

2016 PERIODIC REVIEW REPORT

**Former Albany Laboratories Site
67 Howard Street/140 State Street
City of Albany, New York**

**New York State
Department of Environmental Conservation
Site Number: 401061**

CHA Project Number: 21645

Prepared for:

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EXECUTIVE SUMMARY

The Former Albany Laboratories Site (Site) is located in Albany County, New York and is identified as Tax Map Parcel (TMP) Nos. 76.33-1-13 and 76.33-1-15 on the City of Albany Tax Map. The address for the Site is 67 Howard Street and 140 State Street, Albany, New York.

Based on the results of subsurface investigations and interim remedial measures completed at the Site, and sub-slab vapor/indoor air sampling completed at the adjacent 144 State Street building, the NYSDEC issued a Record of Decision (ROD) for the Site in March 2014. The ROD summarized previous investigations and activities associated with the Site, and documented the selected remedy for the Site, which was identified as “site cover with on-site institutional and engineering controls”, consisting of the placement of a site cover over on-site soils, imposition of an environmental easement, development and implementation of a Site Management Plan, and installation/operation of a sub-slab depressurization system at the adjacent 144 State Street building. The remedy was implemented beginning in June 2014 upon issuance of the Site Management Plan, which included the environmental easement.

Although not specifically required by the ROD, a passive sub-slab ventilation system was installed in the 140 State Street building during its construction in 2015. However, the system was converted to an active sub-slab depressurization system during the summer of 2016, with activation occurring in late August. Conversion of the system was offered voluntarily by the Owner based on results of initial sub-slab vapor and indoor air sampling conducted during January 2016 and subsequent discussion with the NYSDEC and New York State Department of Health (NYSDOH).

At the time of the annual site-wide inspection conducted on December 13, 2016, the Site was observed to be in good condition. Refer to Figure 2 (Site Plan) for the layout of the Site. In areas not covered by buildings/structures, CHA observed no cracks or other evidence of damage to the concrete and asphalt pavement cover. No changes in the use of the Site or the adjacent 144 State Street property were observed during the site-wide inspection, and no new development was observed.

Sub-slab vapor and indoor air monitoring was conducted at both the 140 and 144 State Street buildings in December 2016. Based on the analytical results of sub-slab vapor and indoor air samples, the sub-slab depressurization systems continue to mitigate the potential for vapor intrusion and exposure to residual contaminants in the soil.

It is recommended that the current institutional and engineering controls for the Site and the adjacent 144 State Street property remain in place, and the engineering controls continue to be inspected and monitored as required by the SMP. Provided these controls remain in place and are maintained, it is expected that the remedy will continue to be effective in the protection of human health and the environment.

No changes to the remedy, and/or monitoring or operation & maintenance plans are recommended at this time.

1.0 PROJECT/SITE OVERVIEW

This Periodic Review Report (PRR) is a required element of the remedial program at the Former Albany Laboratories Site located at 67 Howard Street and 140 State Street, Albany, New York (hereinafter referred to as the “Site”) under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Order on Consent Index #DER-401061-02-25-11, Site # 401061, which was executed on April 12, 2011.

Columbia Eagle LLC (Columbia Eagle) entered into an Order on Consent with the NYSDEC requiring the Remedial Party, Columbia Eagle, to investigate and remediate contaminated media at the Site. Two figures showing the Site location and boundaries of this 0.226-acre Site are provided in Figures 1 and 2, respectively.

At the time of the Order on Consent, the Site consisted of properties identified as 67 Howard Street and 140 State Street only. In 2014, Columbia Eagle subdivided previously purchased parcels on the same city block including 132, 134, 136, and 138 State Street, as well as 59 Howard Street. As indicated in Table 1 below, Columbia Eagle subdivided these parcels such that 59 Howard Street and the western approximately three quarters of the 132, 134, 136, 138, and 140 State Street properties were incorporated into 67 Howard Street, while the remaining approximately one quarter of each site retained its original address, with the exception of 134 State Street which was combined with 136 State Street. In addition, please note that 144 State Street was historically referred to as 142 State Street. A comparison of historical and current parcels is identified below.

Table 1. Comparison of Historical and Current Parcels

Historical Parcel	Current Parcel
59 Howard Street	67 Howard Street
67 Howard Street	67 Howard Street
132 State Street	67 Howard Street 132 State Street
134 State Street	67 Howard Street 136 State Street
136 State Street	67 Howard Street 136 State Street
138 State Street	67 Howard Street 138 State Street
140 State Street	67 Howard Street 140 State Street
142 State Street	144 State Street

While the subdivision of the parcels has resulted in address changes to the property, it is noted that only the original 67 Howard Street and 140 State Street were included in the Consent Order with the NYSDEC. While remedial action at 144 State Street (formerly referred to as 142 State Street) is discussed in this PRR, it should be noted that this parcel was not part of the property included under the Consent Order.

Subsequent to completion of the remedial work, some contamination was left at the Site, which is hereafter referred to as “remaining contamination”. Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy, as outlined in the NYSDEC’s March 2014 Record of Decision (ROD), to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement, issued by the NYSDEC, and recorded with the Albany County Clerk, requires compliance with the Site Management Plan (SMP) developed for the Site, and all ECs and ICs placed on the Site and affected portions of off-site properties.

The Site is identified as Tax Map Parcel (TMP) Nos. 76.33-1-13 and 76.33-1-15 on the City of Albany Tax Map. The Site is an approximately 0.226-acre parcel, extending from Howard Street northeastward to State Street, to the east of Eagle Street, within the City of Albany’s downtown area. The current owner of record of the Site is Columbia Eagle LLC, 302 Washington Avenue Extension, Albany, New York 12203.

This PRR was prepared by CHA Consulting, Inc. (CHA), on behalf of Columbia Eagle (the Remedial Party) as a required element of the NYSDEC-approved SMP developed for the Site, and summarizes the sub-slab vapor and indoor air monitoring, and site-related inspections conducted during 2016.

1.1 SITE BACKGROUND

Sometime prior to 1934, the property associated with 67 Howard Street was originally a dairy farm. On a 1934 Sanborn map, 67 Howard Street was shown to have a chemical laboratory and the courtyard behind the building was shown to be used as a “Thinner storage yard in metal drums”. According to city directories, the 67 Howard Street property was operated as Albany Laboratories from 1935 to 1985. The property was then vacant until redevelopment in 2015.

The earliest records indicate that the 140 State Street property was originally a private dwelling. Circa 1914 documents reported that the property was used as doctor’s offices and apartments. At

some time prior to 1934 and until at least 1979, the building was used as the Berkshire Hotel. The building was vacant thereafter until it was demolished in 2008.

Prior to the Site being listed on the New York State Registry of Inactive Waste Disposal Sites in February 2011, the Site was overseen by the NYSDEC as spill No. 0704683. In July 2007, a 2,000 gallon fuel oil underground storage tank (UST) was identified on the 140 State Street property and in September 2008, the UST was removed and impacted soil around the tank was excavated and disposed of off Site.

Contamination was primarily observed in the location of a courtyard formerly located within the northern portion of the 67 Howard Street parcel and the southern end of the 140 State Street parcel. Contamination had also migrated east to the 138 State Street parcel.

In September and October 2008, the top three feet of soil, approximately 251.5 tons, was removed from the former courtyard area. Post-excavation samples indicated the presence of remaining soil contamination above the SCGs. Additional excavation of contaminated soil was conducted in January and February 2011. Soil was excavated along the foundation wall of the building located at 144 State Street. The excavation spanned the two lots that make up the Site and the adjacent lot located at 138 State Street. Approximately 895 tons of petroleum-contaminated soil was excavated. Of this total, 34.14 tons of soil was disposed of off-Site as hazardous waste while the remaining soil was disposed of off-Site as non-hazardous waste. Excavations were backfilled with clean fill material brought to the Site which met the requirements for the identified Site use as set forth in 6 NYCRR Part 375-6.7(d).

Excavation to the west was limited by the foundation of the 144 State Street building and as a result sub-slab vapor, indoor air and outdoor air samples were collected in February and November 2012 within and outside the building to evaluate whether actions were necessary to address exposures related to soil vapor intrusion. This investigation indicated mitigation was recommended in accordance with the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, October 2006).

Based on the results of subsurface investigations and interim remedial measures completed at the Site, and sub-slab vapor/indoor air sampling completed at the adjacent 144 State Street building, the NYSDEC issued a Record of Decision (ROD) for the Site in March 2014, which summarized previous investigations and activities associated with the Site, and documented the selected remedy for the Site. The components of the selected remedy are described in the following section.

1.2 SUMMARY OF SITE REMEDY

The NYSDEC selected a remedy of “site cover with on-site institutional and engineering controls”. As presented in the March 2014 ROD, the remedy included the following major components:

- A site cover was required to allow for commercial use of the 67 Howard Street Parcel and restricted residential use of the 140 State Street parcel.

For 67 Howard Street, the site cover was required to consist either of the structures such as buildings, pavement and sidewalks comprising the site development, or a soil cover in areas where the upper one foot of exposed surface soil would exceed the applicable soil cleanup objectives (SCOs). Where the soil cover was required, it was required to be a minimum of one foot of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover was required to be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetative layer.

Any fill material brought to the Site was required to meet the requirements for the identified site uses as set forth in 6 NYCRR Part 375-6.7(d).

For 140 State Street, the site cover was required to consist either of the structures such as buildings, pavement and sidewalks comprising the site development, or a soil cover in areas where the upper two feet of exposed surface soil would exceed the applicable soil cleanup objectives (SCOs). Where the soil cover was required, it was required to be a minimum of two feet of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover was required to be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetative layer. Any fill material brought to the Site was required to meet the requirements for the identified site uses as set forth in 6 NYCRR Part 375-6.7(d).

- Installation and continued operation, maintenance and monitoring of a sub-slab depressurization system (SSDS) within the building at the off-site, adjacent 144 State Street property.
- Imposition of an institutional control (in the form of environmental easements) for the controlled properties that:
 1. Requires the remedial party or site owner to complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
 2. Allows the use and development of the 67 Howard Street property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
 3. Allows the use and development of the 140 State Street property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws; and

4. Requires compliance with the NYSDEC-approved Site Management Plan (SMP).
- Development and implementation of a Site Management Plan, which includes the following:
 1. Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the Site, and details the steps and media-specific requirements necessary to ensure that the following institutional and engineering controls remain in place and effective: environmental easements, cover system and the off-site SSDS (144 State Street). This plan includes the following:
 - Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - Descriptions of the provisions of the environmental easements including any land use restrictions;
 - A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site;
 - Provisions for the management and inspection of the identified engineering controls;
 - Provisions for maintaining site access controls and NYSDEC notification;
 - Provision of the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
 2. Monitoring Plan to assess the performance and effectiveness of the remedy. This plan includes provisions for monitoring for vapor intrusion for any buildings developed on the Site, as may be required by the Institutional and Engineering Control Plan.

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

2.1 IC/EC PLAN REQUIREMENTS AND COMPLIANCE STATUS

Institutional controls implemented at the Site in the form of environmental easements for the 67 Howard Street and 140 State Street parcels, and more specifically the Site Management Plan, require periodic inspection of the above-referenced engineering controls and evaluation of Site use to ensure that exposure to remaining contamination is prevented and the use and development of the Site is consistent with the restrictions set forth in the environmental easements.

Engineering controls implemented at the Site that are subject to periodic inspection consist of the site cover and the sub-slab depressurization system on the Site (in the building at 140 State Street) as well as the sub-slab depressurization system operating off-site in the adjacent building at 144 State Street (Marriott Renaissance Hotel), designed to maintain negative pressure beneath the entire building footprint.

2.1.1 Inspection of Site Cover

At the time of the annual site-wide inspection conducted by CHA on December 13, 2016, the site cover was observed to be unchanged since completion of site redevelopment activities in 2015, consisting largely of the building at 140 State Street and the multi-level parking garage structure on the 67 Howard Street property. Areas of the Site not covered by these structures were covered with either concrete or asphalt pavement, observed to be in good condition. No evidence of cracking or damaged concrete or asphalt was observed. The Site Inspection Form is included in Appendix A.

2.1.2 Sub-Slab Depressurization Systems

During the current reporting period, annual inspections of the sub-slab depressurization systems within the 140 State Street building and the adjacent 144 State Street building were completed by CHA on December 13, 2016. It should be noted that initially, a passive sub-slab ventilation system was installed in the 140 State Street building during its construction in 2015. However, the system was converted to an active sub-slab depressurization system during the summer of 2016, with activation occurring in late August. System operation was confirmed during a site visit on August 23, 2016. Conversion of the system was offered voluntarily by the Owner based on results of initial sub-slab vapor and indoor air sampling conducted during January 2016, specifically the detection of elevated levels of trans-1,2-Dichloroethene in sub-slab vapor as well as indoor air samples, and

subsequent discussion with the NYSDEC and New York State Department of Health (NYSDOH). The findings of the January 2016 sampling event were presented in CHA's report dated March 7, 2016, which was previously submitted to the NYSDEC. Details of the conversion of the system, including the *Vapor Mitigation System Activation Report* (prepared by Alpine Environmental Services, Inc.) are included in Appendix B of this report. The SMP was revised to reflect the conversion of the system, and a revised version has been submitted to the NYSDEC.

At the time of the December 13th inspection, the sub-slab depressurization system in the 140 State Street building was observed to be off-line, as indicated by the pressure gauge in the vertical riser pipe (accessed via a wall-mounted hatch in the basement), and then confirmed during inspection of the in-line fan and discharge piping on the roof. The length of time that the system was off-line could not be confirmed. The switch for the fan was observed to be in the "on" position, but the fan was not operating. CHA contacted Alpine Environmental Services to discuss the system status. Alpine noted that it was very rare for a new fan to fail so soon after installation and recommended that the electrical components be evaluated. During the week following the inspection, Columbia Eagle's electrical contractor investigated the electrical components of the system and identified the problem as the fan switch. A new switch was installed and the fan was re-activated on December 20, 2016. Proper system operation was confirmed, as indicated by the above-referenced pressure gauge. Going forward, arrangements will be made through Columbia Eagle for on-site personnel to verify and document system operation on a monthly basis.

At the time of the December 13th inspection, the sub-slab depressurization system in the 144 State Street building (Renaissance Hotel) was observed to be functioning properly, as indicated by the magnehelic monometer for each sub-system (#1 through #7). The manometer readings were consistent with the readings observed in September 2015, soon after the system was activated, and also during a site visit by CHA in April 2016. Based on post-installation communication testing conducted by Aztech Technologies, Inc. during the fall of 2015, these readings are indicative of sufficient vacuum to produce the required negative sub-slab pressure at monitoring points throughout the basement.

Date	Individual Sub-System Vacuums (Inches of Water Column)						
	Sub-System 1	Sub-System 2	Sub-System 3	Sub-System 4	Sub-System 5	Sub-System 6	Sub-System 7
09/14/15	2	5.4	1.8	1	1.8	3.5	9
04/05/16	2	5.6	1.8	1	1.9	3.5	9
12/13/16	2.1	5.6	1.9	1	1.8	3.5	9.5

System operation was confirmed via inspection of the seven in-line fans mounted on the roof of the building. Each fan was observed to be operating and air flow was noted from each of the discharge pipes. No cracks or other evidence of damage to the piping or fans was observed. As part of the inspection, the main system switch for the fans was tested and the system was temporarily switched off. The switch functioned properly, as all seven fans shut down.

While the fans were off, CHA personnel and the Director of Engineering for the Renaissance Hotel, Mr. Frank Chobot, checked the Building Management System (BMS) to verify activation of an alarm within the BMS, which is to be triggered by a decrease in pressure to less than -0.25 inches of water in any of the sub-systems. There was no alarm activation observed within the BMS system. This condition was noted for subsequent discussion with Columbia Eagle to facilitate resolution of the problem and ensure proper integration of the sub-systems with the BMS. The SSDS was then switched back on and all seven fans were observed to be operating properly upon conclusion of CHA's inspection visit. The Site Inspection Forms are included in Appendix A.

In January 2017, the BMS installation contractor resolved the alarm activation issue and confirmed that the low-pressure alarm was properly integrated with the system.

2.1.3 Site Use

At the time of the December 2016 site-wide inspection, CHA observed no changes in the use of the Site or the adjacent 144 State Street property since completion of redevelopment activities in 2015. In addition, no new development was observed at the Site or the adjacent 144 State Street property.

2.2 IC/EC CERTIFICATION

The engineering controls, consisting of the site cover and the sub-slab depressurization systems were in place and functioning properly during the reporting period, except as noted and described above in section 2.1.2. These controls have been and continue to be effective in mitigating potential exposure of the public to remaining contaminants in soil at the Site. The SMP is being implemented and based on this review, the remedy continues to be protective of public health and/or the environment and compliant with the ROD. At this time, it is recommended that all controls for the Site and the adjacent 144 State Street property remain in place. The Institutional and Engineering Controls Certification Forms are included in Appendix D.

3.0 MONITORING PLAN COMPLIANCE REPORT

3.1 COMPONENTS OF THE MONITORING PLAN

Components of the Monitoring Plan include:

- Collection of sub-slab vapor and indoor air samples from both the 140 State Street and 144 State Street buildings, at least one year following system installation and during the heating season, for laboratory analysis for volatile organic compounds, and then every five years thereafter, during the heating season.
- Preparation of sub-slab vapor and indoor air sampling reports for both the 140 State Street and 144 State Street buildings following each monitoring event, and submittal of the reports to the NYSDEC.

3.2 MONITORING COMPLETED DURING REPORTING PERIOD

3.2.1 Sub-Slab Vapor and Indoor Air Monitoring Activities

The initial post-installation sub-slab vapor and indoor air monitoring event for both the 140 State Street and 144 State Street buildings was conducted in January 2016. The findings from this event were presented in CHA's reports dated March 7, 2016, which were previously submitted, reviewed and approved by the NYSDEC.

The monitoring event conducted during the 2016-2017 heating season (which represents the event referenced in the first bullet under section 3.1 above) was completed on December 13, 2016. During this event, CHA collected sub-slab vapor and indoor air samples from both the on-site building at 140 State Street and the adjacent off-site building at 144 State Street. In addition, one outdoor ambient air sample was also collected. All samples were submitted for laboratory analysis for volatile organic compounds via EPA Method TO-15. Details of the field activities and sampling methodology are presented in the individual monitoring reports for each building, included in Appendices B and C of this report.

3.2.2 Sub-Slab Vapor and Indoor Air Monitoring Results

Findings and analytical data associated with sub-slab vapor and indoor air monitoring conducted during December 2016 at the on-site 140 State Street building and the adjacent off-site 144 State Street building are presented and discussed in detail in the individual monitoring reports for each building, included in Appendices B and C of this report.

Based on the results from the analysis of the sub-slab vapor and indoor air samples collected at the 140 State Street building in December 2016, a limited number of VOCs were detected at concentrations above the respective laboratory method detection limits. None of the seven compounds (target compounds) included in the New York State Department of Health (NYSDOH) decision matrices were detected in sub-slab vapor or indoor air samples at concentrations requiring monitoring or mitigation, based on the NYSDOH's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. One of the three target compounds detected in the sub-slab and indoor air samples (carbon tetrachloride) was also detected in the ambient air sample, at a similar concentration. The analytical results indicate a significant decrease in the concentration of trans-1,2-Dichloroethene (the compound of concern which led to activation of the vapor mitigation system) in both the sub-slab vapor and indoor air samples as compared to the results from the January 2016 sampling event. Refer to the report in Appendix B for a detailed discussion of findings and analytical summary tables.

Based on the results from the analysis of the sub-slab vapor and indoor air samples collected at the 144 State Street building in December 2016, VOCs subject to the NYSDOH decision matrices that were detected during this sampling event were limited to cis-1,2-Dichloroethene, tetrachloroethene and trichloroethene. These compounds were detected in two of the sub-slab vapor samples, but not in the corresponding indoor air samples. Carbon tetrachloride, also subject to the NYSDOH decision matrices, was detected in two of the sub-slab vapor samples, but only in one of the corresponding indoor air samples. It should be noted that carbon tetrachloride was also detected in the outdoor ambient air sample at a similar concentration to that of the indoor air sample. In addition, note that this compound was also detected in the outdoor ambient air sample during the previous sampling event in January 2016. Refer to the report in Appendix C for a detailed discussion of findings.

3.3 COMPLIANCE WITH PERFORMANCE STANDARDS

The analytical results of sub-slab vapor and indoor air samples collected at both 140 State Street and 144 State Street indicate compliance with the requirements established in NYSDOH's Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006). No additional mitigation beyond the current vapor mitigation systems is warranted at this time.

4.0 OPERATION & MAINTENANCE PLAN COMPLIANCE REPORT

4.1 COMPONENTS OF THE O&M PLAN

Components of the O&M Plan include:

- Annual inspection of the sub-slab depressurization systems in the 140 State Street building and in the adjacent, off-site 144 State Street building;
- Monitoring of the systems to confirm that they are operating and producing the vacuum required to maintain the minimum negative pressure beneath the floor slabs in the above-referenced buildings.

4.2 O&M TASKS COMPLETED DURING REPORTING PERIOD

Operations and maintenance tasks associated with the sub-slab depressurization systems were verified by CHA at the time of the annual site-wide inspection, and are described in section 2.1.2 of this report.

5.0 CONCLUSIONS, EVALUATION AND RECOMMENDATIONS

5.1 CONCLUSIONS

Based on the site-wide inspection conducted in December 2016, the site cover appeared to be in good condition; no cracks or other evidence of damage to the asphalt pavement or concrete were observed.

Based on evaluation of sub-slab vapor and indoor air monitoring results from December 2016, the sub-slab depressurization systems continue to mitigate the potential for exposure to residual contaminants.

Issues identified during the reporting period requiring corrective action were as follows:

- The sub-slab depressurization system at 140 State Street was found to be down at the time of the annual inspection, caused by a faulty fan switch. The switch was replaced and the system was reactivated in late January 2017.
- When the SSDS was manually switched off during the annual inspection, no alarm activation was observed within the Building Management System (BMS). In January 2017, the BMS installation contractor resolved the alarm activation issue and confirmed that the low-pressure alarm was properly integrated with the BMS.

During the reporting period, no changes in the use or additional development were observed at the Site or the adjacent 144 State Street property.

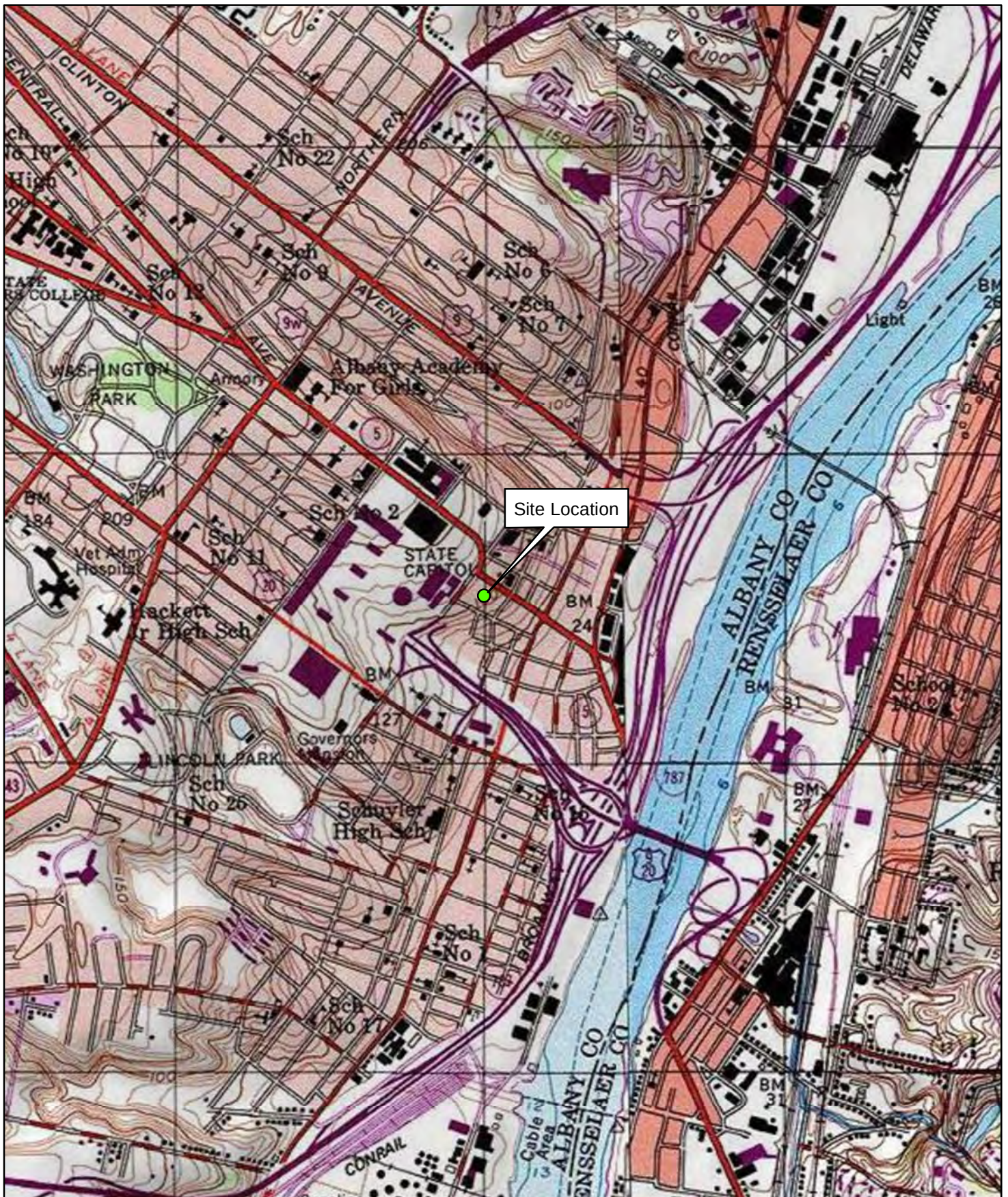
5.2 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS & PROTECTIVENESS

Provided the Institutional Controls and Engineering Controls established for the Site and the adjacent 144 State Street property remain in place and are maintained, it is expected that the remedy will continue to be effective in the protection of human health and the environment.

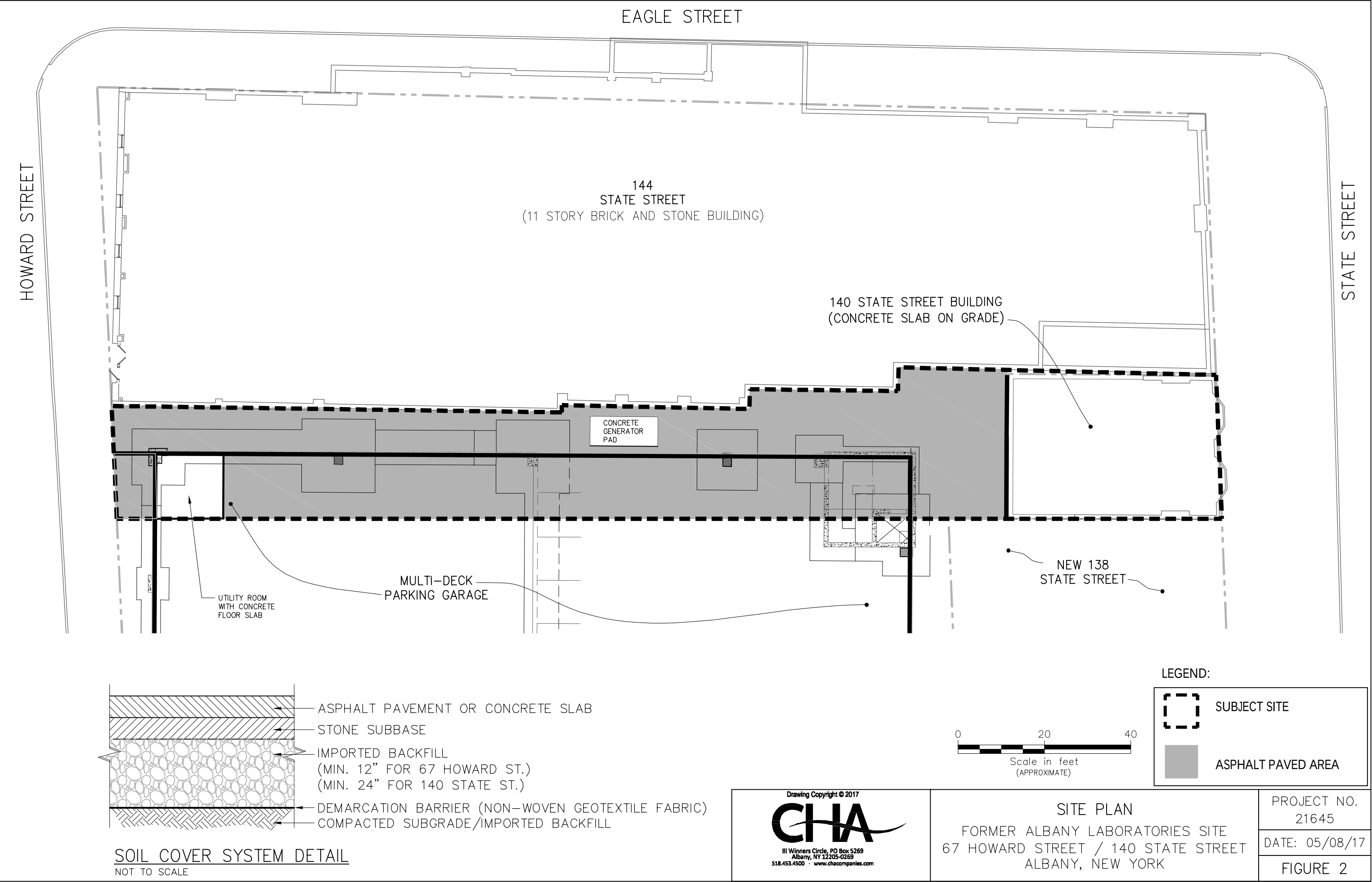
5.3 RECOMMENDATIONS

It is recommended that the current institutional and engineering controls in place at the Site and the adjacent 144 State Street property remain in place, and the engineering controls continue to be inspected and monitored. No changes to the remedy, and/or monitoring or operation & maintenance plans are recommended at this time.

FIGURES



				Site Location Map 67 Howard Street / 140 State Street Albany, New York	
	Scale 1" = 2000'	CHA No. 21645	10/18/16	<i>Service Layer Credits:</i> <i>Copyright: © 2013 National Geographic Society, I-cubed</i> <i>Albany & South Troy USGS Quadrangles, Date: 1994 & 1980</i>	



APPENDIX A

Site Inspection Forms



SUB-SLAB DEPRESSURIZATION SYSTEM CHECKLIST - ACTIVE

Report No. 1 140 STATE ST.
Date: 12-13-16 Time: 2:30 PM

Inspector(s): JOHN FAVREAU

Project No. 21645

Type of Inspection: ☒ Routine ☐ Post Severe Condition

Weather: CLOUDY

Temp.: Hi 40°F Low

FAN/BLOWER SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
The blower unit is operational.	☐	☒	☐	ALPINE ENV. CONTACTED
There is no excessive noise emanating from the blower.	☐	☐	☒	
There is no excessive vibration emanating from the blower.	☐	☐	☒	
The blower unit is not excessively hot to the touch.	☐	☐	☒	
The blower unit housing is clean and in good condition.	☒	☐	☐	

SYSTEM PRESSURE INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
Vacuum gauge on inlet piping in good condition and shows negative pressure is being applied to sub-slab.	☐	☒	☐	Gauge in good condition, but reading 0" as fan is not in operation!
Pressure gauge on discharge piping is in good condition and shows positive pressure being exhausted from blower.	☐	☐	☒	
Pressures are within acceptable normal range for system.	☐	☐	☒	Pressure Reading: _____ inches H ₂ O
When required, pressure field extension testing demonstrates continued sub-slab communication.	☐	☐	☒	

ELECTRICAL/ALARM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
No observable electrical component damage.	☐	☐	☒	
All electrical disconnects/switches tested and functional.	☐	☐	☒	
Alarm sounds when blower power disconnected and pressure falls below alarm set point.	☐	☐	☒	

PIPING SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
All above-grade piping in good condition and free of cracks or other damage.	☒	☐	☐	
All pipe supports undamaged and functional.	☒	☐	☐	
In-line mufflers/silencers installed and functioning properly.	☐	☐	☒	
Discharge piping above roof undamaged and free of obstructions.	☒	☐	☐	
All labels are present and legible.	☒	☐	☐	



SUB-SLAB DEPRESSURIZATION SYSTEM CHECKLIST - ACTIVE

Report No. 1 140 STATE ST.
Date: 12-13-16 Time: 2:30 PM

CONCRETE SLAB/PIPING SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
All visible pipe penetrations appear properly sealed (e.g. no air leak noise).	☐	☐	☒	
There are no new significant, observable floor cracks or penetrations that may breach the floor tightness and effectiveness of the system.	☒	☐	☐	

ADDITIONAL NOTES & OBSERVATIONS

Signature: John L. Farreau

Total Inspection Time:

M:\14357\Rpts\Site Management Plan - Post Remediation\Appendices\Appendix H - Site-Wide Inspection Form\Site-Wide Inspection Checklist.doc



SUB-SLAB DEPRESSURIZATION SYSTEM CHECKLIST - ACTIVE

Report No. 1 144 STATE ST.
Date: 12-13-16 Time: 3:00 PM

Inspector(s): JOHN FAVREAU

Project No. 21645

Type of Inspection: ☒ Routine ☐ Post Severe Condition

Weather: CLOUDY
Temp.: Hi 40°F Low

FAN/BLOWER SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
The blower unit is operational.	☒	☐	☐	
There is no excessive noise emanating from the blower.	☒	☐	☐	
There is no excessive vibration emanating from the blower.	☒	☐	☐	
The blower unit is not excessively hot to the touch.	☒	☐	☐	
The blower unit housing is clean and in good condition.	☒	☐	☐	

SYSTEM PRESSURE INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
Vacuum gauge on inlet piping in good condition and shows negative pressure is being applied to sub-slab.	☒	☐	☐	
Pressure gauge on discharge piping is in good condition and shows positive pressure being exhausted from blower.	☐	☐	☒	
Pressures are within acceptable normal range for system.	☒	☐	☐	Pressure Reading: _____ inches H ₂ O * SEE PAGE 2
When required, pressure field extension testing demonstrates continued sub-slab communication.	☐	☐	☒	

ELECTRICAL/ALARM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
No observable electrical component damage.	☒	☐	☐	
All electrical disconnects/switches tested and functional.	☒	☐	☐	
Alarm sounds when blower power disconnected and pressure falls below alarm set point.	☐	☒	☐	LOW-PRESSURE ALARM CONNECTION TO BLDG. MGT. SYSTEM NOT FUNCTIONING. CONTACTED COLUMBIA TO INVESTIGATE.

