrative conformance/non-conformance summaries were reviewed to evaluate if any major analytical problems or method issues were documented that would impact the overall usability of the data. Based on a review of the laboratory report narratives, no significant non-conformance issues were identified.

6.0 OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS

In accordance with the SMP, this 2nd Annual Periodic Review Report (PRR) summarized the work conducted at the Site over the reporting period of March 2, 2017 through March 2, 2018.

6.1 Conclusions and Recommendations Regarding IC and EC Plan Compliance

A review of required Site IC's, and annual Site-Wide inspection (conducted on December 7, 2017) of the EC Cover/Cap System, including inspection, in accordance with the SMP, was completed and confirmed that:

1. No vegetable gardens and farming are present/conducted on the controlled property;
2. No groundwater underlying the property is being used;
3. No disturbance / excavation of residual contaminated material / soil has been conducted;
4. The Controlled Property is only being used for commercial or industrial purposes;
5. The Controlled Property is not being used for residential purposes;
6. Compliance with the DCR by the Grantor and the Grantor's successors and assigns with all elements of the SMP;
7. All EC's are operated and maintained as specified in the SMP;
8. Engineering Controls have not been damaged, disturbed or removed, and,
9. All onsite monitoring devices (i.e. monitoring wells) are protected and maintained.

Based on the IC and EC review and inspections, no areas of non-compliance with the SMP or DCR were identified. Therefore, <u>no</u> changes to the SMP, frequency of site inspection or monitoring, review of IC compliance or EC inspection, or frequency of PRR submission are recommended.

6.2 Conclusions and Recommendations Regarding Monitoring Plan Compliance

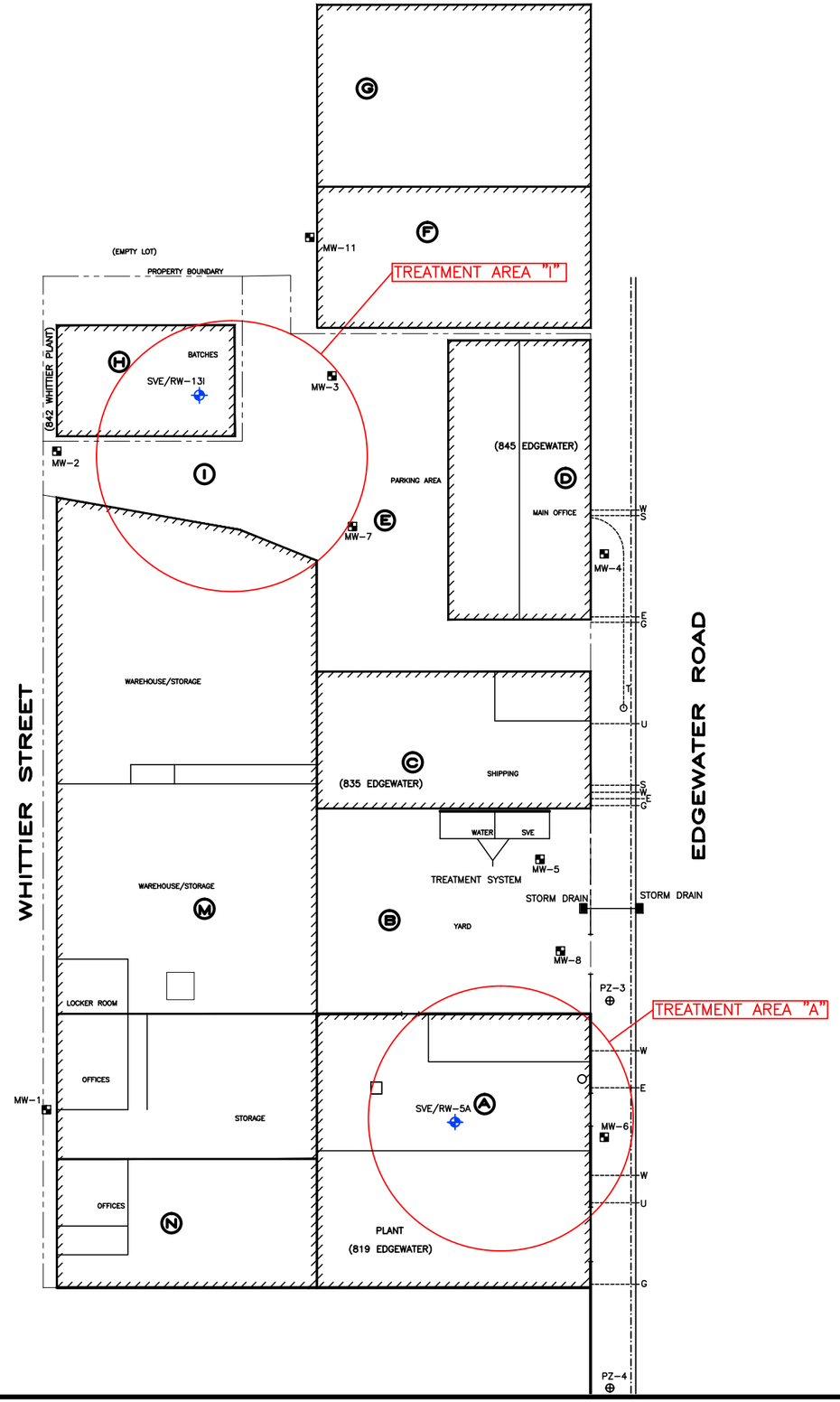
As required in the SMP, monitoring required or reported over the PRR reporting period included:

- Semi-annual groundwater sampling of select wells.

As detailed in Section 5.0 of this report, groundwater sampling results remain consistent with SVE/AS post-treatment data results. Therefore, no additions to the monitoring and sampling frequencies or requirements specified in the SMP are recommended.

Per the approved SMP, no further groundwater monitoring is warranted and only the annual IC and EC inspections will be required. Following NYSDEC approval of this PRR, all remaining Site monitoring wells will be sealed in accordance with NYSDEC requirements.

Figures



AREA/BUILDING

- A — 819 EDGEWATER ROAD
- B — OPEN YARD
- C — 835 EDGEWATER ROAD
- D — 845 EDGEWATER ROAD
- E — PARKING AREA
- F — 849 EDGEWATER ROAD
- G — 855 EDGEWATER ROAD
- H — 842 WHITTIER STREET
- I — ROADWAY
- M — 810 WHITTIER STREET
- N — 820 WHITTIER STREET

SCALE
0 50'

LEGEND

- A — BUILDING IDENTIFICATION TAG
- B — AREA IDENTIFICATION TAG
- MW-1 — GROUND WATER MONITORING WELL LOCATION
- SVE/RW-5A — GROUND WATER RECOVERY WELL LOCATION
- ———— — PROPERTY BOUNDARY

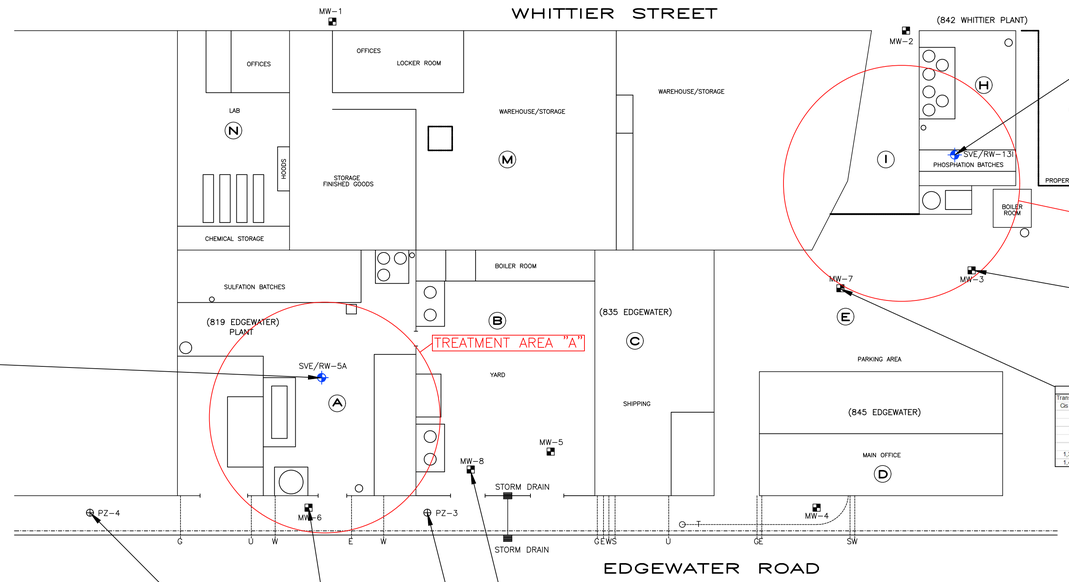
WHITMAN
CERTIFICATE OF AUTHORIZATION No. 24GA28009800

DEXTER CHEMICAL LLC
BRONX, NEW YORK

SITE PLAN

PROJECT MANAGER:	DRAWN BY:	PROJECT NO:
I.W.	C.A.	97-09-10
CHECKED BY:	DATE:	FIGURE NO:
M.L.	JAN 2013	1

Z:\WHITMAN\1997\97-09-10\Jan 2013\970910 - Fig 1 - Site Map.dwg



SVE/RW-13I	7/26/2010	10/27/2010	4/21/2011	8/3/2011	10/21/2011	1/11/2012	4/11/2012	7/18/2012	10/23/2012	4/2/2013
Cis 1,2 Dichloroethene	ND	ND	**120**	ND	ND	**24**	**16**	**43**	**53**	**34**
Ethylbenzene	ND	ND	**140**	ND	ND	ND	ND	ND	ND	ND
Xylene	**3700**	**560**	**1020**	**13**	**51**	**23**	**12**	**59**	**80**	**108**
1,4 Dichlorobenzene	ND	ND	**180**	ND	ND	ND	**6.7**	**14**	**29**	**26**
1,2 Dichlorobenzene	ND	ND	**180**	ND	ND	ND	**6.7**	**11**	**12**	<20
1,2,4 Trichlorobenzene	ND	ND	ND	**33**	ND	ND	ND	**12**	ND	ND

MW-11	10/26/2010	4/21/2011	8/3/2011	10/21/2011	1/11/2012	4/11/2012	7/18/2012	10/23/2012	4/2/2013	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Chlorobenzene	ND	ND	ND	1.1	ND	ND	ND	1.4	ND	ND	0.513	0.512	0.507
Ethylbenzene	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	0.59	ND	0.653 J	0.691	0.732	0.463

MW-3	3/20/1998	9/27/2000	10/29/2010	4/20/2011	10/21/2011	1/11/2012	4/11/2012	7/18/2012	10/23/2012	4/2/2013	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Cis 1,2 Dichloroethene	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.9	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	**6.3**	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**12**	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	**110**	**16**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4 Dichlorobenzene	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4 Trichlorobenzene	4.8	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-7	9/27/2000	10/28/2009	4/30/2010	10/25/2010	4/20/2011	8/3/2011	10/21/2011	1/11/2012	4/11/2012	7/18/2012	10/23/2012	4/2/2013	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Trans-1,2 Dichloroethene	ND	0.24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis 1,2 Dichloroethene	3.5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.453 J	ND	ND
Benzene	**1.7**	**3.4**	ND	**5.8**	ND	**1.7**	1	ND	ND	ND	ND	1	0.86	ND	0.947	ND	ND
Toluene	0.5	0.35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	**35**	**27**	**24**	**31**	**17**	**15**	**11**	4.3	ND	**6.1**	**6.6**	**16**	**6.7**	**6.44**	**6.19**	**6.23**	**6.31**
Ethylbenzene	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	**15**	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.21	ND	ND	ND
1,3 Dichlorobenzene	1.4	NA	ND	1.9	ND	1.1	ND	ND	ND	ND	ND	0.93	ND	ND	0.422 J	0.402	ND
1,4 Dichlorobenzene	2.9	NA	ND	**3.2**	ND	2.4	1.3	ND	ND	1.8	2.5	2	0.726 J	0.751	0.769	0.656

PZ-4	1/22/2002	12/3/2002	10/28/2009	4/30/2010	10/27/2010	1/28/2011	4/19/2011	8/2/2011	10/20/2011	1/10/2012	4/10/2012	7/17/2012	4/2/2013	4/26/2013	5/16/2013	6/6/2013	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.27**	ND	
Cis 1,2 Dichloroethene	**22**	**38.9**	**15**	**28**	**64**	**23**	**73**	**46**	**43**	**42**	ND	**19**	<20	**13**	**17**	**35**	**52.9**	**22.0 D**	**26.2**	**23.1**
1,2-Dichloropropane	**280**	**290**	**91**	**160**	**350**	**150**	**350**	**330**	**220**	**250**	**110**	**140**	**84**	**76**	**99**	**120**	ND	ND	**53**	**75.9**
TCE	4	3.8	2.3	ND	ND	ND	**6**	**6.1**	ND	ND	ND	ND	ND	ND	ND	ND	1.71 DJ	1.71 DJ	1.02	ND
Benzene	**6.6**	**9.75**	**6.2**	**9.6**	**16**	**6**	**2.5**	**19**	**11**	**14**	ND	**7.6**	<10	**7.2**	**8.6**	**11**	**19.8 D**	**5.26 D**	**6.61**	**5.56**
PCE	ND	1.58	1.4	ND	ND	1.5	**5.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.18 DJ	1.03 D	0.956	ND
Toluene	**55**	**68.8**	**22**	**34**	**78**	**37**	**53**	**68**	**71**	**96**	**51**	**52**	**58**	**46**	**55**	**68**	**71.2 D**	**36.8 D**	**54.1**	**46.2**
Chlorobenzene	ND	ND	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**230**	**195**	**120**	**210**	**360**	**170**	**390**	**310**	**330**	**360**	**260**	**200**	**270**	**200**	**220**	**340**	**269 D**	**190 D**	**294**	**209**
Xylene	**1600**	**1280**	**810**	**760**	**1620**	**680**	**1980**	**990**	**1660**	**1730**	**1020**	**1110**	**1570**	**1200**	**1320**	**2040**	**1610 D**	**1340 D**	**2020**	**1330**
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.48 D	**48.7**	**39.1**	
1,4 Dichlorobenzene	ND	0.693	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.9**	ND	**14**	**12.5 D**	**8.94 D**	1.79	ND
1,2 Dichlorobenzene	**5.1**	**4.13**	NA	**5.6**	**11**	**6.9**	**8.6**	**13**	**9.5**	ND	ND	**8.3**	<20	ND	NA	NA	**50.2**	**30.8**	**10.3**	**8.56**

MW-8	9/27/2000	10/25/2010	1/28/2011	4/19/2011	8/2/2011	10/20/2011	1/10/2012	2/22/2012	4/10/2012	7/17/2012
Cis 1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	**17**	ND	ND	ND
TCE	ND	ND	ND	ND	ND	ND	14	ND	ND	ND
Benzene	0.6	ND	0.83	0.68	ND	ND	ND	ND	ND	0.54
PCE	ND	ND	ND	ND	ND	ND	**77**	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	1.2	ND	ND	ND	1.1
Ethylbenzene	ND	**11**	ND	ND	ND	1.7	ND	ND	ND	1.3
Xylene	1.4	**73**	**11.8**	**8.5**	**14**	**17.5**	**13**	**43**	**24**	**19.4**

MW-6	3/26/1998	9/27/2000	1/22/2002	12/3/2002	10/28/2009	4/30/2010	10/26/2010	1/27/2011	4/19/2011	8/2/2011	10/20/2011	1/10/2012	4/10/2012	7/17/2012	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Cis 1,2 Dichloroethene	**26**	**18**	**26**	3.19	**5.7**	3.5	**8.4**	1.3	ND	ND	ND	ND	4	3.2	ND	ND	ND	ND
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	**13**	ND
1,2-Dichloropropane	**38**	**65**	**94**	**7.17**	**9.7**	**8.7**	**16**	**1.6**	**1.4**	ND	ND	ND	**2.1**	**1.1**	ND	ND	ND	ND
TCE	ND	1.8	2.5	0.488	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	**35**	**31**	**27**	**7.34**	**13**	**13**	**24**	**6.4**	**1.7**	ND	ND	0.83	**6.9**	**6.4**	ND	ND	ND	ND
PCE	ND	0.4	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	**51**	**34**	**73**	**6.06**	**14**	**16**	**31**	2.4	2.4	ND	ND	ND	**6.3**	4.2	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	0.578	1.6	1.2	2.2	2.2	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**150**	**39**	**88**	**9.98**	**25**	**28**	**56**	**8.4**	2.9	ND	ND	ND	**7.3**	3.8	ND	ND	ND	ND
Xylene	**530**	**160**	**470**	37	**150**	**157**	**280**	**23**	**11.8**	ND	ND	ND	**37**	**28**	ND	ND	ND	ND
1,3 Dichlorobenzene	ND	1.6	ND	0.937	NA	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4 Dichlorobenzene	ND	**4.4**	**4.8**	**5.79**	NA	**6.6**	**10**	2.6	1.7	ND	ND	ND	2.6	2.9	ND	ND	ND	ND
1,2 Dichlorobenzene	ND	**7.6**	**9.1**	**2.54**	NA	**8.4**	**12**	1.6	1.1	ND	ND	ND	2.1	2.0	ND	ND	ND	ND
1,2,4 Trichlorobenzene	**24**	**14**	**11**	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PZ-3	1/22/2002	10/28/2009	4/30/2010	10/25/2010	1/27/2011	4/19/2011	8/2/2011	10/20/2011	1/10/2012	2/22/2012	4/10/2012	7/17/2012	5/25/2016	11/1/2016	5/23/2017	12/7/2017
Cis 1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	**36**	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	ND	ND	ND	ND	**27**	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.42 DJ**	**1.95 D**	ND	ND
PCE	ND	ND	ND	ND	ND	ND	ND	ND	**140**	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9 D	1.77 D	0.506	ND
Chlorobenzene	ND	0.43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	**15**	ND	ND	ND	**6.1**	ND	ND	**10**	ND	**7.79 D**	**6.06 D**	1.23	3.31
Xylene	ND	ND	ND	ND	**7.6**	4.1	**54**	**27**	**13**	**27**	**64**	**83**	**65.2 D**	**34.5 D**	9.44	**27.9**
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.2**	**7.74**	1.74	**5.49**

SCALE
0 30'

LEGEND

A – AREA IDENTIFICATION TAG

MW-1 – GROUND WATER MONITORING WELL LOCATION

SVE/RW-5A – GROUND WATER RECOVERY WELL LOCATION

Notes:
All results are in µg/L
Bold - Above NYSDEC Ground Water Standards/Criteria (GWSC)
ND - Not Detected
TCE - Trichloroethene
PCE - Tetrachloroethene
J - Estimated Value
D - Diluted

TARGETED VOLATILE COMPOUNDS	1998 NYDSDEC GROUND WATER STANDARDS
Cis 1,2 Dichloroethene	2*
Chloroform	7
1,2-Dichloropropane	1
Benzene	1
PCE	5*
Toluene	5*
Chlorobenzene	5*
Ethylbenzene	5*
Xylene	5*
1,3 Dichlorobenzene	3
1,4 Dichlorobenzene	3
1,2 Dichlorobenzene	3
TCE	5*
Isopropylbenzene	5*
1,2,4 Trichlorobenzene	5

GROUND WATER SAMPLE LOCATIONS WITH VOC RESULTS (1998-2018)

FORMER DEXTER CHEMICAL LLC

BRONX, NEW YORK

PROJECT MANAGER	ED HUSS

WHITMAN
CERTIFICATE OF AUTHORIZATION
No. 24GA28009600
7 PLEASANT HILL ROAD
CRANBURY, NJ 08512
732-390-5858

SIZE	DRAWN BY	ORIGINAL BY	CHECKED BY	DATE	PROJECT NO.	FIGURE
D	M.E.D.	C.A.	A.P.	FEB 2018	97-09-10AT	2

Z:\WHITMAN\199797-09-10\2016\GROUND WATER\970910AT-FIG 2- GROUND WATER SAMPLE LOCATIONS WITH VOC RESULTS (1998-2017).dwg 2/28/18

Tables

TABLE 1

Dexter Chemical - Bronx, NY
Detected Volatile Organic Compounds in Ground Water (2017 Semi-Annual Sampling)

Sample ID	1998 NYSDEC	MW-3				MW-3				MW-6				MW-6				MW-7				MW-7			
Lab Sample Number	Ground Water	04261-002				10611-005				04261-005				10611-003				04261-001				10611-002			
Sampling Date	Standards	5/23/2017				12/7/2017				5/23/2017				12/7/2017				5/23/2017				12/7/2017			
Units	ug/l	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL
TARGETED VOLATILE COMPOUNDS																									
Dichlorodifluoromethane	5*	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662
Chloromethane	5*	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463
Vinyl chloride	2	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591
Bromomethane	5*	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544
Chloroethane	5*	ND		1.00	0.495	ND		0.500	0.495	ND		1.00	0.495	ND		0.500	0.495	ND		1.00	0.495	ND		0.500	0.495
Trichlorofluoromethane	5*	ND		1.00	0.433	ND		0.500	0.433	ND		1.00	0.433	ND		0.500	0.433	ND		1.00	0.433	ND		0.500	0.433
1,1-Dichloroethene	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493
Acetone	-	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33
Carbon disulfide	60	ND		1.00	0.464	ND		0.500	0.464	ND		1.00	0.464	ND		0.500	0.464	ND		1.00	0.464	ND		0.500	0.464
Methylene chloride	5*	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990
trans-1,2-Dichloroethene	5*	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	-	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479
1,1-Dichloroethane	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493
cis-1,2-Dichloroethene	5*	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
2-Butanone (MEK)	-	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66
Bromochloromethane	5*	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596
Chloroform	7	ND		0.500	0.469	ND		0.500	0.469	**12.1**		0.500	0.469	ND		0.500	0.469	ND		0.500	0.469	ND		0.500	0.469
1,1,1-Trichloroethane	5*	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462
Carbon tetrachloride	5	ND		0.500	0.449	ND		1.00	0.449	ND		0.500	0.449	ND		1.00	0.449	ND		0.500	0.449	ND		1.00	0.449
1,2-Dichloroethane (EDC)	0.6	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458
Benzene	1	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464
Trichloroethene	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493
1,2-Dichloropropane	1	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447
1,4-Dioxane	-	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		100	98.4
Bromodichloromethane	50	ND		0.500	0.353	ND		0.500	0.353	0.968		0.500	0.353	ND		0.500	0.353	ND		0.500	0.353	ND		0.500	0.353
cis-1,3-Dichloropropene	0.4 (a)	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	-	ND		1.00	0.699	ND		2.00	0.699	ND		1.00	0.699	ND		2.00	0.699	ND		1.00	0.699	ND		2.00	0.699
Toluene	5*	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379
trans-1,3-Dichloropropene	0.4 (a)	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321
1,1,2-Trichloroethane	1	ND		1.00	0.473	ND		0.500	0.473	ND		1.00	0.473	ND		0.500	0.473	ND		1.00	0.473	ND		0.500	0.473
Tetrachloroethene	5*	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
2-Hexanone	-	ND		1.00	0.761	ND		2.00	0.761	ND		1.00	0.761	ND		2.00	0.761	ND		1.00	0.761	ND		2.00	0.761
Dibromochloromethane	50**	ND		1.00	0.442	ND		0.500	0.442	ND		1.00	0.442	ND		0.500	0.442	ND		1.00	0.442	ND		0.500	0.442
1,2-Dibromoethane (EDB)	5*	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**
Chlorobenzene	5*	ND		0.500	0.376	ND		0.500	0.376	ND		0.500	0.376	ND		0.500	0.376	**6.23**		0.500	0.376	**6.31**		0.500	0.376
Ethylbenzene	5*	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344
Total Xylenes	5*	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923
Styrene	5*	ND		1.00	0.290	ND		0.500	0.290	ND		1.00	0.290	ND		0.500	0.290	ND		1.00	0.290	ND		0.500	0.290
Bromoform	50	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445
Isopropylbenzene	5*	ND		0.500	0.323	ND		0.500	0.323	ND		0.500	0.323	ND		0.500	0.323	ND		0.500	0.323	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	5*	ND		1.00	0.458	ND		0.500	0.458	ND		1.00	0.458	ND		0.500	0.458	ND		1.00	0.458	ND		0.500	0.458
1,3-Dichlorobenzene	3	ND		1.00	0.351	ND		0.500	0.351	ND		1.00	0.351	ND		0.500	0.351	0.402	J	1.00	0.351	ND		0.500	0.351
1,4-Dichlorobenzene	3	ND		1.00	0.341	ND		0.500	0.341	ND		1.00	0.341	ND		0.500	0.341	0.769	J	1.00	0.341	0.656		0.500	0.341
1,2-Dichlorobenzene	3	ND		1.00	0.364	ND		0.500	0.364	ND		1.00	0.364	ND		0.500	0.364	ND		1.00	0.364	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	0.04	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**
1,2,4-Trichlorobenzene	5*	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304
1,2,3-Trichlorobenzene	5*	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	5*	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563
Methyl acetate	-	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485
Cyclohexane	-	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411
Methylcyclohexane	-	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	0.4*	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331
TOTAL VOCs:	-	ND			NA	ND			NA	13.1			NA	ND			NA	7.40	J		NA	6.97			NA
TOTAL TICs:	-	ND			NA	ND			NA	ND			NA	ND			NA	41.0	J		NA	57.9	JN		NA
TOTAL VOCs & TICs:	-	ND			NA	ND			NA	13.1			NA	ND			NA	48.4	J		NA	64.9	JN		NA

BOLDED	Results above 1998 NYSDEC Ground Water Standards - GA Water Class
ND	None Detected
NA	Not Analyzed
VOCs	Volatile Organic Compounds
TICs	Tentatively Identified Compounds
*	The principal organic contaminant standard for ground water applies to this substance.
**	Guidance Value only.
-	No Standard
(a)	Standard based on the sum of cis- and trans- compounds

TABLE 1

Dexter Chemical - Bronx, NY
Detected Volatile Organic Compounds in Ground Water (2017 Semi-Annual Sampling)

Sample ID	1998 NYSDEC	MW-11				MW-11				DUP-1 (MW-11)				DUP-1 (MW-11)				PZ-3				PZ-3				PZ-4				PZ-4			
Lab Sample Number	Ground Water	04261-006				10611-001				04261-009				10611-004				04261-007				10611-008				04261-008				10611-009			
Sampling Date	Standards	5/23/2017				12/7/2017				5/23/2017				12/7/2017				5/23/2017				12/7/2017				5/23/2017				12/7/2017			
Units	ug/l	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL
TARGETED VOLATILE COMPOUNDS																																	
Dichlorodifluoromethane	5*	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		1.00	0.662	ND		5.00	3.31	ND		2.00	1.32	ND		5.00	3.31
Chloromethane	5*	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		0.500	0.463	ND		2.50	2.32	ND		1.00	0.926	ND		2.50	2.32
Vinyl chloride	2	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591	ND		**5.00**	**2.96**	**2.27**	D	2.00	1.18	ND		**5.00**	**2.96**
Bromomethane	5*	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		5.00	2.72	ND		2.00	1.09	ND		5.00	2.72
Chloroethane	5*	ND		1.00	0.495	ND		0.500	0.495	ND		1.00	0.495	ND		0.500	0.495	ND		1.00	0.495	ND		2.50	2.48	ND		2.00	0.990	ND		2.50	2.48
Trichlorofluoromethane	5*	ND		1.00	0.433	ND		0.500	0.433	ND		1.00	0.433	ND		0.500	0.433	ND		1.00	0.433	ND		2.50	2.17	ND		2.00	0.866	ND		2.50	2.17
1,1-Dichloroethene	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		2.50	2.47	ND		1.00	0.986	ND		2.50	2.47
Acetone	-	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	69.0		2.00	1.33	275	D	10.0	6.65	ND		4.00	2.66	ND		10.0	6.65
Carbon disulfide	60	ND		1.00	0.464	ND		0.500	0.464	ND		1.00	0.464	ND		0.500	0.464	ND		1.00	0.464	ND		2.50	2.32	ND		2.00	0.928	ND		2.50	2.32
Methylene chloride	5*	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		1.00	0.990	ND		5.00	4.95	ND		2.00	1.98	ND		5.00	4.95
trans-1,2-Dichloroethene	5*	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		0.500	0.454	ND		2.50	2.27	ND		1.00	0.908	ND		2.50	2.27
Methyl tert-butyl ether (MTBE)	-	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		0.500	0.479	ND		2.50	2.40	ND		1.00	0.958	ND		2.50	2.40
1,1-Dichloroethane	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		2.50	2.47	ND		1.00	0.986	ND		2.50	2.47
cis-1,2-Dichloroethene	5*	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		2.50	2.26	**26.2**	D	1.00	0.902	**23.1**	D	2.50	2.26
2-Butanone (MEK)	-	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66	2.55		2.00	1.66	ND		10.0	8.31	ND		4.00	3.32	ND		10.0	8.31
Bromochloromethane	5*	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		1.00	0.596	ND		5.00	2.98	ND		2.00	1.19	ND		5.00	2.98
Chloroform	7	ND		0.500	0.469	ND		0.500	0.469	ND		0.500	0.469	ND		0.500	0.469	ND		0.500	0.469	ND		2.50	2.35	ND		1.00	0.938	ND		2.50	2.35
1,1,1-Trichloroethane	5*	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462	ND		2.50	2.31	ND		1.00	0.924	ND		2.50	2.31
Carbon tetrachloride	5	ND		0.500	0.449	ND		1.00	0.449	ND		0.500	0.449	ND		1.00	0.449	ND		0.500	0.449	ND		5.00	2.25	ND		1.00	0.898	ND		5.00	2.25
1,2-Dichloroethane (EDC)	0.6	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458	ND		**2.50**	**2.29**	ND		**1.00**	**0.916**	ND		**2.50**	**2.29**
Benzene	1	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464	ND		**2.50**	**2.32**	**6.61**	D	1.00	0.928	**5.86**	D	**2.50**	**2.32**
Trichloroethene	5*	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493	ND		2.50	2.47	1.02	D	1.00	0.986	ND		2.50	2.47
1,2-Dichloropropane	1	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		0.500	0.447	ND		**2.50**	**2.24**	**63.0**	D	1.00	0.894	**75.9**	D	**2.50**	**2.24**
1,4-Dioxane	-	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		100	98.4	ND		500	492	ND		200	197	ND		500	492
Bromodichloromethane	50	ND		0.500	0.353	ND		0.500	0.353	ND		0.500	0.353	ND		0.500	0.353	ND		0.500	0.353	ND		2.50	1.77	ND		1.00	0.706	ND		2.50	1.77
cis-1,3-Dichloropropene	0.4 (a)	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		0.500	0.331	ND		2.50	1.66	ND		1.00	0.662	ND		2.50	1.66
4-Methyl-2-pentanone (MIBK)	-	ND		1.00	0.699	ND		2.00	0.699	ND		1.00	0.699	ND		2.00	0.699	ND		1.00	0.699	ND		10.0	3.50	ND		2.00	1.40	ND		10.0	3.50
Toluene	5*	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379	0.506		0.500	0.379	ND		2.50	1.90	**54.1**	D	1.00	0.758	**46.2**	D	2.50	1.90
trans-1,3-Dichloropropene	0.4 (a)	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		0.500	0.321	ND		2.50	1.61	ND		1.00	0.642	ND		2.50	1.61
1,1,2-Trichloroethane	1	ND		1.00	0.473	ND		0.500	0.473	ND		1.00	0.473	ND		0.500	0.473	ND		1.00	0.473	ND		**2.50**	**2.37**	ND		**2.00**	0.946	ND		**2.50**	**2.37**
Tetrachloroethene	5*	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451	ND		2.50	2.26	0.956	DJ	1.00	0.902	ND		2.50	2.26
2-Hexanone	-	ND		1.00	0.761	ND		2.00	0.761	ND		1.00	0.761	ND		2.00	0.761	ND		1.00	0.761	ND		10.0	3.81	ND		2.00	1.52	ND		10.0	3.81
Dibromochloromethane	50**	ND		1.00	0.442	ND		0.500	0.442	ND		1.00	0.442	ND		0.500	0.442	ND		1.00	0.442	ND		2.50	2.21	ND		2.00	0.884	ND		2.50	2.21
1,2-Dibromoethane (EDB)	5*	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**0.500**	**0.402**	ND		**2.50**	**2.01**	ND		**1.00**	**0.804**	ND		**2.50**	**2.01**
Chlorobenzene	5*	0.512		0.500	0.376	0.507		0.500	0.376	0.510		0.500	0.376	0.675		0.500	0.376	ND		0.500	0.376	ND		2.50	1.88	ND		1.00	0.752	ND		2.50	1.88
Ethylbenzene	5*	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344	ND		0.500	0.344	1.23		0.500	0.344	3.31	D	2.50	1.72	**294**	D	1.00	0.688	**209**	D	2.50	1.72
Total Xylenes	5*	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923	ND		1.00	0.923	9.44		1.00	0.923	**27.9**	D	5.00	4.62	**2020**	D	10.0	9.23	**1330**	D	5.00	4.62
Styrene	5*	ND		1.00	0.290	ND		0.500	0.290	ND		1.00	0.290	ND		0.500	0.290	ND		1.00	0.290	ND		2.50	1.45	ND		2.00	0.580	ND		2.50	1.45
Bromoform	50	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		0.500	0.445	ND		2.50	2.23	ND		1.00	0.890	ND		2.50	2.23
Isopropylbenzene	5*	0.539		0.500	0.323	ND		0.500	0.323	0.524		0.500	0.323	ND		0.500	0.323	1.74		0.500	0.323	**5.49**	D	2.50	1.62	**48.7**	D	1.00	0.646	**39.1**	D	2.50	1.62
1,1,2,2-Tetrachloroethane	5*	ND		1.00	0.458	ND		0.500	0.458	ND		1.00	0.458	ND		0.500	0.458	ND		1.00	0.458	ND		2.50	2.29	ND		2.00	0.916	ND		2.50	2.29
1,3-Dichlorobenzene	3	ND		1.00	0.351	ND		0.500	0.351	ND		1.00	0.351	ND		0.500	0.351	ND		1.00	0.351	ND		2.50	1.76	ND		2.00	0.702	ND		2.50	1.76
1,4-Dichlorobenzene	3	0.732	J	1.00	0.341	0.463	J	0.500	0.341	0.771	J	1.00	0.341	0.533		0.500	0.341	ND		1.00	0.341	ND		2.50	1.71	1.79	DJ	2.00	0.682	ND		2.50	1.71
1,2-Dichlorobenzene	3	ND		1.00	0.364	ND		0.500	0.364	ND		1.00	0.364	ND		0.500	0.364	ND		1.00	0.364	ND		2.50	1.82	**10.3**	D	2.00	0.728	**8.66**	D	2.50	1.82
1,2-Dibromo-3-chloropropane	0.04	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**1.00**	**0.533**	ND		**5.00**	**2.67**	ND		**2.00**	**1.07**	ND		**5.00**	**2.67**
1,2,4-Trichlorobenzene	5*	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		1.00	0.304	ND		5.00	1.52	ND		2.00	0.608	ND		5.00	1.52
1,2,3-Trichlorobenzene	5*	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		1.00	0.339	ND		5.00	1.70	ND		2.00	0.678	ND		5.00	1.70
1,1,2-Trichloro-1,2,2-trifluoroethane	5*	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		1.00	0.563	ND		5.00	2.82	ND		2.00	1.13	ND		5.00	2.82
Methyl acetate	-	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		0.500	0.485	ND		2.50	2.43	ND		1.00	0.970	ND		2.50	2.43
Cyclohexane	-	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		5.00	2.06	ND		1.00	0.822	ND		5.00	2.06
Methylcyclohexane	-	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		0.500	0.411	ND		1.00	0.411	ND		2.50	2.06	ND		2.00	0.822	ND		2.50	2.06
1,3-Dichloropropene (cis- and trans-)	0.4*	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**0.500**	0.331	ND		**2.50**	**1.66**	ND		**1.00**	**0.662**	ND		**2.50**	**1.66**
TOTAL VOCs:	-	1.78	J		NA	0.970	J		NA	1.81	J		NA	1.21			NA	84.5			NA	312	D		NA	2530	DJ		NA	1740	D		NA
TOTAL TICs:	-	91.4	JN		NA	78.4	JN		NA	93.7	JN		NA	105	JN		NA	469	JN		NA	365	DJN		NA	4570	DJN		NA	2390	DJN		NA
TOTAL VOCs & TICs:	-	93.2	JN		NA	79.4	JN		NA	95.5	JN		NA	106	JN		NA	554	JN		NA	677	DJN		NA	7100	DJN		NA	4130	DJN		NA

BOLDED	Results above 1998 NYSDEC Ground Water Standards - GA
ND	None Detected
NA	Not Analyzed
VOCs	Volatile Organic Compounds
TICs	Tentatively Identified Compounds
*	The principal organic contaminant standard for ground water a
**	Guidance Value only.
-	No Standard
(a)	Standard based on the sum of cis- and trans- compounds

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	MW-3 51703 3/26/1998 ug/l	MW-3 231799 09/27/00 ug/L	MW-3LF AC55333-008 10/26/10 ug/L	MW-3 AC58579-005 04/20/11 ug/L	MW-3 AC60908-007 10/21/11 ug/L	MW-3 AC63671-007 01/11/12 ug/L	MW-3 AC65251-007 04/11/12 ug/L	MW-3 AC67134-007 07/18/12 ug/L	MW-3 AC68953-003 10/23/12 ug/L	MW-3 AC71580-002 04/02/13 ug/L	MW-6 51705 3/26/1998 ug/l	MW-6 231802 09/27/00 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	**26**	**18**
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**38**	**65**
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	0.9	0.3	ND	ND	ND	ND	ND	ND	ND	ND	**35**	**31**
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	**6.3**	0.4	ND	ND	ND	ND	ND	ND	ND	ND	**51**	**34**
Chlorobenzene	5*	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5*	**12**	1.6	ND	ND	ND	ND	ND	ND	ND	ND	**110**	**39**
Xylene (Total)	5*	**110**	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**630**	**180**
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6
1,4-Dichlorobenzene	3	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.4**
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.6**
1,2,4-Trichlorobenzene	5	4.8	3.0	ND	ND	ND	ND	ND	ND	ND	ND	**24**	**14**
Total Confident Conc. Above Targeted VOAs (s)		134	23.7	0	0	0	0	0	0	0	0	914	396.8

MW-6
460-7298-1
10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected
NS - Not Sampled
NA - Not Analyzed
* - The principal organic contaminant standard for ground water applies to this substance.
** - Guidance Value only.
\- - No Standard
Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.
- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	MW-6 328632 1/22/02 ug/l	MW-6 9551-003 12/3/02 ug/l	MW-6 460-7298-1 10/28/09 ug/L	MW-6 AC51372-004 04/30/10 ug/L	MW-6 AC55333-012 10/26/10 ug/L	MW-6 AC57037-002 01/27/11 ug/L	MW-6 AC58579-003 04/19/11 ug/L	MW-6 AC60908-004 08/02/11 ug/L	MW-6 AC62242-004 10/20/11 ug/L	MW-6 AC63671-004 01/10/12 ug/L	MW-6 AC65251-004 4/10/12 ug/l	MW-6 AC67134-004 7/17/12 ug/l
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	**26**	3.19	**5.7**	3.5	**8.4**	1.3	ND	ND	ND	ND	4	3.2
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	**95**	**7.17**	**9.7**	**9.7**	**16**	**1.6**	**1.4**	ND	ND	ND	**2.1**	**1.1**
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	2.5	0.488	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	**27**	**7.34**	**13**	**13**	**24**	**6.4**	**1.7**	ND	ND	0.83	**6.9**	**6.4**
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	**73**	**6.05**	**14**	**16**	**31**	2.4	2.4	ND	ND	ND	**6.3**	4.2
Chlorobenzene	5*	ND	0.578	1.6	1.2	2.2	2.2	2.2	ND	ND	ND	ND	ND
Ethylbenzene	5*	**88**	**9.58**	**20**	**28**	**56**	**5.4**	2.9	ND	ND	ND	**7.3**	3.8
Xylene (Total)	5*	**470**	**37**	**150**	**157**	**280**	**23**	**11.6**	ND	ND	ND	**37**	**28**
1,3-Dichlorobenzene	3	ND	0.937	NA	ND	1.2	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	**4.6**	**5.79**	NA	**6.6**	**10**	2.6	1.7	ND	ND	ND	2.6	2.9
1,2-Dichlorobenzene	3	**9.1**	**2.54**	NA	**5.4**	**12**	1.6	1.1	ND	ND	ND	2.1	2
1,2,4-Trichlorobenzene	5	**11**	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		808.4	80.66	214.54	240.4	440.8	46.5	25	0	0	0.83		51.6

MW-6 460-7298-1 10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected

NS - Not Sampled

NA - Not Analyzed

* - The principal organic contaminant standard for ground water applies to this substance.

** - Guidance Value only.

\- - No Standard

Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.

- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID	1998 NYSDEC	MW-7	MW-7	MW-7	MW-7LF	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
Lab Sample Number	Ground Water	231803	460-7298-2	AC51372-003	AC55333-005	AC58579-006	AC60908-008	AC62242-008	AC63671-008	AC65251-008	AC67134-008	AC68953-002	AC71580-003
Sampling Date	Standards	09/27/00	10/28/09	04/30/10	10/25/10	04/20/11	08/03/11	10/21/11	01/11/12	04/11/12	07/18/12	10/23/12	04/02/13
Units	ug/l	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	0.24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	3.5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	**1.7**	**3.4**	ND	**5.6**	ND	**1.7**	1	ND	ND	ND	**1**	**0.86**
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	0.5	0.35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5*	**35**	**27**	**24**	**31**	**17**	**18**	**11**	4.3	**5.1**	**6.6**	**15**	**5.7**
Ethylbenzene	5*	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	5*	**15**	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	1.4	NA	ND	1.9	ND	1.1	ND	ND	ND	ND	**0.93**	ND
1,4-Dichlorobenzene	3	2.9	NA	ND	**3.2**	ND	2.4	1.3	ND	ND	1.8	2.5	2
1,2-Dichlorobenzene	3	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		60.8	34.59	24	41.7	17	23.2	13.3	4.3	5.1	8.4	19.43	8.56

MW-6 460-7298-1 10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected

NS - Not Sampled

NA - Not Analyzed

* - The principal organic contaminant standard for ground water applies to this substance.

** - Guidance Value only.

\- - No Standard

Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.

- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	MW-8LF AC55333-001 10/25/10 ug/L	MW-8 AC57037-005 01/28/11 ug/L	MW-8 AC58579-002 04/19/11 ug/L	MW-8 AC60908-002 08/02/11 ug/L	MW-8 AC62242-002 10/20/11 ug/L	MW-8 AC63671-002 01/10/12 ug/L	MW-8 ac64330-002 2/22/2012 ug/L	MW-8 AC65251-002 04/10/12 ug/L	MW-8 AC67134-002 07/17/12 ug/L	MW-11LF AC55333-007 10/26/10 ug/L	MW-11 AC58579-007 04/21/11 ug/L	MW-11 AC60908-006 08/03/11 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	**17**	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	0.83	0.68	ND	ND	ND	ND	ND	0.54	ND	ND	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	ND	ND	ND	**77**	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	ND	ND	ND	ND	1.2	ND	ND	ND	1.1	ND	ND	ND
Chlorobenzene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5*	**11**	2.2	ND	ND	1.7	ND	ND	ND	1.3	ND	1	ND
Xylene (Total)	5*	**73**	**13.8**	**8.5**	**14**	**17.6**	**13**	**43**	**26**	**19.4**	ND	4.3	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		84	16.83	9.18	14	20.5	121	43	26	22.34	0	5.3	0

MW-6
460-7298-1
10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected
NS - Not Sampled
NA - Not Analyzed
* - The principal organic contaminant standard for ground water applies to this substance.
** - Guidance Value only.
\- - No Standard
Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.
- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	MW-11 AC62242-006 10/21/11 ug/L	MW-11 AC63671-006 01/11/12 ug/L	MW-11 AC65251-006 4/11/12 ug/l	MW-11 AC67134-006 7/18/2012 ug/l	MW-11 AC68953-004 10/23/2012 ug/l	MW-11 AC71580-004 04/02/13 ug/l	PZ-3 328630 1/22/02 ug/l	PZ-3 460-7298-3 10/28/09 ug/L	PZ-3 AC51372-002 04/30/10 ug/L	PZ-3 AC55333-004 10/25/10 ug/L	PZ-3 AC57037-001 1/27/11 ug/L	PZ-3 AC58579-001 04/19/11 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	0.28	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND
Chlorobenzene	5*	1.1	ND	1.1	ND	1.4	ND	ND	0.43	ND	ND	ND	ND
Ethylbenzene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11**	1	ND
Xylene (Total)	5*	ND	ND	ND	ND	ND	ND	1.3	1.3	3.7	**66**	**7.6**	4.1
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	0.59	ND	ND	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		1.1	0	1.1	0	1.99	0	1.3	2.51	3.7	77	8.6	4.1

MW-6
460-7298-1
10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected
NS - Not Sampled
NA - Not Analyzed
* - The principal organic contaminant standard for ground water applies to this substance.
** - Guidance Value only.
- - No Standard
Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.
- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	PZ-3 AC60908-001 08/02/11 ug/L	PZ-3 AC62242-001 10/20/11 ug/L	PZ-3 AC63671-001 01/10/12 ug/L	PZ-3 AC64330-001 2/22/2012 ug/L	PZ-3 AC65251-001 4/10/12 ug/l	PZ-3 AC67134-001 7/17/2012 ug/l	PZ-4 328631 1/22/02 ug/l	PZ-4 9551-004 12/3/02 ug/l	PZ-4 460-7298-4 10/28/09 ug/L	PZ-4 AC51372-005 04/30/10 ug/L	PZ-4LF AC55333-013 10/27/10 ug/L	PZ-4 AC57037-003 01/28/11 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	1.05	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	ND	**36**	ND	ND	ND	**22**	**38.9**	**15**	**28**	**64**	**23**
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	**280**	**290**	**91**	**160**	**350**	**150**
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	**27**	ND	ND	ND	4	3.8	2.3	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	**6.6**	**9.75**	**6.2**	**9.6**	**18**	**8**
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	**140**	ND	ND	ND	ND	1.98	1.4	ND	ND	1.5
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	ND	1.2	ND	ND	ND	ND	**55**	**58.6**	**22**	**34**	**78**	**37**
Chlorobenzene	5*	ND	ND	ND	ND	ND	ND	ND	ND	0.41	ND	ND	ND
Ethylbenzene	5*	ND	**5.1**	ND	ND	**10**	ND	**230**	**195**	**120**	**210**	**360**	**170**
Xylene (Total)	5*	**54**	**27**	**13**	**50**	**64**	**53**	**1500**	**1280**	**510**	**760**	**1620**	**580**
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	0.693	NA	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	**5.1**	**4.13**	NA	**6.6**	**11**	**6.9**
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		54	33.3	216	50	74	53	2102.7	1883.903	768.31	1208.2	2501	976.4

MW-6 460-7298-1 10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected

NS - Not Sampled

NA - Not Analyzed

* - The principal organic contaminant standard for ground water applies to this substance.

** - Guidance Value only.

\- - No Standard

Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.

- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	PZ-4 AC58579-004 01/28/11 ug/L	PZ-4 AC60908-005 08/02/11 ug/L	PZ-4 AC62242-005 10/20/11 ug/L	PZ-4 AC63671-005 01/10/12 ug/L	PZ-4 AC65251-005 4/10/12 ug/l	PZ-4 AC67134-005 7/17/2012 ug/l	SVE-RW-5A AC53199-002 07/26/10 ug/L	SVE-RW-5A AC55333-010 10/27/10 ug/L	SVE-RW-5A AC57037-003 01/28/11 ug/L	SVE-RW-5A AC60908-003 08/02/11 ug/L	SVE-RW-5A AC62242-003 10/20/11 ug/L	SVE-RW-5A AC63671-003 01/10/12 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	**73**	**46**	**43**	**42**	ND	**19**	ND	ND	ND	1.8	1.7	**12**
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	**350**	**330**	**220**	**250**	**110**	**140**	**23**	ND	ND	**1.9**	**1.5**	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	**6**	**6.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	**2.5**	**19**	**11**	**14**	ND	**7.6**	**3.8**	ND	ND	**1.2**	**1.2**	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	**5.1**	ND	ND	ND	ND	ND	`	ND	ND	ND	ND	**51**
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	**53**	**68**	**71**	**96**	**51**	**52**	**13**	ND	ND	2.8	2.4	2.4
Chlorobenzene	5*	ND	ND	ND	ND	ND	ND	**72**	**17**	1.7	**16**	**20**	**19**
Ethylbenzene	5*	**390**	**310**	**330**	**350**	**250**	**200**	**36**	ND	ND	**11**	**9.3**	**10**
Xylene (Total)	5*	**1090**	**990**	**1560**	**1730**	**1,020**	**1110**	**290**	**34**	ND	**27**	**26**	**27**
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	**14**	ND	ND	**4.1**	**4.2**	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	**42**	ND	ND	**9.7**	**9.6**	ND
1,2-Dichlorobenzene	3	**8.6**	**13**	**9.5**	ND	ND	**8.3**	**23**	ND	ND	**4.7**	**4.5**	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		1978.2	1782.1	2244.5	2482	1431	1536.9	516.8	51	1.7	80.2	80.4	121.4

MW-6
460-7298-1
10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected
NS - Not Sampled
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* - The principal organic contaminant standard for ground water applies to this substance.
** - Guidance Value only.
\- - No Standard
Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.
- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.0

Former Dexter Chemical - Bronx, NY
Historic Ground Water Volatile Organic Compounds Results Summary

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards ug/l	MW-5A AC65251-003 4/10/2012 ug/l	MW-5A AC67134-003 7/17/2012 ug/l	SVE-RW-13I AC53199-001 07/26/10 ug/L	SVE-RW-13I AC55333-015 10/27/10 ug/L	SVE-RW-13I AC58579-008 04/21/11 ug/L	SVE-RW-13I AC60908-009 08/03/11 ug/L	SVE-RW-13I AC62242-009 10/21/11 ug/L	SVE-RW-13I AC63671-009 01/11/12 ug/L	SVE-RW-13I AC65251-009 4/11/12 ug/L	SVE-RW-13I AC67134-009 7/18/2012 ug/L	SVE-RW-13I AC68953-001 10/23/2012 ug/L	SVE-RW-13I AC71580-001 04/02/13 ug/L
TARGETED VOLATILE COMPOUNDS													
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	ND	ND	ND	**120**	ND	ND	**24**	**16**	**43**	**53**	**36**
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	**1.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	ND	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5*	**24**	**20**	ND	ND	ND	ND	ND	ND	ND	ND	**16**	**24**
Ethylbenzene	5*	**7.5**	4.7	ND	ND	**140**	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	5*	**25**	**22.5**	**3700**	**560**	**1020**	**13**	**51**	**23**	**12**	**59**	**80**	**108**
1,3-Dichlorobenzene	3	ND	**5**	ND	ND	ND	ND	ND	ND	ND	ND	**13**	**<20**
1,4-Dichlorobenzene	3	**11**	**11**	ND	ND	**180**	ND	ND	ND	**5.7**	**14**	**29**	**26**
1,2-Dichlorobenzene	3	ND	**5.4**	ND	ND	**180**	ND	ND	ND	**5.7**	**11**	**12**	**<20**
1,2,4-Trichlorobenzene	5	ND	ND	**1200**	ND	ND	**33**	ND	ND	ND	**12**	ND	ND
Total Confident Conc. Above Targeted VOAs (s)		67.5	74.1	4900	560	1640	46	51	47	39.4	139	203	26194

MW-6 460-7298-1 10/28/09 - Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED - Results above 1998 NYSDEC Ground Water Standards - GA Water Class

ND - None Detected

NS - Not Sampled

NA - Not Analyzed

* - The principal organic contaminant standard for ground water applies to this substance.

** - Guidance Value only.

\- - No Standard

Note - Samples SVE-RW-13I collected on April 2, 2013 contained 26,000 ug/L of acetone.

- Samples PZ-4 collected on April 2, 2013 contained 435 ug/L of VOCs not listed in this sammary table

TABLE 2.1

Dexter Chemical - Bronx, NY
Historic Volatile Organic Compounds in Ground Water (PZ-4 Post-Injection Sampling)

Sample ID	1998 NYSDEC	PZ-4						PZ-4						PZ-4						PZ-4						PZ-4			
Lab Sample Number	Ground Water	AC71578-001						AC72085-001						AC72453-001						AC72821-001						04751-005			
Sampling Date	Standards	04/02/13						04/26/13						05/16/13						06/06/13						5/25/2016			
Units	ug/l	ug/l		Q		RL		ug/l		Q		RL		ug/l		Q		RL		ug/l		Q		RL		ug/l		Q		RL	MDL
TARGETED VOLATILE COMPOUNDS																													
Dichlorodifluoromethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.23
Chloromethane	5*	ND				**20**		ND				5		NA				NA		ND				**10**		ND				2.00	0.974
Vinyl chloride	2	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				2.00	1.04
Bromomethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.01
Chloroethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.56
Trichlorofluoromethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.29
1,1-Dichloroethene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.22
Acetone	-	ND				200		150				50		180				100		120				100		12.7		D		10.0	1.64
Carbon disulfide	60	ND				20		ND				5		ND				10		ND				10		ND				2.00	1.09
Methylene chloride	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				4.00	3.98
trans-1,2-Dichloroethene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.23
Methyl tert-butyl ether (MTBE)	-	ND				10		ND				2.5		ND				5		ND				5		ND				2.00	1.16
1,1-Dichloroethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.33
cis-1,2-Dichloroethene	5*	ND				**20**		**13**				**5**		**17**				**10**		**35**				**10**		**52.9**		D		2.00	1.05
2-Butanone (MEK)	-	ND				20		ND				5		ND				10		ND				10		ND				2.00	1.67
Bromochloromethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.45
Chloroform	7	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.22
1,1,1-Trichloroethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.00
Carbon tetrachloride	5	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	0.998
1,2-Dichloroethane (EDC)	0.6	ND				**10**		ND				**2.5**		ND				**5**		ND				**5**		ND				2.00	1.26
Benzene	1	ND				**10**		**7.2**				**2.5**		**8.6**				**5**		**11**				**5**		**10.9**		D		**2.00**	0.782
Trichloroethene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		1.71		DJ		2.00	1.28
1,2-Dichloropropane	1	**84**				**20**		**76**				**5**		**99**				**10**		**120**				**10**		ND				**2.00**	**1.16**
1,4-Dioxane	-	ND				1000		ND				250		ND				500		ND				500		ND				400	113
Bromodichloromethane	50	ND				20		ND				5		ND				10		ND				10		ND				2.00	1.38
cis-1,3-Dichloropropene	0.4 (a)	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				**2.00**	**0.754**
4-Methyl-2-pentanone (MIBK)	-	ND				20		ND				5		ND				10		ND				10		ND				2.00	0.850
Toluene	5*	**58**				**20**		**46**				5		**55**				**10**		**68**				**10**		**71.2**		D		2.00	1.01
trans-1,3-Dichloropropene	0.4 (a)	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				**2.00**	**0.818**
1,1,2-Trichloroethane	1	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				**2.00**	**1.08**
Tetrachloroethene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		1.18		DJ		2.00	0.890
2-Hexanone	-	ND				20		ND				5		ND				10		ND				10		ND				2.00	1.10
Dibromochloromethane	50**	ND				20		ND				5		ND				10		ND				10		ND				2.00	0.824
1,2-Dibromoethane (EDB)	5*	ND				**20**		ND				5		NA				NA		NA				NA		ND				2.00	0.998
Chlorobenzene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	1.05
Ethylbenzene	5*	**270**				**20**		**200**				5		**220**				**10**		**360**				**10**		**296**		D		2.00	0.814
Total Xylenes	5*	**1570**				**20**		**1200**				5		**1320**				**10**		**2040**				**10**		**1610**		D		10.0	6.44
Styrene	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	0.784
Bromoform	50	ND				20		ND				5		ND				10		ND				10		ND				2.00	1.03
Isopropylbenzene	5*	**44**				**20**		**36**				5		**36**				**10**		**53**				**10**		**50.2**		D		2.00	0.738
1,1,2,2-Tetrachloroethane	5*	ND				**20**		ND				5		ND				**10**		ND				**10**		ND				2.00	0.986
1,3-Dichlorobenzene	3	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				2.00	1.19
1,4-Dichlorobenzene	3	ND				**20**		ND				**5**		ND				**10**		ND				**10**		1.95		DJ		2.00	0.852
1,2-Dichlorobenzene	3	ND				**20**		**7.9**				**5**		ND				**10**		**14**				**10**		**12.5**		D		2.00	1.21
1,2-Dibromo-3-chloropropane	0.04	ND				**20**		ND				**5**		NA				NA		NA				NA		ND				**2.00**	**1.58**
1,2,4-Trichlorobenzene	5*	ND				**20**		ND				5		NA				NA		NA				NA		ND				2.00	1.20
1,2,3-Trichlorobenzene	5*	ND				**20**		ND				5		NA				NA		NA				NA		ND				2.00	1.35
1,1,2-Trichloro-1,2,2-trifluoroethane	5*	ND				**100**		ND				**25**		ND				**50**		ND				**50**		ND				2.00	1.53
Methyl acetate	-	ND				20		ND				5		NA				NA		NA				NA		ND				2.00	0.924
Cyclohexane	-	ND				20		ND				5		NA				NA		NA				NA		3.07		DJ		4.00	0.964
Methylcyclohexane	-	ND				20		5.2				5		NA				NA		NA				NA		4.23		D		2.00	1.49
1,3-Dichloropropene (cis- and trans-)	0.4*	ND				**20**		ND				**5**		ND				**10**		ND				**10**		ND				**2.00**	**0.818**
TOTAL VOCs:	-	2026				NA		1741				NA		1936				NA		2821				NA		2130		DJ			NA
TOTAL TICs:	-	1600		J		NA		940		J		NA		1100		J		NA		1600		J		NA		3140		DJN			NA
TOTAL VOCs & TICs:	-	3626				NA		2681				NA		3036				NA		4421				NA		5270		DJN			NA

BOLDED	Results above 1998 NYSDEC Ground Water Standards - GA Water Class
ND	None Detected
NA	Not Analyzed
VOCs	Volatile Organic Compounds
TICs	Tentatively Identified Compounds
*	The principal organic contaminant standard for ground water applies to this substance.
**	Guidance Value only.
-	No Standard

TABLE 2.2

Dexter Chemical - Bronx, NY
Historic Volatile Organic Compounds in Ground Water (2016 Semi-Annual Sampling)

Sample ID	1998 NYSDEC	MW-3				MW-3				MW-6				MW-6				MW-7				MW-7			
Lab Sample Number	Ground Water	04751-001				10215-001				04751-004				10215-005				04751-003				10215-004			
Sampling Date	Standards	5/25/2016				11/1/2016				5/25/2016				11/1/2016				5/25/2016				11/1/2016			
Units	ug/l	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL
TARGETED VOLATILE COMPOUNDS																									
Dichlorodifluoromethane	5*	ND		1.00	0.617	ND		2.00	1.03	ND		1.00	0.617	ND		1.00	0.516	ND		1.00	0.617	ND		1.00	0.516
Chloromethane	5*	ND		1.00	0.487	ND		1.00	0.886	ND		1.00	0.487	ND		0.500	0.443	ND		1.00	0.487	ND		0.500	0.443
Vinyl chloride	2	ND		1.00	0.522	ND		2.00	1.31	ND		1.00	0.522	ND		1.00	0.655	ND		1.00	0.522	ND		1.00	0.655
Bromomethane	5*	ND		1.00	0.506	ND		2.00	1.03	ND		1.00	0.506	ND		1.00	0.516	ND		1.00	0.506	ND		1.00	0.516
Chloroethane	5*	ND		1.00	0.781	ND		2.00	0.908	ND		1.00	0.781	ND		1.00	0.454	ND		1.00	0.781	ND		1.00	0.454
Trichlorofluoromethane	5*	ND		1.00	0.643	ND		2.00	0.792	ND		1.00	0.643	ND		1.00	0.396	ND		1.00	0.643	ND		1.00	0.396
1,1-Dichloroethene	5*	ND		1.00	0.612	ND		1.00	0.658	ND		1.00	0.612	ND		0.500	0.329	ND		1.00	0.612	ND		0.500	0.329
Acetone	-	ND		5.00	0.820	9.65	DJ	10.0	1.52	ND		5.00	0.820	ND		5.00	0.760	ND		5.00	0.820	ND		5.00	0.760
Carbon disulfide	60	ND		1.00	0.543	ND		1.00	0.598	ND		1.00	0.543	ND		0.500	0.299	ND		1.00	0.543	ND		0.500	0.299
Methylene chloride	5*	ND		2.00	1.99	ND		2.00	1.98	ND		2.00	1.99	ND		1.00	0.990	ND		2.00	1.99	ND		1.00	0.990
trans-1,2-Dichloroethene	5*	ND		1.00	0.615	ND		1.00	0.756	ND		1.00	0.615	ND		0.500	0.378	ND		1.00	0.615	ND		0.500	0.378
Methyl tert-butyl ether (MTBE)	-	ND		1.00	0.580	ND		1.00	0.812	ND		1.00	0.580	ND		0.500	0.406	ND		1.00	0.580	ND		0.500	0.406
1,1-Dichloroethane	5*	ND		1.00	0.664	ND		1.00	0.732	ND		1.00	0.664	ND		0.500	0.366	ND		1.00	0.664	ND		0.500	0.366
cis-1,2-Dichloroethene	5*	ND		1.00	0.526	ND		1.00	0.802	ND		1.00	0.526	ND		0.500	0.401	ND		1.00	0.526	0.453	J	0.500	0.401
2-Butanone (MEK)	-	ND		1.00	0.836	ND		2.00	1.25	ND		1.00	0.836	ND		1.00	0.623	ND		1.00	0.836	ND		1.00	0.623
Bromochloromethane	5*	ND		1.00	0.724	ND		2.00	1.19	ND		1.00	0.724	ND		1.00	0.596	ND		1.00	0.724	ND		1.00	0.596
Chloroform	7	ND		1.00	0.608	ND		1.00	0.868	1.31		1.00	0.608	ND		0.500	0.434	ND		1.00	0.608	ND		0.500	0.434
1,1,1-Trichloroethane	5*	ND		1.00	0.501	ND		1.00	0.810	ND		1.00	0.501	ND		0.500	0.405	ND		1.00	0.501	ND		0.500	0.405
Carbon tetrachloride	5	ND		1.00	0.499	ND		1.00	0.630	ND		1.00	0.499	ND		0.500	0.315	ND		1.00	0.499	ND		0.500	0.315
1,2-Dichloroethane (EDC)	0.6	ND		1.00	0.628	ND		1.00	0.854	ND		1.00	0.628	ND		0.500	0.427	ND		1.00	0.628	ND		0.500	0.427
Benzene	1	ND		1.00	0.391	ND		1.00	0.928	ND		1.00	0.391	ND		0.500	0.464	ND		1.00	0.391	0.947		0.500	0.464
Trichloroethene	5*	ND		1.00	0.639	ND		1.00	0.632	ND		1.00	0.639	ND		0.500	0.316	ND		1.00	0.639	ND		0.500	0.316
1,2-Dichloropropane	1	ND		1.00	0.578	ND		1.00	0.690	ND		1.00	0.578	ND		0.500	0.345	ND		1.00	0.578	ND		0.500	0.345
1,4-Dioxane	-	ND		200	56.3	ND		200	139	ND		200	56.3	ND		100	69.6	ND		200	56.3	ND		100	69.6
Bromodichloromethane	50	ND		1.00	0.688	ND		1.00	0.698	ND		1.00	0.688	ND		0.500	0.349	ND		1.00	0.688	ND		0.500	0.349
cis-1,3-Dichloropropene	0.4 (a)	ND		**1.00**	0.377	ND		1.00	0.696	ND		**1.00**	0.377	ND		**0.500**	0.348	ND		**1.00**	0.377	ND		**0.500**	0.348
4-Methyl-2-pentanone (MIBK)	-	ND		1.00	0.425	ND		1.00	0.730	ND		1.00	0.425	ND		0.500	0.365	ND		1.00	0.425	ND		0.500	0.365
Toluene	5*	ND		1.00	0.507	ND		1.00	0.586	ND		1.00	0.507	ND		0.500	0.293	ND		1.00	0.507	ND		0.500	0.293
trans-1,3-Dichloropropene	0.4 (a)	ND		**1.00**	**0.409**	ND		**1.00**	**0.654**	ND		**1.00**	**0.409**	ND		**0.500**	**0.327**	ND		**1.00**	**0.409**	ND		**0.500**	**0.327**
1,1,2-Trichloroethane	1	ND		1.00	0.542	ND		2.00	1.15	ND		1.00	0.542	ND		1.00	0.575	ND		1.00	0.542	ND		1.00	0.575
Tetrachloroethene	5*	ND		1.00	0.445	ND		1.00	0.762	ND		1.00	0.445	ND		0.500	0.381	ND		1.00	0.445	ND		0.500	0.381
2-Hexanone	-	ND		1.00	0.552	ND		1.00	0.704	ND		1.00	0.552	ND		0.500	0.352	ND		1.00	0.552	ND		0.500	0.352
Dibromochloromethane	50**	ND		1.00	0.412	ND		2.00	1.15	ND		1.00	0.412	ND		1.00	0.575	ND		1.00	0.412	ND		1.00	0.575
1,2-Dibromoethane (EDB)	5*	ND		1.00	0.499	ND		1.00	0.712	ND		1.00	0.499	ND		0.500	0.356	ND		1.00	0.499	ND		0.500	0.356
Chlorobenzene	5*	ND		1.00	0.527	ND		1.00	0.574	ND		1.00	0.527	ND		0.500	0.287	**6.44**		1.00	0.527	**8.18**		0.500	0.287
Ethylbenzene	5*	ND		1.00	0.407	ND		1.00	0.588	ND		1.00	0.407	ND		0.500	0.294	ND		1.00	0.407	ND		0.500	0.294
Total Xylenes	5*	ND		2.00	1.29	ND		2.00	1.89	ND		2.00	1.29	ND		1.00	0.944	2.21		2.00	1.29	ND		1.00	0.944
Styrene	5*	ND		1.00	0.392	ND		2.00	0.508	ND		1.00	0.392	ND		1.00	0.254	ND		1.00	0.392	ND		1.00	0.254
Bromoform	50	ND		1.00	0.514	ND		1.00	0.890	ND		1.00	0.514	ND		0.500	0.445	ND		1.00	0.514	ND		0.500	0.445
Isopropylbenzene	5*	ND		1.00	0.369	ND		1.00	0.614	ND		1.00	0.369	ND		0.500	0.307	ND		1.00	0.369	ND		0.500	0.307
1,1,2,2-Tetrachloroethane	5*	ND		1.00	0.493	ND		1.00	0.990	ND		1.00	0.493	ND		0.500	0.495	ND		1.00	0.493	ND		0.500	0.495
1,3-Dichlorobenzene	3	ND		1.00	0.595	ND		1.00	0.572	ND		1.00	0.595	ND		0.500	0.286	ND		1.00	0.595	0.422	J	0.500	0.286
1,4-Dichlorobenzene	3	ND		1.00	0.426	ND		1.00	0.682	ND		1.00	0.426	ND		0.500	0.341	0.726	J	1.00	0.426	0.751		0.500	0.341
1,2-Dichlorobenzene	3	ND		1.00	0.605	ND		1.00	0.550	ND		1.00	0.605	ND		0.500	0.275	ND		1.00	0.605	ND		0.500	0.275
1,2-Dibromo-3-chloropropane	0.04	ND		**1.00**	**0.788**	ND		**2.00**	**1.07**	ND		**1.00**	**0.788**	ND		**1.00**	**0.534**	ND		**1.00**	**0.788**	ND		**1.00**	**0.534**
1,2,4-Trichlorobenzene	5*	ND		1.00	0.599	ND		2.00	0.486	ND		1.00	0.599	ND		1.00	0.243	ND		1.00	0.599	ND		1.00	0.243
1,2,3-Trichlorobenzene	5*	ND		1.00	0.673	ND		2.00	0.506	ND		1.00	0.673	ND		1.00	0.253	ND		1.00	0.673	ND		1.00	0.253
1,1,2-Trichloro-1,2,2-trifluoroethane	5*	ND		1.00	0.765	ND		2.00	1.31	ND		1.00	0.765	ND		1.00	0.656	ND		1.00	0.765	ND		1.00	0.656
Methyl acetate	-	ND		1.00	0.462	ND		1.00	0.696	ND		1.00	0.462	ND		0.500	0.348	ND		1.00	0.462	ND		0.500	0.348
Cyclohexane	-	ND		2.00	0.482	ND		1.00	0.860	ND		2.00	0.482	ND		0.500	0.430	ND		2.00	0.482	ND		0.500	0.430
Methylcyclohexane	-	ND		1.00	0.744	ND		1.00	0.716	ND		1.00	0.744	ND		0.500	0.358	ND		1.00	0.744	ND		0.500	0.358
1,3-Dichloropropene (cis- and trans-)	0.4*	ND		**1.00**	**0.409**	ND		**1.00**	**0.696**	ND		**1.00**	**0.409**	ND		**0.500**	**0.348**	ND		**1.00**	**0.409**	ND		**0.500**	**0.348**
TOTAL VOCs:	-	ND		NA		9.65	DJ	NA		1		NA		ND		NA		9	J	NA		10.8	J	NA	
TOTAL TICs:	-	ND		NA		ND		NA		ND		NA		ND		NA		130	JN	NA		41.2	JN	NA	
TOTAL VOCs & TICs:	-	ND		NA		9.65	DJ	NA		1		NA		ND		NA		139	JN	NA		52	JN	NA	

BOLDED	Results above 1998 NYSDEC Ground Water Standards - GA Water Class
ND	None Detected
NA	Not Analyzed
VOCs	Volatile Organic Compounds
TICs	Tentatively Identified Compounds
*	The principal organic contaminant standard for ground water applies to this substance.
**	Guidance Value only.
-	No Standard
(a)	Standard based on the sum of cis- and trans- compounds

TABLE 2.2

Dexter Chemical - Bronx, NY
Historic Volatile Organic Compounds in Ground Water (2016 Semi-Annual Sampling)

Sample ID	1998 NYSDEC	MW-11				MW-11				DUP-1 (MW-11)				DUP-1 (MW-11)				PZ-3				PZ-3				PZ-4				PZ-4			
Lab Sample Number	Ground Water	04751-002				10215-009				04751-007				10215-008				04751-006				10215-007				04751-005				10215-006			
Sampling Date	Standards	5/25/2016				11/1/2016				5/25/2016				11/1/2016				5/25/2016				11/1/2016				5/25/2016				11/1/2016			
Units	ug/l	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL	ug/l	Q	RL	MDL
TARGETED VOLATILE COMPOUNDS																																	
Dichlorodifluoromethane	5*	ND		1.00	0.617	ND		1.00	0.516	ND		1.00	0.617	ND		1.00	0.516	ND		2.00	1.23	ND		2.00	1.03	ND		2.00	1.23	ND		2.00	1.03
Chloromethane	5*	ND		1.00	0.487	ND		0.500	0.443	ND		1.00	0.487	ND		0.500	0.443	ND		2.00	0.974	ND		1.00	0.886	ND		2.00	0.974	ND		1.00	0.886
Vinyl chloride	2	ND		1.00	0.522	ND		1.00	0.655	ND		1.00	0.522	ND		1.00	0.655	ND		2.00	1.04	ND		2.00	1.31	ND		2.00	1.04	ND		2.00	1.31
Bromomethane	5*	ND		1.00	0.506	ND		1.00	0.516	ND		1.00	0.506	ND		1.00	0.516	ND		2.00	1.01	ND		2.00	1.03	ND		2.00	1.01	ND		2.00	1.03
Chloroethane	5*	ND		1.00	0.781	ND		1.00	0.454	ND		1.00	0.781	ND		1.00	0.454	ND		2.00	1.56	ND		2.00	0.908	ND		2.00	1.56	ND		2.00	0.908
Trichlorofluoromethane	5*	ND		1.00	0.643	ND		1.00	0.396	ND		1.00	0.643	ND		1.00	0.396	ND		2.00	1.29	ND		2.00	0.792	ND		2.00	1.29	ND		2.00	0.792
1,1-Dichloroethene	5*	ND		1.00	0.612	ND		0.500	0.329	ND		1.00	0.612	ND		0.500	0.329	ND		2.00	1.22	ND		1.00	0.658	ND		2.00	1.22	ND		1.00	0.658
Acetone	-	ND		5.00	0.820	ND		5.00	0.760	ND		5.00	0.820	ND		5.00	0.760	174	D	10.0	1.64	172	D	10.0	1.52	12.7	D	10.0	1.64	163	D	10.0	1.52
Carbon disulfide	60	ND		1.00	0.543	ND		0.500	0.299	ND		1.00	0.543	ND		0.500	0.299	ND		2.00	1.09	ND		1.00	0.598	ND		2.00	1.09	11.2	D	1.00	0.598
Methylene chloride	5*	ND		2.00	1.99	ND		1.00	0.990	ND		2.00	1.99	ND		1.00	0.990	ND		4.00	3.98	ND		2.00	1.98	ND		4.00	3.98	ND		2.00	1.98
trans-1,2-Dichloroethene	5*	ND		1.00	0.615	ND		0.500	0.378	ND		1.00	0.615	ND		0.500	0.378	ND		2.00	1.23	ND		1.00	0.756	ND		2.00	1.23	ND		1.00	0.756
Methyl tert-butyl ether (MTBE)	-	ND		1.00	0.580	ND		0.500	0.406	ND		1.00	0.580	ND		0.500	0.406	1.24	DJ	2.00	1.16	ND		1.00	0.812	ND		2.00	1.16	ND		1.00	0.812
1,1-Dichloroethane	5*	ND		1.00	0.664	ND		0.500	0.366	ND		1.00	0.664	ND		0.500	0.366	ND		2.00	1.33	ND		1.00	0.732	ND		2.00	1.33	ND		1.00	0.732
cis-1,2-Dichloroethene	5*	ND		1.00	0.526	ND		0.500	0.401	ND		1.00	0.526	ND		0.500	0.401	ND		2.00	1.05	ND		1.00	0.802	**52.9**	D	2.00	1.05	**22.0**	D	1.00	0.802
2-Butanone (MEK)	-	ND		1.00	0.836	ND		1.00	0.623	ND		1.00	0.836	ND		1.00	0.623	7.96	D	2.00	1.67	5.34	D	2.00	1.25	ND		2.00	1.67	ND		2.00	1.25
Bromochloromethane	5*	ND		1.00	0.724	ND		1.00	0.596	ND		1.00	0.724	ND		1.00	0.596	ND		2.00	1.45	ND		2.00	1.19	ND		2.00	1.45	ND		2.00	1.19
Chloroform	7	ND		1.00	0.608	ND		0.500	0.434	ND		1.00	0.608	ND		0.500	0.434	ND		2.00	1.22	ND		1.00	0.868	ND		2.00	1.22	ND		1.00	0.868
1,1,1-Trichloroethane	5*	ND		1.00	0.501	ND		0.500	0.405	ND		1.00	0.501	ND		0.500	0.405	ND		2.00	1.00	ND		1.00	0.810	ND		2.00	1.00	ND		1.00	0.810
Carbon tetrachloride	5	ND		1.00	0.499	ND		0.500	0.315	ND		1.00	0.499	ND		0.500	0.315	ND		2.00	0.998	ND		1.00	0.630	ND		2.00	0.998	ND		1.00	0.630
1,2-Dichloroethane (EDC)	0.6	ND		1.00	0.628	ND		0.500	0.427	ND		1.00	0.628	ND		0.500	0.427	ND		2.00	1.26	ND		1.00	0.854	ND		2.00	1.26	ND		1.00	0.854
Benzene	1	ND		1.00	0.391	ND		0.500	0.464	ND		1.00	0.391	ND		0.500	0.464	**1.42**	DJ	**2.00**	0.782	**1.05**	D	**1.00**	0.928	**10.9**	D	**2.00**	0.782	**5.25**	D	**1.00**	0.928
Trichloroethene	5*	ND		1.00	0.639	ND		0.500	0.316	ND		1.00	0.639	ND		0.500	0.316	ND		2.00	1.28	ND		1.00	0.632	1.71	DJ	2.00	1.28	1.24	D	1.00	0.632
1,2-Dichloropropane	1	ND		1.00	0.578	ND		0.500	0.345	ND		1.00	0.578	ND		0.500	0.345	ND		**2.00**	**1.16**	ND		**1.00**	**0.690**	ND		**2.00**	**1.16**	ND		**1.00**	**0.690**
1,4-Dioxane	-	ND		200	56.3	ND		100	69.6	ND		200	56.3	ND		100	69.6	ND		400	113	ND		200	139	ND		400	113	ND		200	139
Bromodichloromethane	50	ND		1.00	0.688	ND		0.500	0.349	ND		1.00	0.688	ND		0.500	0.349	ND		2.00	1.38	ND		1.00	0.698	ND		2.00	1.38	ND		1.00	0.698
cis-1,3-Dichloropropene	0.4 (a)	ND		**1.00**	0.377	ND		**0.500**	0.348	ND		**1.00**	0.377	ND		**0.500**	0.348	ND		**2.00**	**0.754**	ND		**1.00**	**0.696**	ND		**2.00**	**0.754**	ND		**1.00**	**0.696**
4-Methyl-2-pentanone (MIBK)	-	ND		1.00	0.425	ND		0.500	0.365	ND		1.00	0.425	ND		0.500	0.365	5.29	D	2.00	0.850	2.06	D	1.00	0.730	ND		2.00	0.850	ND		1.00	0.730
Toluene	5*	ND		1.00	0.507	ND		0.500	0.293	ND		1.00	0.507	ND		0.500	0.293	2.9	D	2.00	1.01	1.77	D	1.00	0.586	**71.2**	D	2.00	1.01	**36.8**	D	1.00	0.586
trans-1,3-Dichloropropene	0.4 (a)	ND		**1.00**	**0.409**	ND		**0.500**	**0.327**	ND		**1.00**	**0.409**	ND		**0.500**	**0.327**	ND		**2.00**	**0.818**	ND		**1.00**	**0.654**	ND		**2.00**	**0.818**	ND		**1.00**	**0.654**
1,1,2-Trichloroethane	1	ND		1.00	0.542	ND		1.00	0.575	ND		1.00	0.542	ND		1.00	0.575	ND		**2.00**	**1.08**	ND		**2.00**	**1.15**	ND		**2.00**	**1.08**	ND		**2.00**	**1.15**
Tetrachloroethene	5*	ND		1.00	0.445	ND		0.500	0.381	ND		1.00	0.445	ND		0.500	0.381	ND		2.00	0.890	ND		1.00	0.762	1.18	DJ	2.00	0.890	1.03	D	1.00	0.762
2-Hexanone	-	ND		1.00	0.552	ND		0.500	0.352	ND		1.00	0.552	ND		0.500	0.352	ND		2.00	1.10	ND		1.00	0.704	ND		2.00	1.10	ND		1.00	0.704
Dibromochloromethane	50**	ND		1.00	0.412	ND		1.00	0.575	ND		1.00	0.412	ND		1.00	0.575	ND		2.00	0.824	ND		2.00	1.15	ND		2.00	0.824	ND		2.00	1.15
1,2-Dibromoethane (EDB)	5*	ND		1.00	0.499	ND		0.500	0.356	ND		1.00	0.499	ND		0.500	0.356	ND		2.00	0.998	ND		1.00	0.712	ND		2.00	0.998	ND		1.00	0.712
Chlorobenzene	5*	ND		1.00	0.527	0.513		0.500	0.287	ND		1.00	0.527	0.522		0.500	0.287	ND		2.00	1.05	ND		1.00	0.574	ND		2.00	1.05	ND		1.00	0.574
Ethylbenzene	5*	ND		1.00	0.407	ND		0.500	0.294	ND		1.00	0.407	ND		0.500	0.294	**7.75**	D	2.00	0.814	**5.06**	D	1.00	0.588	**296**	D	2.00	0.814	**190**	D	1.00	0.588
Total Xylenes	5*	ND		2.00	1.29	ND		1.00	0.944	ND		2.00	1.29	ND		1.00	0.944	**55.2**	D	4.00	2.58	**34.5**	D	2.00	1.89	**1610**	D	10.0	6.44	**1340**	D	5.00	4.72
Styrene	5*	ND		1.00	0.392	ND		1.00	0.254	ND		1.00	0.392	ND		1.00	0.254	ND		2.00	0.784	ND		2.00	0.508	ND		2.00	0.784	ND		2.00	0.508
Bromoform	50	ND		1.00	0.514	ND		0.500	0.445	ND		1.00	0.514	ND		0.500	0.445	ND		2.00	1.03	ND		1.00	0.890	ND		2.00	1.03	ND		1.00	0.890
Isopropylbenzene	5*	0.646	J	1.00	0.369	ND		0.500	0.307	0.630	J	1.00	0.369	ND		0.500	0.307	**10.2**	D	2.00	0.738	**7.74**	D	1.00	0.614	**50.2**	D	2.00	0.738	**38.0**	D	1.00	0.614
1,1,2,2-Tetrachloroethane	5*	ND		1.00	0.493	ND		0.500	0.495	ND		1.00	0.493	ND		0.500	0.495	ND		2.00	0.986	ND		1.00	0.990	ND		2.00	0.986	ND		1.00	0.990
1,3-Dichlorobenzene	3	ND		1.00	0.595	ND		0.500	0.286	ND		1.00	0.595	ND		0.500	0.286	ND		2.00	1.19	ND		1.00	0.572	ND		2.00	1.19	ND		1.00	0.572
1,4-Dichlorobenzene	3	0.653	J	1.00	0.426	0.691		0.500	0.341	ND		1.00	0.426	0.729		0.500	0.341	ND		2.00	0.852	0.836	DJ	1.00	0.682	1.95	DJ	2.00	0.852	1.48	D	1.00	0.682
1,2-Dichlorobenzene	3	ND		1.00	0.605	ND		0.500	0.275	ND		1.00	0.605	ND		0.500	0.275	ND		2.00	1.21	1.46	D	1.00	0.550	**12.5**	D	2.00	1.21	**8.94**	D	1.00	0.550
1,2-Dibromo-3-chloropropane	0.04	ND		**1.00**	**0.788**	ND		**1.00**	**0.534**	ND		**1.00**	**0.788**	ND		**1.00**	**0.534**	ND		**2.00**	**1.58**	ND		**2.00**	**1.07**	ND		**2.00**	**1.58**	ND		**2.00**	**1.07**
1,2,4-Trichlorobenzene	5*	ND		1.00	0.599	ND		1.00	0.243	ND		1.00	0.599	ND		1.00	0.243	ND		2.00	1.20	3.51	D	2.00	0.486	ND		2.00	1.20	ND		2.00	0.486
1,2,3-Trichlorobenzene	5*	ND		1.00	0.673	ND		1.00	0.253	ND		1.00	0.673	ND		1.00	0.253	ND		2.00	1.35	0.996	DJ	2.00	0.506	ND		2.00	1.35	ND		2.00	0.506
1,1,2-Trichloro-1,2,2-trifluoroethane	5*	ND		1.00	0.765	ND		1.00	0.656	ND		1.00	0.765	ND		1.00	0.656	ND		2.00	1.53	ND		2.00	1.31	ND		2.00	1.53	ND		2.00	1.31
Methyl acetate	-	ND		1.00	0.462	ND		0.500	0.348	ND		1.00	0.462	ND		0.500	0.348	ND		2.00	0.924	ND		1.00	0.696	ND		2.00	0.924	ND		1.00	0.696
Cyclohexane	-	ND		2.00	0.482	ND		0.500	0.430	ND		2.00	0.482	ND		0.500	0.430	2.87	DJ	4.00	0.964	0.940	DJ	1.00	0.860	3.07	DJ	4.00	0.964	1.08	D	1.00	0.860
Methylcyclohexane	-	ND		1.00	0.744	ND		0.500	0.358	ND		1.00	0.744	ND		0.500	0.358	4.4	D	2.00	1.49	4.23	D	1.00	0.716	4.23	D	2.00	1.49	4.42	D	1.00	0.716
1,3-Dichloropropene (cis- and trans-)	0.4*	ND		**1.00**	**0.409**	ND		**0.500**	**0.348**	ND		**1.00**	**0.409**	ND		**0.500**	**0.348**	ND		**2.00**	**0.818**	ND		**1.00**	**0.696**	ND		**2.00**	**0.818**	ND		**1.00**	**0.696**
TOTAL VOCs:	-	1	J		NA	1.20			NA	1	J		NA	1.25			NA	273	DJ		NA	241	DJ		NA	2130	DJ		NA	1820	D		NA
TOTAL TICs:	-	69	JN		NA	119	JN		NA	75	JN		NA	113	JN		NA	1620	DJN		NA	1940	DJN		NA	3140	DJN		NA	3160	DJN		NA
TOTAL VOCs & TICs:	-	70	JN		NA	120	JN		NA	76	JN		NA	114	JN		NA	1890	DJN		NA	2180	DJN		NA	5270	DJN		NA	4980	DJN		NA

BOLDED	Results above 1998 NYSDEC Ground Water Standards - GA
ND	None Detected
NA	Not Analyzed
VOCs	Volatile Organic Compounds
TICs	Tentatively Identified Compounds
*	The principal organic contaminant standard for ground water
**	Guidance Value only.
-	No Standard
(a)	Standard based on the sum of cis- and trans- compounds

Attachments

Attachment 1

Site Management Periodic Review Report Institutional and Engineering Controls Certification Forms

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **V00186**

Site Name Dexter Chemical Corporation

Site Address: 819-845 Edgewater Road & 810-842 Whittier St. Zip Code: 10474
City/Town: Bronx
County: Bronx
Site Acreage: 1.6

Reporting Period: March 02, 2017 to March 02, 2018

	YES	NO
1. Is the information above correct?	■	□
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	□	■
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	□	■
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	□	■
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	□	■

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	■	□
7. Are all ICs/ECs in place and functioning as designed?	■	□

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00186 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Edgewater Realty	
		Soil Management Plan Monitoring Plan Soil Management Plan Monitoring Plan O&M Plan Site Management Plan
		Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
		Landuse Restriction Ground Water Use Restriction Landuse Restriction Ground Water Use Restriction Landuse Restriction Ground Water Use Restriction Landuse Restriction IC/EC Plan O&M Plan IC/EC Plan
		Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
		Ground Water Use Restriction Landuse Restriction Site Management Plan Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

- Site Management Plan
- Vegetable gardens and farming on the Controlled Property are prohibited;
- The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose, except for investigation or remediation;
- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in the SMP;
- The Controlled Property may only be used for commercial and industrial use, provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
- The Controlled Property may not be used for a higher level of use, such as restricted residential use without an amendment or the extinguishment of this Declaration of Covenants and Restrictions.
- - Compliance with the DCR by the Grantor and the Grantor's successors and assigns with all elements of the SMP;
- All Engineering Controls must be operated and maintained as specified in the SMP;

- Engineering Controls may not be disturbed or damaged, except as permitted by the SMP, the DCR, or as permitted or required by NYSDEC.
- All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defied in the SMP.
- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to Site Management for the Controlled Property must be reported to NYSDEC at the frequency and in a manner defined in the SMP;
- All ECs and all on-Site environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected, maintained, repaired and replaced as necessary to ensure the ECs and devices function in the manner specified in the SMP.
- Engineering Controls may not be removed or otherwise discontinued without an amendment or the extinguishment of the DCR.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Cover System
	Cover System
	Cover System
	Cover System
	Cover System

Site Cover System comprised of asphalt-covered roads and areas, concrete-covered sidewalks and areas and concrete building slabs and floors.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
■	□

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
■	□

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00186

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Bernard Tivnan (print name) at 421 Bruckner Boulevard, The Bronx, New York, NY 10455 (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/23/12
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Barry I. Skoultchi at 7 Pleasant Hill Road Cranbury, NJ 08512,
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/16/18
Date

Attachment 2

Annual Monitoring Report Form for Institutional & Engineering Controls - Field Form

2017 Inspection (12/7/2017)

ANNUAL MONITORING REPORT FORM FOR INSTITUTIONAL & ENGINEERING CONTROLS

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Declaration of Covenants and Restrictions (DCR):

Edgewater Realty, LLC

Name of the current operator at the site (if different than above):

Same as Above

Property Street Address(es):

819-845 Edgewater Road and
810-842 Whittier Street
Bronx, NY 10474

Municipality (-ies): Bronx County (-ies): Bronx

Blocks: 2762

Lots: 257, 272, 294, 299 and 300

Year of Tax map from which this information is obtained: 1908, 1921, 1924

B. Person responsible for submitting the annual monitoring report:

Person's Name: Bernard Tivnan
Person's Title: Member
Business Name: Edgewater Realty, LLC

Relationship to the Site (check as appropriate): Owner X Operator _____
Lessee _____ Person Who Conducted the Cleanup _____
Other (describe) _____

Street Address: 421 Bruckner Boulevard
City: Bronx State: NY 10455
Telephone Number: (718) 292 - 4882 ext. 233
FAX Number: (718) 585 - 3409
E-mail Address: btivnan@riverdaleelectrical.com

C. All Current Owner, Lessee(s) and Operator(s) [SEE Attached]

Name of Person: _____
Business Name: _____
Relationship to the Site: Owner _____ Operator _____ Lessee _____
Street Address: _____
City: _____ State: _____
Telephone Number: (___) ___-____
FAX Number: (___) ___-____
E-mail Address: _____

D. Case Specific Information (Complete all that apply)

- VCA Site Name Dexter Chemical Corporation
- VCA Site # V00186
- Index # W2-0864-03-08
- Date of VCA December 3, 2003
- Name and Bureau of assigned Case Manager at the time the VCA/DCR was issued.
  Nigel N. Crawford, P.E. - NYSDEC Region 2

E. Existing Site Conditions

- Describe the physical characteristics of the Site. The entire site is overlain with impermeable surfaces, consisting of a composite cap composed of asphat covered roads, and areas, concrete covered sidewalks and areas and concrete building slabs and floors.
- Describe the current site operations. Current site operations include marble/stoneworking, contractor, hardware, cabinet and goods storage, metal and woodworking, and consumable and goods storage and distribution.
- Describe each engineering control that applies to the Restricted Areas.
  The entire site is restricted. The engineering control covering the entire site includes a composite cover system comprised of asphalt-covered roads and areas, concrete-covered sidewalks and areas and concrete building slabs and floors.

II. Protectiveness Evaluation

A. Deed Notice & Engineering Control Information

- Provide the following information for the recorded DCR:

Book Number: Recording Identifier #: 20130225012220010 01E6657
Page Number: _____
Date the date the Deed Notice/DER was filed in the office of the county recording officer: September 26, 2012

- Have any amendments and/or additional filings been recorded that may modify or supersede the DCR and Exhibits?

Yes ____ No X

If you answered "Yes", provide an explanation. Also provide the Book and Page Number of the amendment and/or additional filing and the date it was filed in the office of the county recording officer. Attach a copy of the amendment and/or additional filing in Attachment 2: DCR Amendment.

_____
_____
_____
_____

B. Evaluation of Institutional and Engineering Controls

1. Zoning or Land Use Changes

a. Land use at the time the DCR was filed (check all that apply):
Non-Residential X Residential _____ Agricultural _____ Other _____

b. Current land use (check all that apply):
Non-Residential X Residential _____ Agricultural _____ Other _____

If the current land use is different than the land use at the time the DCR was filed, explain how the remedial action, which included the DCR, remains protective of public health and safety. Include the Case Manager's name and Bureau that approved this change, if applicable.

_____
_____

c. Has there been an actual or pending zoning or land-use change for the Restricted Area on which the DCR is filed?

Yes ____ No X (If No, proceed to #2, below)

There is an actual or pending zoning or land-use change on the Restricted Area which is consistent with the use restrictions. That change will not undermine the protectiveness of the remedial action that includes a DCR in a manner such that could prevent the remedial action from meeting the applicable health risk standard, and protection of public health, safety, and of the environment.

The result of the evaluation was either (1) the control remains protective, (2) an actual change occurred, the control was no longer protective and a description of what was done to make the control protective, or (3) a pending change will occur which will result in the control no longer being protective and a description of what was/will be done to make the control protective.

The details of the actual or pending zoning or land-use changes and any potential impact are provided below:

2. Inspections

Have periodic inspections of the site identified any excavation or other disturbance activities that have taken place within the restricted areas?

Yes____No X (If No, proceed to "3")

An excavation or other disturbance activity has taken place within the restricted areas and any disturbances of the soil at the site have not resulted in unacceptable exposure to the soil contamination. A full description of the disturbance and the method to restore all controls, compliance with all guidelines of the SoMP, applicable health and safety laws and regulations and methods to ensure that exposure to contamination in excess of the applicable remediation standard did not occur are provided below. If the disturbance resulted in an unacceptable exposure to the soil contamination explain how this was remedied.

Date(s) of Disturbance: _____

Duration of Disturbance: Years ____ Months ____ Days ____
Date the NYSDEC was notified: _____
Description of the disturbance and methods to address the disturbance:

_____
_____
_____

Name of Contact Person Relative to the Disturbance:

_____
Title: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____
Telephone Number: _____
Email Address: _____

Was all soil excavated and returned to the Restricted Area?

Yes____No_____ (If No, provide an explanation)

_____
_____
_____

Quantity of soil generated for disposal (if applicable): _____ tons
Provide the destination of all materials removed from the Site during work performed.

Attach Transportation/disposal/approvals for receipt documentation.

Provide an explanation of how the engineering control was replaced following the disturbance?

_____
_____
_____

Provide an explanation of how the engineering control was replaced following the disturbance?

3. Changes to Laws and Regulations

a. Are there any subsequently promulgated or modified environmental laws or regulations, which apply to the site?

Yes ____ No X (If No, proceed to #4 below)

b. If Yes, has the evaluation also determined that the each DCR and engineering control, as applicable, meets the requirements of the new laws and regulations?

Yes____No_____ (If Yes, proceed to #4 below)

c. Each DCR and engineering control, as applicable that did not meet the requirements of the new laws and regulations has been addressed in the following manner to bring them into compliance:

4. SVE/AS System Not Applicable

Has a failure of the SVE/AS system occurred since the last Annual Site Inspection?

Yes(____) No(_____)

A description of the system failure and the methods/repairs conducted to restore all controls and compliance with all guidelines of the SMP are provided below.

Date(s) of System Failure:

Duration of Failure: Months ____ Days ____ Hours ____
Description of the system failure and methods to address the system failure:

_____
_____
_____

Name of Contact Person Relative to the System Failure:

_____
Title: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____
Telephone Number: _____
Email Address: _____

Are operation and maintenance logs for the Soil Vapor Extraction and Air Sparge system as provided in the SMP complete and available for review?

Yes ____No ____ (If No, provide an explanation)

_____
_____

Item [C.] List

1. Name of Person: Raffaele Spiniello
   Business Name: SGR Stone NYC
   Relationship to Site: Lessee
   Street Address: 819 Edgewater Road
   City: Bronx State: New York
   Telephone Number: (347) 446-5256
   Fax Number:
   E-mail Address: rspiniello@sgrstone.com

2. Name of Person: David Magnotta
   Business Name: IP Trading
   Relationship to Site: Lessee
   Street Address: 835 Edgewater Road
   City: Bronx State: New York
   Telephone Number: (212) 980-5959 X: 205
   Fax Number: (212) 980-5928
   E-mail Address: mdm@iptradingllc.com

3. Name of Person: Marc Roth
   Business Name: Dessurt Corp.
   Relationship to Site: Lessee
   Street Address: 845 Edgewater Road
   City: Bronx State: New York
   Telephone Number: (917) 676-1080
   Fax Number:
   E-mail Address: bonham78@aol.com

4. Name of Person: Mark Azzopardi
   Business Name: KNG Construction
   Relationship to Site: Lessee
   Street Address: 810 Whittier Street
   City: Bronx State: New York
   Telephone Number: (917) 704-6050
   Fax Number:
   E-mail Address: marka@kngconstruction.com

5. Name of Person: Steve Ross
   Business Name: 699 Second Avenue
   Relationship to Site: Lessee
   Street Address: 812 Whittier Street
   City: Bronx State: New York
   Telephone Number: (917) 742-8947
   Fax Number:
   E-mail Address: lumberboy9@aol.com

6. Name of Person: Narendra Iachmansingh
   Business Name: Quality Sheet Metal
   Relationship to Site: Lessee
   Street Address: 828 Whittier Street
   City: Bronx State: New York
   Telephone Number: (718) 529-2426
   Fax Number:
   E-mail Address: naril@qualitysheetmetal.biz

7. Name of Person: John Mcnamara
   Business Name: Tri Wire Engineering
   Relationship to Site: Lessee
   Street Address: 830 Whittier Street
   City: Bronx State: New York
   Telephone Number: (631) 738-7216
   Fax Number:
   E-mail Address: jmcnamara@triwire.net

8. Name of Person: David Magnotta
   Business Name: IP Trading
   Relationship to Site: Lessee
   Street Address: 832 Whittier Street
   City: Bronx State: New York
   Telephone Number: (212) 980-5959 X: 205
   Fax Number: (212) 980-5928
   E-mail Address: mdm@iptradingllc.com

9. Name of Person: Serge Lazarev
   Business Name: Green Tree Textiles
   Relationship to Site: Lessee
   Street Address: 834 Whittier Street
   City: Bronx State: New York
   Telephone Number: (908) 245-9300
   Fax Number:
   E-mail Address: serge@greentreetextiles.org

10. Name of Person: Marc Ficken

    Business Name: Triumph Construction

    Relationship to Site: Lessee

    Street Address: 840 Whittier Street

    City: Bronx State: New York

    Telephone Number: (718) 861-6060

    Fax Number:

    E-mail Address: mficken@triumphconstcorp.com

Attachment 3

Ground Water Sampling Purge Sheets

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty (Dexter)
DATE: 5/23/17
PERSONNEL: LS & PJ

WELL NO.: MW-3
WEATHER: 65°, cloudy

WELL INFORMATION

CASING DIAMETER: 4 in.
DEPTH OF WELL: 14.15 ft.
DEPTH TO WATER: 4.65 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: Bladder Pump
TIME STARTED: 10:35
TIME FINISHED: 11:30
TOTAL TIME: 65 min.
COMMENTS:

PUMP INTAKE: 4.65 Ft.
TOTAL PURGED: 4.5 Gal.
PURGE RATE: 0.07 mL/min
GW METER: 1152

Time	pH	Spec Cond. µS ms	Turb ntu	Dis.O_2 (ppm)	Temp °F (C)	ORP (mV)	PumpRate (gal/min)	Depth to Water (ft)	Notes
10:35	6.90	0.385	42.5	0.00	15.26	-62	0.07	5.05	
10:40	6.71	0.369	39.1		15.15	-65		5.18	
10:45	6.62	0.374	38.5		15.29	-66		5.25	
10:50	6.60	0.384	32.5		15.39	-69		5.32	
10:55	6.60	0.395	27.0		15.52	-70		5.44	
11:00	6.62	0.400	26.9		15.61	-72		5.56	
11:05	6.66	0.406	21.8		15.70	-72		5.64	
11:10	6.67	0.407	21.0		15.74	-73		5.75	
11:15	6.70		17.7		15.75	-74		5.84	
11:20	6.72		17.3		15.75	-73		5.95	
11:25	6.72		17.2		15.76	-74		6.06	
11:28	6.73		17.3		15.76	-74		6.10	
Sampled @:									
	MW-3 @	11:28							
	MSD-MW3@	11:34							
	MS-MW3@	11:37							

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty (Exeter)
DATE: 5/23/17
PERSONNEL: LS + PS

WELL NO.: MW-6
WEATHER: 65°, cloudy

WELL INFORMATION

CASING DIAMETER: _____ in.
DEPTH OF WELL: 10.75 ft.
DEPTH TO WATER: 4.71 ft.
SCREEN INTERVAL: _____ ft.

PURGING

PUMP TYPE: Bladder Pump
TIME STARTED: 12:25
TIME FINISHED: 13:15
TOTAL TIME: 50 min.
COMMENTS: _____

PUMP INTAKE: 4.71 ↓ Ft.
TOTAL PURGED: 5 Gal.
PURGE RATE: _____ mL/min
GW METER: 052

Time	pH	Spec Cond µS ms	Turb ntu	Dis O_2 (ppm)	Temp °F (°C)	ORP (mV)	PumpRate (gal/min)	Depth to Water (ft)	Notes
12:25	7.46	0.159	11.2	0.22	17.08	-32	0.1	5.16	
12:30	7.37	0.160	37.6	0.00	16.58	-28		5.26	
12:35	7.35	0.163	21.7		16.19	-28		5.39	
12:40	7.30	0.159	10.0		16.07	-28		5.71	
12:45	7.36	0.150	6.8		16.03	-28		5.99	
12:50	7.30	0.158	10.8		15.79	-30		6.23	
12:55	7.30	0.159	8.0		15.54	-46		6.40	
13:00	7.31	0.160	7.7		15.53	-42		6.60	
13:05	7.30	0.161	7.8		15.54	-42		6.78	
13:10	7.31	0.161	7.7		15.54	-42		6.99	
13:15	7.31	0.160	7.6		15.55	-41		7.10	
sampled @ 13:20									

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty (Dexter)
DATE: 5/23/2017
PERSONNEL: LS + PJ

WELL NO.: MW-7
WEATHER: 65°, Cloudy

WELL INFORMATION

CASING DIAMETER: 4 in.
DEPTH OF WELL: 12.05 ft.
DEPTH TO WATER: 8.27 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: Bladder Pump
TIME STARTED: 09:00
TIME FINISHED: 09:50
TOTAL TIME: 50 min.
COMMENTS:

PUMP INTAKE: 8.27 ↓ Ft.
TOTAL PURGED: 5 Gal.
PURGE RATE: mL/min
GW METER: 452

Time	pH	Spec Cond. µs ms	Turb ntu	Dis. O_2 (ppm)	Temp F (C)	ORP (mV)	PumpRate (gal/min)	Depth to Water (ft)	Notes
09:00	8.08	0.959	45.0	0.00	14.58	-133	0.1	8.37	
09:05	7.61	0.959	32.4		14.30	-128		8.39	
09:10	7.07	0.964	17.3		14.03	-122		8.39	
09:15	6.91	0.966	13.0		13.94	-118		8.40	
09:20	6.84	0.971	8.3		13.84	-115		8.40	
09:25	6.80	0.978	4.7		13.80	-114		8.41	
09:30	6.80	0.981	2.1		13.77	-112		8.41	
09:35	6.76	0.985	0.0		13.79	-111		8.41	
09:40	6.75	0.990	↓		13.73	-112		8.42	
09:45	6.76	0.992			13.73	-111		8.42	
09:50	6.76	0.991		↓	13.74	-112	↓	8.42	
sampled @ 0950									

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty
DATE: 5/23/17
PERSONNEL: PJ

WELL NO.: MW11
WEATHER: 65°, cloudy

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 15.6 ft.
DEPTH TO WATER: 9.63 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder pump
TIME STARTED: 925
TIME FINISHED: 1005
TOTAL TIME: 40 min.
COMMENTS:

PUMP INTAKE: 12.5 Ft.
TOTAL PURGED: 2 Gal.
PURGE RATE: 189.3 mL/min
GW METER: Horiba U52 from Pine

Time	pH	Spec Cond. µS ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
925	7.10	0.743	999	5.15	15.31	-133	189.3	9.71	
930	7.03	0.721	↓	3.44	15.44	-138	↓	9.78	
935	6.98	0.759		1.03	15.46	-144		9.80	
940	6.98	0.801		0.41	15.63	-156		↓	
945	6.96	0.812		0.33	15.65	-161			
950	6.96	0.820		0.10	15.68	-168			
955	6.95	0.824		0	15.64	-171			
1000	6.95	0.828		0	15.60	-174			
1005	6.95	0.831	↓	0	15.62	-175	↓	↓	2gal
				sample @ 1012 + Dup					

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty
DATE: 5-23-17
PERSONNEL: PS

WELL NO.: PZ-3
WEATHER: 65°, cloudy

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 13.55 ft.
DEPTH TO WATER: 5.46 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder
TIME STARTED: 1215
TIME FINISHED: 1245
TOTAL TIME: 30 min.
COMMENTS:

PUMP INTAKE: 9.45 Ft.
TOTAL PURGED: 2 Gal.
PURGE RATE: ~254 mL/min
GW METER: Horiba U52
Grun Pump

Time	pH	Spec Cond. µs ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
1215	9.38	9.41	402	4.01	15.51	-360	~254	✓	
1220	9.44	9.42	293	2.81	15.33	-414	↓	5.51	
1225	9.49	9.48	211	2.03	15.28	-420	↓	5.51	
1230	9.53	9.53	101	1.11	15.22	-422	↓	↓	
1235	9.58	9.55	88.3	0.33	15.24	-428	↓	↓	
1240	9.61	9.55	41.1	0.11	15.30	-430	↓	↓	
1245	9.62	9.57	38.8	0.00	15.26	-431	✓	✓	2 gal
		sample @ 1258							

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty
DATE: 5/23/17
PERSONNEL: PS

WELL NO.: PZ-4
WEATHER: 65° cloudy

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 14.35 ft.
DEPTH TO WATER: 5.88 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder
TIME STARTED: 1310
TIME FINISHED: 1340
TOTAL TIME: 30 min.
COMMENTS:

PUMP INTAKE: 10.0 Ft.
TOTAL PURGED: 2 Gal.
PURGE RATE: N254 mL/min
GW METER: Horiba U52 from Pump

Time	pH	Spec Cond. µs ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
1310	6.71	2.51	999	0	16.69	-98	N254	6.01	
1315	6.68	2.55	999	↓	16.71	-109	↓	6.23	
1320	6.73	2.60	999		16.77	-122		6.44	
1325	6.77	2.61	631		16.80	-128		6.63	
1330	6.82	2.63	184		16.74	-138		6.72	
1335	6.88	2.65	178		16.78	-144		6.76	
1340	6.89	2.68	176	↓	16.76	-149	↓	6.79	2 gal
		sample @ 1345							

WHITMAN

Well Sampling Worksheet

SITE: Dexter (Edgewater Realty)
DATE: 12/7/17
PERSONNEL: LS + RJ
WELL NO.: MW-3
WEATHER: 40°, sunny

WELL INFORMATION

CASING DIAMETER: 4 in.
DEPTH OF WELL: 14.15 ft.
DEPTH TO WATER: 6.75 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: Bladder
TIME STARTED: 10:25
TIME FINISHED: 11:15
TOTAL TIME: 50 min.
PUMP INTAKE: 6.75 ↓ Ft.
TOTAL PURGED: 3.5 Gal.
PURGE RATE: 264.98 mL/min
GW METER:
COMMENTS: pump @ 9.17'; sampled MW-3 @ 11:20, MSD-MW3 @ 11:23, & MS-MW3 @ 1125

Time	pH	Spec Cond. µs ms	Turb ntu	Dis. O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
10:25	7.49	0.481	37.6	0.50	15.89	-109	264.98	7.10	
10:30	7.38	0.475	34.4	0.23	16.61	-119		7.20	
1035	7.27	0.473	34.4	0.16	16.97	-125		7.80	
1040	7.23	0.474	31.6	0.06	17.16	-128		7.90	
1045	7.19	0.473	30.7	0.04	17.28	-130		8.12	
1050	7.17	↓	30.2	0.03	17.36	-131	↓	8.30	
1055	7.16		28.7	0.03	17.28	-135		8.39	
1100	7.15		29.1	0.00	17.23	-140		8.50	
1105	7.16		29.8	↓	17.24	-141		8.61	
1110	7.15		29.5		17.24	-140		8.72	
1115	7.15	↓	30.1	↓	17.23	-140	↓	8.88	

WHITMAN

Well Sampling Worksheet

SITE: Dexter (Edgewater Realty)
DATE: 12/7/17
PERSONNEL: LS + PJ
WELL NO.: MW-6
WEATHER: 40°, sunny

WELL INFORMATION

CASING DIAMETER: ____ in.
DEPTH OF WELL: 10.75 ft.
DEPTH TO WATER: 5.56 ft.
SCREEN INTERVAL: ____ ft.

PURGING

PUMP TYPE: Bladder
TIME STARTED: 12:20
TIME FINISHED: 12:55
TOTAL TIME: 35 min.
COMMENTS: pump @ 8 ft, sampled @ 1300

PUMP INTAKE: 5.56 ↓ Ft.
TOTAL PURGED: 1.5 Gal.
PURGE RATE: 162.23 mL/min
GW METER: ____

Time	pH	Spec Cond. µs ms	Turb ntu	Dis. O_2 (ppm)	Temp °F (°C)	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
12:20	7.90	0.214	157	2.78	17.93	17	162.23	5.80	
12:25	7.71	0.213	62	2.26	16.51	-17	↓	6.32	
12:30	7.666	0.210	31	2.15	16.05	-18		6.56	
12:35	7.69	0.212	14.6	1.63	16.04	-54		7.03	
12:40	7.68	0.211	14.5	1.52	16.11	-57		7.26	
12:45	7.69	0.212	13.7	1.56	16.10	-58		7.40	
12:50	7.70	0.211	13.4	1.54	16.11	-58		7.53	
1255	7.69	0.211	13.1	1.53	16.12	-57		7.68	

WHITMAN

Well Sampling Worksheet

SITE: Dexter (Edgewater Realty)
DATE: 12/7/17
PERSONNEL: LR + PJ

WELL NO.: MW-7
WEATHER: 40°, sunny

WELL INFORMATION

CASING DIAMETER: 4 in.
DEPTH OF WELL: _____ ft.
DEPTH TO WATER: 8.95 ft.
SCREEN INTERVAL: _____ ft.

PURGING

PUMP TYPE: Bladder
TIME STARTED: 08:50
TIME FINISHED: 09:50
TOTAL TIME: 60 min.
PUMP INTAKE: 8.95 ↓ Ft.
TOTAL PURGED: 5 Gal.
PURGE RATE: 315.45 mL/min
GW METER: _____
COMMENTS: pump @ 10.45'; sampled @ 09:55

Time	pH	Spec Cond. µS ms	Turb ntu	Dis.O_2 (ppm)	Temp °F (°C)	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
08:50	8.37	1.10	67.7	7.62	12.61	-92	315.45	8.97	
08:55	8.06	1.07	80.2	7.62	15.44	-118	↓	8.98	
09:00	7.99	1.07	73.0	7.29	16.17	-121		8.98	
09:05	7.85	1.07	62.1	6.83	16.29	-123		8.99	
09:10	7.71	1.09	40.1	5.97	16.21	-125		8.98	
09:15	7.61	1.10	27.1	5.47	16.37	-124		8.98	
09:20	7.46	1.12	17.0	4.35	16.49	-125		9.00	
09:25	7.45	1.12	17.4	4.15	16.43	-125		9.00	
09:30	7.45	1.12	14.0	3.85	16.40	-124		9.00	
09:35	7.45	1.13	10.4	3.57	16.39	-123		8.99	
09:40	7.44	1.15	7.2	3.08	16.40	-122		8.98	
09:45	7.44	1.15	7.1	3.07	16.40	-122		8.99	
09:50	7.43	1.15	7.0	3.07	16.41	-122		8.98	

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty
DATE: 12-7-17
PERSONNEL: PJ

WELL NO.: MW11
WEATHER: cold, sun

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 15.6 ft.
DEPTH TO WATER: 9.58 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder
TIME STARTED: 930
TIME FINISHED: 1010
TOTAL TIME: 40 min.
COMMENTS:

PUMP INTAKE: 12.5 Ft.
TOTAL PURGED: 2.5 Gal.
PURGE RATE: N237 mL/min
GW METER: Itron 052 from Pump

Time	pH	Spec Cond. µs ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
930	7.02	0.716	999	4.73	12.75	-121	N237	9.68	Start GF
935	6.95	0.728	↓	2.50	14.83	-124	↓	9.73	
940	6.94	0.734		1.61	14.81	-137		9.73	
945	6.94	0.781		1.03	15.17	-131		↓	
950	6.94	0.841		0.70	15.25	-163			
955	6.93	0.906		0.54	15.23	-164			
1000	6.93	0.910		0.48	15.17	-164			
1005	6.92	0.916		0.41	15.12	-165			
1010	6.92	0.920	↓	0.36	15.14	-165	↓		purge 2.5gal
			sample @ 1015 + Dup						

WHITMAN

Well Sampling Worksheet

SITE: Edgewater Realty
DATE: 12-7-17
PERSONNEL: PS

WELL NO.: PZ3
WEATHER: sun cold

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 13.55 ft.
DEPTH TO WATER: 5.39 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder Pump
TIME STARTED: 1220
TIME FINISHED: 1250
TOTAL TIME: 30 min.
COMMENTS:

PUMP INTAKE: 9.45 Ft.
TOTAL PURGED: 2 Gal.
PURGE RATE: ~254 mL/min
GW METER: Hobo 052

Time	pH	Spec Cond. µs ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
1220	9.24	9.57	431	4.49	12.27	-355	~254	-	start
1225	9.33	9.47	227	4.35	13.40	-398	↓	5.48	
1230	9.41	9.52	122	4.26	13.72	-412		5.56	
1235	9.45	9.56	70.6	4.35	13.84	-415		5.56	
1240	9.50	9.60	37.9	4.37	14.00	-420		"	
1245	9.53	9.62	30.9	4.40	13.98	-423		"	
1250	9.55	9.63	28.4	4.42	13.96	-425	✓	"	2 gal
			sample @ 1255						

WHITMAN

Well Sampling Worksheet

SITE: Edge Water Realty
DATE: 12-7-17
PERSONNEL: PJ
WELL NO.: PZ-4
WEATHER: Sun cold

WELL INFORMATION

CASING DIAMETER: 2 in.
DEPTH OF WELL: 14.35 ft.
DEPTH TO WATER: 5.80 ft.
SCREEN INTERVAL: ft.

PURGING

PUMP TYPE: QED Bladder
TIME STARTED: 1335
TIME FINISHED: 1405
TOTAL TIME: 30 min.
COMMENTS:
PUMP INTAKE: 10.0 Ft.
TOTAL PURGED: 2 Gal.
PURGE RATE: ~254 mL/min
GW METER: Horiba U52
From Pump

Time	pH	Spec Cond. µs ms	Turb ntu	Dis.O_2 (ppm)	Temp °F °C	ORP (mV)	PumpRate (ml/min)	Depth to Water (ft)	Notes
1335	6.83	2.48	999	0	16.55	-169	~254	6.21	
1340	6.80	2.40	999	0	16.41	-114		6.47	
1345	6.98	2.46	"	0	16.25	-120		6.61	
1350	6.91	2.48	481	0	15.97	-128		6.73	
1355	7.01	2.57	197	0	15.83	-135		6.77	
1400	7.12	2.66	193	0	15.80	-141		6.81	
1405	7.17	2.63	189	0	15.73	-143		6.83	2 gal
				sample @ 1410					

Attachment 4

Laboratory QA/QC Data Package
May 23, 2017 Ground Water Sampling

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512

Project Name: **EDGEWATER REALTY, LLC**
IAL Case Number: **E17-04261**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

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Sample Summary

IAL Case No.

E17-04261

Client Whitman

Project EDGEWATER REALTY, LLC

Received On 5/24/2017@18:16

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
04261-001	MW-7	n/a	5/23/2017@09:50	Aqueous	2
04261-002	MW-3	n/a	5/23/2017@11:28	Aqueous	2
04261-003	MSD-MW3	n/a	5/23/2017@11:34	Aqueous	2
04261-004	MS-MW3	n/a	5/23/2017@11:37	Aqueous	2
04261-005	MW6	n/a	5/23/2017@13:20	Aqueous	2
04261-006	MW-11	n/a	5/23/2017@10:12	Aqueous	2
04261-007	PZ-3	n/a	5/23/2017@12:58	Aqueous	2
04261-008	PZ-4	n/a	5/23/2017@13:45	Aqueous	2
04261-009	DUP-1	n/a	5/23/2017	Aqueous	2
04261-010	FB	n/a	5/23/2017@12:15	Aqueous	2
04261-011	TB	n/a	5/23/2017	Aqueous	2

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-04261

Integrated Analytical Laboratories, LLC. received eleven (11) samples** from Whitman (IAL SDG# **E17-04261**, Project: EDGEWATER REALTY, LLC) on May 24, 2017 for the analysis of :

(11) TCL VO + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: 170526**	**Matrix: Aqueous**

QC

- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-04261

- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-04261-001	1	NA
E17-04261-002	1	NA
E17-04261-003	1	NA
E17-04261-004	1	NA
E17-04261-005	1	NA
E17-04261-006	1	NA
E17-04261-007	1	NA
E17-04261-008	2;10	Target compound(s).
E17-04261-009	1	NA
E17-04261-010	1	NA
E17-04261-011	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

6/16/2017
Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Whitman
Project Location: EDGEWATER REALTY, LLC
IAL Project #: E17-04261
IAL Sample ID(s): E17-04261-001 ~ -011
Sampling Date(s): 5/23/2017

List of DKQP Method Used:
TCL VO by 8260C

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	X		
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?		X	
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	X		

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Whitman
Project: EDGEWATER REALTY, LLC
Lab Case No.: E17-04261

Lab ID:	04261-001			04261-002			04261-003			04261-004		
Client ID:	MW-7			MW-3			MSD-MW3			MS-MW3		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	5/23/17			5/23/17			5/23/17			5/23/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Chlorobenzene	6.23		0.376	ND		0.376	~		~	~		~
1,3-Dichlorobenzene	0.402	J	0.351	ND		0.351	~		~	~		~
1,4-Dichlorobenzene	0.769	J	0.341	ND		0.341	~		~	~		~
TOTAL VO's:	7.40	J		ND			~		~	~		~
TOTAL TIC's:	41.0	J		ND			~		~	~		~
TOTAL VO's & TIC's:	48.4	J		ND			~		~	~		~

Lab ID:	04261-005			04261-006			04261-007			04261-008		
Client ID:	MW6			MW-11			PZ-3			PZ-4		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	5/23/17			5/23/17			5/23/17			5/23/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Vinyl chloride	ND		0.591	ND		0.591	ND		0.591	2.27	D	1.18
Acetone	ND		1.33	ND		1.33	69.0		1.33	ND		2.66
cis-1,2-Dichloroethene	ND		0.451	ND		0.451	ND		0.451	26.2	D	0.902
2-Butanone (MEK)	ND		1.66	ND		1.66	2.55		1.66	ND		3.32
Chloroform	12.1		0.469	ND		0.469	ND		0.469	ND		0.938
Benzene	ND		0.464	ND		0.464	ND		0.464	6.61	D	0.928
Trichloroethene	ND		0.493	ND		0.493	ND		0.493	1.02	D	0.986
1,2-Dichloropropane	ND		0.447	ND		0.447	ND		0.447	63.0	D	0.894
Bromodichloromethane	0.968		0.353	ND		0.353	ND		0.353	ND		0.706
Toluene	ND		0.379	ND		0.379	0.506		0.379	54.1	D	0.758
Tetrachloroethene	ND		0.451	ND		0.451	ND		0.451	0.956	DJ	0.902
Chlorobenzene	ND		0.376	0.512		0.376	ND		0.376	ND		0.752
Ethylbenzene	ND		0.344	ND		0.344	1.23		0.344	294	D	0.688
Total Xylenes	ND		0.923	ND		0.923	9.44		0.923	2020	D	9.23
Isopropylbenzene	ND		0.323	0.539		0.323	1.74		0.323	48.7	D	0.646
1,4-Dichlorobenzene	ND		0.341	0.732	J	0.341	ND		0.341	1.79	DJ	0.682
1,2-Dichlorobenzene	ND		0.364	ND		0.364	ND		0.364	10.3	D	0.728
TOTAL VO's:	13.1			1.78	J		84.5			2530	DJ	
TOTAL TIC's:	ND			91.4	JN		469	JN		4570	DJN	
TOTAL VO's & TIC's:	13.1			93.2	JN		554	JN		7100	DJN	

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
N = Presumptive evidence of a compound from the use of GC/MS library search.
Samples #003 & #004 are MS/MSD of sample #002.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Whitman
Project: EDGEWATER REALTY, LLC
Lab Case No.: E17-04261

	Lab ID:	04261-009			04261-010			04261-011		
	Client ID:	DUP-1			FB			TB		
	Matrix:	Aqueous			Aqueous			Aqueous		
	Sampled Date	5/23/17			5/23/17			5/23/17		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L)*			*(ug/L)*			*(ug/L)*		
Chlorobenzene		0.510		0.376	ND		0.376	ND		0.376
Isopropylbenzene		0.524		0.323	ND		0.323	ND		0.323
1,4-Dichlorobenzene		0.771	J	0.341	ND		0.341	ND		0.341
TOTAL VO's:		1.81	J		ND			ND		
TOTAL TIC's:		93.7	JN		ND			ND		
TOTAL VO's & TIC's:		95.5	JN		ND			ND		

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

N = Presumptive evidence of a compound from the use of GC/MS library search.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-001
Client ID: MW-7
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5800.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-001
Client ID: MW-7
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5800.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	6.23		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	0.402	J	1.00	0.351
1,4-Dichlorobenzene	0.769	J	1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	7.40	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-001
Client ID: MW-7
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Date File: K5800.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown VOA	6.60	J	4.96
	Unknown VOA	7.00	J	10.60
	Unknown VOA	5.40	J	12.53
	Unknown VOA	5.90	J	12.64
	Unknown VOA	16.1	J	12.82

Total TICs = 41.0 J

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-005
Client ID: MW6
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5801.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	12.1		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	0.968		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-005
Client ID: MW6
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5801.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	13.1			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-005
Client ID: MW6
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5801.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-006
Client ID: MW-11
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5802.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-006
Client ID: MW-11
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5802.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	0.512		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	0.539		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	0.732	J	1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	1.78	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-006
Client ID: MW-11
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Date File: K5802.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000108-20-3	Diisopropyl ether	18.7	JN	4.96
	Unknown VOA	7.50	J	12.53
	Unknown VOA	7.60	J	12.64
	Unknown VOA	19.9	J	12.82
	Unknown Aromatic	13.1	J	13.40
007525-62-4	Benzene, 1-ethenyl-3-ethyl-	7.50	JN	14.12
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	5.00	JN	14.46
001560-06-1	Benzene, 2-butenyl-	5.80	JN	15.01
001559-81-5	Naphthalene, 1,2,3,4-tetrahydro-1-	6.30	JN	15.88

Total TICs = 91.4 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-007
Client ID: PZ-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	69.0		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	2.55		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-007
Client ID: PZ-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	0.506		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	1.23		0.500	0.344
Total Xylenes	9.44		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	1.74		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	84.5			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-007
Client ID: PZ-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Date File: K5809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000075-33-2	2-Propanethiol	45.0	JN	4.23
001678-92-8	Cyclohexane, propyl-	22.1	JN	11.34
000526-73-8	Benzene, 1,2,3-trimethyl-	38.6	JN	12.19
	Unknown Hydrocarbon	21.7	J	12.46
	Unknown Hydrocarbon	30.0	J	12.59
000108-67-8	Benzene, 1,3,5-trimethyl-	39.5	JN	12.64
	Unknown VOA	27.0	J	12.78
001678-93-9	Cyclohexane, butyl-	28.6	JN	12.96
	Unknown Aromatic	34.1	J	13.16
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	24.3	JN	13.52
	Unknown VOA	34.1	J	13.69
	Unknown Aromatic	25.1	J	13.89
017312-53-7	Decane, 3,6-dimethyl-	31.3	JN	13.95
	Unknown VOA	31.9	J	14.11
	Unknown VOA	36.0	J	14.42

Total TICs = 469 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-008
Client ID: PZ-4
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5790.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		2.00	1.32
Chloromethane	ND		1.00	0.926
Vinyl chloride	2.27	D	2.00	1.18
Bromomethane	ND		2.00	1.09
Chloroethane	ND		2.00	0.990
Trichlorofluoromethane	ND		2.00	0.866
1,1-Dichloroethene	ND		1.00	0.986
Acetone	ND		4.00	2.66
Carbon disulfide	ND		2.00	0.928
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.908
Methyl tert-butyl ether (MTBE)	ND		1.00	0.958
1,1-Dichloroethane	ND		1.00	0.986
cis-1,2-Dichloroethene	26.2	D	1.00	0.902
2-Butanone (MEK)	ND		4.00	3.32
Bromochloromethane	ND		2.00	1.19
Chloroform	ND		1.00	0.938
1,1,1-Trichloroethane	ND		1.00	0.924
Carbon tetrachloride	ND		1.00	0.898
1,2-Dichloroethane (EDC)	ND		1.00	0.916
Benzene	6.61	D	1.00	0.928
Trichloroethene	1.02	D	1.00	0.986
1,2-Dichloropropane	63.0	D	1.00	0.894
1,4-Dioxane	ND		200	197
Bromodichloromethane	ND		1.00	0.706
cis-1,3-Dichloropropene	ND		1.00	0.662
4-Methyl-2-pentanone (MIBK)	ND		2.00	1.40

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-008
Client ID: PZ-4
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5790.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	54.1	D	1.00	0.758
trans-1,3-Dichloropropene	ND		1.00	0.642
1,1,2-Trichloroethane	ND		2.00	0.946
Tetrachloroethene	0.956	DJ	1.00	0.902
2-Hexanone	ND		2.00	1.52
Dibromochloromethane	ND		2.00	0.884
1,2-Dibromoethane (EDB)	ND		1.00	0.804
Chlorobenzene	ND		1.00	0.752
Ethylbenzene	294	D	1.00	0.688
Total Xylenes	2530	E	2.00	1.85
Styrene	ND		2.00	0.580
Bromoform	ND		1.00	0.890
Isopropylbenzene	48.7	D	1.00	0.646
1,1,2,2-Tetrachloroethane	ND		2.00	0.916
1,3-Dichlorobenzene	ND		2.00	0.702
1,4-Dichlorobenzene	1.79	DJ	2.00	0.682
1,2-Dichlorobenzene	10.3	D	2.00	0.728
1,2-Dibromo-3-chloropropane	ND		2.00	1.07
1,2,4-Trichlorobenzene	ND		2.00	0.608
1,2,3-Trichlorobenzene	ND		2.00	0.678
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.00	1.13
Methyl acetate	ND		1.00	0.970
Cyclohexane	ND		1.00	0.822
Methylcyclohexane	ND		2.00	0.822
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.662
Total Target Compounds (52):	3040	DEJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-008
Client ID: PZ-4
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Date File: K5790.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000103-65-1	Benzene, propyl-	122	DJN	11.97
000620-14-4	Benzene, 1-ethyl-3-methyl-	663	DJN	12.08
000526-73-8	Benzene, 1,2,3-trimethyl-	516	DJN	12.19
	Unknown Aromatic	284	DJ	12.43
	Unknown Aromatic	1750	DJ	12.65
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	81.6	DJN	12.98
	Unknown Aromatic	61.4	DJ	13.04
	Unknown Aromatic	519	DJ	13.16
	Unknown Aromatic	97.8	DJ	13.40
001074-55-1	Benzene, 1-methyl-4-propyl-	75.0	DJN	13.44
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	71.8	DJN	13.85
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	87.2	DJN	13.89
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	87.6	DJN	13.98
	Unknown Aromatic	82.8	DJ	14.13
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	71.0	DJN	14.52

Total TICs = 4570 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-008DL
Client ID: PZ-4
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5792.D

GC/MS Column: DB-624
Sample wt/vol: 0.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		10.0	6.62
Chloromethane	ND		5.00	4.63
Vinyl chloride	ND		10.0	5.91
Bromomethane	ND		10.0	5.44
Chloroethane	ND		10.0	4.95
Trichlorofluoromethane	ND		10.0	4.33
1,1-Dichloroethene	ND		5.00	4.93
Acetone	ND		20.0	13.3
Carbon disulfide	ND		10.0	4.64
Methylene chloride	ND		10.0	9.90
trans-1,2-Dichloroethene	ND		5.00	4.54
Methyl tert-butyl ether (MTBE)	ND		5.00	4.79
1,1-Dichloroethane	ND		5.00	4.93
cis-1,2-Dichloroethene	30.2	D	5.00	4.51
2-Butanone (MEK)	ND		20.0	16.6
Bromochloromethane	ND		10.0	5.96
Chloroform	ND		5.00	4.69
1,1,1-Trichloroethane	ND		5.00	4.62
Carbon tetrachloride	ND		5.00	4.49
1,2-Dichloroethane (EDC)	ND		5.00	4.58
Benzene	7.48	D	5.00	4.64
Trichloroethene	ND		5.00	4.93
1,2-Dichloropropane	71.8	D	5.00	4.47
1,4-Dioxane	ND		1000	984
Bromodichloromethane	ND		5.00	3.53
cis-1,3-Dichloropropene	ND		5.00	3.31
4-Methyl-2-pentanone (MIBK)	ND		10.0	6.99

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-008DL
Client ID: PZ-4
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5792.D

GC/MS Column: DB-624
Sample wt/vol: 0.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	60.7	D	5.00	3.79
trans-1,3-Dichloropropene	ND		5.00	3.21
1,1,2-Trichloroethane	ND		10.0	4.73
Tetrachloroethene	ND		5.00	4.51
2-Hexanone	ND		10.0	7.61
Dibromochloromethane	ND		10.0	4.42
1,2-Dibromoethane (EDB)	ND		5.00	4.02
Chlorobenzene	ND		5.00	3.76
Ethylbenzene	303	D	5.00	3.44
Total Xylenes	2020	D	10.0	9.23
Styrene	ND		10.0	2.90
Bromoform	ND		5.00	4.45
Isopropylbenzene	50.2	D	5.00	3.23
1,1,2,2-Tetrachloroethane	ND		10.0	4.58
1,3-Dichlorobenzene	ND		10.0	3.51
1,4-Dichlorobenzene	ND		10.0	3.41
1,2-Dichlorobenzene	10.8	D	10.0	3.64
1,2-Dibromo-3-chloropropane	ND		10.0	5.33
1,2,4-Trichlorobenzene	ND		10.0	3.04
1,2,3-Trichlorobenzene	ND		10.0	3.39
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	5.63
Methyl acetate	ND		5.00	4.85
Cyclohexane	ND		5.00	4.11
Methylcyclohexane	ND		10.0	4.11
1,3-Dichloropropene (cis- and trans-)	ND		5.00	3.31
Total Target Compounds (52):	2550	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-009
Client ID: DUP-1
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5803.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-009
Client ID: DUP-1
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5803.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	0.510		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	0.524		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	0.771	J	1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	1.81	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-009
Client ID: DUP-1
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Date File: K5803.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000108-20-3	Diisopropyl ether	19.0	JN	4.96
	Unknown VOA	8.00	J	12.53
	Unknown VOA	8.30	J	12.64
	Unknown VOA	21.1	J	12.83
	Unknown Aromatic	13.2	J	13.40
000768-49-0	Benzene, (2-methyl-1-propenyl)-	7.10	JN	14.12
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	5.10	JN	14.46
002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	5.70	JN	15.00
001559-81-5	Naphthalene, 1,2,3,4-tetrahydro-1-	6.20	JN	15.88

Total TICs = 93.7 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-010
Client ID: FB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5804.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-010
Client ID: FB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5804.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-010
Client ID: FB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5804.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-011
Client ID: TB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5793.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-04261-011
Client ID: TB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5793.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-04261-011
Client ID: TB
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
Data file: K5793.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 05/26/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA170526	AQUEOUS	K5789.D	99	97	98
E17-04261-008	AQUEOUS	K5790.D	99	99	106
E17-04261-008DL	AQUEOUS	K5792.D	97	97	99
E17-04261-011	AQUEOUS	K5793.D	96	97	95
LCSA170526	AQUEOUS	K5795.D	86	100	105
E17-04261-003	AQUEOUS	K5796.D	87	101	104
E17-04261-004	AQUEOUS	K5797.D	89	101	103
E17-04261-002	AQUEOUS	K5799.D	94	97	95
E17-04261-001	AQUEOUS	K5800.D	92	96	95
E17-04261-005	AQUEOUS	K5801.D	94	95	97
E17-04261-006	AQUEOUS	K5802.D	94	95	96
E17-04261-009	AQUEOUS	K5803.D	93	96	95
E17-04261-010	AQUEOUS	K5804.D	93	95	95
E17-04296-008	AQUEOUS	K5805.D	94	95	95
E17-04296-009	AQUEOUS	K5806.D	93	94	95
E17-04296-010	AQUEOUS	K5807.D	93	95	95
E17-04296-011	AQUEOUS	K5808.D	94	95	95
E17-04261-007	AQUEOUS	K5809.D	93	95	98

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260 **LCS ACCURACY REPORT**

Lab ID: LCSA170526
Date Received: NA
Date Analyzed: 05/26/2017
LCS Data file: K5795.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	48.8	98		47-152
Chloromethane	50.0	43.3	87		64-124
Vinyl chloride	50.0	43.2	86		67-131
Bromomethane	50.0	46.4	93		60-156
Chloroethane	50.0	63.8	128		69-161
Trichlorofluoromethane	50.0	42.5	85		70-160
1,1-Dichloroethene	50.0	41.9	84		67-156
Acetone	100	86.1	86		63-168
Carbon disulfide	50.0	48.6	97		67-144
Methylene chloride	50.0	50.9	102		61-170
Acrylonitrile	150.0	144.5	96		34-180
tert-Butyl alcohol (TBA)	100.0	98.6	99		77-155
trans-1,2-Dichloroethene	50.0	47.5	95		61-166
Methyl tert-butyl ether (MTBE)	50.0	45.5	91		47-163
1,1-Dichloroethane	50.0	47.3	95		70-127
Diisopropyl ether (DIPE)	50.0	48.2	96		71-123
cis-1,2-Dichloroethene	50.0	46.2	92		71-124
2,2-Dichloropropane	50.0	47.9	96		63-151
2-Butanone (MEK)	100	90.7	91		71-134
Bromochloromethane	50.0	45.8	92		69-131
Chloroform	50.0	47.9	96		68-136
1,1,1-Trichloroethane	50.0	46.6	93		66-151
Carbon tetrachloride	50.0	47.0	94		66-158
1,1-Dichloropropene	50.0	45.5	91		70-142
1,2-Dichloroethane (EDC)	50.0	45.2	90		68-128
Benzene	50.0	47.8	96		70-128
Trichloroethene	50.0	48.2	96		70-137
1,2-Dichloropropane	50.0	47.1	94		70-133
Dibromomethane	50.0	46.7	93		71-129
1,4-Dioxane	1500	1205	80		41-150
Bromodichloromethane	50.0	49.4	99		69-140
2-Chloroethyl vinyl ether	100	106.5	107		70-132
cis-1,3-Dichloropropene	50.0	44.5	89		72-138
4-Methyl-2-pentanone (MIBK)	100	100.7	101		73-127
Toluene	50.0	47.8	96		71-130
trans-1,3-Dichloropropene	50.0	46.7	93		72-137
1,1,2-Trichloroethane	50.0	48.7	97		70-133
Tetrachloroethene	50.0	50.5	101		71-133
1,3-Dichloropropane	50.0	48.8	98		72-125

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA170526
Date Received: NA
Date Analyzed: 05/26/2017
LCS Data file: K5795.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	107.5	108		71-144
Dibromochloromethane	50.0	48.8	98		70-148
1,2-Dibromoethane (EDB)	50.0	52.0	104		73-125
Chlorobenzene	50.0	48.6	97		69-131
1,1,1,2-Tetrachloroethane	50.0	50.1	100		72-136
Ethylbenzene	50.0	48.8	98		70-129
m,p-Xylene	100.0	98.7	99		69-130
o-Xylene	50.0	52.5	105		70-129
Styrene	50.0	50.4	101		74-139
Bromoform	50.0	49.9	100		70-132
Isopropylbenzene	50.0	51.5	103		72-135
1,1,2,2-Tetrachloroethane	50.0	49.0	98		72-115
Bromobenzene	50.0	51.4	103		69-125
1,2,3-Trichloropropane	50.0	50.4	101		71-142
n-Propylbenzene	50.0	49.5	99		72-128
2-Chlorotoluene	50.0	49.1	98		70-121
1,3,5-Trimethylbenzene	50.0	45.7	91		72-126
4-Chlorotoluene	50.0	45.9	92		70-120
tert-Butylbenzene	50.0	49.1	98		72-132
1,2,4-Trimethylbenzene	50.0	51.0	102		71-125
sec-Butylbenzene	50.0	47.4	95		72-133
1,3-Dichlorobenzene	50.0	49.0	98		70-123
4-Isopropyltoluene	50.0	48.2	96		72-129
1,4-Dichlorobenzene	50.0	48.9	98		69-117
n-Butylbenzene	50.0	46.0	92		72-130
1,2-Dichlorobenzene	50.0	48.5	97		71-122
1,2-Dibromo-3-chloropropane	50.0	50.3	101		73-126
1,2,4-Trichlorobenzene	50.0	54.8	110		71-120
Hexachlorobutadiene	50.0	53.1	106		67-148
Naphthalene	50.0	51.8	104		65-139
1,2,3-Trichlorobenzene	50.0	54.1	108		63-132
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.4	91		72-163
Methyl acetate	50.0	48.2	96		68-159
Cyclohexane	50.0	52.3	105		69-138
Methylcyclohexane	50.0	48.4	97		67-150

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA170526
Date Received: NA
Date Analyzed: 05/26/2017
LCS Data file: K5795.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260 **MS/MSD SPIKE REPORT**

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
MS Data file: K5797.D
MSD Data file: K5796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
Dichlorodifluoromethane	50.0	0.0	43.2	86		44.6	89	3		34-178/24
Chloromethane	50.0	0.0	37.7	75		39.0	78	3		36-162/21
Vinyl chloride	50.0	0.0	38.8	78		39.1	78	1		40-175/22
Bromomethane	50.0	0.0	46.7	93		44.8	90	4		37-181/24
Chloroethane	50.0	0.0	60.8	122		61.8	124	2		38-178/23
Trichlorofluoromethane	50.0	0.0	41.0	82		40.3	81	2		32-176/24
1,1-Dichloroethene	50.0	0.0	42.0	84		40.4	81	4		45-175/22
Acetone	100	0.0	77.7	78		71.7	72	8		25-164/23
Carbon disulfide	50.0	0.0	47.2	94		45.8	92	3		42-182/23
Methylene chloride	50.0	0.0	48.5	97		48.8	98	1		36-170/22
Acrylonitrile	150	0.0	148	99		146	97	1		40-170/22
tert-Butyl alcohol (TBA)	100	0.0	84.2	84		73.1	73	14		35-159/21
trans-1,2-Dichloroethene	50.0	0.0	43.5	87		44.4	89	2		39-169/22
Methyl tert-butyl ether (MTBE)	50.0	0.0	43.7	87		44.4	89	2		39-162/21
1,1-Dichloroethane	50.0	0.0	44.0	88		44.2	88	0		43-158/19
Diisopropyl ether (DIPE)	50.0	0.0	44.1	88		45.5	91	3		36-147/18
cis-1,2-Dichloroethene	50.0	0.0	45.2	90		44.9	90	1		44-168/21
2,2-Dichloropropane	50.0	0.0	40.7	81		43.7	87	7		38-157/20
2-Butanone (MEK)	100	0.0	96.1	96		93.6	94	3		28-146/20
Bromochloromethane	50.0	0.0	44.3	89		44.8	90	1		45-165/20
Chloroform	50.0	0.0	45.2	90		45.2	90	0		41-168/21
1,1,1-Trichloroethane	50.0	0.0	41.8	84		43.1	86	3		35-171/23
Carbon tetrachloride	50.0	0.0	40.6	81		42.1	84	4		33-176/24
1,1-Dichloropropene	50.0	0.0	42.4	85		42.9	86	1		42-159/20
1,2-Dichloroethane (EDC)	50.0	0.0	42.7	85		43.4	87	2		36-161/21
Benzene	50.0	0.0	45.9	92		45.7	91	0		44-156/19
Trichloroethene	50.0	0.0	45.4	91		46.0	92	1		11-198/31
1,2-Dichloropropane	50.0	0.0	45.7	91		46.1	92	1		44-150/18
Dibromomethane	50.0	0.0	46.3	93		46.4	93	0		43-156/19
1,4-Dioxane	1,500	0.0	1632	109		1460	97	11		44-179/23
Bromodichloromethane	50.0	0.0	48.5	97		47.9	96	1		43-167/21
2-Chloroethyl vinyl ether	100	0.0	103.7	104		103.7	104	0		0-152/18
cis-1,3-Dichloropropene	50.0	0.0	45.7	91		45.6	91	0		44-165/20
4-Methyl-2-pentanone (MIBK)	100	0.0	102.7	103		102.1	102	1		29-145/19
Toluene	50.0	0.0	46.6	93		46.8	94	0		43-158/19
trans-1,3-Dichloropropene	50.0	0.0	46.8	94		47.1	94	1		43-164/20
1,1,2-Trichloroethane	50.0	0.0	46.6	93		47.4	95	2		45-159/19
Tetrachloroethene	50.0	0.0	48.8	98		49.0	98	0		41-152/19
1,3-Dichloropropane	50.0	0.0	47.7	95		48.2	96	1		45-159/19

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
MS Data file: K5797.D
MSD Data file: K5796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	104.8	105		105.3	105	0		29-148/20
Dibromochloromethane	50.0	0.0	47.9	96		48.3	97	1		42-173/22
1,2-Dibromoethane (EDB)	50.0	0.0	51.3	103		51.3	103	0		46-162/19
Chlorobenzene	50.0	0.0	46.4	93		46.9	94	1		42-147/18
1,1,1,2-Tetrachloroethane	50.0	0.0	48.9	98		49.1	98	0		39-162/21
Ethylbenzene	50.0	0.0	46.1	92		46.3	93	0		42-148/18
m,p-Xylene	100	0.0	93.1	93		93.7	94	1		18-173/26
o-Xylene	50.0	0.0	50.2	100		49.9	100	1		40-155/19
Styrene	50.0	0.0	48.5	97		48.5	97	0		40-156/19
Bromoform	50.0	0.0	49.0	98		49.9	100	2		35-159/21
Isopropylbenzene	50.0	0.0	48.6	97		49.2	98	1		41-150/18
1,1,2,2-Tetrachloroethane	50.0	0.0	48.5	97		49.3	99	2		37-157/20
Bromobenzene	50.0	0.0	49.8	100		50.3	101	1		41-151/18
1,2,3-Trichloropropane	50.0	0.0	48.6	97		48.9	98	1		39-146/18
n-Propylbenzene	50.0	0.0	46.8	94		47.0	94	0		40-146/18
2-Chlorotoluene	50.0	0.0	46.9	94		47.1	94	0		41-147/18
1,3,5-Trimethylbenzene	50.0	0.0	43.7	87		44.0	88	1		42-150/18
4-Chlorotoluene	50.0	0.0	43.2	86		44.0	88	2		40-145/18
tert-Butylbenzene	50.0	0.0	46.8	94		46.8	94	0		40-152/19
1,2,4-Trimethylbenzene	50.0	0.0	48.3	97		48.7	97	1		42-148/18
sec-Butylbenzene	50.0	0.0	45.1	90		45.4	91	1		39-151/19
1,3-Dichlorobenzene	50.0	0.0	46.8	94		47.3	95	1		38-150/19
4-Isopropyltoluene	50.0	0.0	45.9	92		46.3	93	1		39-150/18
1,4-Dichlorobenzene	50.0	0.0	46.7	93		46.9	94	0		37-148/19
n-Butylbenzene	50.0	0.0	43.2	86		43.9	88	2		36-150/19
1,2-Dichlorobenzene	50.0	0.0	46.4	93		46.9	94	1		40-151/19
1,2-Dibromo-3-chloropropane	50.0	0.0	49.9	100		49.8	100	0		35-151/19
1,2,4-Trichlorobenzene	50.0	0.0	53.8	108		54.0	108	0		23-153/22
Hexachlorobutadiene	50.0	0.0	54.2	108		53.1	106	2		22-162/23
Naphthalene	50.0	0.0	52.2	104		51.8	104	1		28-157/21
1,2,3-Trichlorobenzene	50.0	0.0	53.5	107		54.1	108	1		23-157/22
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	44.2	88		43.6	87	1		36-157/20
Methyl acetate	50.0	0.0	51.1	102		51.2	102	0		26-152/21
Cyclohexane	50.0	0.0	50.0	100		50.4	101	1		34-138/17
Methylcyclohexane	50.0	0.0	45.9	92		46.7	93	2		34-137/17

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E17-04261-002
Client ID: MW-3
Date Received: 05/24/2017
Date Analyzed: 05/26/2017
MS Data file: K5797.D
MSD Data file: K5796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: K5789.D Instrument ID: MSD_K

Date Analyzed: 05/26/2017 Time Analyzed: 01:52

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PZ-4	E17-04261-008	05/26/2017	2:18
PZ-4	E17-04261-008DL	05/26/2017	3:11
TB	E17-04261-011	05/26/2017	3:38
LCSA170526	LCSA170526	05/26/2017	4:37
MSD-MW3	E17-04261-003	05/26/2017	5:04
MS-MW3	E17-04261-004	05/26/2017	5:31
MW-3	E17-04261-002	05/26/2017	6:24
MW-7	E17-04261-001	05/26/2017	6:50
MW6	E17-04261-005	05/26/2017	7:16
MW-11	E17-04261-006	05/26/2017	7:43
DUP-1	E17-04261-009	05/26/2017	8:10
FB	E17-04261-010	05/26/2017	8:37
GW-10	E17-04296-008	05/26/2017	9:03
GW-11	E17-04296-009	05/26/2017	9:30
GW-12	E17-04296-010	05/26/2017	9:56
GW-13	E17-04296-011	05/26/2017	10:23
PZ-3	E17-04261-007	05/26/2017	10:49

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K5613.D BFB Injection Date: 05/16/2017

Inst ID: MSD_K BFB Injection Time: 11:16

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.3			
75	30.0 - 60.0% of mass 95	50.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	5.9			
173	Less than 2.0% of mass 174	1.2	(	1.3	)1
174	Great than 50.0% of mass 95	92.9			
175	5.0 - 9.0% of mass 174	6.4	(	6.9	)1
176	95.0 - 101.0% of mass 174	92.5	(	99.6	)1
177	5.0 - 9.0% of mass 176	5.6	(	6.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC100	ICC170516	K5618.D	05/16/2017	1:28
ICC00.5	ICC170516	K5614.D	05/16/2017	11:42
ICC001	ICC170516	K5615.D	05/16/2017	12:09
ICC005	ICC170516	K5616.D	05/16/2017	12:36
ICC020	ICC170516	K5617.D	05/16/2017	1:02
ICC150	ICC170516	K5619.D	05/16/2017	1:54
ICC200	ICC170516	K5620.D	05/16/2017	2:21
ICV100	ICV170516	K5622.D	05/16/2017	3:14
BLKA170516	BLKA170516	K5625.D	05/16/2017	4:34
MW-1/5.51	E17-03962-001	K5626.D	05/16/2017	5:11
PZ-4/8.5	E17-03968-005	K5627.D	05/16/2017	5:37
FB	E17-03969-001	K5628.D	05/16/2017	6:04
TB	E17-03969-002	K5629.D	05/16/2017	6:31
SUMP-1	E17-03969-003	K5630.D	05/16/2017	6:57
MW-1	E17-03971-001	K5631.D	05/16/2017	7:24
MW-1	E17-03974-001	K5632.D	05/16/2017	7:50
PZ1	E17-03980-001	K5633.D	05/16/2017	8:17
MW-1	E17-03959-001	K5634.D	05/16/2017	8:44
MW-1	E17-03946-001	K5635.D	05/16/2017	9:10
LCSA170516	LCSA170516	K5636.D	05/16/2017	9:37

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K5613.D BFB Injection Date : 05/16/201

Inst ID: MSD_K BFB Injection Time: 11:16

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.3			
75	30.0 - 60.0% of mass 95	50.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	5.9			
173	Less than 2.0% of mass 174	1.2	(	1.3	)1
174	Great than 50.0% of mass 95	92.9			
175	5.0 - 9.0% of mass 174	6.4	(	6.9	)1
176	95.0 - 101.0% of mass 174	92.5	(	99.6	)1
177	5.0 - 9.0% of mass 176	5.6	(	6.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
E17-03974-001MS	E17-03974-001MS	K5637.D	05/16/2017	10:04
E17-03974-001MSI	E17-03974-001MS	K5638.D	05/16/2017	10:30

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K5785.D BFB Injection Date: 05/26/2017

Inst ID: MSD_K BFB Injection Time: 11:53

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.8			
75	30.0 - 60.0% of mass 95	54.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.3			
173	Less than 2.0% of mass 174	0.6	(	0.8	)1
174	Great than 50.0% of mass 95	80.3			
175	5.0 - 9.0% of mass 174	4.3	(	5.4	)1
176	95.0 - 101.0% of mass 174	80.5	(	100.3	)1
177	5.0 - 9.0% of mass 176	6.6	(	8.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV170526	K5786.D	05/26/2017	12:19
BLKA170526	BLKA170526	K5789.D	05/26/2017	1:52
PZ-4	E17-04261-008	K5790.D	05/26/2017	2:18
PZ-4	E17-04261-008DL	K5792.D	05/26/2017	3:11
TB	E17-04261-011	K5793.D	05/26/2017	3:38
LCSA170526	LCSA170526	K5795.D	05/26/2017	4:37
MSD-MW3	E17-04261-003	K5796.D	05/26/2017	5:04
MS-MW3	E17-04261-004	K5797.D	05/26/2017	5:31
MW-3	E17-04261-002	K5799.D	05/26/2017	6:24
MW-7	E17-04261-001	K5800.D	05/26/2017	6:50
MW6	E17-04261-005	K5801.D	05/26/2017	7:16
MW-11	E17-04261-006	K5802.D	05/26/2017	7:43
DUP-1	E17-04261-009	K5803.D	05/26/2017	8:10
FB	E17-04261-010	K5804.D	05/26/2017	8:37
GW-10	E17-04296-008	K5805.D	05/26/2017	9:03
GW-11	E17-04296-009	K5806.D	05/26/2017	9:30
GW-12	E17-04296-010	K5807.D	05/26/2017	9:56
GW-13	E17-04296-011	K5808.D	05/26/2017	10:23
PZ-3	E17-04261-007	K5809.D	05/26/2017	10:49

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): K5618.D Date Analyzed: 05/16/2017

Instrument ID: MSD_K Time Analyzed: 1:28

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	532332		6.09		777714		6.92		742007		10.25	
	UPPER LIMIT	1064664		6.59		1555428		7.42		1484014		10.75	
	LOWER LIMIT	266166		5.59		388857		6.42		371003.5		9.75	
	LAB SAMPLE ID												
01	ICC170516	453138		6.09		696177		6.92		619783		10.25	
02	ICC170516	448560		6.10		679691		6.92		605645		10.25	
03	ICC170516	454238		6.10		693279		6.92		617108		10.25	
04	ICC170516	481572		6.10		735743		6.92		663624		10.25	
05	ICC170516	586738		6.09		854844		6.92		808294		10.25	
06	ICC170516	604294		6.09		871985		6.92		842925		10.25	
07	ICV170516	582859		6.10		841223		6.92		789412		10.25	
08	BLKA170516	531954		6.10		798634		6.92		705040		10.25	
09	E17-03962-001	483871		6.10		736089		6.92		649173		10.25	
10	E17-03968-005	517433		6.10		782735		6.92		690646		10.25	
11	E17-03969-001	495621		6.10		750482		6.92		664413		10.25	
12	E17-03969-002	484505		6.10		733182		6.92		648873		10.25	
13	E17-03969-003	494264		6.10		743944		6.92		646094		10.25	
14	E17-03971-001	488192		6.10		730895		6.92		660280		10.25	
15	E17-03974-001	514113		6.10		772607		6.92		677531		10.25	
16	E17-03980-001	508679		6.10		759811		6.92		664999		10.25	
17	E17-03959-001	509532		6.10		765385		6.92		665649		10.25	
18	E17-03946-001	532692		6.10		779810		6.92		680292		10.25	
19	LCSA170516	564500		6.10		821378		6.92		754771		10.25	
20	E17-03974-001MS	573415		6.10		829112		6.92		762102		10.25	
21	E17-03974-001MSD	594013		6.10		845593		6.92		772343		10.25	
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): K5786.D Date Analyzed: 05/26/2017

Instrument ID: MSD_K Time Analyzed: 12:19

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	541212	6.10	783763	6.92	753263	10.25
	UPPER LIMIT	1082424	6.60	1567526	7.42	1506526	10.75
	LOWER LIMIT	270606	5.60	391881.5	6.42	376631.5	9.75
	LAB SAMPLE ID						
01	BLKA170526	450390	6.10	673348	6.92	609510	10.25
02	E17-04261-008	475121	6.10	710541	6.92	670000	10.25
03	E17-04261-008DL	507909	6.10	747696	6.92	680647	10.25
04	E17-04261-011	531508	6.10	776023	6.92	699963	10.25
05	LCSA170526	598270	6.10	845246	6.92	774227	10.25
06	E17-04261-003	640971	6.10	891141	6.92	818105	10.25
07	E17-04261-004	659250	6.10	915443	6.92	845787	10.25
08	E17-04261-002	599810	6.10	863664	6.92	765002	10.25
09	E17-04261-001	587752	6.10	842655	6.92	755617	10.25
10	E17-04261-005	588397	6.10	843914	6.92	748246	10.25
11	E17-04261-006	583060	6.10	835985	6.92	743145	10.25
12	E17-04261-009	577419	6.10	821771	6.92	727085	10.25
13	E17-04261-010	592015	6.10	849303	6.92	749896	10.25
14	E17-04296-008	578194	6.10	830819	6.92	730910	10.25
15	E17-04296-009	576171	6.10	829873	6.92	729312	10.25
16	E17-04296-010	585127	6.10	829590	6.92	728944	10.25
17	E17-04296-011	563464	6.10	819417	6.92	713865	10.25
18	E17-04261-007	545152	6.10	787222	6.92	708494	10.25
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM **8**

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 11:26:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

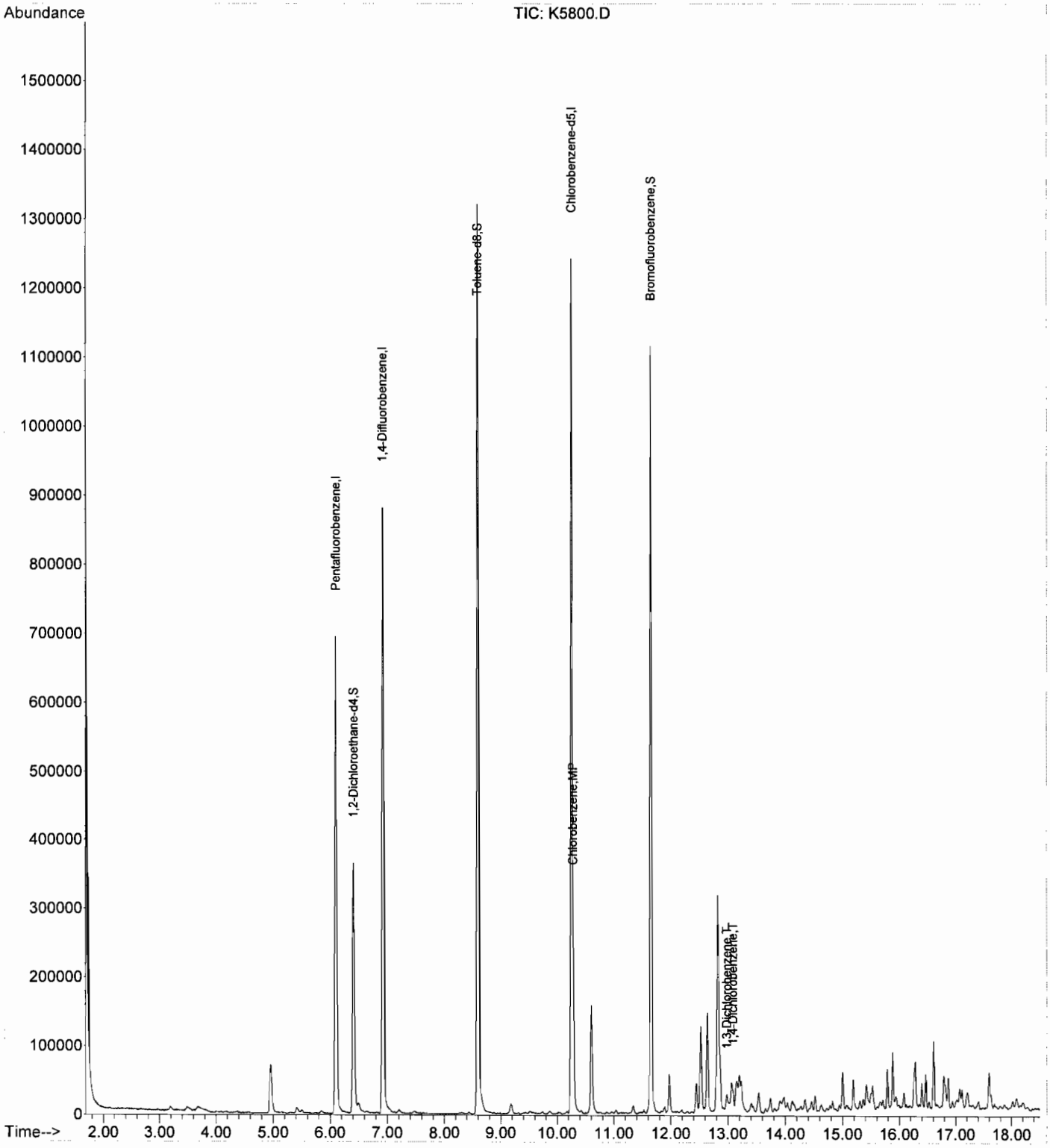
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	587752	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.92	114	842655	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	755617	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	293878	46.02	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.04%			
41) Toluene-d8	8.59	98	958003	47.97	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.94%			
59) Bromofluorobenzene	11.65	95	367127	47.64	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.28%			
Target Compounds						Qvalue
51) Chlorobenzene	10.28	112	93619	6.23	UG	99
70) 1,3-Dichlorobenzene	12.98	146	5530	0.40	UG	99
72) 1,4-Dichlorobenzene	13.09	146	10705	0.77	UG	97

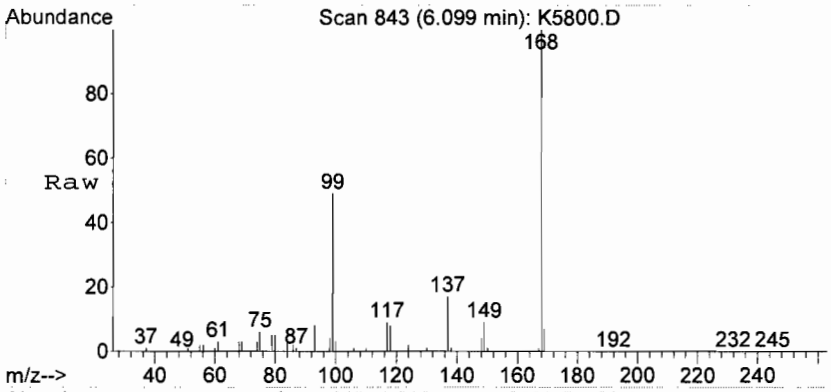
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 11:26:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

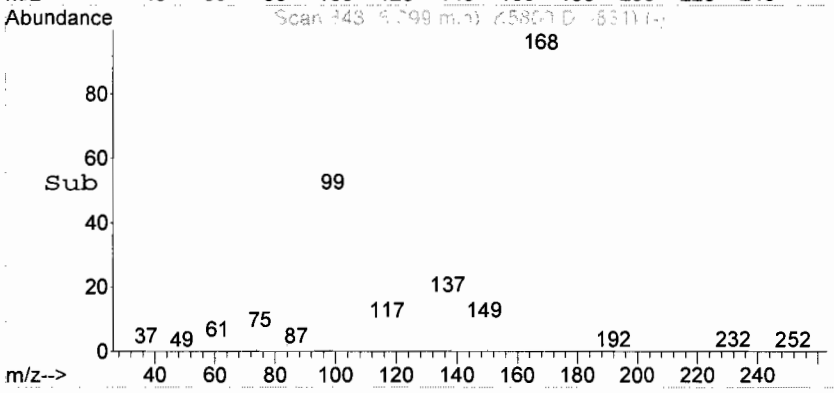


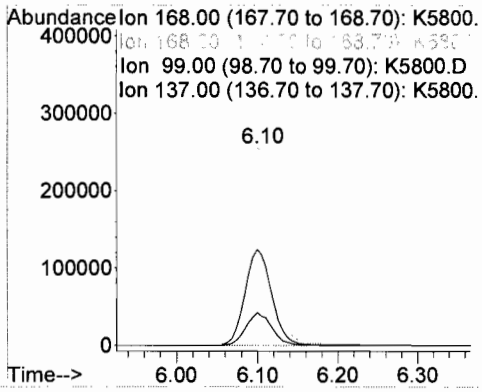


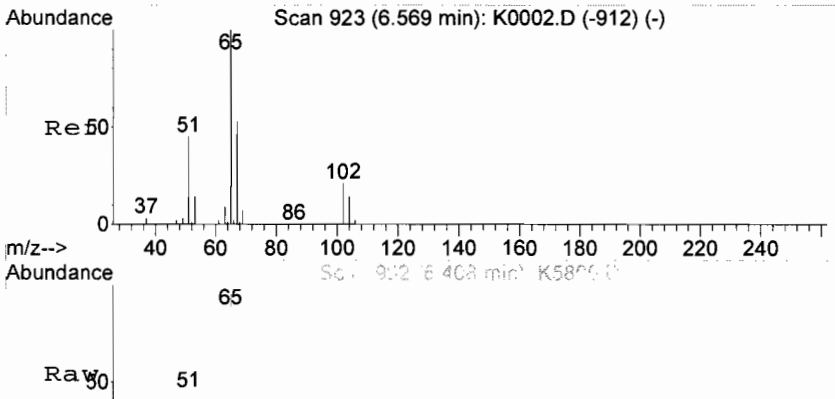
#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:168 Resp: 587752

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	48.5	45.9	68.9
137	15.9	12.7	19.1



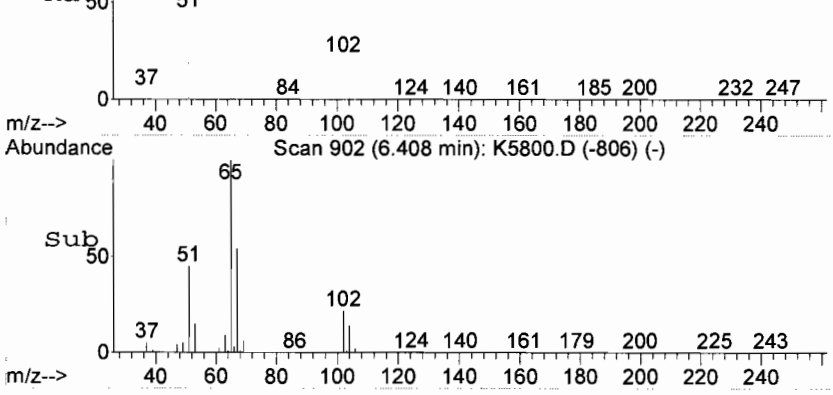


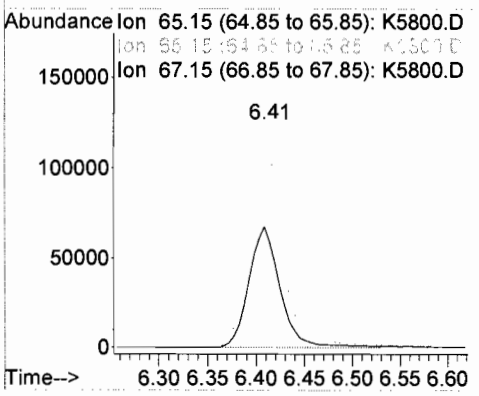


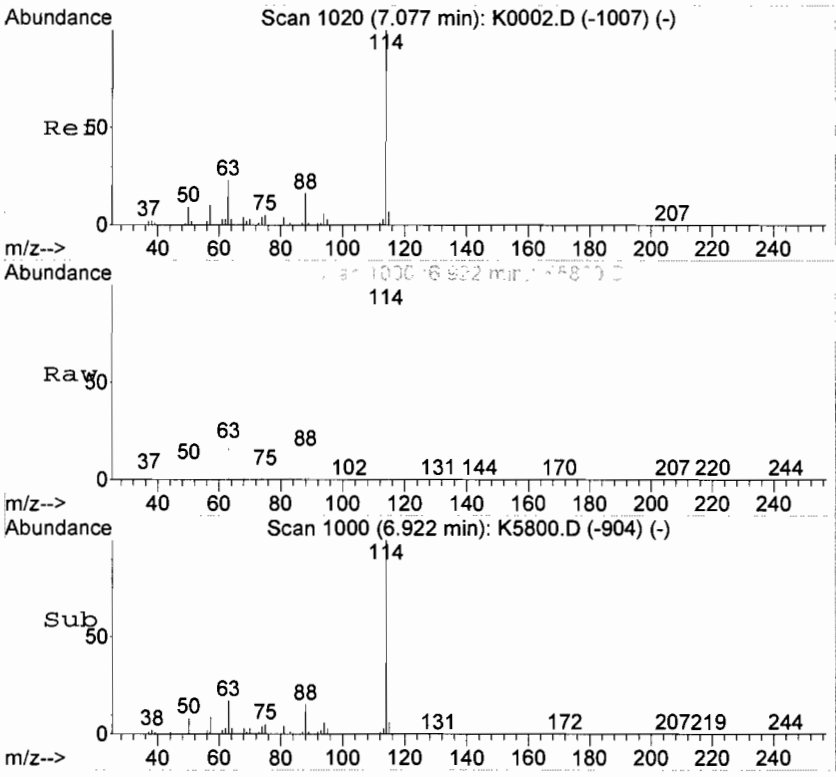
#30
1,2-Dichloroethane-d4
Concen: 46.02 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion: 65 Resp: 293878

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	52.6	40.4	60.6



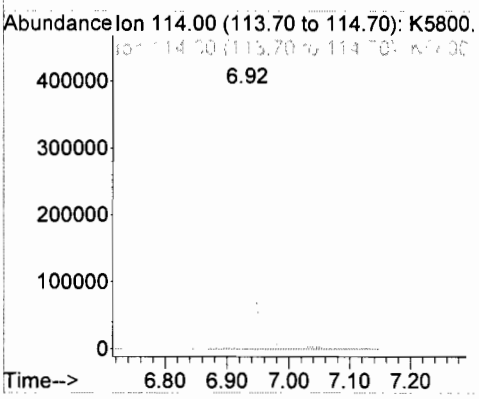


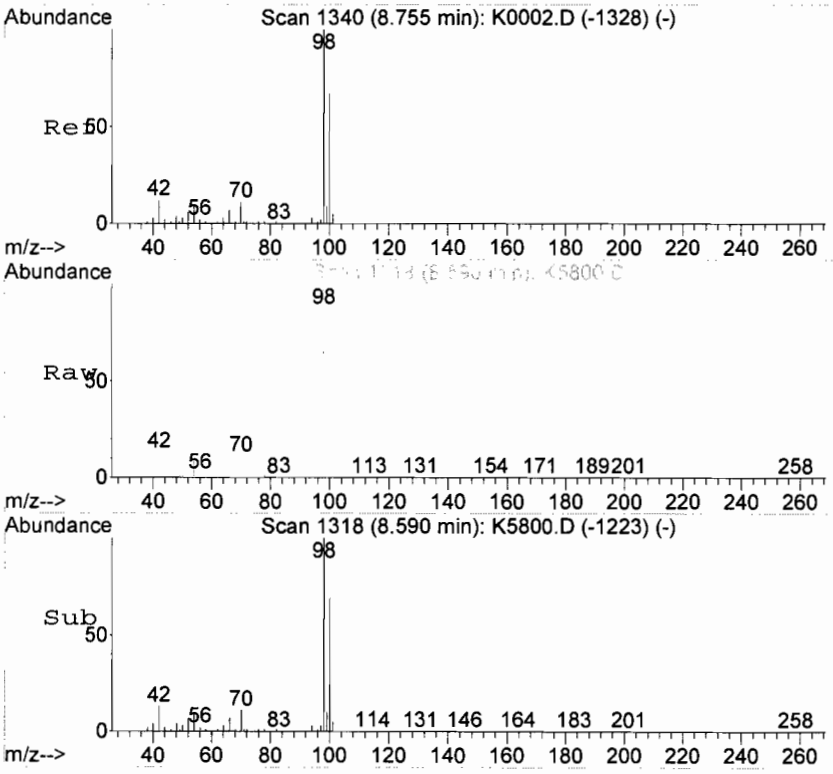


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:114 Resp: 842655

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

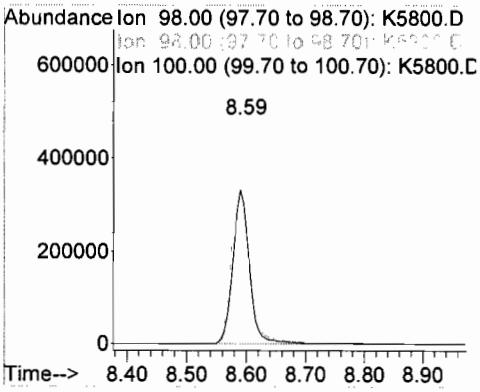


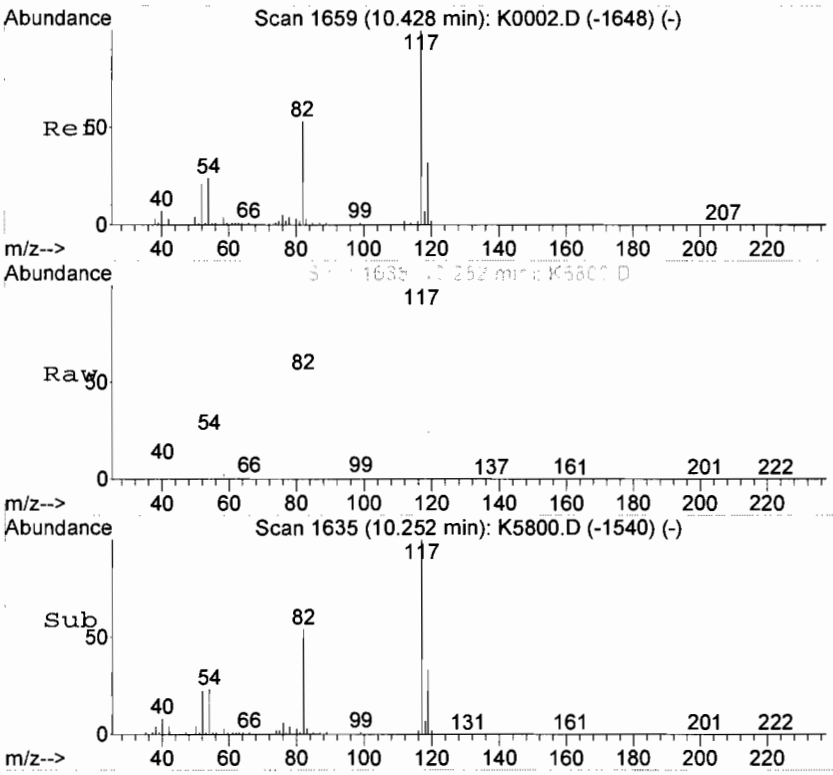


#41
Toluene-d8
Concen: 47.97 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion: 98 Resp: 958003

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.4	51.6	77.4

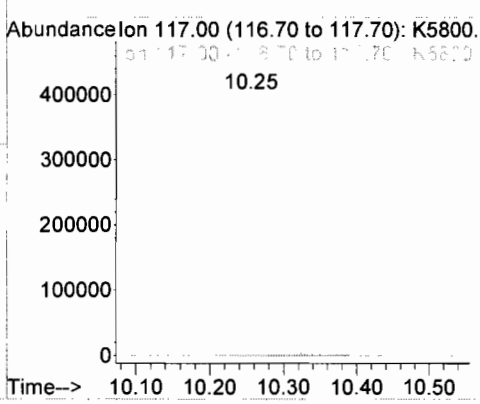


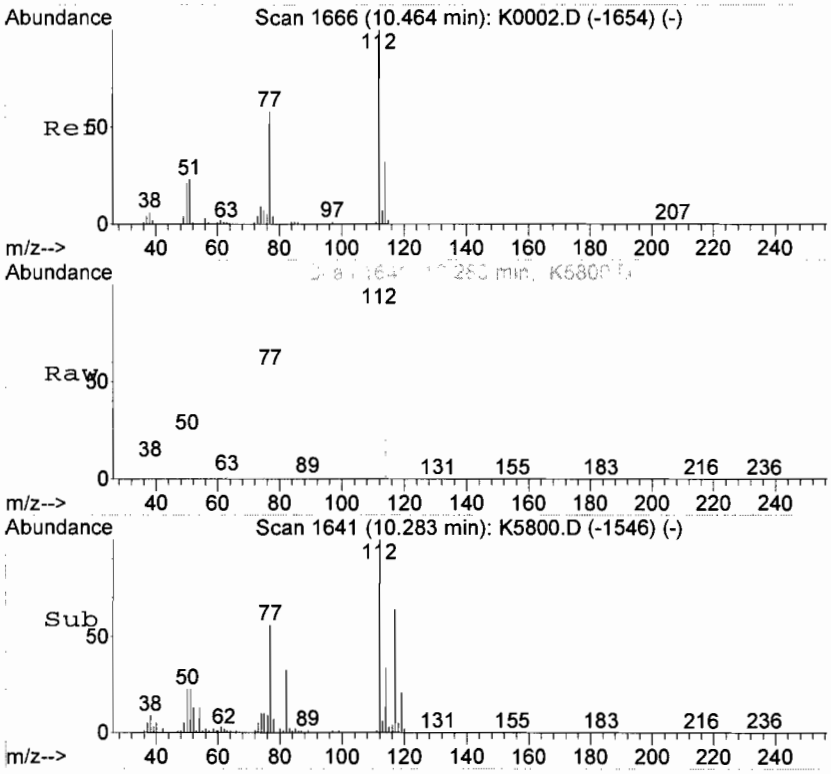


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:117 Resp: 755617

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

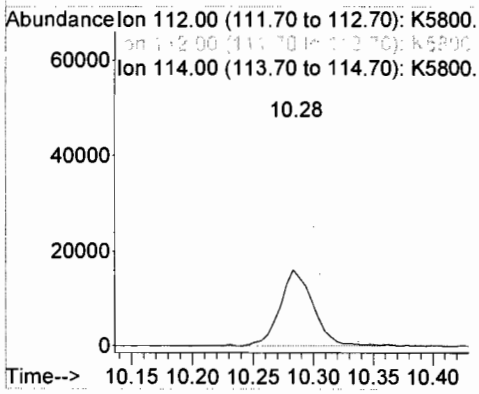


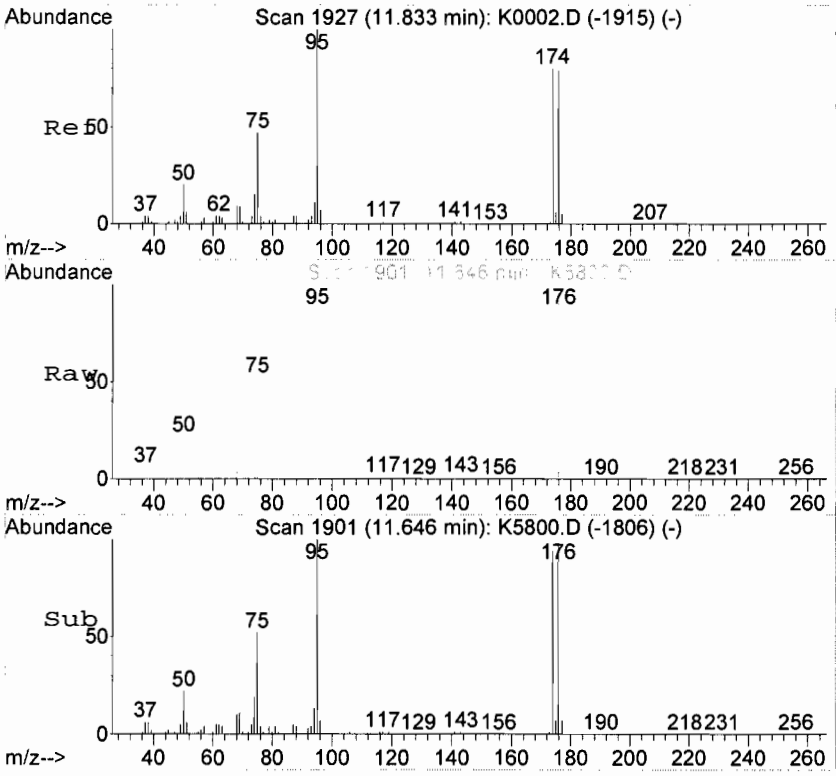


#51
Chlorobenzene
Concen: 6.23 UG
RT: 10.28 min Scan# 1641
Delta R.T. 0.00 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:112 Resp: 93619

Ion	Ratio	Lower	Upper
112	100		
112	100.0	80.0	120.0
114	33.2	25.0	37.6

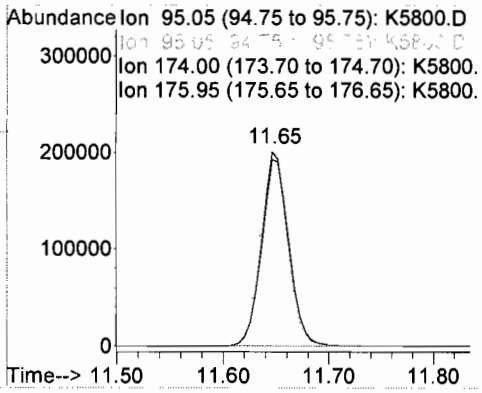


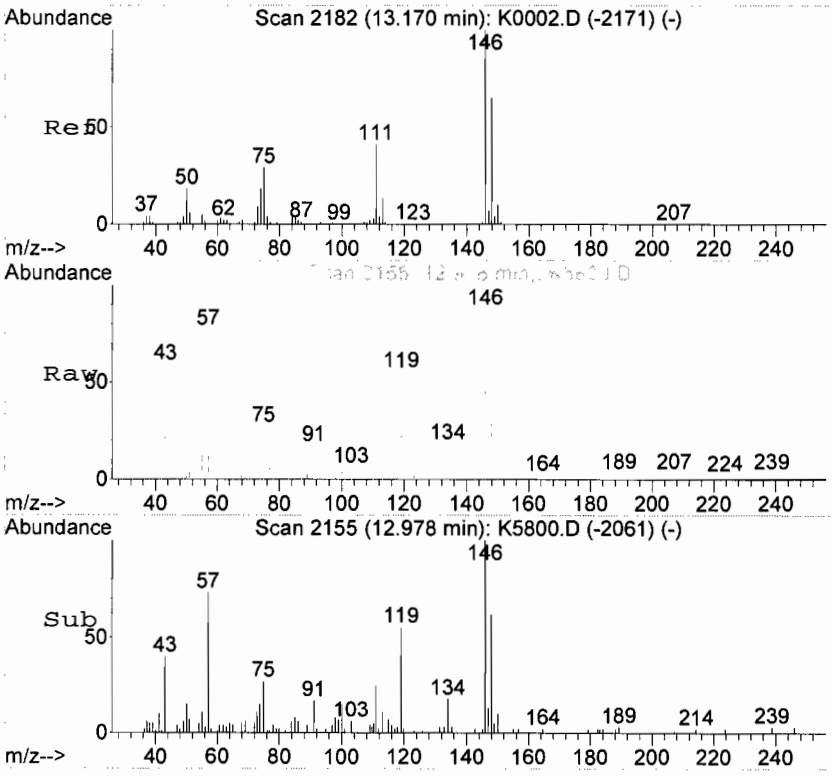


#59
Bromofluorobenzene
Concen: 47.64 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion: 95 Resp: 367127

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	94.0	61.4	92.0#
176	96.9	59.3	88.9#

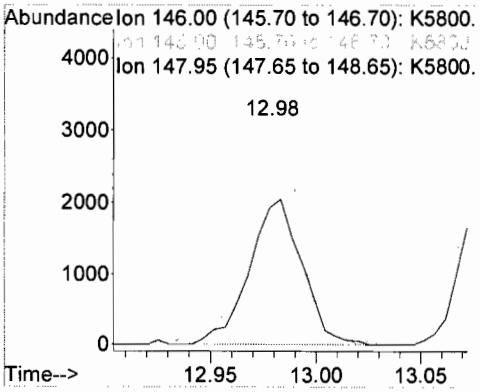


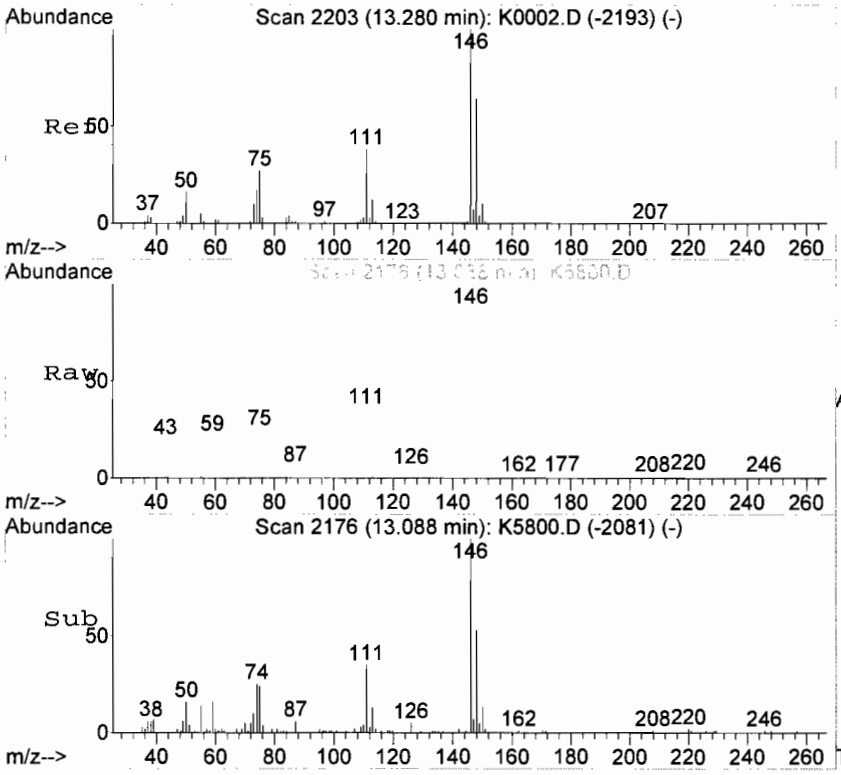


#70
1,3-Dichlorobenzene
Concen: 0.40 UG
RT: 12.98 min Scan# 2155
Delta R.T. -0.01 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:146 Resp: 5530

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	64.5	52.8	79.2

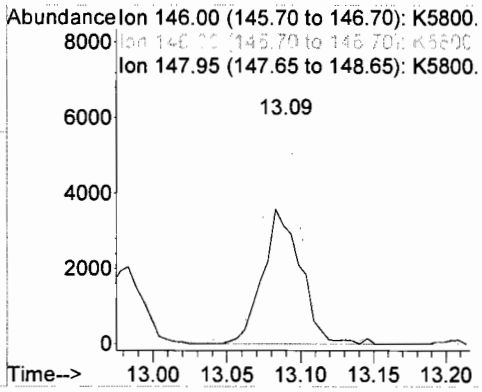




#72
1,4-Dichlorobenzene
Concen: 0.77 UG
RT: 13.09 min Scan# 2176
Delta R.T. 0.00 min
Lab File: K5800.D
Acq: 26 May 2017 6:50 pm

Tgt Ion:146 Resp: 10705

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	59.7	52.0	78.0



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.189	283	288	337	rVV7	6138	31668	1.19%	0.182%
2	3.488	337	345	373	rVV4	7022	40869	1.54%	0.234%
3	3.682	373	382	425	rVB5	8377	69446	2.62%	0.398%
4	4.961	611	626	657	rBV	70668	212575	8.02%	1.219%
5	5.412	703	712	724	rBV	8879	27735	1.05%	0.159%
6	6.099	832	843	885	rBV	693407	1600590	60.35%	9.181%
7	6.408	889	902	915	rBV	363379	856022	32.28%	4.910%
8	6.487	915	917	943	rVB6	13338	39889	1.50%	0.229%
9	6.917	988	999	1043	rBV	879632	1920392	72.41%	11.015%
10	8.590	1304	1318	1362	rBV	1318906	2652095	100.00%	15.212%
11	9.177	1417	1430	1443	rBV5	14306	43398	1.64%	0.249%
12	10.252	1624	1635	1664	rBV	1239368	2625484	99.00%	15.059%
13	10.603	1686	1702	1724	rBV2	156596	364811	13.76%	2.092%
14	11.342	1833	1843	1857	rVB	11899	29825	1.12%	0.171%
15	11.646	1886	1901	1920	rBV	1112544	2028148	76.47%	11.633%
16	11.977	1952	1964	1980	rBV	55584	122981	4.64%	0.705%
17	12.448	2045	2054	2061	rBV2	42654	95409	3.60%	0.547%
18	12.527	2061	2069	2082	rVV2	125457	284292	10.72%	1.631%
19	12.637	2082	2090	2109	rVV	144863	309872	11.68%	1.777%
20	12.821	2112	2125	2149	rVV2	314354	845808	31.89%	4.851%
21	12.978	2149	2155	2165	rVV8	25652	82642	3.12%	0.474%
22	13.062	2165	2171	2180	rVV2	42362	129993	4.90%	0.746%
23	13.151	2180	2188	2193	rVV8	44875	139232	5.25%	0.799%
24	13.198	2193	2197	2224	rVV4	53484	202353	7.63%	1.161%
25	13.408	2224	2237	2250	rVV4	12348	43916	1.66%	0.252%
26	13.534	2250	2261	2276	rVB6	29479	77990	2.94%	0.447%
27	13.738	2289	2300	2308	rVV4	18989	43454	1.64%	0.249%
28	13.911	2321	2333	2339	rBV9	13779	45601	1.72%	0.262%
29	13.979	2339	2346	2354	rVV2	18884	54911	2.07%	0.315%
30	14.121	2367	2373	2389	rVB5	13988	46373	1.75%	0.266%
31	14.346	2408	2416	2423	rVB4	17878	42201	1.59%	0.242%
32	14.456	2423	2437	2444	rBV7	15008	43924	1.66%	0.252%
33	14.519	2444	2449	2462	rVV2	22582	42191	1.59%	0.242%
34	14.630	2462	2470	2483	rVV10	9989	26541	1.00%	0.152%
35	14.823	2502	2507	2525	rVB3	14216	31228	1.18%	0.179%
36	15.002	2534	2541	2549	rVV3	55521	107950	4.07%	0.619%
37	15.185	2568	2576	2592	rVV3	44228	97896	3.69%	0.562%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	15.301	2592	2598	2604	rVV10	13866	28643	1.08%	0.164%
39	15.358	2604	2609	2614	rVV3	16244	32188	1.21%	0.185%
40	15.416	2614	2620	2631	rVV6	36796	107366	4.05%	0.616%
41	15.526	2631	2641	2652	rVV3	35241	112159	4.23%	0.643%
42	15.657	2660	2666	2672	rVV7	11755	33335	1.26%	0.191%
43	15.704	2672	2675	2684	rVV6	14373	26994	1.02%	0.155%
44	15.783	2684	2690	2702	rVV2	58748	108731	4.10%	0.624%
45	15.883	2702	2709	2716	rVV2	83040	154603	5.83%	0.887%
46	15.946	2716	2721	2740	rVV8	18639	62509	2.36%	0.359%
47	16.082	2740	2747	2774	rVV3	23882	78453	2.96%	0.450%
48	16.281	2774	2785	2796	rVV4	68845	183958	6.94%	1.055%
49	16.396	2802	2807	2814	rVV2	37255	60720	2.29%	0.348%
50	16.465	2814	2820	2827	rVV4	49959	84291	3.18%	0.483%
51	16.606	2840	2847	2876	rVV3	97661	195018	7.35%	1.119%
52	16.790	2876	2882	2891	rVV6	47461	136105	5.13%	0.781%
53	16.863	2891	2896	2906	rVV3	44484	83615	3.15%	0.480%
54	17.020	2919	2926	2931	rVV10	12942	39313	1.48%	0.225%
55	17.068	2931	2935	2940	rVV4	28248	58710	2.21%	0.337%
56	17.115	2940	2944	2954	rVV5	26910	49456	1.86%	0.284%
57	17.209	2954	2962	2995	rVV4	22806	90347	3.41%	0.518%
58	17.597	3028	3036	3049	rVB3	51085	125850	4.75%	0.722%
59	18.090	3124	3130	3180	rVB9	17603	122583	4.62%	0.703%

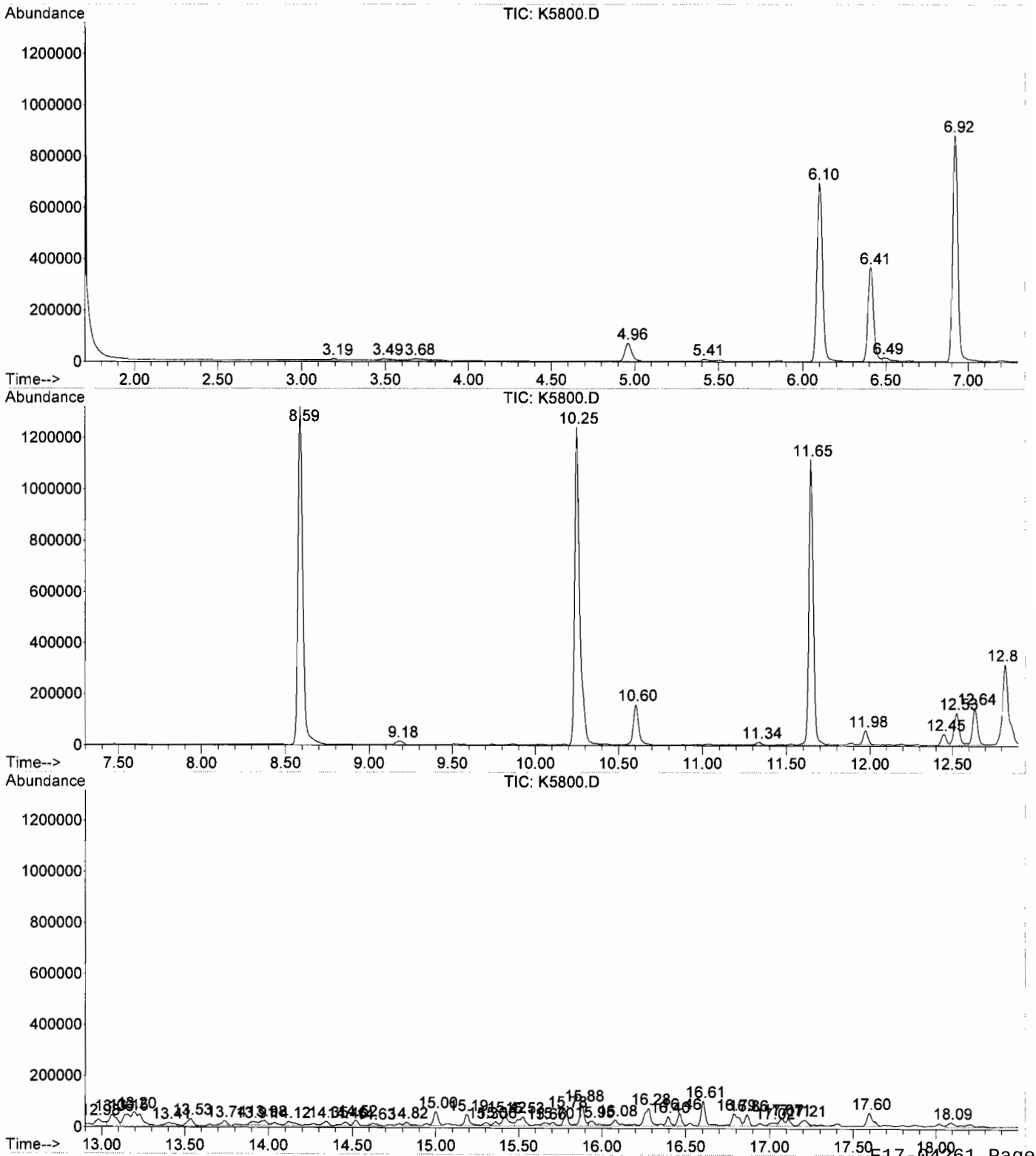
Sum of corrected areas: 17434652

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

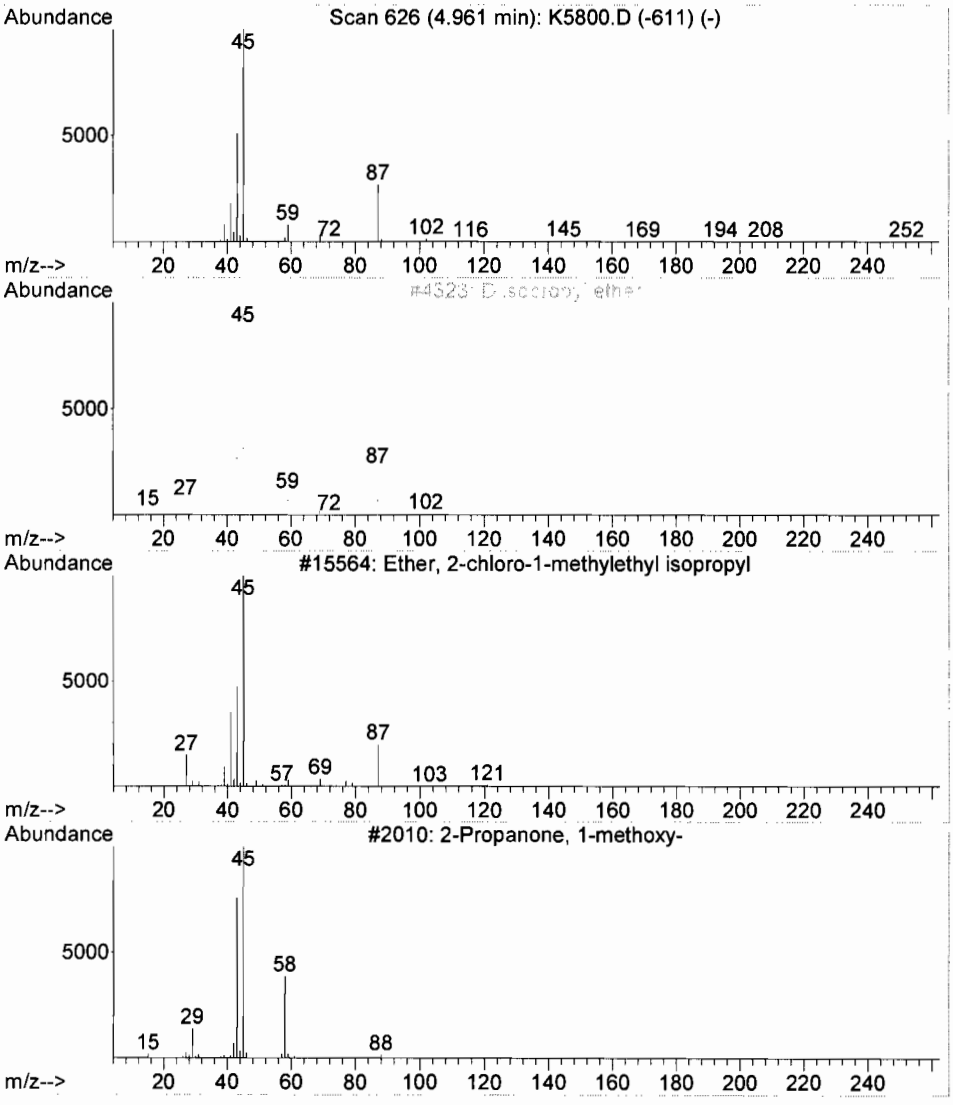
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TIC Integration Parameters: LSCINT.P

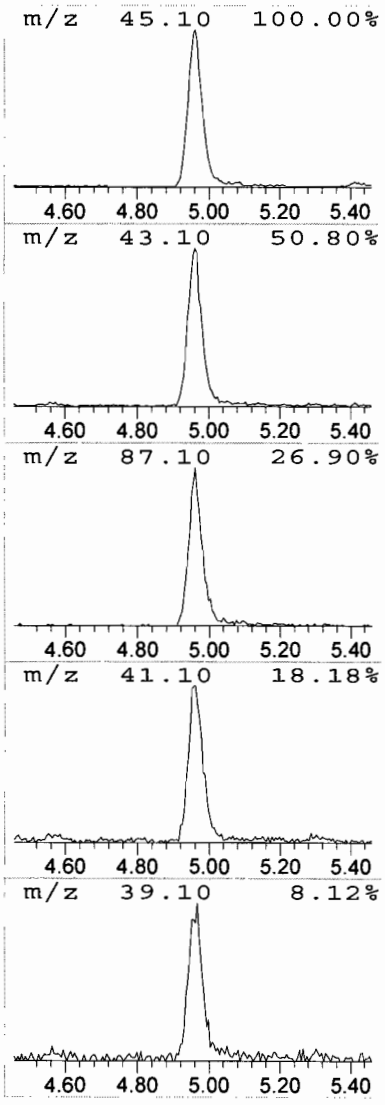
****

Peak Number 1 Unknown VOA Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	6.64 UG	212575	Pentafluorobenzene	6.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	78
2	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	78
3	2-Propanone, 1-methoxy-	88	C4H8O2	005878-19-3	59
4	Diisopropyl ether	102	C6H14O	000108-20-3	56
5	Ether, sec-butyl isopropyl	116	C7H16O	018641-81-1	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

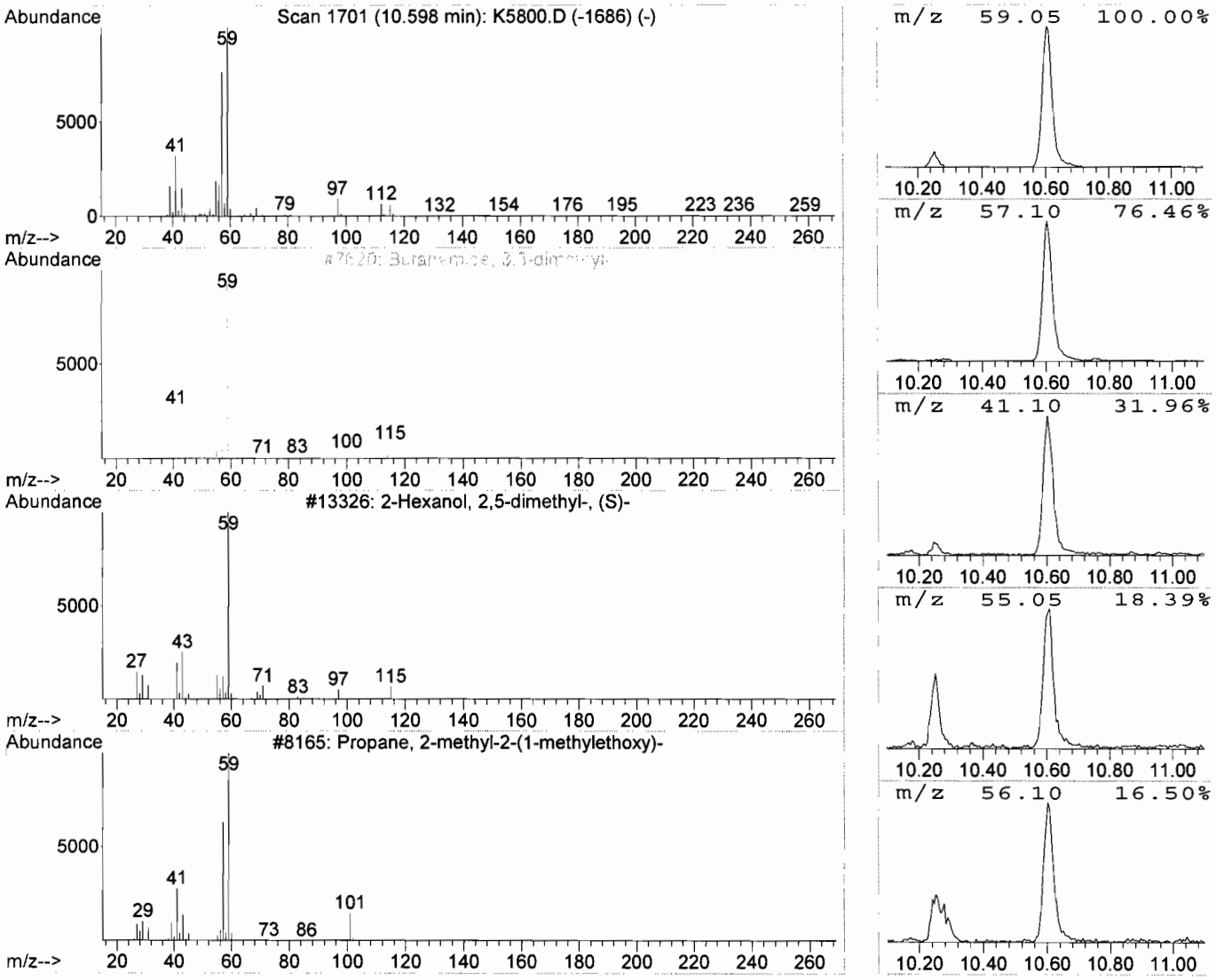
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown VOA Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.60	6.95 UG	364811	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanamide, 3,3-dimethyl-	115	C6H13NO	000926-04-5	58
2	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	39
3	Propane, 2-methyl-2-(1-methyleth...	116	C7H16O	017348-59-3	38
4	1-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-39-1	18
5	1-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-39-1	18



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

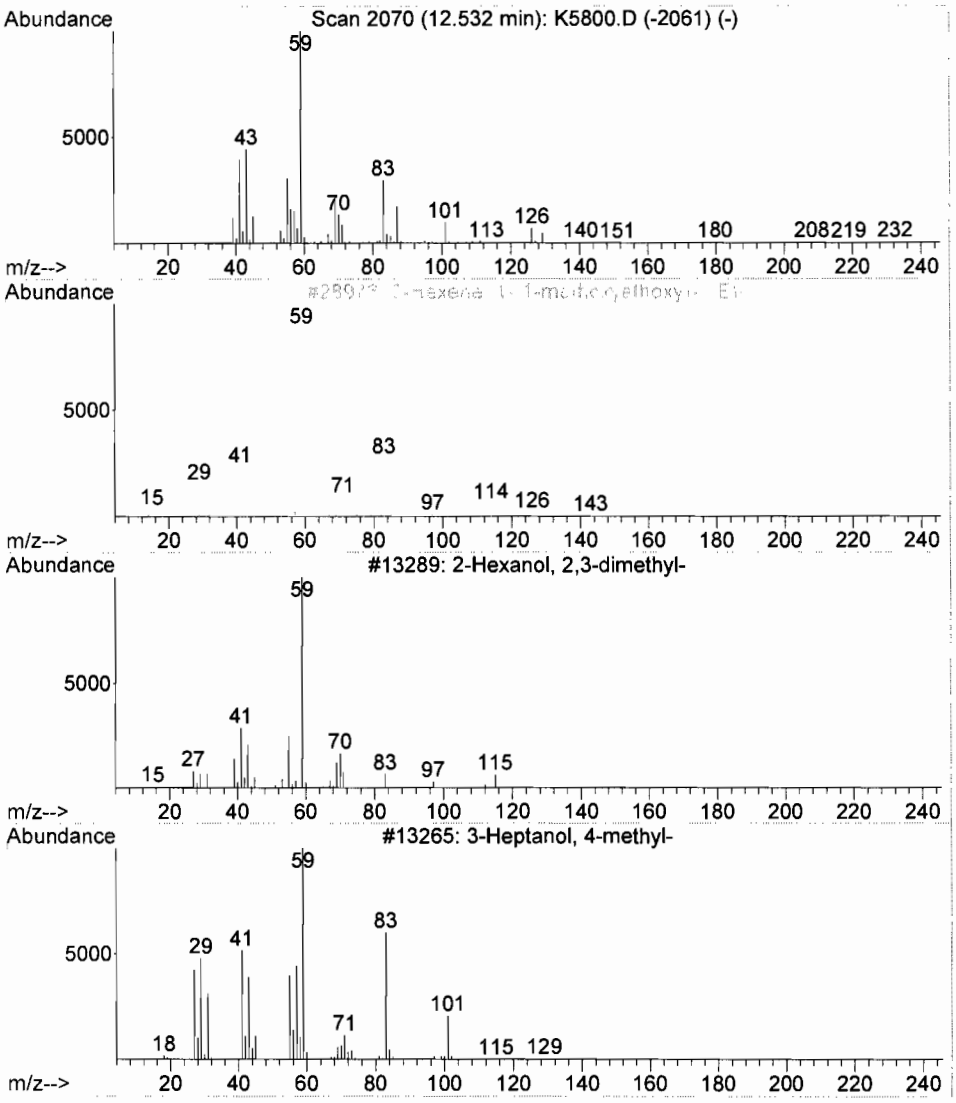
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TIC Integration Parameters: LSCINT.P

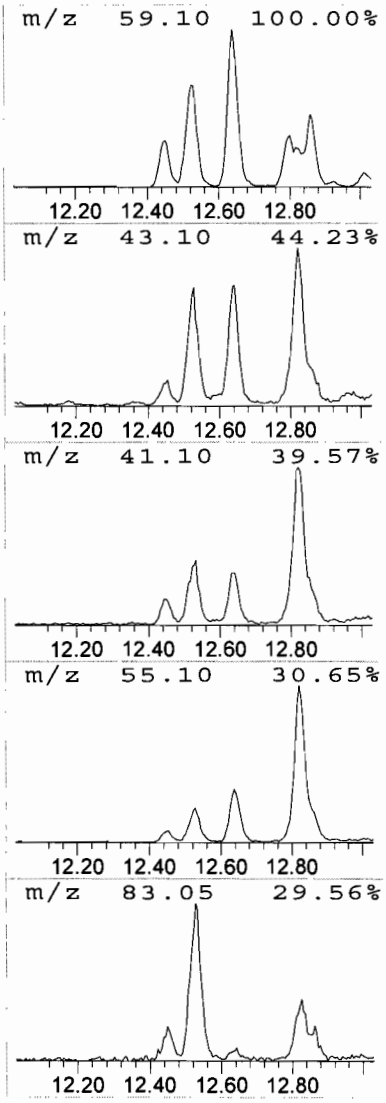
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Peak Number 3 Unknown VOA Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.53	5.41 UG	284292	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hexene, 1-(1-methoxyethoxy)-, ...	158	C9H18O2	054340-97-5	59
2	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	50
3	3-Heptanol, 4-methyl-	130	C8H18O	014979-39-6	47
4	2-Octanol, 2-methyl-6-methylene-	156	C10H20O	018479-59-9	45
5	Oxirane, tetramethyl-	100	C6H12O	005076-20-0	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

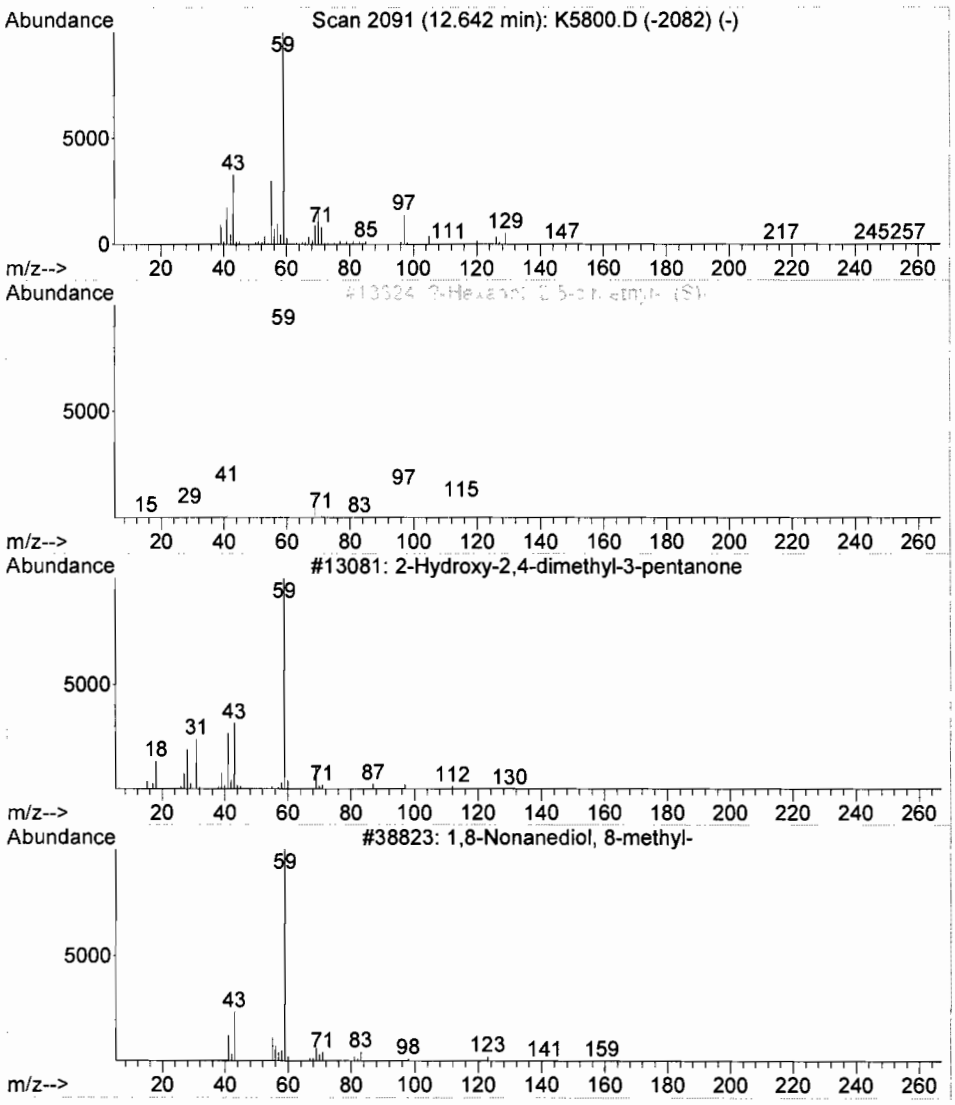
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

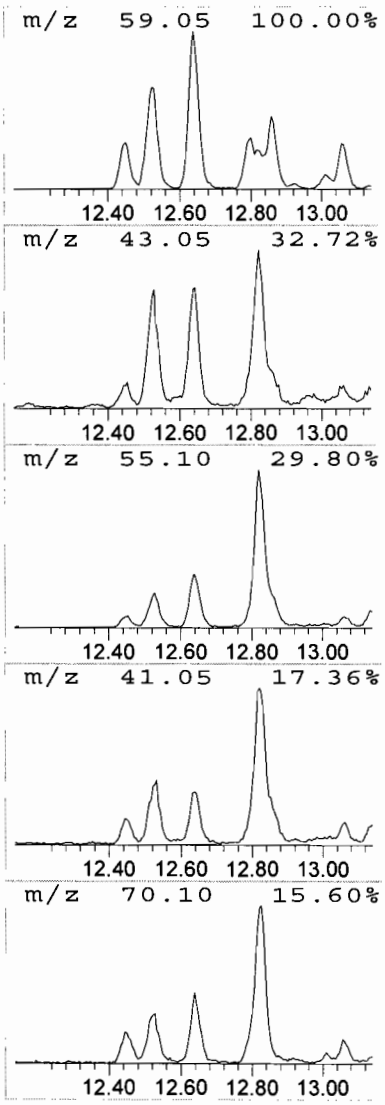
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Peak Number 4 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	5.90 UG	309872	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	64
2	2-Hydroxy-2,4-dimethyl-3-pentanone	130	C7H14O2	003212-67-7	53
3	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	50
4	1-Butanol, 3-methoxy-	104	C5H12O2	002517-43-3	42
5	3-Hexene, 1-(1-methoxyethoxy)-, ...	158	C9H18O2	054340-97-5	42





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5800.D
Acq On : 26 May 2017 6:50 pm
Operator : BARBARA
Sample : MW-7,E17-04261-001,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

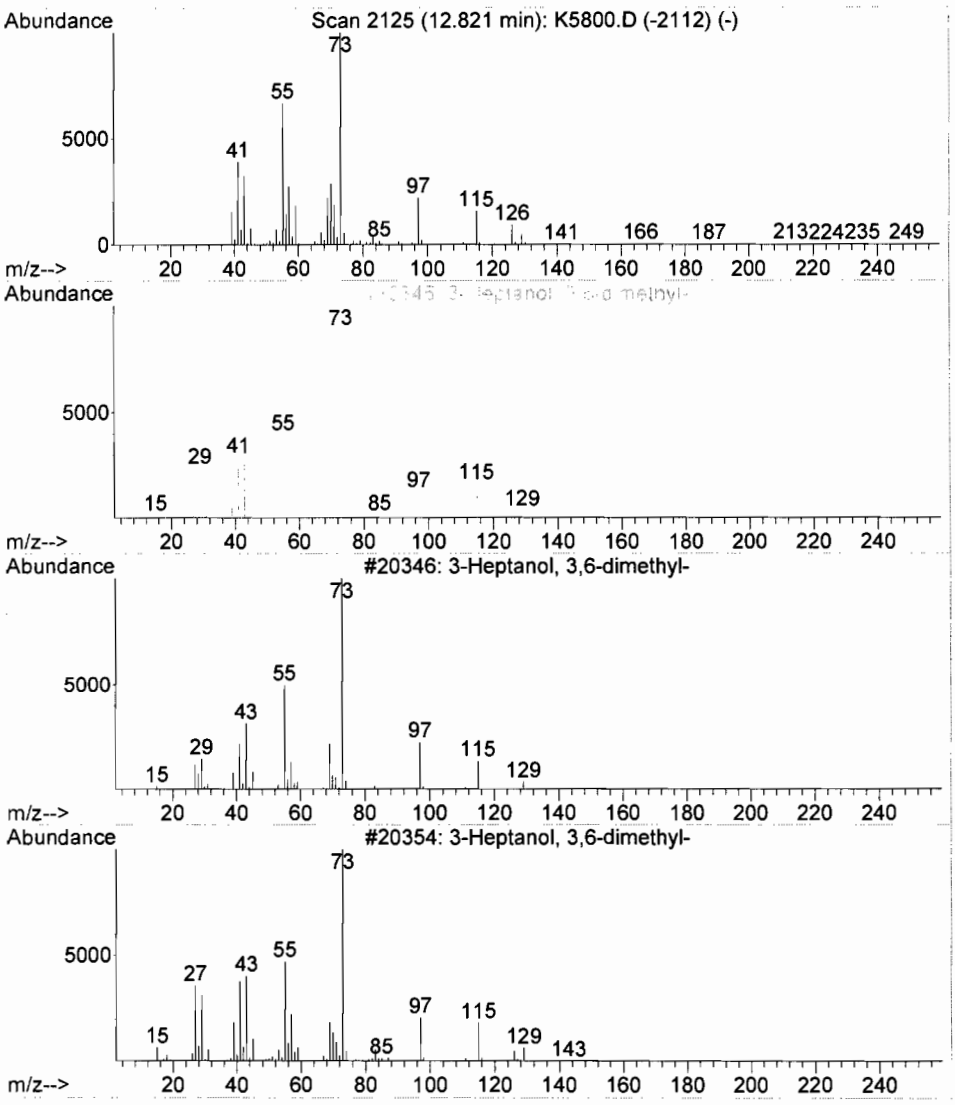
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TIC Integration Parameters: LSCINT.P