PIPING SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
All above-grade piping in good condition and free of cracks or other damage.	☒	☐	☐	
All pipe supports undamaged and functional.	☒	☐	☐	
In-line mufflers/silencers installed and functioning properly.	☐	☐	☒	
Discharge piping above roof undamaged and free of obstructions.	☒	☐	☐	
All labels are present and legible.	☒	☐	☐	



SUB-SLAB DEPRESSURIZATION SYSTEM CHECKLIST - ACTIVE

Report No. 1 144 STATE ST.
Date: 12-13-16 Time: 3:00 PM

CONCRETE SLAB/PIPING SYSTEM INSPECTION

ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
All visible pipe penetrations appear properly sealed (e.g. no air leak noise).	☒	☐	☐	
There are no new significant, observable floor cracks or penetrations that may breach the floor tightness and effectiveness of the system.	☒	☐	☐	

ADDITIONAL NOTES & OBSERVATIONS

VACUUM GAUGE READINGS:

VAPOR MITIGATION SYSTEM

GAUGE READING

1

2.1" H₂O

2

5.6" H₂O

3

1.9" H₂O

4

1" H₂O

5

1.8" H₂O

6

3.5" H₂O

7

9.5" H₂O

Signature:

John L. Farnau

Total Inspection Time:



SITE-WIDE /SOIL COVER ANNUAL INSPECTION CHECKLIST

Report No. 1 67 HOWARD ST. / 140 STATE ST.
 Page 1 of 2
 Date: 12-13-16 Time: 3:30 PM

Site Name: Former Albany Laboratories Project No. 21645
 Address: 140 State and 67 Howard Streets, Albany, NY Weather: CLOUDY
 Inspector(s): JOHN L. FAVREAU Temp.: High 40°F Low
 Type of Inspection: ☒ Routine ☐ Post Severe Condition

SITE ACCESSIBILITY INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
Site accessible and passable.	☒	☐	☐	

SITE RECORDS INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
Site Records are up to date with latest revisions or changes to SMP	☐	☒	☐	<u>SMP TO BE UPDATED REFLECTING ACTIVATION OF SDS @ 140 STATE ST.</u>

INSTITUTIONAL CONTROL INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
The Site continues to be utilized for commercial, industrial or restricted residential (140 State Street) uses only.	☒	☐	☐	

SIGNAGE AND GATE INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Is a sign posted at entrance?	☐	☐	☒	
Is a gate present at the entrance?	☐	☐	☒	
Is the gate locked and secured?	☐	☐	☒	

SOIL COVER SYSTEM INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Evidence of erosion of cover soils?	☐	☐	☒	
Evidence of cracks or depressions in cover soils?	☐	☐	☒	
Evidence of exposed or damaged subgrade soils?	☐	☐	☒	

ASHPALT/CONCRETE COVER SYSTEM INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Evidence of damaged asphalt or concrete?	☐	☒	☐	
Evidence of pitting, rutting, cracks or depressions in asphalt or concrete cover?	☐	☒	☐	

DRAINAGE SYSTEM INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Evidence of erosion in drainage structures?	☐	☒	☐	
Presence of siltation in drainage structures?	☐	☒	☐	
Evidence of settlement in drainage structures?	☐	☒	☐	

Evidence of restrictions of water flow in drainage ditches and structures?	☐	☒	☐	
VECTOR INSPECTION				
ITEM/CONDITION	YES	NO	NA	COMMENTS
Were any vectors observed?	☐	☒	☐	
Evidence of vector activity (tracks, droppings, dens, etc.)	☐	☒	☐	
Evidence of damage due to vector activity?	☐	☒	☐	
VEGETATIVE INSPECTION (if applicable)				
ITEM/CONDITION	TRUE	FALSE	N/A	COMMENTS
Vegetation is well established over greenspace areas.	☐	☐	☒	
There is no evidence of stressed vegetation.	☐	☐	☒	
There is no evidence of bare or thin vegetative cover.	☐	☐	☒	
There is no evidence of overgrowth or areas that need to be mowed.	☐	☐	☒	
There is no evidence of recent areas of excavation or disturbed areas.	☐	☐	☒	
ADDITIONAL NOTES & OBSERVATIONS				
Signature: <i>John L. Faveau</i>	Time Charged:		Mileage Charged:	

APPENDIX B

Sub-Slab Vapor & Indoor Air Monitoring Report 2016-2017 Heating Season, 140 State Street

SUB-SLAB VAPOR AND INDOOR AIR MONITORING REPORT 2016-2017 HEATING SEASON

**140 State Street
Albany, New York**

Site No. 401061

CHA Project Number: 21645.5003.31000

Prepared for:

***Columbia Eagle, LLC
302 Washington Avenue Extension
Albany, NY 12203***

Prepared by:



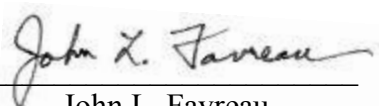
***III Winner's Circle
Albany, New York 12205
(518) 453-4500***

April 13, 2017

QUALIFICATIONS AND CERTIFICATION STATEMENT

This Report was compiled by qualified environmental scientists and engineers employed by CHA and was prepared expressly for the use of Columbia Eagle, LLC. No other parties are entitled to rely upon this report unless our express written consent is first obtained. All conclusions drawn were based on CHA's field inspection and analytical results from sampling performed during the course of this project. Recommendations are submitted based on CHA's knowledge, experience, and professional judgment.

Report Completed By:



John L. Favreau
Senior Scientist V

Report Reviewed By:



Seth H. Fowler, CHMM
Associate Vice President

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Appendix B	NYSDOH Indoor Air Quality Questionnaire and Building Inventory
Appendix C	Laboratory Analytical Report
Appendix D	Data Usability Summary Report

1.0 OVERVIEW

The Site is located at 140 State Street in the City of Albany, County of Albany, New York and is part of the Former Albany Laboratories Site (NYSDEC Site No. 401061). Columbia Eagle LLC (Columbia Eagle) entered into an Order on Consent with the NYSDEC to investigate and remediate contaminated media at the Former Albany Laboratories Site, located on a portion of 67 Howard Street and 140 State Street.

After completion of the remedial work, some contamination was left in the subsurface at the Site. A Site Management Plan (SMP) for the Former Albany Laboratories Site, dated June 20, 2014, was prepared to manage remaining contamination at the Site. As part of the approved SMP, a passive sub-slab ventilation system (SSVS) was installed on the 140 State Street portion of the Site during the construction of a new building on the Site in the summer and fall of 2015.

In accordance with the SMP, following the passive SSVS installation, sub-slab vapor and indoor air sampling was to be completed prior to building occupancy and then annually, during the heating season, to evaluate soil vapor and indoor air quality. Due to the timing of the completion of the SSVS, the initial monitoring event was completed during the 2015-2016 heating season and also served as the first annual monitoring event. At the time of the monitoring event, construction of the building at 140 State Street had been completed and the building was heated, but was not yet occupied.

The activities and findings of the first sub-slab vapor and indoor air sampling were presented in CHA's report dated March 7, 2016. Based on evaluation of the analytical results by the NYSDEC and the New York State Department of Health (NYSDOH), and subsequent discussion with these agencies, the passive ventilation system was converted to an active sub-slab depressurization system (SSDS). The analytical results showed the detection of trans-1,2-Dichloroethene at elevated levels in both sub-slab vapor and indoor air samples. It should be noted that trans-1,2-Dichloroethene is not one of the seven compounds specifically addressed by the NYSDOH's October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*; however, the NYSDOH expressed concern and requested that the sampling be repeated or that the system be activated. Columbia Eagle opted for conversion of the sub-slab system, which was completed during the summer of 2016 by Alpine Environmental Services, Inc. (Alpine). Alpine's report summarizing system conversion activities is included as Appendix A. The system was activated in late August 2016.

Sections 2.0 and 3.0 of this report discuss the field activities and results associated with the second sub-slab vapor and indoor air monitoring event conducted at the 140 State Street building, during the 2016-2017 heating season. CHA's conclusions and recommendations are presented and discussed in Section 4.0.

2.0 FIELD ACTIVITIES

2.1 PERMANENT SUB-SLAB VAPOR PROBE INSTALLATION

On December 12, 2016, CHA installed one permanent sub-slab vapor probe in the northwest corner of the basement to replace the probe that was installed in that location at the time of the first monitoring event, but was inadvertently removed by contractors during basement renovation activities during the summer of 2016. Sampling probe locations are illustrated on Figure 1. To facilitate the installation of the sub-slab vapor probe, a 3-inch diameter hole was drilled 2-inches into the concrete slab followed by a $\frac{3}{4}$ -inch diameter hole that was drilled in the center of the 3-inch diameter hole to a depth no further than two inches into the sub-slab material. Next, a $\frac{3}{8}$ -inch outside diameter by $\frac{1}{4}$ -inch inside diameter black metal pipe was inserted into the hole and coarse sand was added to cover about one inch of the probe tip. Then, cement was used to fill the annular space between the concrete and the probe, and to create a surface seal. Finally, a plastic 3" diameter flush-mounted protective cover was installed and sealed with low VOC-containing silicone caulk.

2.2 SAMPLE COLLECTION

On December 13, 2016, prior to sample collection, a helium tracer gas study was performed as a quality assurance/quality control measure to verify the integrity of the sub-slab vapor probes. To facilitate the study at each location, bentonite slurry was spread on the concrete surface in a 2-foot diameter circle around the vapor probe and a two foot by two foot square section of plastic sheeting was placed over the bentonite slurry thereby creating an enclosure. Next, a hole was opened in the plastic sheeting to insert the sampling tube and the plastic sheeting/tube interface was sealed with a small amount of plumber's putty. An additional hole was made in the enclosure to introduce the tracer gas (helium) into the enclosure. Next, the tracer gas was released into the enclosure to displace any ambient air within the enclosure and provide positive pressure. Finally, a Dielectric MGD-2002 Helium Detector was utilized to detect potential leaks prior to sample collection by purging vapor through the sample tube. Helium concentrations of 750 parts per million (ppm) and 1,275 ppm were detected at sub-slab vapor probes 140-SSV-1 and 140-SSV-2, respectively. Per the NYSDOH guidance, given the concentrations of helium were detected below 10,000 ppm, the sub-slab vapor probes were determined to be adequately sealed. Following the tracer gas study, one to three implant volumes (volume of the sample probe and tube) were purged at each vapor probe location.

In addition to the sub-slab vapor samples, indoor air samples (140-IA-1 and 140-IA-2) were collected concurrently, in the immediate vicinity of the sub-slab vapor probes, in order to quantify the actual indoor air quality relative to subsurface conditions. CHA collected one outdoor ambient air (background) sample, identified as AM-1, southwest of 140 State Street, along the east side of the Renaissance Hotel (144 State Street) which is located adjacent to the Site. The purpose of the background sample was to determine if compounds detected in the indoor air sample could be attributable to ambient air levels at the Site at the time of sampling. Refer to Figure 1 for sample locations.

All of the samples were collected using six-liter SUMMA canisters and pre-calibrated flow controllers, batch certified clean by TestAmerica Inc. (TestAmerica). The flow controllers were

set for an eight-hour sampling period. All of the samples were analyzed by TestAmerica for the presence of volatile organic compounds (VOCs) via EPA Method TO-15. TestAmerica is a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. The results of the analyses are presented by the laboratory with a targeted minimum reporting limit of 1.0 microgram per cubic meter.

It should be noted that at the time of the December 2016 sampling event, the vapor mitigation system was not operating. During the week following the sampling, the problem was determined to be a faulty switch. The switch was replaced and the system was reactivated.

2.3 BUILDING CHEMICAL INVENTORY

In addition to the sub-slab and indoor air sampling, CHA completed the NYSDOH Indoor Air Quality Questionnaire and Building Inventory. The questionnaire and building inventory pertain to uses and chemicals present in the building at the time of sampling that could impact indoor air quality and also affect the results of the indoor air samples that were collected.

During the survey, CHA observed two 1-gallon containers of Pre-Catalyzed Waterborne Epoxy Semi-Gloss and three 1-gallon containers of Benjamin Moore Latex Paint within the basement level of the building.

CHA observed the containers to be closed with the caps secured tightly, and no petroleum or chemical odors were noted in the basement at the time of the inventory or during sample collection. A copy of the questionnaire is provided in Appendix B.

3.0 RESULTS

3.1 GUIDANCE/SCREENING LEVELS

The laboratory results for the samples were compared to a number of guidance values. More specifically, the results reported for the compounds carbon tetrachloride, 1,1-dichloroethylene, cis-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichloroethane, trichloroethene, and vinyl chloride in both the sub-slab and ambient air samples were compared to the decision matrices that are presented in the NYSDOH October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. It should be noted that these seven compounds are the only compounds that are considered by the NYSDOH decision matrices in determining the need for monitoring or mitigation pertaining to soil vapor intrusion.

Analytical results are shown in Table 1, relative to the matrix threshold values for these key parameters, as published in Tables 1 and 2 of the referenced October 2006 NYSDOH vapor intrusion guidance.

In addition to the 2006 NYSDOH vapor intrusion guidance matrix VOCs, the volatile organics that are not listed in the matrices can be and are commonly compared to one or all of the “screening levels” specified in the 1997-2003 NYSDOH *Study of VOCs in Air for Fuel Oil Heated Homes* (90th Percentile). This set of data is referenced for comparison purposes only, as the values referenced in this document are not enforceable regulatory guidance or standards. As noted in Table 1, these values are referred to as screening levels for the purposes of this report.

3.2 ANALYTICAL RESULTS

The analytical results of sub-slab vapor and indoor air samples collected on December 13, 2016 are summarized in Table 1. A copy of the complete laboratory report is included in Appendix C. The sub-slab vapor, indoor air, and ambient air sample results are discussed in the following sections.

3.2.1 Sub-Slab Vapor Sample 140-SSV-1 & Indoor Air Sample 140-IA-1

The results from the analysis of the sub-slab vapor sample 140-SSV-1 and indoor air sample 140-IA-1 identified the detection of a limited number of VOCs at levels above the respective laboratory method detection limits. However, only one of the seven compounds included in the NYSDOH decision matrices, carbon tetrachloride, was detected in these samples. The detected concentration of this compound in both samples was 0.41 µg/m³, below the minimum concentrations requiring monitoring and mitigation, based on NYSDOH Soil Vapor/Indoor Air Matrix 1.

In indoor sample 140-IA-1, the following additional compounds were detected above the laboratory method detection limits: 2-butanone; benzene; chloroform; chloromethane; dichlorodifluoromethane; ethanol; ethylbenzene; hexane; methylene chloride; m&p xylene; o-xylene; styrene; toluene; trans-1,2-dichloroethene; and trichlorofluoromethane. The analytical results of the compounds listed above were compared to the “screening levels” and all concentrations were below the screening levels.

Note that the detected concentration of trans-1,2-dichloroethene in the indoor air sample was 43 $\mu\text{g}/\text{m}^3$, which represents a significant decrease from the concentration of this compound at the time of the January 2016 sampling event, which was 160 $\mu\text{g}/\text{m}^3$. A decrease in the concentration of this compound was also noted in the sub-slab vapor sample at this location, from 23 $\mu\text{g}/\text{m}^3$ in January 2016 to 18 $\mu\text{g}/\text{m}^3$ in December 2016.

3.2.2 Sub-Slab Vapor Sample 140-SSV-2 & Indoor Air Sample 140-IA-2

The results from the analysis of the sub-slab vapor sample 140-SSV-2 and indoor air sample 140-IA-2 identified the detection of a limited number of VOCs at levels above the respective laboratory method detection limits. Three of the seven NYSDOH matrices compounds (carbon tetrachloride, cis-1,2-Dichloroethene and tetrachloroethene) were detected in the sub-slab vapor sample at concentrations of 0.42 $\mu\text{g}/\text{m}^3$, 0.45 $\mu\text{g}/\text{m}^3$ and 1.3 $\mu\text{g}/\text{m}^3$, respectively. Of these three compounds, only carbon tetrachloride was detected in the indoor air sample 140-IA-2, at a concentration of 0.44 $\mu\text{g}/\text{m}^3$. The detected concentrations of these compounds are below the minimum concentrations requiring monitoring and mitigation, based on NYSDOH Soil Vapor/Indoor Air Matrices 1 and 2.

In indoor air sample 140-IA-2, the following compounds were detected above the laboratory method detection limits: 2-Butanone; chloroform; chloromethane; dichlorodifluoromethane; ethanol; ethylbenzene; hexane; methylene chloride; m&p xylene; o-xylene; styrene; toluene; trans-1,2-dichloroethene; and trichlorofluoromethane. The analytical results of the compounds listed above were compared to the “screening levels” and all concentrations were below the screening levels.

Note that the detected concentration of trans-1,2-dichloroethene in the indoor air sample was 42 $\mu\text{g}/\text{m}^3$, which represents a significant decrease from the concentration of this compound at the time of the January 2016 sampling event, which was 150 $\mu\text{g}/\text{m}^3$. The detected concentration of trans-1,2-dichloroethene in the sub-slab vapor sample was 41 $\mu\text{g}/\text{m}^3$, which represents a significant decrease from the concentration of this compound at the time of the January 2016 sampling event, which was 240 $\mu\text{g}/\text{m}^3$.

3.2.3 Outdoor Air Sample 140-AM-1

The ambient sample AM-1 was found to contain low concentrations of a number of VOCs. Of the seven NYSDOH decision matrices target compounds, only carbon tetrachloride was detected, at a concentration of 0.39 $\mu\text{g}/\text{m}^3$.

3.3 DATA VALIDATION SUMMARY

The analytical laboratory deliverable ASP Category B deliverable package was submitted to Alpha Geoscience for independent data validation. The data usability summary report (DUSR) indicates that the data is acceptable with one minor issue: the result for ethanol marked “E” in the undiluted 140-IA-2 sample is qualified as estimated (see DUSR in Appendix D for detailed explanation). There were no data that were flagged as unusable.

4.0 CONCLUSIONS/RECOMMENDATIONS

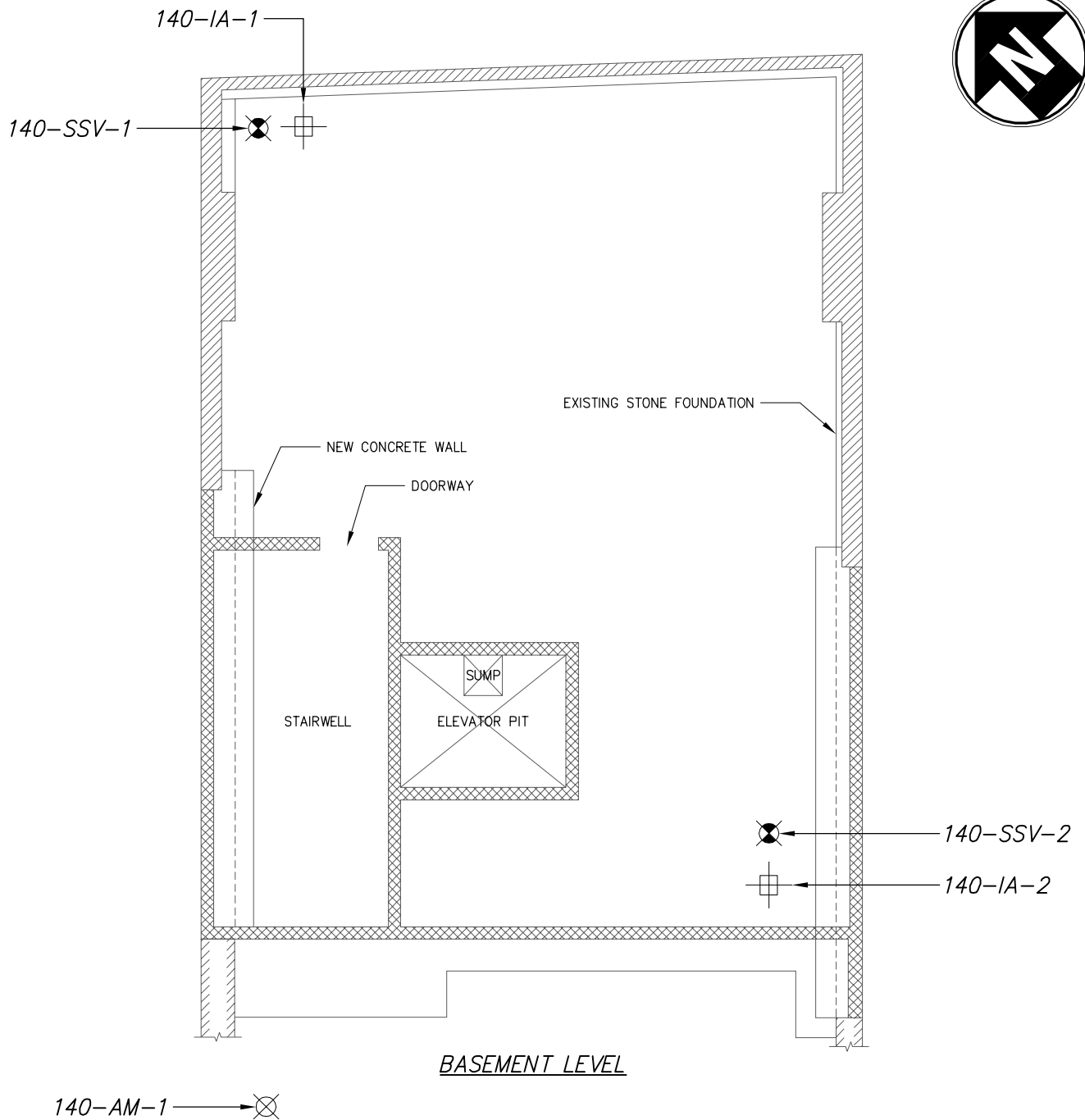
4.1 CONCLUSIONS

- Based on the results from the analysis of the sub-slab vapor samples (140-SSV-1 and 140-SSV-2) and indoor air samples (140-IA-1 and 140-IA-2), a limited number of VOCs were detected at concentrations above the respective laboratory method detection limits. None of the seven compounds included in the NYSDOH decision matrices (target compounds) were detected in sub-slab vapor or indoor air samples at concentrations requiring monitoring or mitigation, based on the NYSDOH's October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. One of the three target compounds detected in the sub-slab and indoor air samples (carbon tetrachloride) was also detected in the ambient air sample, at a similar concentration.
- The analytical results indicate a significant decrease in the concentration of trans-1,2-Dichloroethene (the compound of concern which led to activation of the vapor mitigation system) in both the sub-slab vapor and indoor air samples as compared to the results from the January 2016 sampling event.
- At the time of this monitoring event, CHA observed two 1-gallon containers of Pre-Catalyzed Waterborne Epoxy Semi-Gloss and three 1-gallon containers of Benjamin Moore Latex Paint within the basement level of the building. CHA observed the containers to be closed with the lids secured tightly, and no petroleum or chemical odors were noted in the basement during sample collection. Based on the observed condition of the containers and the indoor air sample results, the contents of the containers are not considered to have adversely impacted indoor air quality at the time of the sampling event.

4.2 RECOMMENDATIONS

- It is recommended that the vapor mitigation system activated in August 2016 remain in operation, subject to annual inspection at the time of the site-wide inspection, as required by the NYSDEC-approved Site Management Plan (revised February 2017).
- In accordance with the monitoring schedule presented in section 5.3.1 of the NYSDEC-approved Site Management Plan (revised February 2017), the next sub-slab vapor and indoor air sampling event will be conducted during the 2021-2022 heating season.

FIGURE 1



LEGEND:

SUB-SLAB VAPOR PROBE SAMPLE LOCATION

INDOOR AIR SAMPLE LOCATION

AMBIENT AIR SAMPLE LOCATION

NOTE: SAMPLING DATE – DECEMBER 13, 2016



SUB-SLAB VAPOR AND INDOOR AIR
SAMPLE LOCATIONS
140 STATE STREET
ALBANY, NEW YORK

PROJECT NO.
21645

DATE: 02/28/17

FIGURE 1

TABLE 1

Table 1
Sub-Slab Vapor and Indoor/Ambient Air Sample Analytical Results
140 State Street, Albany, New York

Compound	Units	140-SSV-1 1/18/2016 (Sub-Slab Vapor)	140-SSV-1 12/13/2016 (Sub-Slab Vapor)	140-IA-1 1/18/2016 (Indoor Air)	140-IA-1 12/13/2016 (Indoor Air)	140-SSV-2 1/18/2016 (Sub-Slab Vapor)	140-SSV-2 12/13/2016 (Sub-Slab Vapor)	140-IA-2 1/18/2016 (Indoor Air)	140-IA-2 12/13/2016 (Indoor Air)	140-AM-1 1/18/2016 (Ambient Air)	AM-1 12/13/2016 (Ambient Air)	NYSDOH Matrix Specific Minimum Sub-Slab Concentration (µg/m³)	NYSDOH Matrix Specific Minimum Indoor Air Concentration (µg/m³)	1997-2003 NYSDOH Summary of Indoor Levels of VOCs from Fuel Oil Heated Homes in NYS, 90th Percentile (ug/m3) "screening levels"
1,1,1-Trichloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	3.5
1,1,2,2-Tetrachloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,1,2-Trichloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.24
1,1,2-Trichlorotrifluoroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1.8
1,1-Dichloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,1-Dichloroethene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.23
1,2,4-Trichlorobenzene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			3
1,2,4-Trimethylbenzene	µg/m³	3.2	7.5	ND	ND	4.2	9.5	ND	ND	ND	ND			2.7
1,2-Dibromoethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,2-Dichlorobenzene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.78
1,2-Dichloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.22
1,2-Dichloropropane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.24
1,2-Dichlorotetrafluoroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.63
1,3,5-Trimethylbenzene	µg/m³	ND	1.8	ND	ND	ND	2.2	ND	ND	ND	ND			3.8
1,3-Dichlorobenzene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.66
1,4-Dichlorobenzene	µg/m³	ND	2.9	ND	ND	ND	3.4	ND	ND	ND	ND			1.3
1,4-Dioxane	µg/m³	ND	ND	19	ND	ND	0.79	10	ND	ND	ND			NS
2,2,4-Trimethylpentane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			NS
2-Butanone	µg/m³	2.4	ND	ND	9.5	ND	40	2.4	3.9	ND	ND			NS
4-Methyl-2-pentanone (MIBK)	µg/m³	10	ND	6.4	ND	8.4	ND	16	ND	7.2	ND			NS
Benzene	µg/m³	ND	0.59	ND	0.76	ND	0.8	ND	0.8	0.46	1.1			15
Benzyl chloride	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			NS
Bromodichloromethane	µg/m³	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND			NS
Bromoform	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			NS
Bromomethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.58
Carbon tetrachloride	µg/m³	ND	0.41	ND	0.41	ND	0.42	ND	0.44	0.35	0.39	5	0.25	0.87
Chlorobenzene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
Chloroethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.25
Chloroform	µg/m³	ND	ND	ND	0.76	ND	34	ND	0.95	ND	ND			1.4
Chloromethane	µg/m³	ND	ND	1.7	1.1	ND	ND	1.3	1.1	1.0	1.1			3.3
cis-1,2-Dichloroethene	µg/m³	ND	ND	ND	ND	ND	0.45	ND	ND	ND	ND	100	3	0.24
cis-1,3-Dichloropropene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.24
Cyclohexane	µg/m³	ND	ND	ND	ND	ND	0.86	ND	ND	ND	ND			9.1
Dibromochloromethane	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			NS
Dichlorodifluoromethane	µg/m³	2.4	2.5	2.2	2.3	ND	2.5	1.9	2.5	1.9	2.6			15
Ethanol	µg/m³	ND	ND	220	95	ND	63	130	150	24	26			NS
Ethylbenzene	µg/m³	2.1	3	2.3	0.56	4.2	3.9	1.8	0.45	ND	0.41			7.3
Hexachlorobutadiene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			4.8
Hexane	µg/m³	ND	1.1	ND	1.2	ND	1.6	ND	2.1	ND	1.2			NS
Methyl tert-butyl ether	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			27
Methylene Chloride	µg/m³	17	0.82	ND	1.5	ND	9.1	ND	3.6	1.2	1.4			22
m-Xylene & p-Xylene	µg/m³	9.2	13	11	1.8	17	16		1.5	0.66	1.6			12
o-Xylene	µg/m³	2.9	5	2.5	0.68	9.3	6.1	2.0	0.53	ND	0.49			7.9
Styrene	µg/m³	0.92	ND	ND	0.51	ND	0.66	ND	0.35	ND	ND			1.3
t-Butyl alcohol	µg/m³	18	ND	19	ND	37	2.1	11	ND	ND	ND			NS
Tetrachloroethene	µg/m³	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	100	3	2.9
Toluene	µg/m³	5.6	8.3	6.5	8.4	9.0	12	5.3	4.8	0.78	2.4			59
trans-1,2-Dichloroethene	µg/m³	23	18	160	43	240	41	150	42	0.56	ND			NS
trans-1,3-Dichloropropene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.22
Trichloroethene	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	0.25	0.48
Trichlorofluoromethane	µg/m³	1.5	1.4	ND	1.3	ND	1.6	1.1	1.6	1.1	1.4			17
Vinyl chloride	µg/m³	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	0.25	0.23

Notes:
µg/m3 = Micrograms per cubic meter
NS = No Standard

Parameter included on NYSDOH Decision Matrix

APPENDIX A

**VAPOR MITIGATION SYSTEM ACTIVATION REPORT
(Alpine Environmental Services, Inc.)**



August 5, 2016

Mike Archangel
Columbia Development Companies
302 Washington Avenue Ext.
Albany, NY 12203

RE: Vapor Mitigation System Activation, 140 State Street, Albany, New York

Alpine Environmental Services, Inc. (Alpine), performed services to activate an existing passive vapor mitigation system present at 140 State Street, Albany, New York.

Alpine performed pressure testing to determine the best fan for the system characteristics. Based on the results of the testing, a Radonaway RP145 fan was selected for the system. The fan carries a 5-year manufacturer's warranty and 90 day labor warranty. the fan was mounted on the exhaust pipe at the roof, See Photo 1 below.

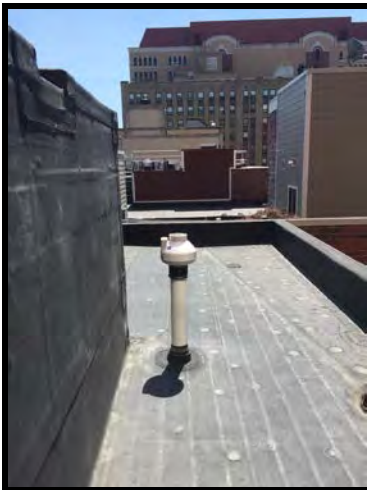


Photo 1: System fan mounted at roof.

Alpine also installed a pressure gauge in the basement to measure the operating pressure of the system, See Photo 2 below. The riser pipe is concealed in a wall cavity behind the elevator shaft. An approximately 8"x 8" hole was cut through the drywall to tap the pressure tube into the riser pipe. The hole was closed with a spring loaded plastic hole cover.



Photo 2: System manometer mounted to system pipe in basement

The initial operating conditions of the fan along with the corresponding sub slab vacuum readings at the two existing sub slab ports were recorded, See Table 1 below. The "acceptable operating range" for the system pressure is also included in Table 1.

TABLE 1: Initial System and Sub Slab Port Vacuum Pressures

	Vacuum Pressure (Inches of water column)
RadonAway RP145 Initial Operating Pressure (7/21/2016)	0.7"WC
Sub Slab Monitoring Port Readings	VP1: -0.171"WC VP2: -0.239"WC
Acceptable Operating Range	0.25 - 1.69"WC

Alpine recommends, at a minimum, an annual inspection of the vapor mitigation system. Inspection procedures and a chart to record the data collected from the inspections is attached to this report letter. Additionally, tables are included to record any service, modifications, or repairs to the vapor mitigation system.

If you have any questions concerning this information, please do not hesitate to contact me (518) 250-4047 ext. 303.

Sincerely,

ALPINE ENVIRONMENTAL SERVICES, INC.

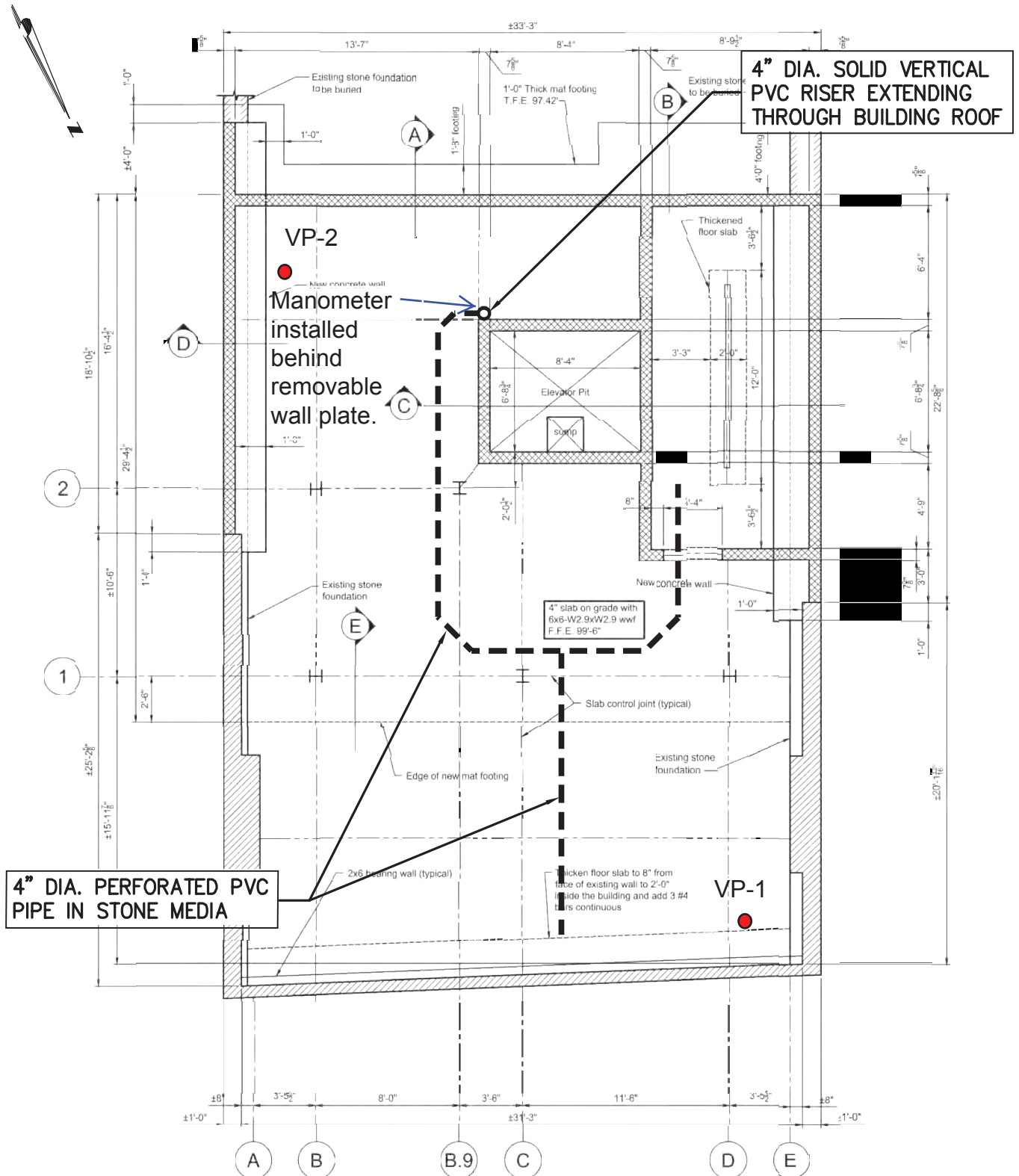
Mark W. Schnitzer, PE
Environmental Engineer

Enclosures:

Figure: CHA SSVS Piping Layout Drawing with sub-slab vapor ports & manometer location added

Attachment 1: Fan Specification

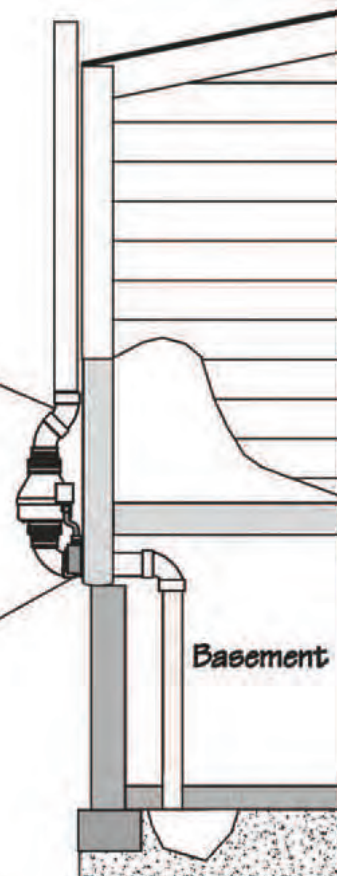
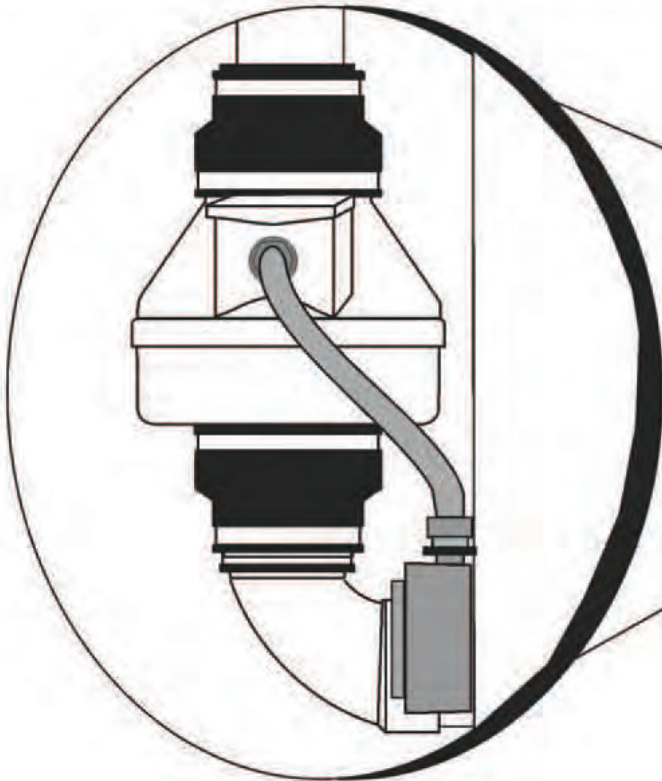
Attachment 2: Inspection Procedures



RP Series Installation Instructions

By

RadonAway™



Spruce Environmental Technologies, Inc.
Ward Hill, MA P/N IN020 Rev J



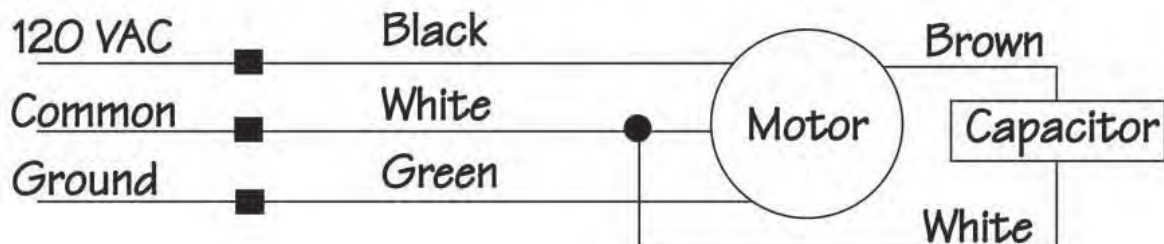
Series Fan Installation Instructions

Please Read and Save These Instructions.

**DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED.
MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION.
DISCONNECT POWER BEFORE SERVICING FAN.**

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible or flammable materials.
2. **WARNING!** Do not use fan to pump explosive or corrosive gases.
3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
5. **NOTICE!** There are no user serviceable parts located inside the fan unit.
Do NOT attempt to open. Return unit to the factory for service.
6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician
7. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

DynaVac RP Series Fan Wiring Diagram





INSTALLATION INSTRUCTIONS IN020 Rev I

DynaVac - RP Series

RP140 p/n 23029-1

RP145 p/n 23030-1

RP260 p/n 23032-1

RP265 p/n 23033-1

RP380 p/n 28208

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The DynaVac RP Series Radon Fans are intended for use by trained, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of a DynaVac Fan. This instruction should be considered as a supplement to EPA standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The RP Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F.

1.3 ACOUSTICS

The RP Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

1.4 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes thus blocking air flow to the RP Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes allowing for return to normal operation.

1.5 SLAB COVERAGE

The RP Series Fan can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the RP Series Fan best suited for the sub-slab material can improve the slab coverage. The RP140/145/155 are best suited for general purpose use. The RP260 can be used where additional airflow is required and the RP265/380 is best suited for large slab, high airflow applications. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

1.6 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The RP Series Fan **MUST** be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The RP Series Fans are **NOT** suitable for underground burial.

For RP Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

Pipe Dia.	Minimum Rise per Ft of Run*				
	@25 CFM	@50 CFM	@100 CFM	@200 CFM	@300 CFM
6"	-	3/16	1/4	3/8	3/4
4"	1/8	1/4	3/8	2 3/8	-
3"	1/4	3/8	1 1/2	-	-



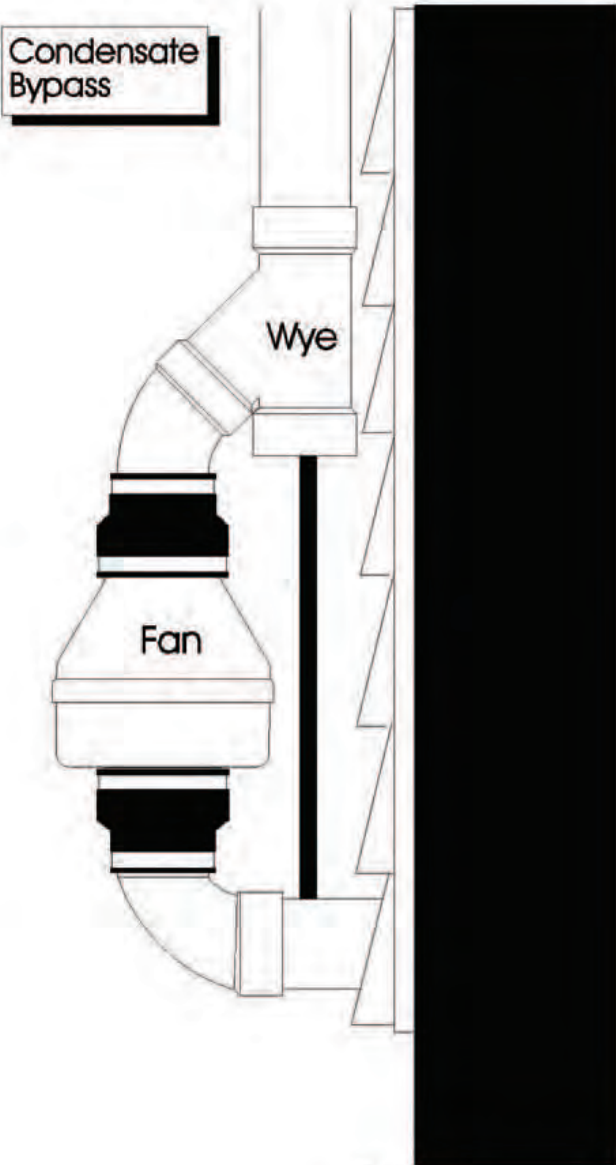
*Typical RP1xx/2xx Series Fan operational flow rate is 25 - 90 CFM on 3" and 4" pipe.
(For more precision, determine flow rate by measuring Static Pressure, in WC, and correlate pressure to flow in the performance chart in the addendum.)

Under some circumstances in an outdoor installation a condensate bypass should be installed in the outlet ducting as shown. This may be particularly true in cold climate installations which require long lengths of outlet ducting or where the outlet ducting is likely to produce large amounts of condensation because of high soil moisture or outlet duct material. Schedule 20 piping and other thin-walled plastic ducting and Aluminum downspout will normally produce much more condensation than Schedule 40 piping.

The bypass is constructed with a 45 degree Wye fitting at the bottom of the outlet stack. The bottom of the Wye is capped and fitted with a tube that connects to the inlet piping or other drain. The condensation produced in the outlet stack is collected in the Wye fitting and drained through the bypass tube. The bypass tubing may be insulated to prevent freezing.

1.7 "SYSTEM ON" INDICATOR

A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A manometer, such as a U-Tube, or a vacuum alarm is recommended for this purpose.



1.8 ELECTRICAL WIRING

The RP Series Fans operate on standard 120V 60 Hz. AC. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly sealed to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

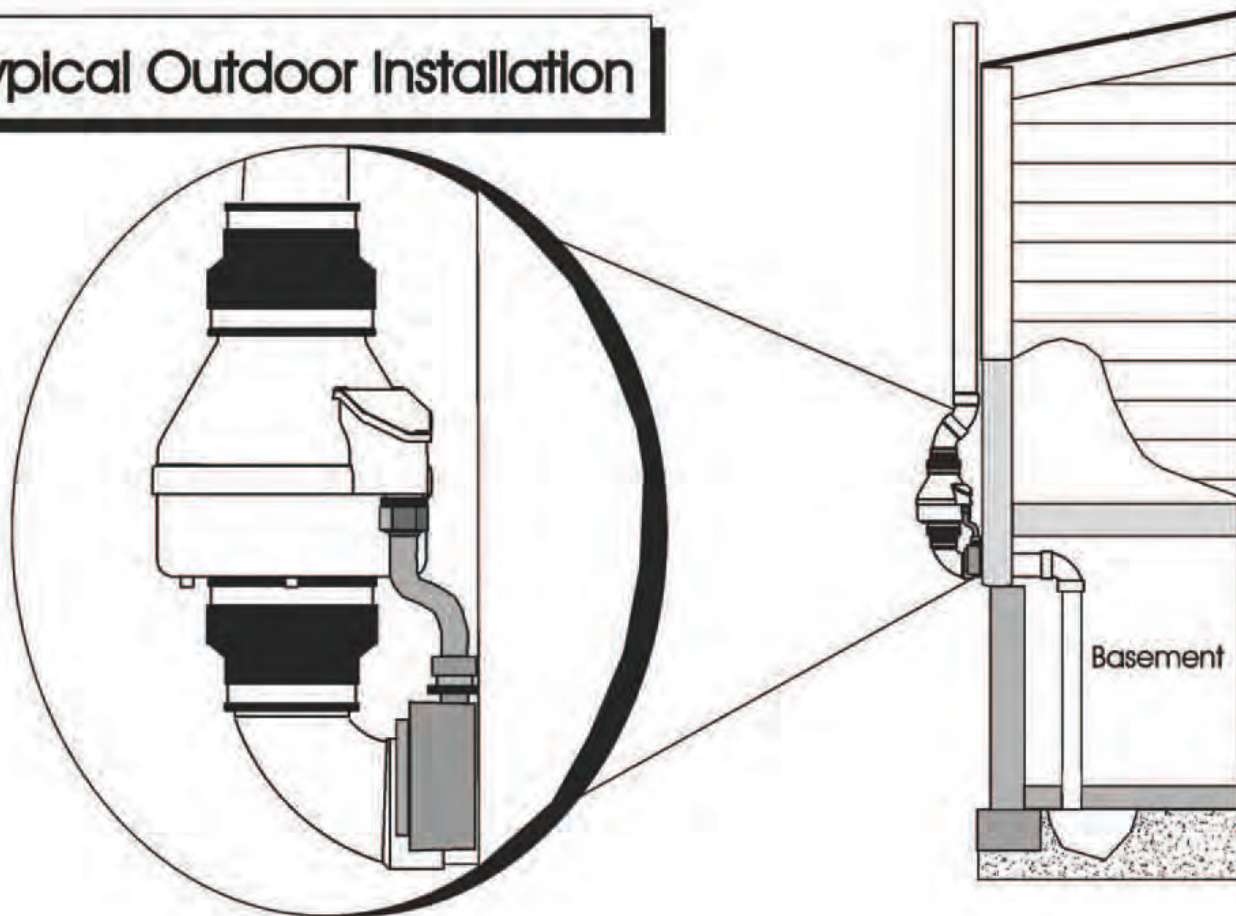
1.9 SPEED CONTROLS

The RP Series Fans are rated for use with electronic speed controls ,however , they are generally not recommended.

2.0 INSTALLATION

The RP Series Fan can be mounted indoors or outdoors. (It is suggested that EPA recommendations be followed in choosing the fan location.) The RP Series Fan may be mounted directly on the system piping or fastened to a supporting structure by means of optional mounting bracket.

Typical Outdoor Installation



2.1 MOUNTING

Mount the RP Series Fan vertically with outlet up. Insure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

2.2 MOUNTING BRACKET (optional)

The RP Series fan may be optionally secured with the RadonAway P/N 25007-2 (25033 for RP385) mounting bracket. Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as means of disconnect for servicing the unit and vibration isolation.

2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections(See Section 1.8):

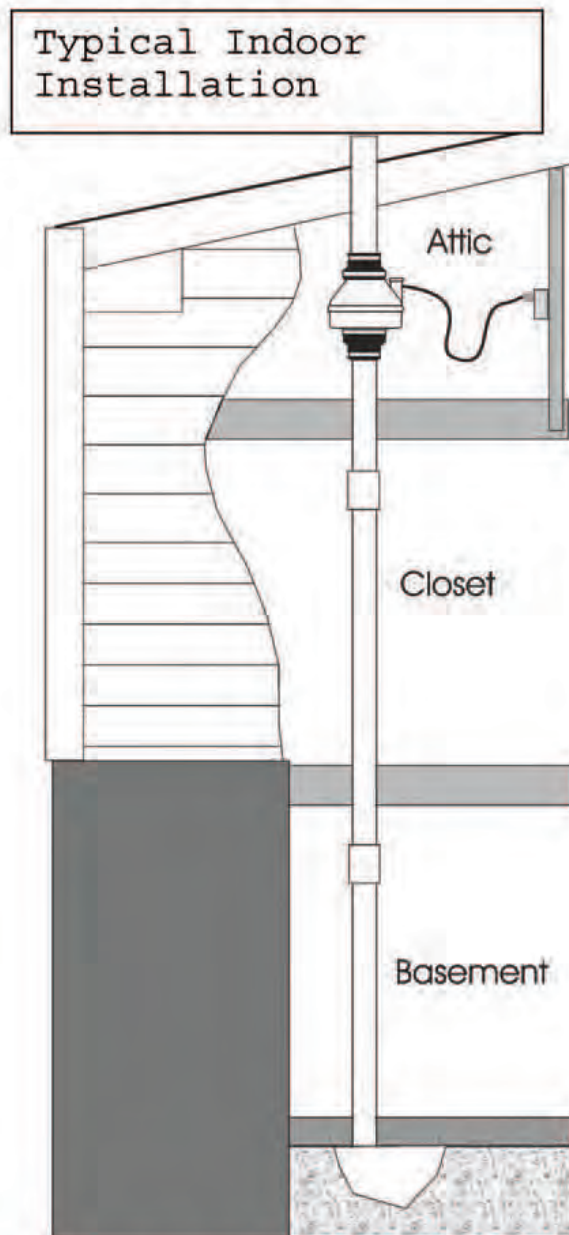
Fan Wire	Connection
Green	Ground
Black	AC Hot
White	AC Common

2.5 VENT MUFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

2.6 OPERATION CHECKS

- _____ **Verify** all connections are tight and **leak-free**.
- _____ **Insure** the RP Series Fan and all ducting is secure and vibration-free.
- _____ **Verify** system vacuum pressure with manometer. **Insure** vacuum pressure is **less than** maximum recommended operating pressure
(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 Feet.)
(Further reduce Maximum Operating Pressure by 10% for High Temperature environments)
See Product Specifications. If this is exceeded, increase the number of suction points.
- _____ **Verify Radon levels by testing to EPA protocol.**



RP SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the RP Series Fan:

Typical CFM Vs Static Pressure "WC									
	0"	.25"	.5"	.75"	1.0"	1.25"	1.5"	1.75"	2.0"
RP140	135	103	70	14	-	-	-	-	-
RP145	166	146	126	104	82	61	41	21	3
RP260	272	220	176	138	103	57	13	-	-
RP265	334	291	247	210	176	142	116	87	52
RP380*	497	401	353	281	220	176	130	80	38

* Tested with 6" inlet and discharge pipe.

Power Consumption 120 VAC, 60Hz 1.5 Amp Maximum			Maximum Recommended Operating Pressure* (Sea Level Operation)**	
RP140	17 - 21	watts	RP140	0.8" W.C.
RP145	41 - 72	watts	RP145	1.7" W.C.
RP260	52 - 72	watts	RP260	1.5" W.C.
RP265	91 - 129	watts	RP265	2.2" W.C.
RP380	95 - 152	watts	RP380	2.0" W.C.

*Reduce by 10% for High Temperature Operation

**Reduce by 4% per 1000 feet of altitude

	Size	Weight	Inlet/Outlet
RP140	8.5H" x 9.7" Dia.	5.5 lbs.	4.5" OD (4.0" PVC Sched 40 size compatible)
RP145	8.5H" x 9.7" Dia.	5.5 lbs.	4.5" OD (4.0" PVC Sched 40 size compatible)
RP155	8.5H" x 9.7" Dia.	5.5 lbs.	5.0" OD
RP260	8.6H" x 11.75" Dia.	5.5 lbs.	6.0" OD
RP265	8.6H" x 11.75" Dia.	6.5 lbs.	6.0" OD
RP380	10.53H" x 13.41" Dia.	11.5 lbs.	8.0" OD

Recommended ducting: 3" or 4" RP1xx/2xx, 6" RP380, Schedule 20/40 PVC Pipe

Mounting: Mount on the duct pipe or with optional mounting bracket.

Storage temperature range: 32 - 100 degrees F.

Normal operating temperature range: -20 - 120 degrees F.

Maximum inlet air temperature: 80 degrees F.

Continuous Duty

Class B Insulation

Thermally protected

3000 RPM

Rated for Indoor or Outdoor Use

LISTED
Electric Fan



Tested to
UL
Std. 507



IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the GP/XP/XR/RP Series Fan for shipping damage within 15 days of receipt. Notify **RadonAway of any damages immediately**. Radonaway is not responsible for damages incurred during shipping. However, for your benefit, Radonaway does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open**. Return unit to factory for service.

Install the GP/XP/XR/RP Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the GPX01/XP/XR/RP Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway will replace any Fan which fails due to defects in materials or workmanship. The Fan must be returned (at Owner's cost) to the RadonAway factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway.

5 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION

RadonAway will extend the Warranty Term of the fan to 5 years from date of manufacture if the Fan is installed in a professionally designed and professionally installed radon system or installed as a replacement fan in a professionally designed and professionally installed radon system. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE GPx01/XP/XR/RP SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Saber Way
Ward Hill, MA 01835
TEL (978) 521-3703
FAX (978) 521-3964

Record the following information for your records:

Serial No. _____
Purchase Date _____

1.0 Vapor Mitigation System Annual Inspection Procedures

A periodic inspection is recommended to verify the VMS is operating as designed. At a minimum, an annual inspection should be performed. Prior to performing any test on the system, notify parties managing the building and parties monitoring the low pressure alarms of the intent to test. Inspection Procedures:

- 1.01** System Fan: Observe the fan during operation. Pay special attention to any abnormal noises coming from the fan, buzzing or scraping, or no sound at all. If abnormal noises (i.e. scraping, buzzing, cyclical pointed sounds, or no operational sound at all, etc.) are observed, refer to the Troubleshooting Guide (Section 5.4 of O & M Manual). Observe the exhaust stack for possible obstructions (i.e. ice, etc.). Please Note: The VMS fan is designed to be maintenance free, for the life of the fans. All moving parts of the system are sealed in the fan-housing unit. The fan-housing unit should only be opened by the fan manufacturer. Any attempt to open the fan-housing unit will destroy the factory-installed seals and void any warranty, parts and labor, on the fan.
- 1.02** System Piping and Connections: Inspect the exposed system piping and connections for any breach or damage. Repair or replace any observed damage effecting system operation.
- 1.03** Slab/System Interface Seals: Inspect the seal at each of the extraction pipe (a breach in the seal should produce an air leak noise when the system is in operation). If breach is observed, caulk with polyurethane caulk
- 1.04** Pressure Differential: Test system differential pressure gauges for functionality. Remove input line or shut down sub-system to verify differential pressure manometer returns to a zero reading. Replace any dysfunctional differential pressure manometer and restore sub-system operation.
- 1.05** Observe the pressure differential readings on the manometer for the system. Record the differential pressure in the table provided (Section 2.0 below). Compare the differential pressure in the sub-system to

the acceptable operating pressure range. If the operating pressure is outside the acceptable range, evaluate the fan for problems. If no problems are identified with the fan, perform sub-slab pressure testing to verify the sub-slab pressure field extension (PFE) is sufficient under the “new” static operating pressure. Adjust system ball valves as needed to redistribute PFE. If acceptable PFE cannot be achieved, replace the system fan.

- 1.06** Electrical: Observe electrical components for damage. Repair damaged components. Test system electrical disconnects / switches for functionality. Repair any dysfunctional components.
- 1.07** Inspection Documentation: Document the inspection (Table A), sub-system and extraction line pressure readings (Section 2.0), and any repairs or modifications made (Section 3.0) and maintain a logbook of the periodic inspections for the life of the VMS.

TABLE A

Inspection Date	Inspector Name	Address/Phone #	Inspection Result

2.0 Vapor Mitigation System Pressure Gauge Readings

Date:	Initial Reading: July 21, 2016				
System 1					
RadonAway RP145 Operating Pressure	0.7"WC				
Sub Slab Monitoring Port Readings	VP1: -0.171"WC VP2: -0.239"WC				
Acceptable Operating Range:	0.25 - 1.69"WC				

3.0 Repair Log

	Date:	Date:	Date:
Component (ie fan, gauge, etc.)			
Description of the Deficiency or Problem			
Description of the Modification or Repair			

	Date:	Date:	Date:
Sub System ID			
Component (ie fan, gauge, etc.)			
Description of the Deficiency or Problem			
Description of the Modification or Repair			

APPENDIX B

NYSDOH INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Scott Rosecrans (CHA Consulting, Inc.) Date/Time Prepared 12-13-16 / 1:00PM

Preparer's Affiliation On Behalf of Phone No. 518-453-8782

Purpose of Investigation 2016/2017 Vapor Intrusion Investigation, 140 State Street, Albany, NY

1. OCCUPANT:

Interviewed: ☒ Y / ☐ N

Last Name: SPA Wellington First Name: _____

Address: 140 State Street, Albany, NY 12205

County: Albany

Home Phone: 518 317-4772 Office Phone: _____

Number of Occupants/persons at this location 12 Age of Occupants mid 20s → 30s

2. OWNER OR LANDLORD: (Check if same as occupant ☐)

Interviewed: ☐ Y / ☐ N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

☒ Residential
☐ Industrial

☐ School
☐ Church

☒ Commercial/Multi-use
Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: <u>Multi story offices/apartments</u>

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Spa - hair salon, massages, nails

Does it include residences (i.e., multi-use)? ☒ / N If yes, how many? _____

Other characteristics:

Number of floors 5 Building age _____

Is the building insulated? ☒ / N How air tight? Tight Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with floor tile
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _____ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement Office / Breakroom

1st Floor Spa

2nd Floor Spa

3rd Floor Spa

4th Floor Apartment

5th Floor "

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? Y / ☒ N
- b. Does the garage have a separate heating unit? Y / N / ☒ NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / ☒ N / NA
Please specify _____
- d. Has the building ever had a fire? Y / ☒ N When? _____
- e. Is a kerosene or unvented gas space heater present? Y / ☒ N Where? _____
- f. Is there a workshop or hobby/craft area? Y / ☒ N Where & Type? _____
- g. Is there smoking in the building? Y / ☒ N How frequently? _____
- h. Have cleaning products been used recently? Y / ☒ N When & Type? _____
- i. Have cosmetic products been used recently? Y / ☒ N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / ☒ Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / ☒ Where & When? _____
- l. Have air fresheners been used recently? Y / ☒ When & Type? _____
- m. Is there a kitchen exhaust fan? Y / ☒ If yes, where vented? _____
- n. Is there a bathroom exhaust fan? ☒ Y / N If yes, where vented? Attic
- o. Is there a clothes dryer? ☒ Y / N If yes, is it vented outside? ☒ Y / N
- p. Has there been a pesticide application? Y / ☒ When & Type? _____

Are there odors in the building?

Y / ☒

If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / ☒

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work?

Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

☒ No

Unknown

Is there a radon mitigation system for the building/structure? ☒ Y / N Date of Installation: _____

Is the system active or passive? ☒ Active / ☐ Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: ☒ Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

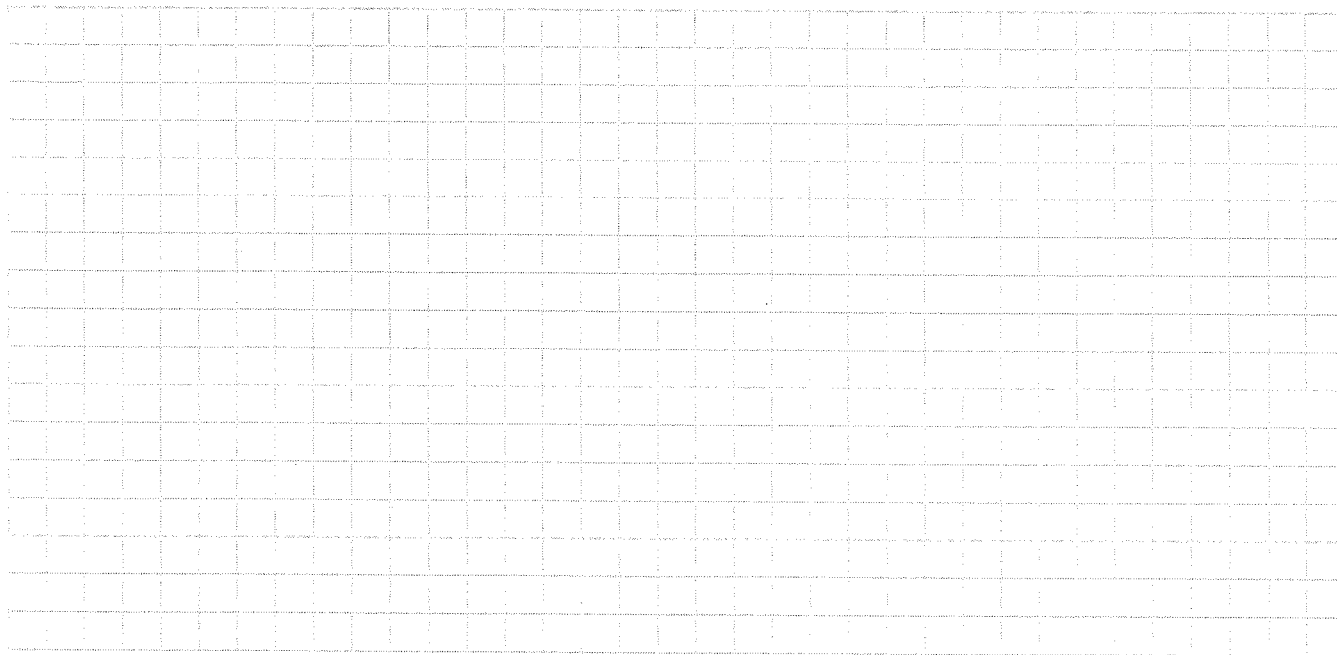
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

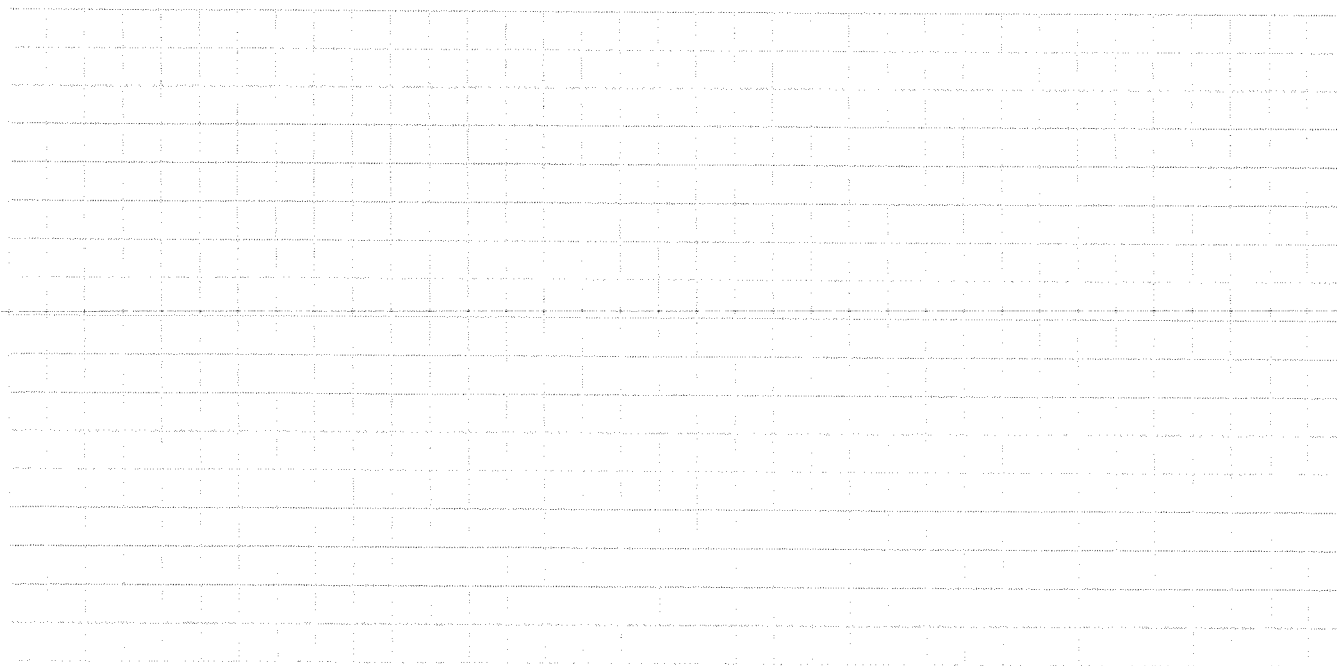
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

A large grid of graph paper, consisting of 20 columns and 20 rows of squares, intended for drawing a sketch of the area surrounding the building being sampled. The grid is composed of dashed lines on a light background.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

[illegible]

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

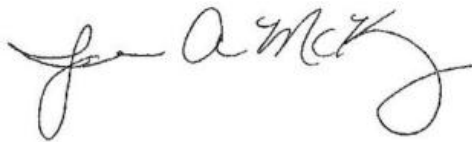
APPENDIX C
LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Job Number: 140-6566-1

Job Description: 140 State St. - Albany, NY

For:
CHA Inc
111 Winners Circle
PO BOX 5269
Albany, NY 12205-0269
Attention: Mr. John Favreau



Approved for release.
Jamie A McKinney
Senior Project Manager
12/28/2016 1:20 PM

Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
12/28/2016

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Definitions/Glossary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-6566-1

Comments

No additional comments.