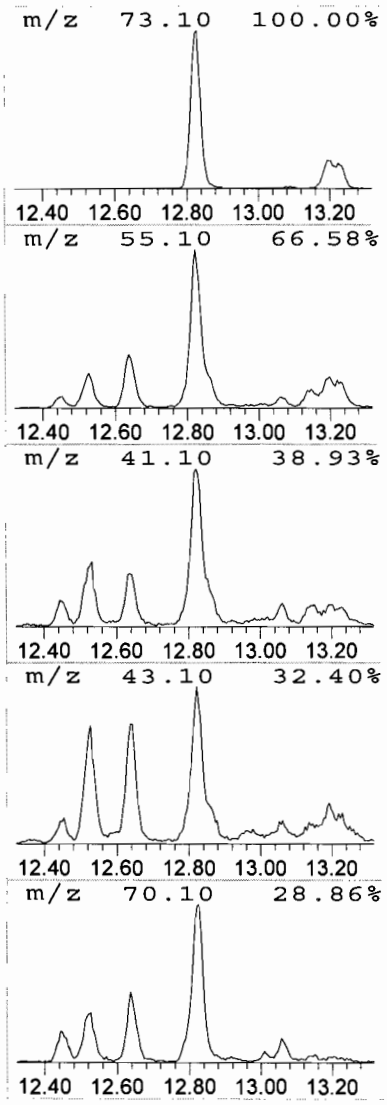
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Peak Number 5 Unknown VOA Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.82	16.11 UG	845808	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Heptanol, 3,5-dimethyl-	144	C9H20O	019549-74-7	50
2	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	47
3	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	43
4	3-Heptene, 4-ethyl-	126	C9H18	033933-74-3	27
5	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	25





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5799.D
Acq On : 26 May 2017 6:24 pm
Operator : BARBARA
Sample : MW-3,E17-04261-002,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 09:30:38 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	599810	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.92	114	863664	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	765002	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	306901	47.10	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.20%			
41) Toluene-d8	8.59	98	988109	48.27	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.54%			
59) Bromofluorobenzene	11.65	95	371819	47.65	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%			

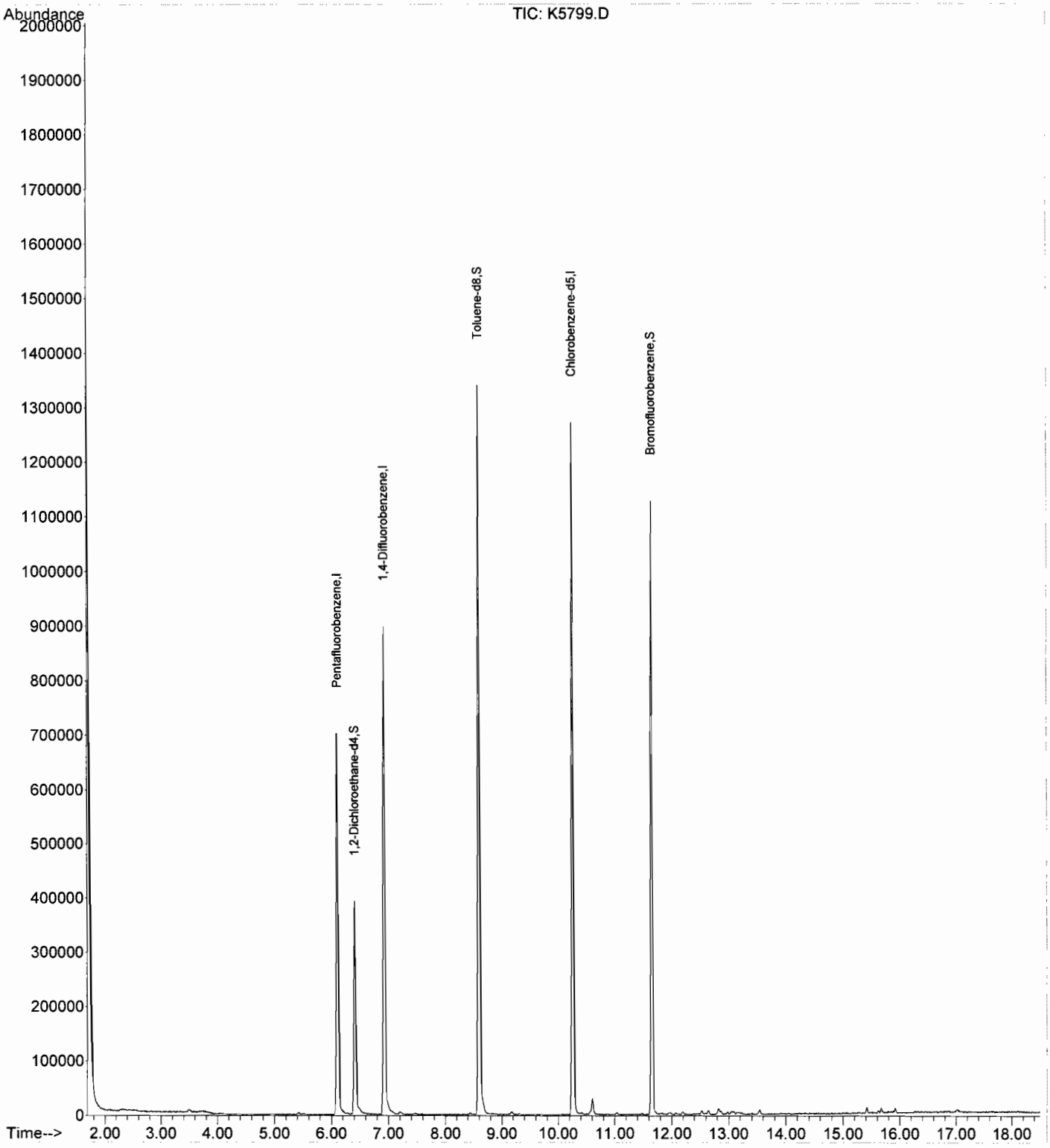
Target Compounds	Qvalue

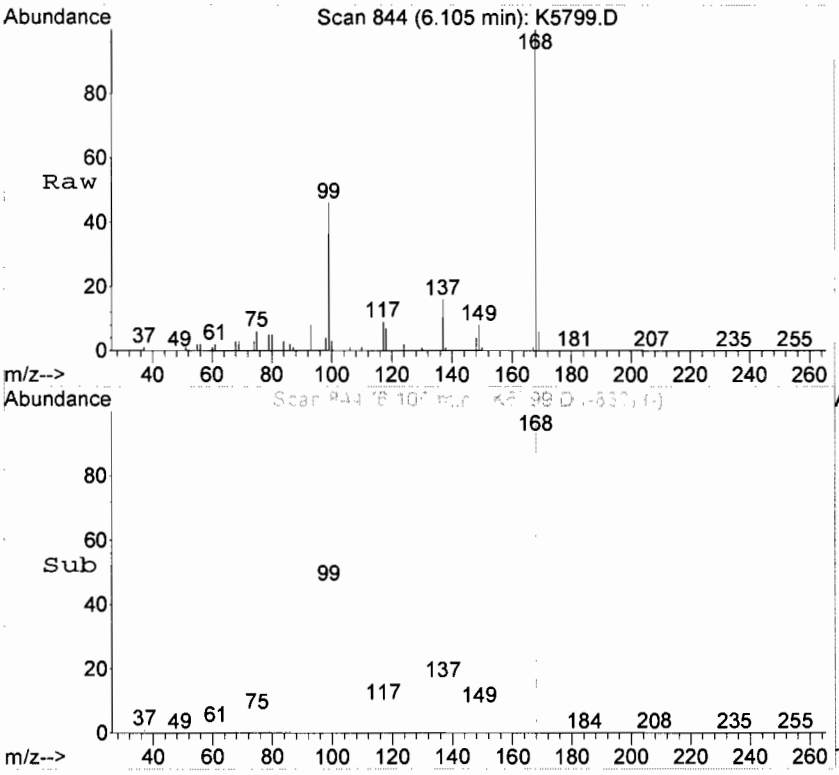
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5799.D
Acq On : 26 May 2017 6:24 pm
Operator : BARBARA
Sample : MW-3,E17-04261-002,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 09:30:38 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

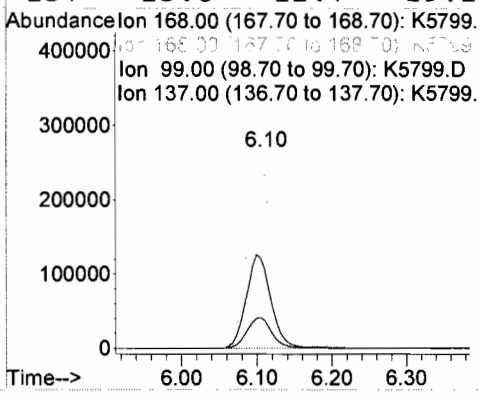


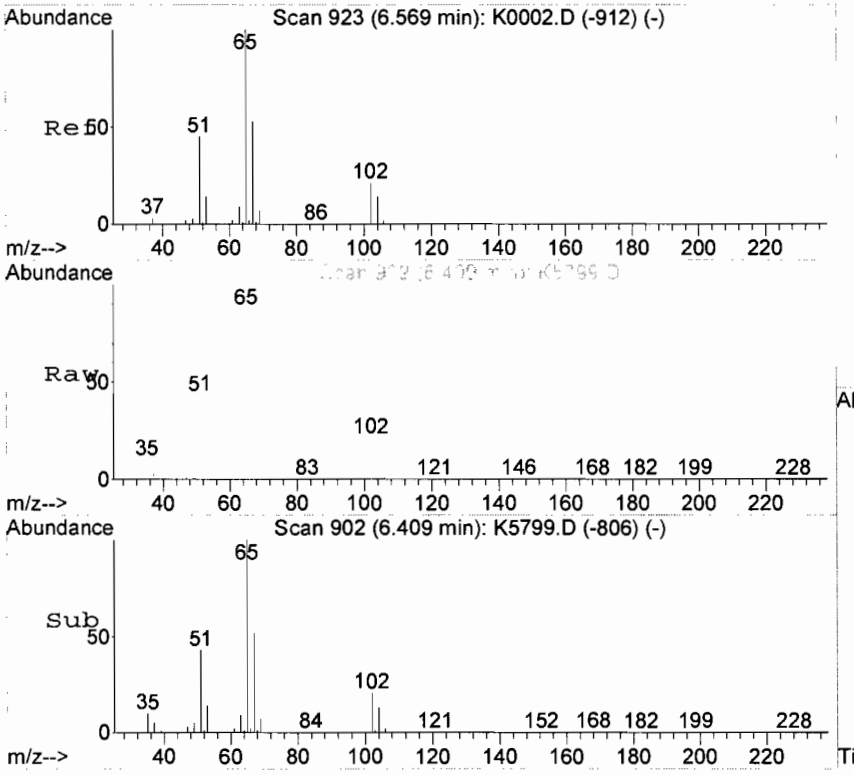


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 844
Delta R.T. 0.01 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion:168 Resp: 599810

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	47.4	45.9	68.9
137	15.8	12.7	19.1

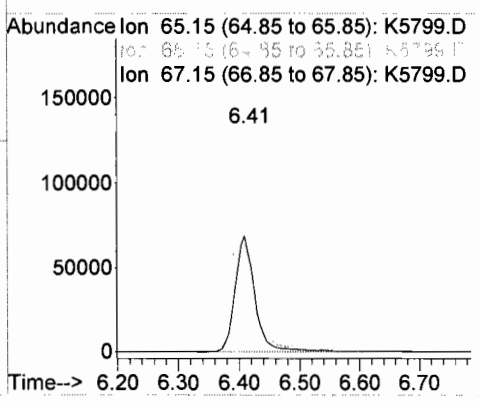


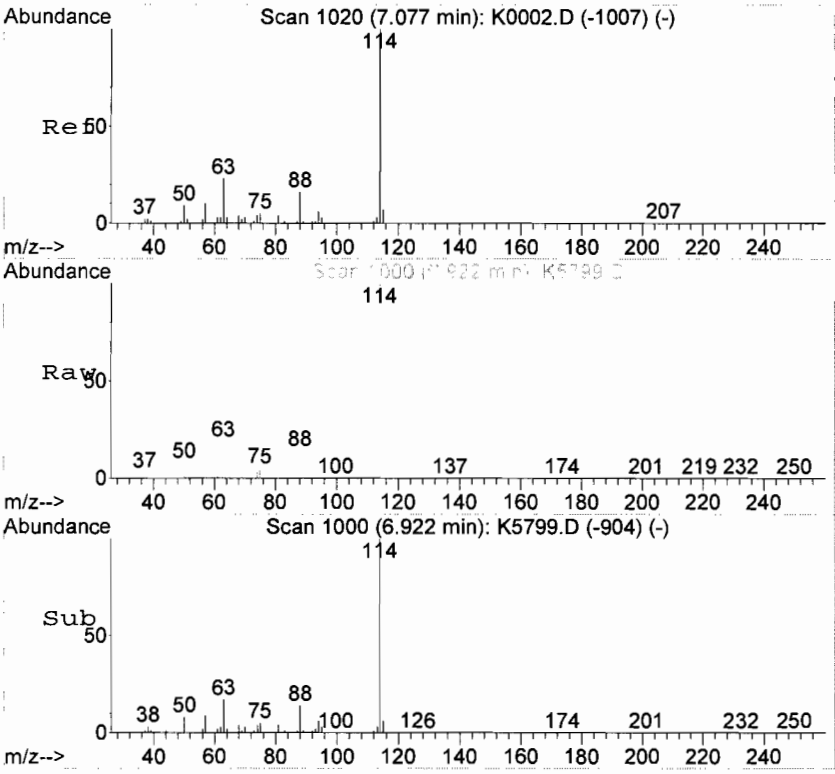


#30
1,2-Dichloroethane-d4
Concen: 47.10 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion: 65 Resp: 306901

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.1	40.4	60.6

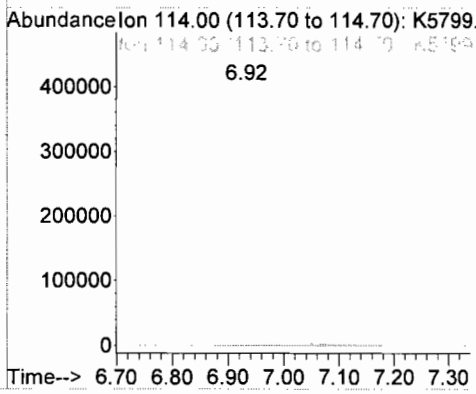


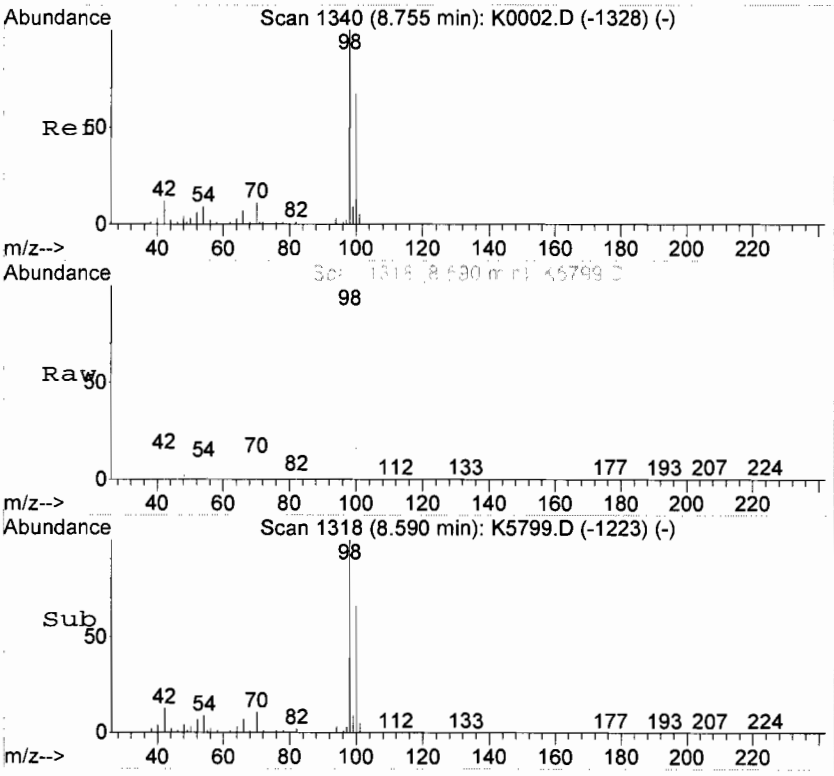


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion:114 Resp: 863664

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

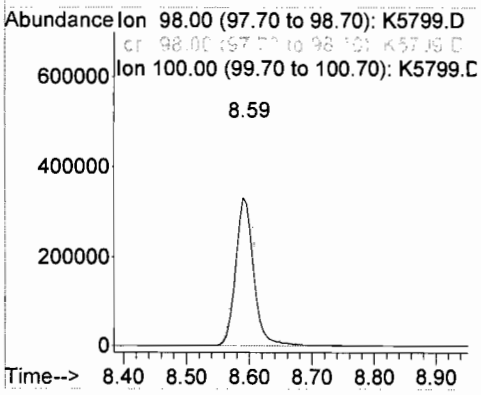


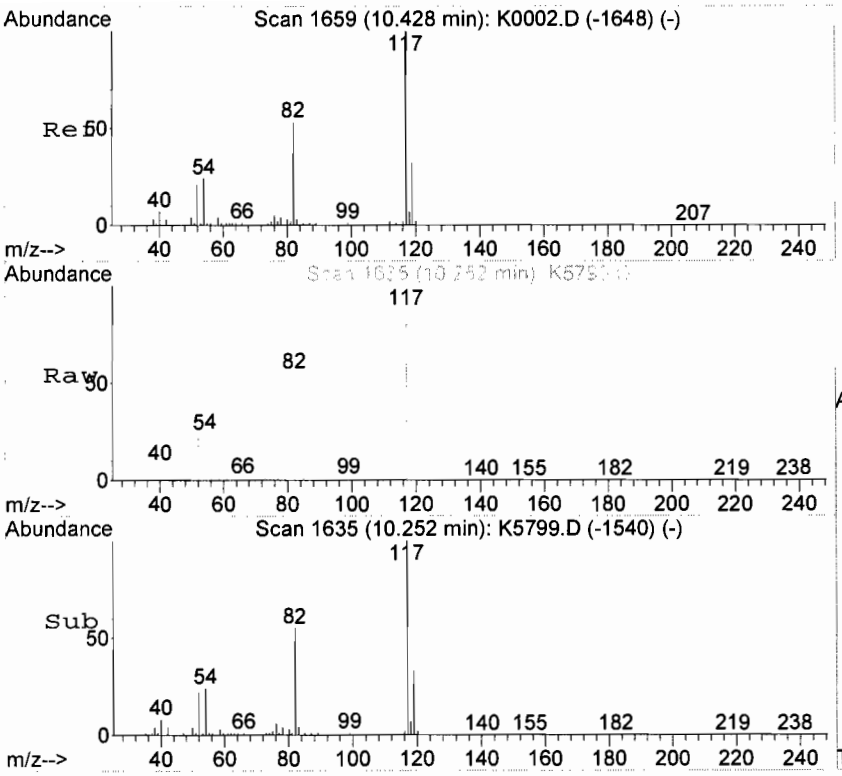


#41
Toluene-d8
Concen: 48.27 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion: 98 Resp: 988109

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.0	51.6	77.4

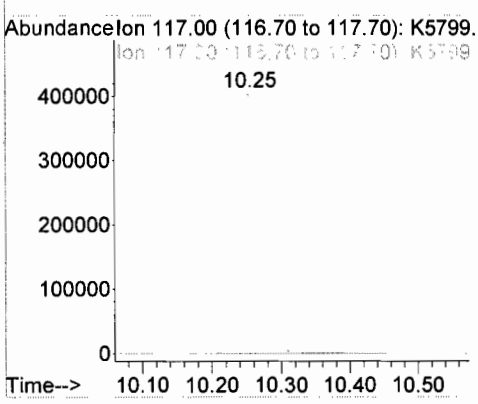


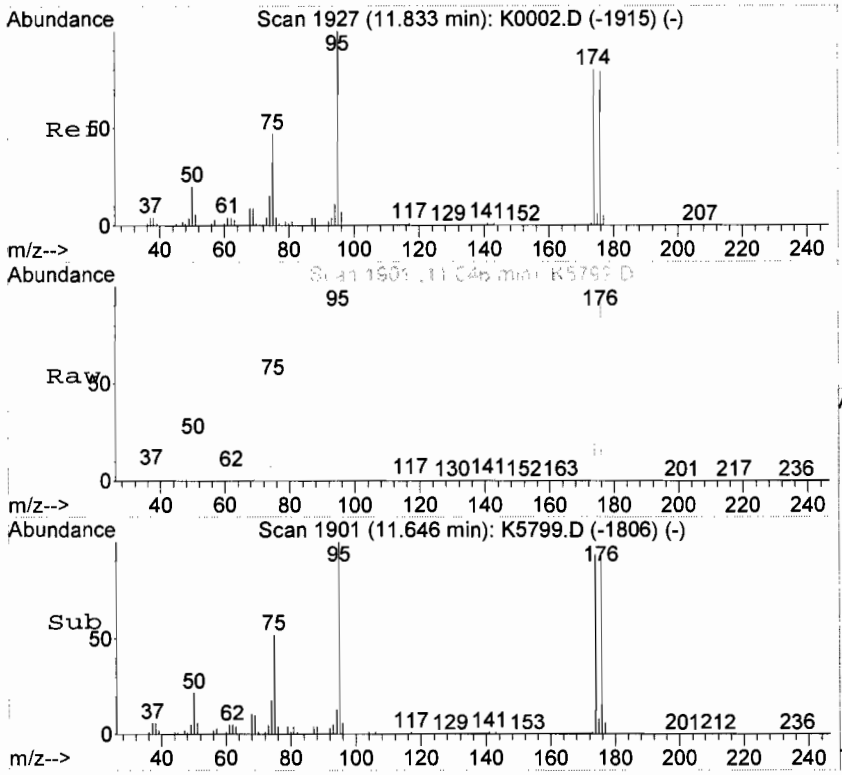


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion:117 Resp: 765002

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

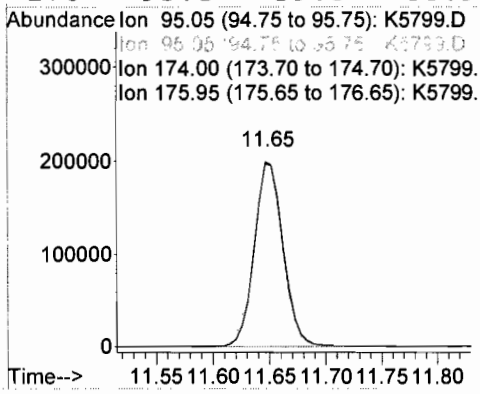




#59
Bromofluorobenzene
Concen: 47.65 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5799.D
Acq: 26 May 2017 6:24 pm

Tgt Ion: 95 Resp: 371819

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	94.7	61.4	92.0#
176	95.5	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5799.D
Acq On : 26 May 2017 6:24 pm
Operator : BARBARA
Sample : MW-3,E17-04261-002,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.314	70	121	204	rVB2	5153	117148	4.31%	0.985%
2	2.828	204	219	263	rVB2	2623	27814	1.02%	0.234%
3	3.494	340	346	372	rVB3	5665	27158	1.00%	0.228%
4	6.105	830	844	874	rBV	701015	1632453	60.12%	13.725%
5	6.409	885	902	942	rVB	391058	910931	33.55%	7.659%
6	6.922	989	1000	1038	rBV	896350	1957968	72.10%	16.462%
7	8.590	1305	1318	1347	rBV	1339131	2715481	100.00%	22.831%
8	10.252	1624	1635	1661	rBV	1270049	2367733	87.19%	19.907%
9	10.603	1689	1702	1720	rVB4	28551	74040	2.73%	0.623%
10	11.646	1890	1901	1925	rBV	1125600	1997808	73.57%	16.797%
11	12.816	2113	2124	2142	rBV8	10526	37083	1.37%	0.312%
12	13.539	2249	2262	2294	rBV9	8500	28131	1.04%	0.237%

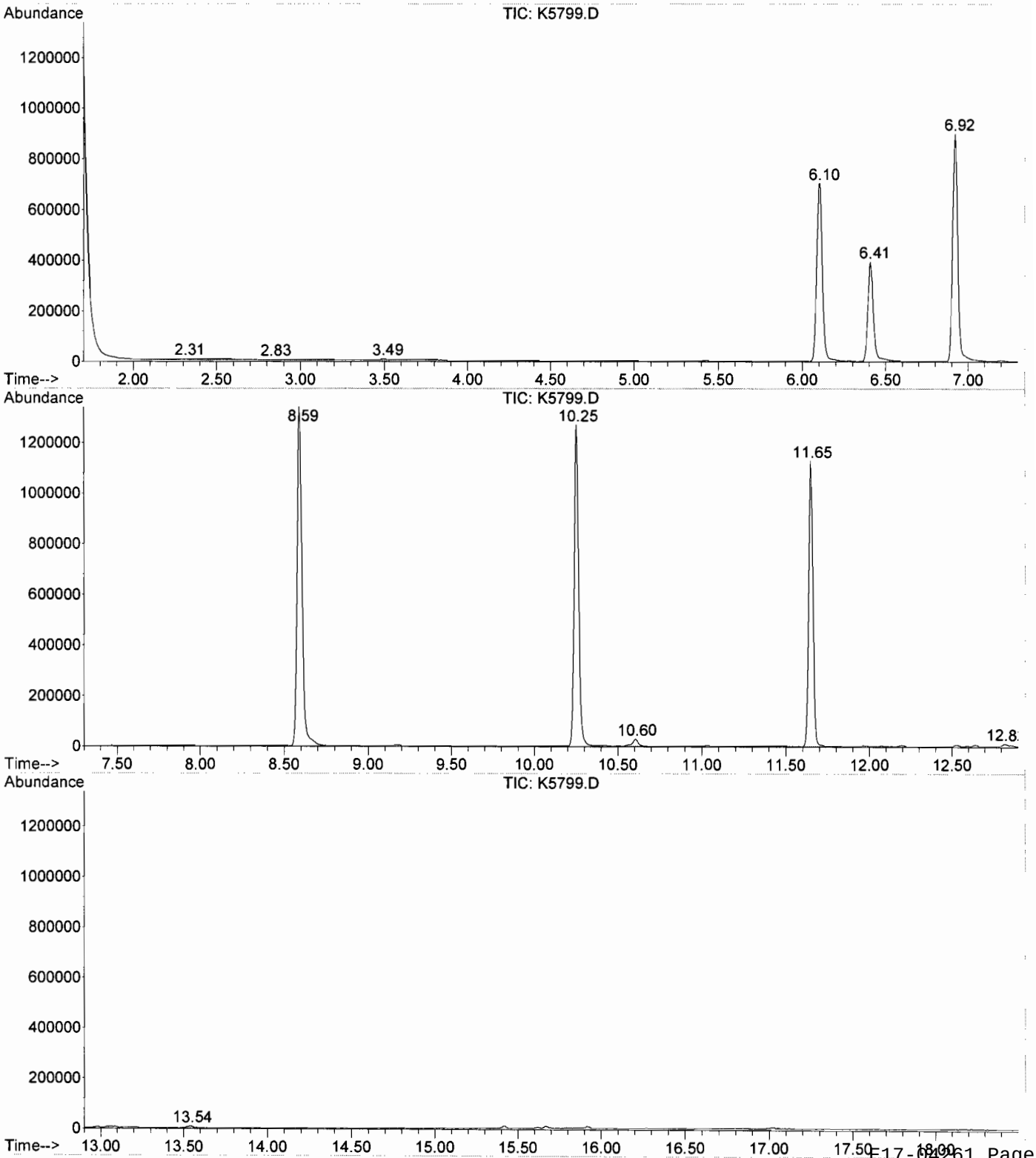
Sum of corrected areas: 11893748

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5799.D
Acq On : 26 May 2017 6:24 pm
Operator : BARBARA
Sample : MW-3,E17-04261-002,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5801.D
Acq On : 26 May 2017 7:16 pm
Operator : BARBARA
Sample : MW6,E17-04261-005,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 01 11:31:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

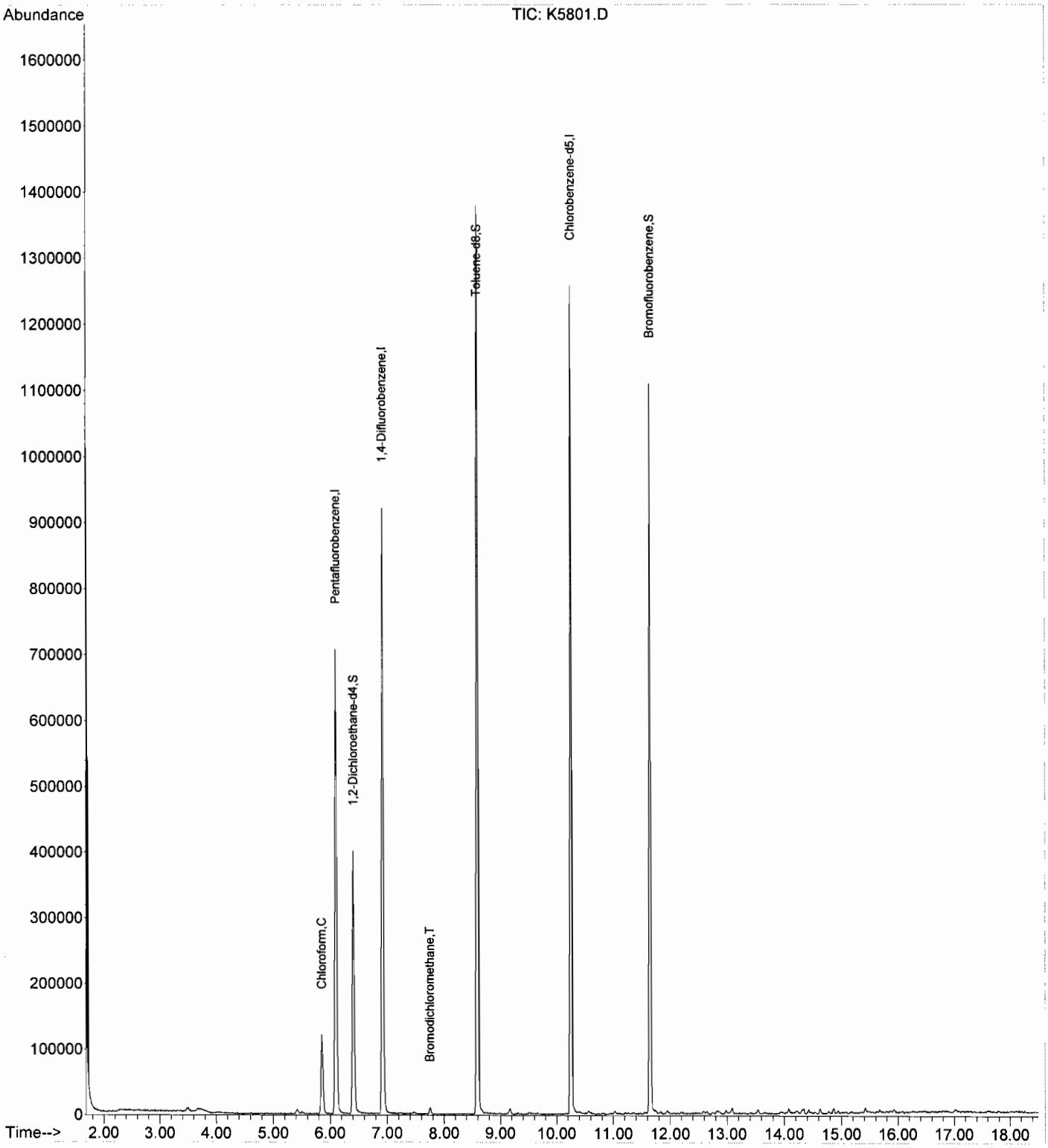
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	588397	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	843914	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	748246	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	299655	46.88	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.76%				
41) Toluene-d8	8.59	98	953935	47.69	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.38%				
59) Bromofluorobenzene	11.65	95	370768	48.58	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.16%				
Target Compounds							Qvalue
25) Chloroform	5.85	83	105416	12.06	UG		99
37) Bromodichloromethane	7.76	83	5905	0.97	UG	#	100

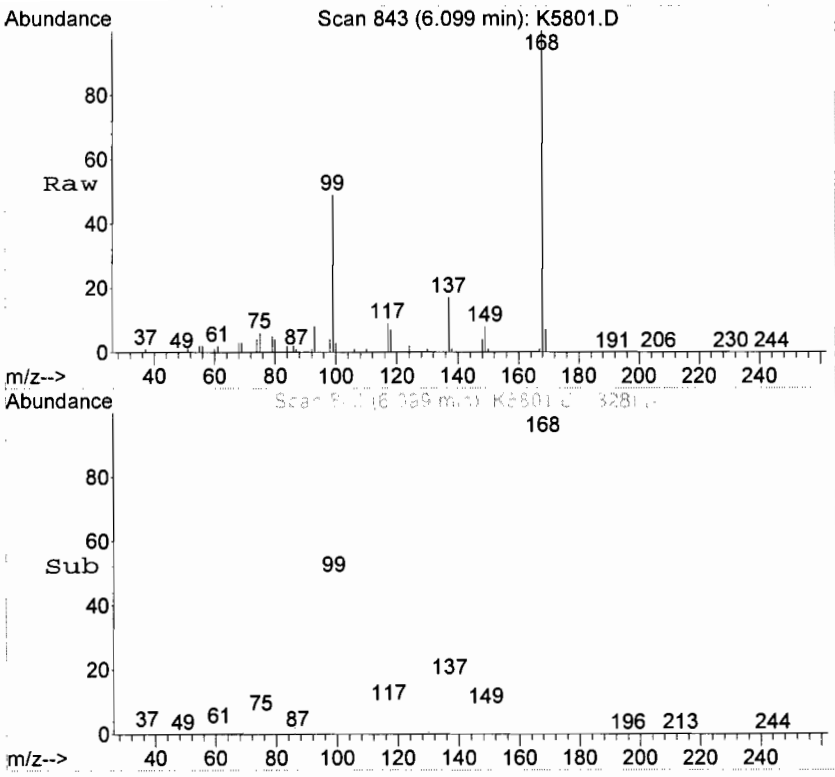
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5801.D
Acq On : 26 May 2017 7:16 pm
Operator : BARBARA
Sample : MW6,E17-04261-005,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 01 11:31:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

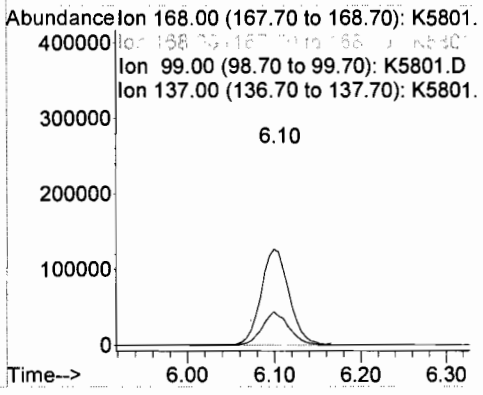


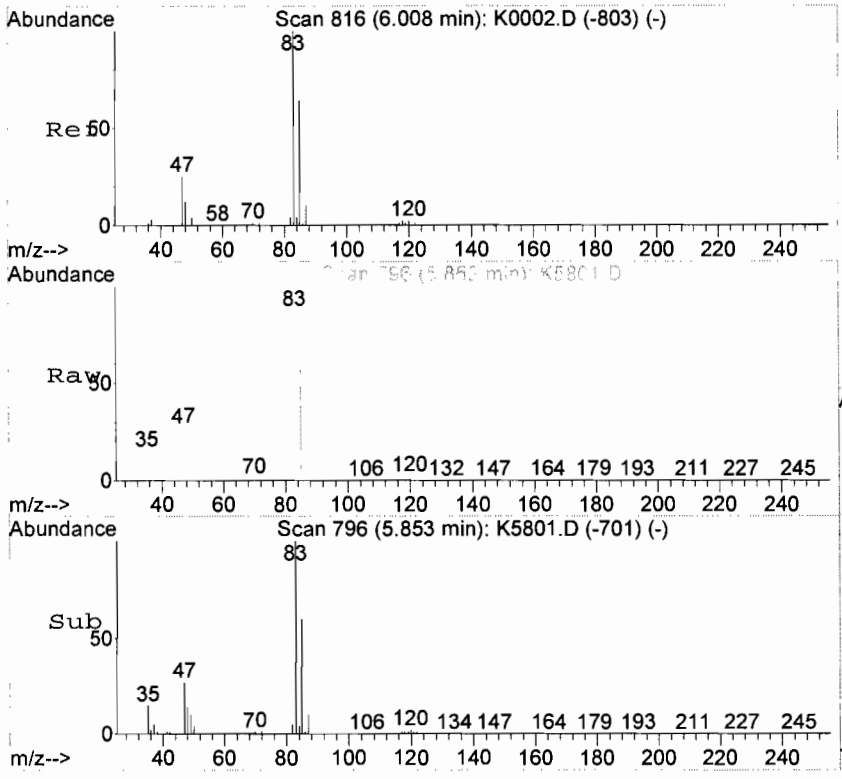


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion:168 Resp: 588397

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	48.2	45.9	68.9
137	15.9	12.7	19.1

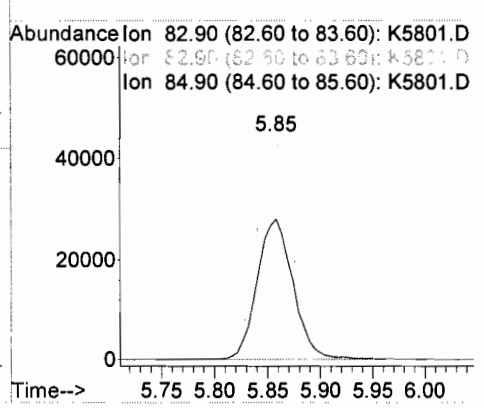


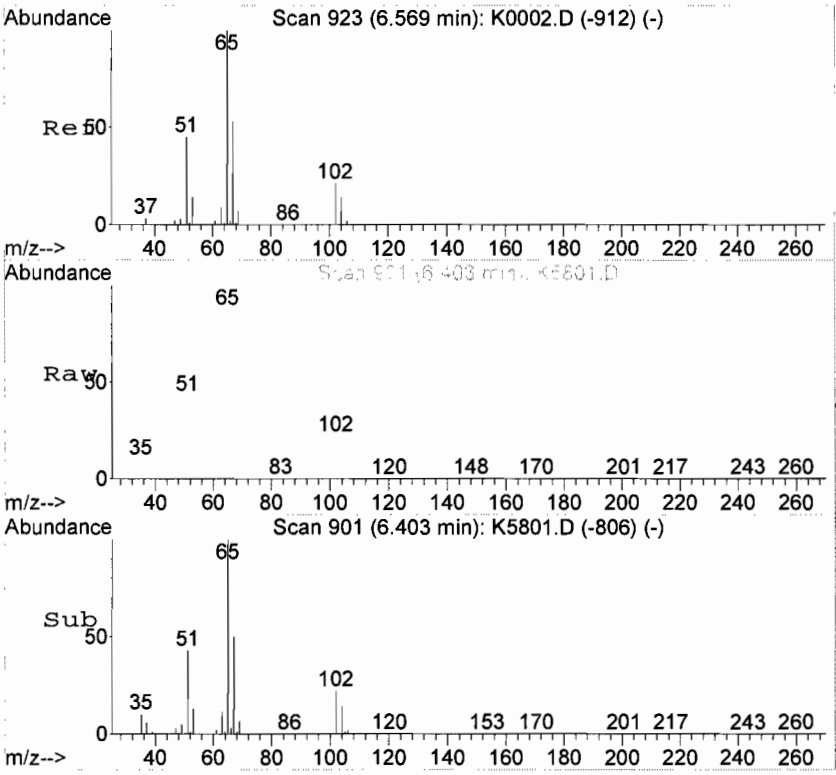


#25
Chloroform
Concen: 12.06 UG
RT: 5.85 min Scan# 796
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion: 83 Resp: 105416

Ion	Ratio	Lower	Upper
83	100		
83	100.0	80.0	120.0
85	63.0	52.3	78.5

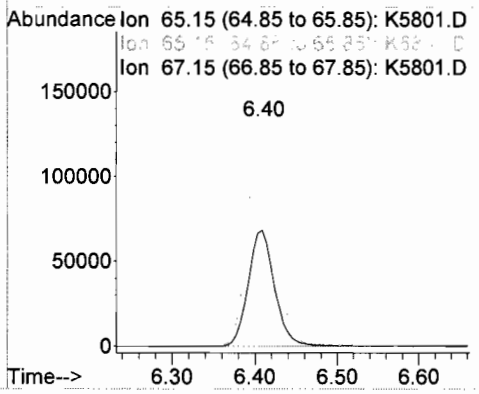


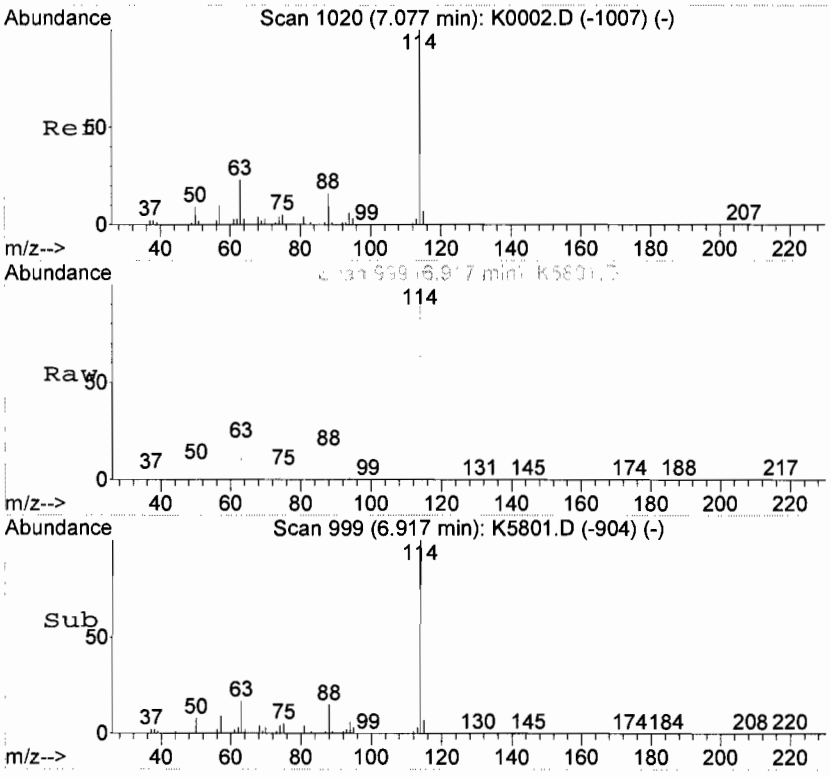


#30
1,2-Dichloroethane-d4
Concen: 46.88 UG
RT: 6.40 min Scan# 901
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion: 65 Resp: 299655

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	50.3	40.4	60.6

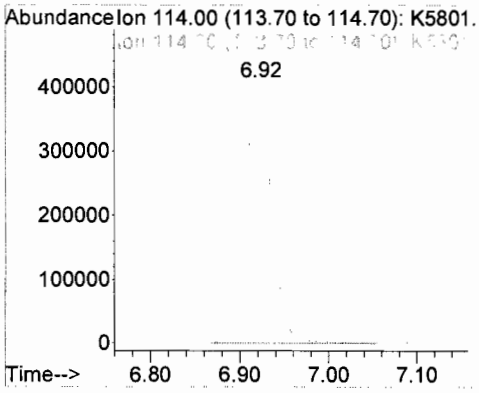


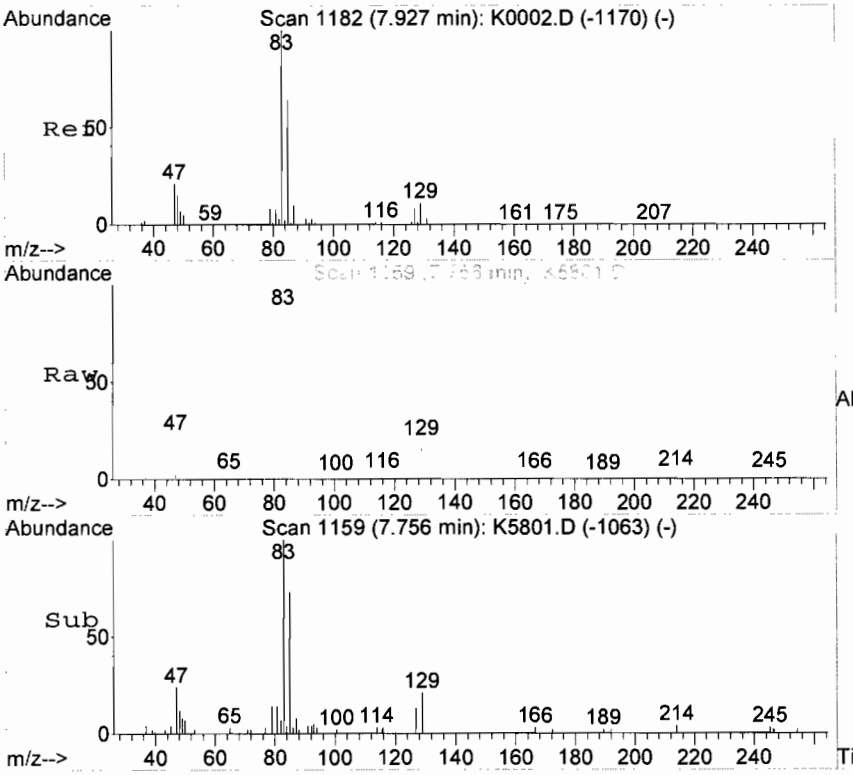


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 999
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion:114 Resp: 843914

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

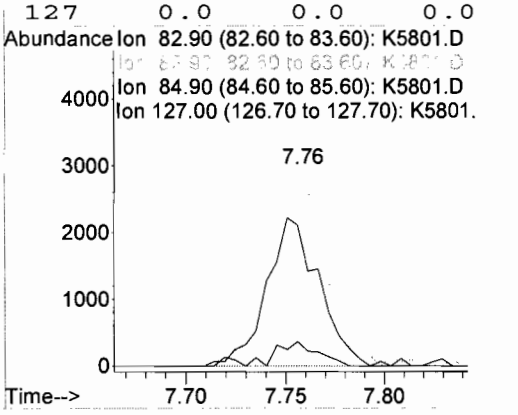


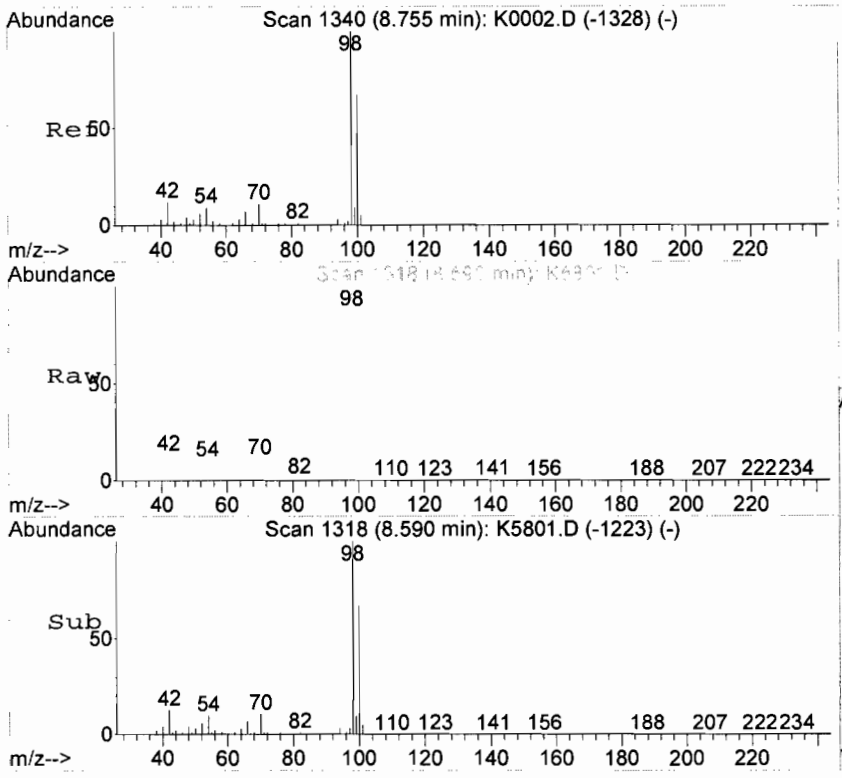


#37
Bromodichloromethane
Concen: 0.97 UG
RT: 7.76 min Scan# 1159
Delta R.T. 0.01 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion: 83 Resp: 5905

Ion	Ratio	Lower	Upper
83	100		
83	100.0	80.0	120.0
85	68.4	54.6	81.8
127	0.0	0.0	0.0

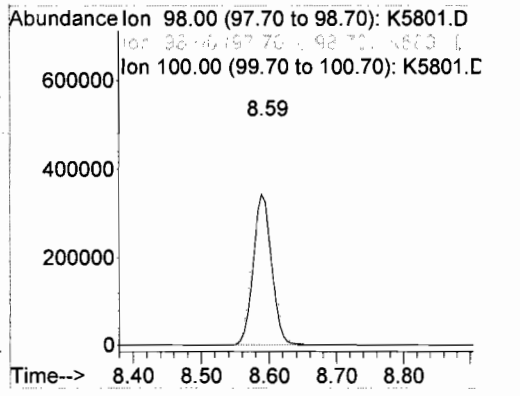


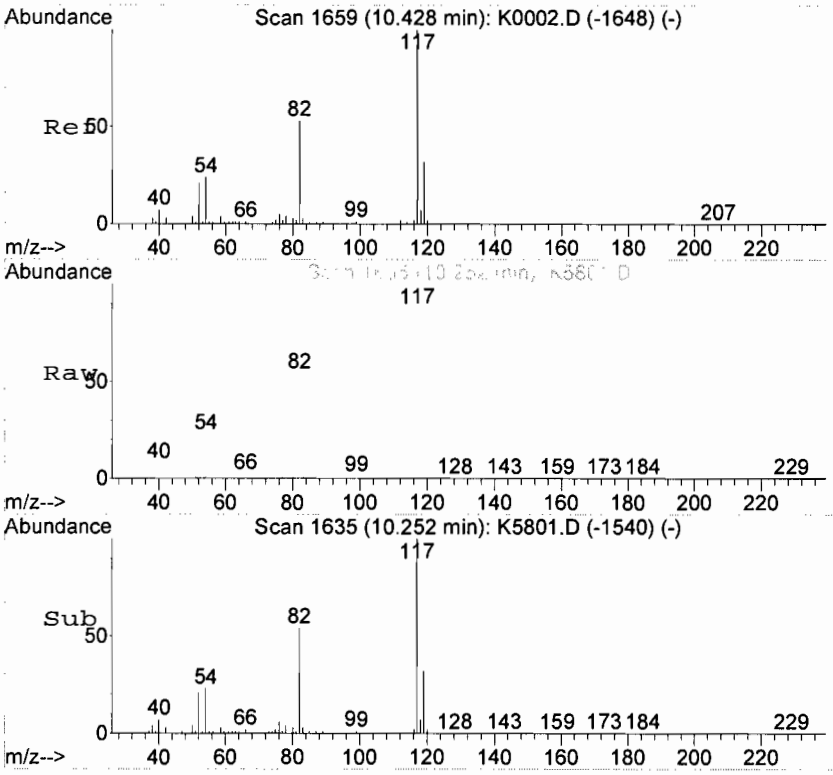


#41
Toluene-d8
Concen: 47.69 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion: 98 Resp: 953935

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.3	51.6	77.4

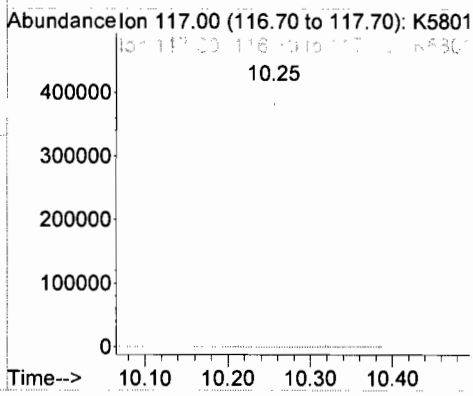


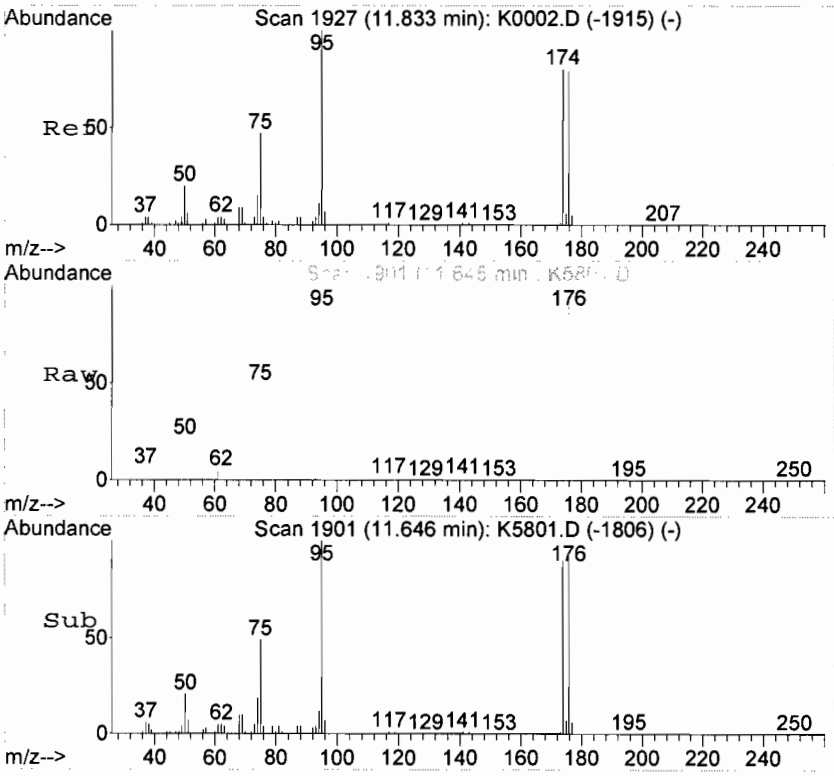


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion:117 Resp: 748246

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

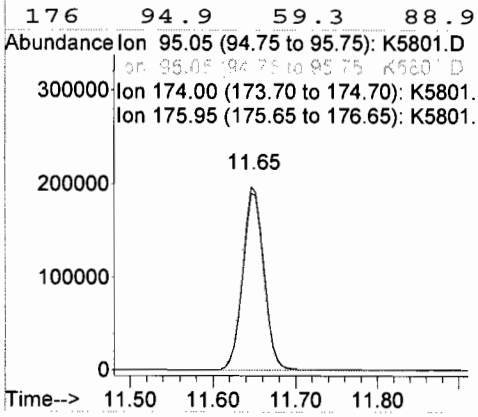




#59
Bromofluorobenzene
Concen: 48.58 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5801.D
Acq: 26 May 2017 7:16 pm

Tgt Ion: 95 Resp: 370768

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	92.6	61.4	92.0#
176	94.9	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5801.D
Acq On : 26 May 2017 7:16 pm
Operator : BARBARA
Sample : MW6,E17-04261-005,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.455	132	148	203	rVB	3281	31978	1.22%	0.272%
2	3.672	372	380	430	rVB6	7569	70460	2.69%	0.599%
3	5.853	782	796	812	rBV	120771	288534	11.01%	2.454%
4	6.099	829	843	870	rBV	706274	1600898	61.06%	13.614%
5	6.409	887	902	930	rBV	399764	900552	34.35%	7.658%
6	6.917	987	999	1034	rVB	919830	1912023	72.93%	16.260%
7	8.590	1306	1318	1341	rBV	1377504	2621800	100.00%	22.296%
8	10.252	1623	1635	1657	rBV	1254891	2299476	87.71%	19.555%
9	11.646	1890	1901	1930	rBV	1106123	1973735	75.28%	16.785%
10	15.421	2614	2621	2654	rVB	7528	31192	1.19%	0.265%
11	17.246	2957	2969	3024	rBV	3219	28589	1.09%	0.243%

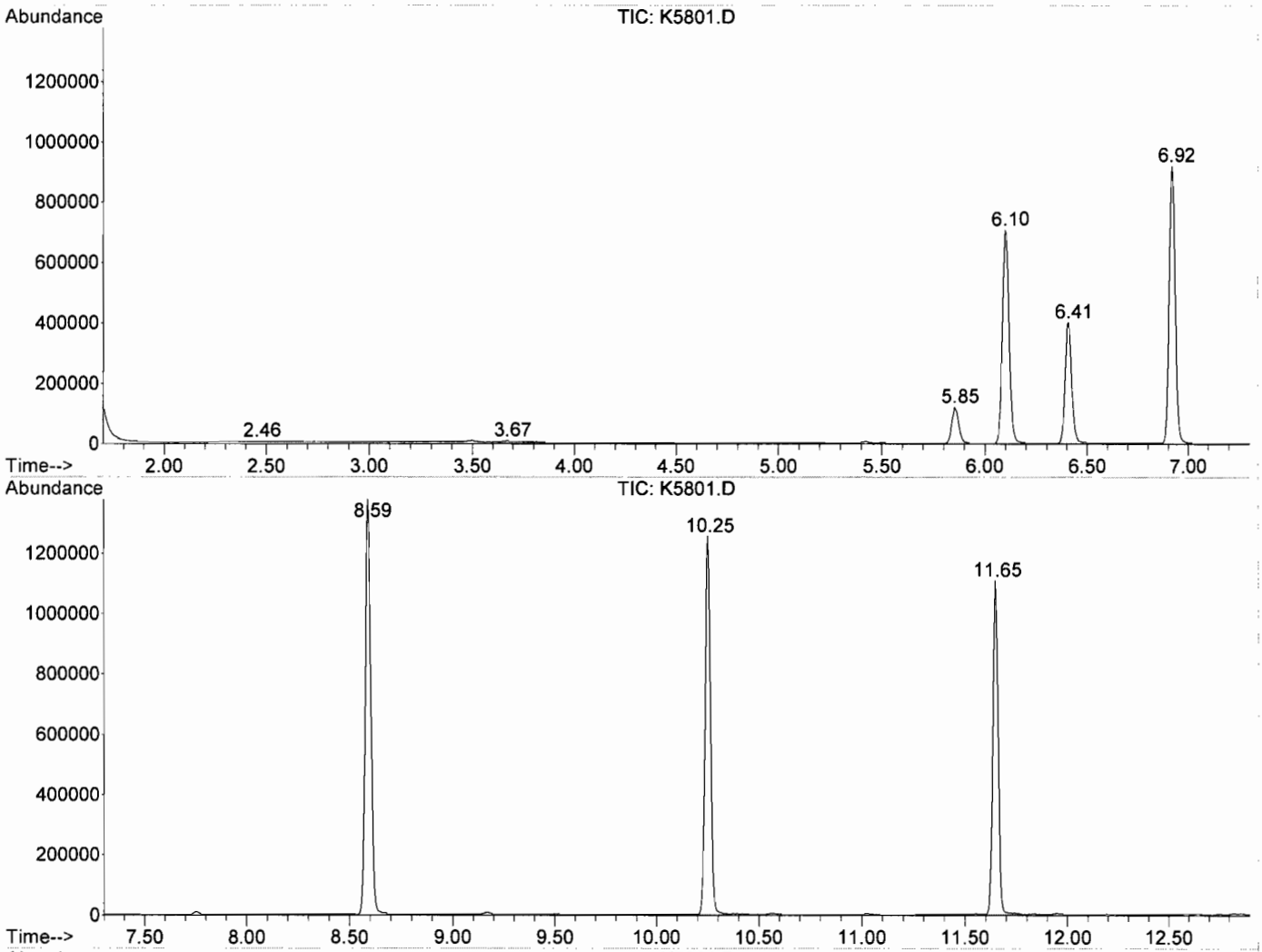
Sum of corrected areas: 11759237

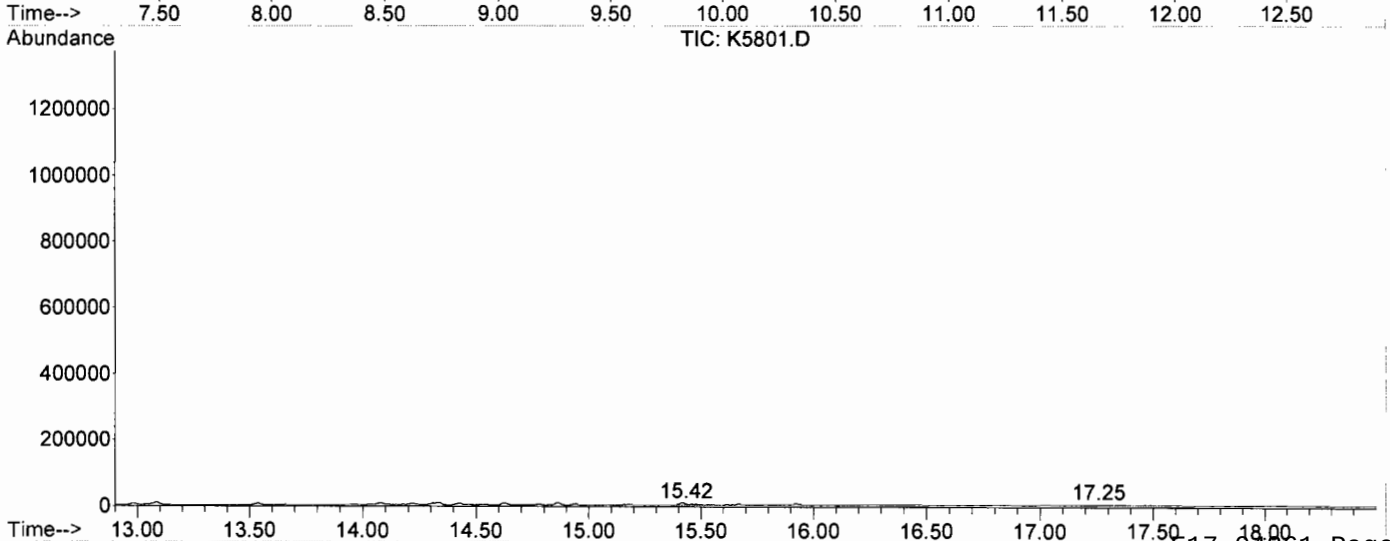
LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5801.D
Acq On : 26 May 2017 7:16 pm
Operator : BARBARA
Sample : MW6,E17-04261-005,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 01 11:33:49 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

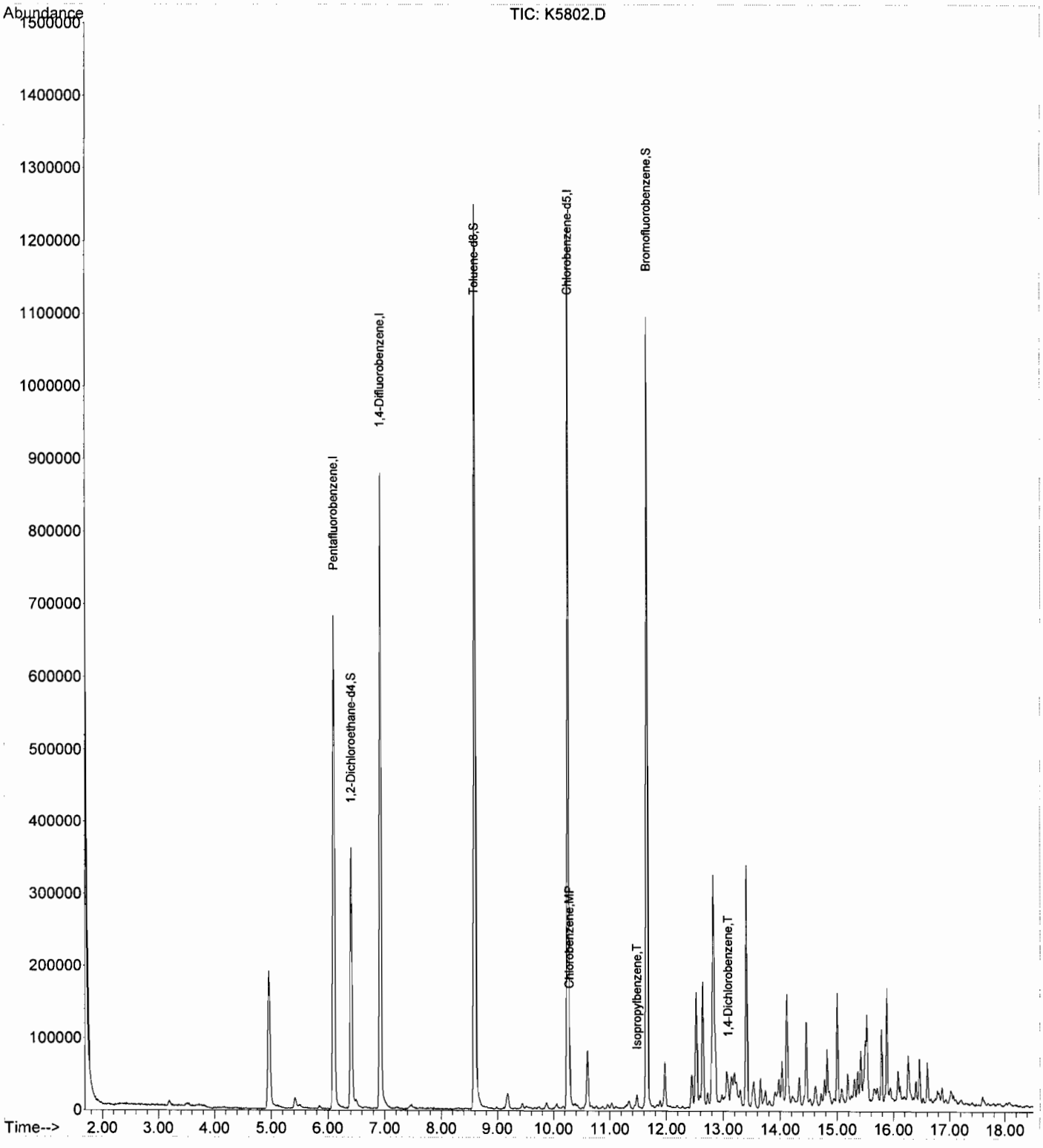
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	583060	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.92	114	835985	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	743145	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	298562	47.13	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.26%			
41) Toluene-d8	8.59	98	938876	47.39	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.78%			
59) Bromofluorobenzene	11.65	95	363111	47.90	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.80%			
Target Compounds						Qvalue
51) Chlorobenzene	10.29	112	7569	0.51	UG	98
58) Isopropylbenzene	11.48	105	13927	0.54	UG	100
72) 1,4-Dichlorobenzene	13.09	146	10018	0.73	UG	100

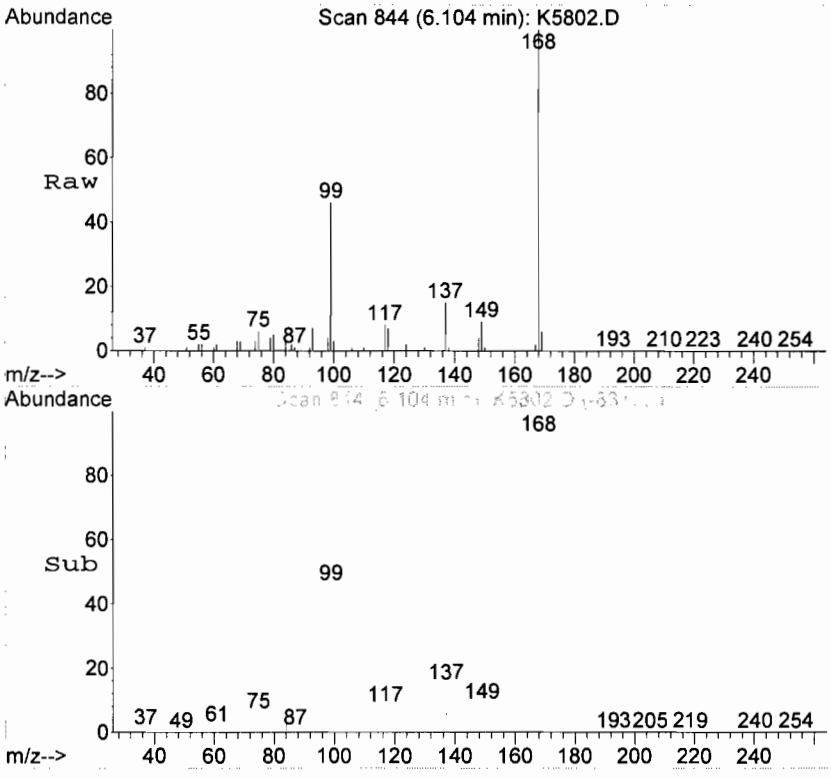
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 01 11:33:49 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

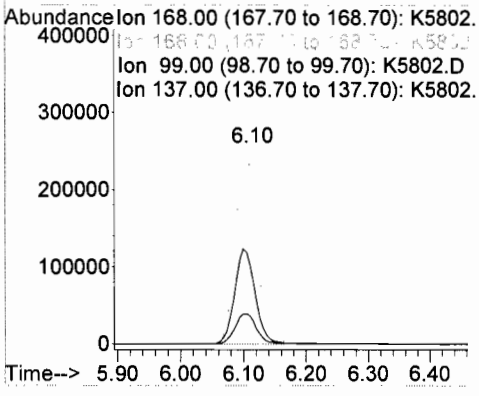


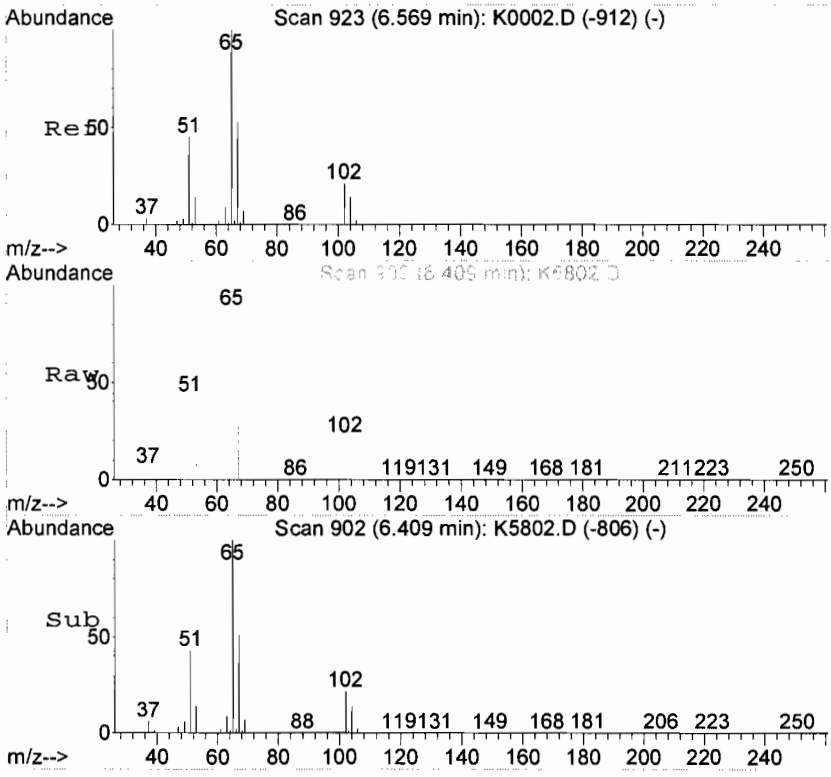


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 844
Delta R.T. 0.01 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:168 Resp: 583060

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	47.9	45.9	68.9
137	15.8	12.7	19.1

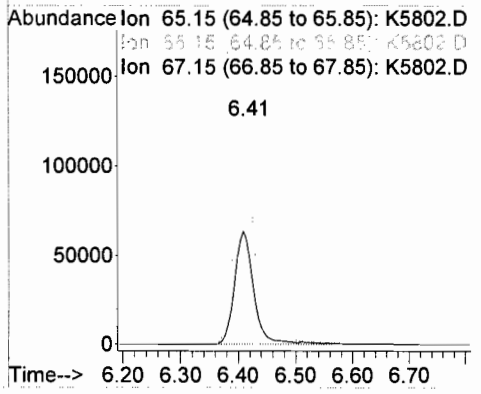


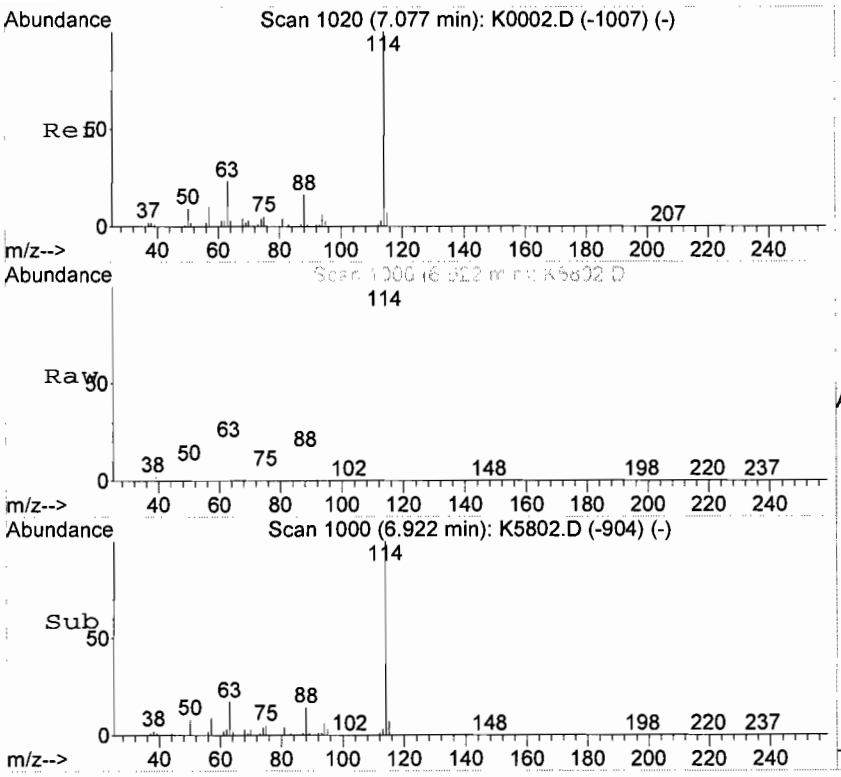


#30
1,2-Dichloroethane-d4
Concen: 47.13 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion: 65 Resp: 298562

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	48.8	40.4	60.6

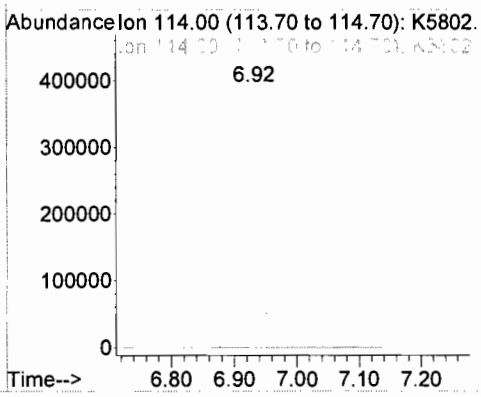


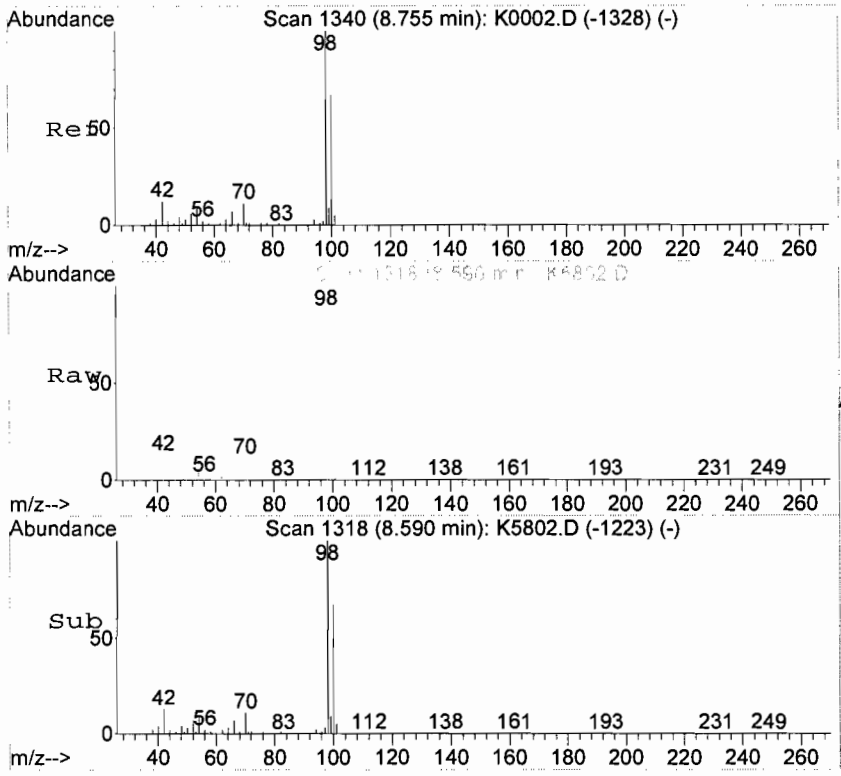


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:114 Resp: 835985

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

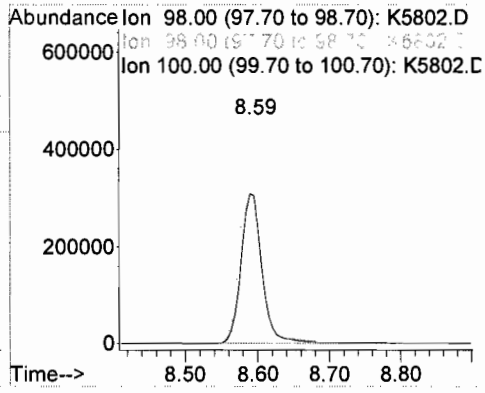


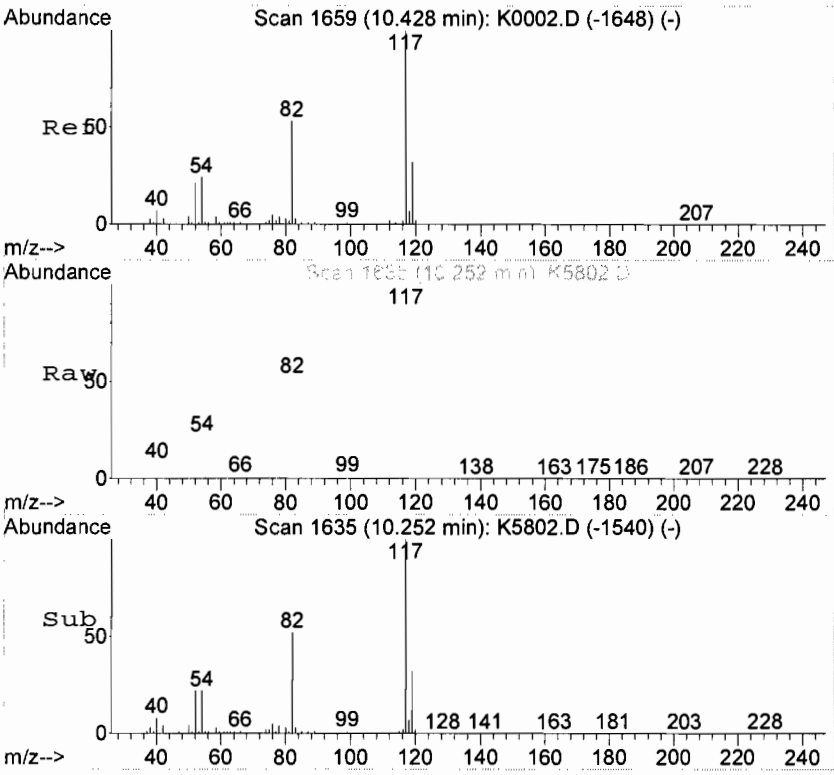


#41
Toluene-d8
Concen: 47.39 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion: 98 Resp: 938876

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	66.9	51.6	77.4

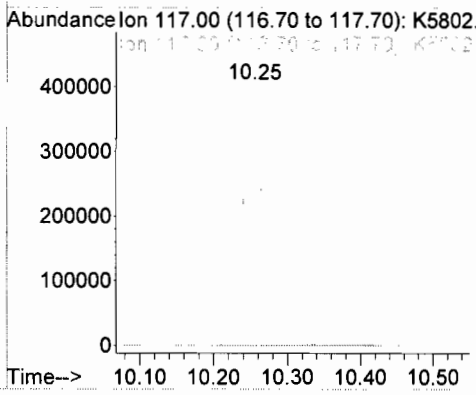


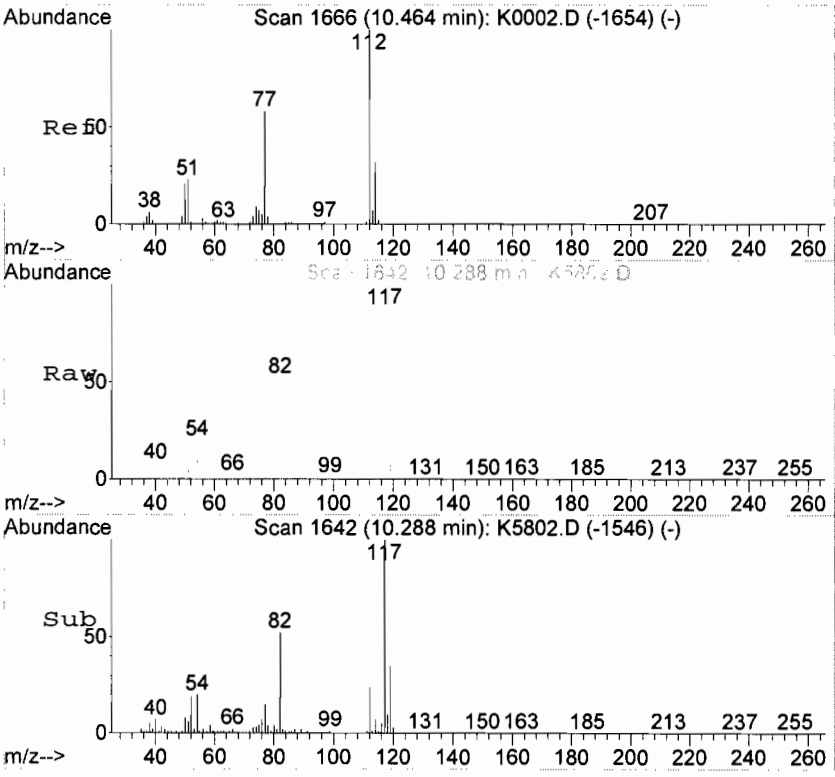


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:117 Resp: 743145

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

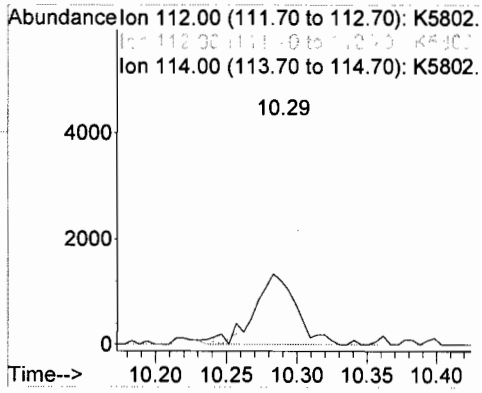


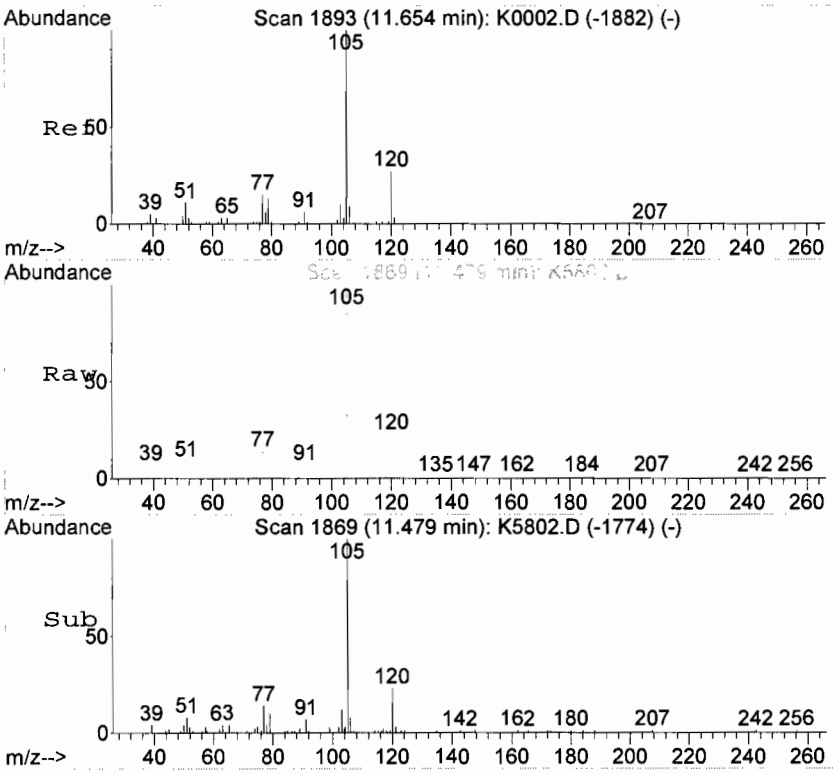


#51
Chlorobenzene
Concen: 0.51 UG
RT: 10.29 min Scan# 1642
Delta R.T. 0.01 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:112 Resp: 7569

Ion	Ratio	Lower	Upper
112	100		
112	100.0	80.0	120.0
114	36.9	25.0	37.6

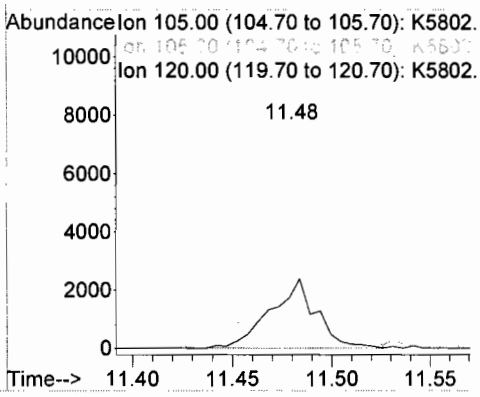


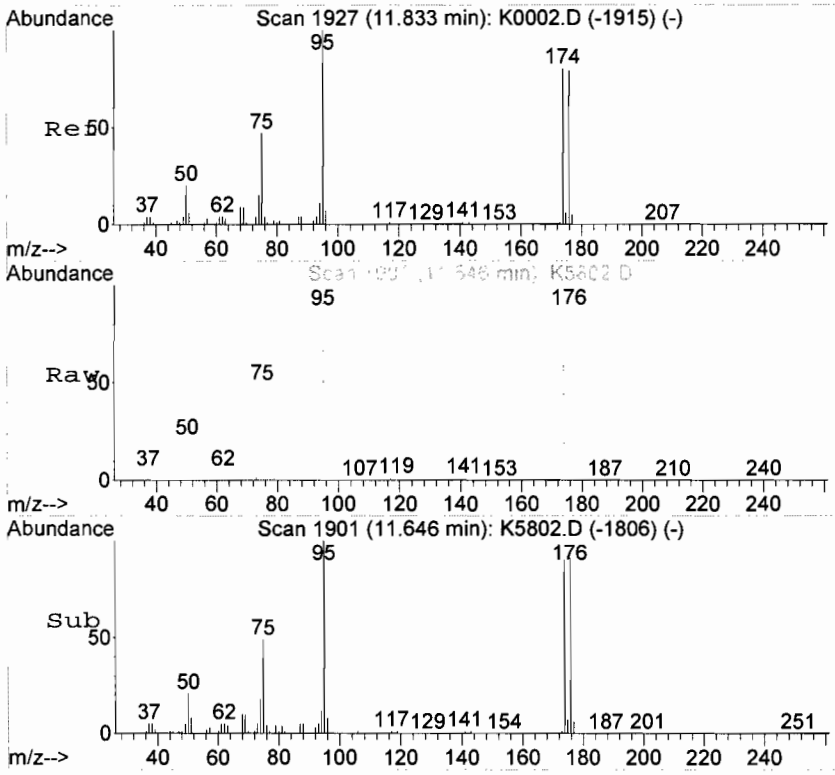


#58
Isopropylbenzene
Concen: 0.54 UG
RT: 11.48 min Scan# 1869
Delta R.T. 0.00 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:105 Resp: 13927

Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	27.3	21.6	32.4

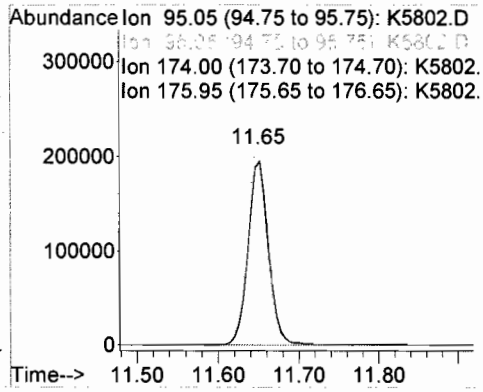


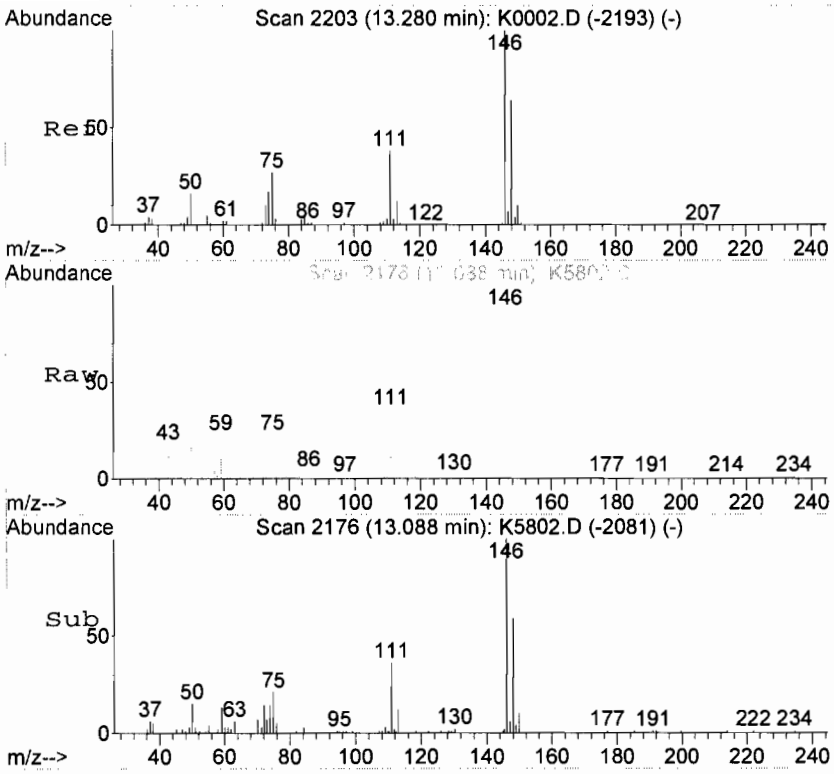


#59
Bromofluorobenzene
Concen: 47.90 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion: 95 Resp: 363111

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#

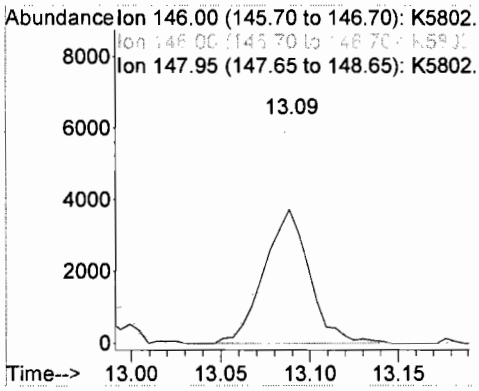




#72
1,4-Dichlorobenzene
Concen: 0.73 UG
RT: 13.09 min Scan# 2176
Delta R.T. 0.00 min
Lab File: K5802.D
Acq: 26 May 2017 7:43 pm

Tgt Ion:146 Resp: 10018

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	65.6	52.0	78.0



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.429	142	143	227	rVB	4022	38512	1.48%	0.195%
2	4.961	611	626	680	rBV	190831	595779	22.84%	3.013%
3	5.418	704	713	725	rBV2	14824	44268	1.70%	0.224%
4	6.099	830	843	886	rBV	682162	1590098	60.96%	8.041%
5	6.409	890	902	942	rBV	360756	889877	34.11%	4.500%
6	6.922	988	1000	1036	rBV	877756	1888280	72.39%	9.549%
7	8.590	1306	1318	1384	rBV	1248779	2608628	100.00%	13.192%
8	9.182	1419	1431	1448	rVB6	21169	66802	2.56%	0.338%
9	9.874	1554	1563	1579	rVB3	9181	26487	1.02%	0.134%
10	10.252	1625	1635	1679	rBV	1214893	2330965	89.36%	11.788%
11	10.603	1688	1702	1721	rBV2	79598	190438	7.30%	0.963%
12	11.342	1835	1843	1855	rVB5	11033	33072	1.27%	0.167%
13	11.479	1855	1869	1887	rBV2	19543	56576	2.17%	0.286%
14	11.646	1887	1901	1931	rVV	1091926	1970131	75.52%	9.963%
15	11.977	1952	1964	1988	rVB2	63369	152653	5.85%	0.772%
16	12.448	2045	2054	2061	rBV3	45672	99989	3.83%	0.506%
17	12.527	2061	2069	2077	rVV2	159906	351421	13.47%	1.777%
18	12.637	2084	2090	2101	rVV	173755	354121	13.57%	1.791%
19	12.726	2101	2107	2114	rVV2	20922	45630	1.75%	0.231%
20	12.821	2114	2125	2150	rVV3	321284	925592	35.48%	4.681%
21	12.978	2150	2155	2165	rVV6	17575	62212	2.38%	0.315%
22	13.062	2165	2171	2180	rVV3	49017	141037	5.41%	0.713%
23	13.141	2180	2186	2192	rVV5	42315	117649	4.51%	0.595%
24	13.198	2192	2197	2212	rVV4	47584	187752	7.20%	0.949%
25	13.298	2212	2216	2228	rVV3	23650	51390	1.97%	0.260%
26	13.403	2228	2236	2250	rVV	333674	611819	23.45%	3.094%
27	13.534	2250	2261	2275	rVB9	36568	109463	4.20%	0.554%
28	13.654	2275	2284	2290	rBV2	40968	81953	3.14%	0.414%
29	13.738	2290	2300	2309	rVV7	21623	58089	2.23%	0.294%
30	13.911	2324	2333	2340	rVV9	19330	64930	2.49%	0.328%
31	13.979	2340	2346	2351	rVV3	37096	85937	3.29%	0.435%
32	14.032	2351	2356	2364	rVV	61335	120222	4.61%	0.608%
33	14.116	2364	2372	2386	rVV2	153803	351897	13.49%	1.780%
34	14.215	2386	2391	2407	rVV2	13361	53997	2.07%	0.273%
35	14.336	2407	2414	2424	rVV2	38818	79620	3.05%	0.403%
36	14.457	2424	2437	2447	rVV	114379	234423	8.99%	1.186%
37	14.619	2457	2468	2481	rBV6	27228	74322	2.85%	0.376%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	14.719	2481	2487	2493	rBV3	16273	31485	1.21%	0.159%
39	14.782	2493	2499	2502	rVV4	35187	64185	2.46%	0.325%
40	14.829	2502	2508	2524	rVV2	76423	169758	6.51%	0.858%
41	15.007	2534	2542	2549	rVV2	154029	272590	10.45%	1.379%
42	15.080	2549	2556	2570	rVV6	21825	63212	2.42%	0.320%
43	15.185	2570	2576	2585	rVV3	42096	85533	3.28%	0.433%
44	15.306	2593	2599	2604	rVV6	34714	77024	2.95%	0.390%
45	15.364	2604	2610	2615	rVV	45263	89947	3.45%	0.455%
46	15.416	2615	2620	2626	rVV2	73245	145741	5.59%	0.737%
47	15.500	2626	2636	2638	rVV3	88119	211263	8.10%	1.068%
48	15.526	2638	2641	2659	rVV2	122805	221065	8.47%	1.118%
49	15.652	2659	2665	2673	rVV4	21042	69815	2.68%	0.353%
50	15.704	2673	2675	2683	rVV6	21467	42926	1.65%	0.217%
51	15.783	2683	2690	2698	rVV	102184	166336	6.38%	0.841%
52	15.883	2698	2709	2717	rVV	159227	293699	11.26%	1.485%
53	15.946	2717	2721	2740	rVV7	21456	65837	2.52%	0.333%
54	16.082	2740	2747	2751	rVV2	44196	84508	3.24%	0.427%
55	16.119	2751	2754	2775	rVV10	23700	72002	2.76%	0.364%
56	16.260	2775	2781	2803	rVV2	64870	177118	6.79%	0.896%
57	16.396	2803	2807	2814	rVV3	29211	49696	1.91%	0.251%
58	16.465	2814	2820	2829	rVB	59909	99522	3.82%	0.503%
59	16.606	2840	2847	2868	rBV2	54871	108465	4.16%	0.549%
60	16.784	2877	2881	2892	rVV4	17080	50465	1.93%	0.255%
61	16.868	2892	2897	2919	rVV4	21408	48998	1.88%	0.248%
62	17.020	2919	2926	2954	rVV4	17512	76408	2.93%	0.386%
63	17.220	2954	2964	3029	rVB4	7910	58379	2.24%	0.295%
64	17.597	3029	3036	3066	rBV4	12160	43403	1.66%	0.219%
65	17.791	3066	3073	3107	rVB4	4916	35809	1.37%	0.181%
66	18.079	3122	3128	3179	rVB4	7102	52593	2.02%	0.266%

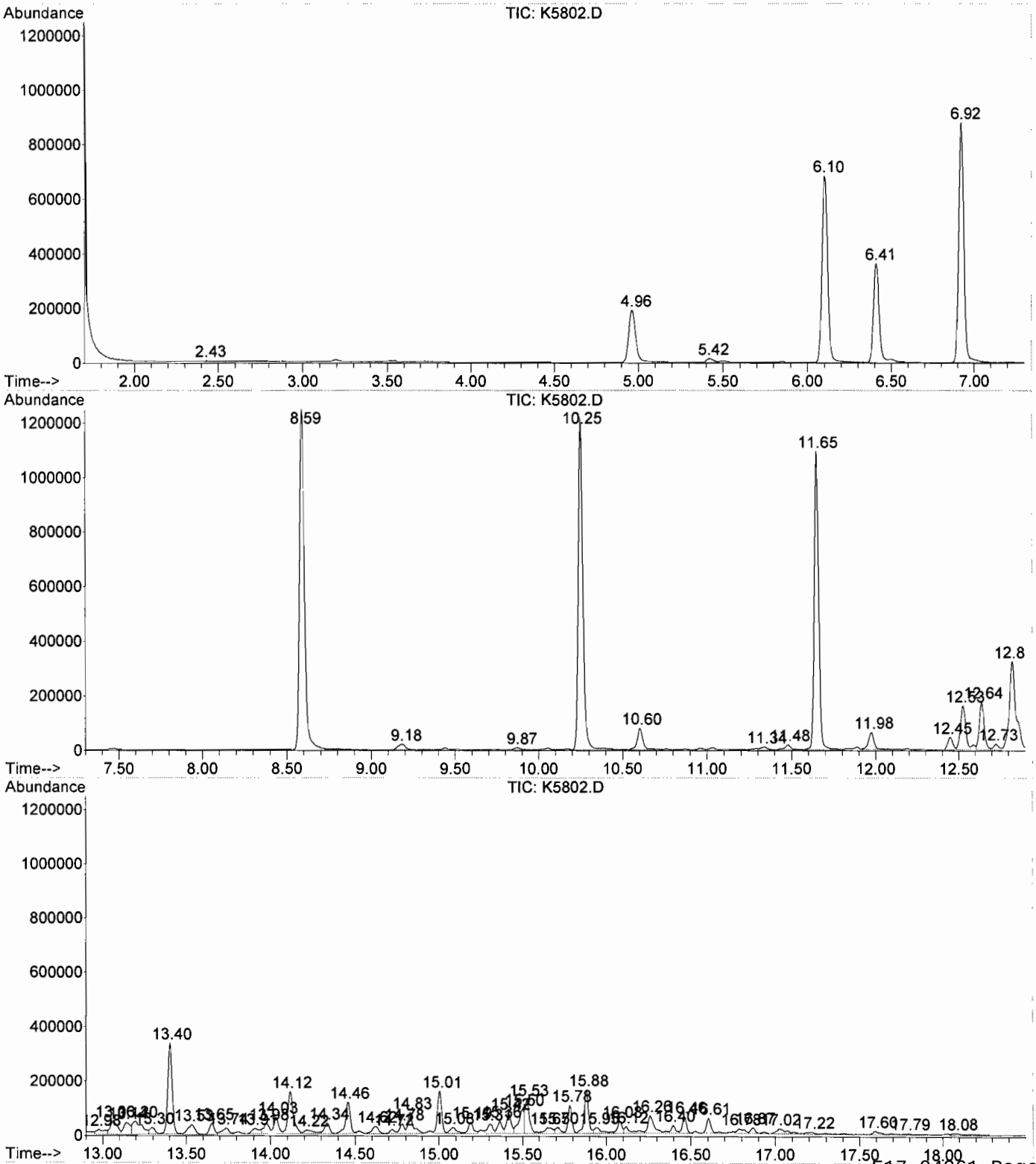
Sum of corrected areas: 19773813

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

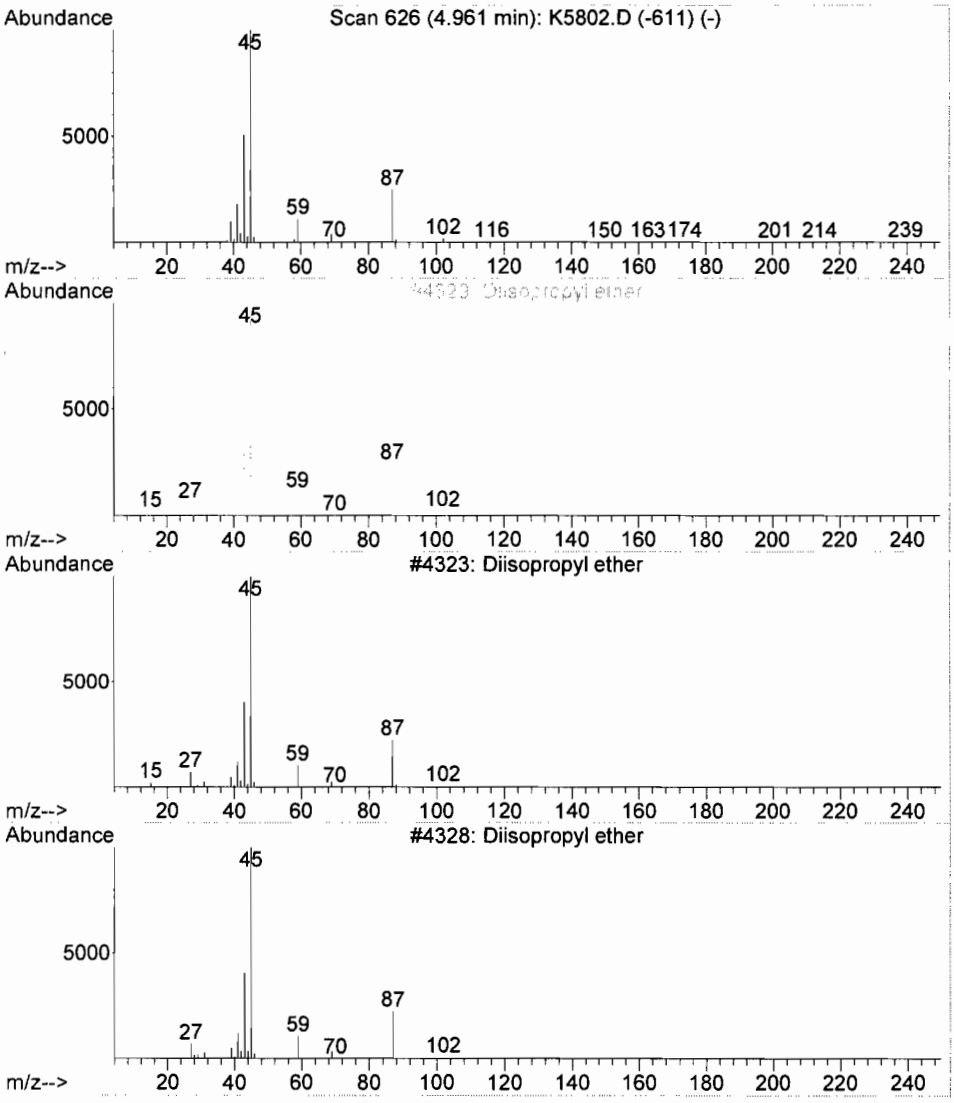
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

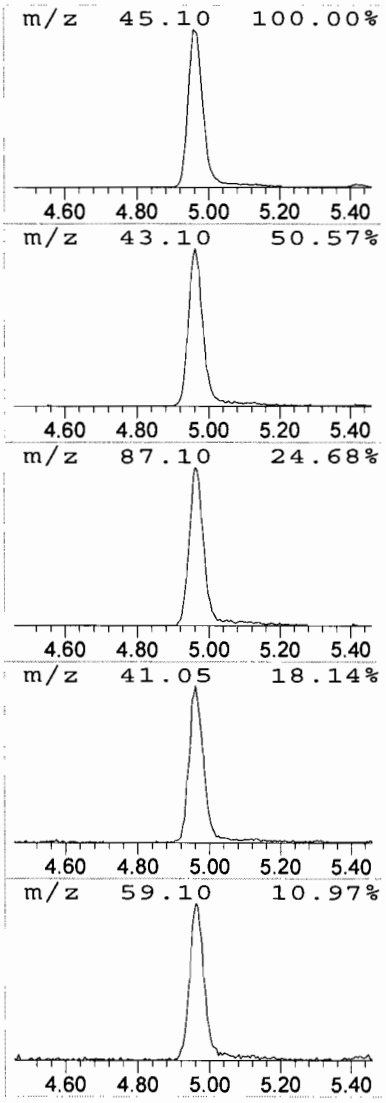
****

Peak Number 1 Diisopropyl ether Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	18.73 UG	595779	Pentafluorobenzene	6.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	91
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	78
4	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	78
5	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

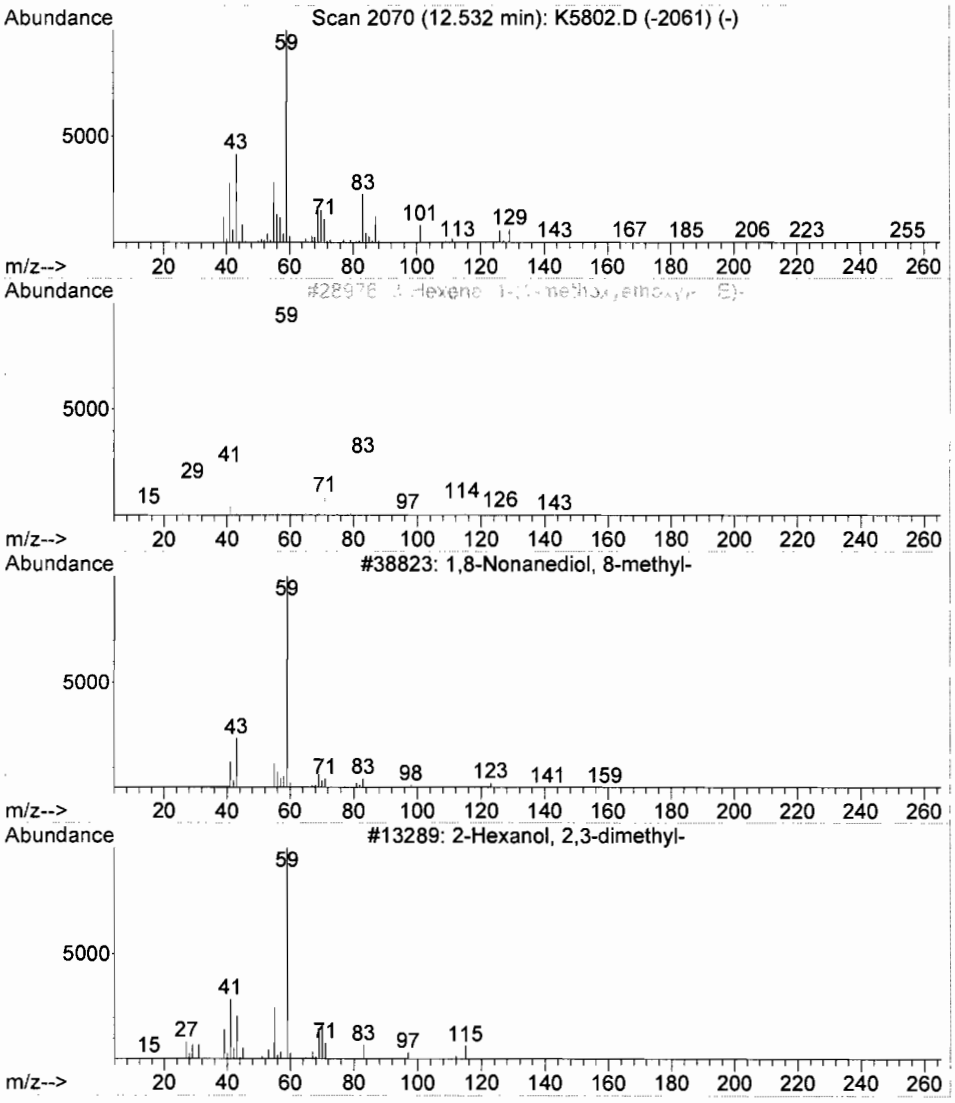
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

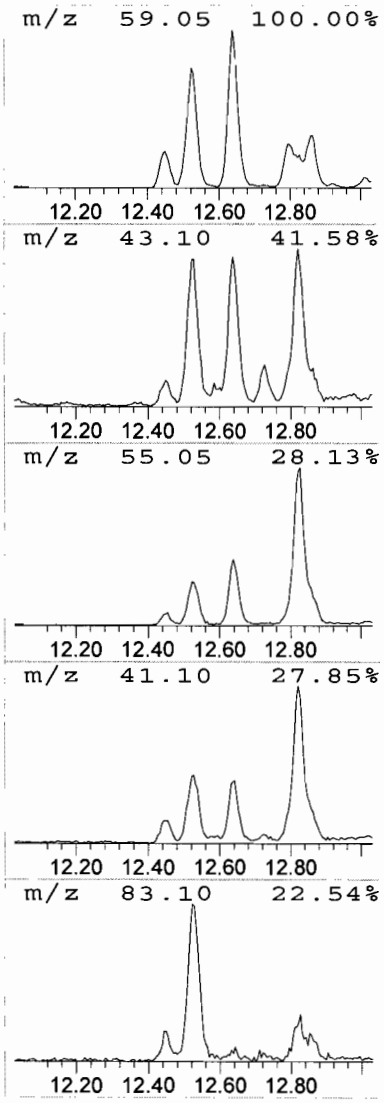
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Peak Number 2 Unknown VOA Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.53	7.54 UG	351421	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hexene, 1-(1-methoxyethoxy)-, ...	158	C9H18O2	054340-97-5	59
2	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	53
3	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	53
4	Oxirane, tetramethyl-	100	C6H12O	005076-20-0	43
5	2-Methyl-2,3-pentanediol	118	C6H14O2	007795-80-4	42





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

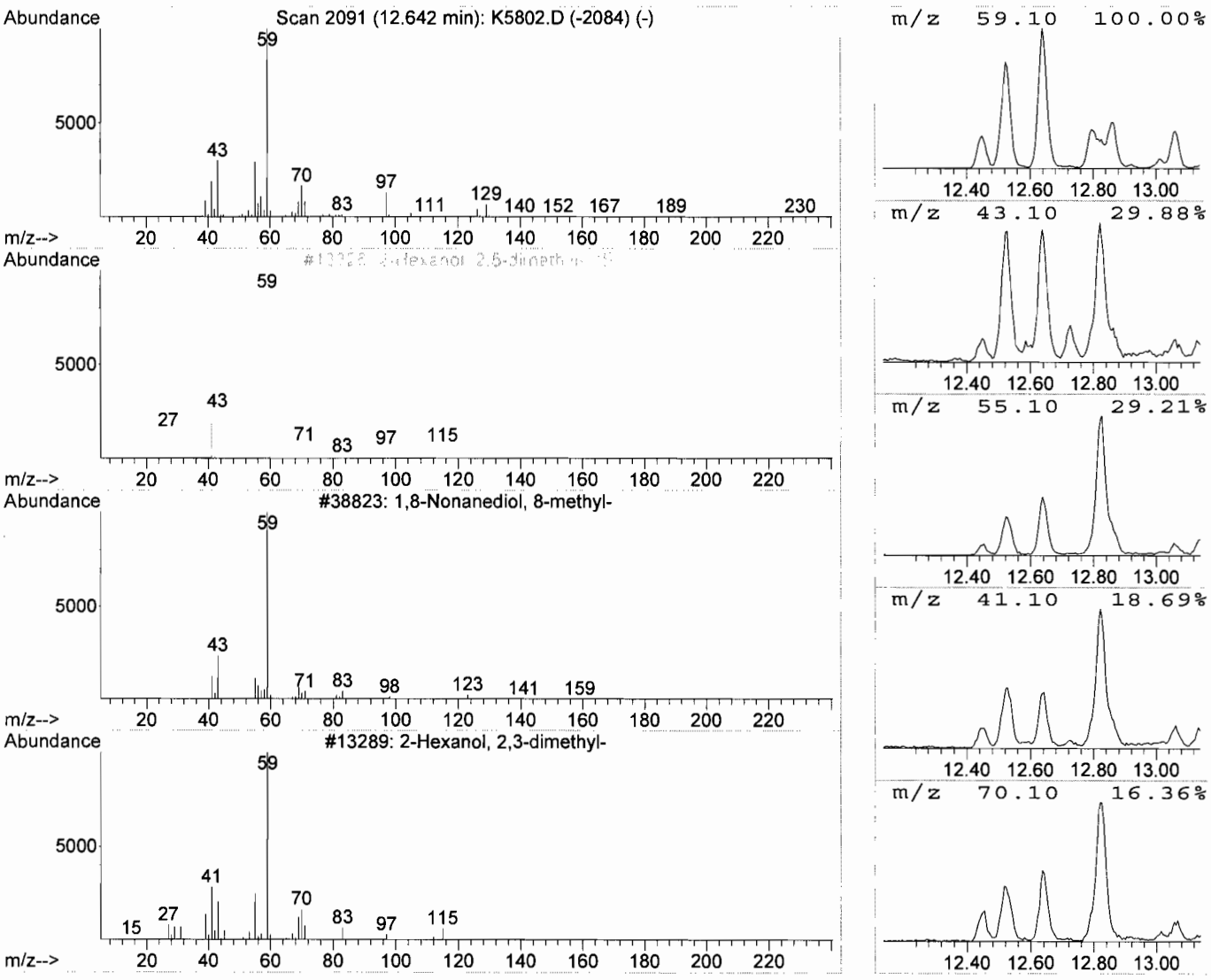
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	7.60 UG	354121	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	64
2	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	64
3	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	64
4	2-Hydroxy-2,4-dimethyl-3-pentanone	130	C7H14O2	003212-67-7	59
5	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	50



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

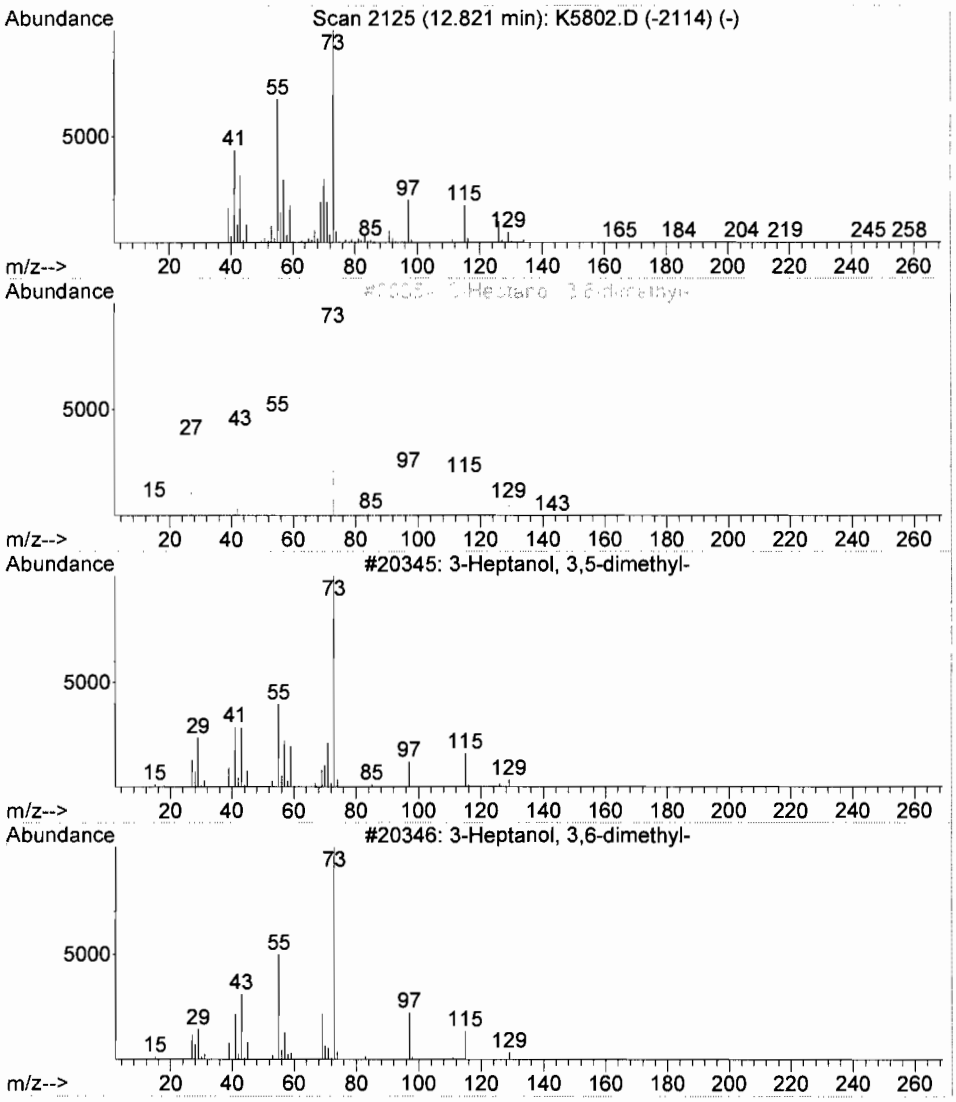
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TIC Integration Parameters: LSCINT.P

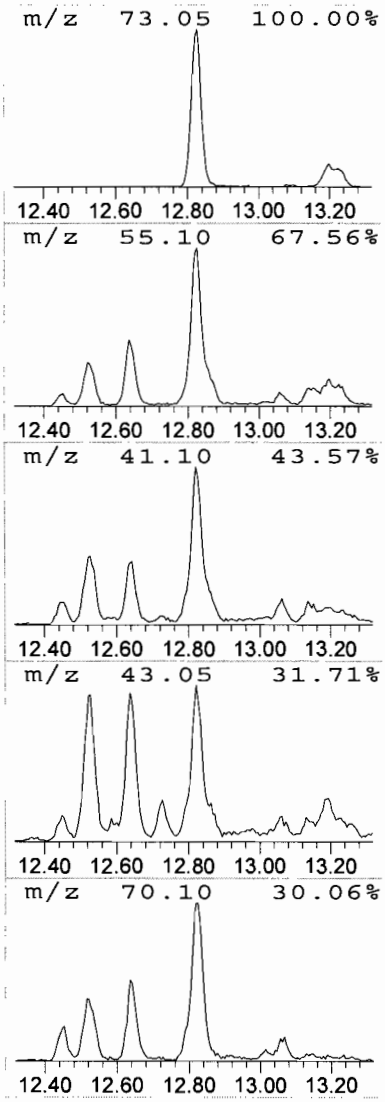
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Peak Number 4 Unknown VOA Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.82	19.85 UG	925592	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	50
2	3-Heptanol, 3,5-dimethyl-	144	C9H20O	019549-74-7	45
3	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	37
4	Cyclohexanone, 4-ethyl-	126	C8H14O	005441-51-0	25
5	Cyclohexane, 1,2,3-trimethyl-, (...	126	C9H18	001839-88-9	16





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

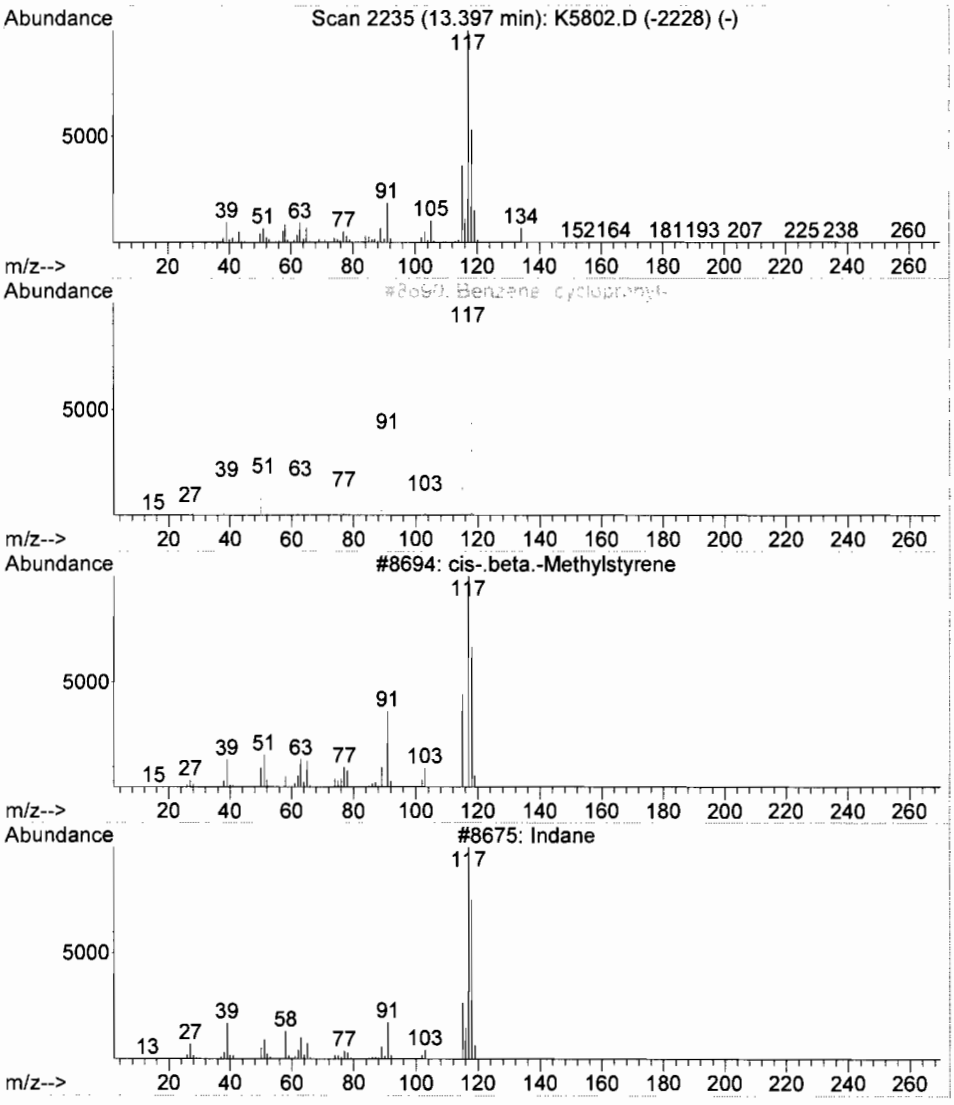
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

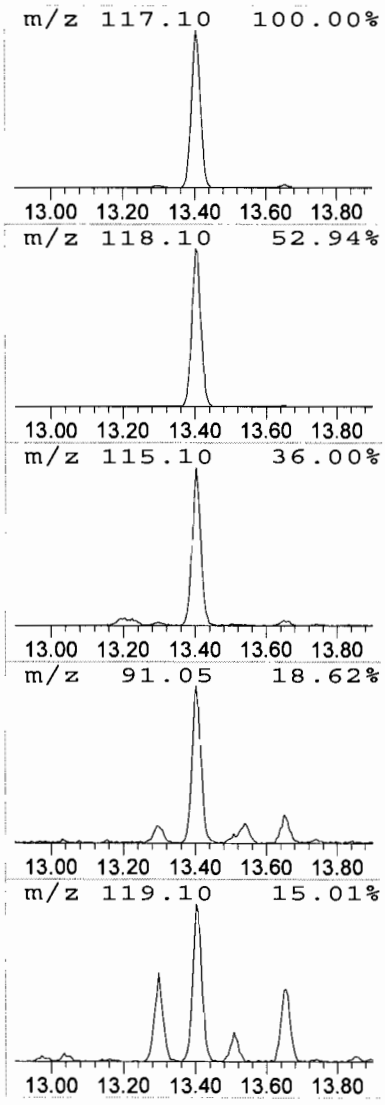
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Peak Number 5 Unknown Aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.40	13.12 UG	611819	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, cyclopropyl-	118	C9H10	000873-49-4	76
2	cis-.beta.-Methylstyrene	118	C9H10	000766-90-5	76
3	Indane	118	C9H10	000496-11-7	76
4	Indane	118	C9H10	000496-11-7	76
5	Indane	118	C9H10	000496-11-7	70





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

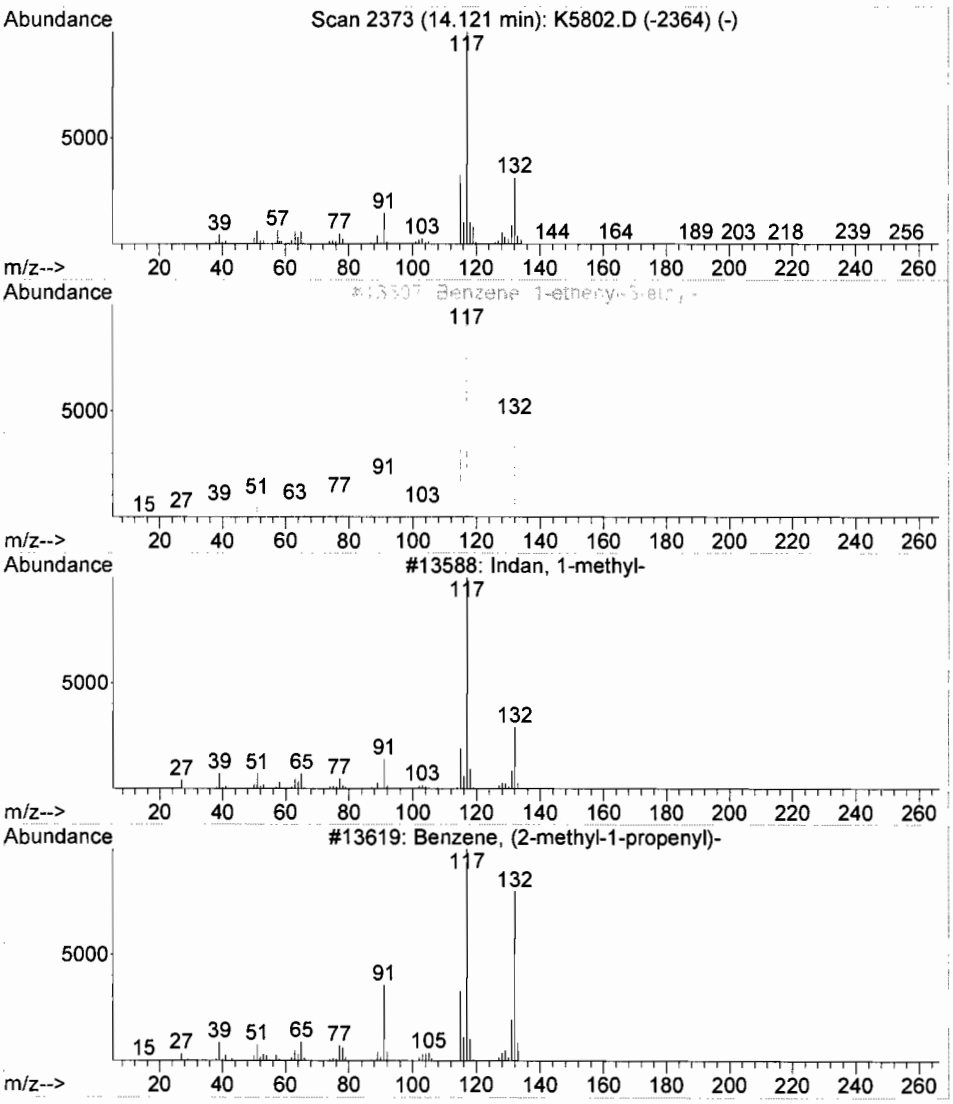
TIC Library : C:\DATABASE\NIST05A.L
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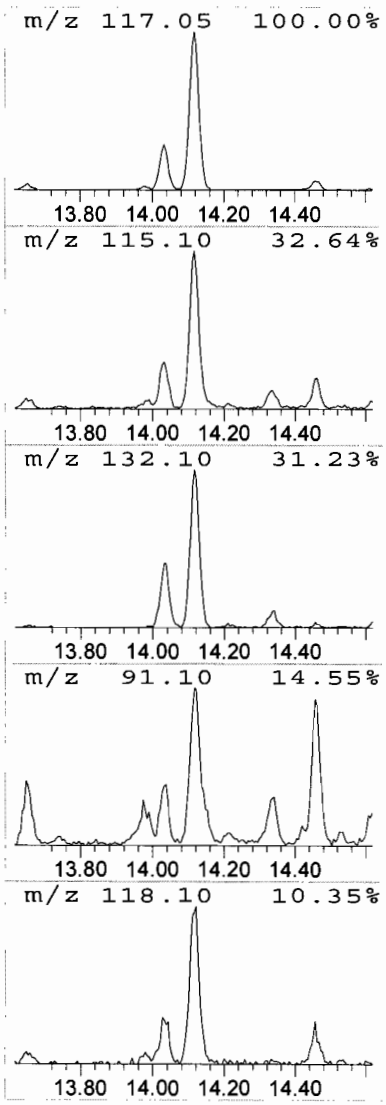
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Peak Number 6 Benzene, 1-ethenyl-3-ethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.12	7.55 UG	351897	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	91
2	Indan, 1-methyl-	132	C10H12	000767-58-8	87
3	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	87
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	83
5	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

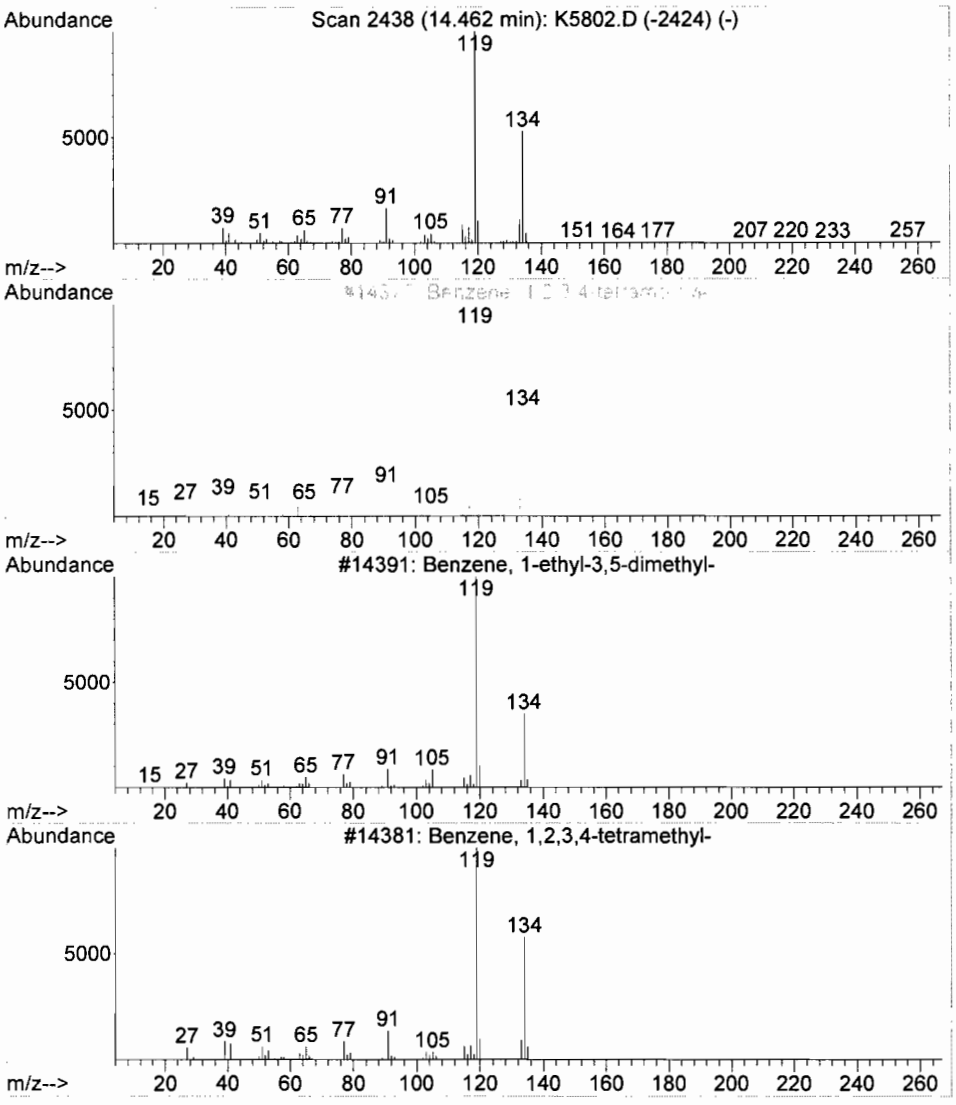
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

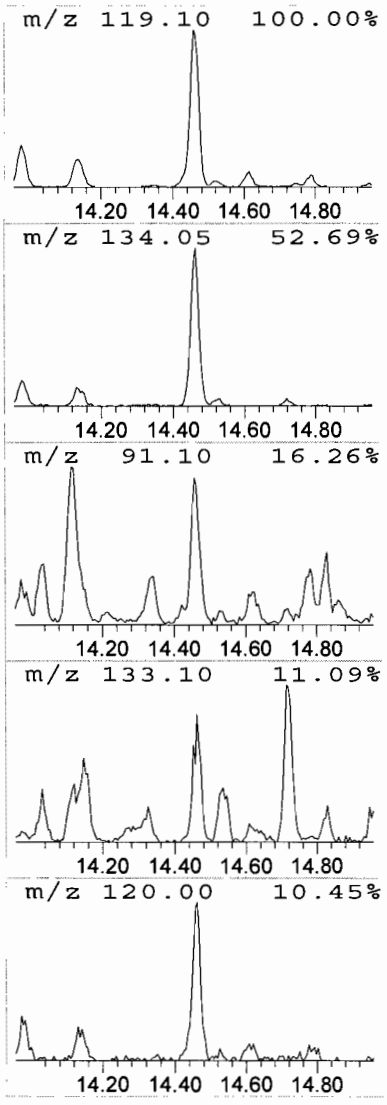
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Peak Number 7 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.46	5.03 UG	234423	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	94
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

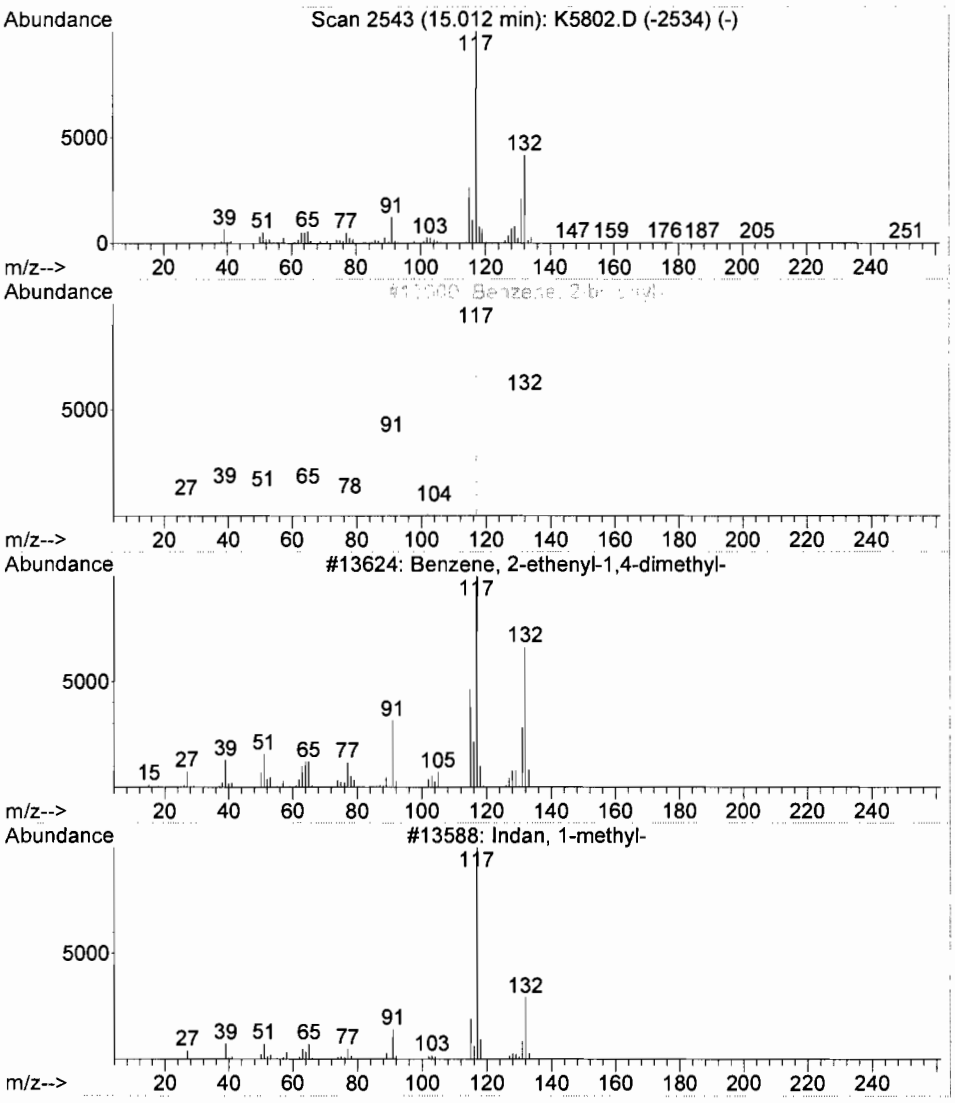
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TIC Integration Parameters: LSCINT.P

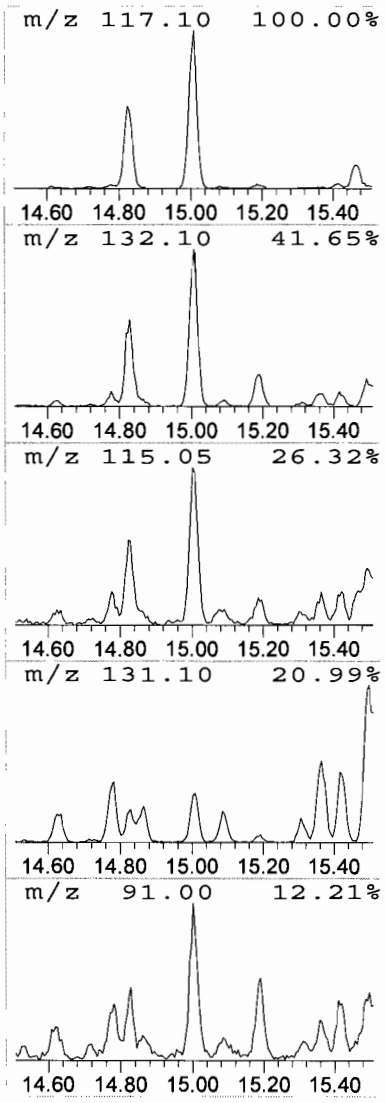
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Peak Number 8 Benzene, 2-butenyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.01	5.85 UG	272590	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-butenyl-	132	C10H12	001560-06-1	87
2	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	86
3	Indan, 1-methyl-	132	C10H12	000767-58-8	83
4	3-Phenylbut-1-ene	132	C10H12	000934-10-1	83
5	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5802.D
Acq On : 26 May 2017 7:43 pm
Operator : BARBARA
Sample : MW-11,E17-04261-006,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

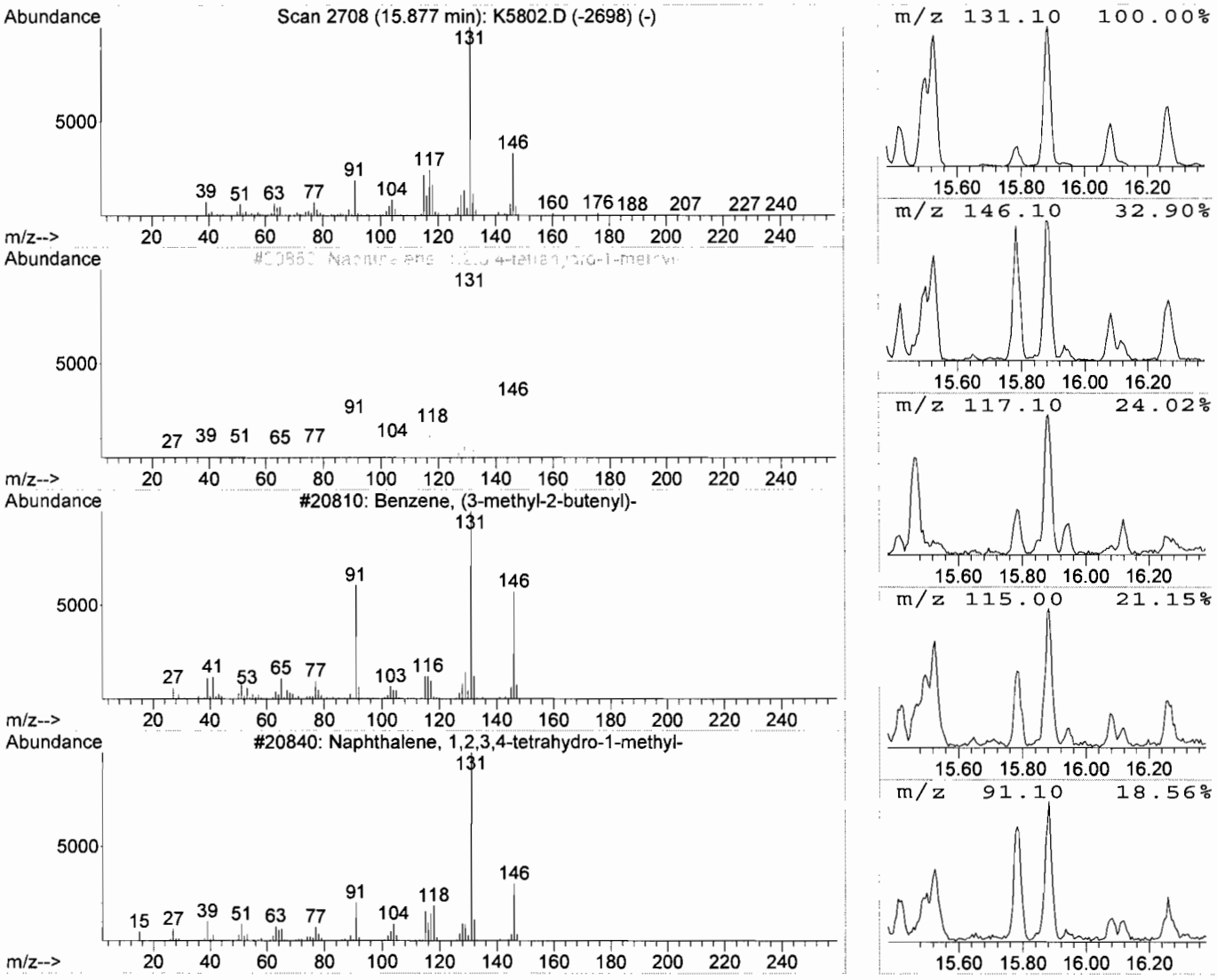
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Naphthalene, 1,2,3,4-tetrah... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.88	6.30 UG	293699	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001559-81-5	94
2	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	93
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001559-81-5	93
4	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	90
5	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	90



Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 01 14:17:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

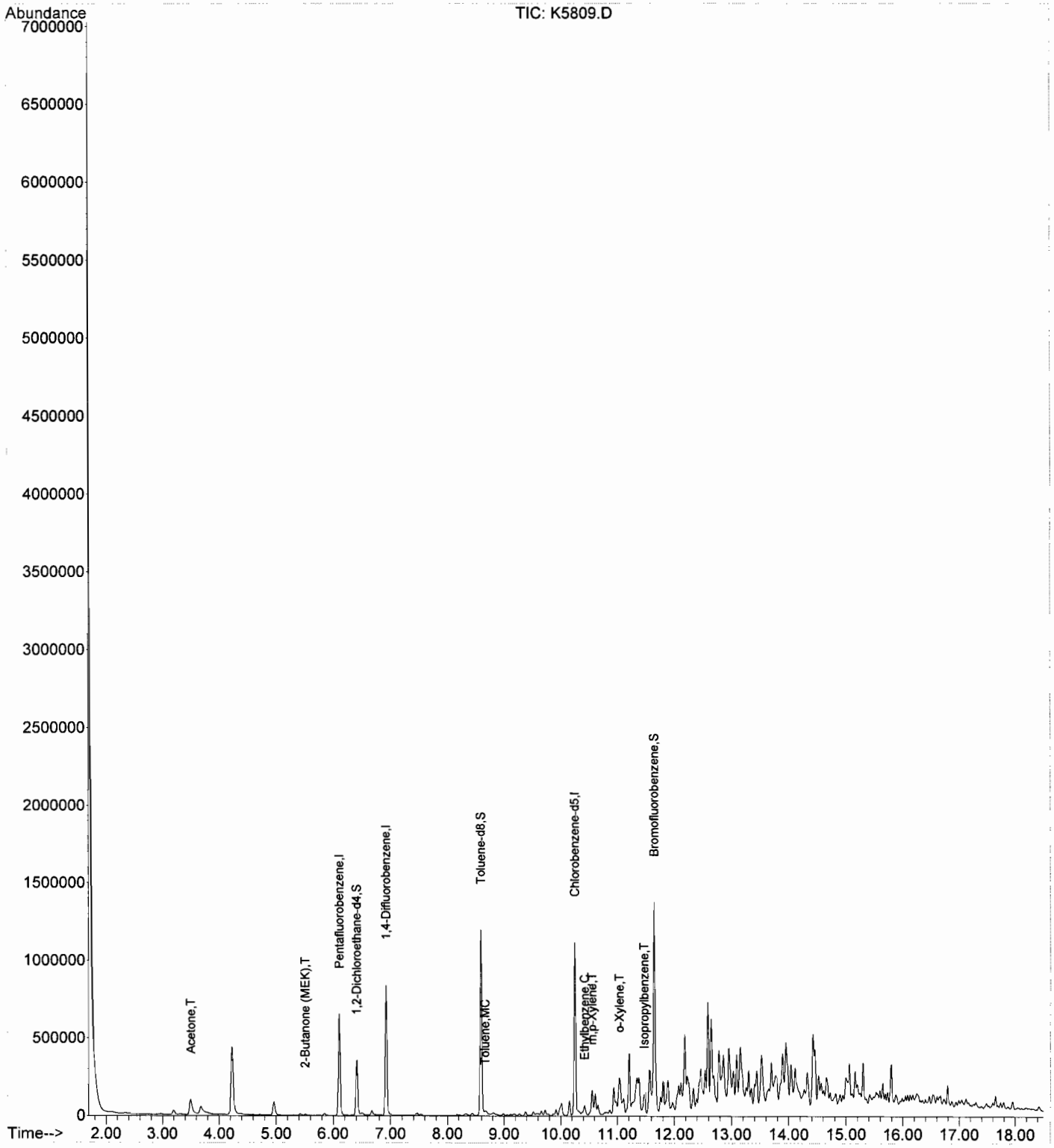
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	545152	50.00	UG		0.01
31) 1,4-Difluorobenzene	6.92	114	787222	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	708494	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.41	65	274306	46.31	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.62%				
41) Toluene-d8	8.59	98	883481	47.35	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.70%				
59) Bromofluorobenzene	11.65	95	352310	48.75	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.50%				
Target Compounds							Qvalue
10) Acetone	3.50	43	255321	68.98	UG		98
22) 2-Butanone (MEK)	5.51	43	10832	2.55	UG	#	100
42) Toluene	8.67	92	6196	0.51	UG		96
53) Ethylbenzene	10.42	91	28349	1.23	UG		98
54) m,p-Xylene	10.56	106	45191	4.57	UG		95
55) o-Xylene	11.03	106	44995	4.87	UG		86
58) Isopropylbenzene	11.48	105	42804	1.74	UG		100

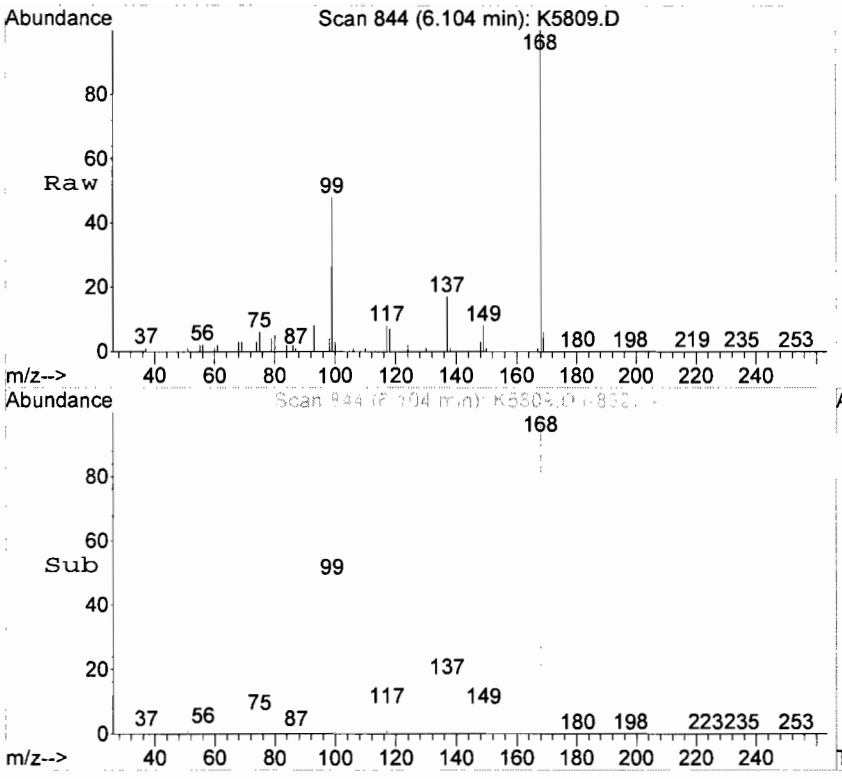
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 01 14:17:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

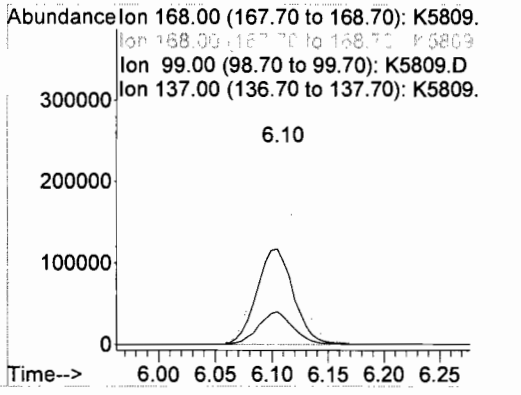


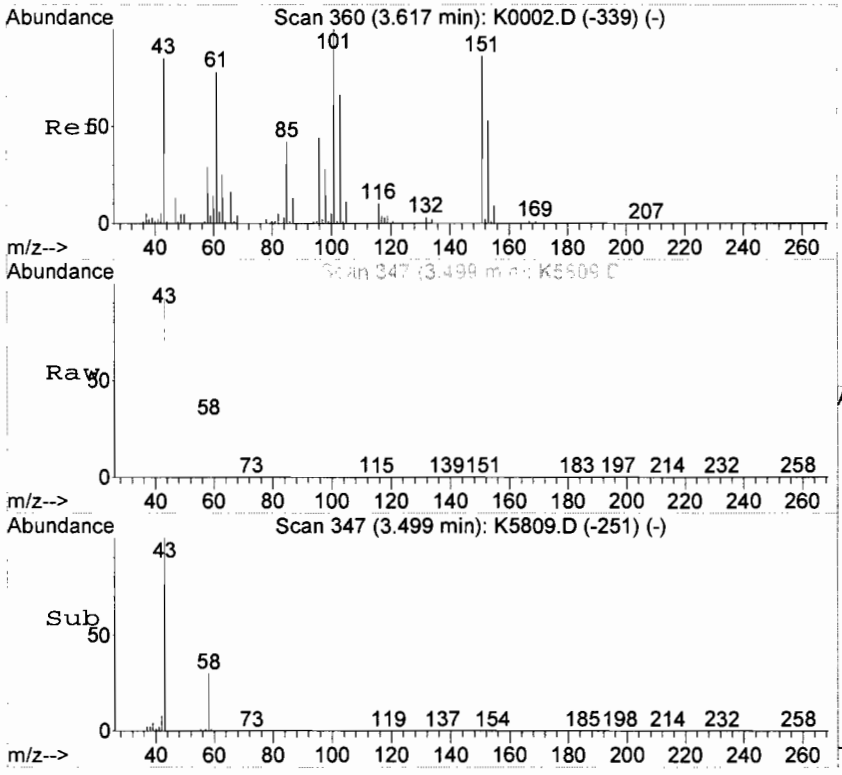


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 844
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:168 Resp: 545152

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	48.8	45.9	68.9
137	15.9	12.7	19.1

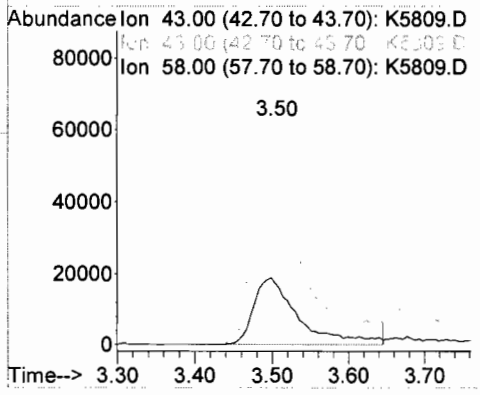


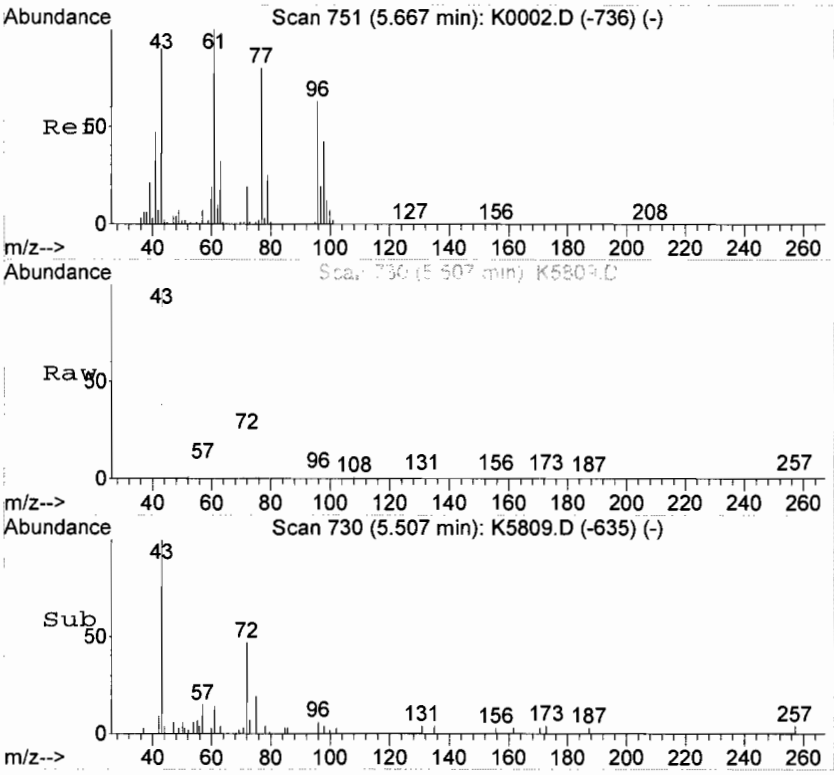


#10
Acetone
Concen: 68.98 UG
RT: 3.50 min Scan# 347
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 43 Resp: 255321

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	29.8	20.0	30.0

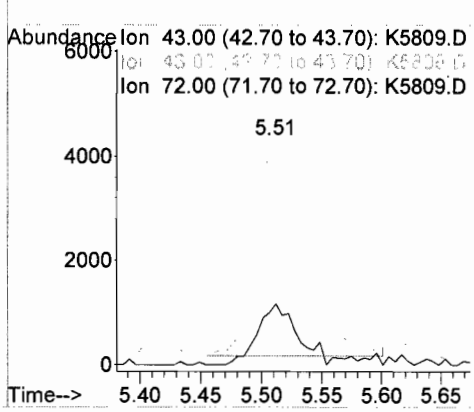


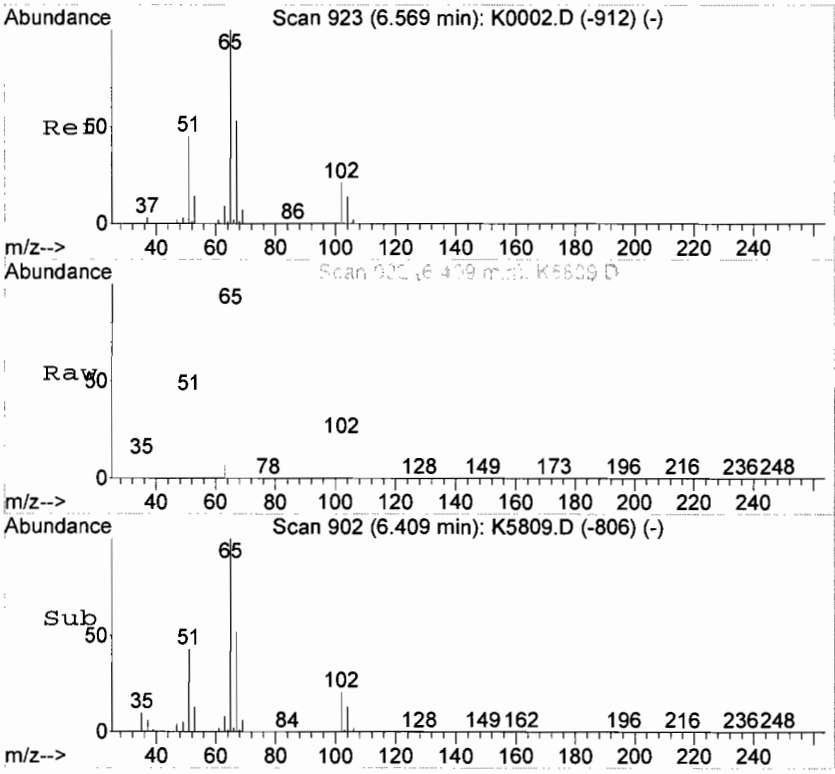


#22
2-Butanone (MEK)
Concen: 2.55 UG
RT: 5.51 min Scan# 730
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 43 Resp: 10832

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
72	0.0	2.9	4.3#

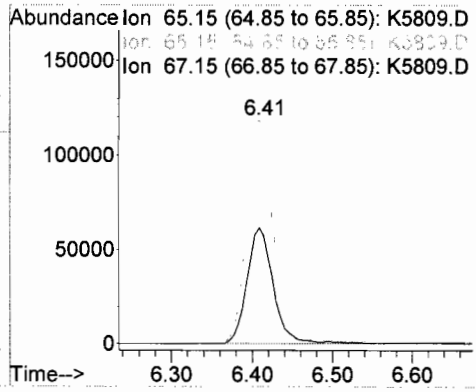


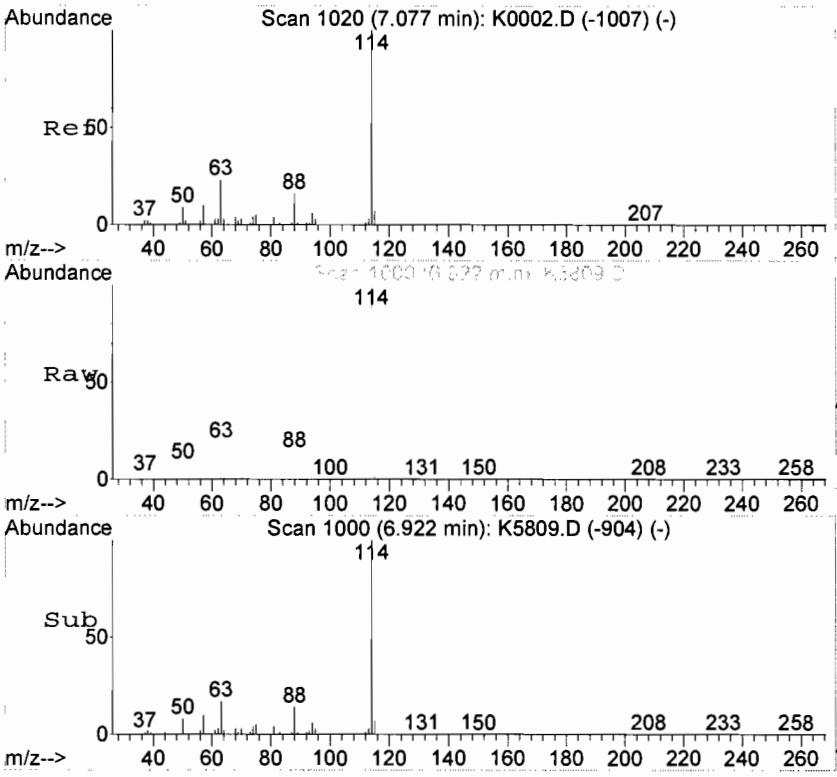


#30
1,2-Dichloroethane-d4
Concen: 46.31 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 65 Resp: 274306

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.4	40.4	60.6

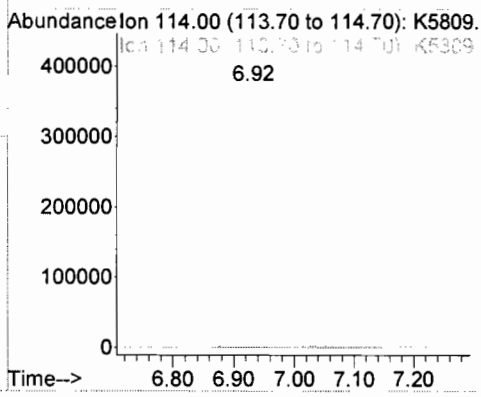


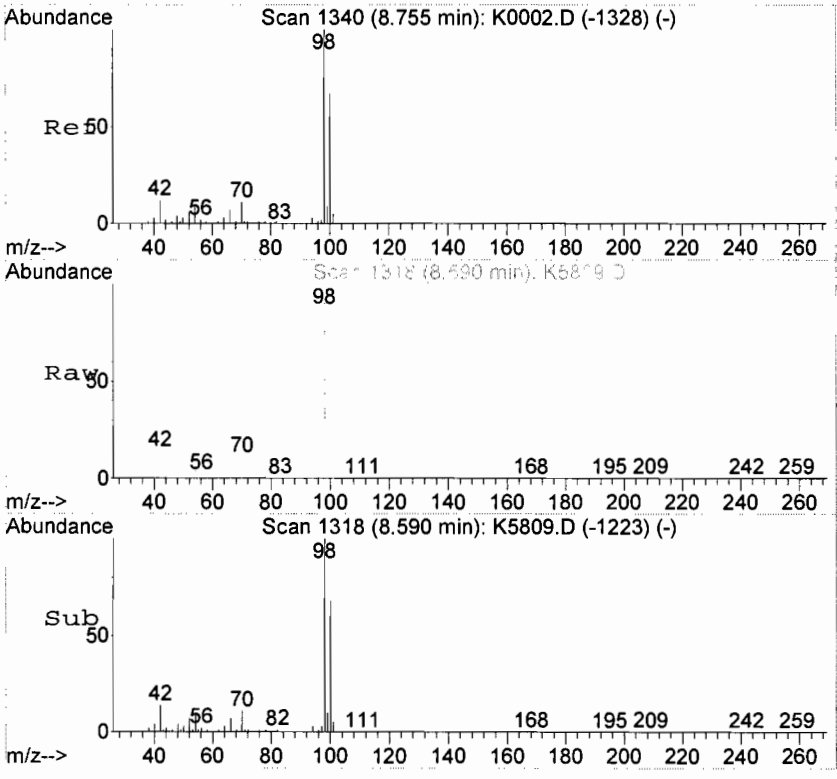


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:114 Resp: 787222

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

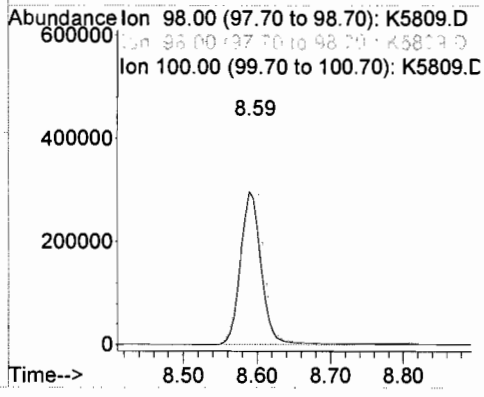


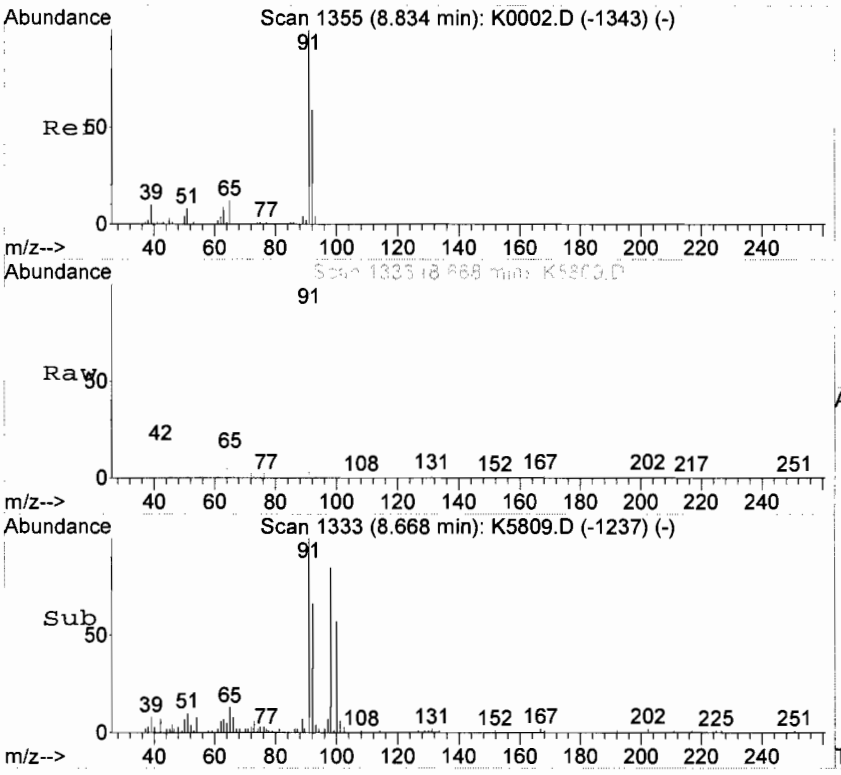


#41
Toluene-d8
Concen: 47.35 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 98 Resp: 883481

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	66.9	51.6	77.4

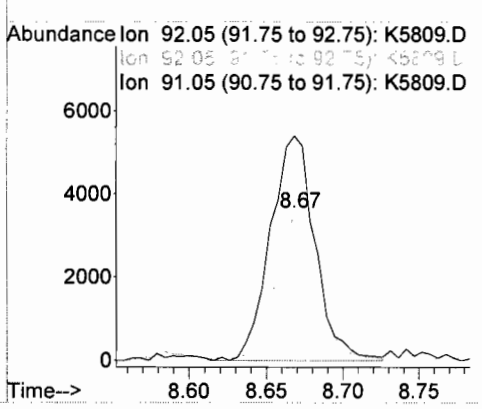


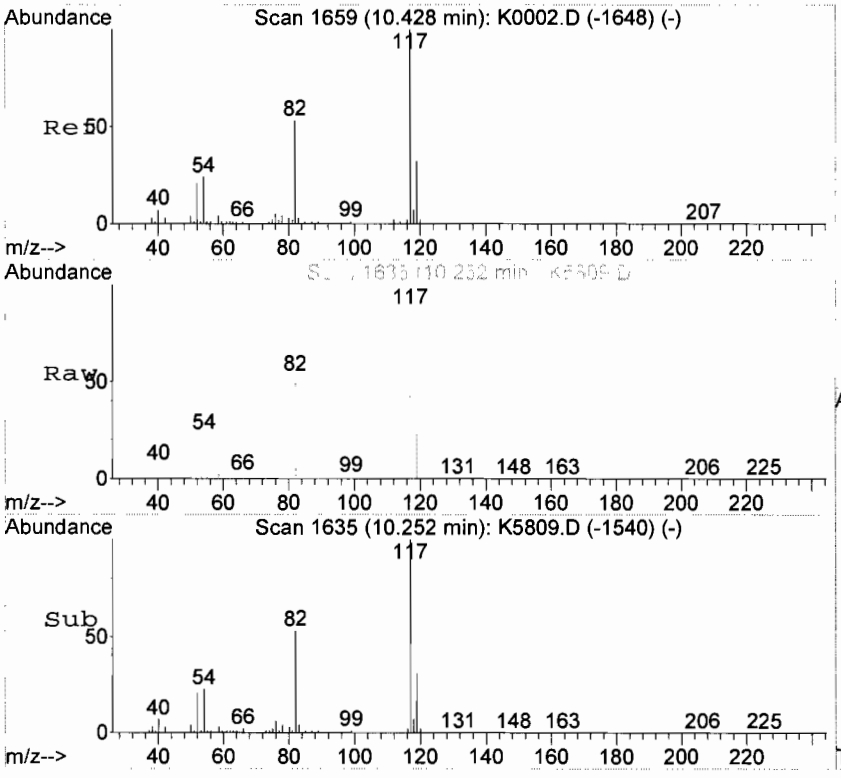


#42
Toluene
Concen: 0.51 UG
RT: 8.67 min Scan# 1333
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 92 Resp: 6196

Ion	Ratio	Lower	Upper
92	100		
92	100.0	80.0	120.0
91	176.3	134.6	201.8

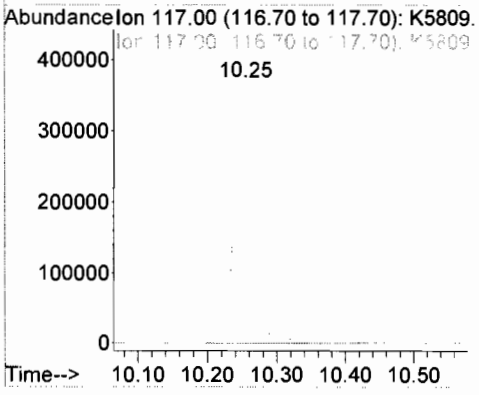


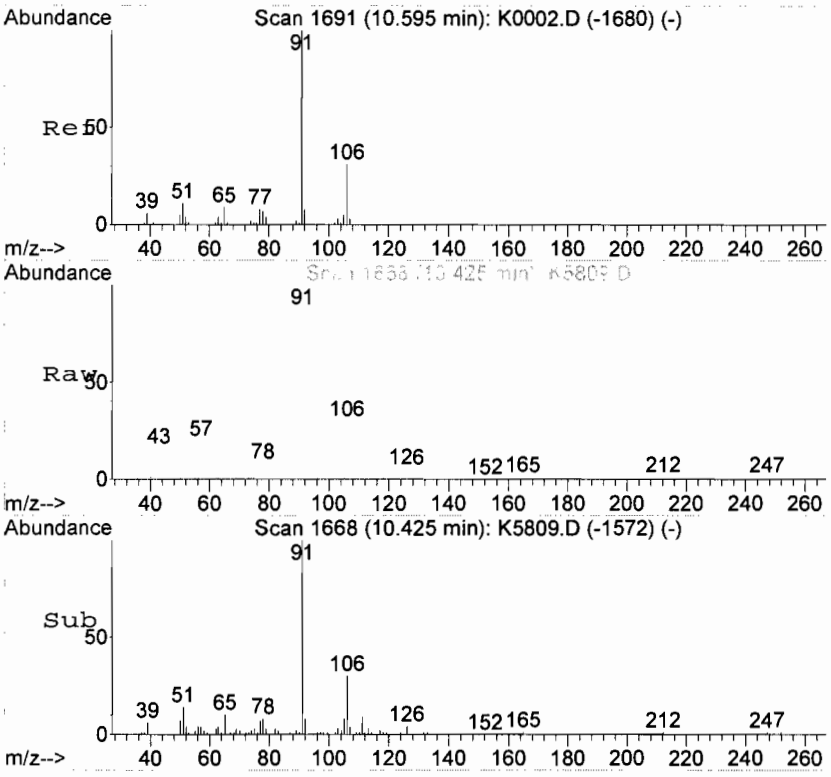


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:117 Resp: 708494

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

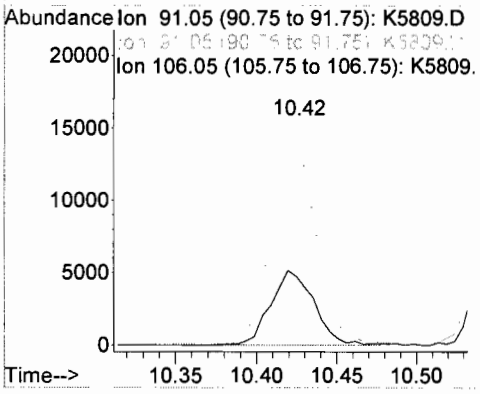


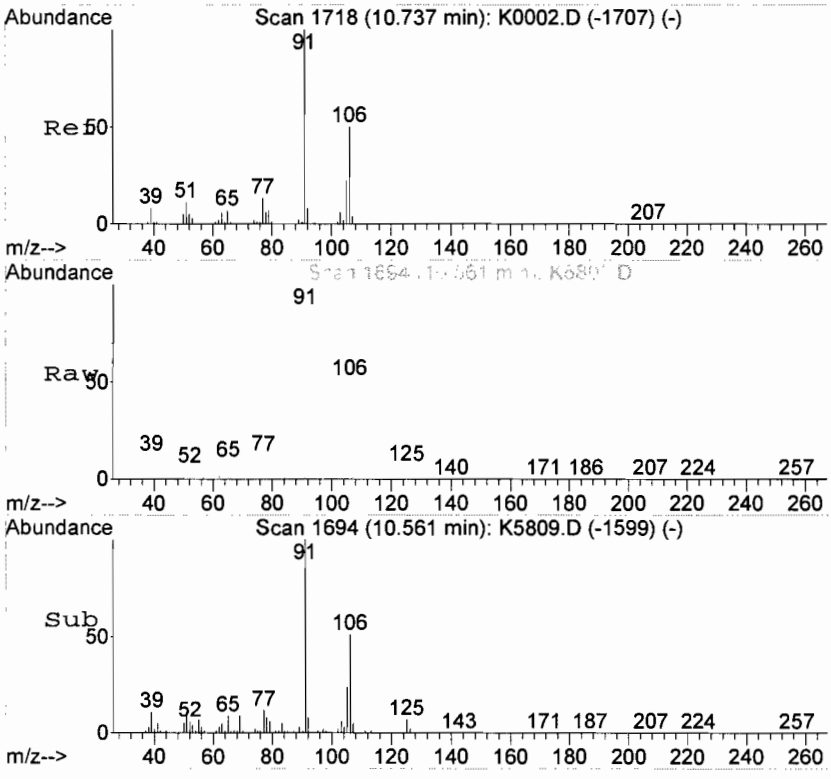


#53
Ethylbenzene
Concen: 1.23 UG
RT: 10.42 min Scan# 1668
Delta R.T. 0.01 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 91 Resp: 28349

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	34.4	24.6	36.8

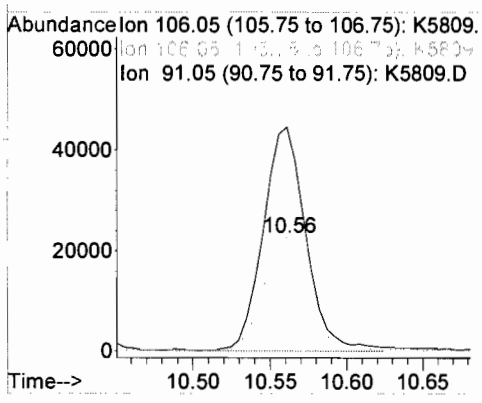


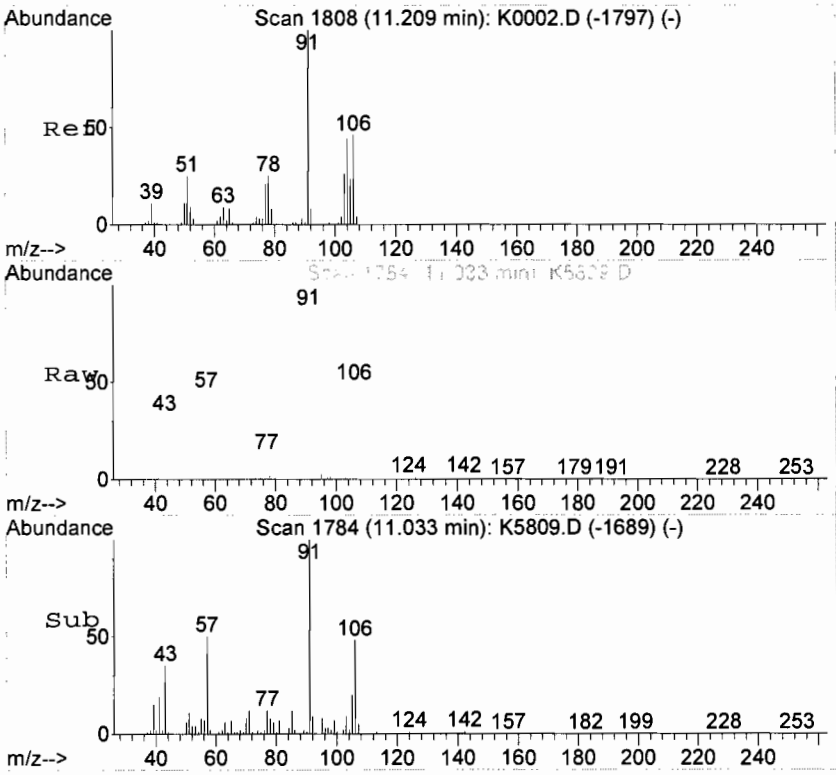


#54
m,p-Xylene
Concen: 4.57 UG
RT: 10.56 min Scan# 1694
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:106 Resp: 45191

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	194.3	164.6	246.8

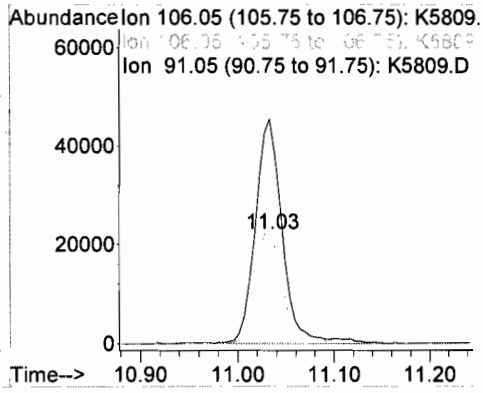


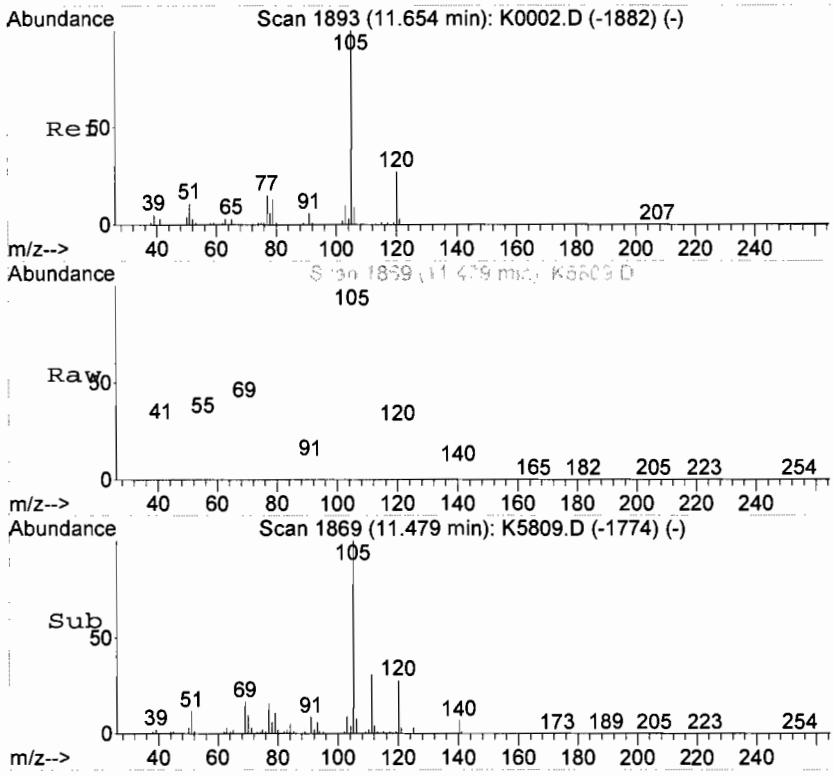


#55
o-Xylene
Concen: 4.87 UG
RT: 11.03 min Scan# 1784
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:106 Resp: 44995

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	195.6	182.2	273.2

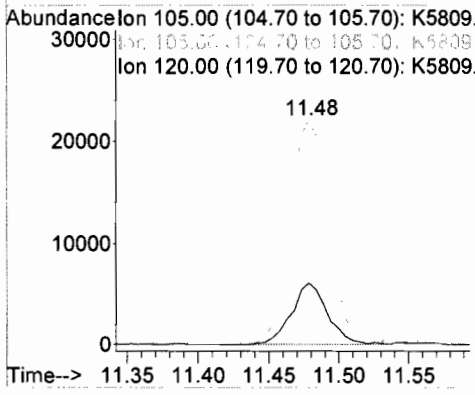


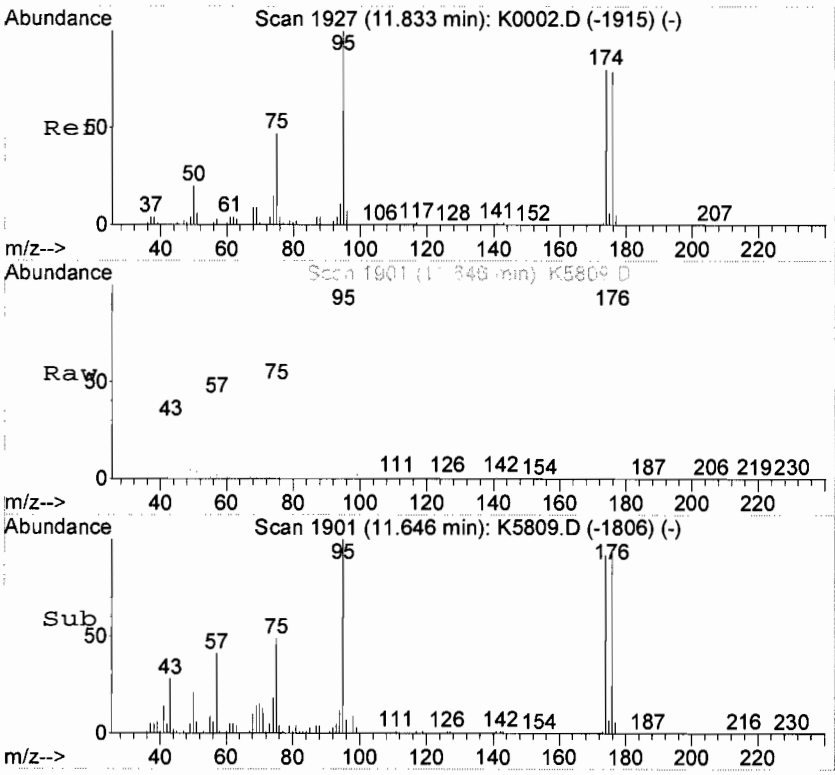


#58
Isopropylbenzene
Concen: 1.74 UG
RT: 11.48 min Scan# 1869
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion:105 Resp: 42804

Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	26.0	21.6	32.4

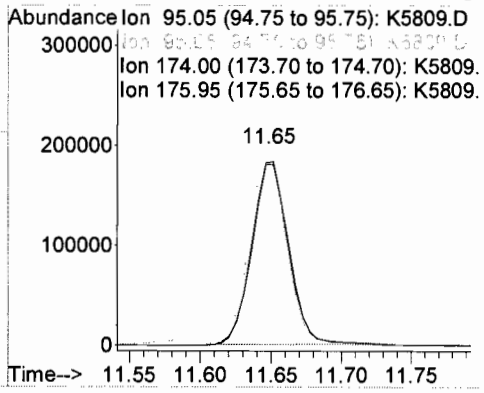




#59
Bromofluorobenzene
Concen: 48.75 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5809.D
Acq: 26 May 2017 10:49 pm

Tgt Ion: 95 Resp: 352310

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.350	110	128	240	rVB5	9322	103401	3.64%	0.191%
2	3.189	279	288	303	rBV3	27145	84072	2.96%	0.155%
3	3.499	337	347	372	rBV	93469	351967	12.39%	0.651%
4	3.677	372	381	440	rVB3	51176	290578	10.23%	0.537%
5	4.227	473	486	550	rVB	433965	1344513	47.33%	2.487%
6	4.961	615	626	656	rVB2	85130	241551	8.50%	0.447%
7	6.104	830	844	879	rBV	649584	1493660	52.58%	2.763%
8	6.409	890	902	915	rBV	347996	790149	27.82%	1.461%
9	6.498	915	919	942	rVV7	15042	45799	1.61%	0.085%
10	6.676	942	953	974	rVB7	28332	75310	2.65%	0.139%
11	6.922	989	1000	1038	rBV	833705	1775385	62.50%	3.284%
12	8.322	1257	1267	1282	rBV7	9445	36047	1.27%	0.067%
13	8.590	1303	1318	1330	rBV	1193590	2397740	84.41%	4.435%
14	8.663	1330	1332	1354	rVV8	29259	116129	4.09%	0.215%
15	8.810	1354	1360	1384	rVB6	17051	69949	2.46%	0.129%
16	9.376	1459	1468	1485	rBV2	23739	62260	2.19%	0.115%
17	9.518	1485	1495	1501	rBV2	22765	50726	1.79%	0.094%
18	9.659	1516	1522	1528	rBV2	21796	38721	1.36%	0.072%
19	9.722	1528	1534	1541	rBV	30295	56289	1.98%	0.104%
20	9.921	1566	1572	1577	rVB	31986	55141	1.94%	0.102%
21	10.010	1577	1589	1604	rVB4	76359	244424	8.60%	0.452%
22	10.157	1604	1617	1624	rBV	90577	176838	6.23%	0.327%
23	10.252	1624	1635	1657	rBV	1106408	2165696	76.24%	4.005%
24	10.425	1657	1668	1679	rVB7	57239	160421	5.65%	0.297%
25	10.556	1679	1693	1699	rBV	154446	362041	12.74%	0.670%
26	10.613	1699	1704	1709	rVV3	103916	178703	6.29%	0.331%
27	10.661	1709	1713	1730	rVB3	57677	107347	3.78%	0.199%
28	10.781	1730	1736	1747	rBV6	12738	47534	1.67%	0.088%
29	10.865	1747	1752	1758	rVB4	20982	36799	1.30%	0.068%
30	10.938	1758	1766	1778	rBV5	164417	477598	16.81%	0.883%
31	11.038	1778	1785	1805	rVB5	218399	834509	29.38%	1.543%
32	11.211	1805	1818	1824	rBV	373794	758886	26.72%	1.404%
33	11.342	1835	1843	1860	rVB4	205744	959536	33.78%	1.775%
34	11.473	1860	1868	1876	rVB5	118687	274511	9.66%	0.508%
35	11.568	1876	1886	1893	rBV4	274236	752215	26.48%	1.391%
36	11.646	1893	1901	1916	rVB2	1341729	2840663	100.00%	5.254%
37	11.762	1916	1923	1926	rBV4	90622	169889	5.98%	0.314%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	11.798	1926	1930	1939	rVV	180171	356226	12.54%	0.659%
39	11.887	1939	1947	1958	rVV5	184441	454407	16.00%	0.840%
40	11.966	1958	1962	1972	rVB3	44361	96624	3.40%	0.179%
41	12.081	1972	1984	1988	rBV3	154175	459694	16.18%	0.850%
42	12.118	1988	1991	1997	rVV5	166655	341614	12.03%	0.632%
43	12.186	1997	2004	2025	rVB4	475084	1671003	58.82%	3.091%
44	12.338	2025	2033	2039	rBV2	130477	251901	8.87%	0.466%
45	12.391	2039	2043	2047	rVV2	63114	115829	4.08%	0.214%
46	12.464	2047	2057	2067	rVV6	253435	940531	33.11%	1.740%
47	12.538	2067	2071	2075	rVV	242061	455108	16.02%	0.842%
48	12.590	2075	2081	2086	rVV	678713	1300368	45.78%	2.405%
49	12.642	2086	2091	2111	rVV2	571026	1711040	60.23%	3.165%
50	12.784	2111	2118	2128	rVV4	366229	1170837	41.22%	2.165%
51	12.857	2128	2132	2143	rVV4	335382	882876	31.08%	1.633%
52	12.957	2143	2151	2161	rVV4	378770	1237337	43.56%	2.288%
53	13.030	2161	2165	2171	rVV3	232992	505471	17.79%	0.935%
54	13.088	2171	2176	2181	rVV	336558	670375	23.60%	1.240%
55	13.156	2181	2189	2204	rVV2	385268	1476022	51.96%	2.730%
56	13.256	2204	2208	2212	rVV3	125765	277897	9.78%	0.514%
57	13.298	2212	2216	2221	rVV2	233179	429918	15.13%	0.795%
58	13.345	2221	2225	2230	rVV5	118817	227773	8.02%	0.421%
59	13.403	2230	2236	2239	rVV3	147993	299594	10.55%	0.554%
60	13.439	2239	2243	2250	rVV2	230375	444560	15.65%	0.822%
61	13.518	2250	2258	2272	rVV5	330028	1051324	37.01%	1.944%
62	13.649	2272	2283	2286	rVV10	115409	403890	14.22%	0.747%
63	13.691	2286	2291	2315	rVV6	281646	1477366	52.01%	2.732%
64	13.885	2315	2328	2334	rVV5	335353	1087017	38.27%	2.010%
65	13.948	2334	2340	2351	rVV3	408027	1355549	47.72%	2.507%
66	14.037	2351	2357	2365	rVV3	263486	730729	25.72%	1.351%
67	14.111	2365	2371	2406	rVV8	241673	1381162	48.62%	2.554%
68	14.320	2406	2411	2421	rVV4	213168	530203	18.66%	0.981%
69	14.420	2421	2430	2443	rVV4	455561	1560964	54.95%	2.887%
70	14.519	2443	2449	2470	rVV5	190362	915346	32.22%	1.693%
71	14.656	2470	2475	2485	rVV4	175231	530548	18.68%	0.981%
72	14.719	2485	2487	2512	rVV10	79056	378480	13.32%	0.700%
73	14.897	2512	2521	2526	rVV5	65075	164292	5.78%	0.304%
74	14.939	2526	2529	2534	rVV5	60665	115168	4.05%	0.213%
75	14.997	2534	2540	2547	rVV5	172839	558484	19.66%	1.033%
76	15.054	2547	2551	2565	rVV3	261499	651523	22.94%	1.205%
77	15.154	2565	2570	2592	rVV	209744	863447	30.40%	1.597%
78	15.295	2592	2597	2614	rVV3	262861	580823	20.45%	1.074%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

79	15.526	2614	2641	2651	rVV9	74710	551793	19.42%	1.021%
80	15.594	2651	2654	2658	rVV4	83975	130306	4.59%	0.241%
81	15.642	2658	2663	2668	rVV3	130570	235160	8.28%	0.435%
82	15.683	2668	2671	2675	rVV3	64399	94509	3.33%	0.175%
83	15.725	2675	2679	2684	rVV6	70672	119644	4.21%	0.221%
84	15.788	2684	2691	2702	rVV	245832	509332	17.93%	0.942%
85	15.872	2702	2707	2737	rVV	55550	233399	8.22%	0.432%
86	16.082	2744	2747	2752	rVV4	52631	84366	2.97%	0.156%
87	16.124	2752	2755	2761	rVV4	50230	95959	3.38%	0.177%
88	16.239	2761	2777	2816	rVV4	58628	390666	13.75%	0.723%
89	16.465	2816	2820	2827	rVV5	39378	52790	1.86%	0.098%
90	16.528	2827	2832	2843	rVV9	49175	133856	4.71%	0.248%
91	16.664	2843	2858	2877	rVB10	52191	283216	9.97%	0.524%
92	16.790	2877	2882	2894	rBV	117283	174840	6.15%	0.323%
93	16.868	2894	2897	2906	rVB8	29696	47902	1.69%	0.089%
94	16.937	2906	2910	2916	rBV9	27199	51414	1.81%	0.095%
95	17.041	2916	2930	2942	rBV9	30282	126607	4.46%	0.234%
96	17.644	3040	3045	3058	rVB2	69377	127886	4.50%	0.237%
97	17.739	3058	3063	3068	rVV3	30673	52693	1.85%	0.097%
98	17.786	3068	3072	3098	rVB3	36354	90805	3.20%	0.168%
99	17.954	3098	3104	3189	rVV3	48586	275953	9.71%	0.510%
100	18.426	3189	3194	3204	rVB8	27107	65180	2.29%	0.121%

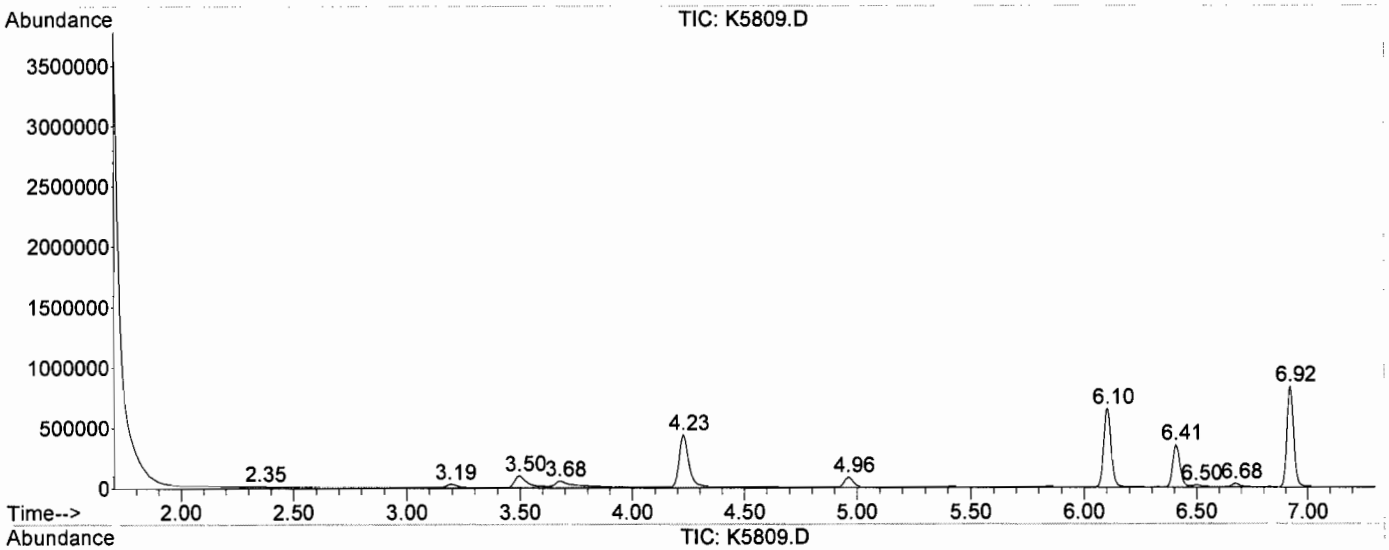
Sum of corrected areas: 54068593

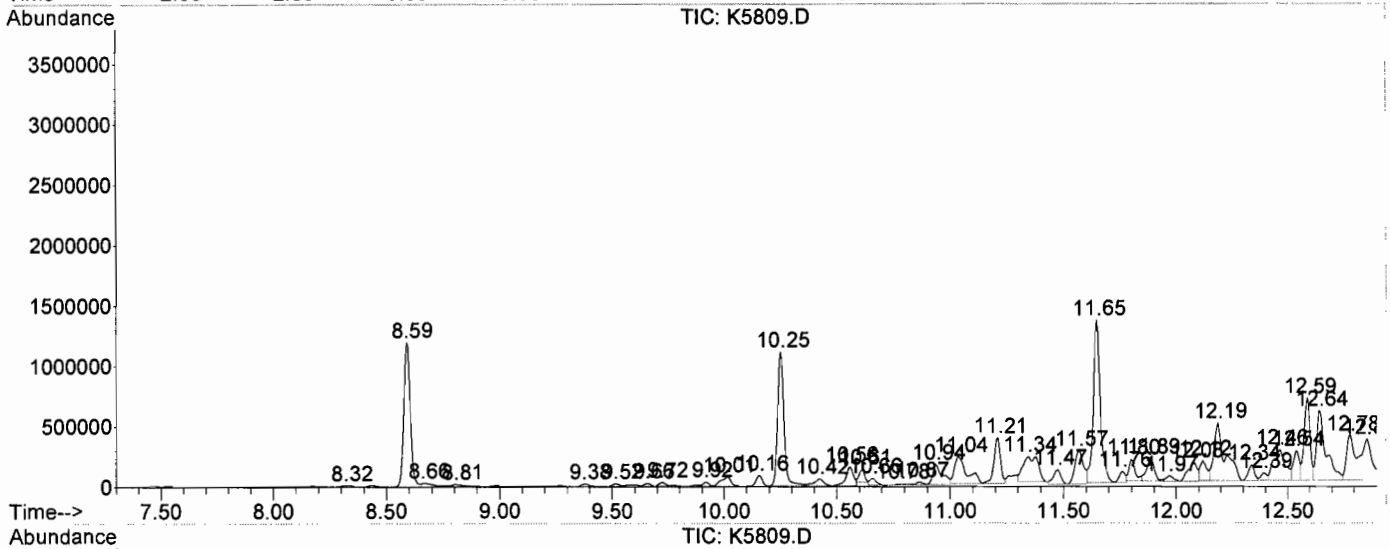
LSC Report - Integrated Chromatogram

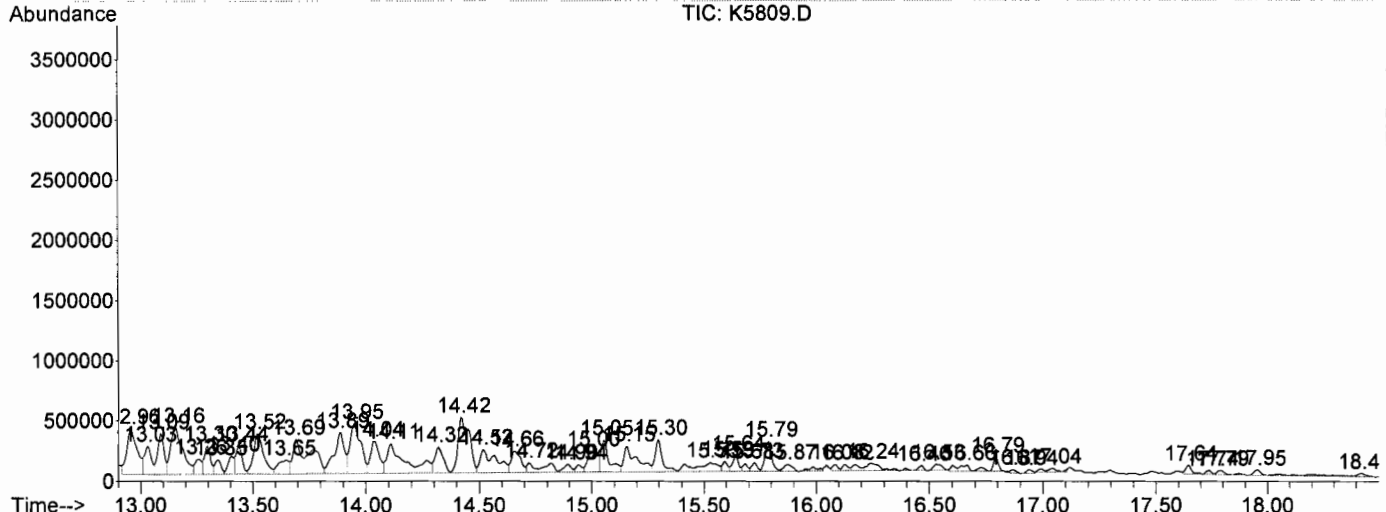
Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

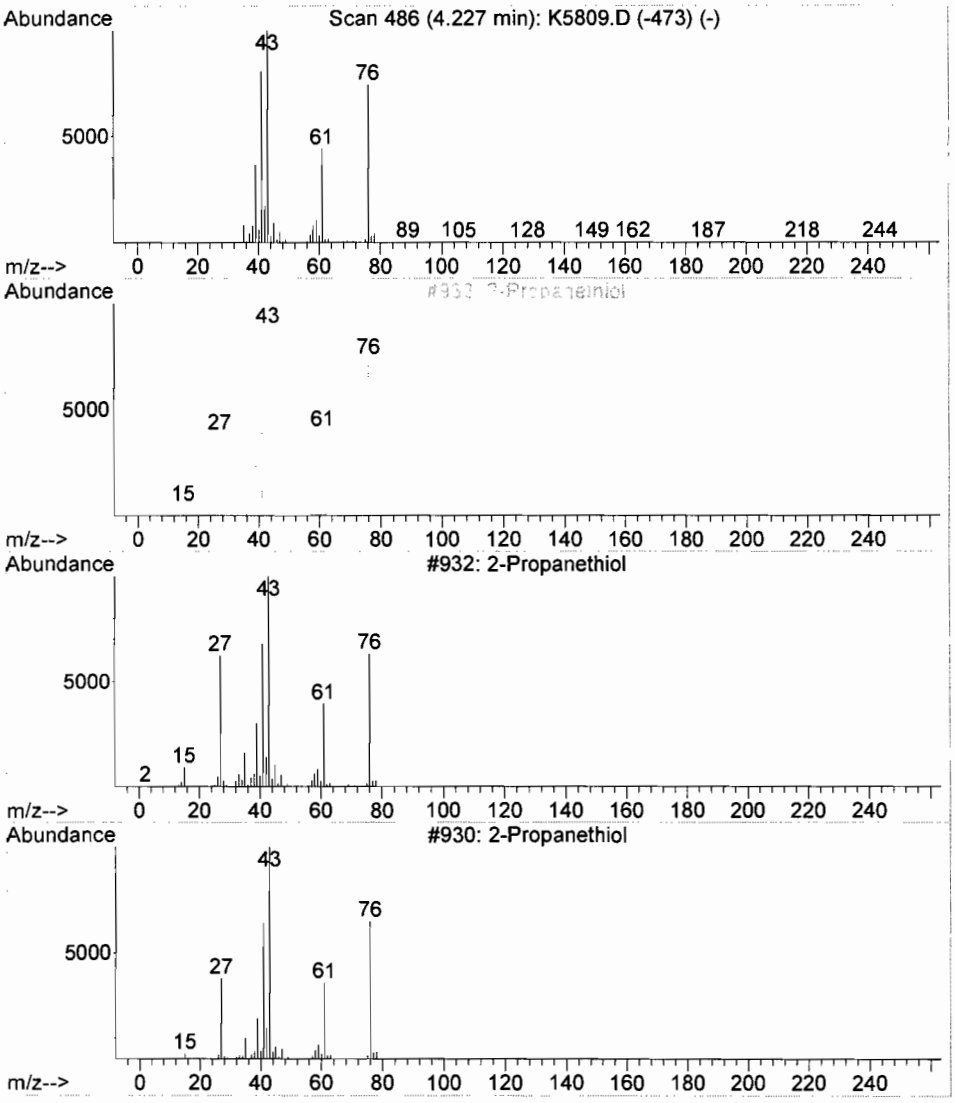
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

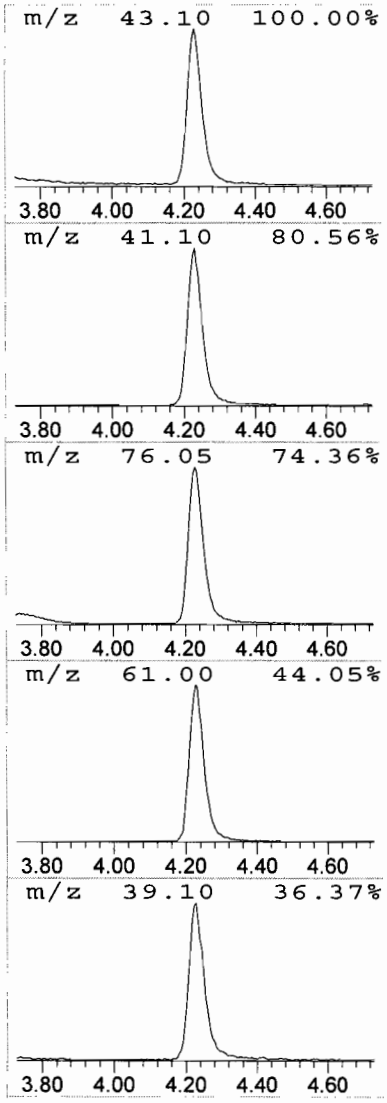
****

Peak Number 1 2-Propanethiol Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.23	45.01 UG	1344510	Pentafluorobenzene	6.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propanethiol	76	C3H8S	000075-33-2	95
2	2-Propanethiol	76	C3H8S	000075-33-2	91
3	2-Propanethiol	76	C3H8S	000075-33-2	91
4	2-Propanethiol	76	C3H8S	000075-33-2	86
5	Thiourea	76	CH4N2S	000062-56-6	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

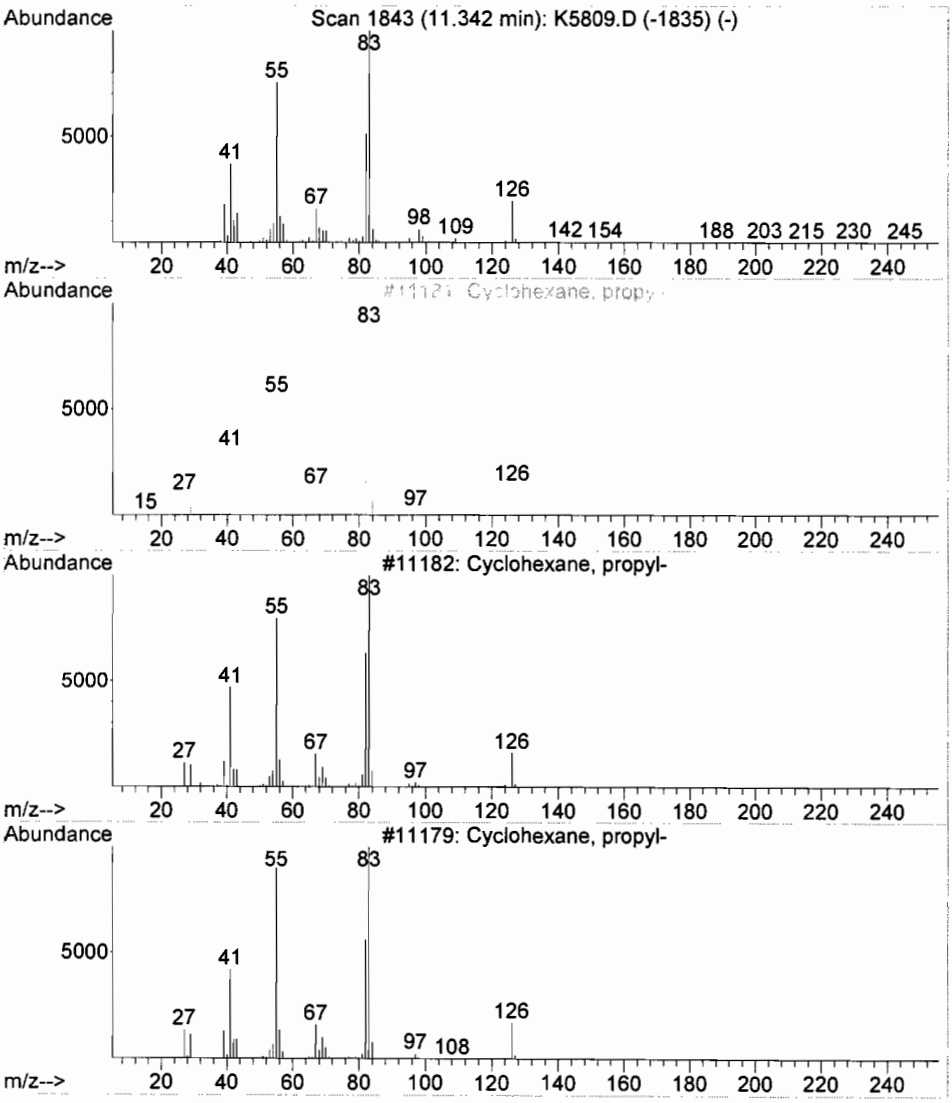
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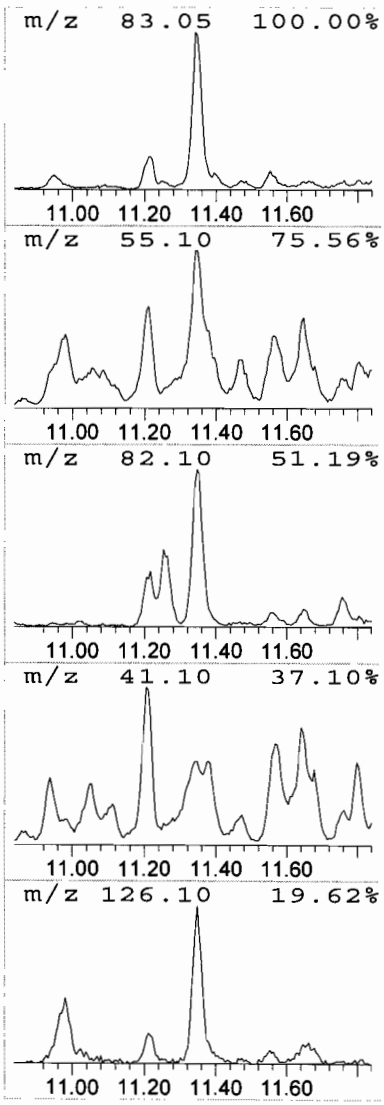
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Peak Number 2 Cyclohexane, propyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.34	22.15 UG	959536	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, propyl-	126	C9H18	001678-92-8	91
2	Cyclohexane, propyl-	126	C9H18	001678-92-8	80
3	Cyclohexane, propyl-	126	C9H18	001678-92-8	72
4	Cyclohexane, pentyl-	154	C11H22	004292-92-6	72
5	Cyclohexane, ethyl-	112	C8H16	001678-91-7	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