Receipt

The samples were received on 12/15/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) D1946, TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-1

Lab Sample ID: 140-6566-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.5		0.080		ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.37		0.080		ppb v/v	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	0.48		0.080		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.18		0.080		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.065		0.040		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.69		0.080		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.32		0.20		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.24		0.20		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	3.0		0.080		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	1.1		0.080		ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.2		0.12		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	4.5		0.080		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.25		0.080		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	7.5		0.39		ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.8		0.39		ug/m3	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	2.9		0.48		ug/m3	1		TO 15 LL	Total/NA
Benzene	0.59		0.26		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41		0.25		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		0.40		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	3.0		0.35		ug/m3	1		TO 15 LL	Total/NA
Hexane	1.1		0.70		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	0.82		0.69		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	13		0.35		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	5.0		0.35		ug/m3	1		TO 15 LL	Total/NA
Toluene	8.3		0.45		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	18		0.32		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: 140-IA-1

Lab Sample ID: 140-6566-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	3.2		0.40		ppb v/v	2.47		TO 15 LL	Total/NA
Benzene	0.24		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Carbon tetrachloride	0.065		0.049		ppb v/v	2.47		TO 15 LL	Total/NA
Chloroform	0.16		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Chloromethane	0.52		0.25		ppb v/v	2.47		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Ethanol	50		2.5		ppb v/v	2.47		TO 15 LL	Total/NA
Ethylbenzene	0.13		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Hexane	0.34		0.25		ppb v/v	2.47		TO 15 LL	Total/NA
Methylene Chloride	0.42		0.25		ppb v/v	2.47		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.42		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
o-Xylene	0.16		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Styrene	0.12		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Toluene	2.2		0.15		ppb v/v	2.47		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	11		0.099		ppb v/v	2.47		TO 15 LL	Total/NA
Trichlorofluoromethane	0.22		0.099		ppb v/v	2.47		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-1 (Continued)

Lab Sample ID: 140-6566-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	9.5		1.2		ug/m3	2.47		TO 15 LL	Total/NA
Benzene	0.76		0.32		ug/m3	2.47		TO 15 LL	Total/NA
Carbon tetrachloride	0.41		0.31		ug/m3	2.47		TO 15 LL	Total/NA
Chloroform	0.76		0.48		ug/m3	2.47		TO 15 LL	Total/NA
Chloromethane	1.1		0.51		ug/m3	2.47		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		0.49		ug/m3	2.47		TO 15 LL	Total/NA
Ethanol	95		4.7		ug/m3	2.47		TO 15 LL	Total/NA
Ethylbenzene	0.56		0.43		ug/m3	2.47		TO 15 LL	Total/NA
Hexane	1.2		0.87		ug/m3	2.47		TO 15 LL	Total/NA
Methylene Chloride	1.5		0.86		ug/m3	2.47		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.8		0.43		ug/m3	2.47		TO 15 LL	Total/NA
o-Xylene	0.68		0.43		ug/m3	2.47		TO 15 LL	Total/NA
Styrene	0.51		0.42		ug/m3	2.47		TO 15 LL	Total/NA
Toluene	8.4		0.56		ug/m3	2.47		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	43		0.39		ug/m3	2.47		TO 15 LL	Total/NA
Trichlorofluoromethane	1.3		0.56		ug/m3	2.47		TO 15 LL	Total/NA

Client Sample ID: 140-SSV-2

Lab Sample ID: 140-6566-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.9		0.080		ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.45		0.080		ppb v/v	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	0.56		0.080		ppb v/v	1		TO 15 LL	Total/NA
1,4-Dioxane	0.22		0.20		ppb v/v	1		TO 15 LL	Total/NA
2-Butanone	13		0.32		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.25		0.080		ppb v/v	1		TO 15 LL	Total/NA
Bromodichloromethane	0.33		0.080		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.067		0.040		ppb v/v	1		TO 15 LL	Total/NA
Chloroform	7.0		0.080		ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.11		0.080		ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	0.25		0.20		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.51		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	33		2.0		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.89		0.080		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.45		0.20		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.6		0.20		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	3.7		0.080		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	1.4		0.080		ppb v/v	1		TO 15 LL	Total/NA
Styrene	0.16		0.080		ppb v/v	1		TO 15 LL	Total/NA
t-Butyl alcohol	0.70		0.32		ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.20		0.080		ppb v/v	1		TO 15 LL	Total/NA
Toluene	3.3		0.12		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	10		0.080		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.28		0.080		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	9.5		0.39		ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	2.2		0.39		ug/m3	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	3.4		0.48		ug/m3	1		TO 15 LL	Total/NA
1,4-Dioxane	0.79		0.72		ug/m3	1		TO 15 LL	Total/NA
2-Butanone	40		0.94		ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-2 (Continued)

Lab Sample ID: 140-6566-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.80		0.26		ug/m3	1		TO 15 LL	Total/NA
Bromodichloromethane	2.2		0.54		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.42		0.25		ug/m3	1		TO 15 LL	Total/NA
Chloroform	34		0.39		ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.45		0.32		ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	0.86		0.69		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		0.40		ug/m3	1		TO 15 LL	Total/NA
Ethanol	63		3.8		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	3.9		0.35		ug/m3	1		TO 15 LL	Total/NA
Hexane	1.6		0.70		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.1		0.69		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	16		0.35		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	6.1		0.35		ug/m3	1		TO 15 LL	Total/NA
Styrene	0.66		0.34		ug/m3	1		TO 15 LL	Total/NA
t-Butyl alcohol	2.1		0.97		ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.3		0.54		ug/m3	1		TO 15 LL	Total/NA
Toluene	12		0.45		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	41		0.32		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.6		0.45		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: 140-IA-2

Lab Sample ID: 140-6566-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	1.3		0.32		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.25		0.080		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.070		0.040		ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.20		0.080		ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.55		0.20		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	89	E	2.0		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.10		0.080		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.59		0.20		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.0		0.20		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.34		0.080		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.12		0.080		ppb v/v	1		TO 15 LL	Total/NA
Styrene	0.083		0.080		ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.3		0.12		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	11		0.080		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.29		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethanol - DL	81	D	5.0		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	3.9		0.94		ug/m3	1		TO 15 LL	Total/NA
Benzene	0.80		0.26		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44		0.25		ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.95		0.39		ug/m3	1		TO 15 LL	Total/NA
Chloromethane	1.1		0.41		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		0.40		ug/m3	1		TO 15 LL	Total/NA
Ethanol	170	E	3.8		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.45		0.35		ug/m3	1		TO 15 LL	Total/NA
Hexane	2.1		0.70		ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-2 (Continued)

Lab Sample ID: 140-6566-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.6		0.69		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.5		0.35		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	0.53		0.35		ug/m3	1		TO 15 LL	Total/NA
Styrene	0.35		0.34		ug/m3	1		TO 15 LL	Total/NA
Toluene	4.8		0.45		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	42		0.32		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.6		0.45		ug/m3	1		TO 15 LL	Total/NA
Ethanol - DL	150	D	9.4		ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-1

Lab Sample ID: 140-6566-1

Date Collected: 12/13/16 17:20

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2,4-Trimethylbenzene	1.5		0.080		ppb v/v			12/17/16 01:00	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
1,3,5-Trimethylbenzene	0.37		0.080		ppb v/v			12/17/16 01:00	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 01:00	1
1,4-Dichlorobenzene	0.48		0.080		ppb v/v			12/17/16 01:00	1
1,4-Dioxane	ND		0.20		ppb v/v			12/17/16 01:00	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/17/16 01:00	1
2-Butanone	ND		0.32		ppb v/v			12/17/16 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/17/16 01:00	1
Benzene	0.18		0.080		ppb v/v			12/17/16 01:00	1
Benzyl chloride	ND		0.16		ppb v/v			12/17/16 01:00	1
Bromodichloromethane	ND		0.080		ppb v/v			12/17/16 01:00	1
Bromoform	ND		0.080		ppb v/v			12/17/16 01:00	1
Bromomethane	ND		0.080		ppb v/v			12/17/16 01:00	1
Carbon tetrachloride	0.065		0.040		ppb v/v			12/17/16 01:00	1
Chlorobenzene	ND		0.080		ppb v/v			12/17/16 01:00	1
Chloroethane	ND		0.080		ppb v/v			12/17/16 01:00	1
Chloroform	ND		0.080		ppb v/v			12/17/16 01:00	1
Chloromethane	ND		0.20		ppb v/v			12/17/16 01:00	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/17/16 01:00	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 01:00	1
Cyclohexane	ND		0.20		ppb v/v			12/17/16 01:00	1
Dibromochloromethane	ND		0.080		ppb v/v			12/17/16 01:00	1
Dichlorodifluoromethane	0.50		0.080		ppb v/v			12/17/16 01:00	1
Ethanol	ND		2.0		ppb v/v			12/17/16 01:00	1
Ethylbenzene	0.69		0.080		ppb v/v			12/17/16 01:00	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/17/16 01:00	1
Hexane	0.32		0.20		ppb v/v			12/17/16 01:00	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/17/16 01:00	1
Methylene Chloride	0.24		0.20		ppb v/v			12/17/16 01:00	1
m-Xylene & p-Xylene	3.0		0.080		ppb v/v			12/17/16 01:00	1
o-Xylene	1.1		0.080		ppb v/v			12/17/16 01:00	1
Styrene	ND		0.080		ppb v/v			12/17/16 01:00	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/17/16 01:00	1
Tetrachloroethene	ND		0.080		ppb v/v			12/17/16 01:00	1
Toluene	2.2		0.12		ppb v/v			12/17/16 01:00	1
trans-1,2-Dichloroethene	4.5		0.080		ppb v/v			12/17/16 01:00	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-1

Lab Sample ID: 140-6566-1

Date Collected: 12/13/16 17:20

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 01:00	1
Trichloroethene	ND		0.040		ppb v/v			12/17/16 01:00	1
Trichlorofluoromethane	0.25		0.080		ppb v/v			12/17/16 01:00	1
Vinyl chloride	ND		0.040		ppb v/v			12/17/16 01:00	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/17/16 01:00	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/17/16 01:00	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/17/16 01:00	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/17/16 01:00	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/17/16 01:00	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/17/16 01:00	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/17/16 01:00	1
1,2,4-Trimethylbenzene	7.5		0.39		ug/m3			12/17/16 01:00	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/17/16 01:00	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 01:00	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/17/16 01:00	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/17/16 01:00	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/17/16 01:00	1
1,3,5-Trimethylbenzene	1.8		0.39		ug/m3			12/17/16 01:00	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 01:00	1
1,4-Dichlorobenzene	2.9		0.48		ug/m3			12/17/16 01:00	1
1,4-Dioxane	ND		0.72		ug/m3			12/17/16 01:00	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/17/16 01:00	1
2-Butanone	ND		0.94		ug/m3			12/17/16 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/17/16 01:00	1
Benzene	0.59		0.26		ug/m3			12/17/16 01:00	1
Benzyl chloride	ND		0.83		ug/m3			12/17/16 01:00	1
Bromodichloromethane	ND		0.54		ug/m3			12/17/16 01:00	1
Bromoform	ND		0.83		ug/m3			12/17/16 01:00	1
Bromomethane	ND		0.31		ug/m3			12/17/16 01:00	1
Carbon tetrachloride	0.41		0.25		ug/m3			12/17/16 01:00	1
Chlorobenzene	ND		0.37		ug/m3			12/17/16 01:00	1
Chloroethane	ND		0.21		ug/m3			12/17/16 01:00	1
Chloroform	ND		0.39		ug/m3			12/17/16 01:00	1
Chloromethane	ND		0.41		ug/m3			12/17/16 01:00	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/17/16 01:00	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 01:00	1
Cyclohexane	ND		0.69		ug/m3			12/17/16 01:00	1
Dibromochloromethane	ND		0.68		ug/m3			12/17/16 01:00	1
Dichlorodifluoromethane	2.5		0.40		ug/m3			12/17/16 01:00	1
Ethanol	ND		3.8		ug/m3			12/17/16 01:00	1
Ethylbenzene	3.0		0.35		ug/m3			12/17/16 01:00	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/17/16 01:00	1
Hexane	1.1		0.70		ug/m3			12/17/16 01:00	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/17/16 01:00	1
Methylene Chloride	0.82		0.69		ug/m3			12/17/16 01:00	1
m-Xylene & p-Xylene	13		0.35		ug/m3			12/17/16 01:00	1
o-Xylene	5.0		0.35		ug/m3			12/17/16 01:00	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-1

Lab Sample ID: 140-6566-1

Date Collected: 12/13/16 17:20

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.34		ug/m3			12/17/16 01:00	1
t-Butyl alcohol	ND		0.97		ug/m3			12/17/16 01:00	1
Tetrachloroethene	ND		0.54		ug/m3			12/17/16 01:00	1
Toluene	8.3		0.45		ug/m3			12/17/16 01:00	1
trans-1,2-Dichloroethene	18		0.32		ug/m3			12/17/16 01:00	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 01:00	1
Trichloroethene	ND		0.21		ug/m3			12/17/16 01:00	1
Trichlorofluoromethane	1.4		0.45		ug/m3			12/17/16 01:00	1
Vinyl chloride	ND		0.10		ug/m3			12/17/16 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		60 - 140					12/17/16 01:00	1

Client Sample ID: 140-IA-1

Lab Sample ID: 140-6566-2

Date Collected: 12/13/16 17:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,1,2,2-Tetrachloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,1,2-Trichloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,1,2-Trichlorotrifluoroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,1-Dichloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,1-Dichloroethene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2,4-Trichlorobenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2,4-Trimethylbenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2-Dibromoethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2-Dichlorobenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2-Dichloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2-Dichloropropane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,2-Dichlorotetrafluoroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,3,5-Trimethylbenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,3-Dichlorobenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,4-Dichlorobenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
1,4-Dioxane	ND		0.25		ppb v/v			12/17/16 01:50	2.47
2,2,4-Trimethylpentane	ND		0.25		ppb v/v			12/17/16 01:50	2.47
2-Butanone	3.2		0.40		ppb v/v			12/17/16 01:50	2.47
4-Methyl-2-pentanone (MIBK)	ND		0.25		ppb v/v			12/17/16 01:50	2.47
Benzene	0.24		0.099		ppb v/v			12/17/16 01:50	2.47
Benzyl chloride	ND		0.20		ppb v/v			12/17/16 01:50	2.47
Bromodichloromethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Bromoform	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Bromomethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Carbon tetrachloride	0.065		0.049		ppb v/v			12/17/16 01:50	2.47
Chlorobenzene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Chloroethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Chloroform	0.16		0.099		ppb v/v			12/17/16 01:50	2.47

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-1

Lab Sample ID: 140-6566-2

Date Collected: 12/13/16 17:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.52		0.25		ppb v/v			12/17/16 01:50	2.47
cis-1,2-Dichloroethene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
cis-1,3-Dichloropropene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Cyclohexane	ND		0.25		ppb v/v			12/17/16 01:50	2.47
Dibromochloromethane	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Dichlorodifluoromethane	0.46		0.099		ppb v/v			12/17/16 01:50	2.47
Ethanol	50		2.5		ppb v/v			12/17/16 01:50	2.47
Ethylbenzene	0.13		0.099		ppb v/v			12/17/16 01:50	2.47
Hexachlorobutadiene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Hexane	0.34		0.25		ppb v/v			12/17/16 01:50	2.47
Methyl tert-butyl ether	ND		0.20		ppb v/v			12/17/16 01:50	2.47
Methylene Chloride	0.42		0.25		ppb v/v			12/17/16 01:50	2.47
m-Xylene & p-Xylene	0.42		0.099		ppb v/v			12/17/16 01:50	2.47
o-Xylene	0.16		0.099		ppb v/v			12/17/16 01:50	2.47
Styrene	0.12		0.099		ppb v/v			12/17/16 01:50	2.47
t-Butyl alcohol	ND		0.40		ppb v/v			12/17/16 01:50	2.47
Tetrachloroethene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Toluene	2.2		0.15		ppb v/v			12/17/16 01:50	2.47
trans-1,2-Dichloroethene	11		0.099		ppb v/v			12/17/16 01:50	2.47
trans-1,3-Dichloropropene	ND		0.099		ppb v/v			12/17/16 01:50	2.47
Trichloroethene	ND		0.049		ppb v/v			12/17/16 01:50	2.47
Trichlorofluoromethane	0.22		0.099		ppb v/v			12/17/16 01:50	2.47
Vinyl chloride	ND		0.049		ppb v/v			12/17/16 01:50	2.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.54		ug/m3			12/17/16 01:50	2.47
1,1,2,2-Tetrachloroethane	ND		0.68		ug/m3			12/17/16 01:50	2.47
1,1,2-Trichloroethane	ND		0.54		ug/m3			12/17/16 01:50	2.47
1,1,2-Trichlorotrifluoroethane	ND		0.76		ug/m3			12/17/16 01:50	2.47
1,1-Dichloroethane	ND		0.40		ug/m3			12/17/16 01:50	2.47
1,1-Dichloroethene	ND		0.39		ug/m3			12/17/16 01:50	2.47
1,2,4-Trichlorobenzene	ND		0.73		ug/m3			12/17/16 01:50	2.47
1,2,4-Trimethylbenzene	ND		0.49		ug/m3			12/17/16 01:50	2.47
1,2-Dibromoethane	ND		0.76		ug/m3			12/17/16 01:50	2.47
1,2-Dichlorobenzene	ND		0.59		ug/m3			12/17/16 01:50	2.47
1,2-Dichloroethane	ND		0.40		ug/m3			12/17/16 01:50	2.47
1,2-Dichloropropane	ND		0.46		ug/m3			12/17/16 01:50	2.47
1,2-Dichlorotetrafluoroethane	ND		0.69		ug/m3			12/17/16 01:50	2.47
1,3,5-Trimethylbenzene	ND		0.49		ug/m3			12/17/16 01:50	2.47
1,3-Dichlorobenzene	ND		0.59		ug/m3			12/17/16 01:50	2.47
1,4-Dichlorobenzene	ND		0.59		ug/m3			12/17/16 01:50	2.47
1,4-Dioxane	ND		0.89		ug/m3			12/17/16 01:50	2.47
2,2,4-Trimethylpentane	ND		1.2		ug/m3			12/17/16 01:50	2.47
2-Butanone	9.5		1.2		ug/m3			12/17/16 01:50	2.47
4-Methyl-2-pentanone (MIBK)	ND		1.0		ug/m3			12/17/16 01:50	2.47
Benzene	0.76		0.32		ug/m3			12/17/16 01:50	2.47
Benzyl chloride	ND		1.0		ug/m3			12/17/16 01:50	2.47
Bromodichloromethane	ND		0.66		ug/m3			12/17/16 01:50	2.47
Bromoform	ND		1.0		ug/m3			12/17/16 01:50	2.47

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-1

Lab Sample ID: 140-6566-2

Date Collected: 12/13/16 17:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		0.38		ug/m3			12/17/16 01:50	2.47
Carbon tetrachloride	0.41		0.31		ug/m3			12/17/16 01:50	2.47
Chlorobenzene	ND		0.45		ug/m3			12/17/16 01:50	2.47
Chloroethane	ND		0.26		ug/m3			12/17/16 01:50	2.47
Chloroform	0.76		0.48		ug/m3			12/17/16 01:50	2.47
Chloromethane	1.1		0.51		ug/m3			12/17/16 01:50	2.47
cis-1,2-Dichloroethene	ND		0.39		ug/m3			12/17/16 01:50	2.47
cis-1,3-Dichloropropene	ND		0.45		ug/m3			12/17/16 01:50	2.47
Cyclohexane	ND		0.85		ug/m3			12/17/16 01:50	2.47
Dibromochloromethane	ND		0.84		ug/m3			12/17/16 01:50	2.47
Dichlorodifluoromethane	2.3		0.49		ug/m3			12/17/16 01:50	2.47
Ethanol	95		4.7		ug/m3			12/17/16 01:50	2.47
Ethylbenzene	0.56		0.43		ug/m3			12/17/16 01:50	2.47
Hexachlorobutadiene	ND		1.1		ug/m3			12/17/16 01:50	2.47
Hexane	1.2		0.87		ug/m3			12/17/16 01:50	2.47
Methyl tert-butyl ether	ND		0.71		ug/m3			12/17/16 01:50	2.47
Methylene Chloride	1.5		0.86		ug/m3			12/17/16 01:50	2.47
m-Xylene & p-Xylene	1.8		0.43		ug/m3			12/17/16 01:50	2.47
o-Xylene	0.68		0.43		ug/m3			12/17/16 01:50	2.47
Styrene	0.51		0.42		ug/m3			12/17/16 01:50	2.47
t-Butyl alcohol	ND		1.2		ug/m3			12/17/16 01:50	2.47
Tetrachloroethene	ND		0.67		ug/m3			12/17/16 01:50	2.47
Toluene	8.4		0.56		ug/m3			12/17/16 01:50	2.47
trans-1,2-Dichloroethene	43		0.39		ug/m3			12/17/16 01:50	2.47
trans-1,3-Dichloropropene	ND		0.45		ug/m3			12/17/16 01:50	2.47
Trichloroethene	ND		0.27		ug/m3			12/17/16 01:50	2.47
Trichlorofluoromethane	1.3		0.56		ug/m3			12/17/16 01:50	2.47
Vinyl chloride	ND		0.13		ug/m3			12/17/16 01:50	2.47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		60 - 140		12/17/16 01:50	2.47

Client Sample ID: 140-SSV-2

Lab Sample ID: 140-6566-3

Date Collected: 12/13/16 17:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/17/16 02:35	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/17/16 02:35	1
1,2,4-Trimethylbenzene	1.9		0.080		ppb v/v			12/17/16 02:35	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 02:35	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-2

Lab Sample ID: 140-6566-3

Date Collected: 12/13/16 17:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
1,3,5-Trimethylbenzene	0.45		0.080		ppb v/v			12/17/16 02:35	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 02:35	1
1,4-Dichlorobenzene	0.56		0.080		ppb v/v			12/17/16 02:35	1
1,4-Dioxane	0.22		0.20		ppb v/v			12/17/16 02:35	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/17/16 02:35	1
2-Butanone	13		0.32		ppb v/v			12/17/16 02:35	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/17/16 02:35	1
Benzene	0.25		0.080		ppb v/v			12/17/16 02:35	1
Benzyl chloride	ND		0.16		ppb v/v			12/17/16 02:35	1
Bromodichloromethane	0.33		0.080		ppb v/v			12/17/16 02:35	1
Bromoform	ND		0.080		ppb v/v			12/17/16 02:35	1
Bromomethane	ND		0.080		ppb v/v			12/17/16 02:35	1
Carbon tetrachloride	0.067		0.040		ppb v/v			12/17/16 02:35	1
Chlorobenzene	ND		0.080		ppb v/v			12/17/16 02:35	1
Chloroethane	ND		0.080		ppb v/v			12/17/16 02:35	1
Chloroform	7.0		0.080		ppb v/v			12/17/16 02:35	1
Chloromethane	ND		0.20		ppb v/v			12/17/16 02:35	1
cis-1,2-Dichloroethene	0.11		0.080		ppb v/v			12/17/16 02:35	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 02:35	1
Cyclohexane	0.25		0.20		ppb v/v			12/17/16 02:35	1
Dibromochloromethane	ND		0.080		ppb v/v			12/17/16 02:35	1
Dichlorodifluoromethane	0.51		0.080		ppb v/v			12/17/16 02:35	1
Ethanol	33		2.0		ppb v/v			12/17/16 02:35	1
Ethylbenzene	0.89		0.080		ppb v/v			12/17/16 02:35	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/17/16 02:35	1
Hexane	0.45		0.20		ppb v/v			12/17/16 02:35	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/17/16 02:35	1
Methylene Chloride	2.6		0.20		ppb v/v			12/17/16 02:35	1
m-Xylene & p-Xylene	3.7		0.080		ppb v/v			12/17/16 02:35	1
o-Xylene	1.4		0.080		ppb v/v			12/17/16 02:35	1
Styrene	0.16		0.080		ppb v/v			12/17/16 02:35	1
t-Butyl alcohol	0.70		0.32		ppb v/v			12/17/16 02:35	1
Tetrachloroethene	0.20		0.080		ppb v/v			12/17/16 02:35	1
Toluene	3.3		0.12		ppb v/v			12/17/16 02:35	1
trans-1,2-Dichloroethene	10		0.080		ppb v/v			12/17/16 02:35	1
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 02:35	1
Trichloroethene	ND		0.040		ppb v/v			12/17/16 02:35	1
Trichlorofluoromethane	0.28		0.080		ppb v/v			12/17/16 02:35	1
Vinyl chloride	ND		0.040		ppb v/v			12/17/16 02:35	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/17/16 02:35	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/17/16 02:35	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/17/16 02:35	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/17/16 02:35	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/17/16 02:35	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-2

Lab Sample ID: 140-6566-3

Date Collected: 12/13/16 17:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.32		ug/m3			12/17/16 02:35	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/17/16 02:35	1
1,2,4-Trimethylbenzene	9.5		0.39		ug/m3			12/17/16 02:35	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/17/16 02:35	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 02:35	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/17/16 02:35	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/17/16 02:35	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/17/16 02:35	1
1,3,5-Trimethylbenzene	2.2		0.39		ug/m3			12/17/16 02:35	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 02:35	1
1,4-Dichlorobenzene	3.4		0.48		ug/m3			12/17/16 02:35	1
1,4-Dioxane	0.79		0.72		ug/m3			12/17/16 02:35	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/17/16 02:35	1
2-Butanone	40		0.94		ug/m3			12/17/16 02:35	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/17/16 02:35	1
Benzene	0.80		0.26		ug/m3			12/17/16 02:35	1
Benzyl chloride	ND		0.83		ug/m3			12/17/16 02:35	1
Bromodichloromethane	2.2		0.54		ug/m3			12/17/16 02:35	1
Bromoform	ND		0.83		ug/m3			12/17/16 02:35	1
Bromomethane	ND		0.31		ug/m3			12/17/16 02:35	1
Carbon tetrachloride	0.42		0.25		ug/m3			12/17/16 02:35	1
Chlorobenzene	ND		0.37		ug/m3			12/17/16 02:35	1
Chloroethane	ND		0.21		ug/m3			12/17/16 02:35	1
Chloroform	34		0.39		ug/m3			12/17/16 02:35	1
Chloromethane	ND		0.41		ug/m3			12/17/16 02:35	1
cis-1,2-Dichloroethene	0.45		0.32		ug/m3			12/17/16 02:35	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 02:35	1
Cyclohexane	0.86		0.69		ug/m3			12/17/16 02:35	1
Dibromochloromethane	ND		0.68		ug/m3			12/17/16 02:35	1
Dichlorodifluoromethane	2.5		0.40		ug/m3			12/17/16 02:35	1
Ethanol	63		3.8		ug/m3			12/17/16 02:35	1
Ethylbenzene	3.9		0.35		ug/m3			12/17/16 02:35	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/17/16 02:35	1
Hexane	1.6		0.70		ug/m3			12/17/16 02:35	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/17/16 02:35	1
Methylene Chloride	9.1		0.69		ug/m3			12/17/16 02:35	1
m-Xylene & p-Xylene	16		0.35		ug/m3			12/17/16 02:35	1
o-Xylene	6.1		0.35		ug/m3			12/17/16 02:35	1
Styrene	0.66		0.34		ug/m3			12/17/16 02:35	1
t-Butyl alcohol	2.1		0.97		ug/m3			12/17/16 02:35	1
Tetrachloroethene	1.3		0.54		ug/m3			12/17/16 02:35	1
Toluene	12		0.45		ug/m3			12/17/16 02:35	1
trans-1,2-Dichloroethene	41		0.32		ug/m3			12/17/16 02:35	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 02:35	1
Trichloroethene	ND		0.21		ug/m3			12/17/16 02:35	1
Trichlorofluoromethane	1.6		0.45		ug/m3			12/17/16 02:35	1
Vinyl chloride	ND		0.10		ug/m3			12/17/16 02:35	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-2

Lab Sample ID: 140-6566-3

Date Collected: 12/13/16 17:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		60 - 140		12/17/16 02:35	1

Client Sample ID: 140-IA-2

Lab Sample ID: 140-6566-4

Date Collected: 12/13/16 17:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
1,4-Dioxane	ND		0.20		ppb v/v			12/17/16 03:20	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/17/16 03:20	1
2-Butanone	1.3		0.32		ppb v/v			12/17/16 03:20	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/17/16 03:20	1
Benzene	0.25		0.080		ppb v/v			12/17/16 03:20	1
Benzyl chloride	ND		0.16		ppb v/v			12/17/16 03:20	1
Bromodichloromethane	ND		0.080		ppb v/v			12/17/16 03:20	1
Bromoform	ND		0.080		ppb v/v			12/17/16 03:20	1
Bromomethane	ND		0.080		ppb v/v			12/17/16 03:20	1
Carbon tetrachloride	0.070		0.040		ppb v/v			12/17/16 03:20	1
Chlorobenzene	ND		0.080		ppb v/v			12/17/16 03:20	1
Chloroethane	ND		0.080		ppb v/v			12/17/16 03:20	1
Chloroform	0.20		0.080		ppb v/v			12/17/16 03:20	1
Chloromethane	0.55		0.20		ppb v/v			12/17/16 03:20	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/17/16 03:20	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 03:20	1
Cyclohexane	ND		0.20		ppb v/v			12/17/16 03:20	1
Dibromochloromethane	ND		0.080		ppb v/v			12/17/16 03:20	1
Dichlorodifluoromethane	0.50		0.080		ppb v/v			12/17/16 03:20	1
Ethanol	89 E		2.0		ppb v/v			12/17/16 03:20	1
Ethylbenzene	0.10		0.080		ppb v/v			12/17/16 03:20	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/17/16 03:20	1
Hexane	0.59		0.20		ppb v/v			12/17/16 03:20	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/17/16 03:20	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-2

Lab Sample ID: 140-6566-4

Date Collected: 12/13/16 17:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.0		0.20		ppb v/v			12/17/16 03:20	1
m-Xylene & p-Xylene	0.34		0.080		ppb v/v			12/17/16 03:20	1
o-Xylene	0.12		0.080		ppb v/v			12/17/16 03:20	1
Styrene	0.083		0.080		ppb v/v			12/17/16 03:20	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/17/16 03:20	1
Tetrachloroethene	ND		0.080		ppb v/v			12/17/16 03:20	1
Toluene	1.3		0.12		ppb v/v			12/17/16 03:20	1
trans-1,2-Dichloroethene	11		0.080		ppb v/v			12/17/16 03:20	1
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 03:20	1
Trichloroethene	ND		0.040		ppb v/v			12/17/16 03:20	1
Trichlorofluoromethane	0.29		0.080		ppb v/v			12/17/16 03:20	1
Vinyl chloride	ND		0.040		ppb v/v			12/17/16 03:20	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/17/16 03:20	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/17/16 03:20	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/17/16 03:20	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/17/16 03:20	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/17/16 03:20	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/17/16 03:20	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/17/16 03:20	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/17/16 03:20	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/17/16 03:20	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 03:20	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/17/16 03:20	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/17/16 03:20	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/17/16 03:20	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/17/16 03:20	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 03:20	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 03:20	1
1,4-Dioxane	ND		0.72		ug/m3			12/17/16 03:20	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/17/16 03:20	1
2-Butanone	3.9		0.94		ug/m3			12/17/16 03:20	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/17/16 03:20	1
Benzene	0.80		0.26		ug/m3			12/17/16 03:20	1
Benzyl chloride	ND		0.83		ug/m3			12/17/16 03:20	1
Bromodichloromethane	ND		0.54		ug/m3			12/17/16 03:20	1
Bromoform	ND		0.83		ug/m3			12/17/16 03:20	1
Bromomethane	ND		0.31		ug/m3			12/17/16 03:20	1
Carbon tetrachloride	0.44		0.25		ug/m3			12/17/16 03:20	1
Chlorobenzene	ND		0.37		ug/m3			12/17/16 03:20	1
Chloroethane	ND		0.21		ug/m3			12/17/16 03:20	1
Chloroform	0.95		0.39		ug/m3			12/17/16 03:20	1
Chloromethane	1.1		0.41		ug/m3			12/17/16 03:20	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/17/16 03:20	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 03:20	1
Cyclohexane	ND		0.69		ug/m3			12/17/16 03:20	1
Dibromochloromethane	ND		0.68		ug/m3			12/17/16 03:20	1
Dichlorodifluoromethane	2.5		0.40		ug/m3			12/17/16 03:20	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-IA-2