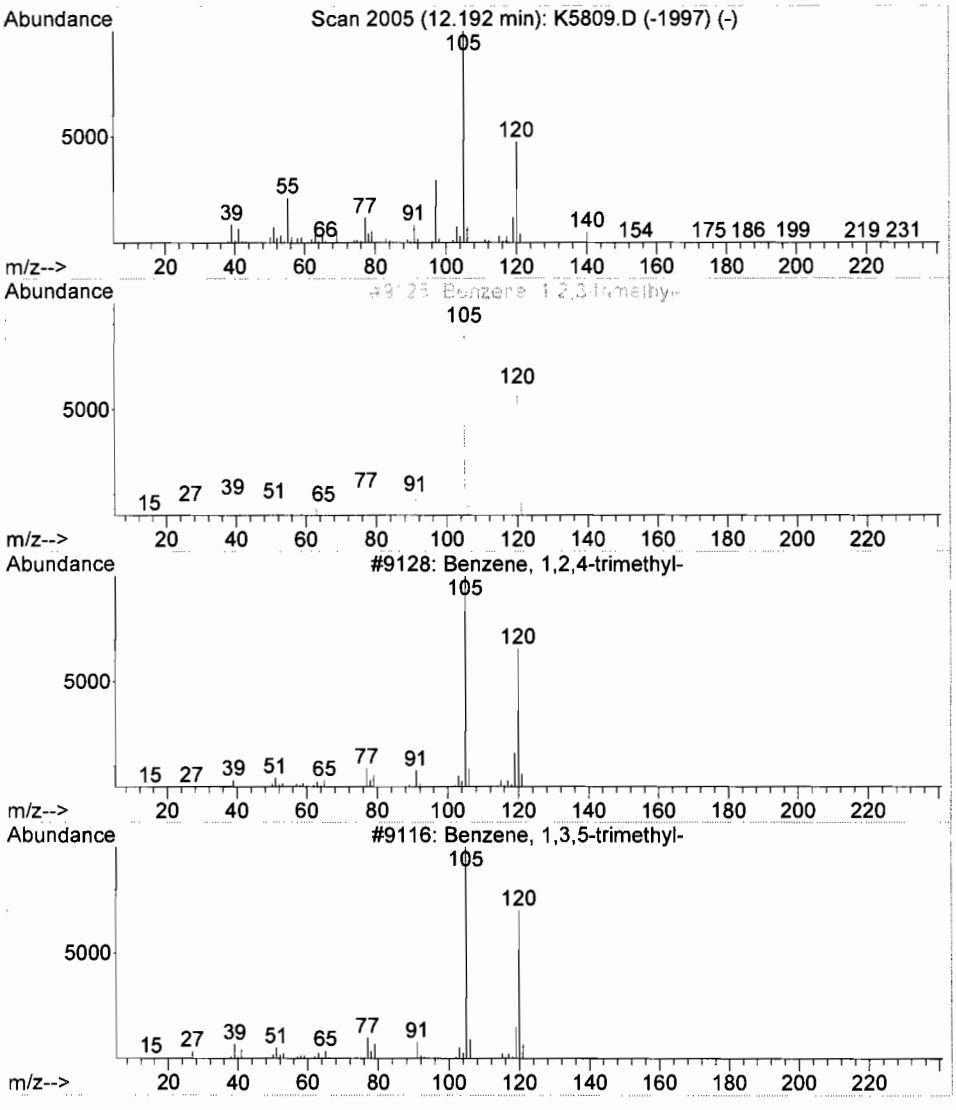
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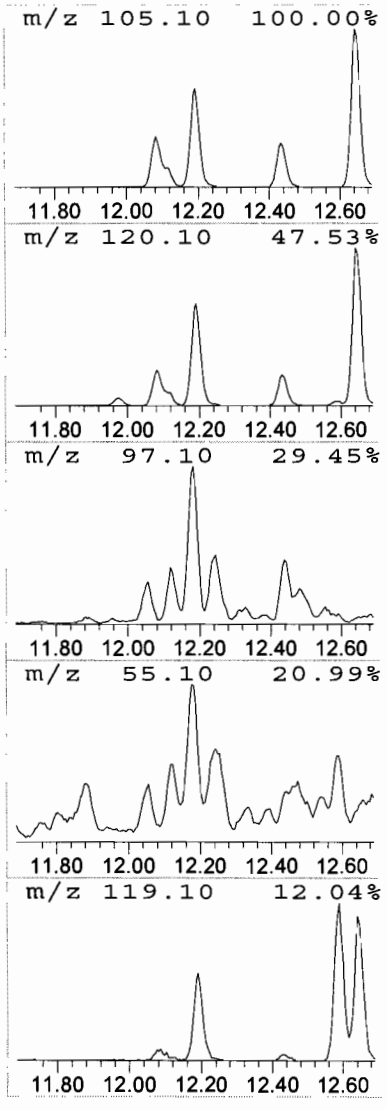
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Peak Number 3 Benzene, 1,2,3-trimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.19	38.58 UG	1671000	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	90
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	90
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
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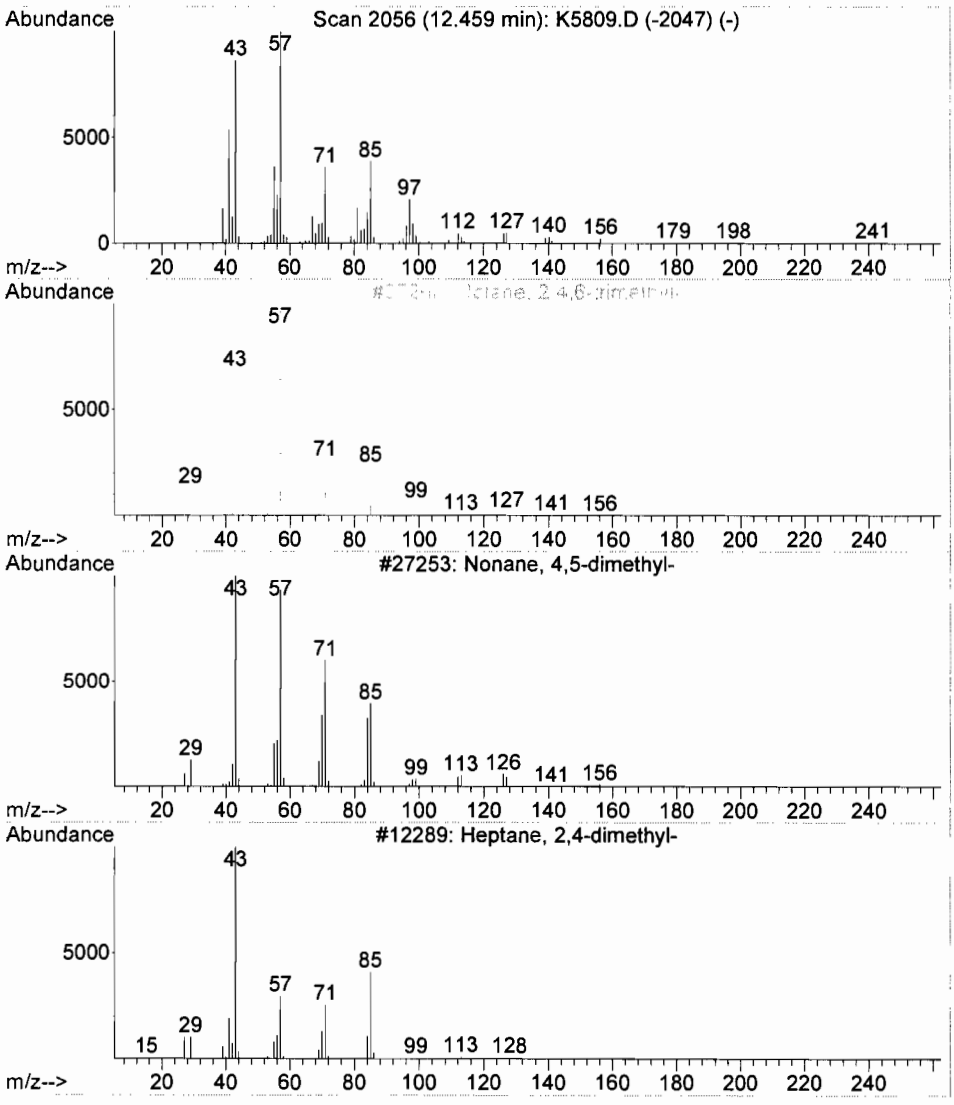
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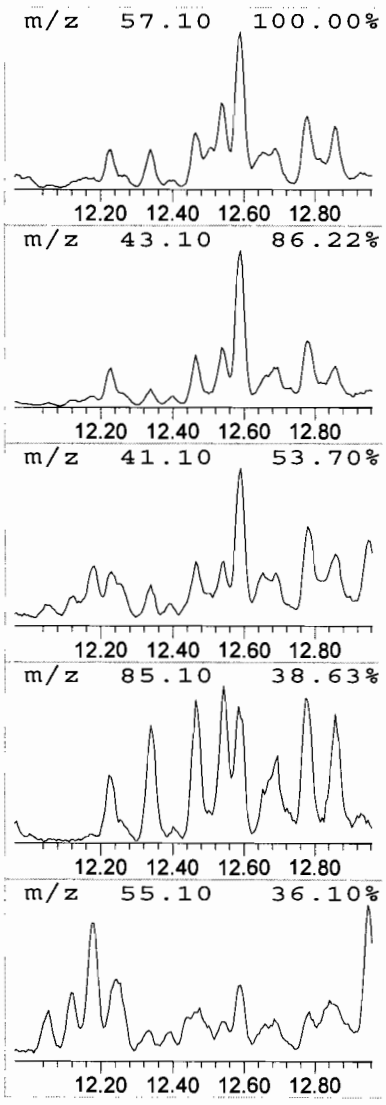
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Peak Number 4 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.46	21.71 UG	940531	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 2,4,6-trimethyl-	156	C11H24	062016-37-9	53
2	Nonane, 4,5-dimethyl-	156	C11H24	017302-23-7	46
3	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	43
4	Tridecane, 5-methyl-	198	C14H30	025117-31-1	43
5	Sulfurous acid, butyl hexyl ester	222	C10H22O3S	1000309-17-3	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
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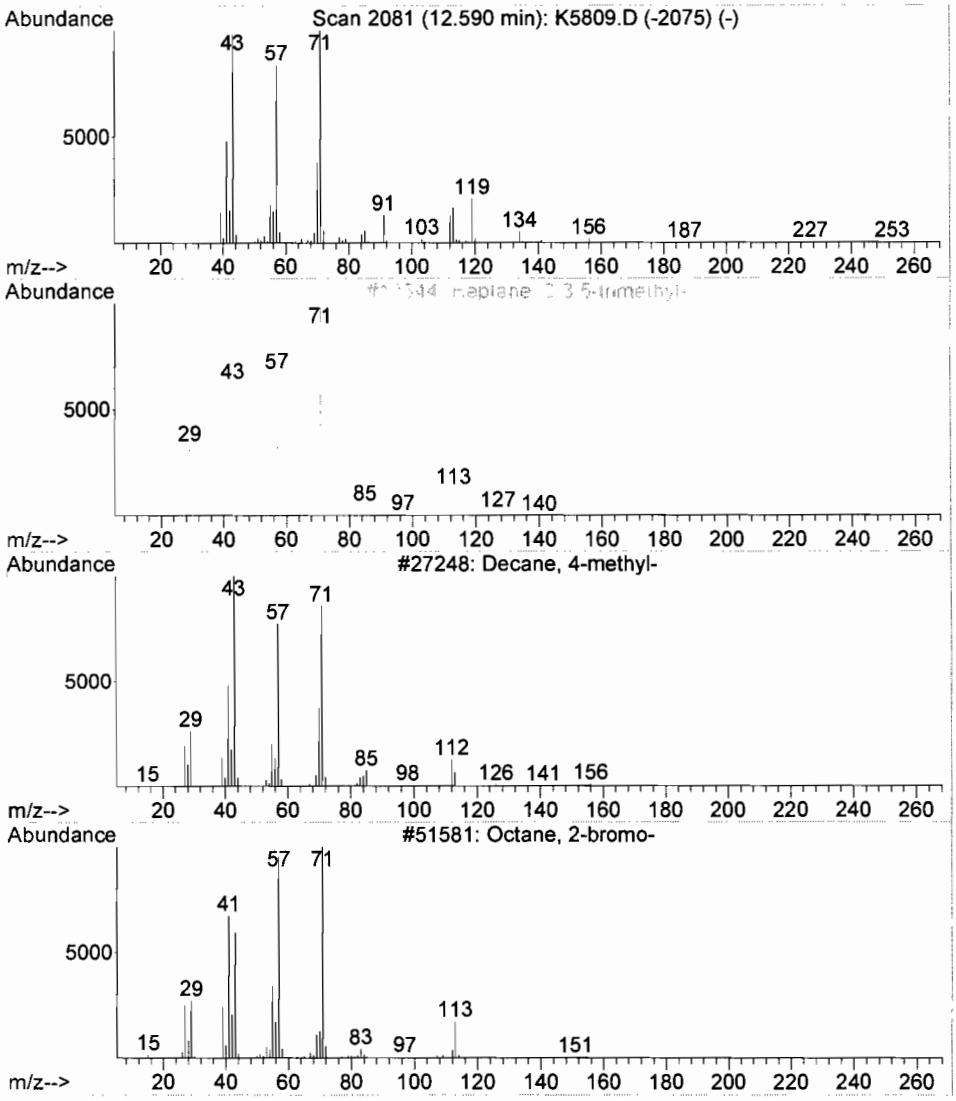
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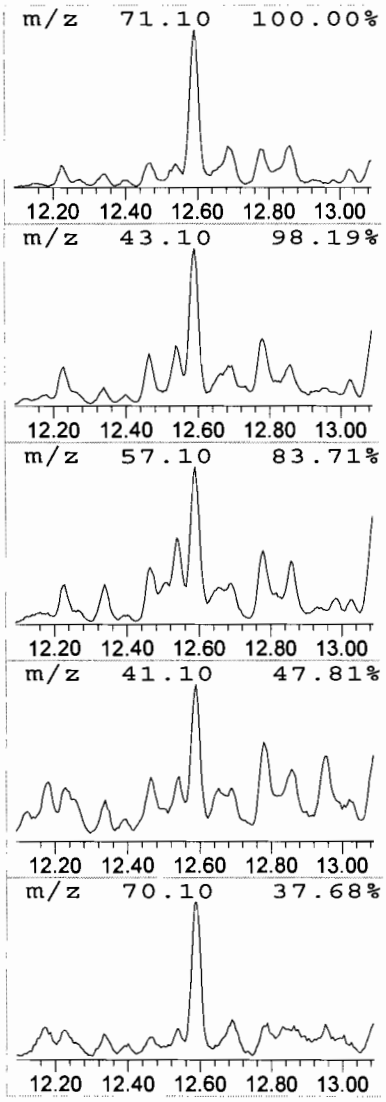
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Peak Number 5 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.59	30.02 UG	1300370	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane, 3,3,5-trimethyl-	142	C10H22	007154-80-5	59
2	Decane, 4-methyl-	156	C11H24	002847-72-5	55
3	Octane, 2-bromo-	192	C8H17Br	000557-35-7	53
4	Hexane, 2,4,4-trimethyl-	128	C9H20	016747-30-1	50
5	Nonane, 2,6-dimethyl-	156	C11H24	017302-28-2	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

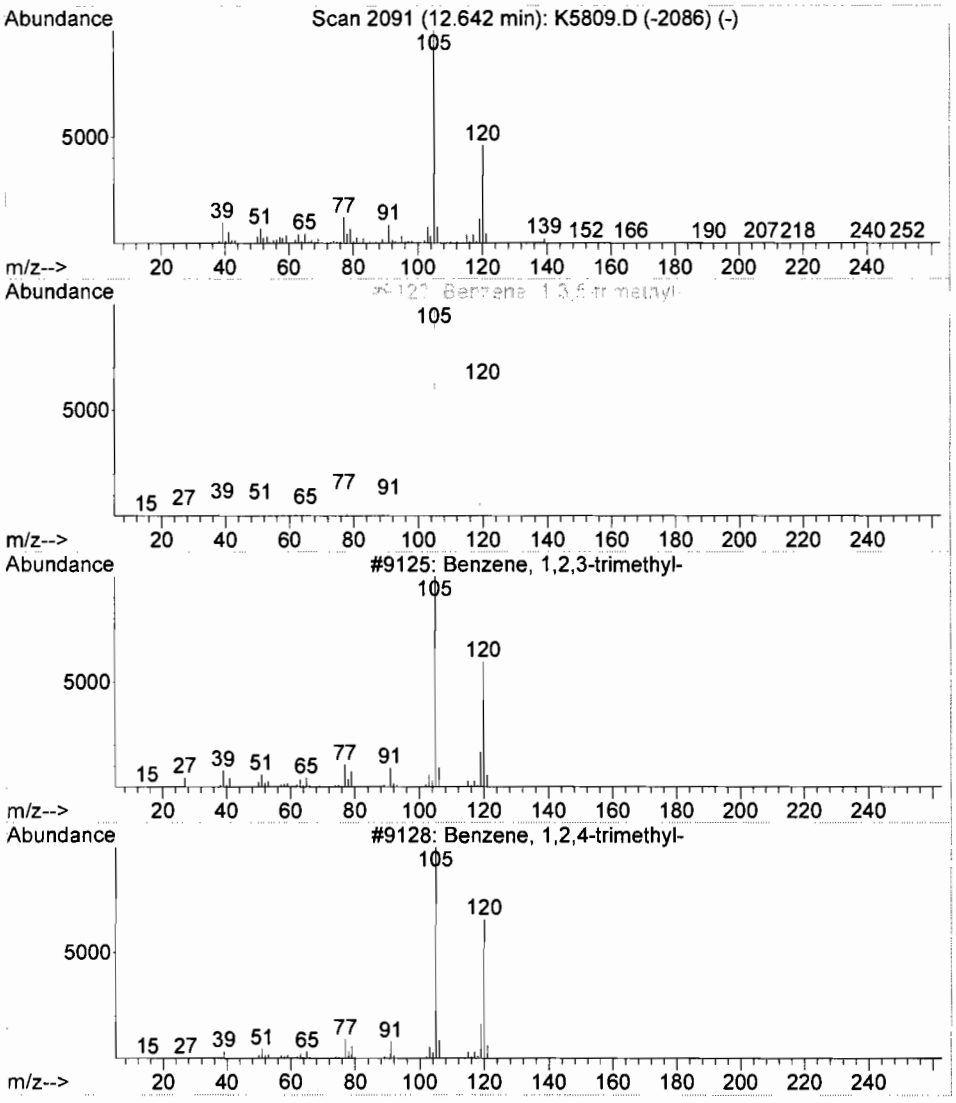
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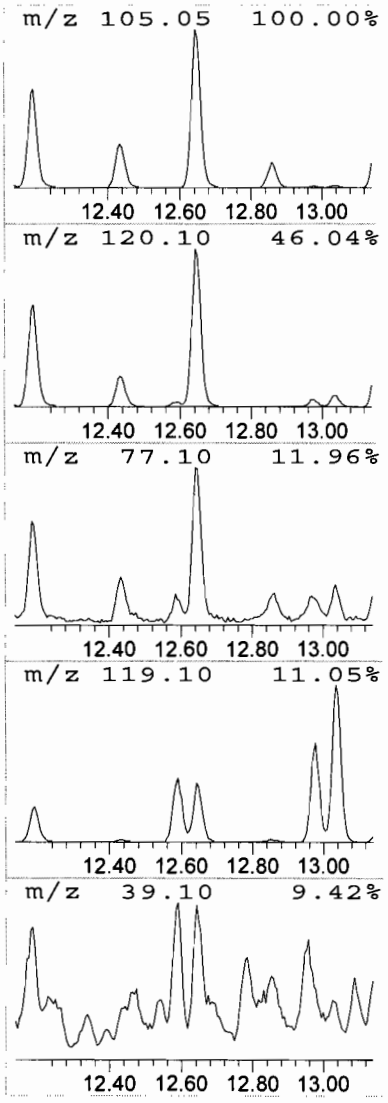
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Peak Number 6 Benzene, 1,3,5-trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	39.50 UG	1711040	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	93
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

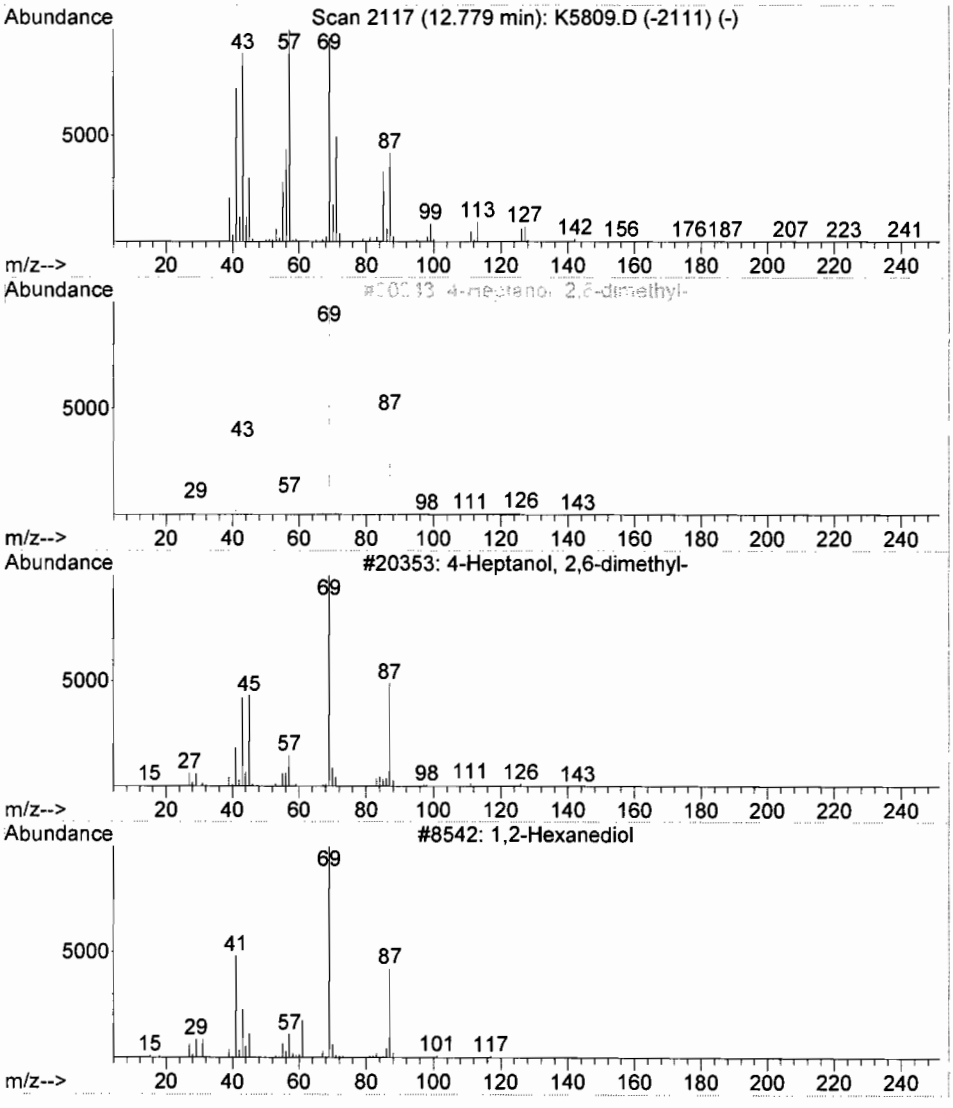
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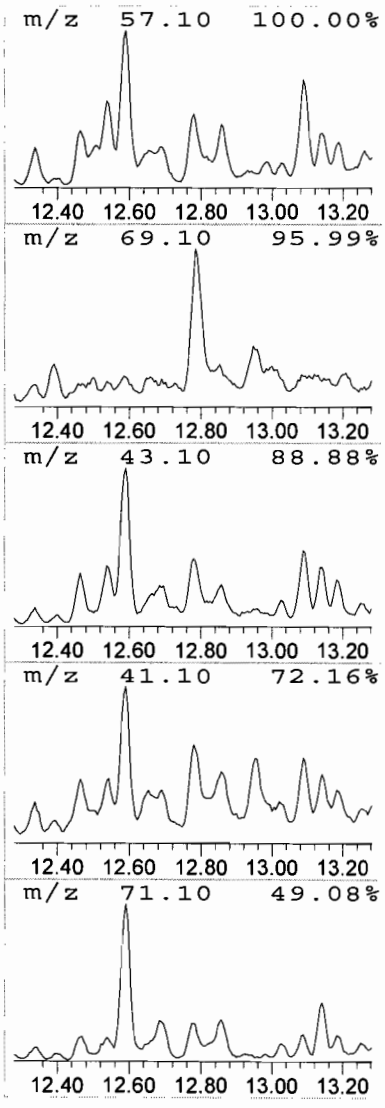
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Peak Number 7 Unknown VOA Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.78	27.03 UG	1170840	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Heptanol, 2,6-dimethyl-	144	C9H20O	000108-82-7	47
2	4-Heptanol, 2,6-dimethyl-	144	C9H20O	000108-82-7	47
3	1,2-Hexanediol	118	C6H14O2	006920-22-5	43
4	5-Nonanol	144	C9H20O	000623-93-8	43
5	Cyclopropanecarboxylic acid,buty...	142	C8H14O2	054947-39-6	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
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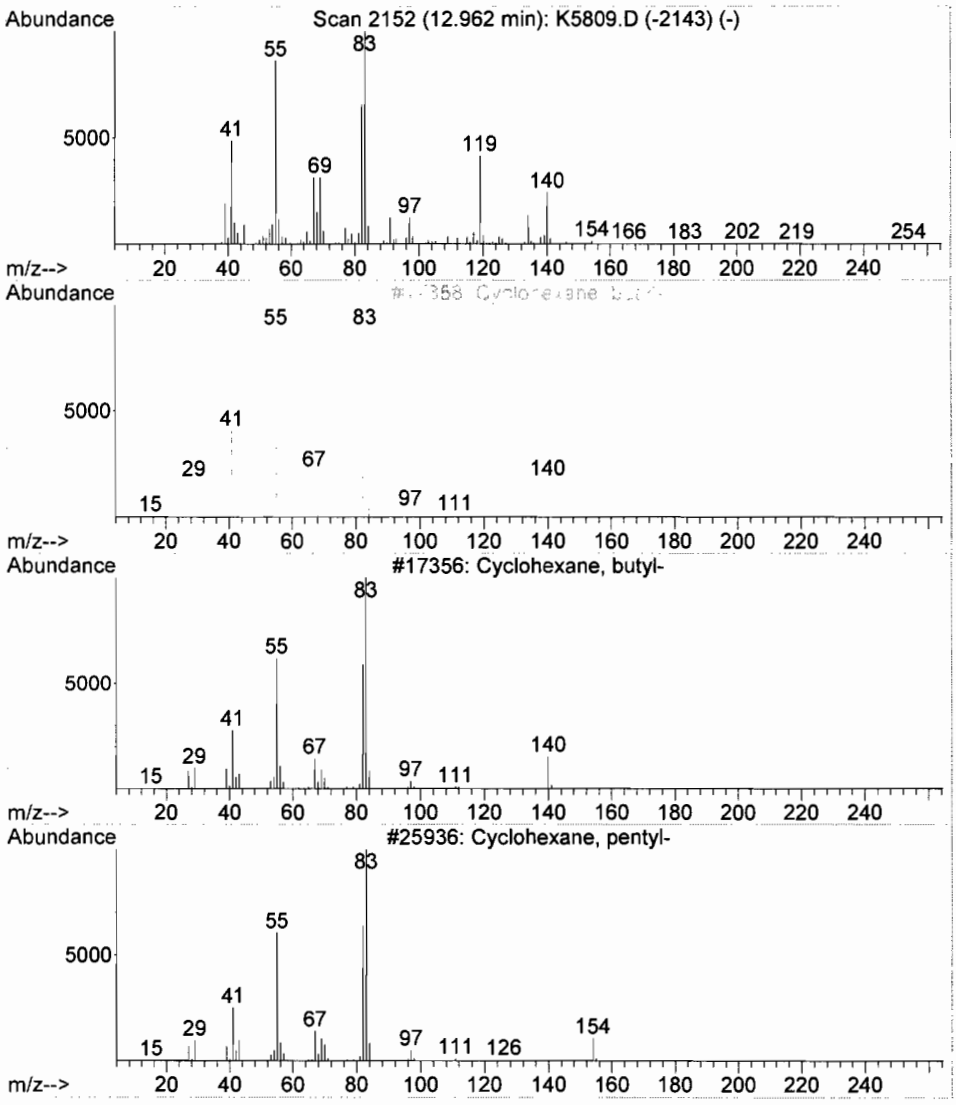
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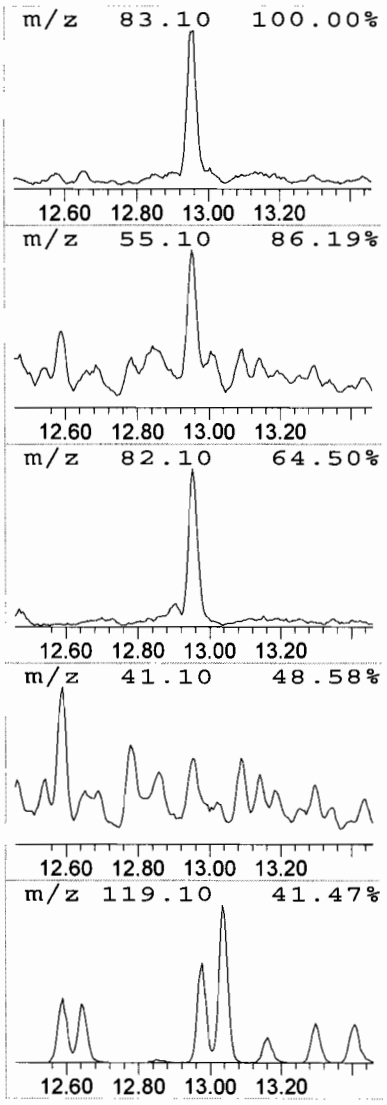
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Peak Number 8 Cyclohexane, butyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.96	28.57 UG	1237340	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, butyl-	140	C10H20	001678-93-9	90
2	Cyclohexane, butyl-	140	C10H20	001678-93-9	87
3	Cyclohexane, pentyl-	154	C11H22	004292-92-6	72
4	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	64
5	Cyclohexane, undecyl-	238	C17H34	054105-66-7	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
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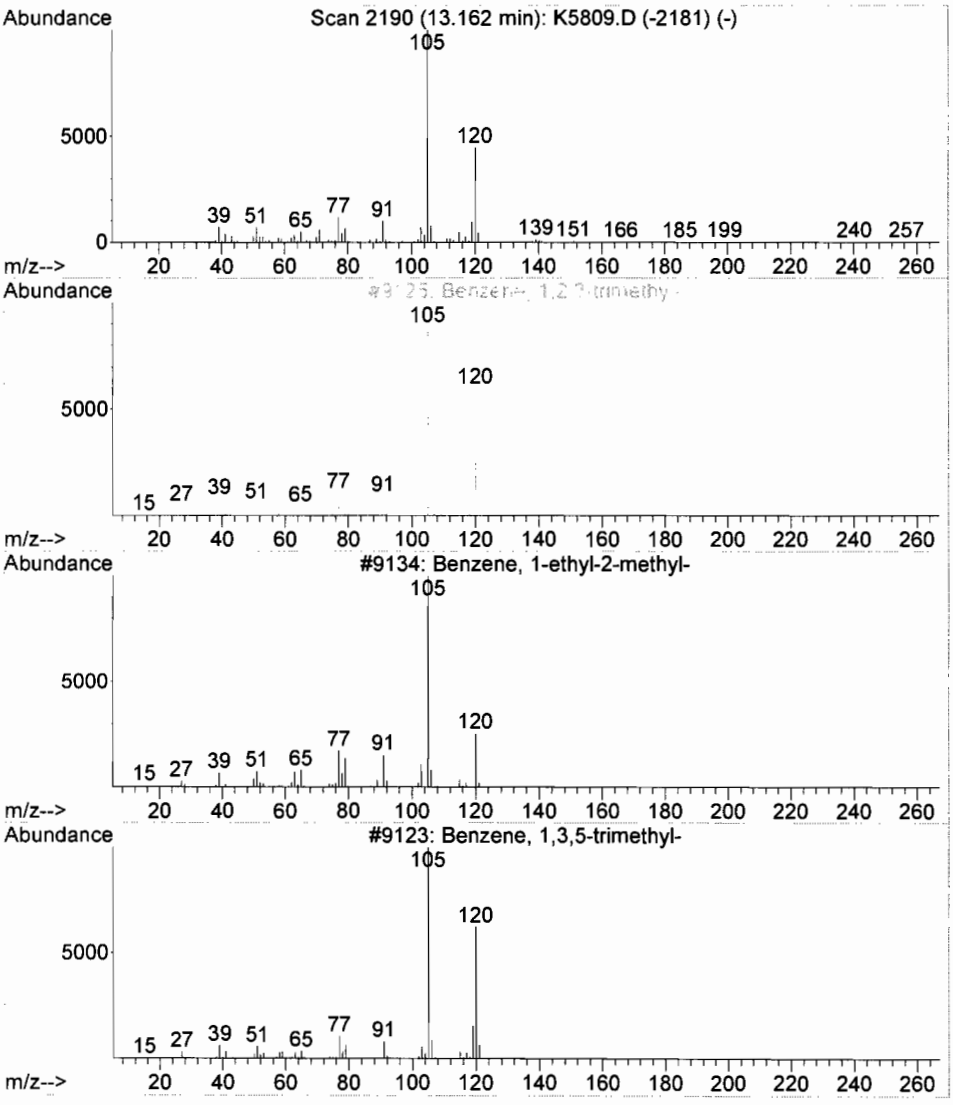
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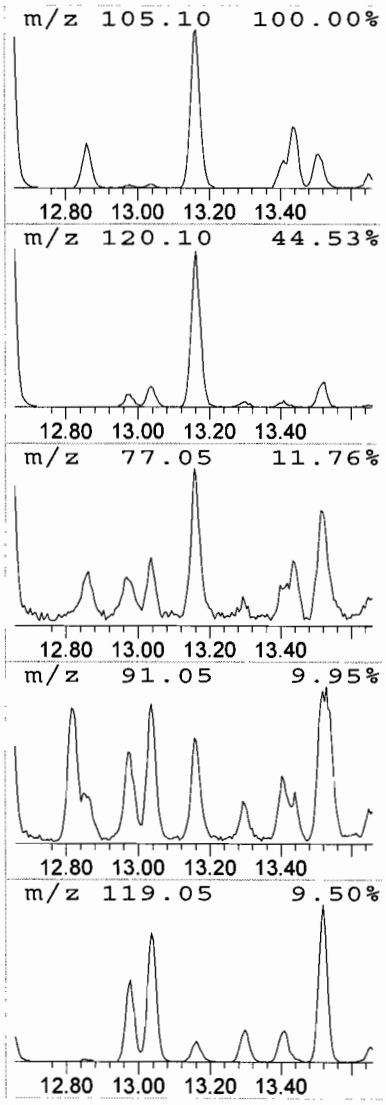
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Peak Number 9 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.16	34.08 UG	1476020	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	93
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	87
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

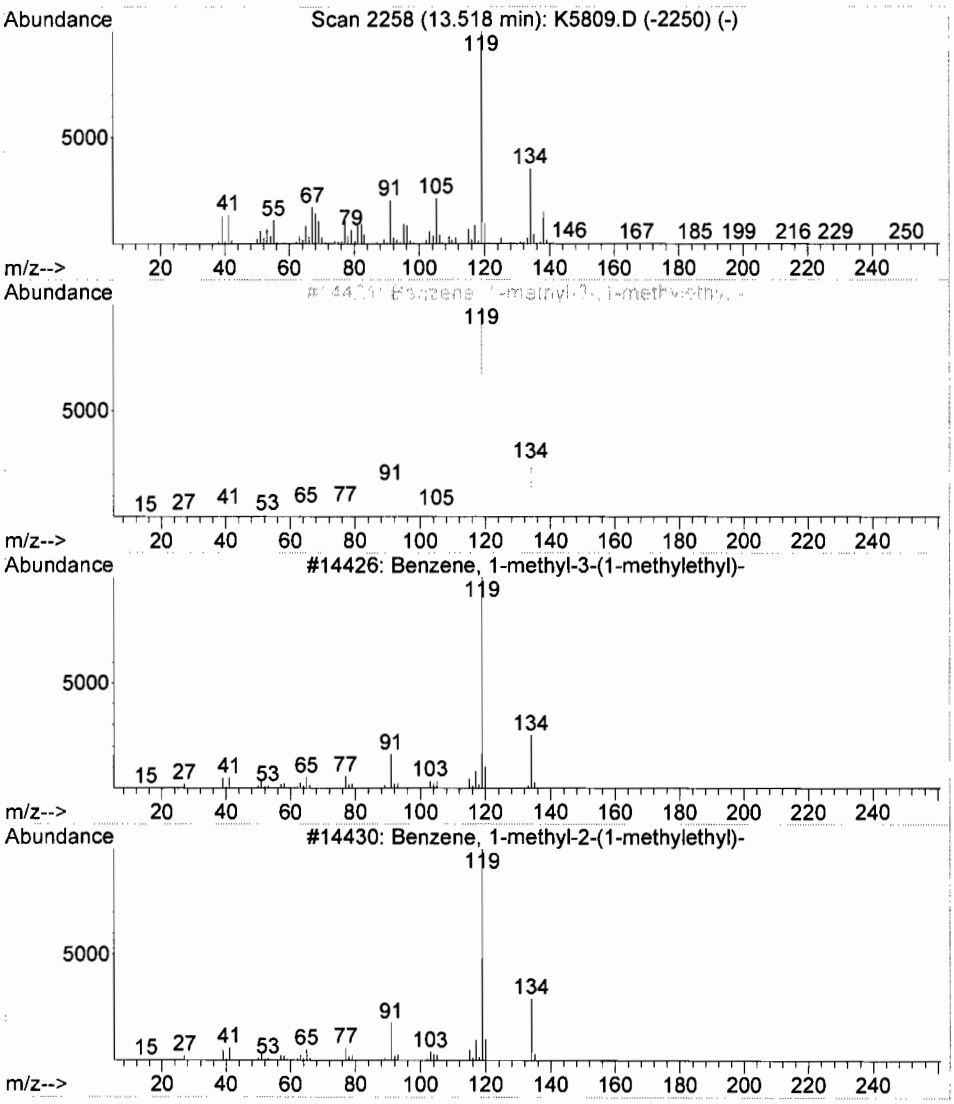
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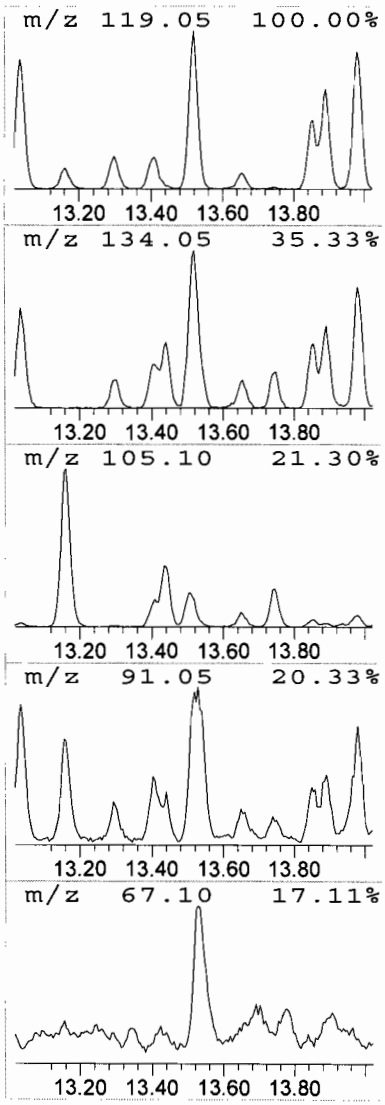
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TIC Integration Parameters: LSCINT.P

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Peak Number 10 Benzene, 1-methyl-3-(1-meth... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.52	24.27 UG	1051320	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	93
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	93
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

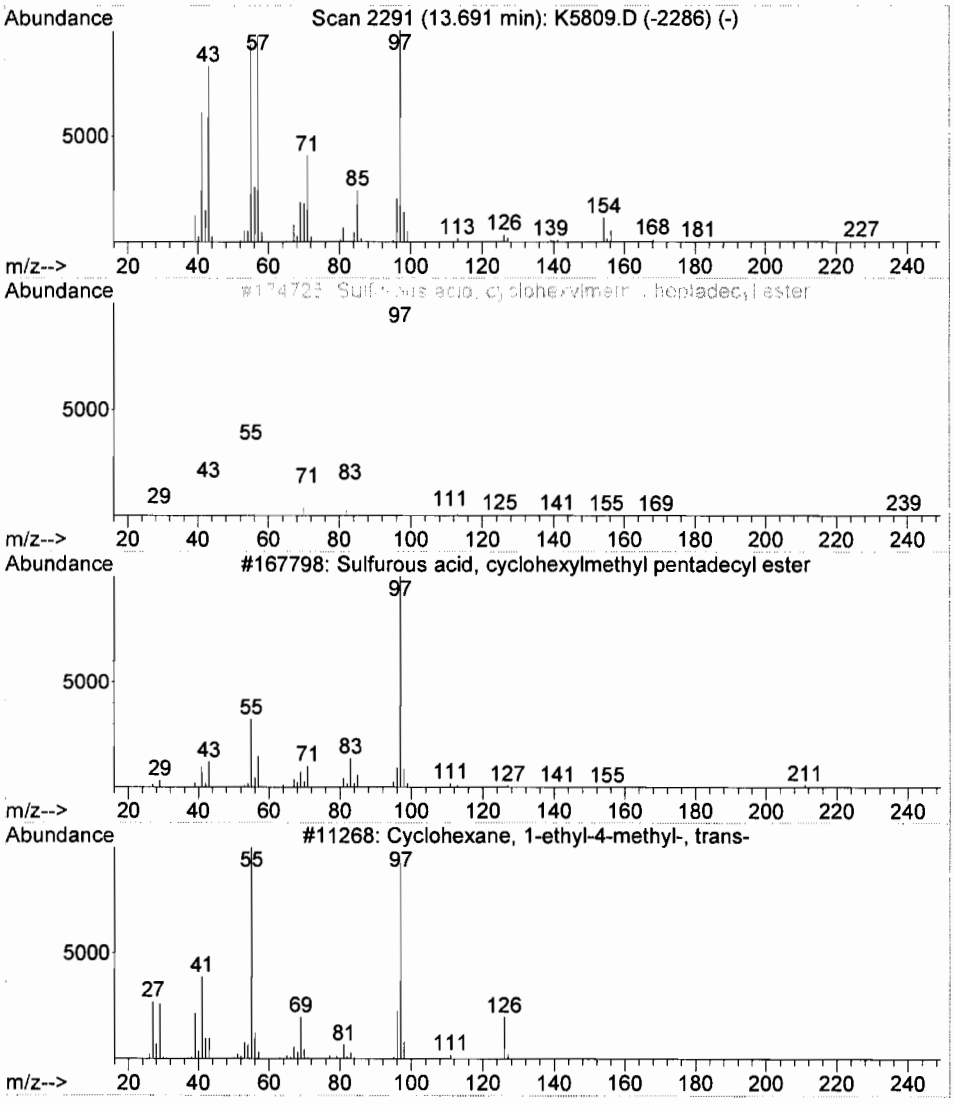
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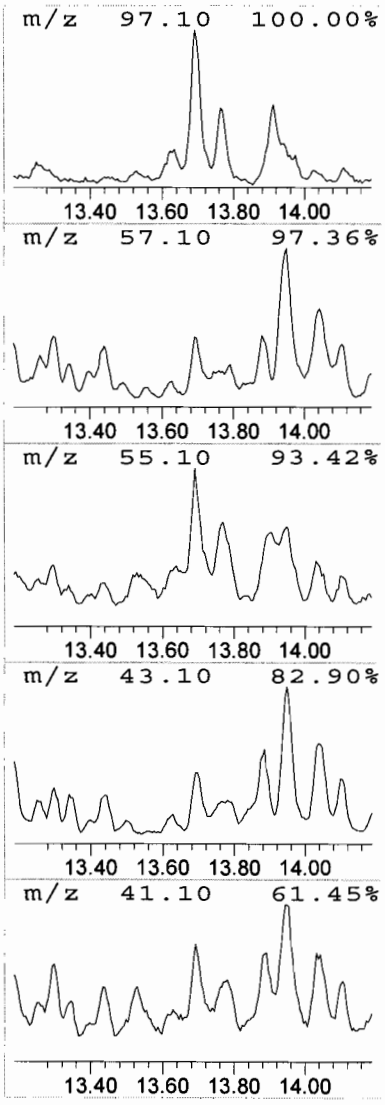
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Peak Number 11 Unknown VOA Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.69	34.11 UG	1477370	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Sulfurous acid, cyclohexylmethyl...	416	C24H48O3S	1000309-22-5	50
2	Sulfurous acid, cyclohexylmethyl...	388	C22H44O3S	1000309-22-3	50
3	Cyclohexane, 1-ethyl-4-methyl-, ...	126	C9H18	006236-88-0	49
4	Cyclohexane, 1,4-dimethyl-, cis-	112	C8H16	000624-29-3	47
5	1-Ethyl-4-methylcyclohexane	126	C9H18	003728-56-1	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
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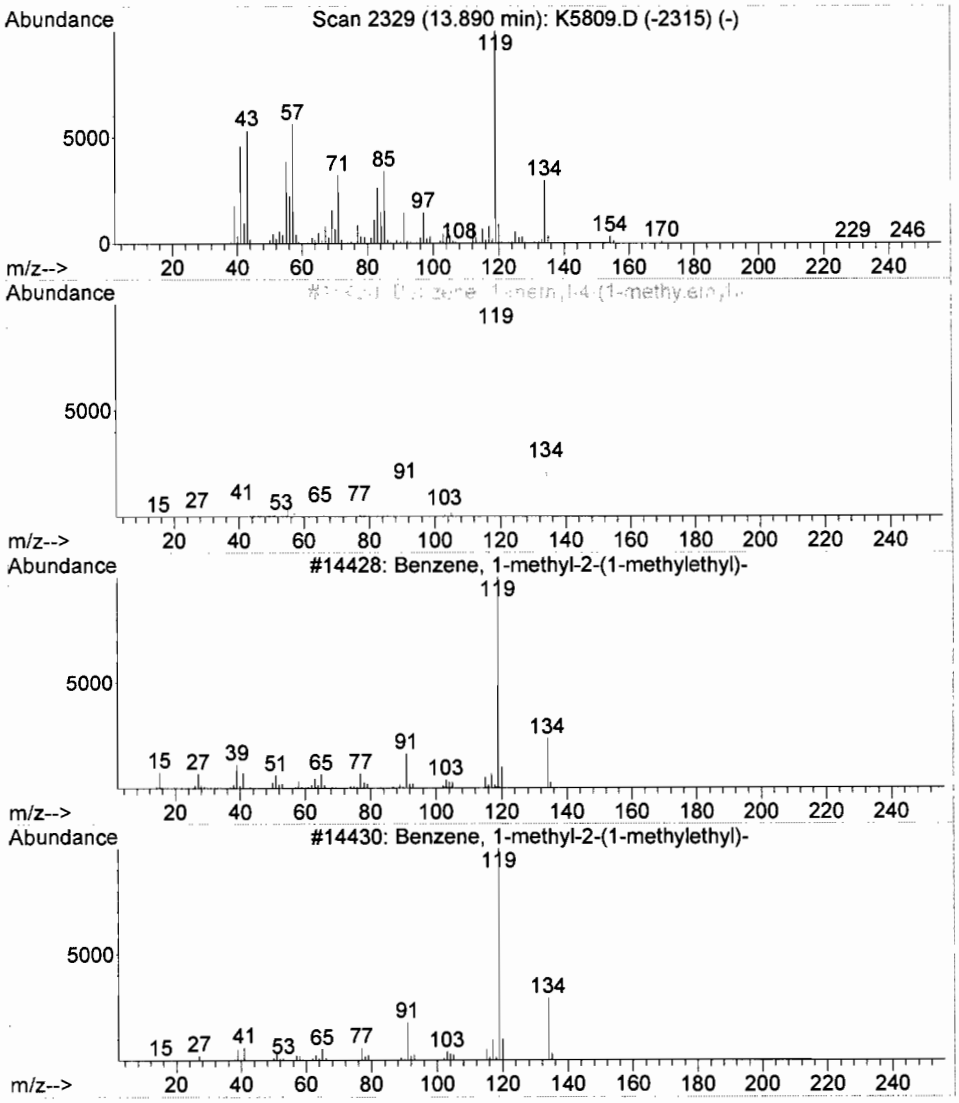
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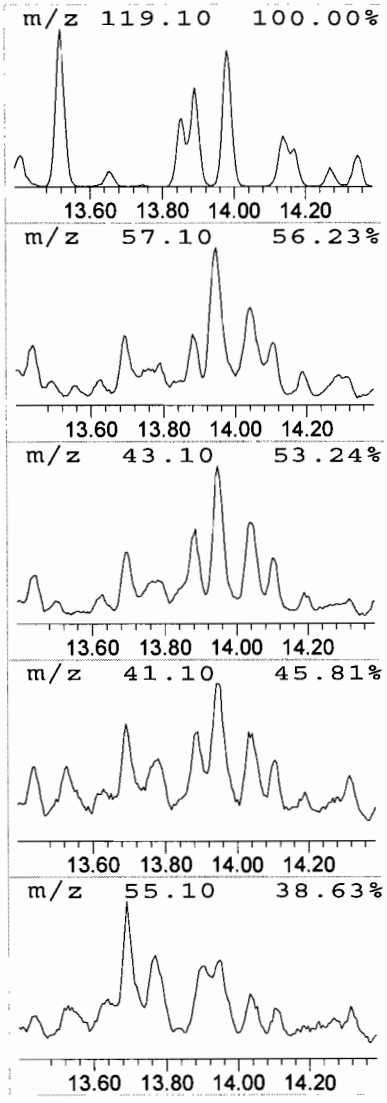
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Peak Number 12 Unknown Aromatic Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.89	25.10 UG	1087020	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	80
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	74
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	70
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	70
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	47





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

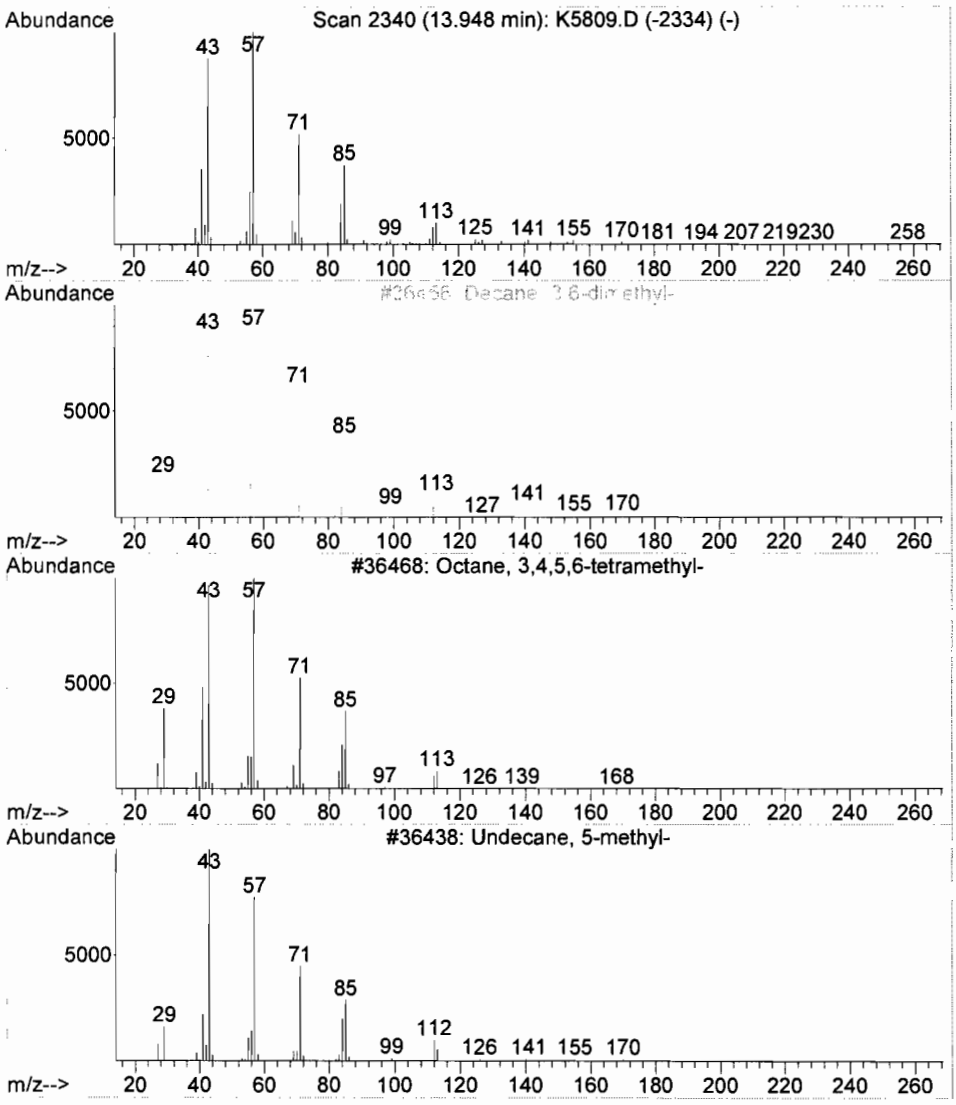
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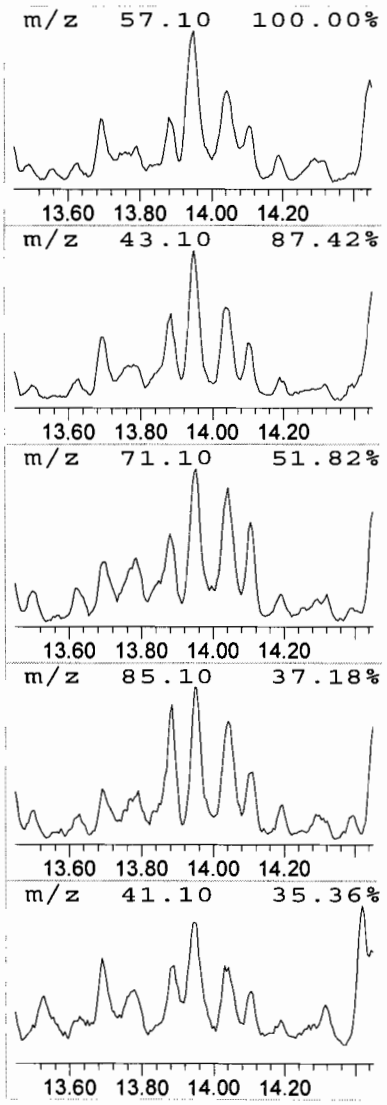
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Peak Number 13 Decane, 3,6-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.95	31.30 UG	1355550	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 3,6-dimethyl-	170	C12H26	017312-53-7	87
2	Octane, 3,4,5,6-tetramethyl-	170	C12H26	062185-21-1	86
3	Undecane, 5-methyl-	170	C12H26	001632-70-8	72
4	Undecane, 5-methyl-	170	C12H26	001632-70-8	62
5	Hexadecane	226	C16H34	000544-76-3	59





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

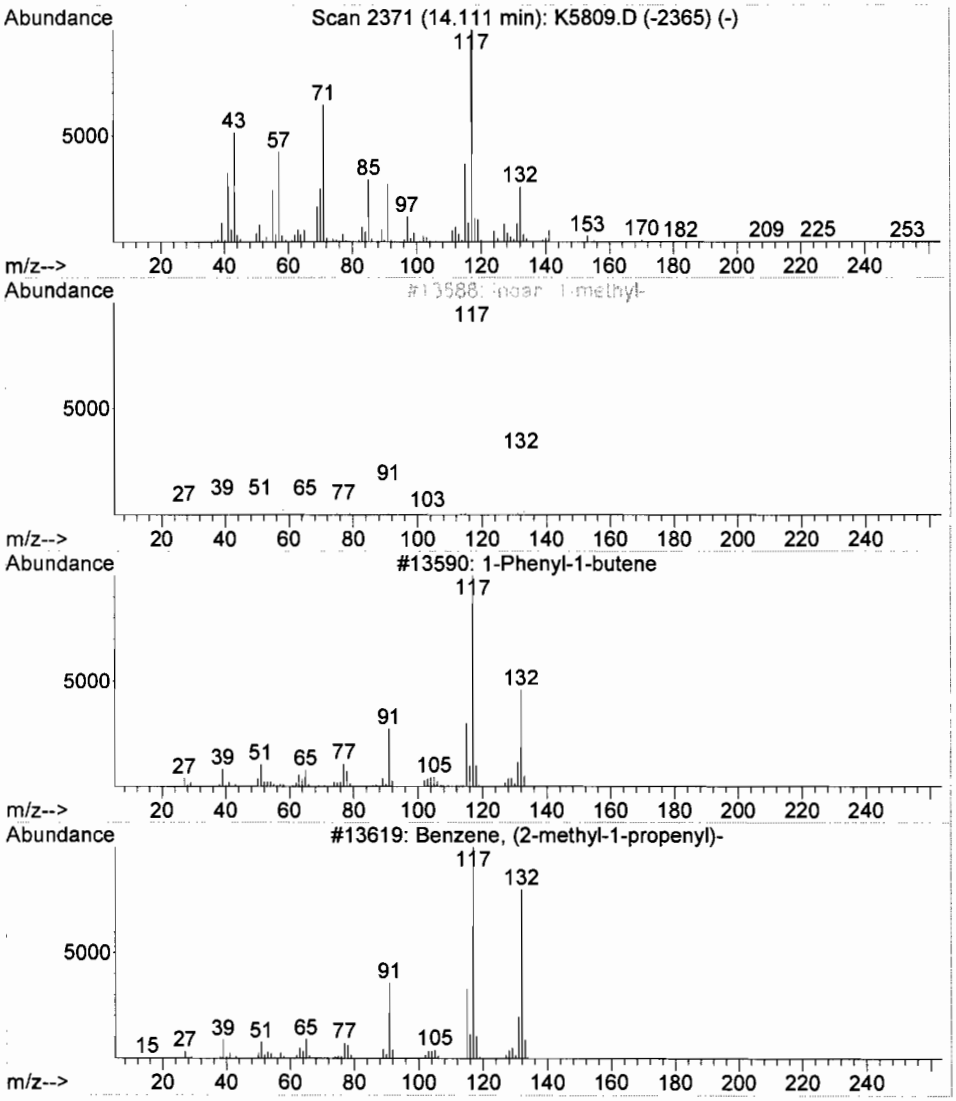
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TIC Integration Parameters: LSCINT.P

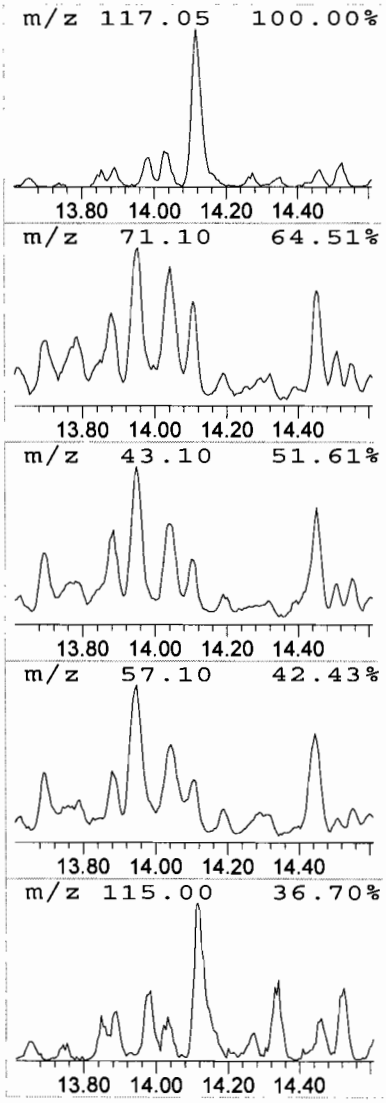
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Peak Number 14 Unknown VOA Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.11	31.89 UG	1381160	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	55
2	1-Phenyl-1-butene	132	C10H12	000824-90-8	55
3	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	49
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	49
5	1H-Indene, 2,3-dihydro-2-methyl-	132	C10H12	000824-63-5	49





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5809.D
Acq On : 26 May 2017 10:49 pm
Operator : BARBARA
Sample : PZ-3,E17-04261-007,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

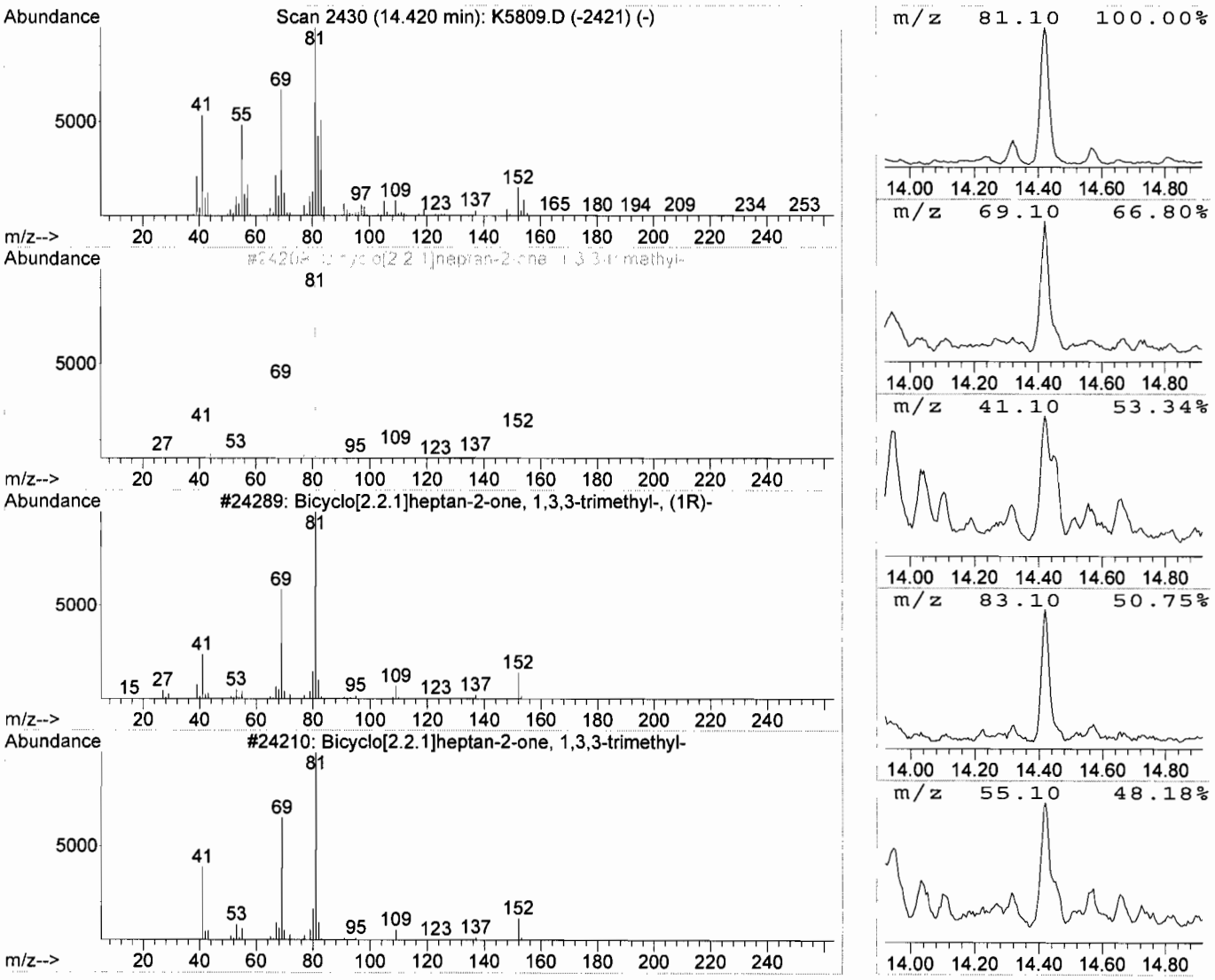
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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Peak Number 15 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.42	36.04 UG	1560960	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptan-2-one, 1,3,...	152	C10H16O	001195-79-5	46
2	Bicyclo[2.2.1]heptan-2-one, 1,3,...	152	C10H16O	007787-20-4	43
3	Bicyclo[2.2.1]heptan-2-one, 1,3,...	152	C10H16O	001195-79-5	43
4	Pulegone	152	C10H16O	000089-82-7	43
5	Bicyclo[2.2.1]heptan-2-one, 1,3,...	152	C10H16O	001195-79-5	43



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 01 11:59:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

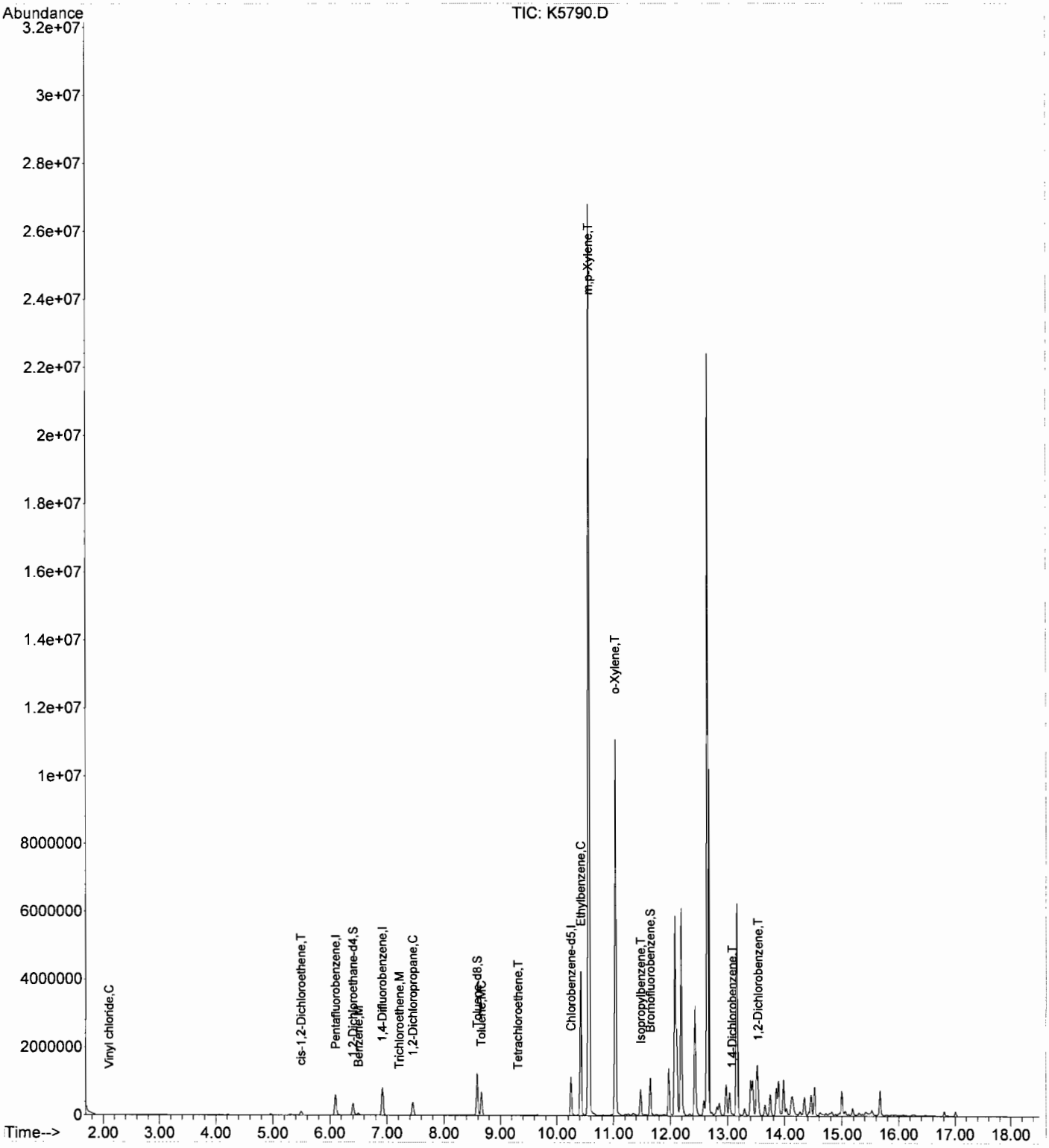
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	475121	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	710541	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	670000	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	256216	49.64	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%				
41) Toluene-d8	8.59	98	837765	49.75	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%				
59) Bromofluorobenzene	11.65	95	363765	53.23	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.46%				
Target Compounds							Qvalue
4) Vinyl chloride	2.10	62	5679	1.13	UG		99
20) cis-1,2-Dichloroethene	5.50	96	58839	13.10	UG	#	99
32) Benzene	6.50	78	55930	3.30	UG		99
33) Trichloroethene	7.22	95	2192	0.51	UG	#	100
34) 1,2-Dichloropropane	7.45	63	141329m	31.48	UG		
42) Toluene	8.66	92	299122	27.07	UG		98
45) Tetrachloroethene	9.31	166	2421	0.48	UG	#	82
53) Ethylbenzene	10.42	91	3213728	147.00	UG		99
54) m,p-Xylene	10.57	106	8417878	899.76	UG		89
55) o-Xylene	11.03	106	3193283	365.74	UG		91
58) Isopropylbenzene	11.48	105	566579	24.32	UG		100
72) 1,4-Dichlorobenzene	13.09	146	11058	0.90	UG		98
74) 1,2-Dichlorobenzene	13.54	146	64035	5.13	UG		99

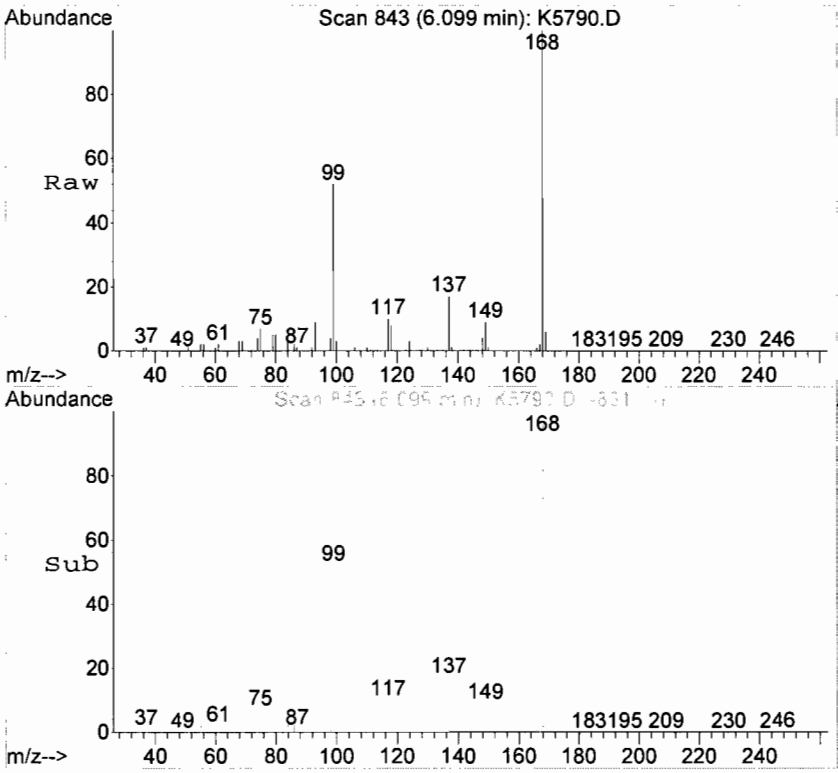
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 01 11:59:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

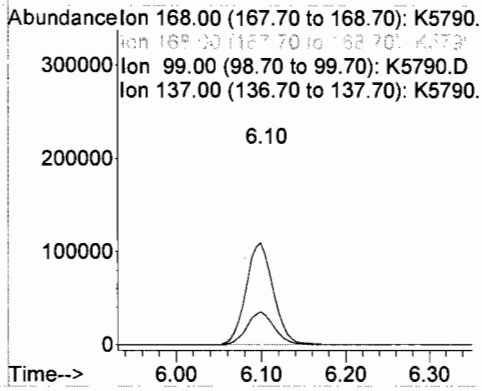


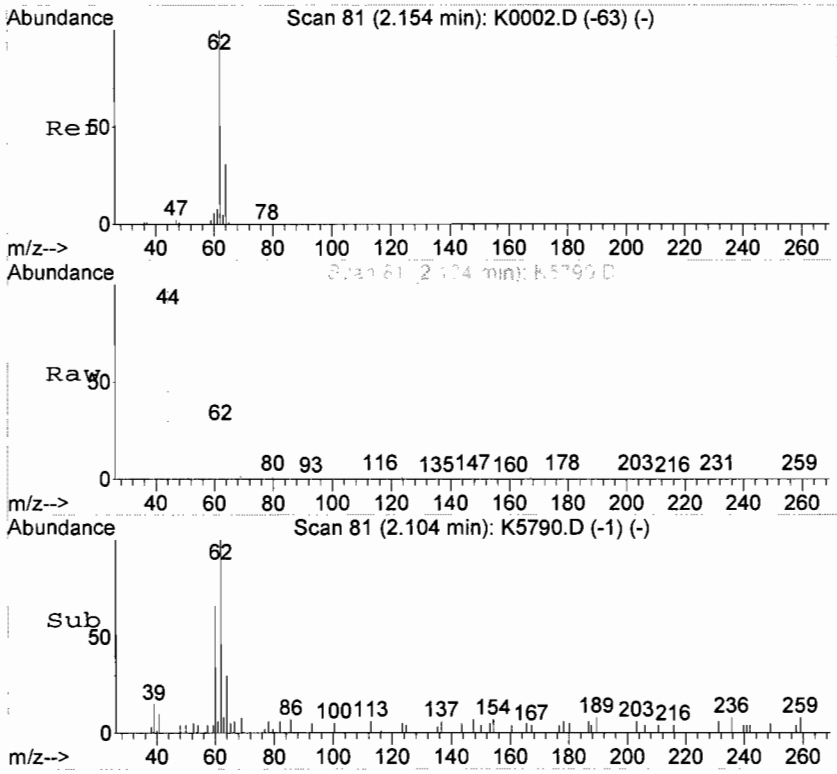


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:168 Resp: 475121

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	51.1	45.9	68.9
137	16.4	12.7	19.1

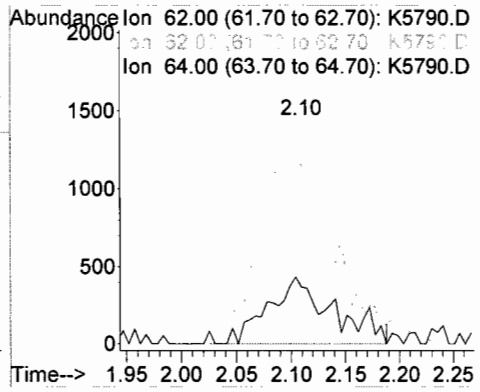


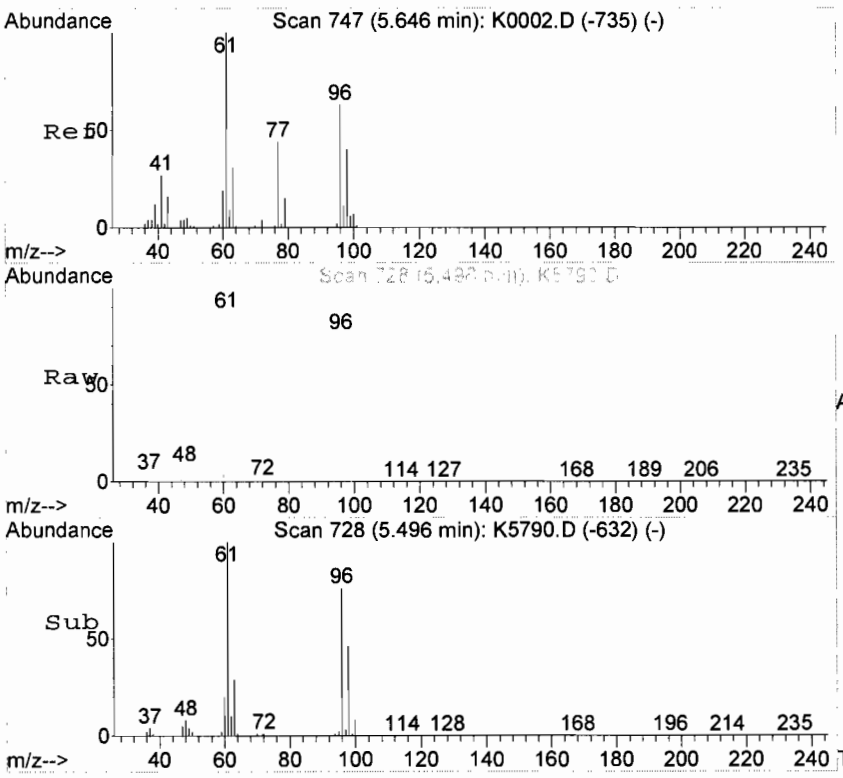


#4
Vinyl chloride
Concen: 1.13 UG
RT: 2.10 min Scan# 81
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 62 Resp: 5679

Ion	Ratio	Lower	Upper
62	100		
62	100.0	80.0	120.0
64	28.2	21.3	31.9

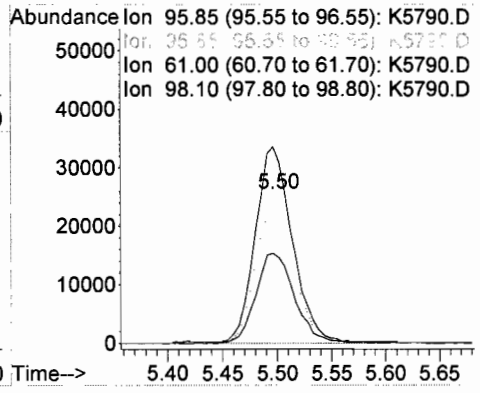


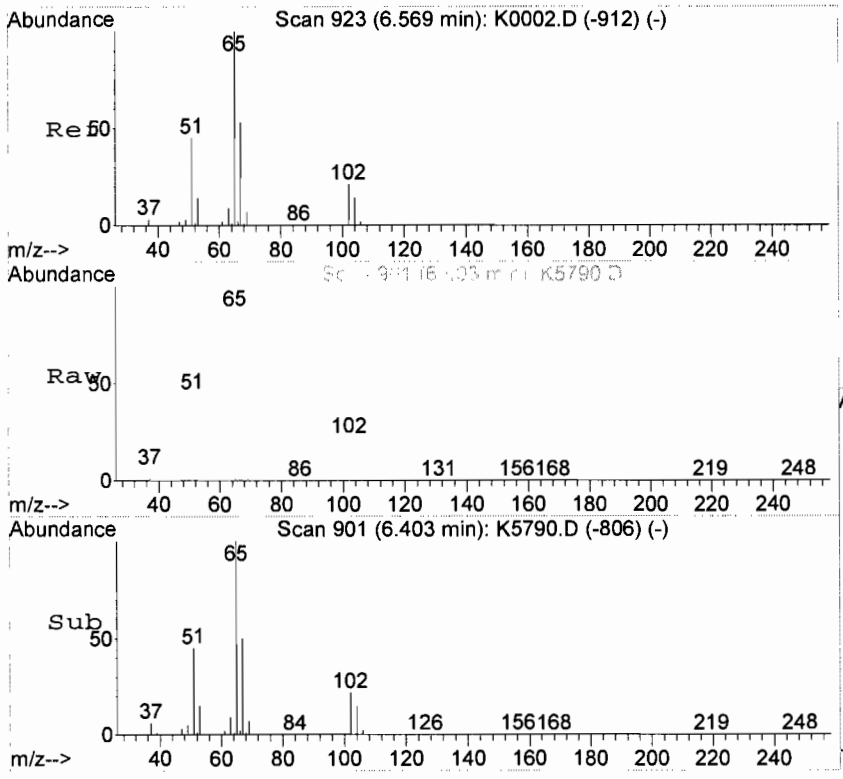


#20
cis-1,2-Dichloroethene
Concen: 13.10 UG
RT: 5.50 min Scan# 728
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 96 Resp: 58839

Ion	Ratio	Lower	Upper
96	100		
96	100.0	80.0	120.0
61	0.0	0.0	0.0
98	64.1	53.0	79.4

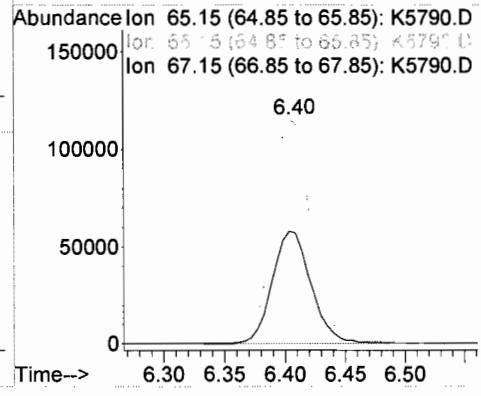


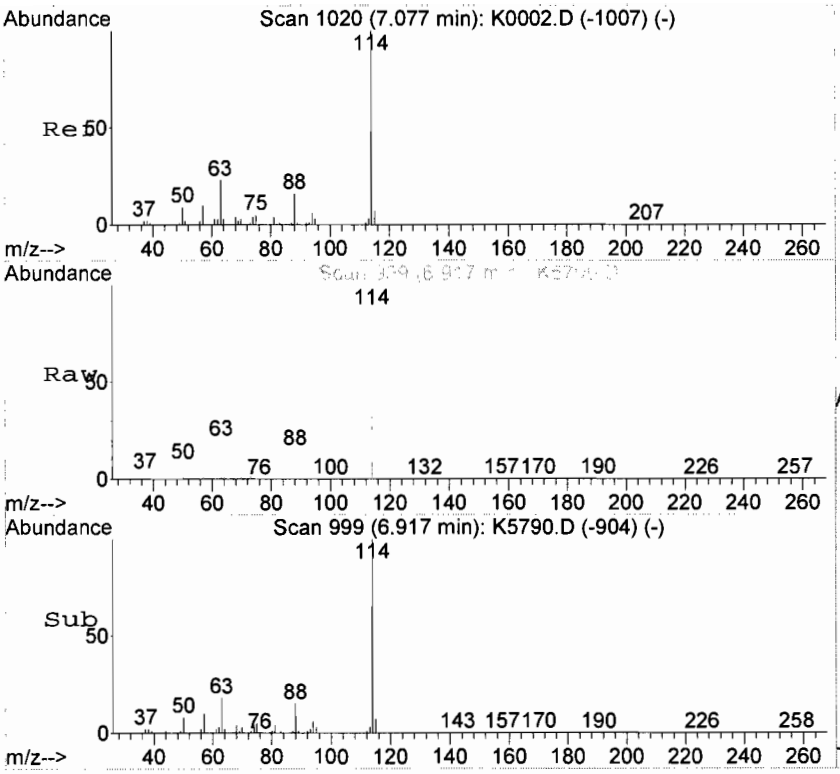


#30
1,2-Dichloroethane-d4
Concen: 49.64 UG
RT: 6.40 min Scan# 901
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 65 Resp: 256216

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.0	40.4	60.6

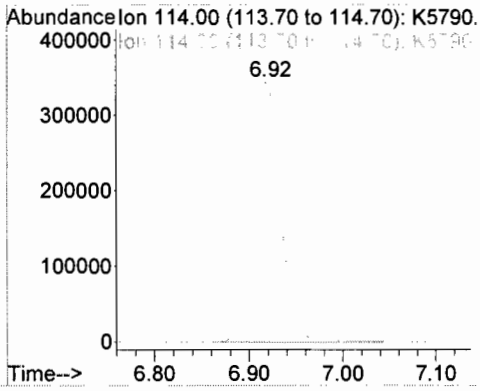


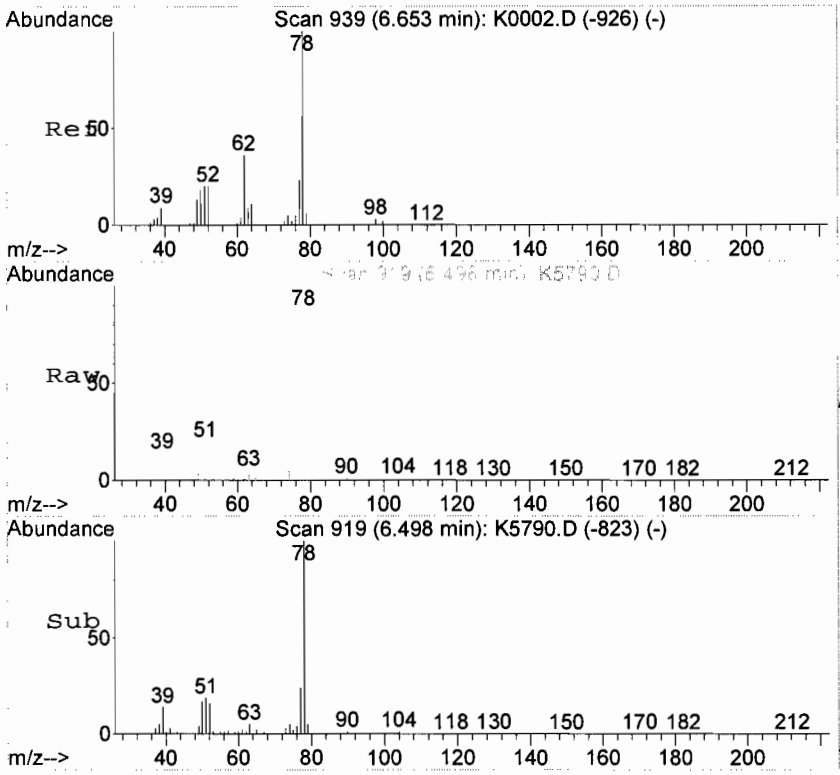


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 999
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:114 Resp: 710541

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

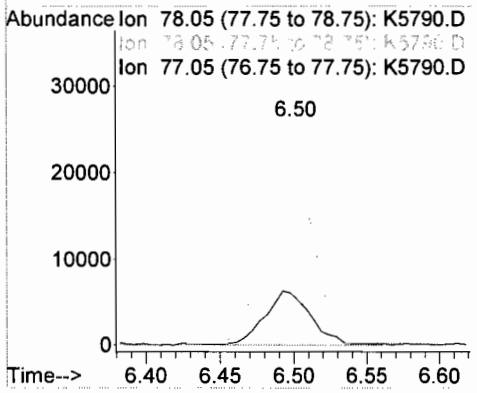


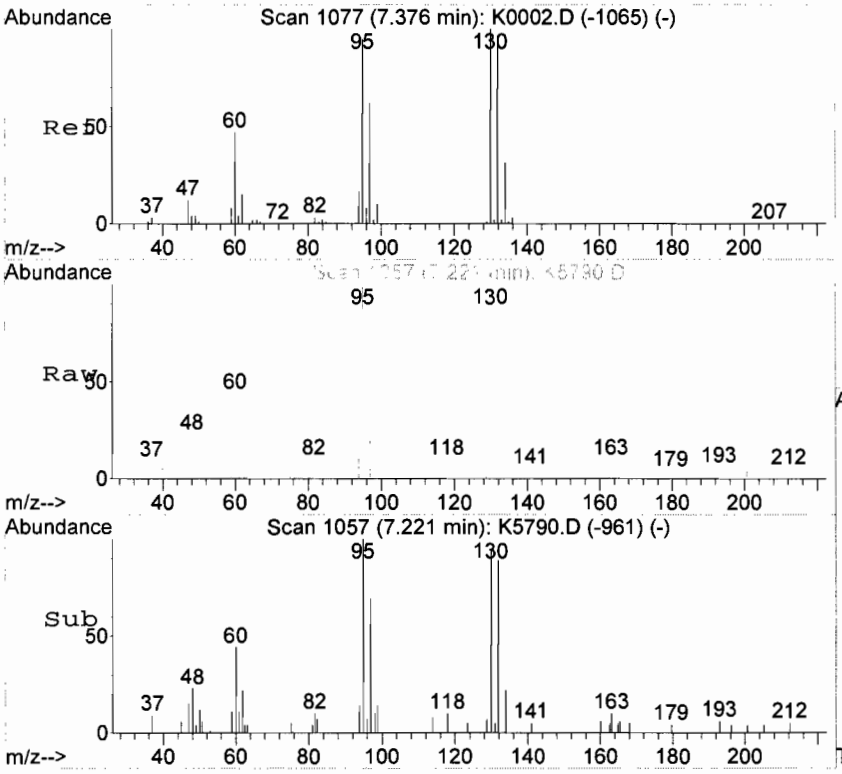


#32
Benzene
Concen: 3.30 UG
RT: 6.50 min Scan# 919
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 78 Resp: 55930

Ion	Ratio	Lower	Upper
78	100		
78	100.0	80.0	120.0
77	24.9	18.6	27.8

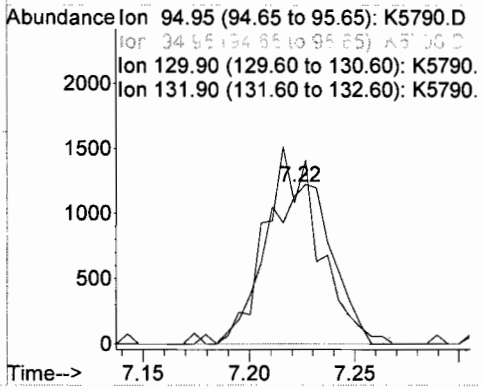


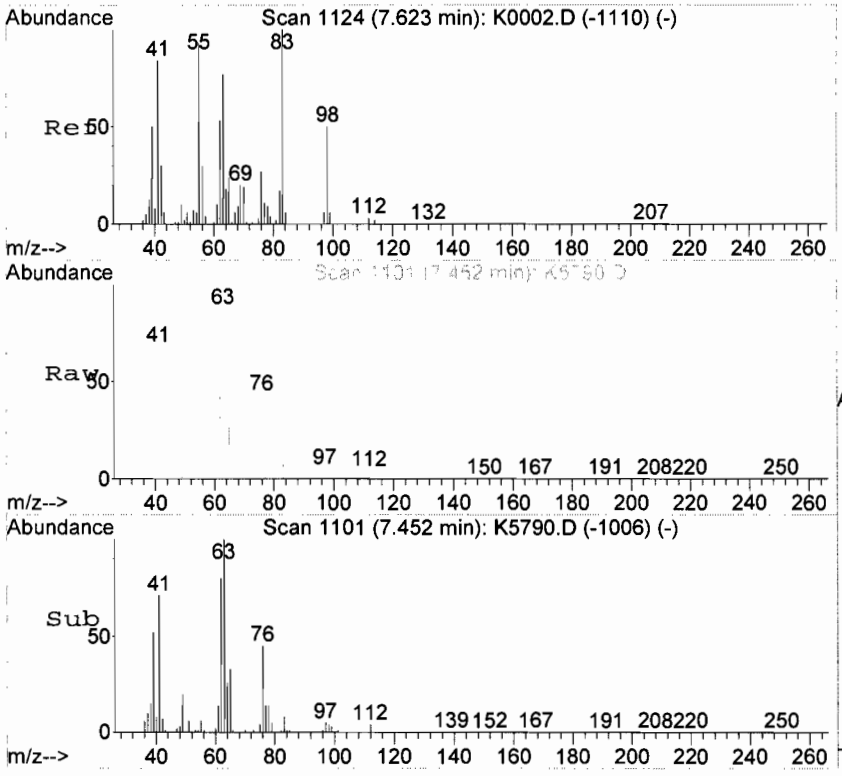


#33
Trichloroethene
Concen: 0.51 UG
RT: 7.22 min Scan# 1057
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 95 Resp: 2192

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
130	0.0	0.0	0.0
132	122.8	0.0	0.0#

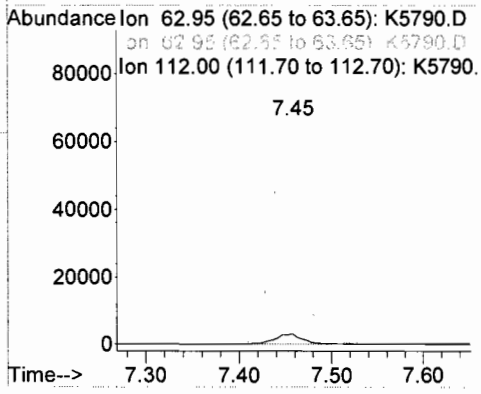


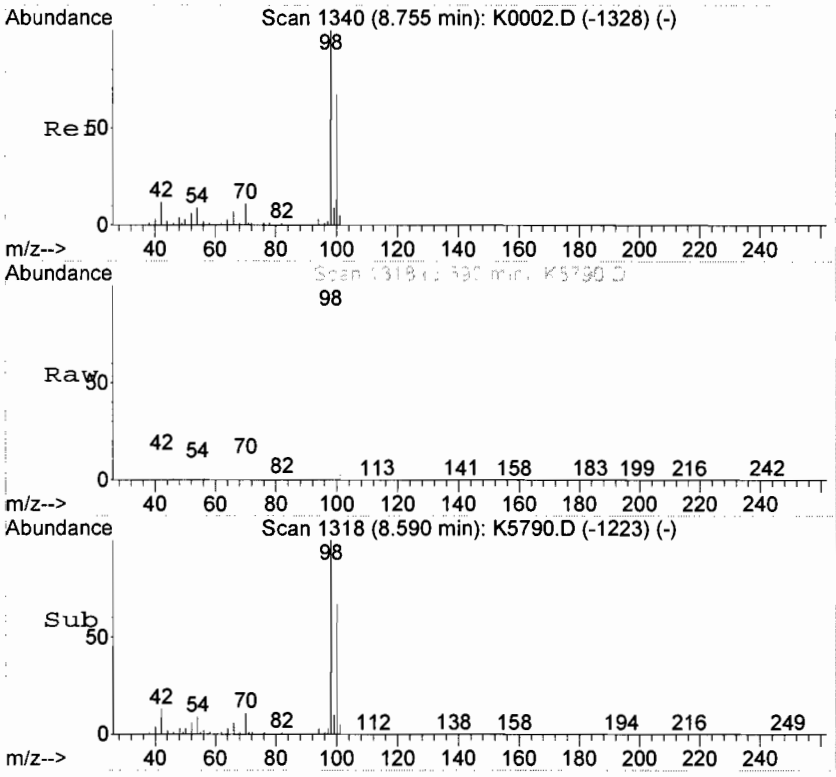


#34
1,2-Dichloropropane
Concen: 31.48 UG m
RT: 7.45 min Scan# 1101
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 63 Resp: 141329

Ion	Ratio	Lower	Upper
63	100		
63	0.0	80.0	120.0#
112	0.0	0.0	0.0

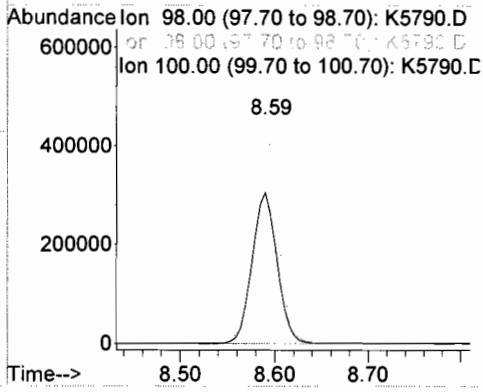


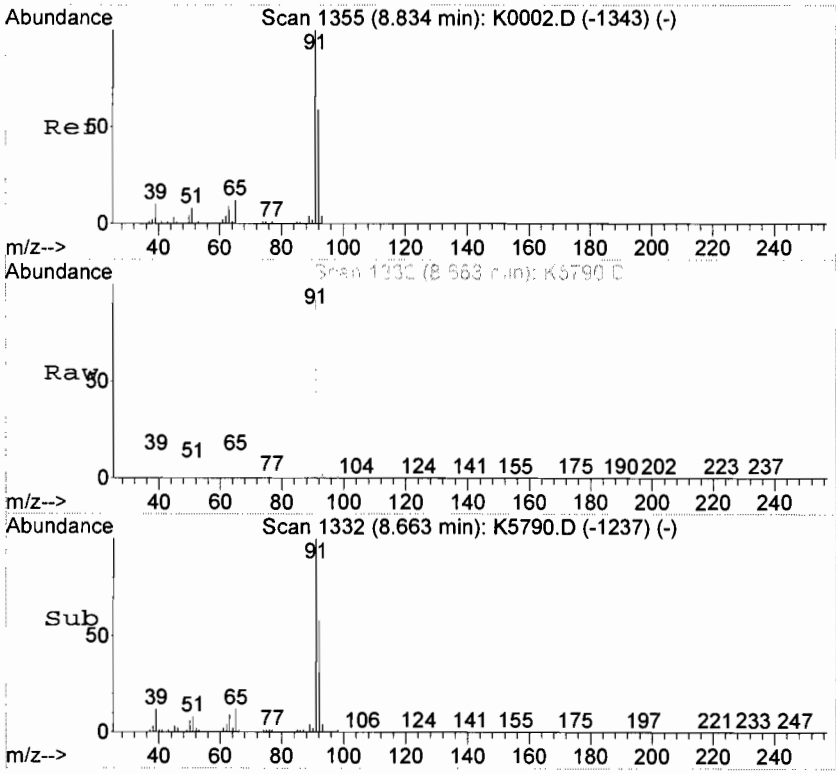


#41
Toluene-d8
Concen: 49.75 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 98 Resp: 837765

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.4	51.6	77.4

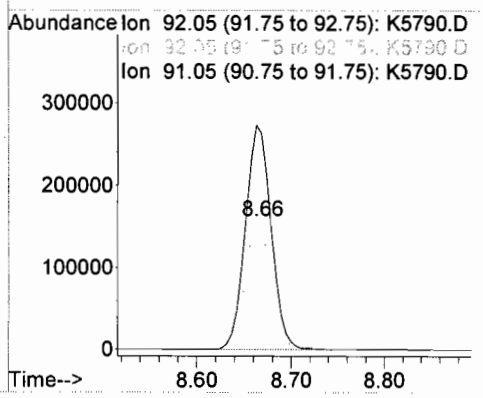


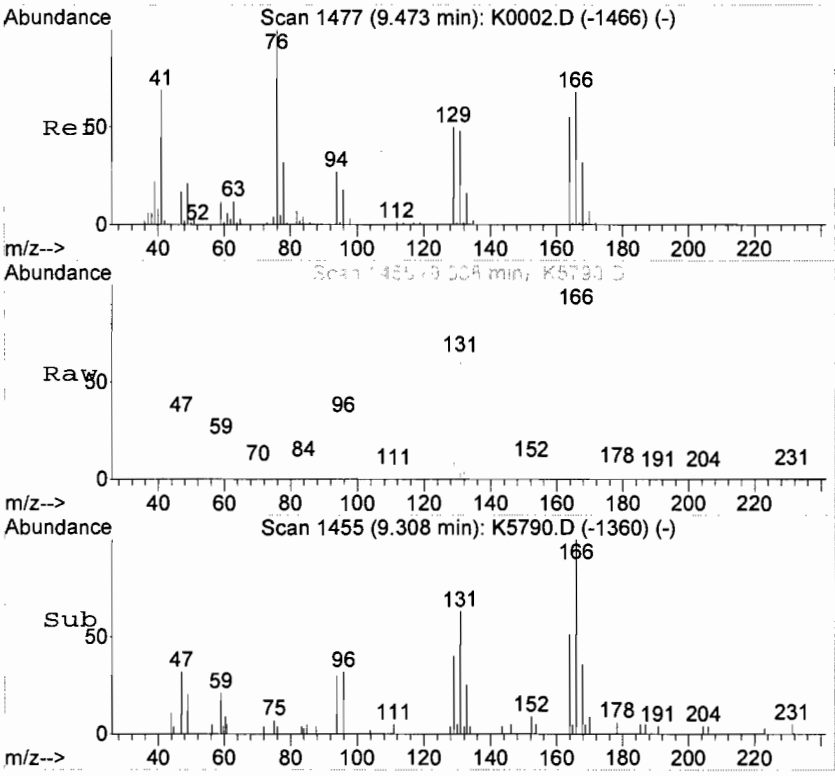


#42
Toluene
Concen: 27.07 UG
RT: 8.66 min Scan# 1332
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 92 Resp: 299122

Ion	Ratio	Lower	Upper
92	100		
92	100.0	80.0	120.0
91	173.0	134.6	201.8

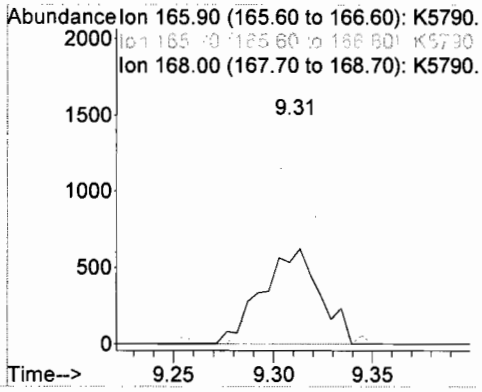


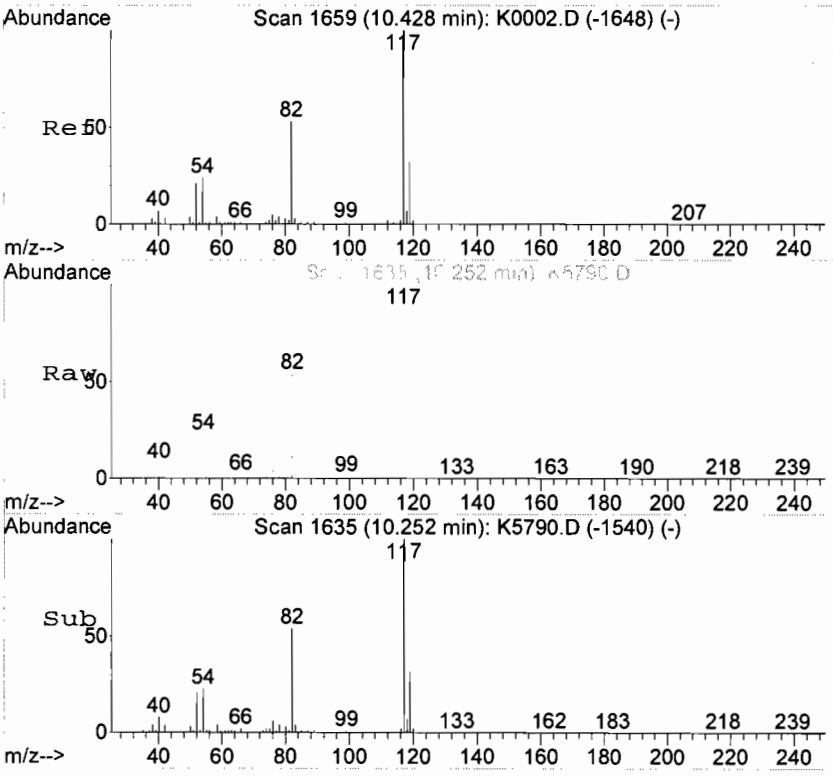


#45
Tetrachloroethene
Concen: 0.48 UG
RT: 9.31 min Scan# 1455
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:166 Resp: 2421

Ion	Ratio	Lower	Upper
166	100		
166	100.0	80.0	120.0
168	0.0	32.0	48.0#

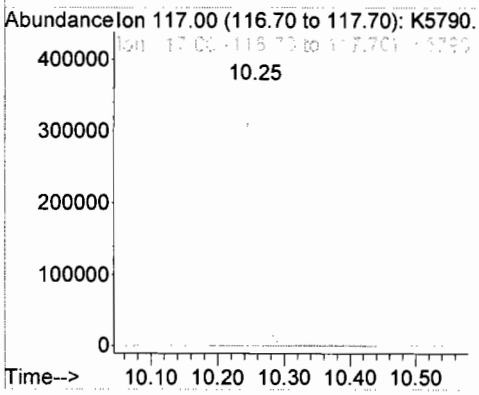


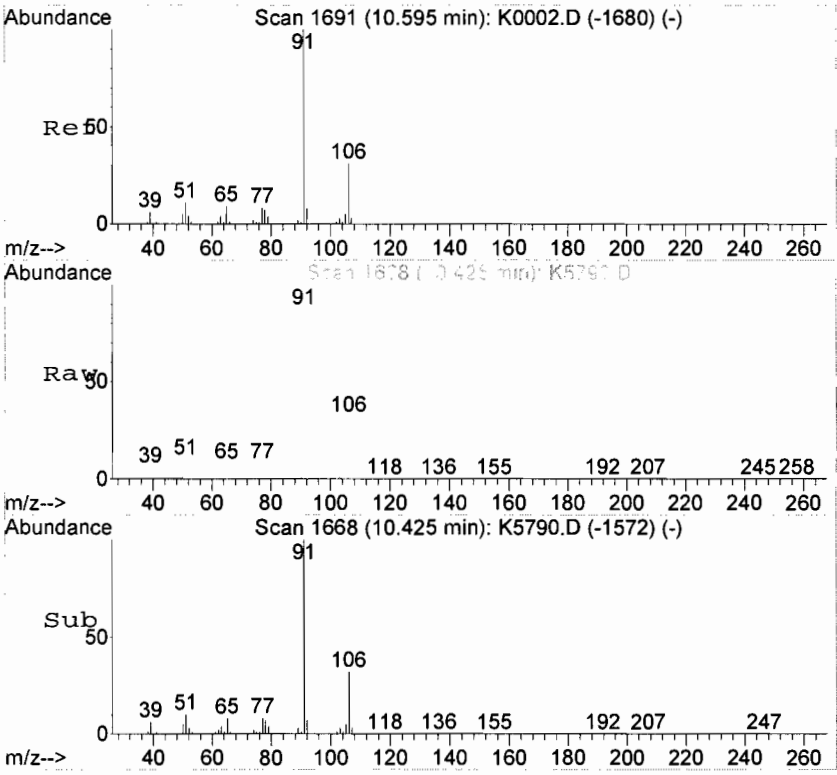


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:117 Resp: 670000

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

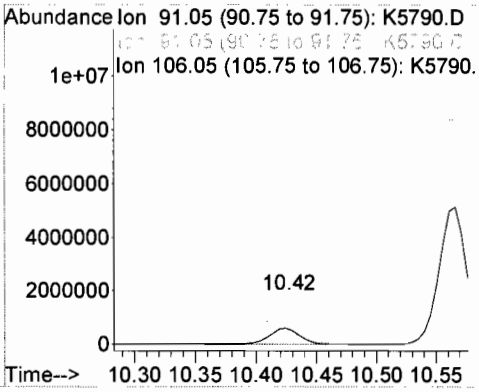


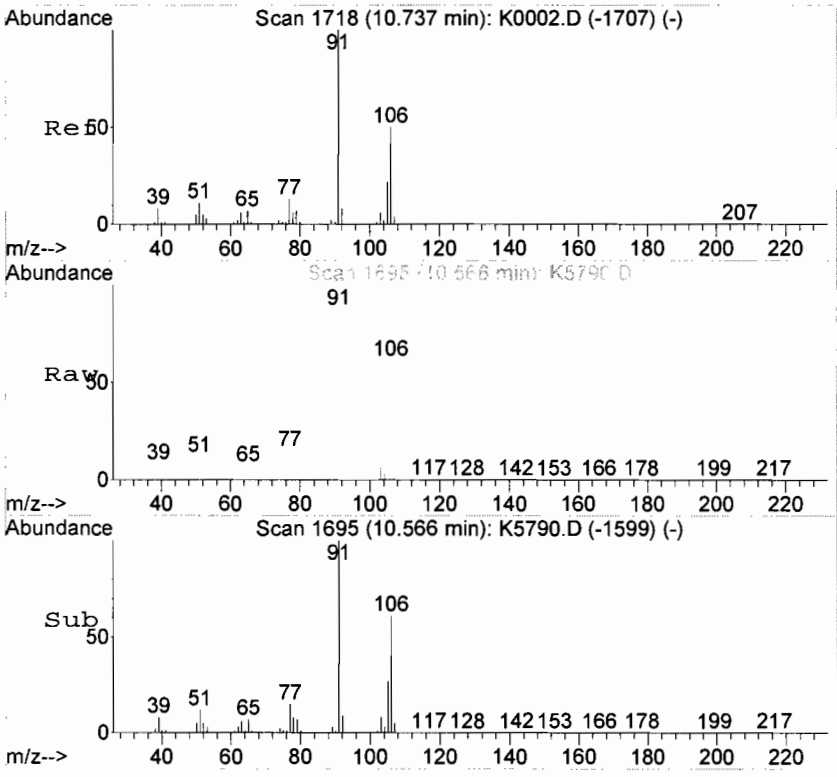


#53
Ethylbenzene
Concen: 147.00 UG
RT: 10.42 min Scan# 1668
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 91 Resp: 3213728

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	32.4	24.6	36.8

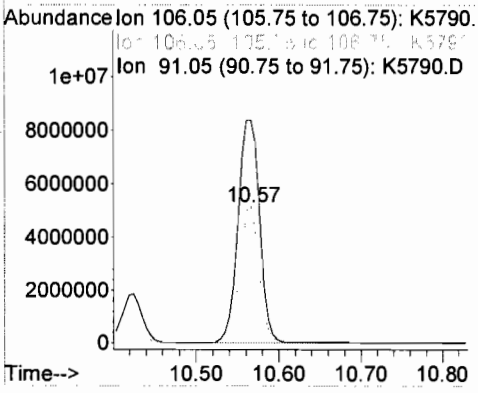


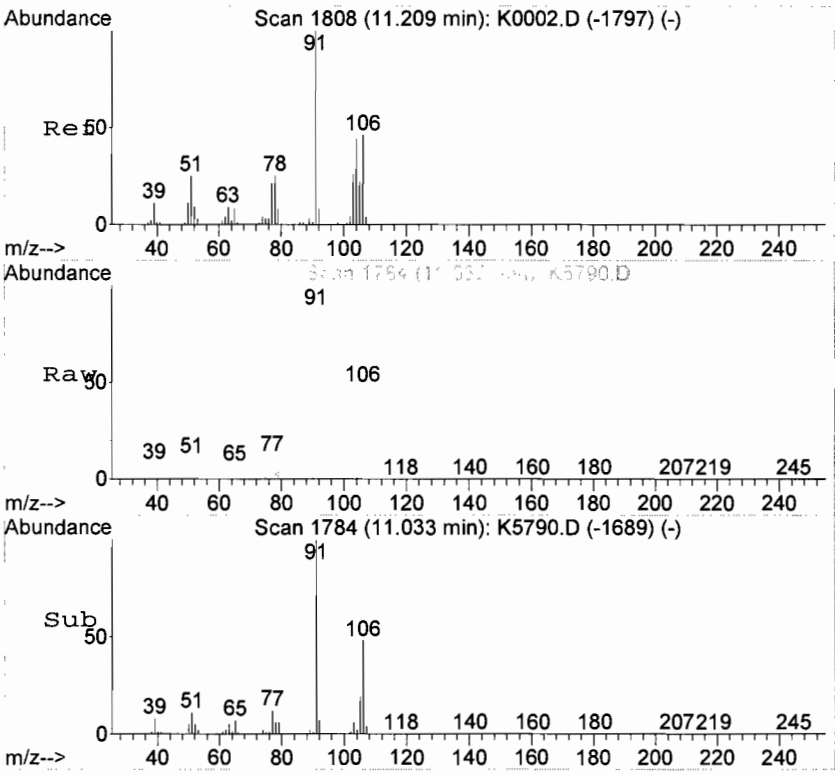


#54
m,p-Xylene
Concen: 899.76 UG
RT: 10.57 min Scan# 1695
Delta R.T. 0.01 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:106 Resp: 8417878

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	180.4	164.6	246.8

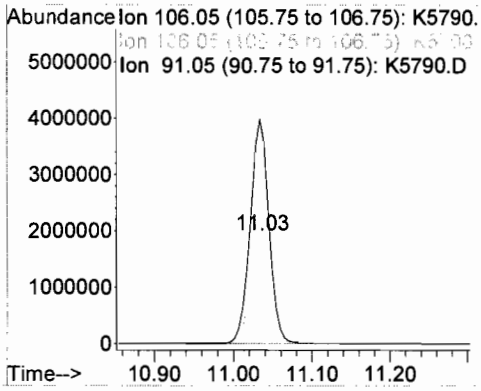


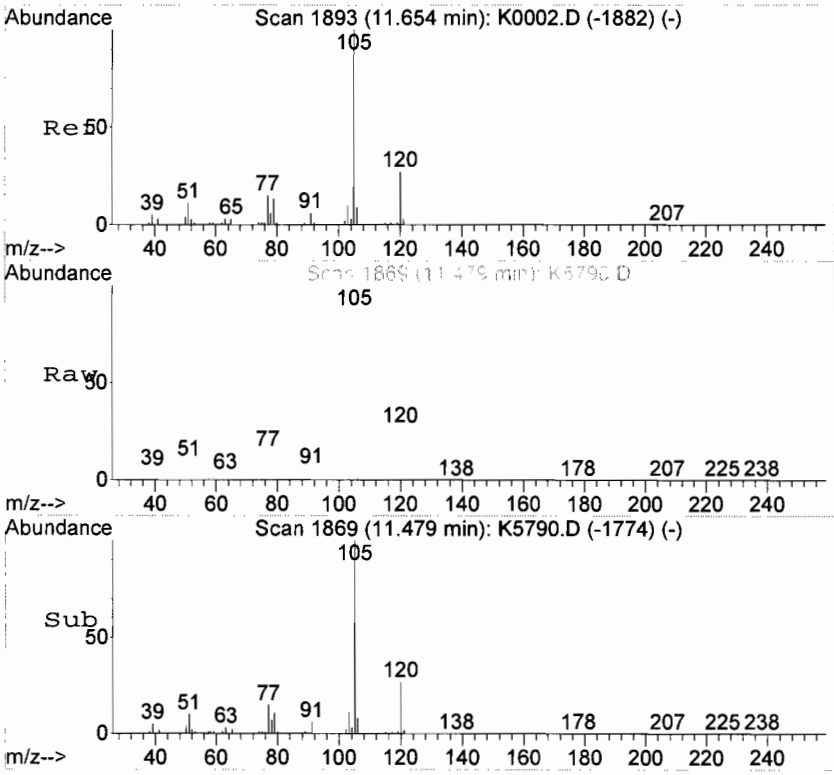


#55
o-Xylene
Concen: 365.74 UG
RT: 11.03 min Scan# 1784
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:106 Resp: 3193283

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	205.5	182.2	273.2

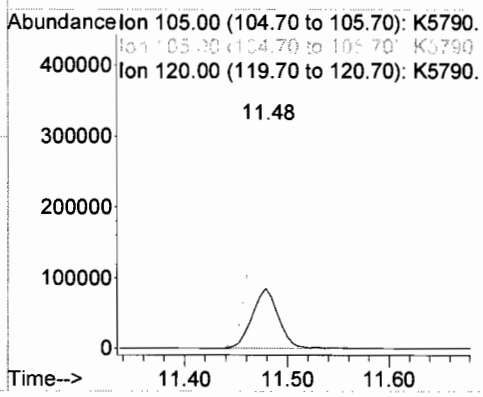


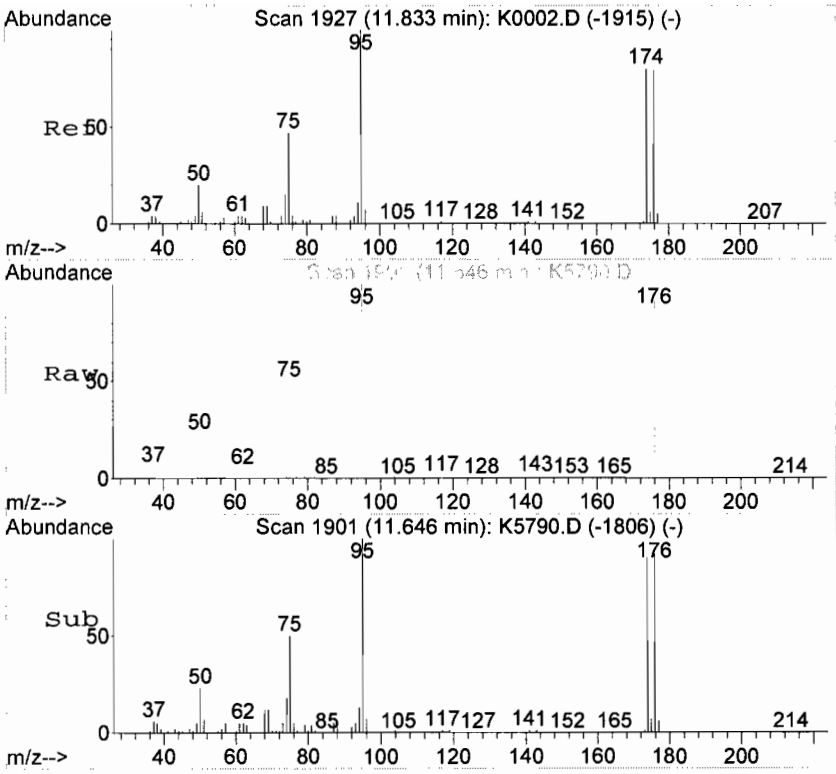


#58
Isopropylbenzene
Concen: 24.32 UG
RT: 11.48 min Scan# 1869
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:105 Resp: 566579

Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	26.7	21.6	32.4

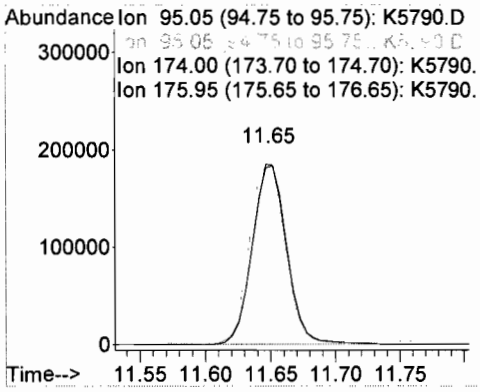


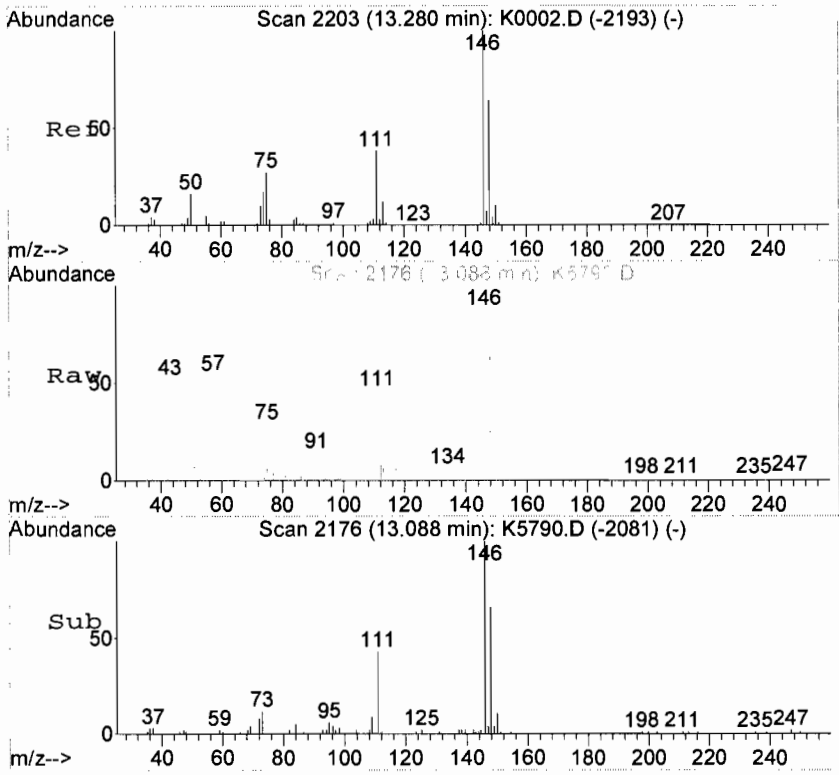


#59
Bromofluorobenzene
Concen: 53.23 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion: 95 Resp: 363765

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#

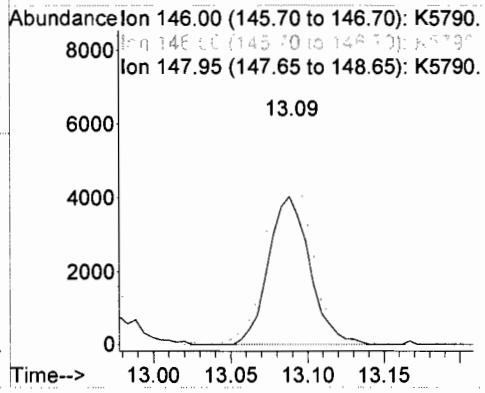


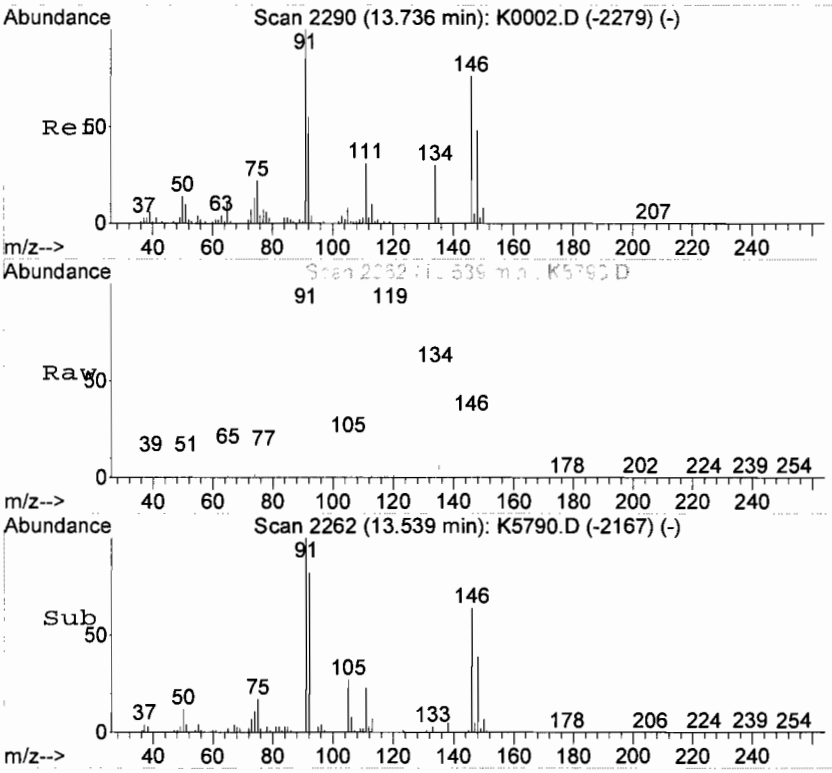


#72
1,4-Dichlorobenzene
Concen: 0.90 UG
RT: 13.09 min Scan# 2176
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:146 Resp: 11058

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	68.6	52.0	78.0

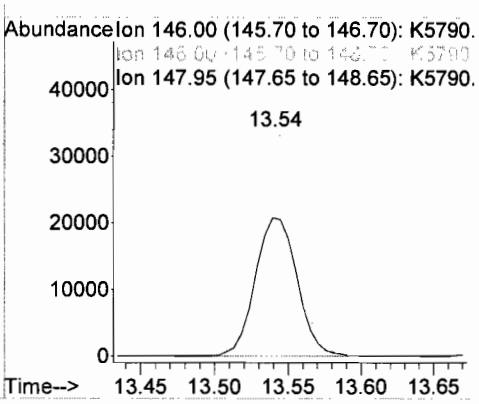




#74
1,2-Dichlorobenzene
Concen: 5.13 UG
RT: 13.54 min Scan# 2262
Delta R.T. 0.00 min
Lab File: K5790.D
Acq: 26 May 2017 2:18 pm

Tgt Ion:146 Resp: 64035

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	64.3	52.8	79.2



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.099	831	843	875	rBV	589643	1357188	2.98%	0.707%
2	6.403	891	901	912	rBV	336310	740994	1.63%	0.386%
3	6.917	988	999	1024	rBV	797767	1637584	3.59%	0.853%
4	7.452	1087	1101	1111	rBV2	377630	826089	1.81%	0.430%
5	8.590	1306	1318	1326	rBV	1225033	2316069	5.08%	1.206%
6	8.663	1326	1332	1350	rVB	676513	1263129	2.77%	0.658%
7	10.252	1625	1635	1653	rBV	1129633	2077300	4.56%	1.082%
8	10.425	1653	1668	1682	rVV	4211338	7438967	16.32%	3.875%
9	10.566	1682	1695	1725	rVB	26786031	45579383	100.00%	23.741%
10	11.033	1758	1784	1810	rBV	11073538	18647006	40.91%	9.713%
11	11.479	1859	1869	1878	rBV	760519	1362682	2.99%	0.710%
12	11.646	1892	1901	1915	rBV	1086765	1961639	4.30%	1.022%
13	11.971	1953	1963	1975	rBV	1369596	2540521	5.57%	1.323%
14	12.082	1975	1984	1997	rVV	5853140	13762406	30.19%	7.168%
15	12.192	1997	2005	2025	rVB	6081046	10720737	23.52%	5.584%
16	12.433	2041	2051	2068	rBV	3198529	5900937	12.95%	3.074%
17	12.590	2068	2081	2084	rBV	424304	766502	1.68%	0.399%
18	12.648	2084	2092	2104	rVV	22385661	36268970	79.57%	18.891%
19	12.821	2113	2125	2128	rVV2	245014	539523	1.18%	0.281%
20	12.858	2128	2132	2144	rVB	355761	684464	1.50%	0.357%
21	12.978	2144	2155	2161	rBV	891161	1695036	3.72%	0.883%
22	13.036	2161	2166	2181	rVB	655693	1274531	2.80%	0.664%
23	13.162	2181	2190	2209	rBV	6200577	10770756	23.63%	5.610%
24	13.403	2228	2236	2240	rBV2	1027592	2033406	4.46%	1.059%
25	13.440	2240	2243	2250	rVV	1011206	1557648	3.42%	0.811%
26	13.518	2250	2258	2275	rVB3	1470560	3559217	7.81%	1.854%
27	13.655	2275	2284	2293	rBV	313108	600312	1.32%	0.313%
28	13.744	2293	2301	2313	rVB	611554	1144944	2.51%	0.596%
29	13.854	2313	2322	2325	rBV	802724	1491103	3.27%	0.777%
30	13.890	2325	2329	2339	rVV	994616	1809930	3.97%	0.943%
31	13.980	2339	2346	2352	rVV	1031034	1819454	3.99%	0.948%
32	14.132	2365	2375	2394	rVB5	532432	1717754	3.77%	0.895%
33	14.347	2407	2416	2424	rVB3	523769	1053337	2.31%	0.549%
34	14.462	2424	2438	2443	rVV	593777	1210756	2.66%	0.631%
35	14.525	2443	2450	2460	rVB	830758	1473818	3.23%	0.768%
36	14.997	2534	2540	2547	rBV3	660302	1152292	2.53%	0.600%
37	15.668	2657	2668	2683	rVB	721192	1233006	2.71%	0.642%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

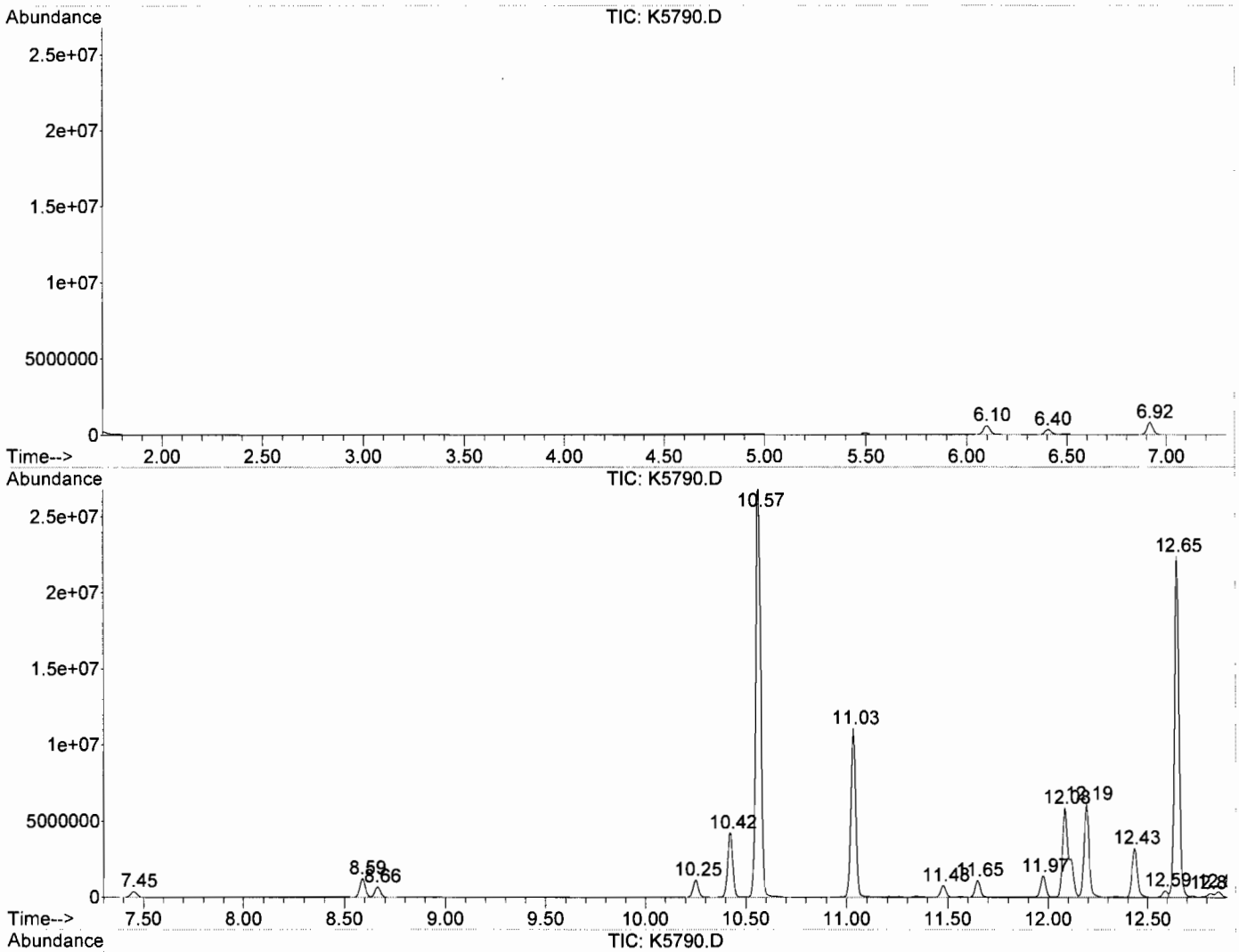
Sum of corrected areas: 191989390

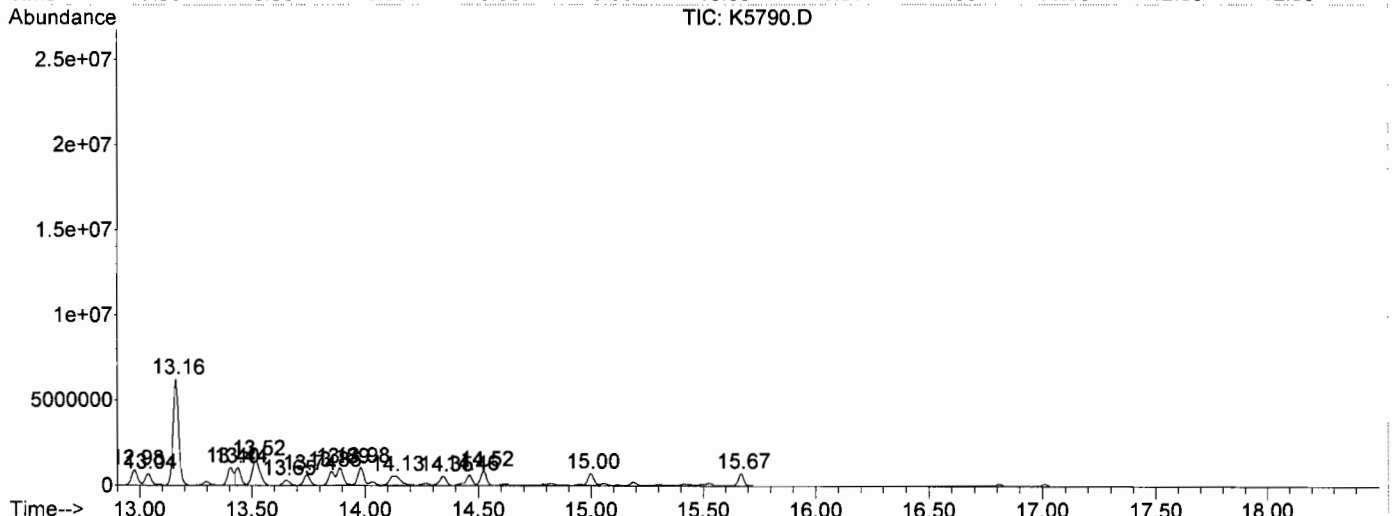
LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

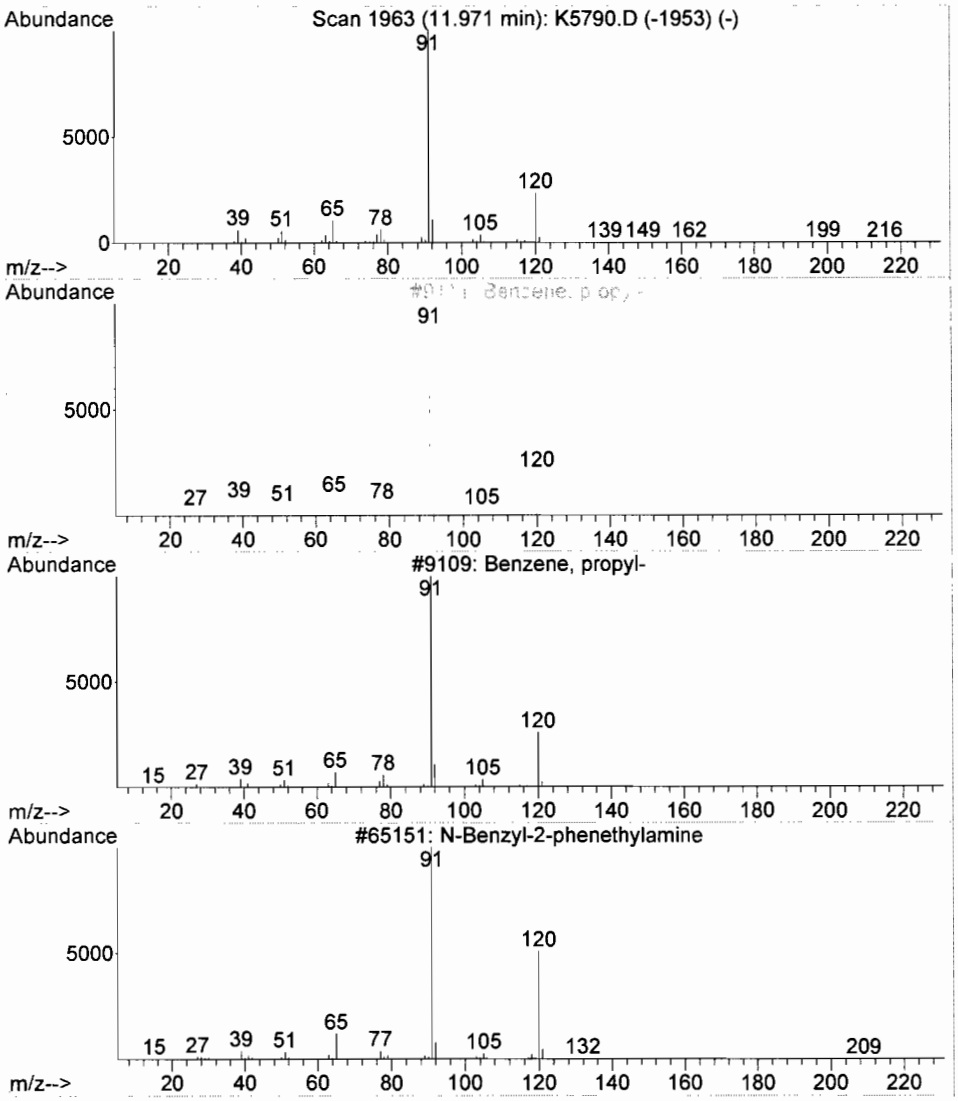
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

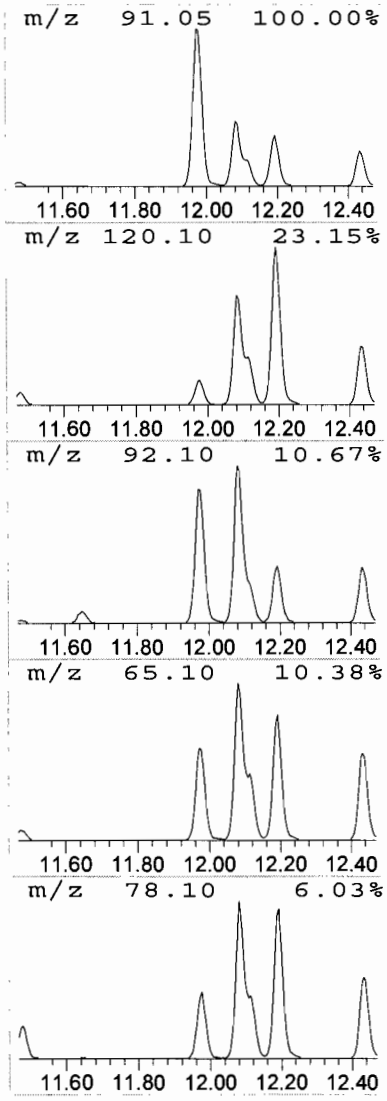
****

Peak Number 1 Benzene, propyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.97	61.15 UG	2540520	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, propyl-	120	C9H12	000103-65-1	90
2	Benzene, propyl-	120	C9H12	000103-65-1	87
3	N-Benzyl-2-phenethylamine	211	C15H17N	003647-71-0	72
4	Ethanol, 2-[(phenylmethyl)amino]-	151	C9H13NO	000104-63-2	72
5	1,2-Ethanediamine, N,N'-bis(phen...	240	C16H20N2	000140-28-3	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

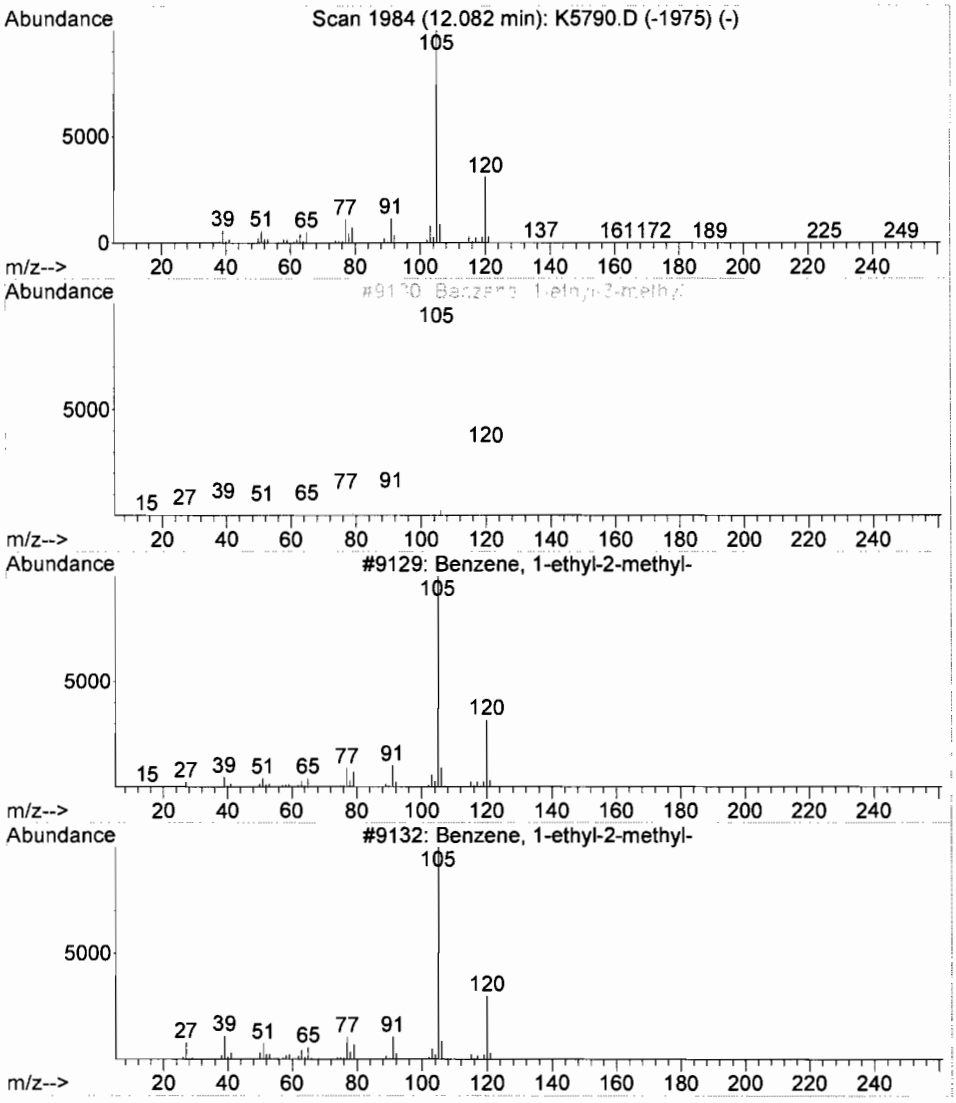
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TIC Integration Parameters: LSCINT.P

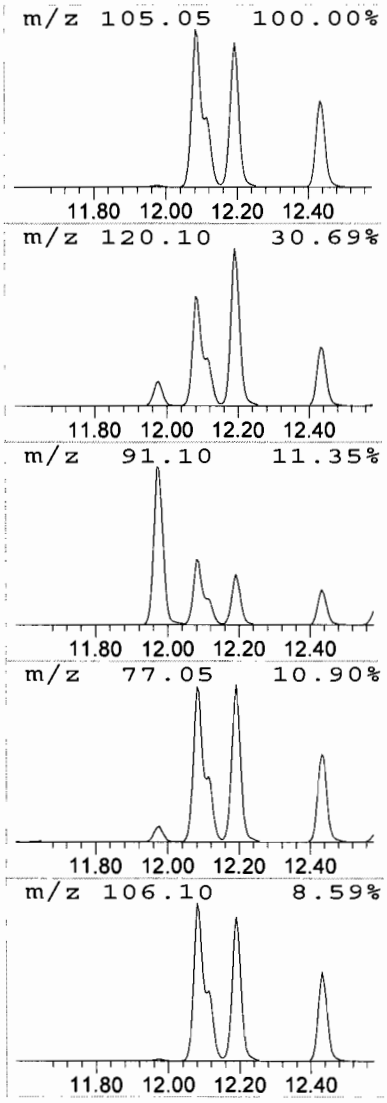
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Peak Number 2 Benzene, 1-ethyl-3-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.08	331.26 UG	13762400	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

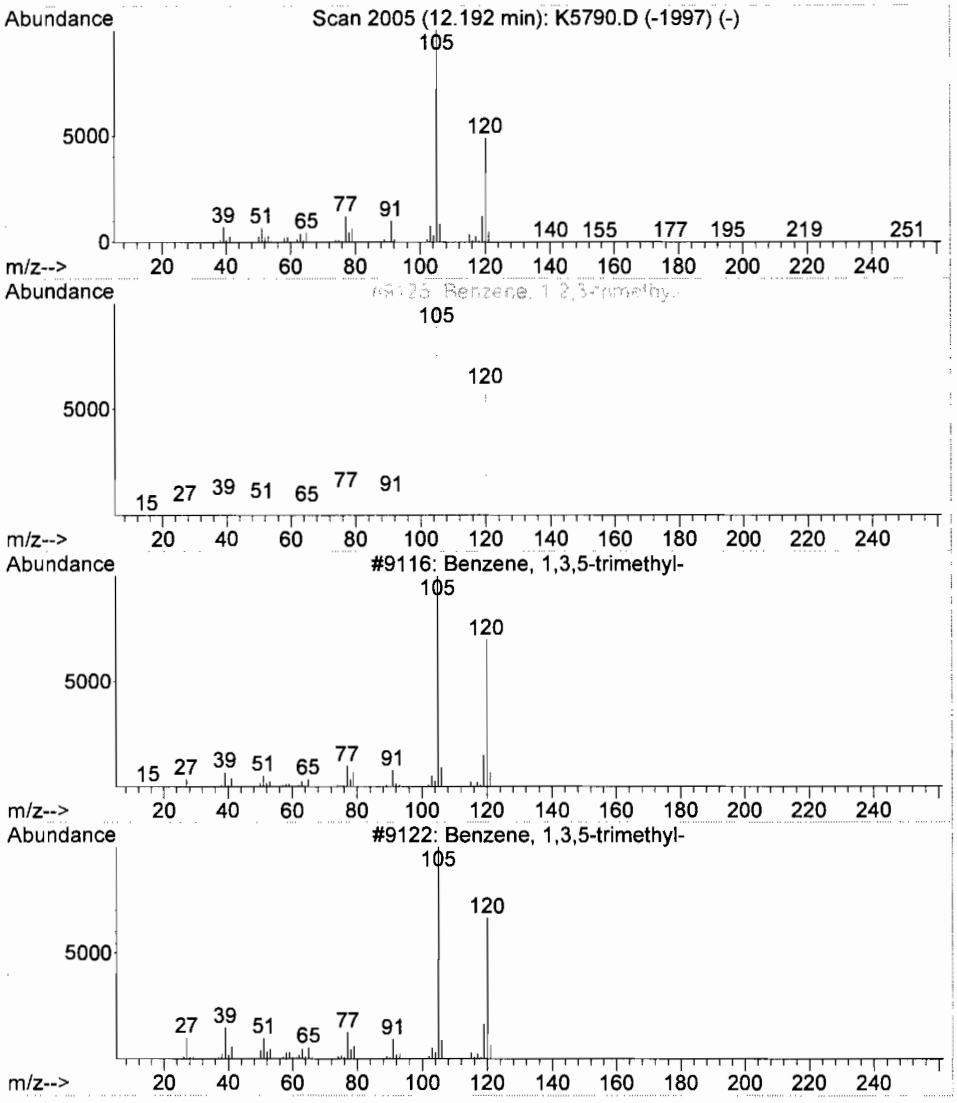
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

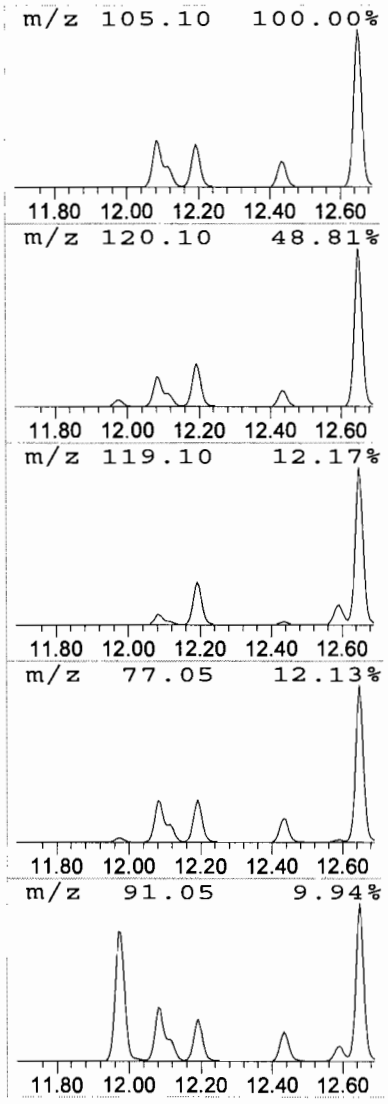
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Peak Number 3 Benzene, 1,2,3-trimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.19	258.05 UG	10720700	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

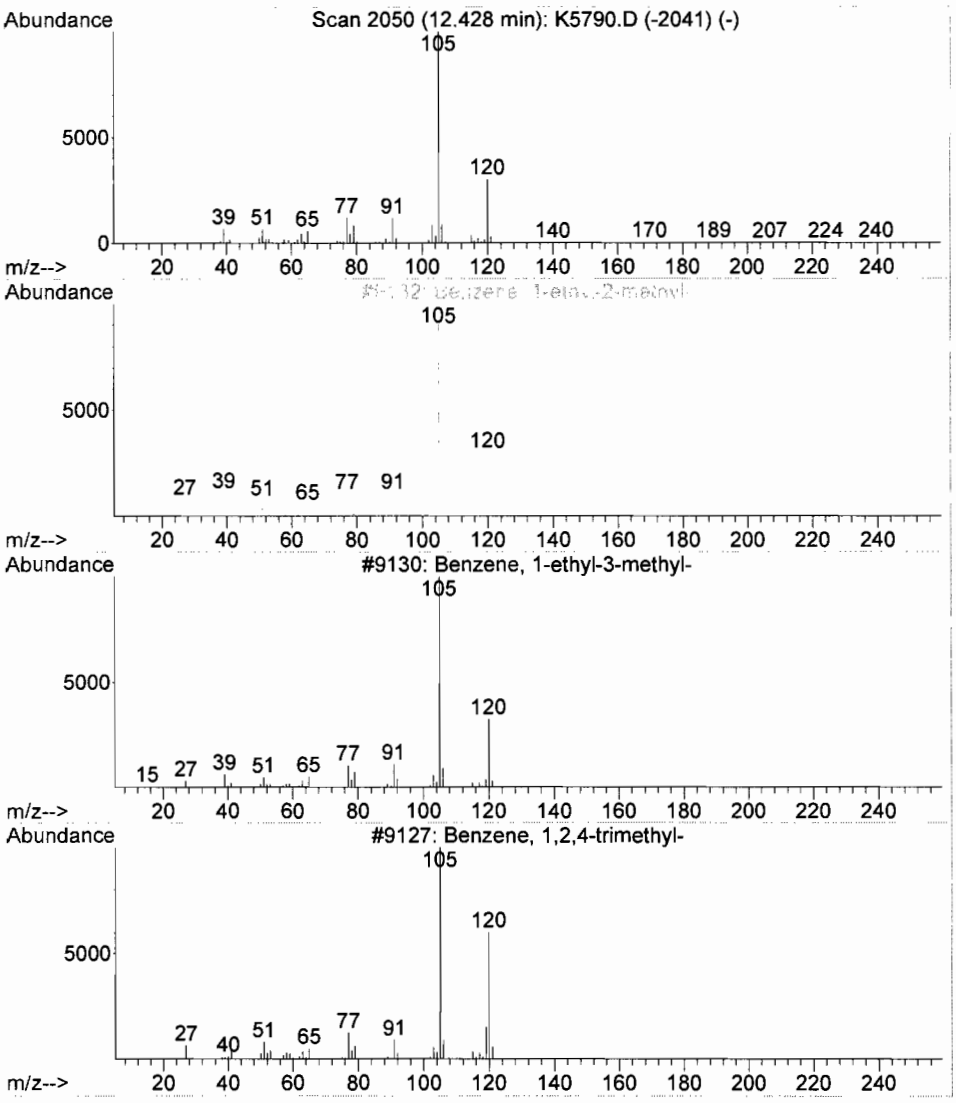
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

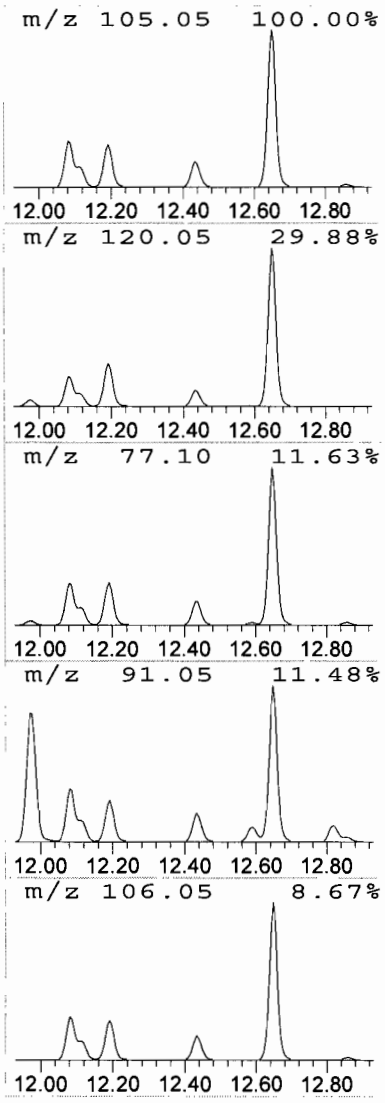
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Peak Number 4 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.43	142.03 UG	5900940	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

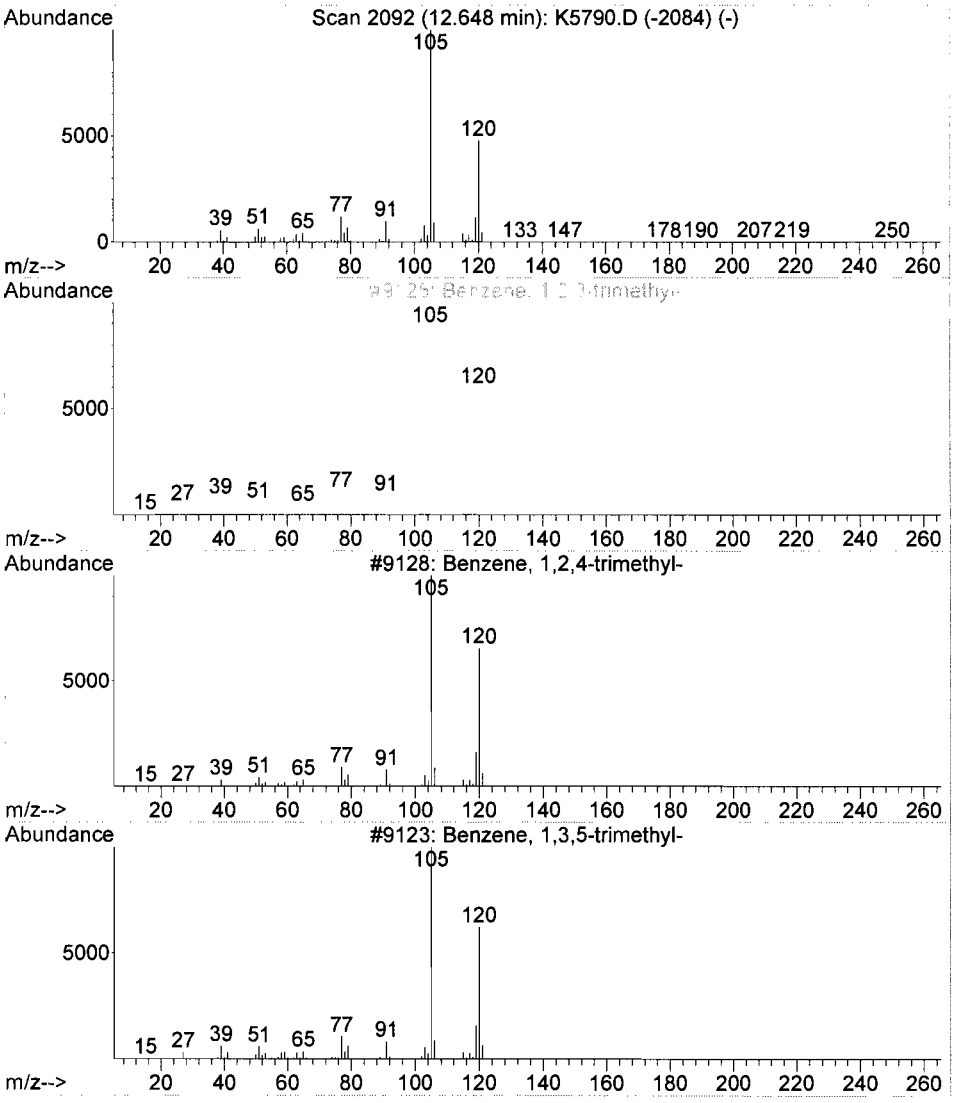
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

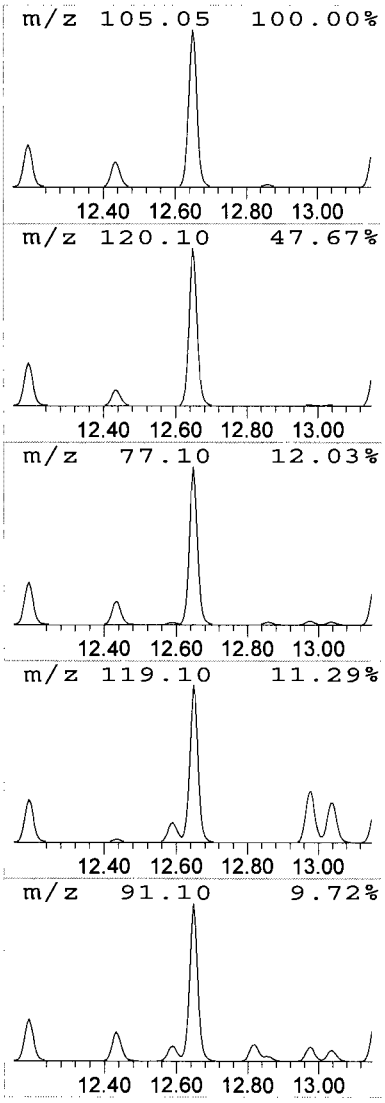
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Peak Number 5 Unknown Aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.65	872.98 UG	36269000	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	95
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

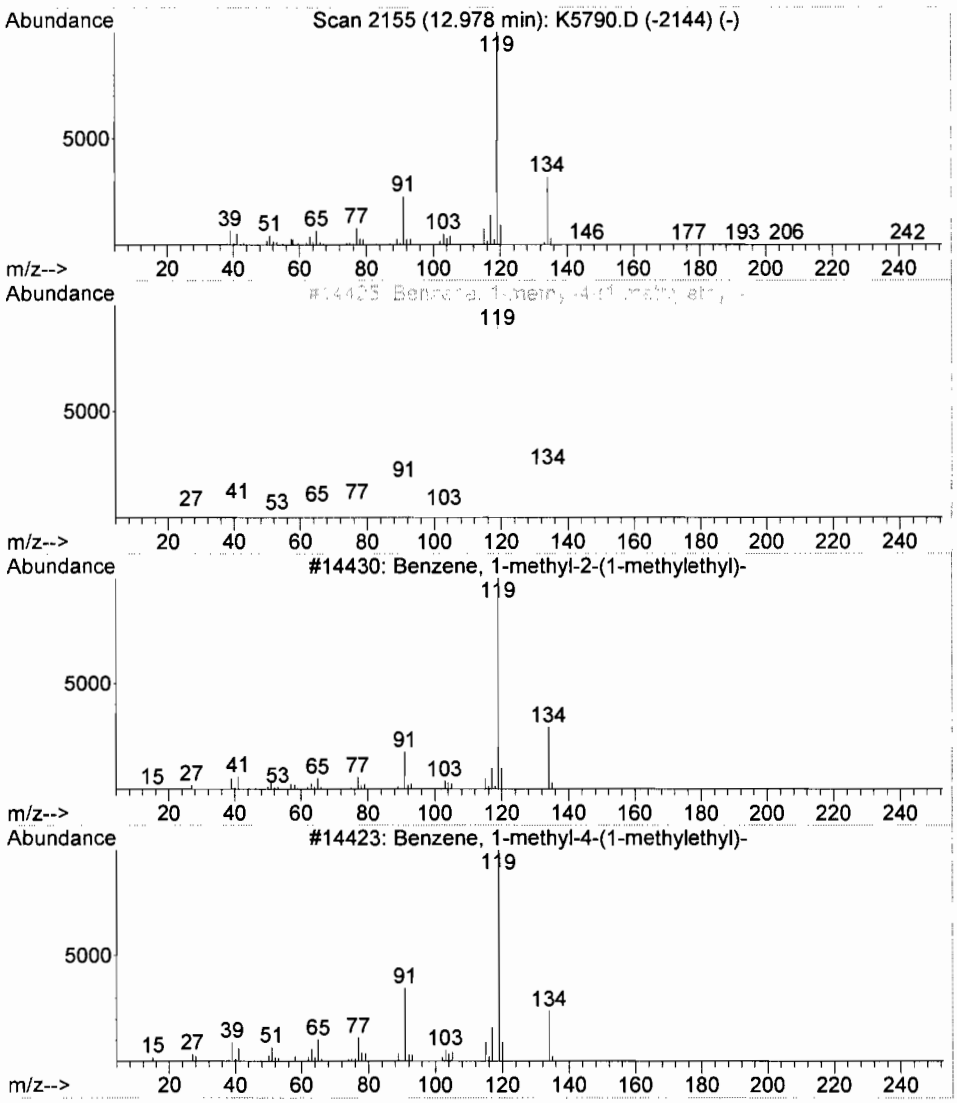
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

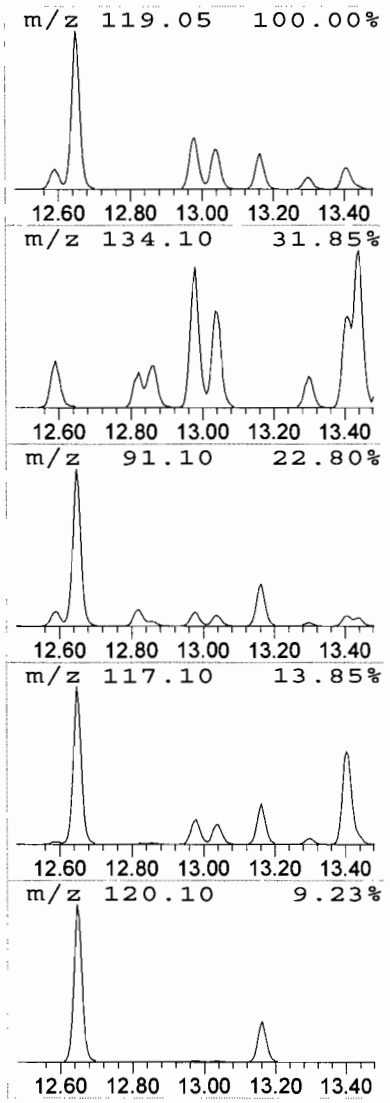
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Benzene, 1-methyl-4-(1-meth... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.98	40.80 UG	1695040	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

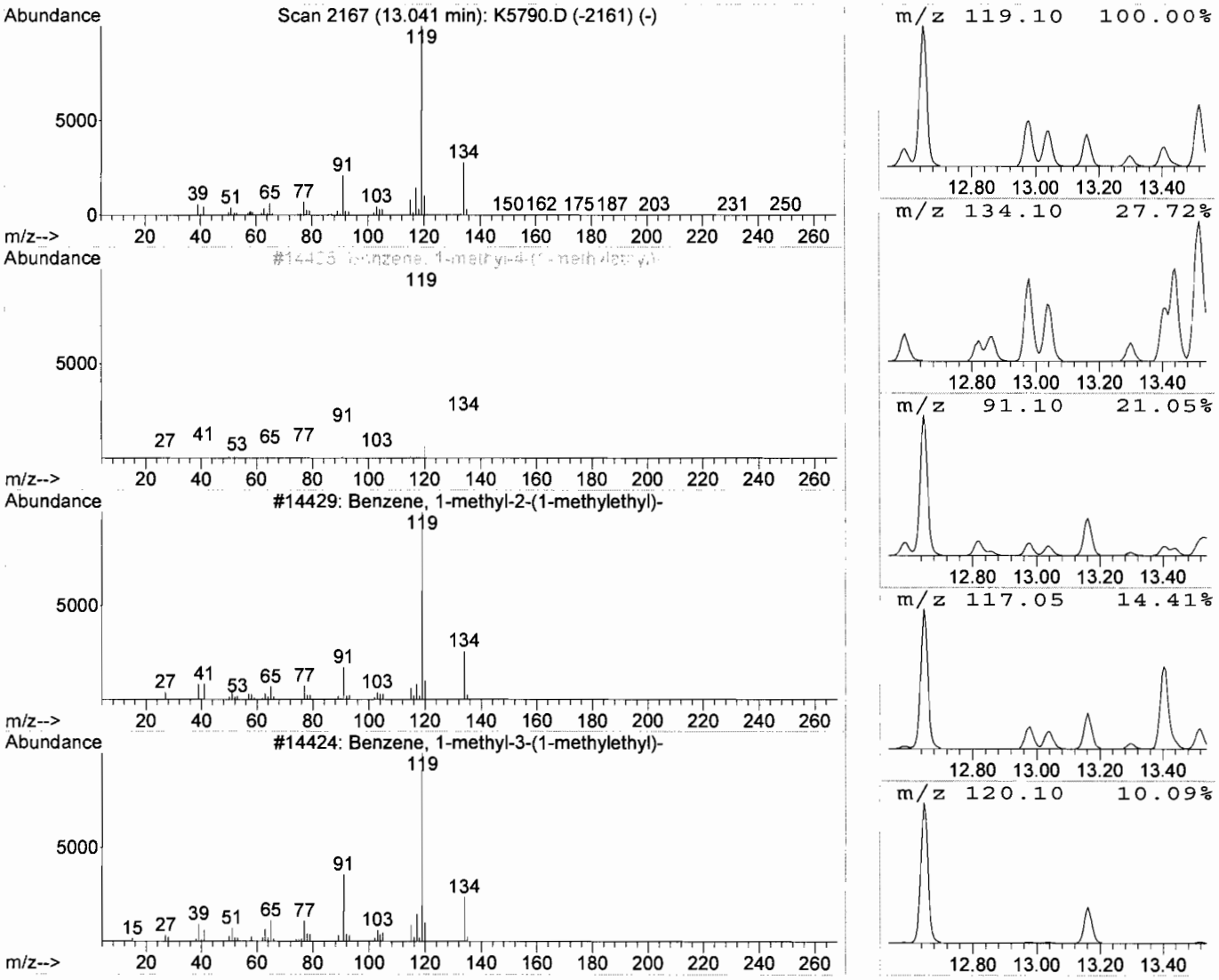
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Unknown Aromatic Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.04	30.68 UG	1274530	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
3	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

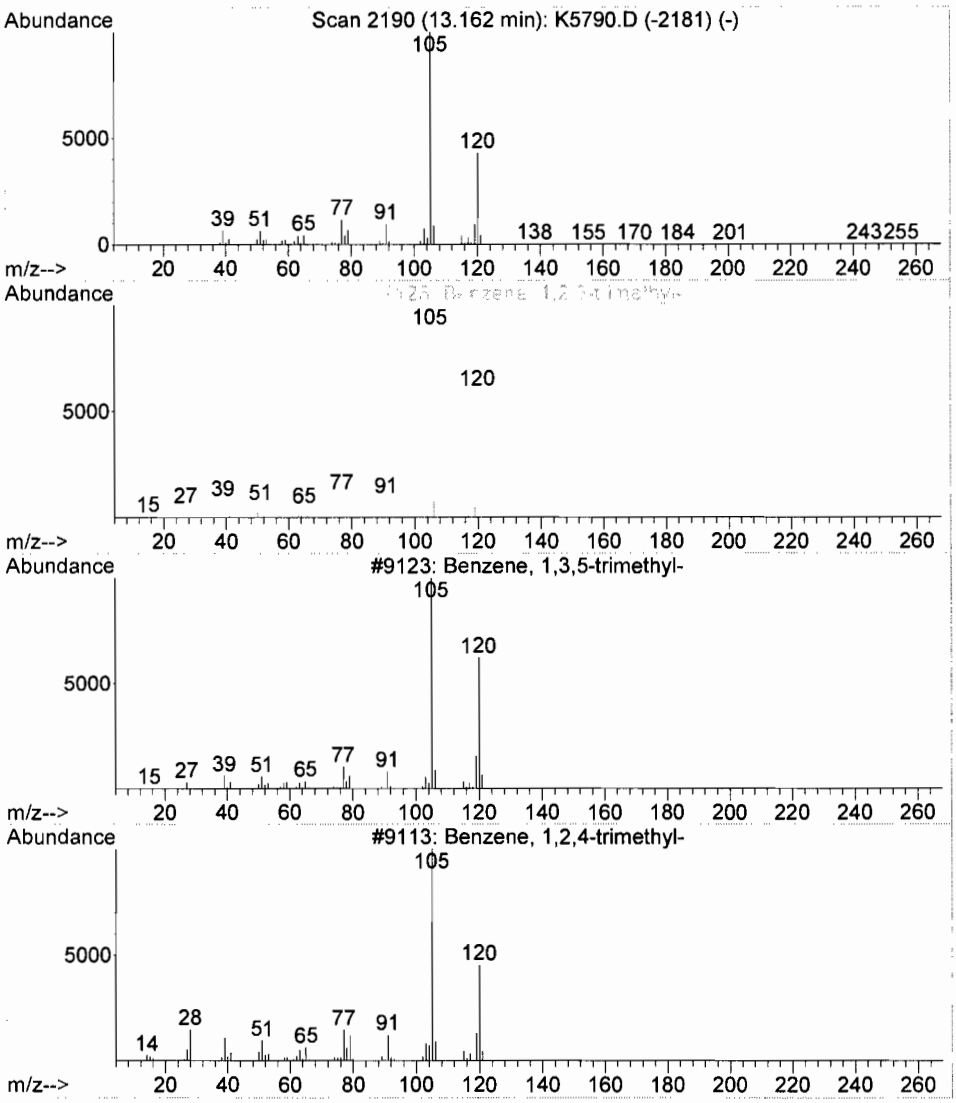
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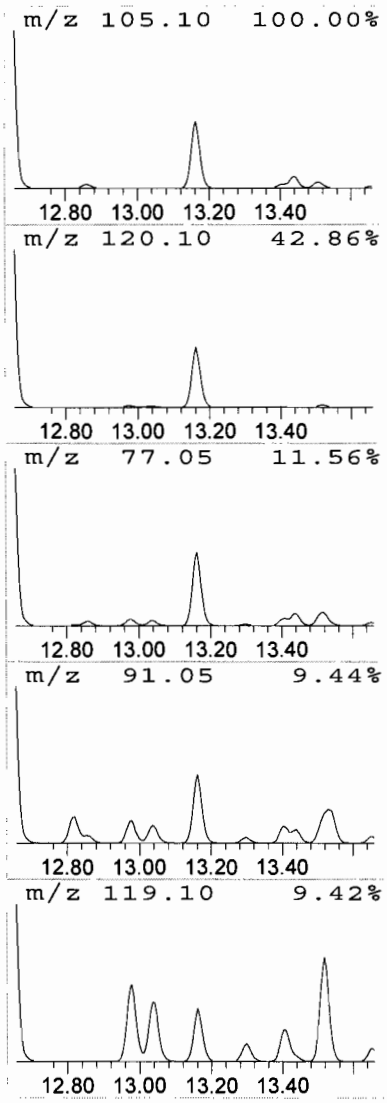
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Peak Number 8 Unknown Aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.16	259.25 UG	10770800	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

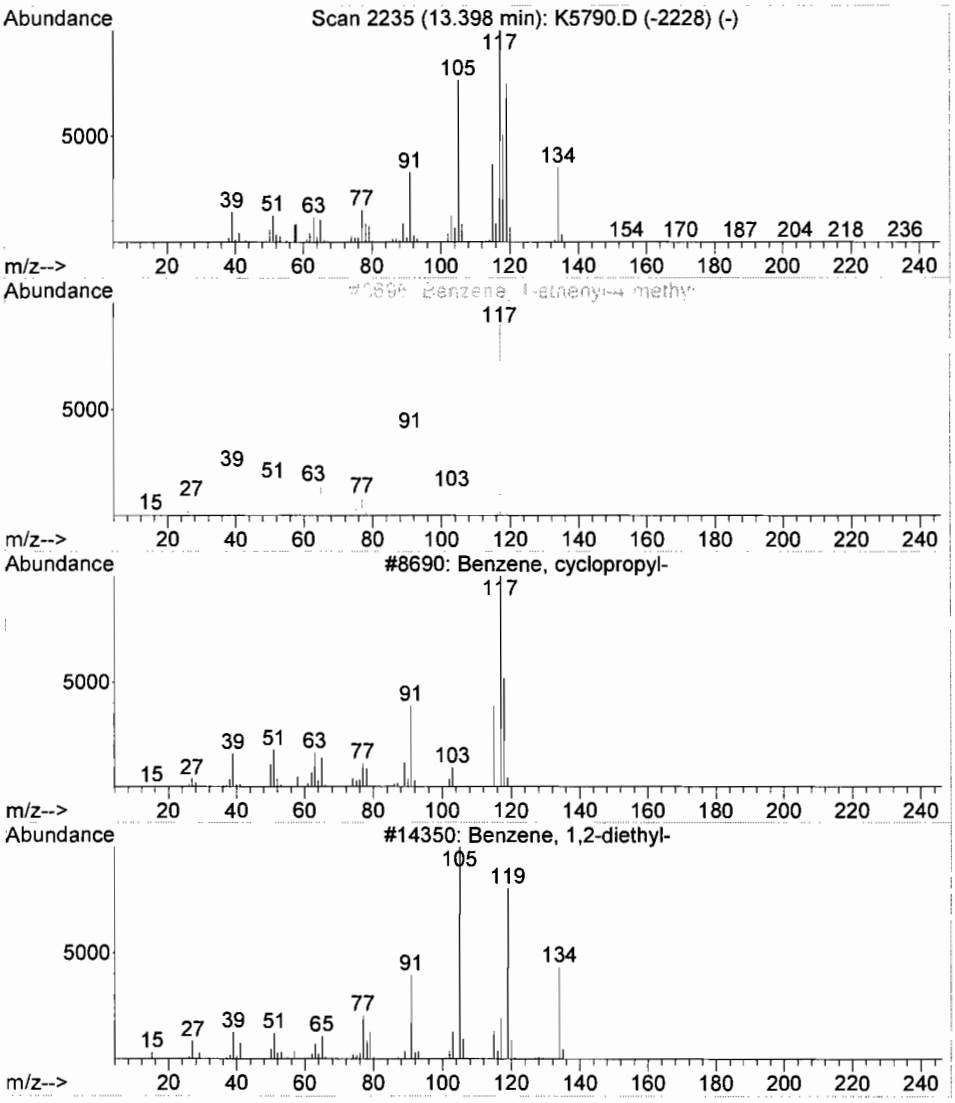
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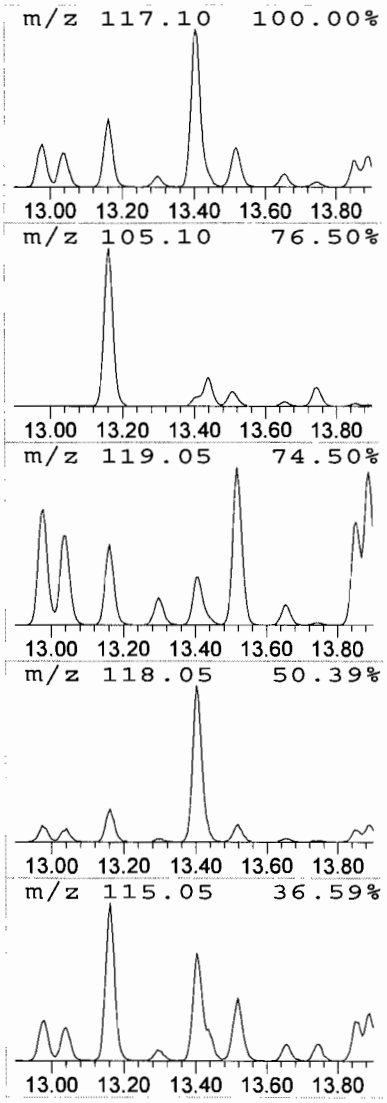
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Peak Number 9 Unknown Aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.40	48.94 UG	2033410	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-4-methyl-	118	C9H10	000622-97-9	64
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	56
3	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	55
4	Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	55
5	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	55





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

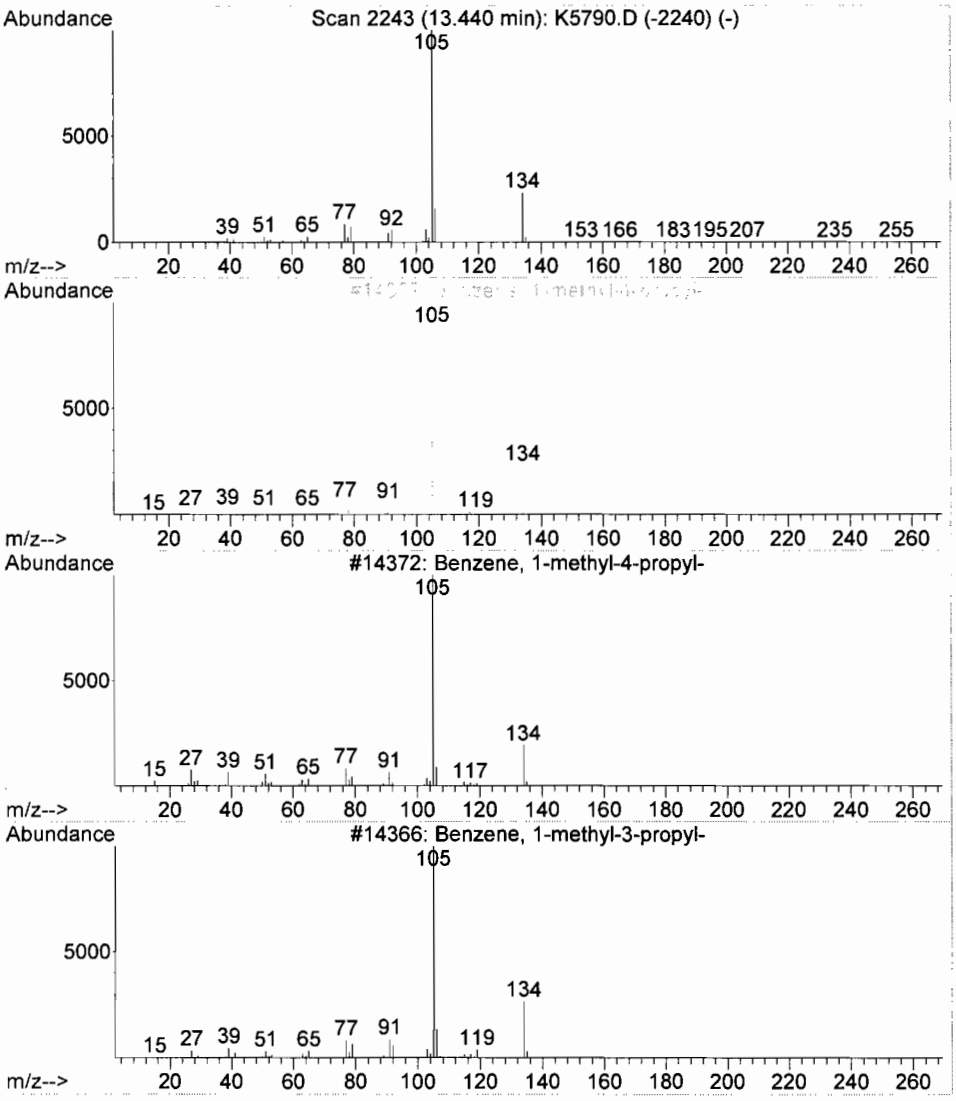
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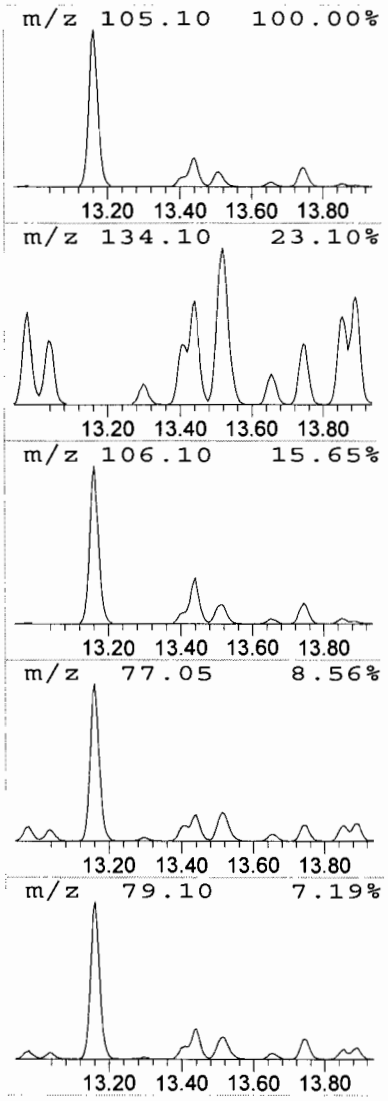
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Peak Number 10 Benzene, 1-methyl-4-propyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.44	37.49 UG	1557650	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	86
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	86
3	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	86
4	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	78
5	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

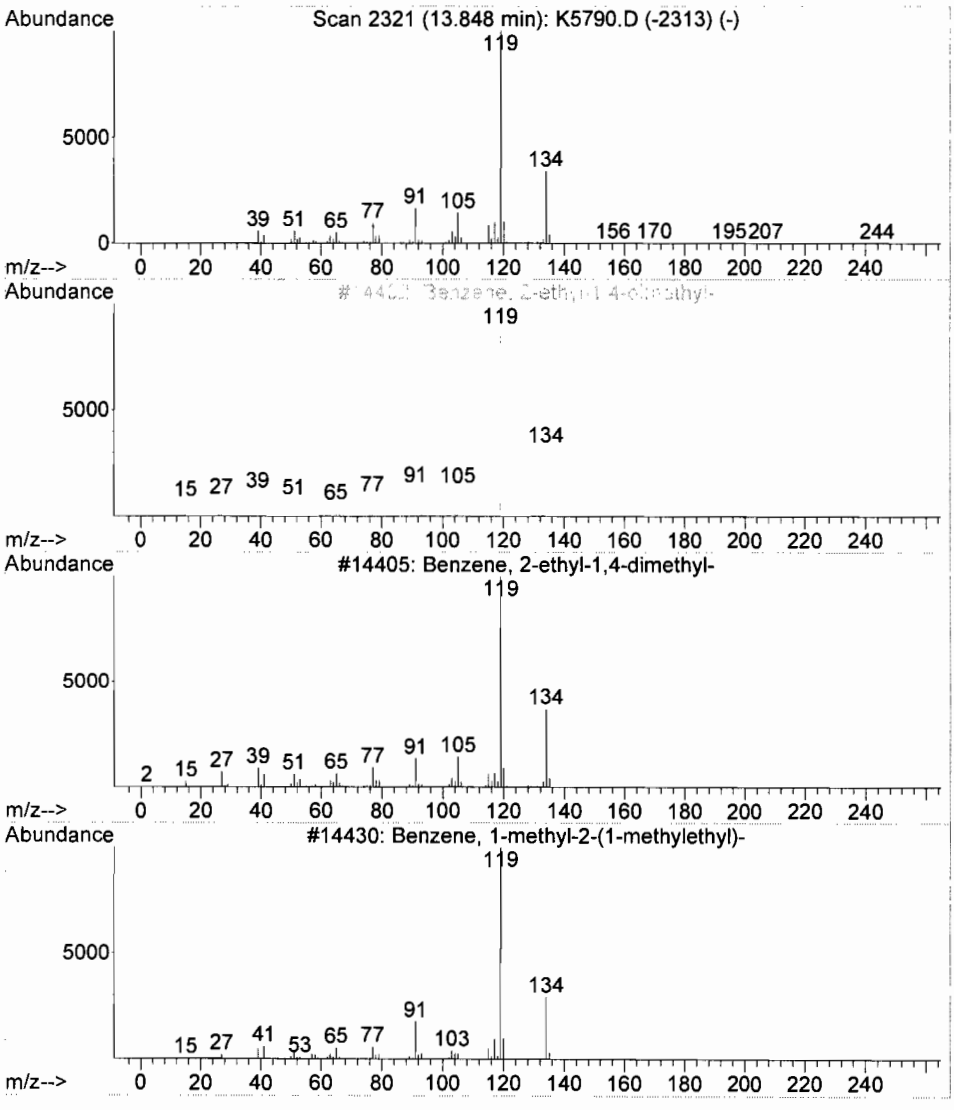
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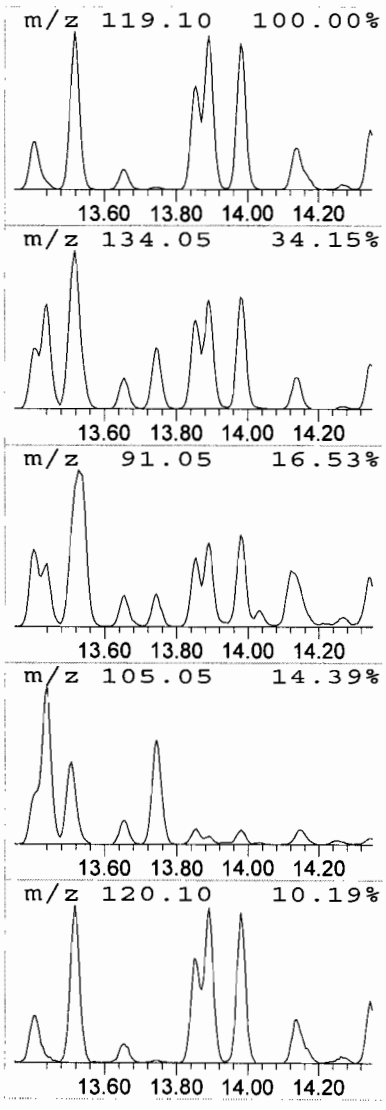
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Peak Number 11 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.85	35.89 UG	1491100	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	97
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	95
5	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

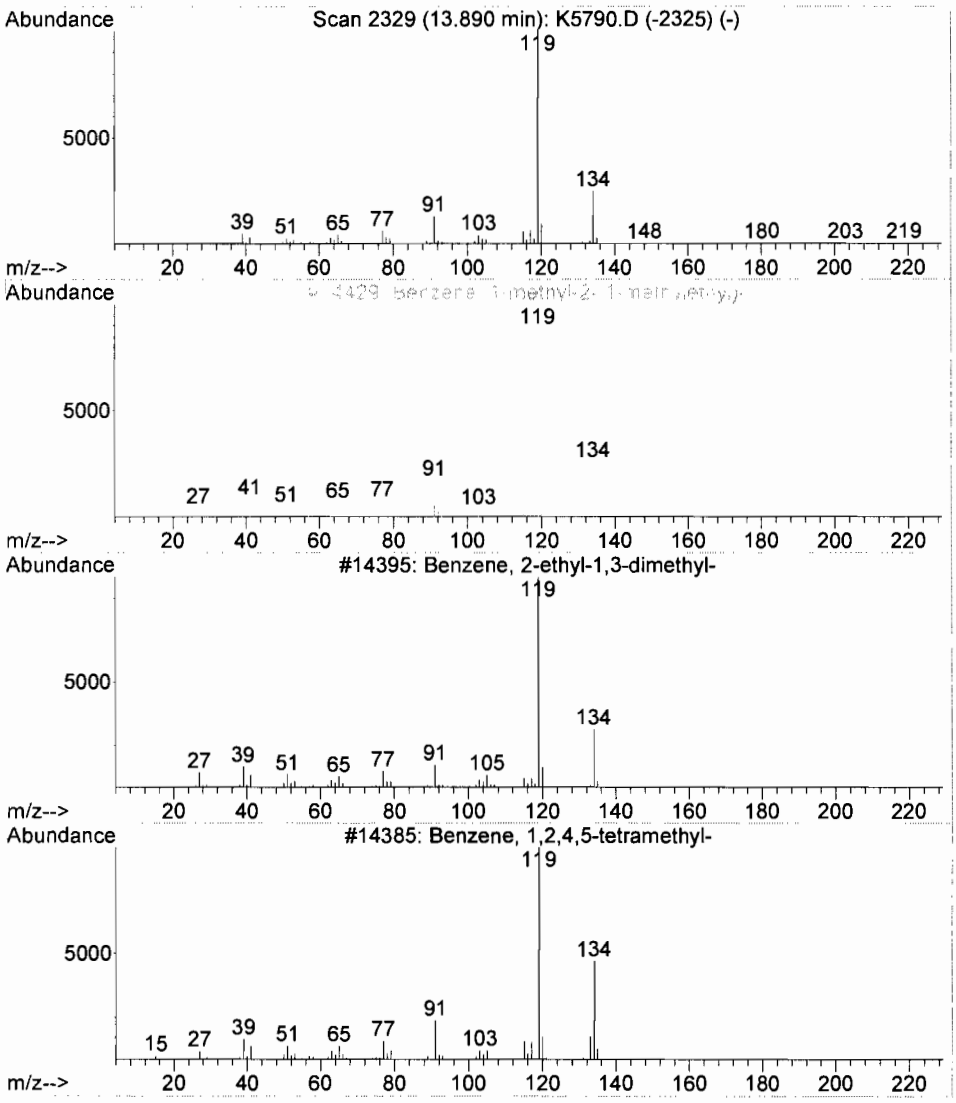
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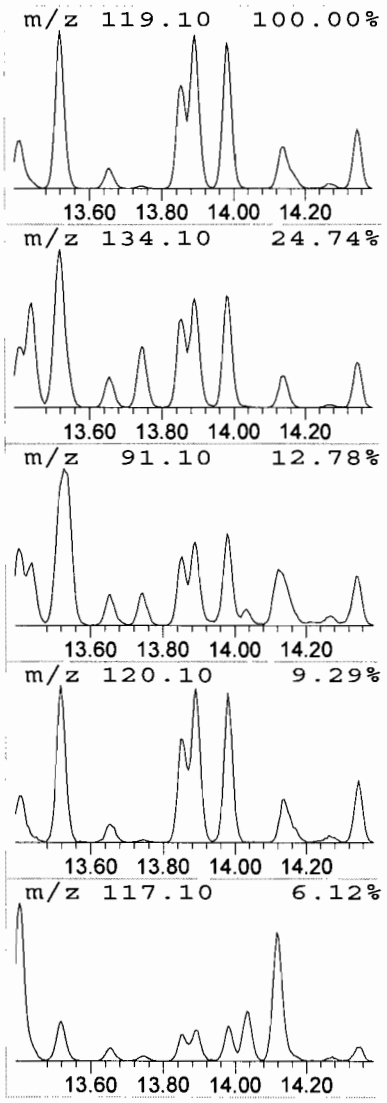
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Peak Number 12 Benzene, 1-methyl-2-(1-meth... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.89	43.56 UG	1809930	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	94
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	91
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	91
4	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	91
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

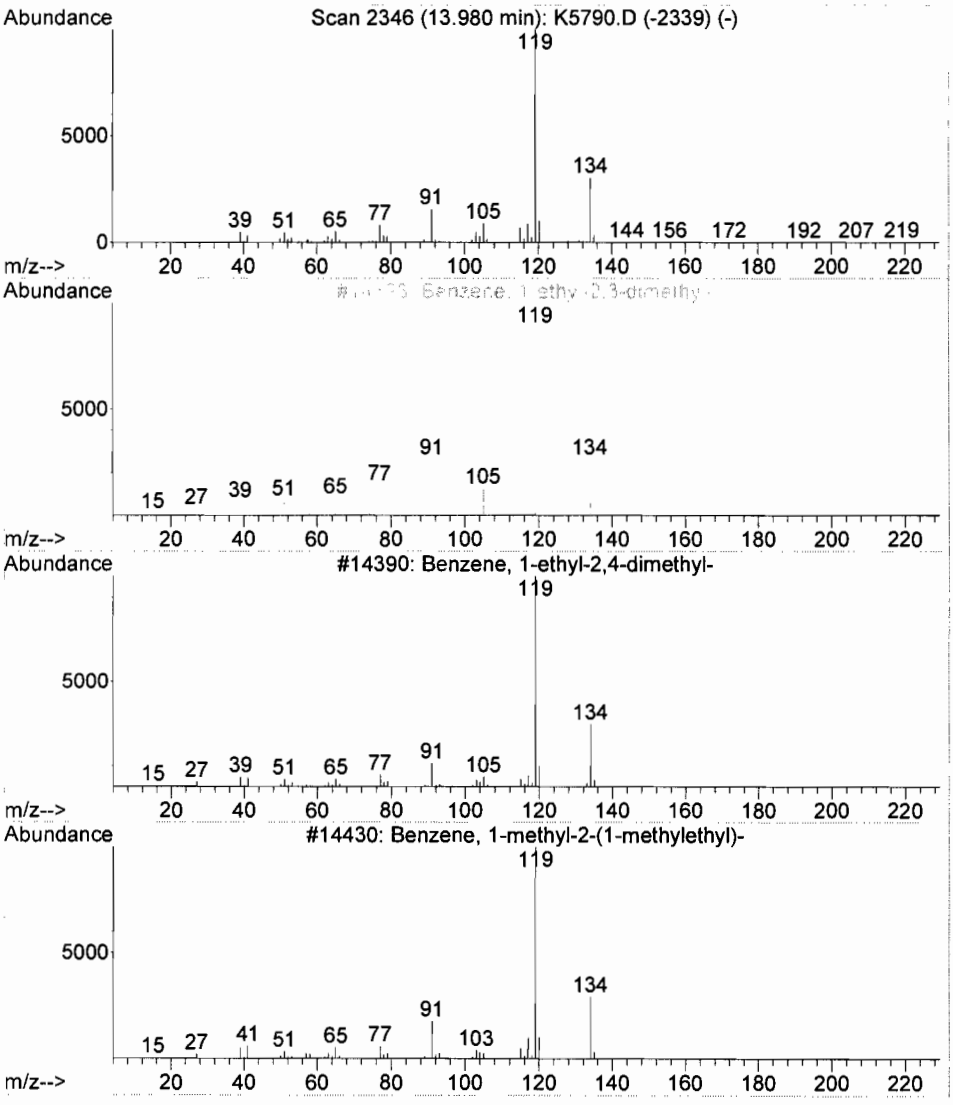
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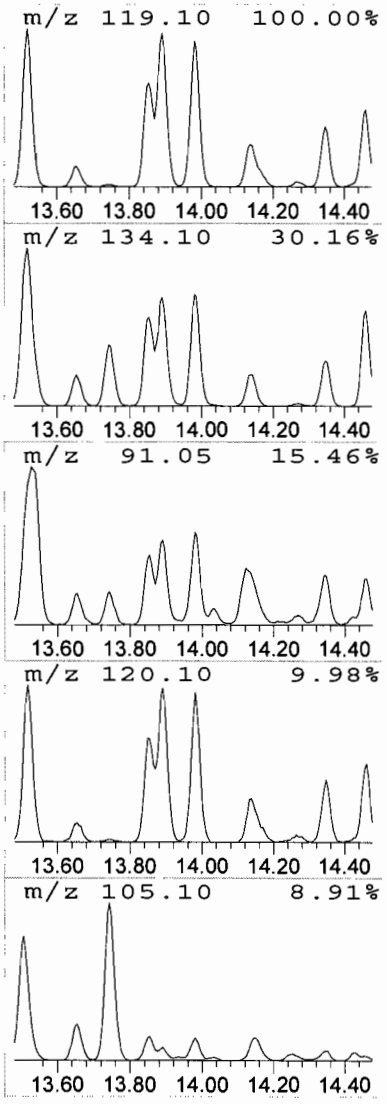
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Peak Number 13 Benzene, 1-ethyl-2,3-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.98	43.79 UG	1819450	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

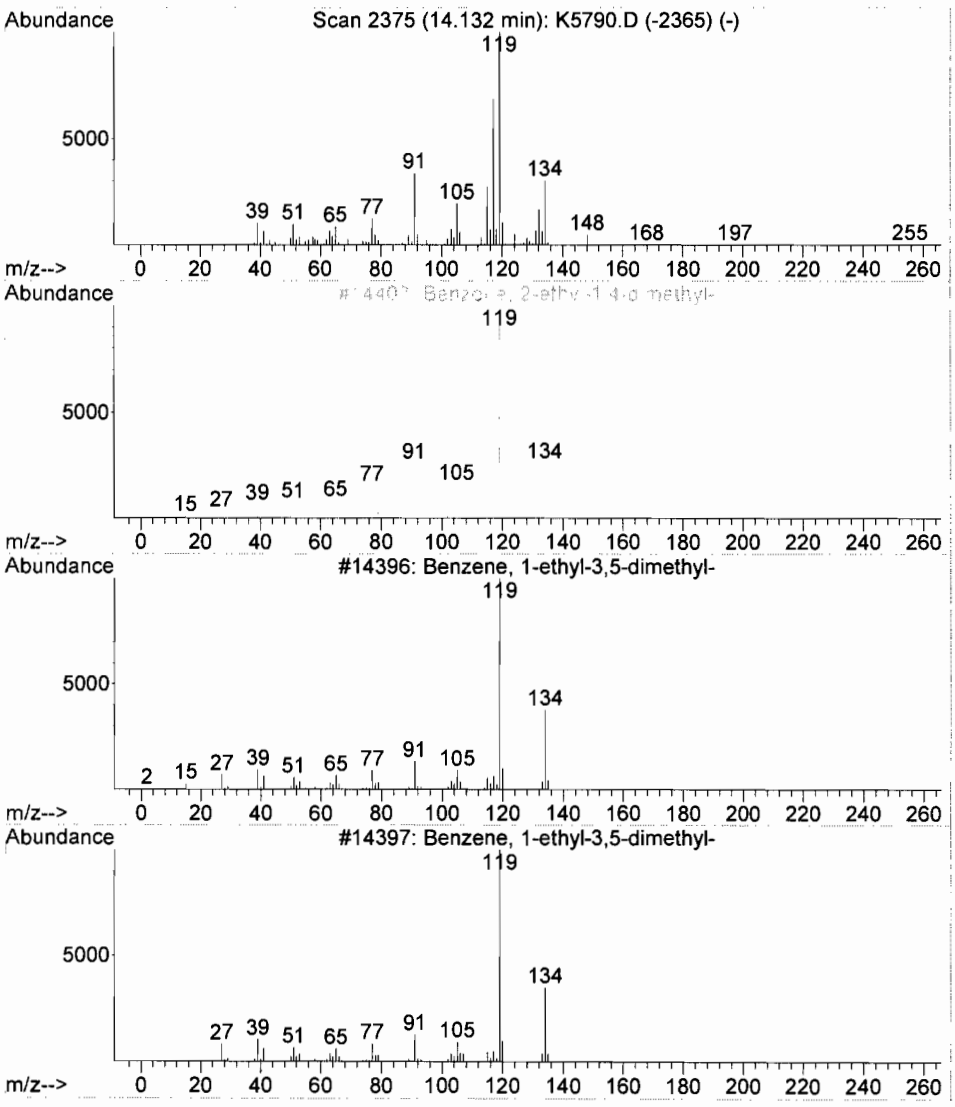
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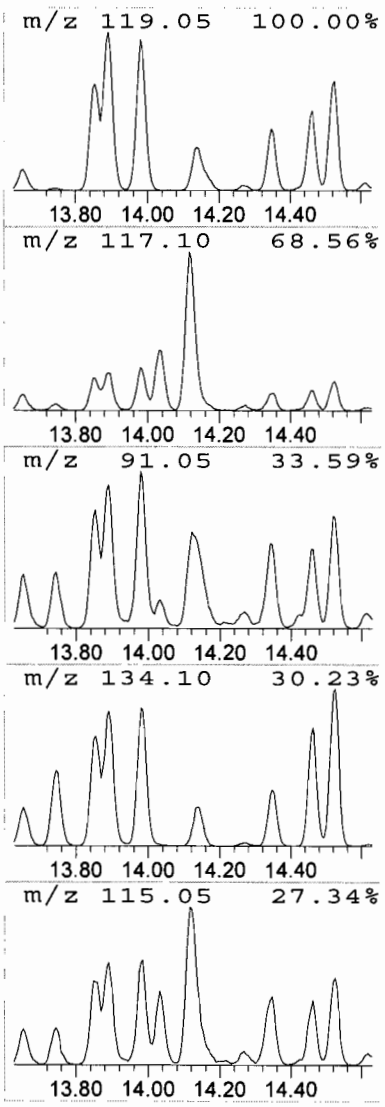
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Peak Number 14 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.13	41.35 UG	1717750	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	62
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	58
3	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	52
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	52
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	52





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5790.D
Acq On : 26 May 2017 2:18 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008,A,2.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

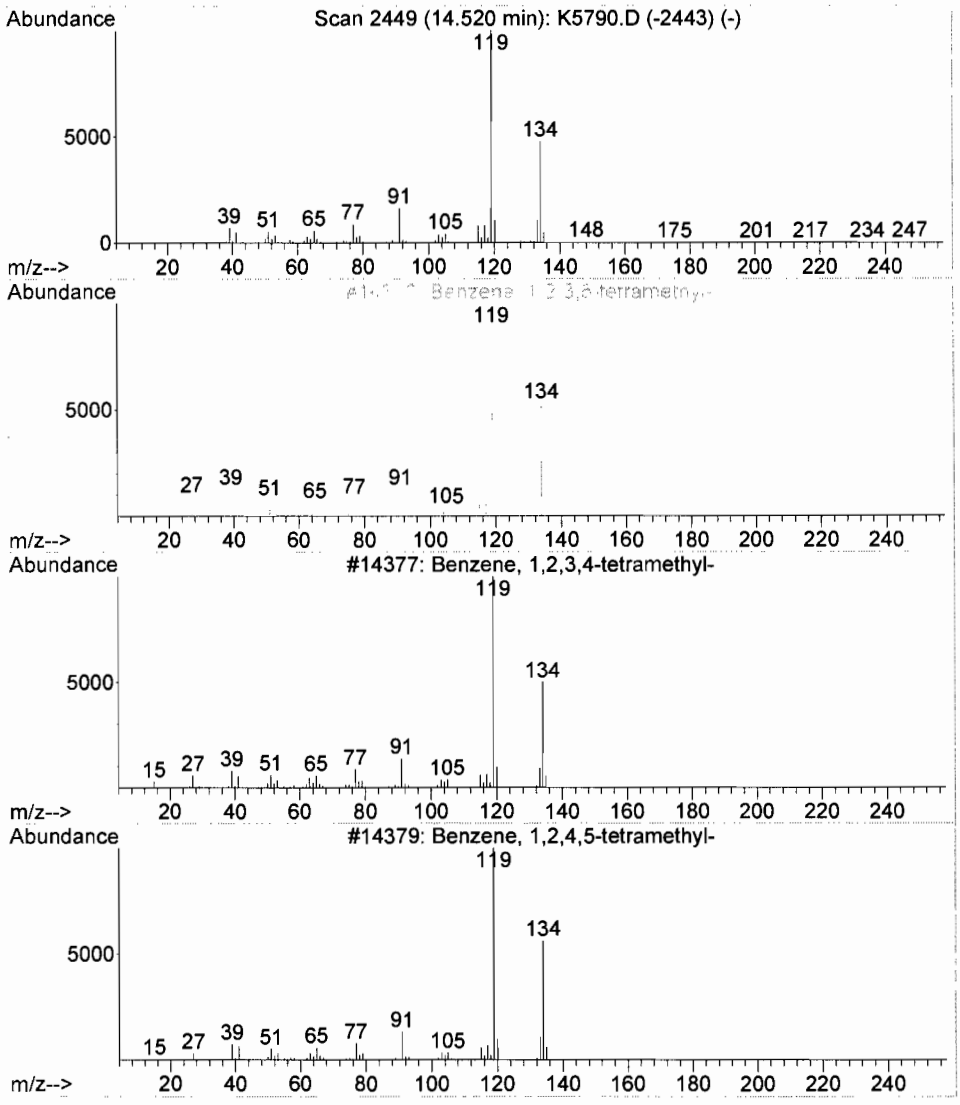
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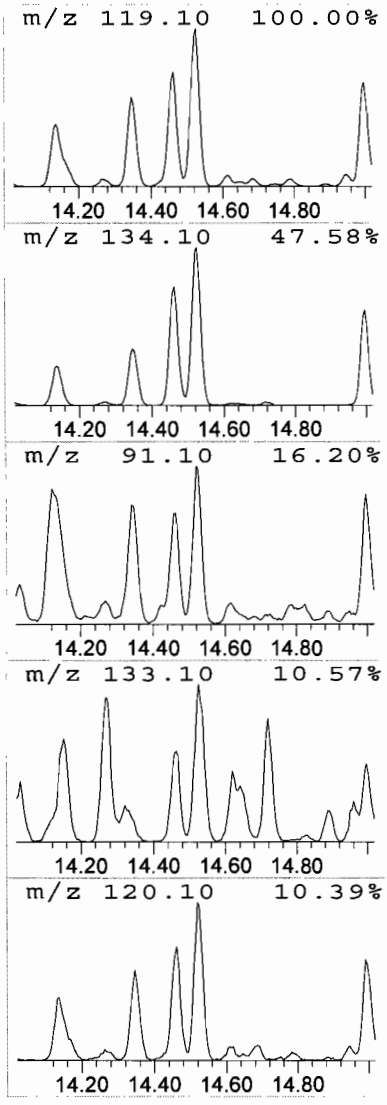
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Peak Number 15 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.52	35.47 UG	1473820	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5792.D
Acq On : 26 May 2017 3:11 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008DL,A,0.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 01 12:03:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

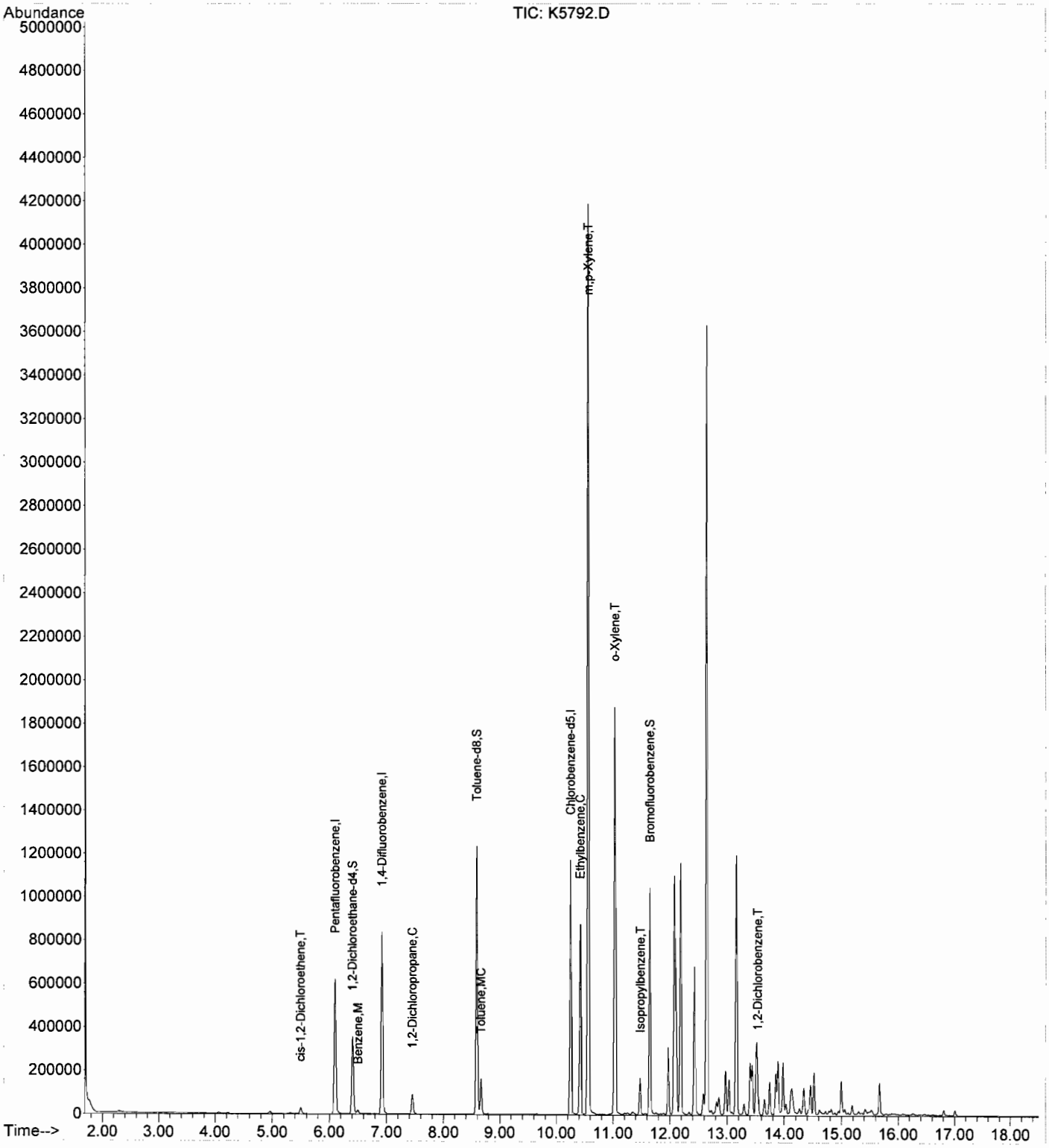
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	507909	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.92	114	747696	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	680647	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	268244	48.61	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.22%			
41) Toluene-d8	8.59	98	860165	48.54	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.08%			
59) Bromofluorobenzene	11.65	95	345156	49.72	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.50	96	14513	3.02	UG	# 67
32) Benzene	6.50	78	13334	0.75	UG	# 98
34) 1,2-Dichloropropane	7.45	63	33933	7.18	UG	# 100
42) Toluene	8.66	92	70558	6.07	UG	99
53) Ethylbenzene	10.42	91	673763	30.34	UG	99
54) m,p-Xylene	10.56	106	1301326	136.92	UG	95
55) o-Xylene	11.03	106	579882	65.38	UG	89
58) Isopropylbenzene	11.48	105	118738	5.02	UG	100
74) 1,2-Dichlorobenzene	13.54	146	13723	1.08	UG	100

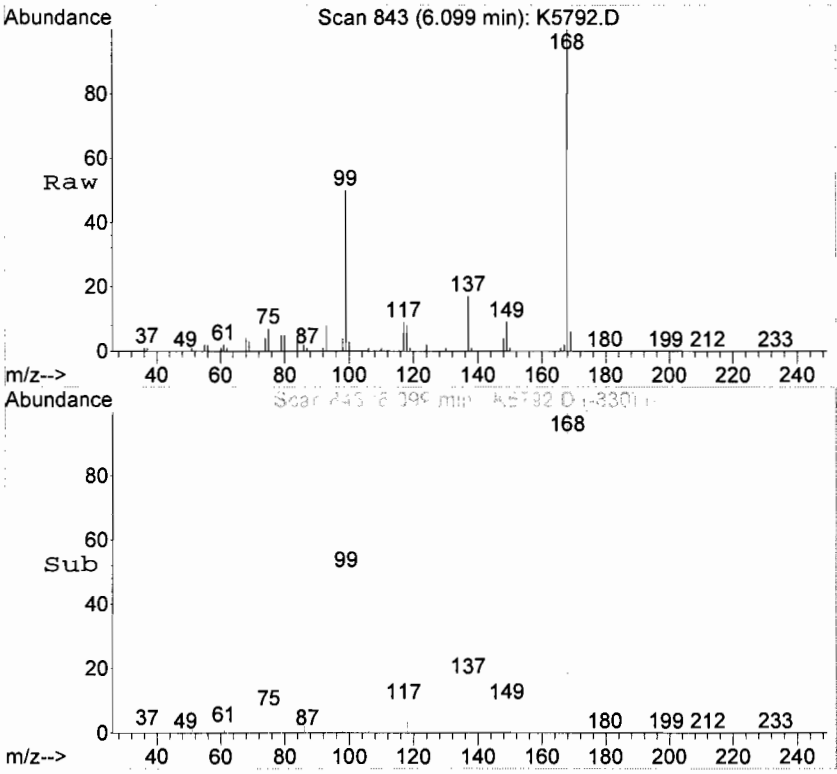
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5792.D
Acq On : 26 May 2017 3:11 pm
Operator : BARBARA
Sample : PZ-4,E17-04261-008DL,A,0.5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 01 12:03:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

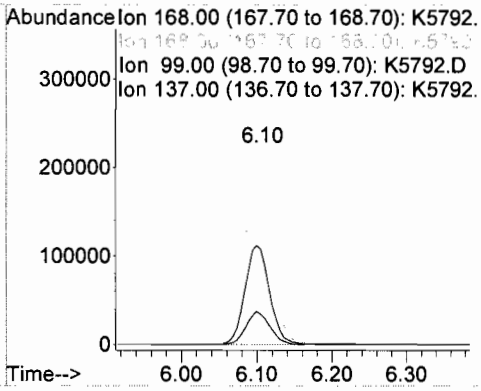


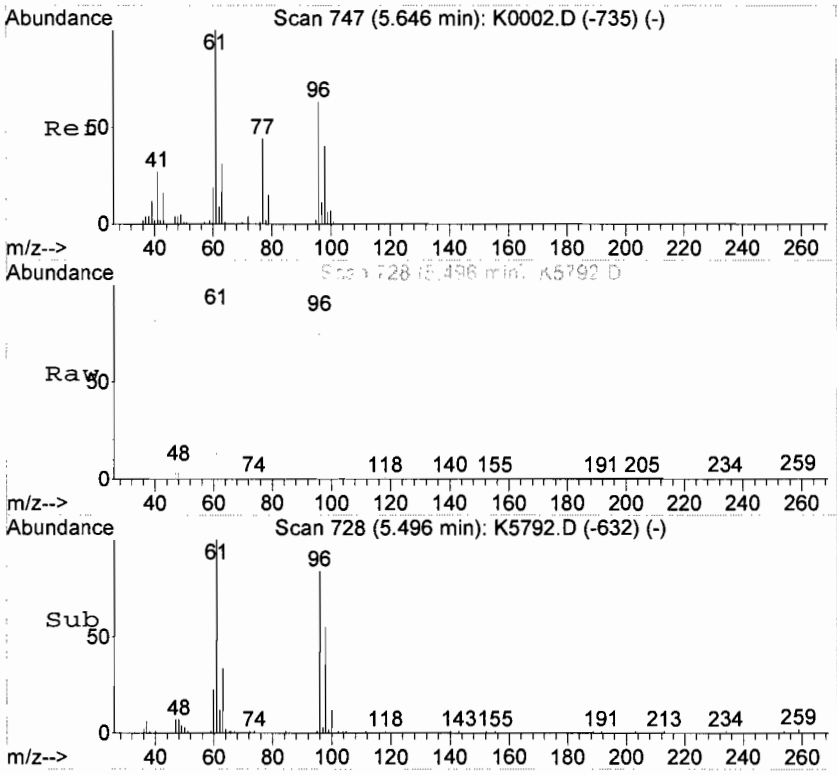


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:168 Resp: 507909

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	49.8	45.9	68.9
137	16.0	12.7	19.1

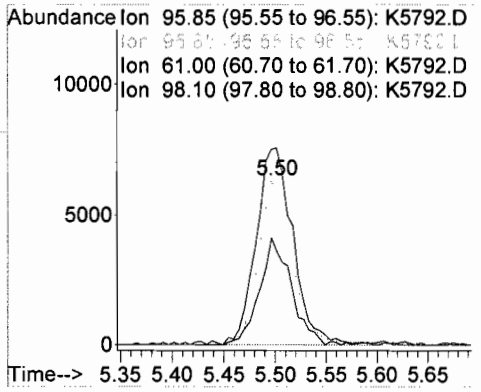


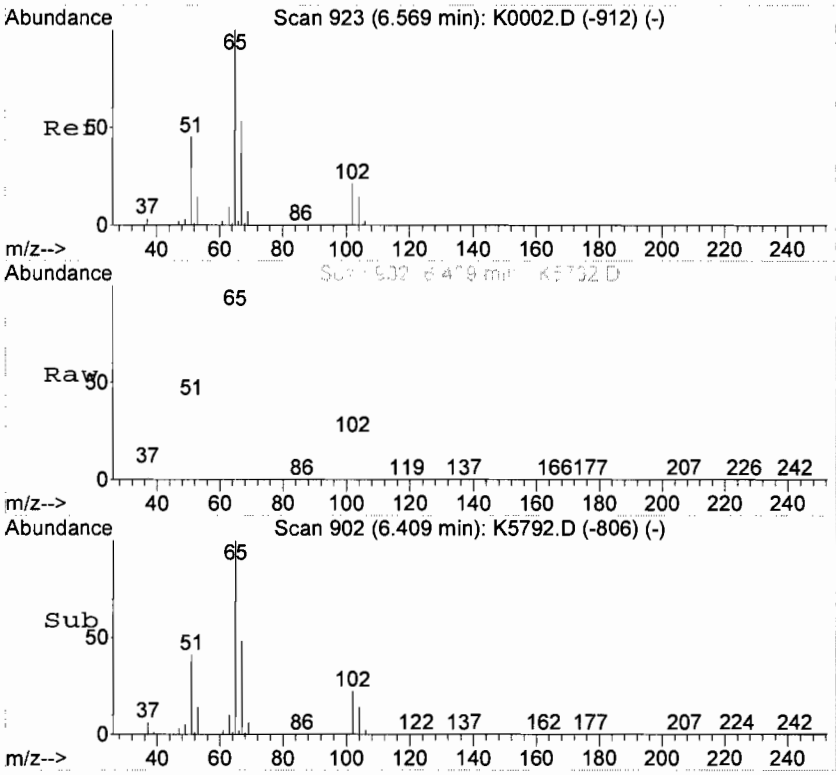


#20
cis-1,2-Dichloroethene
Concen: 3.02 UG
RT: 5.50 min Scan# 728
Delta R.T. 0.01 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 96 Resp: 14513

Ion	Ratio	Lower	Upper
96	100		
96	100.0	80.0	120.0
61	0.0	0.0	0.0
98	0.0	53.0	79.4#

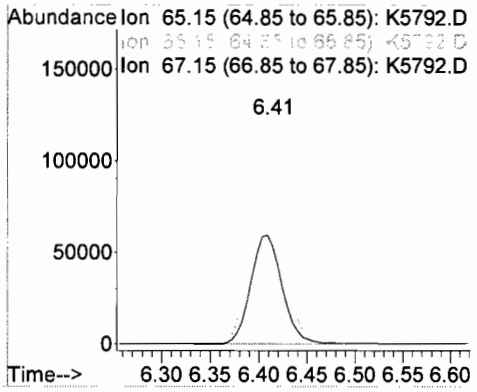


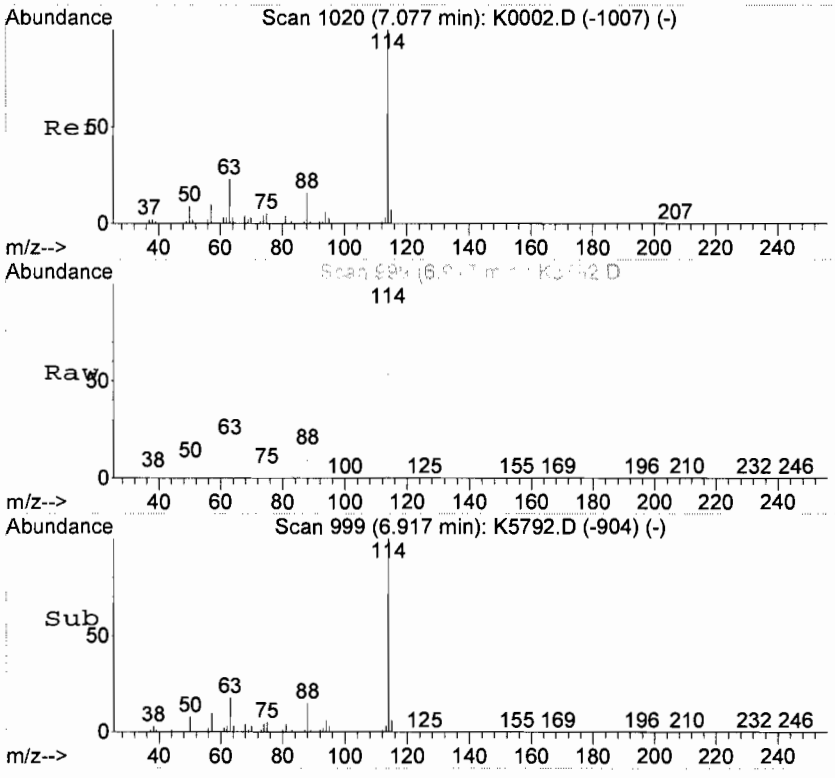


#30
1,2-Dichloroethane-d4
Concen: 48.61 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 65 Resp: 268244

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	49.9	40.4	60.6

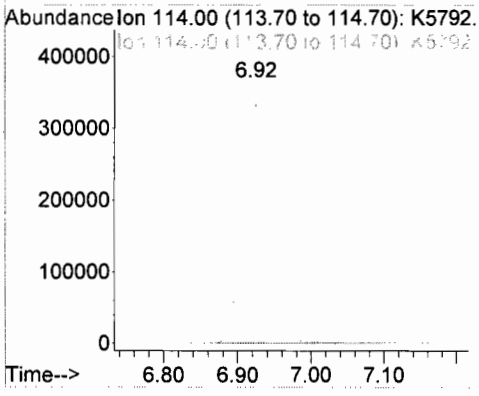


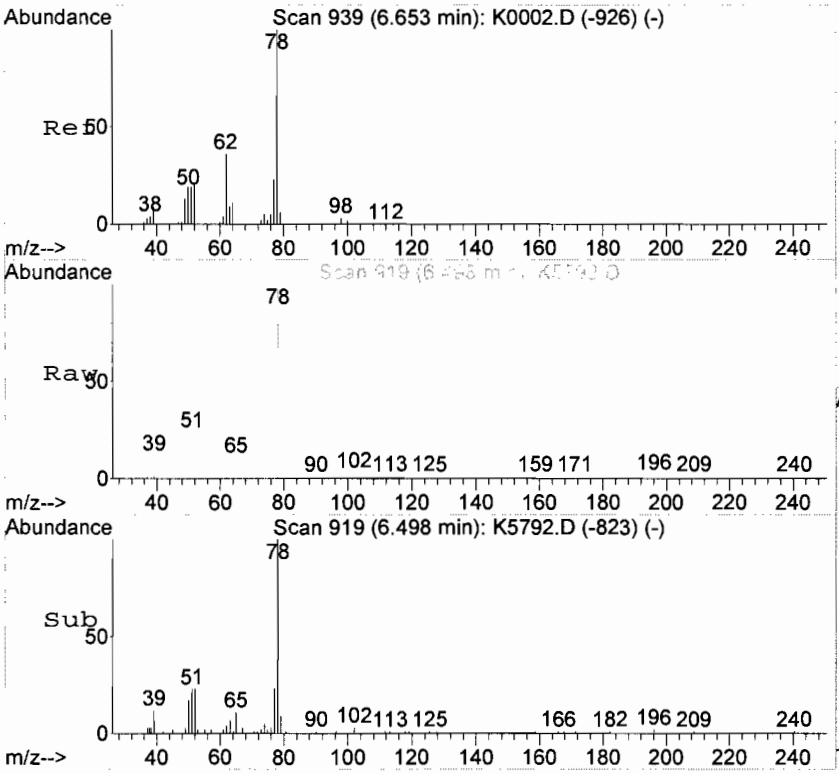


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 999
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:114 Resp: 747696

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

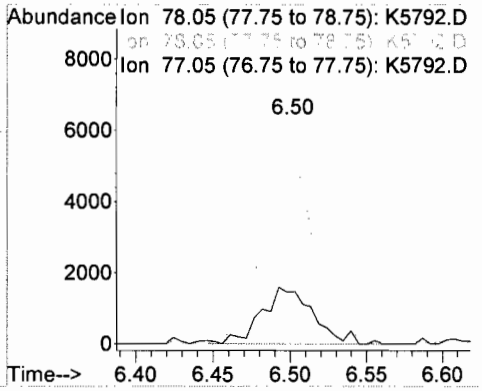


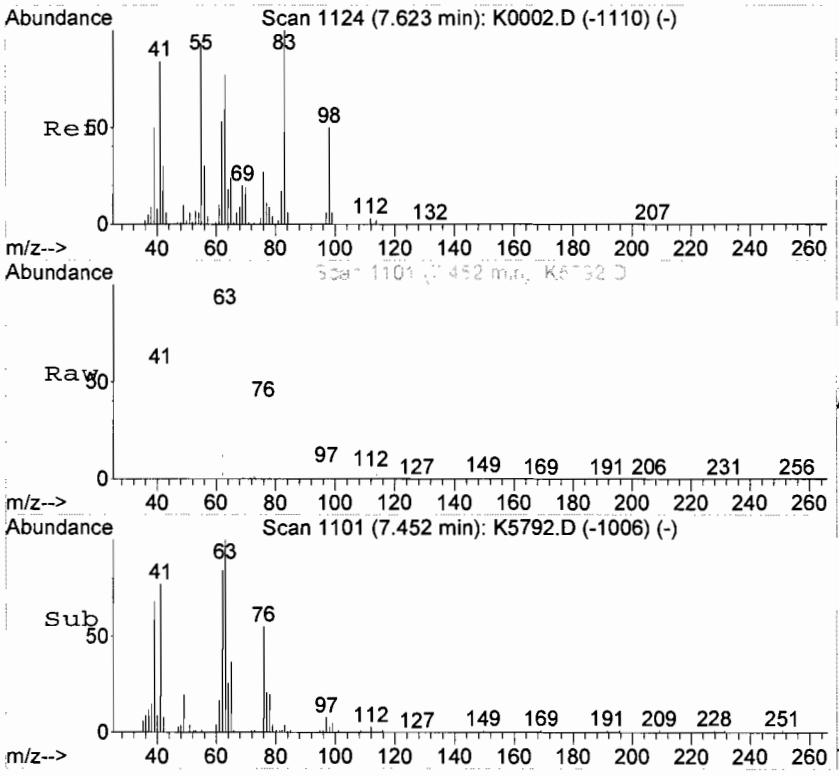


#32
Benzene
Concen: 0.75 UG
RT: 6.50 min Scan# 919
Delta R.T. 0.01 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 78 Resp: 13334

Ion	Ratio	Lower	Upper
78	100		
78	100.0	80.0	120.0
77	28.1	18.6	27.8#

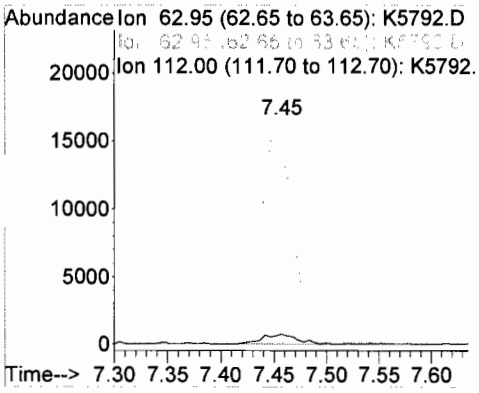


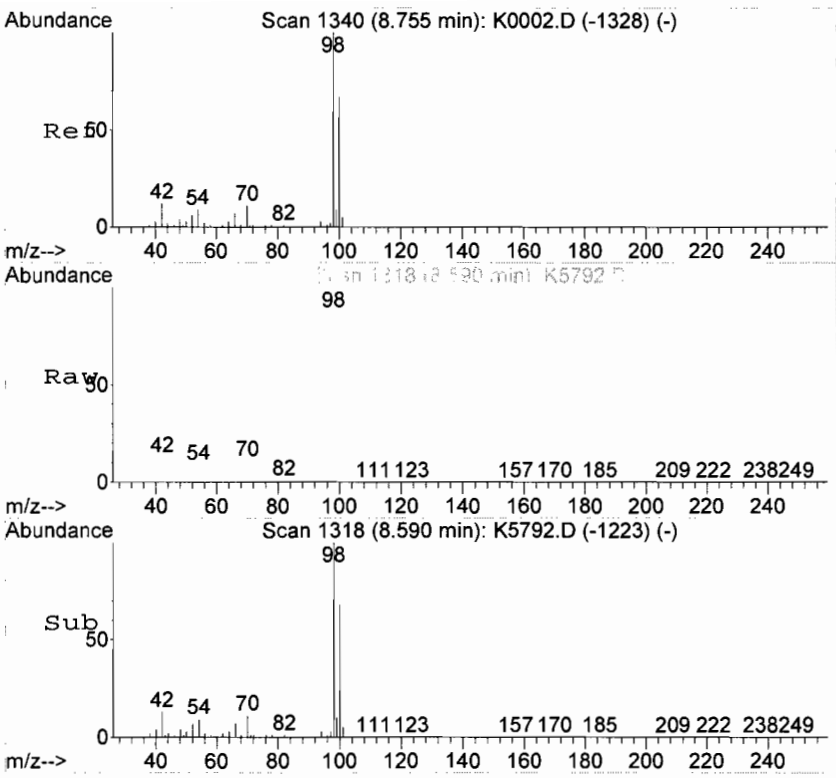


#34
1,2-Dichloropropane
Concen: 7.18 UG
RT: 7.45 min Scan# 1101
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 63 Resp: 33933

Ion	Ratio	Lower	Upper
63	100		
63	100.0	80.0	120.0
112	0.0	0.0	0.0

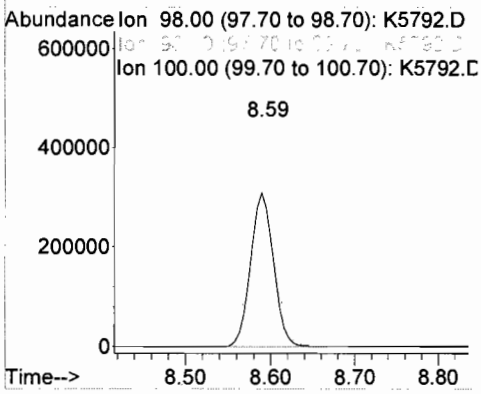


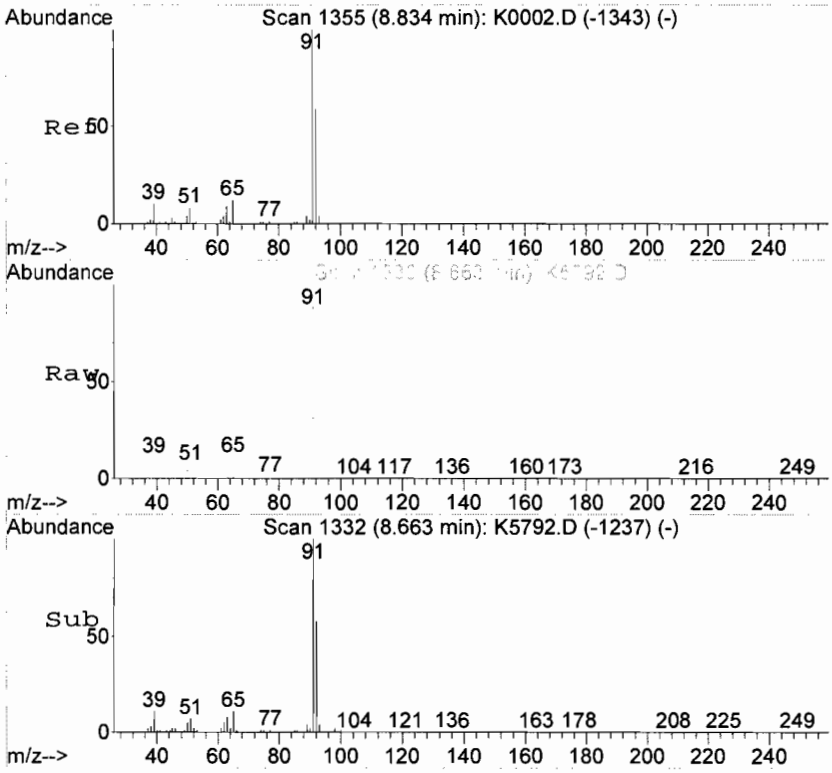


#41
Toluene-d8
Concen: 48.54 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 98 Resp: 860165

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.3	51.6	77.4

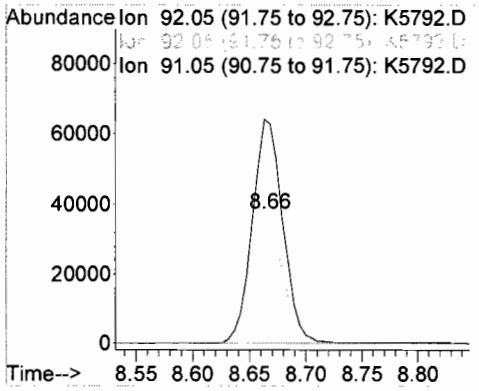


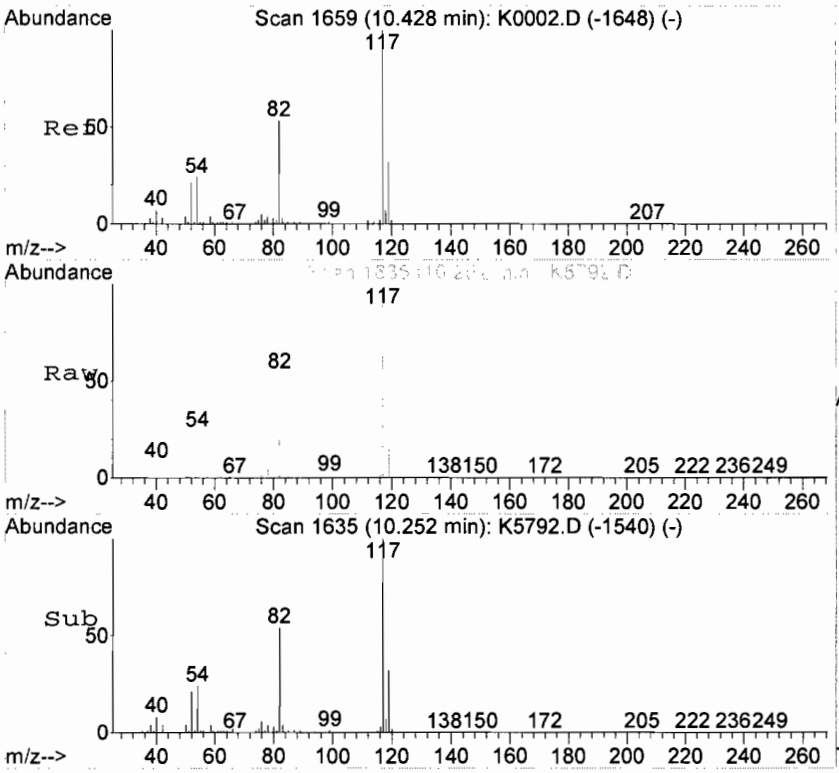


#42
Toluene
Concen: 6.07 UG
RT: 8.66 min Scan# 1332
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 92 Resp: 70558

Ion	Ratio	Lower	Upper
92	100		
92	100.0	80.0	120.0
91	170.8	134.6	201.8

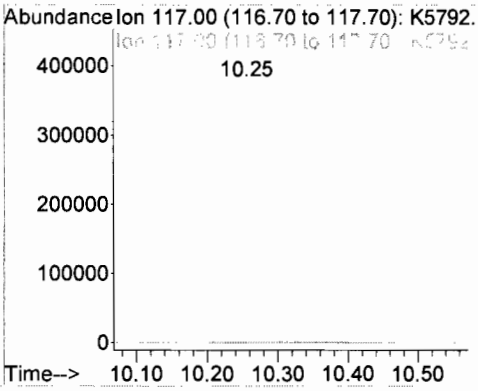


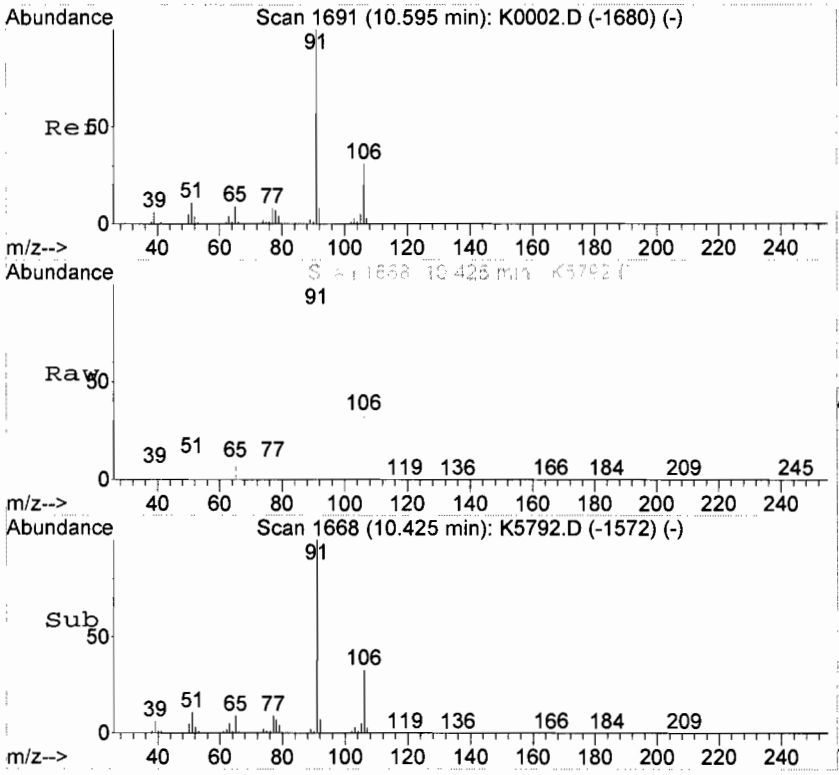


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:117 Resp: 680647

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

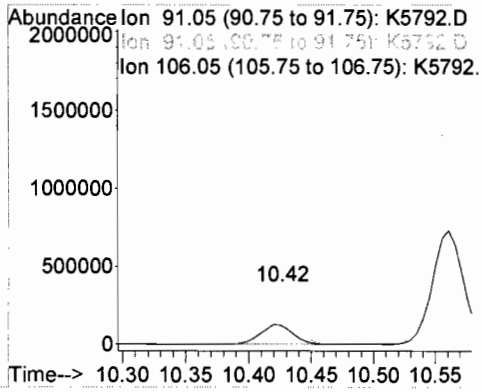


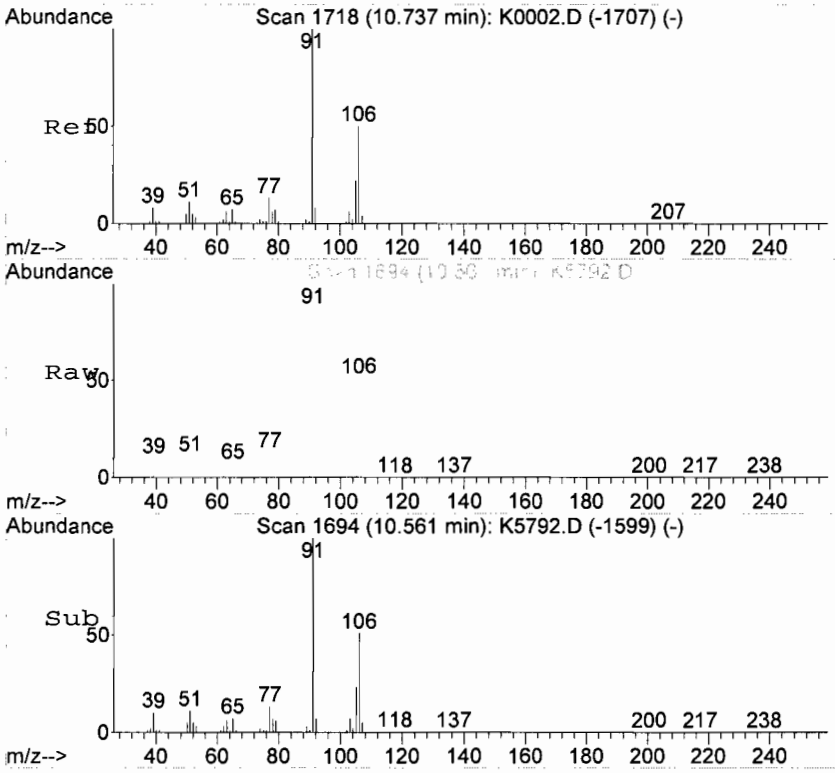


#53
Ethylbenzene
Concen: 30.34 UG
RT: 10.42 min Scan# 1668
Delta R.T. 0.01 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 91 Resp: 673763

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	32.9	24.6	36.8

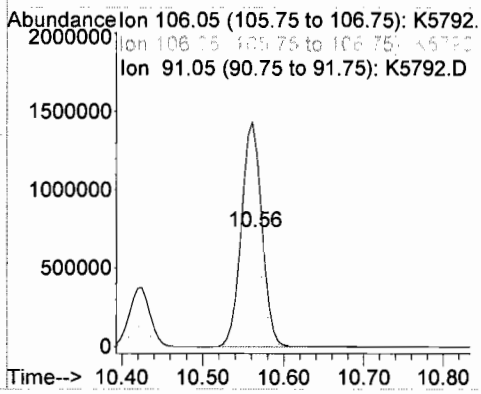


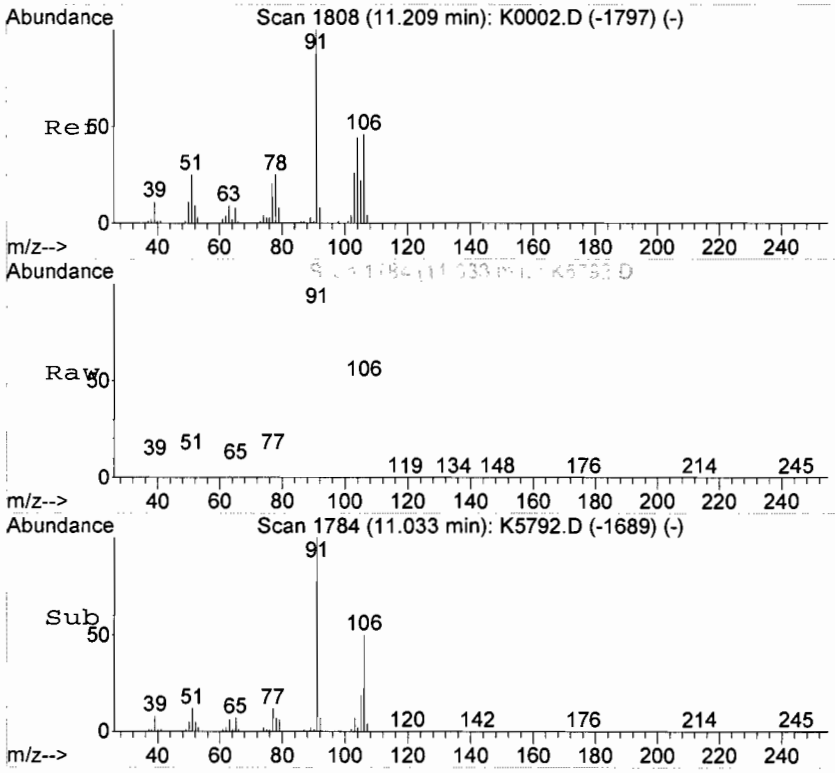


#54
m,p-Xylene
Concen: 136.92 UG
RT: 10.56 min Scan# 1694
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:106 Resp: 1301326

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	193.9	164.6	246.8

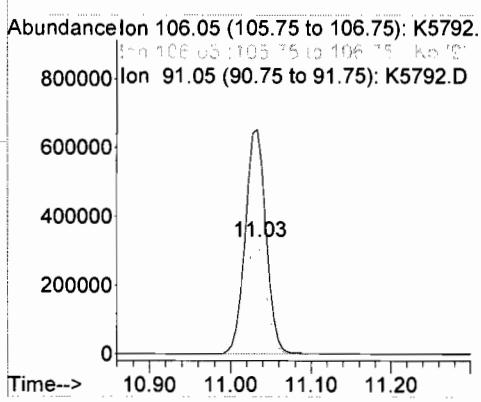


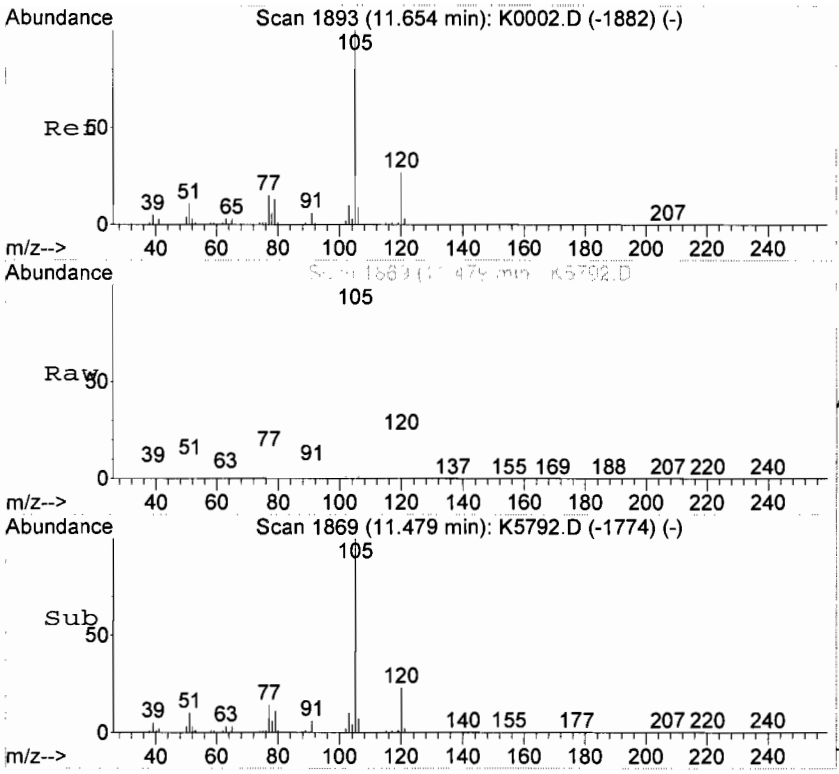


#55
o-Xylene
Concen: 65.38 UG
RT: 11.03 min Scan# 1784
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:106 Resp: 579882

Ion	Ratio	Lower	Upper
106	100		
106	100.0	80.0	120.0
91	201.2	182.2	273.2

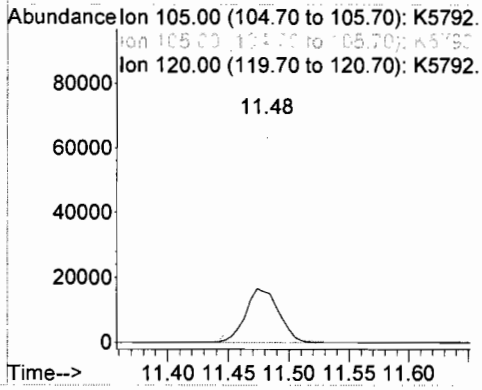


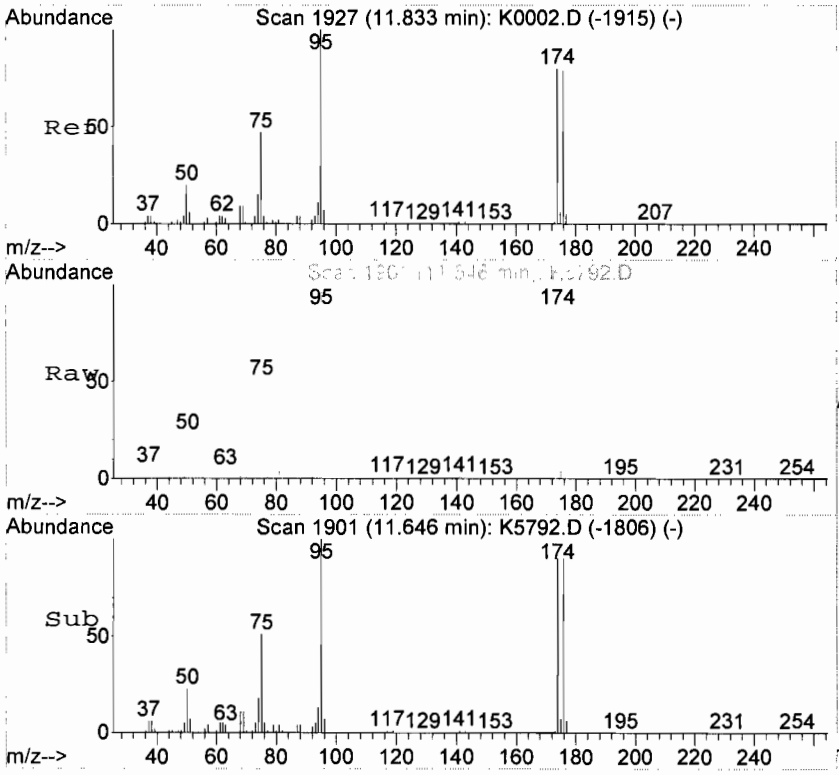


#58
Isopropylbenzene
Concen: 5.02 UG
RT: 11.48 min Scan# 1869
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:105 Resp: 118738

Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	26.3	21.6	32.4

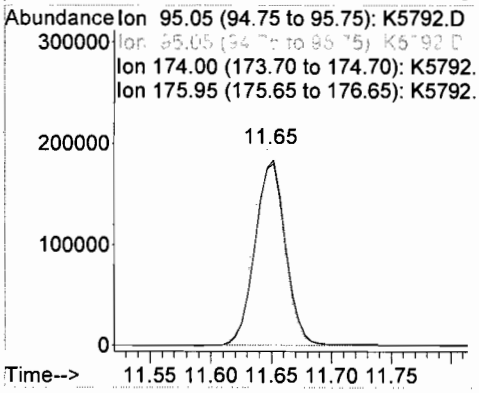


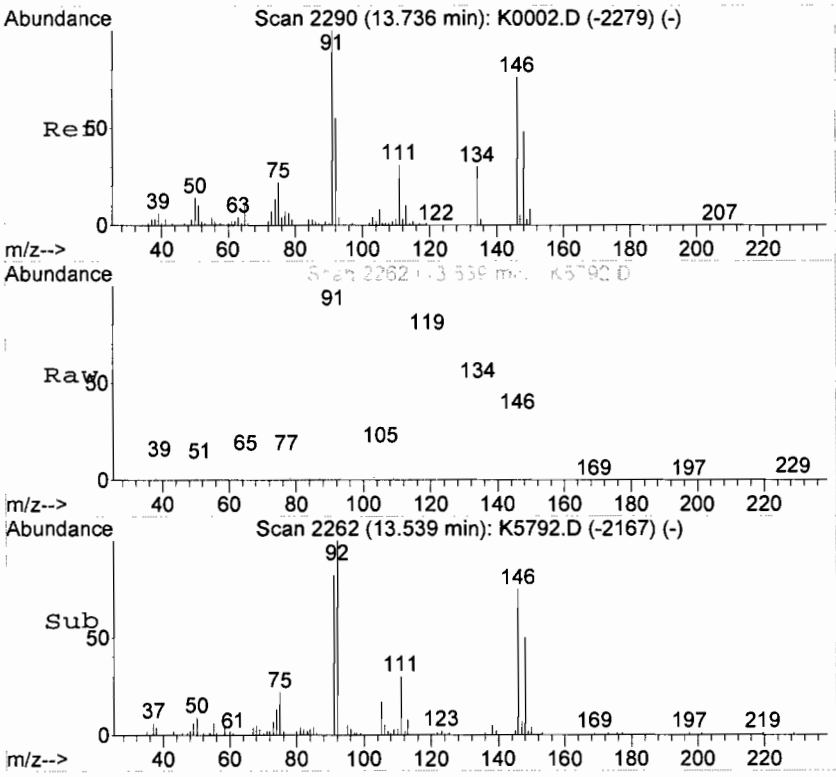


#59
Bromofluorobenzene
Concen: 49.72 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion: 95 Resp: 345156

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#

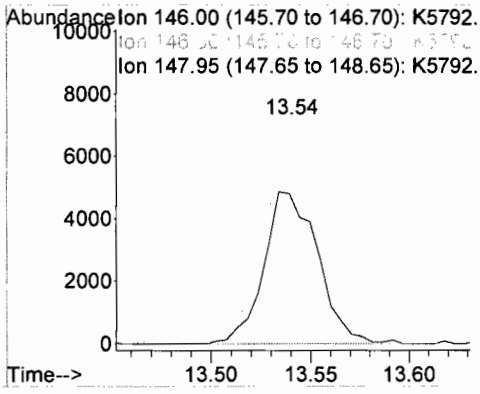




#74
1,2-Dichlorobenzene
Concen: 1.08 UG
RT: 13.54 min Scan# 2262
Delta R.T. 0.00 min
Lab File: K5792.D
Acq: 26 May 2017 3:11 pm

Tgt Ion:146 Resp: 13723

Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	67.0	52.8	79.2



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 01 14:35:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

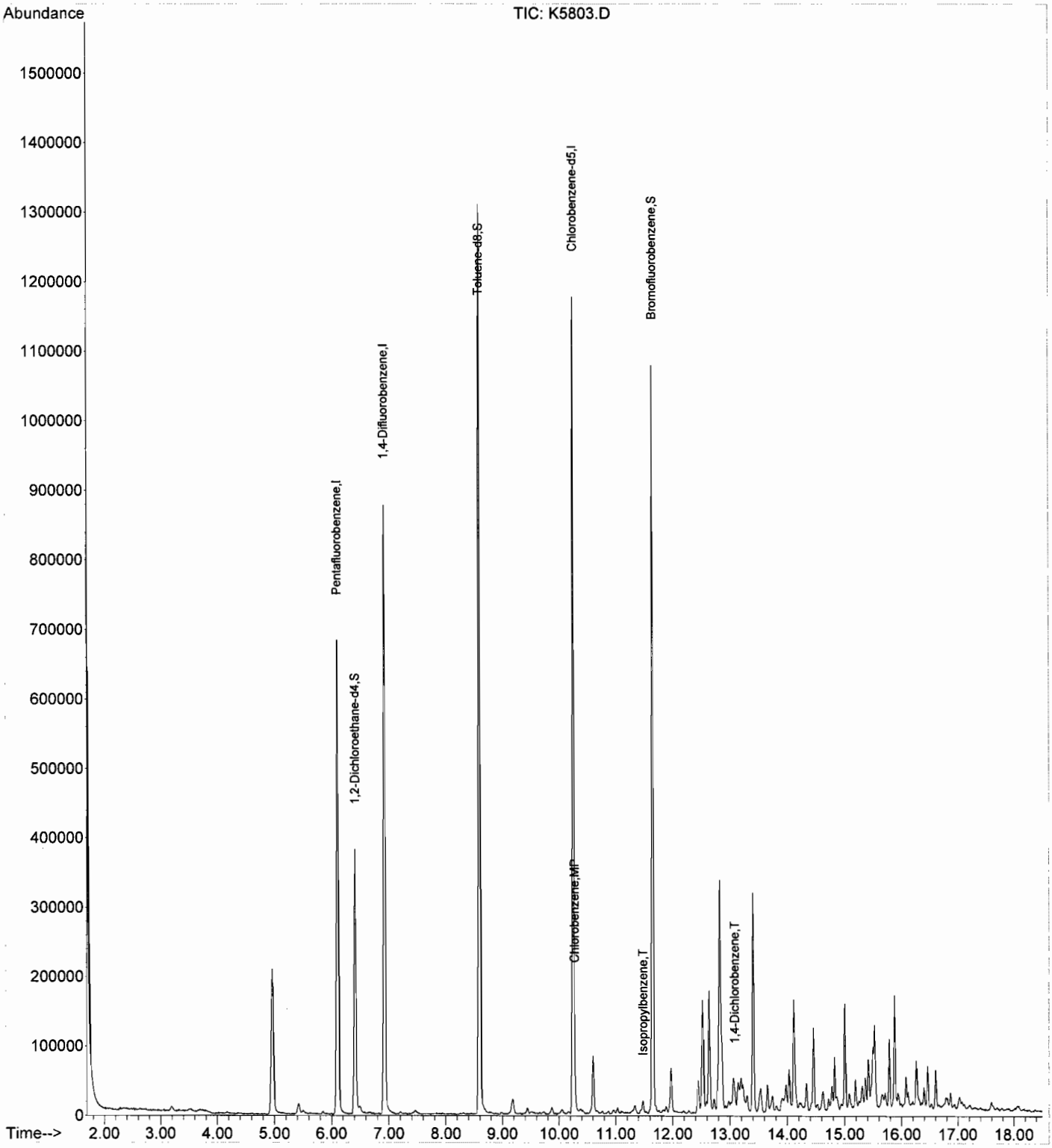
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	577419	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.92	114	821771	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	727085	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	291871	46.53	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.06%			
41) Toluene-d8	8.59	98	930728	47.79	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.58%			
59) Bromofluorobenzene	11.65	95	353580	47.68	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.36%			
Target Compounds						Qvalue
51) Chlorobenzene	10.28	112	7383	0.51	UG	# 86
58) Isopropylbenzene	11.47	105	13256	0.52	UG	100
72) 1,4-Dichlorobenzene	13.09	146	10331	0.77	UG	98

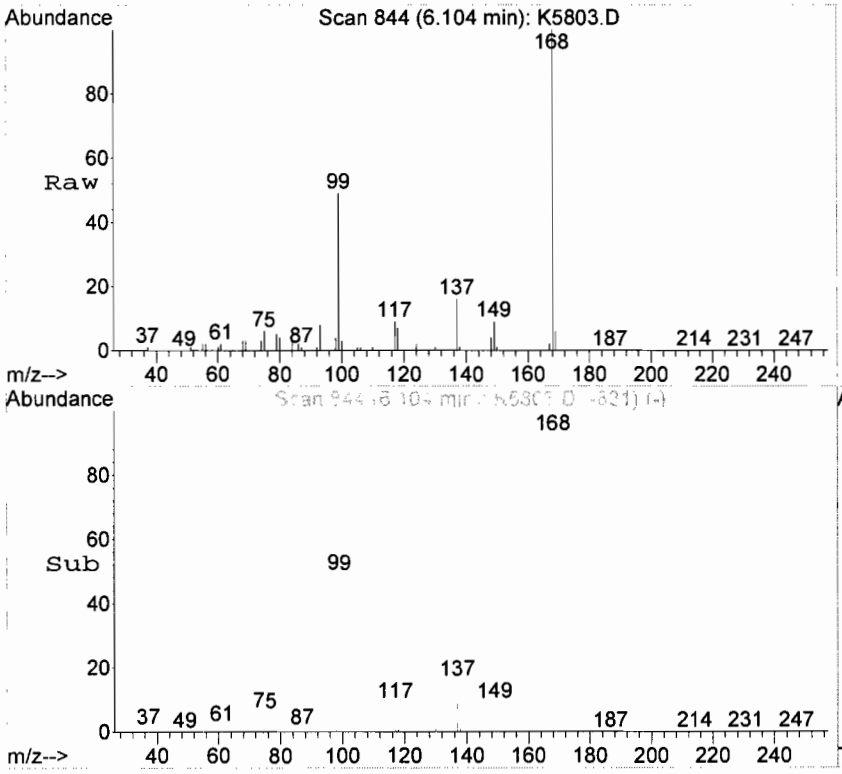
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 01 14:35:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

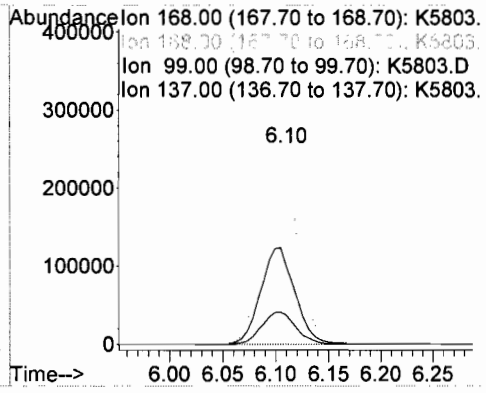


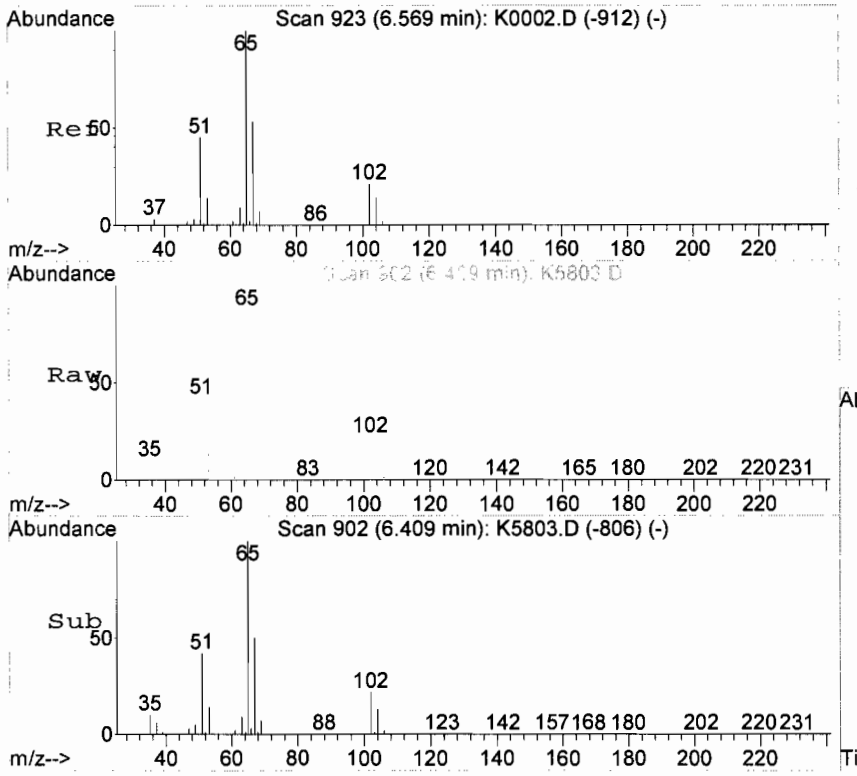


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 844
Delta R.T. 0.01 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:168 Resp: 577419

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	48.0	45.9	68.9
137	16.1	12.7	19.1

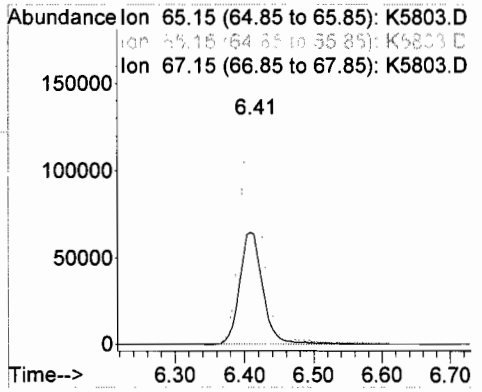


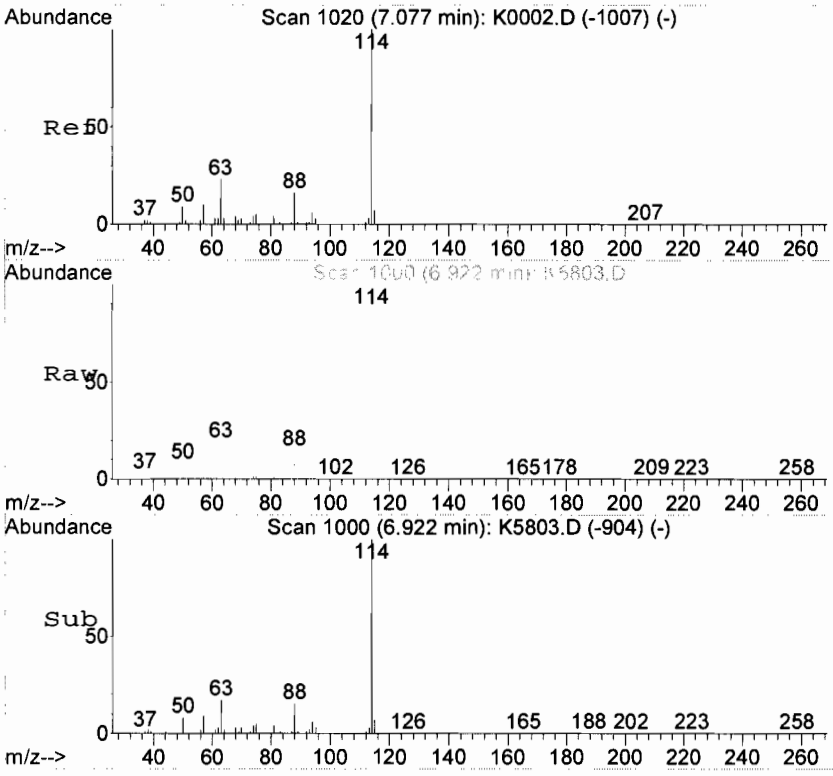


#30
1,2-Dichloroethane-d4
Concen: 46.53 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion: 65 Resp: 291871

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.6	40.4	60.6

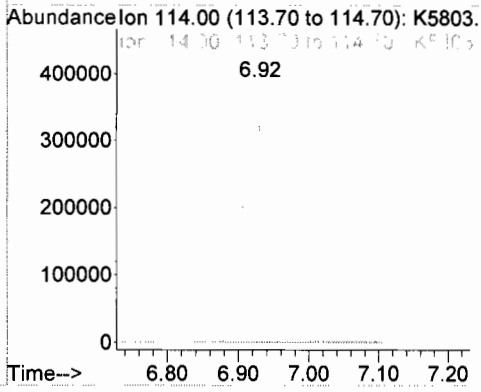


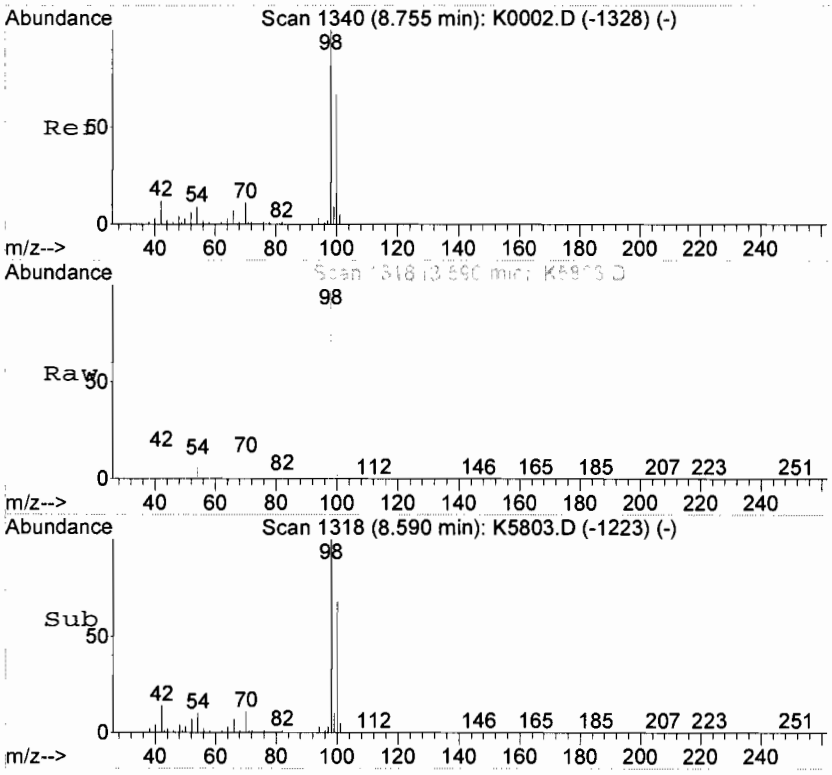


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:114 Resp: 821771

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

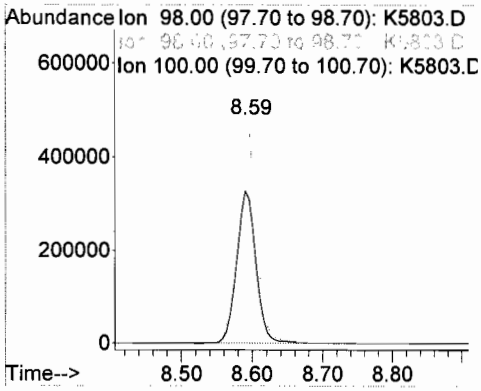


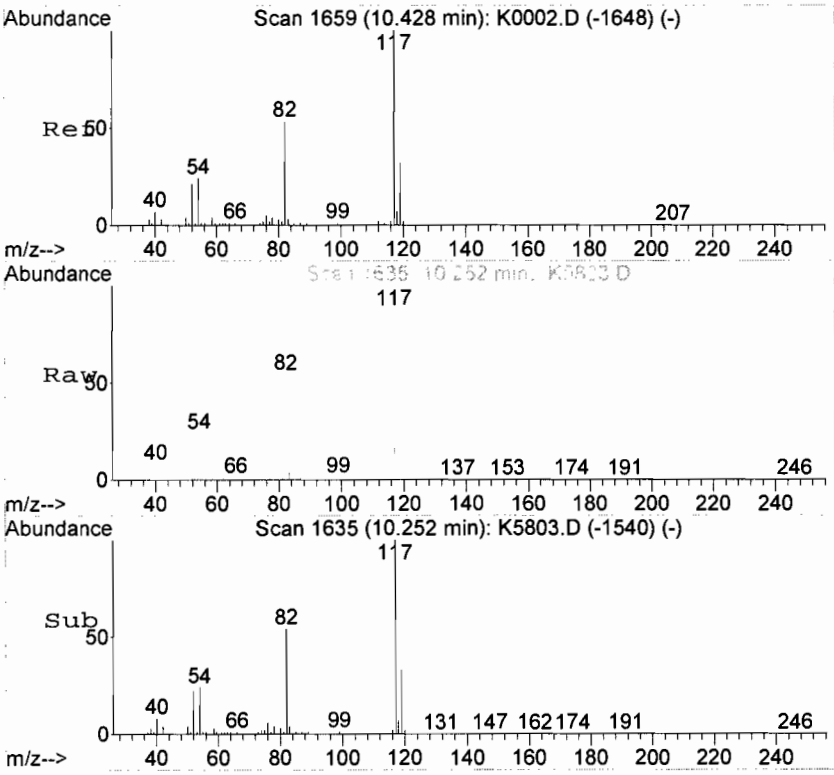


#41
Toluene-d8
Concen: 47.79 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion: 98 Resp: 930728

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	66.8	51.6	77.4

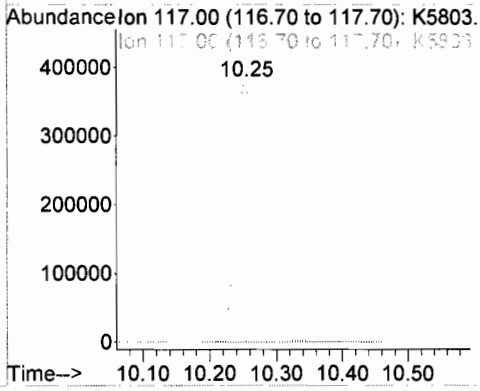


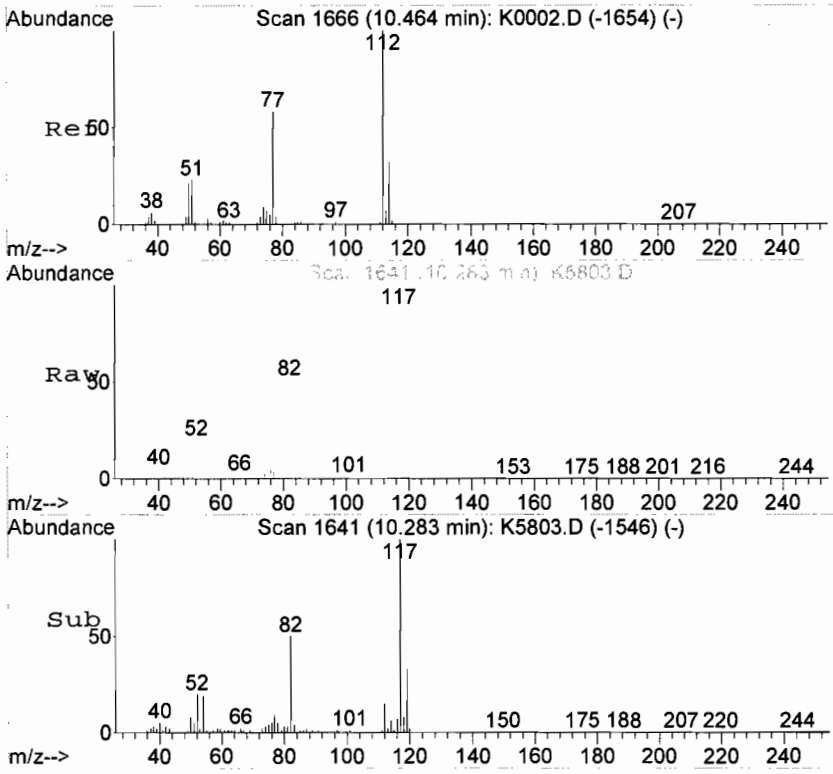


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:117 Resp: 727085

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

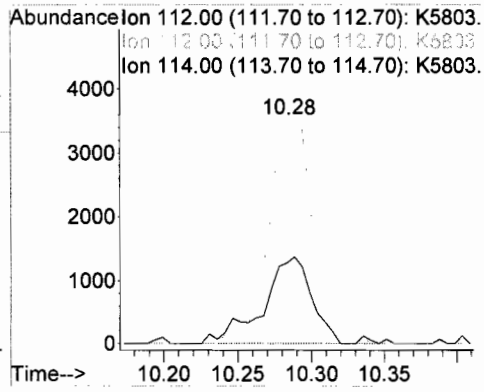


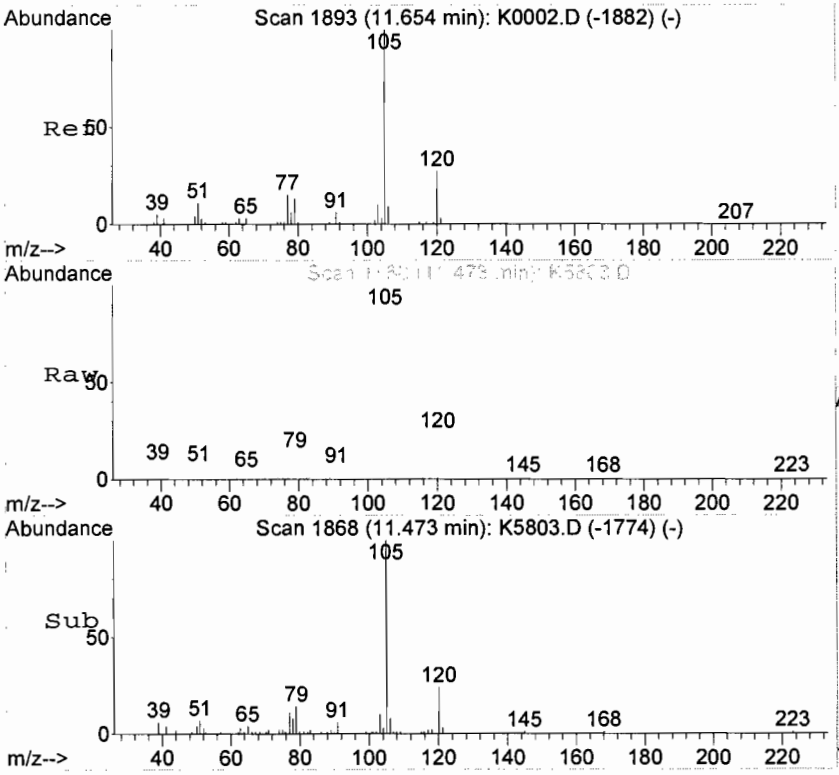


#51
Chlorobenzene
Concen: 0.51 UG
RT: 10.28 min Scan# 1641
Delta R.T. 0.00 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:112 Resp: 7383

Ion	Ratio	Lower	Upper
112	100		
112	100.0	80.0	120.0
114	0.0	25.0	37.6#

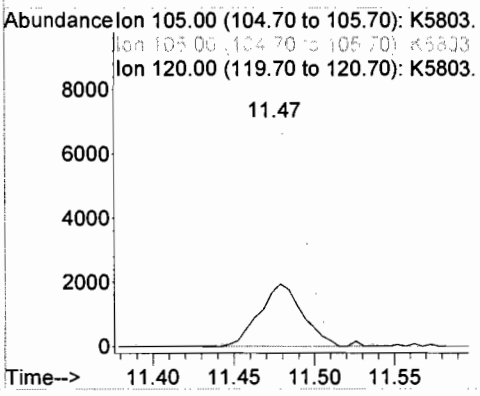


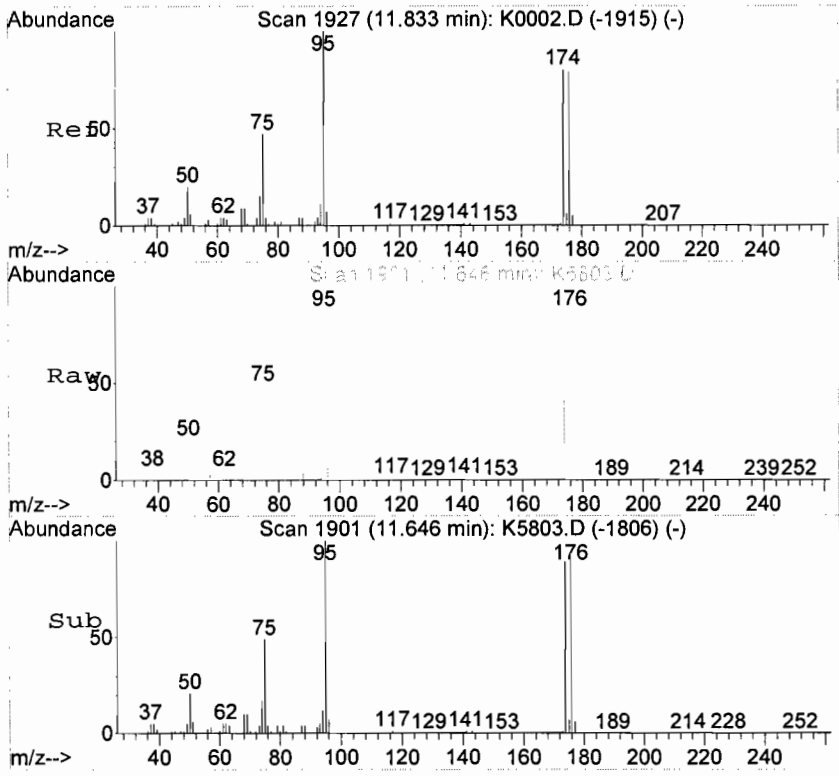


#58
Isopropylbenzene
Concen: 0.52 UG
RT: 11.47 min Scan# 1868
Delta R.T. -0.01 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:105 Resp: 13256

Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	27.1	21.6	32.4

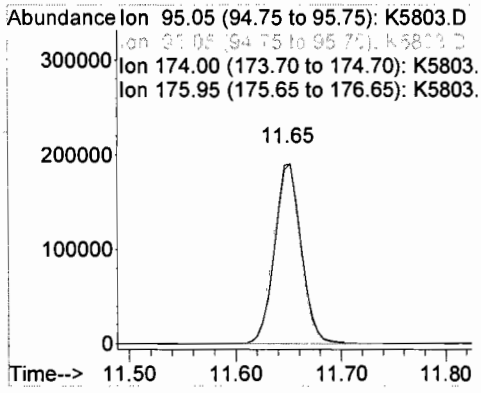


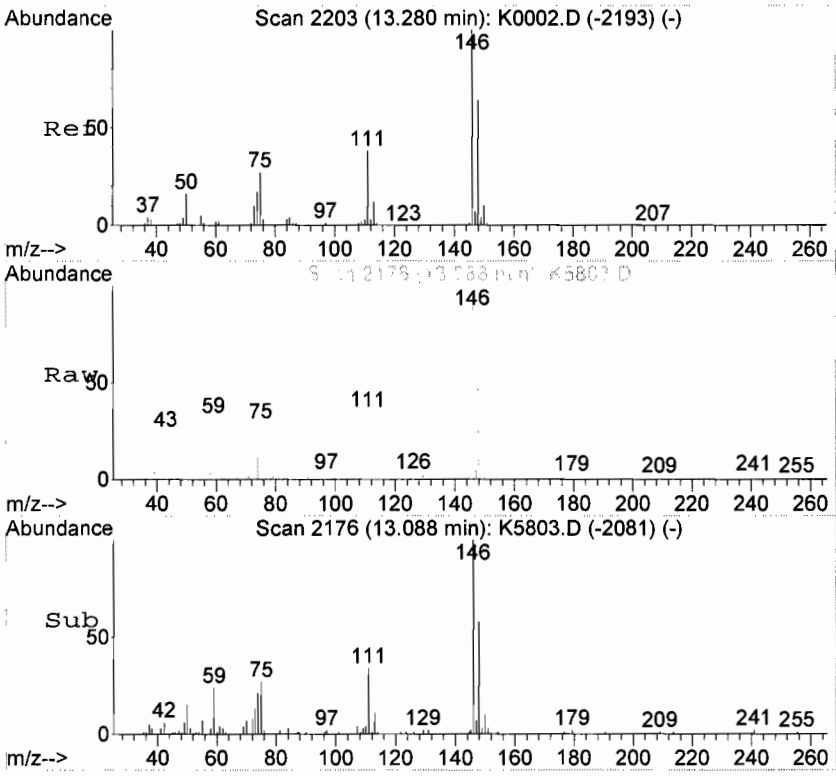


#59
Bromofluorobenzene
Concen: 47.68 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion: 95 Resp: 353580

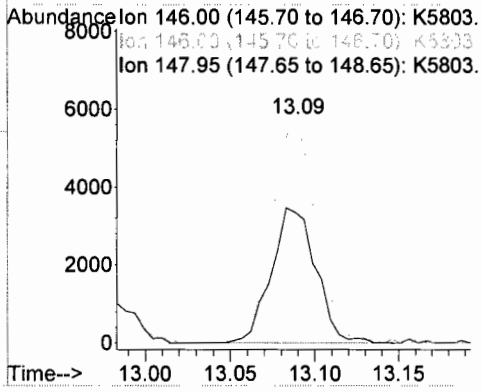
Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#





#72
1,4-Dichlorobenzene
Concen: 0.77 UG
RT: 13.09 min Scan# 2176
Delta R.T. 0.00 min
Lab File: K5803.D
Acq: 26 May 2017 8:10 pm

Tgt Ion:146	Resp:	10331	
Ion	Ratio	Lower	Upper
146	100		
146	100.0	80.0	120.0
148	61.3	52.0	78.0



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.277	110	114	164	rVV8	4333	46498	1.81%	0.243%
2	2.550	164	166	216	rVV7	3531	34528	1.35%	0.180%
3	3.698	374	385	400	rVV10	4603	26800	1.05%	0.140%
4	4.962	609	626	660	rBV	209603	598892	23.37%	3.127%
5	5.423	704	714	725	rBV2	14588	43701	1.71%	0.228%
6	6.099	829	843	877	rBV	682670	1579179	61.62%	8.244%
7	6.409	891	902	939	rBV	380331	881308	34.39%	4.601%
8	6.917	988	999	1039	rBV	876795	1869197	72.94%	9.759%
9	8.590	1304	1318	1368	rBV	1308738	2562589	100.00%	13.379%
10	9.177	1413	1430	1451	rBV6	21312	69508	2.71%	0.363%
11	10.252	1625	1635	1655	rBV	1174309	2243064	87.53%	11.710%
12	10.603	1687	1702	1726	rVV2	82812	193057	7.53%	1.008%
13	11.342	1826	1843	1856	rVB5	11618	39614	1.55%	0.207%
14	11.479	1856	1869	1887	rBV5	18111	52641	2.05%	0.275%
15	11.646	1887	1901	1920	rBV	1075563	1920586	74.95%	10.027%
16	11.977	1952	1964	1974	rBV2	63405	139767	5.45%	0.730%
17	12.443	2045	2053	2060	rBV4	47315	103174	4.03%	0.539%
18	12.527	2060	2069	2077	rVV	162651	360232	14.06%	1.881%
19	12.637	2083	2090	2101	rVV	175644	373297	14.57%	1.949%
20	12.726	2101	2107	2113	rVV5	19663	46027	1.80%	0.240%
21	12.826	2113	2126	2149	rVV2	333908	946177	36.92%	4.940%
22	12.978	2149	2155	2165	rVV10	16115	65256	2.55%	0.341%
23	13.062	2165	2171	2181	rVV4	48902	146201	5.71%	0.763%
24	13.141	2181	2186	2192	rVV7	42416	115269	4.50%	0.602%
25	13.193	2192	2196	2211	rVV6	48923	186829	7.29%	0.975%
26	13.298	2211	2216	2226	rVV2	23101	53005	2.07%	0.277%
27	13.403	2226	2236	2249	rVV	313981	591153	23.07%	3.086%
28	13.534	2249	2261	2276	rVB7	34026	100336	3.92%	0.524%
29	13.649	2276	2283	2291	rBV2	38958	77607	3.03%	0.405%
30	13.738	2291	2300	2308	rVV6	21961	54932	2.14%	0.287%
31	13.980	2341	2346	2351	rVB	25323	41128	1.60%	0.215%
32	14.032	2351	2356	2365	rVB	50741	84800	3.31%	0.443%
33	14.116	2365	2372	2386	rVB2	155242	317313	12.38%	1.657%
34	14.336	2406	2414	2424	rVB2	38317	78492	3.06%	0.410%
35	14.462	2424	2438	2446	rBV	118243	230074	8.98%	1.201%
36	14.624	2457	2469	2481	rVB4	27012	65980	2.57%	0.344%
37	14.719	2481	2487	2493	rBV3	16229	31024	1.21%	0.162%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	14.782	2493	2499	2503	rBV3	27561	46806	1.83%	0.244%
39	14.829	2503	2508	2524	rVB2	76010	163854	6.39%	0.855%
40	15.002	2535	2541	2549	rVB2	148878	254180	9.92%	1.327%
41	15.081	2549	2556	2571	rBV6	19857	45120	1.76%	0.236%
42	15.191	2571	2577	2585	rBV2	39570	68985	2.69%	0.360%
43	15.311	2593	2600	2605	rVV7	28429	58807	2.29%	0.307%
44	15.358	2605	2609	2615	rVV	39681	68857	2.69%	0.359%
45	15.416	2615	2620	2626	rVV3	66399	130972	5.11%	0.684%
46	15.495	2626	2635	2638	rVV2	85367	197058	7.69%	1.029%
47	15.521	2638	2640	2658	rVV3	116039	190203	7.42%	0.993%
48	15.652	2658	2665	2672	rVV5	16988	49833	1.94%	0.260%
49	15.710	2672	2676	2683	rVV8	19383	37109	1.45%	0.194%
50	15.783	2683	2690	2698	rVV	97026	156185	6.09%	0.815%
51	15.883	2698	2709	2717	rVV	160430	277919	10.85%	1.451%
52	15.935	2717	2719	2741	rVV9	20339	54708	2.13%	0.286%
53	16.082	2741	2747	2751	rVV	44305	78486	3.06%	0.410%
54	16.119	2751	2754	2766	rVV9	22642	43563	1.70%	0.227%
55	16.260	2774	2781	2797	rVV	67710	167109	6.52%	0.872%
56	16.397	2802	2807	2813	rVV	29351	52647	2.05%	0.275%
57	16.459	2813	2819	2828	rVV	60325	104440	4.08%	0.545%
58	16.606	2839	2847	2878	rBV4	54971	139266	5.43%	0.727%
59	16.790	2878	2882	2891	rVV8	16378	52489	2.05%	0.274%
60	16.868	2891	2897	2919	rVV6	23974	65593	2.56%	0.342%
61	17.026	2919	2927	3016	rVB6	19648	172207	6.72%	0.899%
62	17.597	3029	3036	3065	rVB6	11753	42836	1.67%	0.224%
63	17.776	3065	3070	3114	rVV6	3767	26550	1.04%	0.139%
64	18.069	3120	3126	3158	rVB6	8209	39471	1.54%	0.206%

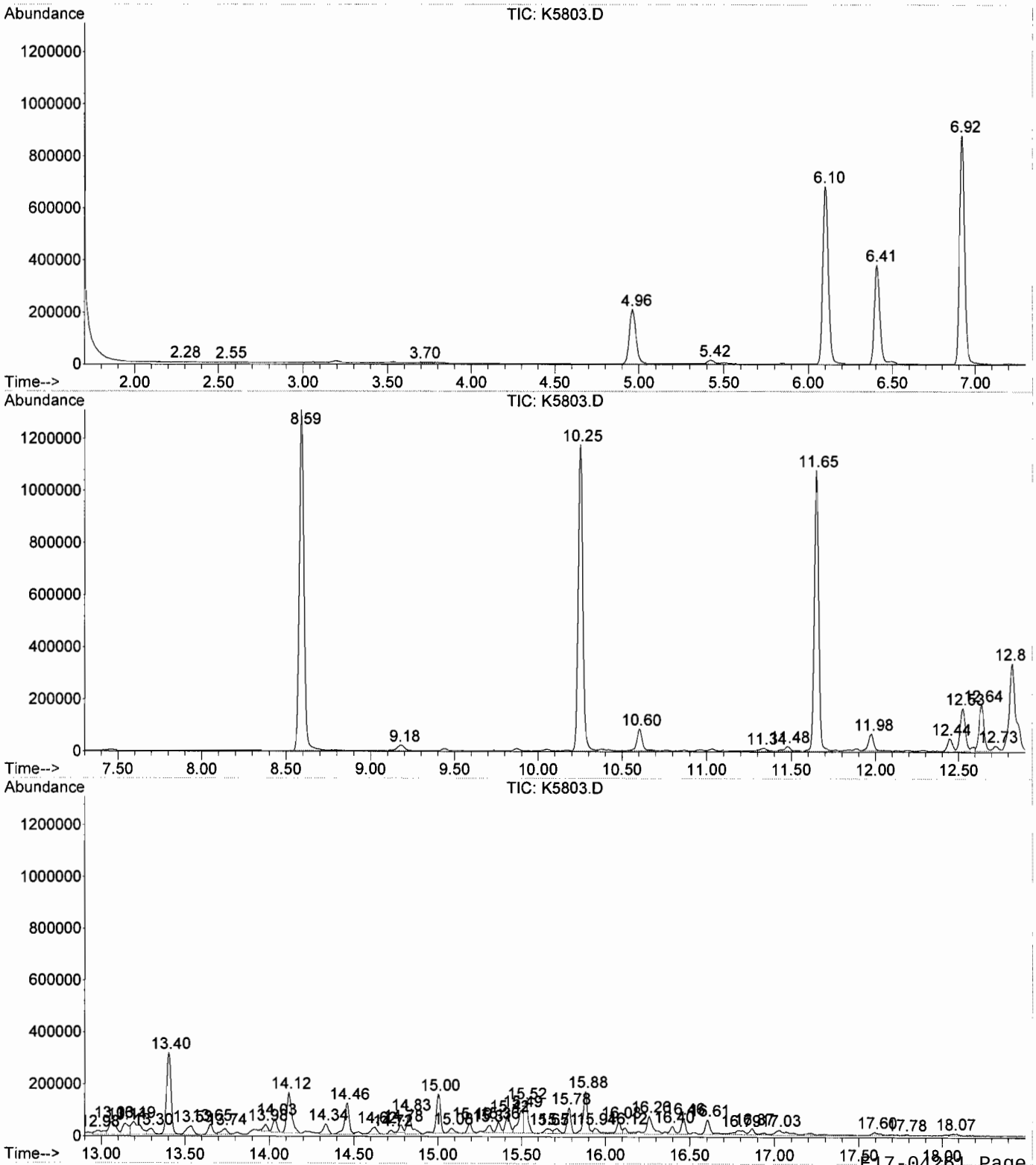
Sum of corrected areas: 19154488

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

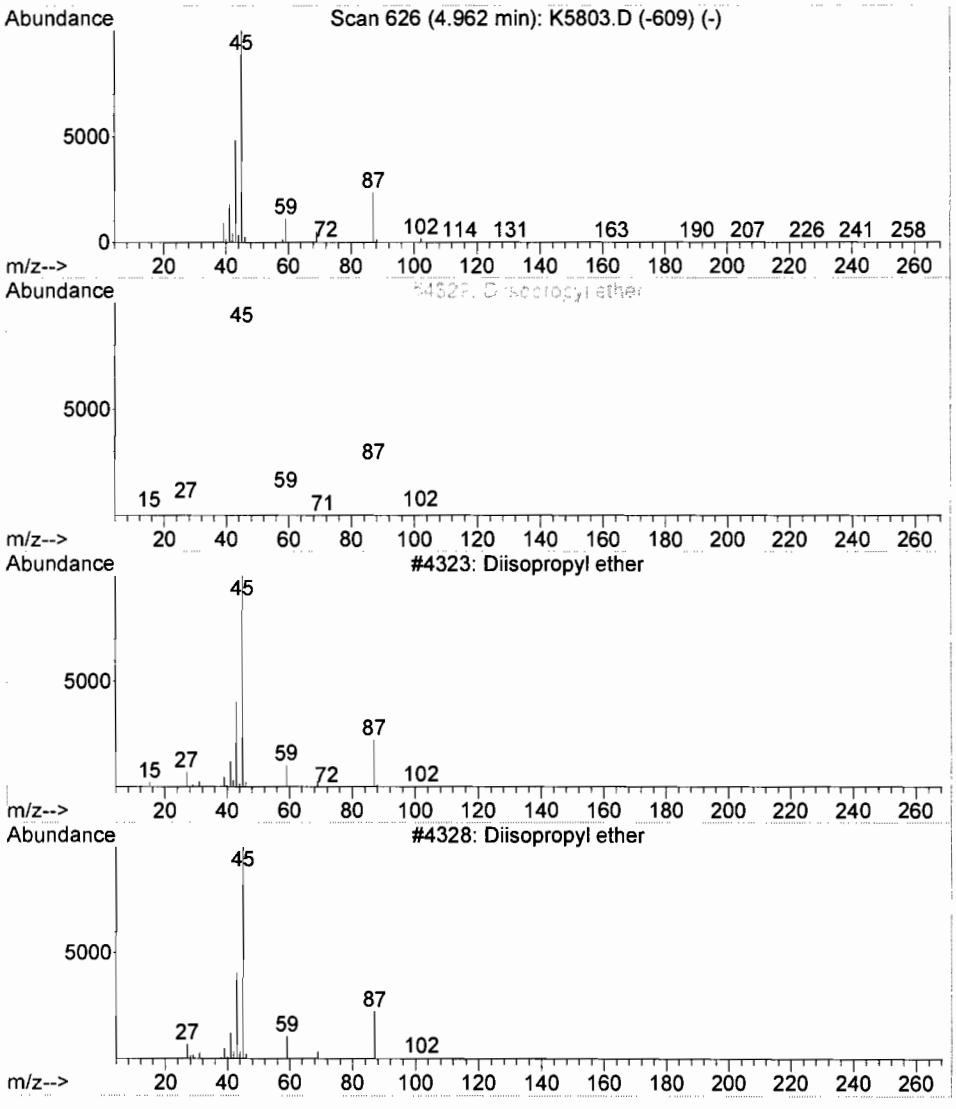
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

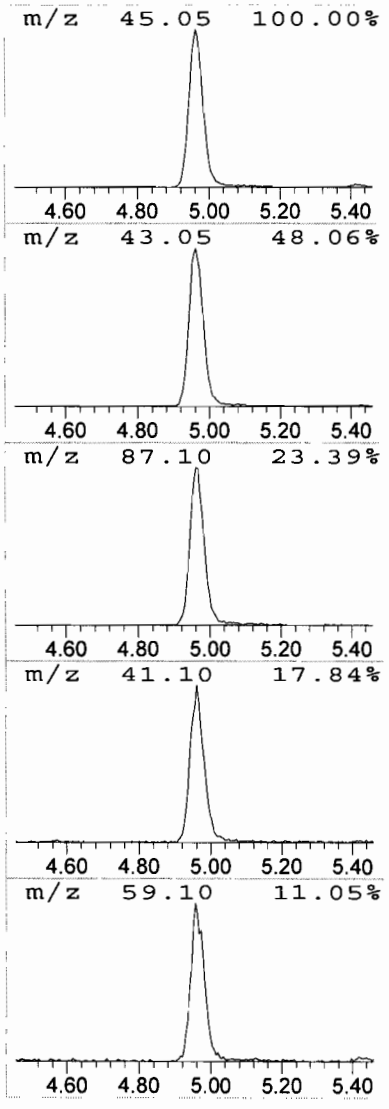
****

Peak Number 1 Diisopropyl ether Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	18.96 UG	598892	Pentafluorobenzene	6.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	91
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	78
5	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

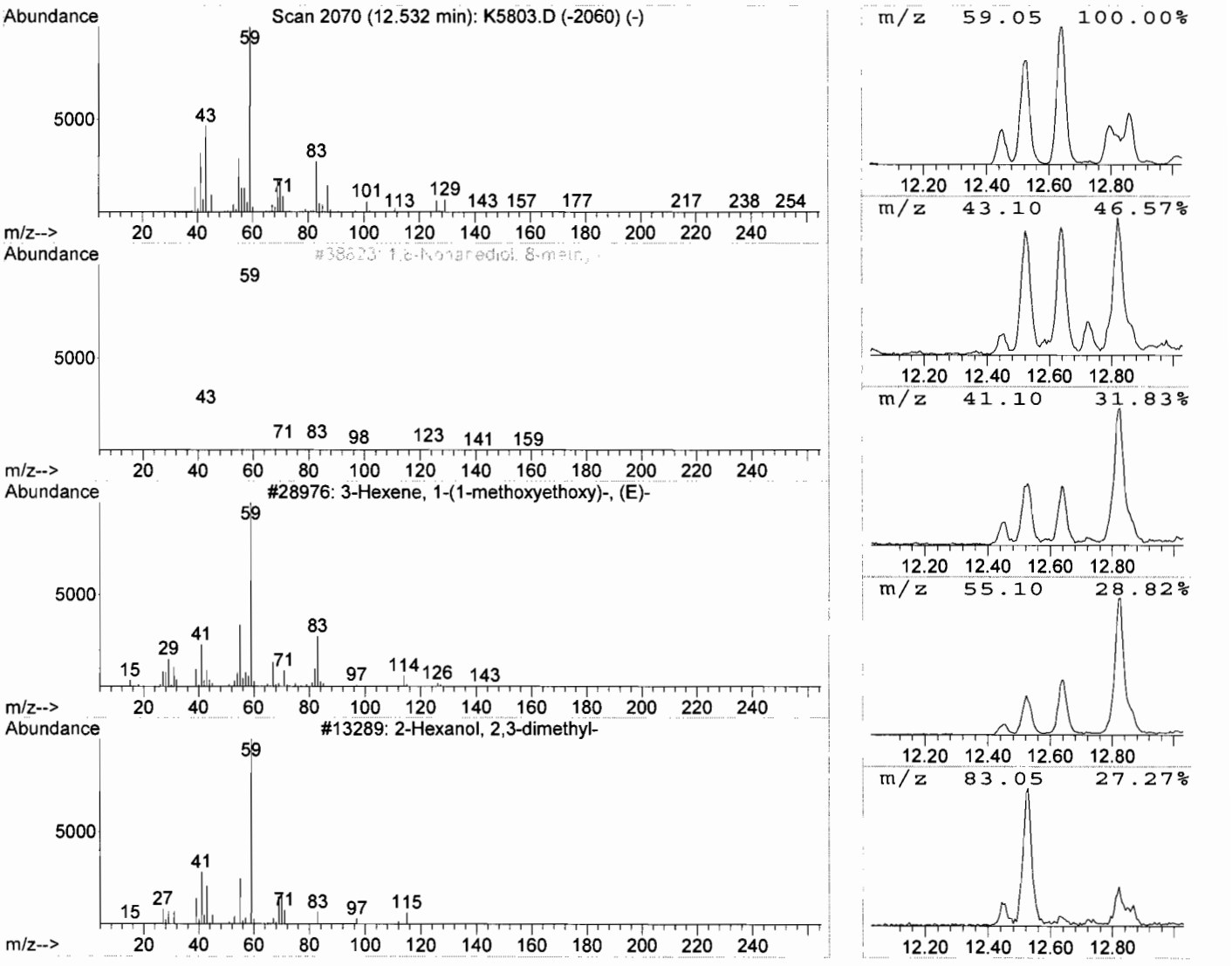
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown VOA Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.53	8.03 UG	360232	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	59
2	3-Hexene, 1-(1-methoxyethoxy)-, ...	158	C9H18O2	054340-97-5	59
3	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	59
4	2-Methyl-tridecane-2,12-diol	230	C14H30O2	1000187-03-5	45
5	.alpha.-D-Xylo-Hex-5-enofuranose...	186	C9H14O4	007284-07-3	45



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

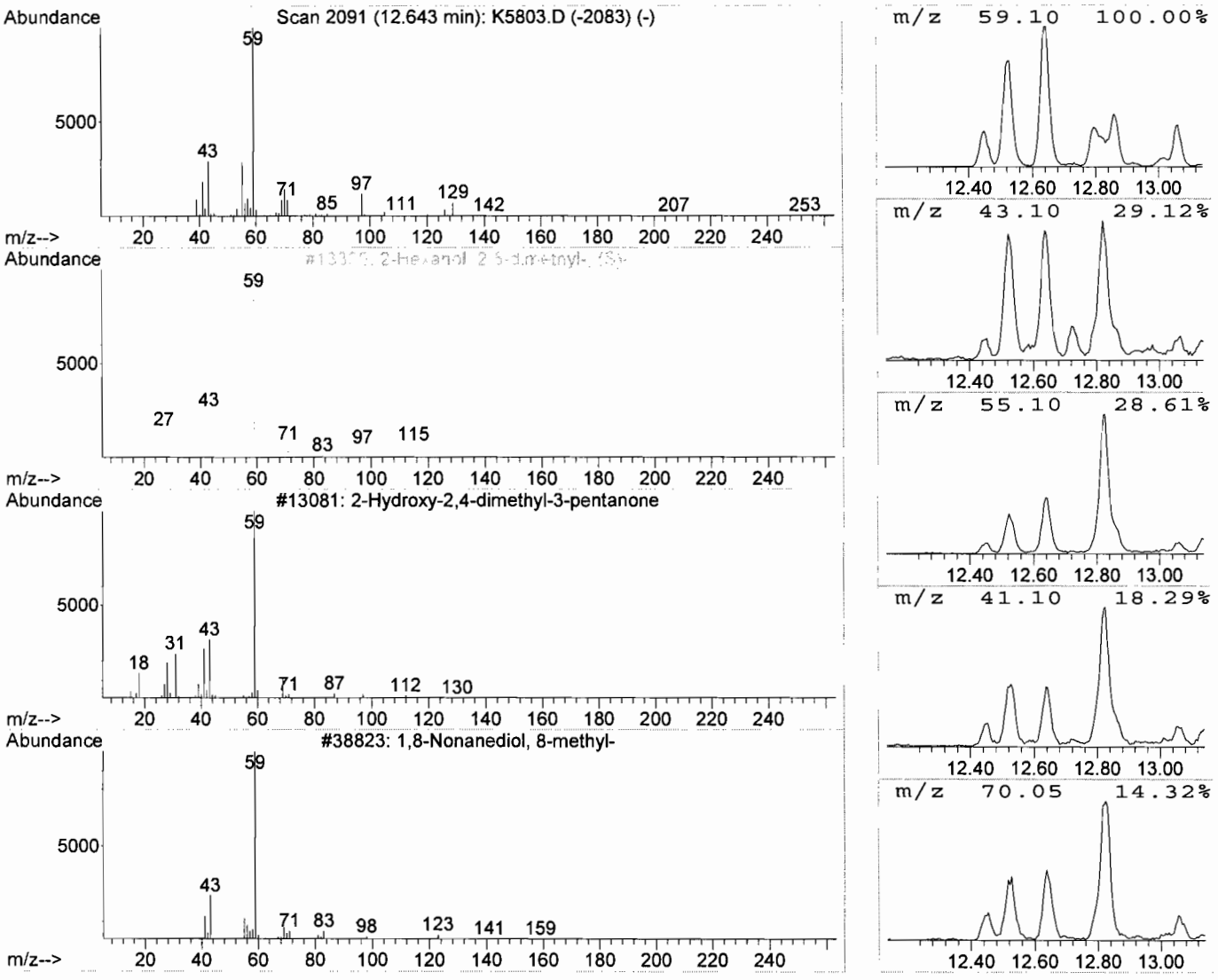
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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Peak Number 3 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	8.32 UG	373297	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	64
2	2-Hydroxy-2,4-dimethyl-3-pentanone	130	C7H14O2	003212-67-7	59
3	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	59
4	3-Hexene, 1-(1-methoxyethoxy)-, ...	158	C9H18O2	054340-97-5	42
5	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	40



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

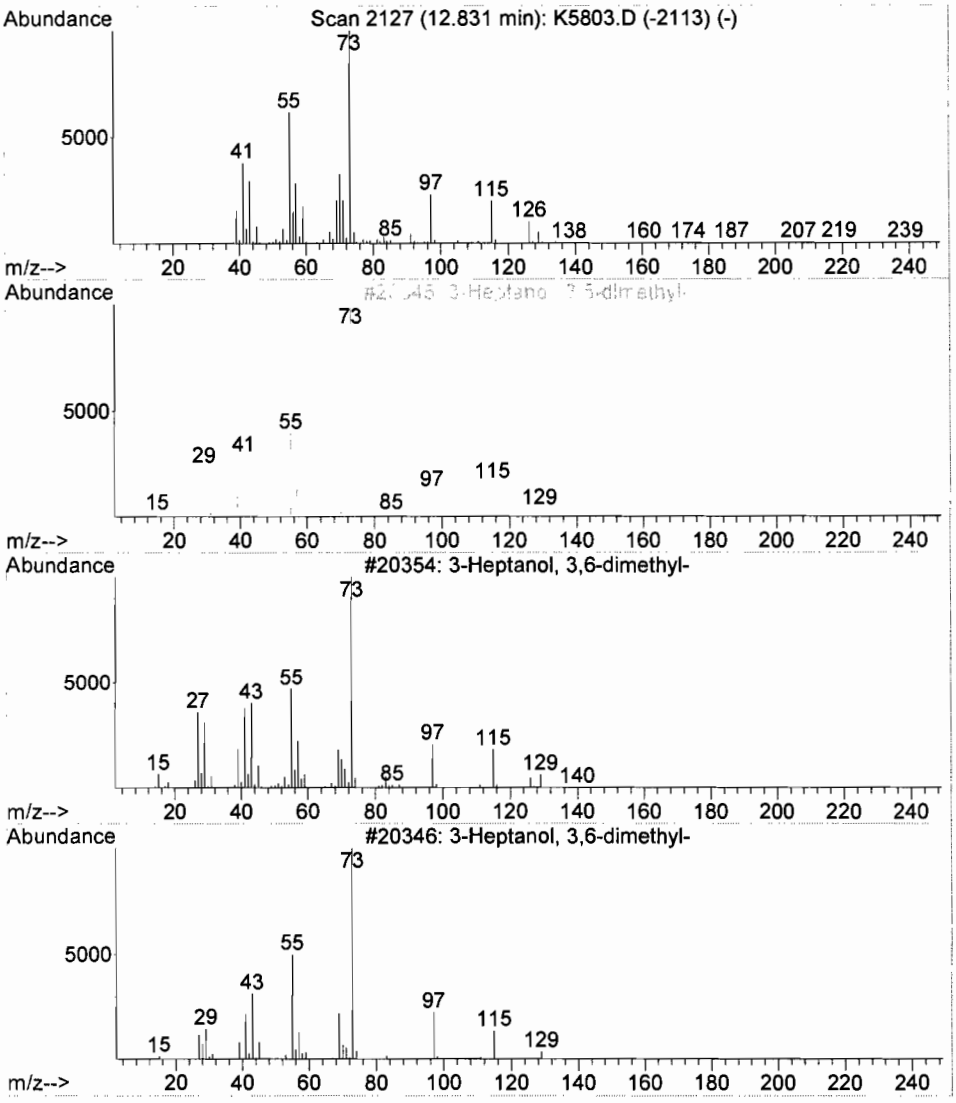
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

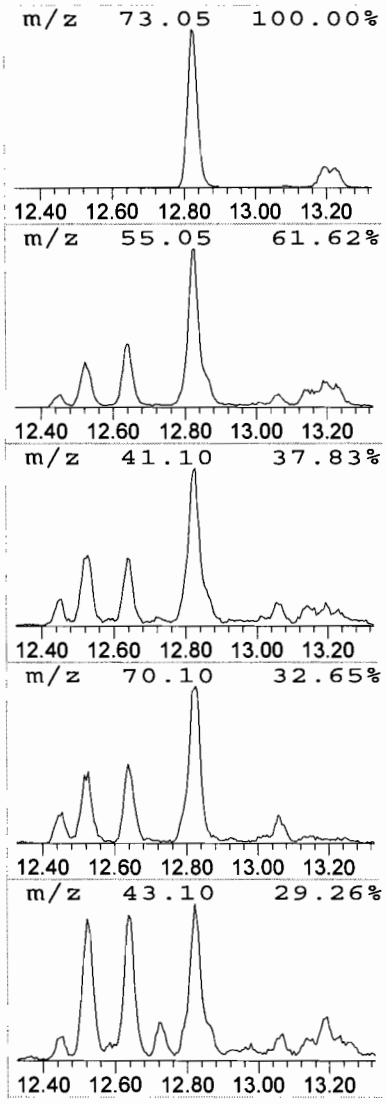
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Peak Number 4 Unknown VOA Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.83	21.09 UG	946177	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Heptanol, 3,5-dimethyl-	144	C9H20O	019549-74-7	50
2	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	38
3	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	38
4	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	25
5	cis-4-Nonene	126	C9H18	010405-84-2	22





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

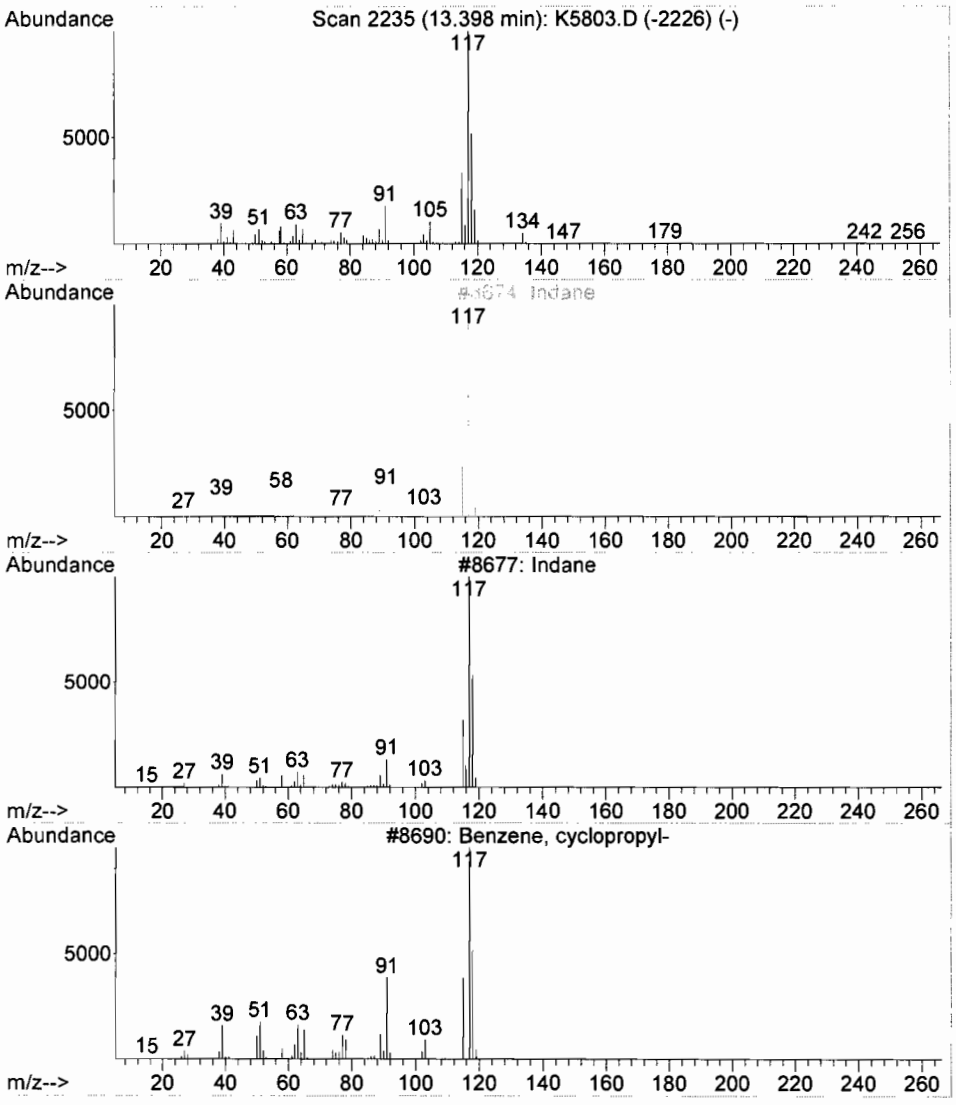
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

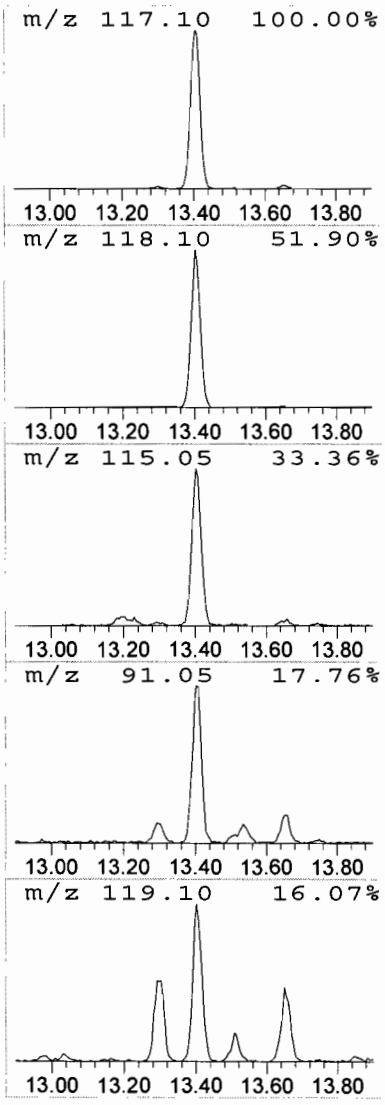
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Peak Number 5 Unknown Aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.40	13.18 UG	591153	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	81
2	Indane	118	C9H10	000496-11-7	70
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
4	Benzene, cyclopropyl-	118	C9H10	000873-49-4	68
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	68





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

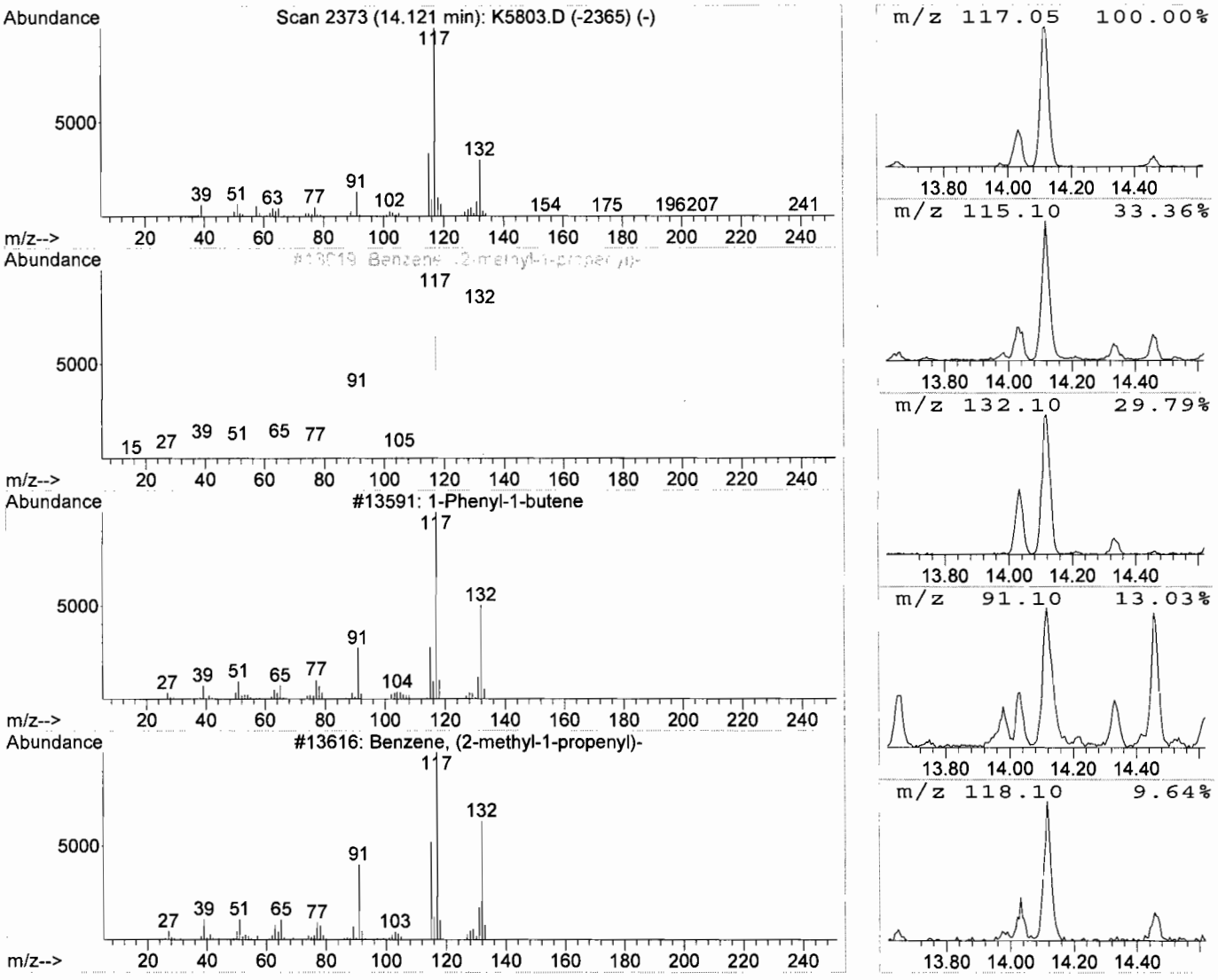
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 6 Benzene, (2-methyl-1-propen... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.12	7.07 UG	317313	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	91
2	1-Phenyl-1-butene	132	C10H12	000824-90-8	91
3	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	91
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	91
5	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	90



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

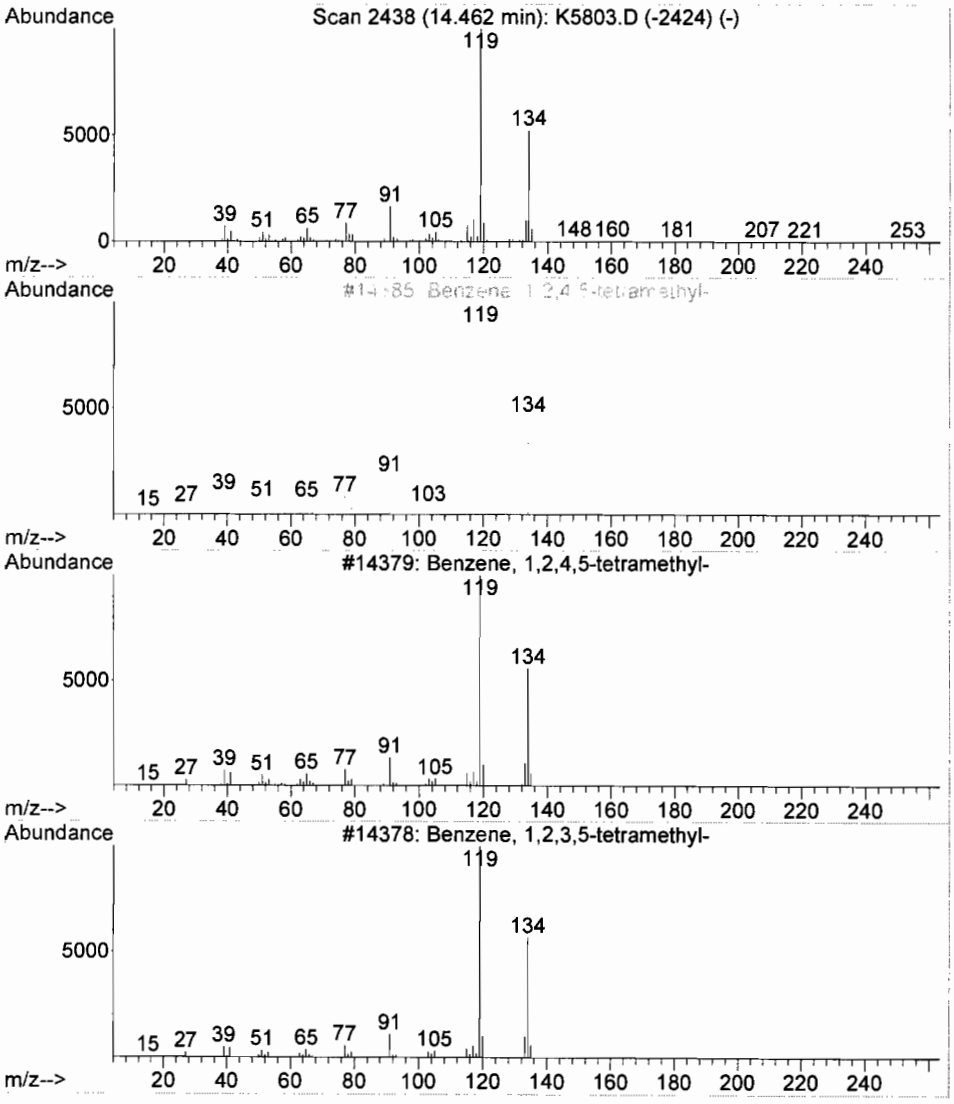
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

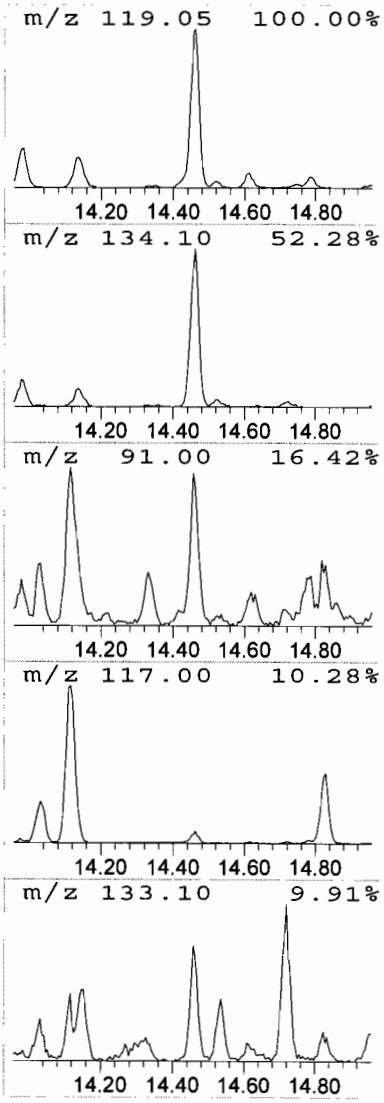
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Peak Number 7 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.46	5.13 UG	230074	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

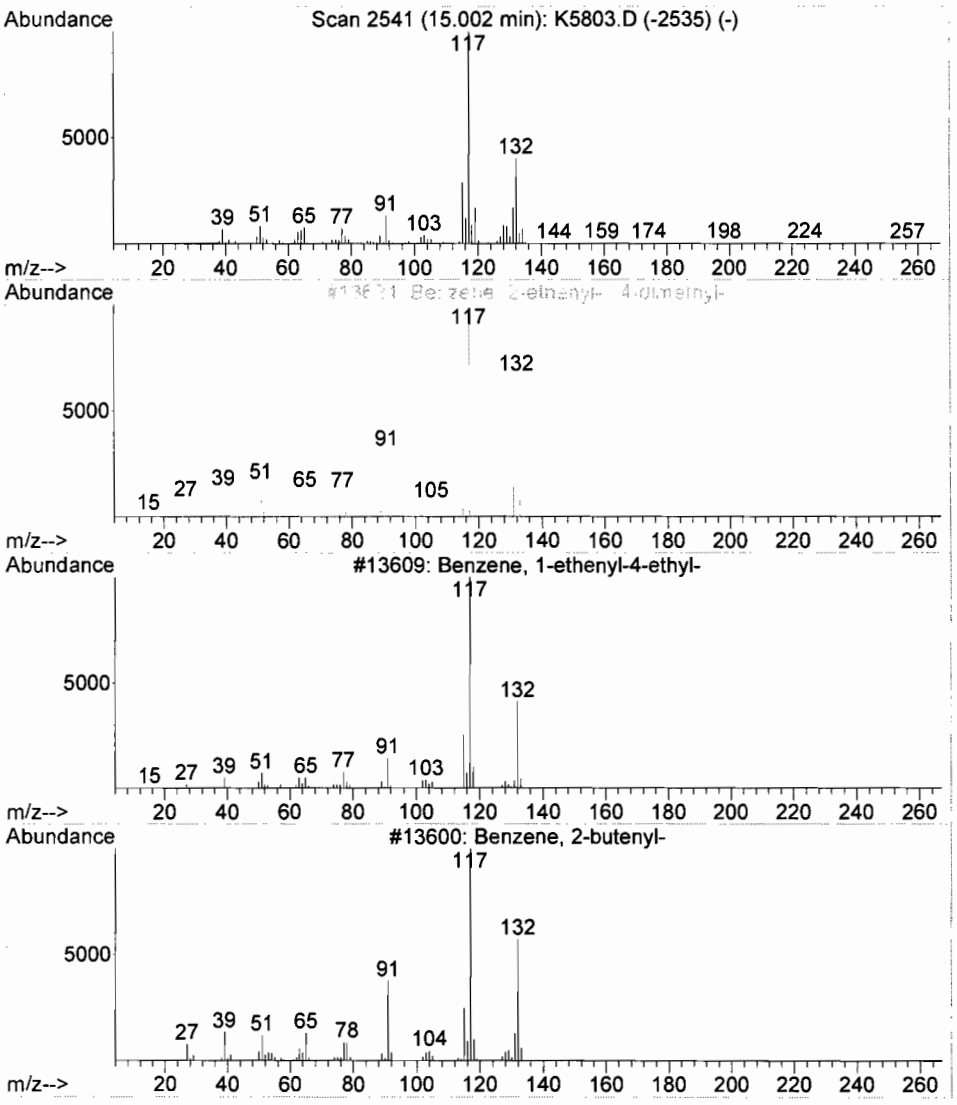
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

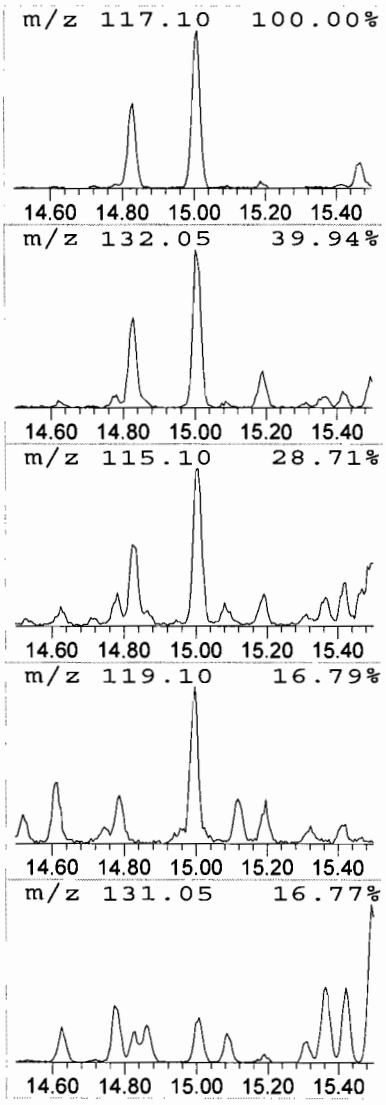
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Peak Number 8 Benzene, 2-ethenyl-1,4-dime... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.00	5.67 UG	254180	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	96
2	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	94
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	87
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	87
5	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5803.D
Acq On : 26 May 2017 8:10 pm
Operator : BARBARA
Sample : DUP-1,E17-04261-009,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

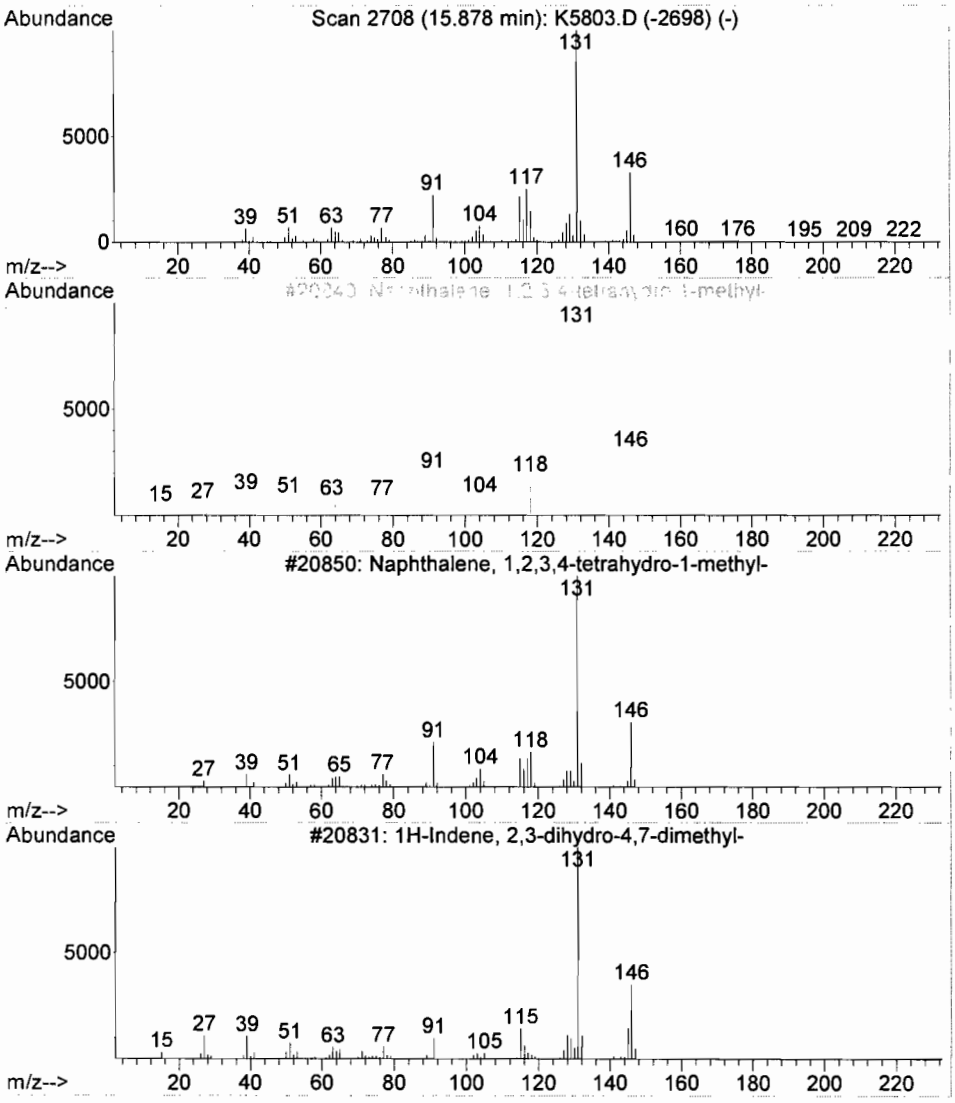
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

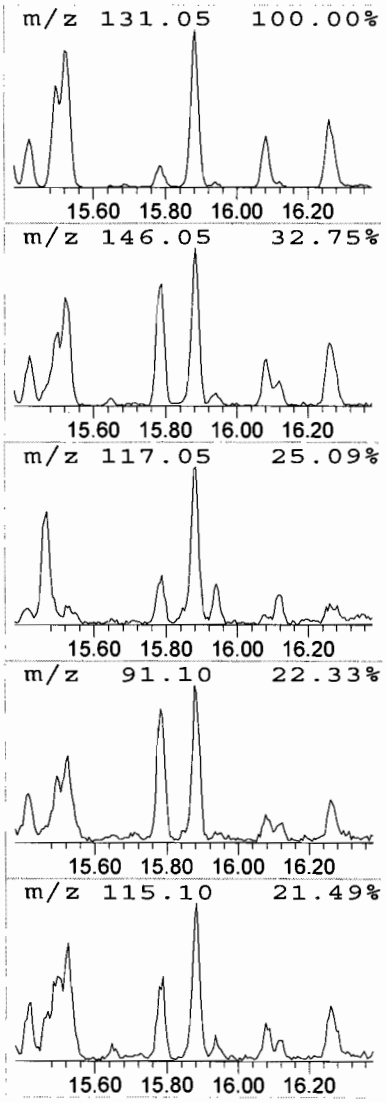
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Peak Number 9 Naphthalene, 1,2,3,4-tetrah... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.88	6.20 UG	277919	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001559-81-5	94
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001559-81-5	93
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	83
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	81
5	Benzene, 1-methyl-4-(1-methyl-2-...	146	C11H14	097664-18-1	81





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5804.D
Acq On : 26 May 2017 8:37 pm
Operator : BARBARA
Sample : FB,E17-04261-010,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 11:53:24 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	592015	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.92	114	849303	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	749896	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	298871	46.47	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.94%			
41) Toluene-d8	8.59	98	956346	47.51	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.02%			
59) Bromofluorobenzene	11.65	95	361911	47.32	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.64%			

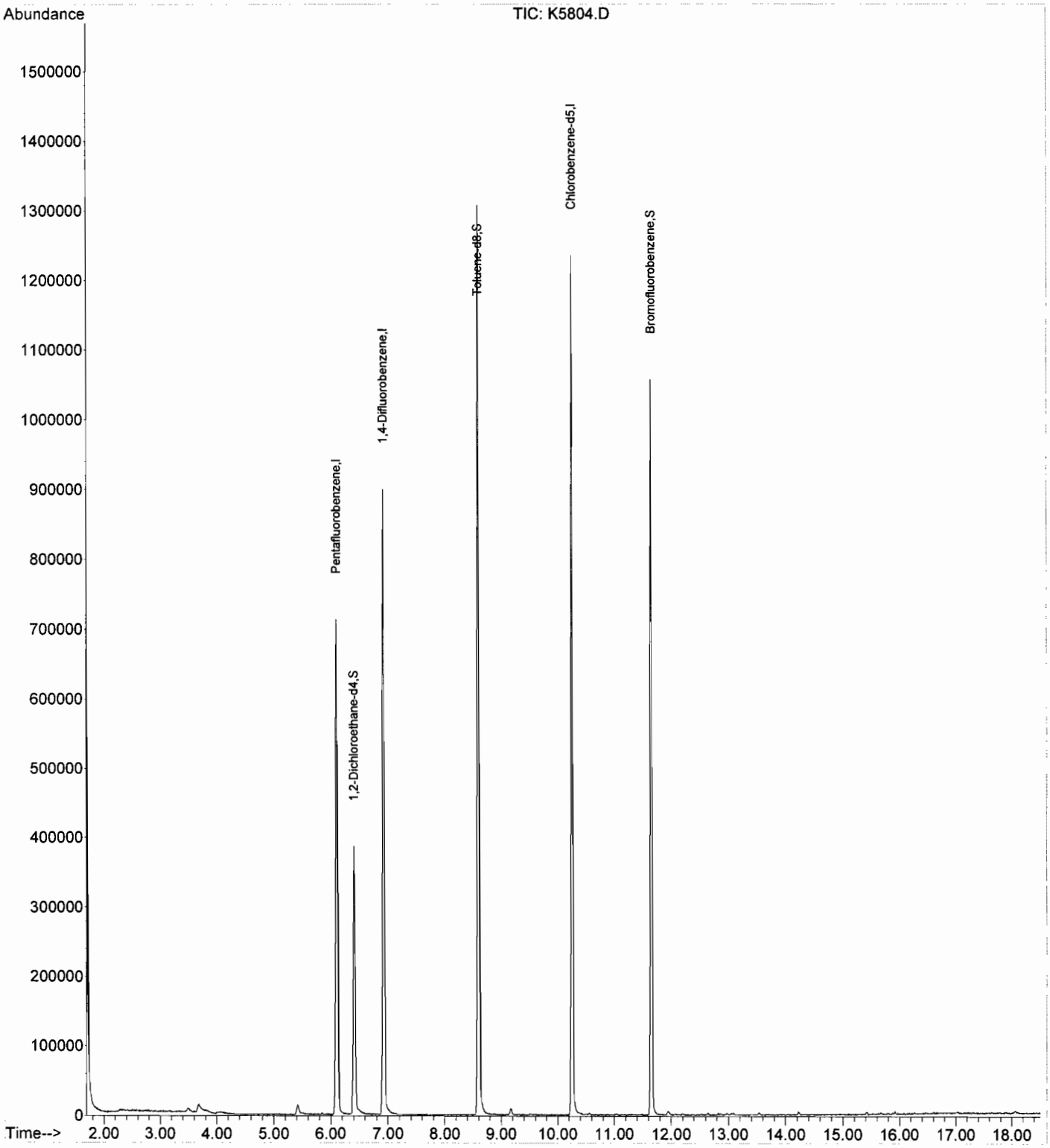
Target Compounds	Qvalue

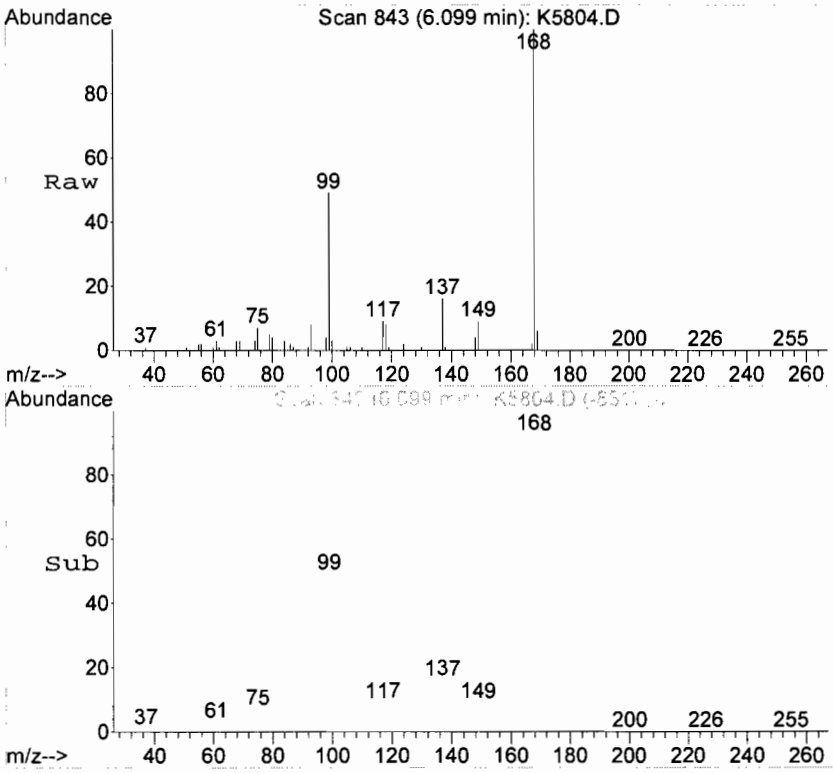
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5804.D
Acq On : 26 May 2017 8:37 pm
Operator : BARBARA
Sample : FB,E17-04261-010,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 11:53:24 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

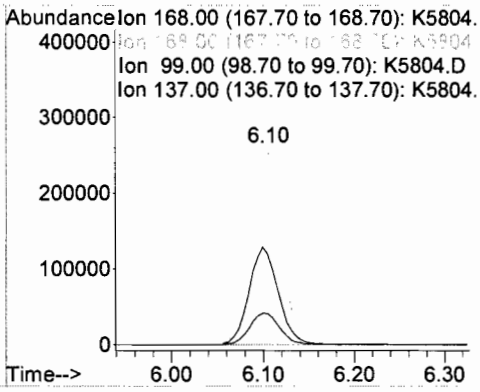


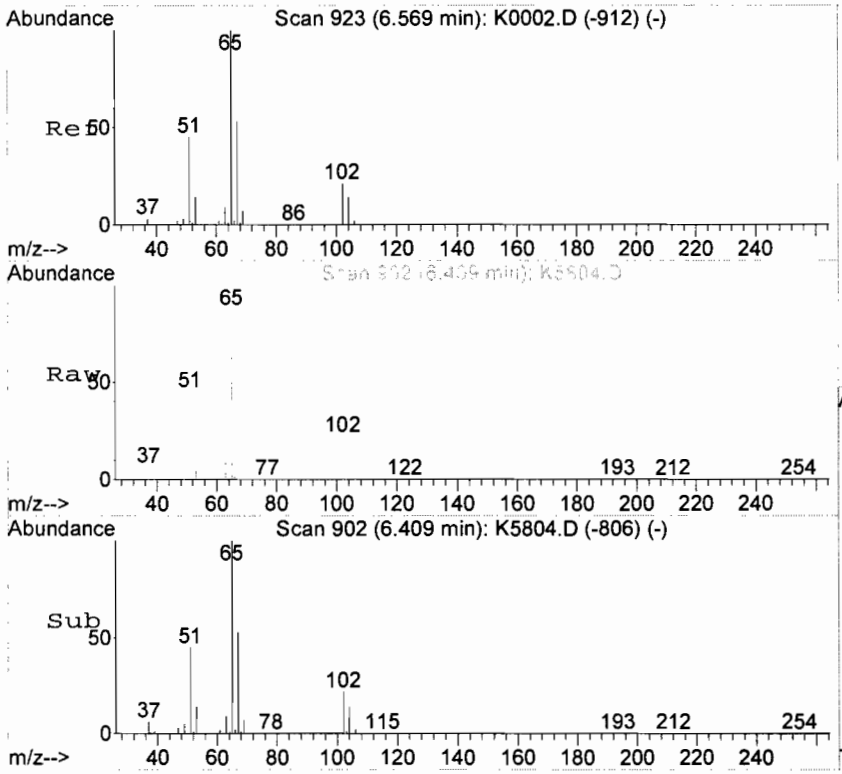


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion:168 Resp: 592015

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	48.2	45.9	68.9
137	15.9	12.7	19.1

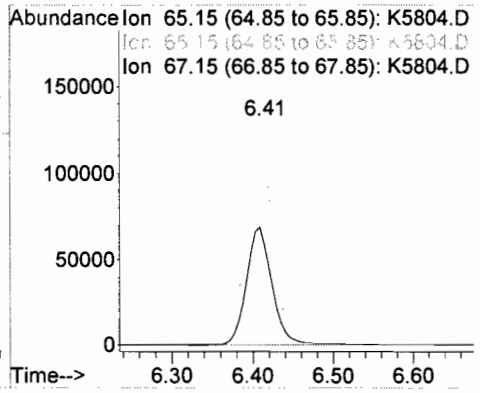


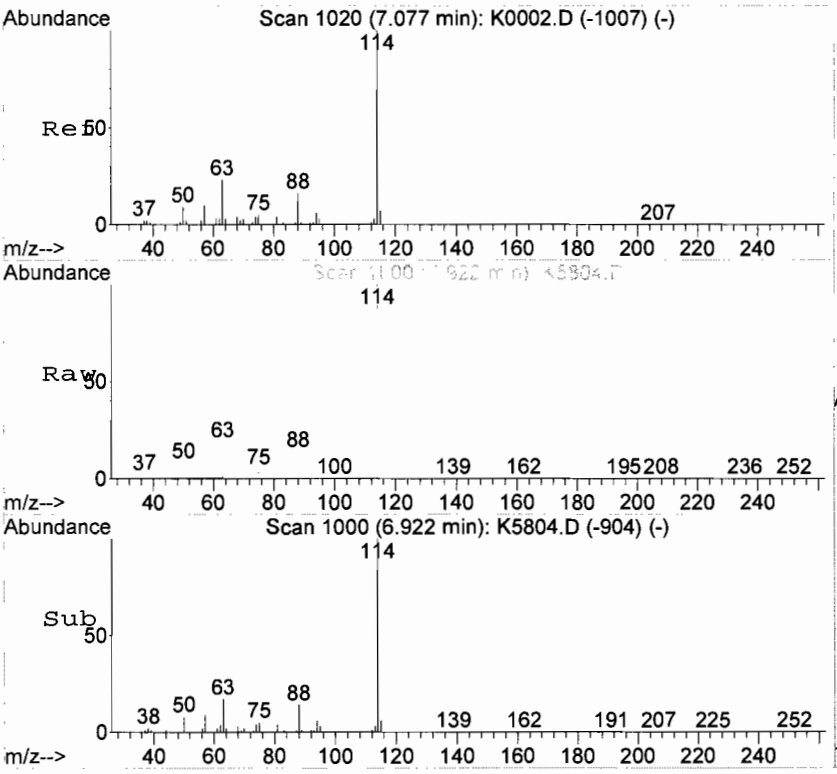


#30
1,2-Dichloroethane-d4
Concen: 46.47 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion: 65 Resp: 298871

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.4	40.4	60.6

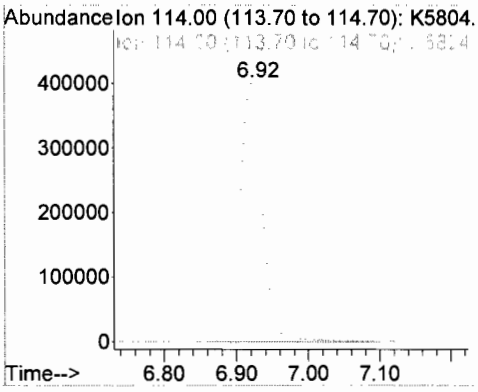


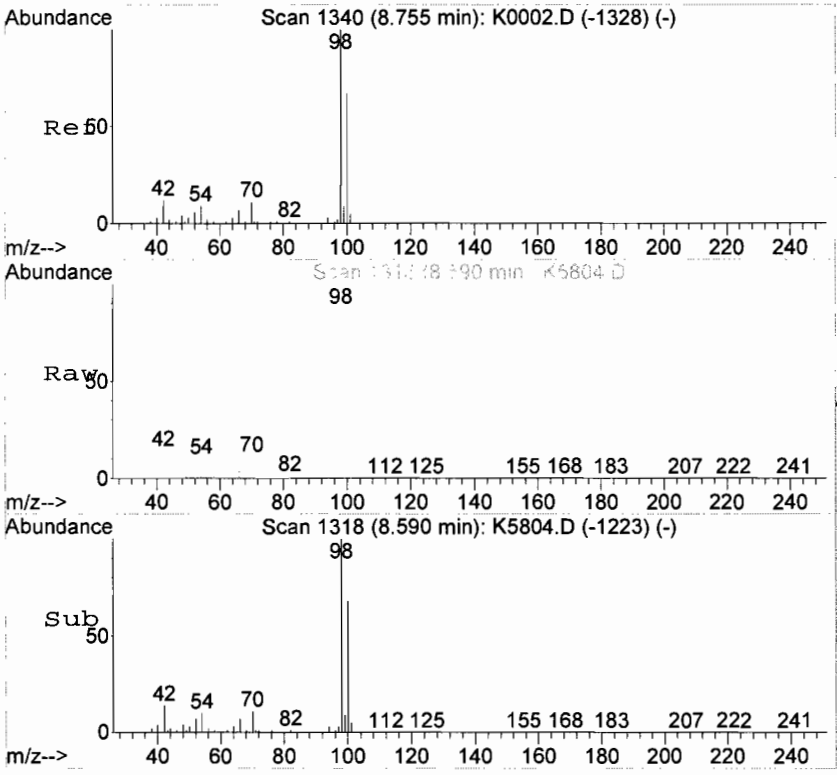


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 1000
Delta R.T. 0.01 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion:114 Resp: 849303

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

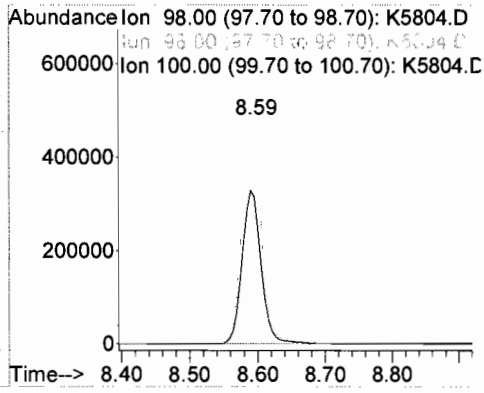


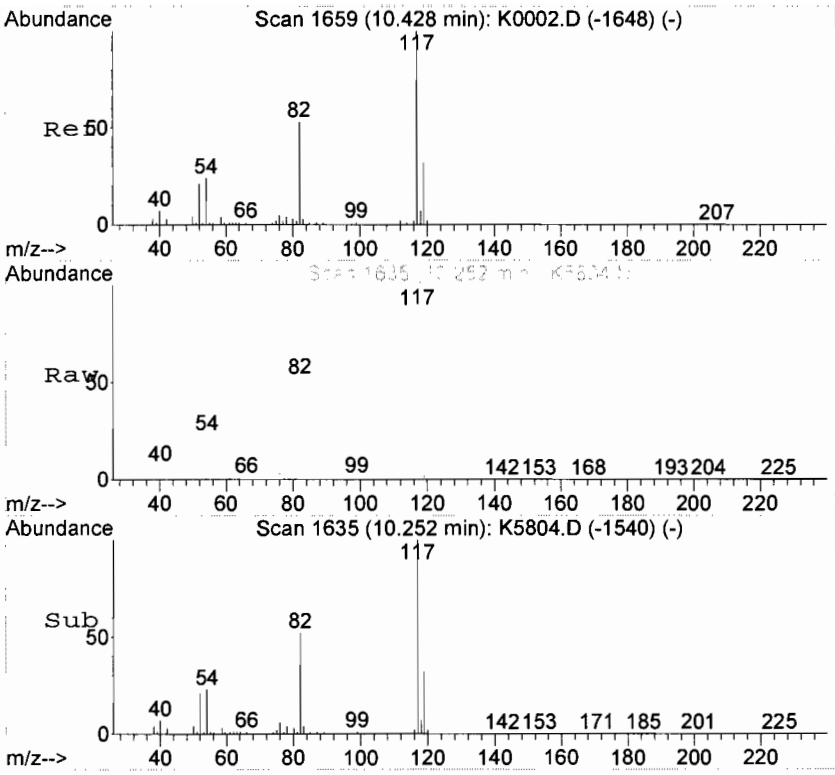


#41
Toluene-d8
Concen: 47.51 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion: 98 Resp: 956346

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.4	51.6	77.4

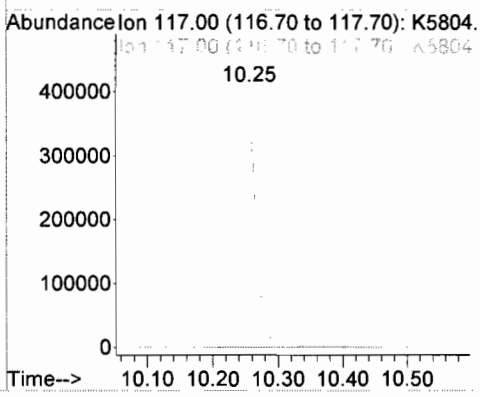


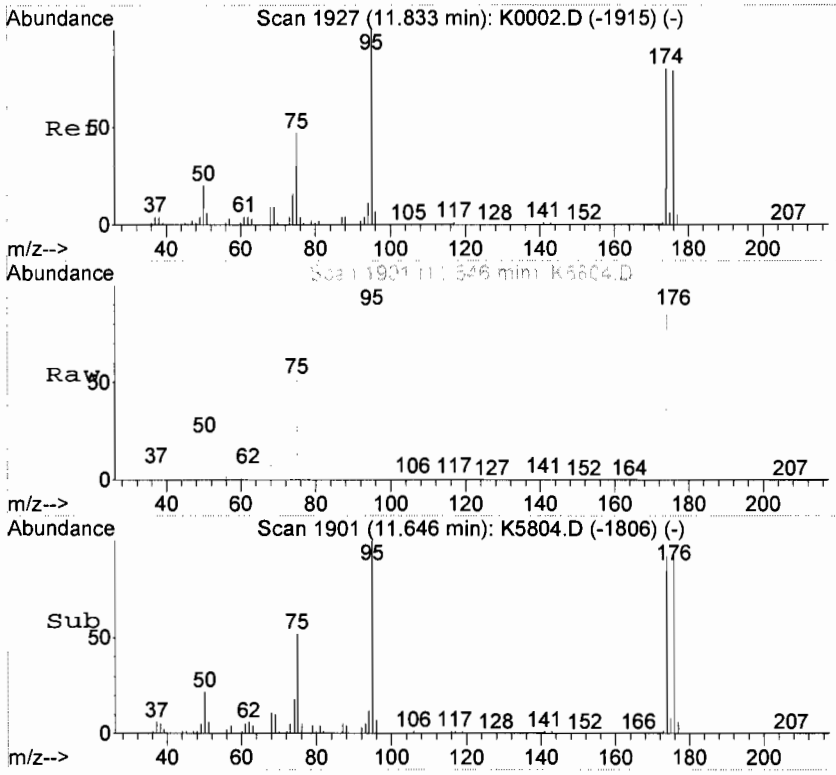


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion:117 Resp: 749896

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

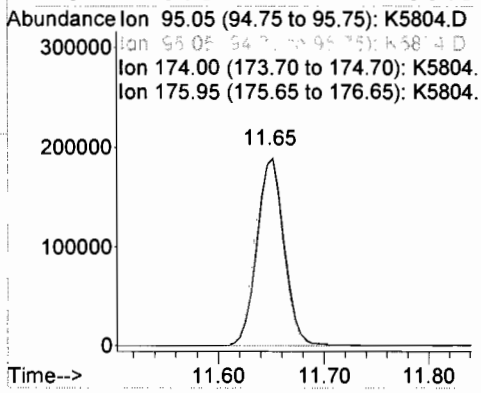




#59
Bromofluorobenzene
Concen: 47.32 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5804.D
Acq: 26 May 2017 8:37 pm

Tgt Ion: 95 Resp: 361911

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5804.D
Acq On : 26 May 2017 8:37 pm
Operator : BARBARA
Sample : FB,E17-04261-010,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.677	373	381	428	rVB3	13092	89848	3.41%	0.783%
2	4.075	439	457	484	rVB3	3154	26993	1.02%	0.235%
3	5.418	704	713	735	rBV	14223	49019	1.86%	0.427%
4	6.099	829	843	868	rBV	712363	1610588	61.08%	14.040%
5	6.403	887	901	938	rBV	385397	897109	34.02%	7.821%
6	6.917	986	999	1051	rBV	898049	1929636	73.18%	16.822%
7	8.590	1299	1318	1356	rBV	1306689	2636803	100.00%	22.986%
8	10.252	1625	1635	1665	rBV	1233869	2298742	87.18%	20.039%
9	11.646	1890	1901	1931	rBV	1055218	1932406	73.29%	16.846%

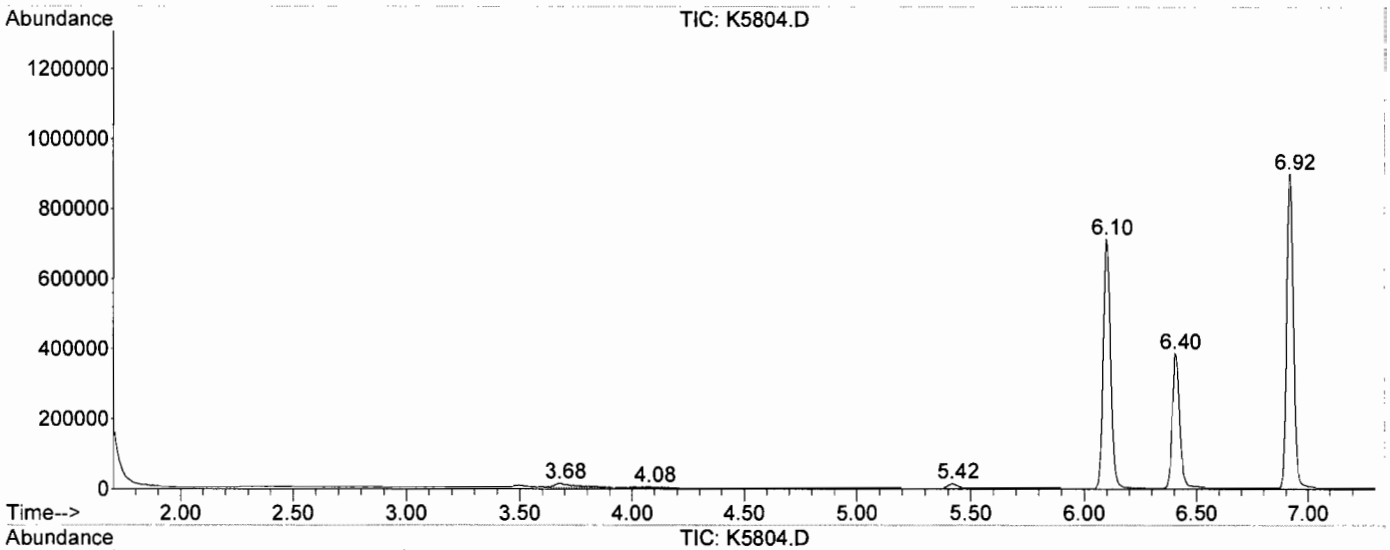
Sum of corrected areas: 11471144

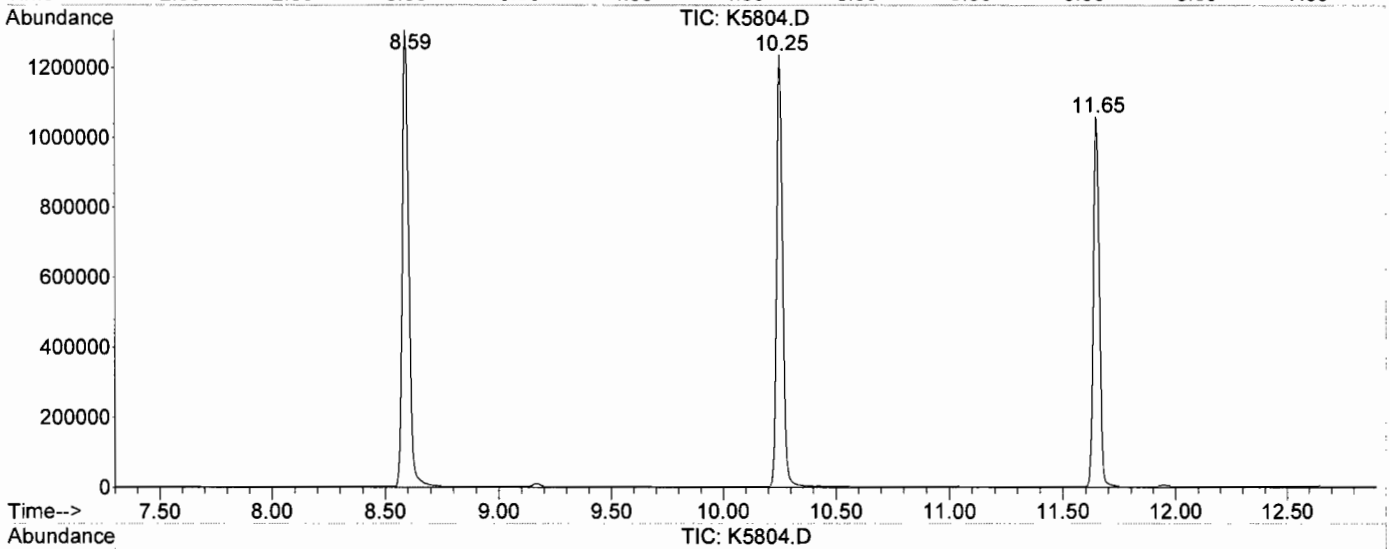
LSC Report - Integrated Chromatogram

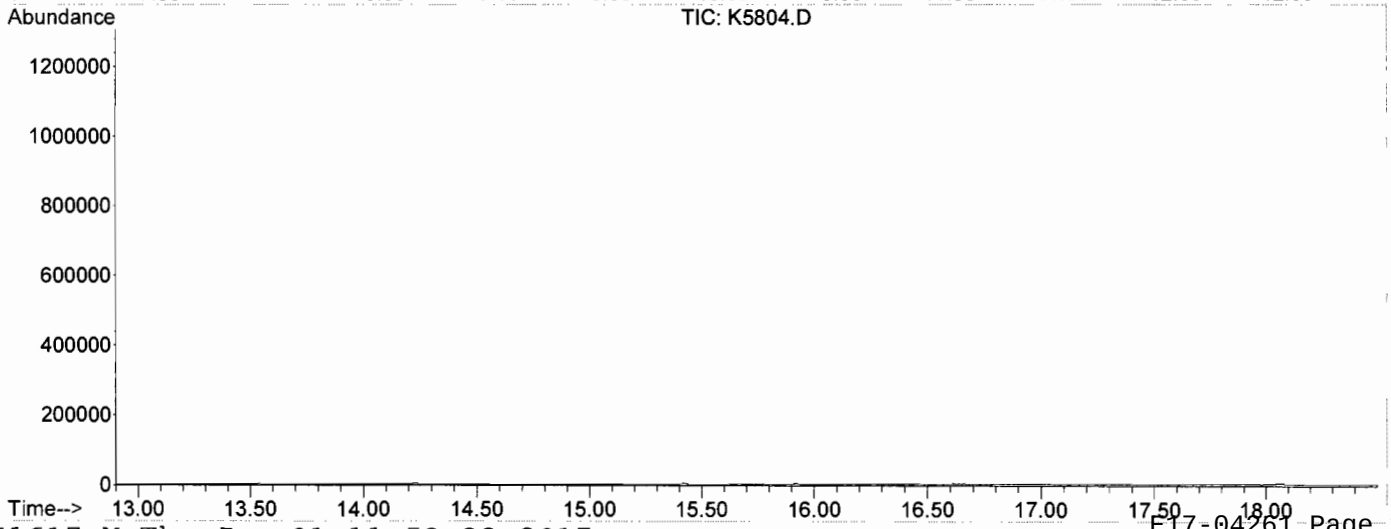
Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5804.D
Acq On : 26 May 2017 8:37 pm
Operator : BARBARA
Sample : FB,E17-04261-010,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5793.D
Acq On : 26 May 2017 3:38 pm
Operator : BARBARA
Sample : TB,E17-04261-011,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 09:43:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	531508	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.92	114	776023	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	699963	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	278312	48.20	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.40%			
41) Toluene-d8	8.59	98	891808	48.49	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.98%			
59) Bromofluorobenzene	11.65	95	340202	47.65	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%			

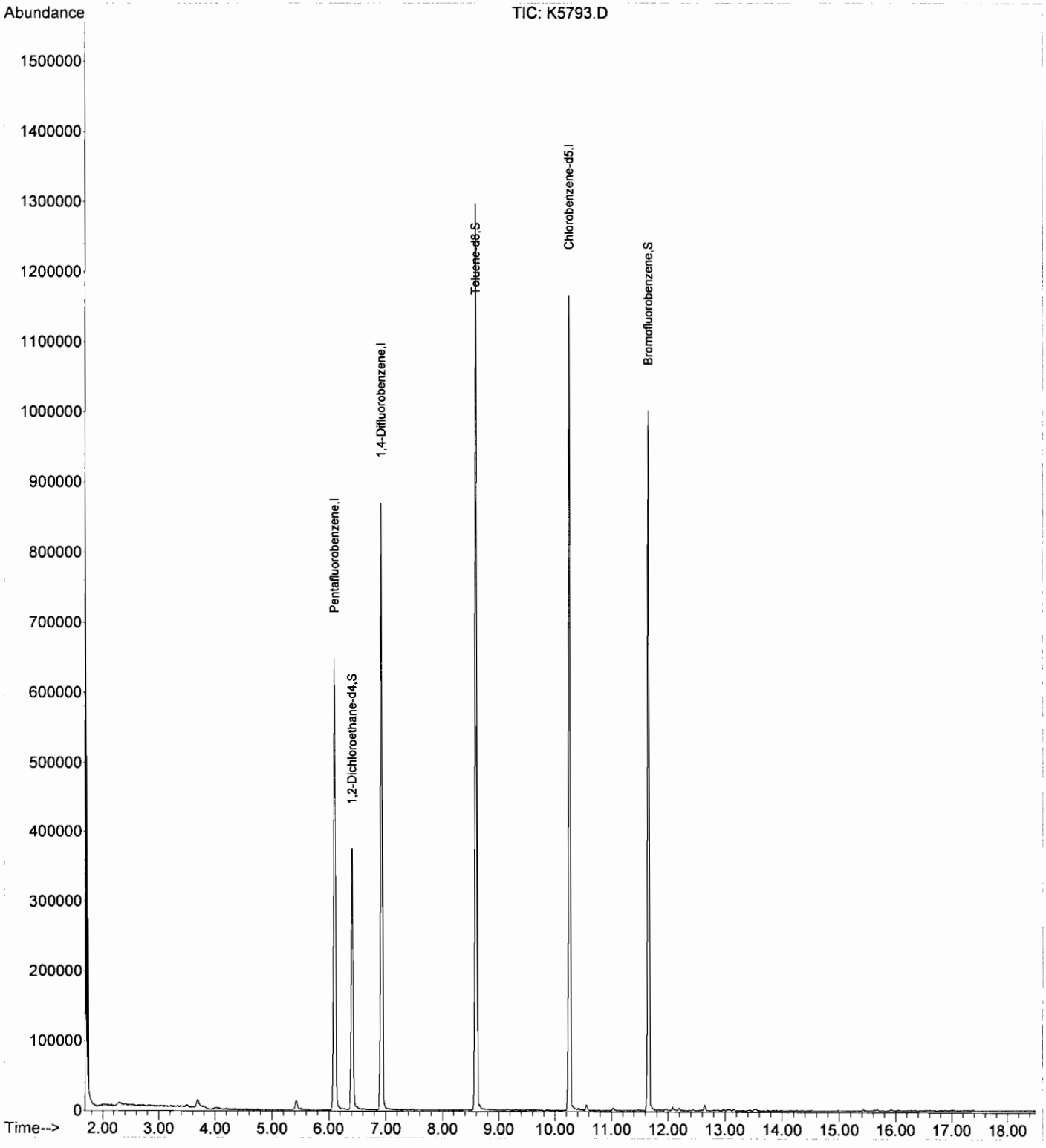
Target Compounds	Qvalue

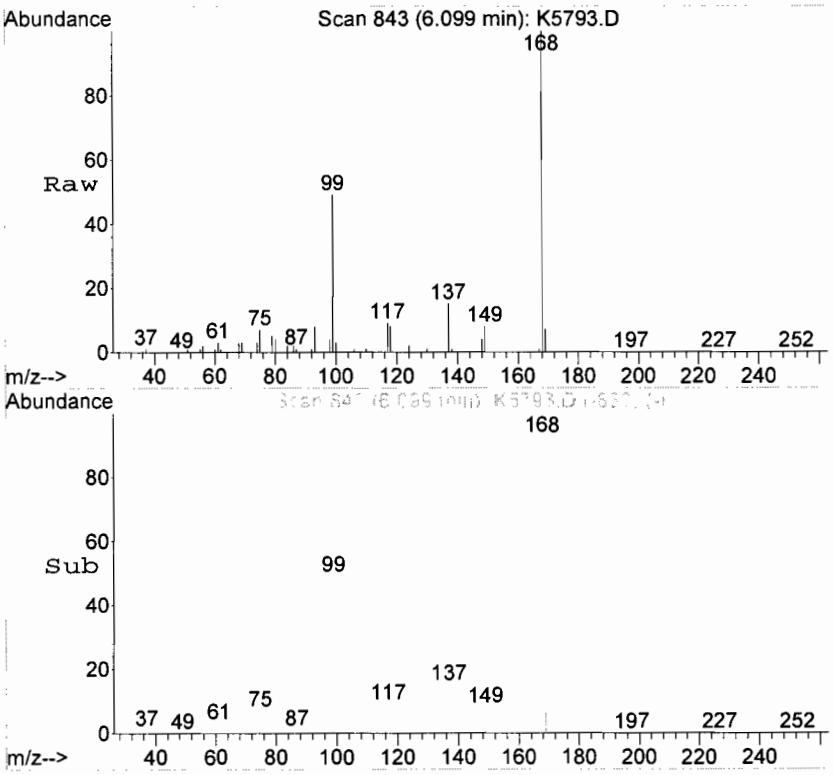
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5793.D
Acq On : 26 May 2017 3:38 pm
Operator : BARBARA
Sample : TB,E17-04261-011,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 09:43:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

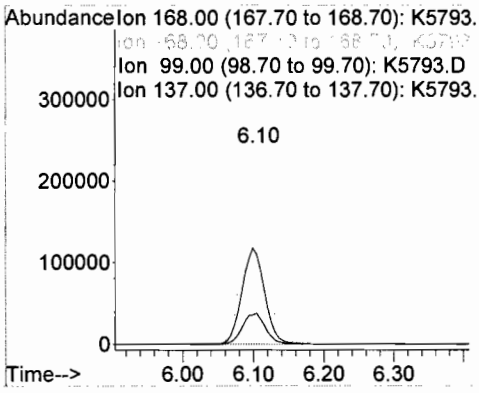


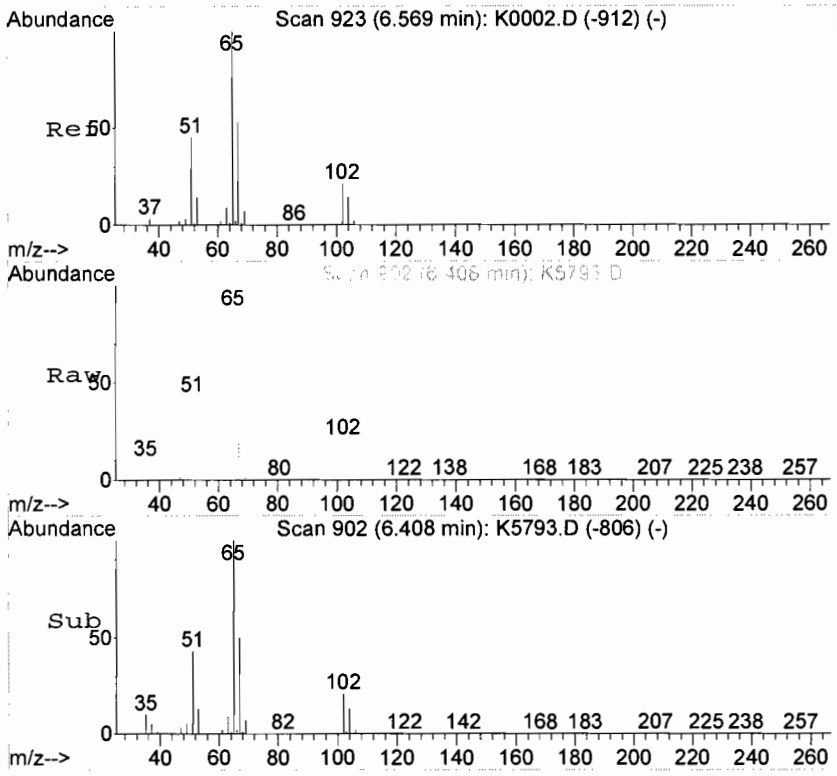


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion:168 Resp: 531508

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	49.2	45.9	68.9
137	0.0	12.7	19.1#

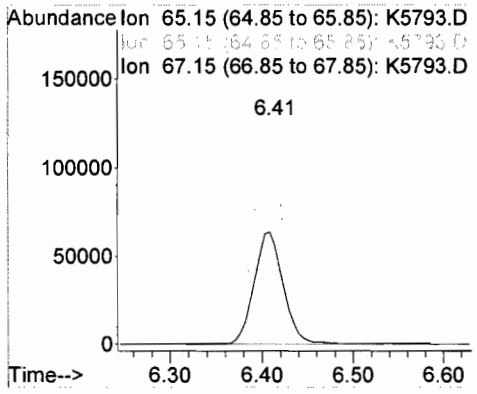


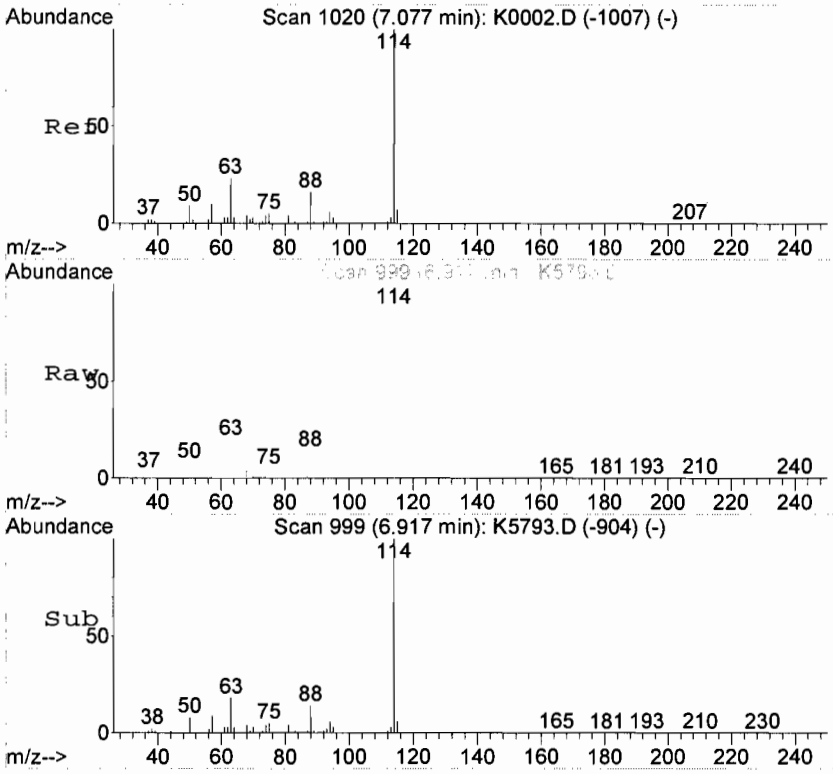


#30
1,2-Dichloroethane-d4
Concen: 48.20 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion: 65 Resp: 278312

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	50.3	40.4	60.6

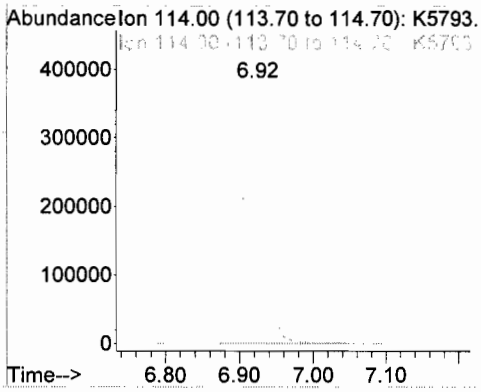


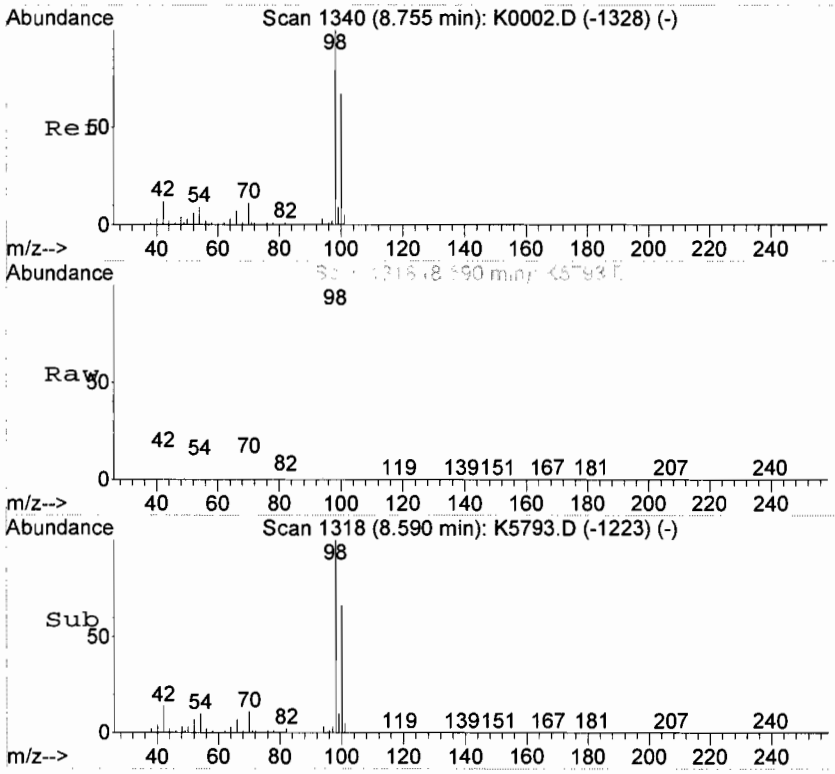


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 999
Delta R.T. 0.00 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion:114 Resp: 776023

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

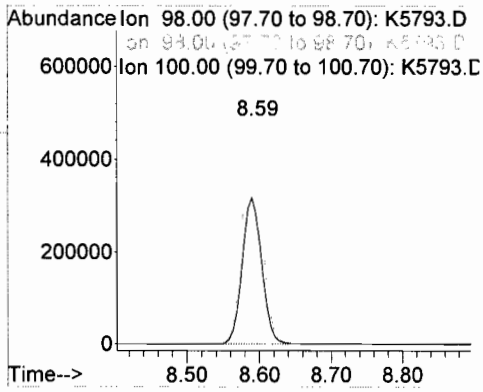


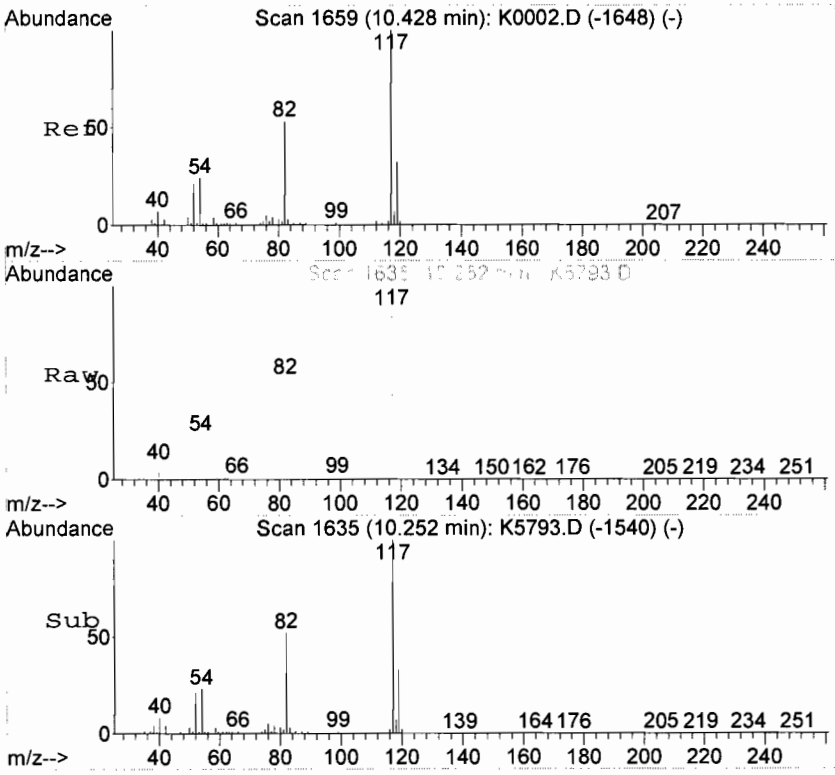


#41
Toluene-d8
Concen: 48.49 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion: 98 Resp: 891808

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.1	51.6	77.4

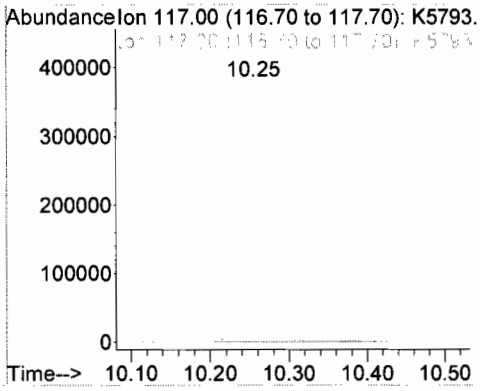


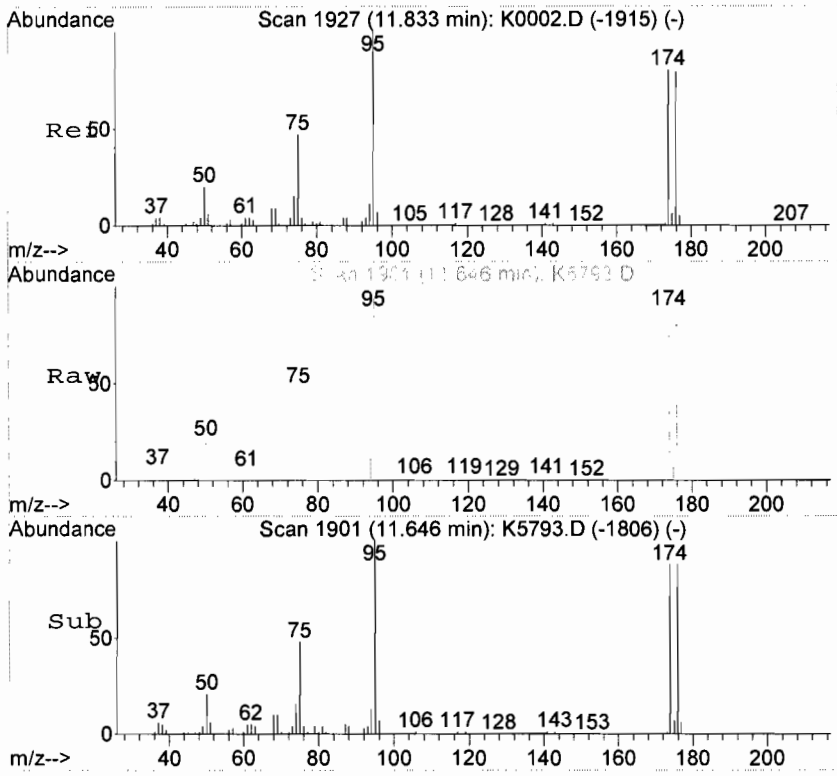


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion:117 Resp: 699963

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

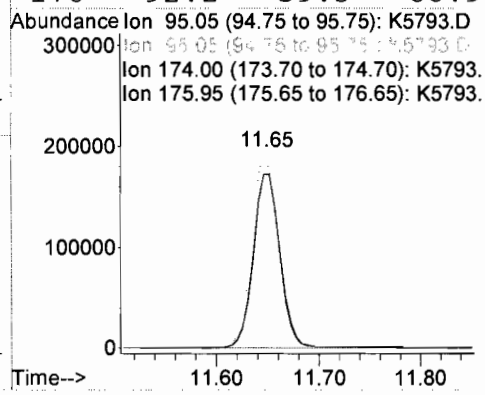




#59
Bromofluorobenzene
Concen: 47.65 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5793.D
Acq: 26 May 2017 3:38 pm

Tgt Ion: 95 Resp: 340202

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	90.7	61.4	92.0
176	92.2	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5793.D
Acq On : 26 May 2017 3:38 pm
Operator : BARBARA
Sample : TB,E17-04261-011,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.293	104	117	132	rBV10	5180	27009	1.10%	0.255%
2	3.693	374	384	398	rBV2	11398	42989	1.75%	0.406%
3	5.428	704	715	730	rBV2	13397	37813	1.54%	0.357%
4	6.099	828	843	884	rBV	646735	1465126	59.67%	13.830%
5	6.408	890	902	938	rVV	372950	826572	33.66%	7.802%
6	6.917	988	999	1027	rBV	867670	1777525	72.40%	16.779%
7	8.590	1307	1318	1343	rBV	1295134	2455289	100.00%	23.176%
8	10.252	1625	1635	1662	rBV	1164703	2160989	88.01%	20.398%
9	11.646	1891	1901	1921	rBV	999896	1800721	73.34%	16.998%

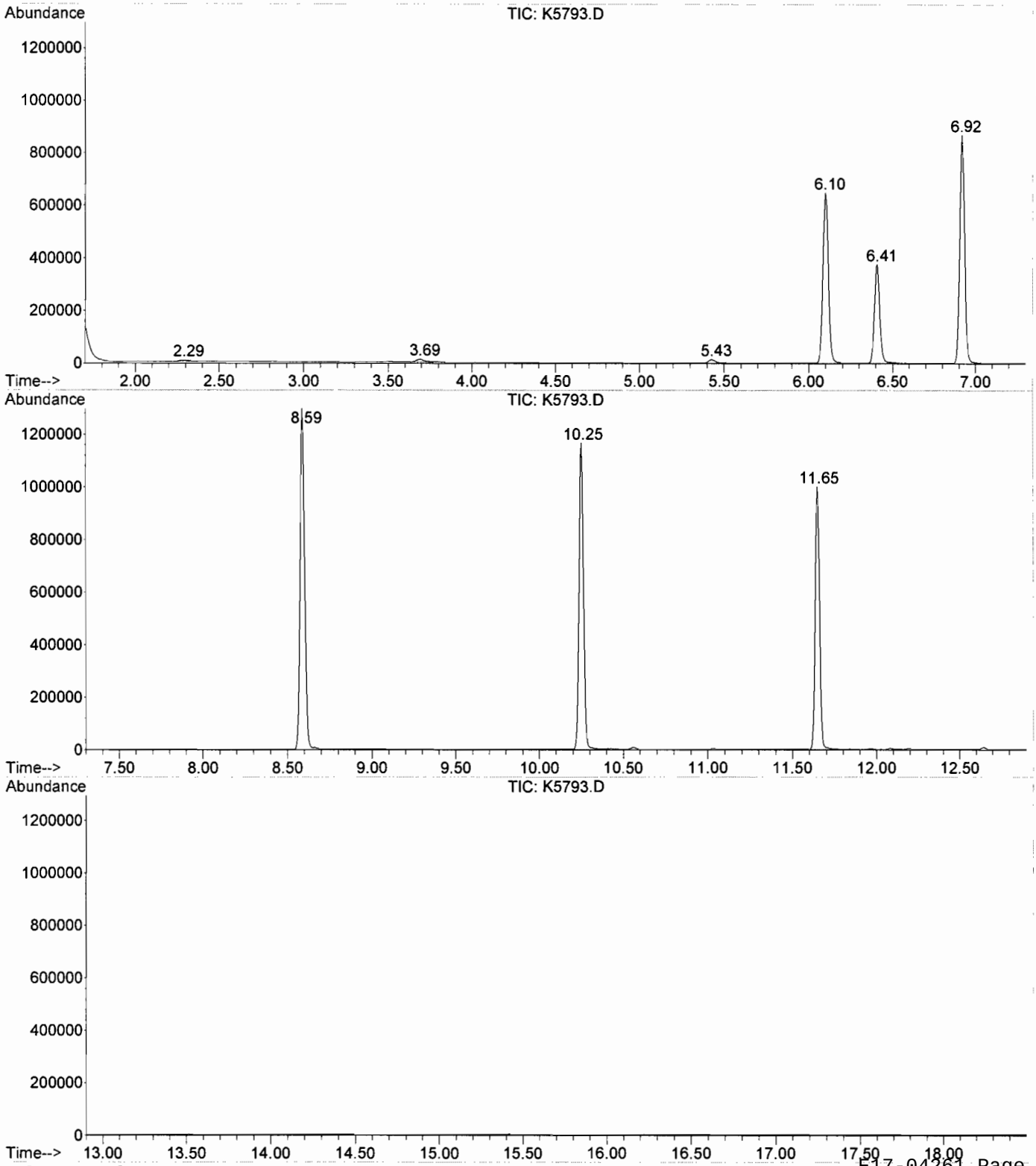
Sum of corrected areas: 10594033

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5793.D
Acq On : 26 May 2017 3:38 pm
Operator : BARBARA
Sample : TB,E17-04261-011,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



VOLATILE ORGANICS STANDARDS

Response Factor Report K_MSD

Method Path : C:\MSDCHEM\1\METHODS\
Method File : K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Tue May 16 14:52:47 2017
Response Via : Initial Calibration

Calibration Files
0.5 =K5614.D 1.0 =K5615.D 5.0 =K5616.D
20. =K5617.D 100 =K5618.D 150 =K5619.D 200 =K5620.D

		Compound	0.5	1.0	5.0	20.	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------						
2)	T	Dichlorodifluorom		0.436	0.307	0.291	0.301	0.287	0.292	0.319	18.08
3)	P	Chloromethane	0.428	0.409	0.475	0.500	0.571	0.575	0.599	0.508	14.86
4)	C	Vinyl chloride		0.555	0.544	0.520	0.523	0.512	0.509	0.527	3.44
5)	T	Bromomethane		0.348	0.265	0.249	0.265	0.267	0.265	0.276	12.94
6)	T	Chloroethane		0.215	0.173	0.185	0.246	0.271	0.261	0.225	18.07
7)	T	Trichlorofluorome		0.655	0.534	0.518	0.569	0.569	0.563	0.568	8.37
8)	T	Acrolein		0.073	0.071	0.066	0.075	0.079	0.080	0.074	7.35
9)	MC	1,1-Dichloroethen	0.631	0.654	0.543	0.516	0.600	0.620	0.634	0.600	8.52
10)	T	Acetone		0.405	0.314	0.247	0.352	0.366	0.353	0.339	15.91
11)	T	Carbon disulfide		1.511	1.236	1.226	1.465	1.547	1.570	1.426	10.88
12)	T	Vinyl acetate		0.850	0.957	0.940	0.867	0.849	0.835	0.883	5.87
13)	T	Methylene chlorid		0.469	0.434	0.424	0.435	0.448	0.440	0.442	3.51
14)	T	Acrylonitrile	0.283	0.269	0.285	0.281	0.256	0.259	0.258	0.270	4.75
15)	T	tert-Butyl alcoho		0.098	0.066	0.092	0.082	0.091	0.090	0.086	12.94
16)	T	trans-1,2-Dichlor	0.442	0.421	0.388	0.404	0.417	0.422	0.409	0.415	4.01
17)	T	Methyl tert-butyl	1.391	1.302	1.365	1.387	1.464	1.462	1.434	1.401	4.13
18)	P	1,1-Dichloroethan	0.834	0.830	0.744	0.761	0.777	0.781	0.753	0.783	4.59
19)	T	Diisopropyl ether	1.700	1.531	1.621	1.654	1.758	1.762	1.736	1.680	5.01
20)	T	cis-1,2-Dichloroe	0.475	0.486	0.462	0.445	0.479	0.486	0.475	0.473	3.08
21)	T	2,2-Dichloropropa	0.404	0.381	0.368	0.374	0.387	0.380	0.351	0.378	4.34
22)	T	2-Butanone (MEK)		0.355	0.395	0.382	0.401	0.417	0.392	0.390	5.32
23)	T	Bromochloromethan		0.252	0.250	0.241	0.252	0.248	0.245	0.248	1.82
25)	C	Chloroform	0.730	0.759	0.728	0.734	0.757	0.756	0.735	0.743	1.88
26)	T	1,1,1-Trichloroet	0.682	0.564	0.545	0.543	0.560	0.558	0.518	0.567	9.35
27)	T	Carbon tetrachlor	0.465	0.475	0.501	0.513	0.562	0.568	0.544	0.518	7.94
28)	T	1,1-Dichloroprope	0.613	0.717	0.570	0.567	0.610	0.610	0.600	0.612	8.13
29)	T	1,2-Dichloroethan	0.720	0.695	0.656	0.631	0.674	0.682	0.676	0.676	4.17
30)	S	1,2-Dichloroethan	0.565	0.565	0.569	0.560	0.525	0.508	0.511	0.543	5.03
31)	I	1,4-Difluorobenzene	----------	ISTD	----------						
32)	M	Benzene	1.150	1.233	1.118	1.117	1.227	1.248	1.249	1.192	5.10
33)	M	Trichloroethene	0.287	0.331	0.289	0.279	0.313	0.314	0.309	0.303	6.11
34)	C	1,2-Dichloropropa	0.310	0.319	0.284	0.297	0.330	0.336	0.335	0.316	6.34
35)	T	Dibromomethane	0.202	0.209	0.189	0.189	0.205	0.205	0.204	0.200	4.01
36)	T	1,4-Dioxane	0.007	0.007	0.005	0.005	0.005	0.005	0.005	0.006	12.88
37)	T	Bromodichlorometh	0.322	0.309	0.321	0.350	0.404	0.412	0.411	0.361	12.88
38)	T	2-Chloroethyl vin	0.196	0.194	0.211	0.223	0.262	0.266	0.263	0.231	14.06
39)	T	cis-1,3-Dichlorop	0.328	0.361	0.354	0.419	0.509	0.517	0.513	0.429	19.42
40)	T	4-Methyl-2-pentan	0.507	0.457	0.491	0.513	0.579	0.592	0.584	0.532	9.96
41)	S	Toluene-d8	1.165	1.178	1.164	1.182	1.218	1.196	1.192	1.185	1.60
42)	MC	Toluene	0.712	0.819	0.696	0.707	0.818	0.844	0.848	0.778	8.87
43)	T	trans-1,3-Dichlor	0.275	0.327	0.335	0.391	0.463	0.453	0.453	0.385	19.31
44)	T	1,1,2-Trichloroet		0.239	0.233	0.224	0.257	0.257	0.255	0.244	5.78
45)	T	Tetrachloroethene	0.301	0.416	0.319	0.315	0.371	0.383	0.388	0.356	12.40
46)	T	1,3-Dichloropropa	0.500	0.474	0.473	0.465	0.543	0.554	0.561	0.510	8.18
47)	T	2-Hexanone	0.363	0.376	0.372	0.394	0.449	0.455	0.449	0.408	10.05
48)	T	Dibromochlorometh		0.214	0.232	0.267	0.335	0.325	0.320	0.282	18.34
49)	T	1,2-Dibromoethane	0.294	0.284	0.287	0.294	0.337	0.340	0.338	0.311	8.53
50)	I	Chlorobenzene-d5	----------	ISTD	----------						
51)	MP	Chlorobenzene	0.947	1.106	0.912	0.914	1.004	1.047	1.033	0.995	7.38
52)	T	1,1,1,2-Tetrachlo	0.310	0.336	0.313	0.318	0.362	0.377	0.372	0.341	8.44

53)	C	Ethylbenzene	1.447	1.761	1.473	1.503	1.693	1.781	1.763	1.632	9.21
54)	T	m,p-Xylene	0.522	0.694	0.592	0.619	0.756	0.841	0.864	0.698	18.48
55)	T	o-Xylene	0.471	0.631	0.575	0.610	0.665	0.746	0.863	0.652	19.25
56)	T	Styrene		1.040	0.943	1.017	1.187	1.159	1.511	1.143	17.68
57)	P	Bromoform	0.184	0.151	0.160	0.194	0.226	0.240		0.193	18.35
58)	T	Isopropylbenzene	1.293	1.648	1.512	1.604	1.925	2.086	2.099	1.738	17.60
59)	S	Bromofluorobenzen	0.494	0.497	0.501	0.506	0.519	0.523	0.530	0.510	2.75
60)	P	1,1,2,2-Tetrachlo		0.524	0.490	0.476	0.530	0.553	0.549	0.520	6.00
61)	T	Bromobenzene	0.433	0.446	0.402	0.403	0.474	0.504	0.517	0.454	10.10
62)	T	1,2,3-Trichloropr	0.489	0.486	0.441	0.429	0.478	0.500	0.499	0.475	5.96
63)	T	n-Propylbenzene	1.586	2.174	1.840	1.839	2.187	2.352	2.373	2.050	14.56
64)	T	2-Chlorotoluene	1.035	1.317	1.087	1.082	1.256	1.331	1.347	1.208	11.14
65)	T	1,3,5-Trimethylbe			1.312	1.377	1.740	1.948	2.033	1.682	19.43
66)	T	4-Chlorotoluene		1.566	1.233	1.258	1.591	1.781	1.843	1.546	16.52
67)	T	tert-Butylbenzene		1.165	1.062	1.133	1.365	1.480	1.505	1.285	14.75
68)	T	1,2,4-Trimethylbe	1.150	1.493	1.349	1.382	1.687	1.804	1.854	1.531	16.97
69)	T	sec-Butylbenzene		1.964	1.719	1.753	2.148	2.319	2.348	2.042	13.42
70)	T	1,3-Dichlorobenze		0.977	0.777	0.781	0.928	0.991	1.009	0.910	11.59
71)	T	4-Isopropyltoluen			1.384	1.420	1.772	1.892	1.922	1.678	15.40
72)	T	1,4-Dichlorobenze		1.019	0.775	0.777	0.934	0.997	1.023	0.921	12.69
73)	T	n-Butylbenzene			1.265	1.319	1.720	1.877	1.930	1.622	19.22
74)	T	1,2-Dichlorobenze		0.935	0.755	0.777	0.974	1.054	1.099	0.932	15.16
75)	T	1,2-Dibromo-3-chl		0.118	0.098	0.104	0.126	0.129	0.127	0.117	11.20
76)	T	1,2,4-Trichlorobe		0.596	0.469	0.490	0.595	0.623	0.641	0.569	12.58
77)	T	Hexachlorobutadie			0.187	0.180	0.204	0.207	0.213	0.198	7.13
78)	T	Naphthalene			1.357	1.592	1.831	1.930	1.951	1.732	14.63
79)	T	1,2,3-Trichlorobe		0.569	0.453	0.477	0.549	0.580	0.591	0.537	10.72
80)	T	1,1,2-Trichloro-1		0.471	0.393	0.376	0.408	0.413	0.404	0.411	7.89
81)	T	Methyl acetate	0.603	0.621	0.708	0.724	0.729	0.782	0.757	0.703	9.54
82)	T	Cyclohexane	0.424	0.611	0.571	0.566	0.595	0.577	0.558	0.558	11.03
83)	T	Methylcyclohexane		0.675	0.545	0.545	0.591	0.588	0.570	0.586	8.22

(#) = Out of Range ### Number of calibration levels exceeded format ###

K8051617.M Fri May 19 11:24:15 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5614.D
Acq On : 16 May 2017 11:42 am
Operator : BARBARA
Sample : ICC00.5,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 14:39:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:31:48 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.09	168	453138	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	696177	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	619783	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	255848	51.76	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.52%				
41) Toluene-d8	8.59	98	810849	49.03	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.06%				
59) Bromofluorobenzene	11.65	95	306328	48.55	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.78	85	1524m	0.52	UG		
3) Chloromethane	1.98	50	1938m	0.42	UG		
4) Vinyl chloride	2.10	62	2548m	0.53	UG		
5) Bromomethane	2.45	94	1524m	0.60	UG		
6) Chloroethane	2.57	64	1070m	0.54	UG		
7) Trichlorofluoromethane	3.51	101	2314m	0.45	UG		
8) Acrolein	3.31	56	6764m	10.28	UG		
9) 1,1-Dichloroethene	3.45	96	2860m	0.54	UG		
10) Acetone	3.49	43	3411m	1.12	UG		
11) Carbon disulfide	3.73	76	6890m	0.54	UG		
12) Vinyl acetate	4.96	43	4440	0.55	UG	#	1
13) Methylene chloride	4.01	84	2061m	0.47	UG		
14) Acrylonitrile	4.27	53	25675m	10.50	UG		
15) tert-Butyl alcohol (TBA)	4.18	59	1068m	1.52	UG		
16) trans-1,2-Dichloroethene	4.34	96	2001m	0.54	UG		
17) Methyl tert-butyl ether (M	4.38	73	6303	0.50	UG		100
18) 1,1-Dichloroethane	4.83	63	3778	0.54	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	7703	0.51	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	2152	0.50	UG	#	67
21) 2,2-Dichloropropane	5.49	77	1830	0.53	UG		99
22) 2-Butanone (MEK)	5.52	43	2969	0.84	UG	#	100
23) Bromochloromethane	5.76	128	1214	0.54	UG	#	97
25) Chloroform	5.85	83	3306	0.49	UG		99
26) 1,1,1-Trichloroethane	6.08	97	3090	0.62	UG	#	100
27) Carbon tetrachloride	6.28	117	2105	0.44	UG		94
28) 1,1-Dichloropropene	6.27	75	2779	0.50	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	3261	0.54	UG	#	98
32) Benzene	6.50	78	8009	0.48	UG	#	97
33) Trichloroethene	7.22	95	2000	0.47	UG	#	100
34) 1,2-Dichloropropane	7.45	63	2158	0.49	UG	#	100
35) Dibromomethane	7.57	93	1403	0.51	UG	#	81
36) 1,4-Dioxane	7.61	88	9203m	120.88	UG		
37) Bromodichloromethane	7.75	83	2242	0.45	UG	#	94
38) 2-Chloroethyl vinyl ether	8.09	63	2727m	0.85	UG		
39) cis-1,3-Dichloropropene	8.27	75	2283m	0.38	UG		
40) 4-Methyl-2-pentanone (MIBK	8.44	43	7061	0.96	UG		99
42) Toluene	8.67	92	4958	0.46	UG		95
43) trans-1,3-Dichloropropene	8.89	75	1916	0.34	UG		100
44) 1,1,2-Trichloroethane	9.09	83	1721	0.51	UG		99
45) Tetrachloroethene	9.30	166	2096	0.42	UG	#	93
46) 1,3-Dichloropropane	9.29	76	3478	0.50	UG		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5614.D
Acq On : 16 May 2017 11:42 am
Operator : BARBARA
Sample : ICC00.5,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 14:39:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:31:48 2017
Response via : Initial Calibration

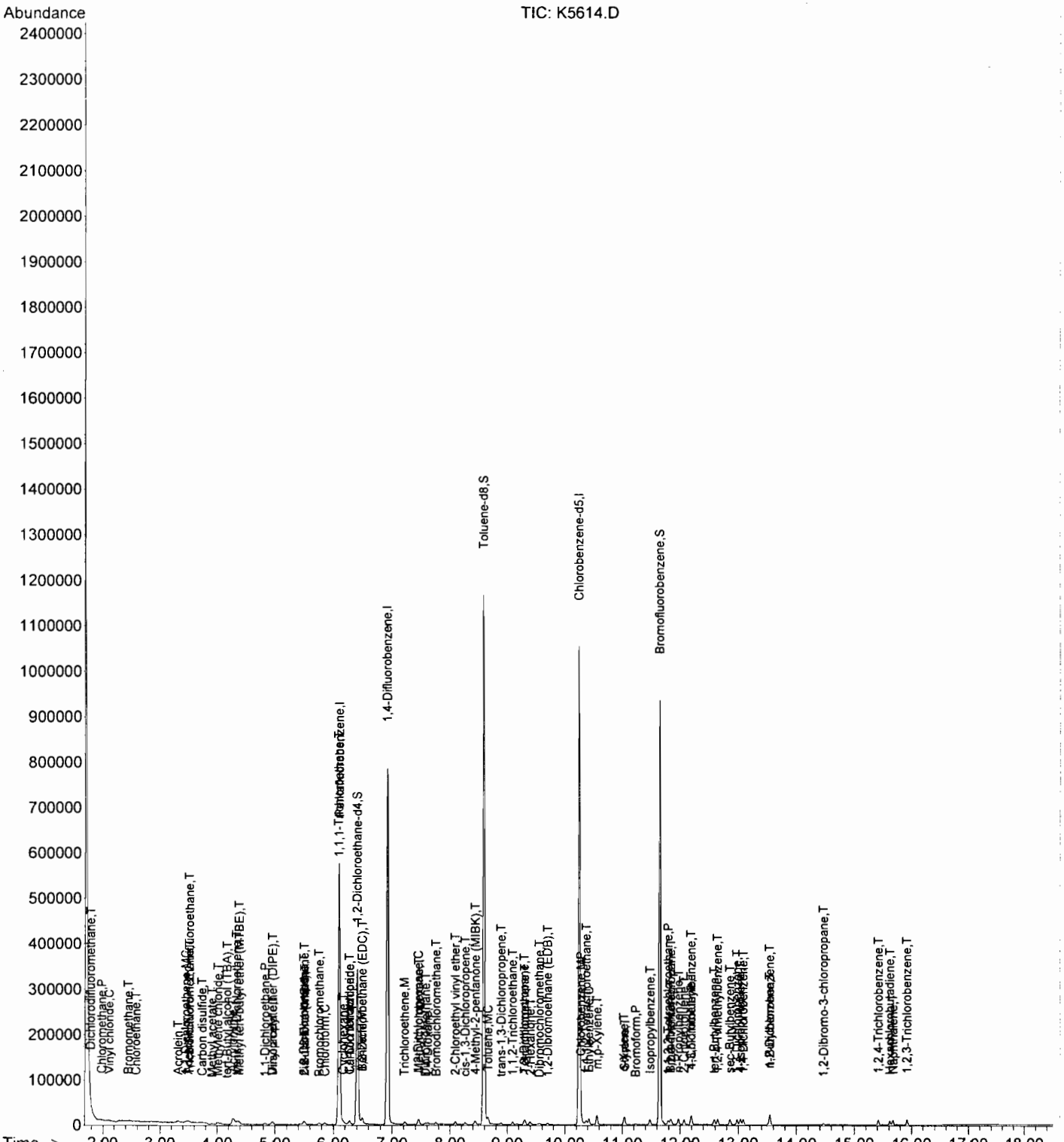
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	5058	0.89	UG	#	95
48) Dibromochloromethane	9.55	129	1692	0.43	UG		94
49) 1,2-Dibromoethane (EDB)	9.70	107	2048	0.48	UG		100
51) Chlorobenzene	10.29	112	5867	0.47	UG		100
52) 1,1,1,2-Tetrachloroethane	10.38	131	1924	0.45	UG	#	70
53) Ethylbenzene	10.42	91	8967	0.44	UG		99
54) m,p-Xylene	10.56	106	6468	0.75	UG		95
55) o-Xylene	11.02	106	2919	0.35	UG		99
56) Styrene	11.04	104	5081	0.36	UG		99
57) Bromoform	11.24	173	1139	0.42	UG	#	100
58) Isopropylbenzene	11.48	105	8014	0.37	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	3474	0.54	UG	#	68
61) Bromobenzene	11.83	156	2686	0.49	UG	#	72
62) 1,2,3-Trichloropropane	11.85	75	3031	0.52	UG	#	85
63) n-Propylbenzene	11.97	91	9827	0.38	UG	#	97
64) 2-Chlorotoluene	12.07	91	6417	0.43	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	6935	0.35	UG		100
66) 4-Chlorotoluene	12.20	91	7278	0.40	UG		98
67) tert-Butylbenzene	12.58	119	5669	0.37	UG		100
68) 1,2,4-Trimethylbenzene	12.64	105	7128	0.37	UG		99
69) sec-Butylbenzene	12.85	105	8561	0.35	UG		99
70) 1,3-Dichlorobenzene	12.98	146	5378	0.49	UG		96
71) 4-Isopropyltoluene	13.04	119	6862	0.34	UG		99
72) 1,4-Dichlorobenzene	13.09	146	5294	0.47	UG		97
73) n-Butylbenzene	13.54	91	6322	0.33	UG		99
74) 1,2-Dichlorobenzene	13.54	146	4984	0.45	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	817	0.57	UG	#	87
76) 1,2,4-Trichlorobenzene	15.42	180	3695	0.54	UG		93
77) Hexachlorobutadiene	15.62	225	1158	0.48	UG		100
78) Naphthalene	15.67	128	7853	0.38	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	3308	0.51	UG		99
80) 1,1,2-Trichloro-1,2,2-trif	3.51	101	2373m	0.46	UG		
81) Methyl acetate	3.91	43	3738	0.42	UG	#	94
82) Cyclohexane	6.17	56	2630	0.36	UG	#	51
83) Methylcyclohexane	7.46	83	2975	0.41	UG	#	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5614.D
Acq On : 16 May 2017 11:42 am
Operator : BARBARA
Sample : ICC00.5,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 14:39:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:31:48 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5615.D
Acq On : 16 May 2017 12:09 pm
Operator : BARBARA
Sample : ICC001,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 14:49:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:29:25 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	448560	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	679691	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	605645	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	253259	52.22	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.44%				
41) Toluene-d8	8.59	98	800704	49.49	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%				
59) Bromofluorobenzene	11.65	95	300721	48.47	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.94%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.81	85	3911m	1.47	UG		
3) Chloromethane	1.97	50	3667m	0.77	UG		
4) Vinyl chloride	2.09	62	4976	1.06	UG	#	95
5) Bromomethane	2.47	94	3123	1.33	UG		92
6) Chloroethane	2.58	64	1930m	0.99	UG		
7) Trichlorofluoromethane	3.58	101	5880m	1.20	UG		
8) Acrolein	3.30	56	13084m	20.10	UG		
9) 1,1-Dichloroethene	3.47	96	5866m	1.15	UG		
10) Acetone	3.50	43	7273m	2.54	UG		
11) Carbon disulfide	3.72	76	13559	1.10	UG		100
12) Vinyl acetate	4.96	43	7627	0.94	UG	#	1
13) Methylene chloride	4.00	84	4206m	1.08	UG		
14) Acrylonitrile	4.28	53	48257	19.92	UG	#	100
15) tert-Butyl alcohol (TBA)	4.19	59	1753m	2.69	UG		
16) trans-1,2-Dichloroethene	4.35	96	3776	1.03	UG	#	95
17) Methyl tert-butyl ether (M	4.38	73	11682	0.92	UG		100
18) 1,1-Dichloroethane	4.83	63	7447	1.08	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	13738	0.90	UG	#	46
20) cis-1,2-Dichloroethene	5.51	96	4361	1.04	UG	#	98
21) 2,2-Dichloropropane	5.51	77	3415	1.01	UG	#	98
22) 2-Butanone (MEK)	5.52	43	6369	1.78	UG	#	99
23) Bromochloromethane	5.76	128	2262	1.02	UG	#	95
25) Chloroform	5.86	83	6810	1.02	UG		99
26) 1,1,1-Trichloroethane	6.08	97	5059	1.02	UG	#	100
27) Carbon tetrachloride	6.28	117	4258	0.89	UG		96
28) 1,1-Dichloropropene	6.28	75	6430	1.22	UG	#	91
29) 1,2-Dichloroethane (EDC)	6.49	62	6239	1.05	UG		100
32) Benzene	6.49	78	16757	1.05	UG		100
33) Trichloroethene	7.23	95	4500	1.11	UG	#	100
34) 1,2-Dichloropropane	7.45	63	4334	1.02	UG	#	100
35) Dibromomethane	7.58	93	2837	1.06	UG	#	87
36) 1,4-Dioxane	7.61	88	18145m	258.35	UG		
37) Bromodichloromethane	7.75	83	4196	0.83	UG	#	66
38) 2-Chloroethyl vinyl ether	8.10	63	5267	1.61	UG	#	100
39) cis-1,3-Dichloropropene	8.27	75	4911	0.80	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	12429	1.68	UG		99
42) Toluene	8.66	92	11132	1.07	UG		97
43) trans-1,3-Dichloropropene	8.89	75	4450	0.77	UG	#	98
44) 1,1,2-Trichloroethane	9.09	83	3252	0.99	UG		93
45) Tetrachloroethene	9.31	166	5656	1.20	UG	#	82
46) 1,3-Dichloropropane	9.29	76	6443	0.93	UG	#	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5615.D
Acq On : 16 May 2017 12:09 pm
Operator : BARBARA
Sample : ICC001,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 14:49:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:29:25 2017
Response via : Initial Calibration

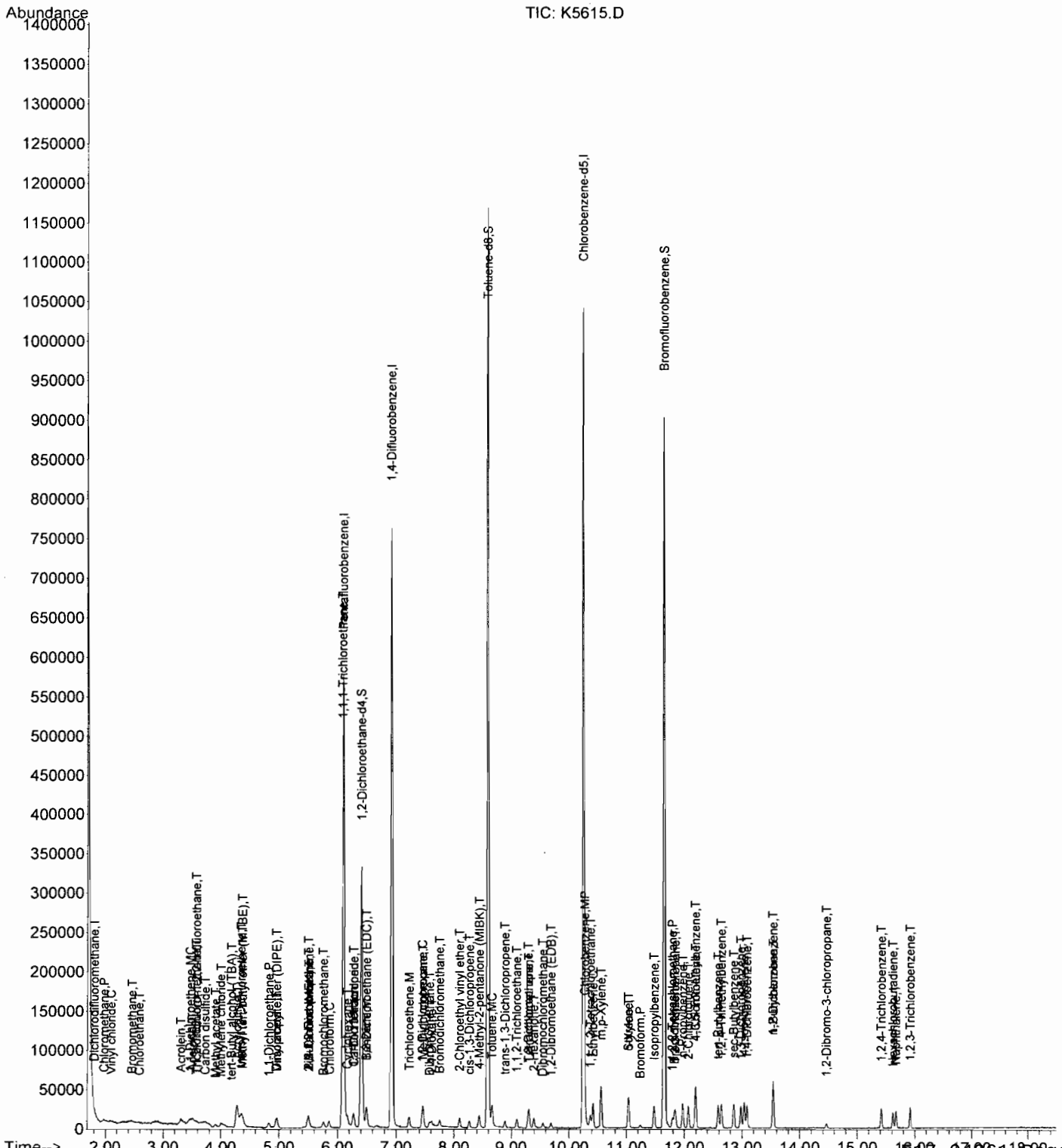
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	10232	1.80	UG		97
48) Dibromochloromethane	9.55	129	2913	0.72	UG		99
49) 1,2-Dibromoethane (EDB)	9.69	107	3855	0.90	UG		98
51) Chlorobenzene	10.28	112	13393	1.14	UG		98
52) 1,1,1,2-Tetrachloroethane	10.38	131	4070	0.98	UG	#	67
53) Ethylbenzene	10.42	91	21326	1.09	UG		100
54) m,p-Xylene	10.56	106	16805	1.98	UG		94
55) o-Xylene	11.03	106	7648	0.91	UG		87
56) Styrene	11.04	104	12596m	0.88	UG		
57) Bromoform	11.24	173	1834	0.65	UG	#	100
58) Isopropylbenzene	11.47	105	19964	0.92	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	6351	1.02	UG	#	98
61) Bromobenzene	11.82	156	5403	1.00	UG		95
62) 1,2,3-Trichloropropane	11.85	75	5890	1.05	UG	#	85
63) n-Propylbenzene	11.97	91	26330	1.06	UG		99
64) 2-Chlorotoluene	12.07	91	15954	1.11	UG		98
65) 1,3,5-Trimethylbenzene	12.19	105	17803	0.92	UG		98
66) 4-Chlorotoluene	12.20	91	18972	1.07	UG		100
67) tert-Butylbenzene	12.58	119	14114	0.92	UG		100
68) 1,2,4-Trimethylbenzene	12.64	105	18088	0.96	UG		98
69) sec-Butylbenzene	12.86	105	23790	0.99	UG		100
70) 1,3-Dichlorobenzene	12.98	146	11830	1.12	UG		99
71) 4-Isopropyltoluene	13.04	119	19518	1.00	UG		99
72) 1,4-Dichlorobenzene	13.08	146	12349	1.17	UG		98
73) n-Butylbenzene	13.54	91	17258	0.92	UG	#	97
74) 1,2-Dichlorobenzene	13.54	146	11320	1.05	UG		98
75) 1,2-Dibromo-3-chloropropan	14.47	75	1433	1.04	UG	#	86
76) 1,2,4-Trichlorobenzene	15.42	180	7218	1.09	UG		98
77) Hexachlorobutadiene	15.62	225	3021	1.28	UG		100
78) Naphthalene	15.67	128	16592	0.82	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	6895	1.11	UG		94
80) 1,1,2-Trichloro-1,2,2-trif	3.58	101	5709m	1.19	UG		
81) Methyl acetate	3.91	43	7519	0.84	UG	#	73
82) Cyclohexane	6.17	56	7403	1.06	UG	#	51
83) Methylcyclohexane	7.46	83	8181	1.19	UG	#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5615.D
Acq On : 16 May 2017 12:09 pm
Operator : BARBARA
Sample : ICC001,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 14:49:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:29:25 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5616.D
Acq On : 16 May 2017 12:36 pm
Operator : BARBARA
Sample : ICC005,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 16 14:29:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:28:07 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	454238	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	693279	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	617108	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	258497	53.58	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.16%				
41) Toluene-d8	8.59	98	807091	48.56	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.12%				
59) Bromofluorobenzene	11.65	95	309121	48.54	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.08%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.78	85	13943	5.23	UG	#	97
3) Chloromethane	1.97	50	21584	4.33	UG		99
4) Vinyl chloride	2.10	62	24703	5.25	UG		98
5) Bromomethane	2.47	94	12050	5.10	UG		97
6) Chloroethane	2.57	64	7867	3.74	UG		99
7) Trichlorofluoromethane	3.54	101	24276	4.84	UG	#	65
8) Acrolein	3.32	56	64257	96.66	UG	#	93
9) 1,1-Dichloroethene	3.47	96	24666	4.69	UG	#	12
10) Acetone	3.50	43	28568	9.78	UG		99
11) Carbon disulfide	3.73	76	56148	4.38	UG		100
12) Vinyl acetate	4.96	43	43481	5.41	UG	#	1
13) Methylene chloride	4.01	84	19708	4.98	UG		97
14) Acrylonitrile	4.28	53	258957	107.53	UG	#	100
15) tert-Butyl alcohol (TBA)	4.18	59	6014m	8.86	UG		
16) trans-1,2-Dichloroethene	4.35	96	17632	4.68	UG	#	95
17) Methyl tert-butyl ether (M	4.38	73	62004	4.75	UG		100
18) 1,1-Dichloroethane	4.83	63	33787	4.81	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	73645	4.70	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	20974	4.91	UG	#	98
21) 2,2-Dichloropropane	5.51	77	16723	4.84	UG		99
22) 2-Butanone (MEK)	5.51	43	35863	9.87	UG	#	100
23) Bromochloromethane	5.76	128	11377	5.07	UG	#	38
25) Chloroform	5.85	83	33079	4.86	UG		100
26) 1,1,1-Trichloroethane	6.09	97	24744	4.92	UG	#	100
27) Carbon tetrachloride	6.28	117	22750	4.57	UG		97
28) 1,1-Dichloropropene	6.27	75	25882	4.78	UG	#	95
29) 1,2-Dichloroethane (EDC)	6.49	62	29810	4.95	UG		100
32) Benzene	6.49	78	77481	4.67	UG		99
33) Trichloroethene	7.22	95	20042	4.79	UG	#	100
34) 1,2-Dichloropropane	7.45	63	19687	4.42	UG	#	100
35) Dibromomethane	7.57	93	13123	4.74	UG	#	86
36) 1,4-Dioxane	7.61	88	73418m	1033.42	UG		
37) Bromodichloromethane	7.75	83	22276	4.13	UG	#	99
38) 2-Chloroethyl vinyl ether	8.10	63	29212	8.42	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	24561	3.68	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	68071	8.75	UG		99
42) Toluene	8.66	92	48243	4.41	UG		95
43) trans-1,3-Dichloropropene	8.89	75	23193	3.65	UG		99
44) 1,1,2-Trichloroethane	9.10	83	16167	4.74	UG		96
45) Tetrachloroethene	9.31	166	22116	4.48	UG		97
46) 1,3-Dichloropropane	9.29	76	32783	4.54	UG		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5616.D
Acq On : 16 May 2017 12:36 pm
Operator : BARBARA
Sample : ICC005,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 16 14:29:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:28:07 2017
Response via : Initial Calibration

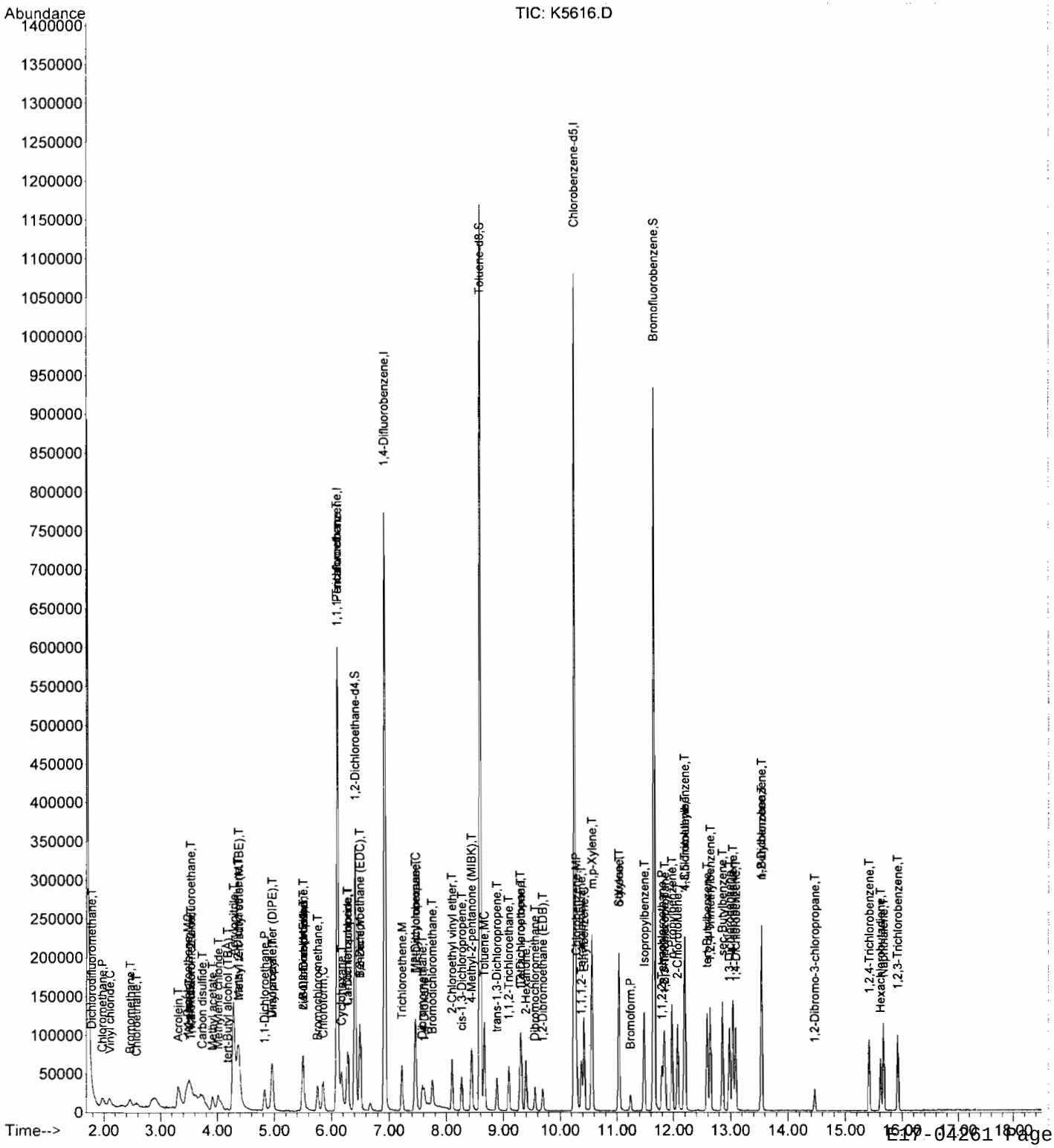
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	51518	8.59	UG	#	95
48) Dibromochloromethane	9.55	129	16082	3.61	UG		97
49) 1,2-Dibromoethane (EDB)	9.69	107	19903	4.43	UG		98
51) Chlorobenzene	10.29	112	56251	4.61	UG		99
52) 1,1,1,2-Tetrachloroethane	10.37	131	19312	4.44	UG	#	62
53) Ethylbenzene	10.42	91	90922	4.44	UG		99
54) m,p-Xylene	10.56	106	73057	8.01	UG		96
55) o-Xylene	11.03	106	35485	3.91	UG		91
56) Styrene	11.04	104	58186	3.73	UG		98
57) Bromoform	11.24	173	9864	3.09	UG	#	100
58) Isopropylbenzene	11.48	105	93308	4.04	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	30247	4.72	UG	#	98
61) Bromobenzene	11.83	156	24798	4.36	UG		98
62) 1,2,3-Trichloropropane	11.85	75	27234	4.70	UG	#	45
63) n-Propylbenzene	11.97	91	113571	4.33	UG		99
64) 2-Chlorotoluene	12.07	91	67099	4.45	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	80969	3.89	UG		99
66) 4-Chlorotoluene	12.20	91	76118	4.00	UG		99
67) tert-Butylbenzene	12.58	119	65566	4.01	UG		100
68) 1,2,4-Trimethylbenzene	12.64	105	83236	4.15	UG		100
69) sec-Butylbenzene	12.86	105	106096	4.15	UG		100
70) 1,3-Dichlorobenzene	12.98	146	47924	4.32	UG		98
71) 4-Isopropyltoluene	13.04	119	85426	4.08	UG		99
72) 1,4-Dichlorobenzene	13.09	146	47817	4.29	UG		100
73) n-Butylbenzene	13.54	91	78086	3.86	UG		98
74) 1,2-Dichlorobenzene	13.54	146	46615	4.04	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	6035	4.09	UG	#	87
76) 1,2,4-Trichlorobenzene	15.42	180	28953	4.12	UG		96
77) Hexachlorobutadiene	15.62	225	11523	4.74	UG		100
78) Naphthalene	15.67	128	83747	3.80	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	27958	4.23	UG		97
80) 1,1,2-Trichloro-1,2,2-trif	3.54	101	24276	4.93	UG	#	39
81) Methyl acetate	3.91	43	43666	4.75	UG	#	73
82) Cyclohexane	6.17	56	35263	4.93	UG	#	45
83) Methylcyclohexane	7.46	83	33647	4.74	UG	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5616.D
Acq On : 16 May 2017 12:36 pm
Operator : BARBARA
Sample : ICC005,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 16 14:29:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:28:07 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5617.D
Acq On : 16 May 2017 1:02 pm
Operator : BARBARA
Sample : ICC020,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 14:36:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:27:13 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	481572	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	735743	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	663624	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.41	65	269727	54.21	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.42%				
41) Toluene-d8	8.59	98	869645	48.96	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%				
59) Bromofluorobenzene	11.65	95	335952	48.60	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.20%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	56028	19.76	UG		99
3) Chloromethane	1.97	50	96250	17.44	UG		98
4) Vinyl chloride	2.09	62	100113	20.09	UG		99
5) Bromomethane	2.46	94	47931	18.73	UG		97
6) Chloroethane	2.58	64	35606m	14.29	UG		
7) Trichlorofluoromethane	3.53	101	99745	18.19	UG		95
8) Acrolein	3.31	56	126807	171.34	UG	#	61
9) 1,1-Dichloroethene	3.45	96	99464	16.93	UG	#	89
10) Acetone	3.49	43	95048	27.51	UG		99
11) Carbon disulfide	3.73	76	236083	16.28	UG		100
12) Vinyl acetate	4.96	43	180980	21.90	UG	#	1
13) Methylene chloride	4.01	84	81679	19.20	UG		98
14) Acrylonitrile	4.28	53	540877	218.30	UG	#	100
15) tert-Butyl alcohol (TBA)	4.18	59	35308m	42.37	UG		
16) trans-1,2-Dichloroethene	4.35	96	77913	19.27	UG	#	72
17) Methyl tert-butyl ether (M	4.38	73	267232	18.97	UG		100
18) 1,1-Dichloroethane	4.84	63	146594	19.54	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	318590	18.80	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	85778	18.46	UG	#	100
21) 2,2-Dichloropropane	5.51	77	72018	19.48	UG		99
22) 2-Butanone (MEK)	5.51	43	147144	37.36	UG	#	98
23) Bromochloromethane	5.76	128	46407	19.26	UG	#	38
25) Chloroform	5.85	83	141368	19.40	UG		100
26) 1,1,1-Trichloroethane	6.08	97	104519	19.41	UG	#	100
27) Carbon tetrachloride	6.28	117	98832	18.17	UG		96
28) 1,1-Dichloropropene	6.27	75	109309	18.60	UG	#	94
29) 1,2-Dichloroethane (EDC)	6.49	62	121487	18.60	UG		100
32) Benzene	6.50	78	328775	18.06	UG		100
33) Trichloroethene	7.22	95	82118	17.80	UG	#	100
34) 1,2-Dichloropropane	7.45	63	87457	17.83	UG	#	100
35) Dibromomethane	7.58	93	55592	18.40	UG	#	85
36) 1,4-Dioxane	7.61	88	149309	1970.68	UG		99
37) Bromodichloromethane	7.75	83	103028	17.15	UG	#	66
38) 2-Chloroethyl vinyl ether	8.10	63	131150	33.80	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	123404	16.36	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	301757	35.02	UG		99
42) Toluene	8.66	92	208075	17.03	UG		97
43) trans-1,3-Dichloropropene	8.88	75	115019	15.87	UG		99
44) 1,1,2-Trichloroethane	9.09	83	65913	17.44	UG		97
45) Tetrachloroethene	9.31	166	92595	16.69	UG		96
46) 1,3-Dichloropropane	9.29	76	136858	16.96	UG		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5617.D
Acq On : 16 May 2017 1:02 pm
Operator : BARBARA
Sample : ICC020,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 14:36:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:27:13 2017
Response via : Initial Calibration