Lab Sample ID: 140-6566-4

Date Collected: 12/13/16 17:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	170	E	3.8		ug/m3			12/17/16 03:20	1
Ethylbenzene	0.45		0.35		ug/m3			12/17/16 03:20	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/17/16 03:20	1
Hexane	2.1		0.70		ug/m3			12/17/16 03:20	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/17/16 03:20	1
Methylene Chloride	3.6		0.69		ug/m3			12/17/16 03:20	1
m-Xylene & p-Xylene	1.5		0.35		ug/m3			12/17/16 03:20	1
o-Xylene	0.53		0.35		ug/m3			12/17/16 03:20	1
Styrene	0.35		0.34		ug/m3			12/17/16 03:20	1
t-Butyl alcohol	ND		0.97		ug/m3			12/17/16 03:20	1
Tetrachloroethene	ND		0.54		ug/m3			12/17/16 03:20	1
Toluene	4.8		0.45		ug/m3			12/17/16 03:20	1
trans-1,2-Dichloroethene	42		0.32		ug/m3			12/17/16 03:20	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 03:20	1
Trichloroethene	ND		0.21		ug/m3			12/17/16 03:20	1
Trichlorofluoromethane	1.6		0.45		ug/m3			12/17/16 03:20	1
Vinyl chloride	ND		0.10		ug/m3			12/17/16 03:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		60 - 140		12/17/16 03:20	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	81	D	5.0		ppb v/v			12/19/16 22:23	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	150	D	9.4		ug/m3			12/19/16 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		12/19/16 22:23	1

Default Detection Limits

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,1-Trichloroethane	0.44	0.065	ug/m3	TO 15 LL
1,1,2,2-Tetrachloroethane	0.080	0.024	ppb v/v	TO 15 LL
1,1,2,2-Tetrachloroethane	0.55	0.16	ug/m3	TO 15 LL
1,1,2-Trichloroethane	0.080	0.021	ppb v/v	TO 15 LL
1,1,2-Trichloroethane	0.44	0.11	ug/m3	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.61	0.092	ug/m3	TO 15 LL
1,1-Dichloroethane	0.080	0.010	ppb v/v	TO 15 LL
1,1-Dichloroethane	0.32	0.040	ug/m3	TO 15 LL
1,1-Dichloroethene	0.080	0.014	ppb v/v	TO 15 LL
1,1-Dichloroethene	0.32	0.056	ug/m3	TO 15 LL
1,2,4-Trichlorobenzene	0.080	0.039	ppb v/v	TO 15 LL
1,2,4-Trichlorobenzene	0.59	0.29	ug/m3	TO 15 LL
1,2,4-Trimethylbenzene	0.080	0.025	ppb v/v	TO 15 LL
1,2,4-Trimethylbenzene	0.39	0.12	ug/m3	TO 15 LL
1,2-Dibromoethane	0.080	0.018	ppb v/v	TO 15 LL
1,2-Dibromoethane	0.61	0.14	ug/m3	TO 15 LL
1,2-Dichlorobenzene	0.080	0.028	ppb v/v	TO 15 LL
1,2-Dichlorobenzene	0.48	0.17	ug/m3	TO 15 LL
1,2-Dichloroethane	0.080	0.019	ppb v/v	TO 15 LL
1,2-Dichloroethane	0.32	0.077	ug/m3	TO 15 LL
1,2-Dichloropropane	0.080	0.021	ppb v/v	TO 15 LL
1,2-Dichloropropane	0.37	0.097	ug/m3	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.080	0.013	ppb v/v	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.56	0.091	ug/m3	TO 15 LL
1,3,5-Trimethylbenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3,5-Trimethylbenzene	0.39	0.13	ug/m3	TO 15 LL
1,3-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,4-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dioxane	0.20	0.032	ppb v/v	TO 15 LL
1,4-Dioxane	0.72	0.12	ug/m3	TO 15 LL
2,2,4-Trimethylpentane	0.20	0.016	ppb v/v	TO 15 LL
2,2,4-Trimethylpentane	0.93	0.075	ug/m3	TO 15 LL
2-Butanone	0.32	0.080	ppb v/v	TO 15 LL
2-Butanone	0.94	0.24	ug/m3	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.20	0.018	ppb v/v	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.82	0.074	ug/m3	TO 15 LL
Benzene	0.080	0.023	ppb v/v	TO 15 LL
Benzene	0.26	0.073	ug/m3	TO 15 LL
Benzyl chloride	0.16	0.031	ppb v/v	TO 15 LL
Benzyl chloride	0.83	0.16	ug/m3	TO 15 LL
Bromodichloromethane	0.080	0.018	ppb v/v	TO 15 LL
Bromodichloromethane	0.54	0.12	ug/m3	TO 15 LL
Bromoform	0.080	0.019	ppb v/v	TO 15 LL
Bromoform	0.83	0.20	ug/m3	TO 15 LL
Bromomethane	0.080	0.013	ppb v/v	TO 15 LL
Bromomethane	0.31	0.050	ug/m3	TO 15 LL
Carbon tetrachloride	0.040	0.015	ppb v/v	TO 15 LL
Carbon tetrachloride	0.25	0.094	ug/m3	TO 15 LL

TestAmerica Knoxville

Default Detection Limits

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Conti

Analyte	RL	MDL	Units	Method
Chlorobenzene	0.080	0.020	ppb v/v	TO 15 LL
Chlorobenzene	0.37	0.092	ug/m3	TO 15 LL
Chloroethane	0.080	0.014	ppb v/v	TO 15 LL
Chloroethane	0.21	0.037	ug/m3	TO 15 LL
Chloroform	0.080	0.015	ppb v/v	TO 15 LL
Chloroform	0.39	0.073	ug/m3	TO 15 LL
Chloromethane	0.20	0.064	ppb v/v	TO 15 LL
Chloromethane	0.41	0.13	ug/m3	TO 15 LL
cis-1,2-Dichloroethene	0.080	0.024	ppb v/v	TO 15 LL
cis-1,2-Dichloroethene	0.32	0.095	ug/m3	TO 15 LL
cis-1,3-Dichloropropene	0.080	0.029	ppb v/v	TO 15 LL
cis-1,3-Dichloropropene	0.36	0.13	ug/m3	TO 15 LL
Cyclohexane	0.20	0.016	ppb v/v	TO 15 LL
Cyclohexane	0.69	0.055	ug/m3	TO 15 LL
Dibromochloromethane	0.080	0.017	ppb v/v	TO 15 LL
Dibromochloromethane	0.68	0.14	ug/m3	TO 15 LL
Dichlorodifluoromethane	0.080	0.027	ppb v/v	TO 15 LL
Dichlorodifluoromethane	0.40	0.13	ug/m3	TO 15 LL
Ethanol	2.0	0.64	ppb v/v	TO 15 LL
Ethanol	3.8	1.2	ug/m3	TO 15 LL
Ethylbenzene	0.080	0.027	ppb v/v	TO 15 LL
Ethylbenzene	0.35	0.12	ug/m3	TO 15 LL
Hexachlorobutadiene	0.080	0.049	ppb v/v	TO 15 LL
Hexachlorobutadiene	0.85	0.52	ug/m3	TO 15 LL
Hexane	0.20	0.013	ppb v/v	TO 15 LL
Hexane	0.70	0.046	ug/m3	TO 15 LL
Methyl tert-butyl ether	0.16	0.068	ppb v/v	TO 15 LL
Methyl tert-butyl ether	0.58	0.25	ug/m3	TO 15 LL
Methylene Chloride	0.20	0.13	ppb v/v	TO 15 LL
Methylene Chloride	0.69	0.45	ug/m3	TO 15 LL
m-Xylene & p-Xylene	0.080	0.053	ppb v/v	TO 15 LL
m-Xylene & p-Xylene	0.35	0.23	ug/m3	TO 15 LL
o-Xylene	0.080	0.024	ppb v/v	TO 15 LL
o-Xylene	0.35	0.10	ug/m3	TO 15 LL
Styrene	0.080	0.023	ppb v/v	TO 15 LL
Styrene	0.34	0.098	ug/m3	TO 15 LL
t-Butyl alcohol	0.32	0.015	ppb v/v	TO 15 LL
t-Butyl alcohol	0.97	0.045	ug/m3	TO 15 LL
Tetrachloroethene	0.080	0.016	ppb v/v	TO 15 LL
Tetrachloroethene	0.54	0.11	ug/m3	TO 15 LL
Toluene	0.12	0.12	ppb v/v	TO 15 LL
Toluene	0.45	0.45	ug/m3	TO 15 LL
trans-1,2-Dichloroethene	0.080	0.020	ppb v/v	TO 15 LL
trans-1,2-Dichloroethene	0.32	0.079	ug/m3	TO 15 LL
trans-1,3-Dichloropropene	0.080	0.019	ppb v/v	TO 15 LL
trans-1,3-Dichloropropene	0.36	0.086	ug/m3	TO 15 LL
Trichloroethene	0.040	0.014	ppb v/v	TO 15 LL
Trichloroethene	0.21	0.075	ug/m3	TO 15 LL
Trichlorofluoromethane	0.080	0.010	ppb v/v	TO 15 LL
Trichlorofluoromethane	0.45	0.056	ug/m3	TO 15 LL
Vinyl chloride	0.040	0.029	ppb v/v	TO 15 LL
Vinyl chloride	0.10	0.074	ug/m3	TO 15 LL

TestAmerica Knoxville

Surrogate Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
140-6566-1	140-SSV-1	100
140-6566-2	140-IA-1	99
140-6566-3	140-SSV-2	99
140-6566-4	140-IA-2	97
140-6566-4 - DL	140-IA-2	102
LCS 140-7414/1006	Lab Control Sample	106
LCS 140-7415/1002	Lab Control Sample	107
MB 140-7414/21	Method Blank	98
MB 140-7415/4	Method Blank	105

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-7414/21

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
1,4-Dioxane	ND		0.20		ppb v/v			12/17/16 00:15	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/17/16 00:15	1
2-Butanone	ND		0.32		ppb v/v			12/17/16 00:15	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/17/16 00:15	1
Benzene	ND		0.080		ppb v/v			12/17/16 00:15	1
Benzyl chloride	ND		0.16		ppb v/v			12/17/16 00:15	1
Bromodichloromethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Bromoform	ND		0.080		ppb v/v			12/17/16 00:15	1
Bromomethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Carbon tetrachloride	ND		0.040		ppb v/v			12/17/16 00:15	1
Chlorobenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
Chloroethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Chloroform	ND		0.080		ppb v/v			12/17/16 00:15	1
Chloromethane	ND		0.20		ppb v/v			12/17/16 00:15	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/17/16 00:15	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 00:15	1
Cyclohexane	ND		0.20		ppb v/v			12/17/16 00:15	1
Dibromochloromethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Dichlorodifluoromethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Ethanol	ND		2.0		ppb v/v			12/17/16 00:15	1
Ethylbenzene	ND		0.080		ppb v/v			12/17/16 00:15	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/17/16 00:15	1
Hexane	ND		0.20		ppb v/v			12/17/16 00:15	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/17/16 00:15	1
Methylene Chloride	ND		0.20		ppb v/v			12/17/16 00:15	1
m-Xylene & p-Xylene	ND		0.080		ppb v/v			12/17/16 00:15	1
o-Xylene	ND		0.080		ppb v/v			12/17/16 00:15	1
Styrene	ND		0.080		ppb v/v			12/17/16 00:15	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/17/16 00:15	1
Tetrachloroethene	ND		0.080		ppb v/v			12/17/16 00:15	1
Toluene	ND		0.12		ppb v/v			12/17/16 00:15	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			12/17/16 00:15	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7414/21

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/17/16 00:15	1
Trichloroethene	ND		0.040		ppb v/v			12/17/16 00:15	1
Trichlorofluoromethane	ND		0.080		ppb v/v			12/17/16 00:15	1
Vinyl chloride	ND		0.040		ppb v/v			12/17/16 00:15	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/17/16 00:15	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/17/16 00:15	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/17/16 00:15	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/17/16 00:15	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/17/16 00:15	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/17/16 00:15	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/17/16 00:15	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/17/16 00:15	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/17/16 00:15	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 00:15	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/17/16 00:15	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/17/16 00:15	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/17/16 00:15	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/17/16 00:15	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 00:15	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/17/16 00:15	1
1,4-Dioxane	ND		0.72		ug/m3			12/17/16 00:15	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/17/16 00:15	1
2-Butanone	ND		0.94		ug/m3			12/17/16 00:15	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/17/16 00:15	1
Benzene	ND		0.26		ug/m3			12/17/16 00:15	1
Benzyl chloride	ND		0.83		ug/m3			12/17/16 00:15	1
Bromodichloromethane	ND		0.54		ug/m3			12/17/16 00:15	1
Bromoform	ND		0.83		ug/m3			12/17/16 00:15	1
Bromomethane	ND		0.31		ug/m3			12/17/16 00:15	1
Carbon tetrachloride	ND		0.25		ug/m3			12/17/16 00:15	1
Chlorobenzene	ND		0.37		ug/m3			12/17/16 00:15	1
Chloroethane	ND		0.21		ug/m3			12/17/16 00:15	1
Chloroform	ND		0.39		ug/m3			12/17/16 00:15	1
Chloromethane	ND		0.41		ug/m3			12/17/16 00:15	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/17/16 00:15	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 00:15	1
Cyclohexane	ND		0.69		ug/m3			12/17/16 00:15	1
Dibromochloromethane	ND		0.68		ug/m3			12/17/16 00:15	1
Dichlorodifluoromethane	ND		0.40		ug/m3			12/17/16 00:15	1
Ethanol	ND		3.8		ug/m3			12/17/16 00:15	1
Ethylbenzene	ND		0.35		ug/m3			12/17/16 00:15	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/17/16 00:15	1
Hexane	ND		0.70		ug/m3			12/17/16 00:15	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/17/16 00:15	1
Methylene Chloride	ND		0.69		ug/m3			12/17/16 00:15	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7414/21

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.35		ug/m3			12/17/16 00:15	1
o-Xylene	ND		0.35		ug/m3			12/17/16 00:15	1
Styrene	ND		0.34		ug/m3			12/17/16 00:15	1
t-Butyl alcohol	ND		0.97		ug/m3			12/17/16 00:15	1
Tetrachloroethene	ND		0.54		ug/m3			12/17/16 00:15	1
Toluene	ND		0.45		ug/m3			12/17/16 00:15	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			12/17/16 00:15	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/17/16 00:15	1
Trichloroethene	ND		0.21		ug/m3			12/17/16 00:15	1
Trichlorofluoromethane	ND		0.45		ug/m3			12/17/16 00:15	1
Vinyl chloride	ND		0.10		ug/m3			12/17/16 00:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		60 - 140		12/17/16 00:15	1

Lab Sample ID: LCS 140-7414/1006

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.35		ppb v/v		118	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.13		ppb v/v		106	70 - 130
1,1,2-Trichloroethane	2.00	2.09		ppb v/v		104	70 - 130
1,1,2-Trichlorotrifluoroethane	2.00	2.27		ppb v/v		113	70 - 130
1,1-Dichloroethane	2.00	2.39		ppb v/v		120	70 - 130
1,1-Dichloroethene	2.00	2.20		ppb v/v		110	70 - 130
1,2,4-Trichlorobenzene	2.00	1.89		ppb v/v		94	60 - 140
1,2,4-Trimethylbenzene	2.00	2.06		ppb v/v		103	70 - 130
1,2-Dibromoethane	2.00	2.11		ppb v/v		105	70 - 130
1,2-Dichlorobenzene	2.00	1.93		ppb v/v		96	70 - 130
1,2-Dichloroethane	2.00	2.25		ppb v/v		113	70 - 130
1,2-Dichloropropane	2.00	2.16		ppb v/v		108	70 - 130
1,2-Dichlorotetrafluoroethane	2.00	2.26		ppb v/v		113	60 - 140
1,3,5-Trimethylbenzene	2.00	1.97		ppb v/v		98	70 - 130
1,3-Dichlorobenzene	2.00	1.95		ppb v/v		98	70 - 130
1,4-Dichlorobenzene	2.00	1.97		ppb v/v		98	70 - 130
1,4-Dioxane	2.00	1.77		ppb v/v		88	60 - 140
2,2,4-Trimethylpentane	2.00	2.10		ppb v/v		105	70 - 130
2-Butanone	2.00	2.19		ppb v/v		109	60 - 140
4-Methyl-2-pentanone (MIBK)	2.00	2.14		ppb v/v		107	60 - 140
Benzene	2.00	2.08		ppb v/v		104	70 - 130
Benzyl chloride	2.00	2.21		ppb v/v		111	70 - 130
Bromodichloromethane	2.00	2.15		ppb v/v		108	70 - 130
Bromoform	2.00	2.17		ppb v/v		108	60 - 140
Bromomethane	2.00	2.15		ppb v/v		107	70 - 130
Carbon tetrachloride	2.00	2.14		ppb v/v		107	70 - 130
Chlorobenzene	2.00	2.04		ppb v/v		102	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7414/1006

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	2.00	2.16		ppb v/v		108	70 - 130
Chloroform	2.00	2.33		ppb v/v		116	70 - 130
Chloromethane	2.00	2.31		ppb v/v		116	60 - 140
cis-1,2-Dichloroethene	2.00	2.24		ppb v/v		112	70 - 130
cis-1,3-Dichloropropene	2.00	2.17		ppb v/v		109	70 - 130
Cyclohexane	2.00	1.96		ppb v/v		98	70 - 130
Dibromochloromethane	2.00	2.10		ppb v/v		105	70 - 130
Dichlorodifluoromethane	2.00	2.49		ppb v/v		124	60 - 140
Ethanol	10.1	10.1		ppb v/v		100	60 - 140
Ethylbenzene	2.00	2.09		ppb v/v		105	70 - 130
Hexachlorobutadiene	2.00	1.79		ppb v/v		89	60 - 140
Hexane	2.00	2.34		ppb v/v		117	70 - 130
Methyl tert-butyl ether	2.00	2.40		ppb v/v		120	60 - 140
Methylene Chloride	2.00	2.04		ppb v/v		102	70 - 130
m-Xylene & p-Xylene	4.00	4.19		ppb v/v		105	70 - 130
o-Xylene	2.00	2.10		ppb v/v		105	70 - 130
Styrene	2.00	2.11		ppb v/v		106	70 - 130
t-Butyl alcohol	2.00	2.20		ppb v/v		110	60 - 140
Tetrachloroethene	2.00	1.92		ppb v/v		96	70 - 130
Toluene	2.00	2.07		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.21		ppb v/v		110	70 - 130
trans-1,3-Dichloropropene	2.00	2.18		ppb v/v		109	70 - 130
Trichloroethene	2.00	1.83		ppb v/v		91	70 - 130
Trichlorofluoromethane	2.00	2.38		ppb v/v		119	60 - 140
Vinyl chloride	2.00	2.37		ppb v/v		118	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	12.8		ug/m3		118	70 - 130
1,1,1,2-Tetrachloroethane	14	14.6		ug/m3		106	70 - 130
1,1,2-Trichloroethane	11	11.4		ug/m3		104	70 - 130
1,1,2-Trichlorotrifluoroethane	15	17.4		ug/m3		113	70 - 130
1,1-Dichloroethane	8.1	9.69		ug/m3		120	70 - 130
1,1-Dichloroethene	7.9	8.73		ug/m3		110	70 - 130
1,2,4-Trichlorobenzene	15	14.0		ug/m3		94	60 - 140
1,2,4-Trimethylbenzene	9.8	10.1		ug/m3		103	70 - 130
1,2-Dibromoethane	15	16.2		ug/m3		105	70 - 130
1,2-Dichlorobenzene	12	11.6		ug/m3		96	70 - 130
1,2-Dichloroethane	8.1	9.12		ug/m3		113	70 - 130
1,2-Dichloropropane	9.2	9.97		ug/m3		108	70 - 130
1,2-Dichlorotetrafluoroethane	14	15.8		ug/m3		113	60 - 140
1,3,5-Trimethylbenzene	9.8	9.67		ug/m3		98	70 - 130
1,3-Dichlorobenzene	12	11.7		ug/m3		98	70 - 130
1,4-Dichlorobenzene	12	11.8		ug/m3		98	70 - 130
1,4-Dioxane	7.2	6.38		ug/m3		88	60 - 140
2,2,4-Trimethylpentane	9.3	9.83		ug/m3		105	70 - 130
2-Butanone	5.9	6.45		ug/m3		109	60 - 140
4-Methyl-2-pentanone (MIBK)	8.2	8.75		ug/m3		107	60 - 140

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7414/1006

Matrix: Air

Analysis Batch: 7414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.63		ug/m3		104	70 - 130
Benzyl chloride	10	11.5		ug/m3		111	70 - 130
Bromodichloromethane	13	14.4		ug/m3		108	70 - 130
Bromoform	21	22.4		ug/m3		108	60 - 140
Bromomethane	7.8	8.35		ug/m3		107	70 - 130
Carbon tetrachloride	13	13.5		ug/m3		107	70 - 130
Chlorobenzene	9.2	9.37		ug/m3		102	70 - 130
Chloroethane	5.3	5.69		ug/m3		108	70 - 130
Chloroform	9.8	11.4		ug/m3		116	70 - 130
Chloromethane	4.1	4.78		ug/m3		116	60 - 140
cis-1,2-Dichloroethene	7.9	8.87		ug/m3		112	70 - 130
cis-1,3-Dichloropropene	9.1	9.86		ug/m3		109	70 - 130
Cyclohexane	6.9	6.73		ug/m3		98	70 - 130
Dibromochloromethane	17	17.9		ug/m3		105	70 - 130
Dichlorodifluoromethane	9.9	12.3		ug/m3		124	60 - 140
Ethanol	19	19.1		ug/m3		100	60 - 140
Ethylbenzene	8.7	9.09		ug/m3		105	70 - 130
Hexachlorobutadiene	21	19.1		ug/m3		89	60 - 140
Hexane	7.1	8.24		ug/m3		117	70 - 130
Methyl tert-butyl ether	7.2	8.64		ug/m3		120	60 - 140
Methylene Chloride	7.0	7.10		ug/m3		102	70 - 130
m-Xylene & p-Xylene	17	18.2		ug/m3		105	70 - 130
o-Xylene	8.7	9.10		ug/m3		105	70 - 130
Styrene	8.5	9.00		ug/m3		106	70 - 130
t-Butyl alcohol	6.1	6.68		ug/m3		110	60 - 140
Tetrachloroethene	14	13.1		ug/m3		96	70 - 130
Toluene	7.5	7.80		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.75		ug/m3		110	70 - 130
trans-1,3-Dichloropropene	9.1	9.88		ug/m3		109	70 - 130
Trichloroethene	11	9.82		ug/m3		91	70 - 130
Trichlorofluoromethane	11	13.4		ug/m3		119	60 - 140
Vinyl chloride	5.1	6.06		ug/m3		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		60 - 140

Lab Sample ID: MB 140-7415/4

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/19/16 12:46	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7415/4

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
1,4-Dioxane	ND		0.20		ppb v/v			12/19/16 12:46	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/19/16 12:46	1
2-Butanone	ND		0.32		ppb v/v			12/19/16 12:46	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/19/16 12:46	1
Benzene	ND		0.080		ppb v/v			12/19/16 12:46	1
Benzyl chloride	ND		0.16		ppb v/v			12/19/16 12:46	1
Bromodichloromethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Bromoform	ND		0.080		ppb v/v			12/19/16 12:46	1
Bromomethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Carbon tetrachloride	ND		0.040		ppb v/v			12/19/16 12:46	1
Chlorobenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
Chloroethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Chloroform	ND		0.080		ppb v/v			12/19/16 12:46	1
Chloromethane	ND		0.20		ppb v/v			12/19/16 12:46	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/19/16 12:46	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/19/16 12:46	1
Cyclohexane	ND		0.20		ppb v/v			12/19/16 12:46	1
Dibromochloromethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Dichlorodifluoromethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Ethanol	ND		2.0		ppb v/v			12/19/16 12:46	1
Ethylbenzene	ND		0.080		ppb v/v			12/19/16 12:46	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/19/16 12:46	1
Hexane	ND		0.20		ppb v/v			12/19/16 12:46	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/19/16 12:46	1
Methylene Chloride	ND		0.20		ppb v/v			12/19/16 12:46	1
m-Xylene & p-Xylene	ND		0.080		ppb v/v			12/19/16 12:46	1
o-Xylene	ND		0.080		ppb v/v			12/19/16 12:46	1
Styrene	ND		0.080		ppb v/v			12/19/16 12:46	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/19/16 12:46	1
Tetrachloroethene	ND		0.080		ppb v/v			12/19/16 12:46	1
Toluene	ND		0.12		ppb v/v			12/19/16 12:46	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			12/19/16 12:46	1
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/19/16 12:46	1
Trichloroethene	ND		0.040		ppb v/v			12/19/16 12:46	1
Trichlorofluoromethane	ND		0.080		ppb v/v			12/19/16 12:46	1
Vinyl chloride	ND		0.040		ppb v/v			12/19/16 12:46	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/19/16 12:46	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/19/16 12:46	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/19/16 12:46	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/19/16 12:46	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/19/16 12:46	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/19/16 12:46	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/19/16 12:46	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/19/16 12:46	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/19/16 12:46	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/19/16 12:46	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/19/16 12:46	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/19/16 12:46	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/19/16 12:46	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/19/16 12:46	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/19/16 12:46	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/19/16 12:46	1
1,4-Dioxane	ND		0.72		ug/m3			12/19/16 12:46	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/19/16 12:46	1
2-Butanone	ND		0.94		ug/m3			12/19/16 12:46	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/19/16 12:46	1
Benzene	ND		0.26		ug/m3			12/19/16 12:46	1
Benzyl chloride	ND		0.83		ug/m3			12/19/16 12:46	1
Bromodichloromethane	ND		0.54		ug/m3			12/19/16 12:46	1
Bromoform	ND		0.83		ug/m3			12/19/16 12:46	1
Bromomethane	ND		0.31		ug/m3			12/19/16 12:46	1
Carbon tetrachloride	ND		0.25		ug/m3			12/19/16 12:46	1
Chlorobenzene	ND		0.37		ug/m3			12/19/16 12:46	1
Chloroethane	ND		0.21		ug/m3			12/19/16 12:46	1
Chloroform	ND		0.39		ug/m3			12/19/16 12:46	1
Chloromethane	ND		0.41		ug/m3			12/19/16 12:46	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/19/16 12:46	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/19/16 12:46	1
Cyclohexane	ND		0.69		ug/m3			12/19/16 12:46	1
Dibromochloromethane	ND		0.68		ug/m3			12/19/16 12:46	1
Dichlorodifluoromethane	ND		0.40		ug/m3			12/19/16 12:46	1
Ethanol	ND		3.8		ug/m3			12/19/16 12:46	1
Ethylbenzene	ND		0.35		ug/m3			12/19/16 12:46	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/19/16 12:46	1
Hexane	ND		0.70		ug/m3			12/19/16 12:46	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/19/16 12:46	1
Methylene Chloride	ND		0.69		ug/m3			12/19/16 12:46	1
m-Xylene & p-Xylene	ND		0.35		ug/m3			12/19/16 12:46	1
o-Xylene	ND		0.35		ug/m3			12/19/16 12:46	1
Styrene	ND		0.34		ug/m3			12/19/16 12:46	1
t-Butyl alcohol	ND		0.97		ug/m3			12/19/16 12:46	1
Tetrachloroethene	ND		0.54		ug/m3			12/19/16 12:46	1
Toluene	ND		0.45		ug/m3			12/19/16 12:46	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			12/19/16 12:46	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/19/16 12:46	1
Trichloroethene	ND		0.21		ug/m3			12/19/16 12:46	1
Trichlorofluoromethane	ND		0.45		ug/m3			12/19/16 12:46	1
Vinyl chloride	ND		0.10		ug/m3			12/19/16 12:46	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7415/4

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		12/19/16 12:46	1

Lab Sample ID: LCS 140-7415/1002

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.45		ppb v/v		123	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.28		ppb v/v		114	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		107	70 - 130
1,1,2-Trichlorotrifluoroethane	2.00	2.25		ppb v/v		112	70 - 130
1,1-Dichloroethane	2.00	2.44		ppb v/v		122	70 - 130
1,1-Dichloroethene	2.00	2.17		ppb v/v		108	70 - 130
1,2,4-Trichlorobenzene	2.00	2.12		ppb v/v		106	60 - 140
1,2,4-Trimethylbenzene	2.00	2.22		ppb v/v		111	70 - 130
1,2-Dibromoethane	2.00	2.14		ppb v/v		107	70 - 130
1,2-Dichlorobenzene	2.00	2.09		ppb v/v		105	70 - 130
1,2-Dichloroethane	2.00	2.32		ppb v/v		116	70 - 130
1,2-Dichloropropane	2.00	2.22		ppb v/v		111	70 - 130
1,2-Dichlorotetrafluoroethane	2.00	2.33		ppb v/v		116	60 - 140
1,3,5-Trimethylbenzene	2.00	2.11		ppb v/v		105	70 - 130
1,3-Dichlorobenzene	2.00	2.09		ppb v/v		104	70 - 130
1,4-Dichlorobenzene	2.00	2.08		ppb v/v		104	70 - 130
1,4-Dioxane	2.00	1.85		ppb v/v		93	60 - 140
2,2,4-Trimethylpentane	2.00	2.17		ppb v/v		108	70 - 130
2-Butanone	2.00	2.22		ppb v/v		111	60 - 140
4-Methyl-2-pentanone (MIBK)	2.00	2.28		ppb v/v		114	60 - 140
Benzene	2.00	2.08		ppb v/v		104	70 - 130
Benzyl chloride	2.00	2.41		ppb v/v		121	70 - 130
Bromodichloromethane	2.00	2.20		ppb v/v		110	70 - 130
Bromoform	2.00	2.26		ppb v/v		113	60 - 140
Bromomethane	2.00	2.15		ppb v/v		107	70 - 130
Carbon tetrachloride	2.00	2.21		ppb v/v		111	70 - 130
Chlorobenzene	2.00	2.07		ppb v/v		103	70 - 130
Chloroethane	2.00	2.20		ppb v/v		110	70 - 130
Chloroform	2.00	2.39		ppb v/v		120	70 - 130
Chloromethane	2.00	2.41		ppb v/v		120	60 - 140
cis-1,2-Dichloroethene	2.00	2.27		ppb v/v		113	70 - 130
cis-1,3-Dichloropropene	2.00	2.23		ppb v/v		111	70 - 130
Cyclohexane	2.00	2.00		ppb v/v		100	70 - 130
Dibromochloromethane	2.00	2.13		ppb v/v		106	70 - 130
Dichlorodifluoromethane	2.00	2.59		ppb v/v		129	60 - 140
Ethanol	10.1	11.2		ppb v/v		110	60 - 140
Ethylbenzene	2.00	2.26		ppb v/v		113	70 - 130
Hexachlorobutadiene	2.00	1.94		ppb v/v		97	60 - 140
Hexane	2.00	2.41		ppb v/v		121	70 - 130
Methyl tert-butyl ether	2.00	2.53		ppb v/v		127	60 - 140

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7415/1002

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	2.00	2.03		ppb v/v		101	70 - 130
m-Xylene & p-Xylene	4.00	4.53		ppb v/v		113	70 - 130
o-Xylene	2.00	2.24		ppb v/v		112	70 - 130
Styrene	2.00	2.26		ppb v/v		113	70 - 130
t-Butyl alcohol	2.00	2.33		ppb v/v		117	60 - 140
Tetrachloroethene	2.00	1.93		ppb v/v		97	70 - 130
Toluene	2.00	2.15		ppb v/v		107	70 - 130
trans-1,2-Dichloroethene	2.00	2.17		ppb v/v		109	70 - 130
trans-1,3-Dichloropropene	2.00	2.28		ppb v/v		114	70 - 130
Trichloroethene	2.00	1.80		ppb v/v		90	70 - 130
Trichlorofluoromethane	2.00	2.40		ppb v/v		120	60 - 140
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	13.4		ug/m3		123	70 - 130
1,1,2,2-Tetrachloroethane	14	15.6		ug/m3		114	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		107	70 - 130
1,1,2-Trichlorotrifluoroethane	15	17.2		ug/m3		112	70 - 130
1,1-Dichloroethane	8.1	9.87		ug/m3		122	70 - 130
1,1-Dichloroethene	7.9	8.60		ug/m3		108	70 - 130
1,2,4-Trichlorobenzene	15	15.7		ug/m3		106	60 - 140
1,2,4-Trimethylbenzene	9.8	10.9		ug/m3		111	70 - 130
1,2-Dibromoethane	15	16.5		ug/m3		107	70 - 130
1,2-Dichlorobenzene	12	12.6		ug/m3		105	70 - 130
1,2-Dichloroethane	8.1	9.40		ug/m3		116	70 - 130
1,2-Dichloropropane	9.2	10.3		ug/m3		111	70 - 130
1,2-Dichlorotetrafluoroethane	14	16.3		ug/m3		116	60 - 140
1,3,5-Trimethylbenzene	9.8	10.4		ug/m3		105	70 - 130
1,3-Dichlorobenzene	12	12.5		ug/m3		104	70 - 130
1,4-Dichlorobenzene	12	12.5		ug/m3		104	70 - 130
1,4-Dioxane	7.2	6.68		ug/m3		93	60 - 140
2,2,4-Trimethylpentane	9.3	10.1		ug/m3		108	70 - 130
2-Butanone	5.9	6.56		ug/m3		111	60 - 140
4-Methyl-2-pentanone (MIBK)	8.2	9.35		ug/m3		114	60 - 140
Benzene	6.4	6.63		ug/m3		104	70 - 130
Benzyl chloride	10	12.5		ug/m3		121	70 - 130
Bromodichloromethane	13	14.7		ug/m3		110	70 - 130
Bromoform	21	23.3		ug/m3		113	60 - 140
Bromomethane	7.8	8.35		ug/m3		107	70 - 130
Carbon tetrachloride	13	13.9		ug/m3		111	70 - 130
Chlorobenzene	9.2	9.53		ug/m3		103	70 - 130
Chloroethane	5.3	5.79		ug/m3		110	70 - 130
Chloroform	9.8	11.7		ug/m3		120	70 - 130
Chloromethane	4.1	4.97		ug/m3		120	60 - 140
cis-1,2-Dichloroethene	7.9	8.99		ug/m3		113	70 - 130
cis-1,3-Dichloropropene	9.1	10.1		ug/m3		111	70 - 130
Cyclohexane	6.9	6.89		ug/m3		100	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7415/1002