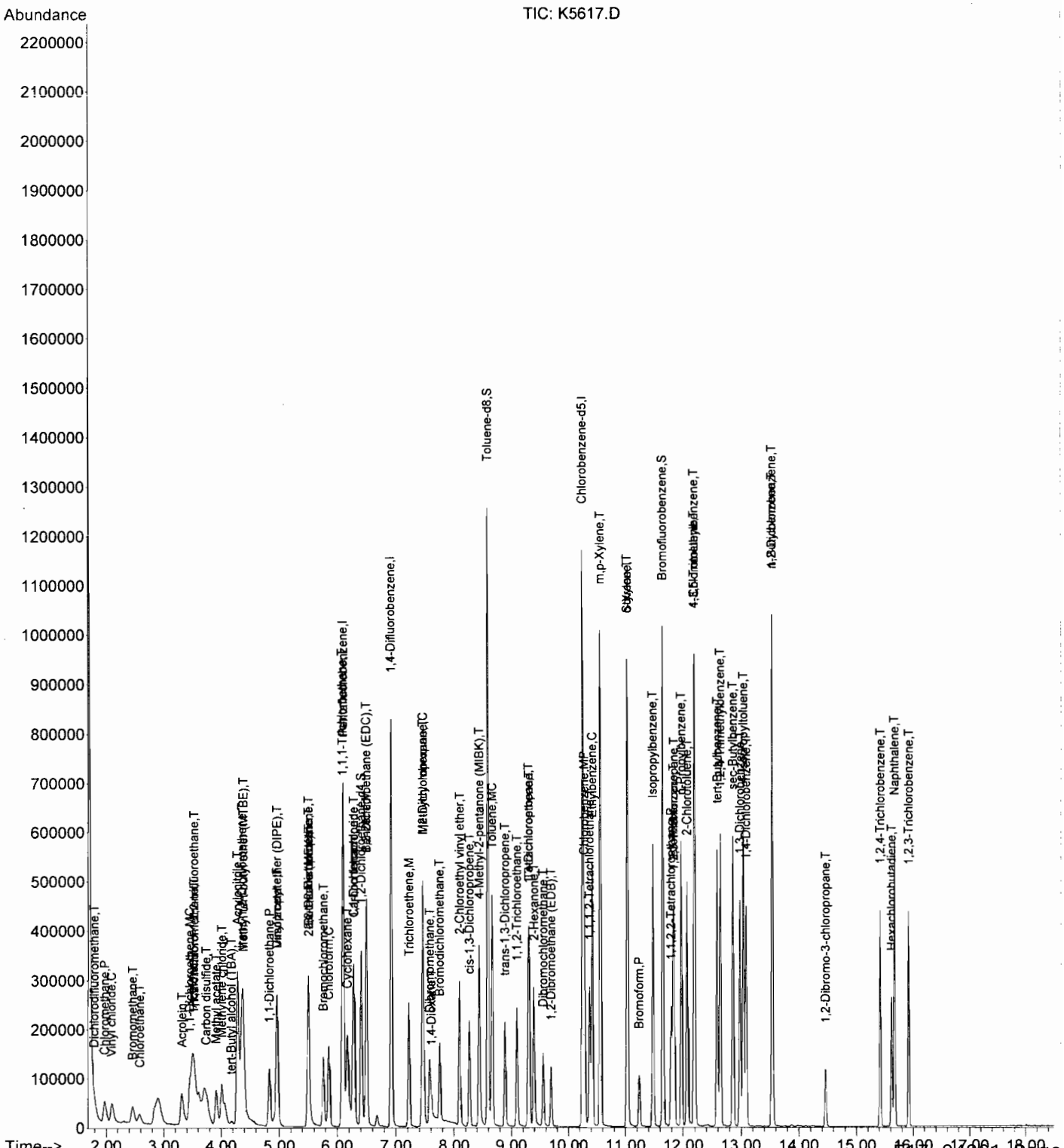
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	231794	34.85	UG	#	95
48) Dibromochloromethane	9.55	129	78578	15.35	UG		96
49) 1,2-Dibromoethane (EDB)	9.69	107	86383	17.33	UG		99
51) Chlorobenzene	10.28	112	242730	17.83	UG		100
52) 1,1,1,2-Tetrachloroethane	10.37	131	84390	17.21	UG	#	69
53) Ethylbenzene	10.42	91	399014	17.31	UG		99
54) m,p-Xylene	10.56	106	328520	30.99	UG		94
55) o-Xylene	11.03	106	161828	15.28	UG		89
56) Styrene	11.04	104	269901	14.64	UG		99
57) Bromoform	11.24	173	51488	13.36	UG	#	100
58) Isopropylbenzene	11.47	105	425766	15.99	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	126315	17.59	UG	#	99
61) Bromobenzene	11.83	156	107058	16.50	UG	#	40
62) 1,2,3-Trichloropropane	11.85	75	113874	17.53	UG	#	85
63) n-Propylbenzene	11.97	91	488037	16.20	UG		99
64) 2-Chlorotoluene	12.07	91	287229	16.73	UG		98
65) 1,3,5-Trimethylbenzene	12.19	105	365517	14.94	UG		100
66) 4-Chlorotoluene	12.20	91	334029	14.93	UG		99
67) tert-Butylbenzene	12.59	119	300750	15.93	UG		99
68) 1,2,4-Trimethylbenzene	12.64	105	366722	15.83	UG		100
69) sec-Butylbenzene	12.86	105	465419	15.70	UG		99
70) 1,3-Dichlorobenzene	12.98	146	207255	16.28	UG		99
71) 4-Isopropyltoluene	13.04	119	376875	15.50	UG		99
72) 1,4-Dichlorobenzene	13.08	146	206203	16.09	UG		99
73) n-Butylbenzene	13.54	91	350032	14.67	UG		98
74) 1,2-Dichlorobenzene	13.54	146	206191	15.33	UG		98
75) 1,2-Dibromo-3-chloropropan	14.46	75	27588	16.33	UG	#	37
76) 1,2,4-Trichlorobenzene	15.42	180	130123	16.10	UG		97
77) Hexachlorobutadiene	15.62	225	47763	17.53	UG		100
78) Naphthalene	15.67	128	422530	16.93	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	126720	16.91	UG		99
80) 1,1,2-Trichloro-1,2,2-trif	3.53	101	99745	18.29	UG	#	1
81) Methyl acetate	3.91	43	192214	19.17	UG	#	79
82) Cyclohexane	6.17	56	150248	19.31	UG	#	44
83) Methylcyclohexane	7.46	83	144770	18.49	UG	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5617.D
Acq On : 16 May 2017 1:02 pm
Operator : BARBARA
Sample : ICC020,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 14:36:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:27:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5618.D
Acq On : 16 May 2017 1:28 pm
Operator : BARBARA
Sample : ICC100,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 14:52:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:24:50 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.09	168	532332	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	777714	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	742007	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	279640	50.00	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%				
41) Toluene-d8	8.59	98	947114	50.00	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%				
59) Bromofluorobenzene	11.65	95	384998	50.00	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	320929	100.00	UG		99
3) Chloromethane	1.96	50	607593	100.00	UG		98
4) Vinyl chloride	2.09	62	556468	100.00	UG		99
5) Bromomethane	2.44	94	281936	100.00	UG		96
6) Chloroethane	2.57	64	261883	100.00	UG		100
7) Trichlorofluoromethane	3.52	101	606191	100.00	UG		97
8) Acrolein	3.30	56	237969	300.00	UG	#	94
9) 1,1-Dichloroethene	3.47	96	638788	100.00	UG	#	12
10) Acetone	3.49	43	749430	200.00	UG	#	98
11) Carbon disulfide	3.73	76	1559798	100.00	UG		100
12) Vinyl acetate	4.96	43	923036	100.00	UG	#	1
13) Methylene chloride	4.00	84	462968	100.00	UG		98
14) Acrylonitrile	4.28	53	816862	300.00	UG	#	100
15) tert-Butyl alcohol (TBA)	4.19	59	173755	200.00	UG		99
16) trans-1,2-Dichloroethene	4.34	96	444216	100.00	UG	#	72
17) Methyl tert-butyl ether (M	4.37	73	1558825	100.00	UG		100
18) 1,1-Dichloroethane	4.83	63	827263	100.00	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	1871327	100.00	UG	#	46
20) cis-1,2-Dichloroethene	5.49	96	510346	100.00	UG	#	99
21) 2,2-Dichloropropane	5.50	77	412206	100.00	UG		100
22) 2-Butanone (MEK)	5.51	43	854463	200.00	UG	#	98
23) Bromochloromethane	5.76	128	268800	100.00	UG	#	100
25) Chloroform	5.85	83	806072	100.00	UG		99
26) 1,1,1-Trichloroethane	6.08	97	596210	100.00	UG	#	100
27) Carbon tetrachloride	6.28	117	597818	100.00	UG		96
28) 1,1-Dichloropropene	6.27	75	649196	100.00	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	717777	100.00	UG		100
32) Benzene	6.49	78	1908054	100.00	UG		100
33) Trichloroethene	7.22	95	486919	100.00	UG	#	100
34) 1,2-Dichloropropane	7.45	63	513911	100.00	UG	#	100
35) Dibromomethane	7.57	93	319385	100.00	UG	#	48
36) 1,4-Dioxane	7.61	88	233975	3000.00	UG		99
37) Bromodichloromethane	7.75	83	629025	100.00	UG	#	98
38) 2-Chloroethyl vinyl ether	8.10	63	813776	200.00	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	791339	100.00	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	1801473	200.00	UG		99
42) Toluene	8.66	92	1271663	100.00	UG		97
43) trans-1,3-Dichloropropene	8.89	75	720200m	94.92	UG		
44) 1,1,2-Trichloroethane	9.09	83	399784	100.00	UG		97
45) Tetrachloroethene	9.31	166	577224	100.00	UG		97
46) 1,3-Dichloropropane	9.29	76	844534	100.00	UG		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5618.D
Acq On : 16 May 2017 1:28 pm
Operator : BARBARA
Sample : ICC100,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 14:52:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:24:50 2017
Response via : Initial Calibration

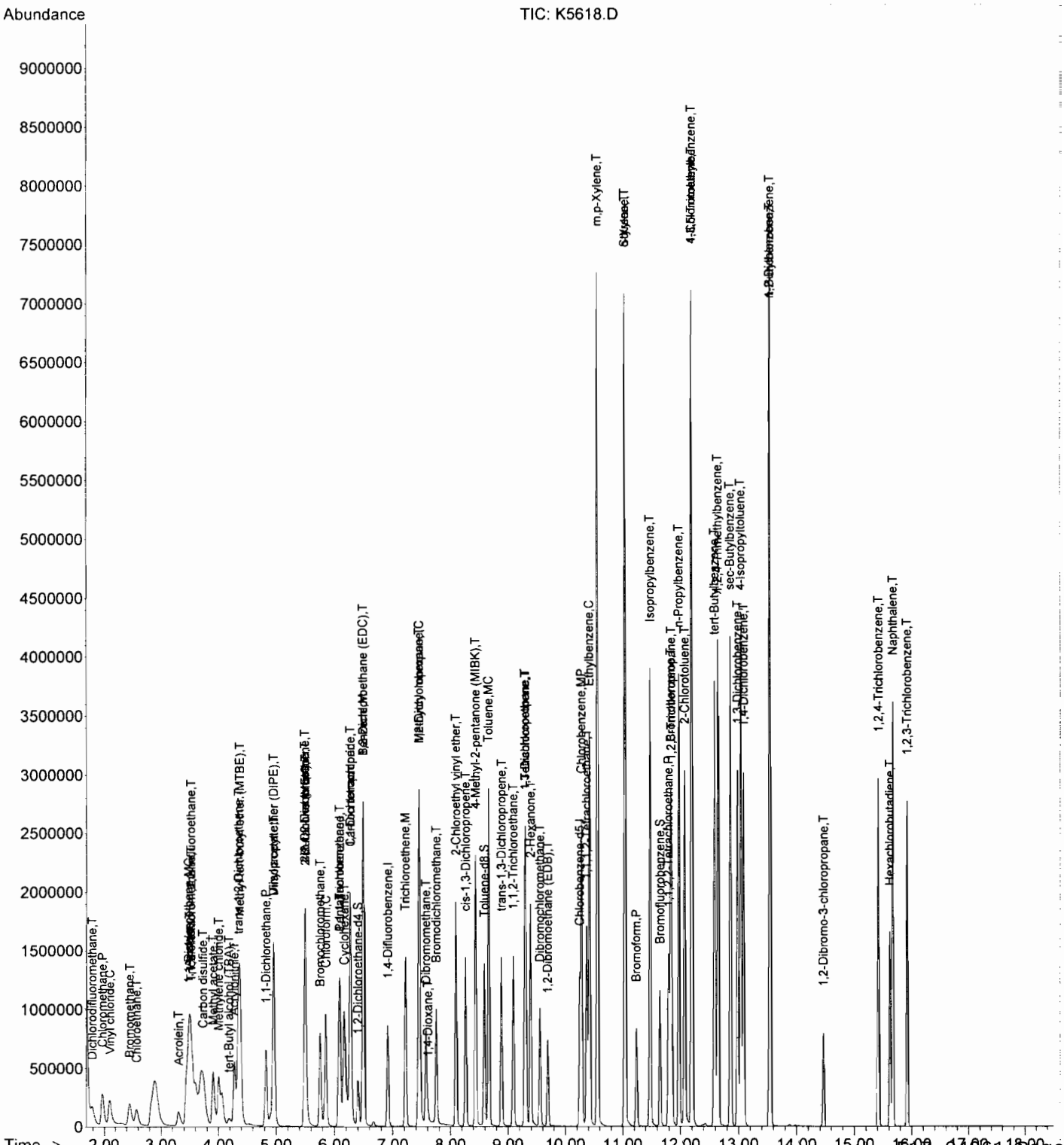
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	1397479	200.00	UG	#	95
48) Dibromochloromethane	9.55	129	521375m	97.07	UG		
49) 1,2-Dibromoethane (EDB)	9.69	107	524940	100.00	UG		99
51) Chlorobenzene	10.28	112	1490136	100.00	UG		100
52) 1,1,1,2-Tetrachloroethane	10.37	131	537013	100.00	UG	#	60
53) Ethylbenzene	10.42	91	2512642	100.00	UG		99
54) m,p-Xylene	10.56	106	2244930	200.00	UG		95
55) o-Xylene	11.03	106	987080m	87.95	UG		
56) Styrene	11.04	104	1761540m	90.50	UG		
57) Bromoform	11.24	173	335058m	80.70	UG		
58) Isopropylbenzene	11.48	105	2856831	100.00	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	785827	100.00	UG	#	99
61) Bromobenzene	11.83	156	703743	100.00	UG	#	40
62) 1,2,3-Trichloropropane	11.85	75	709906	100.00	UG	#	85
63) n-Propylbenzene	11.98	91	3246227	100.00	UG		99
64) 2-Chlorotoluene	12.08	91	1864297	100.00	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	2582089	100.00	UG		100
66) 4-Chlorotoluene	12.20	91	2361529	100.00	UG		99
67) tert-Butylbenzene	12.59	119	2025273	100.00	UG		100
68) 1,2,4-Trimethylbenzene	12.65	105	2504209	100.00	UG		100
69) sec-Butylbenzene	12.86	105	3186937	100.00	UG		100
70) 1,3-Dichlorobenzene	12.98	146	1376788	100.00	UG		99
71) 4-Isopropyltoluene	13.04	119	2629281	100.00	UG		99
72) 1,4-Dichlorobenzene	13.09	146	1386169	100.00	UG		99
73) n-Butylbenzene	13.54	91	2552279	100.00	UG		98
74) 1,2-Dichlorobenzene	13.54	146	1444892	100.00	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	186770	100.00	UG	#	37
76) 1,2,4-Trichlorobenzene	15.42	180	883355	100.00	UG		96
77) Hexachlorobutadiene	15.62	225	302391	100.00	UG		100
78) Naphthalene	15.67	128	2716733	100.00	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	814794	100.00	UG		98
80) 1,1,2-Trichloro-1,2,2-trif	3.52	101	606191	100.00	UG	#	1
81) Methyl acetate	3.90	43	1082378	100.00	UG	#	75
82) Cyclohexane	6.16	56	883156	100.00	UG	#	43
83) Methylcyclohexane	7.46	83	877715	100.00	UG	#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5618.D
Acq On : 16 May 2017 1:28 pm
Operator : BARBARA
Sample : ICC100,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 14:52:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:24:50 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5619.D
Acq On : 16 May 2017 1:54 pm
Operator : BARBARA
Sample : ICC150,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 16 14:51:46 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:25:46 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.09	168	586738	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	854844	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	808294	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	297995	48.34	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.68%				
41) Toluene-d8	8.59	98	1022714	49.12	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.24%				
59) Bromofluorobenzene	11.65	95	422505	50.37	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.74%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	505711	142.97	UG		99
3) Chloromethane	1.96	50	1012929	151.25	UG		98
4) Vinyl chloride	2.10	62	901509	146.98	UG		99
5) Bromomethane	2.45	94	469345	151.04	UG		96
6) Chloroethane	2.57	64	477628	165.47	UG		100
7) Trichlorofluoromethane	3.51	101	1002193	150.00	UG		96
8) Acrolein	3.30	56	371653	425.09	UG	#	60
9) 1,1-Dichloroethene	3.48	96	1091543	155.03	UG	#	12
10) Acetone	3.49	43	1286999	311.61	UG	#	97
11) Carbon disulfide	3.73	76	2722511	158.36	UG		100
12) Vinyl acetate	4.96	43	1494963	146.94	UG	#	1
13) Methylene chloride	4.00	84	789204m	154.66	UG		
14) Acrylonitrile	4.27	53	1214550	404.69	UG	#	100
15) tert-Butyl alcohol (TBA)	4.19	59	321893	336.16	UG		99
16) trans-1,2-Dichloroethene	4.34	96	743567	151.87	UG	#	97
17) Methyl tert-butyl ether (M	4.37	73	2572909	149.75	UG		100
18) 1,1-Dichloroethane	4.82	63	1374072	150.70	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	3101511	150.37	UG	#	46
20) cis-1,2-Dichloroethene	5.49	96	854618	151.93	UG	#	99
21) 2,2-Dichloropropane	5.50	77	669573	147.37	UG		100
22) 2-Butanone (MEK)	5.51	43	1466729	311.48	UG	#	98
23) Bromochloromethane	5.75	128	436475	147.32	UG	#	99
25) Chloroform	5.85	83	1330587	149.76	UG		99
26) 1,1,1-Trichloroethane	6.08	97	982083	149.45	UG	#	100
27) Carbon tetrachloride	6.28	117	1000067	151.77	UG		96
28) 1,1-Dichloropropene	6.27	75	1074395	150.15	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	1200707	151.77	UG		99
32) Benzene	6.49	78	3200040	152.58	UG		100
33) Trichloroethene	7.22	95	805035	150.41	UG	#	100
34) 1,2-Dichloropropane	7.45	63	862308	152.65	UG	#	100
35) Dibromomethane	7.57	93	526354	149.93	UG	#	84
36) 1,4-Dioxane	7.61	88	361333	4214.95	UG		99
37) Bromodichloromethane	7.75	83	1057451	152.94	UG	#	97
38) 2-Chloroethyl vinyl ether	8.10	63	1363330	304.83	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	1324875	152.32	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	3037590	306.81	UG		99
42) Toluene	8.66	92	2163328	154.77	UG		97
43) trans-1,3-Dichloropropene	8.88	75	1160727m	139.18	UG		
44) 1,1,2-Trichloroethane	9.09	83	658361	149.82	UG		97
45) Tetrachloroethene	9.31	166	981568	154.71	UG		96
46) 1,3-Dichloropropane	9.29	76	1420070	152.98	UG		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5619.D
Acq On : 16 May 2017 1:54 pm
Operator : BARBARA
Sample : ICC150,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 16 14:51:46 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:25:46 2017
Response via : Initial Calibration

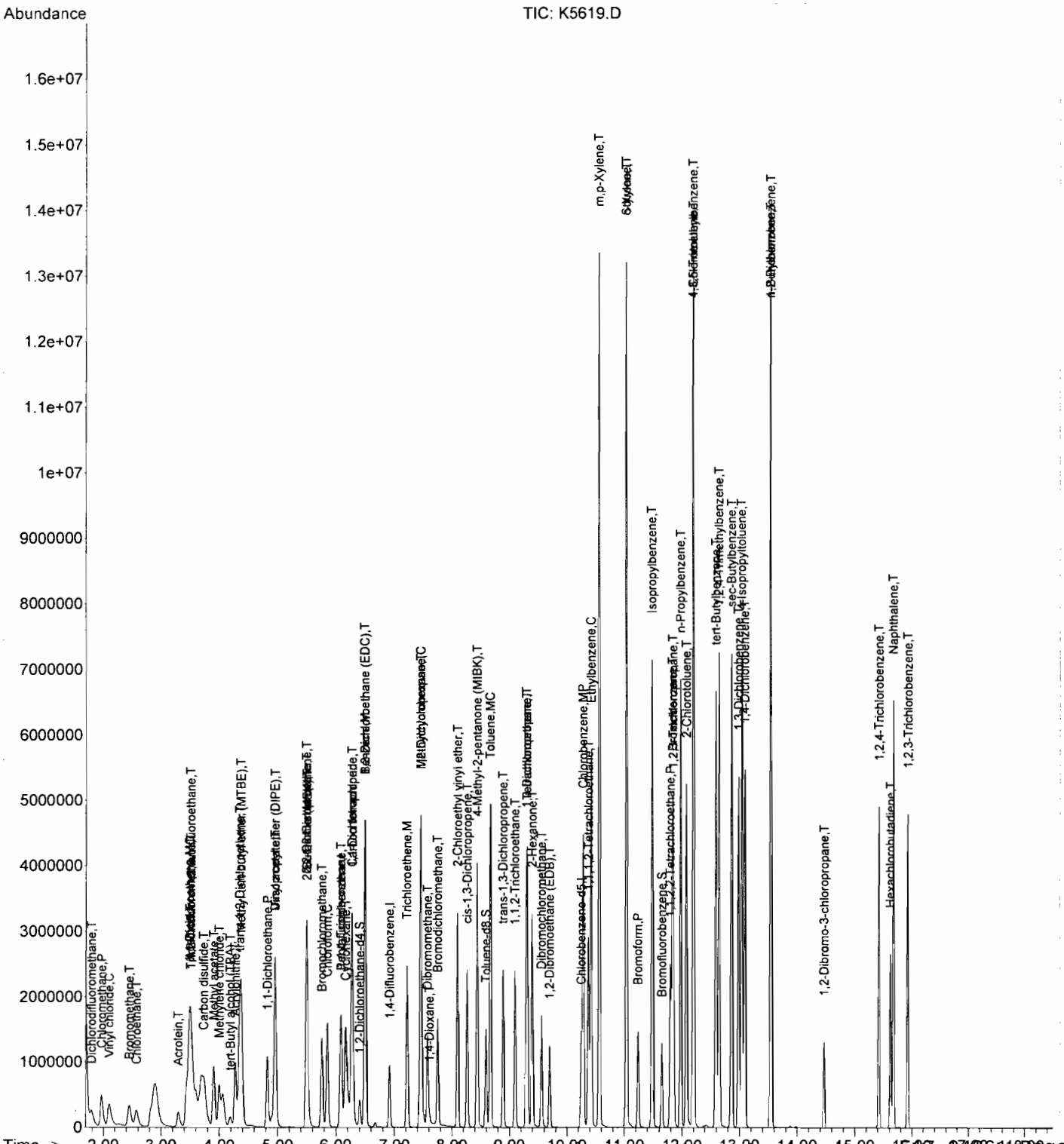
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	2332142	303.65	UG	#	95
48) Dibromochloromethane	9.55	129	833238m	141.14	UG		
49) 1,2-Dibromoethane (EDB)	9.69	107	872089	151.14	UG		98
51) Chlorobenzene	10.28	112	2538960	156.41	UG		100
52) 1,1,1,2-Tetrachloroethane	10.38	131	914434	156.32	UG	#	70
53) Ethylbenzene	10.42	91	4317815	157.75	UG		99
54) m,p-Xylene	10.56	106	4079595	333.64	UG		95
55) o-Xylene	11.03	106	1808006m	147.89	UG		
56) Styrene	11.04	104	2810270m	132.54	UG		
57) Bromoform	11.24	173	583129m	128.94	UG		
58) Isopropylbenzene	11.48	105	5059304	162.57	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	1340339	156.58	UG	#	99
61) Bromobenzene	11.83	156	1221336	159.32	UG	#	40
62) 1,2,3-Trichloropropane	11.85	75	1212987	156.85	UG	#	85
63) n-Propylbenzene	11.98	91	5703434	161.29	UG		100
64) 2-Chlorotoluene	12.08	91	3226839	158.89	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	4723495	167.93	UG		100
66) 4-Chlorotoluene	12.20	91	4318889	167.89	UG		99
67) tert-Butylbenzene	12.59	119	3588755	162.67	UG		99
68) 1,2,4-Trimethylbenzene	12.65	105	4373702	160.33	UG		100
69) sec-Butylbenzene	12.86	105	5623952	162.00	UG		100
70) 1,3-Dichlorobenzene	12.98	146	2401928	160.15	UG		99
71) 4-Isopropyltoluene	13.04	119	4587533	160.17	UG		99
72) 1,4-Dichlorobenzene	13.09	146	2418468	160.16	UG		99
73) n-Butylbenzene	13.54	91	4550816	163.68	UG		98
74) 1,2-Dichlorobenzene	13.54	146	2555041	162.33	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	311981	153.34	UG	#	37
76) 1,2,4-Trichlorobenzene	15.42	180	1509595	156.88	UG		96
77) Hexachlorobutadiene	15.62	225	501331	152.19	UG		100
78) Naphthalene	15.67	128	4679081	158.11	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	1406773	158.49	UG		98
80) 1,1,2-Trichloro-1,2,2-trif	3.51	101	1002193	151.77	UG	#	1
81) Methyl acetate	3.90	43	1895884	160.79	UG	#	77
82) Cyclohexane	6.16	56	1399605	145.48	UG	#	43
83) Methylcyclohexane	7.46	83	1426332	149.18	UG	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5619.D
Acq On : 16 May 2017 1:54 pm
Operator : BARBARA
Sample : ICC150,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 16 14:51:46 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:25:46 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5620.D
Acq On : 16 May 2017 2:21 pm
Operator : BARBARA
Sample : ICC200,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 16 14:51:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:40:40 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.09	168	604294	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	871985	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	842925	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	308761	46.57	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.14%				
41) Toluene-d8	8.59	98	1039601	50.35	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%				
59) Bromofluorobenzene	11.65	95	447073	52.35	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	706086m	180.04	UG		
3) Chloromethane	1.97	50	1447733	243.02	UG		98
4) Vinyl chloride	2.10	62	1231533	192.04	UG		98
5) Bromomethane	2.46	94	639895	189.95	UG		96
6) Chloroethane	2.58	64	631200	239.46	UG		100
7) Trichlorofluoromethane	3.51	101	1361503	197.89	UG		97
8) Acrolein	3.30	56	486414	554.11	UG	#	60
9) 1,1-Dichloroethene	3.48	96	1532107	213.38	UG	#	89
10) Acetone	3.49	43	1705066	418.87	UG	#	97
11) Carbon disulfide	3.73	76	3795556	224.81	UG		100
12) Vinyl acetate	4.96	43	2019461	187.19	UG	#	1
13) Methylene chloride	4.00	84	1064510	199.28	UG		98
14) Acrylonitrile	4.27	53	1560703	474.59	UG	#	100
15) tert-Butyl alcohol (TBA)	4.20	59	436272	421.13	UG		100
16) trans-1,2-Dichloroethene	4.34	96	989644	196.93	UG	#	97
17) Methyl tert-butyl ether (M	4.37	73	3466551	205.58	UG		100
18) 1,1-Dichloroethane	4.83	63	1820388	191.21	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	4195179	207.73	UG	#	46
20) cis-1,2-Dichloroethene	5.49	96	1149051	201.36	UG	#	99
21) 2,2-Dichloropropane	5.50	77	848182	183.55	UG		99
22) 2-Butanone (MEK)	5.51	43	1895381	402.20	UG	#	98
23) Bromochloromethane	5.75	128	592404	197.02	UG	#	99
25) Chloroform	5.85	83	1776853	197.61	UG		99
26) 1,1,1-Trichloroethane	6.08	97	1251487	180.03	UG	#	100
27) Carbon tetrachloride	6.28	117	1315171	211.80	UG		96
28) 1,1-Dichloropropene	6.27	75	1449694	195.18	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	1632937	199.75	UG		100
32) Benzene	6.49	78	4357463	211.37	UG		100
33) Trichloroethene	7.22	95	1078568	204.63	UG	#	100
34) 1,2-Dichloropropane	7.45	63	1168671	214.26	UG	#	100
35) Dibromomethane	7.57	93	712108	204.33	UG	#	48
36) 1,4-Dioxane	7.61	88	456611	4627.23	UG		100
37) Bromodichloromethane	7.75	83	1434792	232.97	UG	#	97
38) 2-Chloroethyl vinyl ether	8.10	63	1838058	468.26	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	1789376	247.42	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	4073901	446.48	UG		99
42) Toluene	8.66	92	2957159	221.41	UG		97
43) trans-1,3-Dichloropropene	8.89	75	1579190m	234.90	UG		
44) 1,1,2-Trichloroethane	9.09	83	889687	210.78	UG		97
45) Tetrachloroethene	9.31	166	1354688	221.45	UG		97
46) 1,3-Dichloropropane	9.29	76	1957413	223.87	UG		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5620.D
Acq On : 16 May 2017 2:21 pm
Operator : BARBARA
Sample : ICC200,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 16 14:51:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:40:40 2017
Response via : Initial Calibration

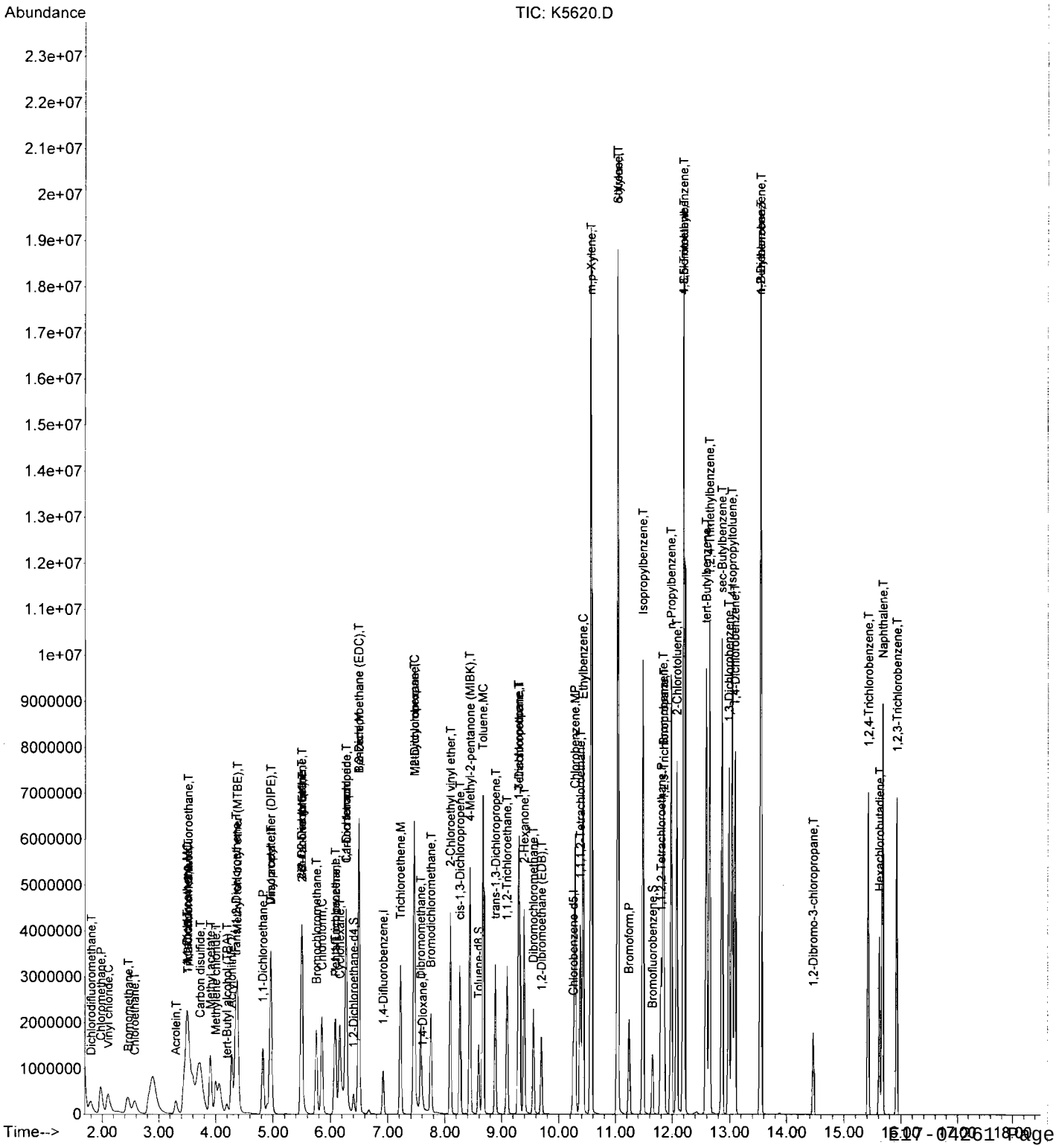
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	3132099	447.33	UG	#	94
48) Dibromochloromethane	9.55	129	1114499m	226.75	UG		
49) 1,2-Dibromoethane (EDB)	9.70	107	1180349	221.19	UG		99
51) Chlorobenzene	10.29	112	3484081	209.13	UG		100
52) 1,1,1,2-Tetrachloroethane	10.38	131	1254332	221.41	UG	#	69
53) Ethylbenzene	10.42	91	5944637	219.07	UG		99
54) m,p-Xylene	10.57	106	5823062	515.05	UG		94
55) o-Xylene	11.04	106	2910296	266.74	UG		90
56) Styrene	11.04	104	5093486	268.32	UG		98
57) Bromoform	11.24	173	1035249	290.17	UG	#	100
58) Isopropylbenzene	11.48	105	7077153	250.16	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	1852143	213.53	UG	#	68
61) Bromobenzene	11.83	156	1743143	233.01	UG	#	71
62) 1,2,3-Trichloropropane	11.85	75	1682480	212.03	UG	#	85
63) n-Propylbenzene	11.98	91	8002492	237.79	UG		100
64) 2-Chlorotoluene	12.08	91	4540051	227.30	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	6854554	255.04	UG		100
66) 4-Chlorotoluene	12.20	91	6212759	247.98	UG		99
67) tert-Butylbenzene	12.59	119	5073859	242.51	UG		99
68) 1,2,4-Trimethylbenzene	12.65	105	6251721	250.99	UG		100
69) sec-Butylbenzene	12.86	105	7917168	237.10	UG		100
70) 1,3-Dichlorobenzene	12.98	146	3403112	226.70	UG		99
71) 4-Isopropyltoluene	13.04	119	6481739	237.79	UG		99
72) 1,4-Dichlorobenzene	13.09	146	3449850	227.24	UG		99
73) n-Butylbenzene	13.54	91	6508178	249.85	UG		98
74) 1,2-Dichlorobenzene	13.54	146	3706435	244.61	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	428635	221.27	UG	#	37
76) 1,2,4-Trichlorobenzene	15.42	180	2160260	231.05	UG		96
77) Hexachlorobutadiene	15.62	225	719202	219.57	UG		100
78) Naphthalene	15.67	128	6577946	232.63	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	1992611	224.81	UG		98
80) 1,1,2-Trichloro-1,2,2-trif	3.51	101	1361503	195.81	UG	#	1
81) Methyl acetate	3.90	43	2550834	217.88	UG	#	77
82) Cyclohexane	6.16	56	1880239	200.04	UG	#	41
83) Methylcyclohexane	7.46	83	1920415	193.36	UG	#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5620.D
Acq On : 16 May 2017 2:21 pm
Operator : BARBARA
Sample : ICC200,ICC170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 16 14:51:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:40:40 2017
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5622.D
Acq On : 16 May 2017 3:14 pm
Operator : BARBARA
Sample : ICV100,ICV170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 19 11:25:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	0.00
2	T	Dichlorodifluoromethane	0.319	0.298	6.6	108	0.00
3	P	Chloromethane	0.508	0.594	-16.9	114	0.00
4	C	Vinyl chloride	0.527	0.533	-1.1	112	0.00
5	T	Bromomethane	0.276	0.277	-0.4	115	0.00
6	T	Chloroethane	0.225	0.254	-12.9	113	0.00
7	T	Trichlorofluoromethane	0.568	0.563	0.9	108	0.00
8	T	Acrolein	0.074	0.071	4.1	104	0.00
9	MC	1,1-Dichloroethene	0.600	0.611	-1.8	111	0.00
10	T	Acetone	0.339	0.356	-5.0	111	0.00
11	T	Carbon disulfide	1.426	1.531	-7.4	114	-0.01
12	T	Vinyl acetate	0.883	0.820	7.1	104	0.00
13	T	Methylene chloride	0.442	0.434	1.8	109	0.00
14	T	Acrylonitrile	0.270	0.245	9.3	105	0.00
15	T	tert-Butyl alcohol (TBA)	0.086	0.092	-7.0	124	0.00
16	T	trans-1,2-Dichloroethene	0.415	0.416	-0.2	109	0.00
17	T	Methyl tert-butyl ether (MT	1.401	1.427	-1.9	107	0.00
18	P	1,1-Dichloroethane	0.783	0.769	1.8	108	0.00
19	T	Diisopropyl ether (DIPE)	1.680	1.709	-1.7	106	0.00
20	T	cis-1,2-Dichloroethene	0.473	0.473	0.0	108	0.00
21	T	2,2-Dichloropropane	0.378	0.368	2.6	104	0.00
22	T	2-Butanone (MEK)	0.390	0.401	-2.8	109	0.00
23	T	Bromochloromethane	0.248	0.248	0.0	108	0.00
25	C	Chloroform	0.743	0.750	-0.9	108	0.00
26	T	1,1,1-Trichloroethane	0.567	0.547	3.5	107	0.00
27	T	Carbon tetrachloride	0.518	0.556	-7.3	108	0.00
28	T	1,1-Dichloropropene	0.612	0.596	2.6	107	0.00
29	T	1,2-Dichloroethane (EDC)	0.676	0.658	2.7	107	0.00
30	S	1,2-Dichloroethane-d4	0.543	0.513	5.5	107	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
32	M	Benzene	1.192	1.222	-2.5	108	0.00
33	M	Trichloroethene	0.303	0.316	-4.3	109	0.00
34	C	1,2-Dichloropropane	0.316	0.328	-3.8	107	0.00
35	T	Dibromomethane	0.200	0.204	-2.0	108	0.00
36	T	1,4-Dioxane	0.006	0.005	16.7	116	0.00
37	T	Bromodichloromethane	0.361	0.405	-12.2	108	0.00
38	T	2-Chloroethyl vinyl ether	0.231	0.258	-11.7	107	0.00
39	T	cis-1,3-Dichloropropene	0.429	0.504	-17.5	107	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.532	0.566	-6.4	106	0.00
41	S	Toluene-d8	1.185	1.191	-0.5	106	0.00
42	MC	Toluene	0.778	0.812	-4.4	107	0.00
43	T	trans-1,3-Dichloropropene	0.385	0.429	-11.4	100	0.00
44	T	1,1,2-Trichloroethane	0.244	0.254	-4.1	107	0.00
45	T	Tetrachloroethene	0.356	0.372	-4.5	108	0.00
46	T	1,3-Dichloropropane	0.510	0.531	-4.1	106	0.00

47	T	2-Hexanone	0.408	0.440	-7.8	106	0.00
48	T	Dibromochloromethane	0.282	0.303	-7.4	98	0.00
49	T	1,2-Dibromoethane (EDB)	0.311	0.335	-7.7	107	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
51	MP	Chlorobenzene	0.995	1.012	-1.7	107	0.00
52	T	1,1,1,2-Tetrachloroethane	0.341	0.366	-7.3	107	0.00
53	C	Ethylbenzene	1.632	1.711	-4.8	107	0.00
54	T	m,p-Xylene	0.698	0.765	-9.6	108	0.00
55	T	o-Xylene	0.652	0.764	-17.2	122	0.00
56	T	Styrene	1.143	1.324	-15.8	119	0.00
57	P	Bromoform	0.193	0.230	-19.2	108	0.00
58	T	Isopropylbenzene	1.738	1.953	-12.4	108	0.00
59	S	Bromofluorobenzene	0.510	0.520	-2.0	107	0.00
60	P	1,1,2,2-Tetrachloroethane	0.520	0.524	-0.8	105	0.00
61	T	Bromobenzene	0.454	0.486	-7.0	109	0.00
62	T	1,2,3-Trichloropropane	0.475	0.483	-1.7	107	0.00
63	T	n-Propylbenzene	2.050	2.213	-8.0	108	0.00
64	T	2-Chlorotoluene	1.208	1.277	-5.7	108	0.00
65	T	1,3,5-Trimethylbenzene	1.682	1.781	-5.9	109	0.00
66	T	4-Chlorotoluene	1.546	1.619	-4.7	108	0.00
67	T	tert-Butylbenzene	1.285	1.413	-10.0	110	0.00
68	T	1,2,4-Trimethylbenzene	1.531	1.720	-12.3	108	0.00
69	T	sec-Butylbenzene	2.042	2.202	-7.8	109	0.00
70	T	1,3-Dichlorobenzene	0.910	0.937	-3.0	107	0.00
71	T	4-Isopropyltoluene	1.678	1.811	-7.9	109	0.00
72	T	1,4-Dichlorobenzene	0.921	0.958	-4.0	109	0.00
73	T	n-Butylbenzene	1.622	1.732	-6.8	107	0.00
74	T	1,2-Dichlorobenzene	0.932	0.997	-7.0	109	0.00
75	T	1,2-Dibromo-3-chloropropane	0.117	0.128	-9.4	108	0.00
76	T	1,2,4-Trichlorobenzene	0.569	0.617	-8.4	110	0.00
77	T	Hexachlorobutadiene	0.198	0.213	-7.6	111	0.00
78	T	Naphthalene	1.732	1.901	-9.8	110	0.00
79	T	1,2,3-Trichlorobenzene	0.537	0.576	-7.3	112	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.411	0.416	-1.2	108	0.00
81	T	Methyl acetate	0.703	0.732	-4.1	107	0.00
82	T	Cyclohexane	0.558	0.597	-7.0	107	0.00
83	T	Methylcyclohexane	0.586	0.587	-0.2	106	0.00

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

K8051617.M Fri May 19 11:25:35 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5622.D
Acq On : 16 May 2017 3:14 pm
Operator : BARBARA
Sample : ICV100,ICV170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Samplc Multiplier: 1

Quant Time: May 19 11:25:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	582859	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	841223	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	789412	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	299100	47.23	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.46%				
41) Toluene-d8	8.59	98	1001742	50.24	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.48%				
59) Bromofluorobenzene	11.65	95	410761	51.02	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.04%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	347571	93.44	UG		99
3) Chloromethane	1.97	50	692950	117.00	UG		99
4) Vinyl chloride	2.09	62	621092	101.08	UG		99
5) Bromomethane	2.45	94	323183	100.30	UG		96
6) Chloroethane	2.57	64	295859	112.66	UG		100
7) Trichlorofluoromethane	3.52	101	656088	99.04	UG		97
8) Acrolein	3.30	56	246772	286.29	UG	#	60
9) 1,1-Dichloroethene	3.48	96	712044	101.84	UG	#	12
10) Acetone	3.49	43	829008	209.50	UG	#	90
11) Carbon disulfide	3.72	76	1784628	107.37	UG		100
12) Vinyl acetate	4.96	43	956000	92.86	UG	#	1
13) Methylene chloride	4.00	84	505773	98.22	UG		98
14) Acrylonitrile	4.28	53	856118	271.88	UG	#	100
15) tert-Butyl alcohol (TBA)	4.19	59	214822	213.11	UG		100
16) trans-1,2-Dichloroethene	4.35	96	484806	100.24	UG	#	97
17) Methyl tert-butyl ether (M	4.38	73	1663318	101.86	UG		100
18) 1,1-Dichloroethane	4.83	63	896631	98.26	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	1992061	101.70	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	551825	100.16	UG	#	99
21) 2,2-Dichloropropane	5.50	77	428879	97.37	UG		100
22) 2-Butanone (MEK)	5.51	43	934753	205.46	UG	#	98
23) Bromochloromethane	5.76	128	289046	99.91	UG	#	98
25) Chloroform	5.85	83	874439	101.00	UG		99
26) 1,1,1-Trichloroethane	6.08	97	637906	96.52	UG	#	100
27) Carbon tetrachloride	6.28	117	648050	107.30	UG		96
28) 1,1-Dichloropropene	6.27	75	695224	97.38	UG	#	93
29) 1,2-Dichloroethane (EDC)	6.49	62	766783	97.27	UG		100
32) Benzene	6.49	78	2056643	102.58	UG		100
33) Trichloroethene	7.22	95	531126	104.11	UG	#	100
34) 1,2-Dichloropropane	7.45	63	552390	103.92	UG	#	100
35) Dibromomethane	7.57	93	343780	101.94	UG	#	48
36) 1,4-Dioxane	7.61	88	271626	2883.99	UG		100
37) Bromodichloromethane	7.75	83	680838	111.96	UG	#	98
38) 2-Chloroethyl vinyl ether	8.10	63	867138	223.54	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	848015	117.56	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	1904106	212.78	UG		99
42) Toluene	8.66	92	1365860	104.41	UG		97
43) trans-1,3-Dichloropropene	8.89	75	721545m	111.34	UG		
44) 1,1,2-Trichloroethane	9.09	83	427570	104.07	UG		97
45) Tetrachloroethene	9.31	166	625853	104.45	UG		96
46) 1,3-Dichloropropane	9.29	76	893707	104.18	UG		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5622.D
Acq On : 16 May 2017 3:14 pm
Operator : BARBARA
Sample : ICV100,ICV170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 19 11:25:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

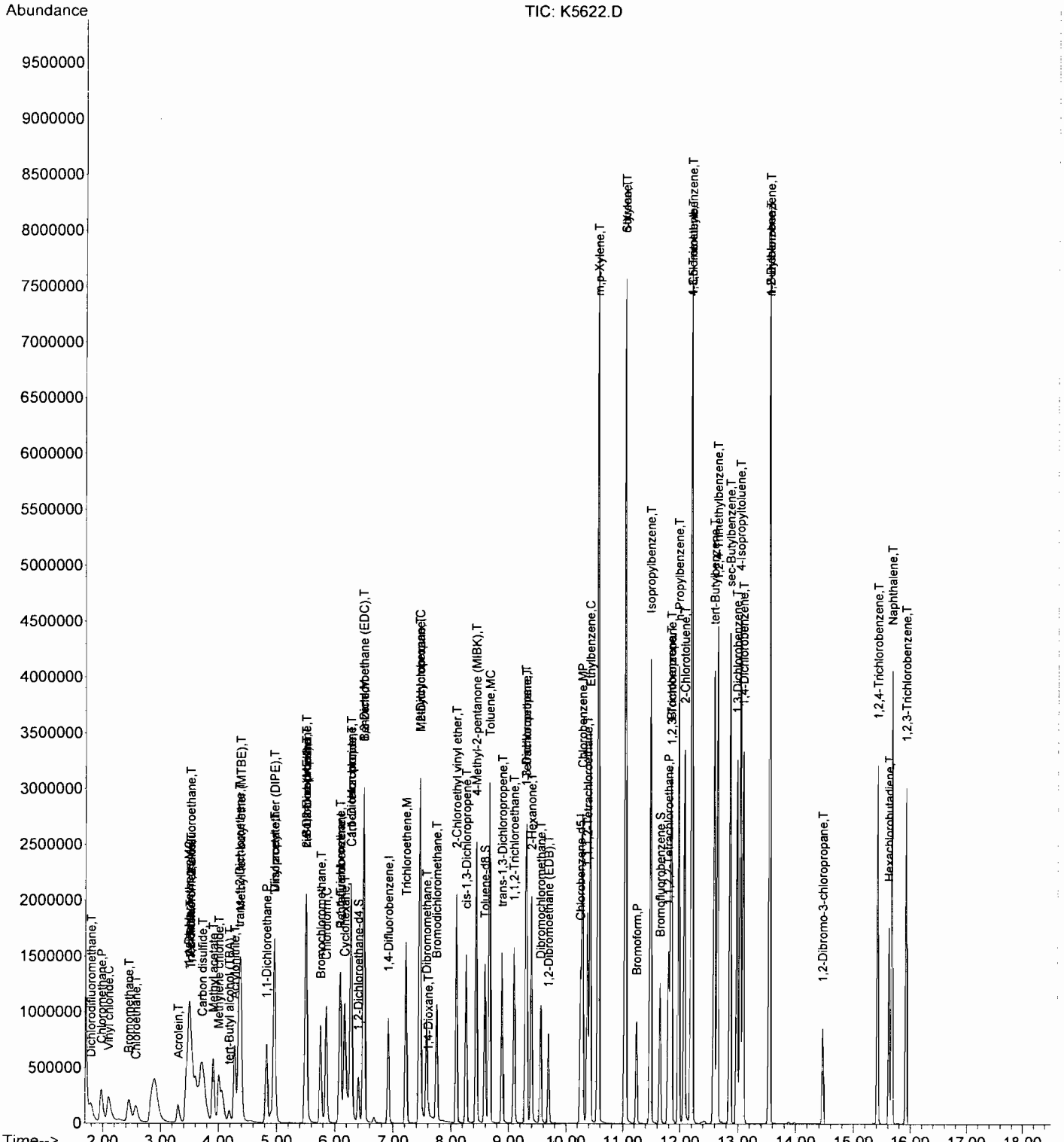
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.39	43	1479699	215.42	UG	#	95
48) Dibromochloromethane	9.55	129	509002m	107.23	UG		
49) 1,2-Dibromoethane (EDB)	9.69	107	562929	107.72	UG		99
51) Chlorobenzene	10.29	112	1597761	101.74	UG		100
52) 1,1,1,2-Tetrachloroethane	10.38	131	577281	107.17	UG	#	70
53) Ethylbenzene	10.42	91	2700748	104.85	UG		99
54) m,p-Xylene	10.56	106	2415034	219.09	UG		95
55) o-Xylene	11.03	106	1206508	117.28	UG		90
56) Styrene	11.04	104	2091045	115.90	UG		99
57) Bromoform	11.24	173	362758m	119.33	UG		
58) Isopropylbenzene	11.48	105	3083152	112.34	UG		100
60) 1,1,2,2-Tetrachloroethane	11.79	83	827564	100.74	UG	#	100
61) Bromobenzene	11.83	156	767491	107.02	UG	#	71
62) 1,2,3-Trichloropropane	11.85	75	762337	101.71	UG	#	85
63) n-Propylbenzene	11.98	91	3493934	107.94	UG		99
64) 2-Chlorotoluene	12.08	91	2016393	105.73	UG		99
65) 1,3,5-Trimethylbenzene	12.19	105	2812441	105.91	UG		100
66) 4-Chlorotoluene	12.20	91	2556545	104.77	UG		99
67) tert-Butylbenzene	12.59	119	2230856	109.96	UG		99
68) 1,2,4-Trimethylbenzene	12.65	105	2715599	112.32	UG		100
69) sec-Butylbenzene	12.86	105	3476431	107.84	UG		100
70) 1,3-Dichlorobenzene	12.98	146	1479510	102.95	UG		99
71) 4-Isopropyltoluene	13.04	119	2859701	107.94	UG		99
72) 1,4-Dichlorobenzene	13.09	146	1513124	104.06	UG		99
73) n-Butylbenzene	13.54	91	2734943	106.79	UG	#	98
74) 1,2-Dichlorobenzene	13.54	146	1573688	106.92	UG		99
75) 1,2-Dibromo-3-chloropropan	14.46	75	201813	109.30	UG	#	37
76) 1,2,4-Trichlorobenzene	15.42	180	974411	108.47	UG		96
77) Hexachlorobutadiene	15.62	225	336224	107.50	UG		100
78) Naphthalene	15.67	128	3001050	109.75	UG		100
79) 1,2,3-Trichlorobenzene	15.92	180	909751	107.38	UG		98
80) 1,1,2-Trichloro-1,2,2-trif	3.52	101	656088	101.11	UG	#	1
81) Methyl acetate	3.91	43	1156376	104.14	UG	#	76
82) Cyclohexane	6.17	56	941813	106.99	UG	#	42
83) Methylcyclohexane	7.46	83	926362	100.15	UG	#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5622.D
Acq On : 16 May 2017 3:14 pm
Operator : BARBARA
Sample : ICV100,ICV170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 19 11:25:28 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5786.D
Acq On : 26 May 2017 12:19 pm
Operator : BARBARA
Sample : CCV100,CCV170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 26 13:18:37 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	0.319	0.276	13.5	93	0.00
3	P	Chloromethane	0.508	0.508	0.0	91	0.02
4	C	Vinyl chloride	0.527	0.494	6.3	96	0.00
5	T	Bromomethane	0.276	0.297	-7.6	114	0.01
6	T	Chloroethane	0.225	0.229	-1.8	95	0.00
7	T	Trichlorofluoromethane	0.568	0.556	2.1	99	0.00
8	T	Acrolein	0.074	0.060	18.9	82	0.00
9	MC	1,1-Dichloroethene	0.600	0.589	1.8	100	0.00
10	T	Acetone	0.339	0.356	-5.0	103	0.00
11	T	Carbon disulfide	1.426	1.404	1.5	97	0.00
12	T	Vinyl acetate	0.883	0.797	9.7	93	0.00
13	T	Methylene chloride	0.442	0.430	2.7	100	0.00
14	T	Acrylonitrile	0.270	0.266	1.5	106	0.00
15	T	tert-Butyl alcohol (TBA)	0.086	0.100	-16.3	125	0.00
16	T	trans-1,2-Dichloroethene	0.415	0.396	4.6	96	0.00
17	T	Methyl tert-butyl ether (MT	1.401	1.382	1.4	96	0.00
18	P	1,1-Dichloroethane	0.783	0.735	6.1	96	0.00
19	T	Diisopropyl ether (DIPE)	1.680	1.636	2.6	95	0.00
20	T	cis-1,2-Dichloroethene	0.473	0.454	4.0	96	0.00
21	T	2,2-Dichloropropane	0.378	0.377	0.3	99	0.00
22	T	2-Butanone (MEK)	0.390	0.387	0.8	98	0.00
23	T	Bromochloromethane	0.248	0.241	2.8	97	0.00
25	C	Chloroform	0.743	0.720	3.1	97	0.00
26	T	1,1,1-Trichloroethane	0.567	0.534	5.8	97	0.00
27	T	Carbon tetrachloride	0.518	0.535	-3.3	97	0.00
28	T	1,1-Dichloropropene	0.612	0.565	7.7	94	0.00
29	T	1,2-Dichloroethane (EDC)	0.676	0.647	4.3	98	0.00
30	S	1,2-Dichloroethane-d4	0.543	0.502	7.6	97	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	101	0.00
32	M	Benzene	1.192	1.156	3.0	95	0.00
33	M	Trichloroethene	0.303	0.296	2.3	95	0.00
34	C	1,2-Dichloropropane	0.316	0.312	1.3	95	0.00
35	T	Dibromomethane	0.200	0.198	1.0	97	0.00
36	T	1,4-Dioxane	0.006	0.006	0.0	129	0.00
37	T	Bromodichloromethane	0.361	0.385	-6.6	96	0.00
38	T	2-Chloroethyl vinyl ether	0.231	0.245	-6.1	94	0.00
39	T	cis-1,3-Dichloropropene	0.429	0.474	-10.5	94	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.532	0.558	-4.9	97	0.00
41	S	Toluene-d8	1.185	1.187	-0.2	98	0.00
42	MC	Toluene	0.778	0.788	-1.3	97	0.00
43	T	trans-1,3-Dichloropropene	0.385	0.456	-18.4	99	0.00
44	T	1,1,2-Trichloroethane	0.244	0.246	-0.8	96	0.00
45	T	Tetrachloroethene	0.356	0.371	-4.2	101	0.00
46	T	1,3-Dichloropropane	0.510	0.519	-1.8	96	0.00

47	T	2-Hexanone	0.408	0.434	-6.4	97	0.00
48	T	Dibromochloromethane	0.282	0.331	-17.4	100	0.00
49	T	1,2-Dibromoethane (EDB)	0.311	0.330	-6.1	98	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
51	MP	Chlorobenzene	0.995	0.980	1.5	99	0.00
52	T	1,1,1,2-Tetrachloroethane	0.341	0.355	-4.1	100	0.00
53	C	Ethylbenzene	1.632	1.638	-0.4	98	0.00
54	T	m,p-Xylene	0.698	0.740	-6.0	99	0.00
55	T	o-Xylene	0.652	0.748	-14.7	114	0.00
56	T	Styrene	1.143	1.296	-13.4	111	0.00
57	P	Bromoform	0.193	0.219	-13.5	99	0.00
58	T	Isopropylbenzene	1.738	1.921	-10.5	101	0.00
59	S	Bromofluorobenzene	0.510	0.535	-4.9	105	0.00
60	P	1,1,2,2-Tetrachloroethane	0.520	0.528	-1.5	101	0.00
61	T	Bromobenzene	0.454	0.487	-7.3	104	0.00
62	T	1,2,3-Trichloropropane	0.475	0.480	-1.1	102	0.00
63	T	n-Propylbenzene	2.050	2.178	-6.2	101	0.00
64	T	2-Chlorotoluene	1.208	1.248	-3.3	101	0.00
65	T	1,3,5-Trimethylbenzene	1.682	1.761	-4.7	103	0.00
66	T	4-Chlorotoluene	1.546	1.605	-3.8	102	0.00
67	T	tert-Butylbenzene	1.285	1.404	-9.3	104	0.00
68	T	1,2,4-Trimethylbenzene	1.531	1.733	-13.2	104	0.00
69	T	sec-Butylbenzene	2.042	2.193	-7.4	104	0.00
70	T	1,3-Dichlorobenzene	0.910	0.968	-6.4	106	0.00
71	T	4-Isopropyltoluene	1.678	1.832	-9.2	105	0.00
72	T	1,4-Dichlorobenzene	0.921	0.991	-7.6	108	0.00
73	T	n-Butylbenzene	1.622	1.738	-7.2	103	0.00
74	T	1,2-Dichlorobenzene	0.932	1.029	-10.4	107	0.00
75	T	1,2-Dibromo-3-chloropropane	0.117	0.125	-6.8	101	0.00
76	T	1,2,4-Trichlorobenzene	0.569	0.650	-14.2	111	0.00
77	T	Hexachlorobutadiene	0.198	0.226	-14.1	112	0.00
78	T	Naphthalene	1.732	1.963	-13.3	109	0.00
79	T	1,2,3-Trichlorobenzene	0.537	0.599	-11.5	111	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.411	0.399	2.9	99	0.00
81	T	Methyl acetate	0.703	0.695	1.1	97	0.00
82	T	Cyclohexane	0.558	0.547	2.0	93	0.00
83	T	Methylcyclohexane	0.586	0.543	7.3	93	0.00

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

K8051617.M Tue May 30 09:40:49 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5786.D
Acq On : 26 May 2017 12:19 pm
Operator : BARBARA
Sample : CCV100,CCV170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 26 13:18:37 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	541212	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	783763	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	753263	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.40	65	271697	46.21	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.42%				
41) Toluene-d8	8.59	98	930010	50.07	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.14%				
59) Bromofluorobenzene	11.65	95	402828	52.43	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	298893	86.53	UG		99
3) Chloromethane	1.98	50	550073	100.03	UG		98
4) Vinyl chloride	2.10	62	534687	93.72	UG		99
5) Bromomethane	2.46	94	321074	107.32	UG		96
6) Chloroethane	2.57	64	247619	101.55	UG		99
7) Trichlorofluoromethane	3.52	101	601400	97.77	UG		97
8) Acrolein	3.31	56	194223	242.66	UG	#	95
9) 1,1-Dichloroethene	3.47	96	637738	98.23	UG	#	76
10) Acetone	3.50	43	769704	209.48	UG	#	98
11) Carbon disulfide	3.73	76	1519699	98.47	UG		100
12) Vinyl acetate	4.96	43	862441	90.22	UG	#	1
13) Methylene chloride	4.00	84	464930	97.24	UG		98
14) Acrylonitrile	4.28	53	864716	295.74	UG	#	100
15) tert-Butyl alcohol (TBA)	4.19	59	217140	231.99	UG		99
16) trans-1,2-Dichloroethene	4.35	96	428311	95.37	UG	#	72
17) Methyl tert-butyl ether (M	4.38	73	1495667	98.64	UG		100
18) 1,1-Dichloroethane	4.83	63	795632	93.90	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	1770878	97.37	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	491229	96.02	UG	#	99
21) 2,2-Dichloropropane	5.51	77	407977	99.75	UG		100
22) 2-Butanone (MEK)	5.51	43	838293	198.44	UG	#	98
23) Bromochloromethane	5.76	128	261164	97.22	UG	#	99
25) Chloroform	5.85	83	779725	96.99	UG		99
26) 1,1,1-Trichloroethane	6.08	97	577675	94.13	UG	#	100
27) Carbon tetrachloride	6.28	117	578896	103.22	UG		96
28) 1,1-Dichloropropene	6.27	75	611563	92.25	UG	#	94
29) 1,2-Dichloroethane (EDC)	6.49	62	699939	95.62	UG		100
32) Benzene	6.50	78	1812163	97.01	UG		100
33) Trichloroethene	7.22	95	463560	97.53	UG	#	100
34) 1,2-Dichloropropane	7.45	63	489794	98.90	UG	#	100
35) Dibromomethane	7.58	93	309636	98.54	UG	#	83
36) 1,4-Dioxane	7.61	88	301521	3436.11	UG		96
37) Bromodichloromethane	7.75	83	603852	106.58	UG	#	66
38) 2-Chloroethyl vinyl ether	8.10	63	768524	212.64	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	742507	110.48	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	1747889	209.64	UG		99
42) Toluene	8.67	92	1235560	101.37	UG		98

43)	trans-1,3-Dichloropropene	8.89	75	714034	118.26	UG		98
44)	1,1,2-Trichloroethane	9.09	83	385734	100.77	UG		97
45)	Tetrachloroethene	9.31	166	581829	104.22	UG		96
46)	1,3-Dichloropropane	9.29	76	813384	101.76	UG		98
47)	2-Hexanone	9.39	43	1362097	212.84	UG	#	94
48)	Dibromochloromethane	9.55	129	518920	117.33	UG		97
49)	1,2-Dibromoethane (EDB)	9.70	107	516659	106.11	UG		98
51)	Chlorobenzene	10.29	112	1476725	98.55	UG		100
52)	1,1,1,2-Tetrachloroethane	10.38	131	534414	103.97	UG	#	69
53)	Ethylbenzene	10.42	91	2468088	100.41	UG		99
54)	m,p-Xylene	10.56	106	2229868	212.00	UG		94
55)	o-Xylene	11.03	106	1126213	114.73	UG		89
56)	Styrene	11.04	104	1951739	113.37	UG		98
57)	Bromoform	11.24	173	330099	113.80	UG		99
58)	Isopropylbenzene	11.48	105	2894031	110.51	UG		100
60)	1,1,2,2-Tetrachloroethane	11.79	83	794945	101.41	UG	#	68
61)	Bromobenzene	11.83	156	733487	107.19	UG	#	40
62)	1,2,3-Trichloropropane	11.85	75	722897	101.07	UG	#	85
63)	n-Propylbenzene	11.98	91	3281617	106.25	UG		99
64)	2-Chlorotoluene	12.08	91	1879803	103.30	UG		99
65)	1,3,5-Trimethylbenzene	12.19	105	2652639	104.68	UG		99
66)	4-Chlorotoluene	12.20	91	2417745	103.84	UG		99
67)	tert-Butylbenzene	12.59	119	2115489	109.27	UG		99
68)	1,2,4-Trimethylbenzene	12.65	105	2611195	113.19	UG		100
69)	sec-Butylbenzene	12.86	105	3303375	107.38	UG		100
70)	1,3-Dichlorobenzene	12.98	146	1458870	106.38	UG		99
71)	4-Isopropyltoluene	13.04	119	2759954	109.18	UG		99
72)	1,4-Dichlorobenzene	13.09	146	1492829	107.60	UG		99
73)	n-Butylbenzene	13.54	91	2618480	107.15	UG	#	98
74)	1,2-Dichlorobenzene	13.54	146	1549660	110.34	UG		98
75)	1,2-Dibromo-3-chloropropan	14.46	75	188237	106.84	UG	#	85
76)	1,2,4-Trichlorobenzene	15.42	180	978998	114.22	UG		96
77)	Hexachlorobutadiene	15.62	225	340056	113.95	UG		100
78)	Naphthalene	15.67	128	2956845	113.32	UG		100
79)	1,2,3-Trichlorobenzene	15.92	180	903088	111.70	UG		98
80)	1,1,2-Trichloro-1,2,2-trif	3.52	101	601400	97.13	UG	#	99
81)	Methyl acetate	3.91	43	1047133	98.82	UG	#	74
82)	Cyclohexane	6.17	56	824570	98.17	UG	#	42
83)	Methylcyclohexane	7.46	83	817520	92.62	UG	#	86

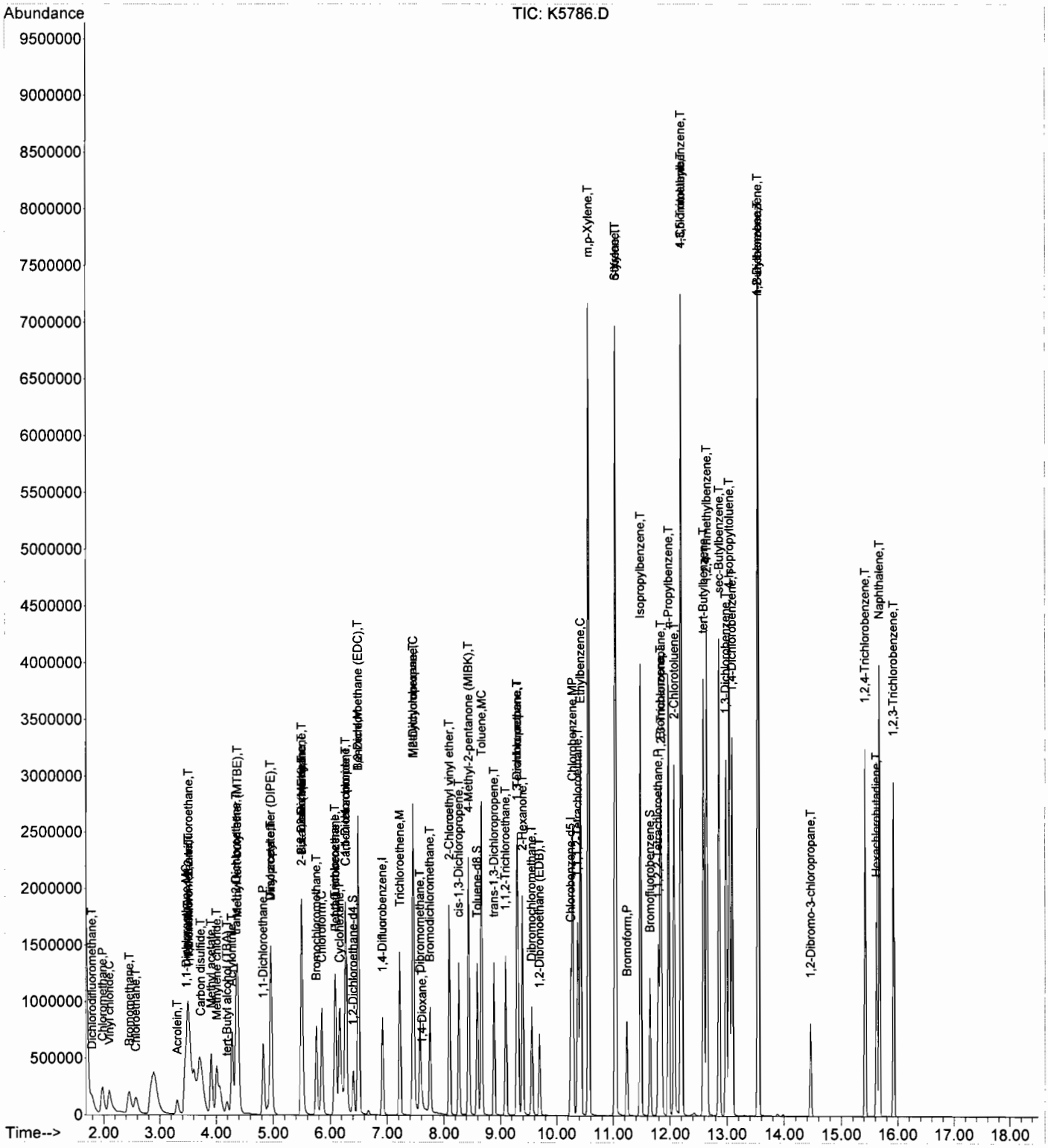
(#) = qualifier out of range (m) = manual integration (+) = signals summed

K8051617.M Thu Jun 15 11:03:53 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5786.D
Acq On : 26 May 2017 12:19 pm
Operator : BARBARA
Sample : CCV100,CCV170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 26 13:18:37 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

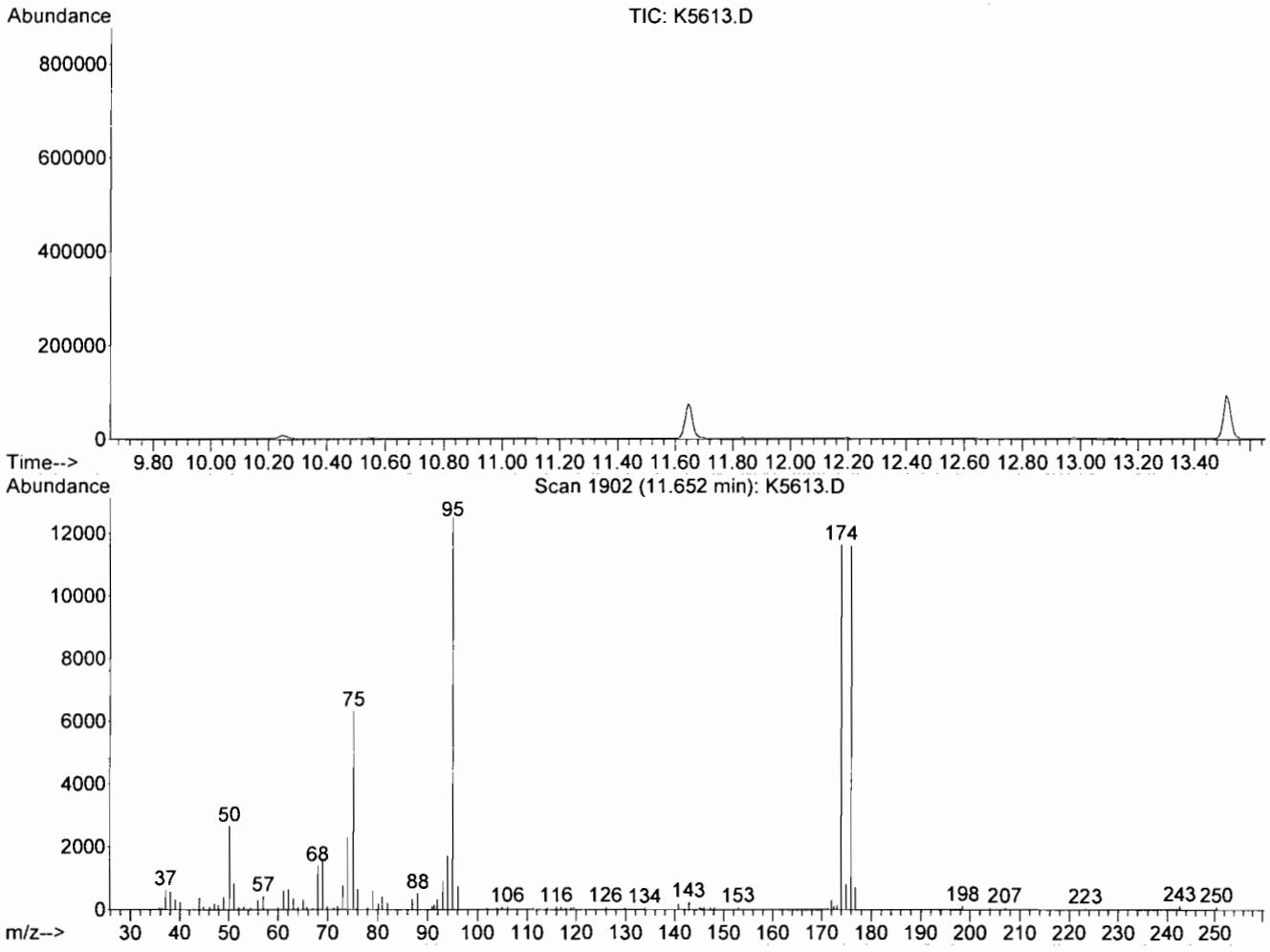


VOLATILE ORGANICS RAW QC DATA

Data Path : C:\MSDChem\1\DATA\05-16-17\
Data File : K5613.D
Acq On : 16 May 2017 11:16 am
Operator : BARBARA
Sample : BFBA170516,BFBA170516,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Tue May 16 14:52:47 2017



Spectrum Information: Scan 1902

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	2662	PASS
75	95	30	60	50.6	6333	PASS
95	95	100	100	100.0	12510	PASS
96	95	5	9	5.9	744	PASS
173	174	0.00	2	1.3	152	PASS
174	95	50	100	92.9	11628	PASS
175	174	5	9	6.9	804	PASS
176	174	95	101	99.6	11584	PASS
177	176	5	9	6.1	709	PASS

Scan 1902 (11.652 min): K5613.D
BFBA170516,BFBA170516,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	68	49.00	389	63.00	350	74.00	2296
36.30	54	50.10	2662	64.00	76	75.10	6333
37.10	628	51.00	845	65.10	325	76.00	647
38.10	570	52.00	77	65.80	96	78.00	71
39.10	314	53.00	104	67.00	55	79.00	584
40.10	241	54.40	60	68.00	1395	80.10	196
44.00	382	55.90	308	69.00	1588	80.90	422
44.90	95	57.00	422	69.90	106	81.90	233
46.10	107	60.00	81	71.20	62	86.90	343
47.10	201	61.10	614	72.00	142	88.00	518
47.90	145	62.10	649	73.00	768	90.90	125

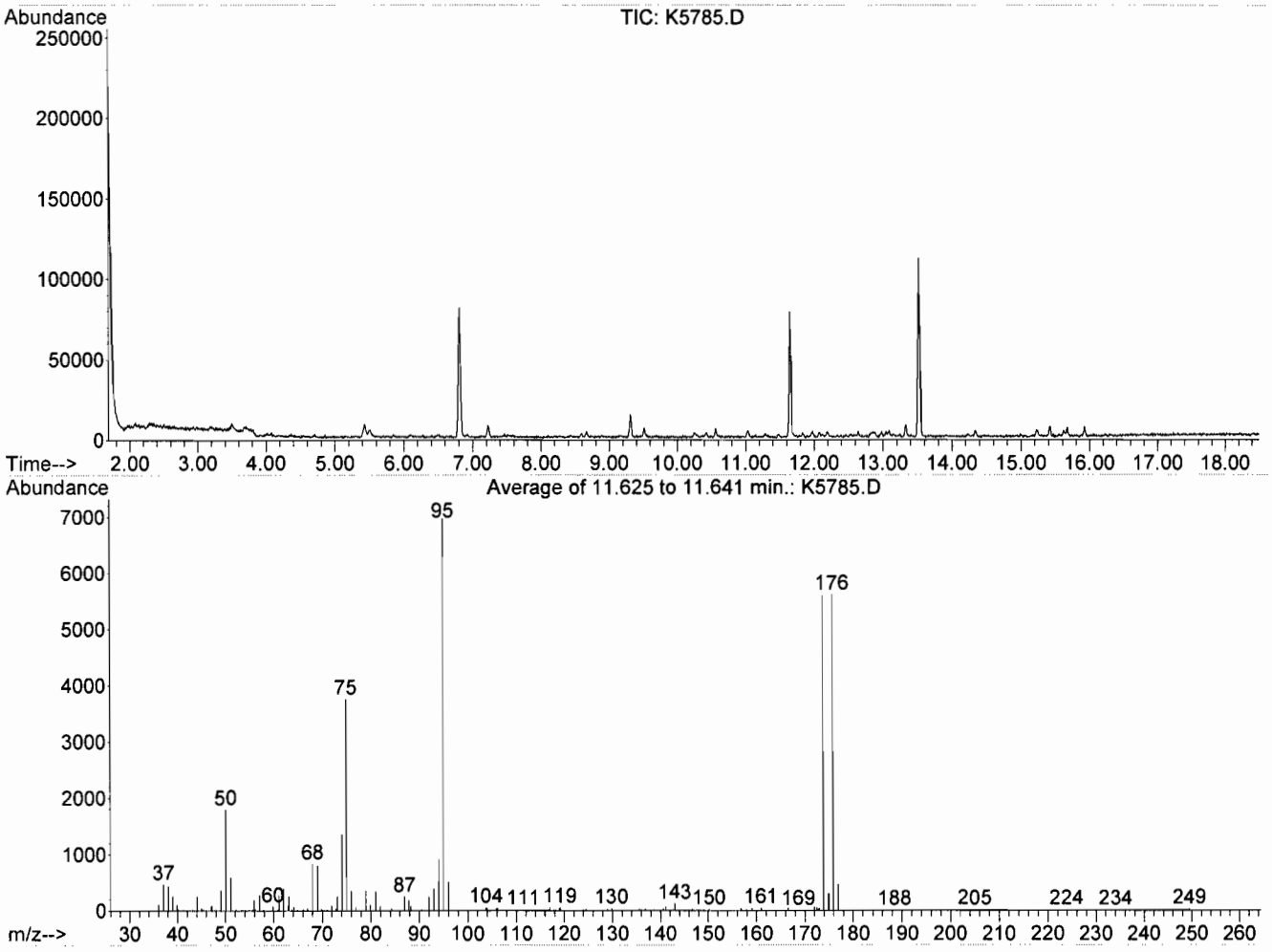
Scan 1902 (11.652 min): K5613.D
BFBA170516,BFBA170516,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.30	158	114.20	55	145.10	78	173.90	11628
91.90	336	116.00	95	145.50	57	174.90	804
93.00	561	116.90	90	146.00	85	176.00	11584
94.00	1720	117.90	62	147.30	72	176.80	709
95.00	12510	119.00	70	148.10	90	198.50	127
96.10	744	119.50	77	153.00	81	203.90	55
101.80	61	126.00	79	157.00	53	207.00	73
103.90	54	129.80	69	171.20	61	223.30	54
104.90	83	133.90	54	172.00	291	242.70	127
106.00	84	140.80	184	172.50	113	250.40	97
111.20	50	142.90	244	173.10	152		

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5785.D
Acq On : 26 May 2017 11:53 am
Operator : BARBARA
Sample : BFBA170526,BFBA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Tue May 16 14:52:47 2017



Spectrum Information: Average of 11.625 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.8	1798	PASS
75	95	30	60	54.0	3763	PASS
95	95	100	100	100.0	6972	PASS
96	95	5	9	7.3	510	PASS
173	174	0.00	2	0.8	45	PASS
174	95	50	100	80.3	5599	PASS
175	174	5	9	5.4	303	PASS
176	174	95	101	100.3	5618	PASS
177	176	5	9	8.2	462	PASS

Average of 11.625 to 11.641 min.: K5785.D
BFBA170526,BFBA170526,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	117	45.40	30	53.50	19	61.05	271
37.05	471	45.90	16	54.10	16	62.00	393
38.05	433	46.90	76	54.80	15	62.95	94
39.00	256	47.10	94	55.00	18	63.15	257
39.90	102	47.60	17	55.60	23	63.70	21
40.10	34	48.00	23	55.95	186	64.10	63
41.20	20	49.05	365	56.20	27	64.90	16
43.10	23	50.05	1798	57.05	271	66.10	22
44.05	259	51.05	596	57.90	18	66.95	49
44.90	45	52.10	24	59.80	75	68.00	832
45.10	33	53.20	14	60.90	20	69.05	802

Average of 11.625 to 11.641 min.: K5785.D
BFBA170526,BFBA170526,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
69.80	29	78.95	354	92.95	387	106.40	15
70.10	23	79.85	105	94.05	910	107.30	21
70.40	18	80.95	342	95.00	6972	107.50	12
71.00	15	81.95	80	96.00	510	109.50	13
71.90	88	84.30	40	98.20	12	111.50	18
72.80	34	85.60	13	100.20	15	112.70	18
73.10	257	86.95	251	102.80	21	114.00	18
74.05	1349	87.85	183	103.75	56	116.80	17
75.05	3763	88.30	85	104.00	45	117.00	57
75.95	348	90.50	22	105.85	37	117.80	17
76.90	52	91.95	239	106.10	44	118.20	16

Average of 11.625 to 11.641 min.: K5785.D
BFBA170526,BFBA170526,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.95	38	136.10	17	148.20	13	167.40	16
119.15	58	136.85	32	150.20	23	168.70	13
123.90	12	138.60	19	150.60	13	171.10	12
124.50	21	140.60	31	153.90	13	171.50	15
129.00	29	141.05	63	154.70	13	171.90	62
129.85	40	142.70	23	154.90	14	172.50	53
130.70	15	143.00	125	156.85	40	172.80	22
134.10	12	143.90	12	157.90	19	173.00	45
134.70	12	146.30	19	159.05	38	173.90	5599
135.60	26	146.70	30	161.00	48	174.90	303
135.80	21	147.70	19	166.55	41	175.10	110

Average of 11.625 to 11.641 min.: K5785.D
BFBA170526,BFBA170526,A,5mL,100

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.90	5618	198.30	14	245.00	17		
176.90	462	199.40	13	249.50	32		
177.70	15	201.00	13	252.00	21		
178.00	15	205.00	18	253.20	16		
180.00	20	206.80	12	254.50	13		
180.70	13	209.10	14				
181.80	13	210.00	16				
184.00	14	223.90	18				
188.50	15	226.80	14				
191.50	14	230.60	12				
193.50	14	234.10	16				

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA170526
Client ID: BLKA170526
Date Received: NA
Date Analyzed: 05/26/2017
Data file: K5789.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		1.00	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA170526
Client ID: BLKA170526
Date Received: NA
Date Analyzed: 05/26/2017
Data file: K5789.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		1.00	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		1.00	0.458
1,3-Dichlorobenzene	ND		1.00	0.351
1,4-Dichlorobenzene	ND		1.00	0.341
1,2-Dichlorobenzene	ND		1.00	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA170526
Client ID: BLKA170526
Date Received: NA
Date Analyzed: 05/26/2017
Data file: K5789.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5789.D
Acq On : 26 May 2017 1:52 pm
Operator : BARBARA
Sample : BLKA170526,BLKA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:41:55 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.10	168	450390	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.92	114	673348	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	609510	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	242675	49.59	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
41) Toluene-d8	8.59	98	776599	48.66	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.32%			
59) Bromofluorobenzene	11.65	95	304015	48.90	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.80%			

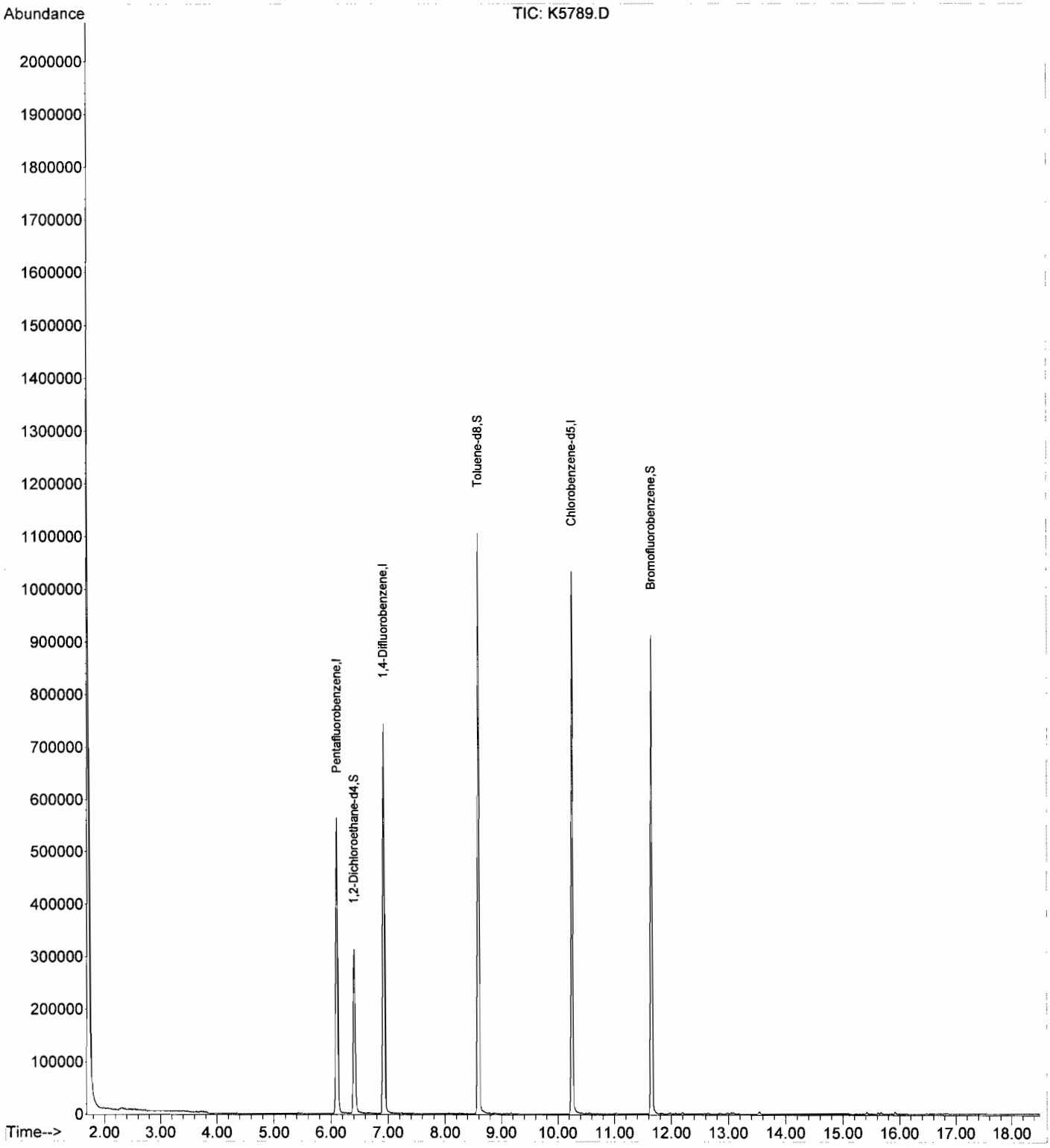
Target Compounds	Qvalue

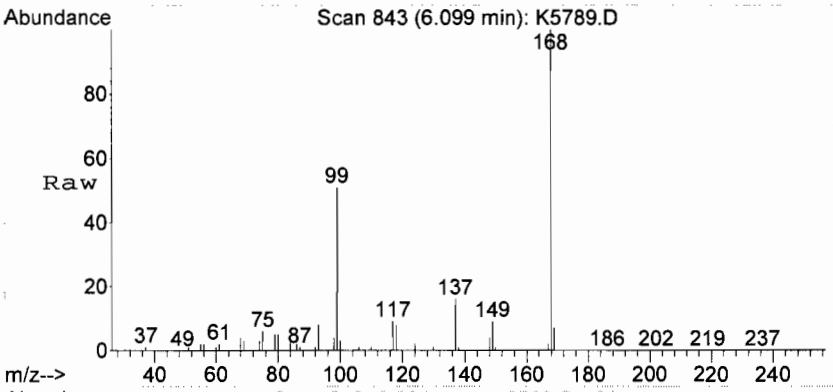
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5789.D
Acq On : 26 May 2017 1:52 pm
Operator : BARBARA
Sample : BLKA170526,BLKA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:41:55 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

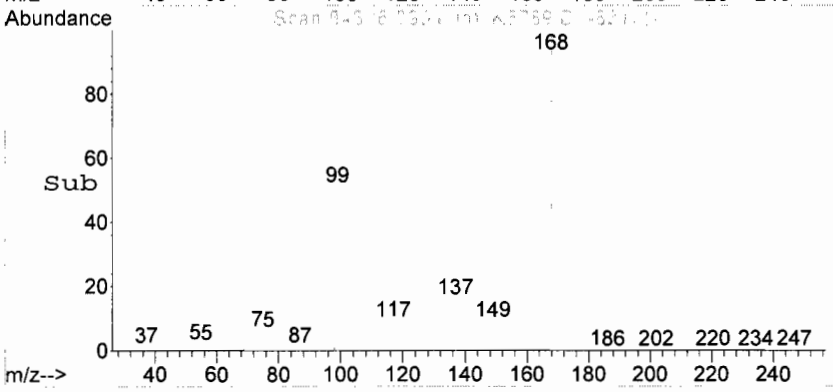


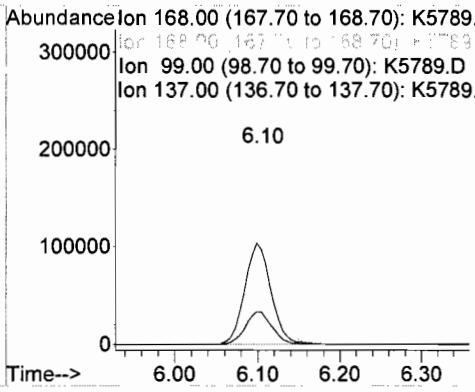


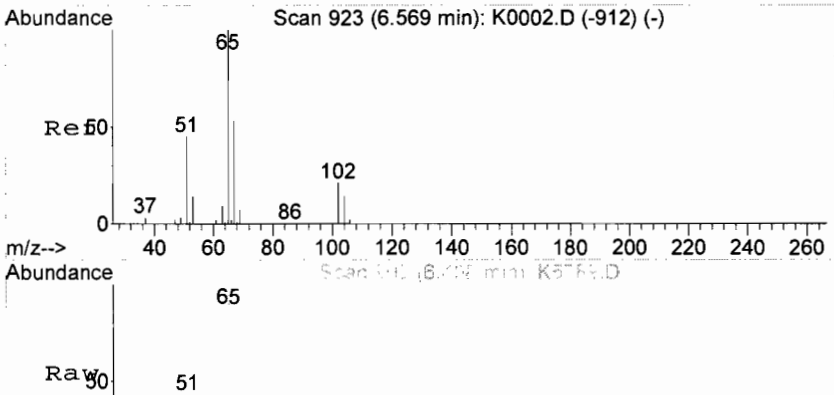
#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.10 min Scan# 843
Delta R.T. 0.01 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion:168 Resp: 450390

Ion	Ratio	Lower	Upper
168	100		
168	100.0	80.0	120.0
99	50.5	45.9	68.9
137	16.3	12.7	19.1



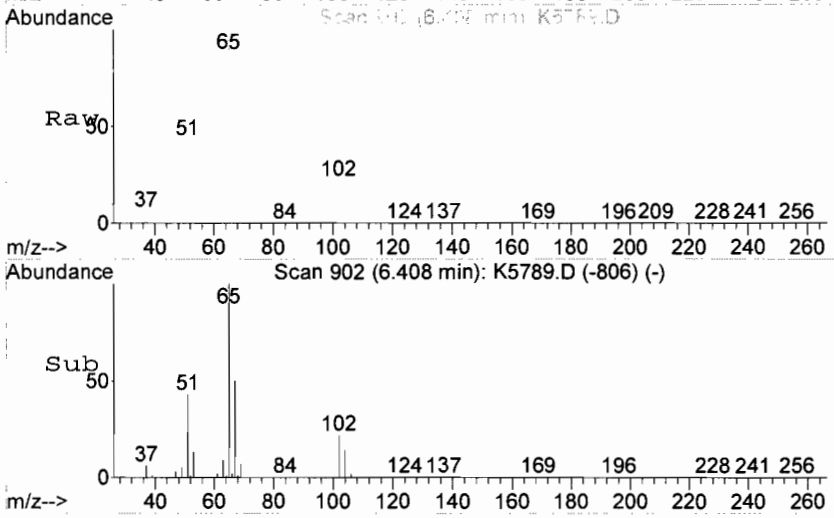


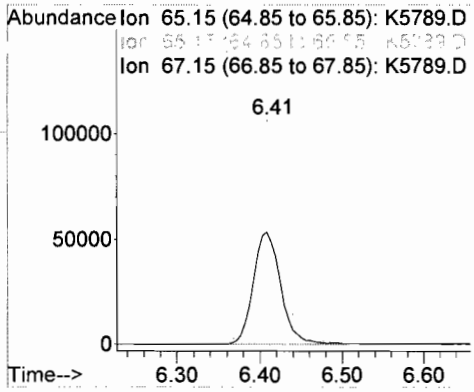


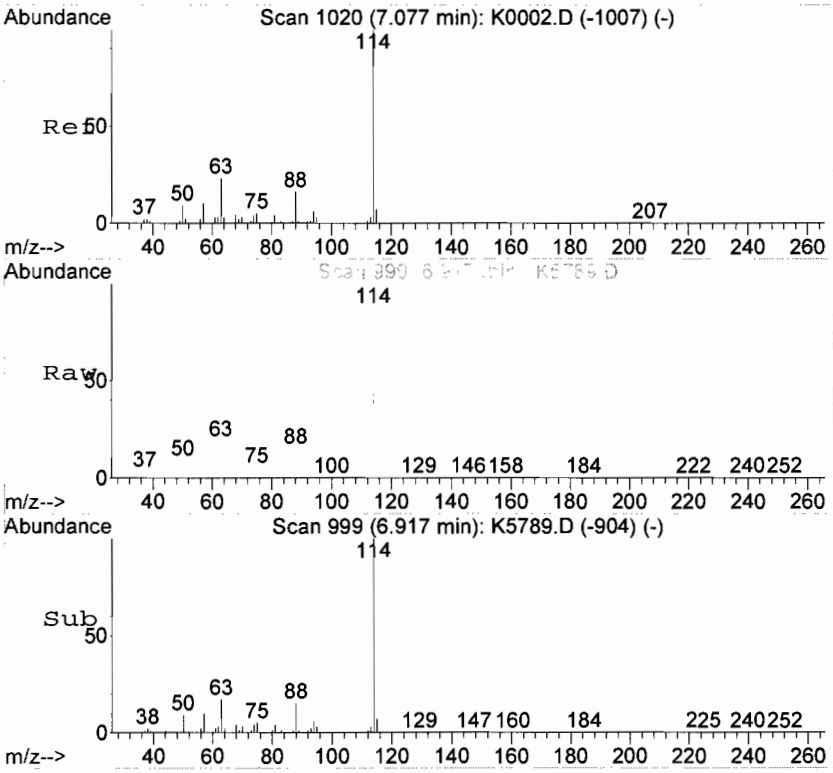
#30
1,2-Dichloroethane-d4
Concen: 49.59 UG
RT: 6.41 min Scan# 902
Delta R.T. 0.01 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion: 65 Resp: 242675

Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
67	51.1	40.4	60.6



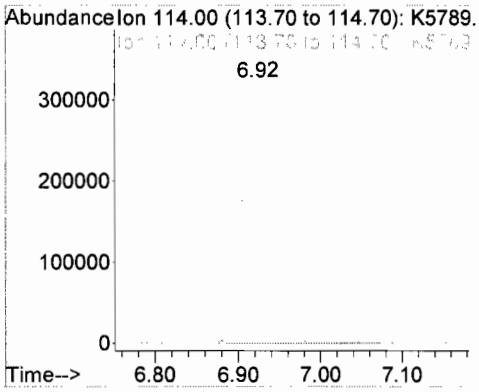


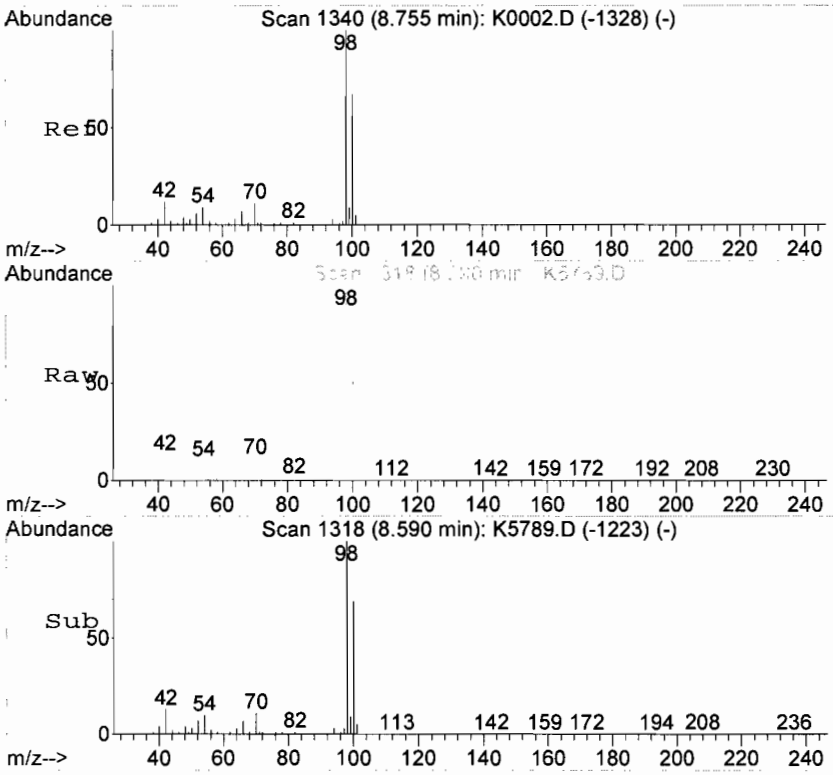


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.92 min Scan# 999
Delta R.T. 0.00 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion:114 Resp: 673348

Ion	Ratio	Lower	Upper
114	100		
114	100.0	80.0	120.0

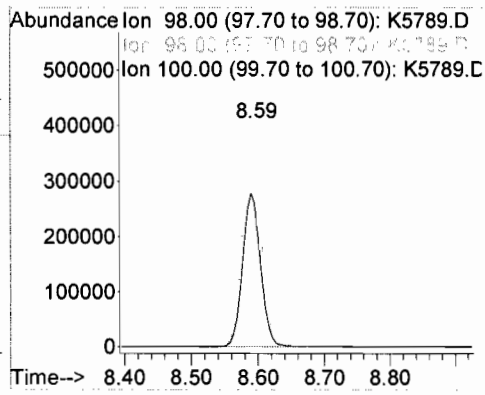


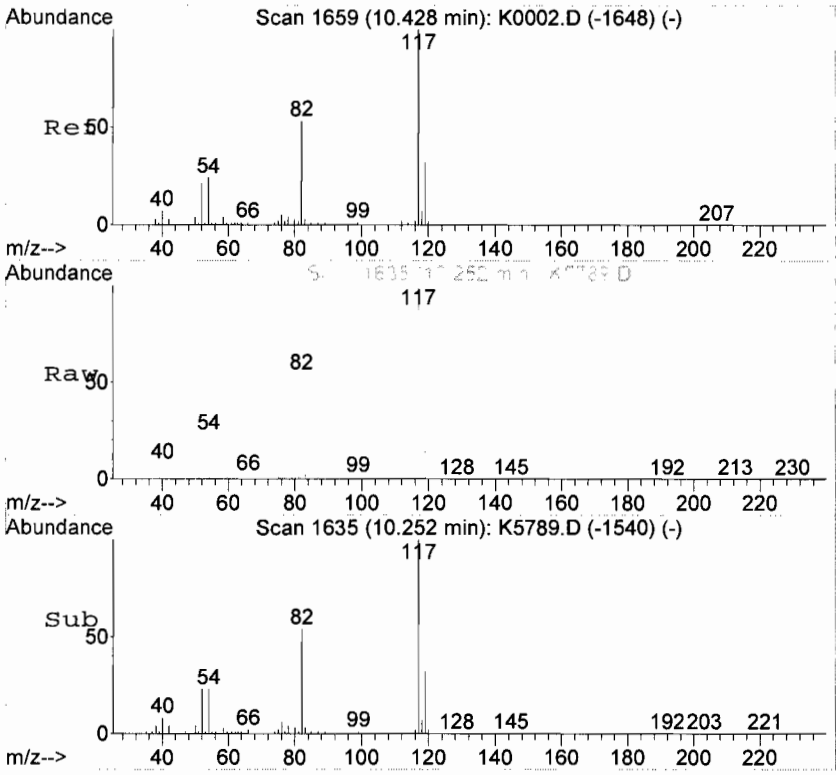


#41
Toluene-d8
Concen: 48.66 UG
RT: 8.59 min Scan# 1318
Delta R.T. 0.00 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion: 98 Resp: 776599

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	67.5	51.6	77.4

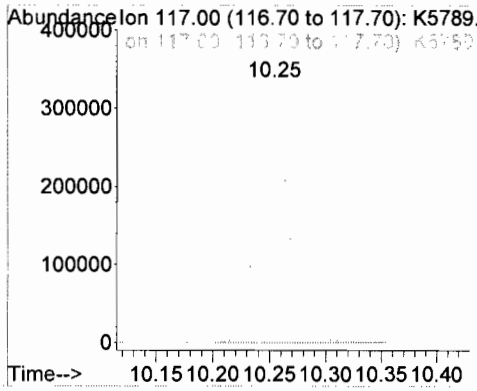


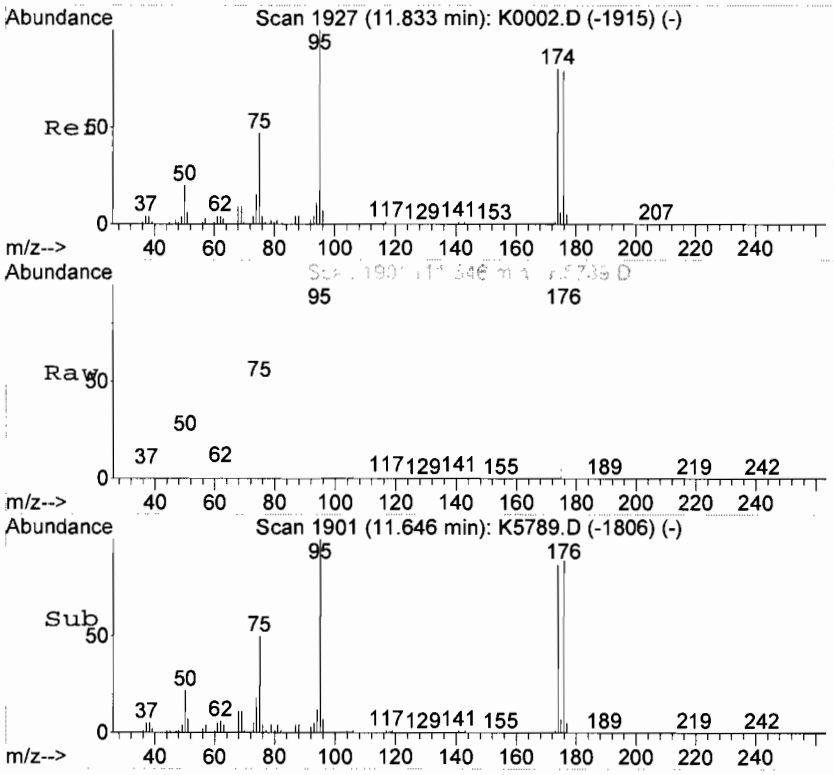


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.25 min Scan# 1635
Delta R.T. 0.00 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion:117 Resp: 609510

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0

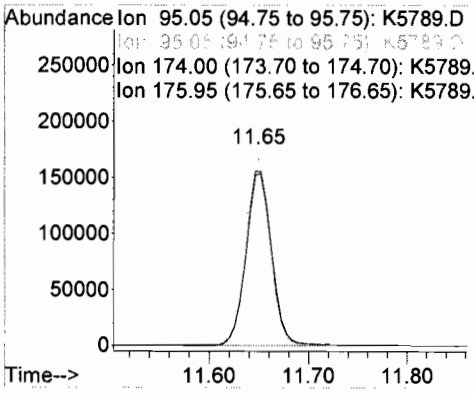




#59
Bromofluorobenzene
Concen: 48.90 UG
RT: 11.65 min Scan# 1901
Delta R.T. 0.00 min
Lab File: K5789.D
Acq: 26 May 2017 1:52 pm

Tgt Ion: 95 Resp: 304015

Ion	Ratio	Lower	Upper
95	100		
95	100.0	80.0	120.0
174	0.0	61.4	92.0#
176	0.0	59.3	88.9#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5789.D
Acq On : 26 May 2017 1:52 pm
Operator : BARBARA
Sample : BLKA170526,BLKA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8051617.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.983	54	58	99	rVB	4527	35843	1.67%	0.382%
2	2.324	115	123	208	rVB	6610	102365	4.78%	1.092%
3	3.011	231	254	307	rVV2	2571	34300	1.60%	0.366%
4	6.099	831	843	870	rBV	562515	1260929	58.83%	13.454%
5	6.403	890	901	938	rVB2	311006	730713	34.09%	7.797%
6	6.917	985	999	1038	rBV	741481	1544069	72.04%	16.475%
7	8.590	1305	1318	1352	rBV	1104401	2143280	100.00%	22.868%
8	10.252	1625	1635	1660	rBV	1031244	1895851	88.46%	20.228%
9	11.646	1890	1901	1929	rBV	910812	1624904	75.81%	17.337%

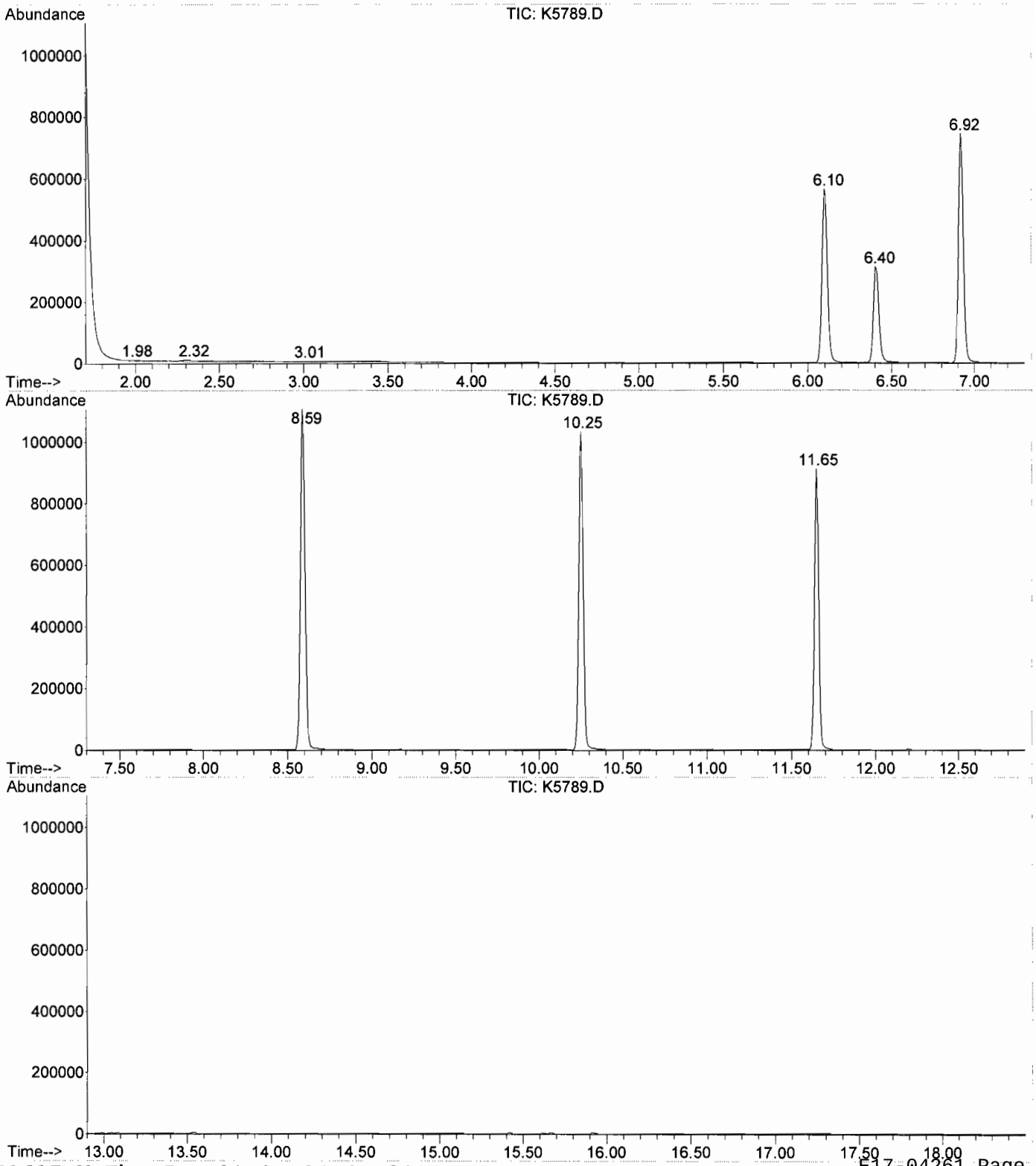
Sum of corrected areas: 9372254

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5789.D
Acq On : 26 May 2017 1:52 pm
Operator : BARBARA
Sample : BLKA170526,BLKA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5795.D
Acq On : 26 May 2017 4:37 pm
Operator : BARBARA
Sample : LCSA170526,LCSA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 09:46:14 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	598270	50.00	UG		0.01
31) 1,4-Difluorobenzene	6.92	114	845246	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	774227	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.41	65	280758	43.19	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.38%				
41) Toluene-d8	8.59	98	996688	49.75	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%				
59) Bromofluorobenzene	11.65	95	413421	52.35	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.79	85	186462	48.84	UG		99
3) Chloromethane	1.98	50	263258	43.31	UG		98
4) Vinyl chloride	2.11	62	272598	43.22	UG		98
5) Bromomethane	2.47	94	153309	46.36	UG		96
6) Chloroethane	2.60	64	171997	63.81	UG		100
7) Trichlorofluoromethane	3.54	101	288770	42.47	UG		97
8) Acrolein	3.31	56	35831	40.50	UG	#	60
9) 1,1-Dichloroethene	3.48	96	300422	41.86	UG	#	25
10) Acetone	3.89	43	349783	86.12	UG		99
11) Carbon disulfide	3.75	76	829643	48.63	UG		100
12) Vinyl acetate	4.96	43	577755	54.68	UG		99
13) Methylene chloride	4.02	84	268987	50.89	UG		98
14) Acrylonitrile	4.28	53	466985	144.48	UG	#	100
15) tert-Butyl alcohol (TBA)	4.16	59	101991	98.57	UG		99
16) trans-1,2-Dichloroethene	4.36	96	235584	47.46	UG	#	97
17) Methyl tert-butyl ether (M	4.38	73	762415	45.49	UG		100
18) 1,1-Dichloroethane	4.83	63	443255	47.32	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	969161	48.21	UG	#	74
20) cis-1,2-Dichloroethene	5.50	96	261039	46.16	UG	#	99
21) 2,2-Dichloropropane	5.51	77	216726	47.94	UG		100
22) 2-Butanone (MEK)	5.51	43	423472	90.68	UG	#	98
23) Bromochloromethane	5.76	128	136108	45.84	UG	#	100
25) Chloroform	5.85	83	425261	47.85	UG		99
26) 1,1,1-Trichloroethane	6.09	97	316184	46.61	UG	#	100
27) Carbon tetrachloride	6.29	117	291375	47.00	UG		96
28) 1,1-Dichloropropene	6.27	75	333468	45.50	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	366100	45.24	UG		99
32) Benzene	6.50	78	963753	47.84	UG		100
33) Trichloroethene	7.22	95	247289	48.24	UG	#	100
34) 1,2-Dichloropropane	7.45	63	251390	47.07	UG	#	100
35) Dibromomethane	7.58	93	158265	46.71	UG	#	80
36) 1,4-Dioxane	7.62	88	114041	1205.07	UG		99
37) Bromodichloromethane	7.76	83	301760	49.38	UG	#	98
38) 2-Chloroethyl vinyl ether	8.10	63	414983	106.47	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	322651	44.52	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	905329	100.69	UG		99
42) Toluene	8.67	92	627866	47.77	UG		96

43)	trans-1,3-Dichloropropene	8.89	75	304144	46.71	UG		99
44)	1,1,2-Trichloroethane	9.09	83	201227	48.74	UG		97
45)	Tetrachloroethene	9.31	166	303729	50.45	UG		97
46)	1,3-Dichloropropane	9.29	76	420931	48.83	UG		99
47)	2-Hexanone	9.39	43	742218	107.54	UG	#	95
48)	Dibromochloromethane	9.55	129	232908	48.83	UG		98
49)	1,2-Dibromoethane (EDB)	9.69	107	272911	51.97	UG		98
51)	Chlorobenzene	10.29	112	748706	48.61	UG		100
52)	1,1,1,2-Tetrachloroethane	10.38	131	264562	50.08	UG	#	60
53)	Ethylbenzene	10.42	91	1233829	48.84	UG		99
54)	m,p-Xylene	10.56	106	1067356	98.73	UG		94
55)	o-Xylene	11.03	106	529515	52.48	UG		89
56)	Styrene	11.04	104	891944	50.41	UG		99
57)	Bromoform	11.24	173	148718	49.88	UG	#	100
58)	Isopropylbenzene	11.48	105	1385319	51.47	UG		100
60)	1,1,2,2-Tetrachloroethane	11.79	83	394911	49.02	UG	#	100
61)	Bromobenzene	11.84	156	361802	51.44	UG		96
62)	1,2,3-Trichloropropane	11.85	75	370643	50.42	UG	#	85
63)	n-Propylbenzene	11.98	91	1571748	49.51	UG		99
64)	2-Chlorotoluene	12.07	91	917585	49.06	UG		99
65)	1,3,5-Trimethylbenzene	12.19	105	1189291	45.66	UG		99
66)	4-Chlorotoluene	12.20	91	1097484	45.86	UG		99
67)	tert-Butylbenzene	12.59	119	976016	49.05	UG		99
68)	1,2,4-Trimethylbenzene	12.64	105	1208042	50.95	UG		99
69)	sec-Butylbenzene	12.86	105	1499549	47.43	UG		99
70)	1,3-Dichlorobenzene	12.98	146	690259	48.97	UG		98
71)	4-Isopropyltoluene	13.04	119	1252864	48.22	UG		99
72)	1,4-Dichlorobenzene	13.09	146	697693	48.92	UG		99
73)	n-Butylbenzene	13.54	91	1155010	45.98	UG	#	98
74)	1,2-Dichlorobenzene	13.54	146	699323	48.45	UG		99
75)	1,2-Dibromo-3-chloropropan	14.46	75	91094	50.30	UG	#	37
76)	1,2,4-Trichlorobenzene	15.42	180	482670	54.79	UG		96
77)	Hexachlorobutadiene	15.62	225	162953	53.12	UG		100
78)	Naphthalene	15.67	128	1389570	51.81	UG		100
79)	1,2,3-Trichlorobenzene	15.92	180	449730	54.12	UG		98
80)	1,1,2-Trichloro-1,2,2-trif	3.54	101	288770	45.37	UG	#	99
81)	Methyl acetate	3.91	43	525324	48.24	UG	#	76
82)	Cyclohexane	6.17	56	451819	52.33	UG	#	43
83)	Methylcyclohexane	7.46	83	438886	48.38	UG	#	85

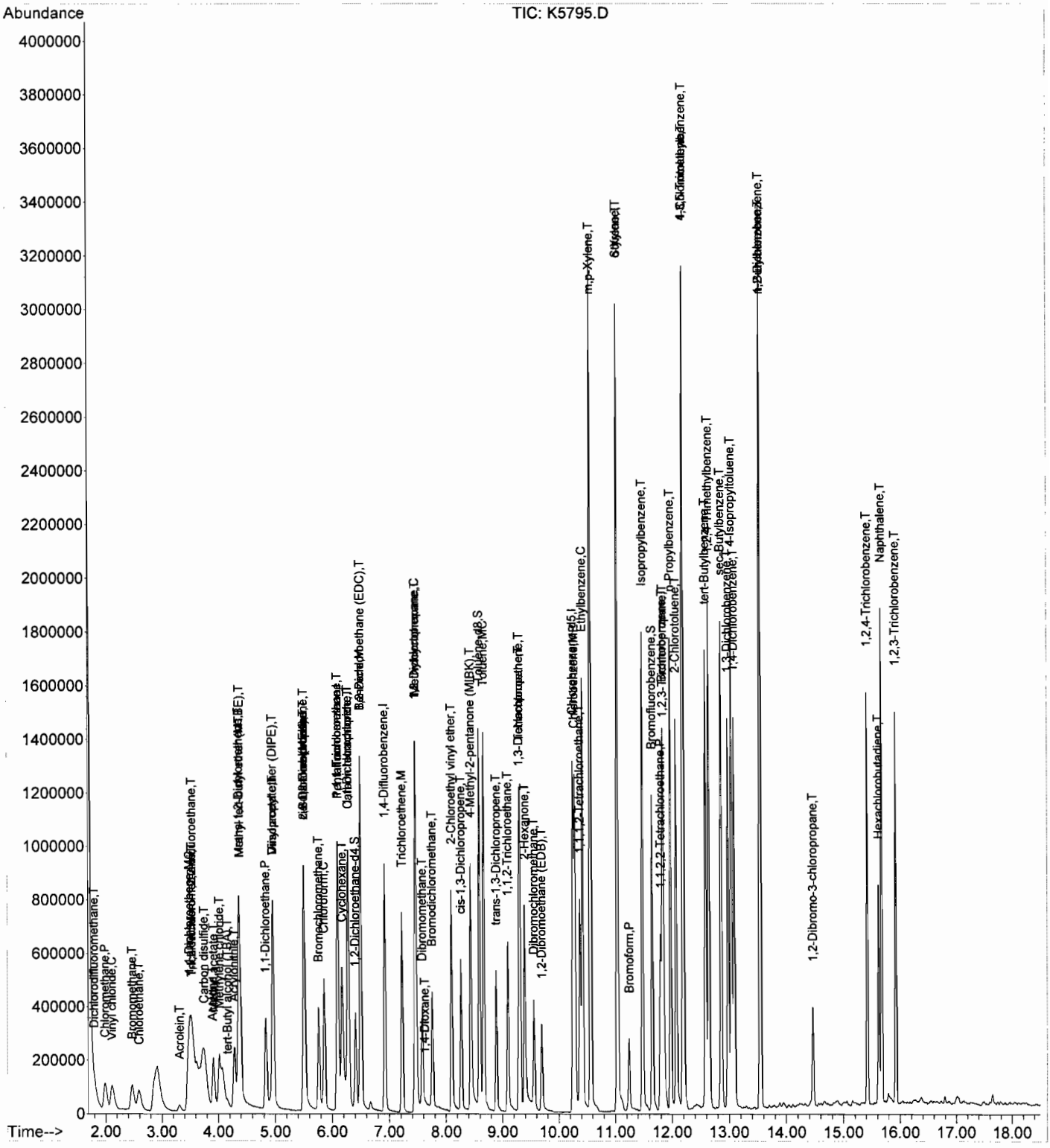
(#) = qualifier out of range (m) = manual integration (+) = signals summed

K8051617.M Thu Jun 15 11:05:19 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5795.D
Acq On : 26 May 2017 4:37 pm
Operator : BARBARA
Sample : LCSA170526,LCSA170526,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 09:46:14 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5796.D
Acq On : 26 May 2017 5:04 pm
Operator : BARBARA
Sample : MSD-MW3,E17-04261-003,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 09:49:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	640971	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.92	114	891141	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	818105	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.41	65	304146	43.68	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.36%				
41) Toluene-d8	8.59	98	1067573	50.55	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%				
59) Bromofluorobenzene	11.65	95	435920	52.24	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.48%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.80	85	182299	44.56	UG		100
3) Chloromethane	1.98	50	254191	39.03	UG		98
4) Vinyl chloride	2.10	62	264012	39.07	UG		98
5) Bromomethane	2.47	94	158878	44.84	UG		96
6) Chloroethane	2.59	64	178455	61.80	UG		100
7) Trichlorofluoromethane	3.55	101	293374	40.27	UG		98
9) 1,1-Dichloroethene	3.49	96	310833	40.43	UG	#	25
10) Acetone	3.50	43	311786	71.65	UG		100
11) Carbon disulfide	3.75	76	837213	45.80	UG		100
13) Methylene chloride	4.01	84	276080	48.75	UG		98
14) Acrylonitrile	4.28	53	506827	146.36	UG	#	100
15) tert-Butyl alcohol (TBA)	4.16	59	80974	73.05	UG	#	98
16) trans-1,2-Dichloroethene	4.35	96	235949	44.36	UG	#	97
17) Methyl tert-butyl ether (M	4.38	73	796721	44.37	UG		100
18) 1,1-Dichloroethane	4.84	63	443296	44.18	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	980775	45.53	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	271876	44.87	UG	#	99
21) 2,2-Dichloropropane	5.51	77	211829	43.73	UG		99
22) 2-Butanone (MEK)	5.51	43	468319	93.61	UG	#	98
23) Bromochloromethane	5.76	128	142575	44.81	UG	#	38
25) Chloroform	5.85	83	430453	45.21	UG		100
26) 1,1,1-Trichloroethane	6.09	97	313317	43.11	UG	#	100
27) Carbon tetrachloride	6.28	117	279469	42.08	UG		97
28) 1,1-Dichloropropene	6.27	75	336575	42.87	UG	#	59
29) 1,2-Dichloroethane (EDC)	6.49	62	376590	43.44	UG		100
32) Benzene	6.50	78	970643	45.70	UG		100
33) Trichloroethene	7.22	95	248700	46.02	UG	#	100
34) 1,2-Dichloropropane	7.45	63	259585	46.10	UG	#	100
35) Dibromomethane	7.58	93	165707	46.38	UG	#	80
36) 1,4-Dioxane	7.61	88	145622	1459.54	UG		99
37) Bromodichloromethane	7.76	83	308827	47.94	UG	#	66
38) 2-Chloroethyl vinyl ether	8.10	63	425969	103.66	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	348228	45.57	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	967753	102.09	UG		99
42) Toluene	8.67	92	648445	46.79	UG		98
43) trans-1,3-Dichloropropene	8.89	75	323160	47.07	UG		99
44) 1,1,2-Trichloroethane	9.10	83	206382	47.42	UG	#	80

45)	Tetrachloroethene	9.31	166	310680	48.95	UG		97
46)	1,3-Dichloropropane	9.29	76	438318	48.23	UG		99
47)	2-Hexanone	9.39	43	766113	105.29	UG	#	95
48)	Dibromochloromethane	9.55	129	242713	48.27	UG		97
49)	1,2-Dibromoethane (EDB)	9.69	107	283697	51.25	UG		98
51)	Chlorobenzene	10.28	112	762542	46.85	UG		100
52)	1,1,1,2-Tetrachloroethane	10.38	131	273937	49.07	UG	#	69
53)	Ethylbenzene	10.42	91	1236561	46.32	UG		99
54)	m,p-Xylene	10.56	106	1069820	93.65	UG		95
55)	o-Xylene	11.03	106	531888	49.89	UG		89
56)	Styrene	11.04	104	906979	48.51	UG		99
57)	Bromoform	11.24	173	157158	49.89	UG	#	100
58)	Isopropylbenzene	11.48	105	1398759	49.18	UG		100
60)	1,1,2,2-Tetrachloroethane	11.79	83	419648	49.29	UG	#	99
61)	Bromobenzene	11.83	156	373925	50.31	UG	#	69
62)	1,2,3-Trichloropropane	11.85	75	379770	48.89	UG	#	85
63)	n-Propylbenzene	11.98	91	1575463	46.97	UG		99
64)	2-Chlorotoluene	12.07	91	931422	47.13	UG		99
65)	1,3,5-Trimethylbenzene	12.19	105	1210728	43.99	UG		99
66)	4-Chlorotoluene	12.20	91	1111331	43.95	UG		99
67)	tert-Butylbenzene	12.59	119	984243	46.81	UG		99
68)	1,2,4-Trimethylbenzene	12.65	105	1220109	48.70	UG		99
69)	sec-Butylbenzene	12.86	105	1518051	45.44	UG		99
70)	1,3-Dichlorobenzene	12.98	146	704170	47.28	UG		99
71)	4-Isopropyltoluene	13.04	119	1271494	46.31	UG		99
72)	1,4-Dichlorobenzene	13.09	146	705924	46.85	UG		100
73)	n-Butylbenzene	13.54	91	1164585	43.88	UG	#	98
74)	1,2-Dichlorobenzene	13.54	146	714544	46.85	UG		99
75)	1,2-Dibromo-3-chloropropan	14.47	75	95368	49.84	UG	#	84
76)	1,2,4-Trichlorobenzene	15.42	180	503016	54.03	UG		97
77)	Hexachlorobutadiene	15.62	225	172121	53.10	UG		100
78)	Naphthalene	15.67	128	1466780	51.76	UG		100
79)	1,2,3-Trichlorobenzene	15.92	180	474941	54.09	UG		98
80)	1,1,2-Trichloro-1,2,2-trif	3.55	101	293374	43.62	UG	#	99
81)	Methyl acetate	3.91	43	589253	51.20	UG		79
82)	Cyclohexane	6.17	56	459603	50.38	UG		42
83)	Methylcyclohexane	7.46	83	447372	46.67	UG	#	86

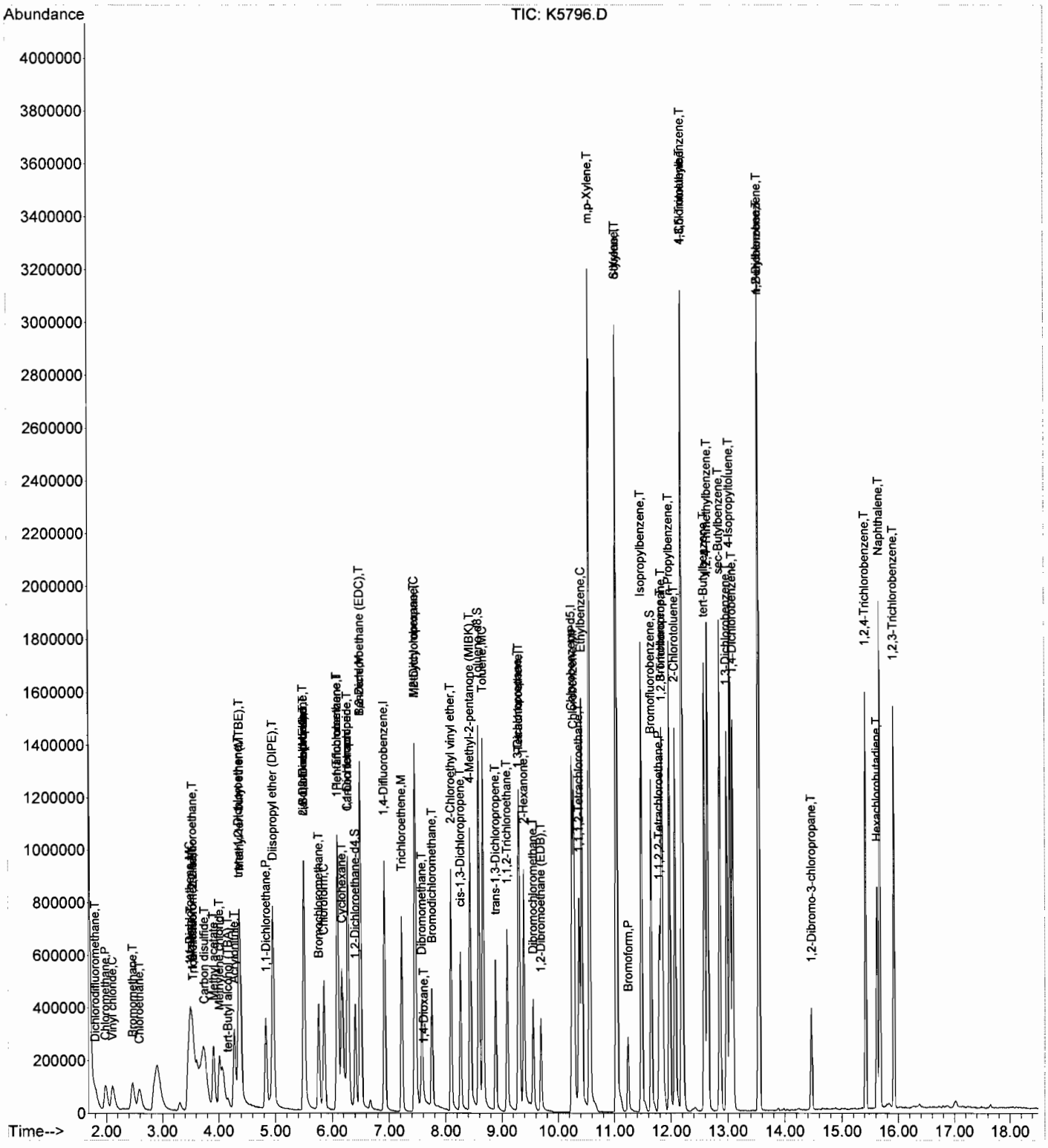
(#) = qualifier out of range (m) = manual integration (+) = signals summed

K8051617.M Thu Jun 15 11:06:30 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5796.D
Acq On : 26 May 2017 5:04 pm
Operator : BARBARA
Sample : MSD-MW3,E17-04261-003,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 09:49:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5797.D
Acq On : 26 May 2017 5:31 pm
Operator : BARBARA
Sample : MS-MW3,E17-04261-004,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 09:52:19 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.10	168	659250	50.00	UG		0.01
31) 1,4-Difluorobenzene	6.92	114	915443	50.00	UG		0.00
50) Chlorobenzene-d5	10.25	117	845787	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.41	65	318159	44.42	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.84%				
41) Toluene-d8	8.59	98	1095027	50.47	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.94%				
59) Bromofluorobenzene	11.65	95	444528	51.53	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.06%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.80	85	181894	43.23	UG		99
3) Chloromethane	1.98	50	252368	37.67	UG		98
4) Vinyl chloride	2.11	62	269920	38.84	UG		99
5) Bromomethane	2.46	94	170131	46.68	UG		96
6) Chloroethane	2.59	64	180461	60.76	UG		100
7) Trichlorofluoromethane	3.54	101	306933	40.96	UG		96
9) 1,1-Dichloroethene	3.48	96	331980	41.98	UG	#	87
10) Acetone	3.49	43	347917	77.73	UG	#	90
11) Carbon disulfide	3.74	76	886505	47.16	UG		100
12) Vinyl acetate	4.96	43	537087	46.13	UG	#	1
13) Methylene chloride	4.02	84	282656	48.53	UG	#	70
14) Acrylonitrile	4.28	53	527138	148.01	UG	#	100
15) tert-Butyl alcohol (TBA)	4.17	59	95986	84.19	UG	#	93
16) trans-1,2-Dichloroethene	4.36	96	237659	43.45	UG	#	97
17) Methyl tert-butyl ether (M	4.38	73	807235	43.71	UG		100
18) 1,1-Dichloroethane	4.83	63	454421	44.03	UG	#	100
19) Diisopropyl ether (DIPE)	4.96	45	977172	44.11	UG	#	46
20) cis-1,2-Dichloroethene	5.50	96	281779	45.22	UG	#	99
21) 2,2-Dichloropropane	5.51	77	202666	40.68	UG		99
22) 2-Butanone (MEK)	5.51	43	494549	96.11	UG	#	98
23) Bromochloromethane	5.76	128	144859	44.27	UG	#	38
25) Chloroform	5.85	83	442648	45.20	UG		99
26) 1,1,1-Trichloroethane	6.09	97	312118	41.75	UG	#	100
27) Carbon tetrachloride	6.29	117	277298	40.59	UG		96
28) 1,1-Dichloropropene	6.27	75	342740	42.44	UG	#	95
29) 1,2-Dichloroethane (EDC)	6.49	62	380746	42.70	UG		100
32) Benzene	6.50	78	1001091	45.88	UG		100
33) Trichloroethene	7.22	95	251787	45.35	UG	#	100
34) 1,2-Dichloropropane	7.45	63	264492	45.72	UG	#	100
35) Dibromomethane	7.58	93	169809	46.27	UG	#	81
36) 1,4-Dioxane	7.61	88	167282	1632.12	UG		99
37) Bromodichloromethane	7.76	83	320716	48.46	UG	#	97
38) 2-Chloroethyl vinyl ether	8.10	63	437857	103.72	UG	#	100
39) cis-1,3-Dichloropropene	8.26	75	358955	45.73	UG		99
40) 4-Methyl-2-pentanone (MIBK	8.44	43	1000187	102.71	UG		99
42) Toluene	8.67	92	663988	46.64	UG		98
43) trans-1,3-Dichloropropene	8.89	75	330141	46.81	UG	#	98

44)	1,1,2-Trichloroethane	9.09	83	208337	46.60	UG		98
45)	Tetrachloroethene	9.31	166	317880	48.75	UG		97
46)	1,3-Dichloropropane	9.29	76	445621	47.73	UG		99
47)	2-Hexanone	9.39	43	783629	104.83	UG	#	94
48)	Dibromochloromethane	9.56	129	247520	47.91	UG		98
49)	1,2-Dibromoethane (EDB)	9.69	107	291885	51.32	UG		99
51)	Chlorobenzene	10.29	112	781461	46.44	UG		100
52)	1,1,1,2-Tetrachloroethane	10.38	131	282269	48.91	UG	#	70
53)	Ethylbenzene	10.42	91	1271981	46.09	UG		99
54)	m,p-Xylene	10.56	106	1099564	93.10	UG		94
55)	o-Xylene	11.03	106	553166	50.19	UG		89
56)	Styrene	11.04	104	936971	48.47	UG		98
57)	Bromoform	11.24	173	159732	49.04	UG	#	100
58)	Isopropylbenzene	11.48	105	1428577	48.59	UG		100
60)	1,1,2,2-Tetrachloroethane	11.79	83	427148	48.53	UG	#	99
61)	Bromobenzene	11.83	156	382711	49.81	UG	#	40
62)	1,2,3-Trichloropropane	11.85	75	389869	48.55	UG	#	85
63)	n-Propylbenzene	11.98	91	1621290	46.75	UG		99
64)	2-Chlorotoluene	12.08	91	958550	46.91	UG		98
65)	1,3,5-Trimethylbenzene	12.19	105	1242957	43.69	UG		99
66)	4-Chlorotoluene	12.20	91	1129564	43.21	UG		99
67)	tert-Butylbenzene	12.59	119	1016108	46.74	UG		99
68)	1,2,4-Trimethylbenzene	12.65	105	1250111	48.26	UG		99
69)	sec-Butylbenzene	12.86	105	1556524	45.06	UG		99
70)	1,3-Dichlorobenzene	12.98	146	720176	46.77	UG		99
71)	4-Isopropyltoluene	13.04	119	1303955	45.94	UG		99
72)	1,4-Dichlorobenzene	13.09	146	727147	46.68	UG		99
73)	n-Butylbenzene	13.54	91	1184089	43.15	UG	#	98
74)	1,2-Dichlorobenzene	13.54	146	732268	46.44	UG		99
75)	1,2-Dibromo-3-chloropropan	14.46	75	98678	49.88	UG	#	37
76)	1,2,4-Trichlorobenzene	15.42	180	517622	53.78	UG		96
77)	Hexachlorobutadiene	15.62	225	181564	54.18	UG		100
78)	Naphthalene	15.67	128	1530539	52.24	UG		100
79)	1,2,3-Trichlorobenzene	15.92	180	485610	53.50	UG		98
80)	1,1,2-Trichloro-1,2,2-trif	3.54	101	306933	44.15	UG	#	99
81)	Methyl acetate	3.91	43	607312	51.05	UG		76
82)	Cyclohexane	6.17	56	471650	50.01	UG		42
83)	Methylcyclohexane	7.46	83	454612	45.87	UG	#	86

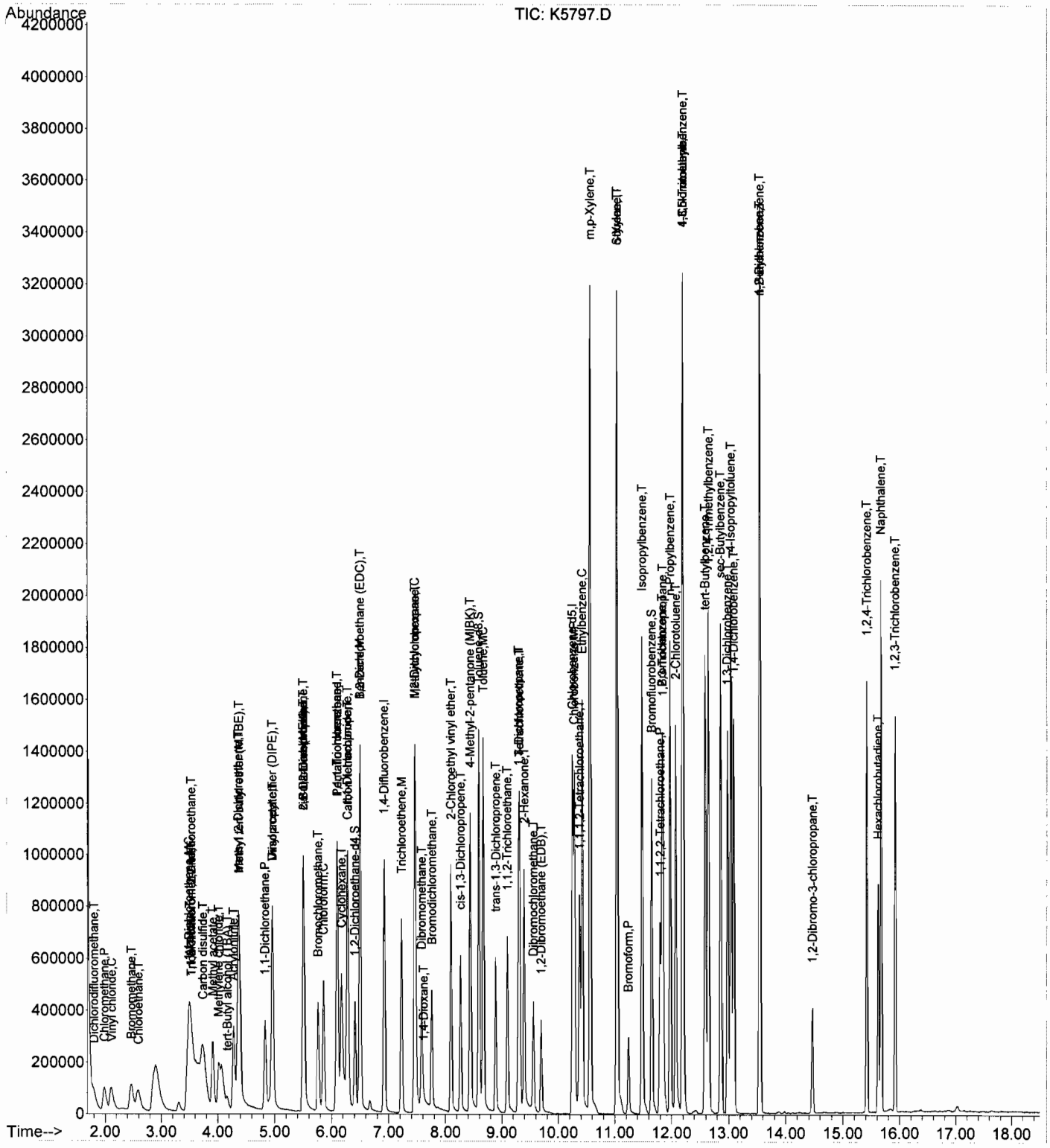
(#) = qualifier out of range (m) = manual integration (+) = signals summed

K8051617.M Thu Jun 15 11:07:52 2017

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-26-17\
Data File : K5797.D
Acq On : 26 May 2017 5:31 pm
Operator : BARBARA
Sample : MS-MW3,E17-04261-004,A,5mL,100
Misc : WHITMAN/EDGEWATER_,05/23/17,05/24/17,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 09:52:19 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8051617.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue May 16 14:52:47 2017
Response via : Initial Calibration



VOLATILE ORGANICS RUN LOGS
STANDARD PREP LOGS

LABORATORY CHRONICLE - GC/MS VOA (Aq)

DATE: 5/16/2017 12:46
INSTRUMENT: MSD-K

TUNE FILE: BFB_VOK
SEQUENCE FILE:
METHOD/CAL FILE: 8260C

ANALYST: Barbara Berberian

FRACTION: 624 524.2

BATCH:

STANDARD	Lot #	Exp. Date	CONC.
BFB	LS1128	07/03/17	25 ug/ml
ISTD/SURR (4100)	L2707	06/07/17	50 ug/ml
ISTD/SURR (4560)	L2710	06/09/17	250 ug/ml
Primary Mix	L2706	05/28/17	40 ug/ml
Primary Ac/Ac	LS1127	05/20/17	1000 ug/ml
1,4-Dioxane	L2708	06/21/17	10000 ug/ml
Secondary Mix	L2713	06/30/17	40 ug/ml
Secondary Ac/Ac	L2717	06/15/17	1000 ug/ml
Secondary 1,4-Dioxane	L2705	05/22/17	10000 ug/ml
MeOH	L21082	07/01/17	

Vial #	Data File	Case #	Samp #	Vol (ml)	% Moist	Test	Method	VIAL #	pH<2 ?	Status
1	K5613	BFBA170516	BFBA170516	5	100		8260C			11:16
2	K5614	ICC00.5	ICC170516	5	100		8260C			OK
	K5615	ICC001	ICC170516	5	100		8260C			OK
	K5616	ICC005	ICC170516	5	100		8260C			OK
	K5617	ICC020	ICC170516	5	100		8260C			OK
	K5618	ICC100	ICC170516	5	100		8260C			OK
	K5619	ICC150	ICC170516	5	100		8260C			OK
	K5620	ICC200	ICC170516	5	100		8260C			OK
	K5621	RB		5	100		8260C			
	K5622	ICV100	ICV170516	5	100		8260C			OK
	K5623	RB		5	100		8260C			
	K5624	RB		5	100		8260C			
	K5625	BLKA170516	BLKA170516	5	100		8260C			OK
	K5626	3962	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5627	3968	5	5	100	TCL VO + 15	8260C	2	YES	OK
	K5628	3969	1	5	100	TCL VO minus 1,4 Dioxane + TBA	8260C	2	YES	OK
	K5629	3969	2	5	100	TCL VO minus 1,4 Dioxane + TBA	8260C	2	YES	OK
	K5630	3969	3	5	100	TCL VO minus 1,4 Dioxane + TBA	8260C	2	YES	OK
	K5631	3971	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5632	3974	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5633	3980	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5634	3959	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5635	3946	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5636	3930	1	5	100	TCL VO + 15	8260C	2	YES	OK
	K5637	LCSA170516	LCSA170516	5	100		8260C			OK
	K5638	3974	1MS	5	100				YES	OK
	K5639	3974	1MSD	5	100				YES	OK

LABORATORY CHRONICLE - GC/MS VOA (Aq)

DATE: 5/26/2017 12:46
INSTRUMENT: MSD-K

TUNE FILE: BFB_VOK
SEQUENCE FILE:
METHOD/CAL FILE: 8260C

ANALYST: Barbara Berberian

FRACTION: 624 524.2

BATCH:

STANDARD	Lot #	Exp. Date	CONC.
BFB	LS1128	07/03/17	25 ug/ml
ISTD/SURR (4100)	L2707	06/07/17	50 ug/ml
ISTD/SURR (4560)	L2710	06/09/17	250 ug/ml
Primary Mix	L2706	05/28/17	40 ug/ml
Primary Ac/Ac	LS1127	06/22/17	1000 ug/ml
1,4-Dioxane	L2708	06/22/17	10000 ug/ml
Secondary Mix	L2713	06/27/17	40 ug/ml
Secondary Ac/Ac	L2717	06/15/17	1000 ug/ml
Secondary 1,4-Dioxane	L2705	07/22/17	10000 ug/ml
MeOH	L21082	07/01/17	

Vial #	Data File	Case #	Samp #	Vol (ml)	% Moist	Test	Method	VIAL #	pH<2 ?	Status
1	K5785	BFBA170526	BFBA170526	5	100		8260C			11:53
2	K5786	CCV100	CCV170526	5	100		8260C			OK
3	K5787	RB		5	100		8260C			
4	K5788	RB		5	100		8260C			
5	K5789	BLKA170526	BLKA170526	5	100		8260C			OK
	K5790	4261	8	2.5	100	TCL VO + 15	8260C	2	YES	OK
	K5791	RB		5	100		8260C			
	K5792	4261	8DL	0.5	100	TCL VO + 15	8260C	2	YES	OK
	K5793	4261	11	5	100	TCL VO + 15	8260C	2	YES	OK
1	K5794	4261	7	5	100	TCL VO + 15	8260C	2	YES	OK
2	K5795	LCSA170526	LCSA170526	5	100		8260C			
3	K5796	4261	3	5	100	TCL VO + 15	8260C	2+3	YES	OK
4	K5797	4261	4	5	100	TCL VO + 15	8260C	2+3	YES	OK
5	K5798	RB		5	100		8260C			
6	K5799	4261	2	5	100	TCL VO + 15	8260C	2	YES	OK
7	K5800	4261	1	5	100	TCL VO + 15	8260C	2	YES	OK
8	K5801	4261	5	5	100	TCL VO + 15	8260C	2	YES	OK
9	K5802	4261	6	5	100	TCL VO + 15	8260C	2	YES	OK
10	K5803	4261	9	5	100	TCL VO + 15	8260C	2	YES	OK
11	K5804	4261	10	5	100	TCL VO + 15	8260C	2	YES	OK
12	K5805	4296	8	5	100	VO minus 1,4-Dioxane for 8	8260C/8011	2	YES	OK
13	K5806	4296	9	5	100	VO minus 1,4-Dioxane for 8	8260C/8011	2	YES	OK
14	K5807	4296	10	5	100	VO minus 1,4-Dioxane for 8	8260C/8011	2	YES	OK
15	K5808	4296	11	5	100	VO minus 1,4-Dioxane for 8	8260C/8011	2	YES	OK

L2103 5/4/2 Primary Std @ 20 ppm

S-410 CS 2/2/17

DWM-588-1
Lot CR-0231
Exp 02/28/2020
ULTRA 1 mL
VOC Mixture
60 analyte(s) at 2000 µg/mL in methanol
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

0.1ml of DWM-588-1 opened 2/2/17 received 1/26/17 into 10 mls MeOH

expires 5/2/17

L2104 5/4/2 Primary RESTEK @ 200 ppm

CS 2/2/17

DWM-592-1
Lot CP-1620
Exp 05/31/2019
ULTRA 1 mL
VOC Mixture
24 analyte(s) at 2000 µg/mL in methanol
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

1ml of DWM opened 2/2/17 received 1/26/17 into 10 mls MeOH

expires 5/2/17

L2705 Secondary 1,4-Dioxane Working Solution
Prep 02/22/17 10000 ppm
Exp 05/22/17 Transfer 1,4-Dioxane @ 10000ppm (EC3-A-D10X) Lot # BW170131010 Exp 01/31/2020 into 1ml vial.

L2706 [redacted]
P.02/20/17 2mls of DM4-588-1 received 1/11/17 exp.
05/28/17 10/31/18
4mls of EC3-A-040 2-dibromoethyl methyl ether @ 2000 ppm, Lot: BX160615021, received 6/24/16 exp. 6/15/18
98ml of TBA @10 000ppm #LS1116 made 2/8/16 exp 12/8/17

L2707 | 8260 IS + Surr for 4100 @ 50 µg/ml
1 ml of LS1093 @ 2500 µg/ml
expires 6/9/17

BS 3/7/17 | 1 ml of LS1094 @ 2500 µg/ml
expires 6/9/17
into 50 mls MeOH
expires 6/7/17

L 2708 | 1,4-Dioxane (Primary) (ECS-A-DIOX)
03/21/17 | Lot# EW-70131010. Transferred into 1 ml vial.
Exp. 06/21/17. 03/21/17

L 2709
pre 3/21/17
exp 6/9/17
BZ | 6# I.S/surr 150 µg/ml.
3 ml LS "1093" at 150 µg/ml (exp 6/9/2017) and
3 ml LS "1094" at 150 µg/ml (exp 6/9/2017)
dilut in to 50 ml meoH.

L 2710
pre 3/21/17
exp 6/9/17
BZ | 8260 I.S/surr 250 µg/ml.
1 ml LS "1093" at 250 µg/ml. (exp 6/9/2017) and
1 ml LS "1094" at 250 µg/ml (exp 6/9/2017)
dilut in to 50 ml meoH.

L 2711
pre 3/21/17
exp 6/21/17
BZ | 500 PPM BFB at in to for screen. 1 ml (of "3663" 2500 ppm BFB stock) in to 5 ml meoH. (exp 9/11/2017)

L2712
Rec 3/24/17
exp 6/24/17
200 ppm Screen Std working solution.
Send C cart (10-ZHL MJ #2) (lot # ZS 1005 07m1)
at 200 ng/mL diluted into 1mL meoH.

L2713
05/30/17
06/27/17
Secondary Mix of 40 ul/ml
98 ml of L2695 MTBE/TBA/DIPE @ 500/1000/500 ppm
2mls of EC5-048 Add-ons mix #3 2000 ppm
Lot: T1504080001 received 6/24/16 exp 4/17/18
2mls of EC5-524/8260 main Mix 2000 ppm
EC5-A-033 Lot: TS15 1105001, received
6/24/16 exp. 11/4/18
2mls of volatiles Screen mix 2000 ppm
EC5-A-053 Lot: B416 0308 01C,
rec. 6/24/16 exp. 3/8/18
4mls of M-8260 Add 40x, Lot: 21701
1222-01, exp. 06/27/17

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FOR LABORATORY USE ONLY
H336 H225 H370 H320
H315 H311 H332 H301
H360 H350 H351 P338
P360 P331 P233 P262
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 217011222-01
Exp. Jun 27, 2017
1 mL
8 comp(s)
Storage: Freeze (<-10 °C)

M-8260-ADD-10X
Lot: 217011222-01
Exp. Jun 27, 2017
Date Opened:
Method 8260 Additions
2.0 mg/mL in MeOH
Storage: Freeze (<-10 °C

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FOR LABORATORY USE ONLY
H336 H225 H370 H320
H315 H311 H332 H301
H360 H350 H351 P338
P360 P331 P233 P262
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 217011222-01
Exp. Jun 27, 2017
1 mL
8 comp(s)
Storage: Freeze (<-10 °C)

M-8260-ADD-10X
Lot: 217011222-01
Exp. Jun 27, 2017
Date Opened
Method 8260 Additions
2.0 mg/mL in MeOH
Storage: Freeze (<-10 °C

L 2/1/17 Secondary Acrolein/Acrylonitrile @ 1000 ppm

ECS

Part # ECS-A-038
Lot # BW170317005
Date Opened: 4/6/17
Acrolein/Acrylonitrile Mix

Distributed by SPEX CertiPrep®
Serving the Chromatography Community One Peak at a Time™

Contains the following in **Methanol**

Concentration	Compound
10000 µg/mL	Acrylonitrile
10000 µg/mL	Acrolein

ECS (800) LAB-SPEX
Acrolein/Acrylonitrile Mix
Part # ECS-A-038
Lot # BW170317005
Expiry 6-15-17

BW170317005
ECS-A-038

ECS
4/6/17

4/6/17

1 ml of ECS-A-038 into 10 mls MeOH

expires 6/15/17

L 2/7/18 >50 ppm Screen Std working solution
pre 4/19/17 Ext 7/19/17 GK
Ideal (Cat: V0-1ALN1-2) (Lot# TS170X11013)
at 5000 ug/ml diluted into 1ml meoH.

L2126 5141 Primary Std @ 2000 ppm

RS 4/26/17 0.1 ml of SUM-5881 lot # CR-021
received 1/26/17 opened 4/26/17
into 10 mls MeOH

expires 7/26/17

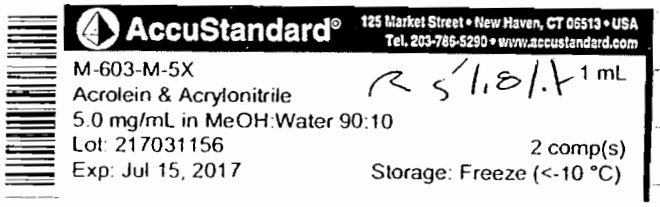
RS 4/26/17 L2121 5141 Primary REV4 @ 2000 ppm

1 ml of SUM-5981-1 lot # CR-1620
received 1/26/17 opened 4/26/17
into 10 mls MeOH

expires 7/26/17

L2122 Primary Acrolein Acrylonitrile @ 1000 ppm

RS 5/22/17



R 5/18/17 1 mL

1 ml of M-603-M-5X into 5 mls of MeOH

expires 7/5/17

LS1123 TPH-GRO working std @ 500 µg/ml
prep 2/10/17 125 µl of SpexCertiPrep GAS-20 (lot#: SM15100601C) @ 20mg
Exp. 5/10/17 (exp: 4/12/19) diluted into 5ml MeOH (MeOH lot# 151278
CXM exp: 6/1/2026)

LS1124. Secondary TPH-GRO working std @ 500 µg/ml
prep 2/10/17 250 µl of AccuStandard GA-001-20X-BTEX (lot# 209071022)
Exp: 5/10/17 @ 10mg/ml (exp: 7/9/19) diluted into 5ml MeOH
CXM (MeOH lot# 151278, exp: 6/1/2026)

LS1125 Secondary 1,4-Dioxane working std @ 1,000 ppm
WXF 2/14/17 Transfer 1,4-Dioxane @ 1,000 ppm (App-9-096-10X) Lot# 214121
exp. 5/14/17 exp. 12/2/2024) to 1ml ~~MeOH~~ vial
WXF 2/14/17

LS1126 I.S/SURR working std @ 50 ng/ml
WXF 3/7/17 1ml of LS1093 @ 2500ng/ml (exp. 6/4/17) and 1ml of LS1094
exp. 6/7/17 @2500ng/ml diluted into 10ml MEOH
(MEOH Lot# 151278, exp. 6/1/2026)

LS1127 Primary Ac/Ac working std @ 1,000 µg/ml
WXF 3/22/17 1ml of M-603-M-5X @ 5.0 mg/ml (exp. 5/20/2017, Lot# 2170111
exp. 5/20/17 diluted into 5ml MEOH (MEOH: Lot# 151278, exp. 6/1/2021

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA
Tel. 203-786-5290 • www.accustandard.com

M-603-M-5X 1 mL
Acrolein & Acrylonitrile
5.0 mg/mL in MeOH:Water 90:10
Lot: 217011170 2 comp(s)
Exp: May 20, 2017 Storage: Freeze (<-10 °C)

FOR LABORATORY USE ONLY
H336 H225 H370 H320
H315 H311 H332 H301
H360: H350 H351 P338
P360 P331 P233 P262

Signal Word: Danger

LS1128 BFB Tuning Check @ 25µg/ml
WXF 4/3/17 10µl of L2663 (exp. 9/1/2017) @ 2,500µg/ml into 1ml MEOH
exp 7/3/17 (MeOH Lot# 151278, exp 6/1/2026)

LS1129 Primary 1,4-Dioxane working std @ 10,000 ppm
WXF 4/3/17 Transfer 1,4-Dioxane @ 10,000 ppm (ECS-A-DIOX Lot# R1150325011,
exp 7/3/17 exp. 3/24/2018) into 1ml vial.

LS1130 8260 primary std @ 40 ppm
WXF 4/3/17
exp 7/2/17
- 1ml of aqm-588 @ 2,000 ppm (Lot# CP-4768, Recd 10/6/16, exp 10/31/19
- 2ml of ECS-A040 2-Chloroethyl vinyl ether (Lot# BW1606L5021, Recd 6/24/
exp. 6/15/18) @ 2,000 ppm.
- 0.4ml of TBA @ 19,000 ppm (LS1116, exp 11/20/17)
- 0.4ml of DIPE @ 5,000 ppm (LS1119, exp 1/3/18)
- 2ml of ECS-A043 Ketones @ 2,000 ppm (Recd 12/28/16, exp 9/6/17)
- 1ml of ECS-A044 8260 Adds on #1 @ 2,000 ppm (Recd 1/9/17, exp. 11/17/1
- 1ml of VOIAL-NJ-1 @ 2,000 ppm (Lot# C111309260004, Recd 6/3/15, exp 6/1/
diluted into 50ml MEOH (MEOH Lot# 151278, exp 6/1/2026)

LS1131 TPH-GRO working std @ 500 µg/ml
pre: 5/10/17 125µl of SpexCertiPrep GAS-20 (lot#: SM15100601G) @ 20mg/ml
Exp. 8/10/17 (exp: 4/12/19) diluted into 5ml MeOH
(MeOH lot# 151278, exp: 6/1/2026)

LS1132 Secondary TPH-GRO working std @ 500 µg/ml
prep: 5/10/17 250 µl of AccuStandard GA-001-20X-BTEX (lot# 216041K72)
Exp: 8/10/17 @ 10 mg/ml (exp: 4/24/26) diluted into 5ml MeOH
CXM (MeOH lot# 151278, exp: 6/1/2026)

LS1133 Secondary 1,4-Dioxane working std @ 1,000 ppm
WXF 5/15/17 Transfer 1,4-Dioxane @ 1,000 ppm (App-9-096-10X) (Lot# 214121 CH,
exp. 8/15/17 exp. 12/2/2024) to 1ml vial

LS1134 Primary Acro/Acry working std @ 1,000 µg/ml:
prep: 5/19/17 1ml of M-603-M-5X @ 5.0 mg/ml (exp: 7/15/2017, lot# 217031156)
Exp: 7/15/17 diluted into 5ml MeOH (MeOH lot# 151278, exp: 6/1/2026)
CXM

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA
Tel. 203-786-5290 • www.accustandard.com
M-603-M-5X 1 mL
Acrolein & Acrylonitrile
5.0 mg/mL in MeOH Water 90:10
Lot: 217031156 2 comp(s)
Exp: Jul 15, 2017 Storage: Freeze (<-10 °C)
FOR LABORATORY USE ONLY
H336 H225 H370 H320
H315 H311 H332 H301
H360, H350 H351 P338
P360 P331 P233 P262
Danger

LS1135 TPH-GRO working std @ 500 µg/ml
prep: 5/23/17 125 µl of SpexCertiprep GAS-20 (lot#: SM17051017) @ 20 mg/ml
Exp: 8/23/17 (exp: 5/16/20) diluted into 5ml MeOH (MeOH lot# 151278,
CXM exp 6/1/2026)

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: Whitman
Address: 7 Pleasant Hill Rd.
Cranbury, NJ 08512
Telephone #: (732) 390-5858
Fax #:
Project Manager: Ed Huss
EMAIL Address: ehuss@whitmanco.com
Project Name: Edgewater Realty, LLC
Project Location (State): NY
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by: LS + PJ

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☑ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☑ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☑ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed only if pre-approved)** 1 week
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☐ GWQS	☑ AWQS (TOGS Table 1)
☐ IGW	☑ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VO +15 EPA 624 method	Sample Specific Notes:
MW-7		5/23/17	09:50	GW	2	1	X	
MW-3			11:28			2		
MSD-MW3			11:34			3		
MS-MW3			11:37			4		
MW-6			13:20			5		
MW-11			10:12			6		
PZ-3			12:58			7		
PZ-4			13:45			8		

ANALYTICAL PARAMETERS (please note if contingent)

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Preservative (use code): 2
Container Type (use code): C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 426 1
Cooler Temp: _____°C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	5/24/17	831		5/24/17	831
	5/24/17	1816		5/24/17	1816

17-04261 Page 1 of 2

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 1 of 2

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: Whitman
Address: 7 Pleasant Hill Rd.
Cranbury, NJ 08512
Telephone #: (732)390-5858
Fax #:
Project Manager: Ed Huss
EMAIL Address: ehuss@whitmanco.com
Project Name: Edgewater Realty, LLC
Project Location (State): NY
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by: LS & PJ

COMPLETED BY IAL:
___ Field Sampling ___ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☑ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☑ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☑ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 1 week
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (if other than 2 weeks):

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☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VOA + 15 EPA 624 Method	ANALYTICAL PARAMETERS (please note if contingent)	Sample Specific Notes:
Dup-1		5/23/17	—	GW	2	9	X		
FB		↓	12:15	AQ	↓	10	↓		
TB		↓	—	AQ	↓	11	↓		

Preservative (use code): 2
Container Type (use code): C

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

IAL Rev 2/2014

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: A261
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
L. Krampen	5/24/17	831		5/24/17	831
	5/24/17	1816		5/24/17	1816

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

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PROJECT INFORMATION

RUSH

E17-04261: EDGEWATER REALTY, LLC

To: Ed Huss
Whitman
Fax: 1(732) 390-9496
EMail: ehuss@whitmanco.com

Report To

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512
Attn: Ed Huss

Bill To

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512
Attn: Ed Huss

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category B		May 24, 2017 @ 18:16	NA	Jun 01, 2017	Jun 15, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY TOGS Tbl5 (GWEL)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
04261-001	MW-7	NA	05/23/17@09:50	Aqueous	ug/L (ppb)	
04261-002	MW-3	NA	05/23/17@11:28	Aqueous	ug/L (ppb)	
04261-003	MSD-MW3	NA	05/23/17@11:34	Aqueous	ug/L (ppb)	
04261-004	MS-MW3	NA	05/23/17@11:37	Aqueous	ug/L (ppb)	
04261-005	MW6	NA	05/23/17@13:20	Aqueous	ug/L (ppb)	
04261-006	MW-11	NA	05/23/17@10:12	Aqueous	ug/L (ppb)	
04261-007	PZ-3	NA	05/23/17@12:58	Aqueous	ug/L (ppb)	
04261-008	PZ-4	NA	05/23/17@13:45	Aqueous	ug/L (ppb)	
04261-009	DUP-1	NA	05/23/17	Aqueous	ug/L (ppb)	
04261-010	FB	NA	05/23/17@12:15	Aqueous	ug/L (ppb)	
04261-011	TB	NA	05/23/17	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
002	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
003	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
004	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
005	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
006	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
007	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
008	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
009	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
010	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017
011	TCL VO + 15	Analyze	8260C	RUSH 1 WK	6/6/2017

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Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

PROJECT INFORMATION

RUSH

E17-04261: EDGEWATER REALTY, LLC

Project Notes:

NOTE 2 taken by Mark on 05/26/2017 11:30
PER ED HUSS, OK TO ANALYZE SAMPLES BY METHOD 8260C

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Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **04261** CLIENT: WHITMAN Edgewater Realty

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
X = NO

VOA received: ☐ Encore ☐ IGW - Methanol
(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
	Multiphasic Sample
	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [AF] DATE 5/24/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ✓

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [AF] DATE 5.26.17

Laboratory Custody Chronicle

IAL Case No.

E17-04261

Client Whitman

Project EDGEWATER REALTY, LLC

Received On 5/24/2017@18:16

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	04261-001	Aqueous	n/a	n/a	5/26/17	Barbara
"	-002	"	n/a	n/a	5/26/17	Barbara
"	-003	"	n/a	n/a	5/26/17	Barbara
"	-004	"	n/a	n/a	5/26/17	Barbara
"	-005	"	n/a	n/a	5/26/17	Barbara
"	-006	"	n/a	n/a	5/26/17	Barbara
"	-007	"	n/a	n/a	5/26/17	Barbara
"	-008	"	n/a	n/a	5/26/17	Barbara
"	-009	"	n/a	n/a	5/26/17	Barbara
"	-010	"	n/a	n/a	5/26/17	Barbara
"	-011	"	n/a	n/a	5/26/17	Barbara

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

Attachment 5

Laboratory QA/QC Data Package
December 7, 2017 Ground Water Sampling

Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512

Project Name: **EDGEWATER REALTY**
IAL Case Number: **E17-10611**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL s a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

Integrated Analytical Laboratories - Table of Contents

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Sample Summary

IAL Case No.

E17-10611

Client Whitman

Project EDGEWATER REALTY

Received On 12/ 8/2017@16:45

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10611-001	MW-11	n/a	12/ 7/2017@10:15	Aqueous	2
10611-002	MW-7	n/a	12/ 7/2017@09:55	Aqueous	2
10611-003	MW-6	n/a	12/ 7/2017@13:00	Aqueous	2
10611-004	DUP	n/a	12/ 7/2017	Aqueous	2
10611-005	MW-3	n/a	12/ 7/2017@11:20	Aqueous	2
10611-006	MSD-MW3	n/a	12/ 7/2017@11:23	Aqueous	2
10611-007	MS-MW3	n/a	12/ 7/2017@11:25	Aqueous	2
10611-008	PZ-3	n/a	12/ 7/2017@12:55	Aqueous	2
10611-009	PZ-4	n/a	12/ 7/2017@14:10	Aqueous	2
10611-010	FB	n/a	12/ 7/2017@10:30	Aqueous	2
10611-011	TB	n/a	12/ 7/2017	Aqueous	2

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
* Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	^	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	<	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10611

Integrated Analytical Laboratories, LLC. received eleven (11) samples** from Whitman (IAL SDG# **E17-10611**, Project: EDGEWATER REALTY) on December 8, 2017 for the analysis of :

(11) TCL VO + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: J171213-01**	**Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10611 - All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10611-001	1	NA
E17-10611-002	1	NA
E17-10611-003	1	NA
E17-10611-004	1	NA
E17-10611-005	1	NA
E17-10611-006	1	NA
E17-10611-007	1	NA
E17-10611-008	5	Matrix Interference.
E17-10611-009	5	Target compound(s).
E17-10611-010	1	NA
E17-10611-011	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

12/19/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Whitman
Project: EDGEWATER REALTY
Lab Case No.: E17-10611

Lab ID:	10611-001			10611-002			10611-003			10611-004		
Client ID:	MW-11			MW-7			MW-6			DUP		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	12/7/17			12/7/17			12/7/17			12/7/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Chlorobenzene	0.507		0.376	6.31		0.376	ND		0.376	0.675		0.376
1,4-Dichlorobenzene	0.463	J	0.341	0.656		0.341	ND		0.341	0.533		0.341
TOTAL VO's:	0.970	J		6.97			ND			1.21		
TOTAL TIC's:	78.4	JN		57.9	JN		ND			105	JN	
TOTAL VO's & TIC's:	79.4	JN		64.9	JN		ND			106	JN	

Lab ID:	10611-005			10611-006			10611-007			10611-008		
Client ID:	MW-3			MSD-MW3			MS-MW3			PZ-3		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	12/7/17			12/7/17			12/7/17			12/7/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Acetone	ND		1.33	~		~	~		~	275	D	6.65
Ethylbenzene	ND		0.344	~		~	~		~	3.31	D	1.72
Total Xylenes	ND		0.923	~		~	~		~	27.9	D	4.62
Isopropylbenzene	ND		0.323	~		~	~		~	5.49	D	1.62
TOTAL VO's:	ND			~		~	~		~	312	D	
TOTAL TIC's:	ND			~		~	~		~	365	DJN	
TOTAL VO's & TIC's:	ND			~		~	~		~	677	DJN	

Lab ID:	10611-009			10611-010			10611-011		
Client ID:	PZ-4			FB			TB		
Matrix:	Aqueous			Aqueous			Aqueous		
Sampled Date	12/7/17			12/7/17			12/7/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*		
cis-1,2-Dichloroethene	23.1	D	2.26	ND		0.451	ND		0.451
Benzene	5.86	D	2.32	ND		0.464	ND		0.464
1,2-Dichloropropane	75.9	D	2.24	ND		0.447	ND		0.447
Toluene	46.2	D	1.90	ND		0.379	ND		0.379
Ethylbenzene	209	D	1.72	ND		0.344	ND		0.344
Total Xylenes	1330	D	4.62	ND		0.923	ND		0.923
Isopropylbenzene	39.1	D	1.62	ND		0.323	ND		0.323
1,2-Dichlorobenzene	8.66	D	1.82	ND		0.364	ND		0.364
TOTAL VO's:	1740	D		ND			ND		
TOTAL TIC's:	2390	DJN		ND			ND		
TOTAL VO's & TIC's:	4130	DJN		ND			ND		

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.
Samples 006 & 007 are MS/MSD see QC report.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-001
Client ID: MW-11
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2237.D 12/13/17 18:06

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-001
Client ID: MW-11
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2237.D 12/13/17 18:06

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	0.507		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	0.463	J	0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	0.970	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-001
Client ID: MW-11
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2237.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	39.2	J	4.85
	Unknown Hydrocarbon	11.8	J	12.75
000496-11-7	Indane	10.4	JN	13.32
001005-64-7	Benzene, 1-butenyl-, (E)-	5.20	JN	14.04
000768-00-3	Benzene, (1-methyl-1-propenyl)-, (	6.60	JN	14.93
017057-82-8	1H-Indene, 2,3-dihydro-1,2-dimethy	5.20	JN	15.46

Total TICs = 78.4 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-002
Client ID: MW-7
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2235.D 12/13/17 17:13

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-002
Client ID: MW-7
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2235.D 12/13/17 17:13

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	6.31		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	0.656		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	6.97			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-002
Client ID: MW-7
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2235.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000108-20-3	Diisopropyl ether	24.9	JN	4.85
	Unknown VOA	7.30	J	10.53
	Unknown VOA	5.20	J	12.45
	Unknown VOA	5.20	J	12.56
	Unknown Hydrocarbon	15.3	J	12.75

Total TICs = 57.9 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-003
Client ID: MW-6
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2236.D 12/13/17 17:39

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-003
Client ID: MW-6
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2236.D 12/13/17 17:39

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-003
Client ID: MW-6
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2236.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-004
Client ID: DUP
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2223.D 12/13/17 11:57

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-004
Client ID: DUP
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2223.D 12/13/17 11:57

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	0.675		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	0.533		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	1.21			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-004
Client ID: DUP
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2223.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	46.6	J	4.85
	Unknown VOA	6.70	J	12.45
	Unknown VOA	5.70	J	12.56
	Unknown Hydrocarbon	15.8	J	12.75
000496-11-7	Indane	10.5	JN	13.32
007525-62-4	Benzene, 1-ethenyl-3-ethyl-	5.60	JN	14.04
000767-58-8	Indan, 1-methyl-	7.80	JN	14.93
056253-64-6	Benzene, (2-methyl-1-butenyl)-	6.60	JN	15.46

Total TICs = 105 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2224.D 12/13/17 12:23

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2224.D 12/13/17 12:23

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2224.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-008
Client ID: PZ-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2227.D 12/13/17 13:42

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		5.00	3.31
Chloromethane	ND		2.50	2.32
Vinyl chloride	ND		5.00	2.96
Bromomethane	ND		5.00	2.72
Chloroethane	ND		2.50	2.48
Trichlorofluoromethane	ND		2.50	2.17
1,1-Dichloroethene	ND		2.50	2.47
Acetone	275	D	10.0	6.65
Carbon disulfide	ND		2.50	2.32
Methylene chloride	ND		5.00	4.95
trans-1,2-Dichloroethene	ND		2.50	2.27
Methyl tert-butyl ether (MTBE)	ND		2.50	2.40
1,1-Dichloroethane	ND		2.50	2.47
cis-1,2-Dichloroethene	ND		2.50	2.26
2-Butanone (MEK)	ND		10.0	8.31
Bromochloromethane	ND		5.00	2.98
Chloroform	ND		2.50	2.35
1,1,1-Trichloroethane	ND		2.50	2.31
Carbon tetrachloride	ND		5.00	2.25
1,2-Dichloroethane (EDC)	ND		2.50	2.29
Benzene	ND		2.50	2.32
Trichloroethene	ND		2.50	2.47
1,2-Dichloropropane	ND		2.50	2.24
1,4-Dioxane	ND		500	492
Bromodichloromethane	ND		2.50	1.77
cis-1,3-Dichloropropene	ND		2.50	1.66
4-Methyl-2-pentanone (MIBK)	ND		10.0	3.50

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-008
Client ID: PZ-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2227.D 12/13/17 13:42

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Toluene	ND		2.50	1.90
trans-1,3-Dichloropropene	ND		2.50	1.61
1,1,2-Trichloroethane	ND		2.50	2.37
Tetrachloroethene	ND		2.50	2.26
2-Hexanone	ND		10.0	3.81
Dibromochloromethane	ND		2.50	2.21
1,2-Dibromoethane (EDB)	ND		2.50	2.01
Chlorobenzene	ND		2.50	1.88
Ethylbenzene	3.31	D	2.50	1.72
Total Xylenes	27.9	D	5.00	4.62
Styrene	ND		2.50	1.45
Bromoform	ND		2.50	2.23
Isopropylbenzene	5.49	D	2.50	1.62
1,1,2,2-Tetrachloroethane	ND		2.50	2.29
1,3-Dichlorobenzene	ND		2.50	1.76
1,4-Dichlorobenzene	ND		2.50	1.71
1,2-Dichlorobenzene	ND		2.50	1.82
1,2-Dibromo-3-chloropropane	ND		5.00	2.67
1,2,4-Trichlorobenzene	ND		5.00	1.52
1,2,3-Trichlorobenzene	ND		5.00	1.70
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.00	2.82
Methyl acetate	ND		2.50	2.43
Cyclohexane	ND		5.00	2.06
Methylcyclohexane	ND		2.50	2.06
1,3-Dichloropropene (cis- and trans-)	ND		2.50	1.66
Total Target Compounds (52):	312	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-008
Client ID: PZ-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2227.D

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000075-33-2	2-Propanethiol	90.5	DJN	4.11
000108-20-3	Diisopropyl ether	36.5	DJN	4.85
000526-73-8	Benzene, 1,2,3-trimethyl-	50.0	DJN	12.11
	Unknown Hydrocarbon	28.5	DJ	12.50
000095-63-6	Benzene, 1,2,4-trimethyl-	56.0	DJN	12.56
000620-14-4	Benzene, 1-ethyl-3-methyl-	38.0	DJN	13.08
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	28.0	DJN	13.43
	Unknown Aromatic	37.0	DJ	14.37

Total TICs = 365 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-009
Client ID: PZ-4
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2225.D 12/13/17 12:50

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		5.00	3.31
Chloromethane	ND		2.50	2.32
Vinyl chloride	ND		5.00	2.96
Bromomethane	ND		5.00	2.72
Chloroethane	ND		2.50	2.48
Trichlorofluoromethane	ND		2.50	2.17
1,1-Dichloroethene	ND		2.50	2.47
Acetone	ND		10.0	6.65
Carbon disulfide	ND		2.50	2.32
Methylene chloride	ND		5.00	4.95
trans-1,2-Dichloroethene	ND		2.50	2.27
Methyl tert-butyl ether (MTBE)	ND		2.50	2.40
1,1-Dichloroethane	ND		2.50	2.47
cis-1,2-Dichloroethene	23.1	D	2.50	2.26
2-Butanone (MEK)	ND		10.0	8.31
Bromochloromethane	ND		5.00	2.98
Chloroform	ND		2.50	2.35
1,1,1-Trichloroethane	ND		2.50	2.31
Carbon tetrachloride	ND		5.00	2.25
1,2-Dichloroethane (EDC)	ND		2.50	2.29
Benzene	5.86	D	2.50	2.32
Trichloroethene	ND		2.50	2.47
1,2-Dichloropropane	75.9	D	2.50	2.24
1,4-Dioxane	ND		500	492
Bromodichloromethane	ND		2.50	1.77
cis-1,3-Dichloropropene	ND		2.50	1.66
4-Methyl-2-pentanone (MIBK)	ND		10.0	3.50

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-009
Client ID: PZ-4
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2225.D 12/13/17 12:50

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Toluene	46.2	D	2.50	1.90
trans-1,3-Dichloropropene	ND		2.50	1.61
1,1,2-Trichloroethane	ND		2.50	2.37
Tetrachloroethene	ND		2.50	2.26
2-Hexanone	ND		10.0	3.81
Dibromochloromethane	ND		2.50	2.21
1,2-Dibromoethane (EDB)	ND		2.50	2.01
Chlorobenzene	ND		2.50	1.88
Ethylbenzene	209	D	2.50	1.72
Total Xylenes	1330	D	5.00	4.62
Styrene	ND		2.50	1.45
Bromoform	ND		2.50	2.23
Isopropylbenzene	39.1	D	2.50	1.62
1,1,2,2-Tetrachloroethane	ND		2.50	2.29
1,3-Dichlorobenzene	ND		2.50	1.76
1,4-Dichlorobenzene	ND		2.50	1.71
1,2-Dichlorobenzene	8.66	D	2.50	1.82
1,2-Dibromo-3-chloropropane	ND		5.00	2.67
1,2,4-Trichlorobenzene	ND		5.00	1.52
1,2,3-Trichlorobenzene	ND		5.00	1.70
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.00	2.82
Methyl acetate	ND		2.50	2.43
Cyclohexane	ND		5.00	2.06
Methylcyclohexane	ND		2.50	2.06
1,3-Dichloropropene (cis- and trans-)	ND		2.50	1.66
Total Target Compounds (52):	1740	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-009
Client ID: PZ-4
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2225.D

GC/MS Column: DB-624
Sample wt/vol: 1ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	194	DJ	4.85
000103-65-1	Benzene, propyl-	66.0	DJN	11.89
000611-14-3	Benzene, 1-ethyl-2-methyl-	305	DJN	11.99
000526-73-8	Benzene, 1,2,3-trimethyl-	232	DJN	12.11
000620-14-4	Benzene, 1-ethyl-3-methyl-	167	DJN	12.35
000095-63-6	Benzene, 1,2,4-trimethyl-	787	DJN	12.56
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	38.0	DJN	12.90
	Unknown Aromatic	310	DJ	13.08
000611-15-4	Benzene, 1-ethenyl-2-methyl-	88.0	DJN	13.32
001074-55-1	Benzene, 1-methyl-4-propyl-	27.5	DJN	13.67
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	39.0	DJN	13.90
001587-04-8	Benzene, 1-methyl-2-(2-propenyl)-	46.5	DJN	14.05
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	36.0	DJN	14.44
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	29.5	DJN	14.92
000464-49-3	Bicyclo[2.2.1]heptan-2-one, 1,7,7-	27.0	DJN	15.23

Total TICs = 2390 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-010
Client ID: FB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2233.D 12/13/17 16:20

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-010
Client ID: FB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2233.D 12/13/17 16:20

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-010
Client ID: FB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2233.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-011
Client ID: TB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2234.D 12/13/17 16:46

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10611-011
Client ID: TB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Data file: J2234.D 12/13/17 16:46

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10611-011
Client ID: TB
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
Date File: J2234.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/13/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA171213-01	AQUEOUS	J2222.D	99	100	97
E17-10611-004	AQUEOUS	J2223.D	102	99	100
E17-10611-005	AQUEOUS	J2224.D	101	99	99
E17-10611-009	AQUEOUS	J2225.D	101	101	101
E17-10611-008	AQUEOUS	J2227.D	100	99	102
LCSA171213-01	AQUEOUS	J2228.D	98	101	98
E17-10611-006	AQUEOUS	J2229.D	98	103	98
E17-10611-007	AQUEOUS	J2230.D	102	107	103
E17-10611-010	AQUEOUS	J2233.D	100	100	98
E17-10611-011	AQUEOUS	J2234.D	99	99	100
E17-10611-002	AQUEOUS	J2235.D	102	101	104
E17-10611-003	AQUEOUS	J2236.D	100	100	101
E17-10611-001	AQUEOUS	J2237.D	105	98	101
E17-10648-010	AQUEOUS	J2238.D	102	100	99
E17-10648-011	AQUEOUS	J2239.D	102	99	100
E17-10648-012	AQUEOUS	J2240.D	104	99	98
E17-10648-013	AQUEOUS	J2241.D	106	102	100
E17-10436-001	AQUEOUS	J2242.D	108	100	102
E17-10436-004	AQUEOUS	J2243.D	105	102	101
E17-10436-003	AQUEOUS	J2244.D	106	101	103
E17-10436-002	AQUEOUS	J2245.D	108	102	103

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	61-147	45-162
SMC2 = Toluene-d8	50 ppb	70-130	58-143	41-150
SMC3 = Bromofluorobenzene	50 ppb	70-130	64-144	42-149

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA171213-01
Date Received:
Date Analyzed: 12/13/2017
LCS Data file: J2228.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	64.7	129		47-146
Chloromethane	50.0	61.8	124		43-151
Vinyl chloride	50.0	64.9	130		40-147
Bromomethane	50.0	61.9	124		55-151
Chloroethane	50.0	61.3	123		51-144
Trichlorofluoromethane	50.0	61.1	122		50-146
Acrolein	150	113.4	76		53-148
1,1-Dichloroethene	50.0	63.3	127		43-158
Acetone	100	96.8	97		46-161
Carbon disulfide	50.0	65.1	130		53-145
Vinyl acetate	50.0	62.6	125		48-139
Methylene chloride	50.0	64.1	128		52-142
Acrylonitrile	150.0	184.2	123		63-150
tert-Butyl alcohol (TBA)	100.0	79.6	80		48-151
trans-1,2-Dichloroethene	50.0	62.3	125		61-136
Methyl tert-butyl ether (MTBE)	50.0	53.3	107		41-142
1,1-Dichloroethane	50.0	60.4	121		57-145
Diisopropyl ether (DIPE)	50.0	56.9	114		57-137
cis-1,2-Dichloroethene	50.0	60.1	120		63-141
2,2-Dichloropropane	50.0	63.4	127		46-149
2-Butanone (MEK)	100	87.1	87		49-151
Bromochloromethane	50.0	56.7	113		61-162
Chloroform	50.0	61.0	122		46-146
1,1,1-Trichloroethane	50.0	64.7	129		52-144
Carbon tetrachloride	50.0	62.0	124		59-149
1,1-Dichloropropene	50.0	60.0	120		58-147
1,2-Dichloroethane (EDC)	50.0	54.2	108		46-148
Benzene	50.0	56.0	112		50-148
Trichloroethene	50.0	55.6	111		52-151
1,2-Dichloropropane	50.0	54.3	109		56-148
Dibromomethane	50.0	52.5	105		61-146
1,4-Dioxane	1500	1159	77		48-153
Bromodichloromethane	50.0	58.6	117		60-153
2-Chloroethyl vinyl ether	100	92.6	93		57-161
cis-1,3-Dichloropropene	50.0	54.5	109		57-153
4-Methyl-2-pentanone (MIBK)	100	92.2	92		42-157
Toluene	50.0	54.1	108		49-151
trans-1,3-Dichloropropene	50.0	51.3	103		54-159
1,1,2-Trichloroethane	50.0	49.7	99		60-153
Tetrachloroethene	50.0	55.5	111		53-146
1,3-Dichloropropane	50.0	48.8	98		55-149

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171213-01
Date Received:
Date Analyzed: 12/13/2017
LCS Data file: J2228.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	88.7	89		36-158
Dibromochloromethane	50.0	53.0	106		50-154
1,2-Dibromoethane (EDB)	50.0	49.9	100		53-161
Chlorobenzene	50.0	49.8	100		56-141
1,1,1,2-Tetrachloroethane	50.0	57.8	116		51-144
Ethylbenzene	50.0	54.0	108		50-147
m,p-Xylene	100.0	107.4	107		53-149
o-Xylene	50.0	56.2	112		50-144
Styrene	50.0	56.7	113		46-148
Bromoform	50.0	47.5	95		54-155
Isopropylbenzene	50.0	59.3	119		51-143
1,1,2,2-Tetrachloroethane	50.0	50.1	100		56-144
Bromobenzene	50.0	51.0	102		63-146
1,2,3-Trichloropropane	50.0	46.7	93		55-146
n-Propylbenzene	50.0	58.0	116		60-145
2-Chlorotoluene	50.0	54.9	110		60-139
1,3,5-Trimethylbenzene	50.0	60.0	120		56-144
4-Chlorotoluene	50.0	55.0	110		58-142
tert-Butylbenzene	50.0	60.8	122		56-143
1,2,4-Trimethylbenzene	50.0	59.1	118		57-142
sec-Butylbenzene	50.0	62.0	124		55-144
1,3-Dichlorobenzene	50.0	52.6	105		60-142
4-Isopropyltoluene	50.0	61.4	123		56-144
1,4-Dichlorobenzene	50.0	51.5	103		60-140
n-Butylbenzene	50.0	63.6	127		43-152
1,2-Dichlorobenzene	50.0	52.7	105		58-145
1,2-Dibromo-3-chloropropane	50.0	47.7	95		45-147
1,2,4-Trichlorobenzene	50.0	64.8	130		54-145
Hexachlorobutadiene	50.0	63.6	127		47-153
Naphthalene	50.0	51.9	104		46-144
1,2,3-Trichlorobenzene	50.0	64.7	129		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	61.8	124		44-146
Methyl acetate	50.0	47.3	95		49-144
Cyclohexane	50.0	52.8	106		45-145
Methylcyclohexane	50.0	59.2	118		42-151

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171213-01
Date Received:
Date Analyzed: 12/13/2017
LCS Data file: J2228.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

8260

MS/MSD ACCURACY REPORT

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
MS Data file: J2229.D
MSD Data file: J2230.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% # RPD #	Limits
Dichlorodifluoromethane	50.0	0.0	63.8	128		63.5	127	0	51-174/21
Chloromethane	50.0	0.0	51.0	102		57.7	115	12	29-149/20
Vinyl chloride	50.0	0.0	64.5	129		63.3	127	2	30-167/23
Bromomethane	50.0	0.0	54.7	109		54.4	109	1	53-158/18
Chloroethane	50.0	0.0	61.0	122		58.5	117	4	57-144/14
Trichlorofluoromethane	50.0	0.0	63.1	126		65.0	130	3	50-159/18
Acrolein	150	0.0	185	123		181	121	2	21-151/22
1,1-Dichloroethene	50.0	0.0	63.7	127		60.9	122	4	46-135/15
Acetone	100	0.0	92.0	92		87.1	87	5	37-160/21
Carbon disulfide	50.0	0.0	63.7	127		60.1	120	6	46-143/16
Vinyl acetate	50.0	0.0	57.3	115		59.9	120	4	24-151/21
Methylene chloride	50.0	0.0	56.9	114		53.7	107	6	55-149/16
Acrylonitrile	150	0.0	190	127		188	125	1	55-180/21
tert-Butyl alcohol (TBA)	100	0.0	94.2	94		85.3	85	10	42-143/17
trans-1,2-Dichloroethene	50.0	0.0	59.9	120		55.2	110	8	58-142/14
Methyl tert-butyl ether (MTBE)	50.0	0.0	48.6	97		42.2	84	14	35-132/16
1,1-Dichloroethane	50.0	0.0	54.9	110		53.2	106	3	57-148/15
Diisopropyl ether (DIPE)	50.0	0.0	51.7	103		54.6	109	5	41-160/20
cis-1,2-Dichloroethene	50.0	0.0	54.3	109		47.6	95	13	54-158/17
2,2-Dichloropropane	50.0	0.0	64.8	130		63.2	126	2	29-152/21
2-Butanone (MEK)	100	0.0	85.5	86		83.0	83	3	50-163/19
Bromochloromethane	50.0	0.0	50.9	102		44.6	89	13	63-155/15
Chloroform	50.0	0.0	55.8	112		54.7	109	2	66-159/16
1,1,1-Trichloroethane	50.0	0.0	63.1	126		64.3	129	2	68-152/14
Carbon tetrachloride	50.0	0.0	63.1	126		66.5	133	$ 5	60-165/18
1,1-Dichloropropene	50.0	0.0	59.1	118		57.7	115	2	52-141/15
1,2-Dichloroethane (EDC)	50.0	0.0	49.7	99		51.0	102	3	63-159/16
Benzene	50.0	0.0	53.1	106		50.8	102	4	53-143/15
Trichloroethene	50.0	0.0	53.5	107		53.7	107	0	62-153/15
1,2-Dichloropropane	50.0	0.0	51.2	102		51.3	103	0	55-147/15
Dibromomethane	50.0	0.0	49.4	99		46.2	92	7	51-146/16
1,4-Dioxane	1,500	0.0	1879	125		1840	123	2	40-173/22
Bromodichloromethane	50.0	0.0	54.9	110		56.9	114	4	63-150/14
2-Chloroethyl vinyl ether	100	0.0	0.0	0	$	0.0	0	$ NC	*$ 0-198/54
cis-1,3-Dichloropropene	50.0	0.0	51.1	102		52.3	105	2	55-167/19
4-Methyl-2-pentanone (MIBK)	100	0.0	94.7	95		96.6	97	2	45-155/18
Toluene	50.0	0.0	51.7	103		52.6	105	2	52-156/17
trans-1,3-Dichloropropene	50.0	0.0	49.8	100		53.3	107	7	58-156/16
1,1,2-Trichloroethane	50.0	0.0	47.1	94		45.1	90	4	58-156/16
Tetrachloroethene	50.0	0.0	55.7	111		59.3	119	6	57-157/17
1,3-Dichloropropane	50.0	0.0	47.3	95		47.3	95	0	56-158/17

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
MS Data file: J2229.D
MSD Data file: J2230.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	93.4	93		101.0	101	8		36-169/22
Dibromochloromethane	50.0	0.0	50.6	101		51.8	104	2		53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	48.2	96		46.8	94	3		55-140/14
Chlorobenzene	50.0	0.0	46.4	93		45.0	90	3		59-144/14
1,1,1,2-Tetrachloroethane	50.0	0.0	52.4	105		51.5	103	2		48-138/15
Ethylbenzene	50.0	0.0	50.5	101		50.9	102	1		67-155/15
m,p-Xylene	100	0.0	100.6	101		99.2	99	1		52-144/15
o-Xylene	50.0	0.0	50.8	102		49.5	99	3		48-142/16
Styrene	50.0	0.0	51.2	102		50.4	101	2		53-155/17
Bromoform	50.0	0.0	43.0	86		40.9	82	5		59-148/15
Isopropylbenzene	50.0	0.0	55.6	111		55.2	110	1		55-155/17
1,1,2,2-Tetrachloroethane	50.0	0.0	45.9	92		40.1	80	13		45-153/18
Bromobenzene	50.0	0.0	46.3	93		45.1	90	3		60-146/14
1,2,3-Trichloropropane	50.0	0.0	42.6	85		38.9	78	9		37-149/19
n-Propylbenzene	50.0	0.0	55.2	110		53.8	108	3		63-149/14
2-Chlorotoluene	50.0	0.0	50.1	100		49.2	98	2		54-160/18
1,3,5-Trimethylbenzene	50.0	0.0	55.9	112		53.9	108	4		52-150/16
4-Chlorotoluene	50.0	0.0	49.7	99		51.3	103	3		62-147/14
tert-Butylbenzene	50.0	0.0	56.8	114		54.8	110	4		57-148/15
1,2,4-Trimethylbenzene	50.0	0.0	53.2	106		52.0	104	2		65-150/14
sec-Butylbenzene	50.0	0.0	59.0	118		55.7	111	6		61-146/14
1,3-Dichlorobenzene	50.0	0.0	46.3	93		44.2	88	5		57-160/17
4-Isopropyltoluene	50.0	0.0	56.9	114		54.2	108	5		53-158/18
1,4-Dichlorobenzene	50.0	0.0	45.8	92		43.3	87	6		57-164/18
n-Butylbenzene	50.0	0.0	60.1	120		54.6	109	10		53-147/16
1,2-Dichlorobenzene	50.0	0.0	46.2	92		42.1	84	9		52-154/17
1,2-Dibromo-3-chloropropane	50.0	0.0	45.0	90		40.1	80	12		42-147/17
1,2,4-Trichlorobenzene	50.0	0.0	58.3	117		54.0	108	8		49-140/15
Hexachlorobutadiene	50.0	0.0	63.0	126		64.3	129	2		48-141/16
Naphthalene	50.0	0.0	49.2	98		43.8	88	12		56-151/16
1,2,3-Trichlorobenzene	50.0	0.0	51.9	104		45.2	90	14		52-148/16
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	61.7	123		64.8	130	5		46-134/15
Methyl acetate	50.0	0.0	41.7	83		40.9	82	2		44-132/15
Cyclohexane	50.0	0.0	56.4	113		57.0	114	1		50-146/16
Methylcyclohexane	50.0	0.0	63.1	126		64.3	129	2		51-155/17

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10611-005
Client ID: MW-3
Date Received: 12/08/2017
Date Analyzed: 12/13/2017
MS Data file: J2229.D
MSD Data file: J2230.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J2222.D Instrument ID: MSD_J

Date Analyzed: 12/13/2017 Time Analyzed: 11:31

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
DUP	E17-10611-004	12/13/2017	11:57
MW-3	E17-10611-005	12/13/2017	12:23
PZ-4	E17-10611-009	12/13/2017	12:50
PZ-3	E17-10611-008	12/13/2017	13:42
LCS-50PPB	LCSA171213-01	12/13/2017	14:07
MSD-MW3	E17-10611-006	12/13/2017	14:33
MS-MW3	E17-10611-007	12/13/2017	14:59
FB	E17-10611-010	12/13/2017	16:20
TB	E17-10611-011	12/13/2017	16:46
MW-7	E17-10611-002	12/13/2017	17:13
MW-6	E17-10611-003	12/13/2017	17:39
MW-11	E17-10611-001	12/13/2017	18:06
TWP-1	E17-10648-010	12/13/2017	18:32
TWP-2	E17-10648-011	12/13/2017	18:59
TWP-3	E17-10648-012	12/13/2017	19:25
TWP-4	E17-10648-013	12/13/2017	19:52
MW-6	E17-10436-001	12/13/2017	20:18
MW-9	E17-10436-004	12/13/2017	20:44
MW-8	E17-10436-003	12/13/2017	21:11
MW-7	E17-10436-002	12/13/2017	21:38

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1833.D BFB Injection Date: 11/20/2017

Inst ID: MSD_J BFB Injection Time: 11:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.1			
75	30.0 - 60.0% of mass 95	55.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	70.8			
175	5.0 - 9.0% of mass 174	5.3	(	7.5	)1
176	95.0 - 101.0% of mass 174	68.7	(	97.1	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC171120	ICC0.5	J1834.D	11/20/2017	11:43
ICC171120a	ICC1	J1835.D	11/20/2017	12:09
ICC171120b	ICC5	J1836.D	11/20/2017	12:35
ICC171120c	ICC20	J1837.D	11/20/2017	13:02
ICC171120d	ICC100	J1838.D	11/20/2017	13:28
ICC171120e	ICC150	J1839.D	11/20/2017	13:55
ICC171120f	ICC200	J1840.D	11/20/2017	14:21
ICV171120	ICV100	J1843.D	11/20/2017	15:40
BLKM171120-01	BLKM171120-01	J1846.D	11/20/2017	17:00
GPEC-TP538_(	E17-09978-002	J1847.D	11/20/2017	17:27
LCS-50PPB	LCSM171120-01	J1848.D	11/20/2017	17:53
MS	E17-09978-001MS	J1849.D	11/20/2017	18:20
MSD	E17-09978-001MS	J1850.D	11/20/2017	18:46
GPEC-TP552_(	E17-09978-001	J1853.D	11/20/2017	20:07
SB-2/3.5-4	E17-09992-002	J1854.D	11/20/2017	20:33
SB-1/3.5-4	E17-09992-001	J1855.D	11/20/2017	21:00
SB-3/3.5-4	E17-09992-003	J1856.D	11/20/2017	21:26
SB-1	E17-09991-001	J1857.D	11/20/2017	21:53
SB-2	E17-09991-002	J1858.D	11/20/2017	22:20
SB-7/3.5-4	E17-09992-007	J1859.D	11/20/2017	22:47

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1833.D BFB Injection Date : 11/20/201

Inst ID: MSD_J BFB Injection Time: 11:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.1			
75	30.0 - 60.0% of mass 95	55.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	70.8			
175	5.0 - 9.0% of mass 174	5.3	(	7.5	)1
176	95.0 - 101.0% of mass 174	68.7	(	97.1	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SB-8/3.5-4	E17-09992-008	J1860.D	11/20/2017	23:13

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2218.D BFB Injection Date: 12/13/2017

Inst ID: MSD_J BFB Injection Time: 9:45

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.5			
75	30.0 - 60.0% of mass 95	56.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	72.1			
175	5.0 - 9.0% of mass 174	5.7	(	7.9	)1
176	95.0 - 101.0% of mass 174	70.6	(	97.9	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV171213	J2219.D	12/13/2017	10:12
BLKA171213-01	BLKA171213-01	J2222.D	12/13/2017	11:31
DUP	E17-10611-004	J2223.D	12/13/2017	11:57
MW-3	E17-10611-005	J2224.D	12/13/2017	12:23
PZ-4	E17-10611-009	J2225.D	12/13/2017	12:50
PZ-3	E17-10611-008	J2227.D	12/13/2017	13:42
LCS-50PPB	LCSA171213-01	J2228.D	12/13/2017	14:07
MSD-MW3	E17-10611-006	J2229.D	12/13/2017	14:33
MS-MW3	E17-10611-007	J2230.D	12/13/2017	14:59
FB	E17-10611-010	J2233.D	12/13/2017	16:20
TB	E17-10611-011	J2234.D	12/13/2017	16:46
MW-7	E17-10611-002	J2235.D	12/13/2017	17:13
MW-6	E17-10611-003	J2236.D	12/13/2017	17:39
MW-11	E17-10611-001	J2237.D	12/13/2017	18:06
TWP-1	E17-10648-010	J2238.D	12/13/2017	18:32
TWP-2	E17-10648-011	J2239.D	12/13/2017	18:59
TWP-3	E17-10648-012	J2240.D	12/13/2017	19:25
TWP-4	E17-10648-013	J2241.D	12/13/2017	19:52
MW-6	E17-10436-001	J2242.D	12/13/2017	20:18
MW-9	E17-10436-004	J2243.D	12/13/2017	20:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2218.D

BFB Injection Date : 12/13/201

Inst ID: MSD_J

BFB Injection Time: 9:45

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.5			
75	30.0 - 60.0% of mass 95	56.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	72.1			
175	5.0 - 9.0% of mass 174	5.7	(	7.9	)1
176	95.0 - 101.0% of mass 174	70.6	(	97.9	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-8	E17-10436-003	J2244.D	12/13/2017	21:11
MW-7	E17-10436-002	J2245.D	12/13/2017	21:38

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J1838.D

Date Analyzed: 11/20/2017

Instrument ID: MSD_J

Time Analyzed: 13:28

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	335914		6.01		496284		6.82		412035		10.16	
	UPPER LIMIT	671828		6.51		992568		7.32		824070		10.66	
	LOWER LIMIT	167957		5.51		248142		6.32		206017.5		9.66	
	LAB SAMPLE ID												
01	ICC0.5	353016		6.01		511041		6.83		415572		10.16	
02	ICC1	357784		6.01		528532		6.82		425037		10.16	
03	ICC5	332972		6.01		469241		6.82		383489		10.16	
04	ICC20	328790		6.01		481852		6.82		393390		10.16	
05	ICC150	337971		6.01		507402		6.83		424454		10.17	
06	ICC200	351383		6.01		523910		6.83		440471		10.17	
07	ICV100	359135		6.01		531316		6.83		436120		10.17	
08	BLKM171120-01	305526		6.01		455269		6.83		369003		10.16	
09	E17-09978-002	298939		6.01		443892		6.83		362175		10.16	
10	LCSM171120-01	325934		6.01		483235		6.83		401050		10.16	
11	E17-09978-001MS	364485		6.01		540441		6.83		445488		10.16	
12	E17-09978-001MSD	327928		6.01		493035		6.83		403185		10.16	
13	E17-09978-001	309999		6.01		464685		6.83		378362		10.16	
14	E17-09992-002	352248		6.00		519977		6.82		415435		10.16	
15	E17-09992-001	327968		6.00		476145		6.82		390493		10.16	
16	E17-09992-003	315057		6.00		469217		6.82		378432		10.16	
17	E17-09991-001	377352		6.01		557921		6.82		461710		10.16	
18	E17-09991-002	347054		6.00		519926		6.82		427628		10.16	
19	E17-09992-007	332625		6.01		499327		6.82		406724		10.16	
20	E17-09992-008	366467		6.01		542728		6.82		449166		10.16	
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J2219.D

Date Analyzed: 12/13/2017

Instrument ID: MSD_J

Time Analyzed: 10:12

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	247714		6.01		379273		6.82		330282		10.16	
	UPPER LIMIT	495428		6.51		758546		7.32		660564		10.66	
	LOWER LIMIT	123857		5.51		189636.5		6.32		165141		9.66	
	LAB SAMPLE ID												
01	BLKA171213-01	221757		6.01		329039		6.82		284181		10.16	
02	E17-10611-004	203729		6.01		305735		6.82		256941		10.16	
03	E17-10611-005	197696		6.01		294038		6.82		247756		10.16	
04	E17-10611-009	210824		6.01		315065		6.83		267846		10.16	
05	E17-10611-008	205346		6.01		304652		6.82		260681		10.16	
06	LCSA171213-01	218639		6.00		330205		6.82		278301		10.16	
07	E17-10611-006	222586		6.00		329850		6.82		286164		10.16	
08	E17-10611-007	245324		6.01		349010		6.82		317694		10.16	
09	E17-10611-010	222497		6.01		331296		6.83		286726		10.16	
10	E17-10611-011	248583		6.01		364078		6.83		312805		10.16	
11	E17-10611-002	220157		6.01		320243		6.83		276798		10.16	
12	E17-10611-003	240752		6.01		356969		6.83		304021		10.16	
13	E17-10611-001	183641		6.01		268322		6.83		229839		10.16	
14	E17-10648-010	202780		6.01		301171		6.82		256420		10.16	
15	E17-10648-011	219387		6.01		328224		6.83		280016		10.16	
16	E17-10648-012	205724		6.01		305933		6.83		261316		10.16	
17	E17-10648-013	198831		6.01		296656		6.83		259735		10.16	
18	E17-10436-001	185051		6.01		277522		6.82		238234		10.16	
19	E17-10436-004	187112		6.01		278146		6.83		245358		10.16	
20	E17-10436-003	191464		6.01		283956		6.83		248093		10.16	
21	E17-10436-002	184616		6.00		273837		6.82		236842		10.16	
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 14 16:50:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

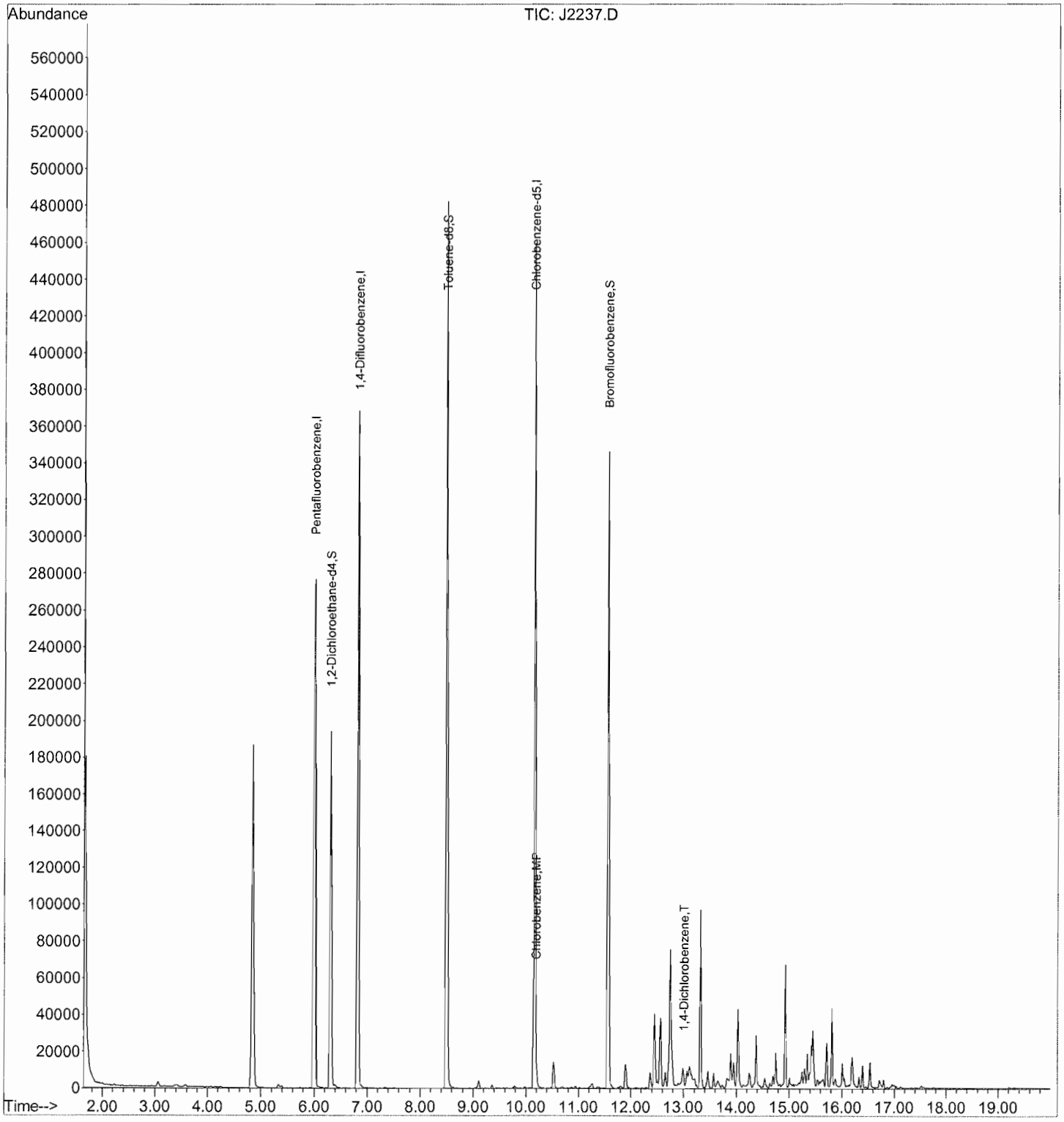
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	183641	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	268322	50.00	UG	0.01
50) Chlorobenzene-d5	10.16	117	229839	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	169792	52.72	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 105.44%			
41) Toluene-d8	8.50	98	317361	49.16	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 98.32%			
59) Bromofluorobenzene	11.57	95	133801	50.52	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 101.04%			
Target Compounds						Qvalue
51) Chlorobenzene	10.19	112	2709	0.51	UG	99
72) 1,4-Dichlorobenzene	13.01	146	1711	0.46	UG	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

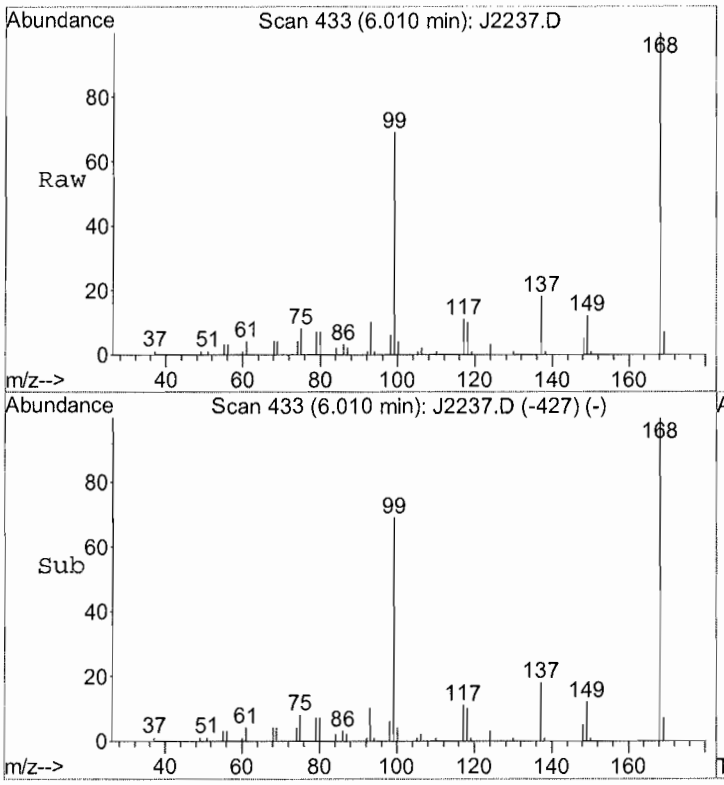
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 14 16:50:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



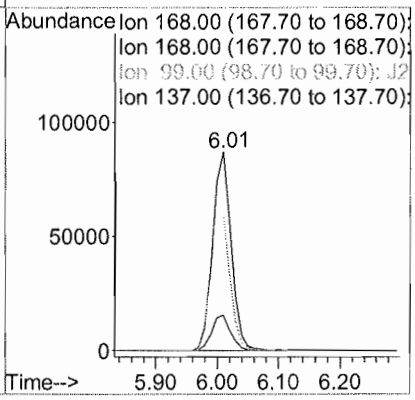
12/15/17

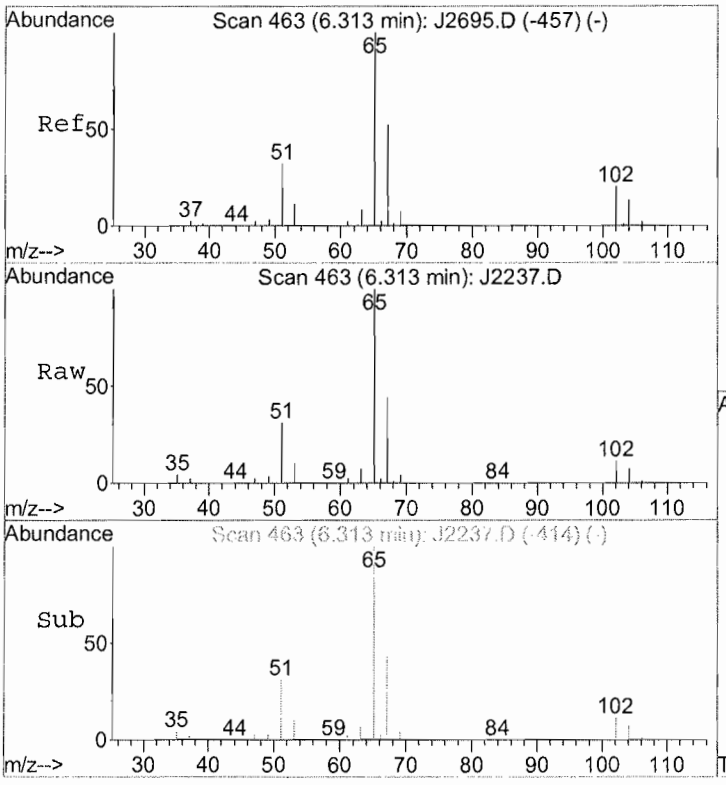


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion:168 Resp: 183641

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	73.1	53.9	100.1
137	18.1	10.5	19.5

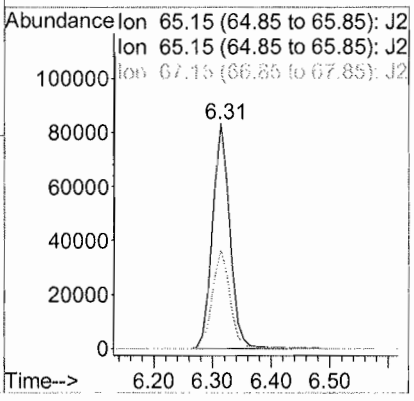


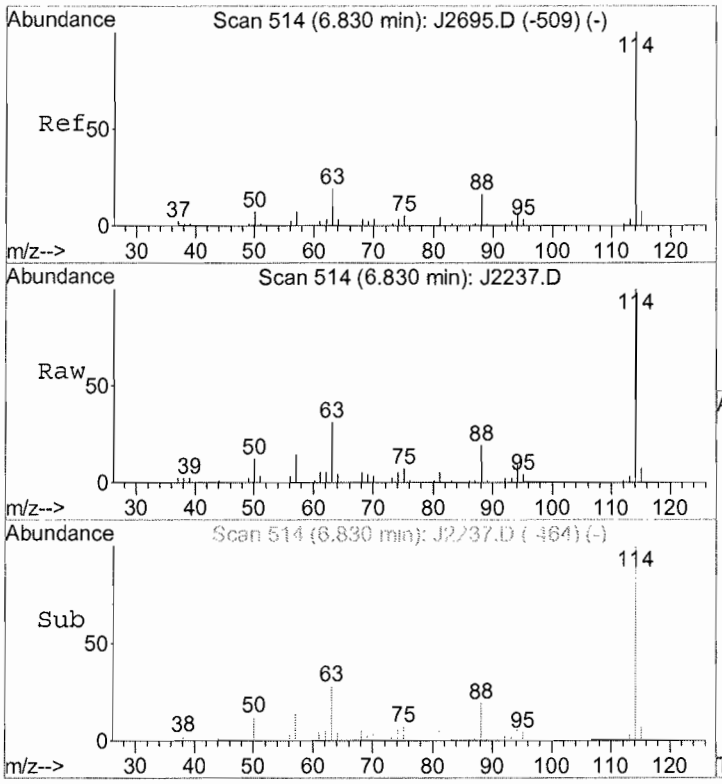


#30
1,2-Dichloroethane-d4
Concen: 52.72 UG
RT: 6.31 min Scan# 463
Delta R.T. -0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion: 65 Resp: 169792

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.1	41.7	77.5

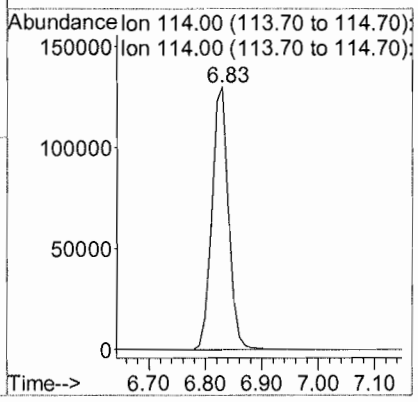


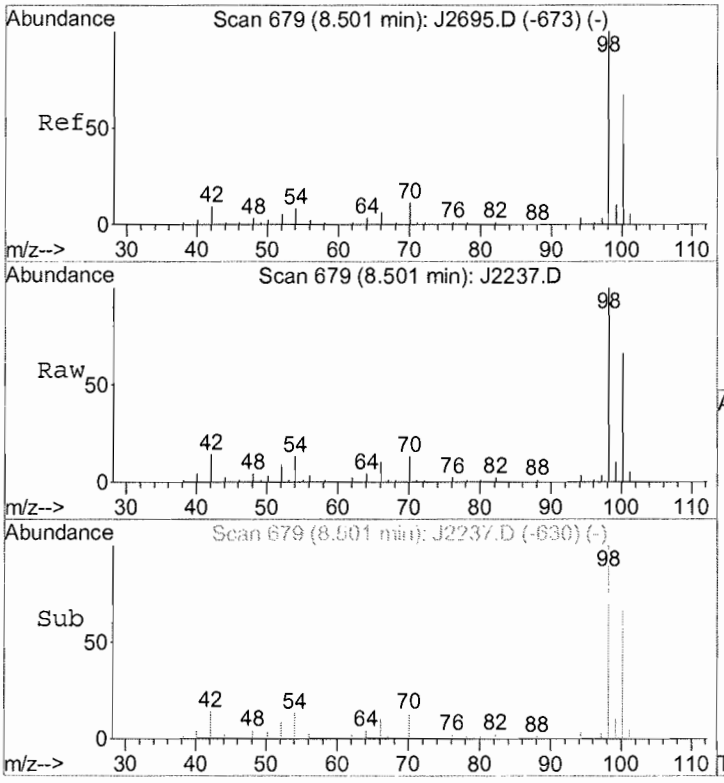


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion:114 Resp: 268322

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

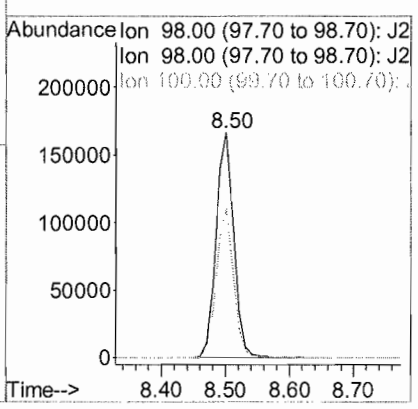


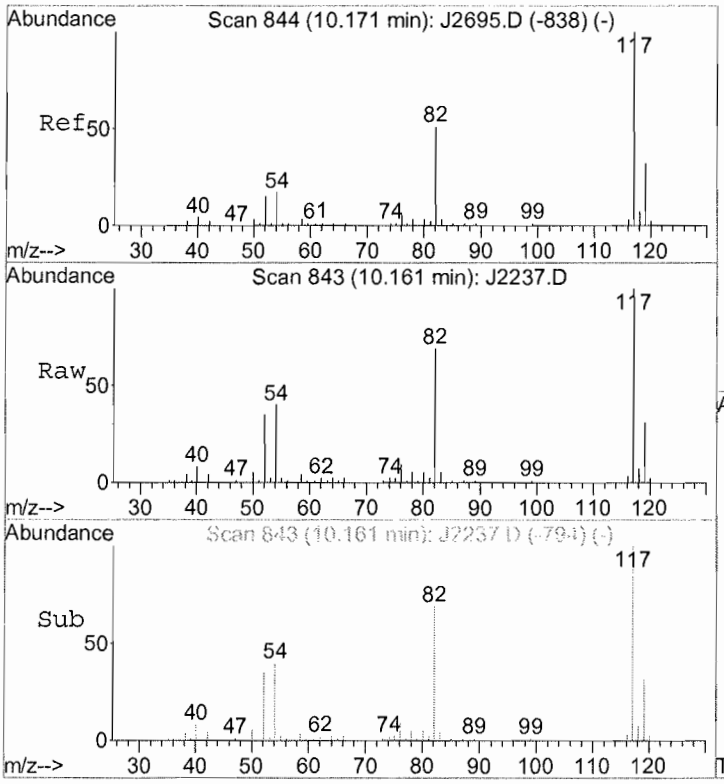


#41
Toluene-d8
Concen: 49.16 UG
RT: 8.50 min Scan# 679
Delta R.T. -0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion: 98 Resp: 317361

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.6	48.1	89.3

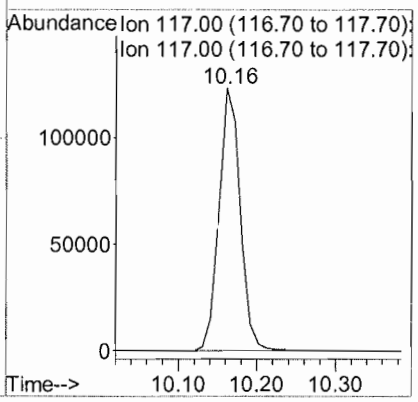


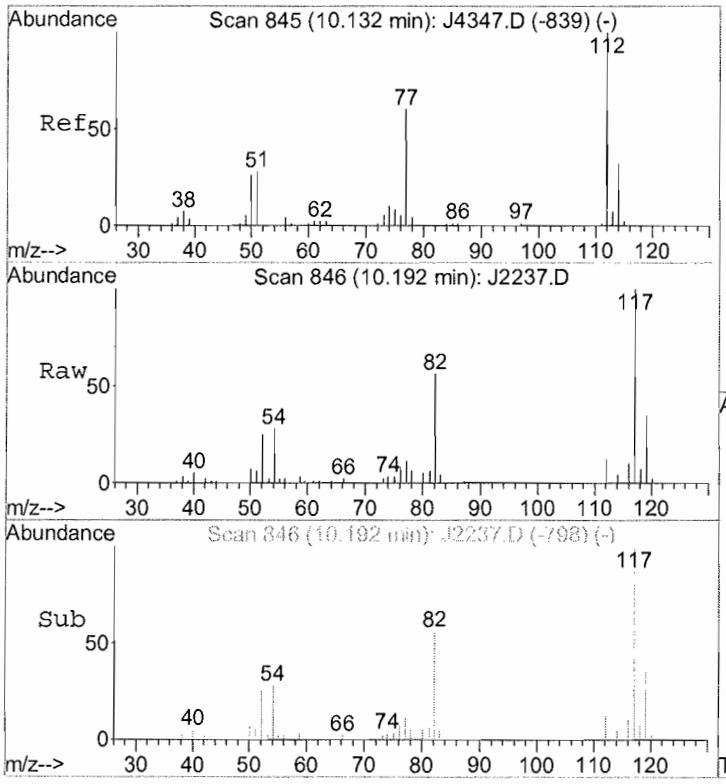


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. -0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion:117 Resp: 229839

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

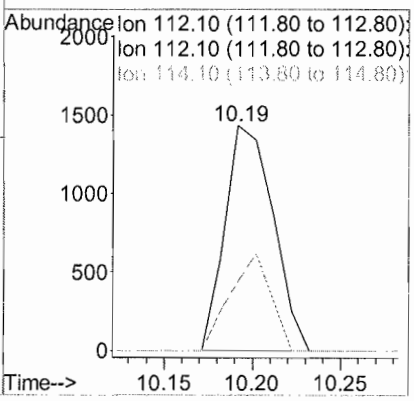


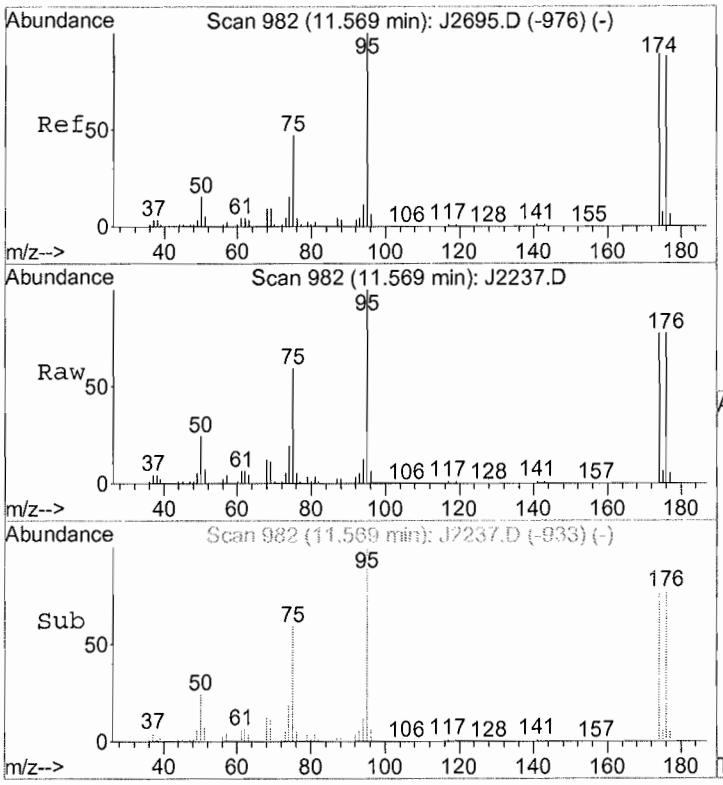


#51
Chlorobenzene
Concen: 0.51 UG
RT: 10.19 min Scan# 846
Delta R.T. -0.01 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion:112 Resp: 2709

Ion	Ratio	Lower	Upper
112	100		
112	100.0	70.0	130.0
114	36.5	23.8	44.2

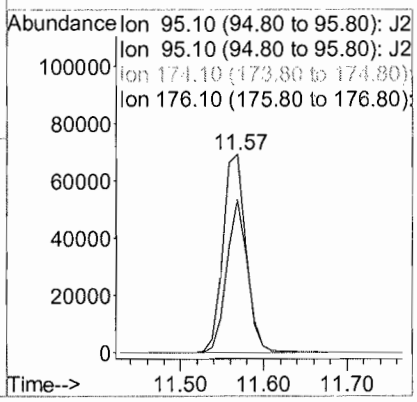


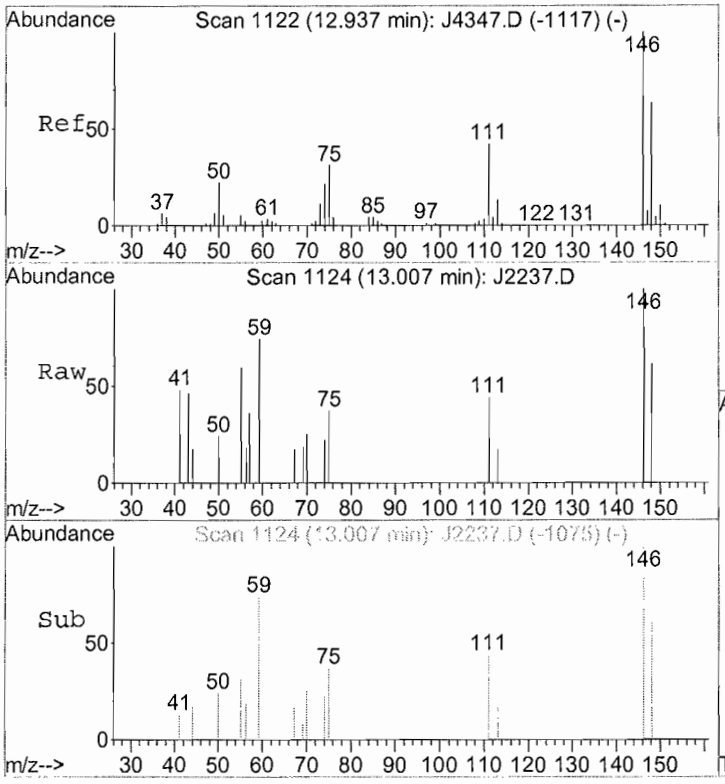


#59
Bromofluorobenzene
Concen: 50.52 UG
RT: 11.57 min Scan# 982
Delta R.T. -0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion: 95 Resp: 133801

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	70.9	0.0	0.0#
176	69.6	0.0	0.0#

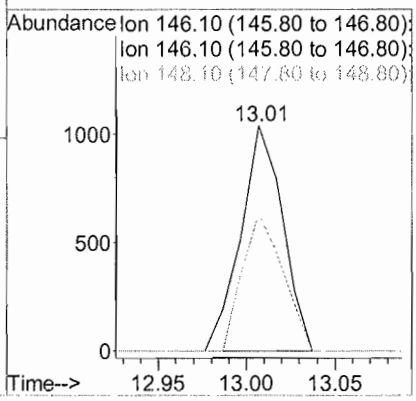




#72
1,4-Dichlorobenzene
Concen: 0.46 UG
RT: 13.01 min Scan# 1124
Delta R.T. -0.00 min
Lab File: J2237.D
Acq: 13 Dec 2017 18:06

Tgt Ion:146 Resp: 1711

Ion	Ratio	Lower	Upper
146	100		
146	100.0	70.0	130.0
148	58.7	44.6	82.8



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.845	309	318	332	rBB	186352	472342	51.12%	7.850%
2	6.010	426	433	447	rBB	276523	602834	65.24%	10.019%
3	6.313	457	463	470	rBB	193247	388298	42.02%	6.453%
4	6.820	509	513	527	rBB	368098	759537	82.20%	12.623%
5	8.501	670	679	695	rBB	482186	924005	100.00%	15.357%
6	10.161	838	843	857	rBB	459123	843897	91.33%	14.025%
7	10.526	872	879	886	rBB	14168	28568	3.09%	0.475%
8	11.569	973	982	993	rBB	345792	657027	71.11%	10.920%
9	11.903	1010	1015	1022	rBB	12810	25810	2.79%	0.429%
10	12.369	1057	1061	1065	rBB2	8242	16055	1.74%	0.267%
11	12.450	1065	1069	1076	rBB	39025	81072	8.77%	1.347%
12	12.561	1076	1080	1086	rBB	36085	70022	7.58%	1.164%
13	12.652	1086	1089	1093	rBB	7332	13742	1.49%	0.228%
14	12.754	1093	1099	1107	rBB3	74138	199269	21.57%	3.312%
15	12.987	1115	1122	1127	rBB2	9018	20994	2.27%	0.349%
16	13.118	1132	1135	1141	rBB2	5874	12442	1.35%	0.207%
17	13.321	1150	1155	1161	rBB	96512	175092	18.95%	2.910%
18	13.463	1161	1169	1176	rBB2	9184	20549	2.22%	0.342%
19	13.574	1177	1180	1183	rBB	7875	12599	1.36%	0.209%
20	13.655	1183	1188	1193	rBB2	3552	10272	1.11%	0.171%
21	13.898	1209	1212	1215	rBB2	14538	22829	2.47%	0.379%
22	13.949	1215	1217	1221	rBB	10386	16430	1.78%	0.273%
23	14.040	1222	1226	1233	rBB	41917	87013	9.42%	1.446%
24	14.252	1241	1247	1252	rBB2	7292	15126	1.64%	0.251%
25	14.384	1252	1260	1270	rBB	28159	53960	5.84%	0.897%
26	14.546	1270	1276	1282	rBB4	5214	12719	1.38%	0.211%
27	14.749	1294	1296	1302	rBB	17030	26398	2.86%	0.439%
28	14.931	1306	1314	1318	rBB2	66128	112055	12.13%	1.862%
29	15.245	1341	1345	1347	rBB2	6370	9806	1.06%	0.163%
30	15.295	1347	1350	1352	rBB	8033	11673	1.26%	0.194%
31	15.346	1352	1355	1358	rBB2	15092	22624	2.45%	0.376%
32	15.457	1358	1366	1371	rBB3	28644	86899	9.40%	1.444%
33	15.711	1388	1391	1396	rBB	23430	37571	4.07%	0.624%
34	15.812	1397	1401	1405	rBB	42035	63810	6.91%	1.061%
35	16.014	1415	1421	1429	rBB2	12475	25477	2.76%	0.423%
36	16.197	1429	1439	1449	rBB	15880	36180	3.92%	0.601%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

37	16.399	1455	1459	1463	rBB	11747	18426	1.99%	0.306%
38	16.541	1470	1473	1478	rBB2	13707	23550	2.55%	0.391%

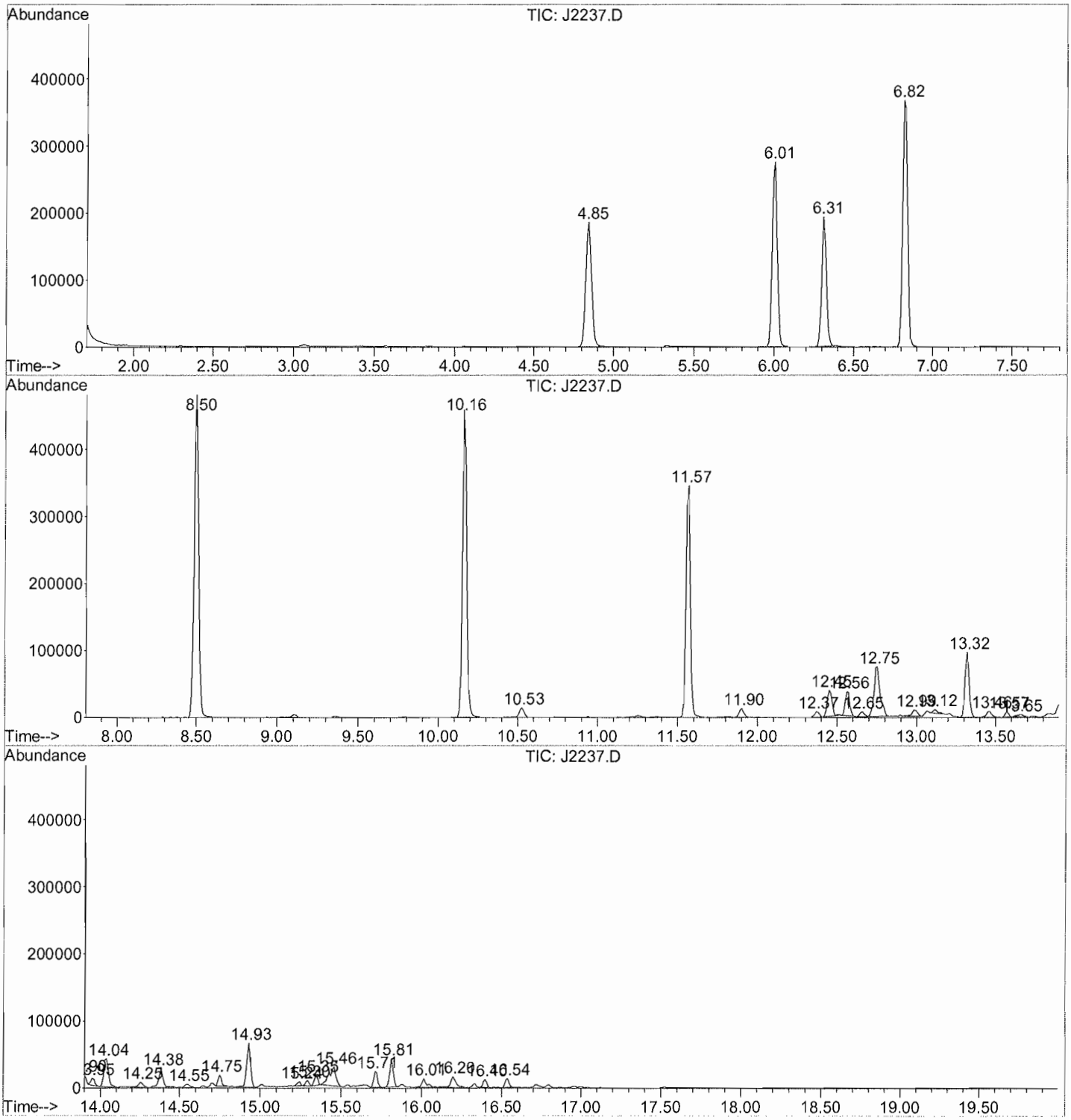
Sum of corrected areas: 6016972

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

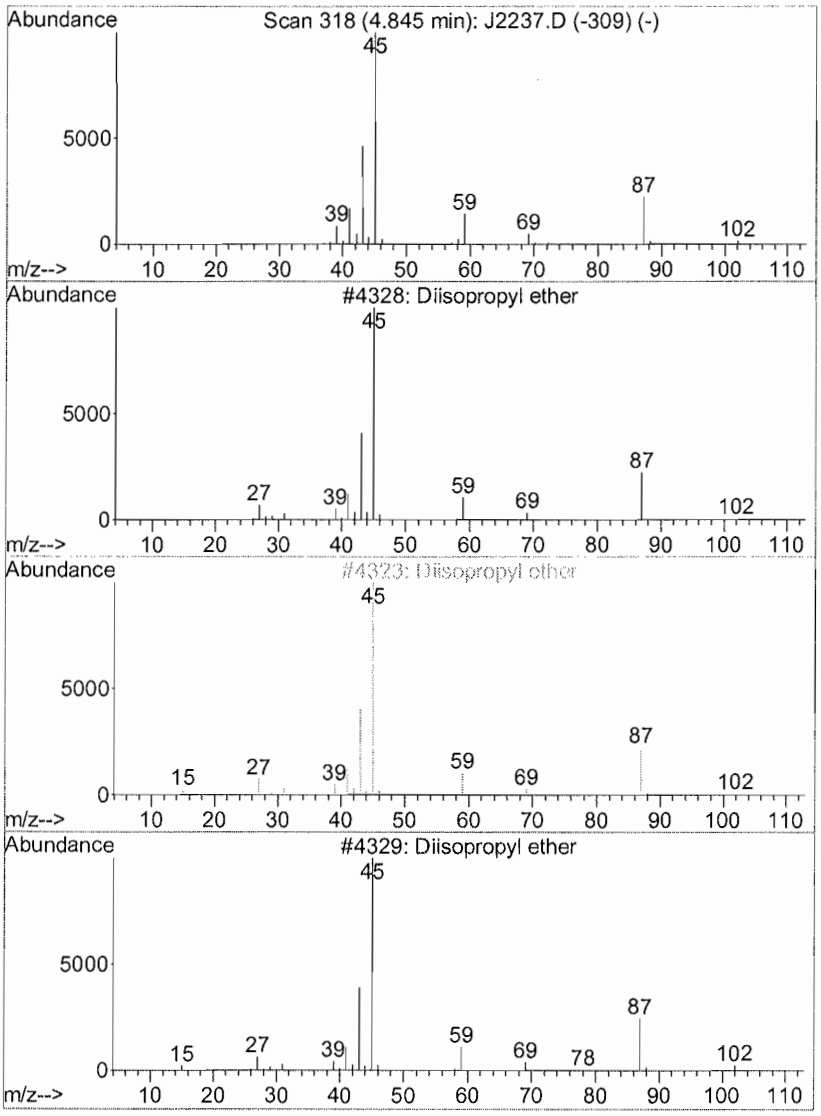
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TIC Integration Parameters: LSCINT.P

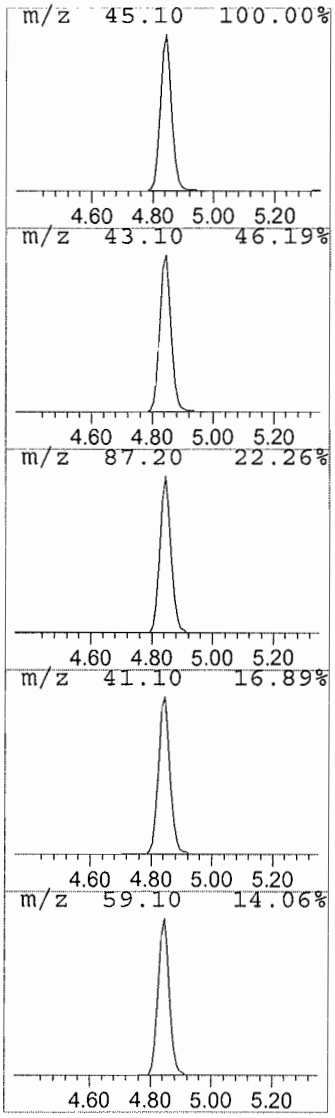
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Peak Number 1 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	39.18 UG	472342	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	83
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	64
5	Ether, sec-butyl isopropyl	116	C7H16O	018641-81-1	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

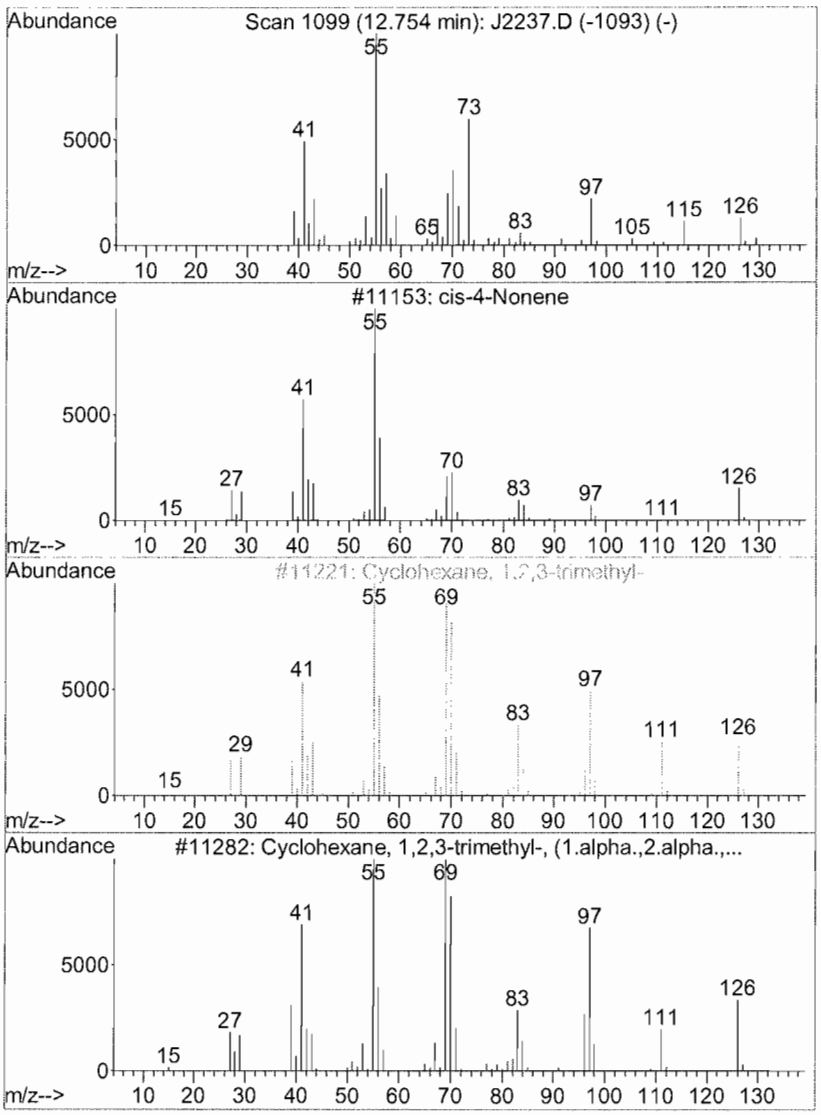
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

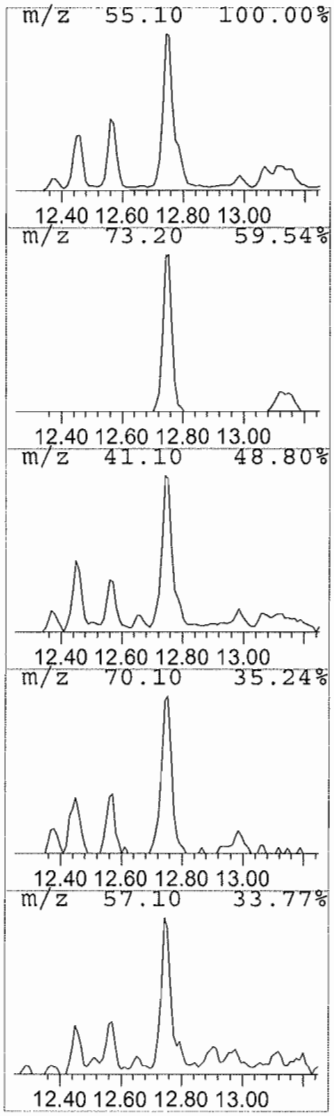
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.75	11.81 UG	199269	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	cis-4-Nonene	126	C9H18	010405-84-2	43
2	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	40
3	Cyclohexane, 1,2,3-trimethyl-, (...	126	C9H18	001839-88-9	38
4	trans-1,3-Diethylcyclopentane	126	C9H18	1000113-87-1	37
5	4-Nonene	126	C9H18	002198-23-4	32





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

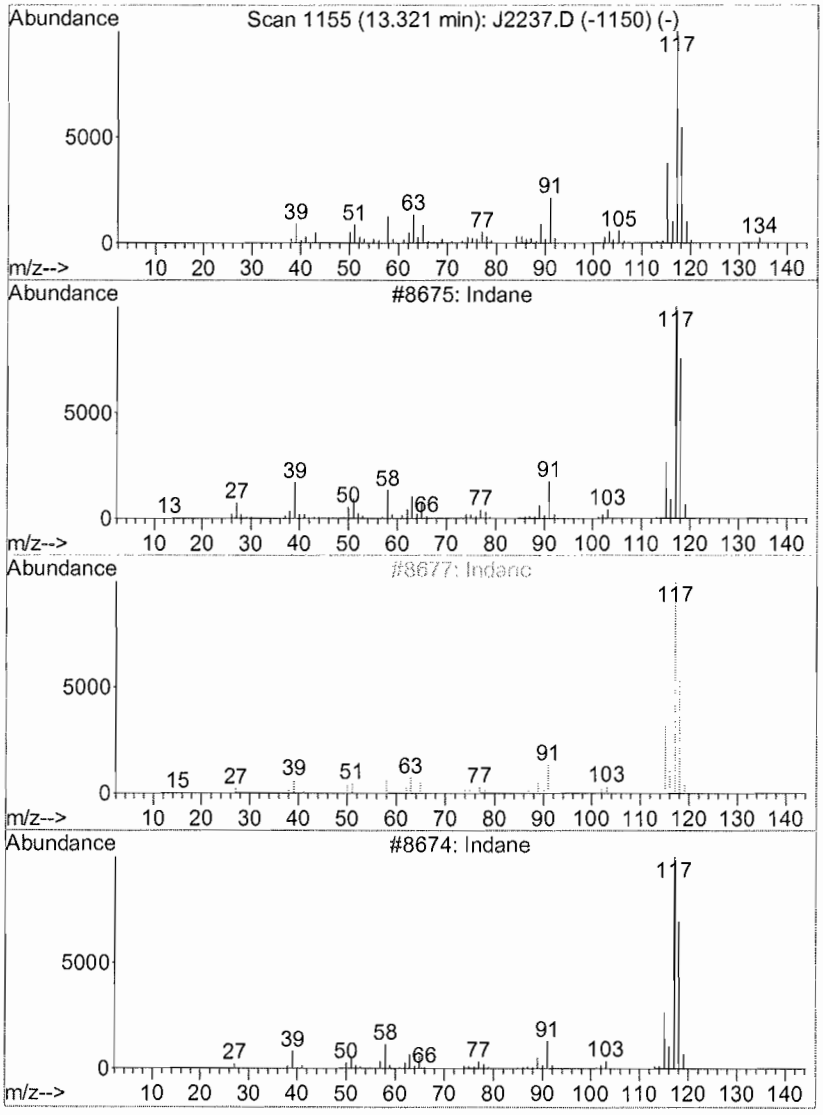
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TIC Integration Parameters: LSCINT.P

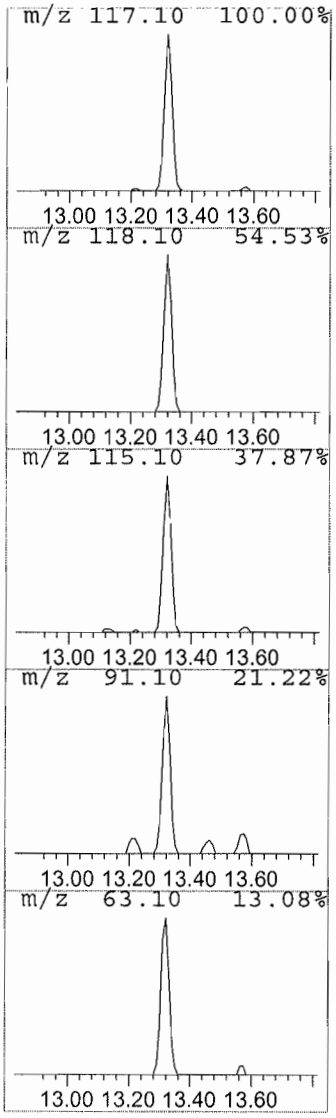
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Peak Number 3 Indane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.32	10.37 UG	175092	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	95
2	Indane	118	C9H10	000496-11-7	87
3	Indane	118	C9H10	000496-11-7	81
4	Benzene, 1-propenyl-	118	C9H10	000637-50-3	74
5	Benzene, 1-propenyl-	118	C9H10	000637-50-3	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

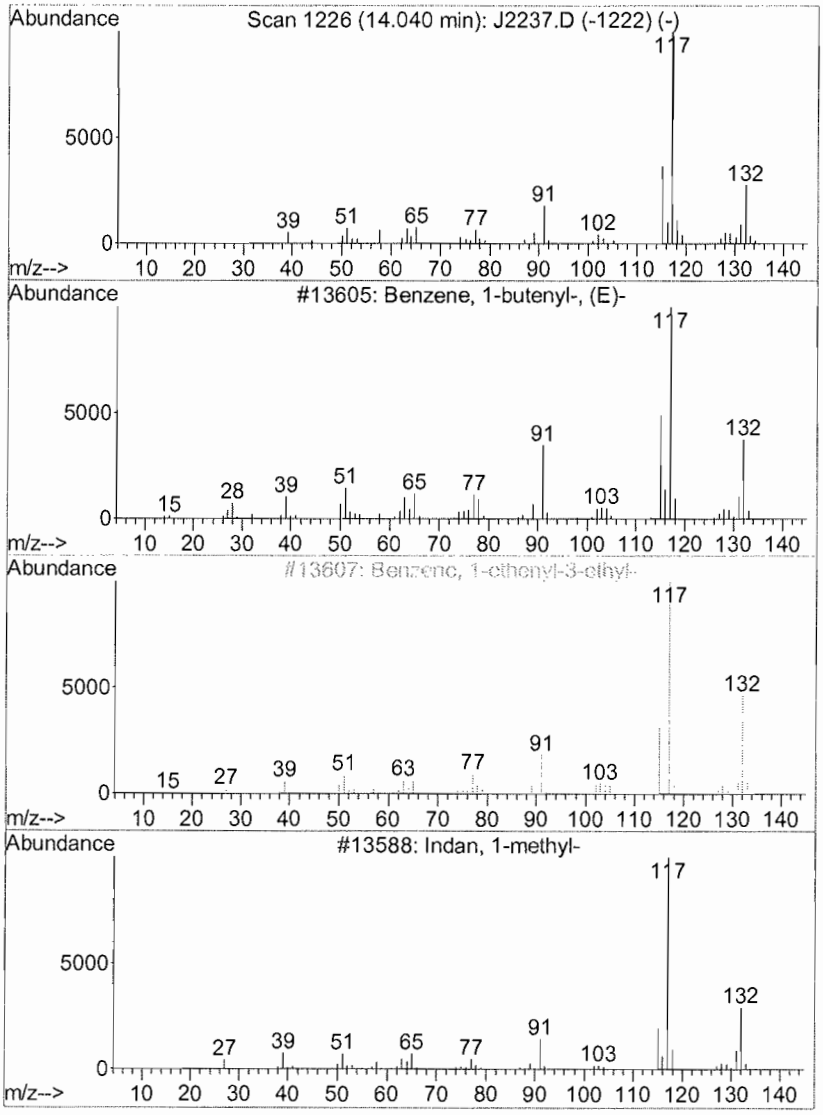
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

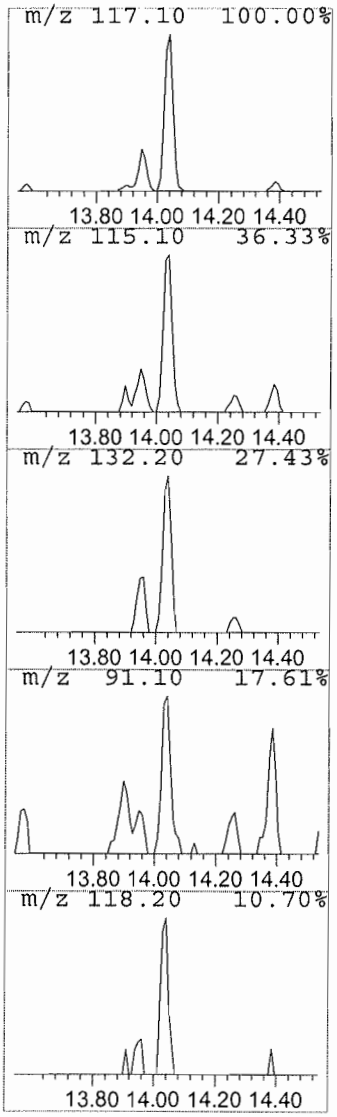
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Peak Number 4 Benzene, 1-butenyl-, (E)- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.04	5.16 UG	87013	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-butenyl-, (E)-	132	C10H12	001005-64-7	90
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	90
3	Indan, 1-methyl-	132	C10H12	000767-58-8	87
4	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	87
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	86





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

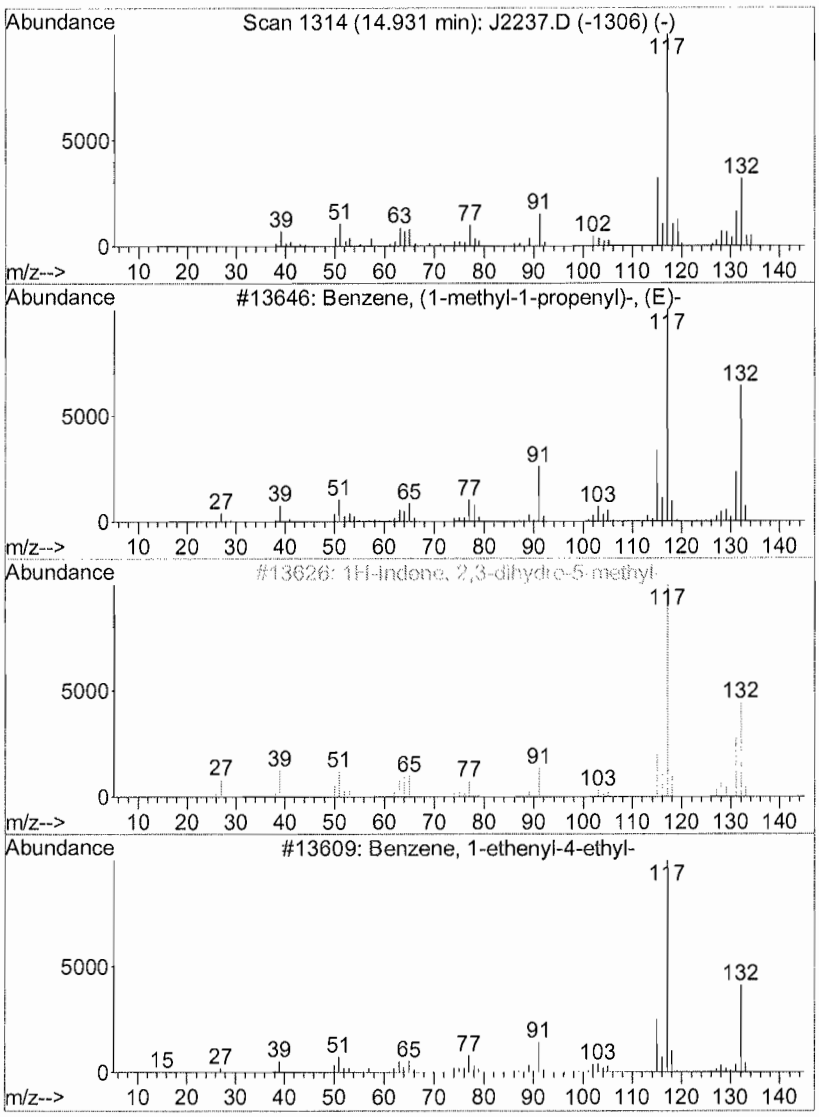
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

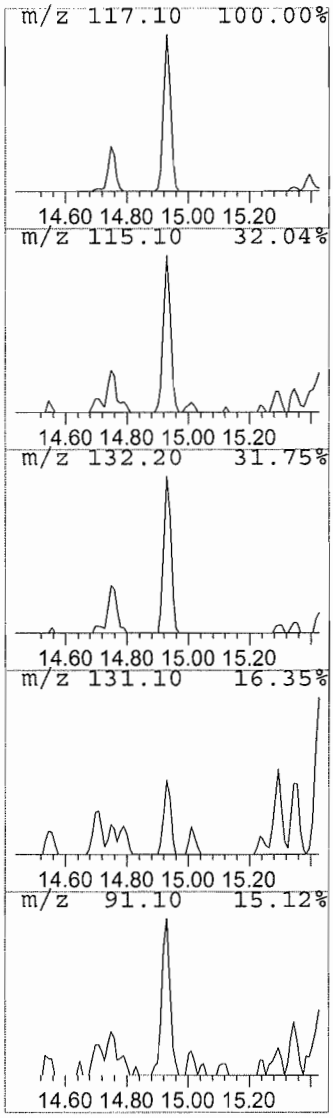
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Benzene, (1-methyl-1-propen... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.93	6.64 UG	112055	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	90
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	87
3	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
4	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	87
5	Indan, 1-methyl-	132	C10H12	000767-58-8	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2237.D
Acq On : 13 Dec 2017 18:06
Operator : MEI
Sample : MW-11,E17-10611-001,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 20 Sample Multiplier: 1

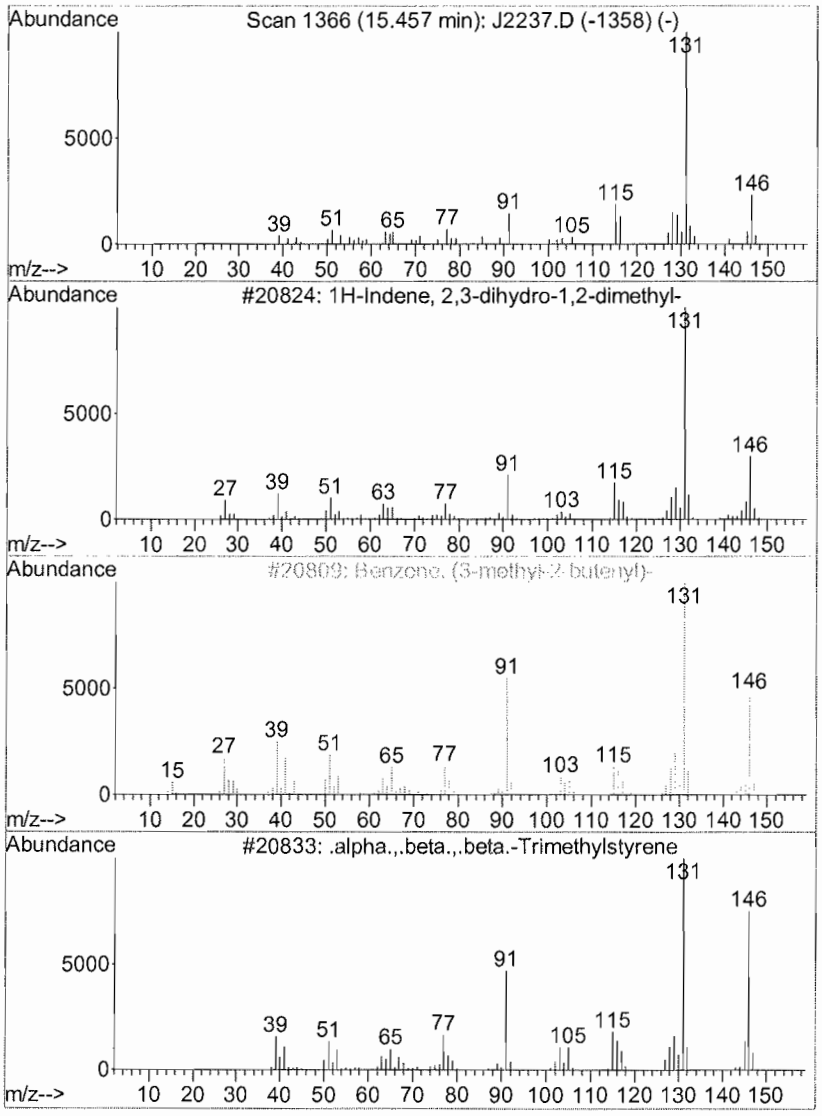
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

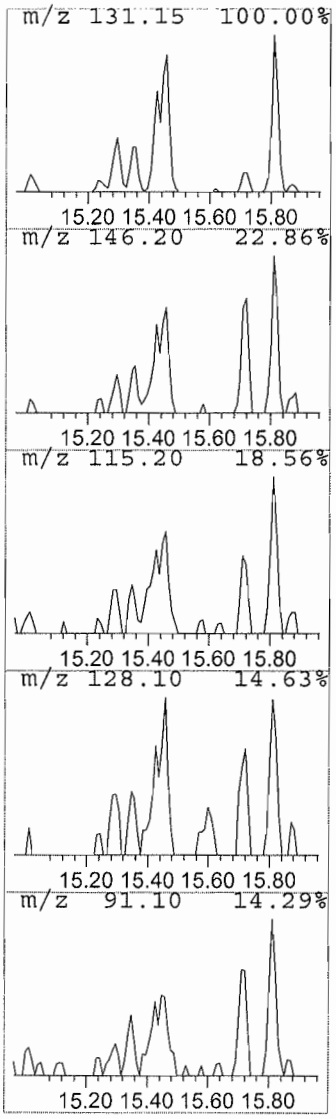
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 6 1H-Indene, 2,3-dihydro-1,2-... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.46	5.15 UG	86899	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	94
2	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	91
3	.alpha.,.beta.,.beta.-Trimethyls...	146	C11H14	000769-57-3	91
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001559-81-5	90
5	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	90





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 14 16:45:04 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

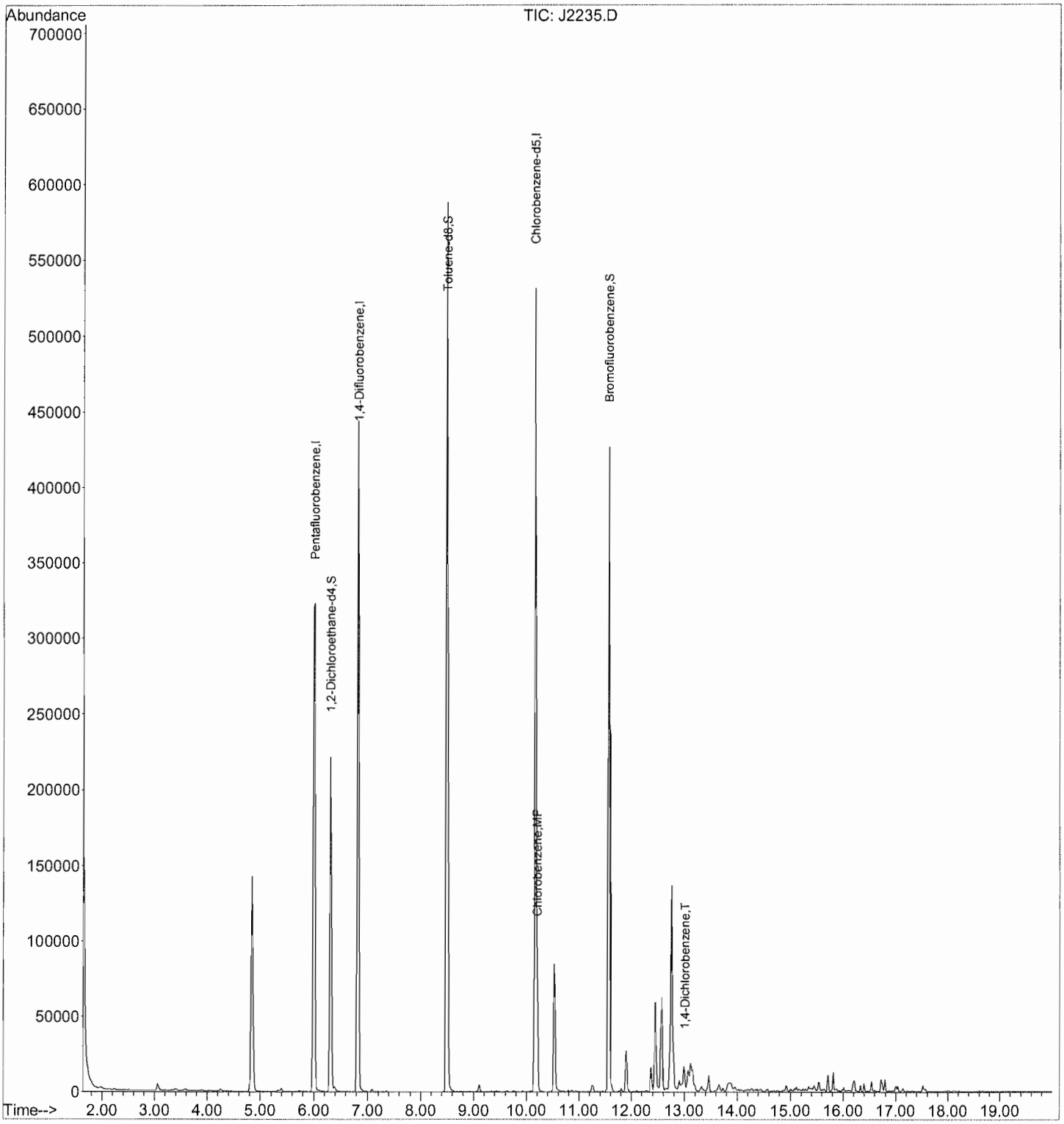
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	220157	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	320243	50.00	UG	0.01
50) Chlorobenzene-d5	10.16	117	276798	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	196313	50.84	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.68%			
41) Toluene-d8	8.50	98	389202	50.51	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.02%			
59) Bromofluorobenzene	11.57	95	165958	52.03	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 104.06%			
Target Compounds						Qvalue
51) Chlorobenzene	10.20	112	40624	6.31	UG	99
72) 1,4-Dichlorobenzene	13.01	146	2919	0.66	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

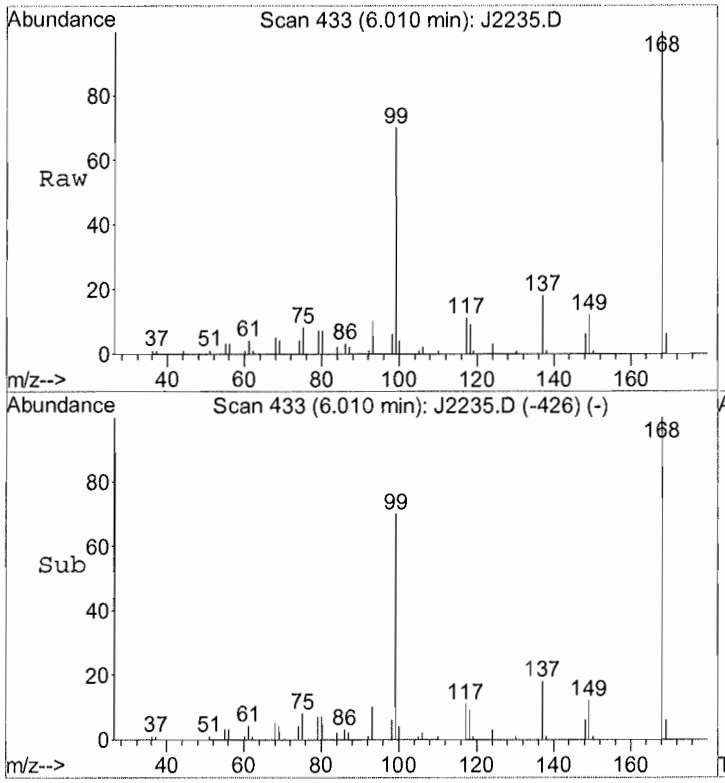
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 14 16:45:04 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



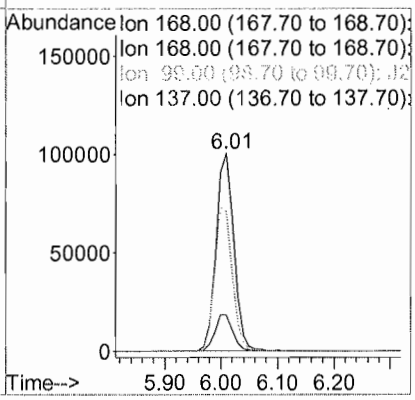
12/15/17

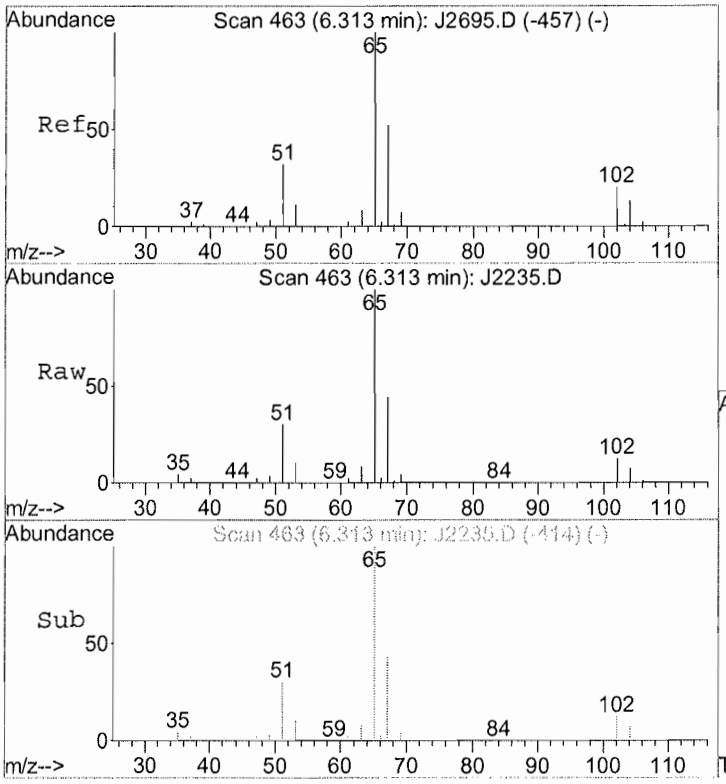


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion:168 Resp: 220157

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	73.0	53.9	100.1
137	18.5	10.5	19.5

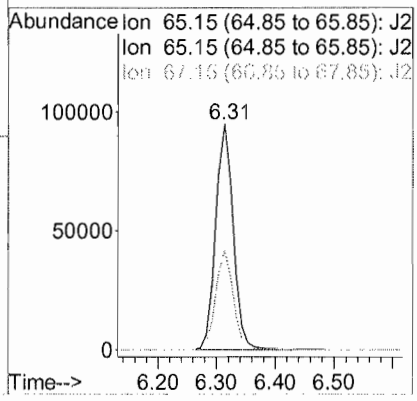


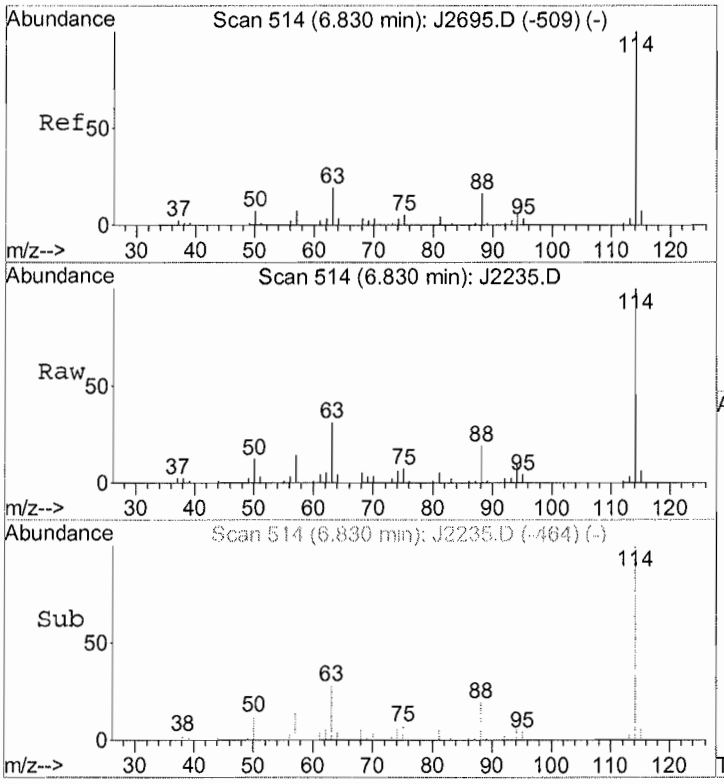


#30
1,2-Dichloroethane-d4
Concen: 50.84 UG
RT: 6.31 min Scan# 463
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion: 65 Resp: 196313

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.6	41.7	77.5

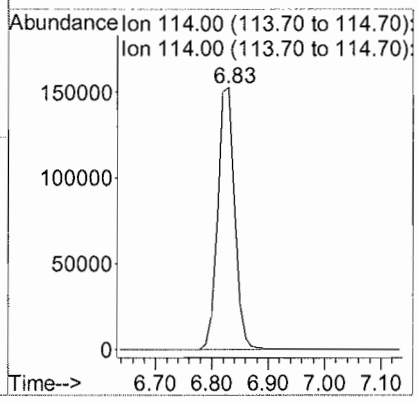


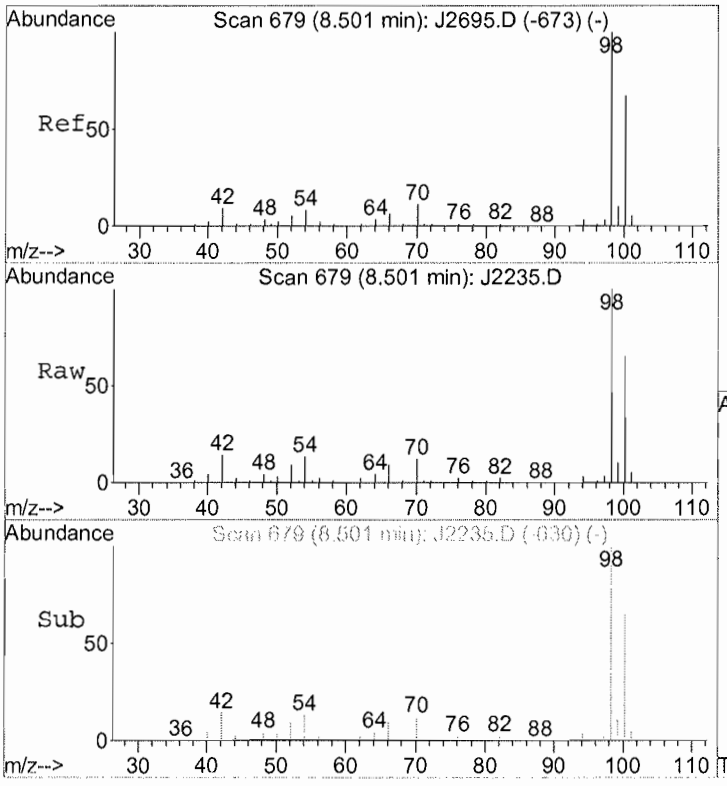


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion:114 Resp: 320243

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

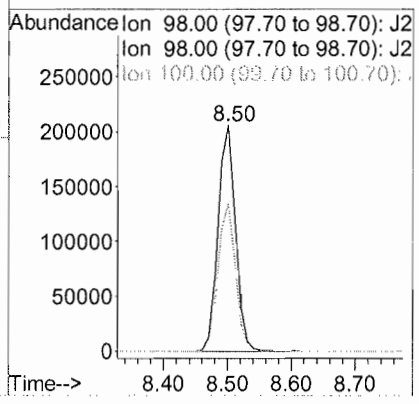


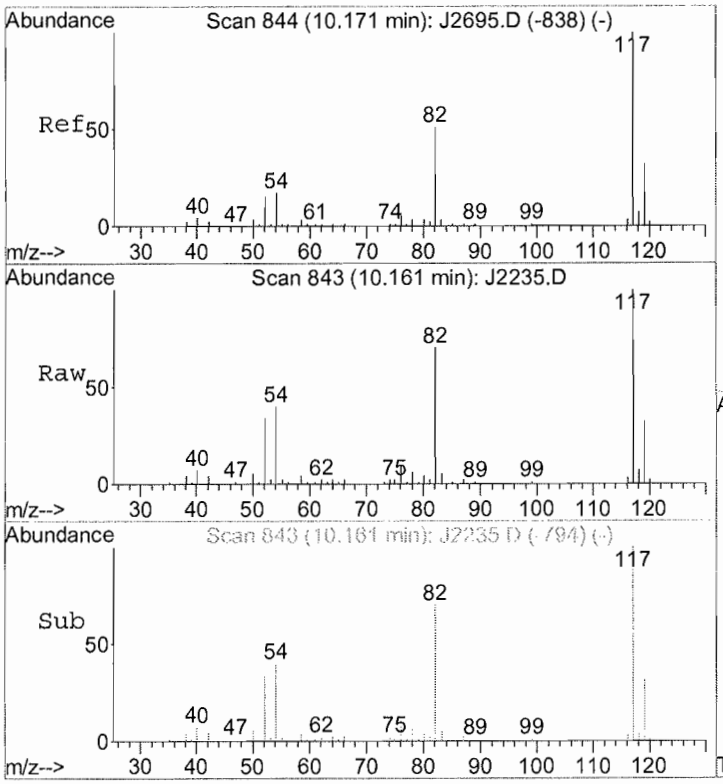


#41
Toluene-d8
Concen: 50.51 UG
RT: 8.50 min Scan# 679
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion: 98 Resp: 389202

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	65.4	48.1	89.3

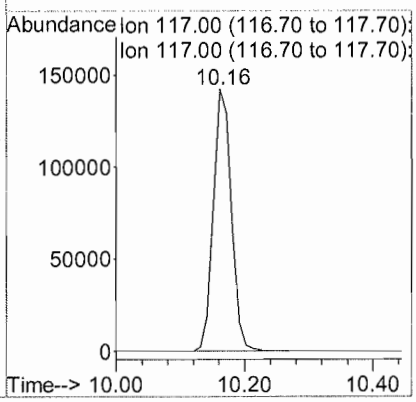


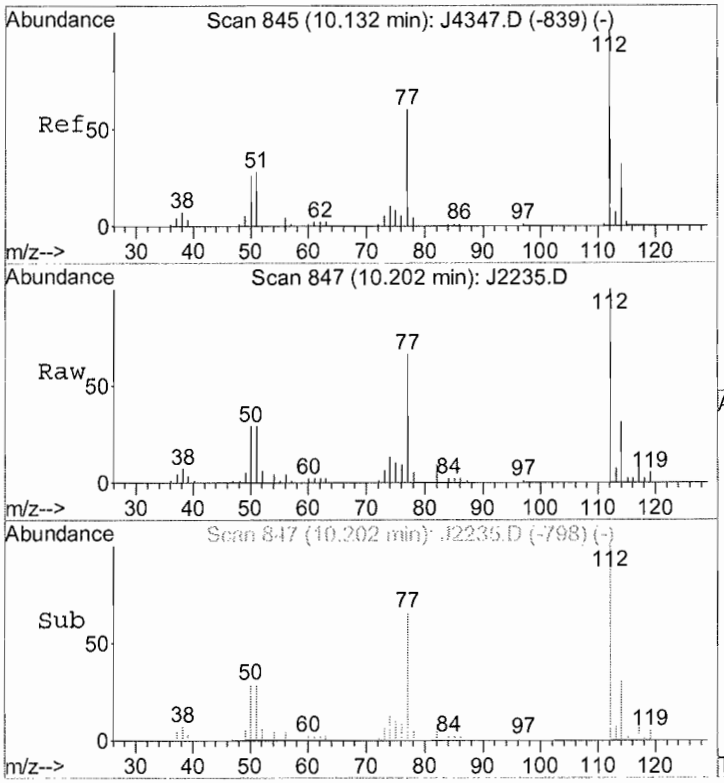


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion:117 Resp: 276798

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

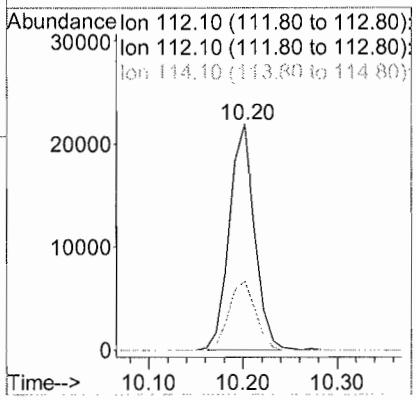


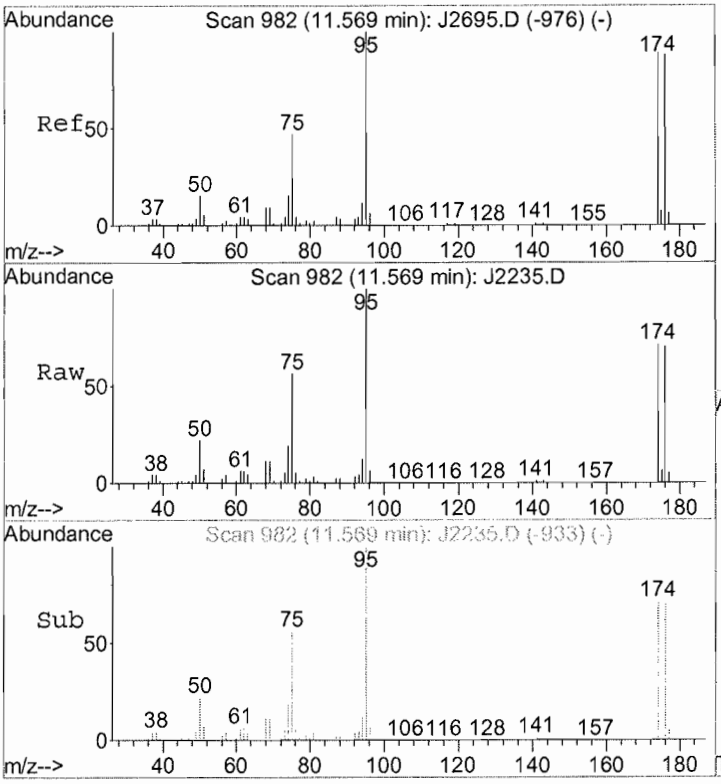


#51
Chlorobenzene
Concen: 6.31 UG
RT: 10.20 min Scan# 847
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion:112 Resp: 40624

Ion	Ratio	Lower	Upper
112	100		
112	100.0	70.0	130.0
114	31.8	23.8	44.2

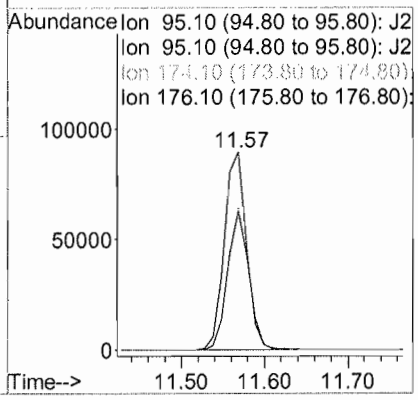


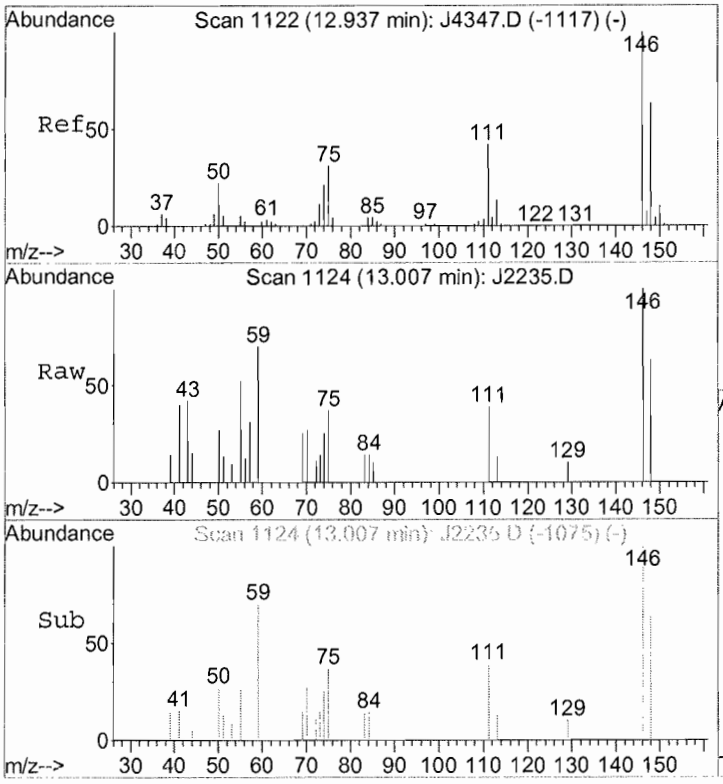


#59
Bromofluorobenzene
Concen: 52.03 UG
RT: 11.57 min Scan# 982
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion: 95 Resp: 165958

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	69.0	0.0	0.0#
176	67.4	0.0	0.0#

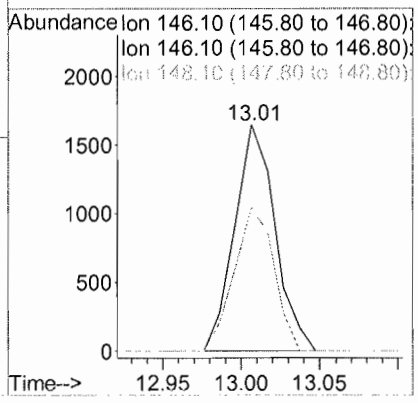




#72
1,4-Dichlorobenzene
Concen: 0.66 UG
RT: 13.01 min Scan# 1124
Delta R.T. -0.00 min
Lab File: J2235.D
Acq: 13 Dec 2017 17:13

Tgt Ion:146 Resp: 2919

Ion	Ratio	Lower	Upper
146	100		
146	100.0	70.0	130.0
148	62.5	44.6	82.8



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.845	308	318	329	rBB	142378	360781	31.08%	5.461%
2	6.010	424	433	455	rBB	322745	724043	62.38%	10.961%
3	6.313	458	463	469	rBB	220519	447407	38.54%	6.773%
4	6.820	507	513	533	rBB	443838	907053	78.14%	13.731%
5	8.501	669	679	695	rBB	588261	1133794	97.67%	17.163%
6	10.161	837	843	857	rBB2	531086	1160788	100.00%	17.572%
7	10.526	872	879	892	rBB	84458	169797	14.63%	2.570%
8	11.569	975	982	995	rBB	426678	807691	69.58%	12.227%
9	11.903	1009	1015	1025	rBB	26821	56104	4.83%	0.849%
10	12.379	1058	1062	1065	rBB	15121	29450	2.54%	0.446%
11	12.450	1065	1069	1076	rBB	57104	120376	10.37%	1.822%
12	12.561	1076	1080	1086	rBB	60512	120852	10.41%	1.829%
13	12.754	1092	1099	1110	rBB2	134814	355704	30.64%	5.385%
14	12.987	1116	1122	1127	rBB2	12903	30906	2.66%	0.468%
15	13.068	1127	1130	1133	rBB3	7381	15836	1.36%	0.240%
16	13.118	1133	1135	1145	rBB4	9742	30148	2.60%	0.456%
17	13.463	1164	1169	1175	rBB2	10380	21025	1.81%	0.318%
18	13.665	1175	1189	1193	rBB2	4402	13464	1.16%	0.204%
19	13.857	1201	1208	1215	rBB6	4887	26296	2.27%	0.398%
20	15.711	1388	1391	1396	rBB	10998	18484	1.59%	0.280%
21	15.812	1396	1401	1404	rBB	12118	18896	1.63%	0.286%
22	16.207	1433	1440	1449	rBB4	7052	18878	1.63%	0.286%
23	16.723	1488	1491	1495	rBB3	7639	18141	1.56%	0.275%

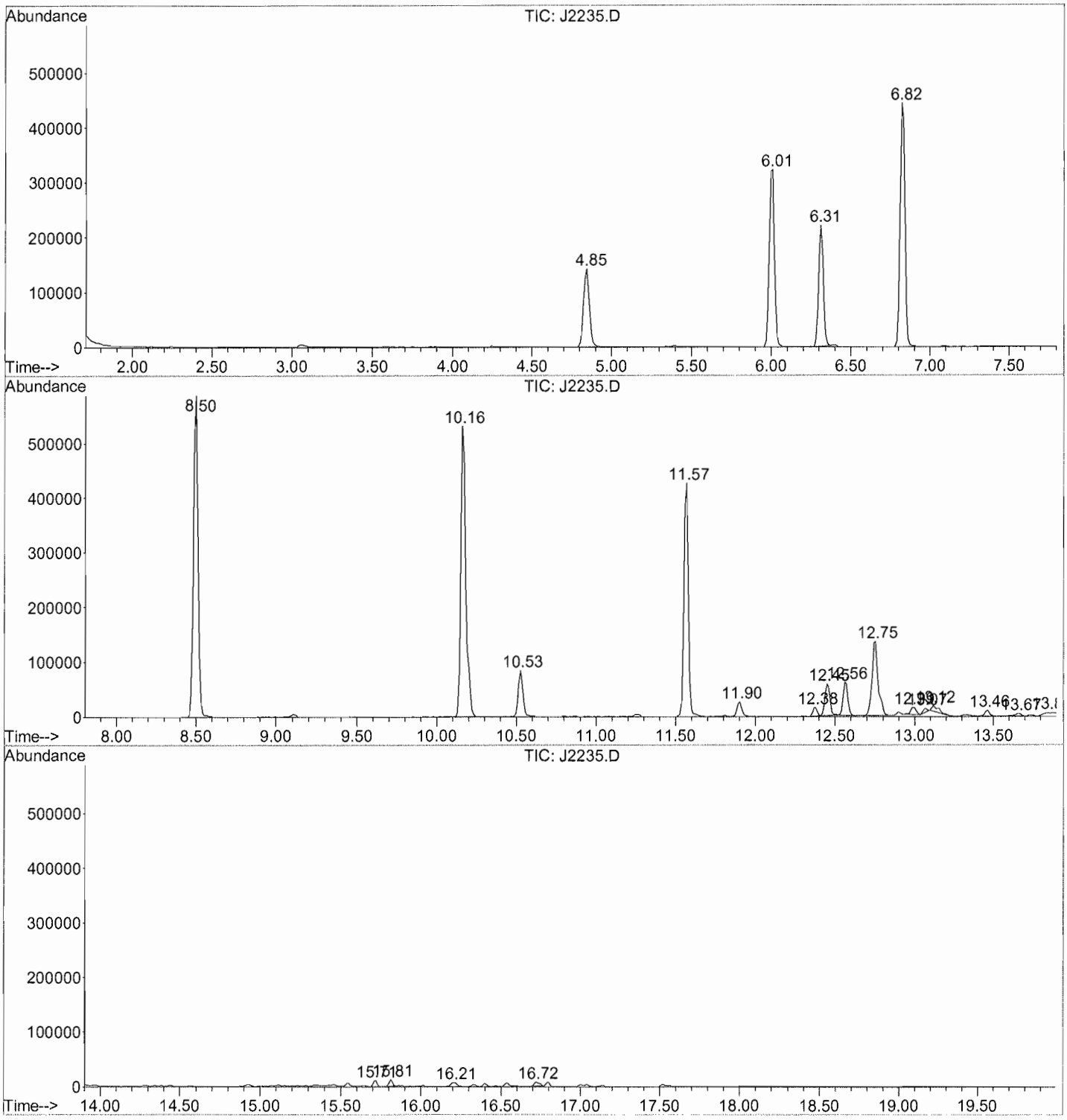
Sum of corrected areas: 6605914

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

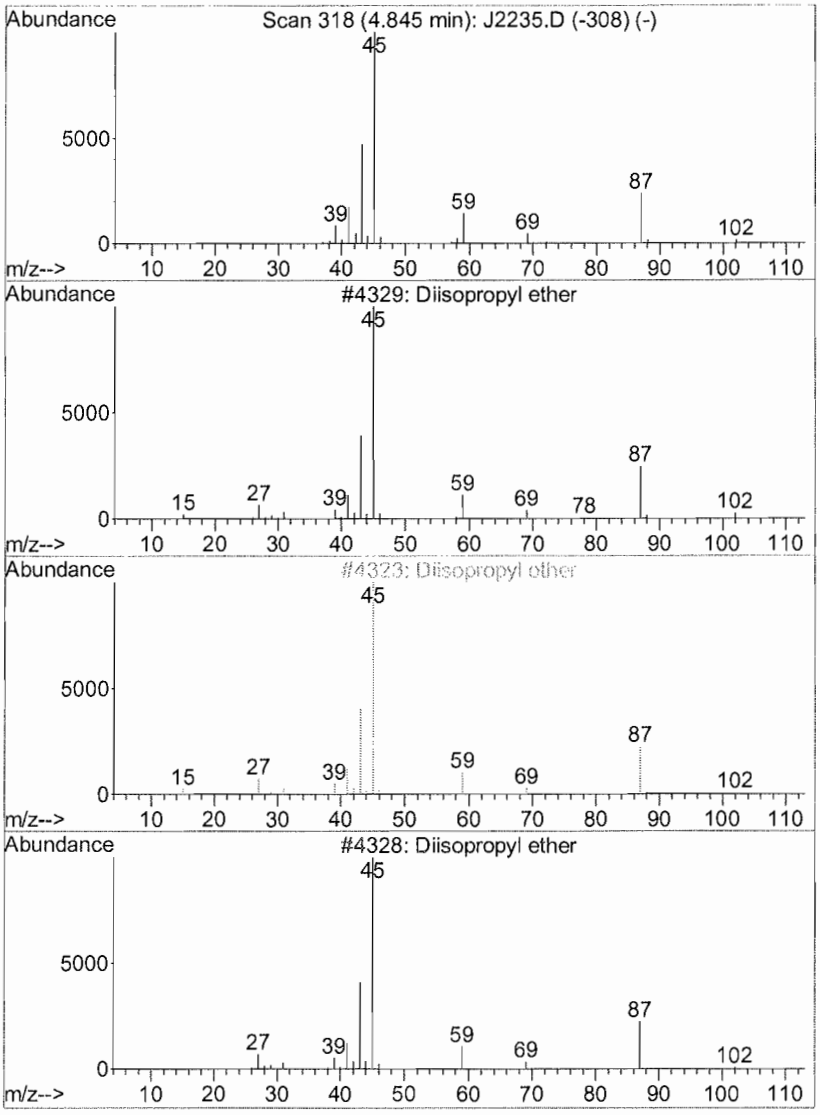
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

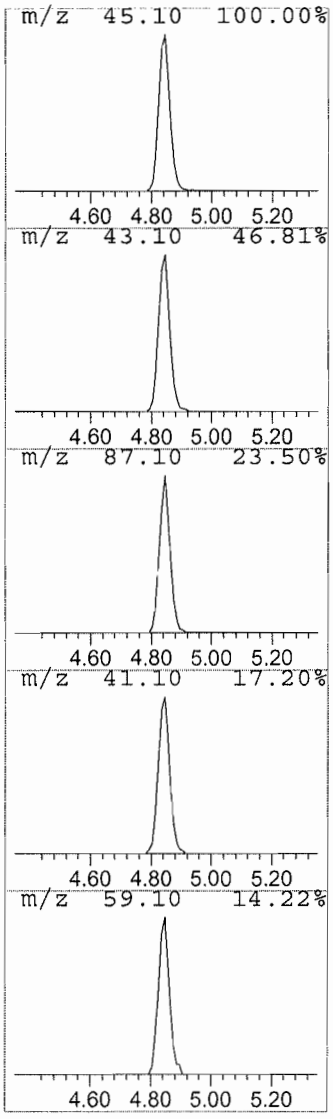
****

Peak Number 1 Diisopropyl ether Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	24.91 UG	360781	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	86
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	83
5	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	64





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

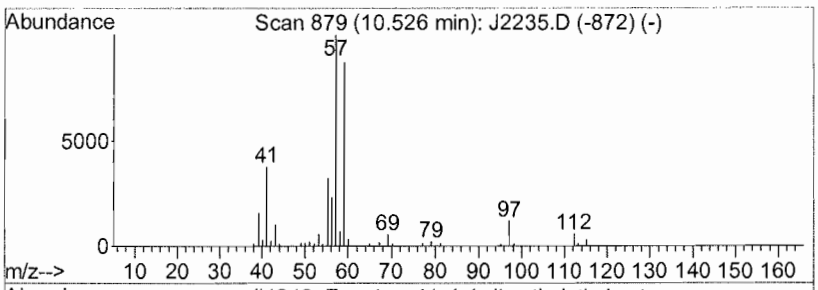
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

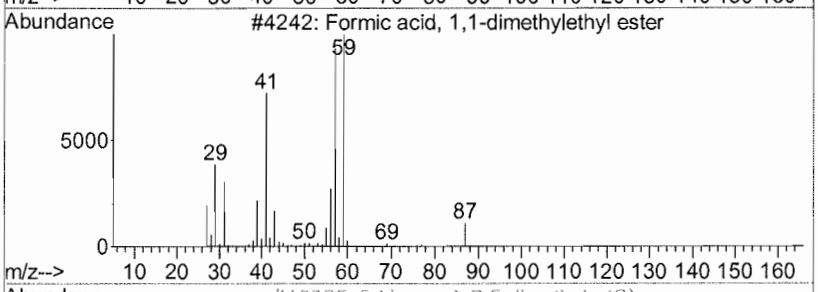
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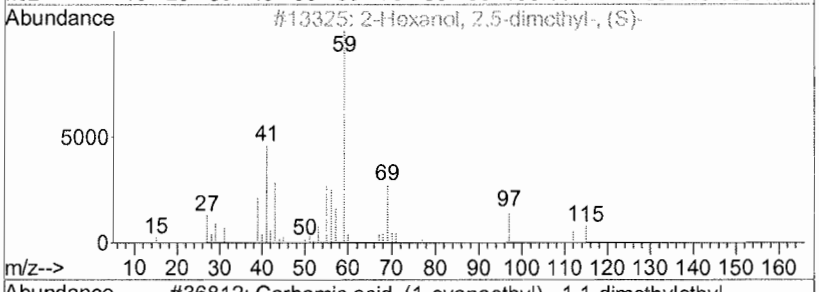
Peak Number 2 Unknown VOA Concentration Rank 3

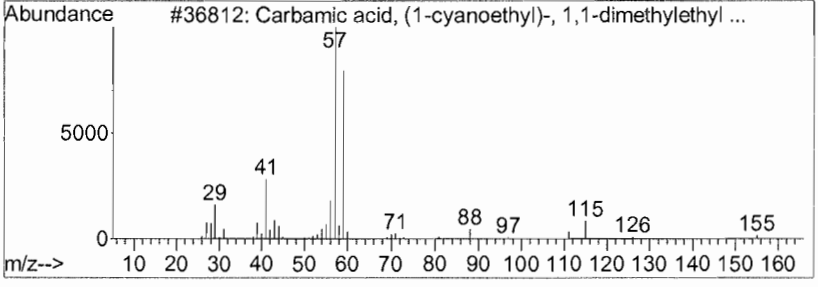
R.T.	EstConc	Area	Relative to ISTD	R.T.
10.53	7.31 UG	169797	Chlorobenzene-d5	10.16

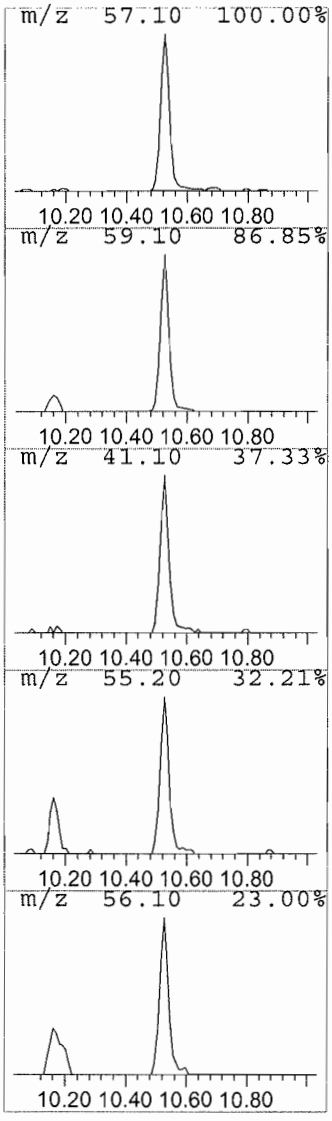
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formic acid, 1,1-dimethylethyl e...	102	C5H10O2	000762-75-4	64
2	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	40
3	Carbamic acid, (1-cyanoethyl)-, ...	170	C8H14N2O2	100927-09-1	39
4	Carbamic acid, (cyanomethyl)-, 1...	156	C7H12N2O2	085363-04-8	39
5	Propane, 1-(1,1-dimethylethoxy)-...	130	C8H18O	033021-02-2	36











Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

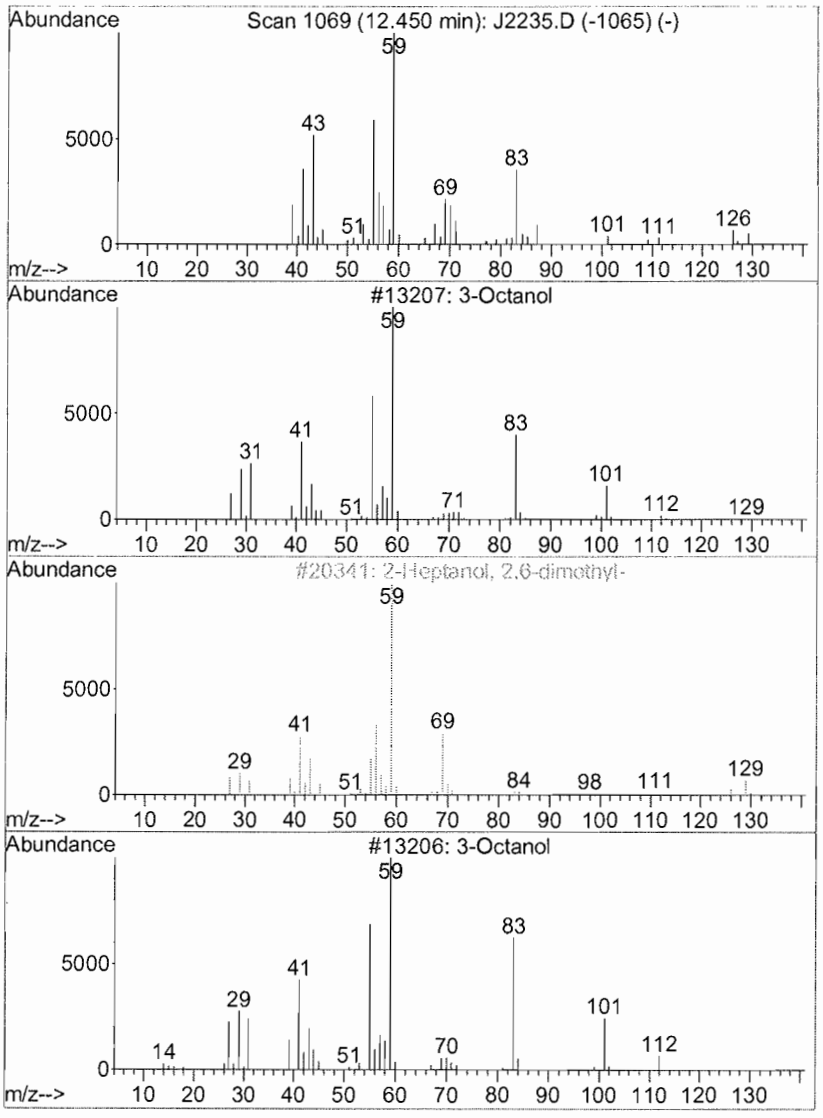
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

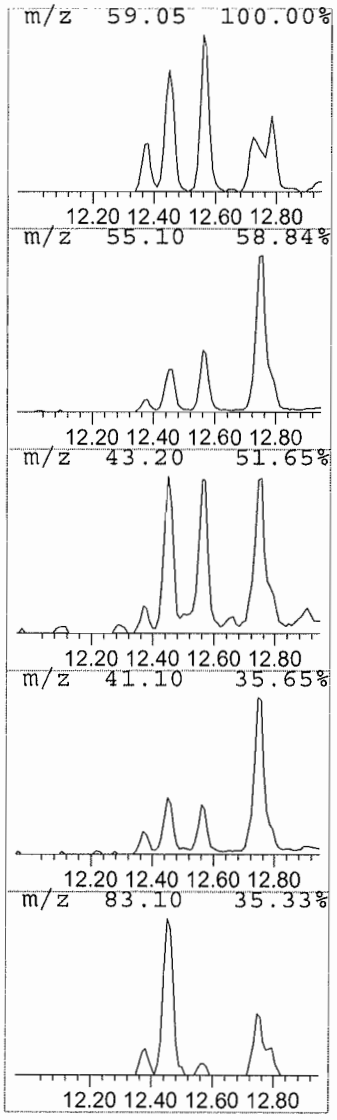
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Peak Number 3 Unknown VOA Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.45	5.19 UG	120376	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Octanol	130	C8H18O	000589-98-0	53
2	2-Heptanol, 2,6-dimethyl-	144	C9H20O	013254-34-7	50
3	3-Octanol	130	C8H18O	000589-98-0	50
4	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	50
5	Butanamide, 3-methyl-	101	C5H11NO	000541-46-8	43





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

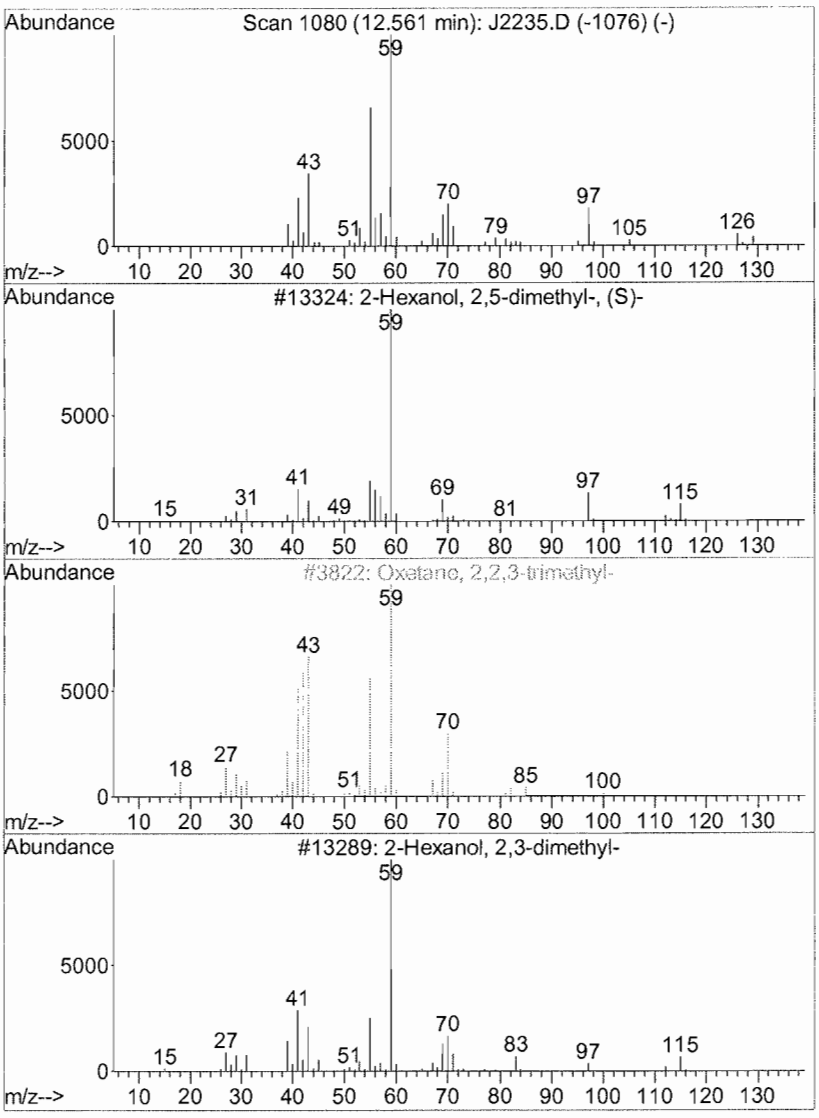
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TIC Integration Parameters: LSCINT.P

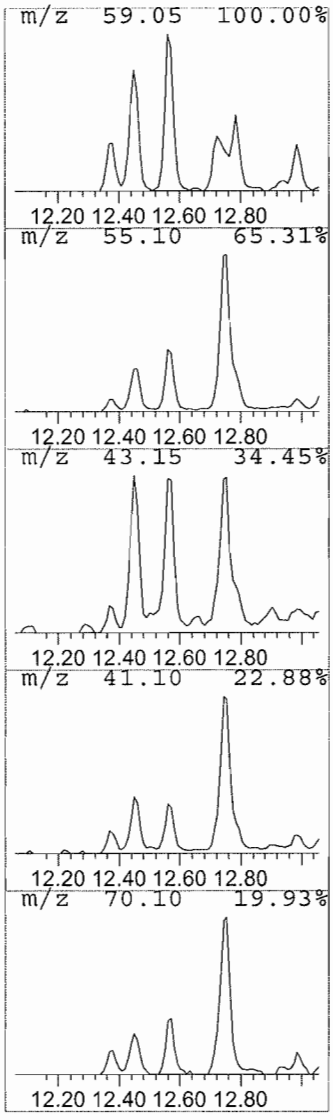
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Peak Number 4 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.56	5.21 UG	120852	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	59
2	Oxetane, 2,2,3-trimethyl-	100	C6H12O	023120-43-6	53
3	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	50
4	4,5-Dimethyl-3-heptanol	144	C9H20O	019549-76-9	45
5	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	42





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2235.D
Acq On : 13 Dec 2017 17:13
Operator : MEI
Sample : MW-7,E17-10611-002,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

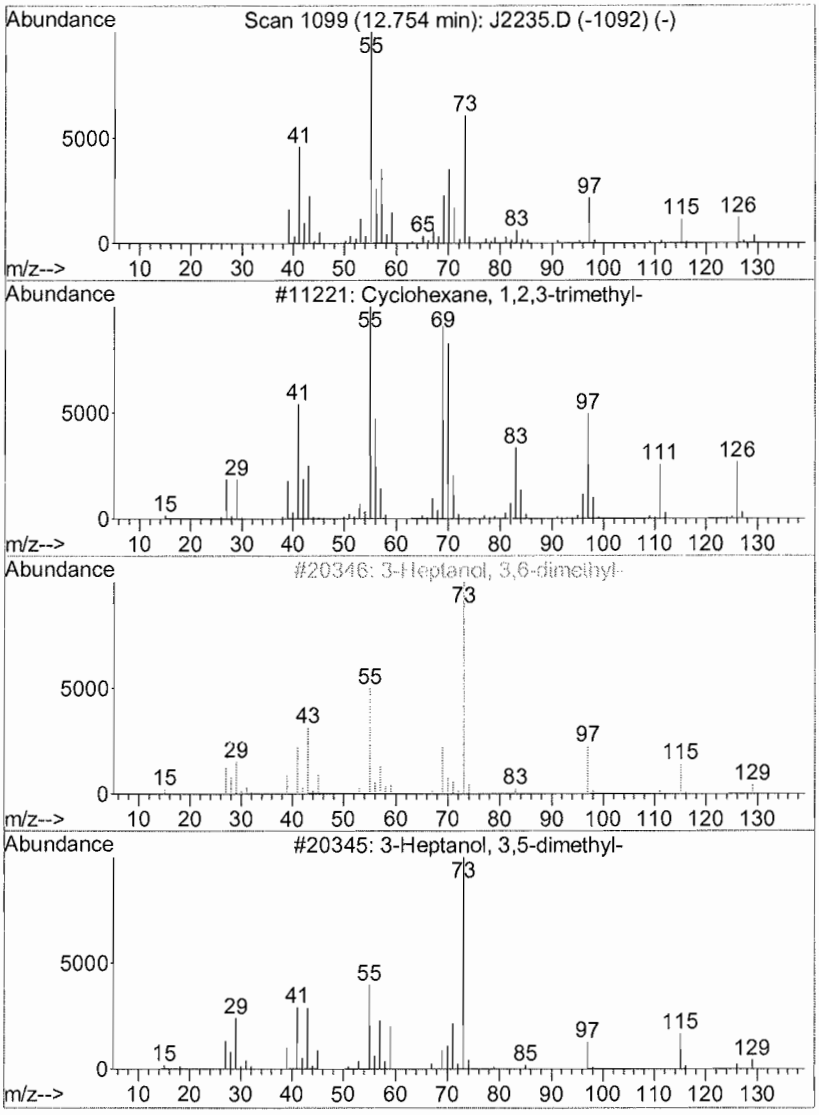
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

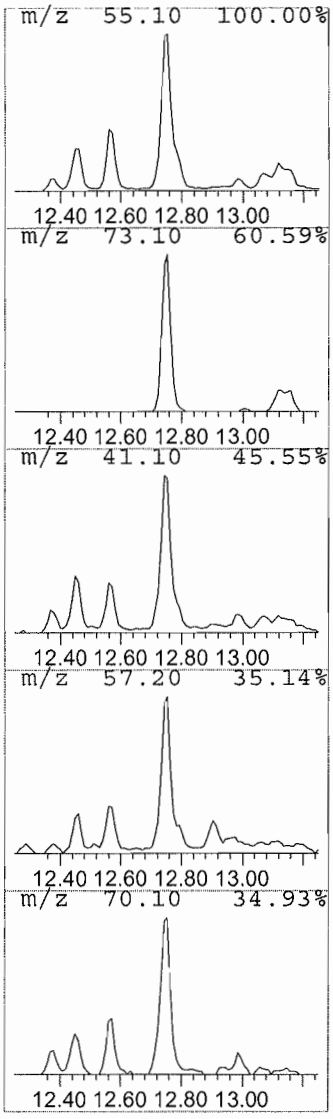
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Peak Number 5 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.75	15.32 UG	355704	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	40
2	3-Heptanol, 3,6-dimethyl-	144	C9H20O	001573-28-0	37
3	3-Heptanol, 3,5-dimethyl-	144	C9H20O	019549-74-7	35
4	Cyclohexane, 1,2,3-trimethyl-, (...	126	C9H18	007667-55-2	32
5	(S)-(+)-6-Methyl-1-octanol	144	C9H20O	110453-78-6	32





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2236.D
Acq On : 13 Dec 2017 17:39
Operator : MEI
Sample : MW-6,E17-10611-003,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 14 16:47:38 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	240752	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	356969	50.00	UG	0.01
50) Chlorobenzene-d5	10.16	117	304021	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	211430	50.07	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.14%			
41) Toluene-d8	8.50	98	428355	49.87	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 99.74%			
59) Bromofluorobenzene	11.57	95	176119	50.27	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 100.54%			

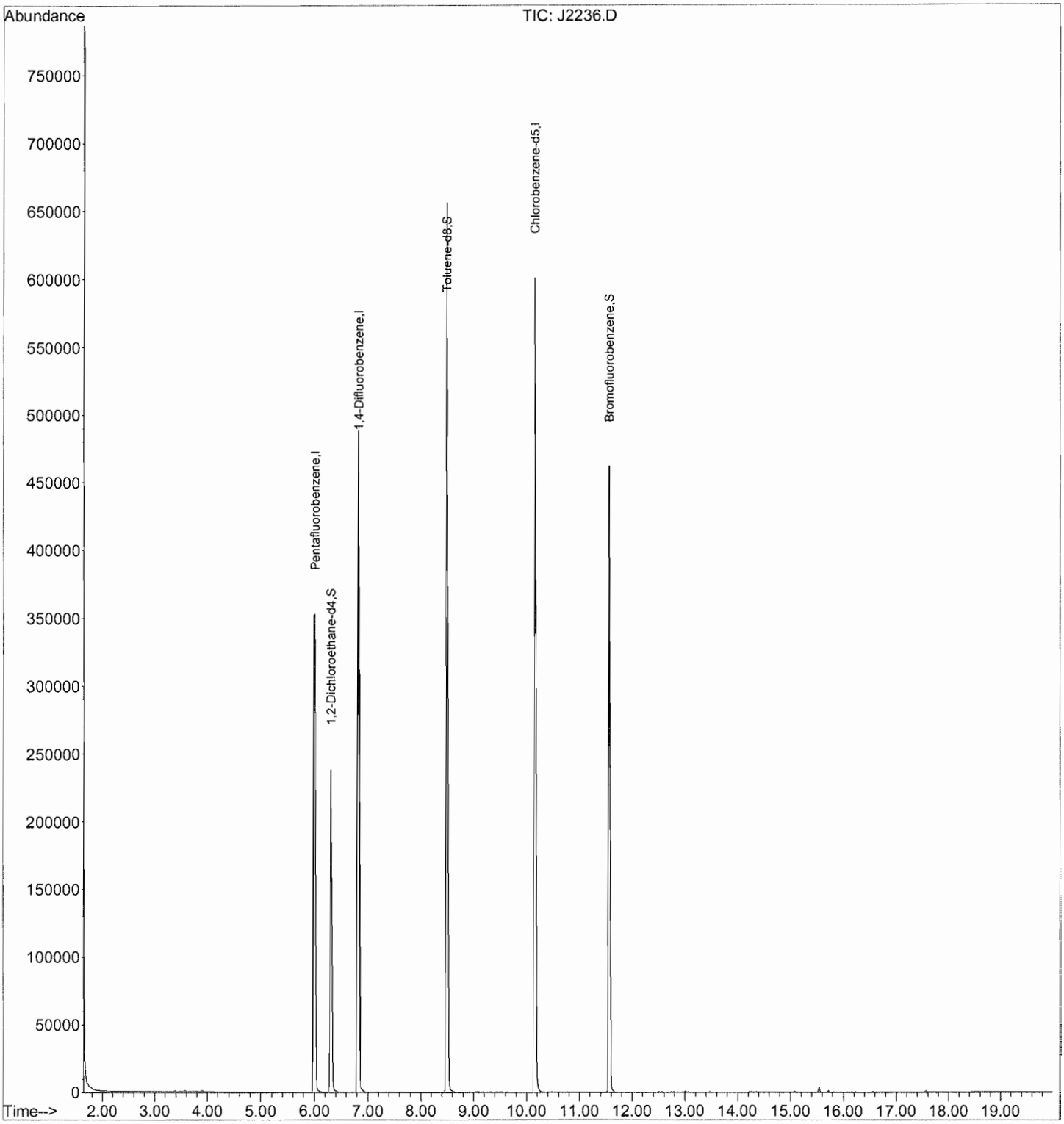
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

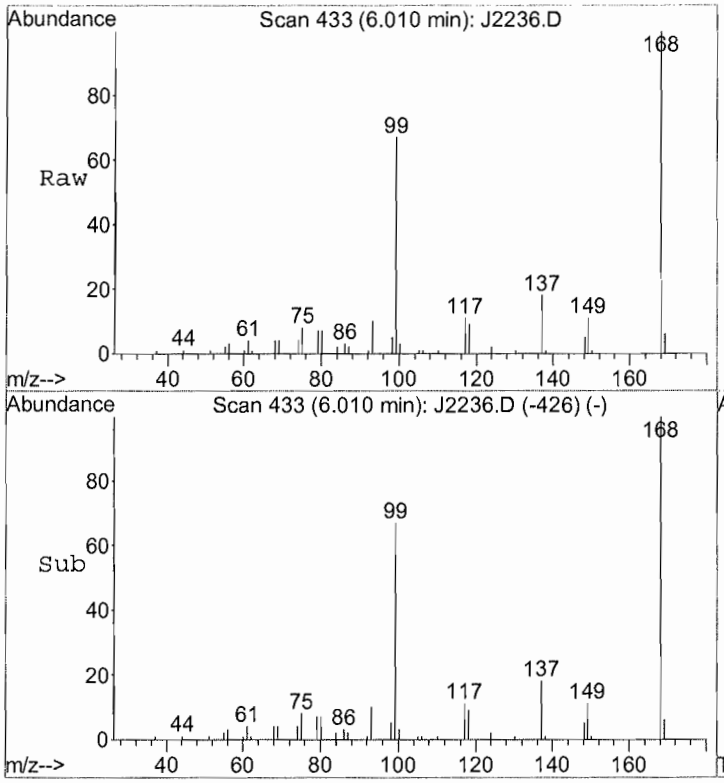
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2236.D
Acq On : 13 Dec 2017 17:39
Operator : MEI
Sample : MW-6,E17-10611-003,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 14 16:47:38 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



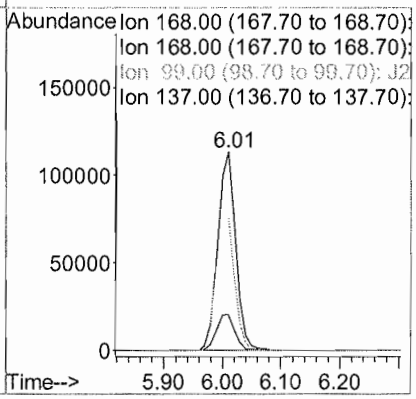
12/15/17

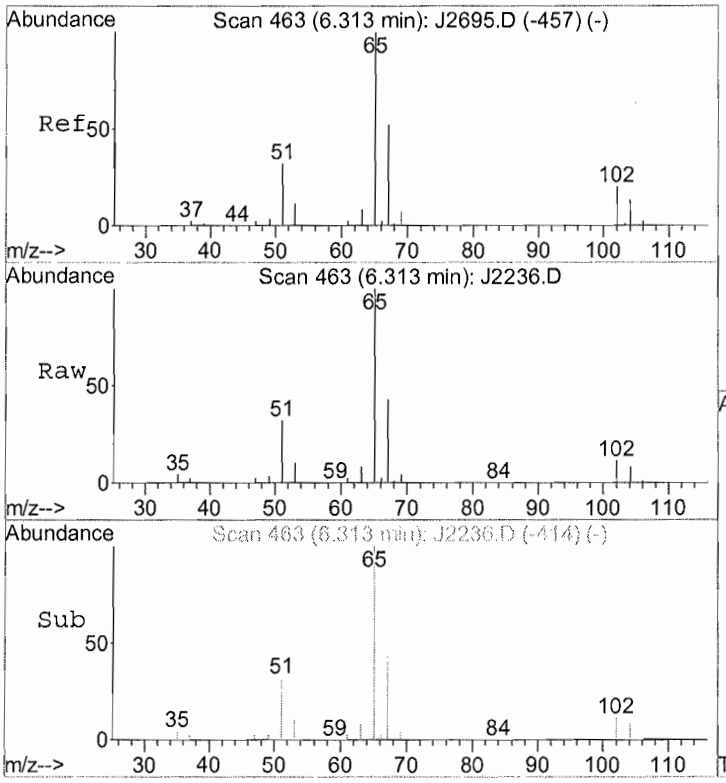


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion:168 Resp: 240752

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	72.6	53.9	100.1
137	18.4	10.5	19.5

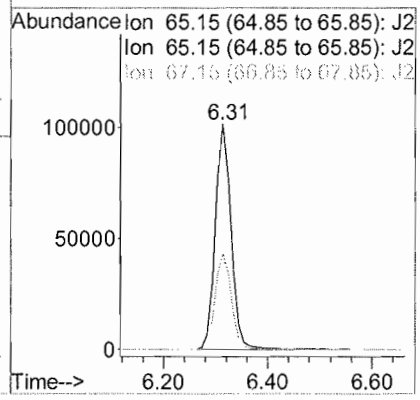


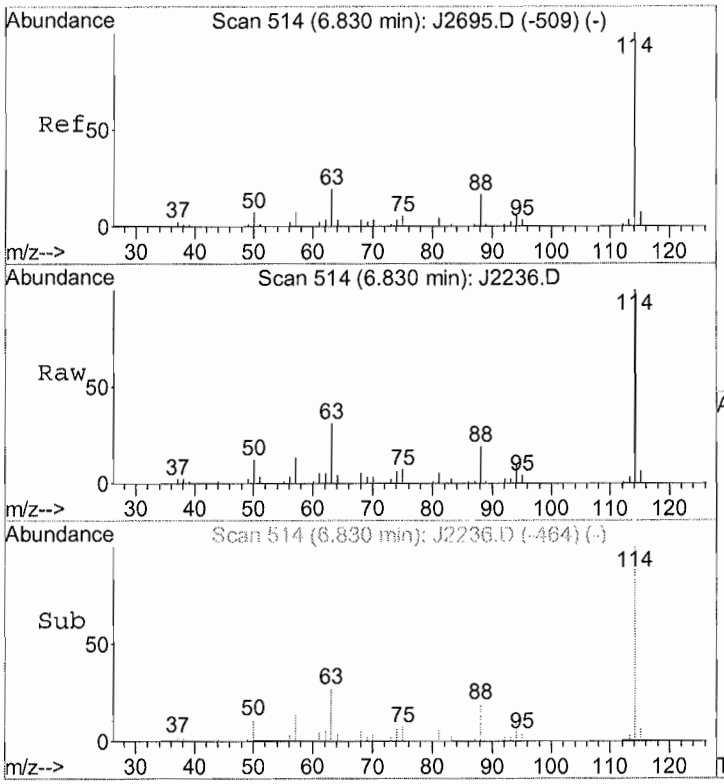


#30
1,2-Dichloroethane-d4
Concen: 50.07 UG
RT: 6.31 min Scan# 463
Delta R.T. 0.00 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion: 65 Resp: 211430

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.6	41.7	77.5

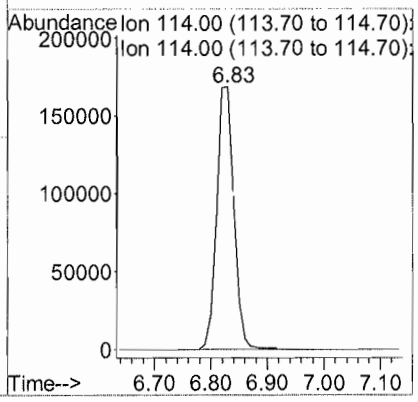


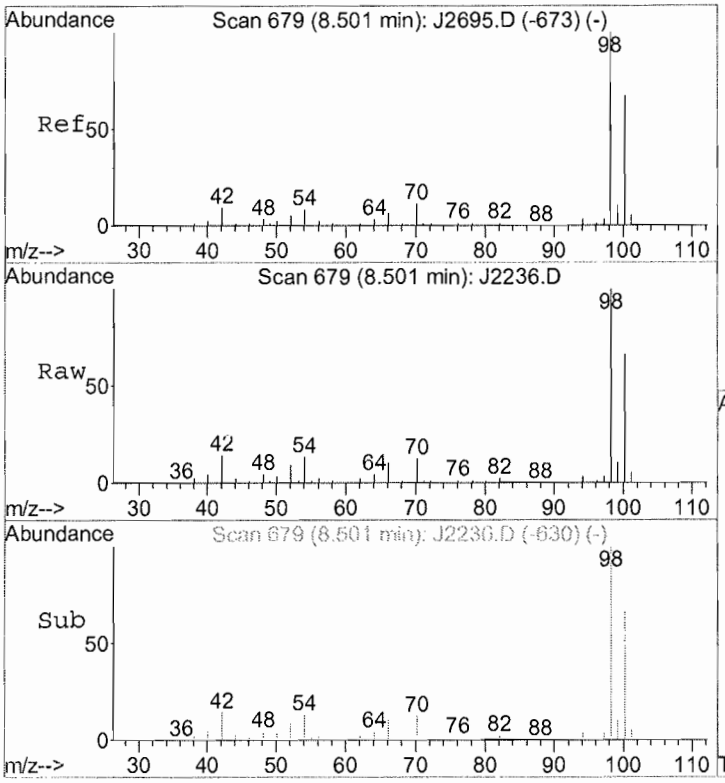


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion:114 Resp: 356969

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

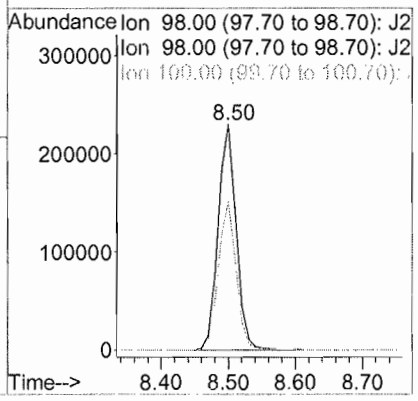


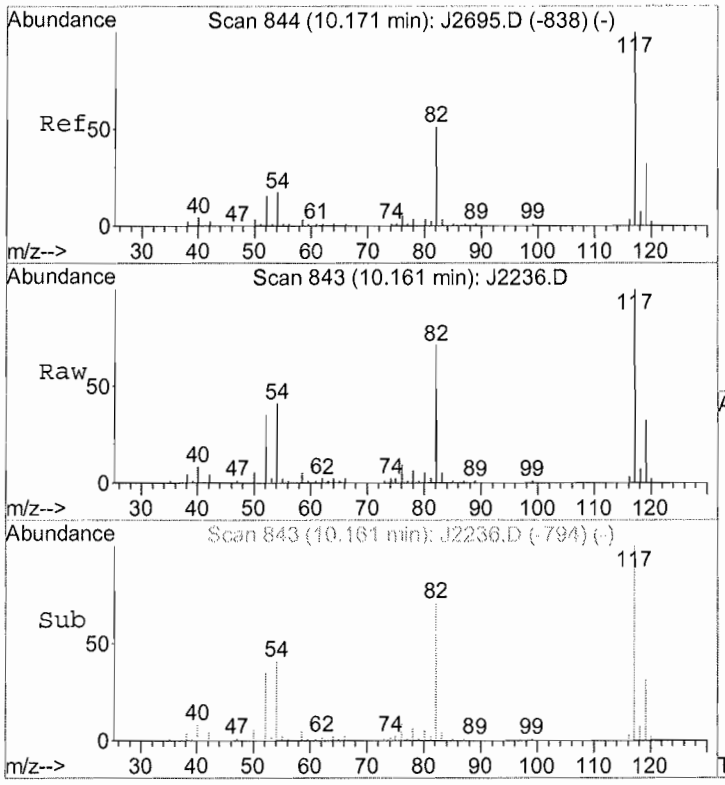


#41
Toluene-d8
Concen: 49.87 UG
RT: 8.50 min Scan# 679
Delta R.T. 0.00 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion: 98 Resp: 428355

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.7	48.1	89.3

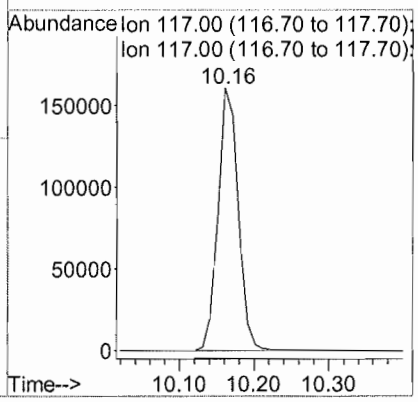


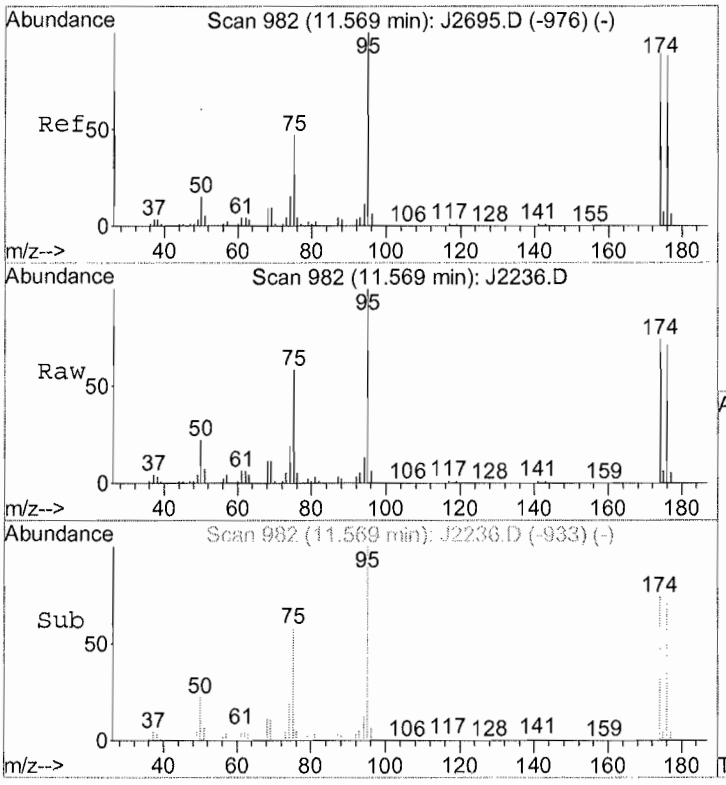


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. 0.00 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion:117 Resp: 304021

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

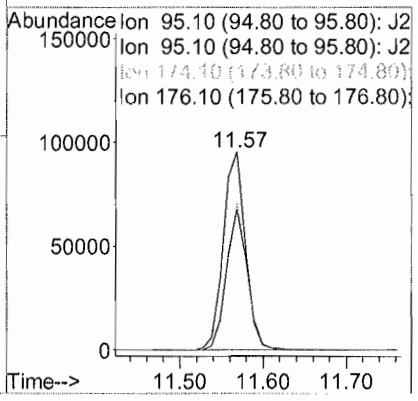




#59
Bromofluorobenzene
Concen: 50.27 UG
RT: 11.57 min Scan# 982
Delta R.T. 0.00 min
Lab File: J2236.D
Acq: 13 Dec 2017 17:39

Tgt Ion: 95 Resp: 176119

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	69.4	0.0	0.0#
176	67.1	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2236.D
Acq On : 13 Dec 2017 17:39
Operator : MEI
Sample : MW-6,E17-10611-003,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	426	433	453	rBB	352535	789402	63.51%	14.377%
2	6.313	454	463	481	rBB	238089	496082	39.91%	9.035%
3	6.820	507	513	531	rBB	488328	1005255	80.88%	18.308%
4	8.501	670	679	694	rBB	656054	1242953	100.00%	22.637%
5	10.161	835	843	857	rBB	600338	1115079	89.71%	20.309%
6	11.569	977	982	993	rBB	461343	841916	67.74%	15.334%

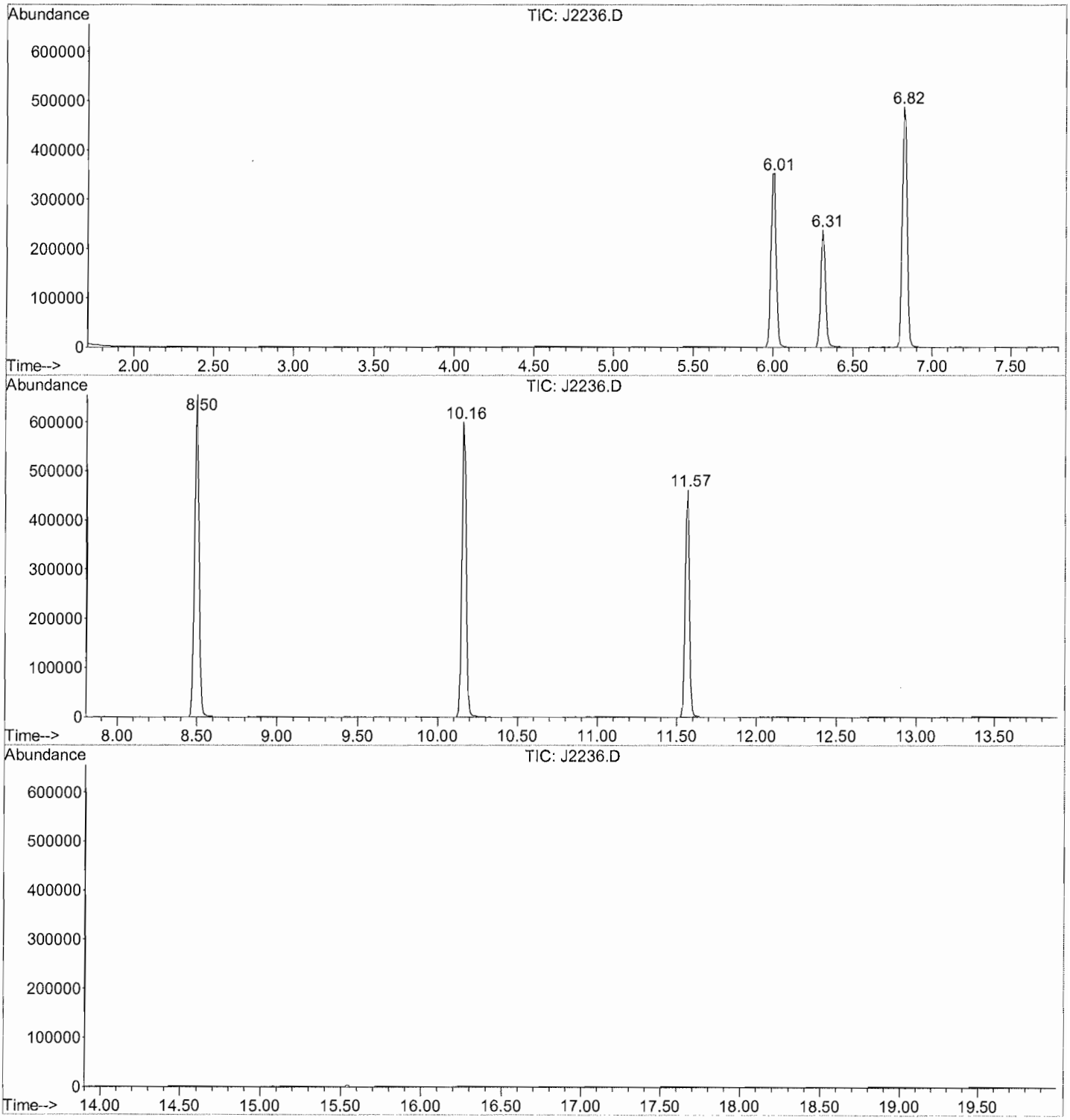
Sum of corrected areas: 5490687

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2236.D
Acq On : 13 Dec 2017 17:39
Operator : MEI
Sample : MW-6,E17-10611-003,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 16:51:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	203729	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	305735	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	256941	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	182442	51.06	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.12%			
41) Toluene-d8	8.50	98	363697	49.44	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 98.88%			
59) Bromofluorobenzene	11.57	95	148529	50.17	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 100.34%			
Target Compounds						Qvalue
51) Chlorobenzene	10.20	112	4034	0.67	UG	98
72) 1,4-Dichlorobenzene	13.01	146	2201	0.53	UG	99

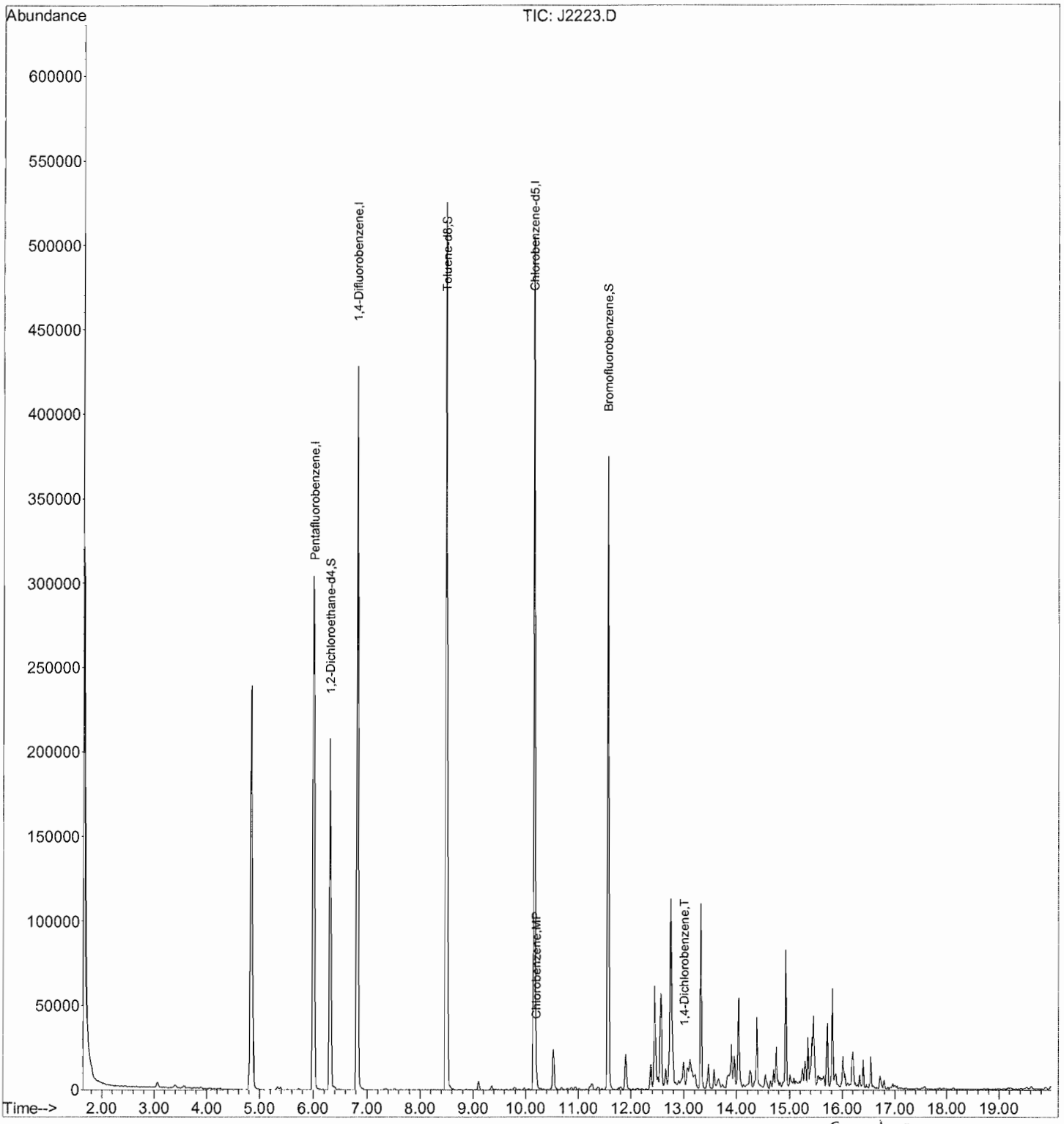
(#) = qualifier out of range (m) = manual integration (+) = signals summed

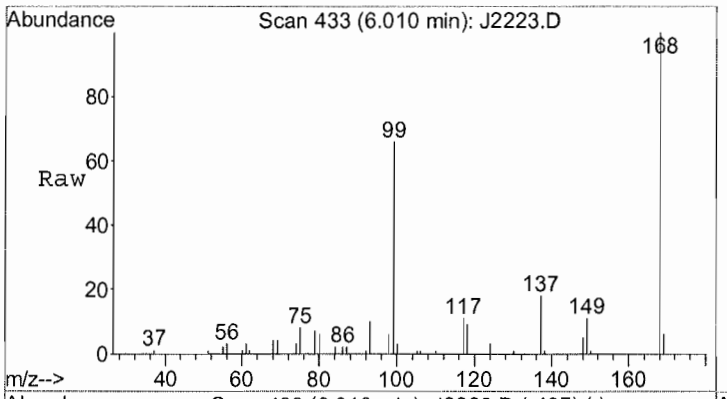
12/15/17

Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 16:51:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

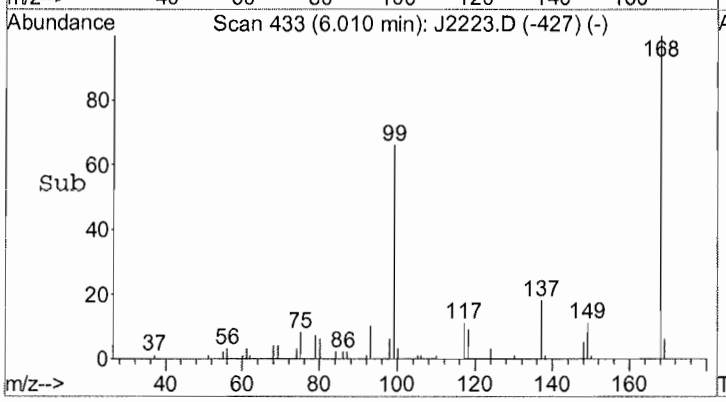


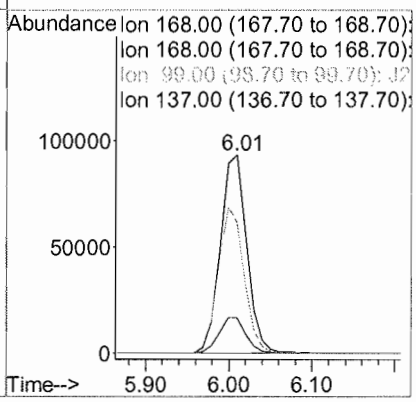


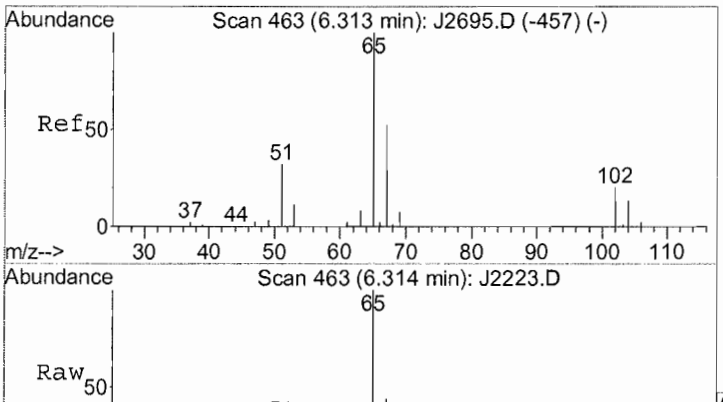
#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion:168 Resp: 203729

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	72.3	53.9	100.1
137	18.3	10.5	19.5



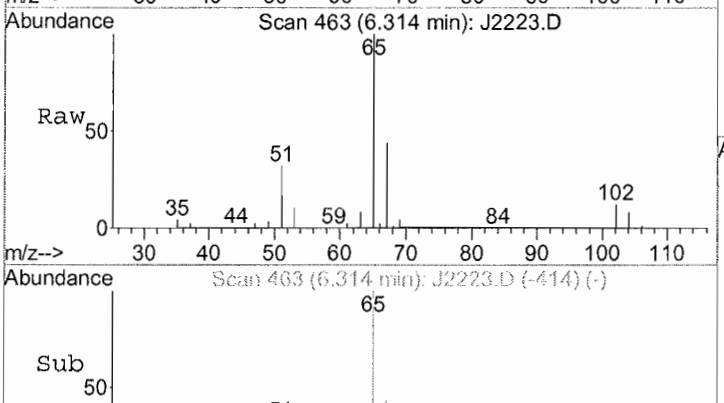


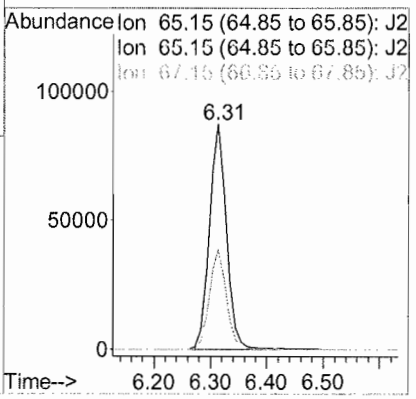


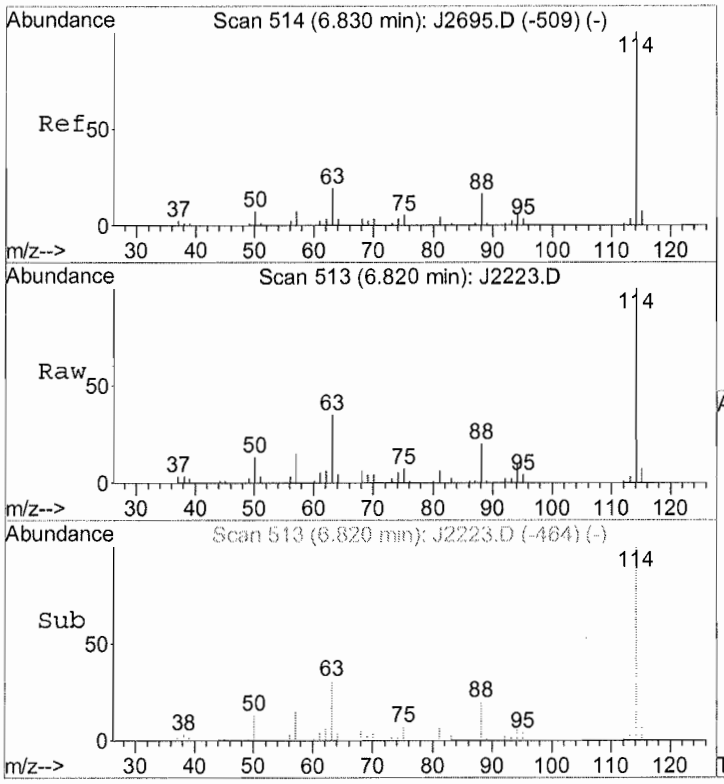
#30
1,2-Dichloroethane-d4
Concen: 51.06 UG
RT: 6.31 min Scan# 463
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion: 65 Resp: 182442

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.9	41.7	77.5



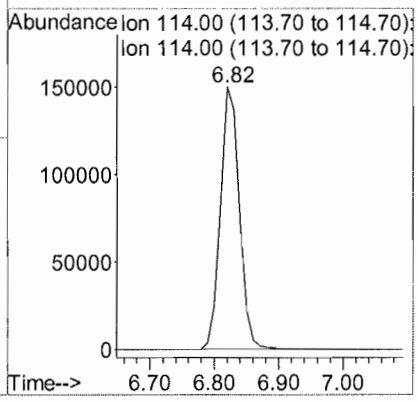


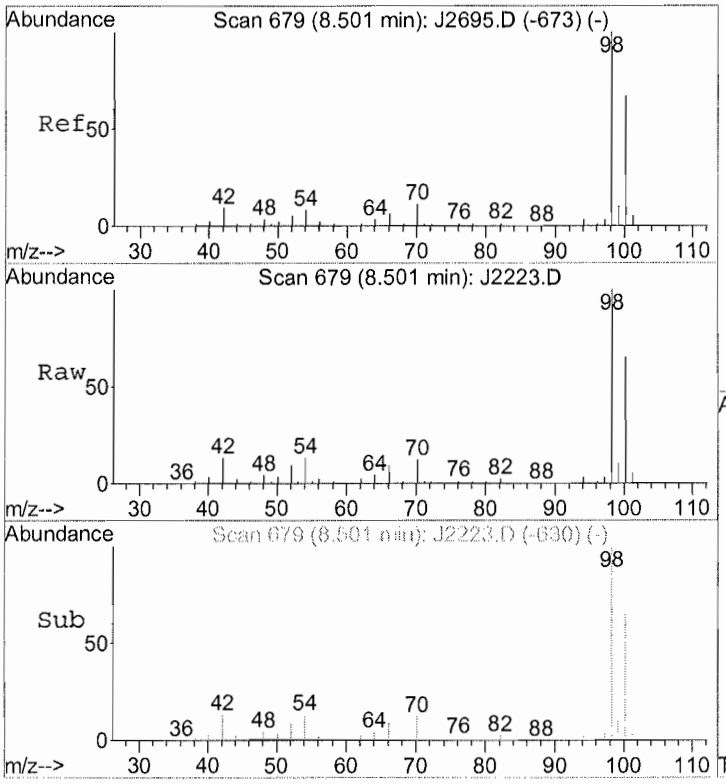


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.82 min Scan# 513
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion:114 Resp: 305735

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

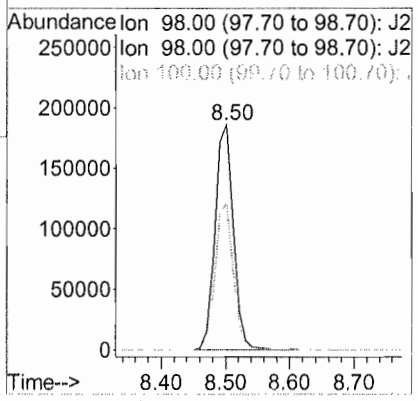


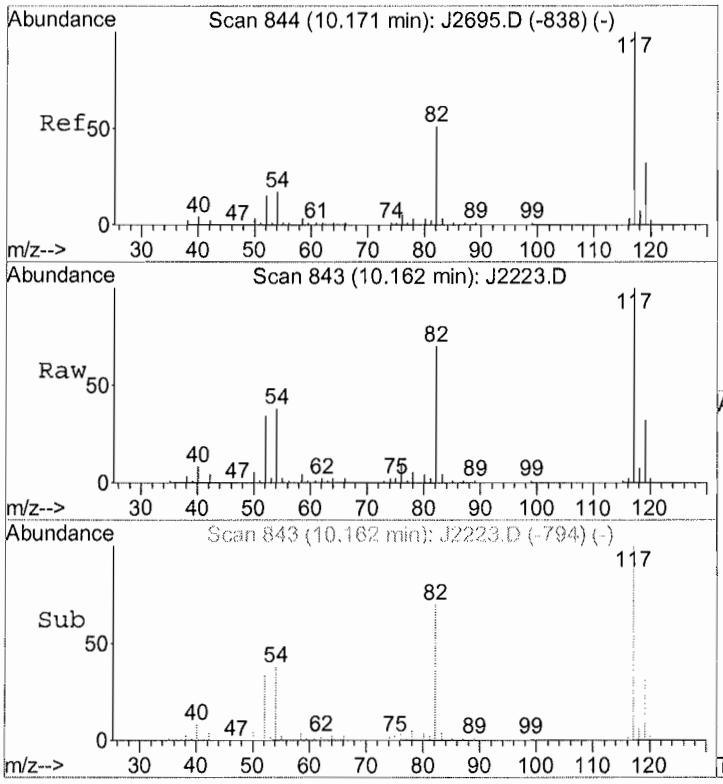


#41
Toluene-d8
Concen: 49.44 UG
RT: 8.50 min Scan# 679
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion: 98 Resp: 363697

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.5	48.1	89.3

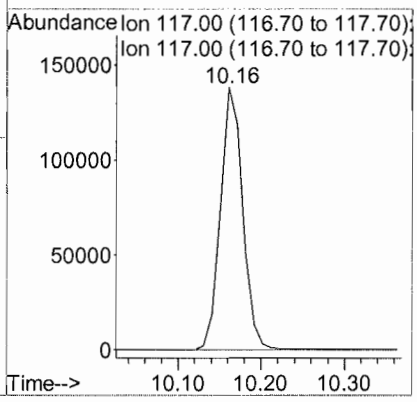


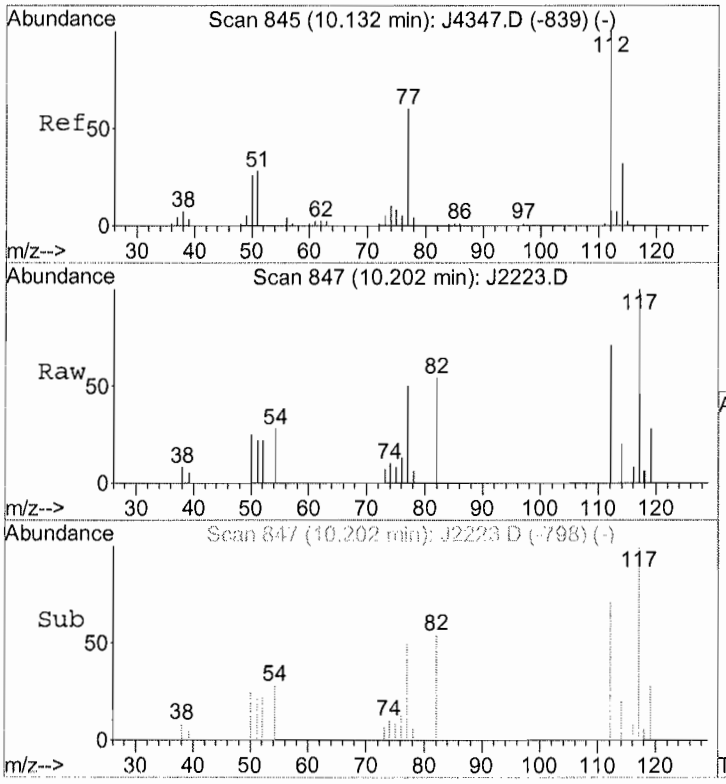


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion:117 Resp: 256941

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

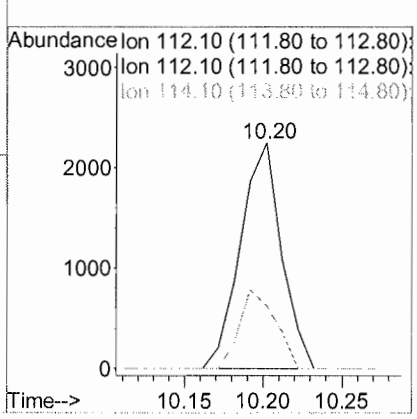


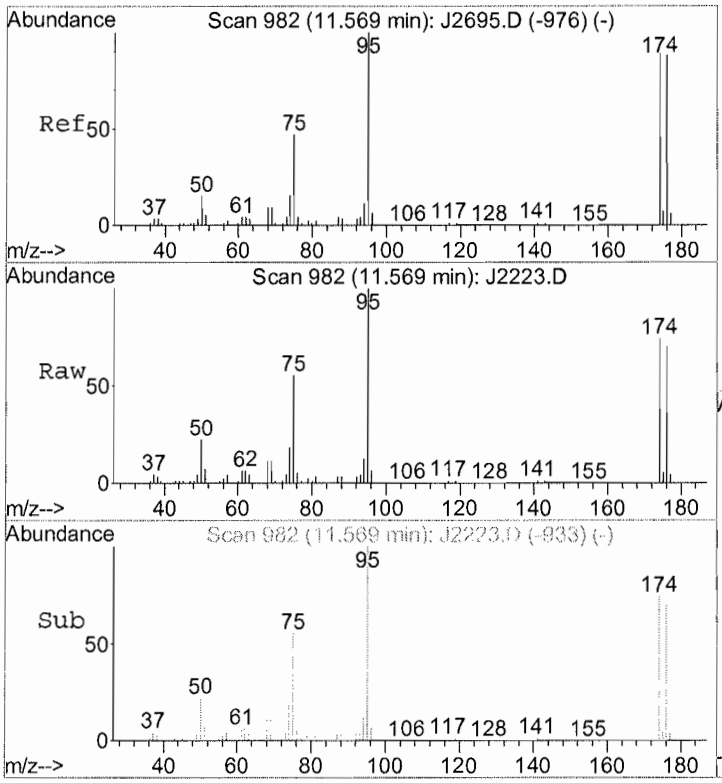


#51
Chlorobenzene
Concen: 0.67 UG
RT: 10.20 min Scan# 847
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion:112 Resp: 4034

Ion	Ratio	Lower	Upper
112	100		
112	100.0	70.0	130.0
114	30.5	23.8	44.2

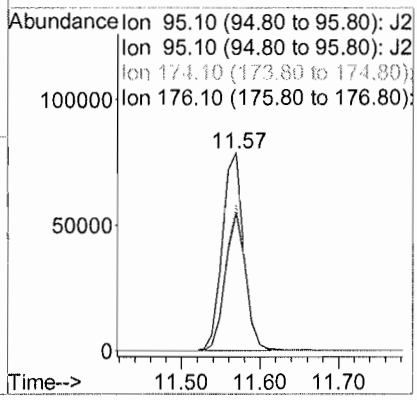


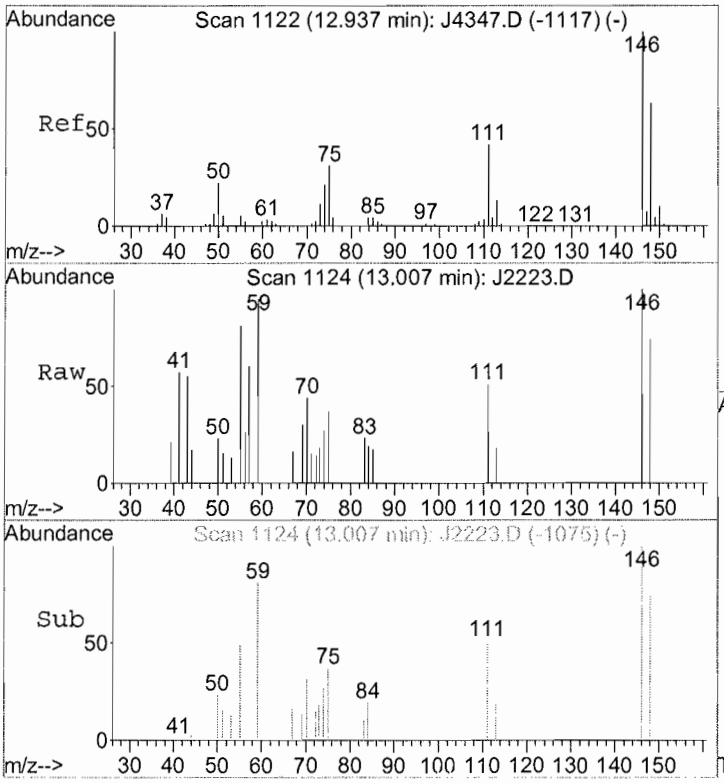


#59
Bromofluorobenzene
Concen: 50.17 UG
RT: 11.57 min Scan# 982
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion: 95 Resp: 148529

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	70.3	0.0	0.0#
176	66.9	0.0	0.0#

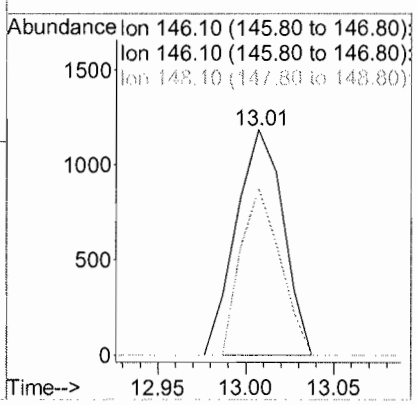




#72
1,4-Dichlorobenzene
Concen: 0.53 UG
RT: 13.01 min Scan# 1124
Delta R.T. 0.00 min
Lab File: J2223.D
Acq: 13 Dec 2017 11:57

Tgt Ion:146 Resp: 2201

Ion	Ratio	Lower	Upper
146	100		
146	100.0	70.0	130.0
148	62.0	44.6	82.8



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.845	309	318	335	rBB	239031	621321	59.33%	8.482%
2	6.000	424	432	448	rBB	303855	666851	63.68%	9.103%
3	6.314	458	463	476	rBB	207680	430458	41.11%	5.876%
4	6.820	507	513	528	rBB	428370	849265	81.10%	11.594%
5	8.501	673	679	697	rBB	525139	1047205	100.00%	14.296%
6	9.108	730	739	744	rBB3	4996	11534	1.10%	0.157%
7	10.162	837	843	858	rBB	504997	941302	89.89%	12.850%
8	10.526	872	879	889	rBB	23822	52261	4.99%	0.713%
9	11.255	943	951	957	rBB3	3415	10834	1.03%	0.148%
10	11.569	976	982	995	rBB	374630	711616	67.95%	9.715%
11	11.903	1010	1015	1025	rBB	20844	42798	4.09%	0.584%
12	12.379	1058	1062	1065	rBB	13763	26168	2.50%	0.357%
13	12.450	1065	1069	1077	rBB	58793	126114	12.04%	1.722%
14	12.561	1077	1080	1086	rBB	53431	107513	10.27%	1.468%
15	12.653	1086	1089	1093	rBB	9764	16929	1.62%	0.231%
16	12.754	1093	1099	1111	rBB3	109940	298237	28.48%	4.071%
17	12.987	1116	1122	1127	rBB4	13160	32796	3.13%	0.448%
18	13.068	1127	1130	1132	rBB2	5432	12990	1.24%	0.177%
19	13.118	1132	1135	1141	rBB2	8315	16234	1.55%	0.222%
20	13.321	1150	1155	1163	rBB	109057	198377	18.94%	2.708%
21	13.463	1163	1169	1175	rBB3	14326	30540	2.92%	0.417%
22	13.574	1177	1180	1183	rBB	10514	18277	1.75%	0.250%
23	13.665	1183	1189	1192	rBB5	4744	12966	1.24%	0.177%
24	13.898	1202	1212	1215	rBB2	21449	58657	5.60%	0.801%
25	13.949	1215	1217	1221	rBB	14510	24422	2.33%	0.333%
26	14.040	1221	1226	1233	rBB	51934	106265	10.15%	1.451%
27	14.253	1238	1247	1252	rBB2	9706	25019	2.39%	0.342%
28	14.384	1252	1260	1272	rBB	41344	80152	7.65%	1.094%
29	14.546	1272	1276	1283	rBB3	7640	19036	1.82%	0.260%
30	14.708	1289	1292	1294	rBB2	8521	13364	1.28%	0.182%
31	14.749	1294	1296	1302	rBB2	21606	36578	3.49%	0.499%
32	14.931	1306	1314	1319	rBB2	80795	145913	13.93%	1.992%
33	15.012	1319	1322	1327	rBB4	6324	13245	1.26%	0.181%
34	15.245	1341	1345	1347	rBB4	7574	13611	1.30%	0.186%
35	15.296	1347	1350	1352	rBB	11797	16195	1.55%	0.221%
36	15.346	1352	1355	1358	rBB	25141	37744	3.60%	0.515%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

37	15.458	1358	1366	1371	rBB3	39552	124821	11.92%	1.704%
38	15.650	1380	1385	1388	rBB5	4597	11484	1.10%	0.157%
39	15.721	1388	1392	1396	rBB	37095	61507	5.87%	0.840%
40	15.812	1397	1401	1405	rBB	55745	86055	8.22%	1.175%
41	16.015	1416	1421	1427	rBB2	17669	41166	3.93%	0.562%
42	16.197	1432	1439	1447	rBB	19929	44790	4.28%	0.611%
43	16.339	1447	1453	1455	rBB2	6644	10657	1.02%	0.145%
44	16.399	1455	1459	1463	rBB	15888	25336	2.42%	0.346%
45	16.541	1470	1473	1477	rBB2	18158	29994	2.86%	0.409%
46	16.723	1488	1491	1496	rBB4	7393	16633	1.59%	0.227%

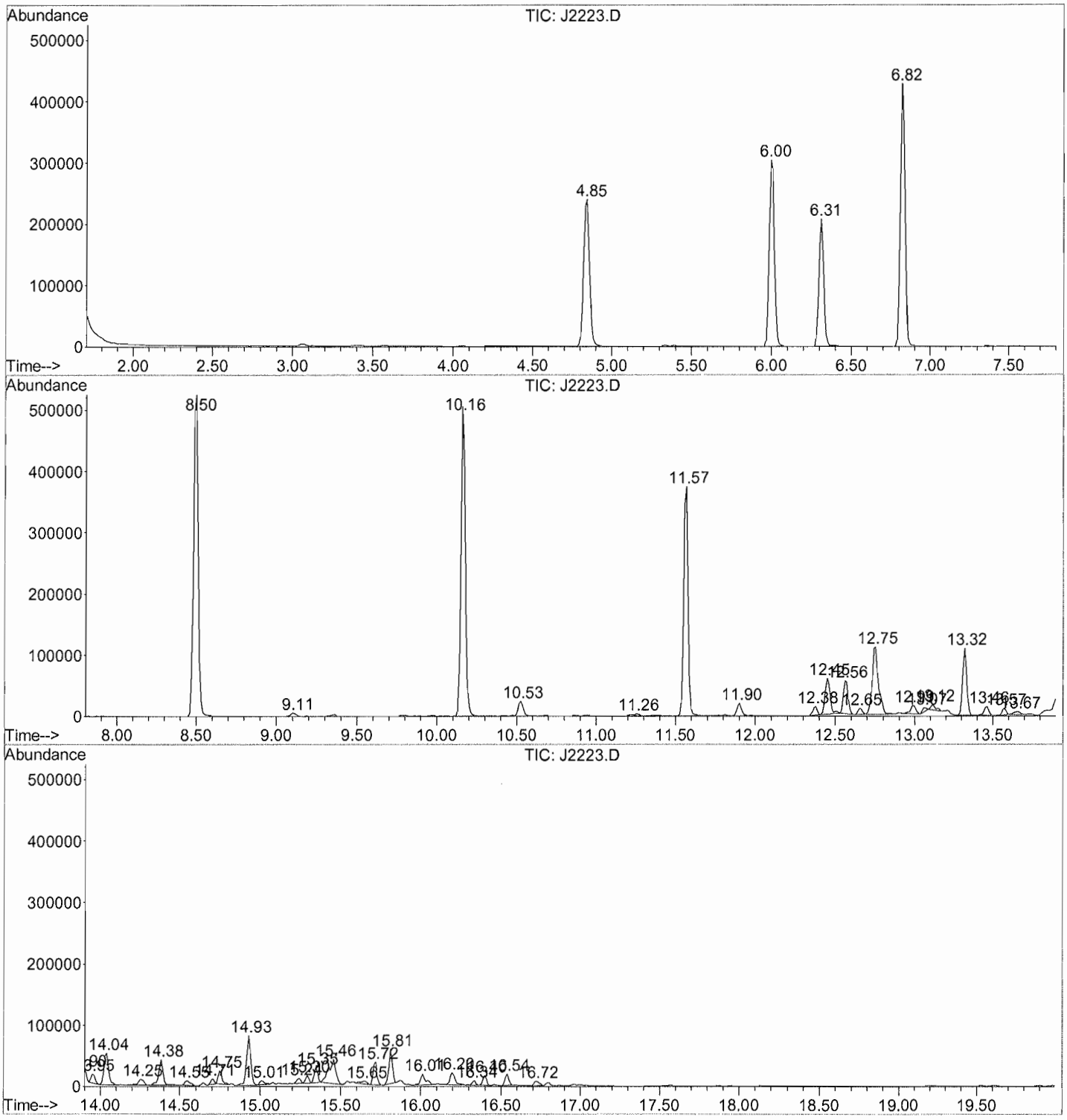
Sum of corrected areas: 7325230

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

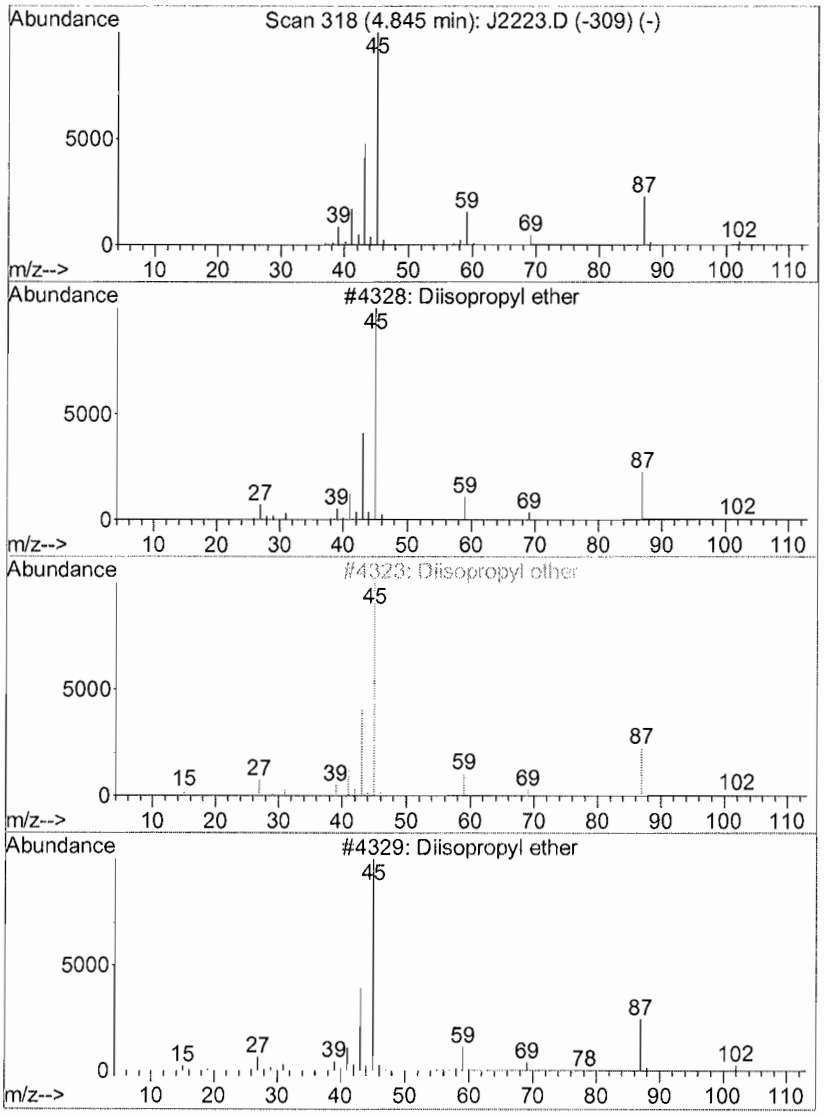
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

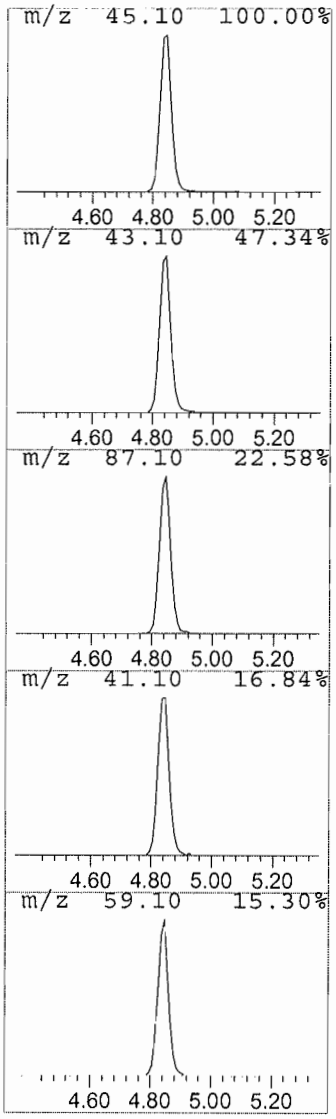
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	46.59 UG	621321	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	83
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	78
5	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	78





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

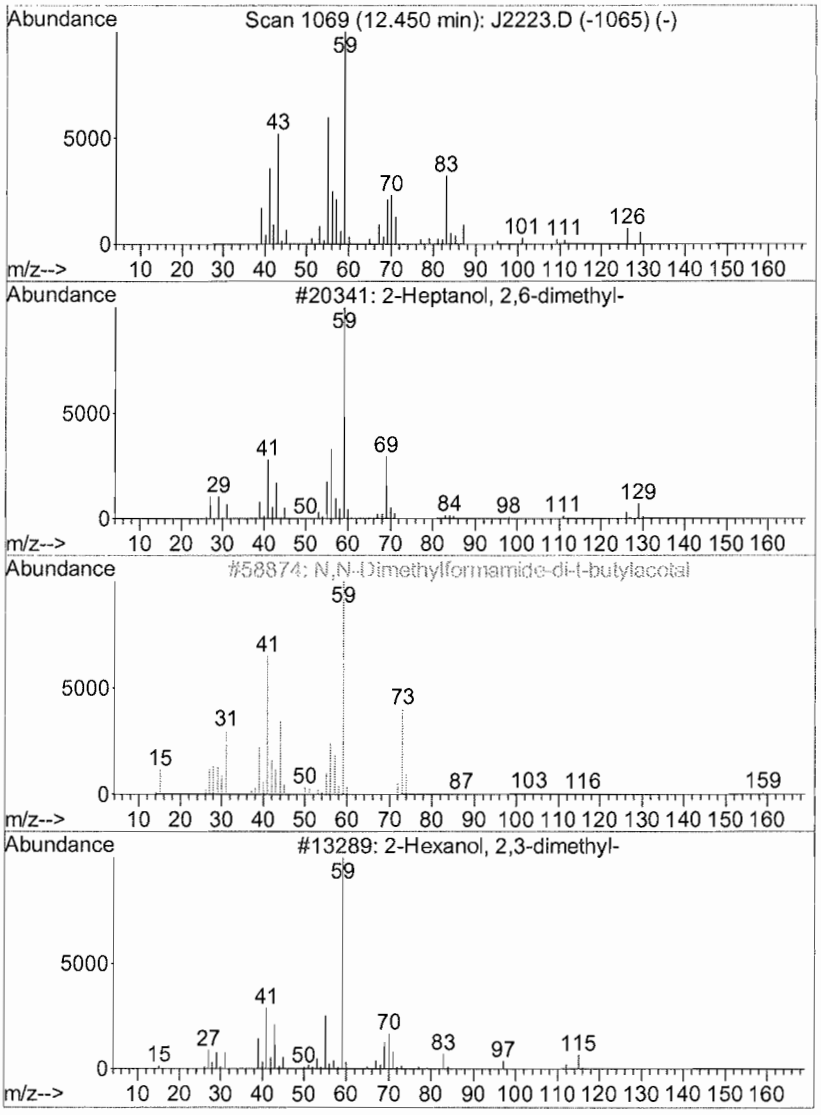
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

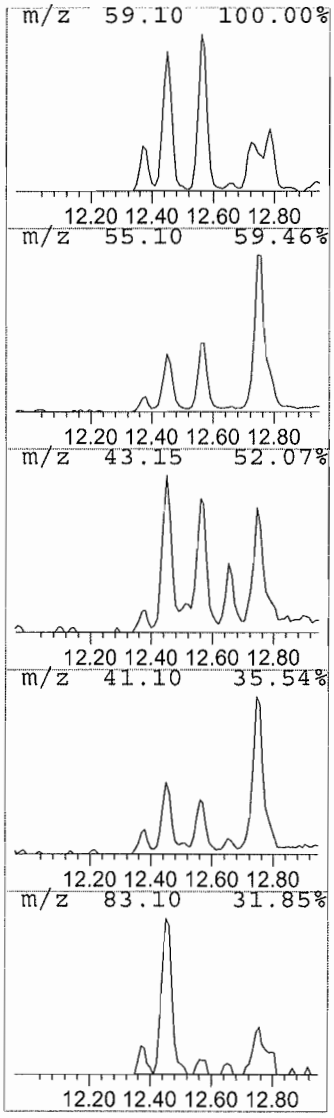
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Peak Number 2 Unknown VOA Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.45	6.70 UG	126114	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanol, 2,6-dimethyl-	144	C9H20O	013254-34-7	47
2	N,N-Dimethylformamide-di-t-butyl...	203	C11H25NO2	036805-97-7	43
3	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	38
4	3-Octanol	130	C8H18O	020296-29-1	38
5	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	38





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

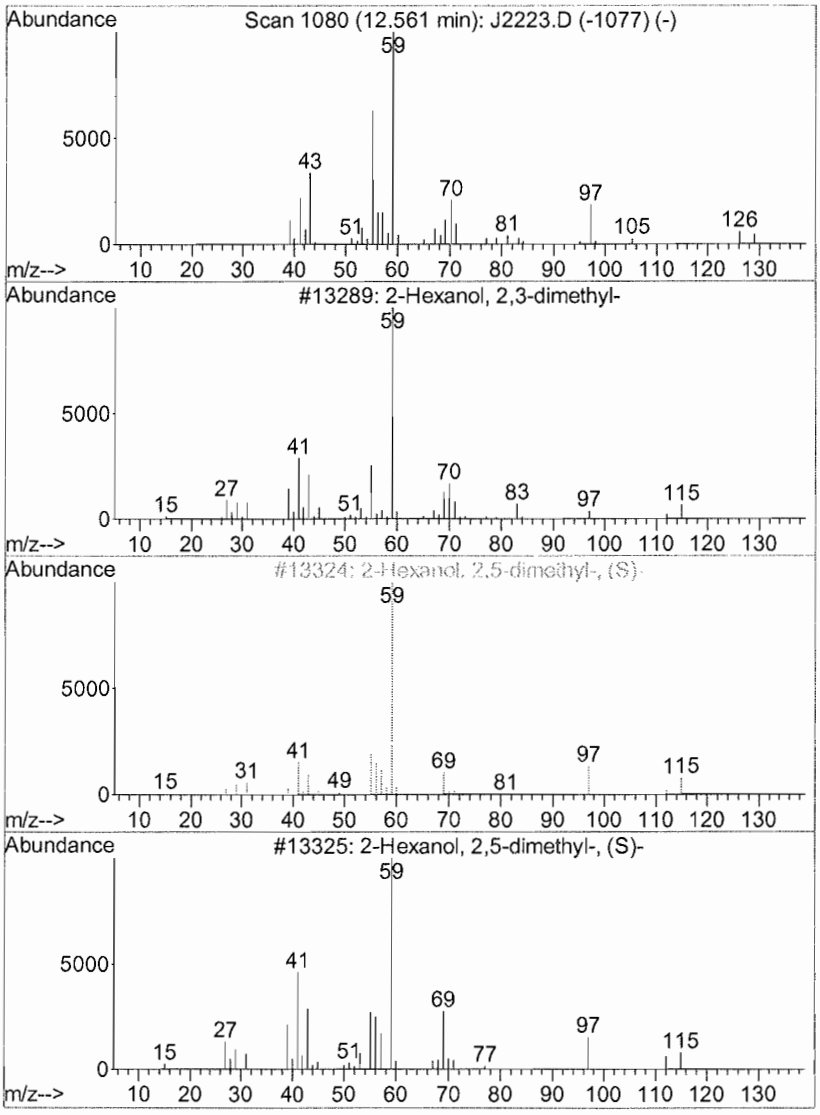
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TIC Integration Parameters: LSCINT.P

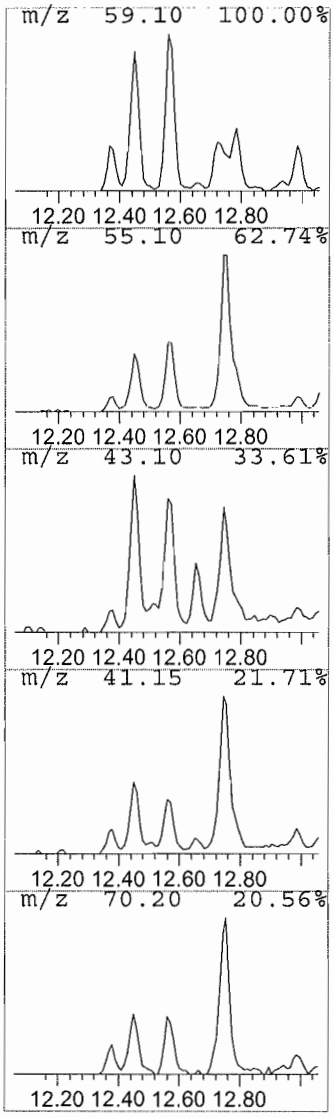
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Peak Number 3 Unknown VOA Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.56	5.71 UG	107513	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexanol, 2,3-dimethyl-	130	C8H18O	019550-03-9	64
2	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	45
3	2-Hexanol, 2,5-dimethyl-, (S)-	130	C8H18O	003730-60-7	42
4	1,8-Nonanediol, 8-methyl-	174	C10H22O2	054725-73-4	42
5	Oxetane, 2,2,3-trimethyl-	100	C6H12O	023120-43-6	42





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

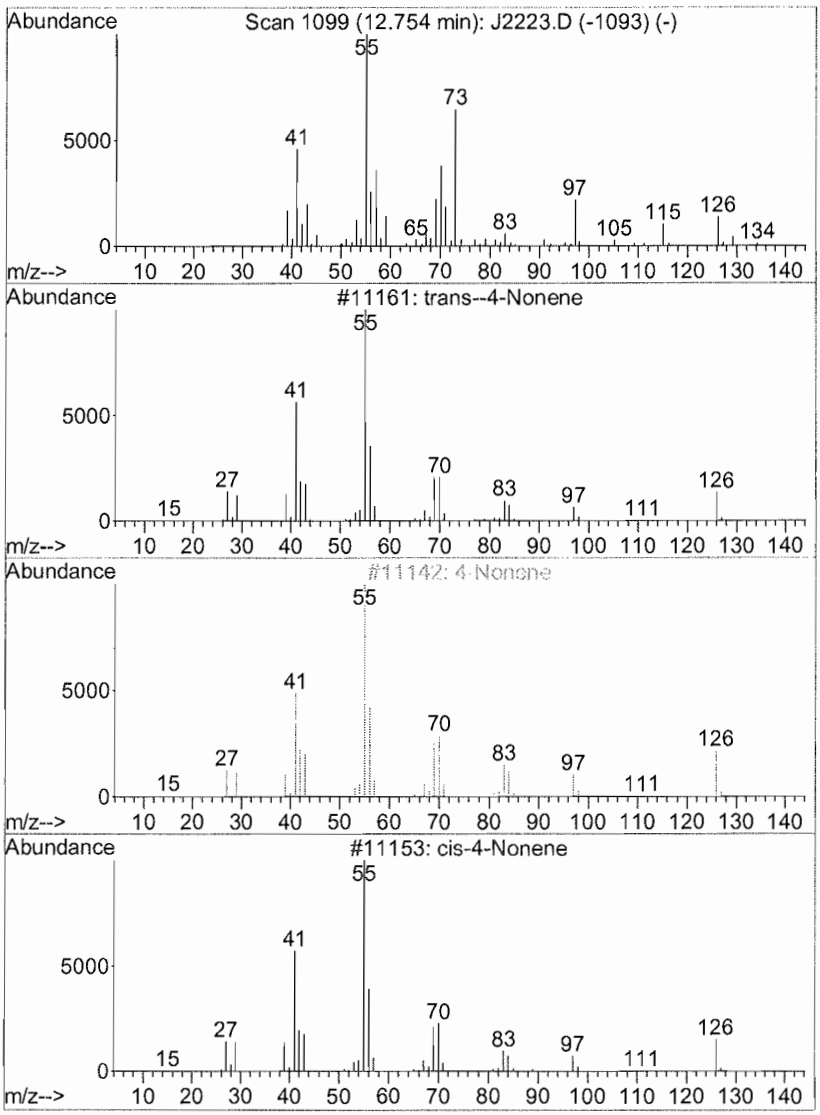
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

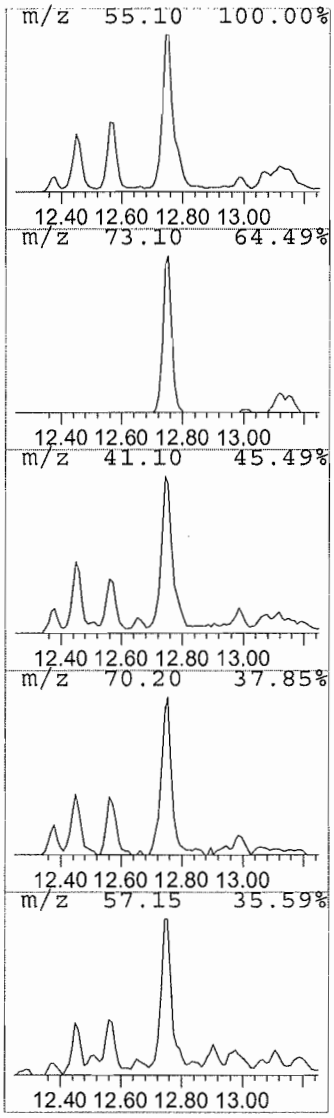
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Peak Number 4 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.75	15.84 UG	298237	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans--4-Nonene	126	C9H18	010405-85-3	43
2	4-Nonene	126	C9H18	002198-23-4	38
3	cis-4-Nonene	126	C9H18	010405-84-2	38
4	4-Nonene	126	C9H18	002198-23-4	38
5	4-Nonene, 3-methyl-, (Z)-	140	C10H20	063830-69-3	38





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

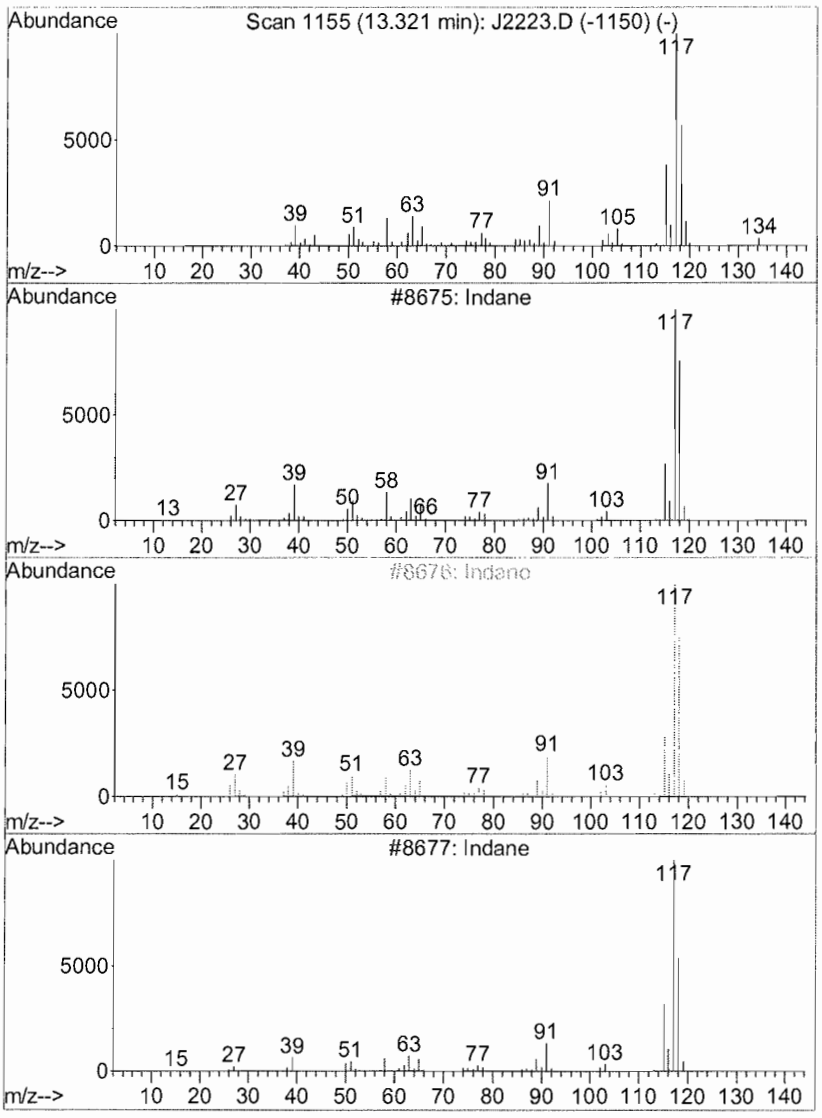
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

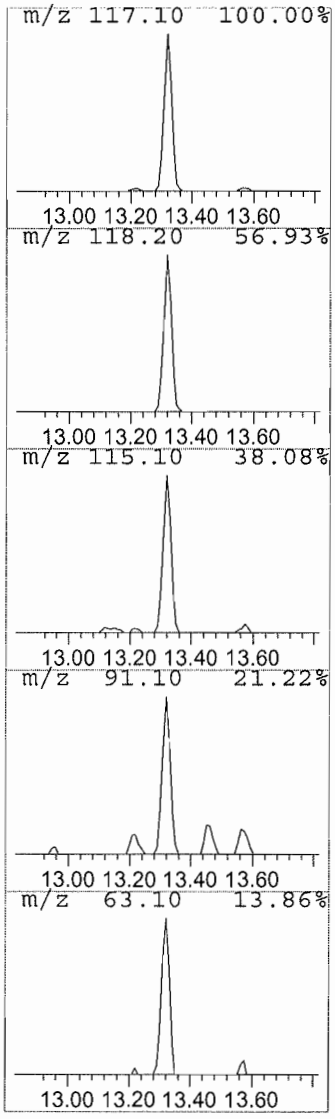
****

Peak Number 5 Indane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.32	10.54 UG	198377	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	93
2	Indane	118	C9H10	000496-11-7	76
3	Indane	118	C9H10	000496-11-7	76
4	Benzeneethanol, .beta.-ethenyl-	148	C10H12O	006052-63-7	64
5	Indane	118	C9H10	000496-11-7	62





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

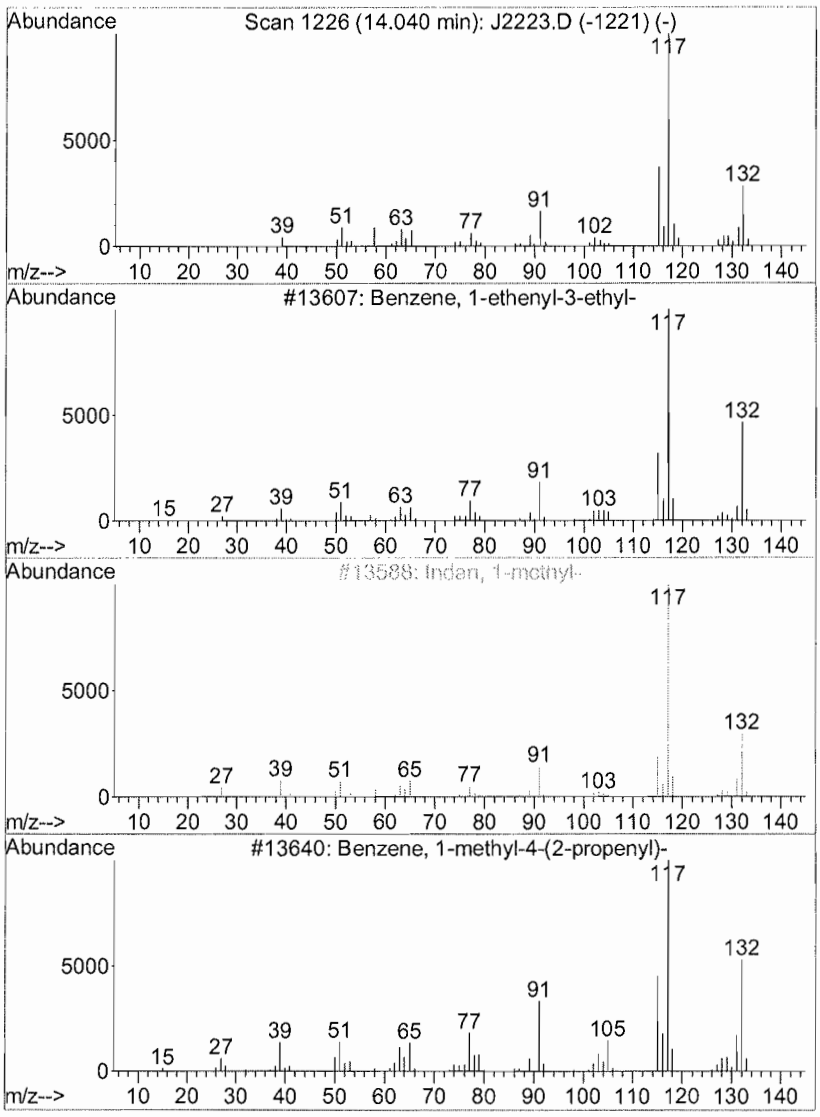
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

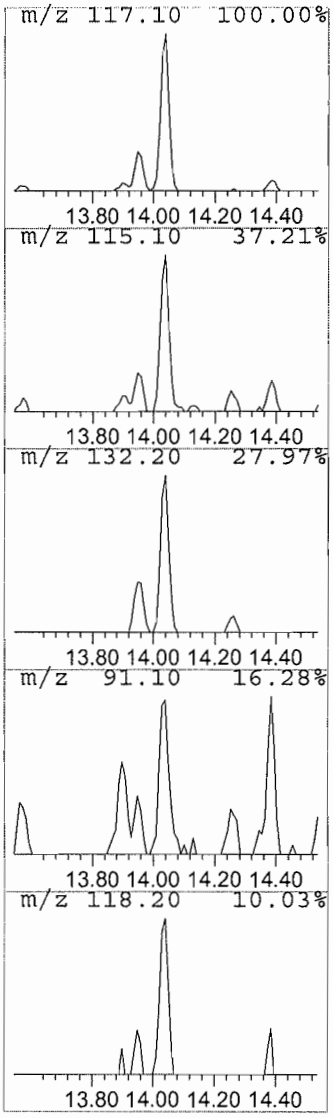
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Peak Number 6 Benzene, 1-ethenyl-3-ethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.04	5.64 UG	106265	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	90
3	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	87
4	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	86
5	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	86





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

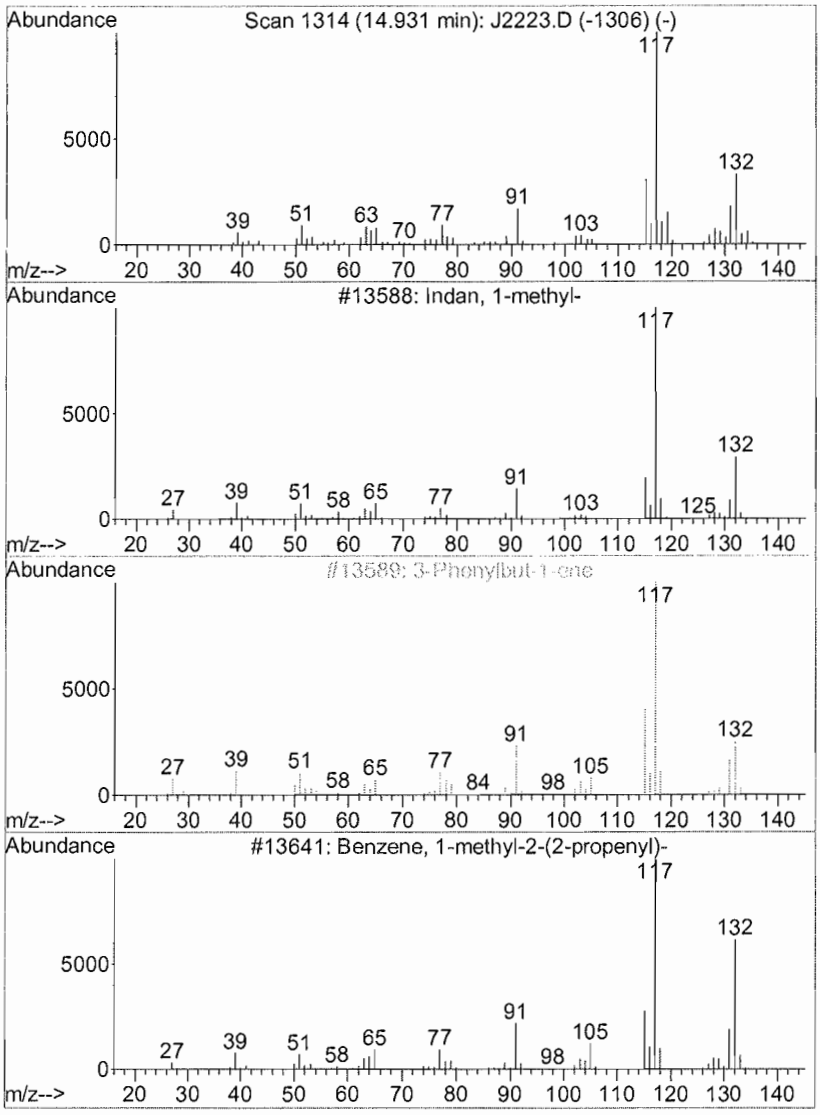
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

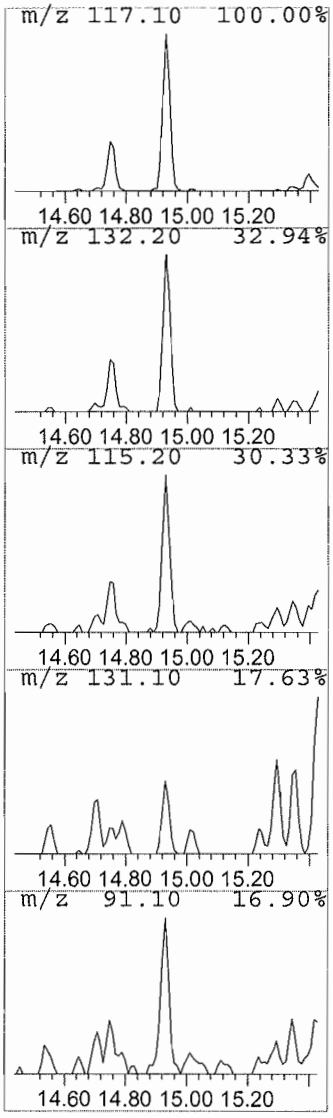
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Peak Number 7 Indan, 1-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.93	7.75 UG	145913	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	90
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	90
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	87
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	87
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	87





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2223.D
Acq On : 13 Dec 2017 11:57
Operator : MEI
Sample : DUP,E17-10611-004,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

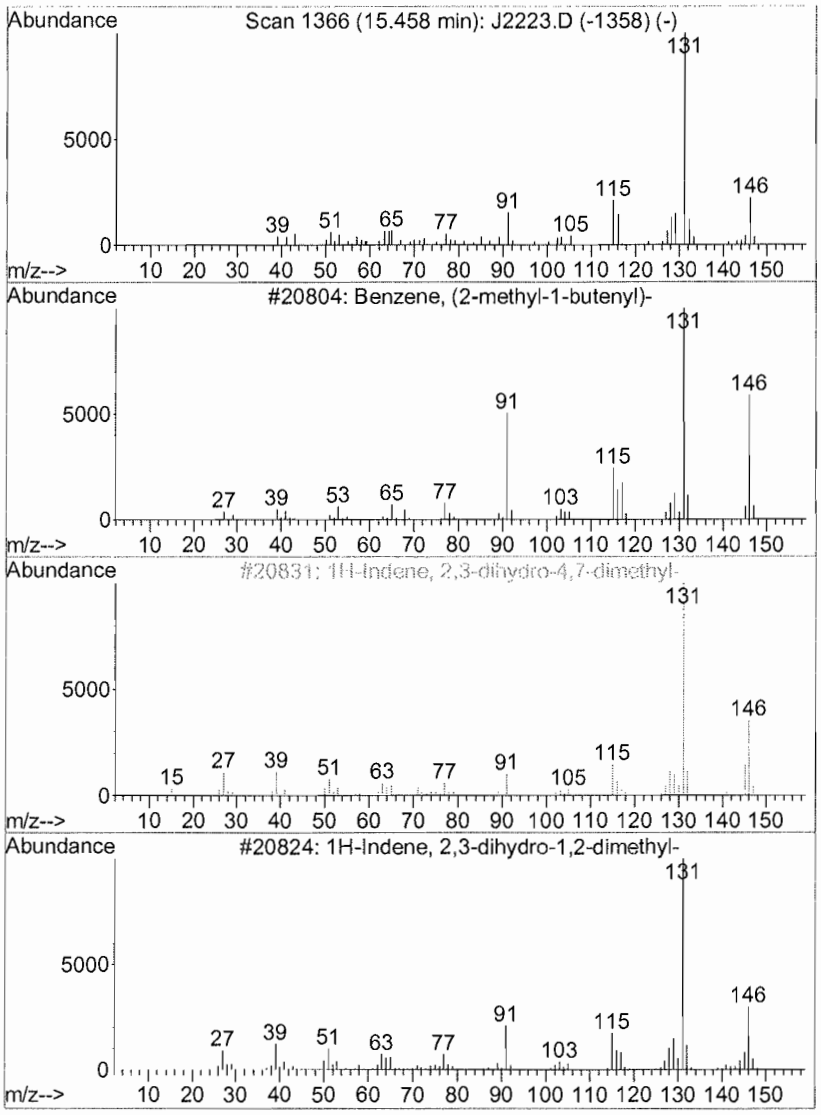
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TIC Integration Parameters: LSCINT.P

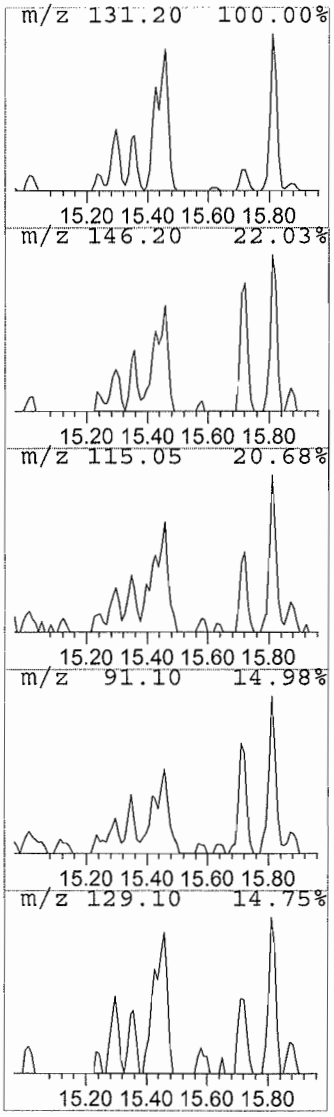
****

Peak Number 8 Benzene, (2-methyl-1-butenyl)- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.46	6.63 UG	124821	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	91
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	91
3	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	91
4	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91
5	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2224.D
Acq On : 13 Dec 2017 12:23
Operator : MEI
Sample : MW-3,E17-10611-005,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 16:27:30 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	197696	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	294038	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	247756	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	175182	50.52	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.04%			
41) Toluene-d8	8.50	98	350555	49.55	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 99.10%			
59) Bromofluorobenzene	11.57	95	141429	49.54	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.08%			

Target Compounds	Qvalue

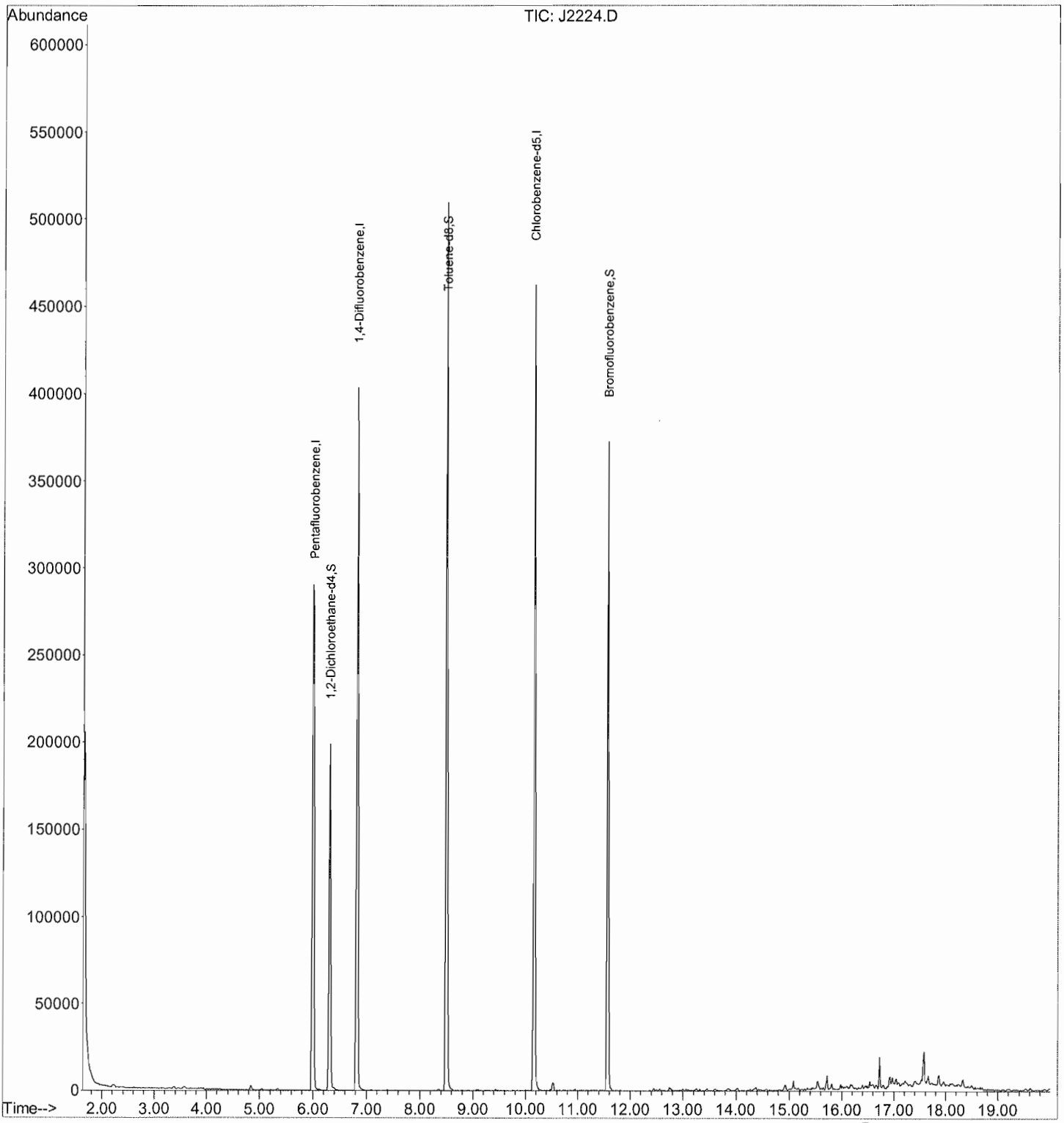
(#) = qualifier out of range (m) = manual integration (+) = signals summed

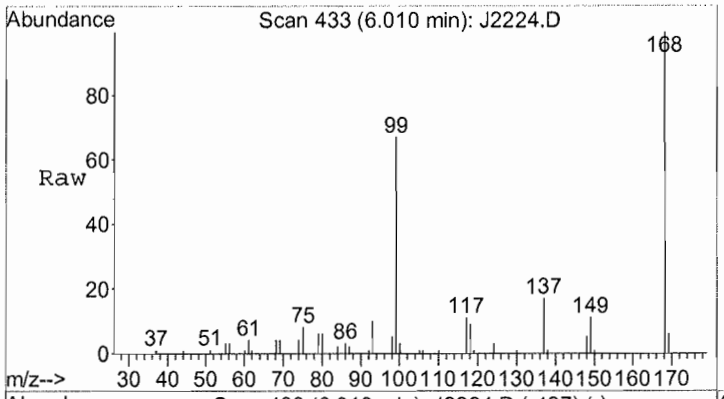
12/15/17

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2224.D
Acq On : 13 Dec 2017 12:23
Operator : MEI
Sample : MW-3,E17-10611-005,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 16:27:30 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

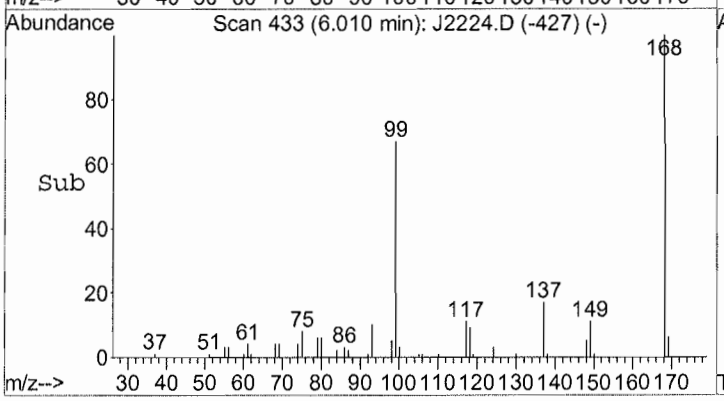


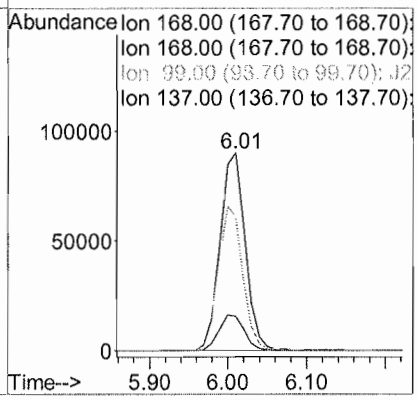


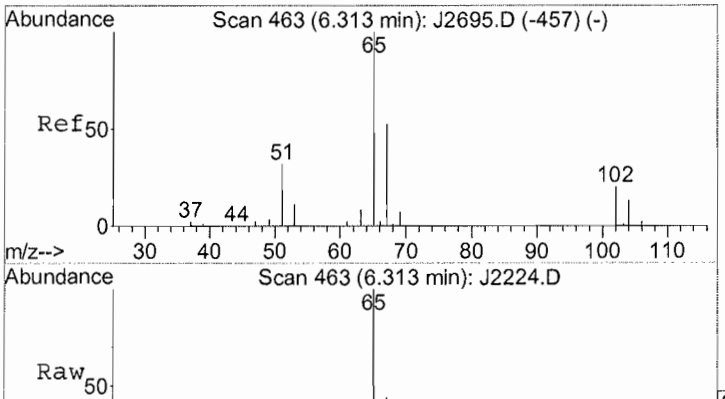
#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

Tgt Ion:168 Resp: 197696

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	72.4	53.9	100.1
137	18.2	10.5	19.5



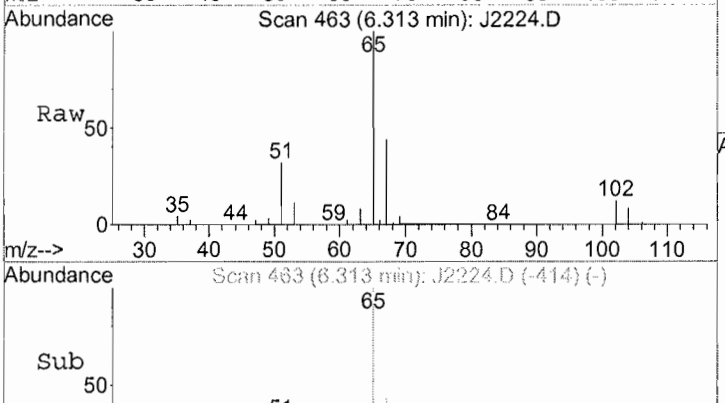


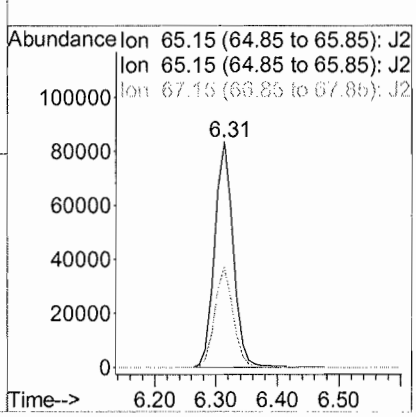


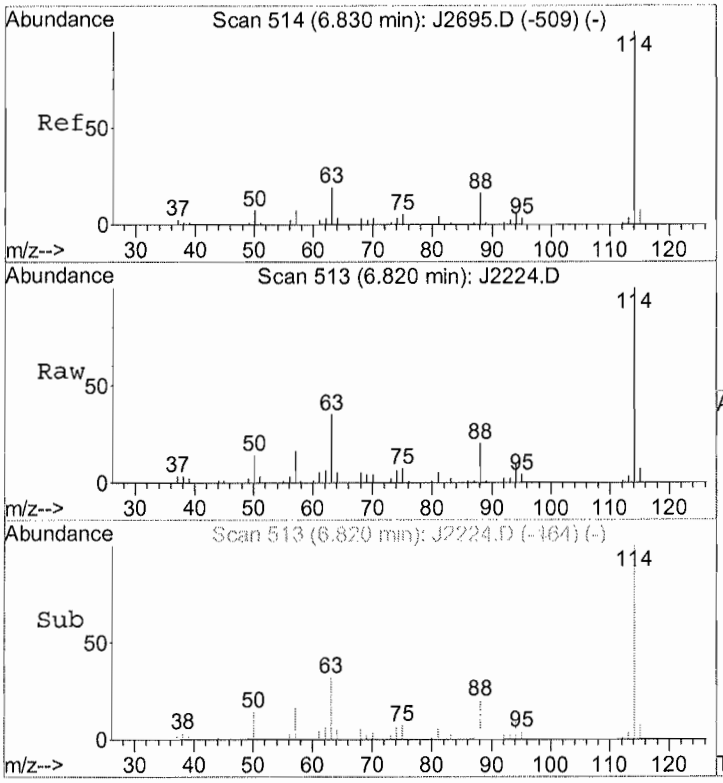
#30
1,2-Dichloroethane-d4
Concen: 50.52 UG
RT: 6.31 min Scan# 463
Delta R.T. -0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

Tgt Ion: 65 Resp: 175182

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.9	41.7	77.5



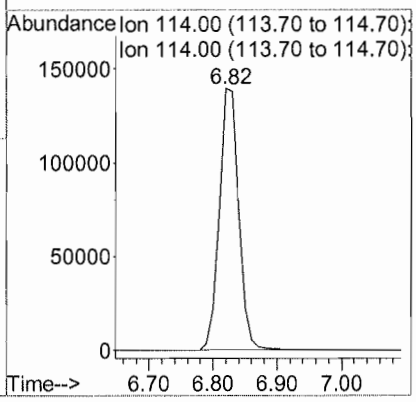


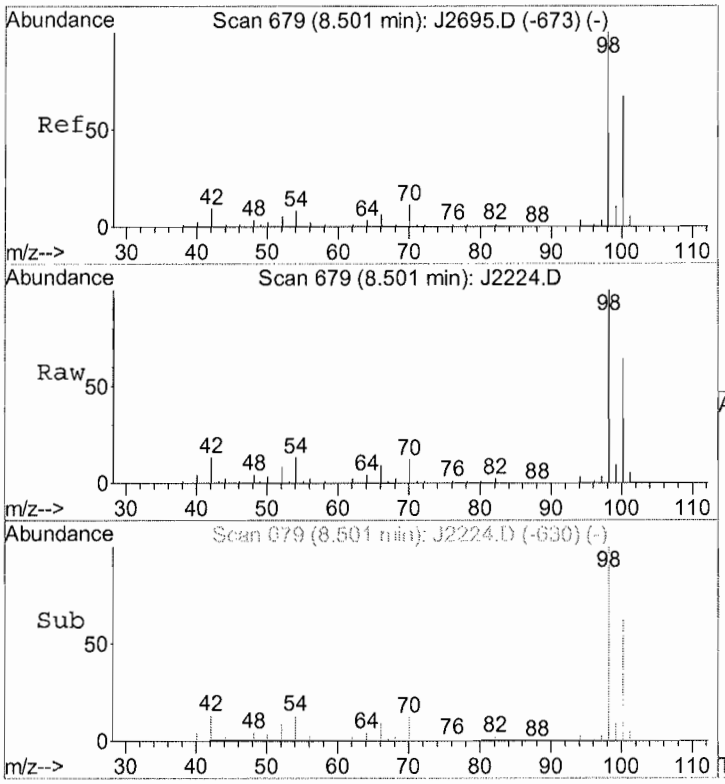


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.82 min Scan# 513
Delta R.T. -0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

Tgt Ion:114 Resp: 294038

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

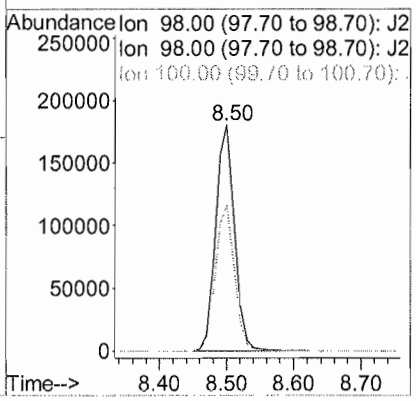


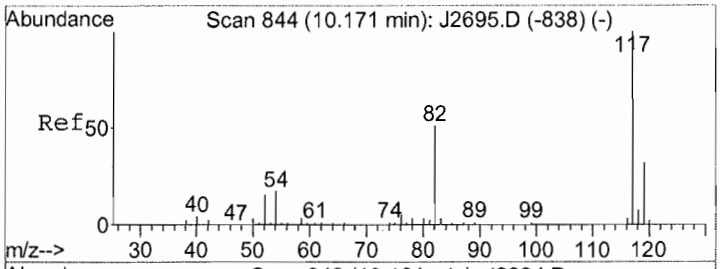


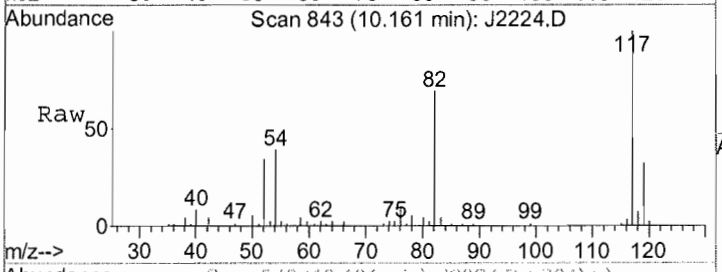
#41
Toluene-d8
Concen: 49.55 UG
RT: 8.50 min Scan# 679
Delta R.T. -0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

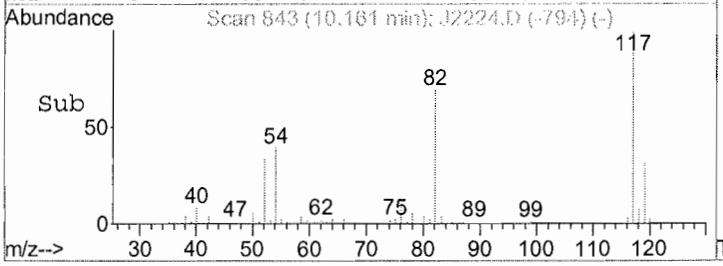
Tgt Ion: 98 Resp: 350555

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	65.1	48.1	89.3





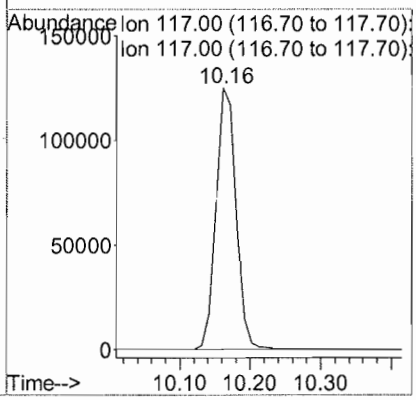


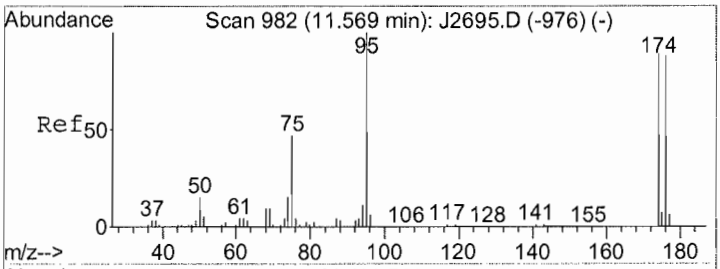


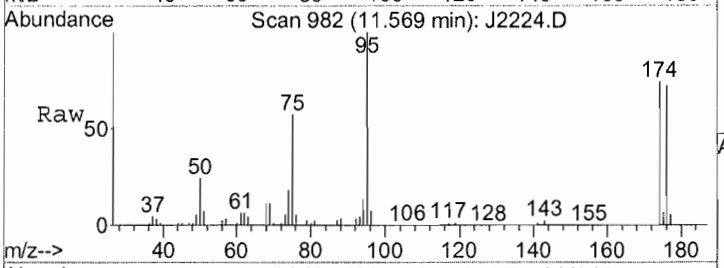
#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. -0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

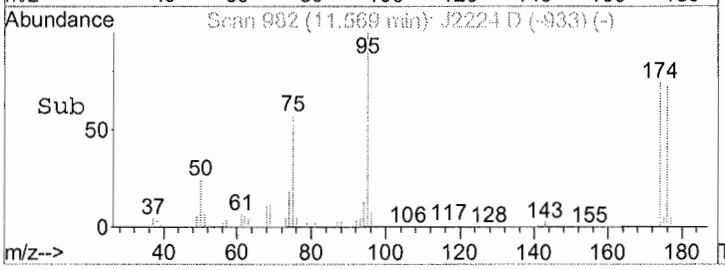
Tgt Ion:117 Resp: 247756

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0





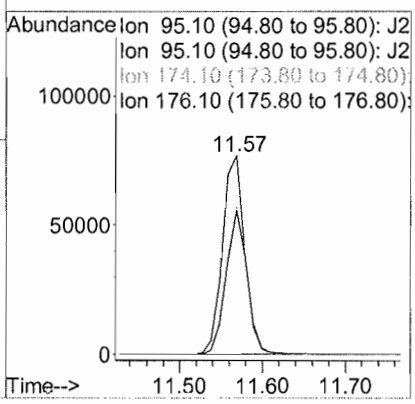




#59
Bromofluorobenzene
Concen: 49.54 UG
RT: 11.57 min Scan# 982
Delta R.T. -0.00 min
Lab File: J2224.D
Acq: 13 Dec 2017 12:23

Tgt Ion: 95 Resp: 141429

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	71.1	0.0	0.0#
176	68.2	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2224.D
Acq On : 13 Dec 2017 12:23
Operator : MEI
Sample : MW-3,E17-10611-005,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.999	427	432	444	rBB	290187	641543	63.48%	14.093%
2	6.313	456	463	480	rBB	198787	412130	40.78%	9.053%
3	6.820	506	513	530	rBB	403485	822621	81.39%	18.071%
4	8.501	673	679	694	rBB	509579	1010667	100.00%	22.201%
5	10.161	836	843	854	rBB	461877	891943	88.25%	19.593%
6	11.569	976	982	996	rBB	372411	679723	67.25%	14.931%
7	15.721	1388	1392	1396	rBB	8073	12648	1.25%	0.278%
8	16.723	1488	1491	1495	rBB	18087	27132	2.68%	0.596%
9	17.574	1564	1575	1580	rBB	18221	39488	3.91%	0.867%
10	17.867	1599	1604	1609	rBB4	5908	14381	1.42%	0.316%

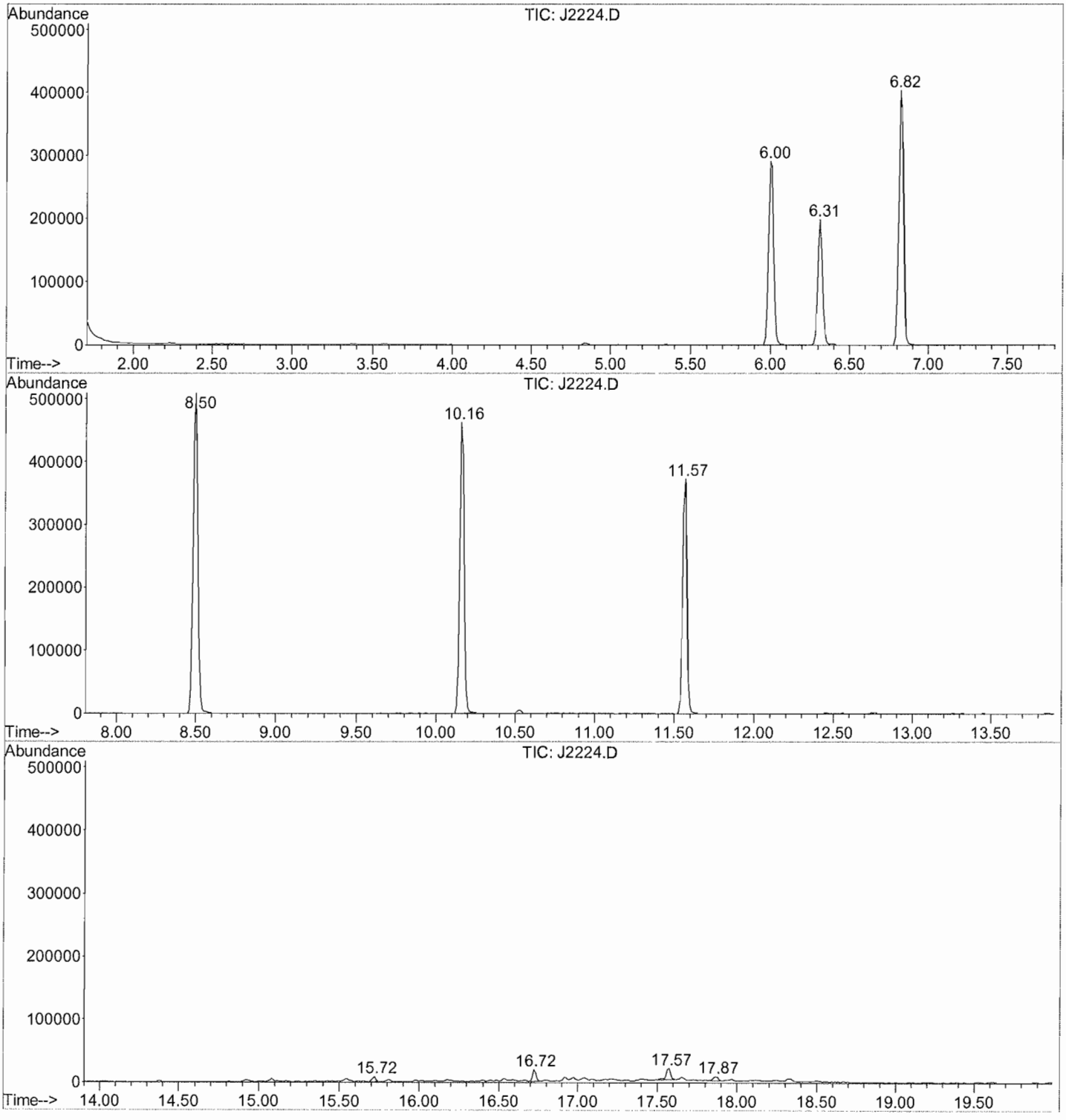
Sum of corrected areas: 4552276

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2224.D
Acq On : 13 Dec 2017 12:23
Operator : MEI
Sample : MW-3,E17-10611-005,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 14 16:33:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

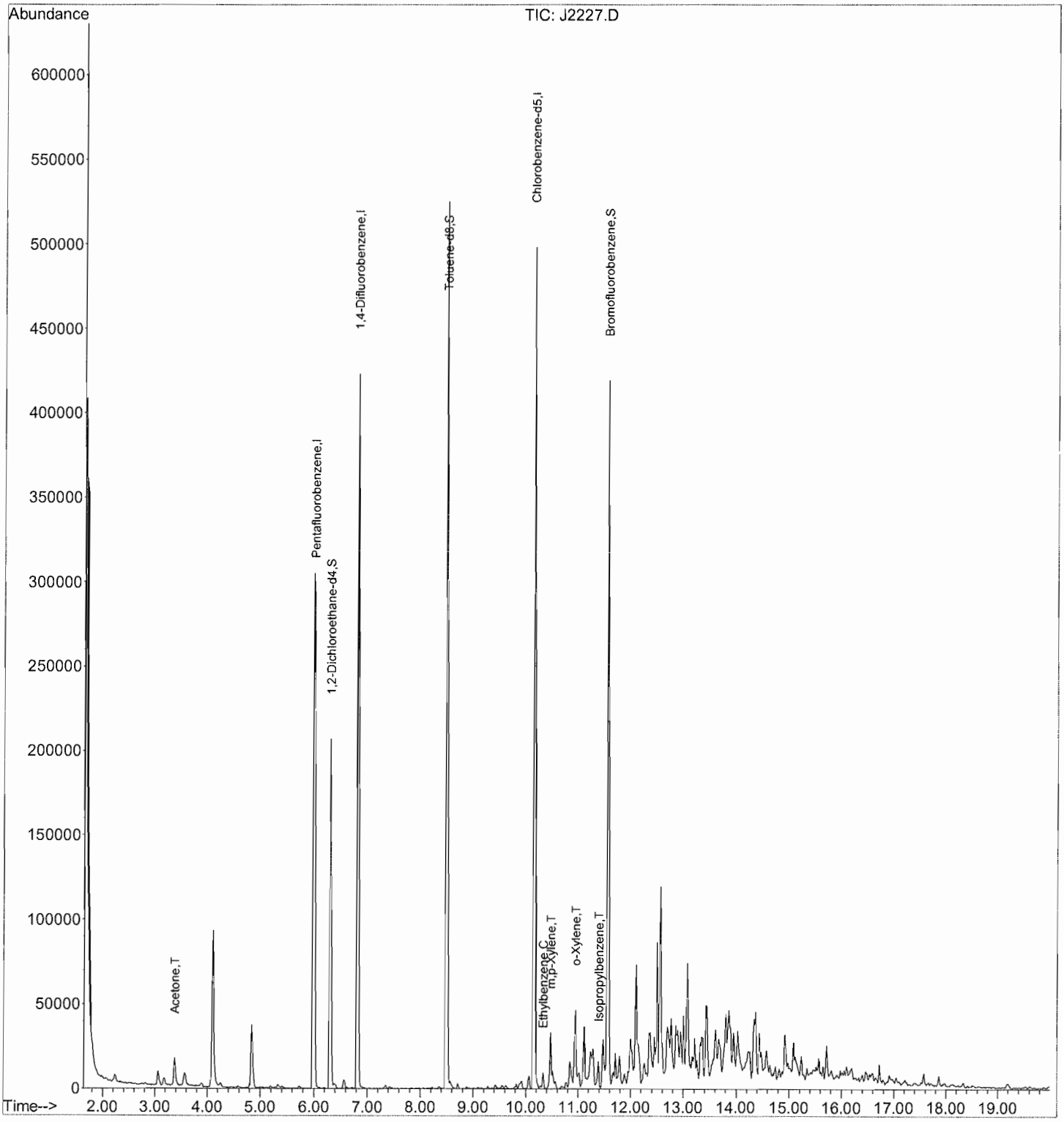
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	205346	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	304652	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	260681	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	179436	49.82	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.64%			
41) Toluene-d8	8.50	98	361380	49.30	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 98.60%			
59) Bromofluorobenzene	11.57	95	153585	51.13	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.26%			
Target Compounds						Qvalue
10) Acetone	3.38	43	26817	54.92	UG	# 95
53) Ethylbenzene	10.33	91	6249	0.66	UG	97
54) m,p-Xylene	10.48	106	9133	2.65	UG	88
55) o-Xylene	10.95	106	10093	2.93	UG	89
58) Isopropylbenzene	11.40	105	8562	1.10	UG	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

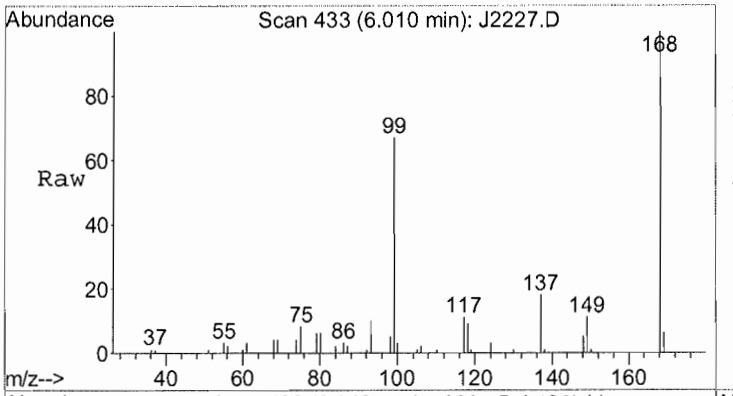
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 14 16:33:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