Matrix: Air

Analysis Batch: 7415

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromochloromethane	17	18.2		ug/m3		106	70 - 130
Dichlorodifluoromethane	9.9	12.8		ug/m3		129	60 - 140
Ethanol	19	21.0		ug/m3		110	60 - 140
Ethylbenzene	8.7	9.82		ug/m3		113	70 - 130
Hexachlorobutadiene	21	20.6		ug/m3		97	60 - 140
Hexane	7.1	8.51		ug/m3		121	70 - 130
Methyl tert-butyl ether	7.2	9.14		ug/m3		127	60 - 140
Methylene Chloride	7.0	7.04		ug/m3		101	70 - 130
m-Xylene & p-Xylene	17	19.7		ug/m3		113	70 - 130
o-Xylene	8.7	9.71		ug/m3		112	70 - 130
Styrene	8.5	9.62		ug/m3		113	70 - 130
t-Butyl alcohol	6.1	7.07		ug/m3		117	60 - 140
Tetrachloroethene	14	13.1		ug/m3		97	70 - 130
Toluene	7.5	8.09		ug/m3		107	70 - 130
trans-1,2-Dichloroethene	7.9	8.62		ug/m3		109	70 - 130
trans-1,3-Dichloropropene	9.1	10.4		ug/m3		114	70 - 130
Trichloroethene	11	9.69		ug/m3		90	70 - 130
Trichlorofluoromethane	11	13.5		ug/m3		120	60 - 140
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	107		60 - 140				

QC Association Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Air - GC/MS VOA

Analysis Batch: 7414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-6566-1	140-SSV-1	Total/NA	Air	TO 15 LL	
140-6566-2	140-IA-1	Total/NA	Air	TO 15 LL	
140-6566-3	140-SSV-2	Total/NA	Air	TO 15 LL	
140-6566-4	140-IA-2	Total/NA	Air	TO 15 LL	
MB 140-7414/21	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-7414/1006	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 7415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-6566-4 - DL	140-IA-2	Total/NA	Air	TO 15 LL	
MB 140-7415/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-7415/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: 140-SSV-1

Date Collected: 12/13/16 17:20

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6566-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7414	12/17/16 01:00	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: 140-IA-1

Date Collected: 12/13/16 17:50

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6566-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.47	1000 mL	500 mL	7414	12/17/16 01:50	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: 140-SSV-2

Date Collected: 12/13/16 17:25

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6566-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7414	12/17/16 02:35	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: 140-IA-2

Date Collected: 12/13/16 17:15

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6566-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7414	12/17/16 03:20	HMT	TAL KNX
Instrument ID: MG										
Total/NA	Analysis	TO 15 LL	DL	1	200 mL	500 mL	7415	12/19/16 22:23	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-7414/21

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7414	12/17/16 00:15	HMT	TAL KNX
Instrument ID: MG										

Lab Chronicle

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-7415/4

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7415	12/19/16 12:46	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-7414/1006

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7414	12/16/16 11:55	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-7415/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7415	12/19/16 10:19	HMT	TAL KNX
Instrument ID: MG										

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Laboratory: TestAmerica Knoxville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10781	03-31-17

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	1,1,2-Trichlorotrifluoroethane
TO 15 LL		Air	1,2,4-Trimethylbenzene
TO 15 LL		Air	1,2-Dichlorotetrafluoroethane
TO 15 LL		Air	1,3,5-Trimethylbenzene
TO 15 LL		Air	1,4-Dioxane
TO 15 LL		Air	Bromodichloromethane
TO 15 LL		Air	Cyclohexane
TO 15 LL		Air	Dibromochloromethane
TO 15 LL		Air	Dichlorodifluoromethane
TO 15 LL		Air	o-Xylene
TO 15 LL		Air	Trichlorofluoromethane

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	Ethanol
TO 15 LL		Air	t-Butyl alcohol

Method Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CHA Inc
Project/Site: 140 State St. - Albany, NY

TestAmerica Job ID: 140-6566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-6566-1	140-SSV-1	Air	12/13/16 17:20	12/15/16 10:00
140-6566-2	140-IA-1	Air	12/13/16 17:50	12/15/16 10:00
140-6566-3	140-SSV-2	Air	12/13/16 17:25	12/15/16 10:00
140-6566-4	140-IA-2	Air	12/13/16 17:15	12/15/16 10:00

Method T015 Low Level

Volatile Organic Compounds - Low
level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Knoxville

Job No.: 140-6566-1

SDG No.: _____

Matrix: Air

Level: Low

GC Column (1): RTX-5 ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	BFB #
140-SSV-1	140-6566-1	100
140-IA-1	140-6566-2	99
140-SSV-2	140-6566-3	99
140-IA-2	140-6566-4	97
140-IA-2 DL	140-6566-4 DL	102
	MB 140-7414/21	98
	MB 140-7415/4	105
	LCS 140-7414/1006	106
	LCS 140-7415/1002	107

BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL16A-LCS.d
 Lab ID: LCS 140-7414/1006 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2.00	2.35	118	70-130	
1,1,2,2-Tetrachloroethane	2.00	2.13	106	70-130	
1,1,2-Trichloroethane	2.00	2.09	104	70-130	
1,1,2-Trichlorotrifluoroethane	2.00	2.27	113	70-130	
1,1-Dichloroethane	2.00	2.39	120	70-130	
1,1-Dichloroethene	2.00	2.20	110	70-130	
1,2,4-Trichlorobenzene	2.00	1.89	94	60-140	
1,2,4-Trimethylbenzene	2.00	2.06	103	70-130	
1,2-Dibromoethane	2.00	2.11	105	70-130	
1,2-Dichlorobenzene	2.00	1.93	96	70-130	
1,2-Dichloroethane	2.00	2.25	113	70-130	
1,2-Dichloropropane	2.00	2.16	108	70-130	
1,2-Dichlorotetrafluoroethane	2.00	2.26	113	60-140	
1,3,5-Trimethylbenzene	2.00	1.97	98	70-130	
1,3-Dichlorobenzene	2.00	1.95	98	70-130	
1,4-Dichlorobenzene	2.00	1.97	98	70-130	
1,4-Dioxane	2.00	1.77	88	60-140	
2,2,4-Trimethylpentane	2.00	2.10	105	70-130	
2-Butanone	2.00	2.19	109	60-140	
4-Methyl-2-pentanone (MIBK)	2.00	2.14	107	60-140	
Benzene	2.00	2.08	104	70-130	
Benzyl chloride	2.00	2.21	111	70-130	
Bromodichloromethane	2.00	2.15	108	70-130	
Bromoform	2.00	2.17	108	60-140	
Bromomethane	2.00	2.15	107	70-130	
Carbon tetrachloride	2.00	2.14	107	70-130	
Chlorobenzene	2.00	2.04	102	70-130	
Chloroethane	2.00	2.16	108	70-130	
Chloroform	2.00	2.33	116	70-130	
Chloromethane	2.00	2.31	116	60-140	
cis-1,2-Dichloroethene	2.00	2.24	112	70-130	
cis-1,3-Dichloropropene	2.00	2.17	109	70-130	
Cyclohexane	2.00	1.96	98	70-130	
Dibromochloromethane	2.00	2.10	105	70-130	
Dichlorodifluoromethane	2.00	2.49	124	60-140	
Ethanol	10.1	10.1	100	60-140	
Ethylbenzene	2.00	2.09	105	70-130	
Hexachlorobutadiene	2.00	1.79	89	60-140	
Hexane	2.00	2.34	117	70-130	
Methyl tert-butyl ether	2.00	2.40	120	60-140	
Methylene Chloride	2.00	2.04	102	70-130	
m-Xylene & p-Xylene	4.00	4.19	105	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL16A-LCS.d
 Lab ID: LCS 140-7414/1006 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
o-Xylene	2.00	2.10	105	70-130	
Styrene	2.00	2.11	106	70-130	
t-Butyl alcohol	2.00	2.20	110	60-140	
Tetrachloroethene	2.00	1.92	96	70-130	
Toluene	2.00	2.07	103	70-130	
trans-1,2-Dichloroethene	2.00	2.21	110	70-130	
trans-1,3-Dichloropropene	2.00	2.18	109	70-130	
Trichloroethene	2.00	1.83	91	70-130	
Trichlorofluoromethane	2.00	2.38	119	60-140	
Vinyl chloride	2.00	2.37	118	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL19-LCS.d
 Lab ID: LCS 140-7415/1002 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2.00	2.45	123	70-130	
1,1,2,2-Tetrachloroethane	2.00	2.28	114	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
1,1,2-Trichlorotrifluoroethane	2.00	2.25	112	70-130	
1,1-Dichloroethane	2.00	2.44	122	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
1,2,4-Trichlorobenzene	2.00	2.12	106	60-140	
1,2,4-Trimethylbenzene	2.00	2.22	111	70-130	
1,2-Dibromoethane	2.00	2.14	107	70-130	
1,2-Dichlorobenzene	2.00	2.09	105	70-130	
1,2-Dichloroethane	2.00	2.32	116	70-130	
1,2-Dichloropropane	2.00	2.22	111	70-130	
1,2-Dichlorotetrafluoroethane	2.00	2.33	116	60-140	
1,3,5-Trimethylbenzene	2.00	2.11	105	70-130	
1,3-Dichlorobenzene	2.00	2.09	104	70-130	
1,4-Dichlorobenzene	2.00	2.08	104	70-130	
1,4-Dioxane	2.00	1.85	93	60-140	
2,2,4-Trimethylpentane	2.00	2.17	108	70-130	
2-Butanone	2.00	2.22	111	60-140	
4-Methyl-2-pentanone (MIBK)	2.00	2.28	114	60-140	
Benzene	2.00	2.08	104	70-130	
Benzyl chloride	2.00	2.41	121	70-130	
Bromodichloromethane	2.00	2.20	110	70-130	
Bromoform	2.00	2.26	113	60-140	
Bromomethane	2.00	2.15	107	70-130	
Carbon tetrachloride	2.00	2.21	111	70-130	
Chlorobenzene	2.00	2.07	103	70-130	
Chloroethane	2.00	2.20	110	70-130	
Chloroform	2.00	2.39	120	70-130	
Chloromethane	2.00	2.41	120	60-140	
cis-1,2-Dichloroethene	2.00	2.27	113	70-130	
cis-1,3-Dichloropropene	2.00	2.23	111	70-130	
Cyclohexane	2.00	2.00	100	70-130	
Dibromochloromethane	2.00	2.13	106	70-130	
Dichlorodifluoromethane	2.00	2.59	129	60-140	
Ethanol	10.1	11.2	110	60-140	
Ethylbenzene	2.00	2.26	113	70-130	
Hexachlorobutadiene	2.00	1.94	97	60-140	
Hexane	2.00	2.41	121	70-130	
Methyl tert-butyl ether	2.00	2.53	127	60-140	
Methylene Chloride	2.00	2.03	101	70-130	
m-Xylene & p-Xylene	4.00	4.53	113	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL19-LCS.d
 Lab ID: LCS 140-7415/1002 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
o-Xylene	2.00	2.24	112	70-130	
Styrene	2.00	2.26	113	70-130	
t-Butyl alcohol	2.00	2.33	117	60-140	
Tetrachloroethene	2.00	1.93	97	70-130	
Toluene	2.00	2.15	107	70-130	
trans-1,2-Dichloroethene	2.00	2.17	109	70-130	
trans-1,3-Dichloropropene	2.00	2.28	114	70-130	
Trichloroethene	2.00	1.80	90	70-130	
Trichlorofluoromethane	2.00	2.40	120	60-140	
Vinyl chloride	2.00	2.45	122	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
SDG No.: _____
Lab File ID: GMB500L16.D Lab Sample ID: MB 140-7414/21
Matrix: Air Heated Purge: (Y/N) N
Instrument ID: MG Date Analyzed: 12/17/2016 00:15
GC Column: RTX-5 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
140-SSV-1	140-6566-1	GL16P111.D	12/17/2016 01:00
140-IA-1	140-6566-2	GL16P112.D	12/17/2016 01:50
140-SSV-2	140-6566-3	GL16P113.D	12/17/2016 02:35
140-IA-2	140-6566-4	GL16P114.D	12/17/2016 03:20

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
SDG No.: _____
Lab File ID: GMB500L19.D Lab Sample ID: MB 140-7415/4
Matrix: Air Heated Purge: (Y/N) N
Instrument ID: MG Date Analyzed: 12/19/2016 12:46
GC Column: RTX-5 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-7415/1002	GCCVL19-LCS .d	12/19/2016 10:19
140-IA-2 DL	140-6566-4 DL	GL19P112.D	12/19/2016 22:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab File ID: GxBFBL08.D BFB Injection Date: 12/08/2016
 Instrument ID: MG BFB Injection Time: 19:26
 Analysis Batch No.: 7384

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.7
75	30.0 - 60.0 % of mass 95	52.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	0.5 (0.5) 1
174	50.0 - 120.00 % of mass 95	92.3
175	5.0 - 9.0 % of mass 174	6.4 (6.9) 1
176	95.0 - 101.0 % of mass 174	89.0 (96.4) 1
177	5.0 - 9.0 % of mass 176	5.7 (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 SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-7384/3	GxL08IC01.D	12/08/2016	19:58
	IC 140-7384/4	GxL08IC02.D	12/08/2016	20:42
	IC 140-7384/5	GxL08IC03.D	12/08/2016	21:25
	IC 140-7384/6	GxL08IC04.D	12/08/2016	22:07
	IC 140-7384/7	GxL08IC05.D	12/08/2016	22:50
	ICIS 140-7384/8	GxL08IC06.D	12/08/2016	23:31
	IC 140-7384/9	GxL08IC07.D	12/09/2016	00:14
	IC 140-7384/10	GxL08IC08.D	12/09/2016	00:56
	IC 140-7384/11	GxL08IC09.D	12/09/2016	01:38
	ICV 140-7384/13	GxL08ICV.D	12/09/2016	03:01

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab File ID: GBFBL16A.D BFB Injection Date: 12/16/2016
 Instrument ID: MG BFB Injection Time: 11:23
 Analysis Batch No.: 7414

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.8
75	30.0 - 60.0 % of mass 95	53.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.4 (0.4) 1
174	50.0 - 120.00 % of mass 95	85.4
175	5.0 - 9.0 % of mass 174	5.9 (6.9) 1
176	95.0 - 101.0 % of mass 174	82.7 (96.9) 1
177	5.0 - 9.0 % of mass 176	5.2 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-7414/6	GCCVL16A.D	12/16/2016	11:55
	LCS 140-7414/1006	GCCVL16A-LCS.d	12/16/2016	11:55
	MB 140-7414/21	GMB500L16.D	12/17/2016	00:15
140-SSV-1	140-6566-1	GL16P111.D	12/17/2016	01:00
140-IA-1	140-6566-2	GL16P112.D	12/17/2016	01:50
140-SSV-2	140-6566-3	GL16P113.D	12/17/2016	02:35
140-IA-2	140-6566-4	GL16P114.D	12/17/2016	03:20

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab File ID: GBFBL19.D BFB Injection Date: 12/19/2016
 Instrument ID: MG BFB Injection Time: 09:48
 Analysis Batch No.: 7415

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.8
75	30.0 - 60.0 % of mass 95	52.4
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	0.4 (0.5) 1
174	50.0 - 120.00 % of mass 95	89.3
175	5.0 - 9.0 % of mass 174	6.3 (7.0) 1
176	95.0 - 101.0 % of mass 174	85.6 (95.8) 1
177	5.0 - 9.0 % of mass 176	5.4 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-7415/2	GCCVL19.D	12/19/2016	10:19
	LCS 140-7415/1002	GCCVL19-LCS.d	12/19/2016	10:19
	MB 140-7415/4	GMB500L19.D	12/19/2016	12:46
140-IA-2 DL	140-6566-4 DL	GL19P112.D	12/19/2016	22:23

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Sample No.: ICIS 140-7384/8 Date Analyzed: 12/08/2016 23:31
 Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): GxL08IC06.D Heated Purge: (Y/N) N
 Calibration ID: 798

	CBM		DFBZ		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	436534	8.06	1631243	10.23	1662474	15.09	
UPPER LIMIT	611148	8.39	2283740	10.56	2327464	15.42	
LOWER LIMIT	261920	7.73	978746	9.90	997484	14.76	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-7384/13		455645	8.07	2097795	10.23	2138644	15.09

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Sample No.: CCVIS 140-7414/6 Date Analyzed: 12/16/2016 11:55
 Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): GCCVL16A.D Heated Purge: (Y/N) N
 Calibration ID: 802

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	355344	8.06	1762300	10.22	1799904	15.08
UPPER LIMIT	497482	8.39	2467220	10.55	2519866	15.41
LOWER LIMIT	213206	7.73	1057380	9.89	1079942	14.75
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 140-7414/1006		355344	8.06	1762300	10.22	1799904
MB 140-7414/21		366953	8.05	1712091	10.22	1748257
140-6566-1	140-SSV-1	377817	8.05	1868860	10.22	1834553
140-6566-2	140-IA-1	406056	8.07	1956252	10.23	1938087
140-6566-3	140-SSV-2	388147	8.06	1936327	10.23	1889633
140-6566-4	140-IA-2	385519	8.07	1840334	10.23	1857550

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Sample No.: CCVIS 140-7415/2 Date Analyzed: 12/19/2016 10:19
 Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): GCCVL19.D Heated Purge: (Y/N) N
 Calibration ID: 802

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	342576	8.06	1699783	10.23	1743044	15.08
UPPER LIMIT	479606	8.39	2379696	10.56	2440262	15.41
LOWER LIMIT	205546	7.73	1019870	9.90	1045826	14.75
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 140-7415/1002		342576	8.06	1699783	10.23	1743044
MB 140-7415/4		333718	8.05	1516833	10.22	1534759
140-6566-4 DL	140-IA-2 DL	352515	8.06	1705810	10.22	1682140

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-1 Lab Sample ID: 140-6566-1
 Matrix: Air Lab File ID: GL16P111.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:20
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.5		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.37		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	0.48		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.18		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.065		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-1 Lab Sample ID: 140-6566-1
 Matrix: Air Lab File ID: GL16P111.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:20
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	0.69		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.32		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	0.24		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	3.0		0.080	
95-47-6	o-Xylene	106.17	1.1		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	2.2		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	4.5		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.25		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-1 Lab Sample ID: 140-6566-1
 Matrix: Air Lab File ID: GL16P111.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:20
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	7.5		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.8		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	2.9		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	0.59		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.41		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-1 Lab Sample ID: 140-6566-1
 Matrix: Air Lab File ID: GL16P111.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:20
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.5		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	3.0		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	1.1		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	0.82		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	13		0.35	
95-47-6	o-Xylene	106.17	5.0		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	8.3		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	18		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D
 Lims ID: 140-6566-A-1
 Client ID: 140-SSV-1
 Sample Type: Client
 Inject. Date: 17-Dec-2016 01:00:30 ALS Bottle#: 11 Worklist Smp#: 22
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-022
 Misc. Info.: 140-6566-a-1
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:52:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	97	377817	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.223	-0.005	95	1868860	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.081	15.082	-0.001	87	1834553	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1216160	4.01	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	162450	0.5024	
9 Chloromethane	52	3.677	3.682	-0.005	99	4727	0.1361	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.687	3.693	-0.006	90	3372	0.0157	
17 Ethanol	31	4.383	4.383	0.000	97	52805	1.40	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	79630	0.2541	
29 2-Methyl-2-propanol	59	5.537	5.494	0.043	93	11589	0.0819	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	96	13016	0.0657	
31 Methylene Chloride	84	5.699	5.704	-0.005	96	19031	0.2368	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	96	483111	4.45	
39 2-Butanone (MEK)	72	7.343	7.333	0.010	99	11724	0.2620	
40 Hexane	56	7.387	7.387	0.000	86	28422	0.3165	
44 Chloroform	83	8.066	8.077	-0.011	94	6071	0.0256	
48 1,2-Dichloroethane	62	9.144	9.150	-0.006	97	5432	0.0312	
49 Benzene	78	9.641	9.646	-0.005	98	62090	0.1847	
50 Cyclohexane	69	9.657	9.651	0.006	86	6862	0.1107	
52 Carbon tetrachloride	117	9.673	9.673	0.000	92	19466	0.0649	
56 Isooctane	57	10.466	10.471	-0.005	94	52741	0.0865	
65 4-Methyl-2-pentanone (MIBK	43	12.186	12.181	0.006	98	43995	0.1923	
68 Toluene	91	13.070	13.076	-0.006	94	810503	2.21	
79 Ethylbenzene	91	15.437	15.437	0.000	99	330353	0.6869	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	1112863	3.00	
84 Styrene	104	16.074	16.074	0.000	47	17681	0.0671	
85 o-Xylene	91	16.128	16.133	-0.005	98	446660	1.14	
92 1,3,5-Trimethylbenzene	120	17.530	17.535	-0.005	92	95084	0.3728	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	98	677696	1.52	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	149546	0.4765	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Worklist Smp#: 22

Client ID: 140-SSV-1

Purge Vol: 500.000 mL

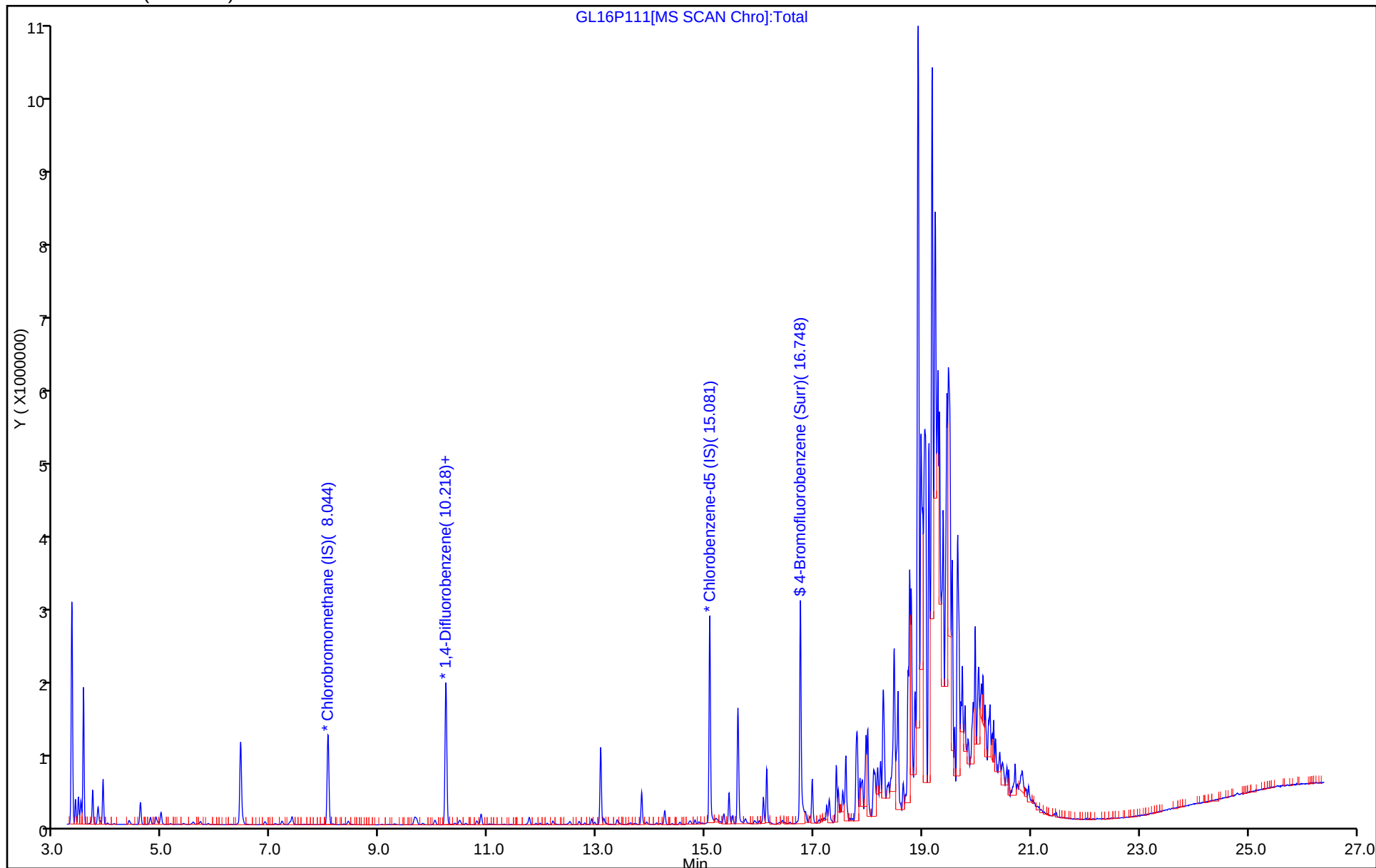
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D
Lims ID: 140-6566-A-1
Client ID: 140-SSV-1
Sample Type: Client
Inject. Date: 17-Dec-2016 01:00:30 ALS Bottle#: 11 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-022
Misc. Info.: 140-6566-a-1
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:52:11

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.01	100.21

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

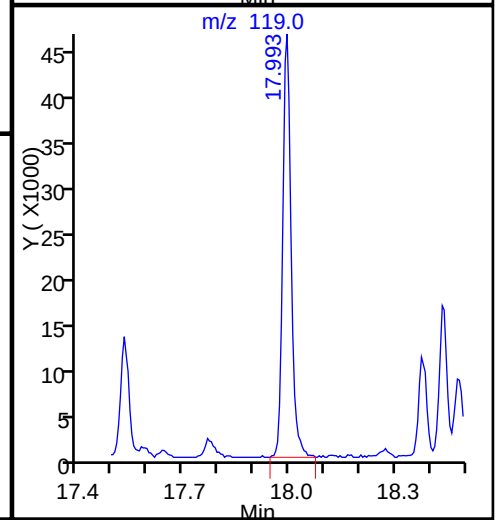
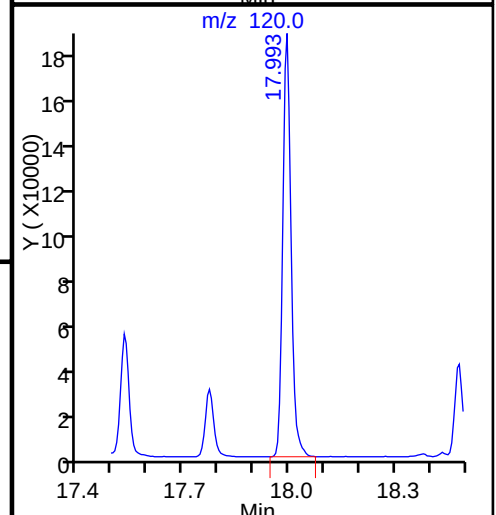
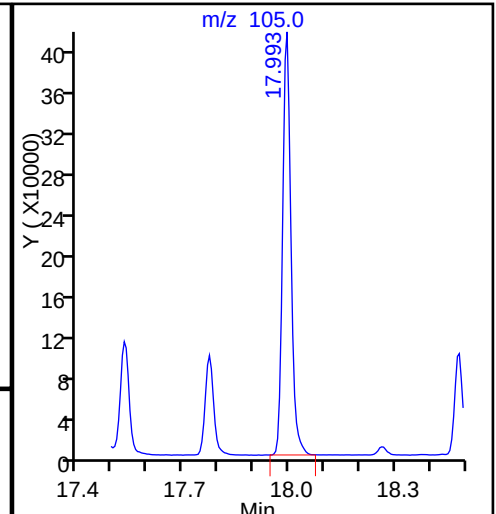
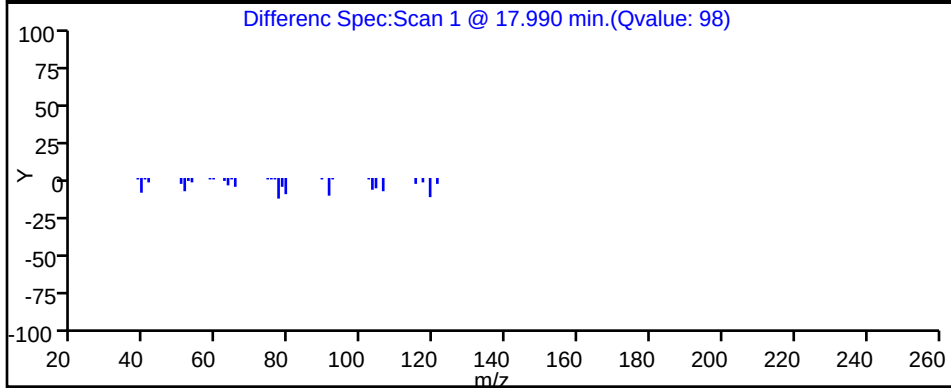
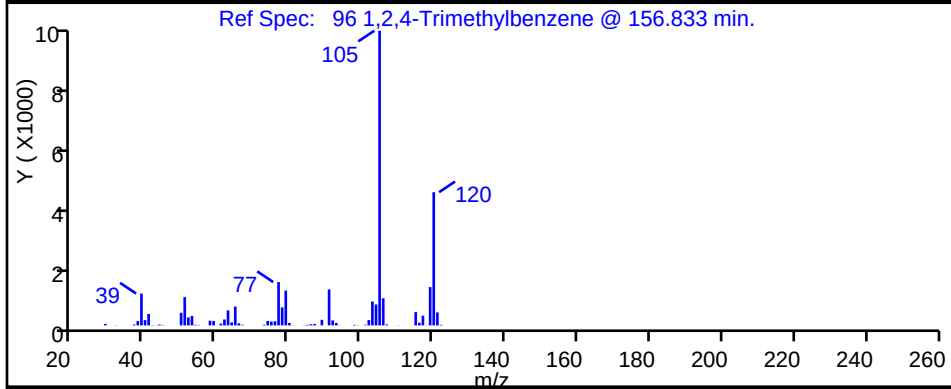
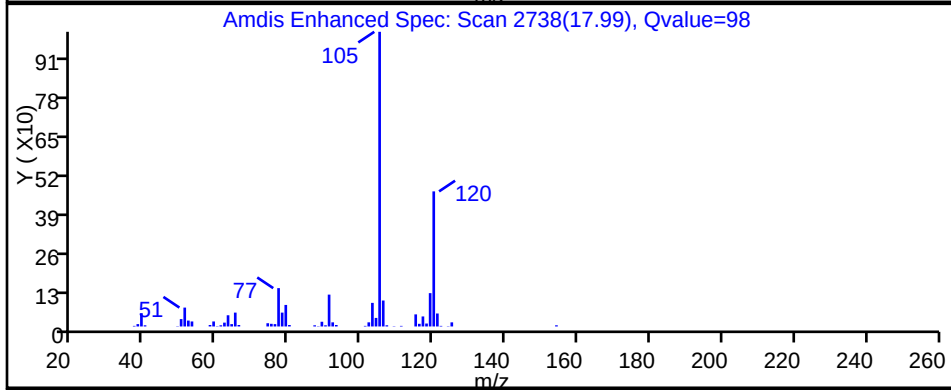
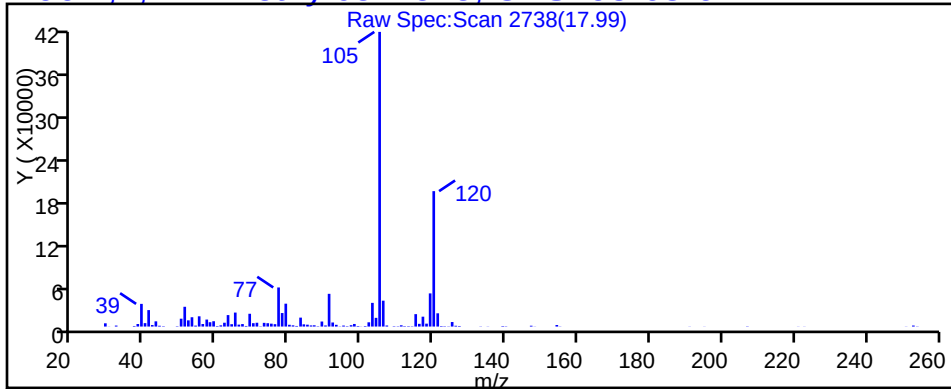
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