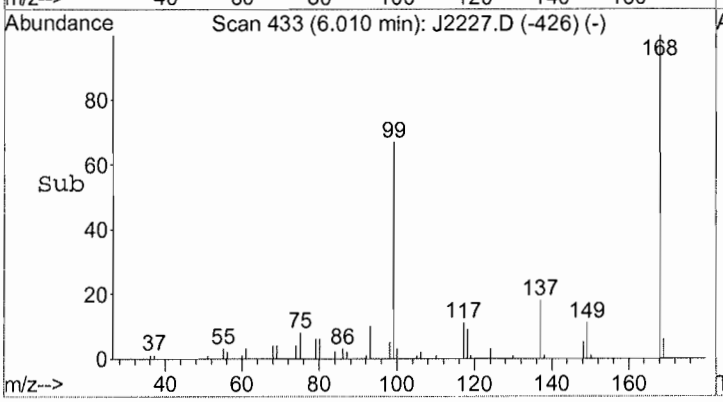
12/15/17

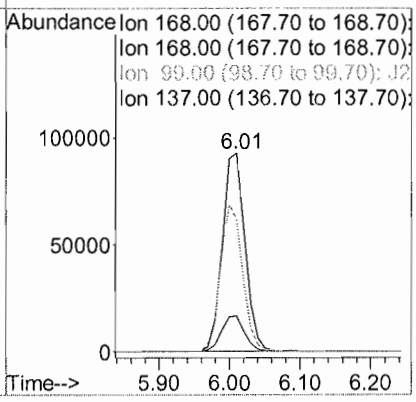


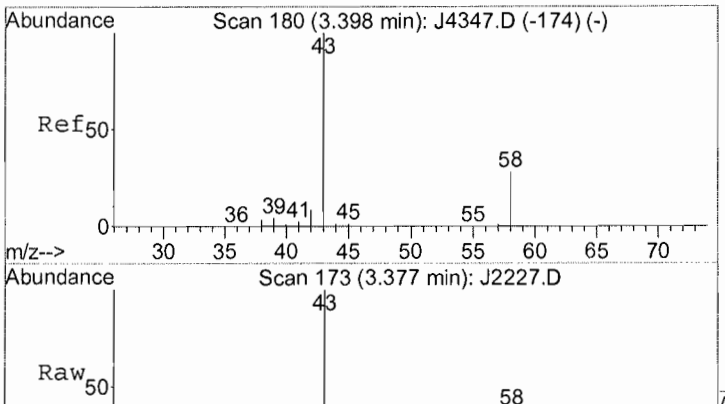
#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:168 Resp: 205346

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	72.5	53.9	100.1
137	18.0	10.5	19.5



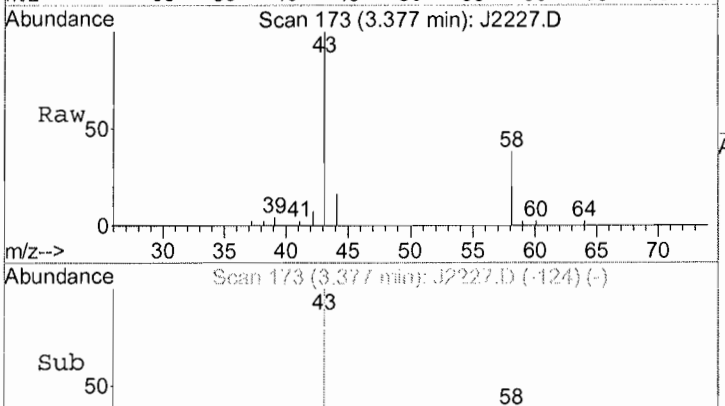


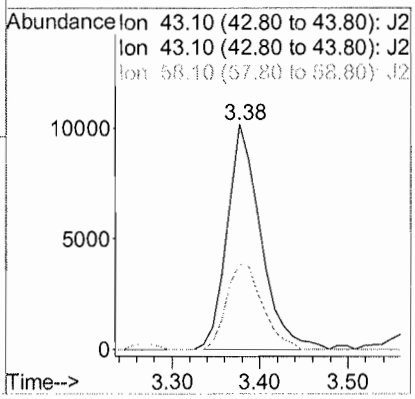


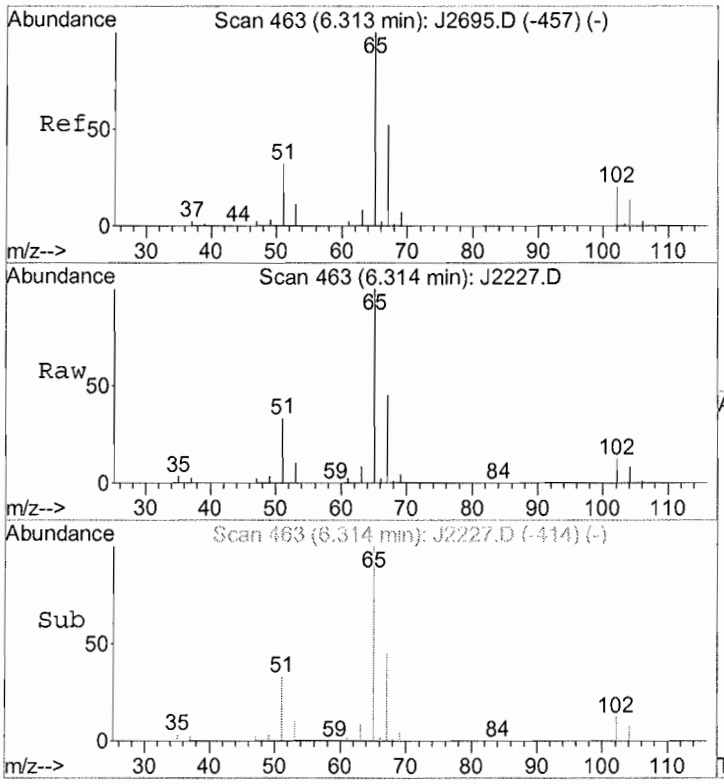
#10
Acetone
Concen: 54.92 UG
RT: 3.38 min Scan# 173
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion: 43 Resp: 26817

Ion	Ratio	Lower	Upper
43	100		
43	100.0	70.0	130.0
58	40.4	19.6	36.4#



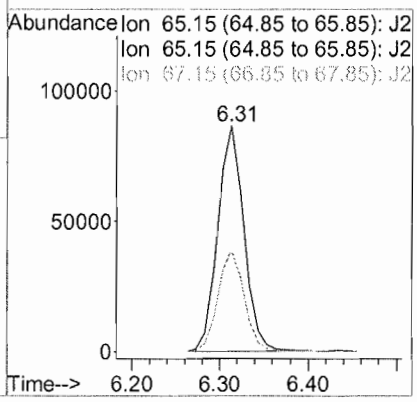


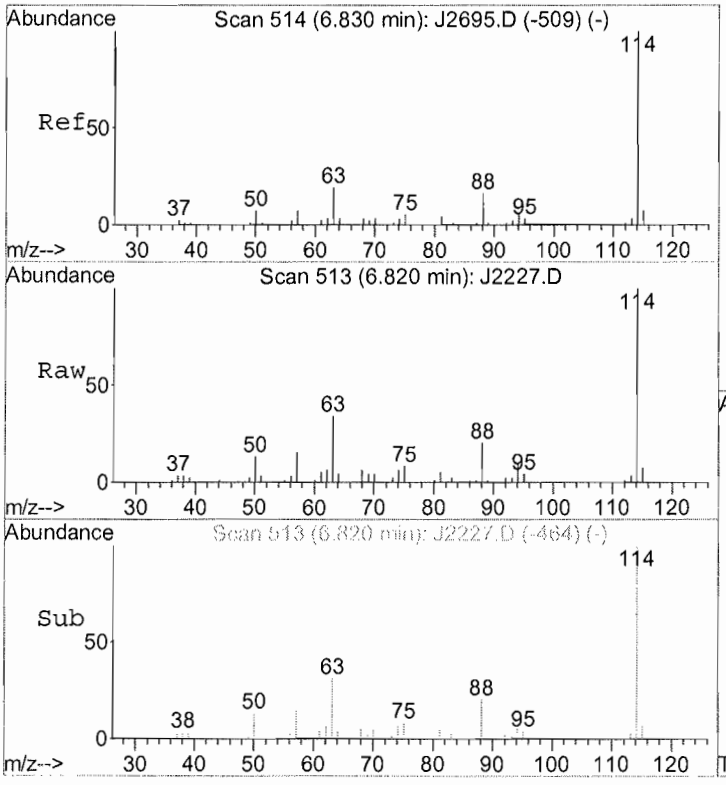


#30
1,2-Dichloroethane-d4
Concen: 49.82 UG
RT: 6.31 min Scan# 463
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion: 65 Resp: 179436

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	45.2	41.7	77.5

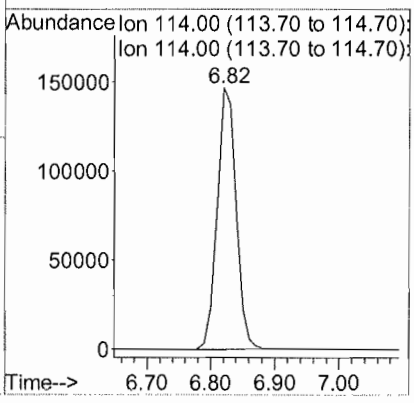


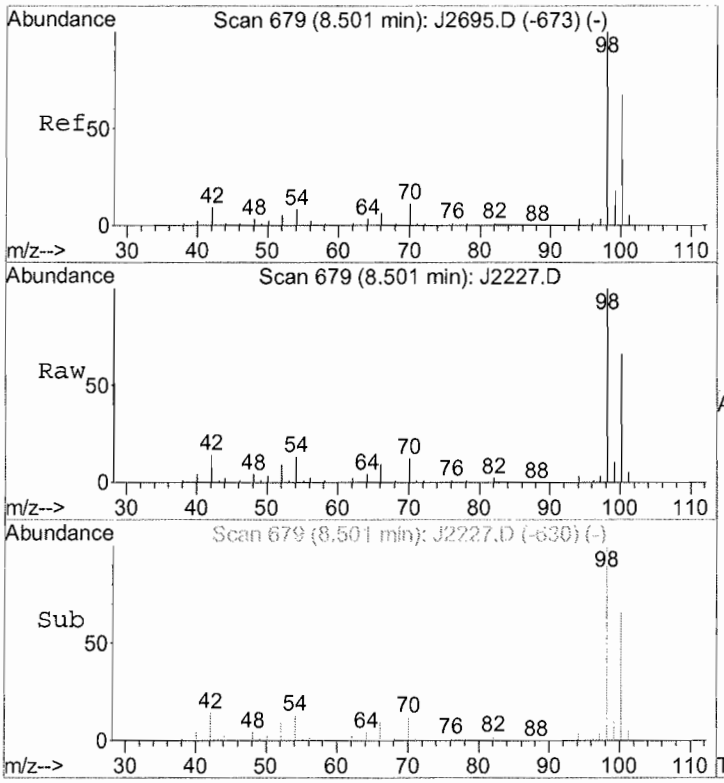


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.82 min Scan# 513
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:114 Resp: 304652

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

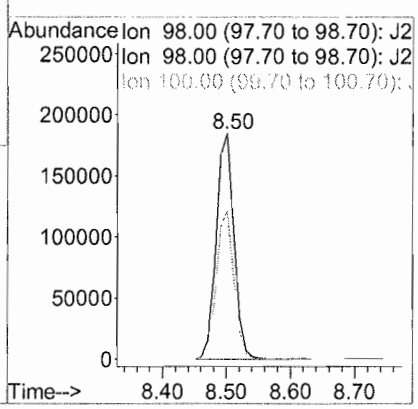


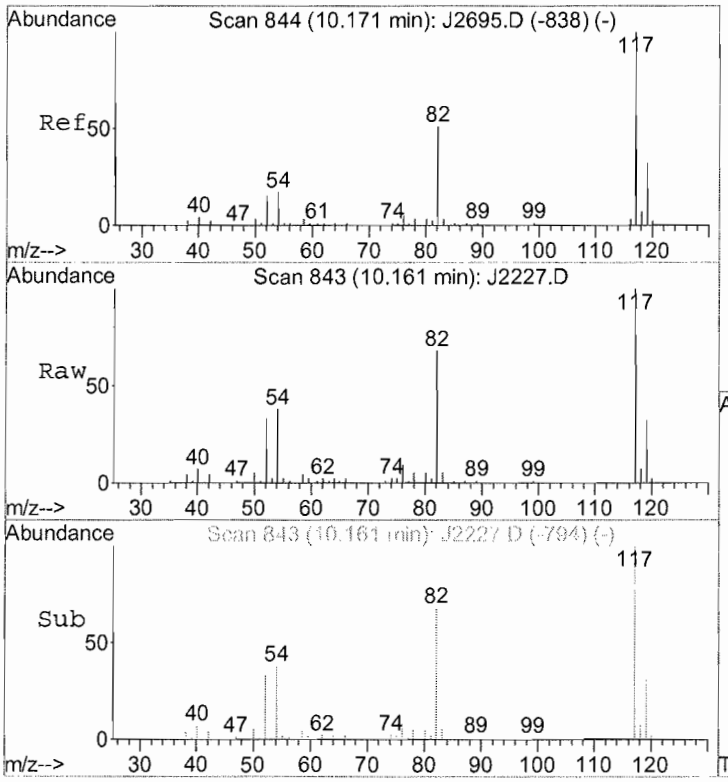


#41
Toluene-d8
Concen: 49.30 UG
RT: 8.50 min Scan# 679
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion: 98 Resp: 361380

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.9	48.1	89.3

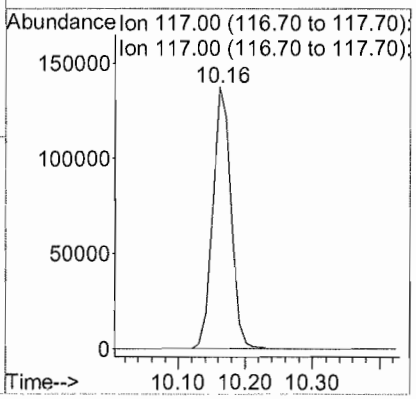


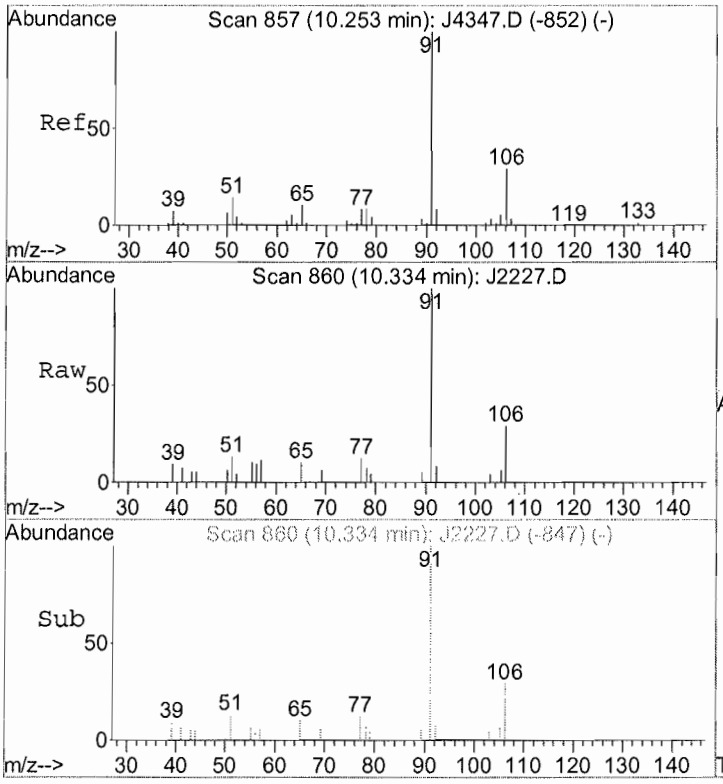


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:117 Resp: 260681

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

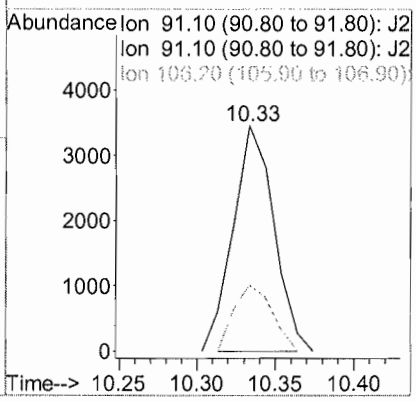


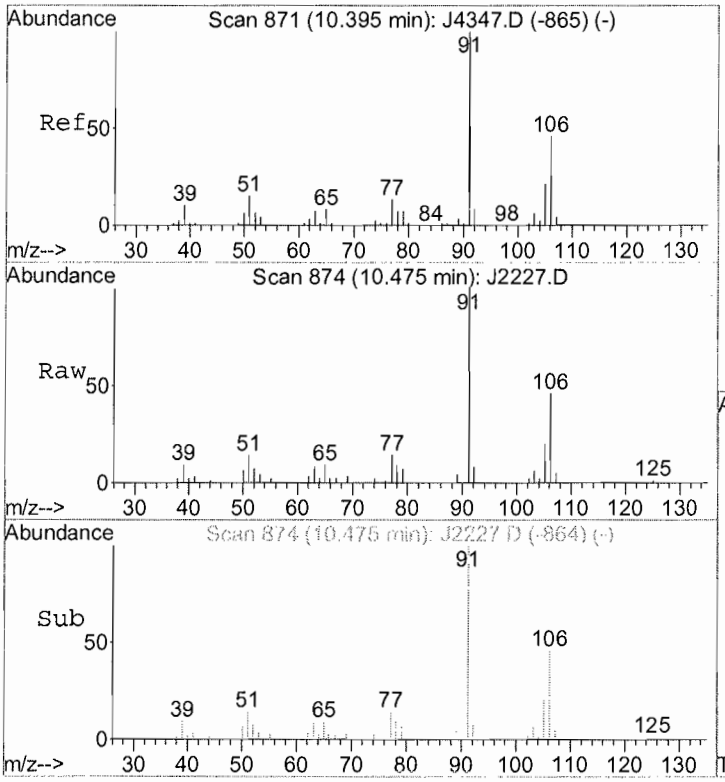


#53
Ethylbenzene
Concen: 0.66 UG
RT: 10.33 min Scan# 860
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion: 91 Resp: 6249

Ion	Ratio	Lower	Upper
91	100		
91	100.0	70.0	130.0
106	27.3	23.2	43.0

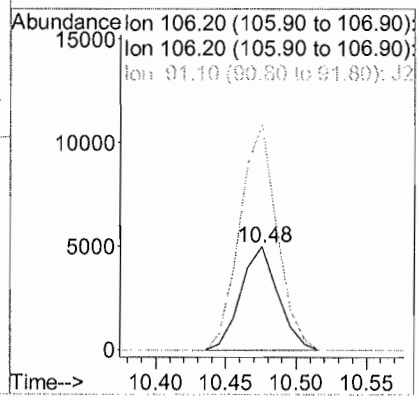


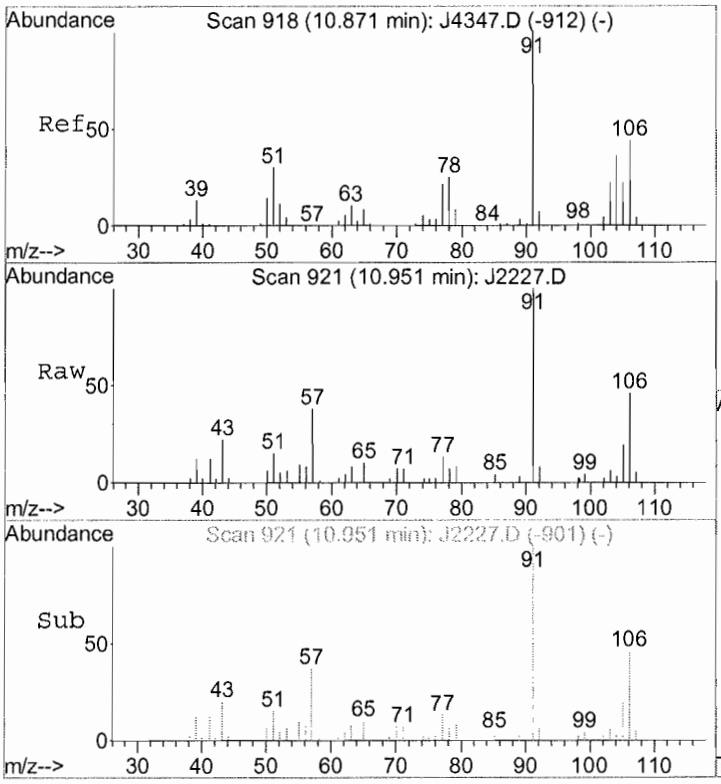


#54
m,p-Xylene
Concen: 2.65 UG
RT: 10.48 min Scan# 874
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:106 Resp: 9133

Ion	Ratio	Lower	Upper
106	100		
106	100.0	70.0	130.0
91	217.9	134.1	249.0

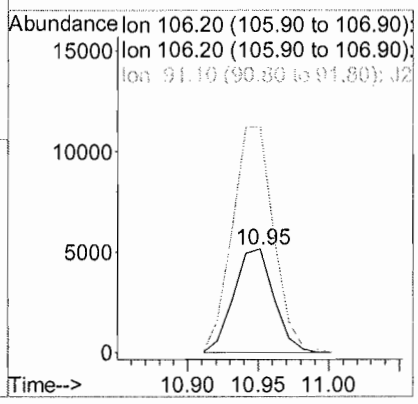


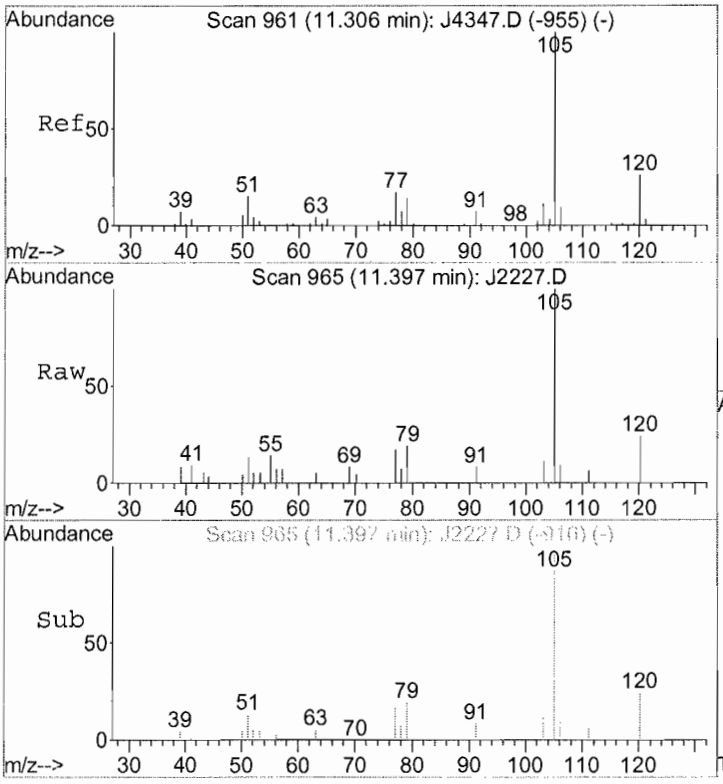


#55
o-Xylene
Concen: 2.93 UG
RT: 10.95 min Scan# 921
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:106 Resp: 10093

Ion	Ratio	Lower	Upper
106	100		
106	100.0	70.0	130.0
91	225.5	140.4	260.8

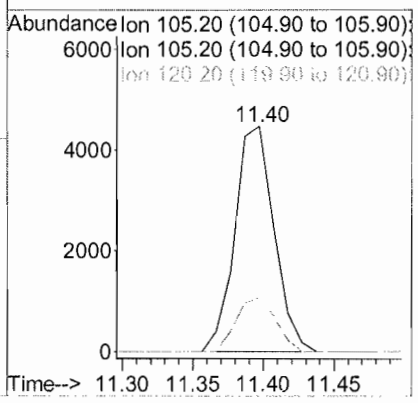


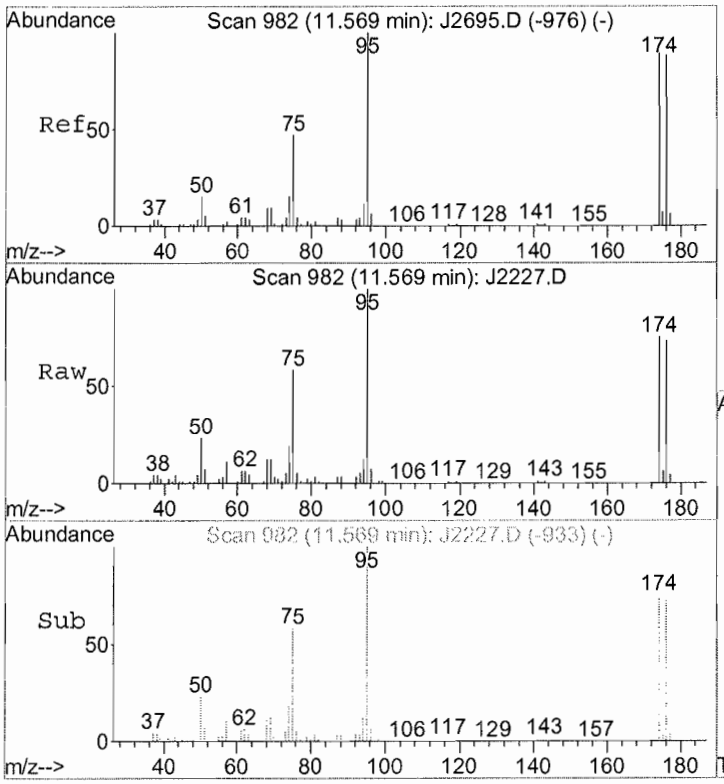


#58
Isopropylbenzene
Concen: 1.10 UG
RT: 11.40 min Scan# 965
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion:105 Resp: 8562

Ion	Ratio	Lower	Upper
105	100		
105	100.0	70.0	130.0
120	23.6	19.9	37.0

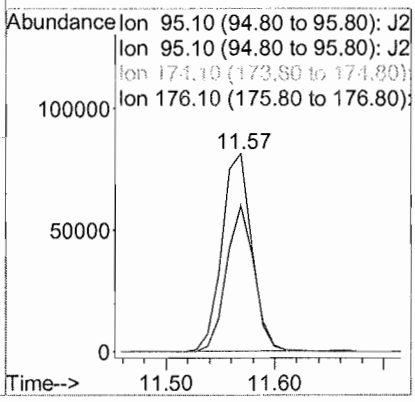




#59
Bromofluorobenzene
Concen: 51.13 UG
RT: 11.57 min Scan# 982
Delta R.T. 0.00 min
Lab File: J2227.D
Acq: 13 Dec 2017 13:42

Tgt Ion: 95 Resp: 153585

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	71.0	0.0	0.0#
176	69.4	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.233	54	60	68	rBB2	4105	13158	1.27%	0.167%
2	3.063	133	142	149	rBB	8377	21994	2.13%	0.279%
3	3.377	165	173	183	rBB	16293	45406	4.40%	0.575%
4	3.579	187	193	204	rBB2	7329	22830	2.21%	0.289%
5	4.106	234	245	255	rBB	92167	240925	23.34%	3.051%
6	4.845	310	318	327	rBB	37109	97406	9.44%	1.233%
7	6.000	426	432	450	rBB	304847	667303	64.66%	8.450%
8	6.314	457	463	469	rBB	205854	419350	40.63%	5.310%
9	6.820	507	513	530	rBB	423020	848046	82.17%	10.739%
10	8.501	674	679	685	rBB	523449	1032058	100.00%	13.069%
11	9.929	812	820	823	rBB3	4479	14362	1.39%	0.182%
12	10.060	828	833	837	rBB	7197	12672	1.23%	0.160%
13	10.161	837	843	853	rBB	497786	933965	90.50%	11.826%
14	10.334	853	860	864	rBB3	9225	18465	1.79%	0.234%
15	10.475	867	874	881	rBB2	31312	72858	7.06%	0.923%
16	10.850	907	911	917	rBB3	13939	33985	3.29%	0.430%
17	10.951	917	921	925	rBB2	41076	83880	8.13%	1.062%
18	11.113	931	937	943	rBB	32997	66385	6.43%	0.841%
19	11.245	946	950	952	rBB3	7340	17473	1.69%	0.221%
20	11.285	952	954	958	rBB	10809	14233	1.38%	0.180%
21	11.387	959	964	968	rBB3	14612	30780	2.98%	0.390%
22	11.478	969	973	976	rBB2	22276	48270	4.68%	0.611%
23	11.569	976	982	988	rBB	412403	809356	78.42%	10.249%
24	11.711	988	996	999	rBB2	15876	36513	3.54%	0.462%
25	11.792	999	1004	1008	rBB3	14897	33364	3.23%	0.422%
26	11.893	1009	1014	1017	rBB3	5591	13241	1.28%	0.168%
27	12.004	1018	1025	1030	rBB2	21664	72549	7.03%	0.919%
28	12.106	1030	1035	1045	rBB3	64998	186304	18.05%	2.359%
29	12.258	1045	1050	1056	rBB4	9809	30070	2.91%	0.381%
30	12.379	1056	1062	1067	rBB2	22938	80319	7.78%	1.017%
31	12.450	1067	1069	1071	rBB	14140	21536	2.09%	0.273%
32	12.501	1071	1074	1077	rBB	68642	106542	10.32%	1.349%
33	12.561	1077	1080	1087	rBB	106092	209985	20.35%	2.659%
34	12.703	1090	1094	1098	rBB4	18797	50855	4.93%	0.644%
35	12.774	1098	1101	1105	rBB2	22486	35842	3.47%	0.454%
36	12.865	1106	1110	1116	rBB2	22761	70776	6.86%	0.896%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

37	12.956	1116	1119	1121	rBB2	16701	24393	2.36%	0.309%
38	13.007	1121	1124	1127	rBB	27782	42688	4.14%	0.541%
39	13.078	1127	1131	1137	rBB2	60244	142469	13.80%	1.804%
40	13.209	1137	1144	1147	rBB4	17829	39371	3.81%	0.499%
41	13.351	1152	1158	1162	rBB3	23965	82883	8.03%	1.050%
42	13.432	1162	1166	1173	rBB2	41783	104287	10.10%	1.321%
43	13.604	1173	1183	1187	rBB3	19978	53911	5.22%	0.683%
44	13.675	1187	1190	1195	rBB4	14197	37717	3.65%	0.478%
45	13.807	1197	1203	1206	rBB4	22095	57052	5.53%	0.722%
46	13.868	1206	1209	1215	rBB2	23079	65713	6.37%	0.832%
47	13.949	1215	1217	1222	rBB2	17981	35822	3.47%	0.454%
48	14.030	1222	1225	1234	rBB6	21283	62542	6.06%	0.792%
49	14.232	1234	1245	1251	rBB8	14262	70571	6.84%	0.894%
50	14.374	1251	1259	1263	rBB5	37465	137445	13.32%	1.740%
51	14.445	1263	1266	1273	rBB2	23648	61575	5.97%	0.780%
52	14.577	1273	1279	1284	rBB3	12350	27991	2.71%	0.354%
53	14.749	1290	1296	1298	rBB5	7085	13401	1.30%	0.170%
54	14.931	1306	1314	1326	rBB7	23870	87341	8.46%	1.106%
55	15.083	1326	1329	1341	rBB3	17789	60323	5.84%	0.764%
56	15.235	1341	1344	1351	rBB5	12297	27198	2.64%	0.344%
57	15.346	1351	1355	1358	rBB5	5421	10334	1.00%	0.131%
58	15.569	1374	1377	1383	rBB8	8203	13393	1.30%	0.170%
59	15.721	1388	1392	1397	rBB	19118	38560	3.74%	0.488%
60	16.197	1433	1439	1442	rBB3	5322	12493	1.21%	0.158%
61	16.460	1462	1465	1470	rBB4	5425	14414	1.40%	0.183%
62	16.723	1488	1491	1496	rBB	10770	18175	1.76%	0.230%
63	17.219	1532	1540	1545	rBB5	3012	12474	1.21%	0.158%
64	17.574	1564	1575	1580	rBB3	7036	17581	1.70%	0.223%
65	17.868	1599	1604	1609	rBB3	5659	12056	1.17%	0.153%

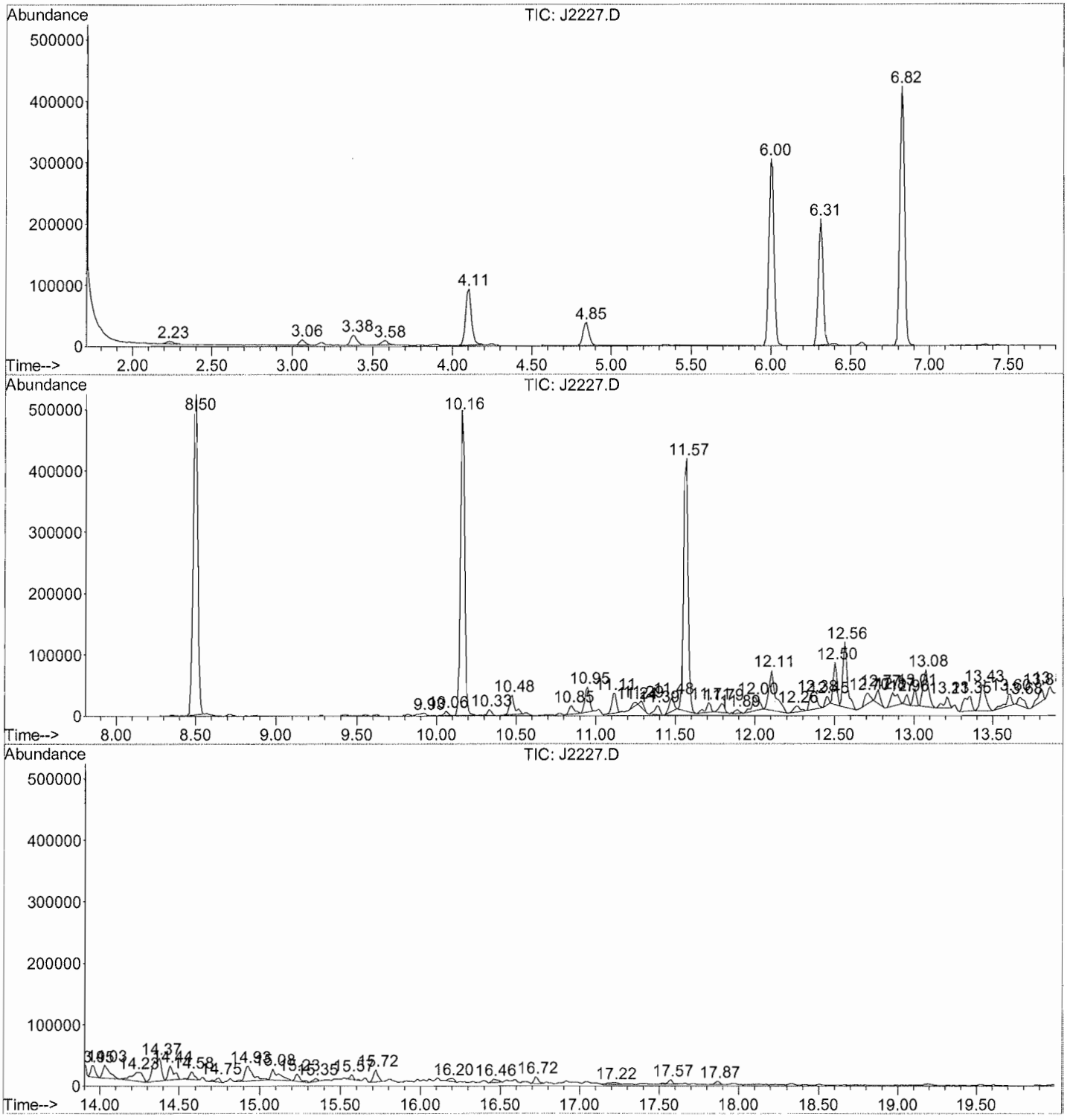
Sum of corrected areas: 7897229

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

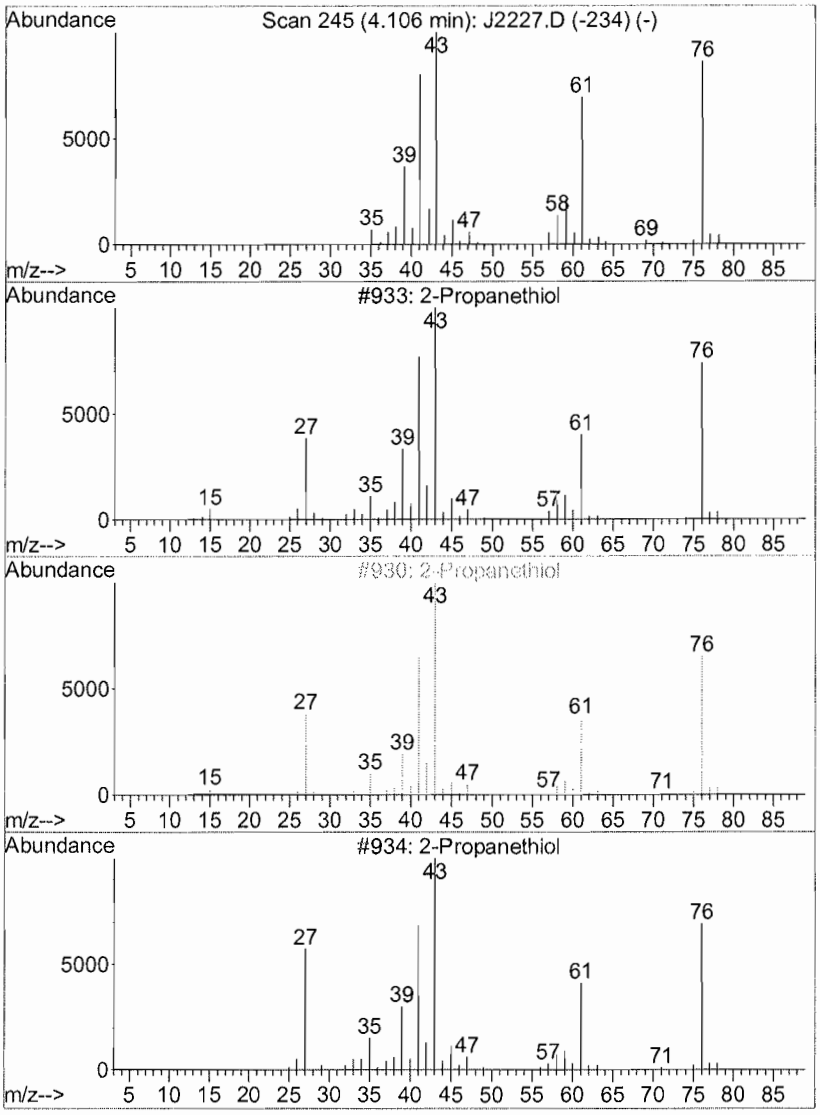
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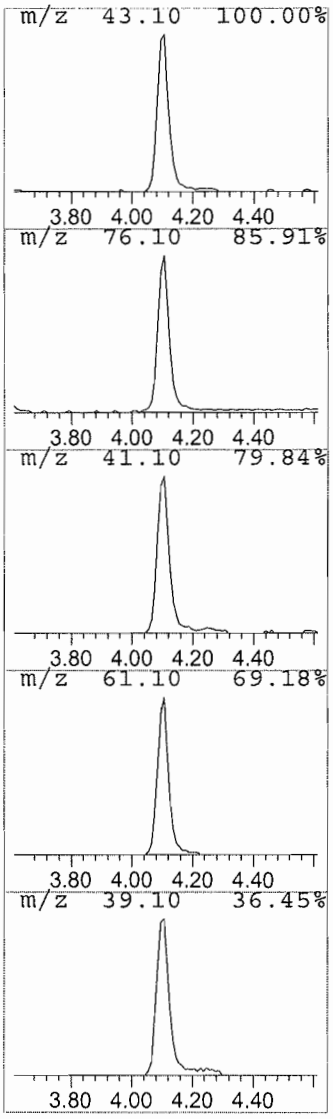
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Peak Number 1 2-Propanethiol Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.11	18.05 UG	240925	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propanethiol	76	C3H8S	000075-33-2	91
2	2-Propanethiol	76	C3H8S	000075-33-2	91
3	2-Propanethiol	76	C3H8S	000075-33-2	90
4	2-Propanethiol	76	C3H8S	000075-33-2	78
5	Trimethylphosphine	76	C3H9P	000594-09-2	64





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

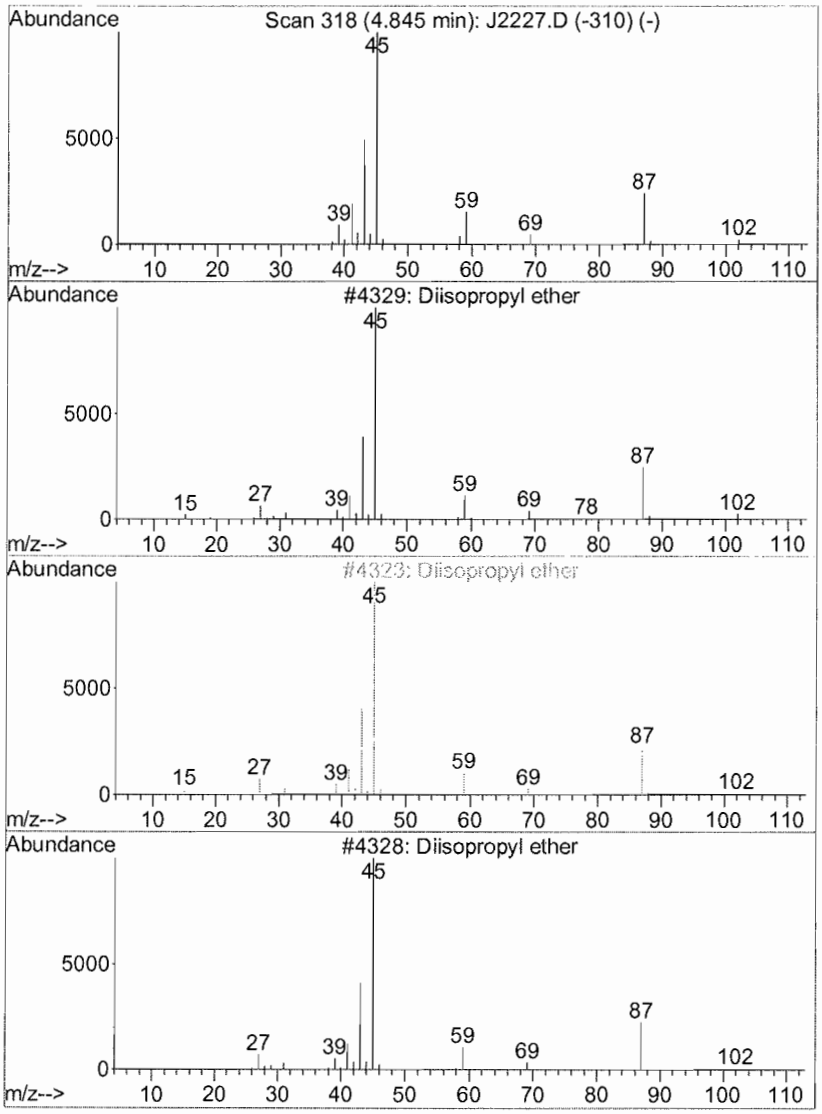
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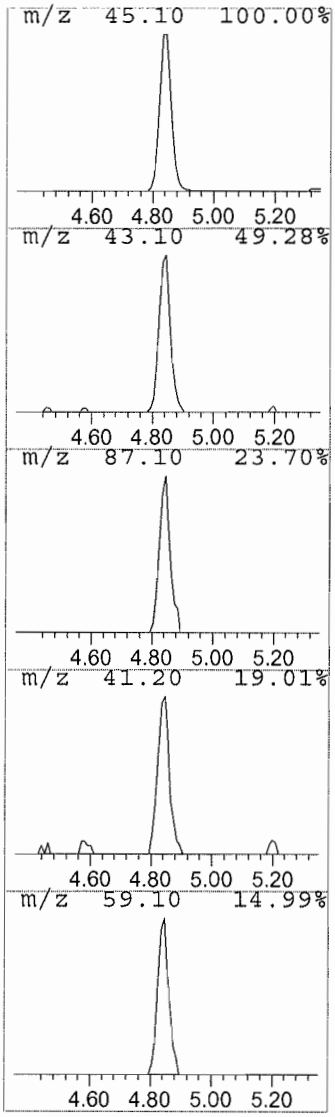
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Peak Number 2 Diisopropyl ether Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	7.30 UG	97406	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	90
2	Diisopropyl ether	102	C6H14O	000108-20-3	78
3	Diisopropyl ether	102	C6H14O	000108-20-3	78
4	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	78
5	Ether, sec-butyl isopropyl	116	C7H16O	018641-81-1	64





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

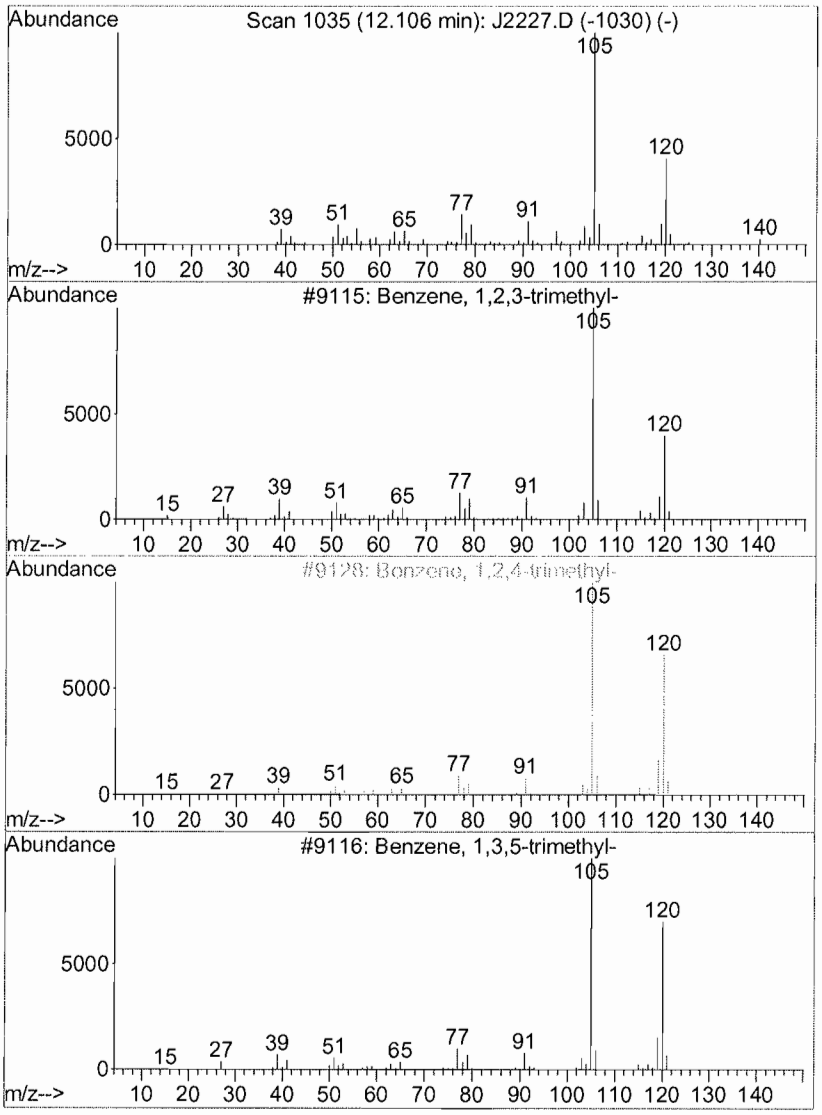
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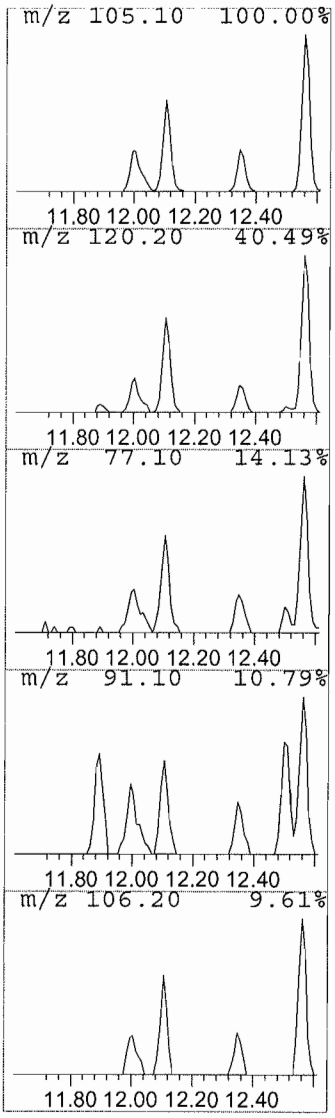
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Peak Number 3 Benzene, 1,2,3-trimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.11	9.97 UG	186304	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

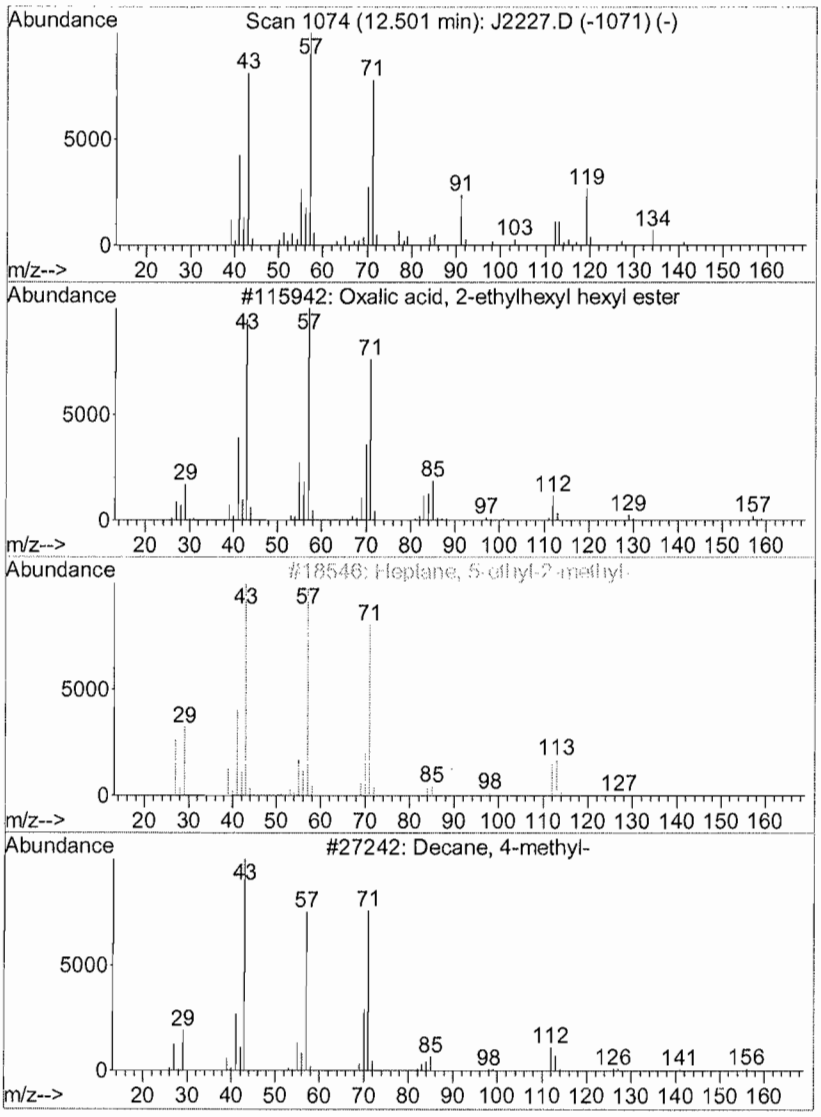
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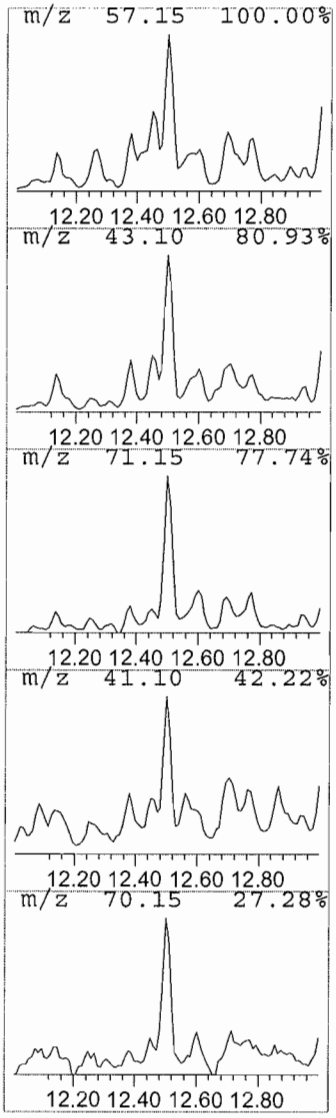
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Peak Number 4 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.50	5.70 UG	106542	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxalic acid, 2-ethylhexyl hexyl ...	286	C16H30O4	1000309-38-9	64
2	Heptane, 5-ethyl-2-methyl-	142	C10H22	013475-78-0	64
3	Decane, 4-methyl-	156	C11H24	002847-72-5	59
4	Octane, 2,3,6-trimethyl-	156	C11H24	062016-33-5	59
5	Octane, 3-ethyl-	142	C10H22	005881-17-4	59





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

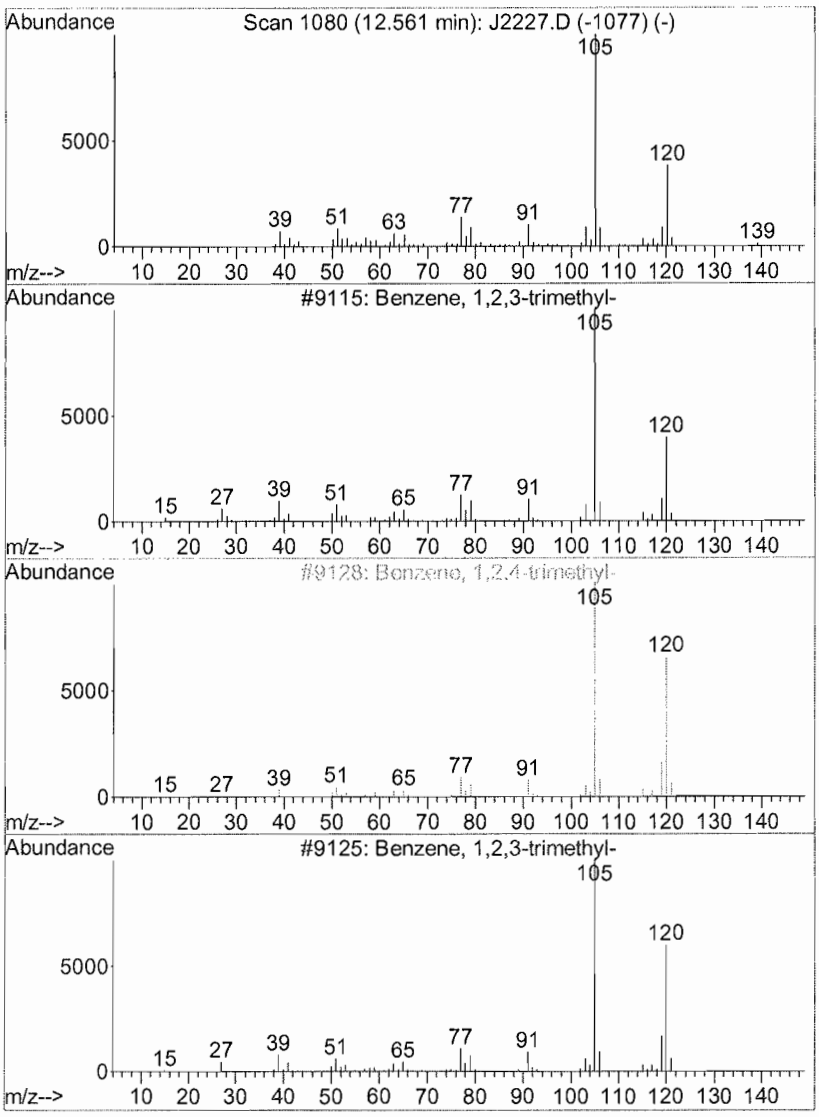
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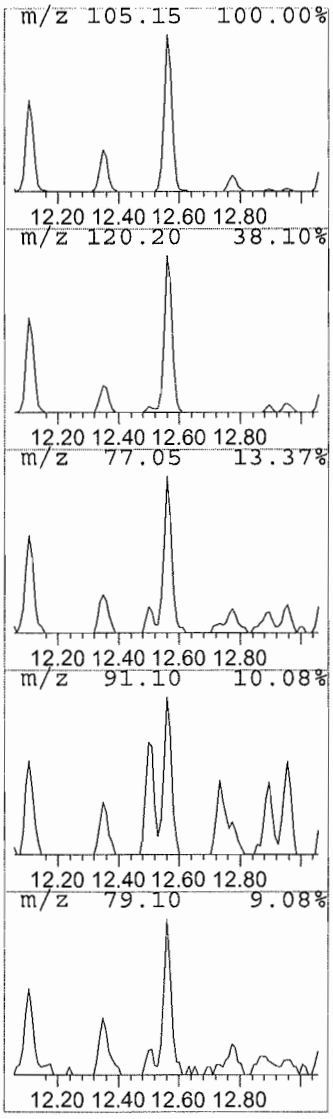
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Peak Number 5 Benzene, 1,2,4-trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.56	11.24 UG	209985	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	93
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

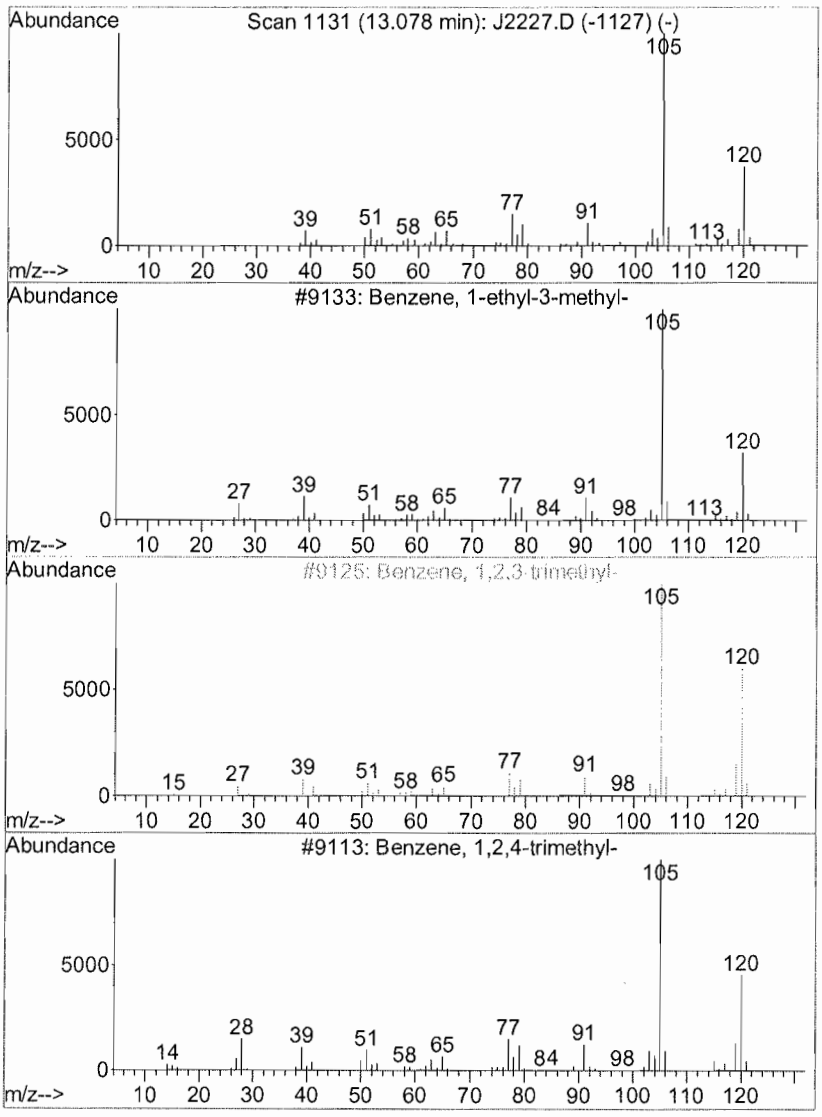
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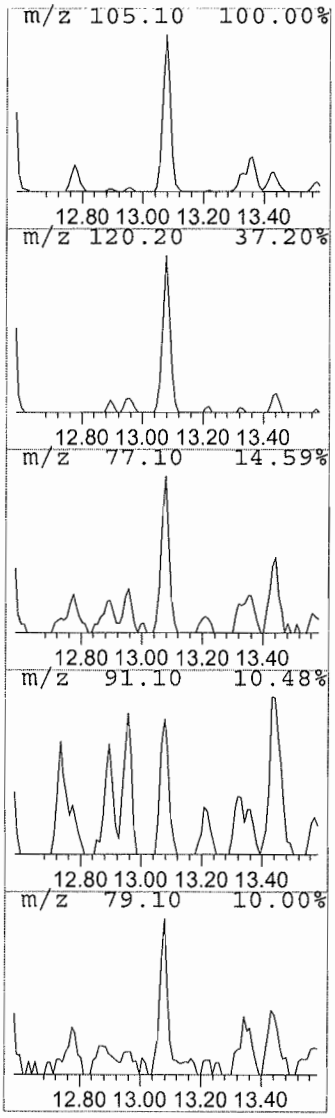
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Peak Number 6 Benzene, 1-ethyl-3-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.08	7.63 UG	142469	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	93
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	93
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

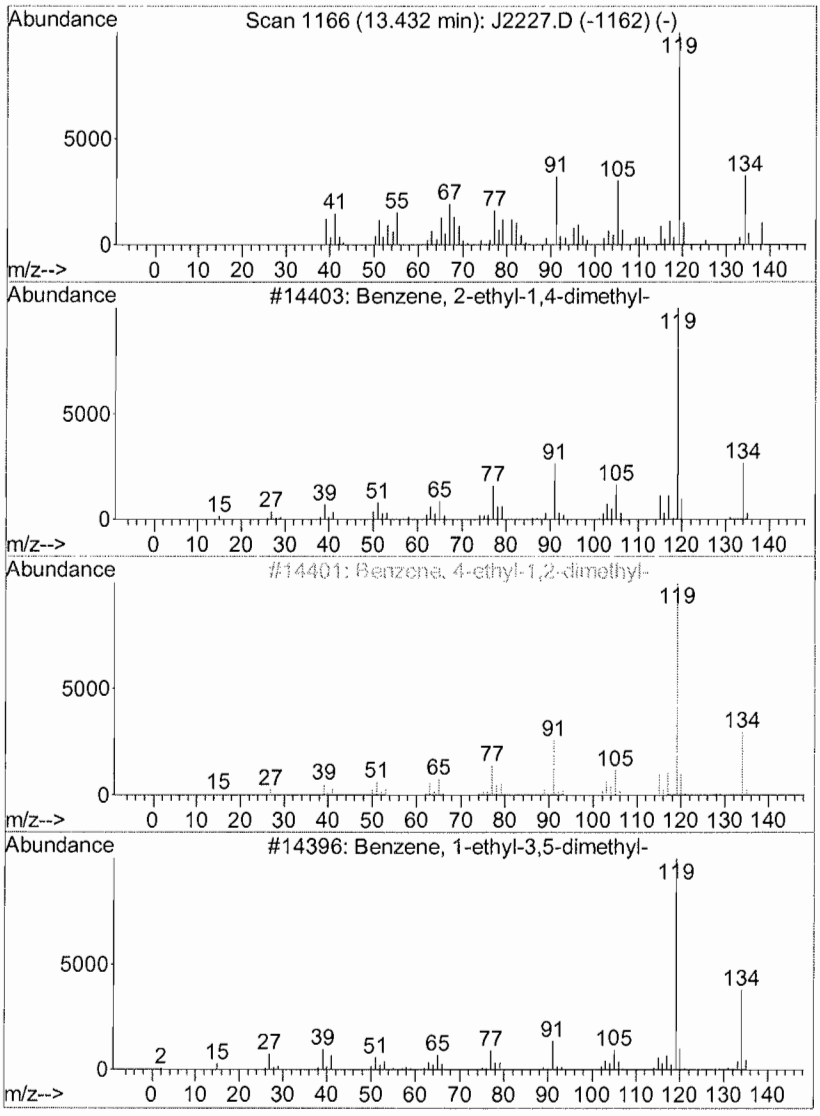
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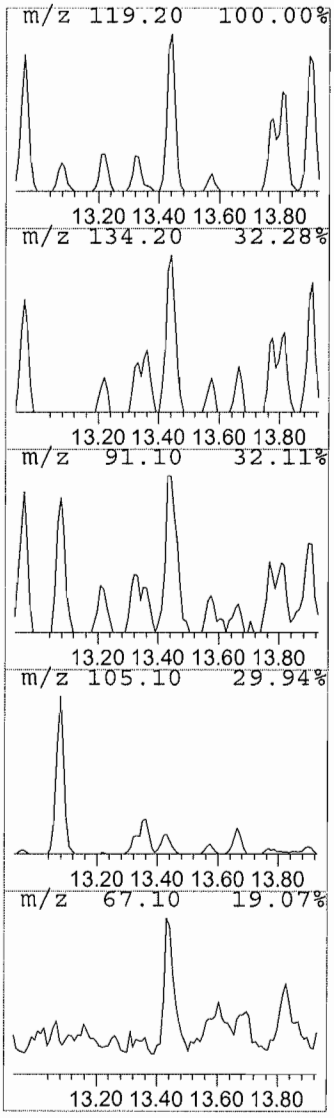
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TIC Integration Parameters: LSCINT.P

****
Peak Number 7 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	5.58 UG	104287	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	93
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	93
3	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	93
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	93
5	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	93





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2227.D
Acq On : 13 Dec 2017 13:42
Operator : MEI
Sample : PZ-3,E17-10611-008,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 10 Sample Multiplier: 1

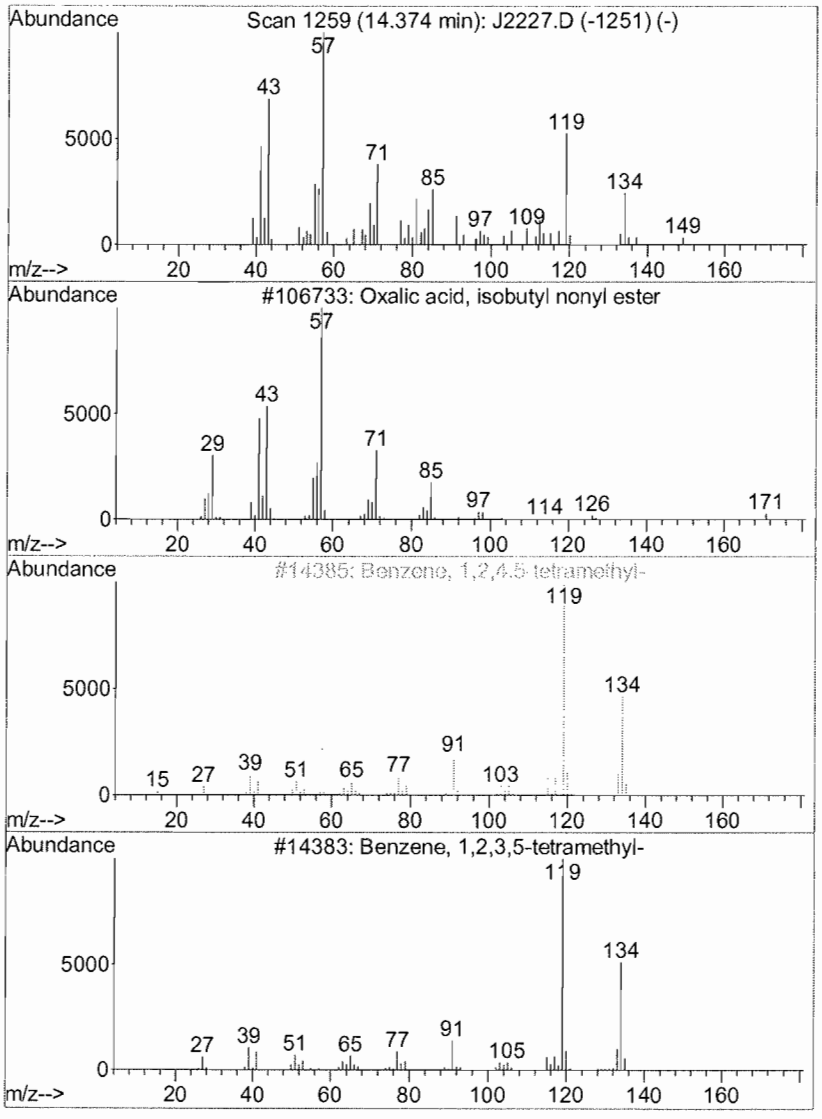
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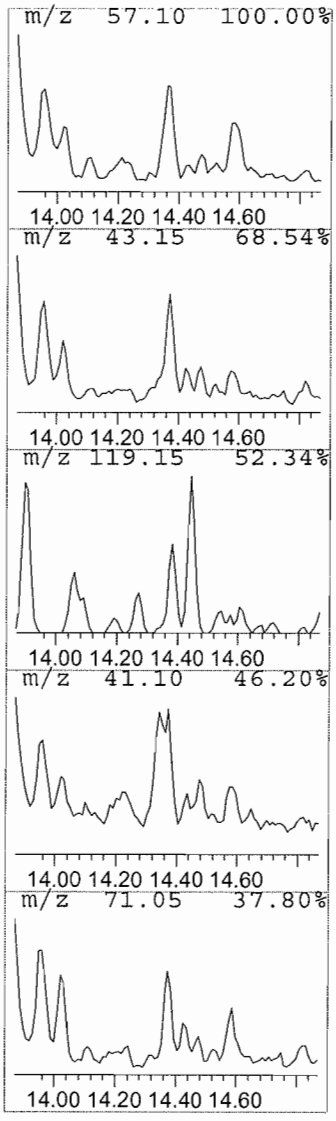
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TIC Integration Parameters: LSCINT.P

****
Peak Number 8 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.37	7.36 UG	137445	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxalic acid, isobutyl nonyl ester	272	C15H28O4	1000309-37-4	35
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	30
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	30
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	30
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	30





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 14 16:30:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

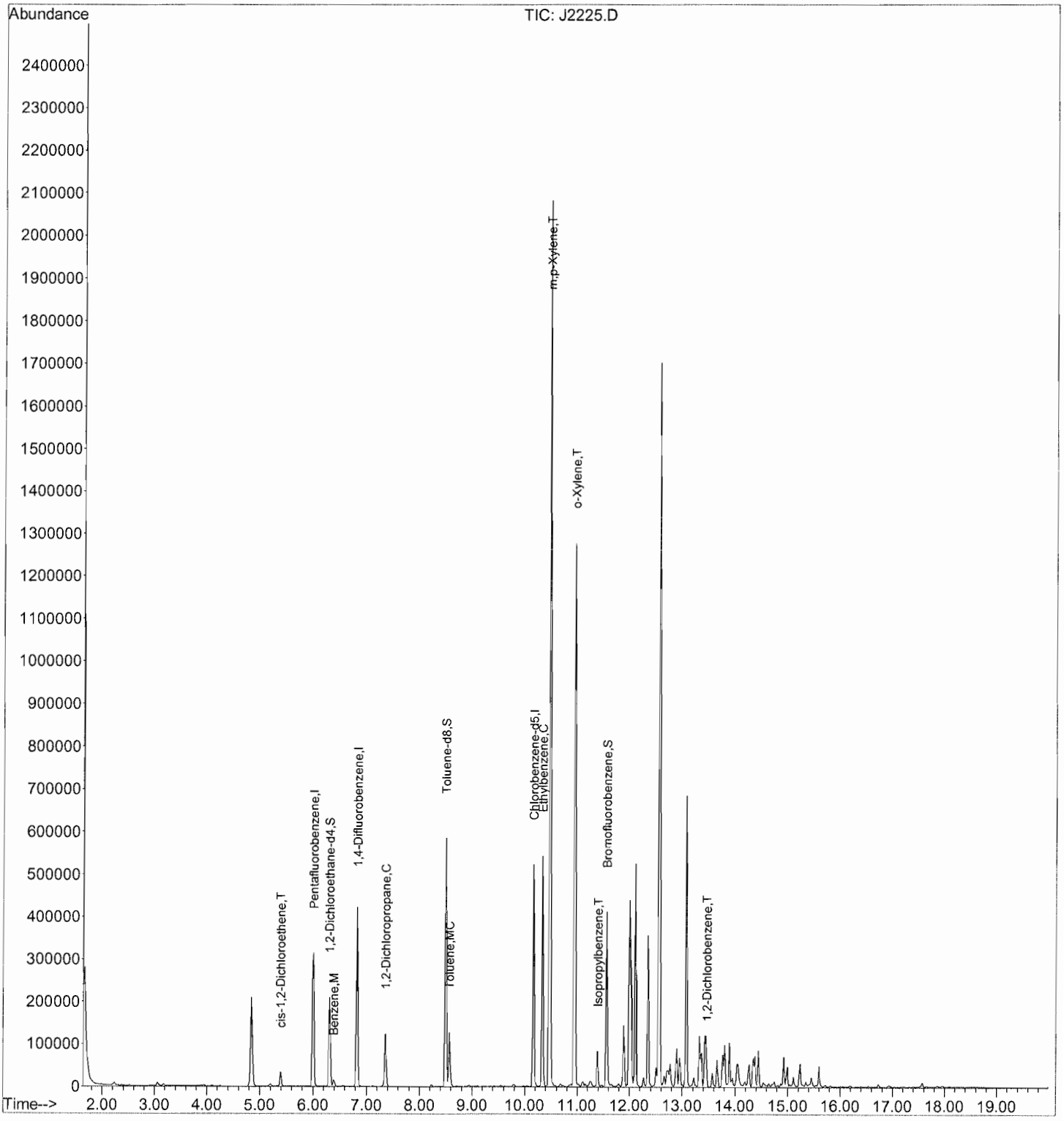
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	210824	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	315065	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	267846	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	185862	50.27	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.54%			
41) Toluene-d8	8.50	98	384633	50.74	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.48%			
59) Bromofluorobenzene	11.57	95	155139	50.27	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 100.54%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.39	96	12789	4.63	UG	# 31
32) Benzene	6.39	78	11718	1.17	UG	100
34) 1,2-Dichloropropane	7.37	63	51099	15.19	UG	100
42) Toluene	8.57	92	51490	9.25	UG	100
53) Ethylbenzene	10.33	91	405453	41.72	UG	98
54) m,p-Xylene	10.48	106	580770	163.96	UG	84
55) o-Xylene	10.95	106	362645	102.61	UG	83
58) Isopropylbenzene	11.40	105	62703	7.83	UG	98
74) 1,2-Dichlorobenzene	13.46	146	6956	1.73	UG	98

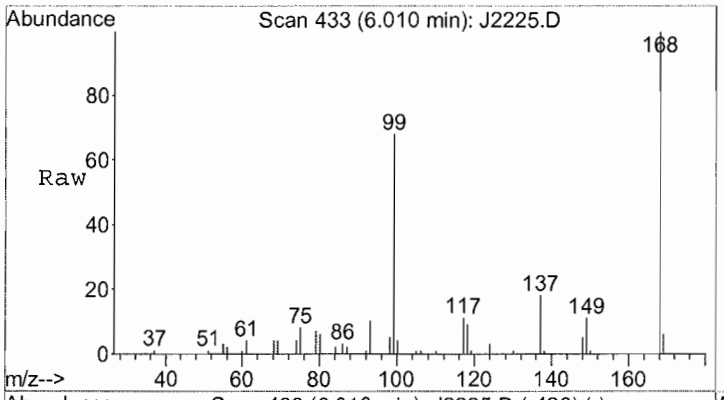
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

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Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 14 16:30:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

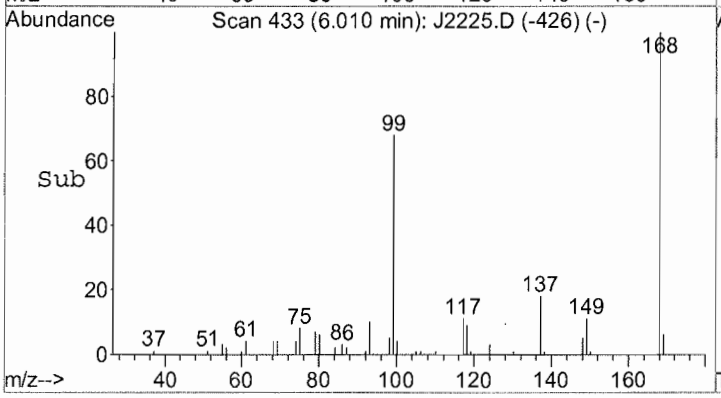


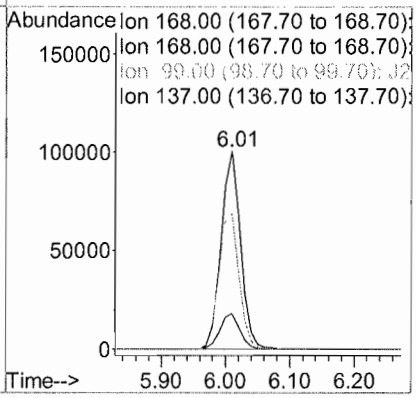


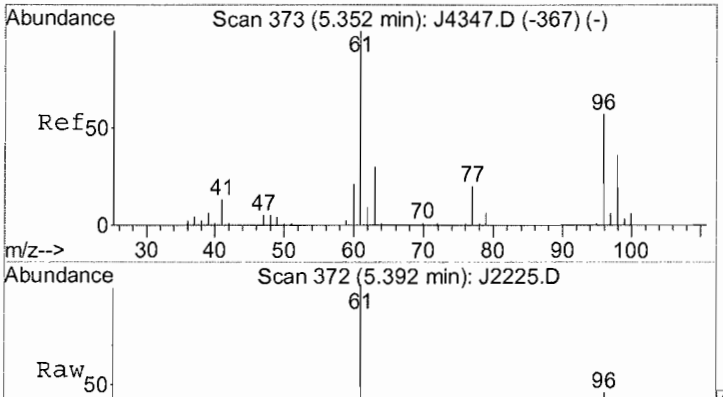
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Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:168 Resp: 210824

Ion	Ratio	Lower	Upper
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168	100.0	70.0	130.0
99	71.6	53.9	100.1
137	18.3	10.5	19.5



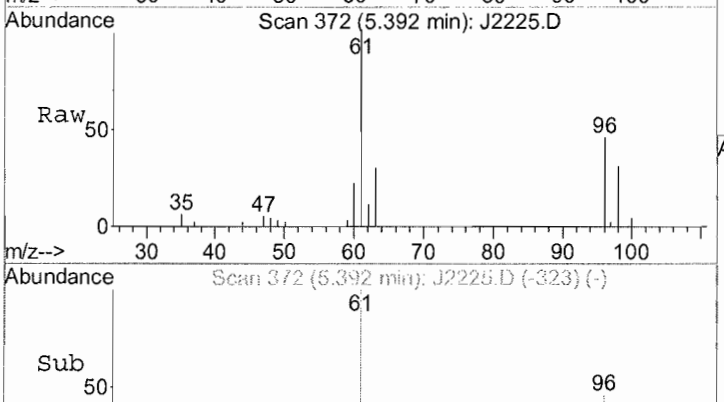


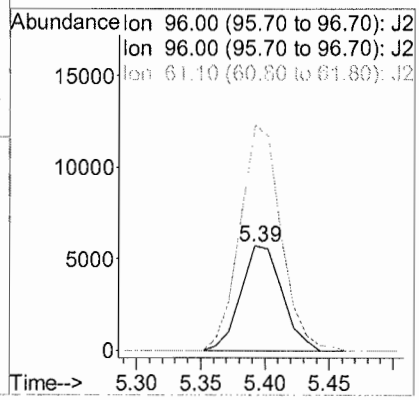


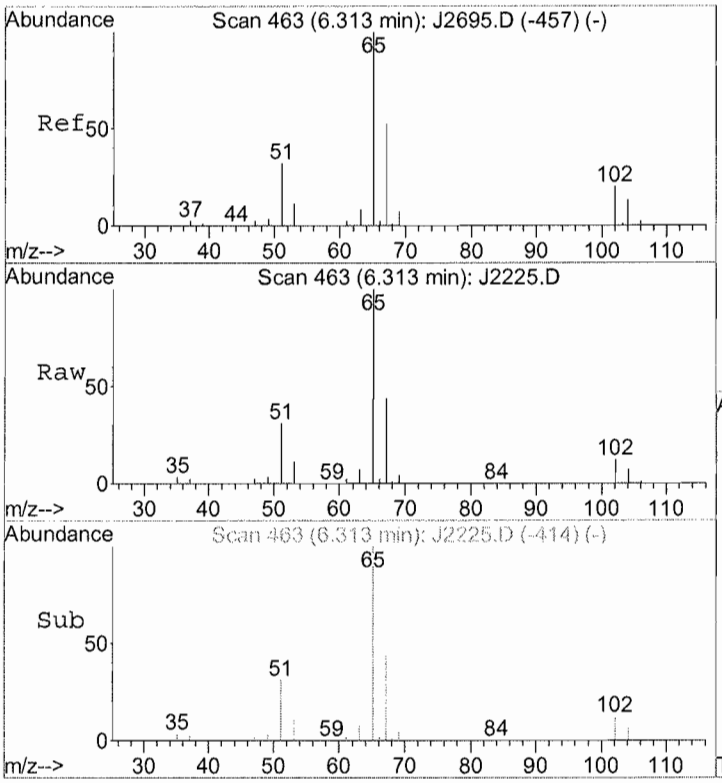
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Concen: 4.63 UG
RT: 5.39 min Scan# 372
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 96 Resp: 12789

Ion	Ratio	Lower	Upper
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61	0.0	101.2	188.0#



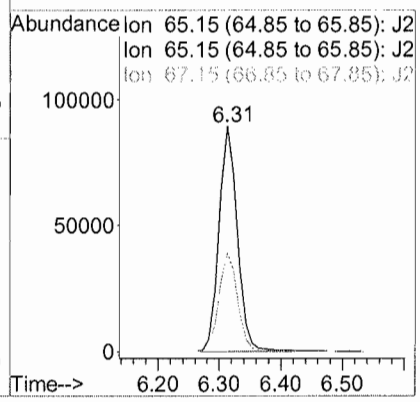


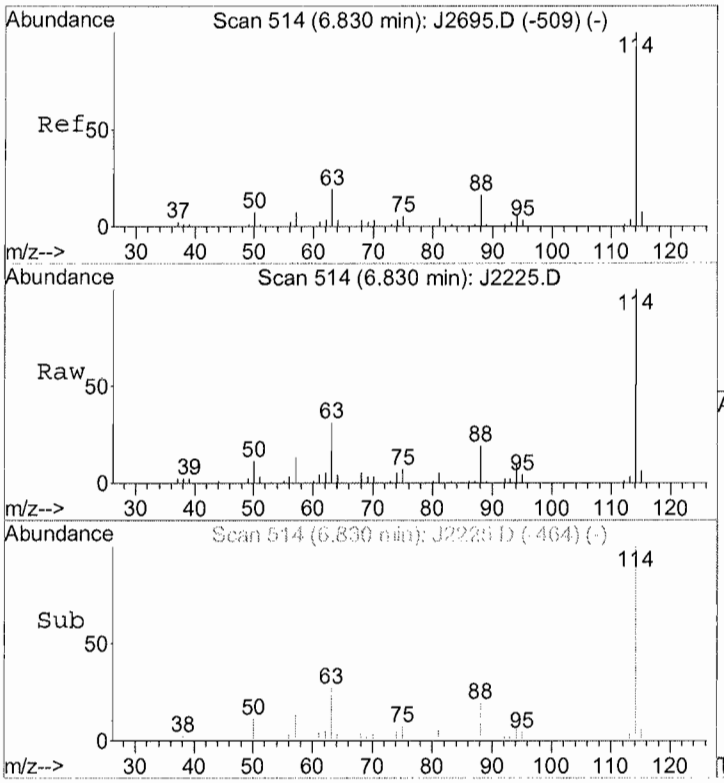


#30
1,2-Dichloroethane-d4
Concen: 50.27 UG
RT: 6.31 min Scan# 463
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 65 Resp: 185862

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	44.1	41.7	77.5

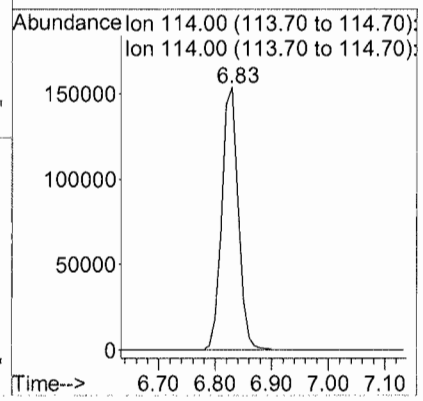


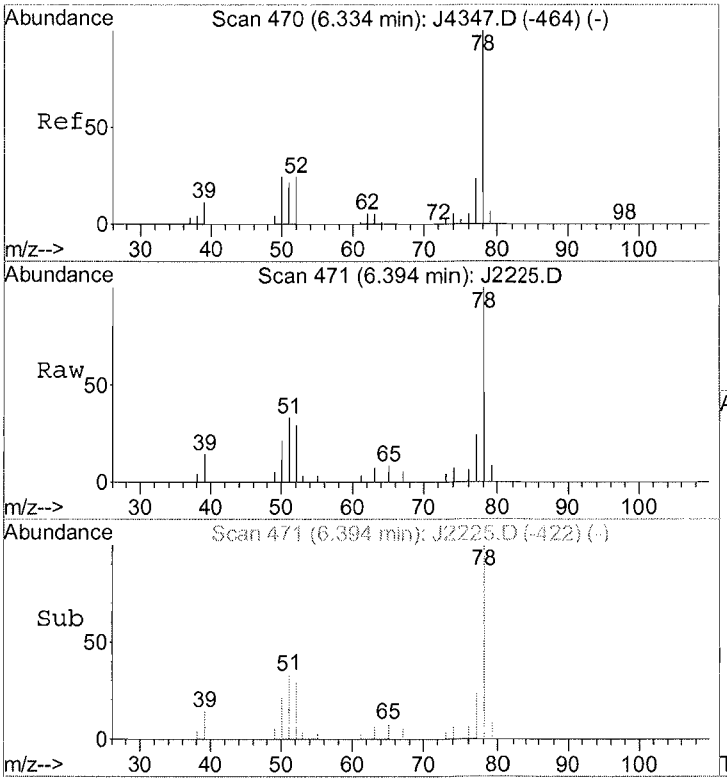


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:114 Resp: 315065

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

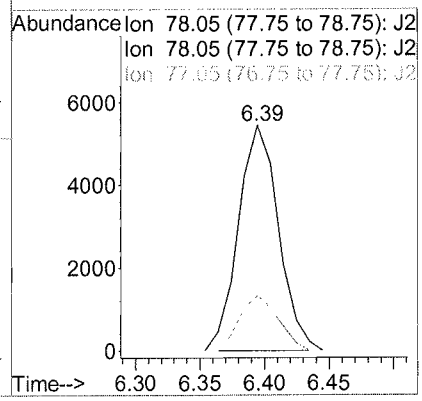


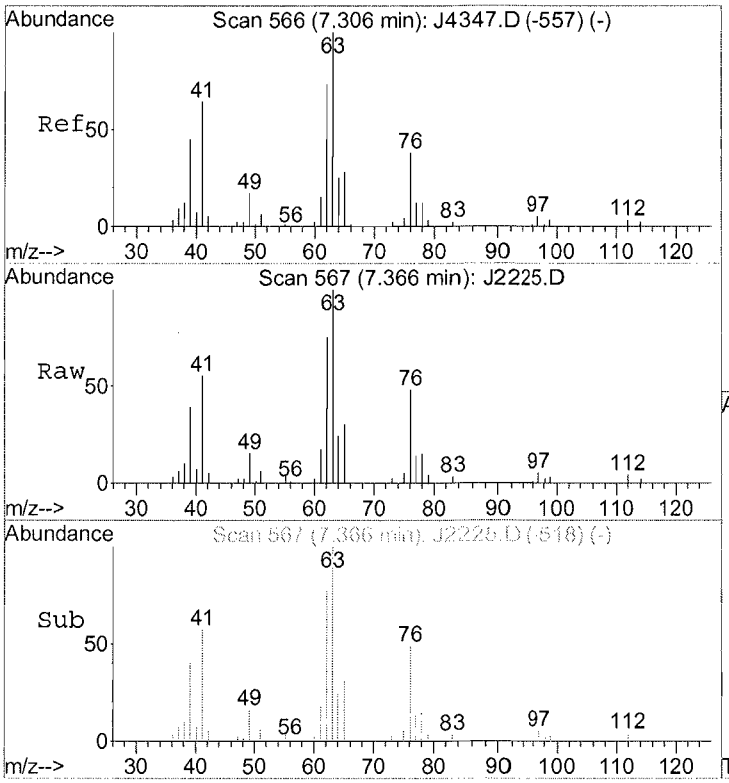


#32
Benzene
Concen: 1.17 UG
RT: 6.39 min Scan# 471
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 78 Resp: 11718

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
77	23.4	15.8	29.4

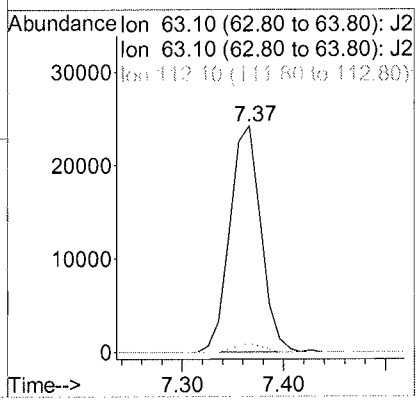


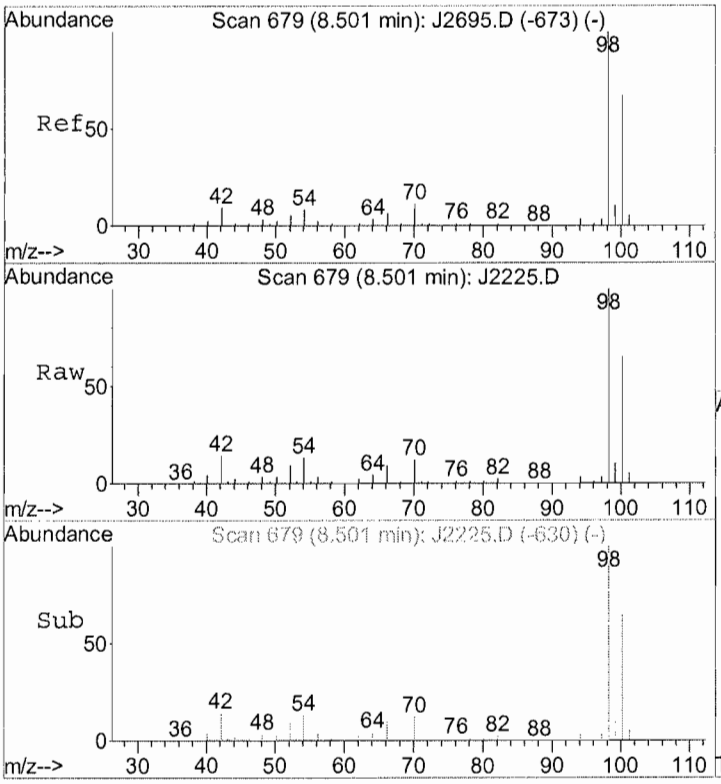


#34
1,2-Dichloropropane
Concen: 15.19 UG
RT: 7.37 min Scan# 567
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 63 Resp: 51099

Ion	Ratio	Lower	Upper
63	100		
63	100.0	70.0	130.0
112	3.2	3.1	5.8

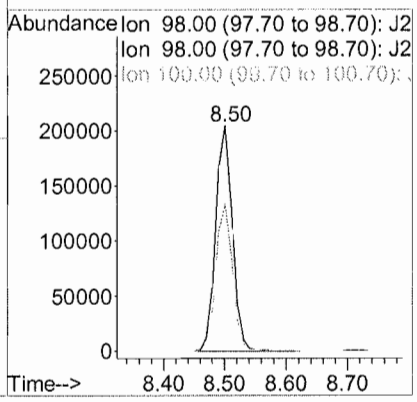


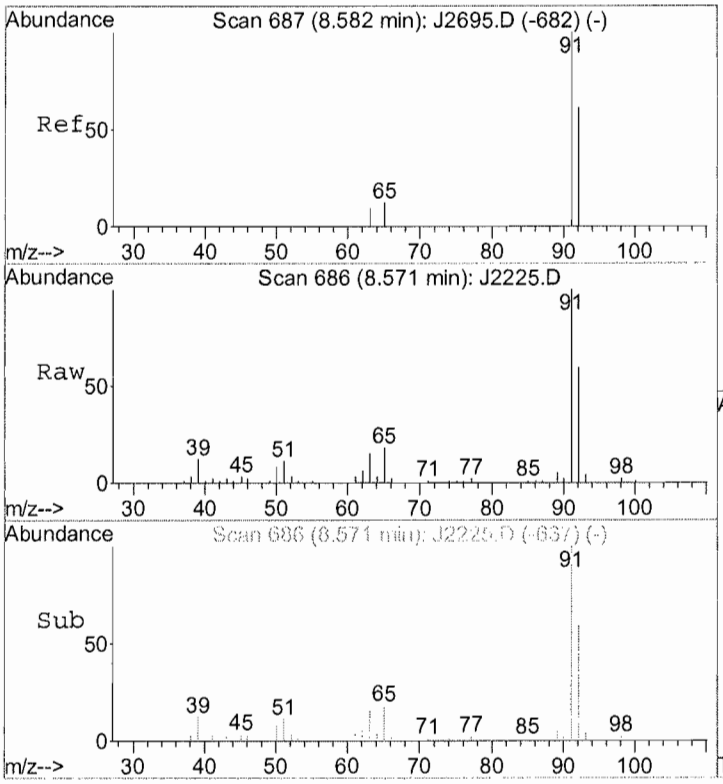


#41
Toluene-d8
Concen: 50.74 UG
RT: 8.50 min Scan# 679
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 98 Resp: 384633

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	65.4	48.1	89.3

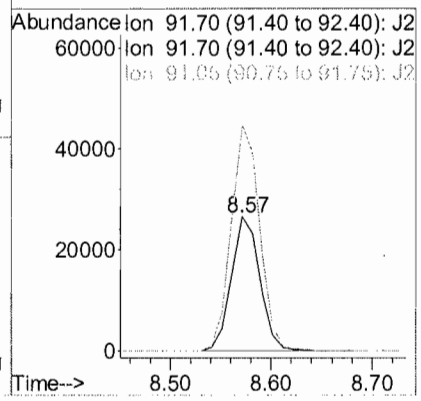


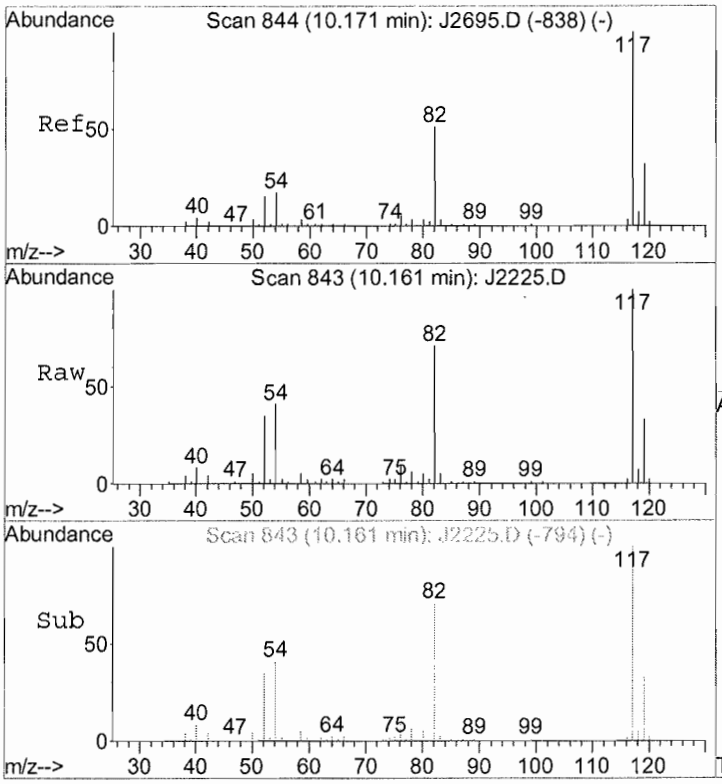


#42
Toluene
Concen: 9.25 UG
RT: 8.57 min Scan# 686
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 92 Resp: 51490

Ion	Ratio	Lower	Upper
92	100		
92	100.0	70.0	130.0
91	169.3	118.4	219.8

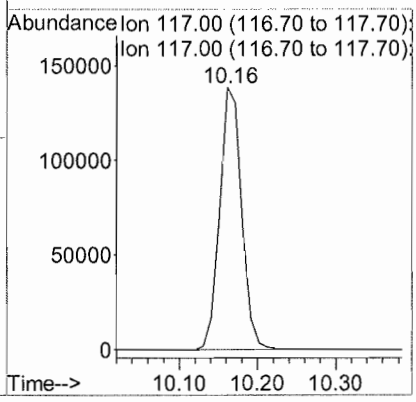


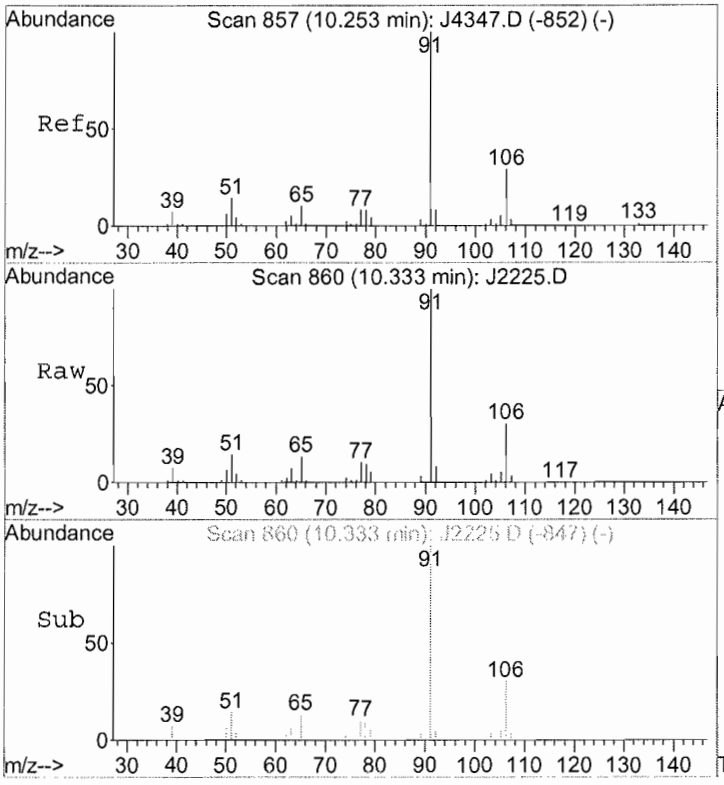


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:117 Resp: 267846

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

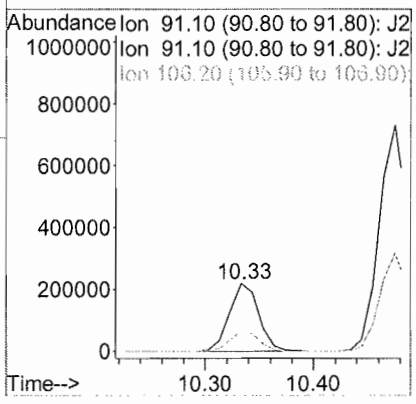


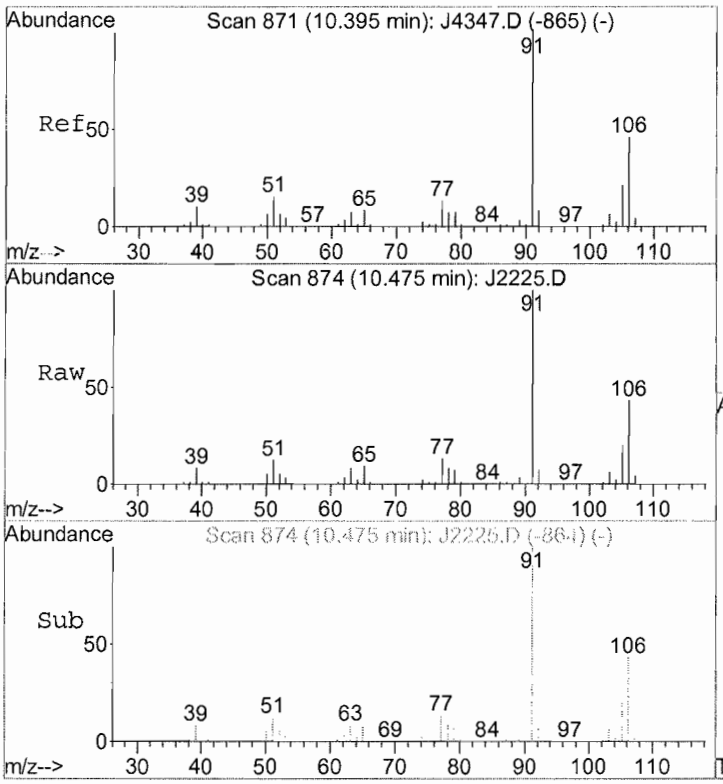


#53
Ethylbenzene
Concen: 41.72 UG
RT: 10.33 min Scan# 860
Delta R.T. 0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 91 Resp: 405453

Ion	Ratio	Lower	Upper
91	100		
91	100.0	70.0	130.0
106	29.7	23.2	43.0

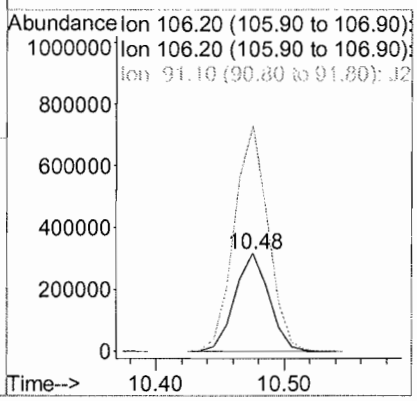


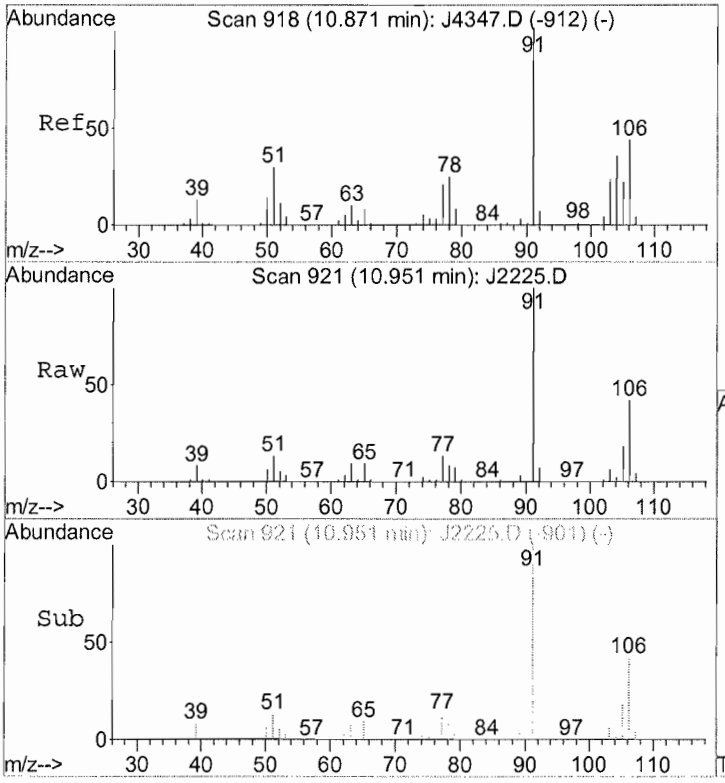


#54
m,p-Xylene
Concen: 163.96 UG
RT: 10.48 min Scan# 874
Delta R.T. 0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:106 Resp: 580770

Ion	Ratio	Lower	Upper
106	100		
106	100.0	70.0	130.0
91	228.3	134.1	249.0

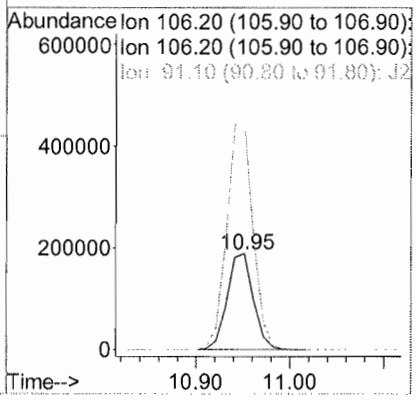


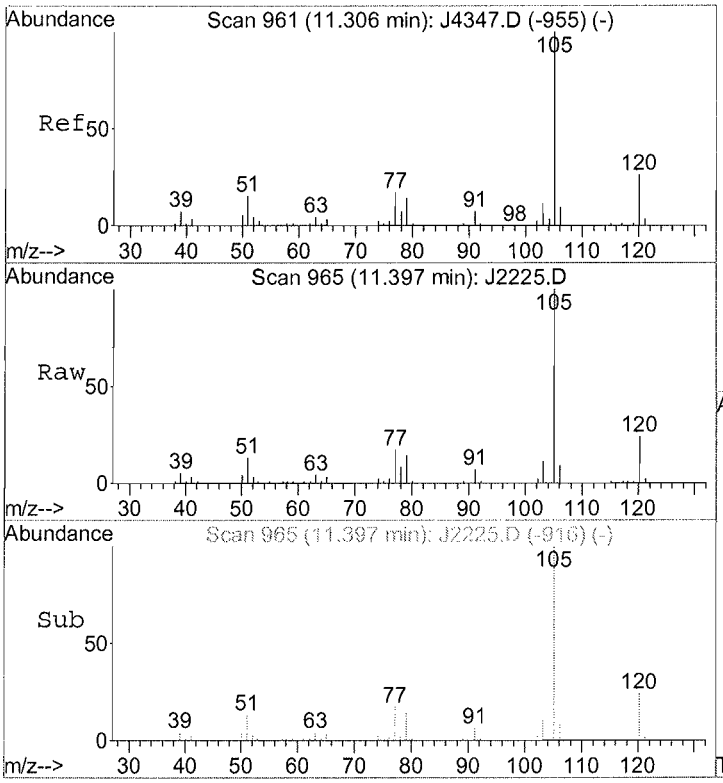


#55
o-Xylene
Concen: 102.61 UG
RT: 10.95 min Scan# 921
Delta R.T. 0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:106 Resp: 362645

Ion	Ratio	Lower	Upper
106	100		
106	100.0	70.0	130.0
91	238.9	140.4	260.8

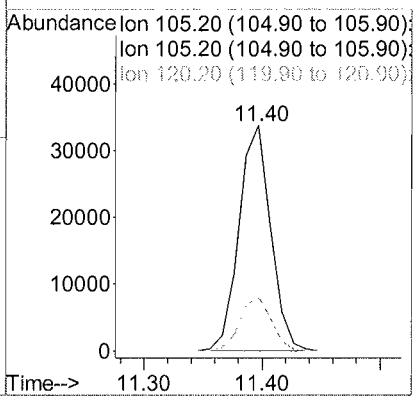


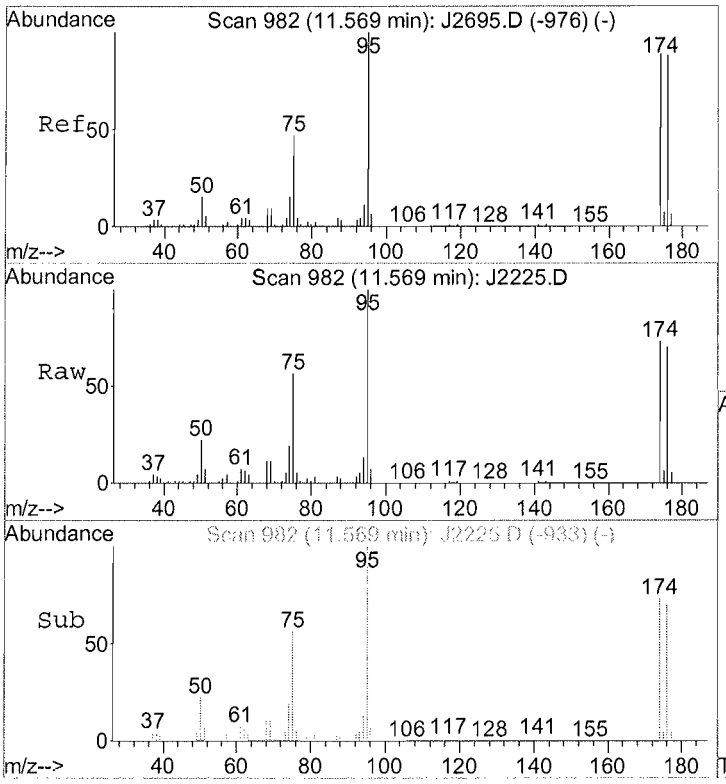


#58
Isopropylbenzene
Concen: 7.83 UG
RT: 11.40 min Scan# 965
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:105 Resp: 62703

Ion	Ratio	Lower	Upper
105	100		
105	100.0	70.0	130.0
120	23.7	19.9	37.0

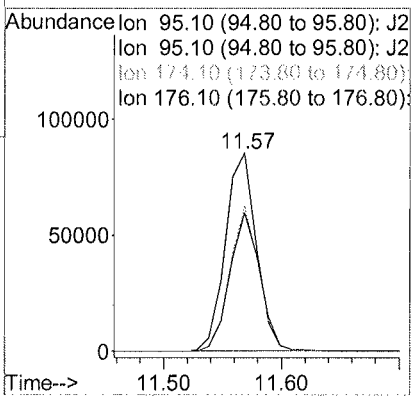


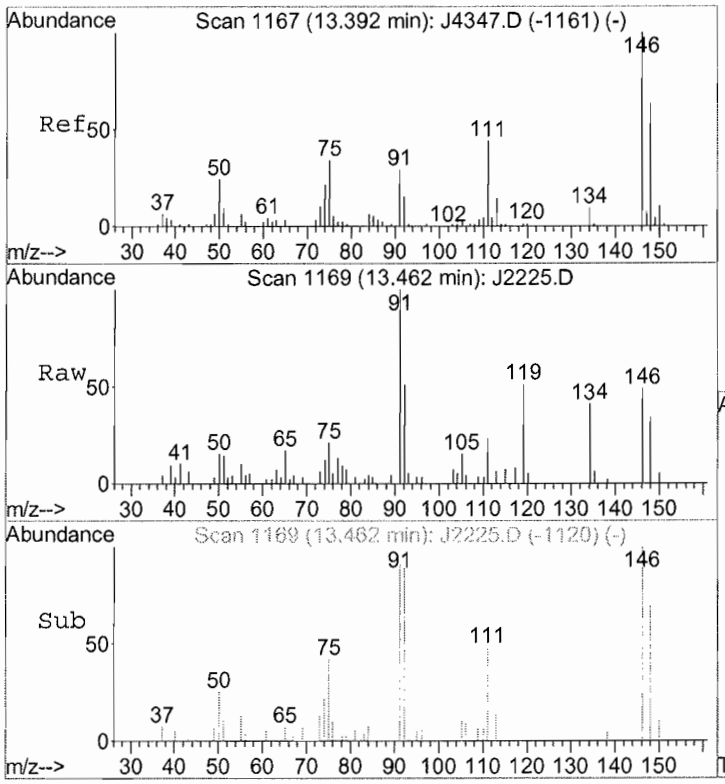


#59
Bromofluorobenzene
Concen: 50.27 UG
RT: 11.57 min Scan# 982
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion: 95 Resp: 155139

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	70.5	0.0	0.0#
176	68.0	0.0	0.0#

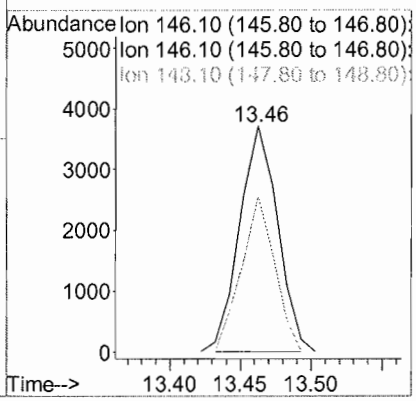




#74
1,2-Dichlorobenzene
Concen: 1.73 UG
RT: 13.46 min Scan# 1169
Delta R.T. -0.00 min
Lab File: J2225.D
Acq: 13 Dec 2017 12:50

Tgt Ion:146 Resp: 6956

Ion	Ratio	Lower	Upper
146	100		
146	100.0	70.0	130.0
148	59.8	44.7	83.1



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.845	306	318	334	rBB	209097	530527	13.66%	2.289%
2	5.392	359	372	380	rBB	33343	76922	1.98%	0.332%
3	6.010	424	433	449	rBB	314361	683701	17.61%	2.950%
4	6.313	458	463	468	rBB	207737	423093	10.90%	1.825%
5	6.820	508	513	531	rBB	421847	878508	22.62%	3.790%
6	7.366	559	567	572	rBB	122592	263237	6.78%	1.136%
7	8.501	674	679	683	rBB	578268	1087551	28.01%	4.692%
8	8.571	683	686	692	rBB	117821	217575	5.60%	0.939%
9	10.161	838	843	852	rBB	523059	979638	25.23%	4.227%
10	10.333	852	860	866	rBB	540760	993272	25.58%	4.285%
11	10.475	866	874	889	rBB	2080628	3882919	100.00%	16.753%
12	10.941	915	920	932	rBB	1271382	2481852	63.92%	10.708%
13	11.397	958	965	969	rBB	83070	158021	4.07%	0.682%
14	11.569	976	982	989	rBB	409218	759826	19.57%	3.278%
15	11.893	1008	1014	1018	rBB	141968	259454	6.68%	1.119%
16	11.994	1018	1024	1031	rBB	434280	1193687	30.74%	5.150%
17	12.106	1031	1035	1043	rBB	518179	906415	23.34%	3.911%
18	12.349	1055	1059	1067	rBB	354068	654517	16.86%	2.824%
19	12.561	1067	1080	1086	rBB	1698347	3084943	79.45%	13.310%
20	12.723	1092	1096	1099	rBB3	18397	49571	1.28%	0.214%
21	12.774	1099	1101	1104	rBB	32273	41491	1.07%	0.179%
22	12.895	1107	1113	1116	rBB	84005	149442	3.85%	0.645%
23	12.956	1116	1119	1126	rBB	62817	102203	2.63%	0.441%
24	13.078	1126	1131	1138	rBB	682993	1213852	31.26%	5.237%
25	13.219	1138	1145	1151	rBB2	19484	42472	1.09%	0.183%
26	13.321	1151	1155	1162	rBB2	117387	344383	8.87%	1.486%
27	13.432	1162	1166	1173	rBB4	118738	305934	7.88%	1.320%
28	13.574	1176	1180	1185	rBB	32144	58840	1.52%	0.254%
29	13.665	1185	1189	1195	rBB	61824	107111	2.76%	0.462%
30	13.776	1197	1200	1201	rBB	36977	77678	2.00%	0.335%
31	13.807	1201	1203	1206	rBB	64595	88322	2.27%	0.381%
32	13.898	1209	1212	1216	rBB	93991	153313	3.95%	0.661%
33	14.050	1222	1227	1237	rBB4	52103	182338	4.70%	0.787%
34	14.273	1244	1249	1252	rBB2	49117	96098	2.47%	0.415%
35	14.354	1254	1257	1258	rBB	29426	64998	1.67%	0.280%
36	14.384	1258	1260	1262	rBB	41423	38936	1.00%	0.168%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

37	14.445	1263	1266	1272	rBB	81554	140002	3.61%	0.604%
38	14.921	1310	1313	1317	rBB2	63487	115347	2.97%	0.498%
39	14.992	1317	1320	1323	rBB	40532	62499	1.61%	0.270%
40	15.235	1337	1344	1352	rBB2	52675	105075	2.71%	0.453%
41	15.457	1359	1366	1371	rBB4	19512	40463	1.04%	0.175%
42	15.599	1376	1380	1387	rBB	46464	82064	2.11%	0.354%

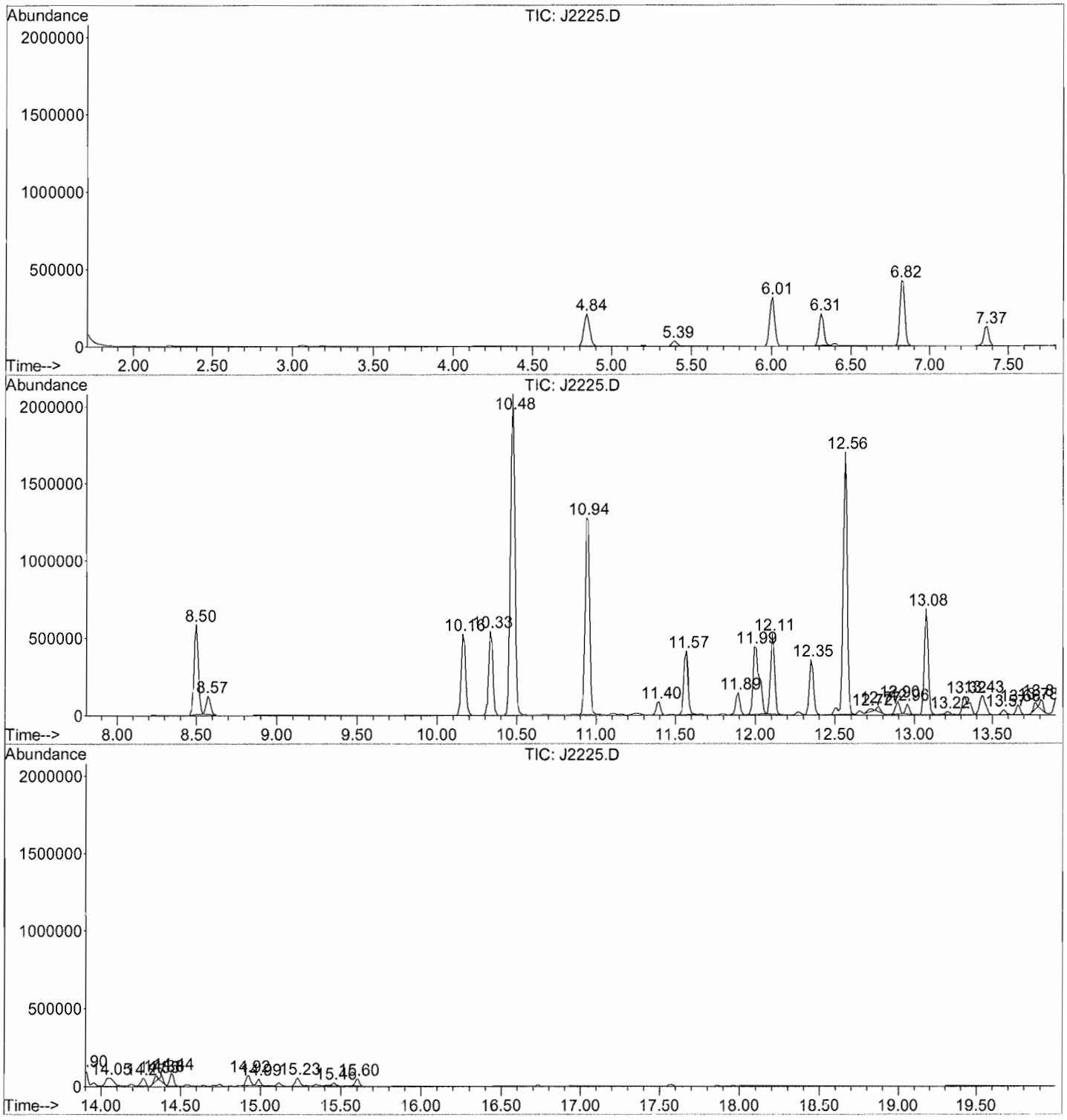
Sum of corrected areas: 23178090

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

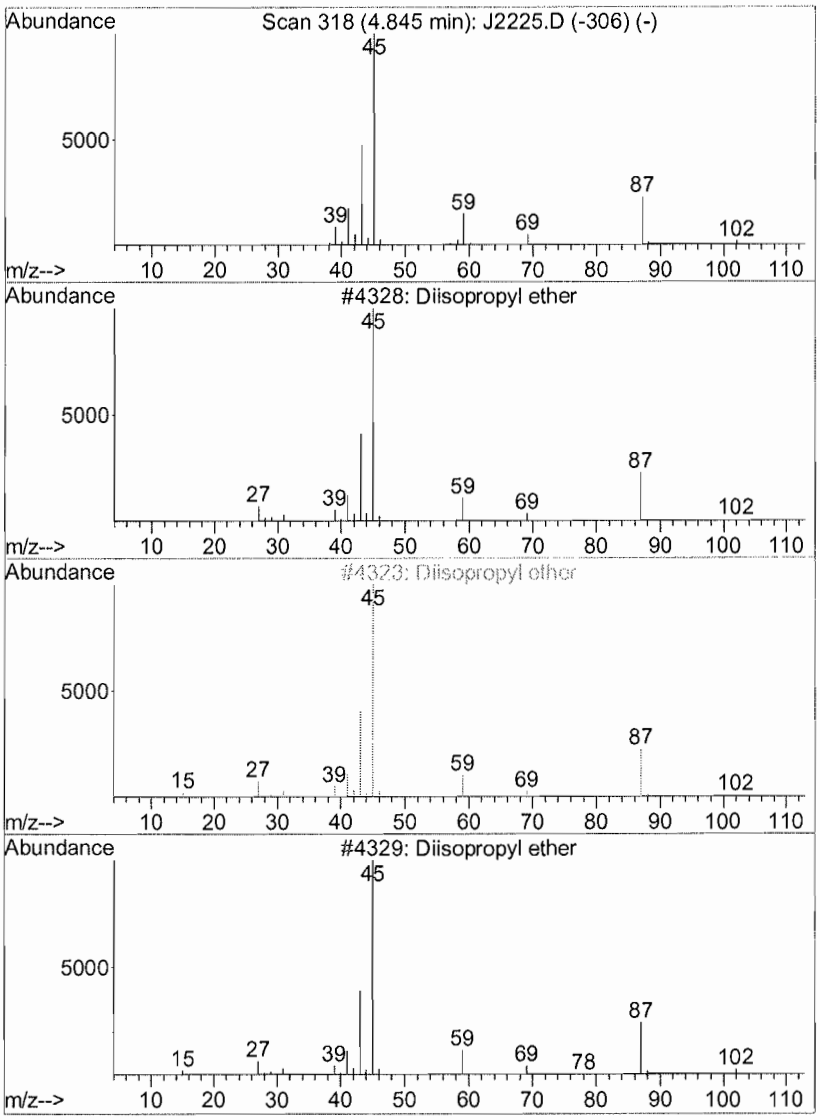
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

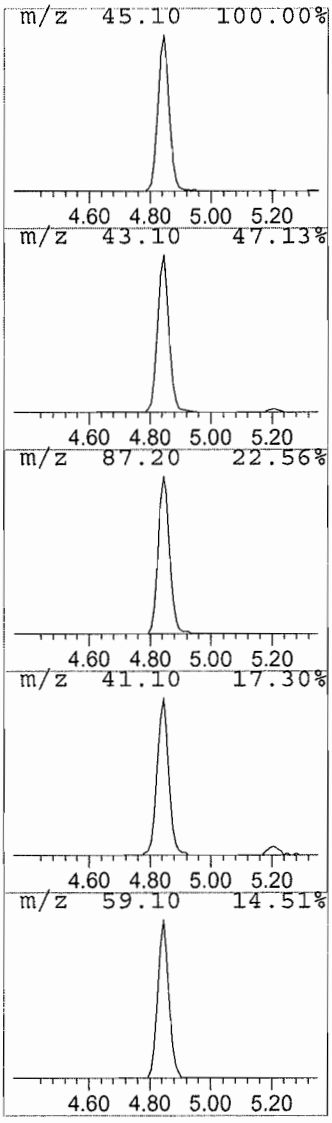
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	38.80 UG	530527	Pentafluorobenzene	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	83
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	Ether, 2-chloro-1-methylethyl is...	136	C6H13ClO	098277-76-0	78
5	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

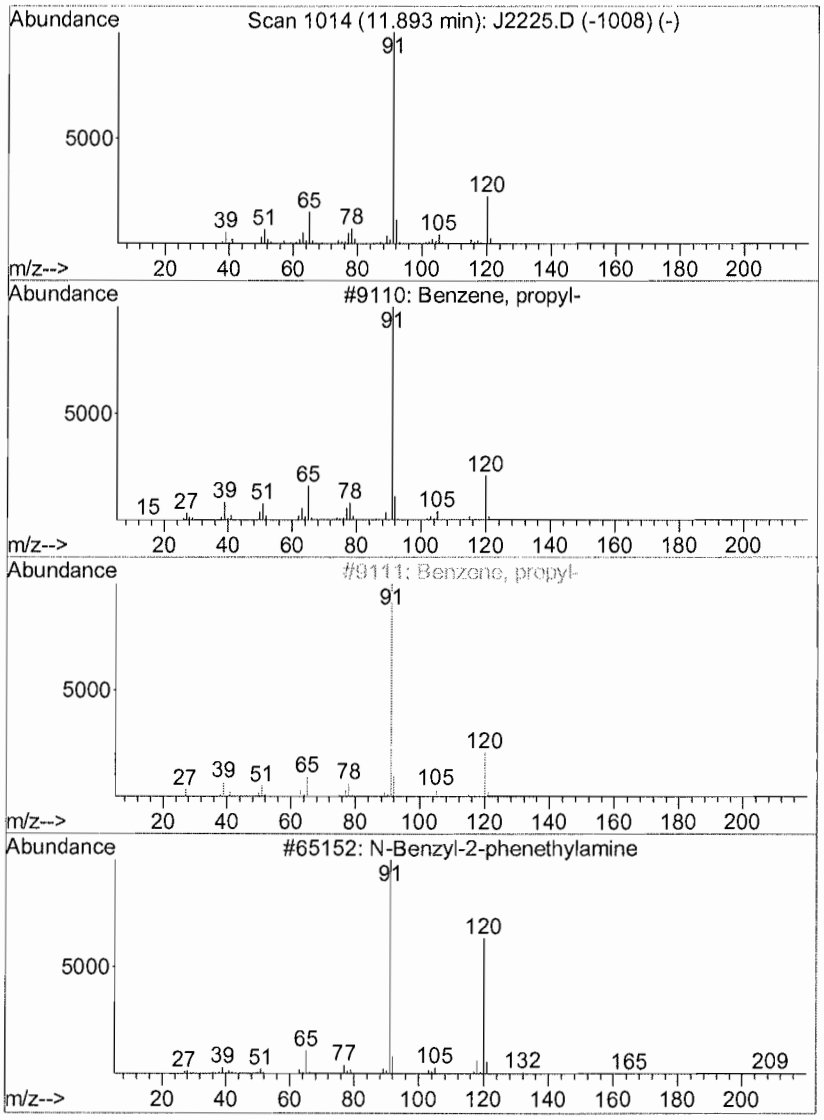
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TIC Integration Parameters: LSCINT.P

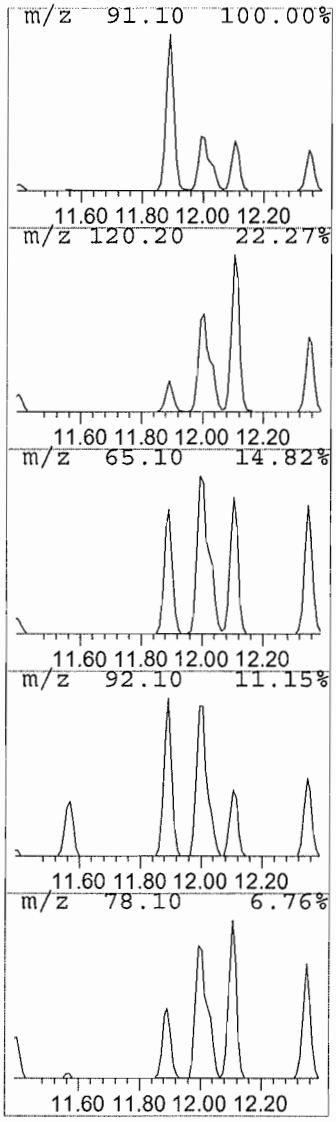
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Peak Number 2 Benzene, propyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.89	13.24 UG	259454	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, propyl-	120	C9H12	000103-65-1	93
2	Benzene, propyl-	120	C9H12	000103-65-1	90
3	N-Benzyl-2-phenethylamine	211	C15H17N	003647-71-0	72
4	Benzene, propyl-	120	C9H12	000103-65-1	72
5	Benzeneacetaldehyde	120	C8H8O	000122-78-1	62





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

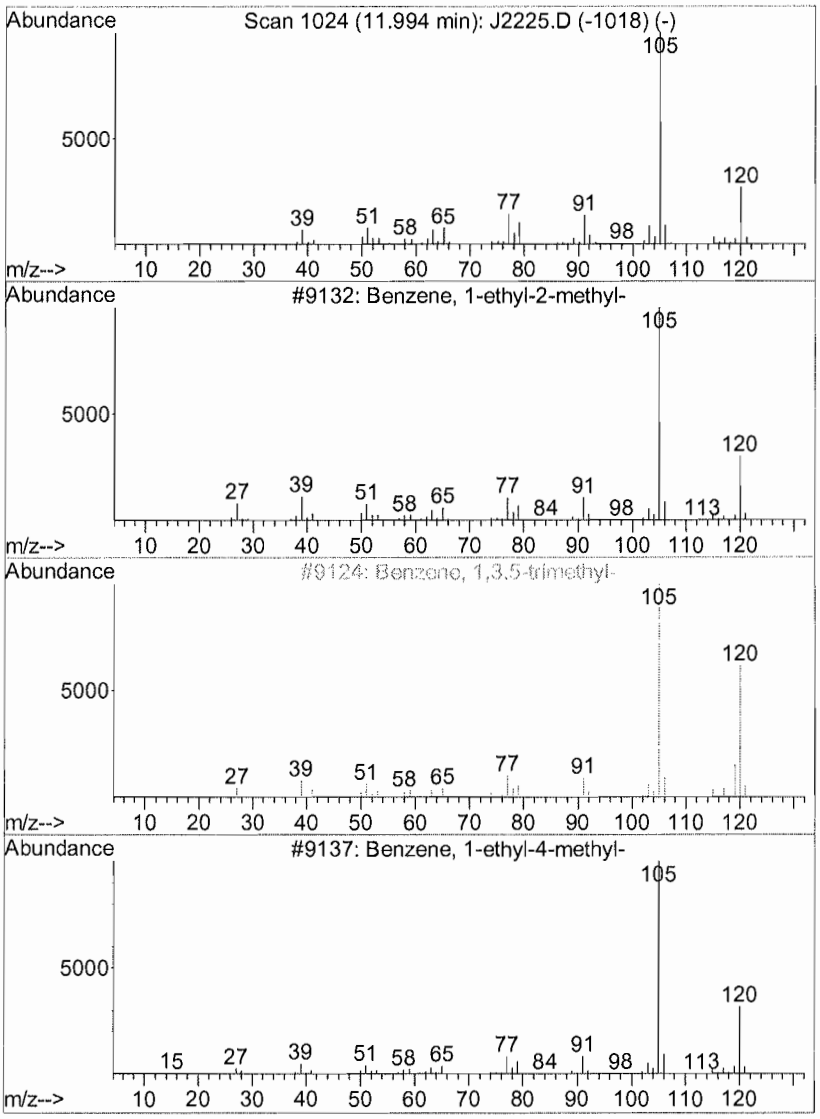
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

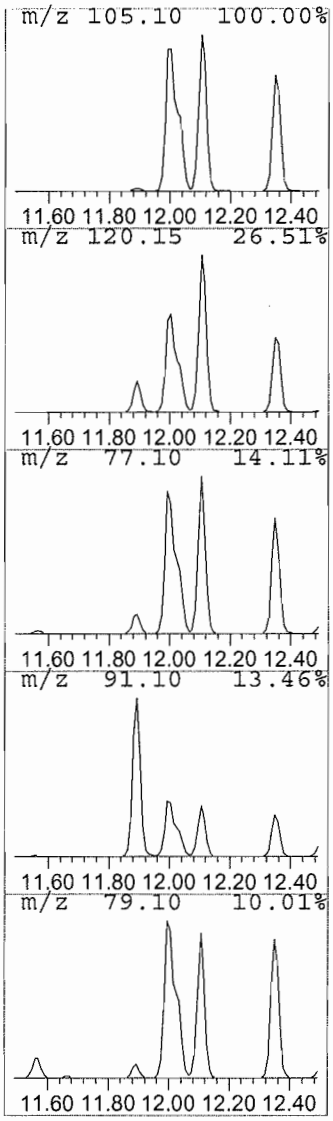
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Benzene, 1-ethyl-2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.99	60.92 UG	1193690	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

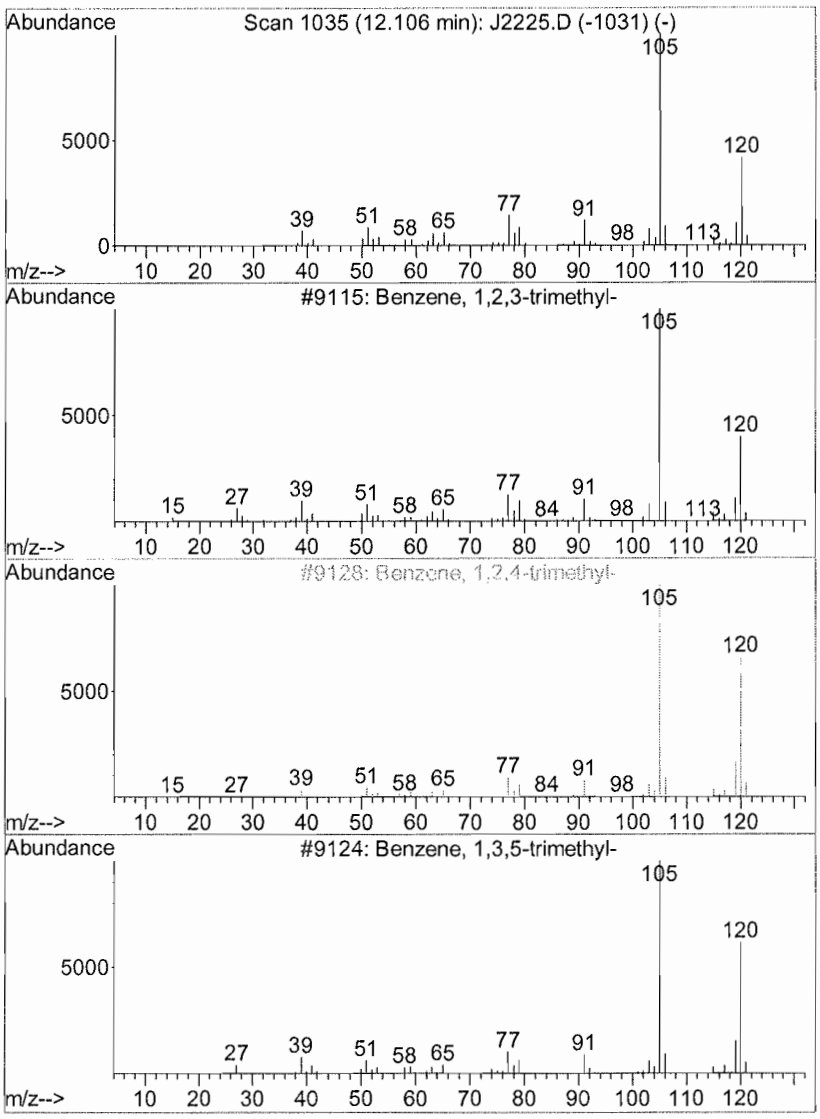
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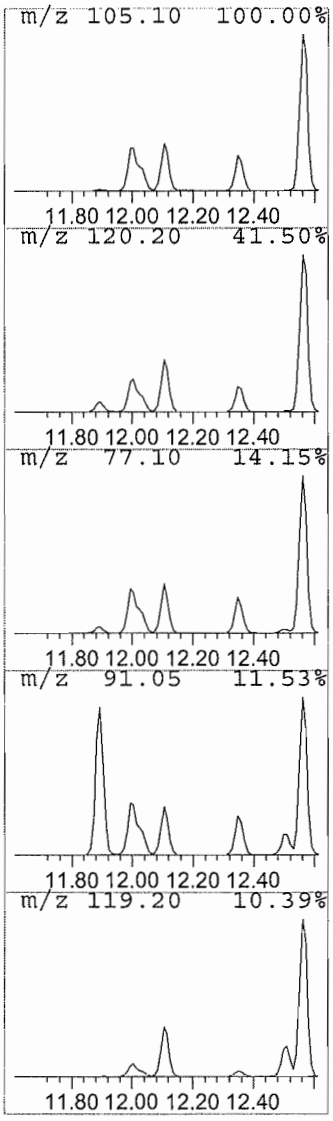
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Benzene, 1,2,3-trimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.11	46.26 UG	906415	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	95
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

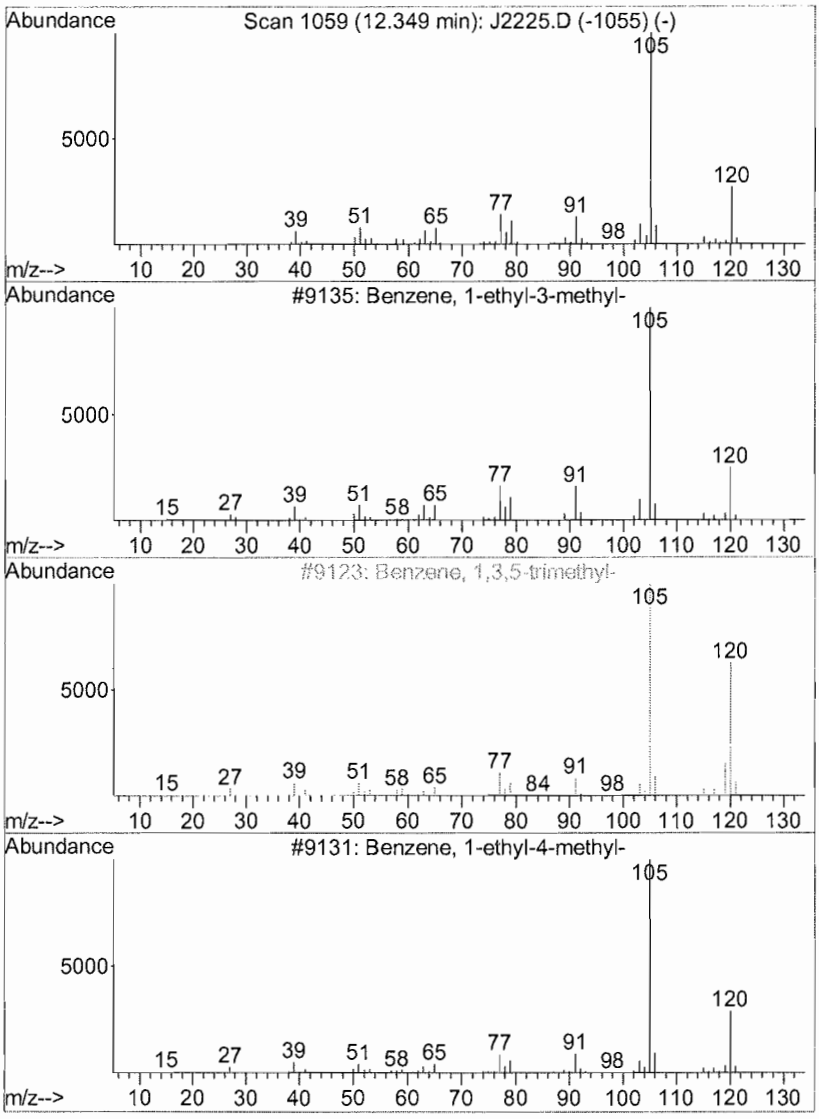
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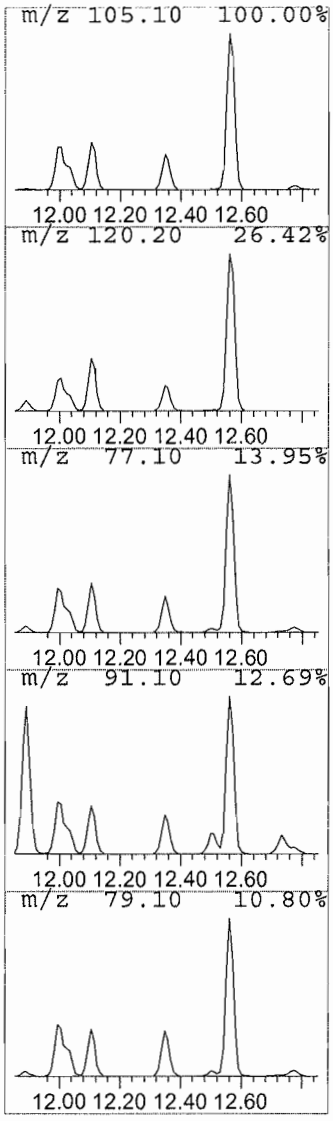
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TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Benzene, 1-ethyl-3-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.35	33.41 UG	654517	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	93
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

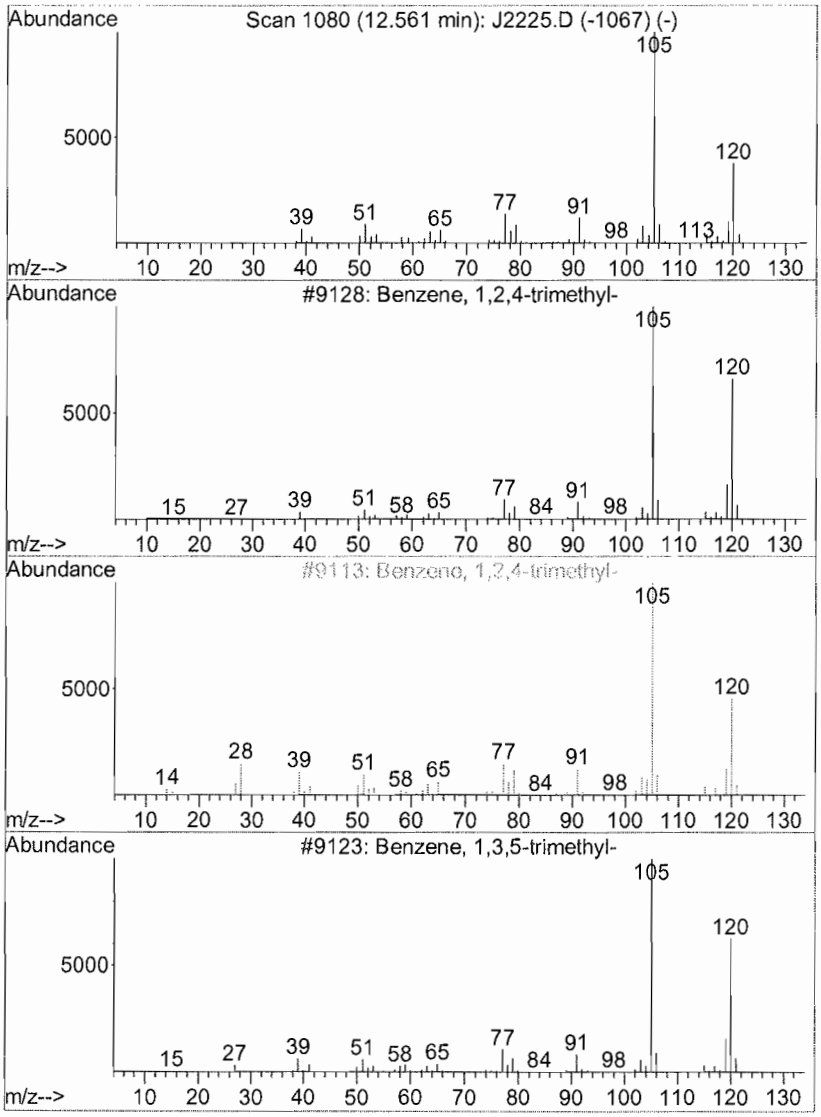
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

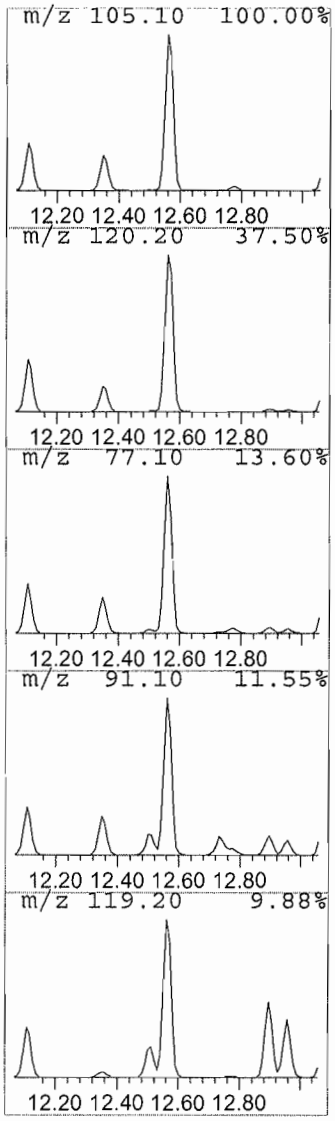
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 6 Benzene, 1,2,4-trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.56	157.45 UG	3084940	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

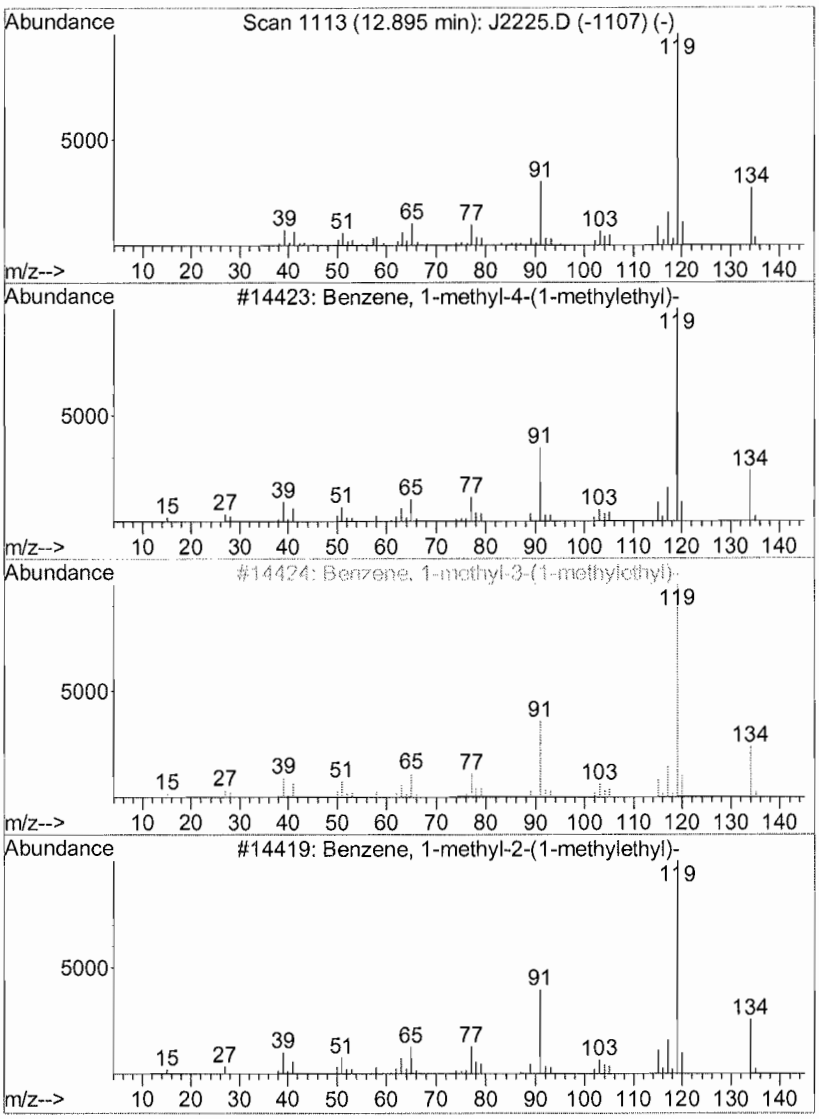
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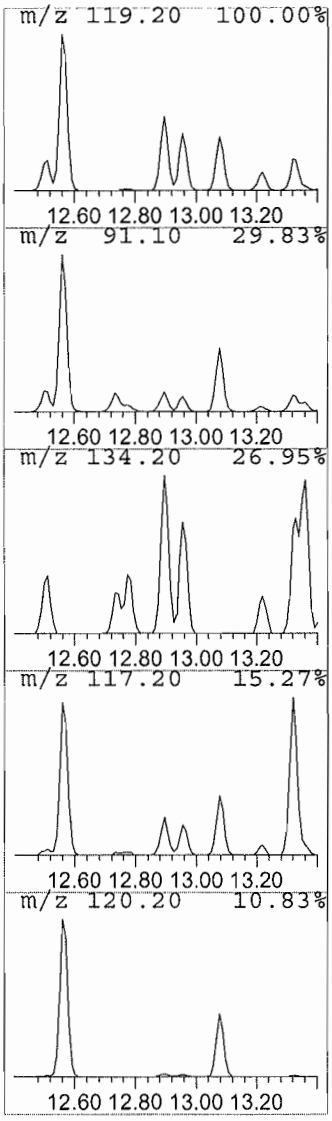
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 7 Benzene, 1-methyl-4-(1-meth... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.90	7.63 UG	149442	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	96
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	96
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

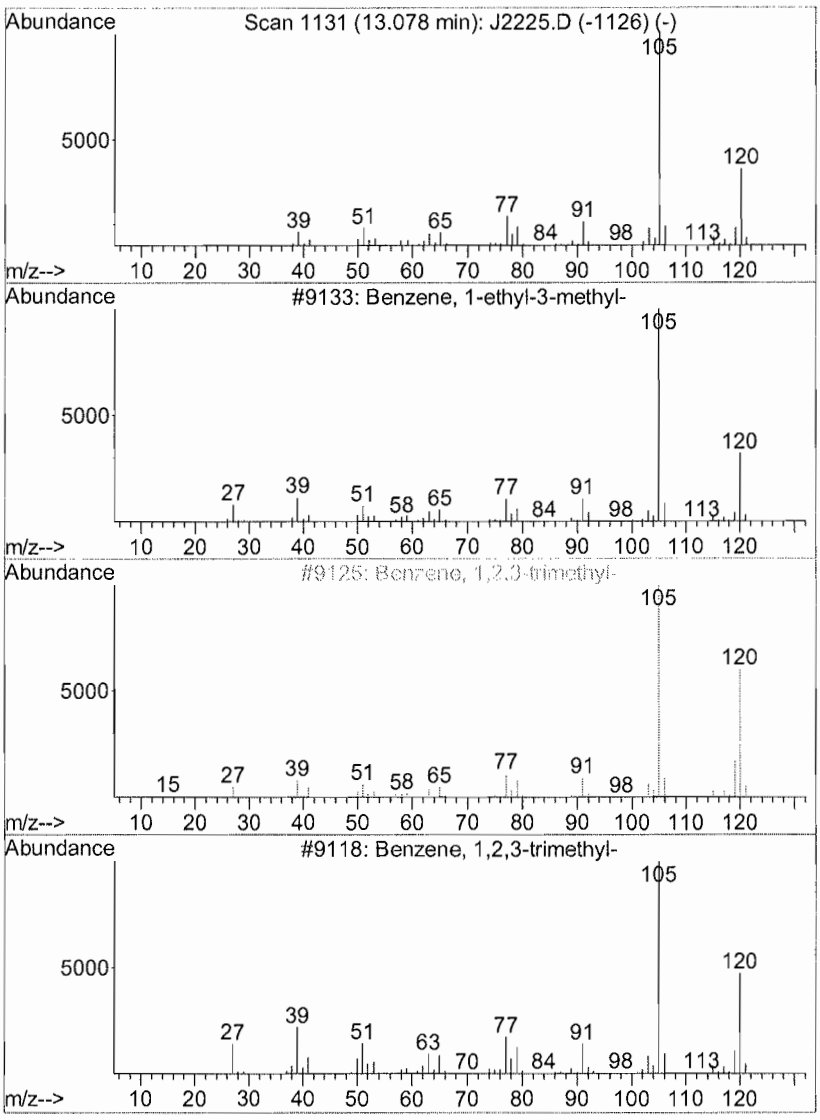
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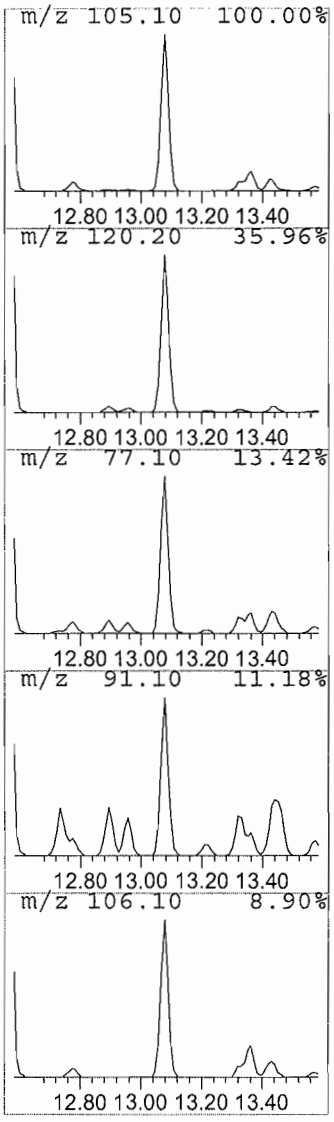
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Peak Number 8 Unknown Aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.08	61.95 UG	1213850	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	93
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	93
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

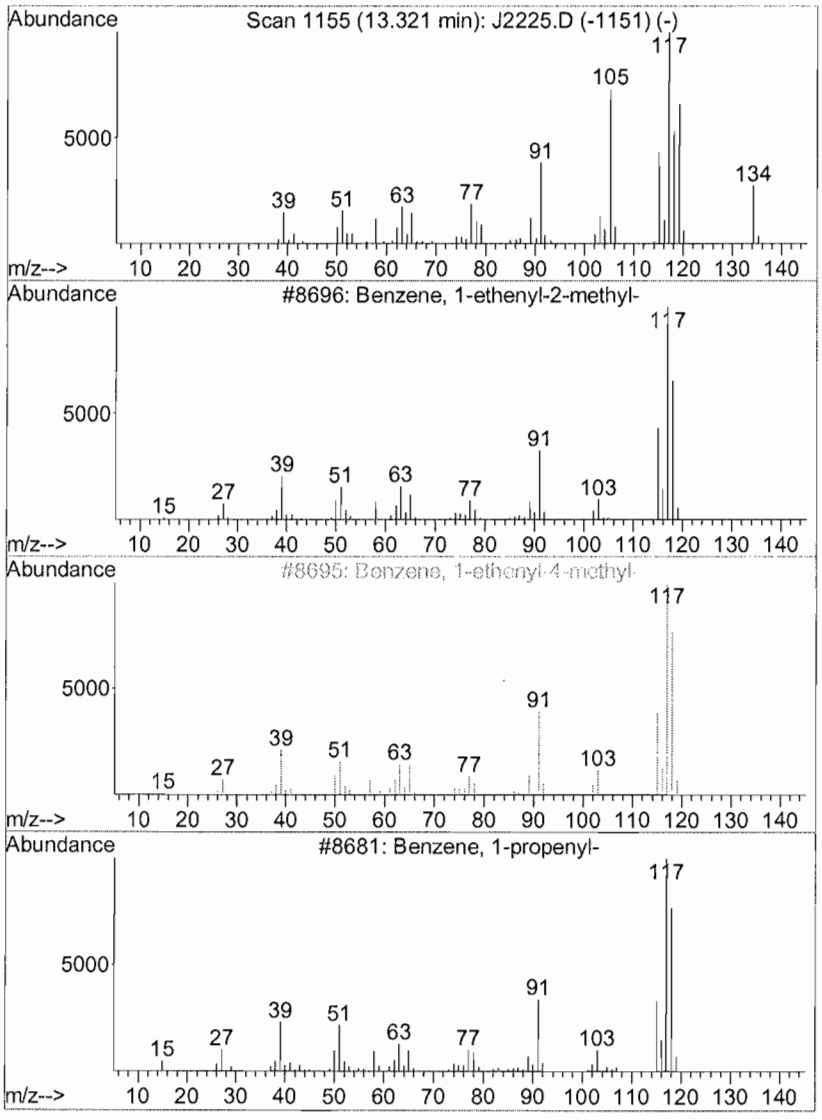
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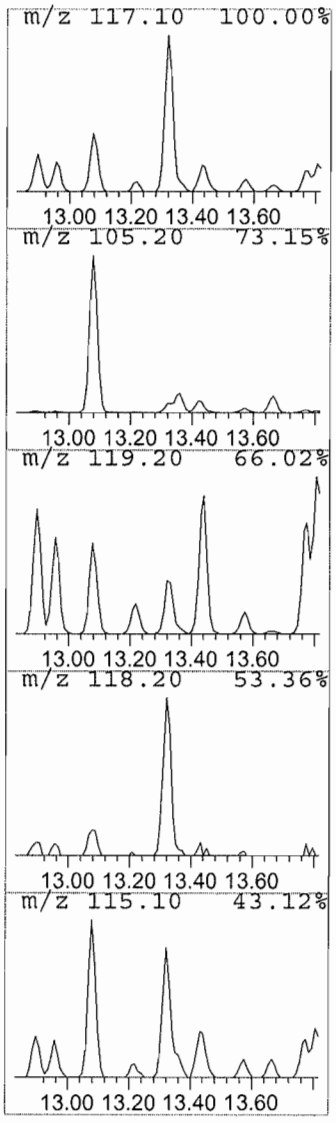
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TIC Integration Parameters: LSCINT.P

****
Peak Number 9 Benzene, 1-ethenyl-2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.32	17.58 UG	344383	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	90
2	Benzene, 1-ethenyl-4-methyl-	118	C9H10	000622-97-9	90
3	Benzene, 1-propenyl-	118	C9H10	000637-50-3	87
4	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	87
5	Benzene, 1-propenyl-	118	C9H10	000637-50-3	70





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

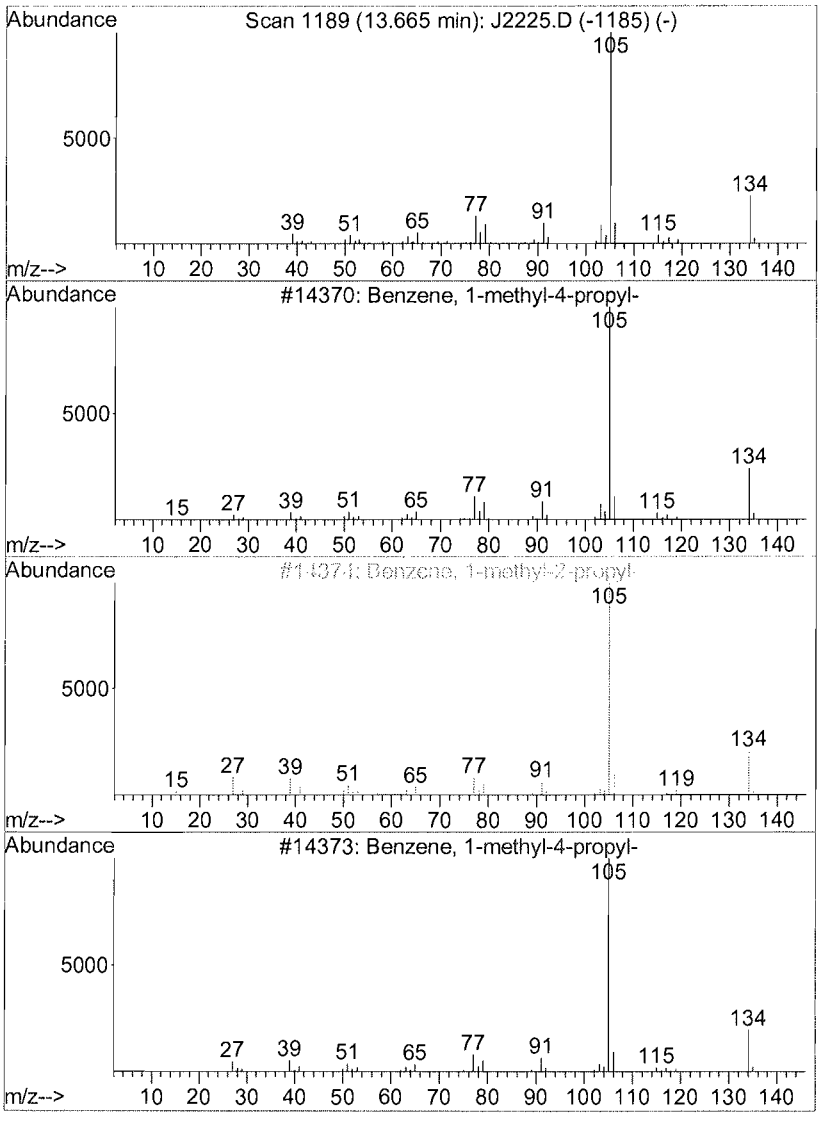
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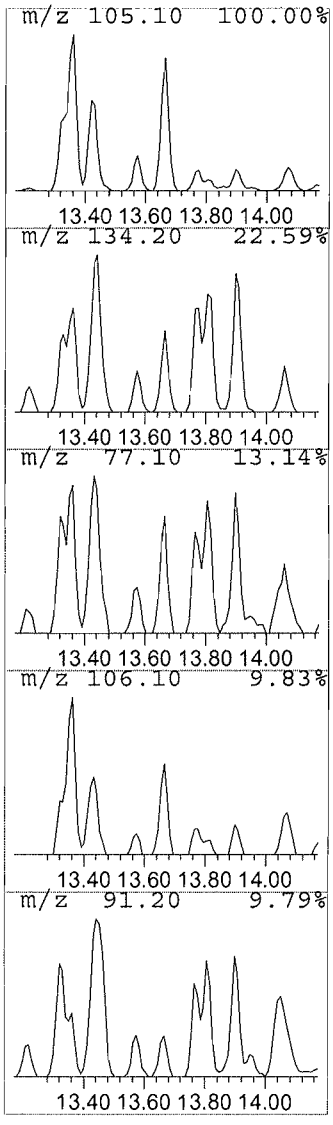
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TIC Integration Parameters: LSCINT.P

****
Peak Number 10 Benzene, 1-methyl-4-propyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.67	5.47 UG	107111	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	95
2	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	91
3	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	91
4	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	91
5	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	91





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

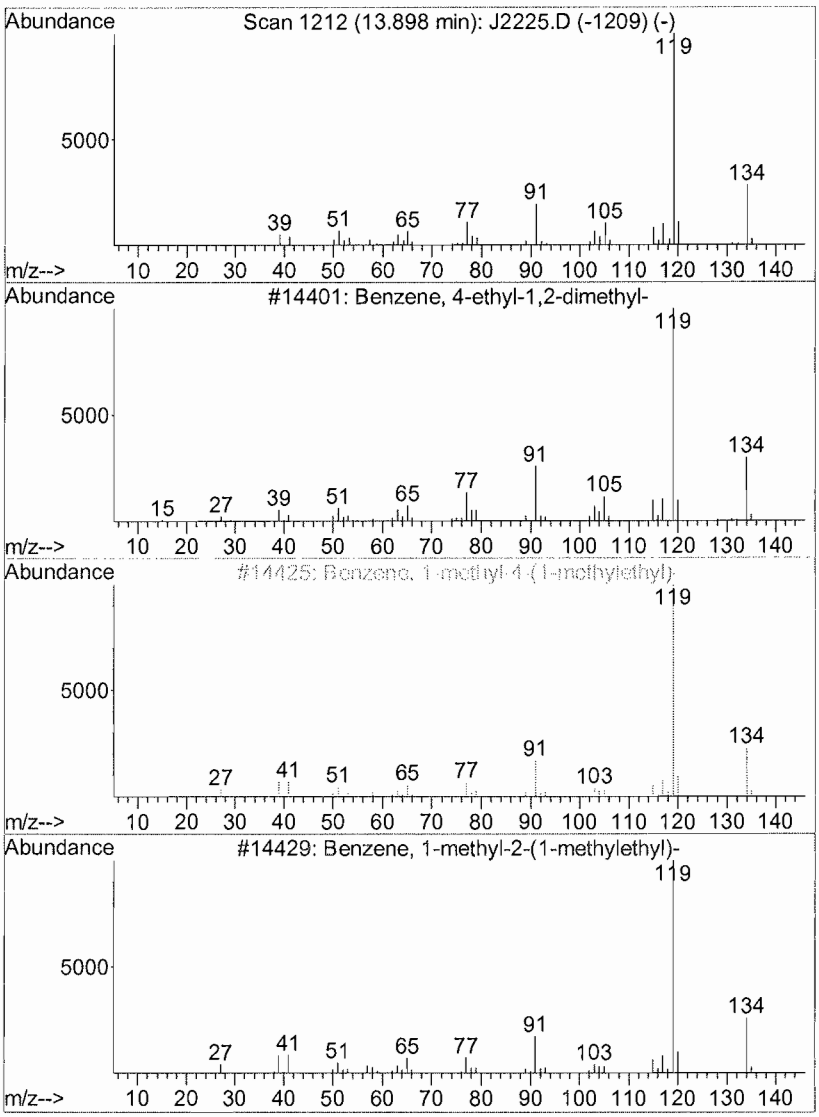
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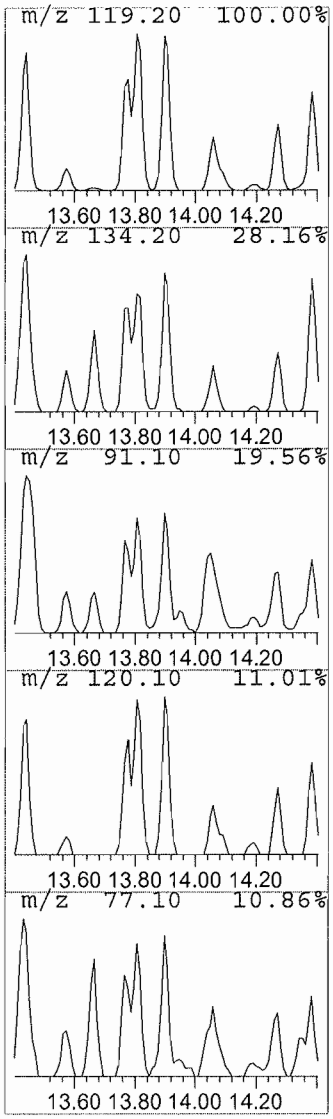
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Peak Number 11 Benzene, 4-ethyl-1,2-dimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.90	7.82 UG	153313	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
2	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	95





Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

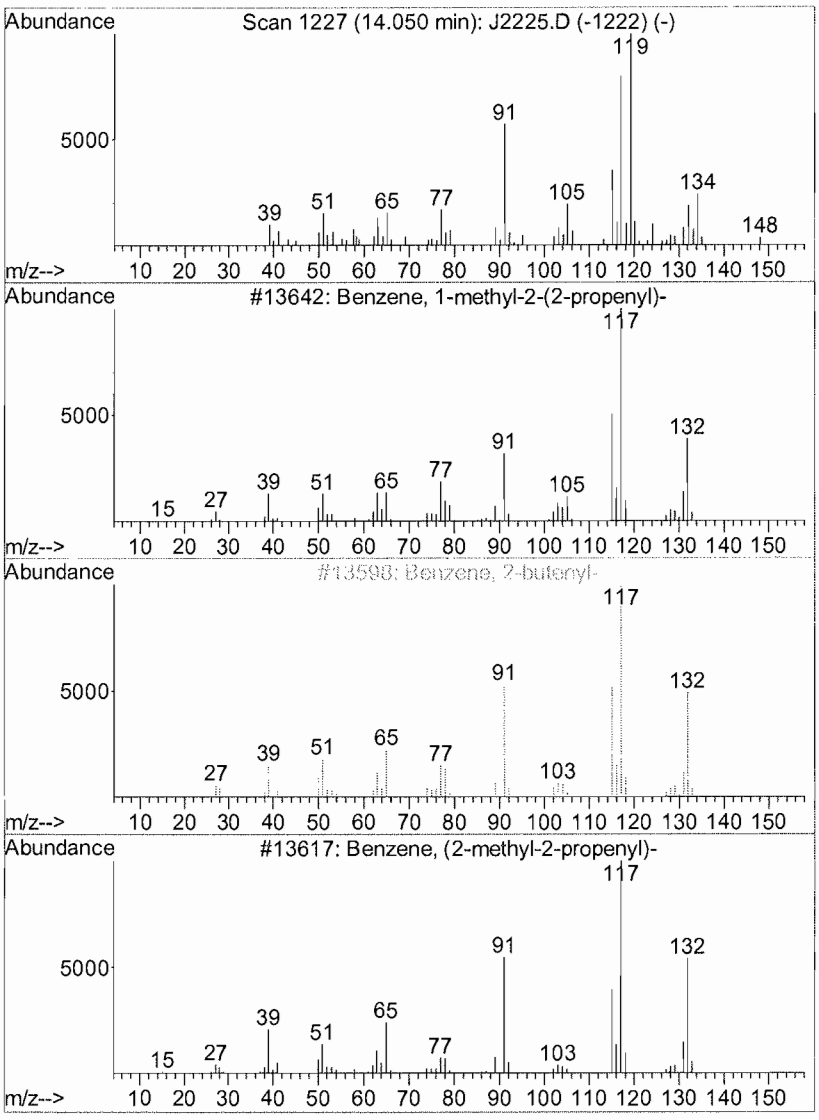
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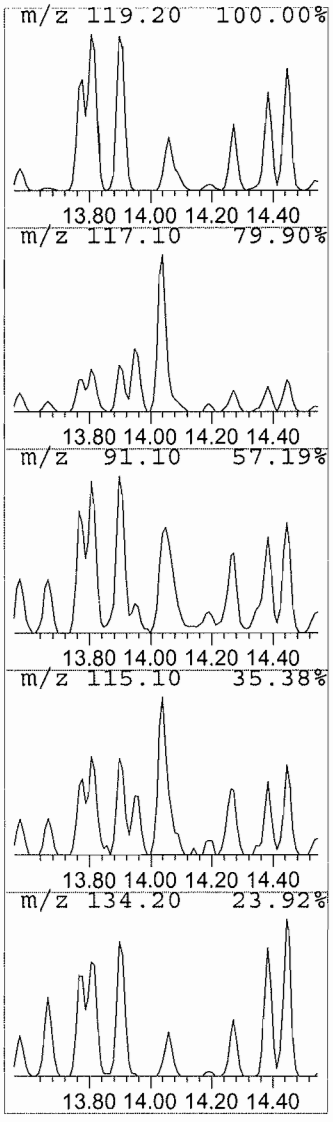
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TIC Integration Parameters: LSCINT.P

****
Peak Number 12 Benzene, 1-methyl-2-(2-prop... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.05	9.31 UG	182338	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	89
2	Benzene, 2-butenyl-	132	C10H12	001560-06-1	86
3	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	86
4	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	84
5	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
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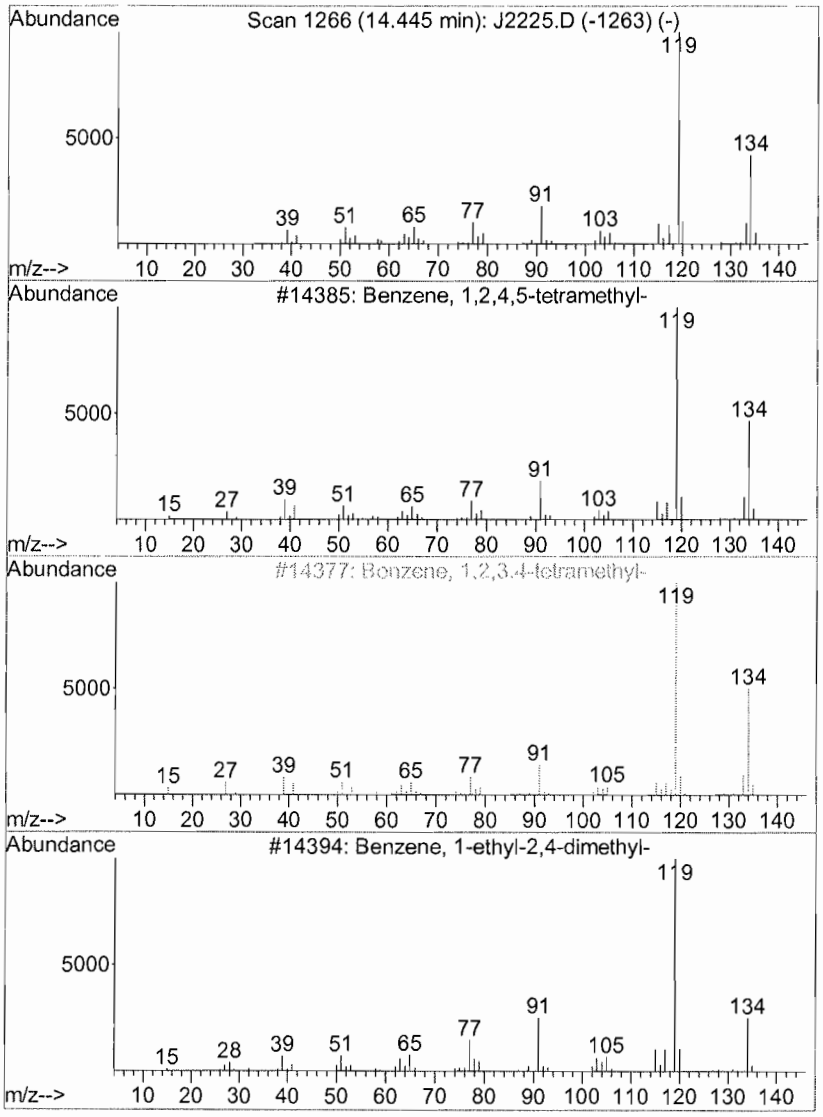
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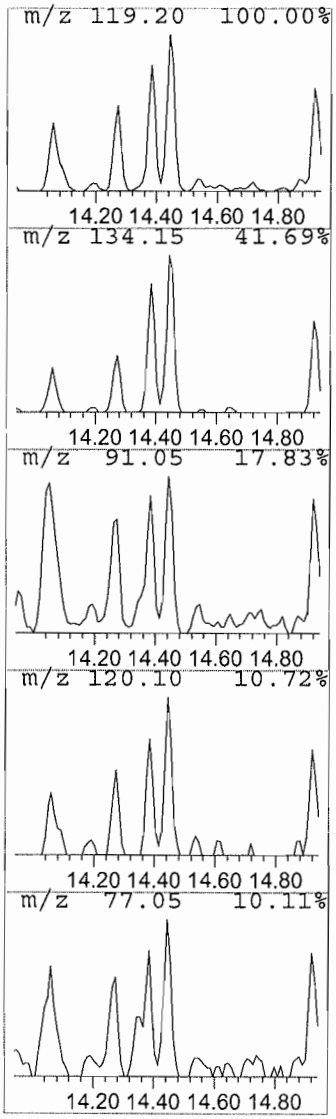
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Peak Number 13 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.44	7.15 UG	140002	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	96
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
3	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	94
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	94
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

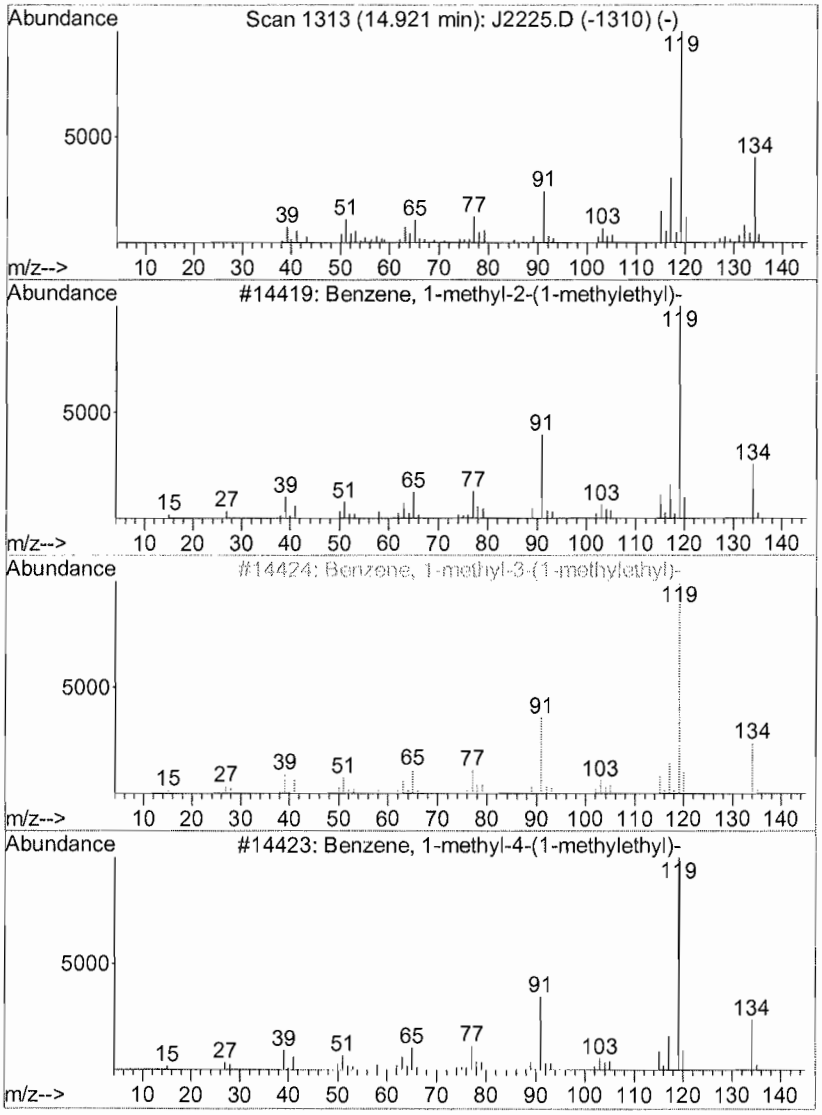
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

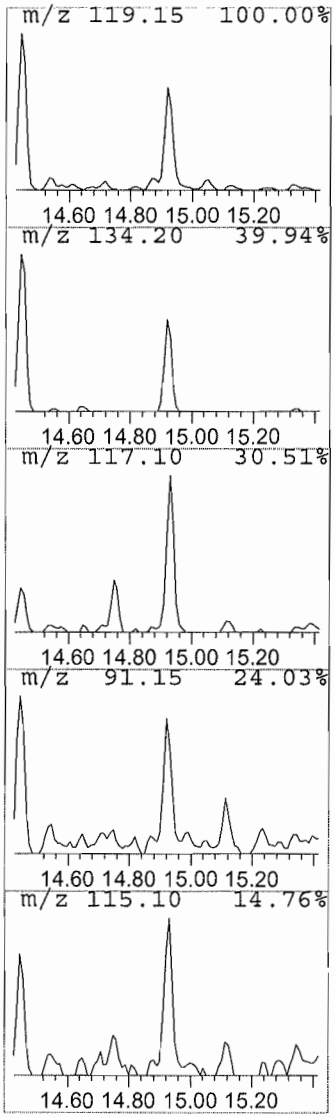
****

Peak Number 14 Benzene, 1-methyl-2-(1-meth... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	5.89 UG	115347	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	87
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	87
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	87
4	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	83
5	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2225.D
Acq On : 13 Dec 2017 12:50
Operator : MEI
Sample : PZ-4,E17-10611-009,A,1ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 8 Sample Multiplier: 1

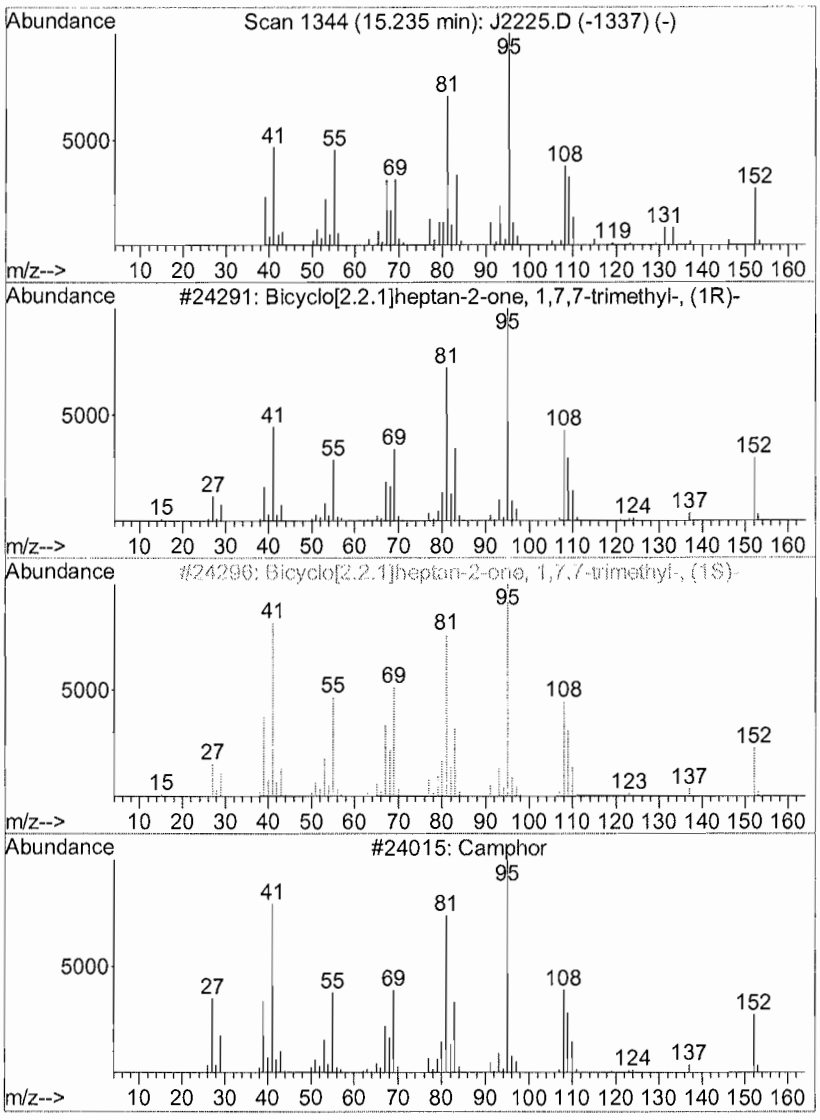
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

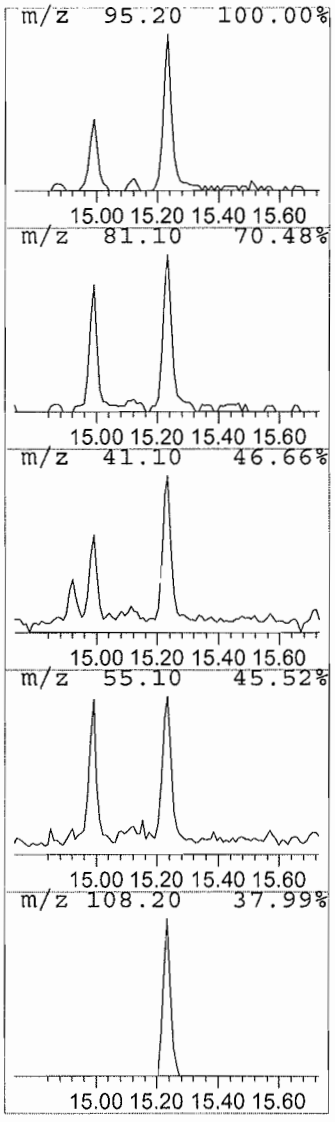
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 15 Bicyclo[2.2.1]heptan-2-one,... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.23	5.36 UG	105075	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-49-3	96
2	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-48-2	96
3	Camphor	152	C10H16O	000076-22-2	96
4	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-49-3	95
5	Camphor	152	C10H16O	000076-22-2	95





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2233.D
Acq On : 13 Dec 2017 16:20
Operator : MEI
Sample : FB,E17-10611-010,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 14 16:42:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	222497	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	331296	50.00	UG	0.01
50) Chlorobenzene-d5	10.16	117	286726	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	195198	50.02	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.04%			
41) Toluene-d8	8.50	98	399498	50.12	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 100.24%			
59) Bromofluorobenzene	11.57	95	162682	49.24	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.48%			

Target Compounds	Qvalue

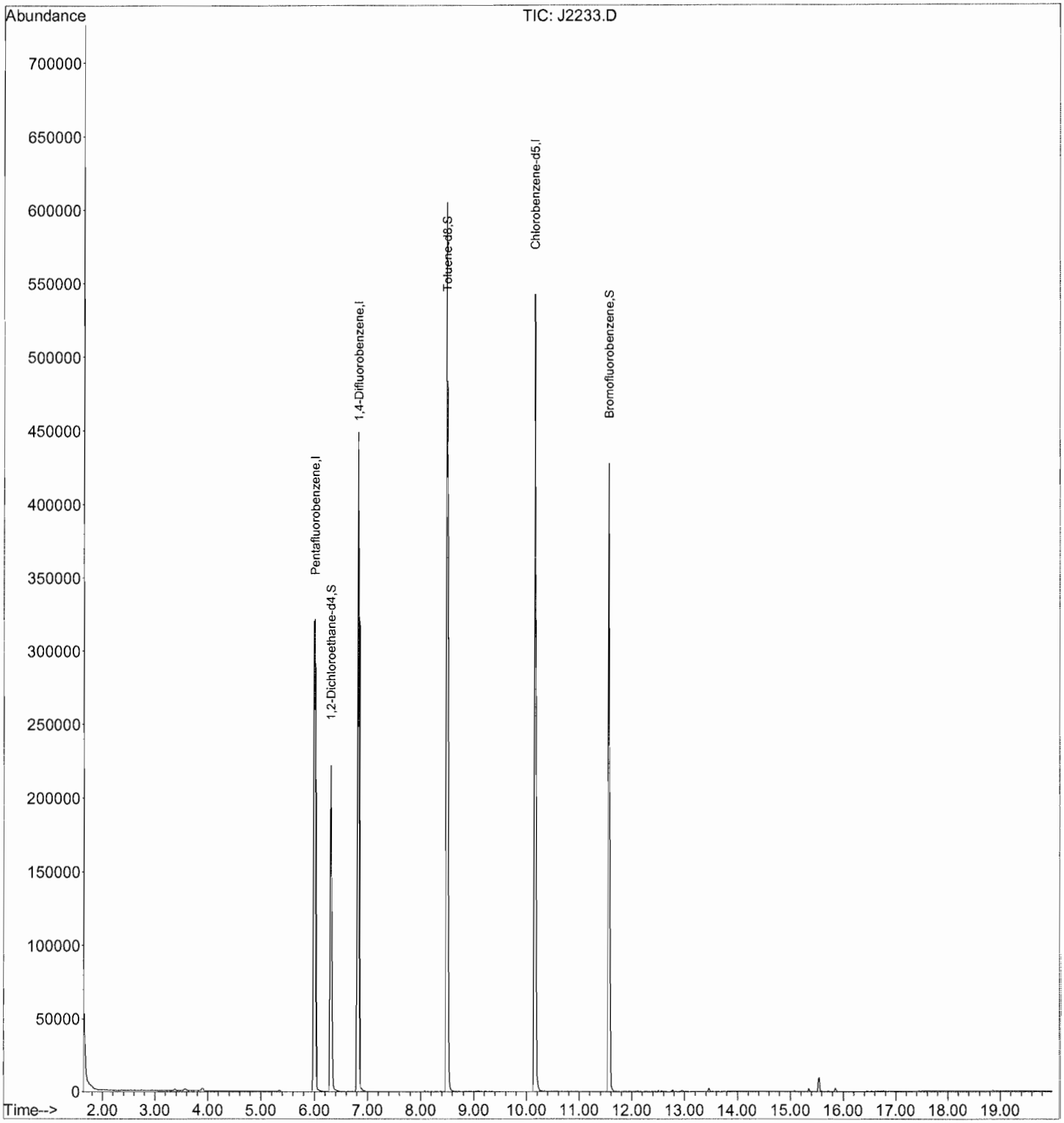
(#) = qualifier out of range (m) = manual integration (+) = signals summed

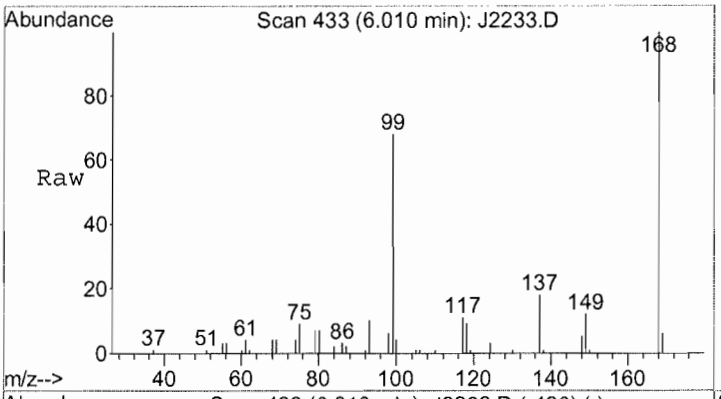
12.15.17

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2233.D
Acq On : 13 Dec 2017 16:20
Operator : MEI
Sample : FB,E17-10611-010,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 14 16:42:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

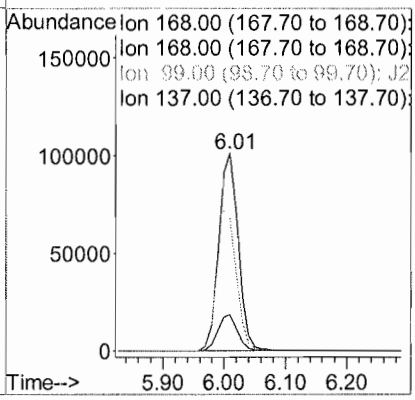


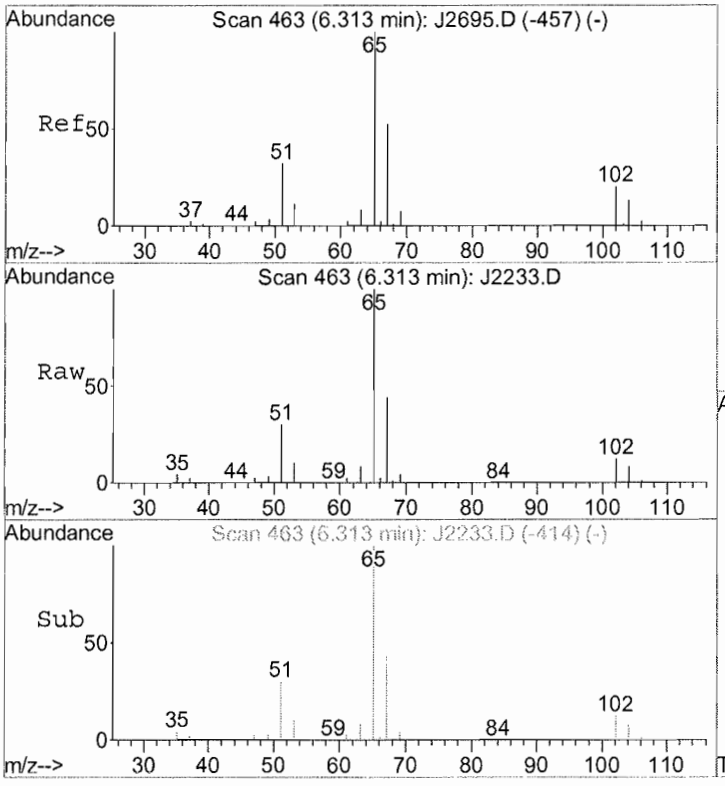


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion:168 Resp: 222497

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	71.8	53.9	100.1
137	18.3	10.5	19.5

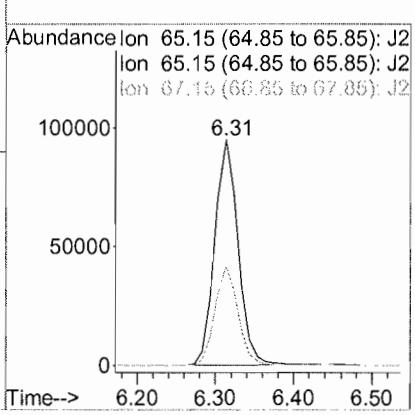


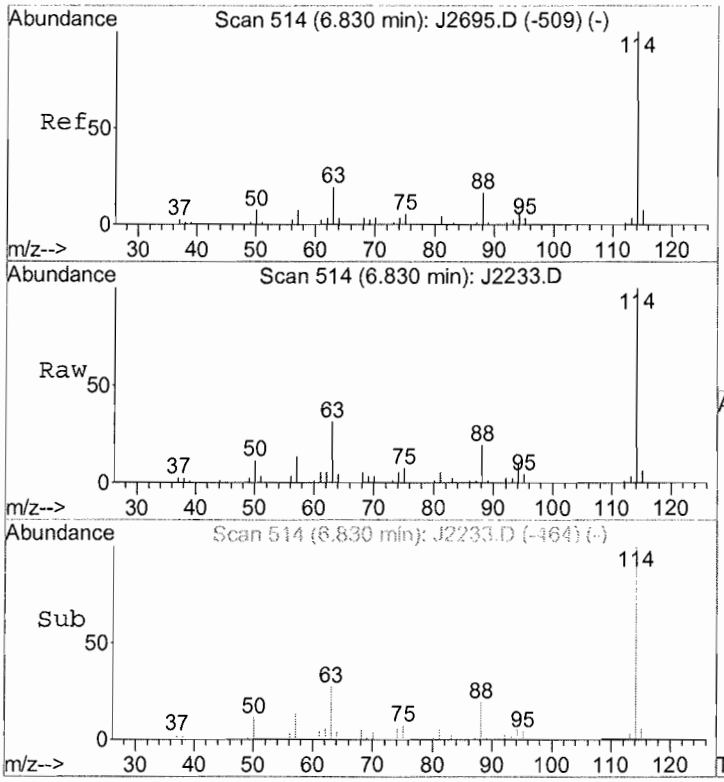


#30
1,2-Dichloroethane-d4
Concen: 50.02 UG
RT: 6.31 min Scan# 463
Delta R.T. 0.00 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion: 65 Resp: 195198

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.8	41.7	77.5

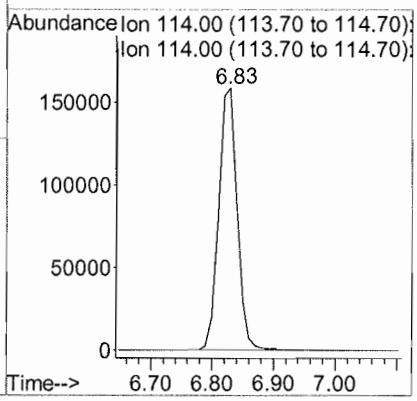


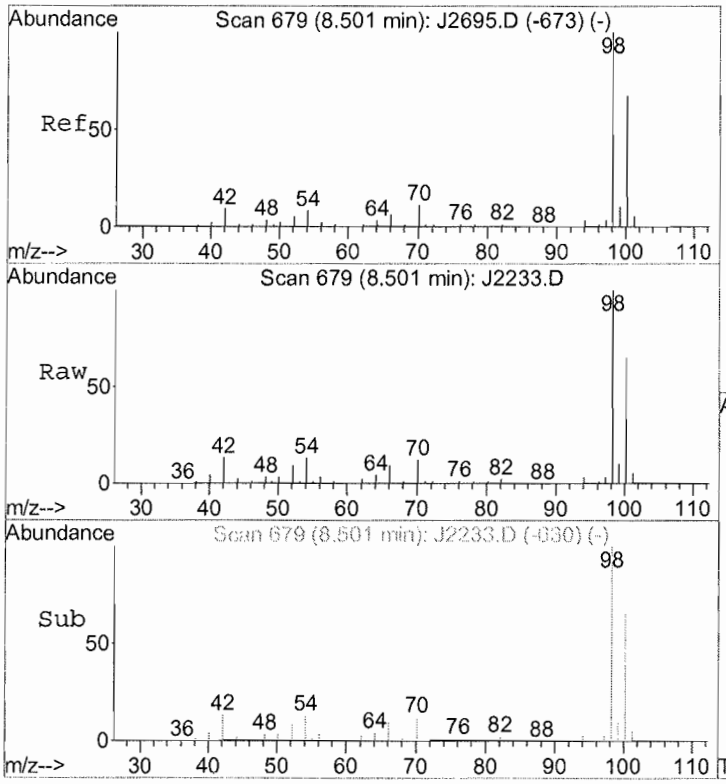


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion:114 Resp: 331296

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

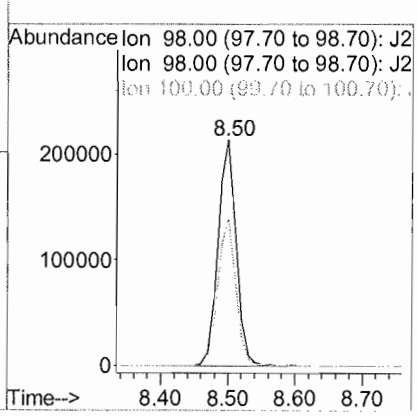


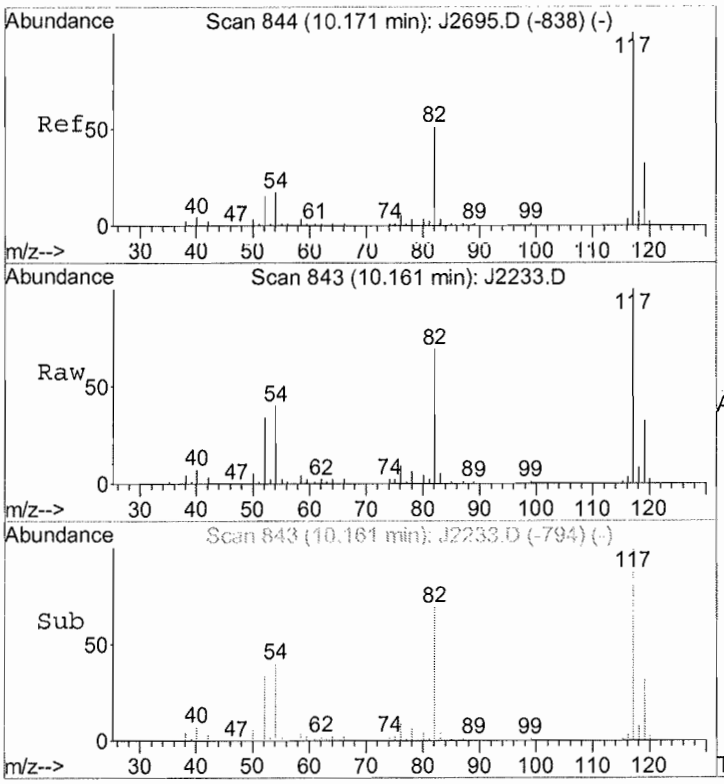


#41
Toluene-d8
Concen: 50.12 UG
RT: 8.50 min Scan# 679
Delta R.T. 0.00 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion: 98 Resp: 399498

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.7	48.1	89.3

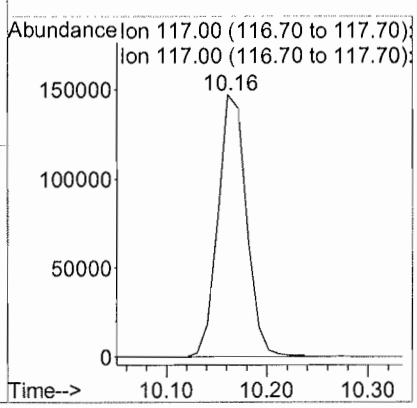


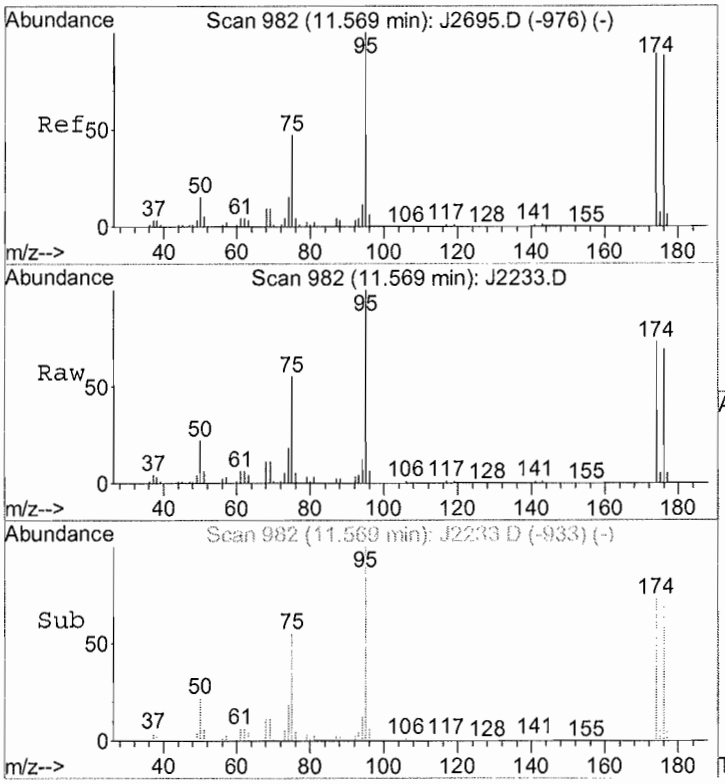


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. 0.00 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion:117 Resp: 286726

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

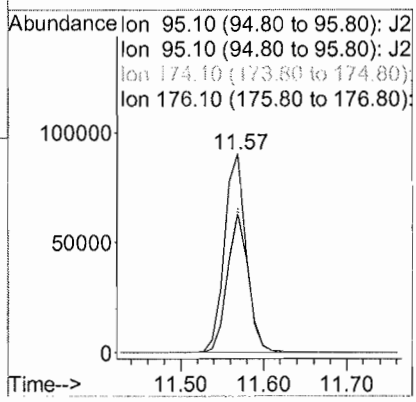




#59
Bromofluorobenzene
Concen: 49.24 UG
RT: 11.57 min Scan# 982
Delta R.T. 0.00 min
Lab File: J2233.D
Acq: 13 Dec 2017 16:20

Tgt Ion: 95 Resp: 162682

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	70.6	0.0	0.0#
176	67.6	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2233.D
Acq On : 13 Dec 2017 16:20
Operator : MEI
Sample : FB,E17-10611-010,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	425	433	449	rBB	321624	725595	63.09%	14.261%
2	6.313	456	463	483	rBB	221887	460728	40.06%	9.055%
3	6.820	507	513	530	rBB	448941	927829	80.67%	18.235%
4	8.501	672	679	694	rBB	604903	1150182	100.00%	22.605%
5	10.161	835	843	858	rBB	542396	1030651	89.61%	20.256%
6	11.569	974	982	993	rBB	427431	777948	67.64%	15.290%
7	15.549	1372	1375	1378	rBB	9158	15141	1.32%	0.298%

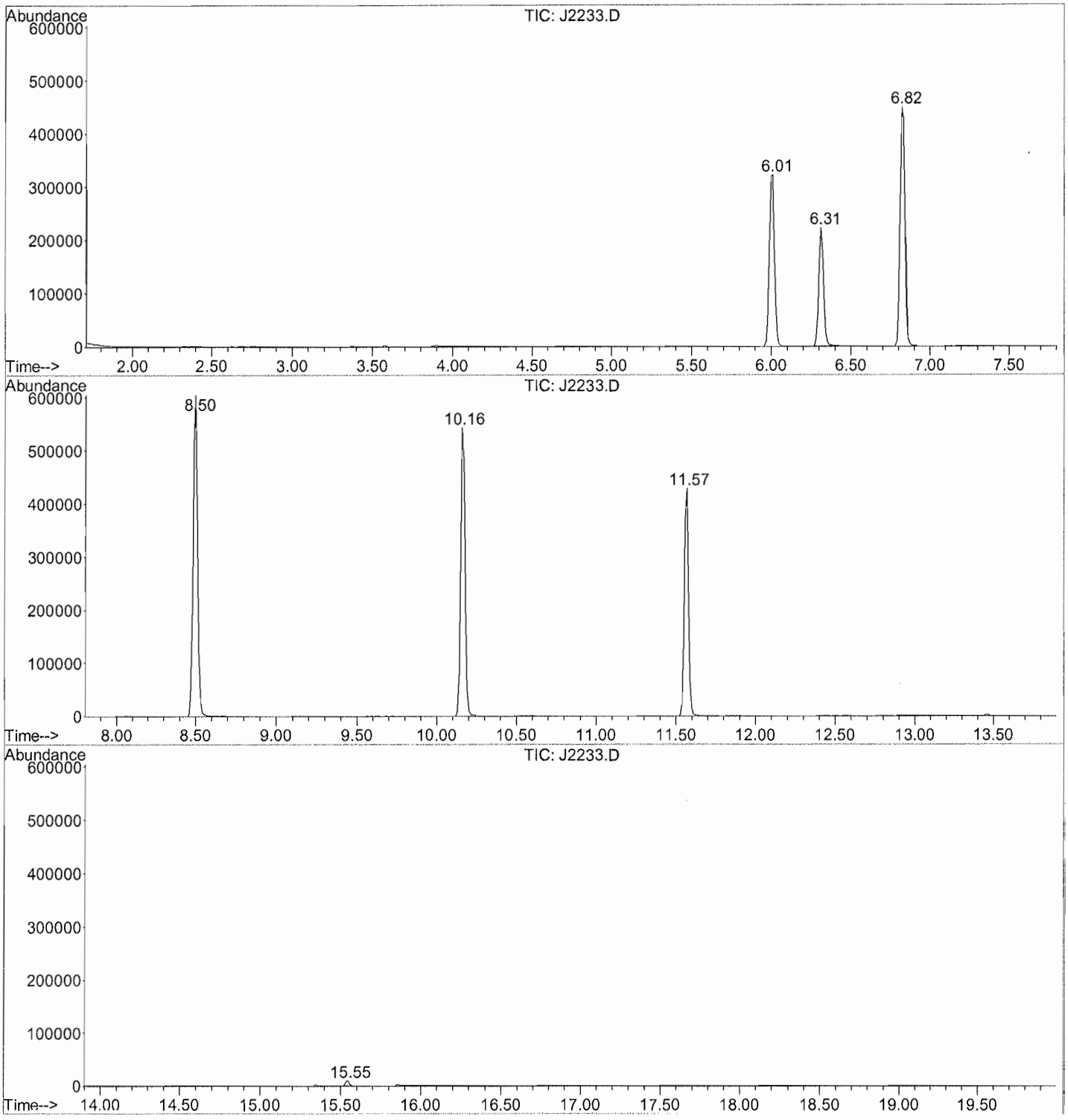
Sum of corrected areas: 5088074

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2233.D
Acq On : 13 Dec 2017 16:20
Operator : MEI
Sample : FB,E17-10611-010,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2234.D
Acq On : 13 Dec 2017 16:46
Operator : MEI
Sample : TB,E17-10611-011,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 14 16:43:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	248583	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	364078	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	312805	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	215916	49.52	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.04%			
41) Toluene-d8	8.50	98	435758	49.74	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 99.48%			
59) Bromofluorobenzene	11.57	95	179931	49.92	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.84%			

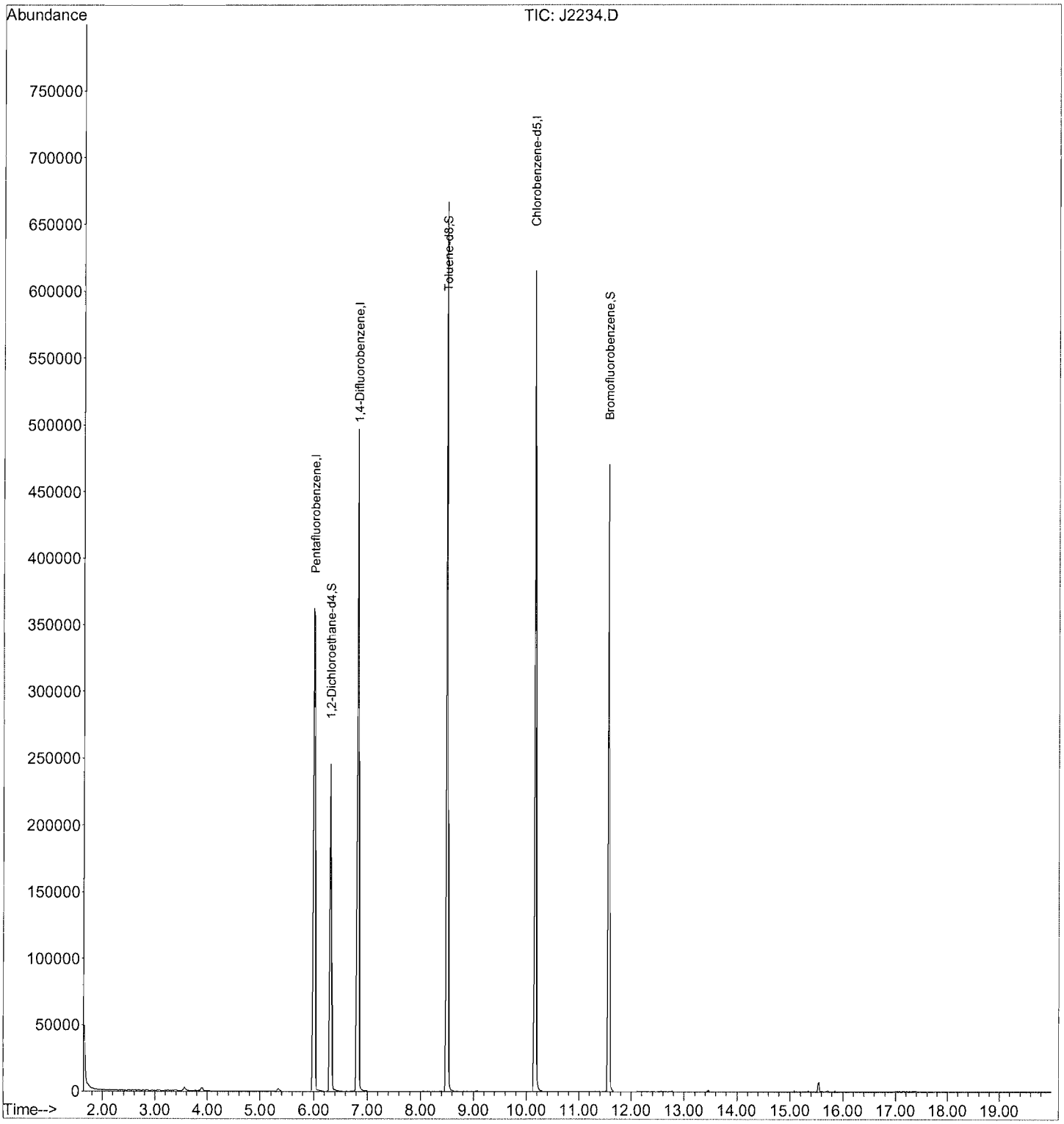
Target Compounds	Qvalue

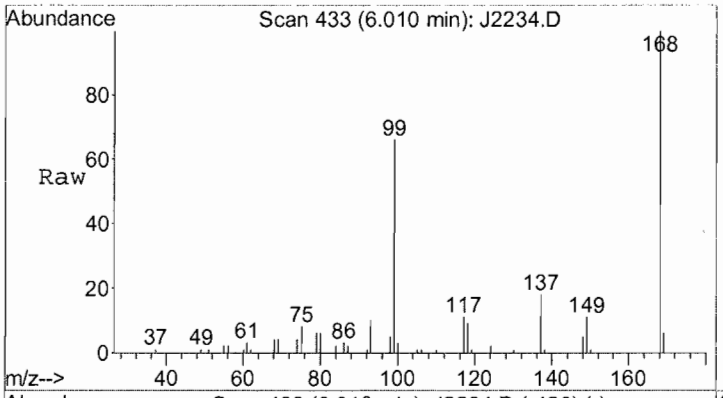
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2234.D
Acq On : 13 Dec 2017 16:46
Operator : MEI
Sample : TB,E17-10611-011,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 14 16:43:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

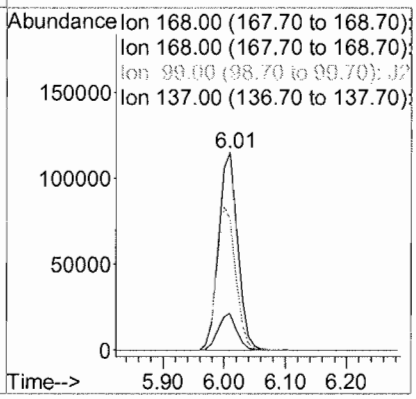


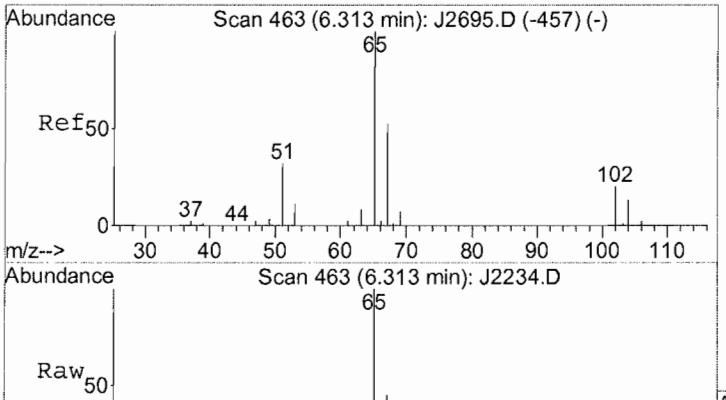


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion:168 Resp: 248583

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	71.7	53.9	100.1
137	18.3	10.5	19.5