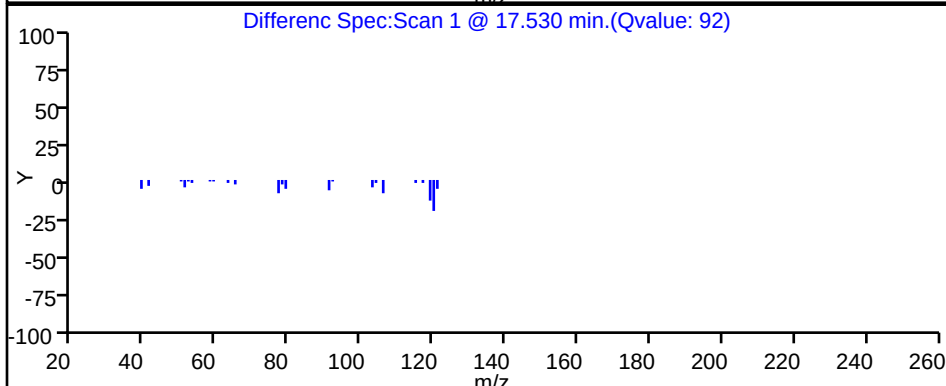
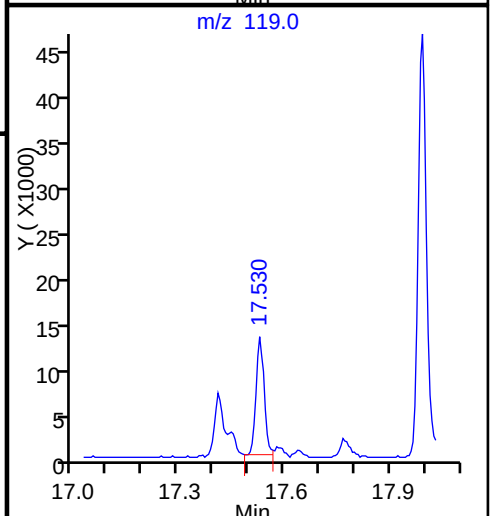
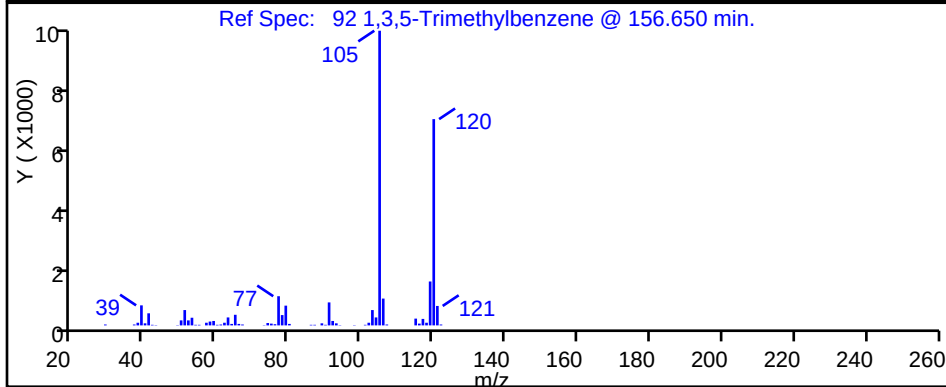
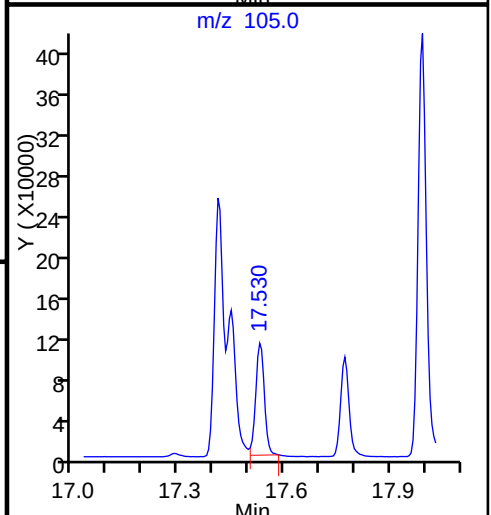
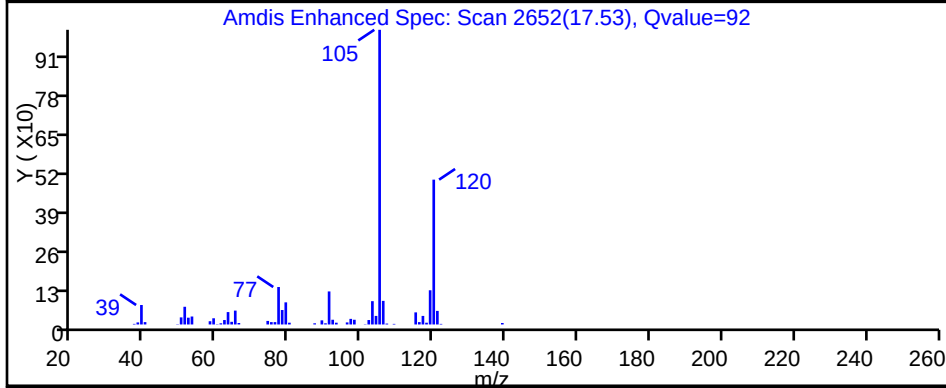
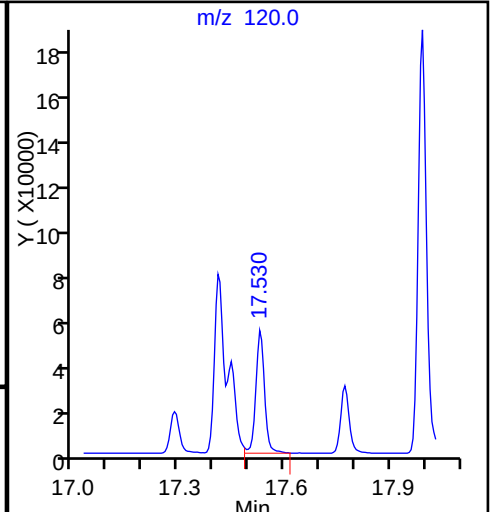
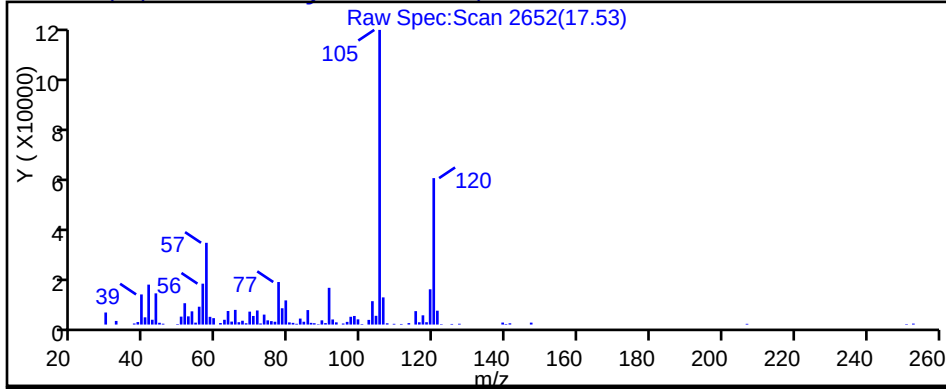
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

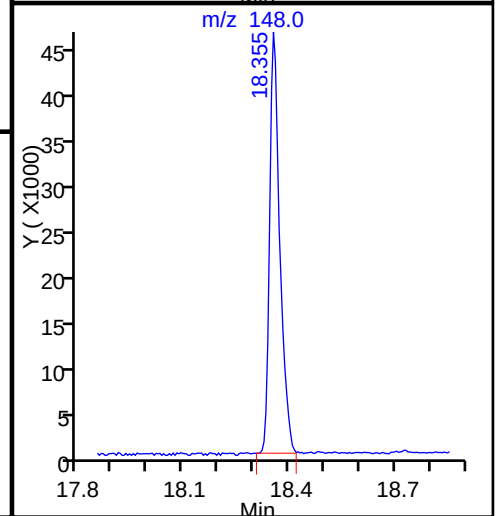
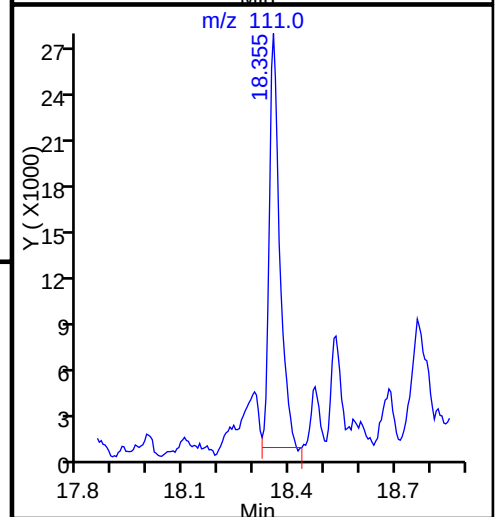
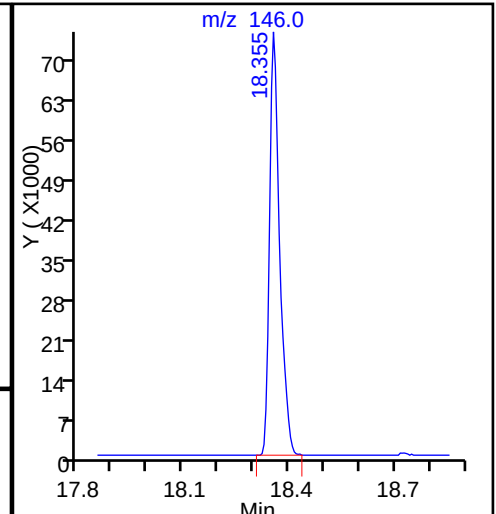
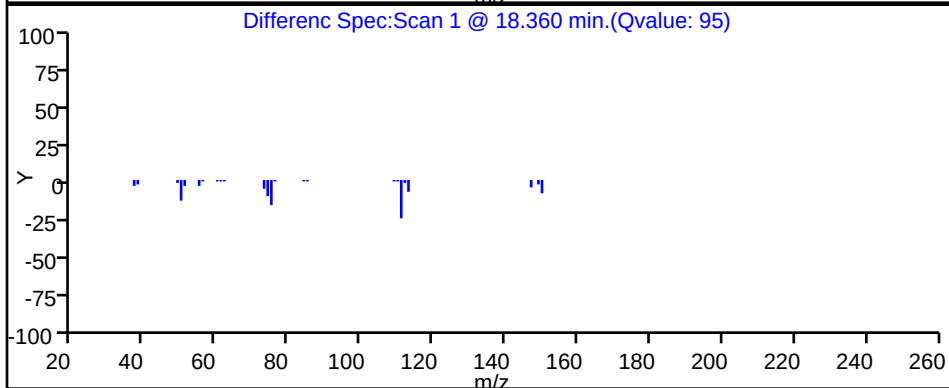
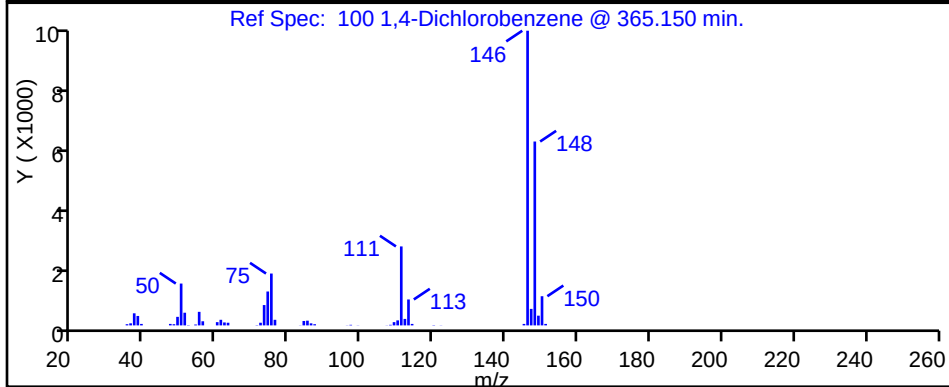
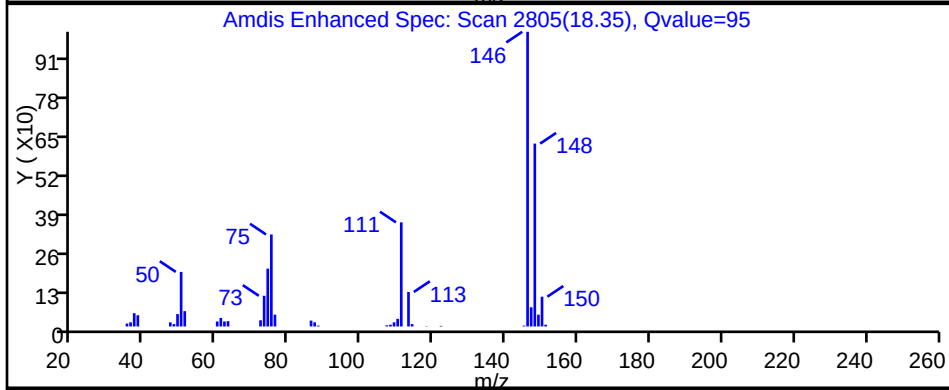
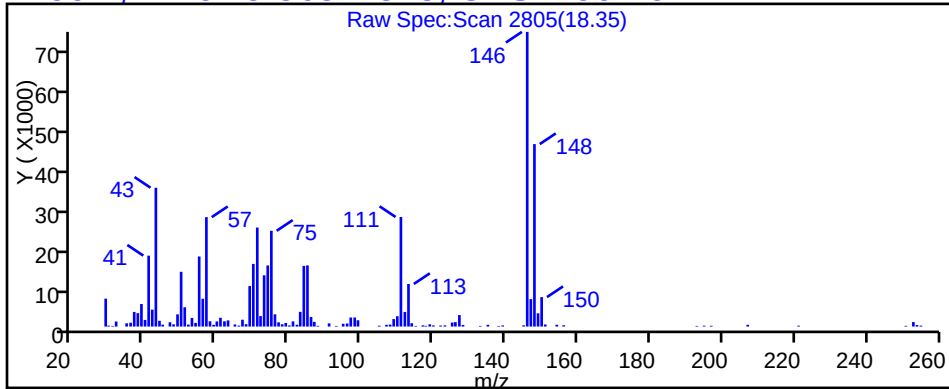
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

100 1,4-Dichlorobenzene, CAS: 106-46-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

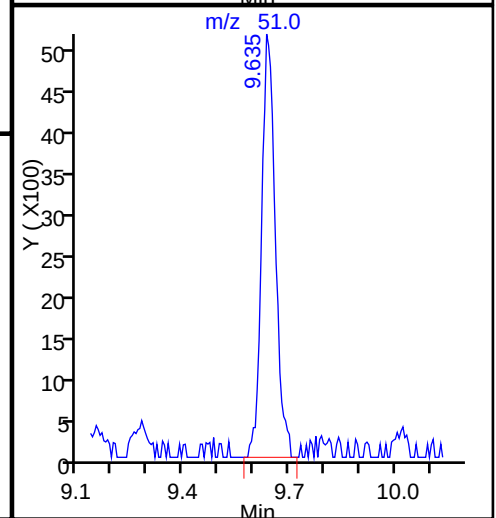
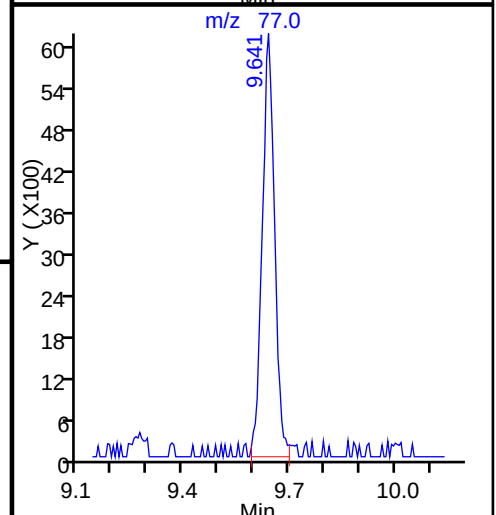
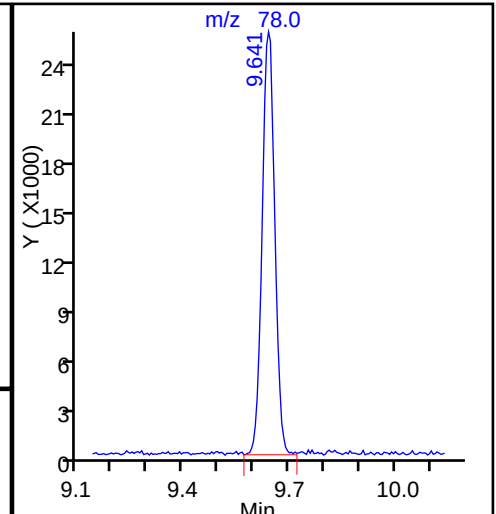
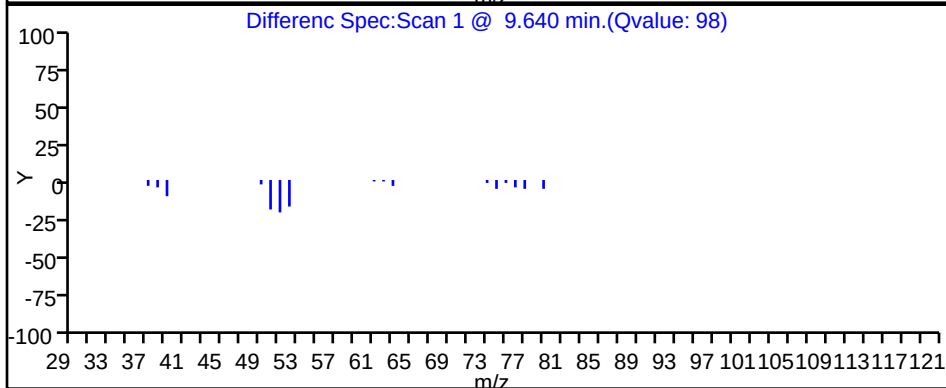
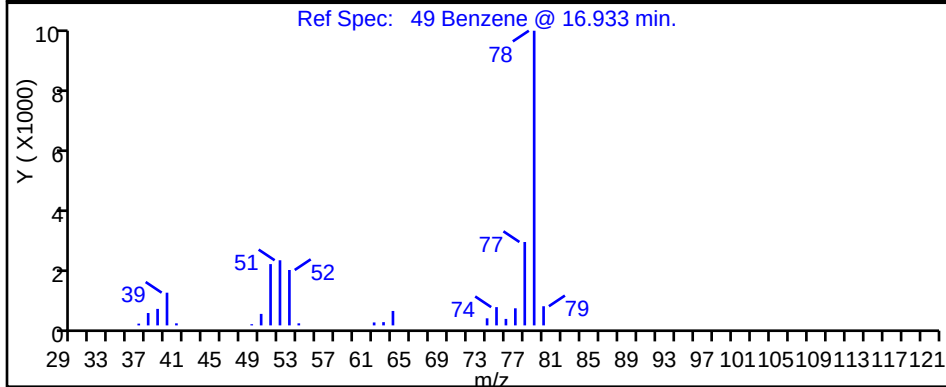
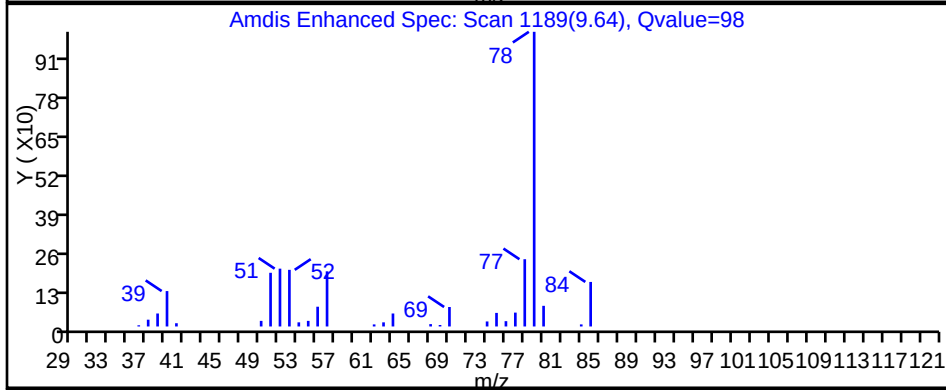
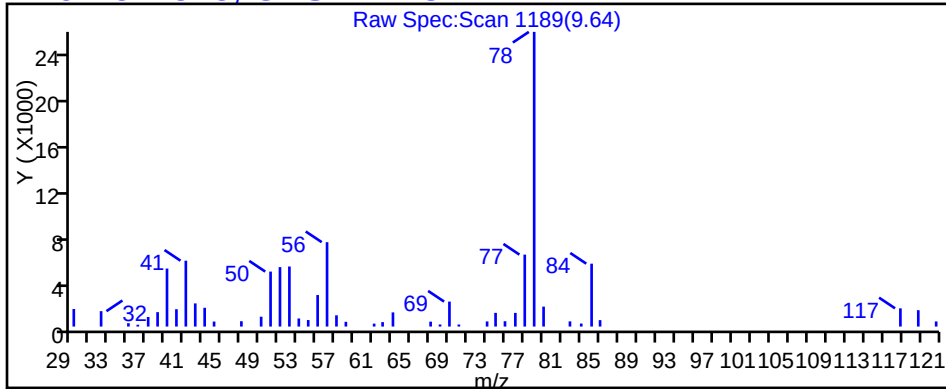
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

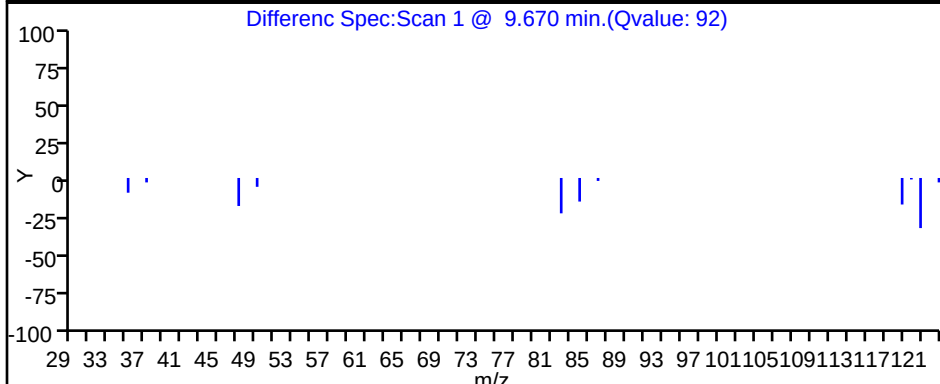
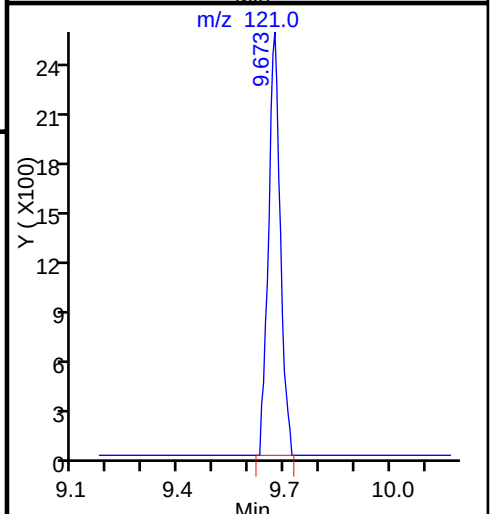
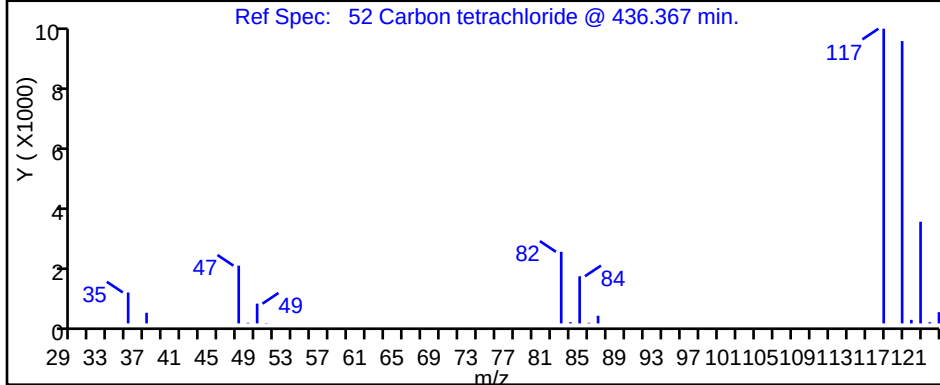
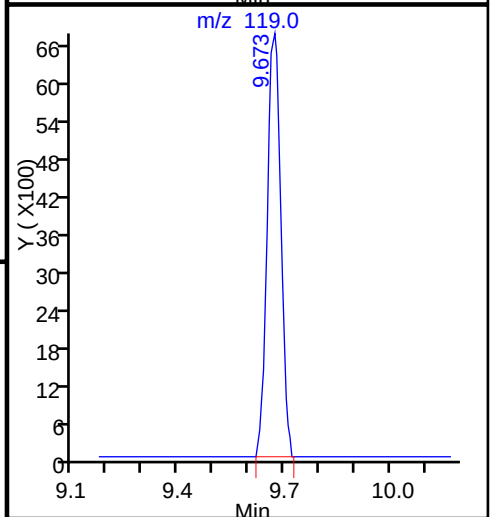
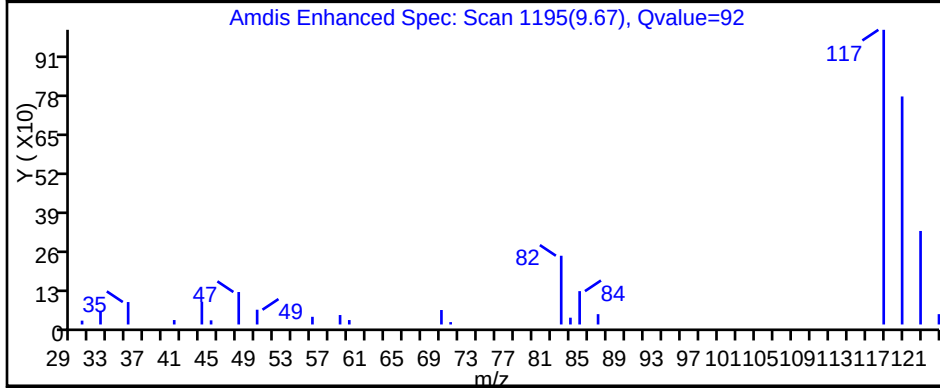
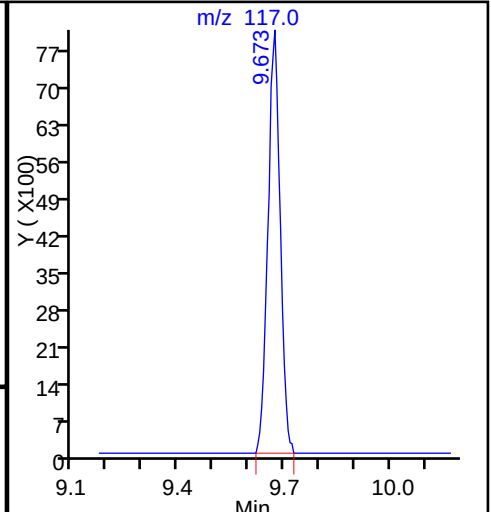
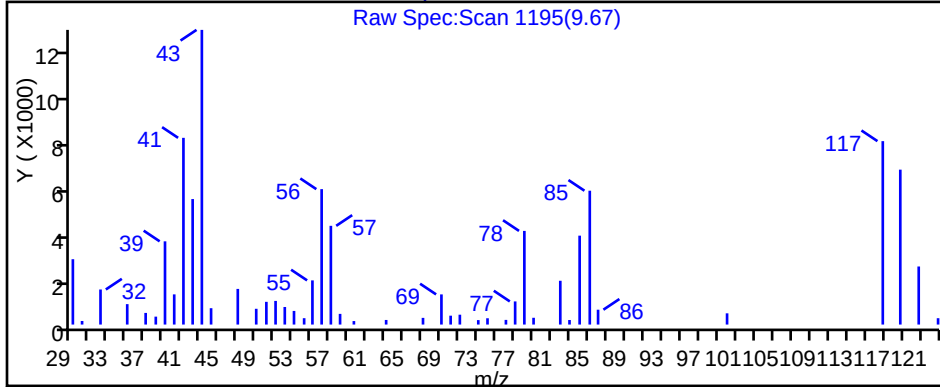
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

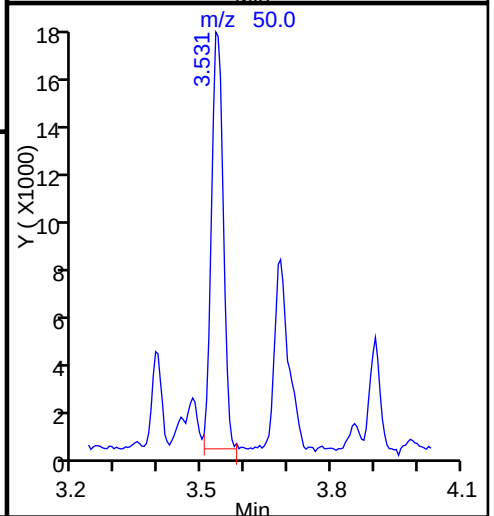
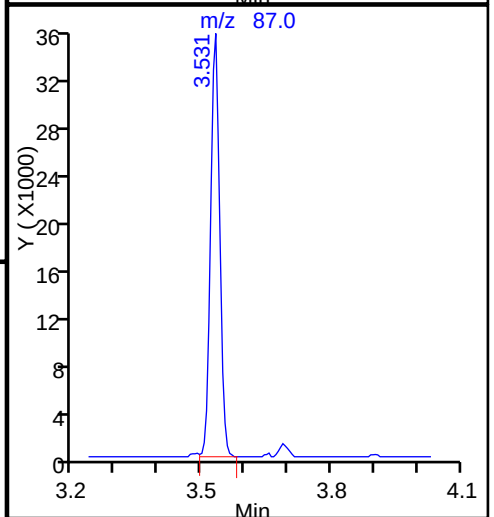
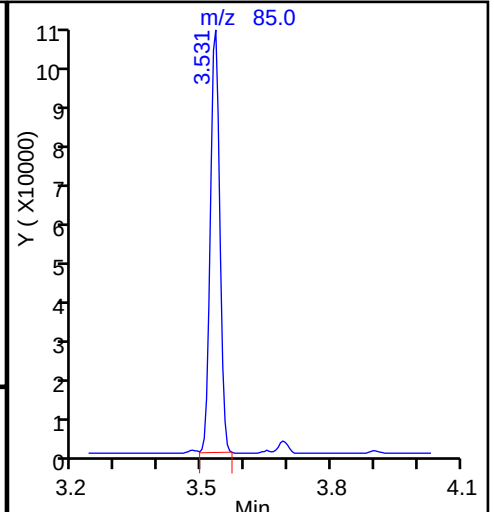
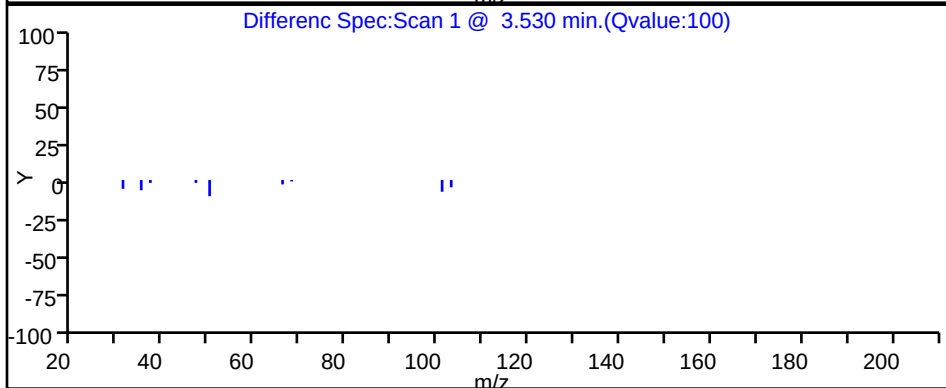
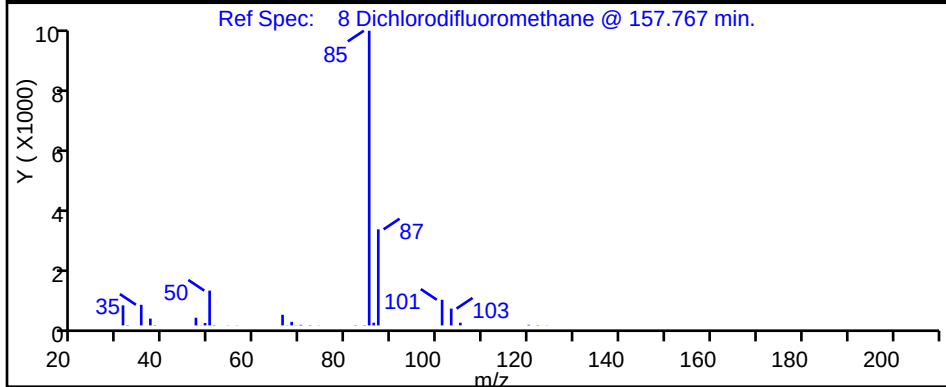
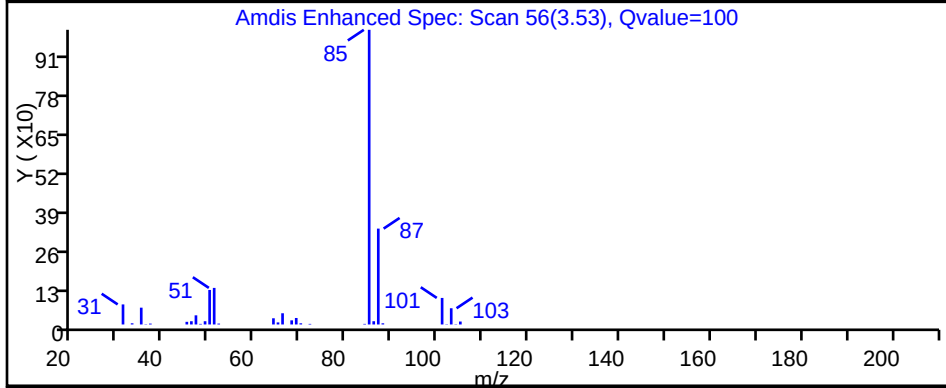
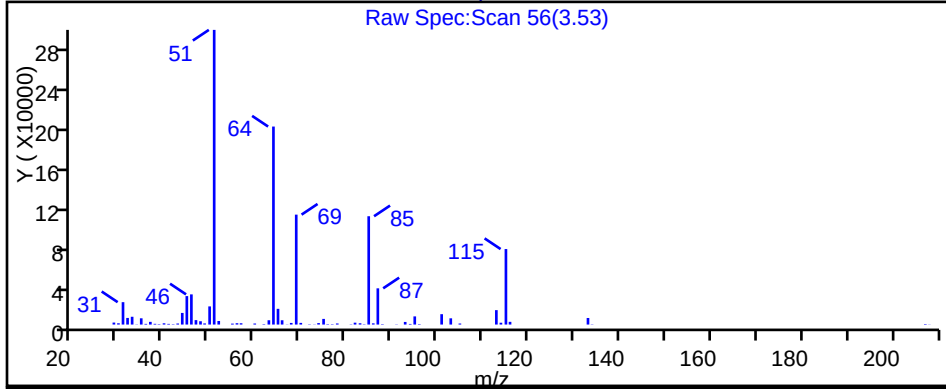
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

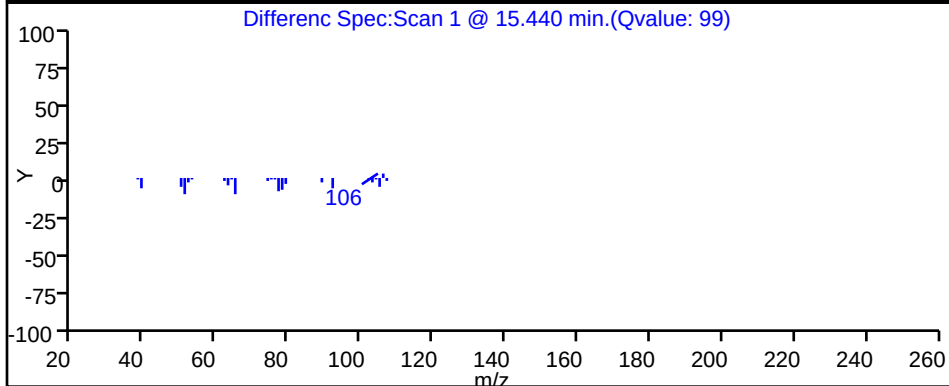
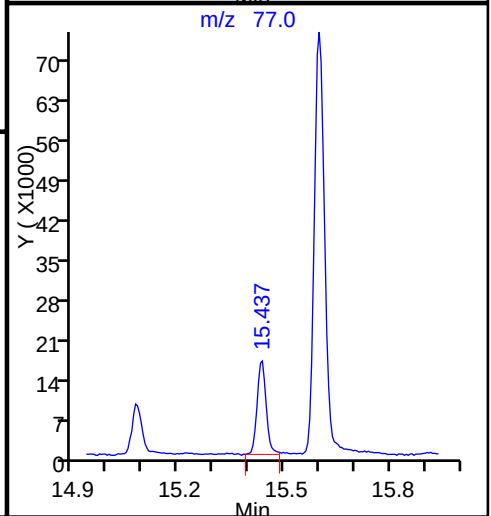
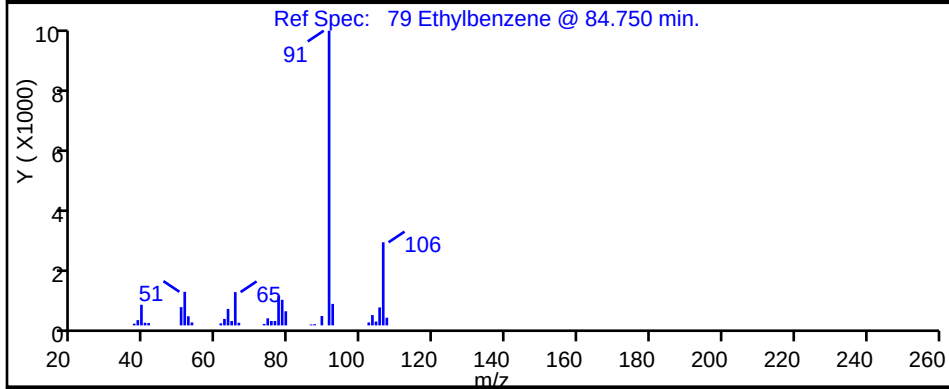
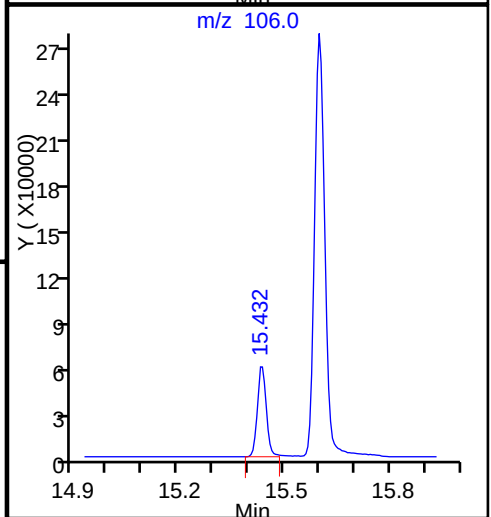
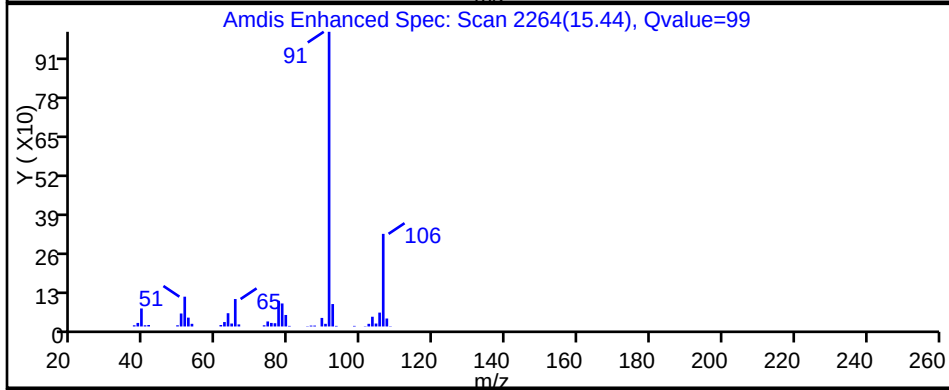
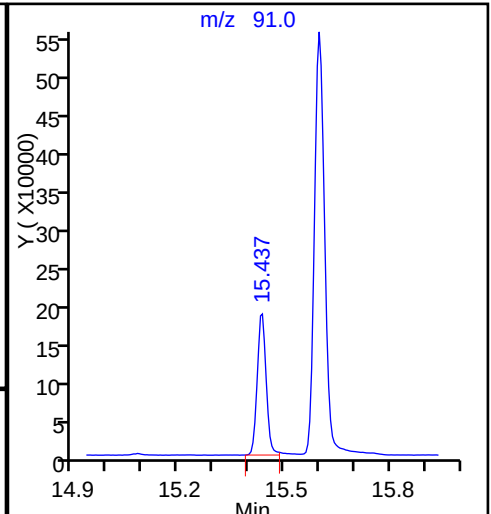
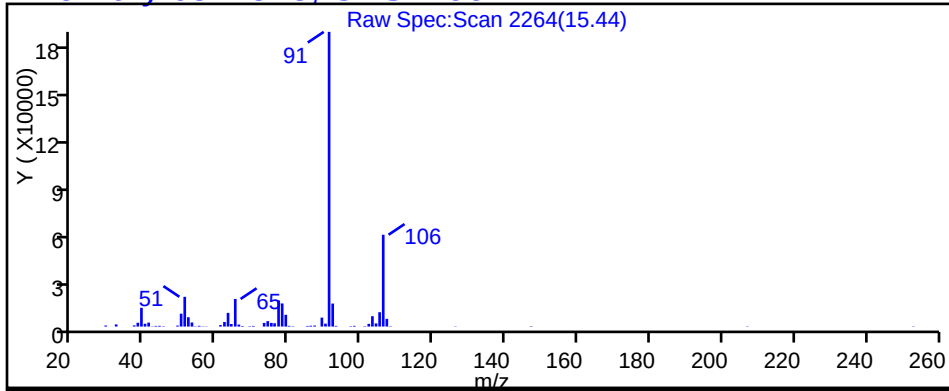
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

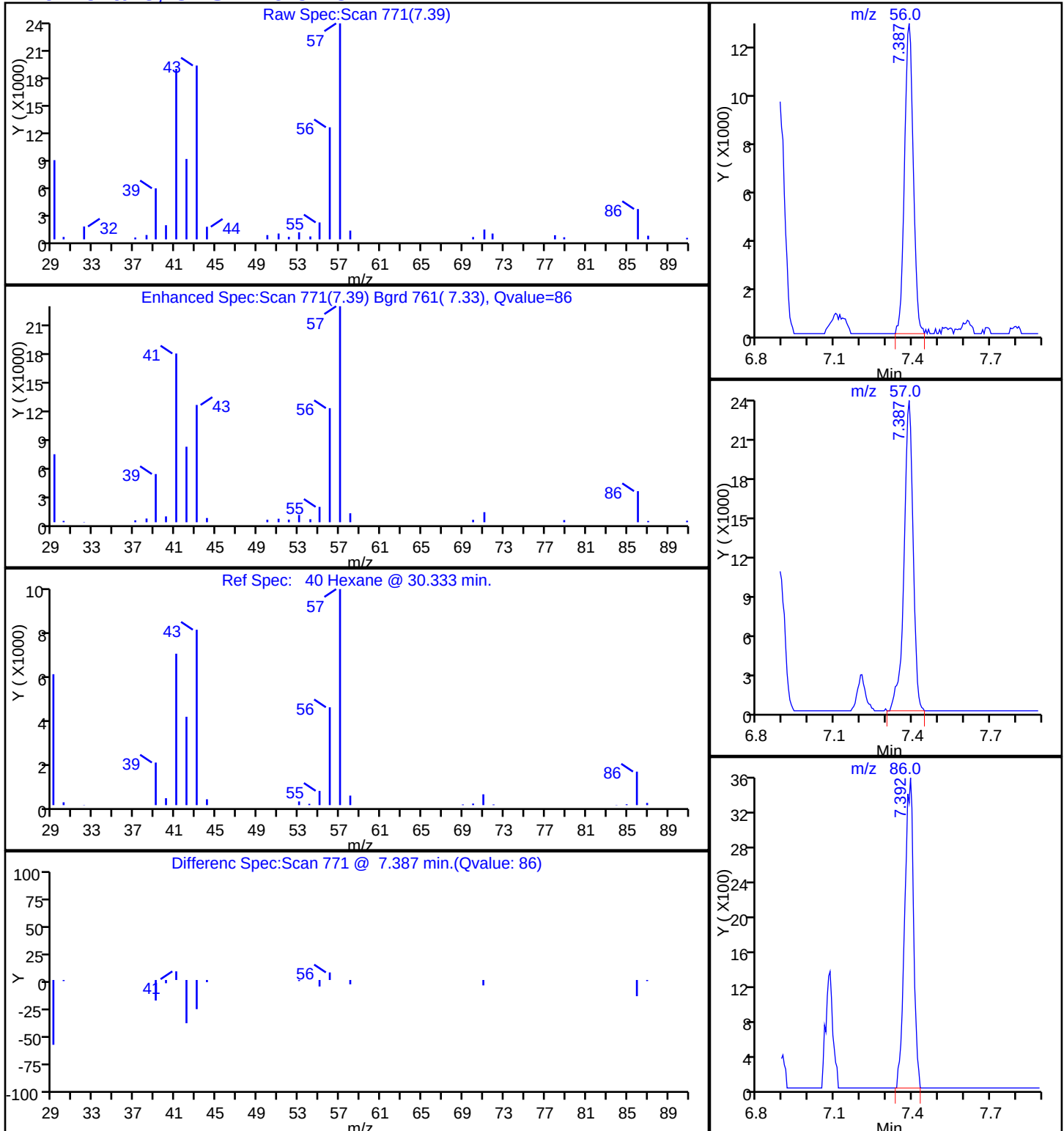
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

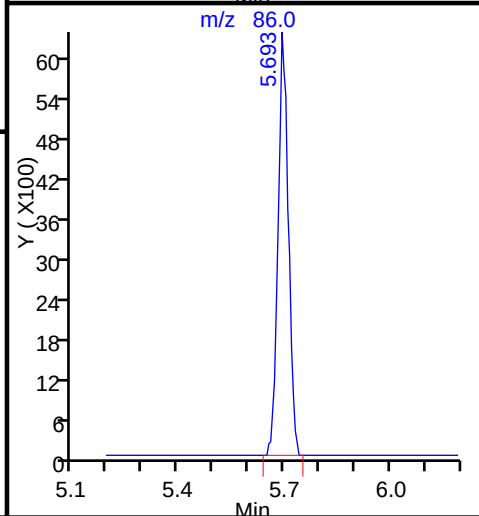
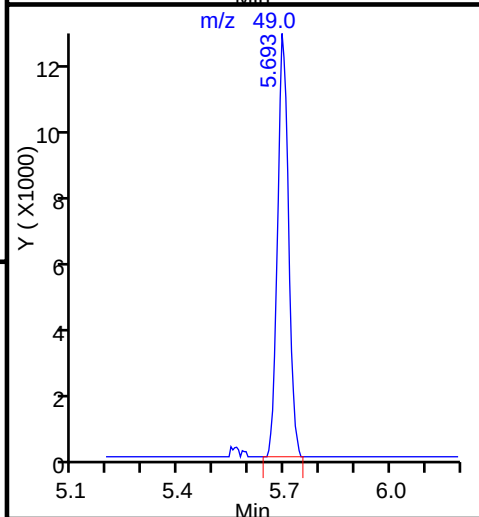
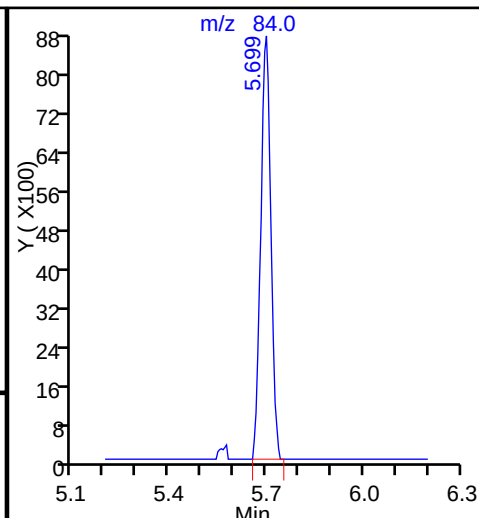
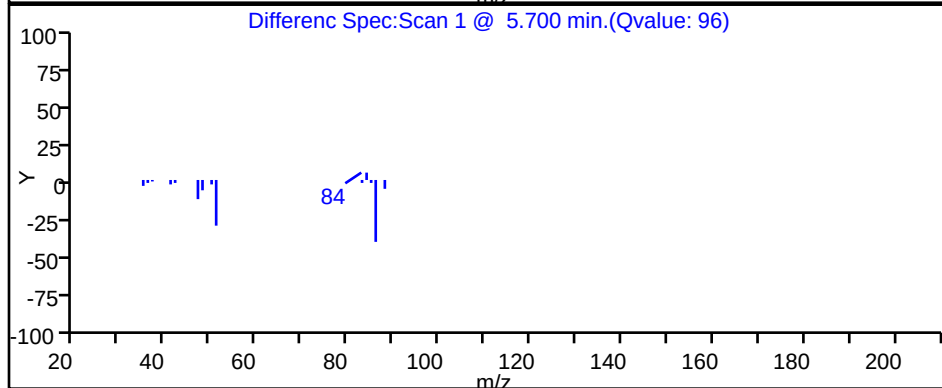
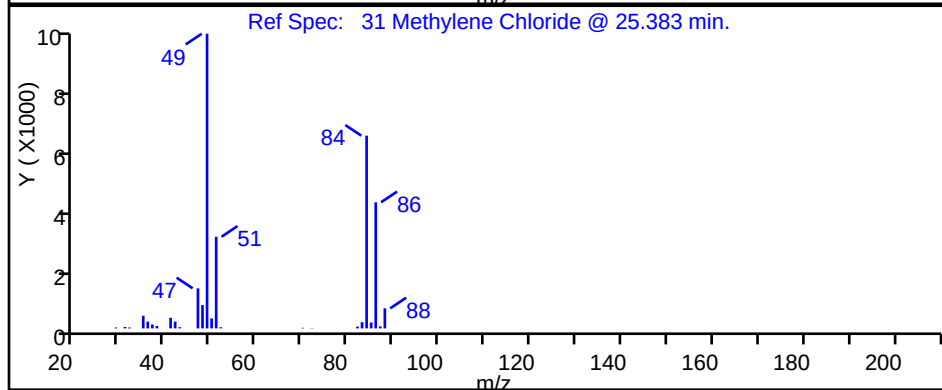
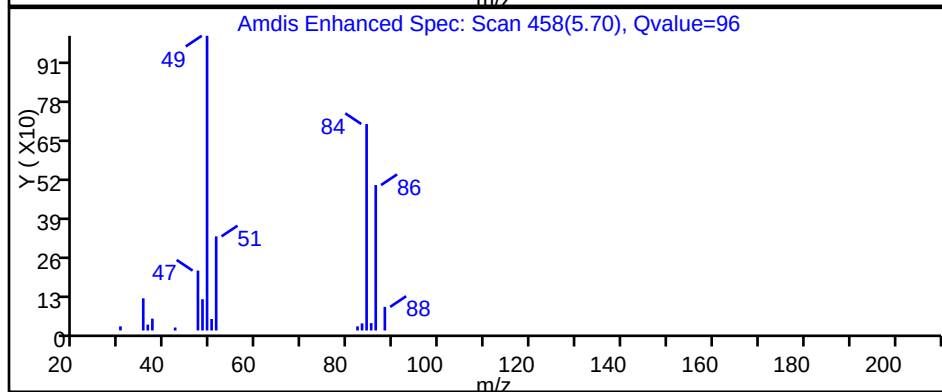
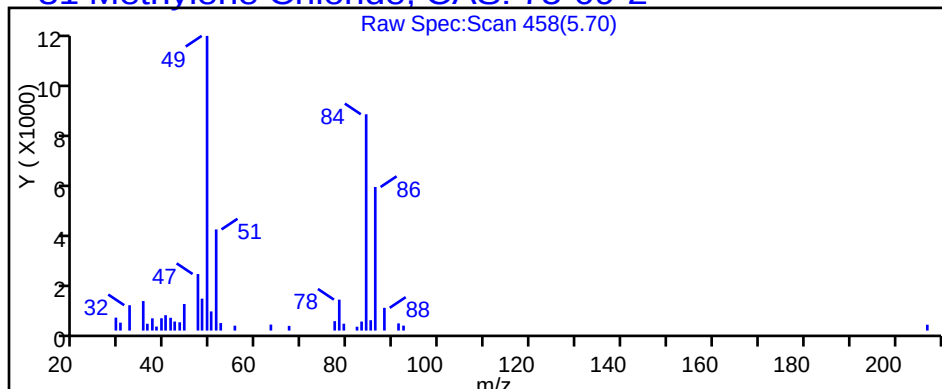
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

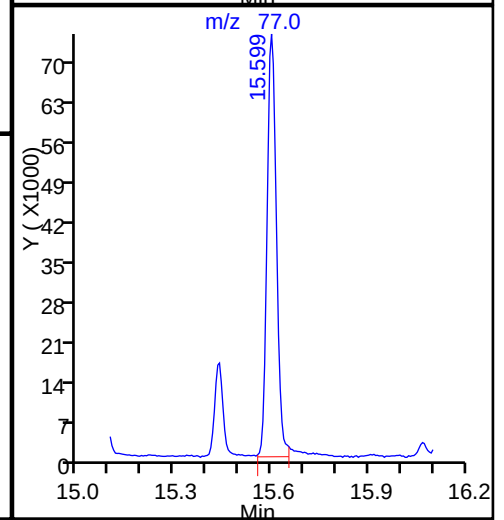
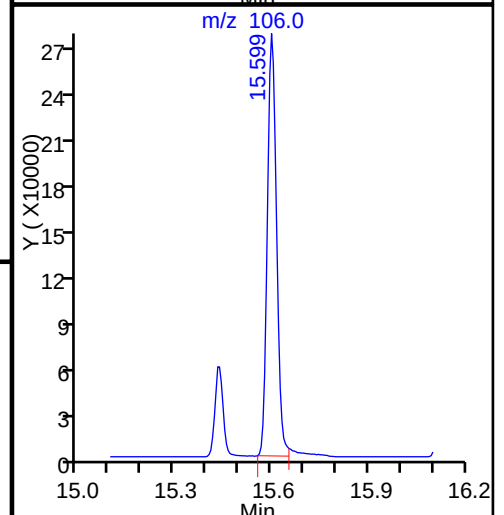
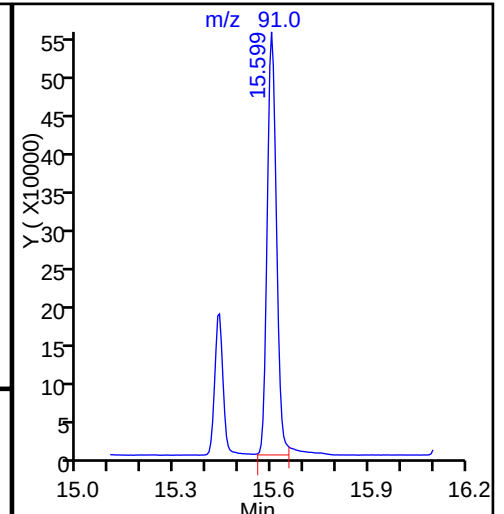
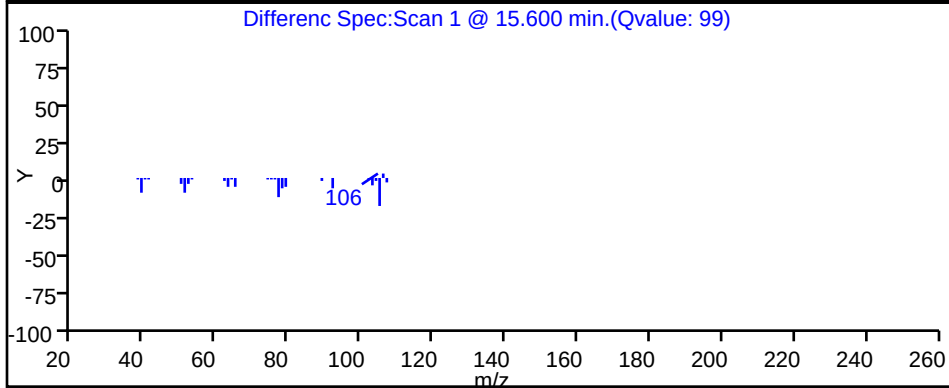
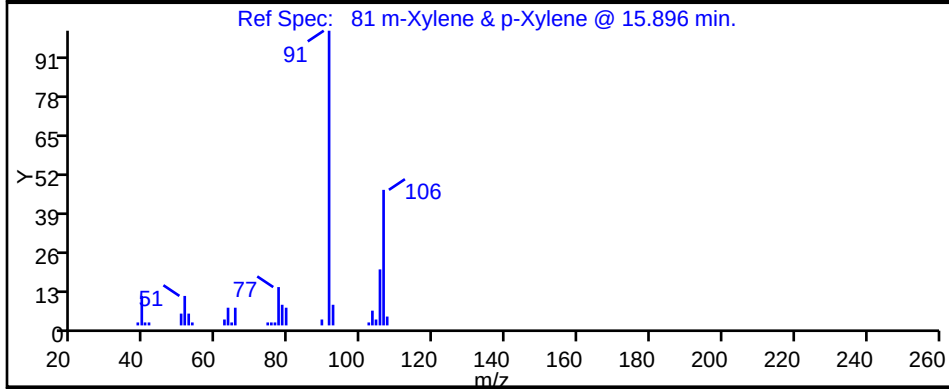
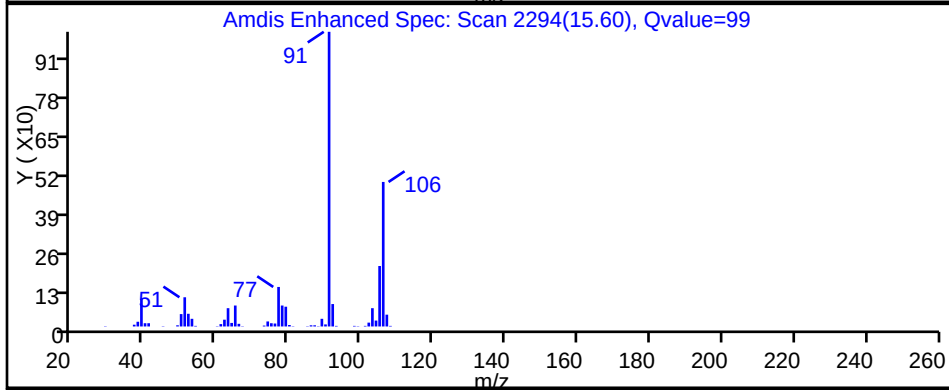
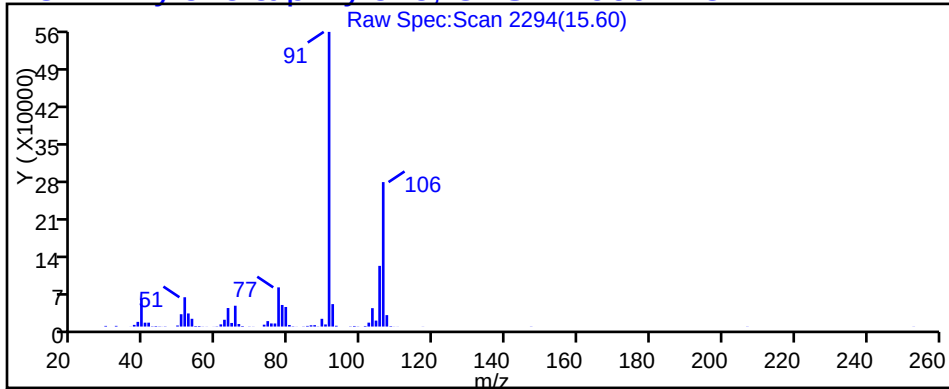
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

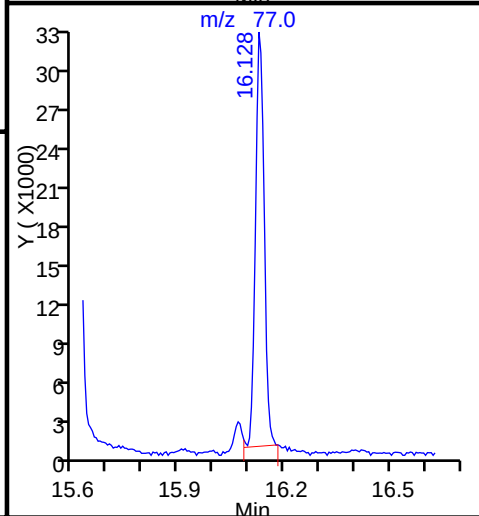
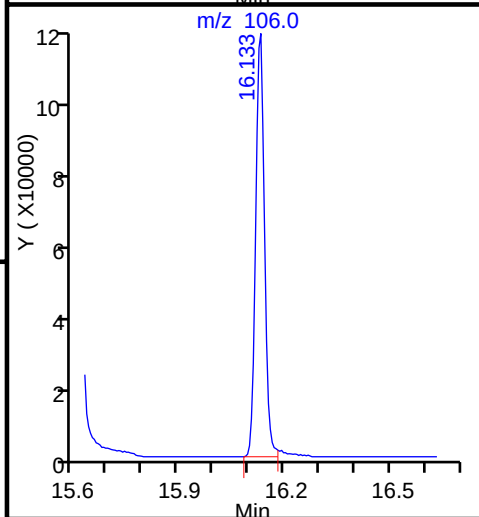
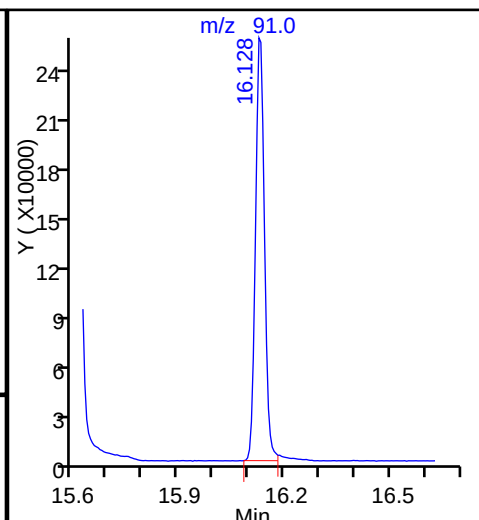
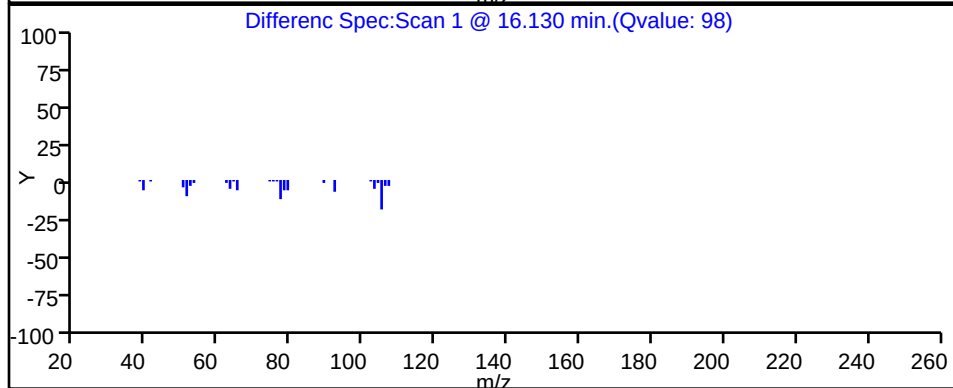
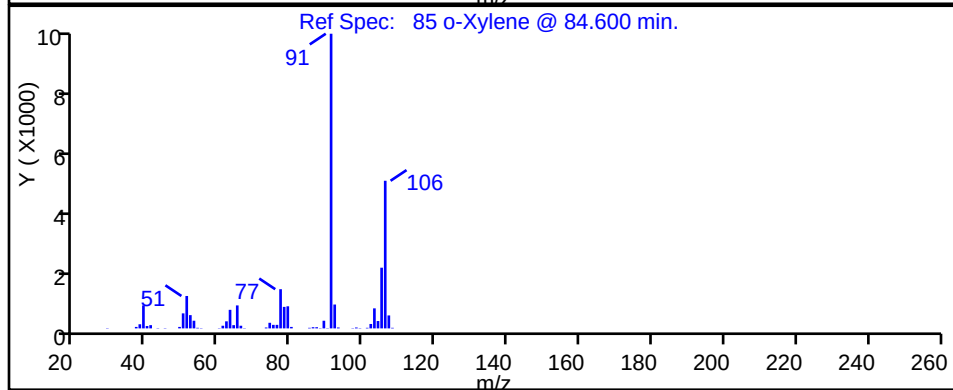
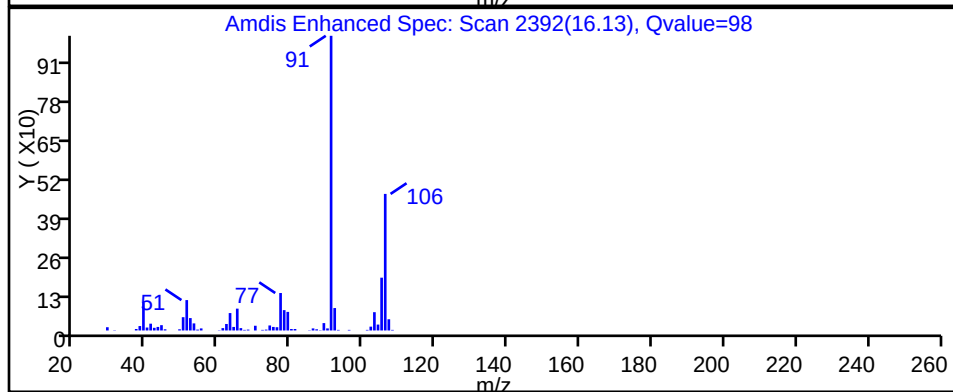
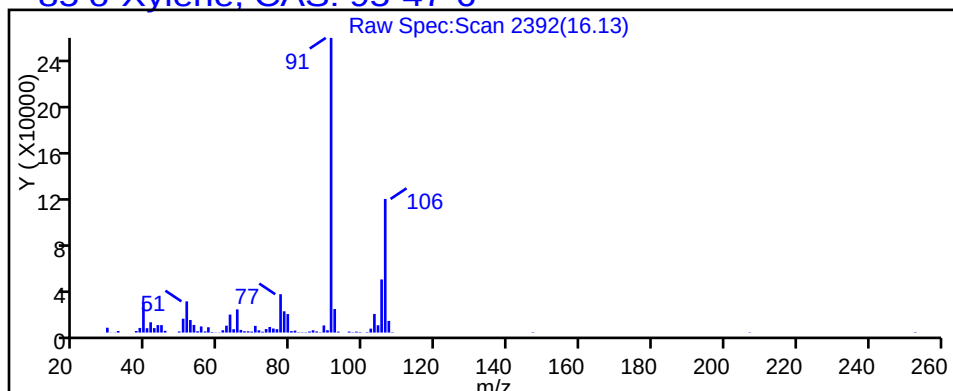
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

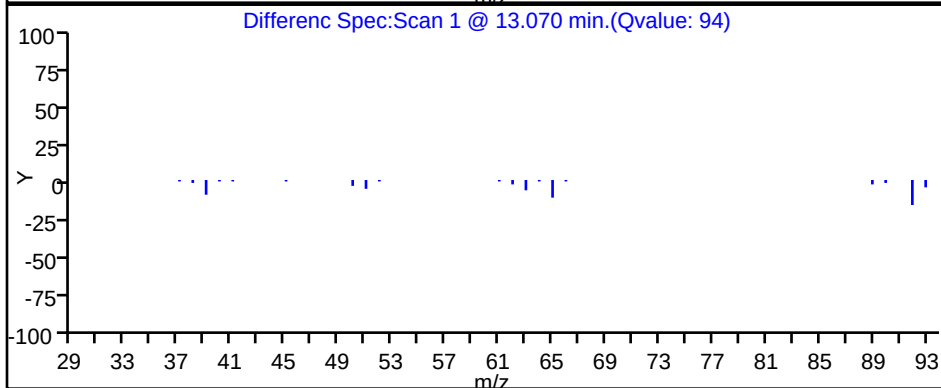