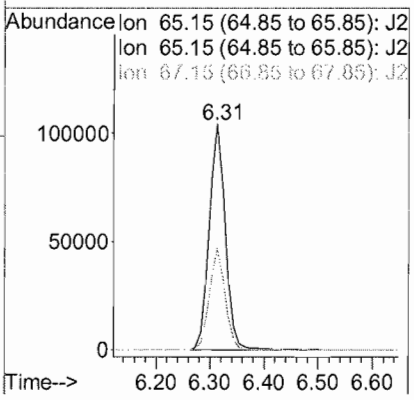


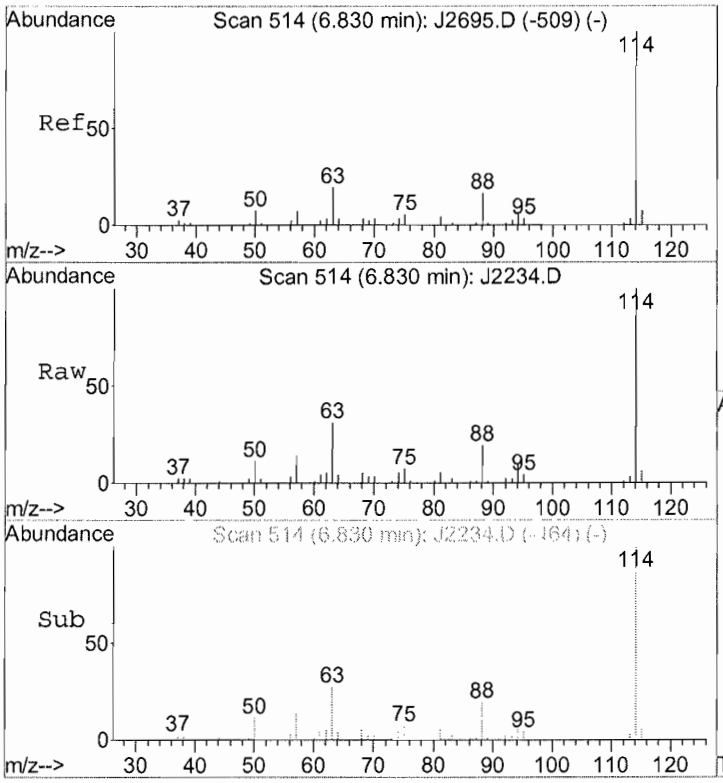


#30
1,2-Dichloroethane-d4
Concen: 49.52 UG
RT: 6.31 min Scan# 463
Delta R.T. -0.00 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion: 65 Resp: 215916

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	43.9	41.7	77.5

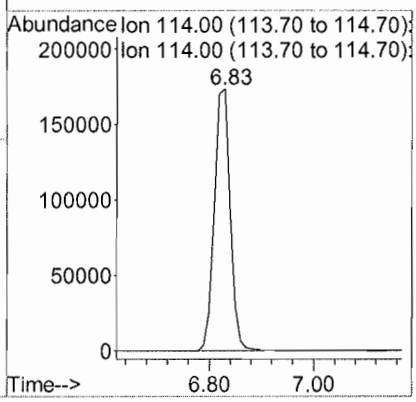


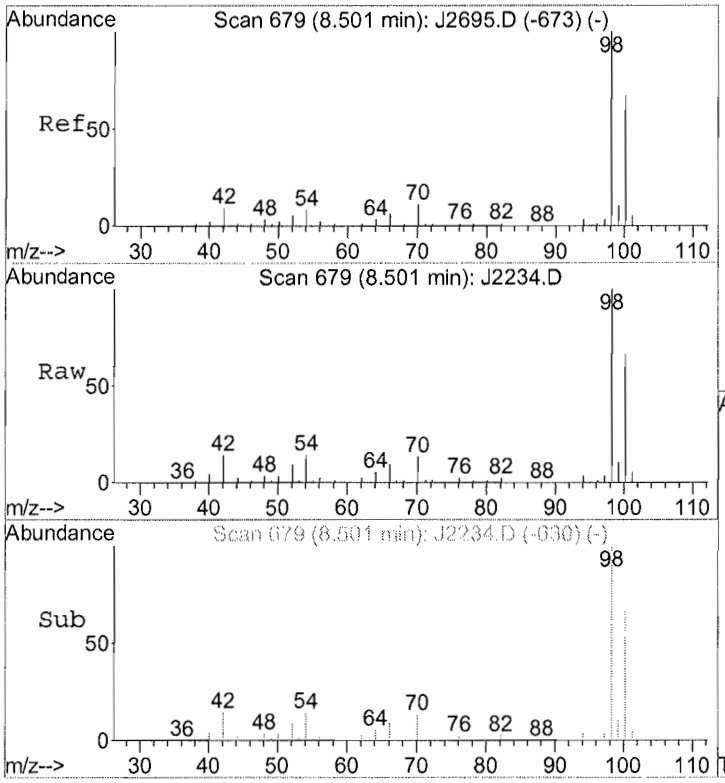


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.83 min Scan# 514
Delta R.T. 0.01 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion:114 Resp: 364078

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

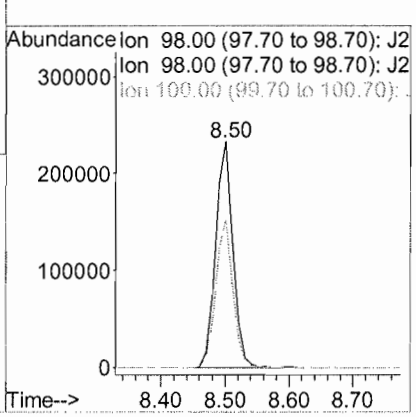


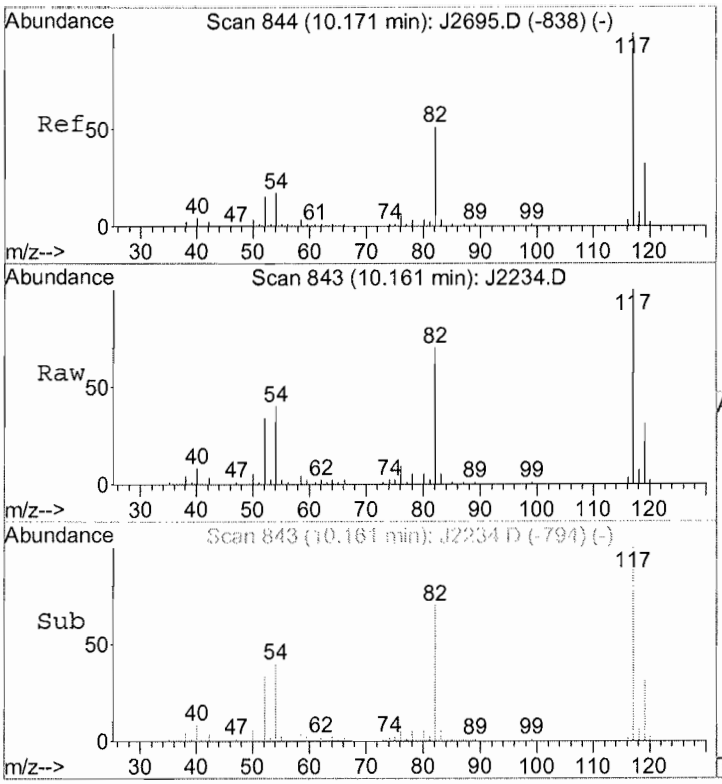


#41
Toluene-d8
Concen: 49.74 UG
RT: 8.50 min Scan# 679
Delta R.T. -0.00 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion: 98 Resp: 435758

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.9	48.1	89.3

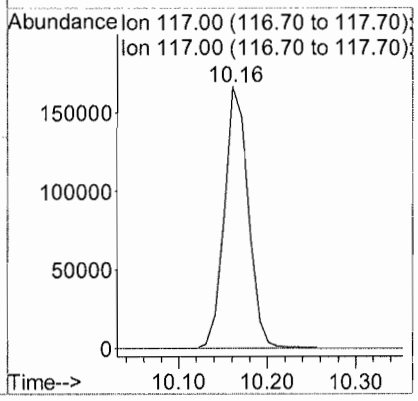


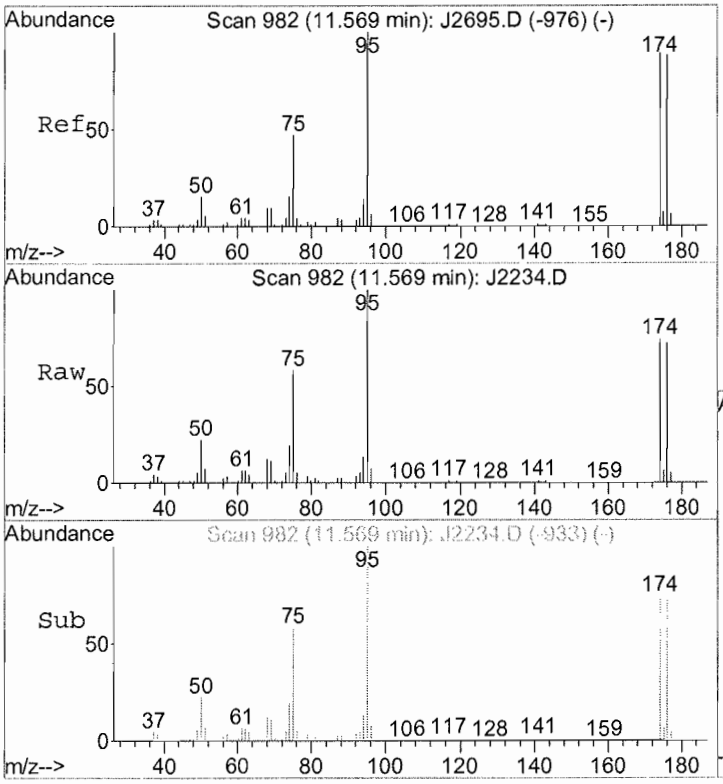


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. -0.00 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion:117 Resp: 312805

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

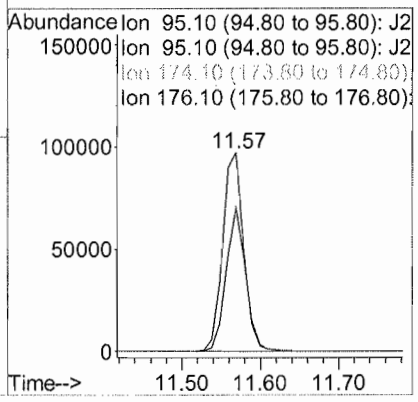




#59
Bromofluorobenzene
Concen: 49.92 UG
RT: 11.57 min Scan# 982
Delta R.T. -0.00 min
Lab File: J2234.D
Acq: 13 Dec 2017 16:46

Tgt Ion: 95 Resp: 179931

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	69.3	0.0	0.0#
176	67.0	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2234.D
Acq On : 13 Dec 2017 16:46
Operator : MEI
Sample : TB,E17-10611-011,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.999	426	432	452	rBB	362145	805370	63.64%	14.373%
2	6.313	456	463	487	rBB	245749	506175	40.00%	9.034%
3	6.820	506	513	528	rBB	496537	1019921	80.59%	18.202%
4	8.501	673	679	694	rBB	666622	1265525	100.00%	22.586%
5	10.161	838	843	861	rBB	614945	1142390	90.27%	20.388%
6	11.569	976	982	995	rBB	470232	863853	68.26%	15.417%

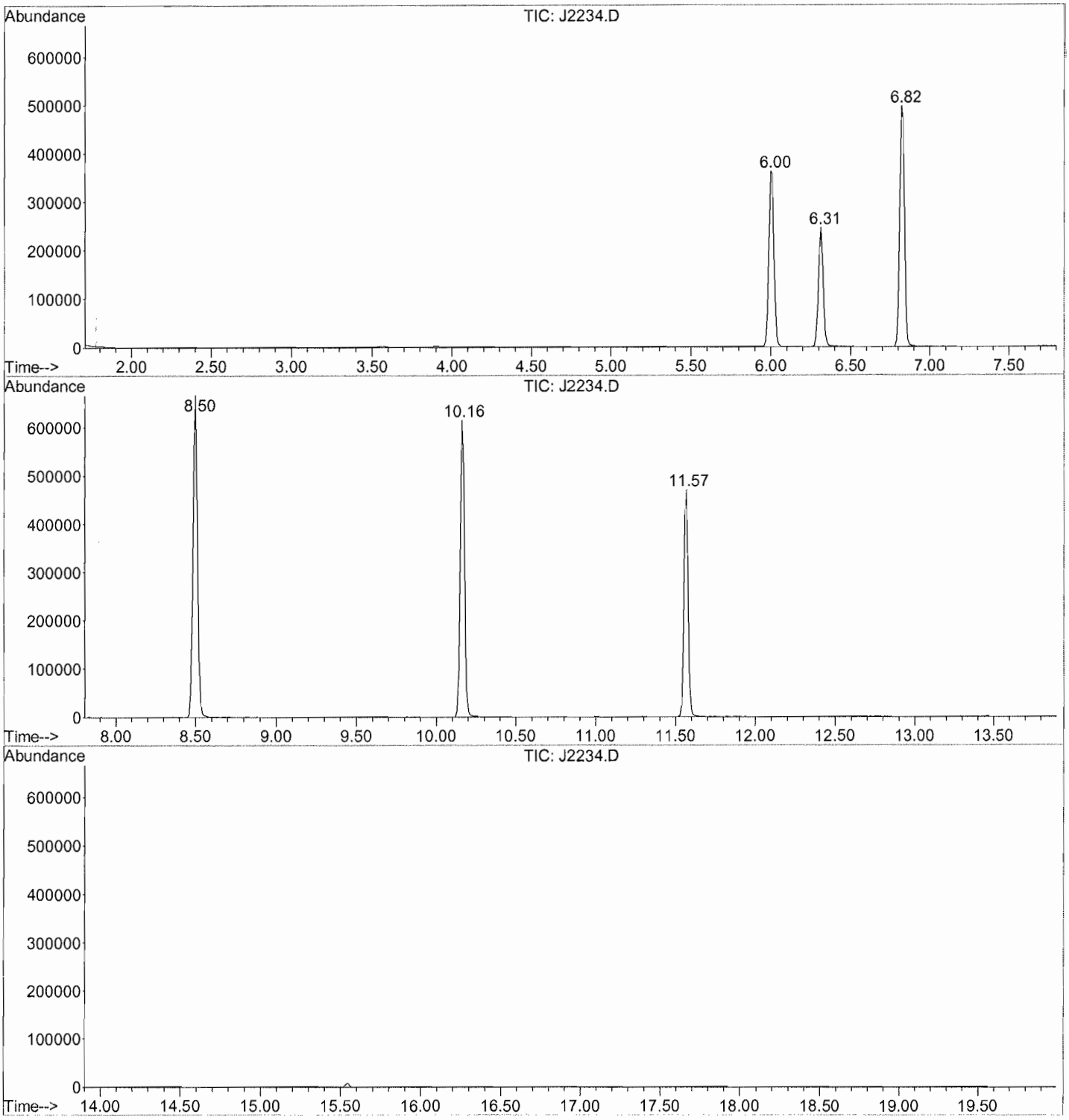
Sum of corrected areas: 5603234

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2234.D
Acq On : 13 Dec 2017 16:46
Operator : MEI
Sample : TB,E17-10611-011,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



VOLATILE ORGANICS STANDARDS

Response Factor Report MSD_J

Method Path : C:\MSDCHEM\1\METHODS\
Method File : JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Tue Nov 21 10:23:20 2017
Response Via : Initial Calibration

11/21/17

11/21/17

Calibration Files
0.5 =J1834.D 1 =J1835.D 5 =J1836.D
20 =J1837.D 100 =J1838.D 150 =J1839.D 200 =J1840.D

		Compound	0.5	1	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom		0.577	0.381	0.508	0.642	0.614	0.604	0.554	17.41
3)	P	Chloromethane	0.593	0.554	0.599	0.637	0.594	0.580	0.571	0.590	4.43
4)	C	Vinyl chloride		0.679	0.597	0.781	0.751	0.739	0.775	0.720	9.79
5)	T	Bromomethane		0.397	0.385	0.398	0.362	0.362	0.341	0.374	6.04
6)	T	Chloroethane	0.469	0.437	0.397	0.445	0.421	0.415	0.413	0.428	5.61
7)	T	Trichlorofluorome	1.001	0.830	0.593	0.968	0.928	0.881	0.949	0.879	15.70
8)	T	Acrolein	0.027	0.025	0.025	0.028	0.031	0.029	0.029	0.028	9.12
9)	MC	1,1-Dichloroethen	0.528	0.462	0.344	0.466	0.456	0.446	0.469	0.453	12.08
10)	T	Acetone		0.103	0.117	0.128	0.124	0.122	0.121	0.119	7.40
11)	T	Carbon disulfide	1.549	1.314	1.172	1.540	1.549	1.555	1.628	1.472	11.19
12)	T	Vinyl acetate		1.420	1.651	1.561	1.776	1.679	1.562	1.608	7.61
13)	T	Methylene chlorid		0.501	0.595	0.591	0.563	0.564	0.555	0.561	6.02
14)	T	Acrylonitrile	0.139	0.136	0.151	0.153	0.148	0.148	0.146	0.146	4.19
15)	T	tert-Butyl alcoho		0.050	0.050	0.041	0.054	0.054	0.055	0.051	10.26
16)	T	trans-1,2-Dichlor	0.560	0.543	0.537	0.599	0.567	0.541	0.552	0.557	3.86
17)	T	Methyl tert-butyl	2.106	1.993	1.903	1.827	1.811	1.819	1.812	1.896	6.04
18)	P	1,1-Dichloroethan	1.555	1.514	1.430	1.607	1.579	1.564	1.583	1.547	3.83
19)	T	Diisopropyl ether	2.332	2.449	2.349	2.621	2.492	2.459	2.396	2.443	4.01
20)	T	cis-1,2-Dichloroe	0.701	0.632	0.635	0.685	0.650	0.648	0.637	0.655	4.08
21)	T	2,2-Dichloropropa		0.864	0.764	0.982	0.949	0.966	0.937	0.910	9.08
22)	T	2-Butanone (MEK)		0.237	0.193	0.231	0.233	0.226	0.221	0.224	7.21
23)	T	Bromochloromethan		0.304	0.288	0.316	0.303	0.305	0.303	0.303	2.91
25)	C	Chloroform	1.301	1.237	1.236	1.335	1.303	1.306	1.297	1.288	2.90
26)	T	1,1,1-Trichloroet	1.003	0.949	0.764	1.072	1.099	1.080	1.128	1.013	12.40
27)	T	Carbon tetrachlor		0.643	0.559	0.764	0.831	0.819	0.879	0.749	16.48
28)	T	1,1-Dichloroprope	0.894	0.758	0.522	0.824	0.816	0.789	0.828	0.776	15.38
29)	T	1,2-Dichloroethan	1.368	1.435	1.225	1.440	1.396	1.389	1.384	1.377	5.23
30)	S	1,2-Dichloroethan	0.893	0.903	0.874	0.857	0.876	0.873	0.863	0.877	1.84
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.687	1.601	1.429	1.676	1.591	1.550	1.578	1.588	5.43
33)	M	Trichloroethene	0.423	0.420	0.333	0.439	0.435	0.428	0.443	0.417	9.15
34)	C	1,2-Dichloropropa	0.535	0.536	0.473	0.574	0.548	0.535	0.537	0.534	5.67
35)	T	Dibromomethane		0.224	0.226	0.254	0.252	0.250	0.248	0.242	5.62
36)	T	1,4-Dioxane	0.003	0.003	0.004	0.003	0.004	0.003	0.004	0.003	7.03
37)	T	Bromodichlorometh	0.501	0.519	0.474	0.620	0.664	0.666	0.676	0.588	14.87
38)	T	2-Chloroethyl vin		0.247	0.207	0.306	0.319	0.309	0.318	0.284	16.32
39)	T	cis-1,3-Dichlorop	0.532	0.519	0.488	0.671	0.709	0.708	0.721	0.621	16.61
40)	T	4-Methyl-2-pentan		0.302	0.292	0.341	0.352	0.338	0.341	0.328	7.52
41)	S	Toluene-d8	1.182	1.171	1.207	1.196	1.216	1.216	1.233	1.203	1.79
42)	MC	Toluene	0.946	0.883	0.735	0.922	0.903	0.886	0.912	0.884	7.82
43)	T	trans-1,3-Dichlor	0.472	0.473	0.412	0.613	0.667	0.658	0.681	0.568	19.72
44)	T	1,1,2-Trichloroet	0.252	0.272	0.223	0.276	0.273	0.268	0.275	0.263	7.37
45)	T	Tetrachloroethene	0.285	0.278	0.201	0.302	0.290	0.274	0.286	0.274	12.08
46)	T	1,3-Dichloropropa	0.577	0.565	0.479	0.605	0.603	0.583	0.597	0.573	7.69
47)	T	2-Hexanone		0.192	0.188	0.229	0.242	0.227	0.233	0.219	10.34
48)	T	Dibromochlorometh	0.334	0.292	0.260	0.351	0.405	0.405	0.420	0.352	17.45
49)	T	1,2-Dibromoethane	0.302	0.305	0.271	0.334	0.343	0.336	0.345	0.319	8.66

50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.363	1.218	1.012	1.206	1.124	1.101	1.118	1.163	9.62
52)	T	1,1,1,2-Tetrachlo	0.424	0.390	0.391	0.474	0.483	0.478	0.479	0.446	9.58
53)	C	Ethylbenzene	1.960	1.688	1.508	1.939	1.879	1.831	1.893	1.814	8.93
54)	T	m,p-Xylene	0.715	0.623	0.572	0.719	0.678	0.654	0.669	0.661	7.83
55)	T	o-Xylene	0.671	0.606	0.617	0.727	0.677	0.660	0.660	0.660	6.08
56)	T	Styrene	1.009	1.013	1.063	1.312	1.253	1.220	1.236	1.158	10.85
57)	P	Bromoform	0.227	0.193	0.210	0.225	0.269	0.271	0.279	0.239	14.08
58)	T	Isopropylbenzene	1.518	1.311	1.185	1.646	1.608	1.573	1.625	1.495	11.86
59)	S	Bromofluorobenzen	0.571	0.572	0.608	0.577	0.570	0.570	0.565	0.576	2.54
60)	P	1,1,2,2-Tetrachlo	0.533	0.470	0.336	0.527	0.465	0.440	0.432	0.458	14.50
61)	T	Bromobenzene	0.528	0.473	0.455	0.510	0.465	0.450	0.447	0.475	6.63
62)	T	1,2,3-Trichloropr	0.571	0.507	0.486	0.487	0.469	0.453	0.457	0.490	8.26
63)	T	n-Propylbenzene	1.692	1.507	1.329	1.782	1.731	1.696	1.751	1.641	9.97
64)	T	2-Chlorotoluene	1.430	1.171	1.123	1.304	1.226	1.209	1.226	1.241	8.05
65)	T	1,3,5-Trimethylbe		1.166	1.164	1.437	1.363	1.342	1.352	1.304	8.64
66)	T	4-Chlorotoluene	1.586	1.446	1.379	1.566	1.471	1.433	1.444	1.475	5.06
67)	T	tert-Butylbenzene		0.879	0.707	0.991	0.944	0.927	0.948	0.899	11.25
68)	T	1,2,4-Trimethylbe		1.348	1.297	1.508	1.432	1.419	1.444	1.408	5.30
69)	T	sec-Butylbenzene	1.401	1.224	1.095	1.491	1.434	1.426	1.477	1.364	10.84
70)	T	1,3-Dichlorobenze	0.933	0.798	0.766	0.799	0.735	0.719	0.724	0.782	9.52
71)	T	4-Isopropyltoluen		1.140	1.010	1.298	1.234	1.233	1.263	1.196	8.78
72)	T	1,4-Dichlorobenze	0.956	0.846	0.787	0.805	0.753	0.742	0.737	0.804	9.62
73)	T	n-Butylbenzene	0.633	0.504	0.461	0.611	0.585	0.580	0.598	0.567	10.88
74)	T	1,2-Dichlorobenze	0.848	0.761	0.772	0.778	0.705	0.701	0.686	0.750	7.63
75)	T	1,2-Dibromo-3-chl		0.082	0.080	0.068	0.094	0.097	0.098	0.086	13.58
76)	T	1,2,4-Trichlorobe		0.310	0.289	0.378	0.406	0.416	0.417	0.369	15.20
77)	T	Hexachlorobutadie		0.171	0.168	0.177	0.220	0.216	0.222	0.196	13.42
78)	T	Naphthalene		0.765	0.974	0.957	1.009	1.034	1.032	0.962	10.54
79)	T	1,2,3-Trichlorobe		0.261	0.267	0.329	0.352	0.362	0.362	0.322	14.51
80)	T	1,1,2-Trichloro-1		0.329	0.201	0.357	0.341	0.312	0.353	0.315	18.47
81)	T	Methyl acetate	0.257	0.272	0.329	0.308	0.291	0.283	0.284	0.289	8.19
82)	T	Cyclohexane		0.932	0.765	0.930	0.848	0.778	0.852	0.851	8.39
83)	T	Methylcyclohexane	0.549	0.471	0.331	0.588	0.546	0.493	0.547	0.504	16.94

(#) = Out of Range ### Number of calibration levels exceeded format ###

JM112017.M Tue Nov 21 10:23:29 2017 RT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1834.D
Acq On : 20 Nov 2017 11:43
Operator : MEI
Sample : ICC171120,ICC0.5,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 10:06:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	353016	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	511041	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	415572	50.00	UG		-0.01
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	315234	50.92	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.84%				
41) Toluene-d8	8.50	98	603831	49.11	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 98.22%				
59) Bromofluorobenzene	11.57	95	237217	49.54	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.08%				
Target Compounds							Qvalue
3) Chloromethane	1.85	50	2095m	0.48	UG		
6) Chloroethane	2.44	64	1656	0.55	UG		99
7) Trichlorofluoromethane	2.74	101	3533	0.57	UG		94
8) Acrolein	3.19	56	1895m	8.68	UG		
9) 1,1-Dichloroethene	3.34	96	1863	0.58	UG		81
11) Carbon disulfide	3.58	76	5467	0.53	UG		100
14) Acrylonitrile	4.18	53	9808m	8.81	UG		
16) trans-1,2-Dichloroethene	4.24	96	1978	0.50	UG		81
17) Methyl tert-butyl ether (M	4.26	73	7435	0.56	UG		100
18) 1,1-Dichloroethane	4.72	63	5488	0.50	UG		98
19) Diisopropyl ether (DIPE)	4.85	45	8232	0.48	UG		99
20) cis-1,2-Dichloroethene	5.39	96	2473	0.53	UG	#	31
25) Chloroform	5.76	83	4593	0.51	UG		98
26) 1,1,1-Trichloroethane	5.98	97	3541	0.49	UG	#	80
28) 1,1-Dichloropropene	6.16	75	3157	0.58	UG		98
29) 1,2-Dichloroethane (EDC)	6.40	62	4831	0.50	UG		97
32) Benzene	6.39	78	8622	0.53	UG		100
33) Trichloroethene	7.12	95	2162	0.51	UG		90
34) 1,2-Dichloropropane	7.36	63	2736	0.50	UG	#	99
36) 1,4-Dioxane	7.52	88	3238	94.52	UG	#	65
37) Bromodichloromethane	7.66	83	2558	0.43	UG	#	96
39) cis-1,3-Dichloropropene	8.18	75	2719	0.43	UG		97
42) Toluene	8.57	92	4835	0.54	UG		99
43) trans-1,3-Dichloropropene	8.81	75	2413	0.42	UG	#	95
44) 1,1,2-Trichloroethane	9.02	83	1287	0.48	UG	#	79
45) Tetrachloroethene	9.22	166	1456	0.52	UG	#	64
46) 1,3-Dichloropropane	9.21	76	2951	0.50	UG		99
48) Dibromochloromethane	9.47	129	1707m	0.49	UG		
49) 1,2-Dibromoethane (EDB)	9.61	107	1541	0.47	UG		100
51) Chlorobenzene	10.20	112	5663	0.59	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	1761	0.48	UG		97
53) Ethylbenzene	10.33	91	8146	0.54	UG		100
54) m,p-Xylene	10.48	106	5942	1.08	UG		91
55) o-Xylene	10.95	106	2787	0.51	UG		90
56) Styrene	10.96	104	4195	0.44	UG	#	79
57) Bromoform	11.16	173	945m	0.43	UG		
58) Isopropylbenzene	11.40	105	6310	0.51	UG		99
60) 1,1,2,2-Tetrachloroethane	11.73	83	2217m	0.49	UG		
61) Bromobenzene	11.75	156	2194	0.56	UG		99
62) 1,2,3-Trichloropropane	11.78	75	2373	0.58	UG	#	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1834.D
Acq On : 20 Nov 2017 11:43
Operator : MEI
Sample : ICC171120,ICC0.5,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 10:06:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

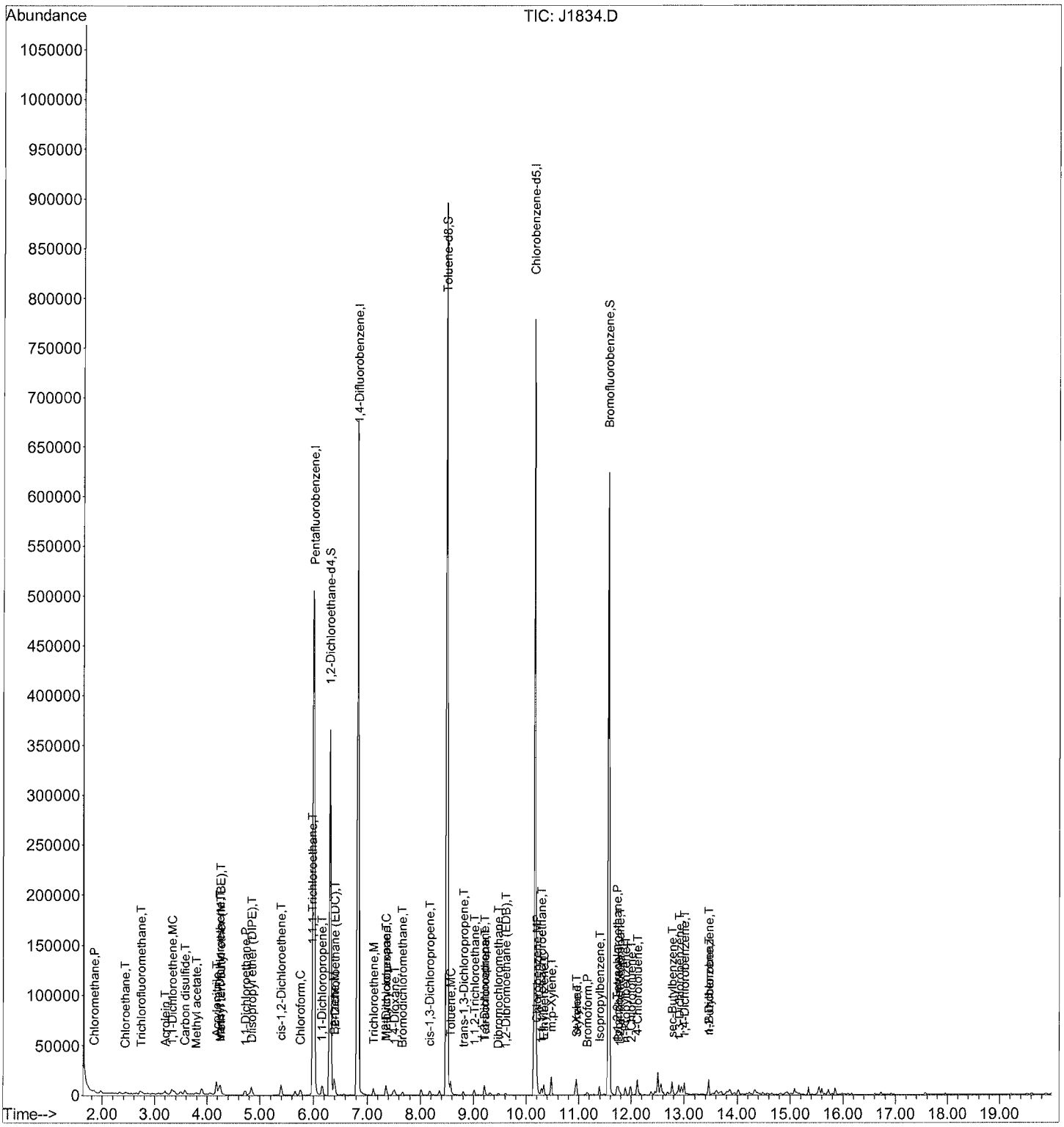
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
63) n-Propylbenzene	11.89	91	7032	0.52	UG		99
64) 2-Chlorotoluene	11.99	91	5943	0.58	UG		83
66) 4-Chlorotoluene	12.12	91	6589	0.54	UG		97
69) sec-Butylbenzene	12.77	105	5824	0.51	UG		100
70) 1,3-Dichlorobenzene	12.91	146	3879	0.60	UG		99
72) 1,4-Dichlorobenzene	13.01	146	3972	0.59	UG		100
73) n-Butylbenzene	13.46	92	2629	0.56	UG	#	91
74) 1,2-Dichlorobenzene	13.46	146	3526	0.57	UG		97
81) Methyl acetate	3.79	43	1067m	0.40	UG		
83) Methylcyclohexane	7.36	55	2280	0.54	UG	#	73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1834.D
Acq On : 20 Nov 2017 11:43
Operator : MEI
Sample : ICC171120,ICC0.5,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 10:06:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1835.D
Acq On : 20 Nov 2017 12:09
Operator : MEI
Sample : ICC171120a,ICC1,A,5ml,100
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 10:10:00 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	357784	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	528532	50.00	UG		-0.01
50) Chlorobenzene-d5	10.16	117	425037	50.00	UG		-0.01
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	323110	51.49	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.98%				
41) Toluene-d8	8.50	98	619008	48.68	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 97.36%				
59) Bromofluorobenzene	11.57	95	243186	49.65	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.71	85	4131	0.97	UG		99
3) Chloromethane	1.85	50	3964m	0.89	UG		
4) Vinyl chloride	1.97	62	4857	0.94	UG		99
5) Bromomethane	2.32	94	2840	1.06	UG		98
6) Chloroethane	2.45	64	3130	1.02	UG		99
7) Trichlorofluoromethane	2.73	101	5942	0.94	UG		98
8) Acrolein	3.19	56	3538m	16.00	UG		
9) 1,1-Dichloroethene	3.33	96	3304	1.02	UG		86
10) Acetone	3.39	43	1467m	1.53	UG		
11) Carbon disulfide	3.58	76	9399	0.89	UG		100
12) Vinyl acetate	4.85	43	10160m	0.82	UG		
13) Methylene chloride	3.89	84	3584m	0.86	UG		
14) Acrylonitrile	4.18	53	19527m	17.31	UG		
15) tert-Butyl alcohol (TBA)	4.08	59	720m	1.52	UG		
16) trans-1,2-Dichloroethene	4.24	96	3883	0.97	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	14264	1.05	UG		100
18) 1,1-Dichloroethane	4.72	63	10833	0.98	UG		99
19) Diisopropyl ether (DIPE)	4.85	45	17525	1.00	UG		99
20) cis-1,2-Dichloroethene	5.39	96	4523	0.96	UG	#	59
21) 2,2-Dichloropropane	5.40	77	6180	0.95	UG	#	41
22) 2-Butanone (MEK)	5.42	43	3388	2.12	UG		98
23) Bromochloromethane	5.67	128	2175	1.00	UG		99
25) Chloroform	5.76	83	8850	0.96	UG		100
26) 1,1,1-Trichloroethane	5.98	97	6788	0.94	UG	#	80
27) Carbon tetrachloride	6.17	117	4603	0.88	UG		94
28) 1,1-Dichloropropene	6.16	75	5427	0.98	UG		98
29) 1,2-Dichloroethane (EDC)	6.40	62	10270	1.04	UG		96
32) Benzene	6.39	78	16922	1.01	UG		99
33) Trichloroethene	7.12	95	4440	1.01	UG		85
34) 1,2-Dichloropropane	7.37	63	5662	1.00	UG	#	99
35) Dibromomethane	7.49	93	2367	0.92	UG		99
36) 1,4-Dioxane	7.52	88	6431	181.51	UG	#	65
37) Bromodichloromethane	7.67	83	5484	0.88	UG		98
38) 2-Chloroethyl vinyl ether	8.01	63	5212	1.74	UG	#	88
39) cis-1,3-Dichloropropene	8.18	75	5489	0.84	UG		98
40) 4-Methyl-2-pentanone (MIBK	8.36	43	6380	1.84	UG		95
42) Toluene	8.57	92	9335	1.00	UG		99
43) trans-1,3-Dichloropropene	8.80	75	5004	0.83	UG		97
44) 1,1,2-Trichloroethane	9.02	83	2870	1.03	UG		95
45) Tetrachloroethene	9.21	166	2936	1.01	UG		97

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1835.D
Acq On : 20 Nov 2017 12:09
Operator : MEI
Sample : ICC171120a,ICC1,A,5ml,100
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 10:10:00 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

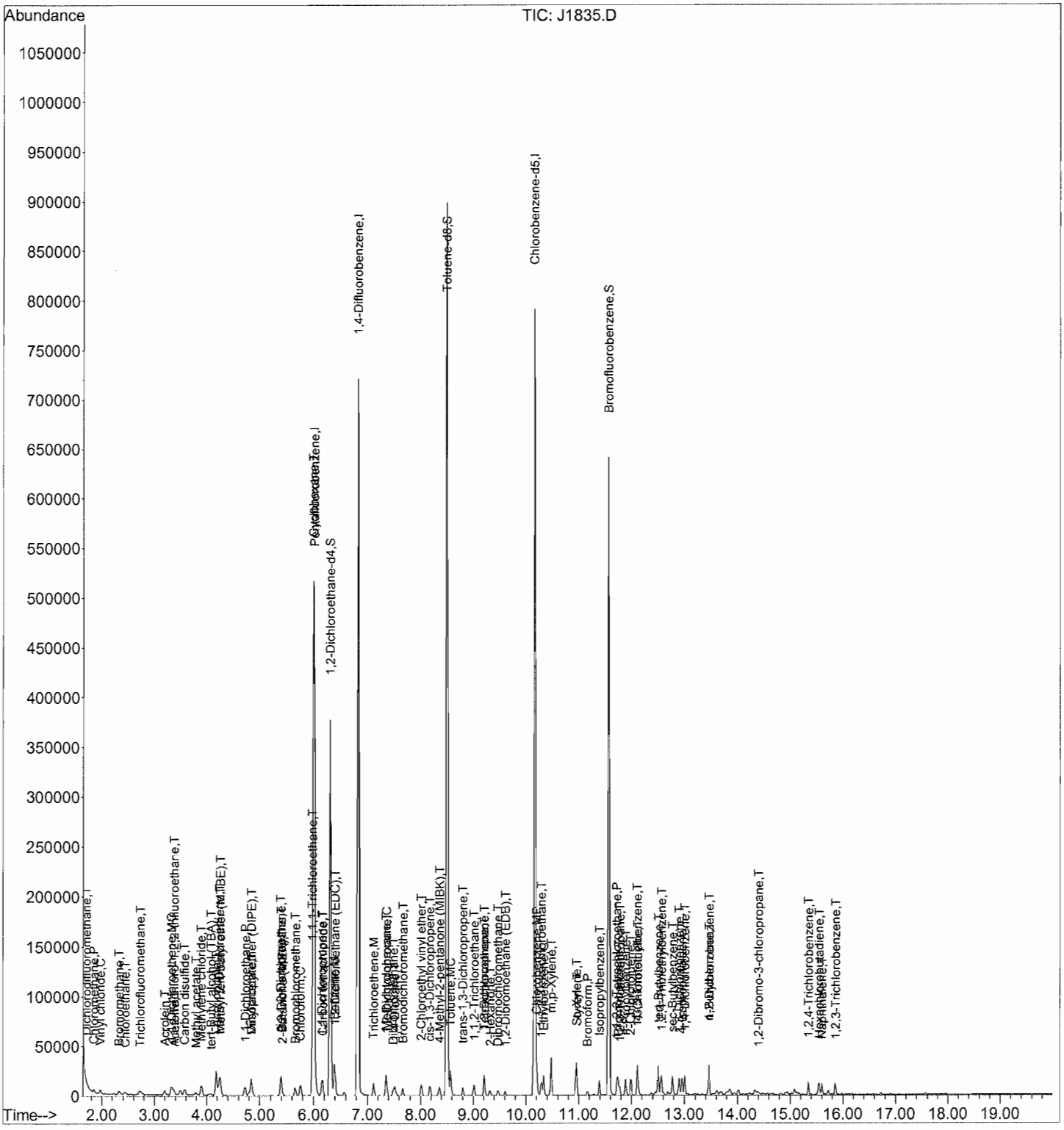
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	5972	0.99	UG		99
47) 2-Hexanone	9.32	43	4060	1.76	UG		93
48) Dibromochloromethane	9.47	129	3084	0.85	UG		96
49) 1,2-Dibromoethane (EDB)	9.61	107	3227	0.96	UG		98
51) Chlorobenzene	10.20	112	10358	1.05	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	3315	0.88	UG		98
53) Ethylbenzene	10.33	91	14350	0.93	UG		99
54) m,p-Xylene	10.48	106	10584	1.88	UG		87
55) o-Xylene	10.95	106	5155	0.92	UG		87
56) Styrene	10.96	104	8609	0.87	UG	#	79
57) Bromoform	11.16	173	1640m	0.73	UG		
58) Isopropylbenzene	11.40	105	11147	0.88	UG		99
60) 1,1,2,2-Tetrachloroethane	11.72	83	3997m	0.86	UG		
61) Bromobenzene	11.75	156	4024	1.00	UG		97
62) 1,2,3-Trichloropropane	11.78	75	4314	1.04	UG		96
63) n-Propylbenzene	11.89	91	12813	0.92	UG		99
64) 2-Chlorotoluene	11.98	91	9956	0.94	UG		84
65) 1,3,5-Trimethylbenzene	12.11	105	9914	0.89	UG		97
66) 4-Chlorotoluene	12.12	91	12291	0.98	UG		97
67) tert-Butylbenzene	12.51	119	7476	0.98	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	11461	0.96	UG		97
69) sec-Butylbenzene	12.77	105	10404	0.90	UG		99
70) 1,3-Dichlorobenzene	12.90	146	6786	1.02	UG		98
71) 4-Isopropyltoluene	12.96	119	9689	0.95	UG		99
72) 1,4-Dichlorobenzene	13.01	146	7189	1.05	UG		99
73) n-Butylbenzene	13.46	92	4285	0.89	UG		97
74) 1,2-Dichlorobenzene	13.46	146	6472	1.01	UG		98
75) 1,2-Dibromo-3-chloropropan	14.40	75	700m	0.83	UG		
76) 1,2,4-Trichlorobenzene	15.35	180	2636m	0.73	UG		
77) Hexachlorobutadiene	15.55	225	1454m	0.74	UG		
78) Naphthalene	15.60	128	6500m	0.76	UG		
79) 1,2,3-Trichlorobenzene	15.86	180	2222m	0.69	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.38	101	2795	1.04	UG		94
81) Methyl acetate	3.79	43	2314m	0.84	UG		
82) Cyclohexane	6.00	56	7926	1.25	UG		100
83) Methylcyclohexane	7.36	55	4007	0.94	UG	#	64

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1835.D
Acq On : 20 Nov 2017 12:09
Operator : MEI
Sample : ICC171120a,ICC1,A,5ml,100
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 10:10:00 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1836.D
Acq On : 20 Nov 2017 12:35
Operator : MEI
Sample : ICC171120b,ICC5,A,5ml,100
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:08:36 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	332972	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	469241	50.00	UG		-0.01
50) Chlorobenzene-d5	10.16	117	383489	50.00	UG		-0.01
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	290961	49.82	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.64%				
41) Toluene-d8	8.50	98	566545	50.18	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 100.36%				
59) Bromofluorobenzene	11.57	95	233301	52.80	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 105.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.71	85	12680	3.21	UG		100
3) Chloromethane	1.85	50	19930	4.80	UG		99
4) Vinyl chloride	1.97	62	19884	4.15	UG		99
5) Bromomethane	2.32	94	12814	5.14	UG		100
6) Chloroethane	2.42	64	13221	4.64	UG		97
7) Trichlorofluoromethane	2.72	101	19753	3.38	UG		100
8) Acrolein	3.19	56	16345m	79.40	UG		
9) 1,1-Dichloroethene	3.33	96	11463	3.80	UG	#	16
10) Acetone	3.38	43	7762m	8.69	UG		
11) Carbon disulfide	3.58	76	39023	3.98	UG		100
12) Vinyl acetate	4.84	43	54983	4.76	UG	#	99
13) Methylene chloride	3.90	84	19806	5.09	UG		99
14) Acrylonitrile	4.18	53	100510m	95.74	UG		
15) tert-Butyl alcohol (TBA)	4.06	59	3343m	7.60	UG		
16) trans-1,2-Dichloroethene	4.24	96	17879	4.82	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	63356	5.02	UG		100
18) 1,1-Dichloroethane	4.72	63	47610	4.62	UG		99
19) Diisopropyl ether (DIPE)	4.84	45	78212	4.81	UG		99
20) cis-1,2-Dichloroethene	5.39	96	21143	4.84	UG	#	31
21) 2,2-Dichloropropane	5.40	77	25425	4.19	UG	#	41
22) 2-Butanone (MEK)	5.41	43	12823	8.61	UG		98
23) Bromochloromethane	5.67	128	9600	4.75	UG		98
25) Chloroform	5.76	83	41171	4.80	UG		98
26) 1,1,1-Trichloroethane	5.98	97	25434	3.77	UG	#	80
27) Carbon tetrachloride	6.17	117	18600m	3.80	UG		
28) 1,1-Dichloropropene	6.16	75	17387	3.36	UG		99
29) 1,2-Dichloroethane (EDC)	6.39	62	40793	4.45	UG		100
32) Benzene	6.39	78	67050	4.50	UG		100
33) Trichloroethene	7.12	95	15611	3.99	UG		88
34) 1,2-Dichloropropane	7.36	63	22196	4.43	UG	#	100
35) Dibromomethane	7.49	93	10594	4.66	UG		93
36) 1,4-Dioxane	7.52	88	34245	1088.64	UG	#	65
37) Bromodichloromethane	7.67	83	22250	4.03	UG		100
38) 2-Chloroethyl vinyl ether	8.01	63	19437	7.29	UG	#	96
39) cis-1,3-Dichloropropene	8.18	75	22878	3.92	UG	#	96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	27385	8.90	UG	#	93
42) Toluene	8.57	92	34491	4.16	UG		99
43) trans-1,3-Dichloropropene	8.80	75	19310	3.62	UG		97
44) 1,1,2-Trichloroethane	9.02	83	10454	4.24	UG		99
45) Tetrachloroethene	9.21	166	9455	3.68	UG		97

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1836.D
Acq On : 20 Nov 2017 12:35
Operator : MEI
Sample : ICC171120b,ICC5,A,5ml,100
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:08:36 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

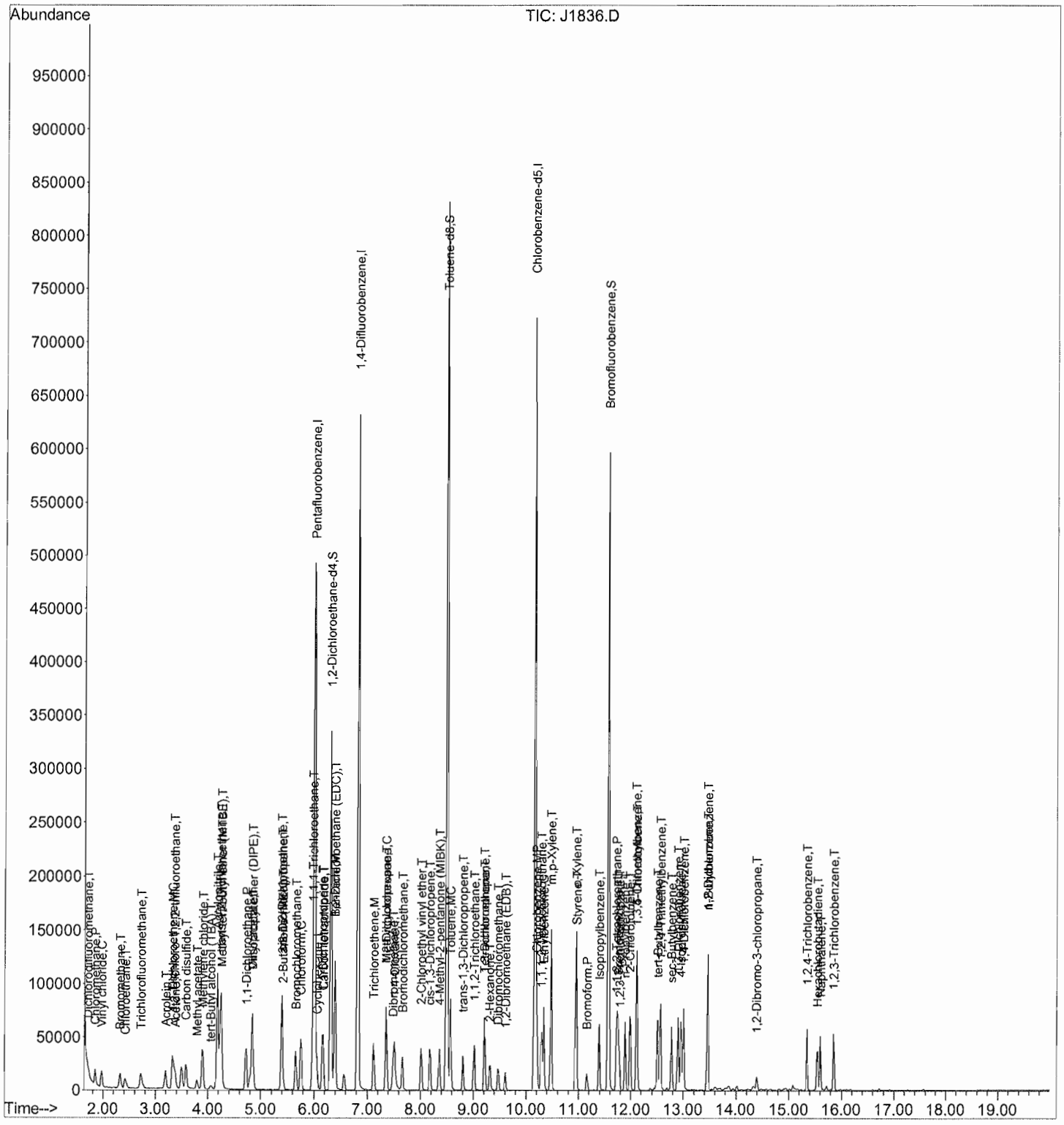
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	22457	4.18	UG		100
47) 2-Hexanone	9.31	43	17674	8.62	UG	#	91
48) Dibromochloromethane	9.47	129	12197	3.80	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	12693	4.24	UG		99
51) Chlorobenzene	10.20	112	38790	4.35	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	14997	4.39	UG		99
53) Ethylbenzene	10.33	91	57815	4.16	UG		99
54) m,p-Xylene	10.48	106	43849	8.65	UG		89
55) o-Xylene	10.95	106	23655	4.67	UG		88
56) Styrene	10.96	104	40760	4.59	UG	#	79
57) Bromoform	11.16	173	8045	3.96	UG		99
58) Isopropylbenzene	11.40	105	45445	3.96	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	12899m	3.09	UG		
61) Bromobenzene	11.75	156	17430	4.78	UG		99
62) 1,2,3-Trichloropropane	11.78	75	18640	4.96	UG		98
63) n-Propylbenzene	11.89	91	50973	4.05	UG		99
64) 2-Chlorotoluene	11.98	91	43081	4.53	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	44628	4.46	UG		96
66) 4-Chlorotoluene	12.12	91	52884	4.68	UG		97
67) tert-Butylbenzene	12.51	119	27095	3.93	UG		93
68) 1,2,4-Trimethylbenzene	12.56	105	49752	4.61	UG		96
69) sec-Butylbenzene	12.77	105	41985	4.01	UG		99
70) 1,3-Dichlorobenzene	12.90	146	29366	4.90	UG		99
71) 4-Isopropyltoluene	12.96	119	38751	4.22	UG		99
72) 1,4-Dichlorobenzene	13.01	146	30182	4.90	UG		100
73) n-Butylbenzene	13.46	92	17689	4.06	UG		98
74) 1,2-Dichlorobenzene	13.46	146	29616	5.15	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	3074m	4.04	UG		
76) 1,2,4-Trichlorobenzene	15.35	180	11097m	3.39	UG		
77) Hexachlorobutadiene	15.55	225	6446m	3.62	UG		
78) Naphthalene	15.61	128	37356	4.84	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	10223m	3.52	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.36	101	7724	3.19	UG		98
81) Methyl acetate	3.79	43	12630	5.11	UG		99
82) Cyclohexane	6.06	56	29354m	5.14	UG		
83) Methylcyclohexane	7.36	55	12709	3.29	UG	#	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1836.D
Acq On : 20 Nov 2017 12:35
Operator : MEI
Sample : ICC171120b,ICC5,A,5ml,100
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:08:36 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1837.D
Acq On : 20 Nov 2017 13:02
Operator : MEI
Sample : ICC171120c,ICC20,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 10:21:15 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	328790	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	481852	50.00	UG		-0.01
50) Chlorobenzene-d5	10.16	117	393390	50.00	UG		-0.01
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	281868	48.88	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 97.76%				
41) Toluene-d8	8.50	98	576257	49.70	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 99.40%				
59) Bromofluorobenzene	11.57	95	226938	50.06	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 100.12%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	66828m	17.13	UG		
3) Chloromethane	1.85	50	83841	20.46	UG		98
4) Vinyl chloride	1.97	62	102685	21.68	UG		99
5) Bromomethane	2.32	94	52321	21.26	UG		99
6) Chloroethane	2.44	64	58487	20.77	UG		98
7) Trichlorofluoromethane	2.72	101	127371	22.04	UG		100
8) Acrolein	3.19	56	37348	183.74	UG		100
9) 1,1-Dichloroethene	3.33	96	61239	20.56	UG	#	16
10) Acetone	3.38	43	33574	38.08	UG	#	96
11) Carbon disulfide	3.58	76	202590	20.92	UG		100
12) Vinyl acetate	4.85	43	205280m	18.00	UG		
13) Methylene chloride	3.89	84	77718	20.21	UG		100
14) Acrylonitrile	4.18	53	201354	194.24	UG		99
15) tert-Butyl alcohol (TBA)	4.06	59	10790m	24.85	UG		
16) trans-1,2-Dichloroethene	4.24	96	78786	21.51	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	240223	19.27	UG		100
18) 1,1-Dichloroethane	4.72	63	211384	20.78	UG		98
19) Diisopropyl ether (DIPE)	4.85	45	344644	21.46	UG		99
20) cis-1,2-Dichloroethene	5.39	96	90057	20.90	UG	#	31
21) 2,2-Dichloropropane	5.40	77	129163	21.58	UG	#	41
22) 2-Butanone (MEK)	5.41	43	60830	41.38	UG		99
23) Bromochloromethane	5.67	128	41551	20.83	UG		96
25) Chloroform	5.76	83	175638	20.74	UG		99
26) 1,1,1-Trichloroethane	5.98	97	140978	21.16	UG	#	80
27) Carbon tetrachloride	6.17	117	100541	20.80	UG		100
28) 1,1-Dichloropropene	6.16	75	108389	21.24	UG		99
29) 1,2-Dichloroethane (EDC)	6.39	62	189390	20.92	UG		99
32) Benzene	6.39	78	322947	21.11	UG		100
33) Trichloroethene	7.12	95	84540	21.03	UG		88
34) 1,2-Dichloropropane	7.37	63	110589	21.49	UG	#	100
35) Dibromomethane	7.49	93	48915	20.95	UG		95
36) 1,4-Dioxane	7.52	88	61593	1906.77	UG	#	65
37) Bromodichloromethane	7.67	83	119516	21.08	UG		99
38) 2-Chloroethyl vinyl ether	8.01	63	117867	43.05	UG	#	96
39) cis-1,3-Dichloropropene	8.18	75	129307	21.60	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	131463	41.63	UG	#	94
42) Toluene	8.57	92	177750	20.87	UG		99
43) trans-1,3-Dichloropropene	8.80	75	118130	21.58	UG		97
44) 1,1,2-Trichloroethane	9.02	83	53183	21.02	UG		97
45) Tetrachloroethene	9.22	166	58199	22.07	UG		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1837.D
Acq On : 20 Nov 2017 13:02
Operator : MEI
Sample : ICC171120c,ICC20,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 10:21:15 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

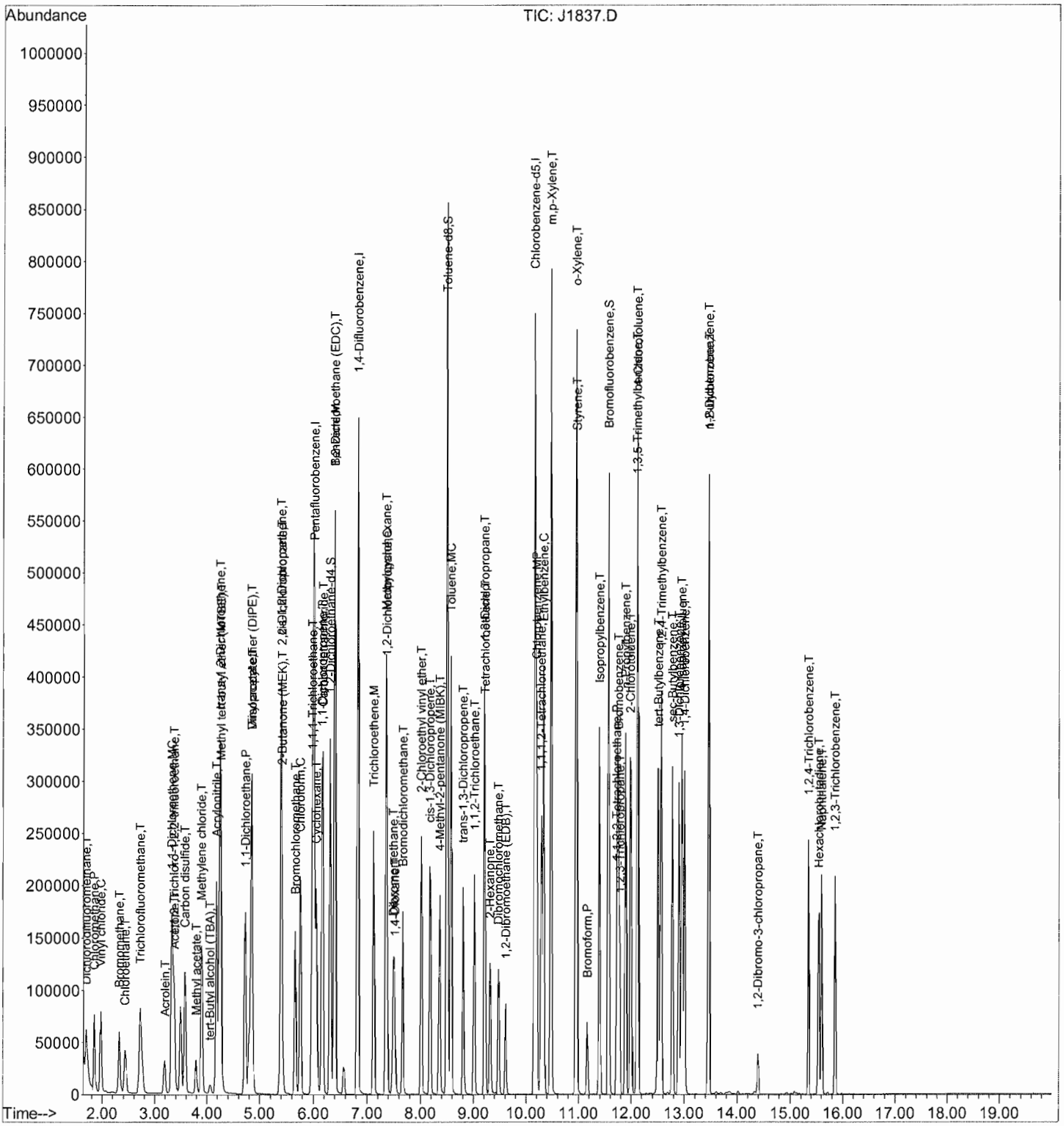
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	116683	21.14	UG		100
47) 2-Hexanone	9.31	43	88379	41.95	UG	#	91
48) Dibromochloromethane	9.47	129	67642	20.54	UG		99
49) 1,2-Dibromoethane (EDB)	9.61	107	64393	20.93	UG		100
51) Chlorobenzene	10.20	112	189806	20.74	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	74642	21.29	UG		98
53) Ethylbenzene	10.33	91	305110	21.38	UG		99
54) m,p-Xylene	10.48	106	226180	43.48	UG		88
55) o-Xylene	10.95	106	114444	22.05	UG		87
56) Styrene	10.96	104	206395	22.66	UG	#	79
57) Bromoform	11.16	173	35349	16.95	UG		100
58) Isopropylbenzene	11.40	105	259021	22.02	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	82904	19.34	UG		99
61) Bromobenzene	11.75	156	80246	21.46	UG		99
62) 1,2,3-Trichloropropane	11.78	75	76579	19.87	UG		98
63) n-Propylbenzene	11.89	91	280362	21.71	UG		99
64) 2-Chlorotoluene	11.98	91	205118	21.00	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	226065	22.03	UG		95
66) 4-Chlorotoluene	12.12	91	246482	21.24	UG		97
67) tert-Butylbenzene	12.51	119	156017	22.05	UG		96
68) 1,2,4-Trimethylbenzene	12.56	105	237344	21.42	UG		96
69) sec-Butylbenzene	12.77	105	234590	21.86	UG		99
70) 1,3-Dichlorobenzene	12.90	146	125773	20.44	UG		100
71) 4-Isopropyltoluene	12.96	119	204249	21.70	UG		99
72) 1,4-Dichlorobenzene	13.01	146	126662	20.03	UG		100
73) n-Butylbenzene	13.46	92	96181	21.54	UG		97
74) 1,2-Dichlorobenzene	13.46	146	122427	20.74	UG		99
75) 1,2-Dibromo-3-chloropropan	14.39	75	10656m	13.66	UG		
76) 1,2,4-Trichlorobenzene	15.35	180	59500m	17.71	UG		
77) Hexachlorobutadiene	15.55	225	27845m	15.26	UG		
78) Naphthalene	15.60	128	150633	19.02	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	51742m	17.36	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	56252	22.67	UG		97
81) Methyl acetate	3.79	43	48422	19.10	UG		98
82) Cyclohexane	6.05	56	146379	24.97	UG	#	84
83) Methylcyclohexane	7.36	55	92592	23.36	UG	#	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1837.D
Acq On : 20 Nov 2017 13:02
Operator : MEI
Sample : ICC171120c,ICC20,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 10:21:15 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1838.D
Acq On : 20 Nov 2017 13:28
Operator : MEI
Sample : ICC171120d,ICC100,A,5ml,100
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 20 14:58:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	335914	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	496284	50.00	UG		-0.01
50) Chlorobenzene-d5	10.16	117	412035	50.00	UG		-0.01
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	294243	49.94	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.88%				
41) Toluene-d8	8.50	98	603566	50.55	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.10%				
59) Bromofluorobenzene	11.57	95	235023	49.50	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	431605	108.29	UG		100
3) Chloromethane	1.85	50	398995	95.31	UG		98
4) Vinyl chloride	1.98	62	504422	104.23	UG		99
5) Bromomethane	2.32	94	243148	96.72	UG		100
6) Chloroethane	2.45	64	282724	98.28	UG		98
7) Trichlorofluoromethane	2.72	101	623622	105.62	UG		100
8) Acrolein	3.19	56	63162	304.15	UG		99
9) 1,1-Dichloroethene	3.33	96	306507	100.71	UG		77
10) Acetone	3.38	43	166223	184.52	UG	#	96
11) Carbon disulfide	3.58	76	1040802	105.21	UG		100
12) Vinyl acetate	4.85	43	1193465	102.46	UG	#	99
13) Methylene chloride	3.89	84	377908	96.18	UG		100
14) Acrylonitrile	4.18	53	297567	280.97	UG		96
15) tert-Butyl alcohol (TBA)	4.07	59	72496	163.44	UG		98
16) trans-1,2-Dichloroethene	4.24	96	381224	101.86	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	1216879	95.54	UG		100
18) 1,1-Dichloroethane	4.72	63	1060494	102.02	UG		98
19) Diisopropyl ether (DIPE)	4.85	45	1673882	102.01	UG		99
20) cis-1,2-Dichloroethene	5.39	96	436568	99.16	UG	#	31
21) 2,2-Dichloropropane	5.40	77	637237	104.22	UG	#	41
22) 2-Butanone (MEK)	5.41	43	313528	208.75	UG		99
23) Bromochloromethane	5.67	128	203733	99.96	UG		96
25) Chloroform	5.76	83	875417	101.16	UG		98
26) 1,1,1-Trichloroethane	5.98	97	738257	108.43	UG		94
27) Carbon tetrachloride	6.17	117	558236	113.06	UG		100
28) 1,1-Dichloropropene	6.16	75	548126	105.13	UG		98
29) 1,2-Dichloroethane (EDC)	6.39	62	937819	101.38	UG		99
32) Benzene	6.39	78	1579670	100.25	UG		100
33) Trichloroethene	7.12	95	431518	104.20	UG		87
34) 1,2-Dichloropropane	7.37	63	543451	102.55	UG	#	100
35) Dibromomethane	7.49	93	249872	103.93	UG		95
36) 1,4-Dioxane	7.52	88	106057	3187.80	UG	#	65
37) Bromodichloromethane	7.67	83	658886	112.81	UG		99
38) 2-Chloroethyl vinyl ether	8.01	63	632348	224.23	UG		97
39) cis-1,3-Dichloropropene	8.18	75	704050	114.20	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	699682	215.11	UG	#	93
42) Toluene	8.57	92	896277	102.17	UG		99
43) trans-1,3-Dichloropropene	8.80	75	661626	117.36	UG		97
44) 1,1,2-Trichloroethane	9.02	83	271133	104.03	UG		98
45) Tetrachloroethene	9.21	166	287410	105.81	UG		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1838.D
Acq On : 20 Nov 2017 13:28
Operator : MEI
Sample : ICC171120d,ICC100,A,5ml,100
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 20 14:58:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

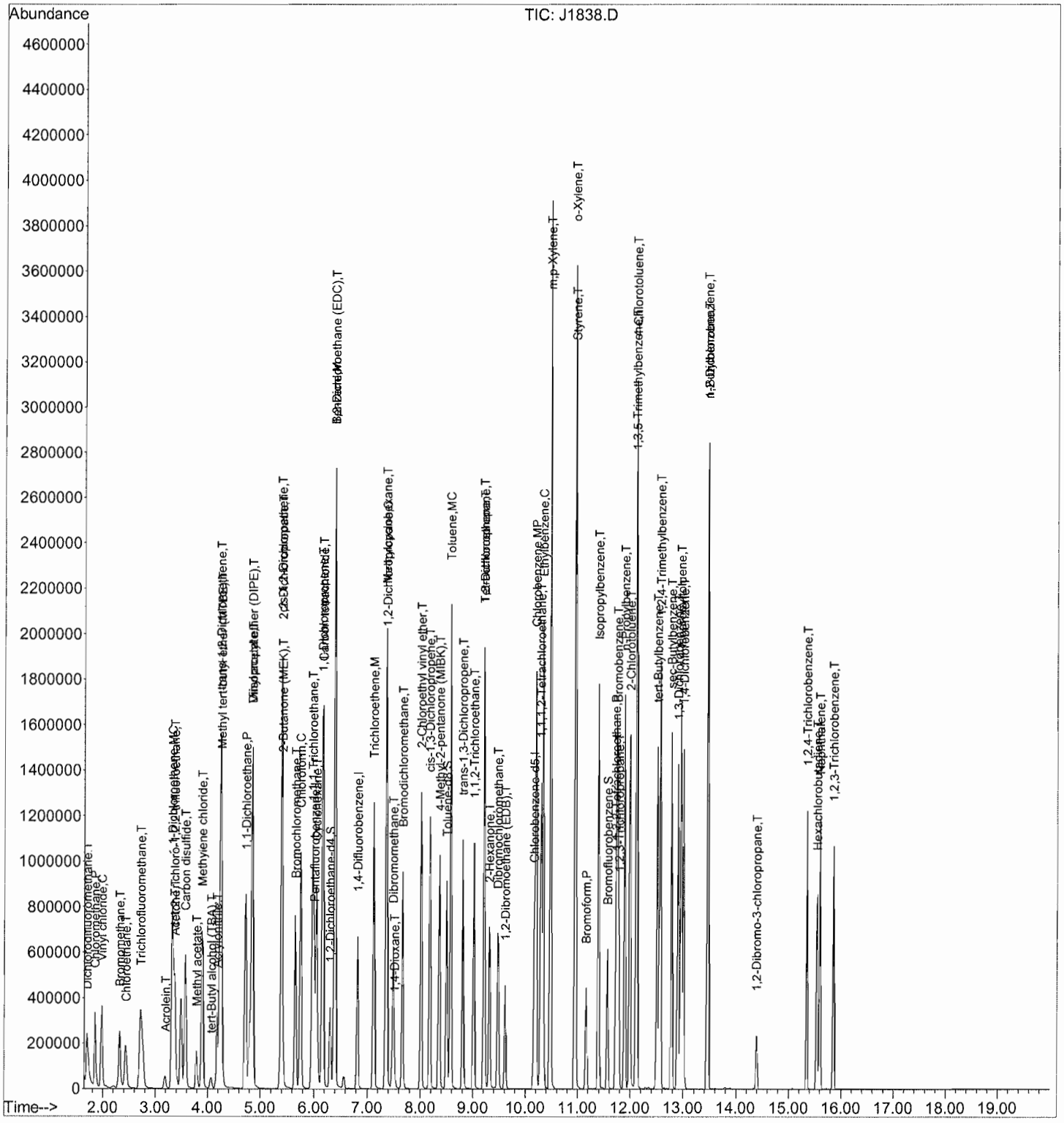
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	598890	105.33	UG		100
47) 2-Hexanone	9.31	43	480154	221.30	UG	#	90
48) Dibromochloromethane	9.47	129	401960	118.49	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	340183	107.35	UG		100
51) Chlorobenzene	10.20	112	926127	96.62	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	398422	108.50	UG		99
53) Ethylbenzene	10.33	91	1548080	103.56	UG		99
54) m,p-Xylene	10.48	106	1117714	205.12	UG		86
55) o-Xylene	10.95	106	557586	102.56	UG		85
56) Styrene	10.96	104	1032477	108.20	UG	#	79
57) Bromoform	11.16	173	221789	101.53	UG		100
58) Isopropylbenzene	11.40	105	1324814	107.53	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	383549	85.41	UG		99
61) Bromobenzene	11.75	156	382800	97.72	UG		100
62) 1,2,3-Trichloropropane	11.78	75	386171	95.65	UG		98
63) n-Propylbenzene	11.89	91	1426371	105.46	UG		99
64) 2-Chlorotoluene	11.99	91	1010487	98.78	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	1123196	104.53	UG		95
66) 4-Chlorotoluene	12.12	91	1211844	99.71	UG		97
67) tert-Butylbenzene	12.51	119	777986	104.96	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	1179984	101.69	UG		96
69) sec-Butylbenzene	12.77	105	1181821	105.14	UG		99
70) 1,3-Dichlorobenzene	12.90	146	605956	94.01	UG		99
71) 4-Isopropyltoluene	12.96	119	1016755	103.14	UG		99
72) 1,4-Dichlorobenzene	13.01	146	620818	93.73	UG		100
73) n-Butylbenzene	13.46	92	482138	103.10	UG		97
74) 1,2-Dichlorobenzene	13.46	146	581057	93.98	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	77228	94.50	UG		92
76) 1,2,4-Trichlorobenzene	15.35	180	334230	94.99	UG		99
77) Hexachlorobutadiene	15.55	225	181443	94.92	UG		100
78) Naphthalene	15.60	128	831713	100.28	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	290156	92.96	UG		100
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	280632	107.96	UG		95
81) Methyl acetate	3.79	43	239892	90.33	UG	#	98
82) Cyclohexane	6.05	56	698618	113.79	UG	#	83
83) Methylcyclohexane	7.36	55	449833	108.36	UG	#	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1838.D
Acq On : 20 Nov 2017 13:28
Operator : MEI
Sample : ICC171120d,ICC100,A,5ml,100
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 20 14:58:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1839.D
Acq On : 20 Nov 2017 13:55
Operator : MEI
Sample : ICC171120e,ICC150,A,5ml,100
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 20 14:58:06 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	337971	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	507402	50.00	UG		0.00
50) Chlorobenzene-d5	10.17	117	424454	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	294903	49.75	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.50%				
41) Toluene-d8	8.50	98	617200	50.55	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.10%				
59) Bromofluorobenzene	11.57	95	241843	49.45	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	622576	155.26	UG		100
3) Chloromethane	1.86	50	588497	139.72	UG		98
4) Vinyl chloride	1.98	62	749307	153.90	UG		99
5) Bromomethane	2.31	94	367404	145.25	UG		100
6) Chloroethane	2.43	64	421034	145.48	UG		98
7) Trichlorofluoromethane	2.72	101	893724	150.45	UG		100
8) Acrolein	3.19	56	79021	378.21	UG		100
9) 1,1-Dichloroethene	3.33	96	452646	147.83	UG		78
10) Acetone	3.38	43	246575	272.05	UG	#	88
11) Carbon disulfide	3.58	76	1577070	158.45	UG		100
12) Vinyl acetate	4.85	43	1702168	145.24	UG	#	99
13) Methylene chloride	3.89	84	571476	144.56	UG		100
14) Acrylonitrile	4.18	53	401223	376.54	UG		97
15) tert-Butyl alcohol (TBA)	4.07	59	109430	245.20	UG	#	97
16) trans-1,2-Dichloroethene	4.24	96	548558	145.67	UG		79
17) Methyl tert-butyl ether (M	4.26	73	1844156	143.90	UG		100
18) 1,1-Dichloroethane	4.72	63	1585543	151.60	UG		99
19) Diisopropyl ether (DIPE)	4.85	45	2493514	151.03	UG		99
20) cis-1,2-Dichloroethene	5.39	96	656750	148.27	UG	#	31
21) 2,2-Dichloropropane	5.40	77	979298	159.19	UG	#	41
22) 2-Butanone (MEK)	5.41	43	458396	303.34	UG		100
23) Bromochloromethane	5.67	128	309562	150.97	UG		96
25) Chloroform	5.76	83	1324157	152.09	UG		99
26) 1,1,1-Trichloroethane	5.98	97	1094574	159.79	UG		95
27) Carbon tetrachloride	6.17	117	830224	167.12	UG		100
28) 1,1-Dichloropropene	6.16	75	800414	152.59	UG		97
29) 1,2-Dichloroethane (EDC)	6.40	62	1408640	151.35	UG		99
32) Benzene	6.39	78	2359535	146.46	UG		100
33) Trichloroethene	7.12	95	651768	153.94	UG		86
34) 1,2-Dichloropropane	7.37	63	814624	150.35	UG	#	100
35) Dibromomethane	7.49	93	380197	154.67	UG		95
36) 1,4-Dioxane	7.52	88	133482	3924.21	UG	#	65
37) Bromodichloromethane	7.67	83	1013268	169.68	UG		98
38) 2-Chloroethyl vinyl ether	8.01	63	939384	325.81	UG		96
39) cis-1,3-Dichloropropene	8.18	75	1077723	170.98	UG	#	96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	1030153	309.77	UG	#	93
42) Toluene	8.57	92	1348643	150.36	UG		99
43) trans-1,3-Dichloropropene	8.80	75	1002036	173.84	UG		97
44) 1,1,2-Trichloroethane	9.02	83	408415	153.27	UG		98
45) Tetrachloroethene	9.22	166	417054	150.17	UG		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1839.D
Acq On : 20 Nov 2017 13:55
Operator : MEI
Sample : ICC171120e,ICC150,A,5ml,100
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 20 14:58:06 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

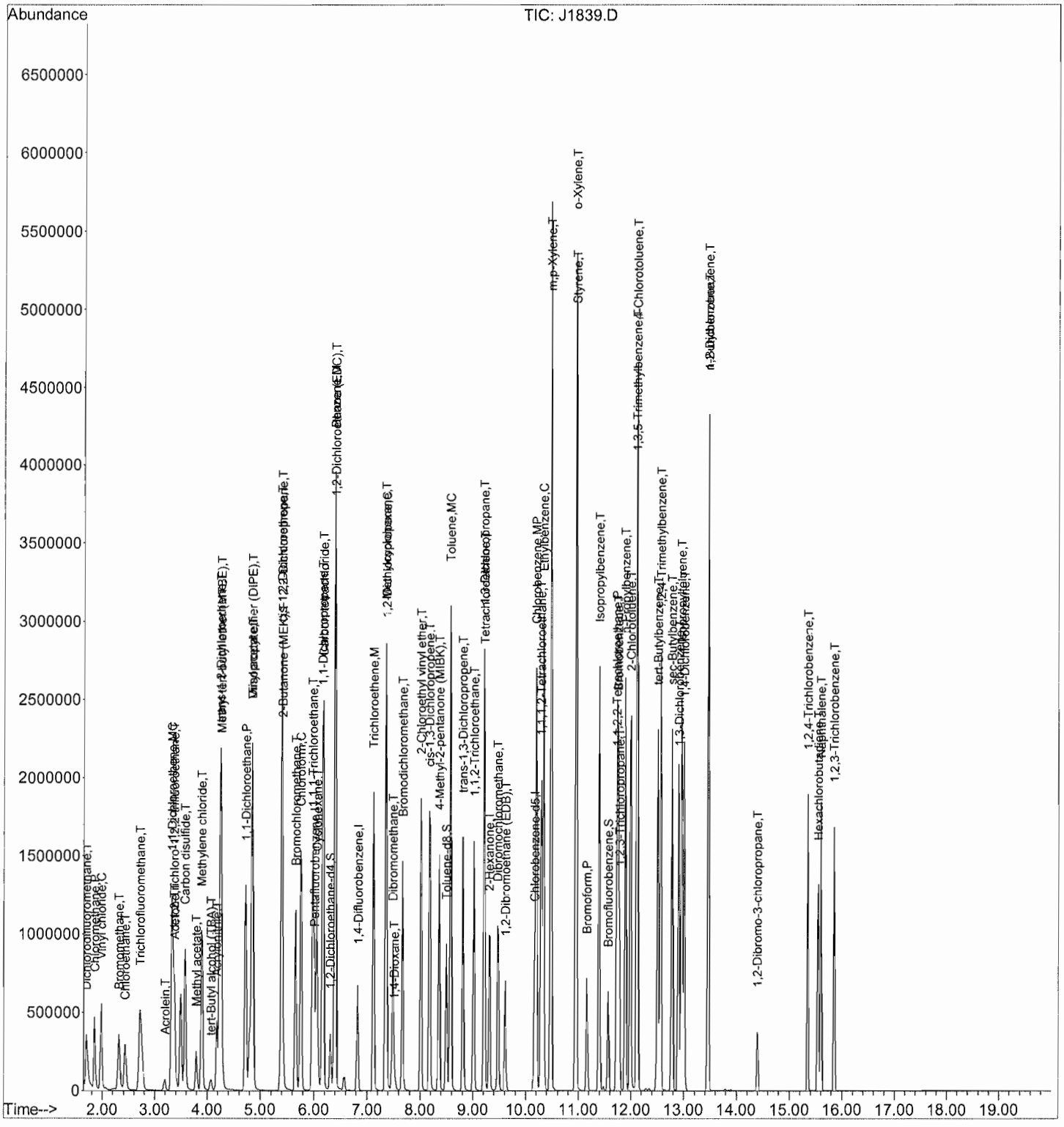
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	887212	152.62	UG		100
47) 2-Hexanone	9.31	43	691452	311.70	UG	#	90
48) Dibromochloromethane	9.47	129	617133	177.93	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	511106	157.75	UG		100
51) Chlorobenzene	10.20	112	1401939	141.99	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	608554	160.88	UG		99
53) Ethylbenzene	10.33	91	2332155	151.44	UG		98
54) m,p-Xylene	10.48	106	1665138	296.64	UG		85
55) o-Xylene	10.95	106	840791	150.13	UG		85
56) Styrene	10.96	104	1553100	158.00	UG	#	79
57) Bromoform	11.16	173	344673	153.16	UG		100
58) Isopropylbenzene	11.40	105	2002541	157.78	UG		98
60) 1,1,2,2-Tetrachloroethane	11.73	83	560090	121.08	UG		99
61) Bromobenzene	11.75	156	572919	141.97	UG		100
62) 1,2,3-Trichloropropane	11.78	75	576265	138.55	UG		98
63) n-Propylbenzene	11.89	91	2159427	154.99	UG		98
64) 2-Chlorotoluene	11.99	91	1539080	146.06	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	1708718	154.36	UG		95
66) 4-Chlorotoluene	12.12	91	1824429	145.72	UG		97
67) tert-Butylbenzene	12.51	119	1180728	154.64	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	1807352	151.20	UG		96
69) sec-Butylbenzene	12.77	105	1815324	156.78	UG		99
70) 1,3-Dichlorobenzene	12.91	146	916134	137.98	UG		100
71) 4-Isopropyltoluene	12.96	119	1569800	154.58	UG		99
72) 1,4-Dichlorobenzene	13.01	146	944864	138.48	UG		100
73) n-Butylbenzene	13.46	92	738409	153.28	UG		97
74) 1,2-Dichlorobenzene	13.46	146	892575	140.14	UG		99
75) 1,2-Dibromo-3-chloropropan	14.39	75	122881	145.96	UG		92
76) 1,2,4-Trichlorobenzene	15.35	180	530312	146.30	UG		100
77) Hexachlorobutadiene	15.55	225	275361	139.84	UG		100
78) Naphthalene	15.60	128	1316229	154.05	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	460956	143.36	UG		100
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	396883	148.22	UG		96
81) Methyl acetate	3.79	43	360721	131.85	UG	#	98
82) Cyclohexane	6.06	56	991149	156.72	UG	#	83
83) Methylcyclohexane	7.36	55	628013	146.86	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1839.D
Acq On : 20 Nov 2017 13:55
Operator : MEI
Sample : ICC171120e,ICC150,A,5ml,100
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 20 14:58:06 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1840.D
Acq On : 20 Nov 2017 14:21
Operator : MEI
Sample : ICC171120f,ICC200,A,5ml,100
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 09:48:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	351383	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	523910	50.00	UG		0.00
50) Chlorobenzene-d5	10.17	117	440471	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	303166	49.19	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 98.38%				
41) Toluene-d8	8.50	98	645845	51.23	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 102.46%				
59) Bromofluorobenzene	11.57	95	248714	49.00	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	849246m	203.70	UG		
3) Chloromethane	1.85	50	803122	183.40	UG		98
4) Vinyl chloride	1.98	62	1089785	215.28	UG		99
5) Bromomethane	2.30	94	479886	182.48	UG		100
6) Chloroethane	2.42	64	580255	192.84	UG		98
7) Trichlorofluoromethane	2.71	101	1334212	216.03	UG		100
8) Acrolein	3.19	56	103325	475.65	UG		100
9) 1,1-Dichloroethene	3.32	96	659061	207.03	UG		79
10) Acetone	3.38	43	341070	361.94	UG	#	95
11) Carbon disulfide	3.57	76	2288055	221.12	UG		100
12) Vinyl acetate	4.84	43	2195803	180.21	UG	#	99
13) Methylene chloride	3.89	84	780111	189.80	UG		100
14) Acrylonitrile	4.18	53	511710	461.90	UG		96
15) tert-Butyl alcohol (TBA)	4.08	59	155232	334.56	UG	#	91
16) trans-1,2-Dichloroethene	4.24	96	776275	198.27	UG		78
17) Methyl tert-butyl ether (M	4.26	73	2547179	191.18	UG		100
18) 1,1-Dichloroethane	4.72	63	2225005	204.62	UG		99
19) Diisopropyl ether (DIPE)	4.84	45	3368079	196.22	UG		99
20) cis-1,2-Dichloroethene	5.39	96	895524	194.46	UG	#	31
21) 2,2-Dichloropropane	5.40	77	1316906	205.90	UG	#	41
22) 2-Butanone (MEK)	5.41	43	622428	396.17	UG		100
23) Bromochloromethane	5.67	128	426426	200.02	UG		96
25) Chloroform	5.76	83	1823634	201.46	UG		99
26) 1,1,1-Trichloroethane	5.98	97	1585411	222.61	UG		95
27) Carbon tetrachloride	6.17	117	1235619	239.23	UG		99
28) 1,1-Dichloropropene	6.16	75	1163543	213.35	UG		96
29) 1,2-Dichloroethane (EDC)	6.40	62	1945273	201.04	UG		99
32) Benzene	6.39	78	3307958	198.87	UG		100
33) Trichloroethene	7.12	95	928826	212.46	UG		87
34) 1,2-Dichloropropane	7.37	63	1125335	201.15	UG	#	100
35) Dibromomethane	7.49	93	520578	205.10	UG		95
36) 1,4-Dioxane	7.52	88	186434	5308.23	UG	#	65
37) Bromodichloromethane	7.67	83	1416886	229.79	UG		98
38) 2-Chloroethyl vinyl ether	8.01	63	1333557	447.95	UG		96
39) cis-1,3-Dichloropropene	8.18	75	1510462	232.09	UG	#	96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	1428323	415.96	UG	#	93
42) Toluene	8.57	92	1910199	206.26	UG		98
43) trans-1,3-Dichloropropene	8.80	75	1427453	239.84	UG		97
44) 1,1,2-Trichloroethane	9.02	83	575307	209.10	UG		97
45) Tetrachloroethene	9.22	166	599395	209.03	UG		96

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1840.D
Acq On : 20 Nov 2017 14:21
Operator : MEI
Sample : ICC171120f,ICC200,A,5ml,100
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 09:48:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration

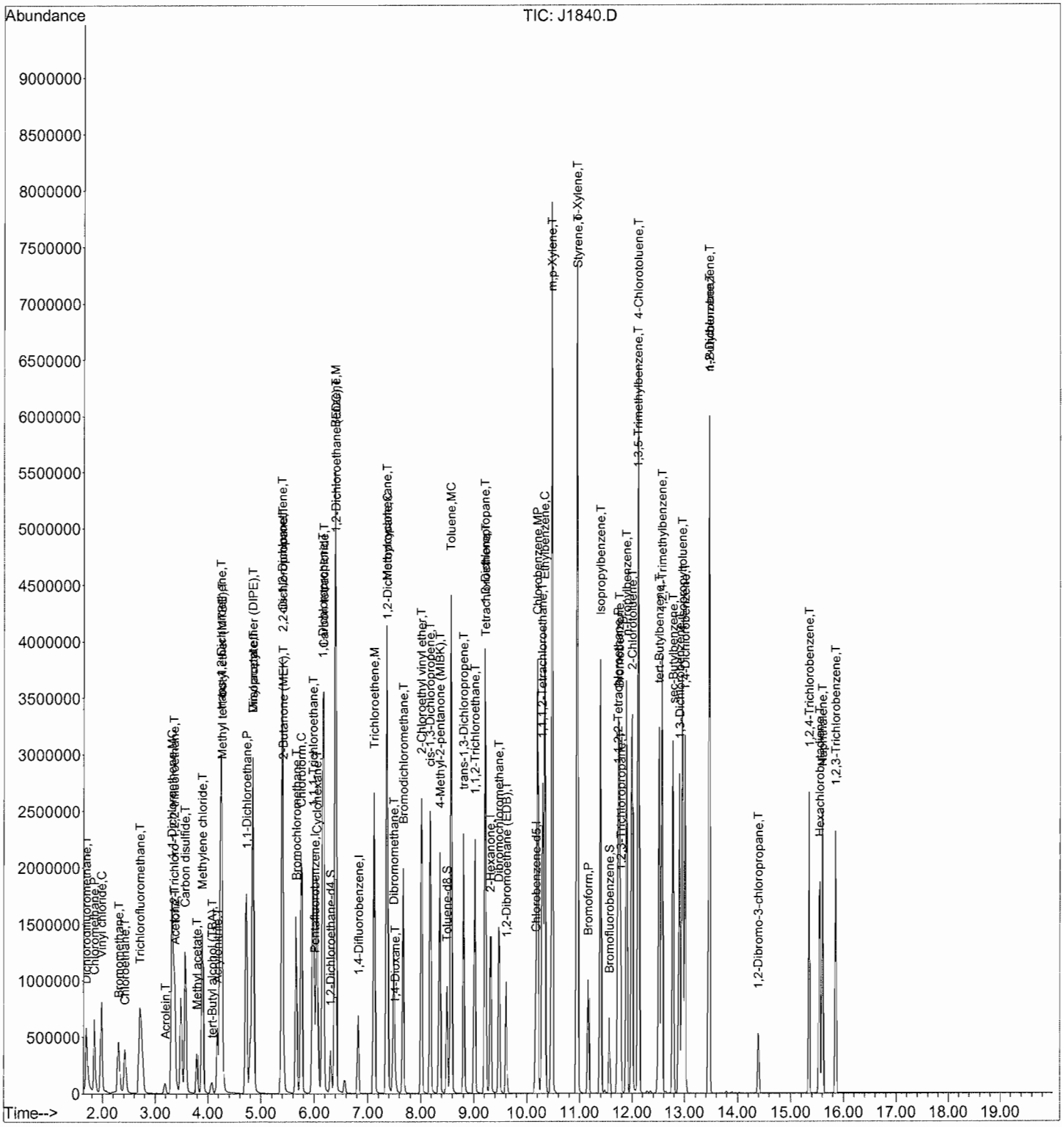
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	1251501	208.51	UG		100
47) 2-Hexanone	9.31	43	976317	426.25	UG	#	90
48) Dibromochloromethane	9.47	129	879990	245.73	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	722876	216.09	UG		100
51) Chlorobenzene	10.20	112	1969994	192.26	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	843175	214.80	UG		99
53) Ethylbenzene	10.33	91	3336069	208.75	UG		98
54) m,p-Xylene	10.48	106	2356680	404.57	UG		84
55) o-Xylene	10.95	106	1162968	200.10	UG		84
56) Styrene	10.96	104	2178042	213.52	UG	#	79
57) Bromoform	11.16	173	490745	210.15	UG		100
58) Isopropylbenzene	11.40	105	2862794	217.35	UG		98
60) 1,1,2,2-Tetrachloroethane	11.73	83	761878	158.71	UG		99
61) Bromobenzene	11.75	156	788037	188.18	UG		100
62) 1,2,3-Trichloropropane	11.78	75	805476	186.62	UG		98
63) n-Propylbenzene	11.89	91	3085871	213.43	UG		98
64) 2-Chlorotoluene	11.99	91	2160147	197.54	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	2382668	207.42	UG		95
66) 4-Chlorotoluene	12.12	91	2543293	195.76	UG		97
67) tert-Butylbenzene	12.51	119	1670000	210.76	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	2543371	205.03	UG		95
69) sec-Butylbenzene	12.78	105	2602374	216.58	UG		99
70) 1,3-Dichlorobenzene	12.91	146	1274839	185.02	UG		100
71) 4-Isopropyltoluene	12.96	119	2224537	211.09	UG		99
72) 1,4-Dichlorobenzene	13.01	146	1299282	183.50	UG		100
73) n-Butylbenzene	13.46	92	1053908	210.82	UG		97
74) 1,2-Dichlorobenzene	13.46	146	1208273	182.81	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	172166	197.06	UG		93
76) 1,2,4-Trichlorobenzene	15.35	180	734431	195.25	UG		100
77) Hexachlorobutadiene	15.55	225	391823	191.75	UG		100
78) Naphthalene	15.60	128	1818227	205.07	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	638508	191.36	UG		100
80) 1,1,2-Trichloro-1,2,2-trif	3.36	101	621342	223.61	UG		96
81) Methyl acetate	3.79	43	500174	176.18	UG	#	97
82) Cyclohexane	6.05	56	1501641	228.80	UG	#	82
83) Methylcyclohexane	7.36	55	964170	217.27	UG	#	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1840.D
Acq On : 20 Nov 2017 14:21
Operator : MEI
Sample : ICC171120f,ICC200,A,5ml,100
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 09:48:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Nov 20 14:43:03 2017
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1843.D
Acq On : 20 Nov 2017 15:40
Operator : MEI
Sample : ICV171120,ICV100,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 10:29:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue Nov 21 10:24:55 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	107	0.00
2	T	Dichlorodifluoromethane	0.554	0.614	-10.8	102	0.00
3	P	Chloromethane	0.590	0.558	5.4	100	0.00
4	C	Vinyl chloride	0.720	0.726	-0.8	103	0.00
5	T	Bromomethane	0.374	0.347	7.2	102	0.00
6	T	Chloroethane	0.428	0.404	5.6	103	0.00
7	T	Trichlorofluoromethane	0.879	0.884	-0.6	102	0.00
8	T	Acrolein	0.028	0.024	14.3	82	0.00
9	MC	1,1-Dichloroethene	0.453	0.436	3.8	102	0.00
10	T	Acetone	0.119	0.114	4.2	99	0.00
11	T	Carbon disulfide	1.472	1.500	-1.9	104	0.00
12	T	Vinyl acetate	1.608	1.663	-3.4	100	0.00
13	T	Methylene chloride	0.561	0.532	5.2	101	0.00
14	T	Acrylonitrile	0.146	0.121	17.1	88	0.00
15	T	tert-Butyl alcohol (TBA)	0.051	0.051	0.0	101	0.00
16	T	trans-1,2-Dichloroethene	0.557	0.548	1.6	103	0.00
17	T	Methyl tert-butyl ether (MT	1.896	1.714	9.6	101	0.00
18	P	1,1-Dichloroethane	1.547	1.496	3.3	101	0.00
19	T	Diisopropyl ether (DIPE)	2.443	2.361	3.4	101	0.00
20	T	cis-1,2-Dichloroethene	0.655	0.618	5.6	102	0.00
21	T	2,2-Dichloropropane	0.910	0.928	-2.0	105	0.00
22	T	2-Butanone (MEK)	0.224	0.217	3.1	99	0.00
23	T	Bromochloromethane	0.303	0.288	5.0	102	0.00
25	C	Chloroform	1.288	1.234	4.2	101	0.00
26	T	1,1,1-Trichloroethane	1.013	1.042	-2.9	101	0.00
27	T	Carbon tetrachloride	0.749	0.792	-5.7	102	0.00
28	T	1,1-Dichloropropene	0.776	0.777	-0.1	102	0.00
29	T	1,2-Dichloroethane (EDC)	1.377	1.313	4.6	101	0.00
30	S	1,2-Dichloroethane-d4	0.877	0.863	1.6	105	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.00
32	M	Benzene	1.588	1.496	5.8	101	0.00
33	M	Trichloroethene	0.417	0.408	2.2	100	0.00
34	C	1,2-Dichloropropane	0.534	0.511	4.3	100	0.00
35	T	Dibromomethane	0.242	0.236	2.5	101	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	104	0.00
37	T	Bromodichloromethane	0.588	0.617	-4.9	100	0.00
38	T	2-Chloroethyl vinyl ether	0.284	0.290	-2.1	97	0.00
39	T	cis-1,3-Dichloropropene	0.621	0.658	-6.0	99	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.328	0.325	0.9	99	0.00
41	S	Toluene-d8	1.203	1.204	-0.1	106	0.00
42	MC	Toluene	0.884	0.851	3.7	101	0.00

43	T	trans-1,3-Dichloropropene	0.568	0.607	-6.9	97	0.00
44	T	1,1,2-Trichloroethane	0.263	0.252	4.2	99	0.00
45	T	Tetrachloroethene	0.274	0.273	0.4	101	0.00
46	T	1,3-Dichloropropane	0.573	0.549	4.2	97	0.00
47	T	2-Hexanone	0.219	0.217	0.9	96	0.00
48	T	Dibromochloromethane	0.352	0.376	-6.8	99	0.00
49	T	1,2-Dibromoethane (EDB)	0.319	0.317	0.6	99	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
51	MP	Chlorobenzene	1.163	1.071	7.9	101	0.00
52	T	1,1,1,2-Tetrachloroethane	0.446	0.460	-3.1	101	0.00
53	C	Ethylbenzene	1.814	1.785	1.6	101	0.00
54	T	m,p-Xylene	0.661	0.643	2.7	100	0.00
55	T	o-Xylene	0.660	0.651	1.4	102	0.00
56	T	Styrene	1.158	1.190	-2.8	101	0.00
57	P	Bromoform	0.239	0.251	-5.0	99	0.00
58	T	Isopropylbenzene	1.495	1.535	-2.7	101	0.00
59	S	Bromofluorobenzene	0.576	0.573	0.5	106	0.00
60	P	1,1,2,2-Tetrachloroethane	0.458	0.443	3.3	101	0.00
61	T	Bromobenzene	0.475	0.441	7.2	101	0.00
62	T	1,2,3-Trichloropropane	0.490	0.440	10.2	99	0.00
63	T	n-Propylbenzene	1.641	1.645	-0.2	101	0.00
64	T	2-Chlorotoluene	1.241	1.175	5.3	101	0.00
65	T	1,3,5-Trimethylbenzene	1.304	1.307	-0.2	101	0.00
66	T	4-Chlorotoluene	1.475	1.392	5.6	100	0.00
67	T	tert-Butylbenzene	0.899	0.914	-1.7	102	0.00
68	T	1,2,4-Trimethylbenzene	1.408	1.388	1.4	103	0.00
69	T	sec-Butylbenzene	1.364	1.384	-1.5	102	0.00
70	T	1,3-Dichlorobenzene	0.782	0.700	10.5	101	0.00
71	T	4-Isopropyltoluene	1.196	1.200	-0.3	103	0.00
72	T	1,4-Dichlorobenzene	0.804	0.723	10.1	102	0.00
73	T	n-Butylbenzene	0.567	0.567	0.0	102	0.00
74	T	1,2-Dichlorobenzene	0.750	0.675	10.0	101	0.00
75	T	1,2-Dibromo-3-chloropropane	0.086	0.089	-3.5	101	0.00
76	T	1,2,4-Trichlorobenzene	0.369	0.386	-4.6	101	0.00
77	T	Hexachlorobutadiene	0.196	0.220	-12.2	106	0.00
78	T	Naphthalene	0.962	0.981	-2.0	103	0.00
79	T	1,2,3-Trichlorobenzene	0.322	0.341	-5.9	103	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.315	0.328	-4.1	102	0.00
81	T	Methyl acetate	0.289	0.279	3.5	101	0.00
82	T	Cyclohexane	0.851	0.821	3.5	103	0.00
83	T	Methylcyclohexane	0.504	0.522	-3.6	101	0.00

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

JM112017.M Tue Nov 21 10:29:55 2017 RT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1843.D
Acq On : 20 Nov 2017 15:40
Operator : MEI
Sample : ICV171120,ICV100,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 10:29:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue Nov 21 10:24:55 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	359135	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	531316	50.00	UG		0.00
50) Chlorobenzene-d5	10.17	117	436120	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	309962	49.21	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 98.42%				
41) Toluene-d8	8.50	98	639504	50.02	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 100.04%				
59) Bromofluorobenzene	11.57	95	249707	49.69	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	441247	110.79	UG		100
3) Chloromethane	1.85	50	400565	94.54	UG		98
4) Vinyl chloride	1.98	62	521571	100.81	UG		99
5) Bromomethane	2.32	94	249143	92.69	UG		99
6) Chloroethane	2.45	64	289976	94.29	UG		98
7) Trichlorofluoromethane	2.72	101	634807	100.56	UG		100
8) Acrolein	3.19	56	51718	259.17	UG		100
9) 1,1-Dichloroethene	3.33	96	312835	96.15	UG	#	16
10) Acetone	3.38	43	164312	192.41	UG	#	95
11) Carbon disulfide	3.58	76	1077565	101.89	UG		100
12) Vinyl acetate	4.84	43	1194456	103.40	UG	#	99
13) Methylene chloride	3.89	84	381972	94.74	UG		100
14) Acrylonitrile	4.18	53	261576	249.67	UG		96
15) tert-Butyl alcohol (TBA)	4.07	59	73290	200.94	UG		97
16) trans-1,2-Dichloroethene	4.24	96	393865	98.43	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	1231000	90.40	UG		100
18) 1,1-Dichloroethane	4.72	63	1074640	96.70	UG		98
19) Diisopropyl ether (DIPE)	4.84	45	1695699	96.65	UG		99
20) cis-1,2-Dichloroethene	5.39	96	444001	94.33	UG	#	31
21) 2,2-Dichloropropane	5.40	77	666208	101.91	UG	#	41
22) 2-Butanone (MEK)	5.41	43	311358	193.90	UG		99
23) Bromochloromethane	5.67	128	207191	95.09	UG		96
25) Chloroform	5.76	83	886467	95.82	UG		99
26) 1,1,1-Trichloroethane	5.98	97	748281	102.80	UG		94
27) Carbon tetrachloride	6.17	117	568879	105.71	UG		100
28) 1,1-Dichloropropene	6.16	75	558347	100.17	UG		98
29) 1,2-Dichloroethane (EDC)	6.40	62	943072	95.36	UG		99
32) Benzene	6.39	78	1590058	94.26	UG		100
33) Trichloroethene	7.12	95	433326	97.74	UG		87
34) 1,2-Dichloropropane	7.37	63	542705	95.65	UG		100
35) Dibromomethane	7.49	93	251185	97.58	UG		95
36) 1,4-Dioxane	7.52	88	110049m	3089.69	UG		
37) Bromodichloromethane	7.67	83	656008	104.91	UG		99
38) 2-Chloroethyl vinyl ether	8.01	63	615714	203.94	UG		97
39) cis-1,3-Dichloropropene	8.18	75	699088	105.92	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	690035	198.15	UG	#	93
42) Toluene	8.57	92	904699	96.33	UG		99
43) trans-1,3-Dichloropropene	8.80	75	644809	106.83	UG		97
44) 1,1,2-Trichloroethane	9.02	83	268241	96.14	UG		98
45) Tetrachloroethene	9.21	166	289568	99.57	UG		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1843.D
Acq On : 20 Nov 2017 15:40
Operator : MEI
Sample : ICV171120,ICV100,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 10:29:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue Nov 21 10:24:55 2017
Response via : Initial Calibration

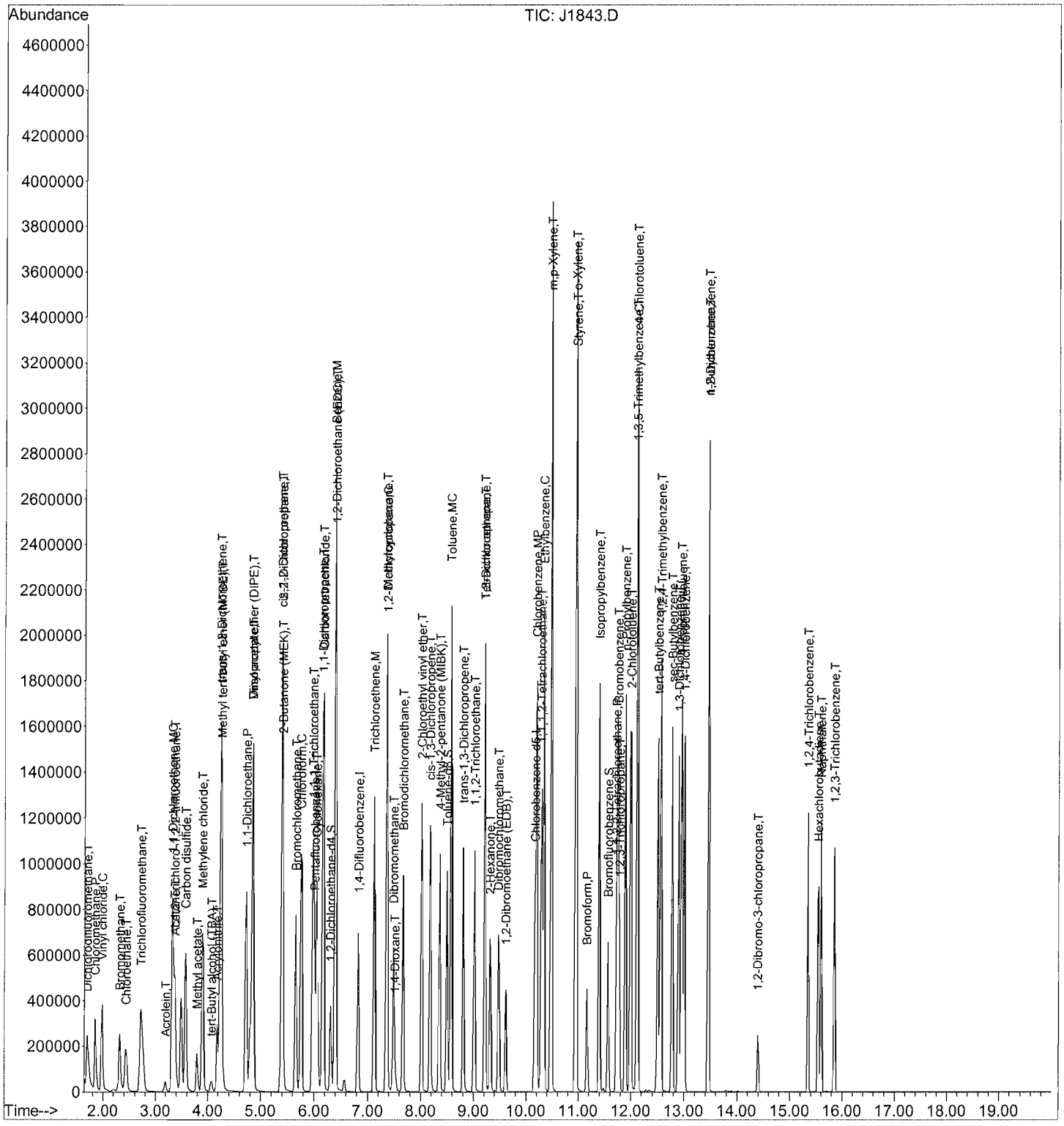
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	582930	95.77	UG		100
47) 2-Hexanone	9.31	43	460538	198.26	UG	#	91
48) Dibromochloromethane	9.47	129	399691	106.73	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	336645	99.23	UG		100
51) Chlorobenzene	10.20	112	934004	92.06	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	401392	103.28	UG		99
53) Ethylbenzene	10.33	91	1556932	98.40	UG		99
54) m,p-Xylene	10.48	106	1121994	194.54	UG		86
55) o-Xylene	10.95	106	567478	98.61	UG		85
56) Styrene	10.96	104	1038003	102.77	UG	#	79
57) Bromoform	11.16	173	219247	105.17	UG		100
58) Isopropylbenzene	11.40	105	1338588	102.64	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	386626	96.82	UG		99
61) Bromobenzene	11.75	156	385001	92.85	UG		100
62) 1,2,3-Trichloropropane	11.78	75	383662	89.78	UG		98
63) n-Propylbenzene	11.89	91	1435185	100.26	UG		99
64) 2-Chlorotoluene	11.99	91	1025257	94.69	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	1139587	100.19	UG		95
66) 4-Chlorotoluene	12.12	91	1214554	94.42	UG		97
67) tert-Butylbenzene	12.51	119	797168	101.61	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	1210536	98.56	UG		96
69) sec-Butylbenzene	12.77	105	1206996	101.45	UG		99
70) 1,3-Dichlorobenzene	12.90	146	610311	89.46	UG		100
71) 4-Isopropyltoluene	12.96	119	1046883	100.33	UG		99
72) 1,4-Dichlorobenzene	13.01	146	630707	89.96	UG		100
73) n-Butylbenzene	13.46	92	494126	99.83	UG		97
74) 1,2-Dichlorobenzene	13.46	146	589052	90.01	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	77818	103.31	UG		92
76) 1,2,4-Trichlorobenzene	15.35	180	336678	104.49	UG		100
77) Hexachlorobutadiene	15.55	225	192287	112.58	UG		100
78) Naphthalene	15.60	128	855287	101.95	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	297730	105.94	UG		99
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	286048	103.97	UG		95
81) Methyl acetate	3.79	43	243226	96.43	UG		98
82) Cyclohexane	6.05	56	716517	96.52	UG	#	57
83) Methylcyclohexane	7.36	55	455686	103.71	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1843.D
Acq On : 20 Nov 2017 15:40
Operator : MEI
Sample : ICV171120,ICV100,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 10:29:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue Nov 21 10:24:55 2017
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2219.D
Acq On : 13 Dec 2017 10:12
Operator : MEI
Sample : CCV100,CCV171213,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 14:25:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	74	0.00
2	T	Dichlorodifluoromethane	0.554	0.628	-13.4	72	0.00
3	P	Chloromethane	0.590	0.676	-14.6	84	0.00
4	C	Vinyl chloride	0.720	0.827	-14.9	81	0.00
5	T	Bromomethane	0.374	0.447	-19.5	91	-0.01
6	T	Chloroethane	0.428	0.491	-14.7	86	-0.01
7	T	Trichlorofluoromethane	0.879	0.954	-8.5	76	0.00
8	T	Acrolein	0.028	0.027	3.6	63	0.00
9	MC	1,1-Dichloroethene	0.453	0.513	-13.2	83	0.00
10	T	Acetone	0.119	0.114	4.2	68	0.00
11	T	Carbon disulfide	1.472	1.731	-17.6	82	0.00
12	T	Vinyl acetate	1.608	1.857	-15.5	77	0.00
13	T	Methylene chloride	0.561	0.650	-15.9	85	0.00
14	T	Acrylonitrile	0.146	0.172	-17.8	86	0.00
15	T	tert-Butyl alcohol (TBA)	0.051	0.048	5.9	66	0.00
16	T	trans-1,2-Dichloroethene	0.557	0.625	-12.2	81	0.00
17	T	Methyl tert-butyl ether (MT	1.896	1.811	4.5	74	0.00
18	P	1,1-Dichloroethane	1.547	1.702	-10.0	79	0.00
19	T	Diisopropyl ether (DIPE)	2.443	2.563	-4.9	76	0.00
20	T	cis-1,2-Dichloroethene	0.655	0.710	-8.4	81	0.00
21	T	2,2-Dichloropropane	0.910	1.090	-19.8	85	0.00
22	T	2-Butanone (MEK)	0.224	0.198	11.6	63	0.00
23	T	Bromochloromethane	0.303	0.317	-4.6	77	0.00
25	C	Chloroform	1.288	1.448	-12.4	82	0.00
26	T	1,1,1-Trichloroethane	1.013	1.210	-19.4	81	0.00
27	T	Carbon tetrachloride	0.749	0.880	-17.5	78	0.00
28	T	1,1-Dichloropropene	0.776	0.845	-8.9	76	0.00
29	T	1,2-Dichloroethane (EDC)	1.377	1.440	-4.6	76	0.00
30	S	1,2-Dichloroethane-d4	0.877	0.920	-4.9	77	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	76	0.00
32	M	Benzene	1.588	1.621	-2.1	78	0.00
33	M	Trichloroethene	0.417	0.430	-3.1	76	0.00
34	C	1,2-Dichloropropane	0.534	0.547	-2.4	76	-0.01
35	T	Dibromomethane	0.242	0.242	0.0	74	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	71	0.00
37	T	Bromodichloromethane	0.588	0.675	-14.8	78	0.00
38	T	2-Chloroethyl vinyl ether	0.284	0.272	4.2	65	0.00
39	T	cis-1,3-Dichloropropene	0.621	0.693	-11.6	75	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.328	0.294	10.4	64	0.00
41	S	Toluene-d8	1.203	1.252	-4.1	79	0.00
42	MC	Toluene	0.884	0.898	-1.6	76	0.00

43	T	trans-1,3-Dichloropropene	0.568	0.633	-11.4	73	0.00
44	T	1,1,2-Trichloroethane	0.263	0.256	2.7	72	0.00
45	T	Tetrachloroethene	0.274	0.285	-4.0	75	0.00
46	T	1,3-Dichloropropane	0.573	0.558	2.6	71	0.00
47	T	2-Hexanone	0.219	0.193	11.9	61	0.00
48	T	Dibromochloromethane	0.352	0.391	-11.1	74	0.00
49	T	1,2-Dibromoethane (EDB)	0.319	0.318	0.3	71	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
51	MP	Chlorobenzene	1.163	1.055	9.3	75	0.00
52	T	1,1,1,2-Tetrachloroethane	0.446	0.477	-7.0	79	0.00
53	C	Ethylbenzene	1.814	1.790	1.3	76	0.00
54	T	m,p-Xylene	0.661	0.641	3.0	76	0.00
55	T	o-Xylene	0.660	0.651	1.4	77	0.00
56	T	Styrene	1.158	1.202	-3.8	77	0.00
57	P	Bromoform	0.239	0.237	0.8	71	0.00
58	T	Isopropylbenzene	1.495	1.601	-7.1	80	0.00
59	S	Bromofluorobenzene	0.576	0.558	3.1	78	0.00
60	P	1,1,2,2-Tetrachloroethane	0.458	0.408	10.9	70	0.00
61	T	Bromobenzene	0.475	0.434	8.6	75	0.00
62	T	1,2,3-Trichloropropane	0.490	0.409	16.5	70	0.00
63	T	n-Propylbenzene	1.641	1.671	-1.8	77	0.00
64	T	2-Chlorotoluene	1.241	1.208	2.7	79	-0.01
65	T	1,3,5-Trimethylbenzene	1.304	1.374	-5.4	81	0.00
66	T	4-Chlorotoluene	1.475	1.445	2.0	79	0.00
67	T	tert-Butylbenzene	0.899	0.942	-4.8	80	0.00
68	T	1,2,4-Trimethylbenzene	1.408	1.444	-2.6	81	0.00
69	T	sec-Butylbenzene	1.364	1.417	-3.9	79	0.00
70	T	1,3-Dichlorobenzene	0.782	0.695	11.1	76	0.00
71	T	4-Isopropyltoluene	1.196	1.221	-2.1	79	0.00
72	T	1,4-Dichlorobenzene	0.804	0.703	12.6	75	0.00
73	T	n-Butylbenzene	0.567	0.589	-3.9	81	0.00
74	T	1,2-Dichlorobenzene	0.750	0.658	12.3	75	0.00
75	T	1,2-Dibromo-3-chloropropane	0.086	0.073	15.1	63	0.00
76	T	1,2,4-Trichlorobenzene	0.369	0.354	4.1	70	0.00
77	T	Hexachlorobutadiene	0.196	0.226	-15.3	82	0.00
78	T	Naphthalene	0.962	0.844	12.3	67	0.00
79	T	1,2,3-Trichlorobenzene	0.322	0.298	7.5	68	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.315	0.302	4.1	71	-0.01
81	T	Methyl acetate	0.289	0.249	13.8	69	0.00
82	T	Cyclohexane	0.851	0.719	15.5	68	0.00
83	T	Methylcyclohexane	0.504	0.462	8.3	68	0.00

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

JM112017.M Fri Dec 15 14:36:19 2017 RT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2219.D
Acq On : 13 Dec 2017 10:12
Operator : MEI
Sample : CCV100,CCV171213,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 14:25:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	247714	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	379273	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	330282	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	227790	52.43	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 104.86%				
41) Toluene-d8	8.50	98	475012	52.05	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 104.10%				
59) Bromofluorobenzene	11.57	95	184155	48.39	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	311345	113.34	UG		100
3) Chloromethane	1.85	50	334756	114.55	UG		99
4) Vinyl chloride	1.98	62	409480	114.74	UG		99
5) Bromomethane	2.31	94	221224	119.33	UG		100
6) Chloroethane	2.44	64	243146	114.62	UG		98
7) Trichlorofluoromethane	2.72	101	472418	108.50	UG		100
8) Acrolein	3.19	56	39893	289.84	UG		100
9) 1,1-Dichloroethene	3.33	96	254280	113.30	UG		81
10) Acetone	3.38	43	112581	191.13	UG	#	95
11) Carbon disulfide	3.58	76	857430	117.54	UG		100
12) Vinyl acetate	4.85	43	920140m	115.48	UG		
13) Methylene chloride	3.89	84	322027	115.80	UG		100
14) Acrylonitrile	4.18	53	255641m	353.75	UG		
15) tert-Butyl alcohol (TBA)	4.07	59	47769	189.88	UG		98
16) trans-1,2-Dichloroethene	4.24	96	309536	112.15	UG		81
17) Methyl tert-butyl ether (M	4.26	73	897244	95.52	UG		100
18) 1,1-Dichloroethane	4.72	63	843050	109.98	UG		99
19) Diisopropyl ether (DIPE)	4.85	45	1269590	104.92	UG		99
20) cis-1,2-Dichloroethene	5.39	96	351597	108.30	UG	#	31
21) 2,2-Dichloropropane	5.40	77	540153m	119.80	UG		
22) 2-Butanone (MEK)	5.41	43	196070	177.02	UG		100
23) Bromochloromethane	5.67	128	156931	104.42	UG		96
25) Chloroform	5.76	83	717321	112.41	UG		99
26) 1,1,1-Trichloroethane	5.98	97	599402	119.39	UG		95
27) Carbon tetrachloride	6.17	117	435966	117.46	UG		99
28) 1,1-Dichloropropene	6.16	75	418417	108.83	UG		98
29) 1,2-Dichloroethane (EDC)	6.39	62	713288	104.57	UG		99
32) Benzene	6.39	78	1229741	102.12	UG		100
33) Trichloroethene	7.12	95	325848	102.96	UG		86
34) 1,2-Dichloropropane	7.36	63	415027	102.47	UG	#	100
35) Dibromomethane	7.49	93	183780	100.02	UG		95
36) 1,4-Dioxane	7.52	88	75655m	2975.55	UG		
37) Bromodichloromethane	7.67	83	511731	114.64	UG		99
38) 2-Chloroethyl vinyl ether	8.01	63	413391	191.82	UG		97
39) cis-1,3-Dichloropropene	8.18	75	525490	111.53	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	446287	179.53	UG	#	93
42) Toluene	8.57	92	681060	101.58	UG		99
43) trans-1,3-Dichloropropene	8.80	75	479910	111.39	UG		97
44) 1,1,2-Trichloroethane	9.02	83	193893	97.35	UG		98
45) Tetrachloroethene	9.21	166	215851	103.98	UG		96

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2219.D
Acq On : 13 Dec 2017 10:12
Operator : MEI
Sample : CCV100,CCV171213,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 14:25:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

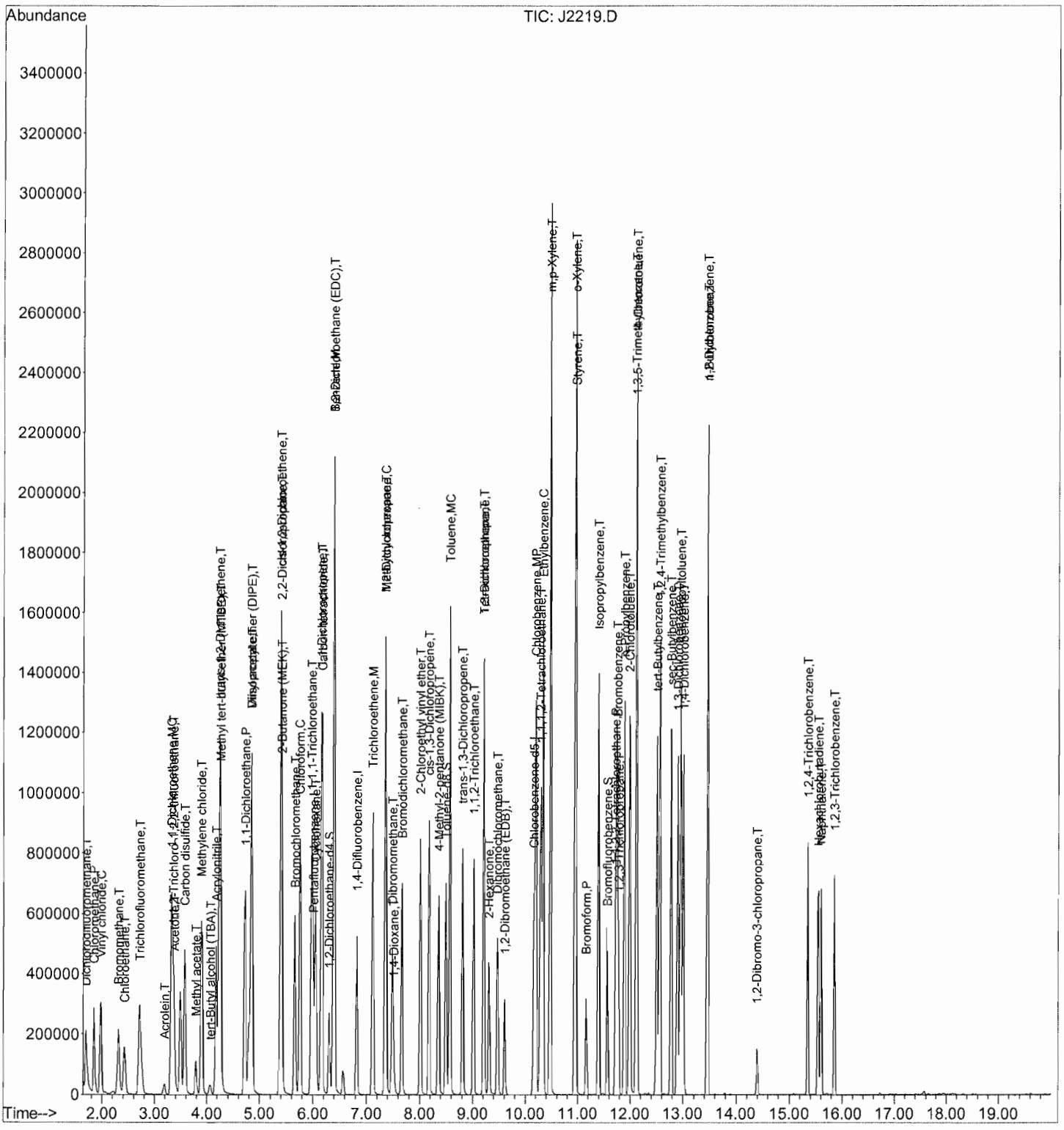
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	423176	97.39	UG		100
47) 2-Hexanone	9.31	43	292618	176.47	UG	#	90
48) Dibromochloromethane	9.47	129	296278	110.83	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	241171	99.58	UG		100
51) Chlorobenzene	10.20	112	696755	90.69	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	315257	107.11	UG		99
53) Ethylbenzene	10.33	91	1182737	98.70	UG		99
54) m,p-Xylene	10.48	106	846842	193.88	UG		84
55) o-Xylene	10.95	106	429699	98.60	UG		82
56) Styrene	10.96	104	793973	103.80	UG	#	79
57) Bromoform	11.16	173	156370	99.04	UG		100
58) Isopropylbenzene	11.40	105	1057277	107.05	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	269756	89.20	UG		99
61) Bromobenzene	11.75	156	286901	91.37	UG		100
62) 1,2,3-Trichloropropane	11.78	75	269860	83.38	UG		98
63) n-Propylbenzene	11.89	91	1103883	101.82	UG		99
64) 2-Chlorotoluene	11.98	91	797652	97.28	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	907459	105.35	UG		94
66) 4-Chlorotoluene	12.12	91	954424	97.97	UG		97
67) tert-Butylbenzene	12.51	119	622169	104.72	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	954025	102.57	UG		96
69) sec-Butylbenzene	12.77	105	936228	103.91	UG		99
70) 1,3-Dichlorobenzene	12.90	146	459192	88.88	UG		99
71) 4-Isopropyltoluene	12.96	119	806838	102.11	UG		99
72) 1,4-Dichlorobenzene	13.01	146	464241	87.44	UG		100
73) n-Butylbenzene	13.46	92	389275	103.85	UG		97
74) 1,2-Dichlorobenzene	13.46	146	434898	87.75	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	48336	84.73	UG		91
76) 1,2,4-Trichlorobenzene	15.35	180	233777	95.80	UG		100
77) Hexachlorobutadiene	15.55	225	149183	115.33	UG		100
78) Naphthalene	15.60	128	557480m	87.74	UG		
79) 1,2,3-Trichlorobenzene	15.85	180	197104	92.61	UG		100
80) 1,1,2-Trichloro-1,2,2-trif	3.36	101	199206	95.61	UG		97
81) Methyl acetate	3.79	43	164664	86.20	UG	#	98
82) Cyclohexane	6.05	56	474756	84.45	UG	#	84
83) Methylcyclohexane	7.36	55	305470	91.80	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2219.D
Acq On : 13 Dec 2017 10:12
Operator : MEI
Sample : CCV100,CCV171213,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 14:25:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

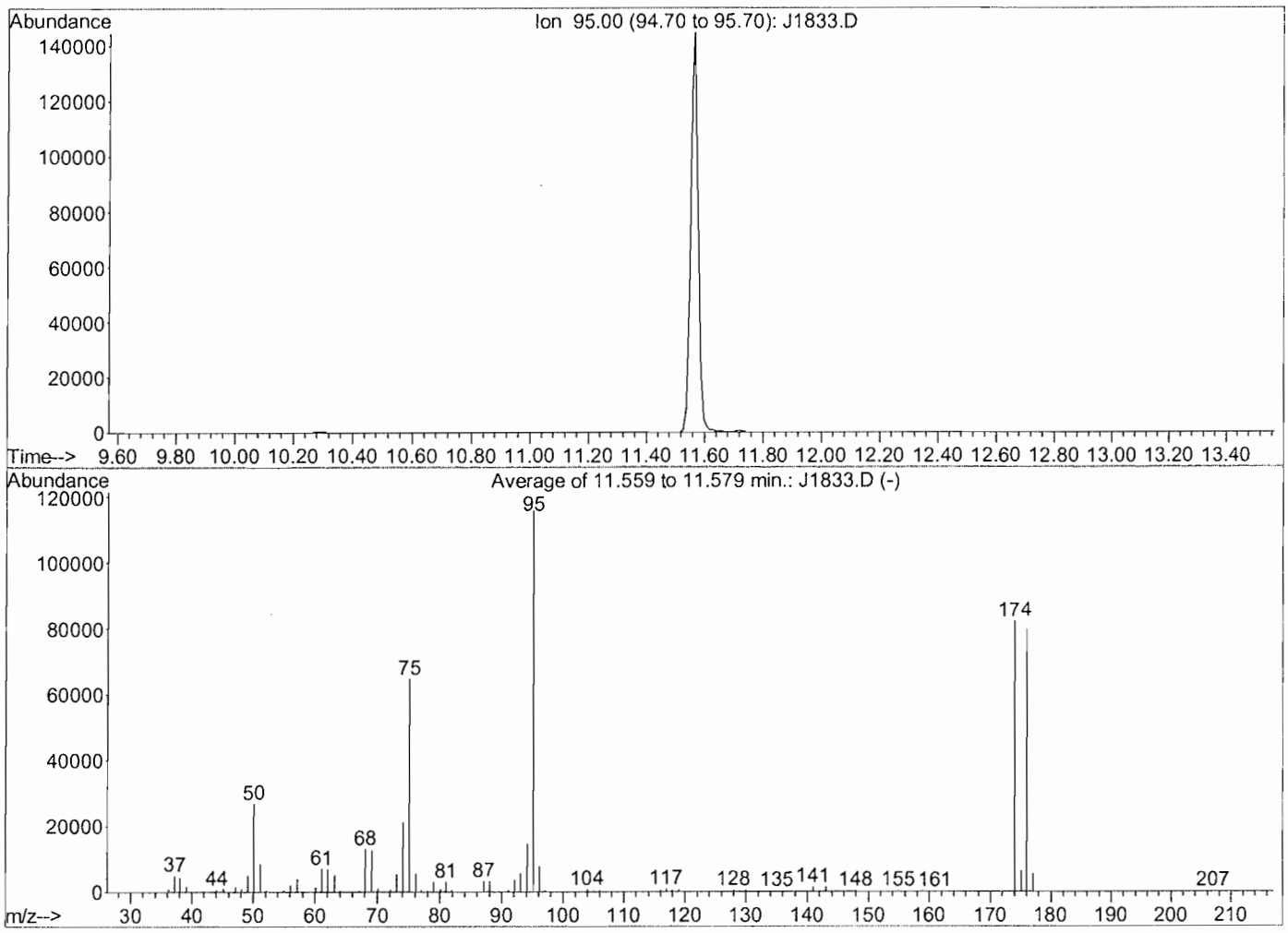


VOLATILE ORGANICS RAW QC DATA

Data Path : C:\MSDChem\1\DATA\11-20-17\
Data File : J1833.D
Acq On : 20 Nov 2017 11:17
Operator : MEI
Sample : BFB171120
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Tue Nov 21 10:24:55 2017



AutoFind: Scans 981, 982, 983; Background Corrected with Scan 975

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	26746	PASS
75	95	30	60	55.9	64736	PASS
95	95	100	100	100.0	115792	PASS
96	95	5	9	6.7	7758	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.8	81925	PASS
175	174	5	9	7.5	6164	PASS
176	174	95	101	97.1	79568	PASS
177	176	5	9	6.6	5290	PASS

Average of 11.559 to 11.579 min.: J1833.D
BFB171120
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	868	52.10	420	67.10	333	79.00	3022
37.15	4879	55.00	371	68.10	12844	80.05	759
38.10	4318	56.10	1898	69.10	12541	81.00	3027
39.15	1600	57.10	3951	70.10	998	81.95	547
44.10	686	58.15	131	72.10	593	87.10	3225
45.10	915	60.05	1345	73.10	5393	88.00	3197
47.10	1499	61.10	6925	74.10	21120	91.05	413
48.05	734	62.10	6827	75.10	64736	92.10	3560
49.10	5016	63.10	5175	76.10	5546	93.10	5441
50.10	26746	64.00	243	77.05	506	94.10	14309
51.10	8453	64.15	303	78.05	360	95.10	115792

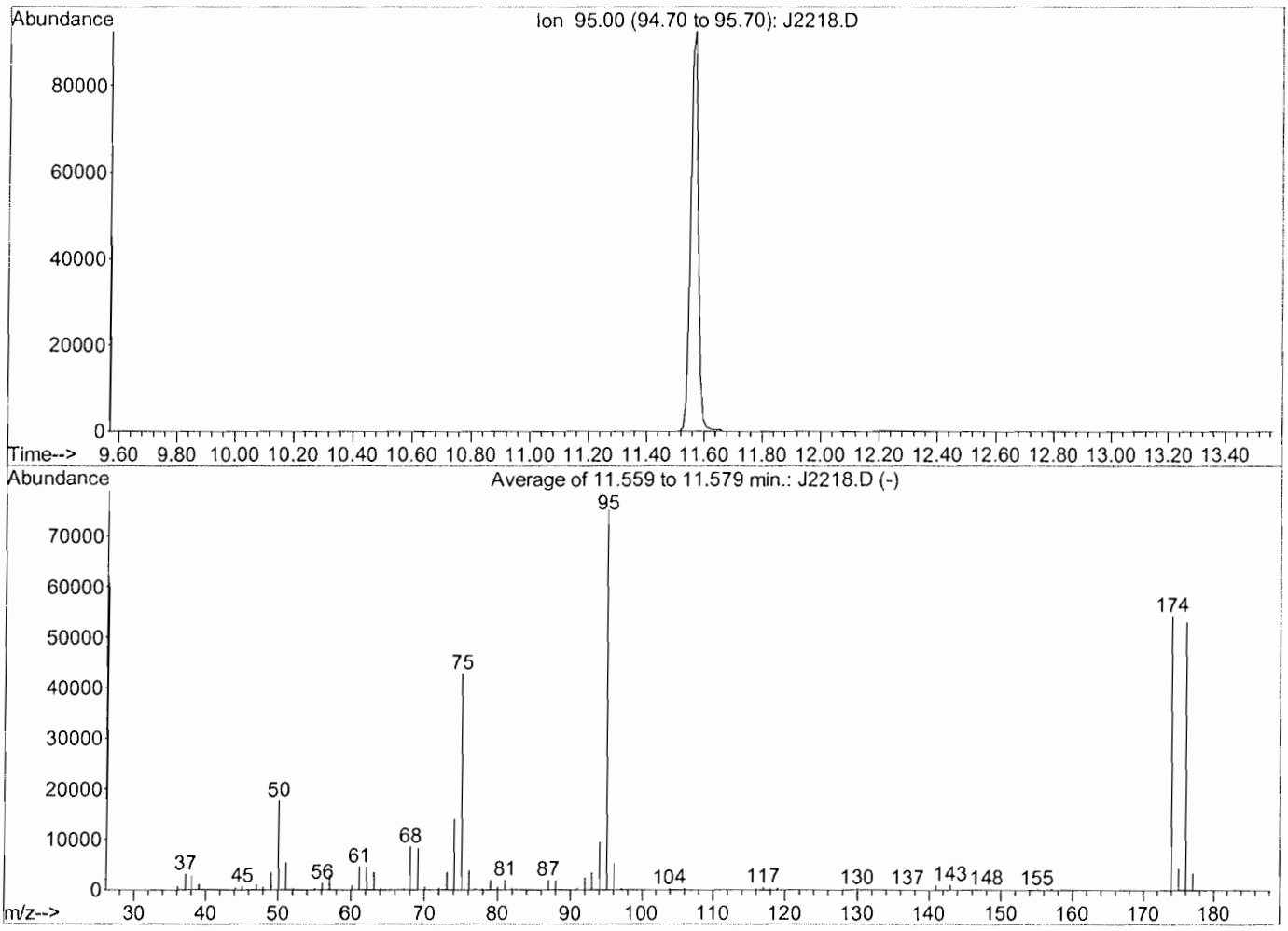
Average of 11.559 to 11.579 min.: J1833.D
BFB171120
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.10	7758	119.05	620	146.00	58	177.95	151
97.10	189	128.00	449	148.00	307	207.00	104
97.30	57	128.85	158	150.00	61		
104.00	556	130.00	420	155.00	297		
105.05	122	130.90	65	157.05	239		
106.00	487	135.05	220	158.90	194		
107.00	53	136.95	223	161.00	68		
115.00	118	141.00	1433	174.05	81925		
115.95	460	142.05	134	175.10	6164		
117.00	730	143.00	1415	176.00	79568		
117.95	535	145.10	51	177.05	5290		

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2218.D
Acq On : 13 Dec 2017 9:45
Operator : MEI
Sample : BFB171213
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Fri Dec 08 09:59:09 2017



AutoFind: Scans 981, 982, 983; Background Corrected with Scan 975

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.5	17696	PASS
75	95	30	60	56.9	42882	PASS
95	95	100	100	100.0	75328	PASS
96	95	5	9	6.9	5195	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.1	54288	PASS
175	174	5	9	7.9	4267	PASS
176	174	95	101	97.9	53152	PASS
177	176	5	9	6.4	3404	PASS

Average of 11.559 to 11.579 min.: J2218.D
BFB171213
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	604	50.10	17696	63.10	3424	76.90	143
37.15	3091	51.10	5448	64.05	265	77.05	210
38.10	2769	52.10	240	67.10	199	77.95	177
39.10	1121	55.00	137	68.10	8532	79.00	1885
41.10	52	55.15	183	69.10	8288	80.00	528
43.15	228	56.10	1314	70.10	627	81.00	1934
44.15	416	57.10	2903	72.00	426	82.00	365
45.10	634	58.20	54	73.10	3525	87.05	1943
47.10	996	60.10	877	74.10	13972	88.00	1846
48.05	481	61.10	4567	75.10	42882	91.05	271
49.10	3418	62.10	4514	76.10	3833	92.05	2406

Average of 11.559 to 11.579 min.: J2218.D
BFB171213
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	3427	127.90	113	157.05	130		
94.10	9443	128.10	201	159.00	62		
95.10	75328	129.00	55	172.20	123		
96.10	5195	130.00	312	174.00	54288		
97.10	148	131.10	57	175.05	4267		
103.90	328	135.10	114	176.00	53152		
105.95	298	137.00	130	177.05	3404		
115.95	290	141.00	905	178.10	53		
117.00	478	143.00	1005				
118.00	289	147.95	176				
119.00	380	155.05	206				

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171213-01
Client ID: BLKA171213-01
Date Received:
Date Analyzed: 12/13/2017
Data file: J2222.D 12/13/17 11:31

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		1.00	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171213-01
Client ID: BLKA171213-01
Date Received:
Date Analyzed: 12/13/2017
Data file: J2222.D 12/13/17 11:31

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		0.500	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171213-01
Client ID: BLKA171213-01
Date Received:
Date Analyzed: 12/13/2017
Data file: J2222.D 12/13/17 11:31

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2222.D
Acq On : 13 Dec 2017 11:31
Operator : MEI
Sample : BLKA171213-01,BLKA171213-01,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 16:23:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	221757	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	329039	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	284181	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	193407	49.73	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.46%			
41) Toluene-d8	8.50	98	393974	49.76	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 99.52%			
59) Bromofluorobenzene	11.57	95	158324	48.35	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.70%			

Target Compounds Qvalue

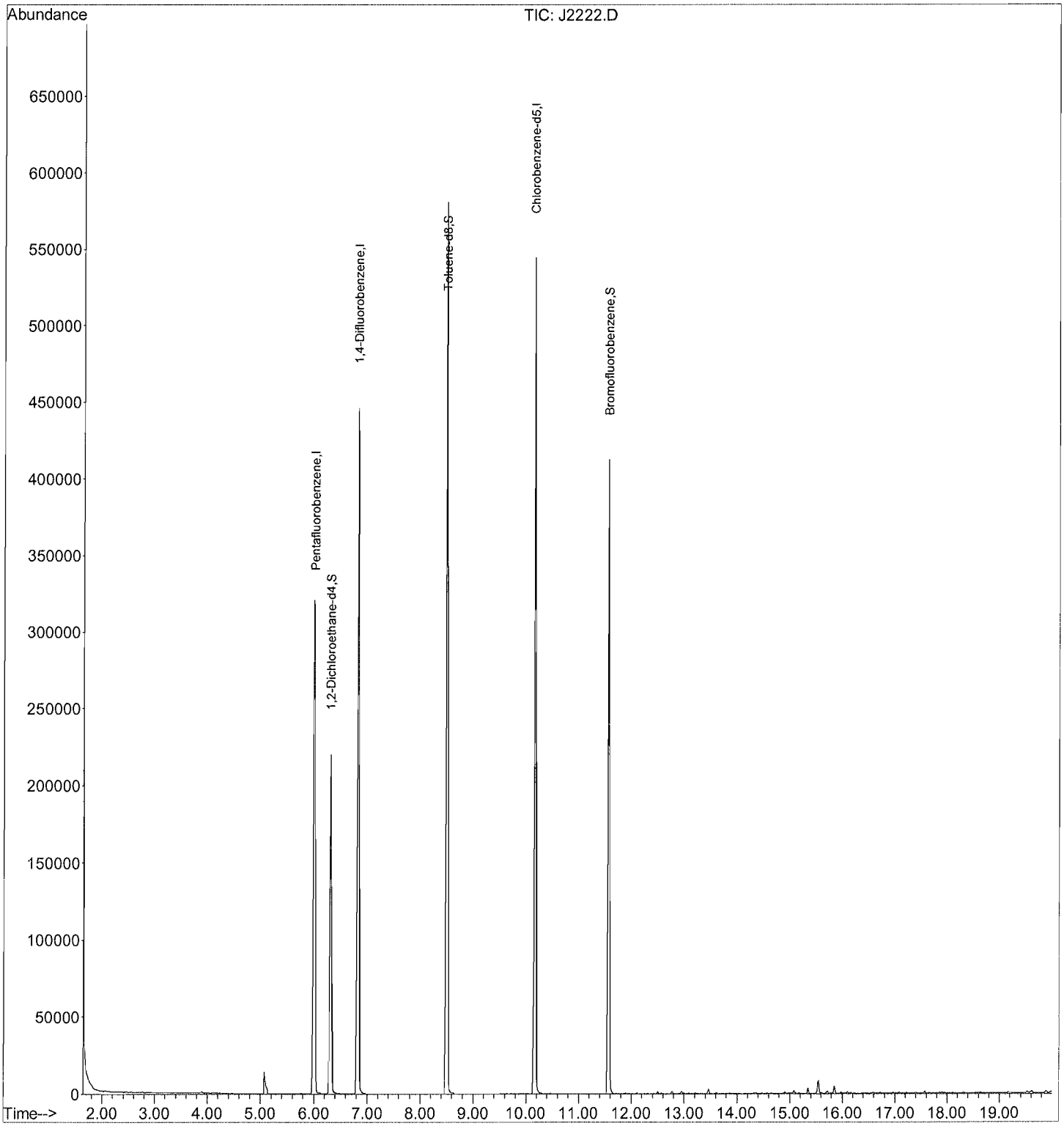
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/17

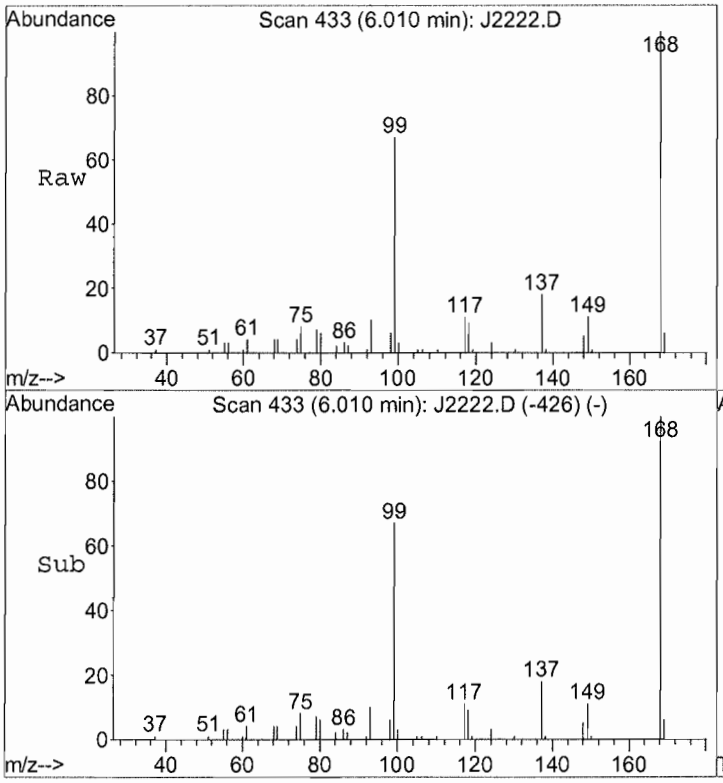
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2222.D
Acq On : 13 Dec 2017 11:31
Operator : MEI
Sample : BLKA171213-01,BLKA171213-01,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 16:23:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



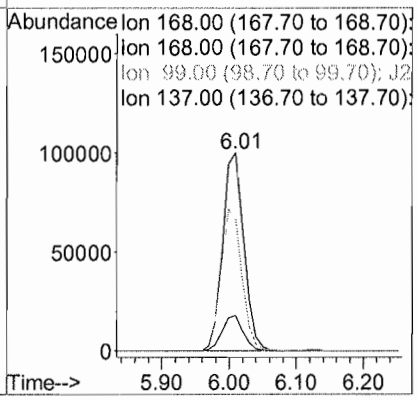
12/15/17

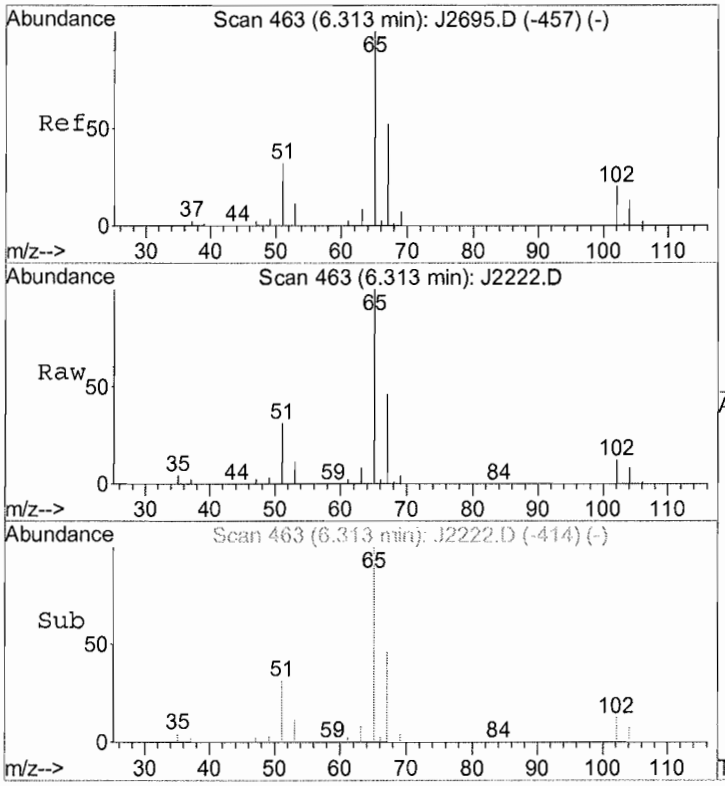


#1
Pentafluorobenzene
Concen: 50.00 UG
RT: 6.01 min Scan# 433
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion:168 Resp: 221757

Ion	Ratio	Lower	Upper
168	100		
168	100.0	70.0	130.0
99	71.0	53.9	100.1
137	17.7	10.5	19.5

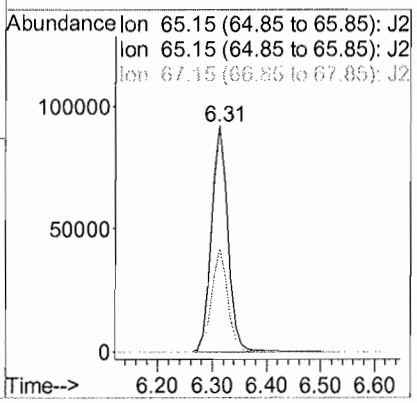


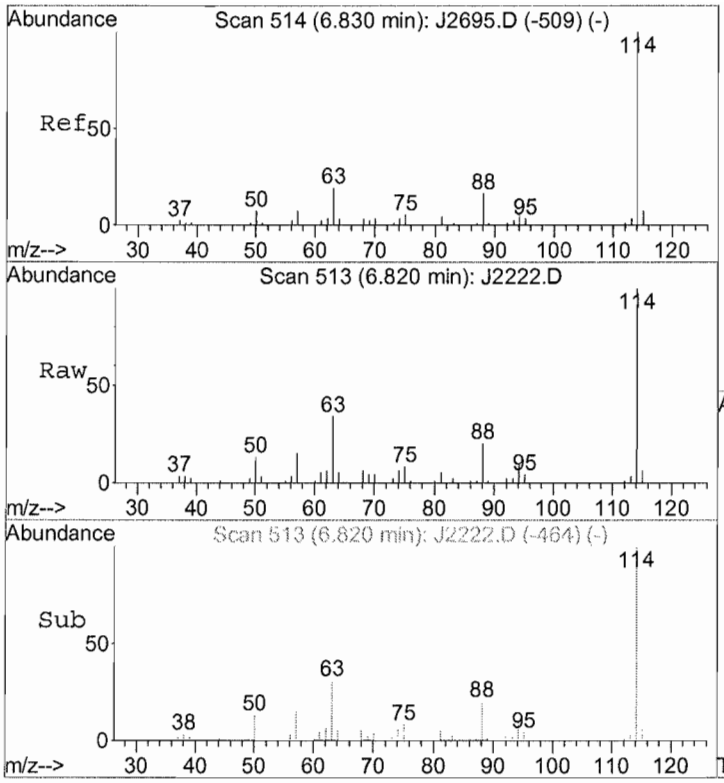


#30
1,2-Dichloroethane-d4
Concen: 49.73 UG
RT: 6.31 min Scan# 463
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion: 65 Resp: 193407

Ion	Ratio	Lower	Upper
65	100		
65	100.0	70.0	130.0
67	44.0	41.7	77.5

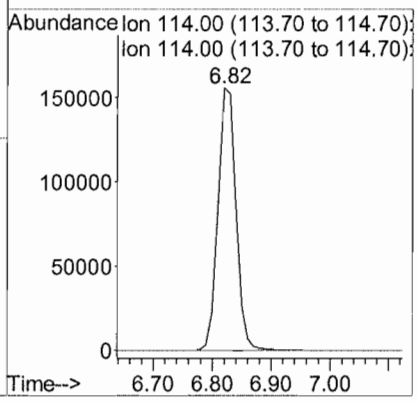


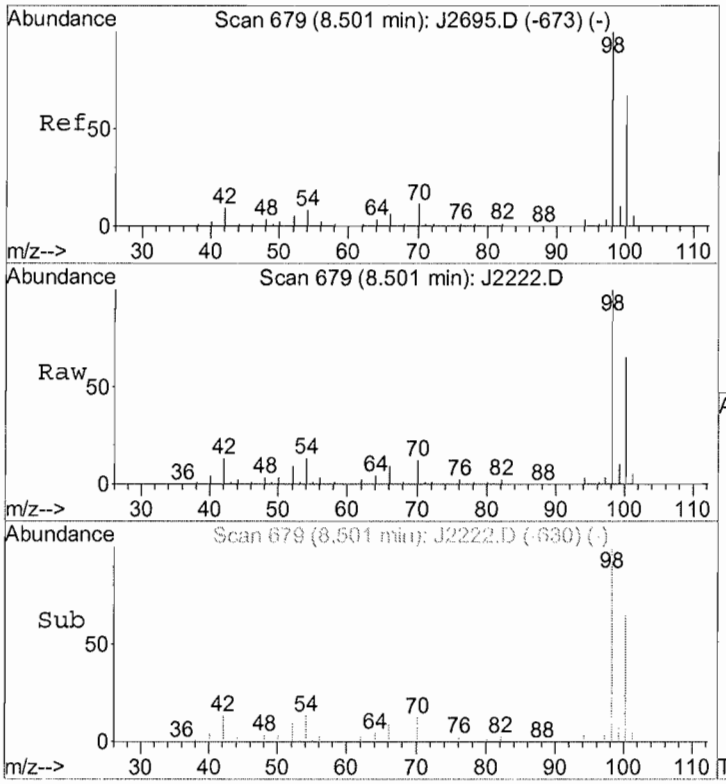


#31
1,4-Difluorobenzene
Concen: 50.00 UG
RT: 6.82 min Scan# 513
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion:114 Resp: 329039

Ion	Ratio	Lower	Upper
114	100		
114	100.0	70.0	130.0

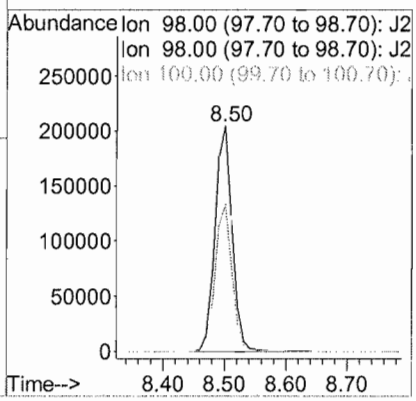


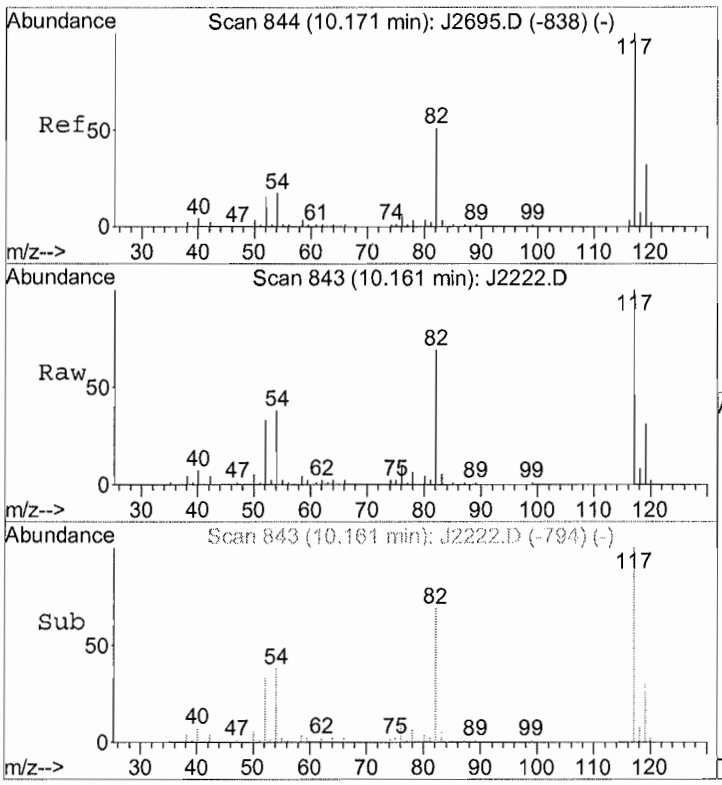


#41
Toluene-d8
Concen: 49.76 UG
RT: 8.50 min Scan# 679
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion: 98 Resp: 393974

Ion	Ratio	Lower	Upper
98	100		
98	100.0	70.0	130.0
100	64.6	48.1	89.3

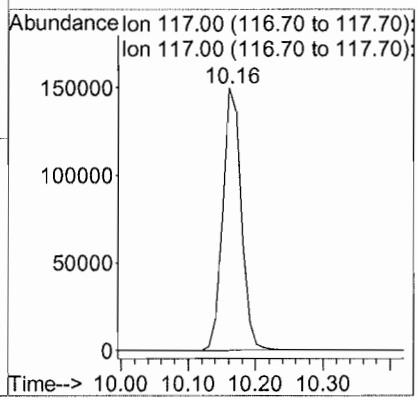


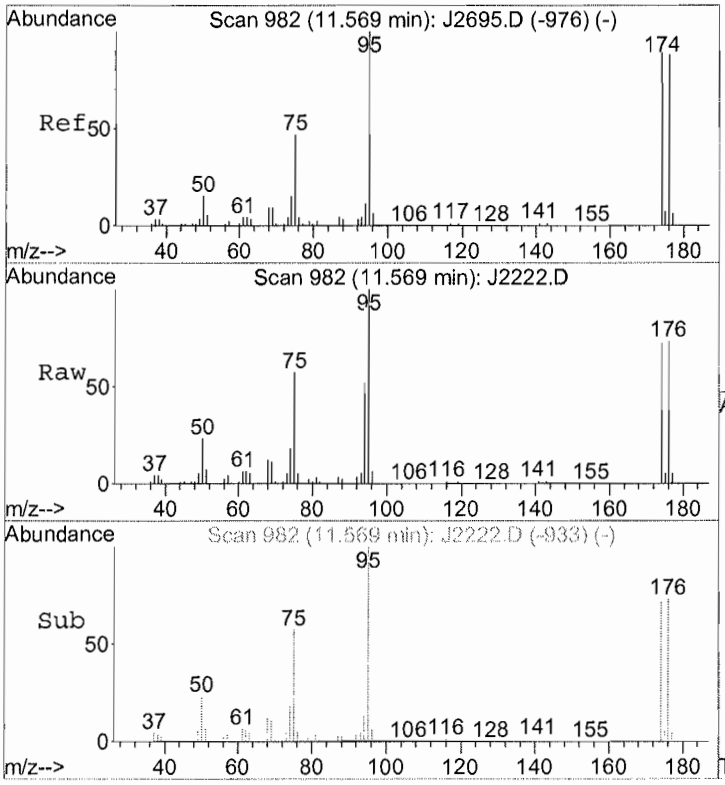


#50
Chlorobenzene-d5
Concen: 50.00 UG
RT: 10.16 min Scan# 843
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion:117 Resp: 284181

Ion	Ratio	Lower	Upper
117	100		
117	100.0	70.0	130.0

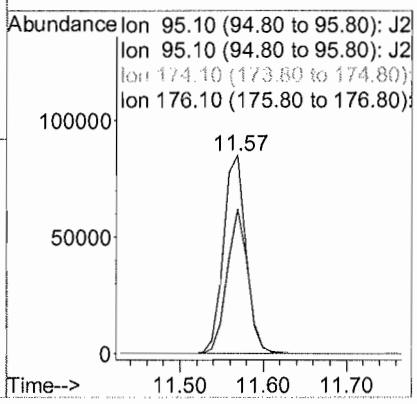




#59
Bromofluorobenzene
Concen: 48.35 UG
RT: 11.57 min Scan# 982
Delta R.T. 0.00 min
Lab File: J2222.D
Acq: 13 Dec 2017 11:31

Tgt Ion: 95 Resp: 158324

Ion	Ratio	Lower	Upper
95	100		
95	100.0	70.0	130.0
174	69.2	0.0	0.0#
176	67.5	0.0	0.0#



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2222.D
Acq On : 13 Dec 2017 11:31
Operator : MEI
Sample : BLKA171213-01,BLKA171213-01,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM112017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

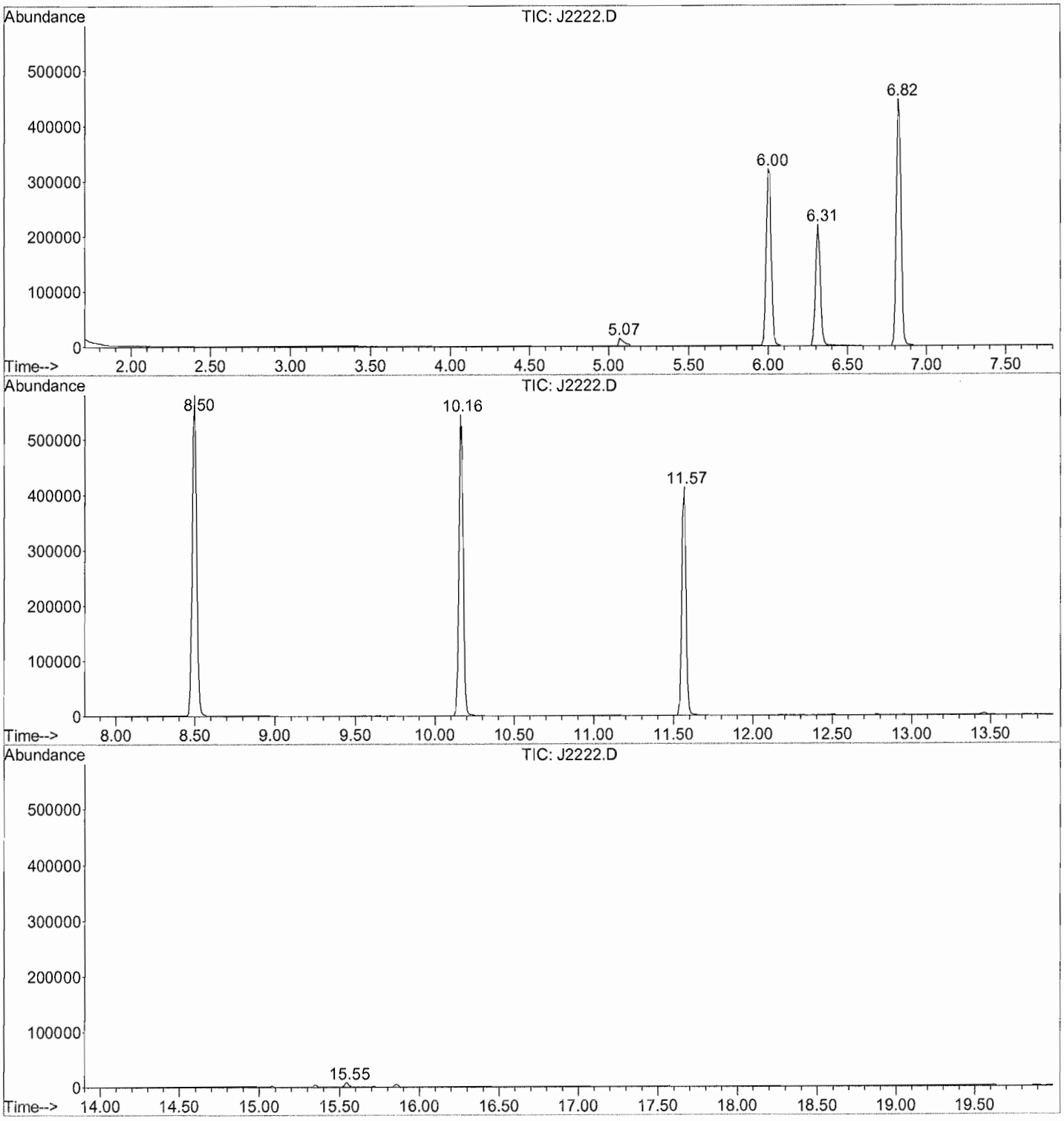
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.068	338	340	349	rBB	14278	32123	2.82%	0.638%
2	6.000	423	432	443	rBB	320401	709716	62.40%	14.097%
3	6.313	458	463	478	rBB	219763	454223	39.94%	9.022%
4	6.820	506	513	535	rBB	446054	912659	80.25%	18.128%
5	8.501	673	679	697	rBB	581045	1137298	100.00%	22.591%
6	10.161	836	843	862	rBB	544321	1017042	89.43%	20.202%
7	11.569	973	982	993	rBB	412299	757042	66.56%	15.037%
8	15.549	1370	1375	1379	rBB2	8362	14305	1.26%	0.284%

Sum of corrected areas: 5034408

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2222.D
Acq On : 13 Dec 2017 11:31
Operator : MEI
Sample : BLKA171213-01,BLKA171213-01,A,5ml,100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2228.D
Acq On : 13 Dec 2017 14:07
Operator : MEI
Sample : LCS-50PPB,LCSA171213-01,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 14:37:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	218639	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	330205	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	278301	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	187402	48.87	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 97.74%				
41) Toluene-d8	8.50	98	402061	50.61	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.22%				
59) Bromofluorobenzene	11.57	95	157112	48.99	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	156852m	64.69	UG		
3) Chloromethane	1.85	50	159511	61.84	UG		98
4) Vinyl chloride	1.97	62	204383	64.89	UG		99
5) Bromomethane	2.30	94	101312	61.91	UG		100
6) Chloroethane	2.43	64	114829	61.33	UG		98
7) Trichlorofluoromethane	2.71	101	234804	61.10	UG		100
8) Acrolein	3.18	56	13776	113.40	UG		99
9) 1,1-Dichloroethene	3.32	96	125436	63.32	UG		80
10) Acetone	3.38	43	50331	96.81	UG	#	95
11) Carbon disulfide	3.57	76	419397	65.14	UG		100
12) Vinyl acetate	4.84	43	440109m	62.58	UG		
13) Methylene chloride	3.89	84	157391	64.13	UG		100
14) Acrylonitrile	4.18	53	117495m	184.21	UG		
15) tert-Butyl alcohol (TBA)	4.07	59	17682	79.63	UG		98
16) trans-1,2-Dichloroethene	4.23	96	151635	62.24	UG		81
17) Methyl tert-butyl ether (M	4.26	73	441499	53.25	UG		100
18) 1,1-Dichloroethane	4.71	63	408468	60.37	UG		99
19) Diisopropyl ether (DIPE)	4.84	45	607604	56.89	UG		99
20) cis-1,2-Dichloroethene	5.39	96	172319	60.14	UG	#	31
21) 2,2-Dichloropropane	5.39	77	252119m	63.35	UG		
22) 2-Butanone (MEK)	5.41	43	85126	87.08	UG		100
23) Bromochloromethane	5.66	128	75222	56.71	UG		96
25) Chloroform	5.76	83	343478	60.98	UG		99
26) 1,1,1-Trichloroethane	5.98	97	286714	64.70	UG		95
27) Carbon tetrachloride	6.17	117	203047	61.98	UG		99
28) 1,1-Dichloropropene	6.16	75	203701	60.03	UG		97
29) 1,2-Dichloroethane (EDC)	6.39	62	326396	54.21	UG		99
32) Benzene	6.39	78	587185	56.01	UG		100
33) Trichloroethene	7.12	95	153101	55.56	UG		87
34) 1,2-Dichloropropane	7.36	63	191417	54.29	UG		100
35) Dibromomethane	7.49	93	83950	52.48	UG		95
36) 1,4-Dioxane	7.52	88	25654m	1158.92	UG		
37) Bromodichloromethane	7.67	83	227741	58.60	UG		99
38) 2-Chloroethyl vinyl ether	8.01	63	173774	92.61	UG		97
39) cis-1,3-Dichloropropene	8.18	75	223392	54.46	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	199595	92.23	UG	#	93
42) Toluene	8.57	92	315502	54.05	UG		100
43) trans-1,3-Dichloropropene	8.80	75	192557	51.33	UG		97
44) 1,1,2-Trichloroethane	9.02	83	86123	49.66	UG		98
45) Tetrachloroethene	9.21	166	100377	55.54	UG		95

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2228.D
Acq On : 13 Dec 2017 14:07
Operator : MEI
Sample : LCS-50PPB,LCSA171213-01,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 14:37:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

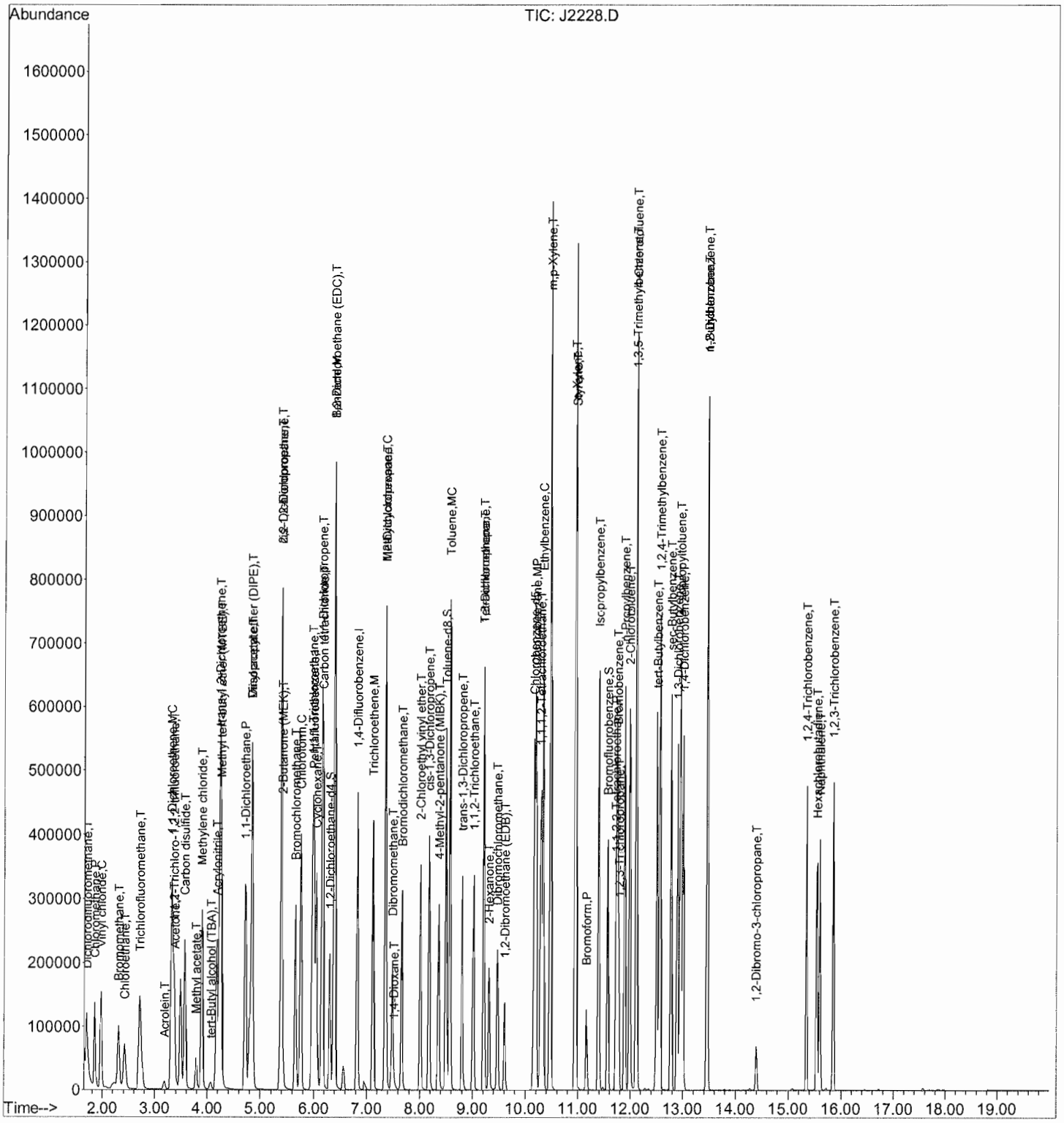
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,3-Dichloropropane	9.21	76	184734	48.83	UG		100
47) 2-Hexanone	9.31	43	128081	88.72	UG	#	90
48) Dibromochloromethane	9.47	129	123373	53.01	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	105224	49.91	UG		100
51) Chlorobenzene	10.20	112	322684	49.84	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	143428	57.83	UG		99
53) Ethylbenzene	10.33	91	544726	53.95	UG		99
54) m,p-Xylene	10.48	106	395384	107.43	UG		86
55) o-Xylene	10.94	106	206311	56.18	UG		84
56) Styrene	10.96	104	365269	56.67	UG	#	79
57) Bromoform	11.16	173	63124	47.45	UG		100
58) Isopropylbenzene	11.40	105	493450	59.29	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	127714	50.12	UG		99
61) Bromobenzene	11.75	156	134995	51.02	UG		99
62) 1,2,3-Trichloropropane	11.78	75	127253	46.66	UG		98
63) n-Propylbenzene	11.89	91	530069	58.03	UG		99
64) 2-Chlorotoluene	11.98	91	379246	54.89	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	435091	59.95	UG		95
66) 4-Chlorotoluene	12.12	91	451621	55.02	UG		97
67) tert-Butylbenzene	12.51	119	304517	60.83	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	462789	59.05	UG		95
69) sec-Butylbenzene	12.77	105	470404	61.96	UG		99
70) 1,3-Dichlorobenzene	12.90	146	228826	52.56	UG		100
71) 4-Isopropyltoluene	12.96	119	408578	61.36	UG		99
72) 1,4-Dichlorobenzene	13.01	146	230486	51.52	UG		100
73) n-Butylbenzene	13.46	92	200942	63.62	UG		97
74) 1,2-Dichlorobenzene	13.46	146	220183	52.72	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	22910	47.66	UG		92
76) 1,2,4-Trichlorobenzene	15.35	180	133128m	64.75	UG		
77) Hexachlorobutadiene	15.55	225	69361m	63.64	UG		
78) Naphthalene	15.60	128	277784	51.89	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	115979m	64.67	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.36	101	108440	61.77	UG		98
81) Methyl acetate	3.78	43	76137	47.30	UG	#	98
82) Cyclohexane	6.05	56	250122	52.80	UG	#	84
83) Methylcyclohexane	7.36	55	166043	59.22	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2228.D
Acq On : 13 Dec 2017 14:07
Operator : MEI
Sample : LCS-50PPB,LCSA171213-01,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 14:37:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2229.D
Acq On : 13 Dec 2017 14:33
Operator : MEI
Sample : MSD-MW3,E17-10611-006,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 15 15:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	222586	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	329850	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	286164	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	190599	48.82	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 97.64%				
41) Toluene-d8	8.50	98	408446	51.46	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 102.92%				
59) Bromofluorobenzene	11.57	95	160934	48.81	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.62%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	157399m	63.76	UG		
3) Chloromethane	1.86	50	134034	51.04	UG		98
4) Vinyl chloride	1.98	62	206778	64.48	UG		99
5) Bromomethane	2.32	94	91074	54.67	UG		100
6) Chloroethane	2.44	64	116325	61.03	UG		98
7) Trichlorofluoromethane	2.72	101	246977m	63.13	UG		
8) Acrolein	3.19	56	22935m	185.44	UG		
9) 1,1-Dichloroethene	3.33	96	128448	63.70	UG		81
10) Acetone	3.38	43	48681	91.98	UG	#	95
11) Carbon disulfide	3.58	76	417673	63.72	UG		100
12) Vinyl acetate	4.83	43	410355	57.32	UG	#	99
13) Methylene chloride	3.89	84	142125	56.88	UG		100
14) Acrylonitrile	4.18	53	123386m	190.01	UG		
15) tert-Butyl alcohol (TBA)	4.06	59	21283	94.15	UG		98
16) trans-1,2-Dichloroethene	4.24	96	148503	59.88	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	410141	48.60	UG		100
18) 1,1-Dichloroethane	4.72	63	378244	54.91	UG		99
19) Diisopropyl ether (DIPE)	4.85	45	562274	51.71	UG		99
20) cis-1,2-Dichloroethene	5.39	96	158456	54.32	UG	#	31
21) 2,2-Dichloropropane	5.40	77	262409	64.77	UG	#	41
22) 2-Butanone (MEK)	5.41	43	85115	85.52	UG		100
23) Bromochloromethane	5.66	128	68668	50.85	UG		96
25) Chloroform	5.76	83	319741	55.76	UG		99
26) 1,1,1-Trichloroethane	5.98	97	284604	63.09	UG		95
27) Carbon tetrachloride	6.17	117	210336	63.06	UG		99
28) 1,1-Dichloropropene	6.16	75	204166	59.10	UG		98
29) 1,2-Dichloroethane (EDC)	6.39	62	304894	49.74	UG		99
32) Benzene	6.39	78	555919	53.08	UG		100
33) Trichloroethene	7.12	95	147285	53.51	UG		87
34) 1,2-Dichloropropane	7.36	63	180212	51.16	UG	#	100
35) Dibromomethane	7.49	93	78865	49.35	UG		95
36) 1,4-Dioxane	7.52	88	41550m	1879.04	UG		
37) Bromodichloromethane	7.67	83	212928	54.85	UG		99
39) cis-1,3-Dichloropropene	8.18	75	209346	51.09	UG	#	96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	204626	94.65	UG	#	93
42) Toluene	8.57	92	301401	51.69	UG		98
43) trans-1,3-Dichloropropene	8.80	75	186723	49.83	UG		97
44) 1,1,2-Trichloroethane	9.02	83	81552	47.08	UG		98
45) Tetrachloroethene	9.21	166	100581	55.71	UG		95
46) 1,3-Dichloropropane	9.21	76	178558	47.25	UG		100

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2229.D
Acq On : 13 Dec 2017 14:33
Operator : MEI
Sample : MSD-MW3,E17-10611-006,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 15 15:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

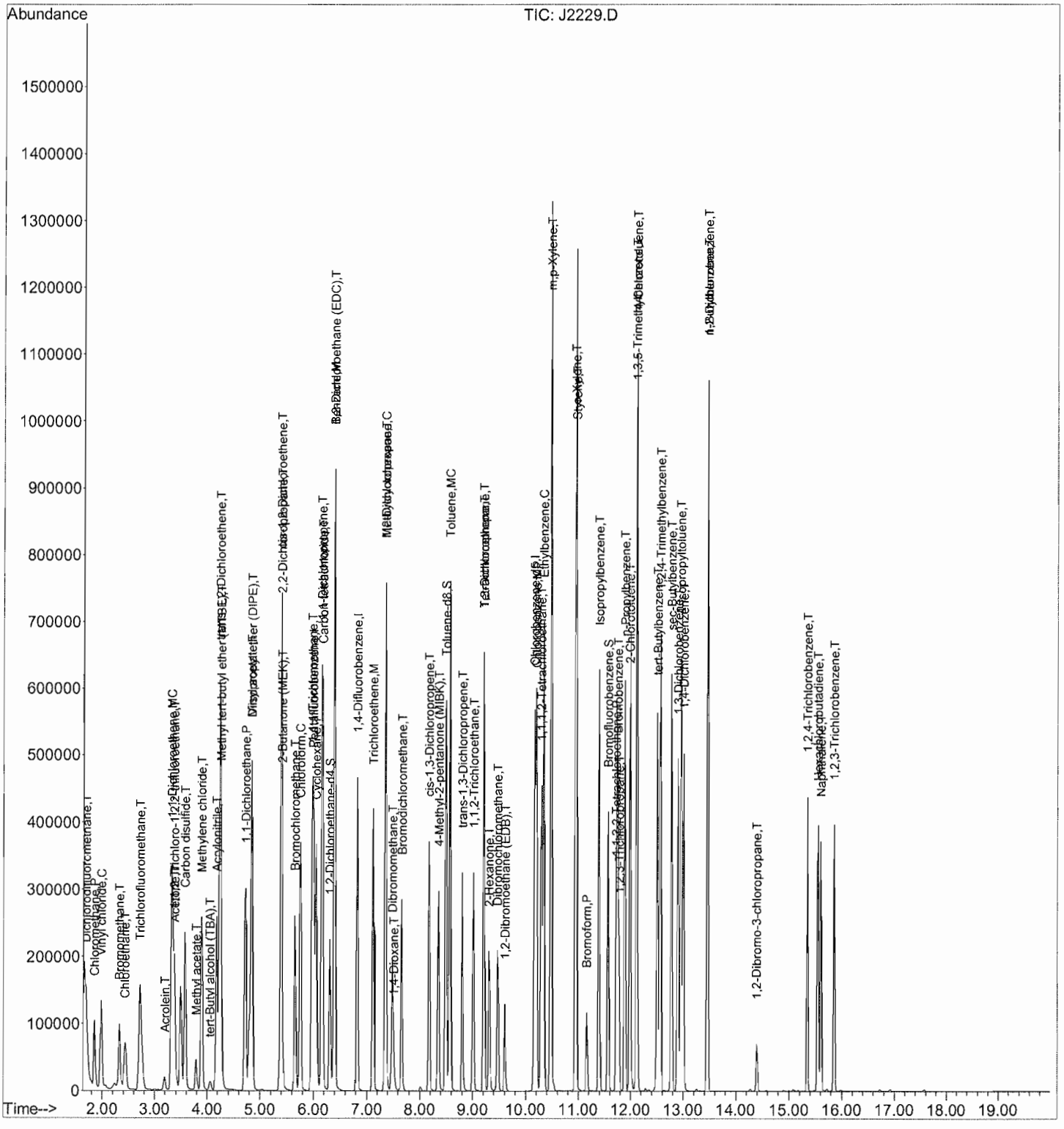
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.31	43	134633	93.36	UG	#	89
48) Dibromochloromethane	9.47	129	117520	50.55	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	101608	48.24	UG		100
51) Chlorobenzene	10.20	112	309106	46.43	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	133533	52.36	UG		99
53) Ethylbenzene	10.33	91	524450	50.51	UG		99
54) m,p-Xylene	10.48	106	380514	100.55	UG		85
55) o-Xylene	10.94	106	191636	50.75	UG		83
56) Styrene	10.96	104	339291	51.20	UG	#	79
57) Bromoform	11.16	173	58823	43.00	UG		100
58) Isopropylbenzene	11.40	105	475330	55.55	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	120190	45.87	UG		100
61) Bromobenzene	11.75	156	125998	46.31	UG		100
62) 1,2,3-Trichloropropane	11.78	75	119421	42.59	UG		98
63) n-Propylbenzene	11.89	91	518042	55.15	UG		98
64) 2-Chlorotoluene	11.98	91	355925	50.10	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	417277	55.91	UG		94
66) 4-Chlorotoluene	12.12	91	419535	49.70	UG		97
67) tert-Butylbenzene	12.51	119	292167	56.76	UG		95
68) 1,2,4-Trimethylbenzene	12.56	105	428875	53.22	UG		95
69) sec-Butylbenzene	12.77	105	460881	59.04	UG		99
70) 1,3-Dichlorobenzene	12.90	146	207201	46.29	UG		99
71) 4-Isopropyltoluene	12.96	119	389725	56.92	UG		99
72) 1,4-Dichlorobenzene	13.01	146	210860	45.84	UG		100
73) n-Butylbenzene	13.46	92	195191	60.10	UG		97
74) 1,2-Dichlorobenzene	13.46	146	198415	46.21	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	22229	44.97	UG		90
76) 1,2,4-Trichlorobenzene	15.35	180	123160	58.25	UG		99
77) Hexachlorobutadiene	15.55	225	70650m	63.04	UG		
78) Naphthalene	15.60	128	270649	49.17	UG		100
79) 1,2,3-Trichlorobenzene	15.85	180	95718m	51.90	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	111411m	61.71	UG		
81) Methyl acetate	3.79	43	69067	41.73	UG	#	98
82) Cyclohexane	6.05	56	274781	56.41	UG	#	83
83) Methylcyclohexane	7.36	55	181828	63.07	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2229.D
Acq On : 13 Dec 2017 14:33
Operator : MEI
Sample : MSD-MW3,E17-10611-006,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 15 15:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2230.D
Acq On : 13 Dec 2017 14:59
Operator : MEI
Sample : MS-MW3,E17-10611-007,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 15:02:05 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	245324	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	349010	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	317694	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.31	65	220124	51.16	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.32%				
41) Toluene-d8	8.50	98	449831	53.57	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 107.14%				
59) Bromofluorobenzene	11.57	95	187846	51.31	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.62%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.70	85	172785m	63.51	UG		
3) Chloromethane	1.86	50	167055	57.72	UG		98
4) Vinyl chloride	1.98	62	223565	63.26	UG		99
5) Bromomethane	2.33	94	99786	54.35	UG		100
6) Chloroethane	2.45	64	122848	58.48	UG		98
7) Trichlorofluoromethane	2.72	101	280054m	64.95	UG		
8) Acrolein	3.19	56	24628	180.67	UG		100
9) 1,1-Dichloroethene	3.33	96	135355	60.90	UG	#	16
10) Acetone	3.38	43	50830	87.14	UG	#	96
11) Carbon disulfide	3.58	76	433953	60.07	UG		100
12) Vinyl acetate	4.83	43	472249	59.85	UG	#	99
13) Methylene chloride	3.89	84	147821	53.67	UG		100
14) Acrylonitrile	4.18	53	134724m	188.25	UG		
15) tert-Butyl alcohol (TBA)	4.06	59	21250	85.29	UG		99
16) trans-1,2-Dichloroethene	4.24	96	150855	55.19	UG	#	25
17) Methyl tert-butyl ether (M	4.26	73	392861	42.23	UG		100
18) 1,1-Dichloroethane	4.72	63	403505	53.15	UG		99
19) Diisopropyl ether (DIPE)	4.83	45	653702	54.55	UG		98
20) cis-1,2-Dichloroethene	5.39	96	153118	47.62	UG	#	31
21) 2,2-Dichloropropane	5.40	77	282237m	63.20	UG		
22) 2-Butanone (MEK)	5.41	43	91001	82.96	UG		99
23) Bromochloromethane	5.67	128	66337	44.57	UG		96
25) Chloroform	5.76	83	345551	54.68	UG		99
26) 1,1,1-Trichloroethane	5.98	97	319460	64.25	UG	#	80
27) Carbon tetrachloride	6.17	117	244384	66.48	UG		100
28) 1,1-Dichloropropene	6.16	75	219687	57.70	UG		99
29) 1,2-Dichloroethane (EDC)	6.39	62	344184	50.95	UG		99
32) Benzene	6.39	78	563228	50.83	UG		100
33) Trichloroethene	7.12	95	156477	53.73	UG		85
34) 1,2-Dichloropropane	7.36	63	191201	51.30	UG	#	100
35) Dibromomethane	7.49	93	78076	46.18	UG		94
36) 1,4-Dioxane	7.52	88	43039	1839.53	UG	#	65
37) Bromodichloromethane	7.67	83	233610	56.87	UG		99
39) cis-1,3-Dichloropropene	8.18	75	226593	52.26	UG	#	96
40) 4-Methyl-2-pentanone (MIBK	8.36	43	220871	96.56	UG		95
42) Toluene	8.57	92	324699	52.63	UG		98
43) trans-1,3-Dichloropropene	8.80	75	211347	53.31	UG	#	96
44) 1,1,2-Trichloroethane	9.02	83	82567	45.05	UG		99
45) Tetrachloroethene	9.21	166	113217	59.27	UG		95
46) 1,3-Dichloropropane	9.21	76	188976	47.26	UG		100

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2230.D
Acq On : 13 Dec 2017 14:59
Operator : MEI
Sample : MS-MW3,E17-10611-007,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 15:02:05 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration

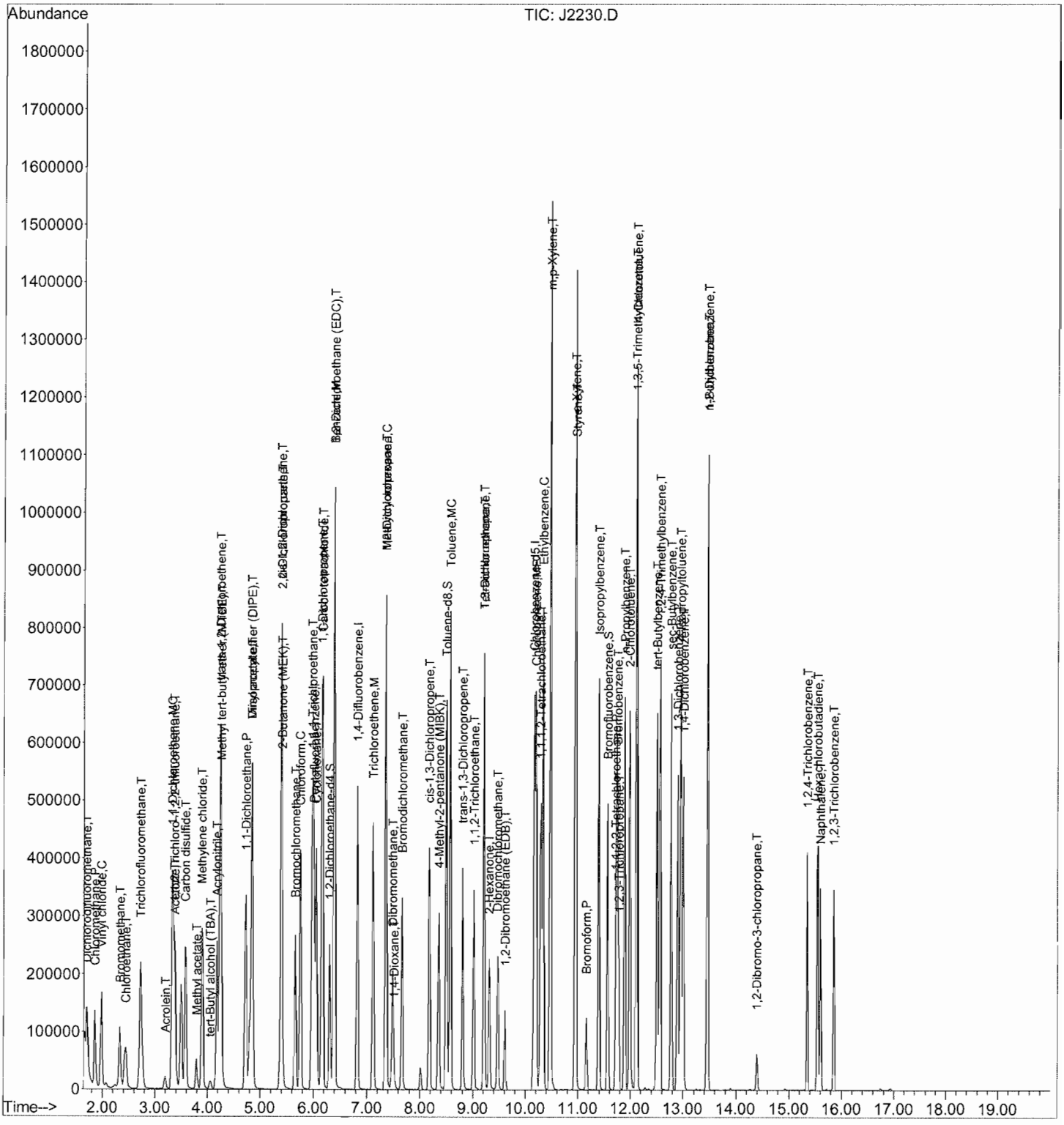
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 2-Hexanone	9.31	43	154146	101.02	UG		93
48) Dibromochloromethane	9.47	129	127392	51.79	UG		100
49) 1,2-Dibromoethane (EDB)	9.61	107	104342	46.82	UG		100
51) Chlorobenzene	10.20	112	332816	45.03	UG		99
52) 1,1,1,2-Tetrachloroethane	10.29	131	145781	51.49	UG		99
53) Ethylbenzene	10.33	91	586828	50.91	UG		98
54) m,p-Xylene	10.48	106	416737	99.19	UG		82
55) o-Xylene	10.94	106	207320	49.46	UG		82
56) Styrene	10.96	104	370952	50.42	UG	#	79
57) Bromoform	11.16	173	62031	40.85	UG		100
58) Isopropylbenzene	11.40	105	524466	55.21	UG		98
60) 1,1,2,2-Tetrachloroethane	11.72	83	116580	40.08	UG		99
61) Bromobenzene	11.75	156	136068	45.05	UG		100
62) 1,2,3-Trichloropropane	11.78	75	121208	38.94	UG		98
63) n-Propylbenzene	11.89	91	560889	53.79	UG		98
64) 2-Chlorotoluene	11.98	91	387835	49.17	UG		83
65) 1,3,5-Trimethylbenzene	12.11	105	446649	53.91	UG		94
66) 4-Chlorotoluene	12.12	91	480267	51.25	UG		97
67) tert-Butylbenzene	12.50	119	313212	54.81	UG		94
68) 1,2,4-Trimethylbenzene	12.56	105	464763	51.95	UG		95
69) sec-Butylbenzene	12.77	105	482964	55.73	UG		99
70) 1,3-Dichlorobenzene	12.90	146	219579	44.18	UG		100
71) 4-Isopropyltoluene	12.96	119	412230	54.23	UG		99
72) 1,4-Dichlorobenzene	13.01	146	221081	43.29	UG		100
73) n-Butylbenzene	13.46	92	196786	54.58	UG		97
74) 1,2-Dichlorobenzene	13.46	146	200548	42.07	UG		100
75) 1,2-Dibromo-3-chloropropan	14.39	75	21991m	40.08	UG		
76) 1,2,4-Trichlorobenzene	15.35	180	126691m	53.98	UG		
77) Hexachlorobutadiene	15.55	225	80045m	64.33	UG		
78) Naphthalene	15.60	128	267372m	43.75	UG		
79) 1,2,3-Trichlorobenzene	15.85	180	92521m	45.19	UG		
80) 1,1,2-Trichloro-1,2,2-trif	3.37	101	129817m	64.77	UG		
81) Methyl acetate	3.79	43	75216	40.93	UG		99
82) Cyclohexane	6.05	56	307969	56.95	UG	#	81
83) Methylcyclohexane	7.36	55	205762m	64.29	UG		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-13-17\
Data File : J2230.D
Acq On : 13 Dec 2017 14:59
Operator : MEI
Sample : MS-MW3,E17-10611-007,A,5ml,100
Misc : WHITMAN/EDGEWATER_,12/07/17,12/08/17,
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 15:02:05 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM112017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 08 09:59:09 2017
Response via : Initial Calibration



VOLATILE ORGANICS RUN LOGS
STANDARD PREP LOGS

LABORATORY CHRONICLE - GC/MS VOA (Soil)

DATE: 11/20/2017 17:01
INSTRUMENT: MSD-J

TUNE FILE: TUNE J
SEQ. FILE: 11-20-17
METHOD: JM112017

ANALYST: Mei Chen
(Initial) CXM

STANDARD	Lot #	Exp. Date	S (ul)	A (ul)	CONC.
BFB	LS1149	12/01/17	1	1	50 ng
ISTD/SURR	LS1150	12/11/17	1	1	250 ug/mL
PRIMARY 8260 STD	LS1160	02/06/18	12.5	100	40 ug/mL
PRIMARY AC/AC	LS1154	01/13/18	1.5	12	1000 ug/ml
PRIMARY 1,4-Dioxane	LS1153	01/05/18	1.5	12	10000 ug/ml
PRIMARY TPH-GRO	LS1155	01/31/18	10	80	500 ug/ml
SECONDARY 8260 STI	L2754	12/27/17	6.25	50	40 ug/ml
SECONDARY AC/AC	L2744	11/28/17	0.75	6	1000 ug/ml
SECONDARY 1,4-Dioxa	LS1157	02/15/18	7.5	60	1000 ug/ml
SECONDARY TPH-GR	LS1156	02/10/18	5	40	500 ug/ml
MEOH	151278	06/01/26			

#	File	Case #	Samp #	DF	/Vol	#	MX	Client ID	Date	Date	% Moist	Comments
1	J1833	BFB171120	BFB171120									ok
2	J1834	ICC171120	ICC0.5		5		A				100	ok
3	J1835	ICC171120a	ICC1		5		A				100	ok
4	J1836	ICC171120b	ICC5		5		A				100	ok
5	J1837	ICC171120c	ICC20		5		A				100	ok
6	J1838	ICC171120d	ICC100		5		A				100	ok
7	J1839	ICC171120e	ICC150		5		A				100	ok
8	J1840	ICC171120f	ICC200		5		A				100	ok
9	J1841	RB										/
10	J1842	RB										/
11	J1843	ICV171120	ICV100		5		A				100	ok
12	J1844	RB										/
13	J1845	RB										/
14	J1846	BLKM171120-01	BLKM171120-01		0.1		M				0	ok
15	J1847	9978	2	100	0		M	PEC-TP538_(	11/15/2017	11/17/2017	0	ok
16	J1848	LCS-50PPB	LCSM171120-01		0.05		M				0	ok
17	J1849	MS	E17-09978-001MS		0.05		M				0	ok
18	J1850	MSD	E17-09978-001MSD		0.05		M				0	ok
19	J1851	RB										/
20	J1852	RB										/
21	J1853	9978	1	1	0.05		M	PEC-TP552_(	11/14/2017	11/17/2017	5.40	Re-50%
22	J1854	9992	2	1	0.08		M	SB-2/3.5-4	11/16/2017	11/17/2017	15.8	ok
23	J1855		1	1	0.02		M	SB-1/3.5-4	11/16/2017	11/17/2017	18.0	ok
24	J1856		3	1	0.06		M	SB-3/3.5-4	11/16/2017	11/17/2017	22.4	ok
25	J1857	9991	1	1	0.05		M	SB-1	11/16/2017	11/17/2017	17.3	ok
26	J1858		2	1	0.05		M	SB-2	11/16/2017	11/17/2017	15.8	ok
27	J1859	9992	7	2	0.01		M	SB-7/3.5-4	11/16/2017	11/17/2017	37.0	ok
28	J1860		8	5	0.01		M	SB-8/3.5-4	11/16/2017	11/17/2017	22.4	ok
29	J1861	RB										/
30	J1862	RB										/

LABORATORY CHRONICLE - GC/MS VOA (Soil)

DATE: 12/13/2017 17:01
INSTRUMENT: MSD-J

TUNE FILE: TUNE J
SEQ. FILE: 12-13-17
METHOD: JM112017

ANALYST: Mei Chen
(Initial) CXM

STANDARD	Lot #	Exp. Date	S (ul)	A (ul)	CONC.
BFB	LS1161	03/01/18	1	1	50 ng
ISTD/SURR	LS1163	03/11/18	1	1	250 ug/mL
PRIMARY 8260 STD	LS1160	02/06/18	12.5	100	40 ug/mL
PRIMARY AC/AC	LS1154	01/13/18	1.5	12	1000 ug/ml
PRIMARY 1,4-Dioxane	LS1153	01/05/18	1.5	12	10000 ug/ml
PRIMARY TPH-GRO	LS1155	01/31/18	10	80	500 ug/ml
SECONDARY 8260 STD	L2754	12/27/17	6.25	50	40 ug/ml
SECONDARY AC/AC	L2761	02/25/18	0.75	6	1000 ug/ml
SECONDARY 1,4-Dioxan	LS1157	02/15/18	7.5	60	1000 ug/ml
SECONDARY TPH-GRO	LS1156	02/10/18	5	40	500 ug/ml
MEOH	151278	06/01/26			

#	File	Case #	Samp #	DF	/Vol	I	MX	Client ID	Date	Date	% Moist	Comments
1	J2218	BFB171213	BFB171213									ok
2	J2219	CCV100	CCV171213		5		A				100	ok
3	J2220	RB										-
4	J2221	RB										-
5	J2222	BLKA171213-01	BLKA171213-01		5		A				100	ok
6	J2223	10611	4		5	2	A	DUP	12/7/2017	12/8/2017	100	ok
7	J2224		5		5	2	A	MW-3	12/7/2017	12/8/2017	100	ok
8	J2225		9		1	2	A	PZ-4	12/7/2017	12/8/2017	100	ok
9	J2226		8		0.5	2	A	PZ-3	12/7/2017	12/8/2017	100	Sample very foamy MEK, Helm
10	J2227		8		1	2	A	PZ-3	12/7/2017	12/8/2017	100	ok
11	J2228	LCS-50PPB	LCSA171213-01		5		A				100	ok
12	J2229	10611	6		5	2	A	MSD-MW3	12/7/2017	12/8/2017	100	ok
13	J2230		7		5	2	A	MS-MW3	12/7/2017	12/8/2017	100	ok
14	J2231	RB										-
15	J2232	RB										-
16	J2233	10611	10		5	2	A	FB	12/7/2017	12/8/2017	100	ok
17	J2234		11		5	2	A	TB	12/7/2017	12/8/2017	100	ok
18	J2235		2		5	2	A	MW-7	12/7/2017	12/8/2017	100	ok
19	J2236		3		5	2	A	MW-6	12/7/2017	12/8/2017	100	ok
20	J2237		1		5	2	A	MW-11	12/7/2017	12/8/2017	100	ok
21	J2238	10648	10		5	2	A	TWP-1	12/11/2017	12/11/2017	100	ok
22	J2239		11		5	2	A	TWP-2	12/11/2017	12/11/2017	100	ok
23	J2240		12		5	2	A	TWP-3	12/11/2017	12/11/2017	100	ok
24	J2241		13		5	2	A	TWP-4	12/11/2017	12/11/2017	100	ok
25	J2242	10436	1		5	2	A	MW-6	12/5/2017	12/5/2017	100	ok
26	J2243		4		5	2	A	MW-9	12/5/2017	12/5/2017	100	ok
27	J2244		3		5	2	A	MW-8	12/5/2017	12/5/2017	100	ok
28	J2245		2		1	2	A	MW-7	12/5/2017	12/5/2017	100	ok
29	J2246	RB										-
30	J2247	RB										-

LS1146 TPH-GRO working Std @ 500 µg/ml
prep 8/10/17 125 µl of SpexCertPrep GAS-20 (lot#: SM170511017) (@ 20mg/m
Exp: 11/10/17 (exp: 5/16/20) diluted into 5ml MeOH
CXin (MeOH lot#: 157278. exp: 6/1/2026).

LS1147. Secondary TPH-GRO Working Std @ 500 µg/ml.
prep. 8/10/17 125µl of AccuStandard GA-001-40X (lot# 216041456)
Exp. 11/10/17 @ 20.0mg/ml (exp: 4/20/26). diluted into 5ml MeOH.
CXin (MeOH lot#: 157278. exp: 6/1/2026)

LS1148 Secondary 1,4-Dioxane working std @ 1,000 µg/ml
prep: 8/15/17 1ml of Transfer 1,4-Dioxane @ 1,000ppm (App-9-096-10X)
Exp: 11/15/17 (lot#: 21412044, exp: 12/2/2024) to 1ml vial
CXin

LS1149 BFB @ 25µg/ml for Tuning
prep 9/1/17 1ml of ECS-A-017 @ 50ppm (Lot# EN1504 11005, exp 4/10/2018)
Exp 12/1/17 into 1ml MeOH, final volume: 2ml.
(MeOH Lot# 157278, exp 6/1/2026)

LS1150 I.S/SURR working std @ 250 µg/ml
prep 9/1/17 1ml of LS1137 @ 2,500µg/ml (exp 6/8/18) and 1ml of LS1138
Exp 12/1/17 @ 2,500µg/ml (exp 6/8/18) diluted into 10ml MeOH.
(MeOH Lot# 157278. exp 6/1/2026)

LS1151 — 8260 primary working std @ 40 ppm

VXF 9/11/17

exp. 11/9/17

1ml of PWM-588 @ 2,000 ppm (Lot# CP-4768, Recd 10/6/16, exp. 10/31/19)
2ml of ECS-A40 2-chloroethyl vinyl ether (Lot# BW161117004, Recd 5/18/17, exp. 11/17/18)
0.4ml of TBA @ 10,000 ppm (LS1116, exp. 11/20/17)
0.4ml of DIPE @ 5,000 ppm (LS1119, exp. 1/3/18)
2ml of ECS-A043 Ketones @ 2,000 ppm (Recd 5/18/17, exp. 2/6/18)
1ml of ECS-A044 8260 Addls on #1 @ 2,000 ppm (Lot# BW161117002, Recd 11/9/17, exp. 11/17/2017)
1ml of VOIAL-NJ-1 @ 2,000 ppm (Lot# BW160428030, Recd 5/4/16, exp. 4/29/2019)
diluted into 50ml MEOH (MEOH Lot# 151278, exp. 6/1/2026)

LS1152 — Primary Aer./Aery working std @ 1,000 µg/ml

exp. 9/8/17

exp. 10/2/17 — 1ml of M-603-M-SX @ ~~2.0~~ mg/ml (exp: 10/2/17, lot#: 21706101Z)
diluted into 2ml MeOH (MeOH Lot# 151278, exp: 6/1/2026)

Cancelled

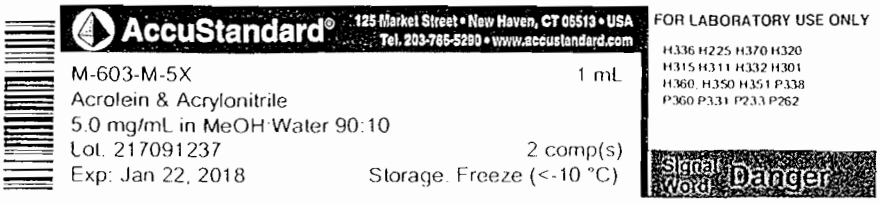
10/2/17

LS1153 — Primary 1,4-Dioxane working std @ 10000 ppm

VXF 10/6/17

exp 1/5/18 — Transfer 1,4-Dioxane @ 10,000 ppm (ECS-A-DIOX, Lot# BW 170131011 exp. 1/31/2020.) into 1ml vial

LS1154 Primary Acro/Acry working std @1,000 µg/ml
prep: 10/31/17 1 ml of M-603-M-5X @5.0mg/ml (lot# 217091237, exp: 1/22/18)
Exp: 1/31/18 diluted into 5ml MeOH
CXM (MeOH lot#: 151278: exp: 6/1/2026)


AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-603-M-5X 1 mL
Acrolein & Acrylonitrile
5.0 mg/mL in MeOH:Water 90:10
Lot. 217091237 2 comp(s)
Exp: Jan 22, 2018 Storage: Freeze (<-10 °C)
FOR LABORATORY USE ONLY
H336 H225 H370 H320 H315 H311 H332 H301 H360, H350 H351 P338 P360 P331 P233 P262
Signal Word: Danger

LS1155 TPH-GRO working std @500 µg/ml
prep: 10/31/17 125 µl of Spex CertPrep GAS-20 (lot# SM1510-06016) @20 mg/ml
Exp: 1/31/18 (exp: 5/12/19) diluted into 5ml MeOH (MeOH lot# 151278,
CXM exp: 6/1/2026)

LS1156 Secondary TPH-GRO working std @500 µg/ml
prep: 11/10/17 125 µl of AccuStandard GA-001-40X (lot# 216041456)
Exp: 2/10/18 @20.00 mg/ml (exp: 4/20/26) diluted into 5ml MeOH
CXM (MeOH lot#: 151278, exp: 6/1/2026)

LS1157 Secondary 1,4-Dioxane working std @1,000 µg/ml
prep: 11/15/17 Transfer 1,4-Dioxane @1,000 ppm (App-9-096-10X)
Exp: 2/15/18 (lot#: 21412104, exp: 12/1/2024) to 1ml vial
CXM

LS1158 Tert-butyl alcohol stock std @ 10,000 µg/ml
prep: 11/17/17 129 µl of Sigma-Aldrich Tert-butyl alcohol neat (Recd: 11/30/12)
Exp: 11/17/18 into 10ml MeOH
CXm (MeOH lot# 151278 exp: 6/1/2026)

LS1159 DZPE stock std solution @ 5,000 µg/ml
prep: 11/17/17 34.48 µl of DZPE neat (Recd: 6/19/13, lot#: SHBB 6268V)
Exp: 11/17/18 diluted to 5ml MeOH
CXm (MeOH lot # 151278, exp: 6/1/2026)

LS1160 8260 Primary working std @ 40ppm
prep: 11/17/17
Exp: 2/6/18
CXm
- 1ml of DWM-588 @ 2000ppm (lot# cp-4768, Recd 10/6/16, exp 10/31/19)
- 2ml of ECS-A40 2-Chloroethyl vinyl ether (lot# BW161117004, Recd 5/18/17, exp: 11/17/18)
- 0.4ml of TBA @ 10,000ppm (LS1158, exp: 12/17/18)
- 0.4ml of DZPE @ 5,000 ppm (LS1159, exp: 11/17/18)
- 2ml of ECS-A043 Ketones @ 2,000ppm (Recd 5/18/17 exp: 2/6/18)
- 1ml of ECS-A044 8260 Adds on #1 @ 2,000ppm (lot# ~~BW161117006~~ TS171017017 CXm 10/17/17)
  Recd 10/23/17, exp. 10/17/2018
- 1ml of VOIAL-NJ-1 @ 2,000ppm (lot# BW160428030 Recd 5/2/16, exp: 4/29/2019)

diluted into 50ml MeOH (MeOH lot# 151278, exp: 6/1/2026)

LS1161
VXF 12/1/17
exp. 3/1/18

BFB Tuning check @ 25 µg/ml
1 ml of ECS-A-017 @ 50ppm (Lot# EN1504 11005, exp. 4/10/2018)
into 1ml MEOH. Final Volume: 2ml
(MEOH Lot# 151278, exp. 6/1/2026)

LS1162
pre: 12/7/17
Exp: 3/7/18
CXM

Int/Surr working solution @ 50 ng/ml for 4/00
0.1 ml of LS1137 @ 2,500 µg/ml (exp: 6/8/18) and
0.1 ml of LS1138 @ 2,500 µg/ml (exp: 6/8/18)
diluted into 5ml MeOH
(MeOH ~~Lot#~~: LS1278, exp: 6/1/2026)

LS1163
pre: 12/11/17
Exp: 3/11/18
CXM

Int/Surr working Std @ 250 µg/ml
1 ml of LS1137 @ 2,500 µg/ml (exp: 6/8/18) and
1 ml of LS1138 @ 2,500 µg/ml (exp: 6/8/18)
diluted into 10ml MeOH
(MeOH lot# 157278, exp: 6/1/2026)

L2742 5/14.2 Primary REV-A @ 200ppm

DWM-588-1
Lot CR-0231
Exp 02/28/2020
ULTRA 1 mL
VOC Mixture
60 analyte(s) at 2000 µg/mL in methanol
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

1 ml of DWM-588-1 received 1/26/17 opened 8/9/17 into 10 mls MeOH

8/9/17

exp's 1/9/17

L2743 5/14.2 REV-A Primary @ 200ppm

DWM-592-1
Lot CP-1620
Exp 05/31/2019
ULTRA 1 mL
VOC Mixture
24 analyte(s) at 2000 µg/mL in methanol
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

1 ml of DWM-592-1 received 1/26/17 opened 8/9/17 into 10 mls MeOH

8/9/17

exp's 1/9/17

L2744 Secondary Acrolein / Acrylonitrile @ 1000ppm
08/28/17
11/28/17 1 ml of ECS-A-038 Lot: BW1708300111
exp. 11/28/17 into 10 ml of MEOH
Lot 17/415

ECS (800) LAB-SPEX
Acrolein/Acrylonitrile Mix
Part # ECS-A-038
Lot # BW1708300111
Exp. 11/28/17

L2751
8.9/13/17
12/18/17
BFB primary 25 ppm
0.5 ml of EC-A-014 Lot. EN150411005
Exp 04/10/18 and 0.5 ml of H2O
final volume 1 ml

L2752
8/22/17
12/22/17
1,4-Dioxane (Primary) EC-A-DIOX
1 ml of EC-A-DIOX Lot: BL1701131010
Exp 1/31/2020

L2753
9/11/17
exp 12/11/17 yz
500 ppm BFB at 1 to 4 for screen 1 ml (of 1/2)+1.1 x 5
BFB stock) in to 1 ml Meth.

L2754
8/27/17
12/27/17
Secondary Mix of H2O wet/ml
0.8 ml of L2695 MTBE/TBA/DIPE
@ 800/1000/5000 ppm
2 ml of EC-049 Add-ons mix #3 2000ppm
Lot. 711504 0001, received 2/14/17 exp.
4/7/2018
2 ml of EC-524/8260 Main Mix 2000/pm
EC-A-033 Lot. TS160701009, received
2/14/17 exp. 7/1/2019
2 ml of EC- Volatiles Oxy mix 2000ppm
EC-A-053 Lot - BL1612210 12, received
2/14/17 exp. 2/21/18
4 ml of M-8260-Add-10 x Lot. 2170112 Z9-0
rec. 8/30/17 exp 01/00/18
H2O 1 vial of H2O

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Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 217071278-01
Exp: Jan 06, 2018

1 mL

8 comp(s)
Storage: Freeze (< -10 °C)

FOR LABORATORY USE ONLY

H336 H225 H370 H320
H315 H311 H332 H301
H360 H350 H351 P338
P360 P331 P233 P262

Signal Word: Danger

Date Opened

Storage: Freeze (< -10 °C)

M-8260-ADD-10X
Lot: 217071278-01
Exp: Jan 06, 2018

Method 8260 Additions
2.0 mg/mL in MeOH

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Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 217071278-01
Exp: Jan 06, 2018

1 mL

8 comp(s)
Storage: Freeze (< -10 °C)

FOR LABORATORY USE ONLY

H336 H225 H370 H320
H315 H311 H332 H301
H360 H350 H351 P338
P360 P331 P233 P262

Signal Word: Danger

Date Opened

Storage: Freeze (< -10 °C)

M-8260-ADD-10X
Lot: 217071278-01
Exp: Jan 06, 2018

Method 8260 Additions
2.0 mg/mL in MeOH

L2760 524.2 IS/Surr for 524.2 @ 5 ppm - 4100

125 ml of ECS-524.2 IS/Surr @ 2000 ppm
ECS-A-034 lot R110324dd3 exp 3/25/18
received 8.15.17 into 50 mls MeOH

RS
10/17

expires 1/17/18

L2761 Secondary Acrolein / Acrylonitrile @ 1000 ppm
11/28/17 1 ml of EQ-A-038 Lot: ITSI 7112 7013
02/28/18 exp. 02/25/18 into 10 ml of MEOH

L2762 524.2 Primary @ 20 ppm

0.1 ml of ultra Sum. 588-1
received 1/26/17 opened 1/14/17
RS
1/14/17 Lot: CR-0231 expires 2/28/2020
into 10 mls MeOH
expires 2/14/18

L2763 524.2 REV 4 Primary @ 200 ppm

1 ml of ultra Sum. 592-1
received 2/14/17 opened 1/14/17
RS
1/14/17 Lot: CM-1985 expires 5/13/18
into 10 mls MeOH
expires 2/14/18

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: Whitman
Address: 7 Pleasant Hill Rd.
Cranbury, NJ 08512
Telephone #: (732) 390-5858
Fax #:
Project Manager: Ed Huss
EMAIL Address: ehuss@whitmanco.com
Project Name: Edgewater Realty
Project Location (State): NY
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by: PJ + LS

COMPLETED BY IAL:
Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☑ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☑ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☑ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 1 week
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☐ GWQS	☑ AWQS (TOGS Table 1)
☐ IGW	☑ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VOCs	Sample Specific Notes:
MW-11		12/7/17	10:15	GW	2	1	X	
MW-7			09:55			2		
MW-6			13:00			3		
DUP			—			4		
MW-3			11:20			5		
MSD-MW3			11:23			6		
MS-MW3			11:25			7		
PZ-3			12:55			8		

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Preservative (use code): 2
Container Type (use code): C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	12/8/17	13:45		12.8.17	13:45
	12.8.17	16		12/8/17	1645

FOR LAB USE ONLY
SDG #: 10611
Cooler Temp: 3 °C

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LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: Whitman
Address: 7 Pleasant Hill Rd.
Cranbury NJ 08512
Telephone #: (732) 390-5858
Fax #:
Project Manager: Ed Huss
EMAIL Address: ehuss@whitmanco.com
Project Name: Edgewater Realty
Project Location (State): NY
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by: LS + PJ

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

****Rush TAT Charge**

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☑ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☑ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☑ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 1 week
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☐ GWQS	☑ AWQS (TOGS Table 1)
☐ IGW	☑ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VOCs	Sample Specific Notes:
PZ-4		12/7/17	14:10	GW	2	9	X	
FB		↓	10:30	AQ	↓	10	X	
TB		↓	—	AQ	↓	11	X	

ANALYTICAL PARAMETERS (please note if contingent)

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Preservative (use code): 2
Container Type (use code): C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	12/8/17	15:45		12.8.17	15:45
	12.8.17	16:45	CAIS	12/8/17	1645

FOR LAB USE ONLY
SDG #: 10611
Cooler Temp: 1 °C

E17-10611 Page 244

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 2 of 2

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10611: EDGEWATER REALTY

To: Ed Huss
Whitman
Fax: 1(732) 390-9496
EMail: ehuss@whitmanco.com

Report To

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512
Attn: Ed Huss

Bill To

Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512
Attn: Ed Huss

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category B		Dec 08, 2017 @ 16:45	NA	Dec 15, 2017	Jan 02, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY TOGS Tbl5 (GWEL)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10611-001	MW-11	NA	12/07/17@10:15	Aqueous	ug/L (ppb)	
10611-002	MW-7	NA	12/07/17@09:55	Aqueous	ug/L (ppb)	
10611-003	MW-6	NA	12/07/17@13:00	Aqueous	ug/L (ppb)	
10611-004	DUP	NA	12/07/17	Aqueous	ug/L (ppb)	
10611-005	MW-3	NA	12/07/17@11:20	Aqueous	ug/L (ppb)	
10611-006	MSD-MW3	NA	12/07/17@11:23	Aqueous	ug/L (ppb)	
10611-007	MS-MW3	NA	12/07/17@11:25	Aqueous	ug/L (ppb)	
10611-008	PZ-3	NA	12/07/17@12:55	Aqueous	ug/L (ppb)	
10611-009	PZ-4	NA	12/07/17@14:10	Aqueous	ug/L (ppb)	
10611-010	FB	NA	12/07/17@10:30	Aqueous	ug/L (ppb)	
10611-011	TB	NA	12/07/17	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
002	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
003	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
004	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
005	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
006	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
007	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
008	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
009	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
010	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017
011	TCL VO + 15	Analyze	8260C	RUSH 1 WK	12/21/2017

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10611: EDGEWATER REALTY

273 Franklin Road
Randolph, NJ 07869
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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10611** CLIENT: WCI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol
(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [KC] DATE 12/8/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [KF] DATE 12/11/17

Laboratory Custody Chronicle

IAL Case No.

E17-10611

Client Whitman

Project EDGEWATER REALTY

Received On 12/ 8/2017@16:45

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	10611-001	Aqueous	n/a	n/a	12/13/17	Mei
"	-002	"	n/a	n/a	12/13/17	Mei
"	-003	"	n/a	n/a	12/13/17	Mei
"	-004	"	n/a	n/a	12/13/17	Mei
"	-005	"	n/a	n/a	12/13/17	Mei
"	-006	"	n/a	n/a	12/13/17	Mei
"	-007	"	n/a	n/a	12/13/17	Mei
"	-008	"	n/a	n/a	12/13/17	Mei
"	-009	"	n/a	n/a	12/13/17	Mei
"	-010	"	n/a	n/a	12/13/17	Mei
"	-011	"	n/a	n/a	12/13/17	Mei

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT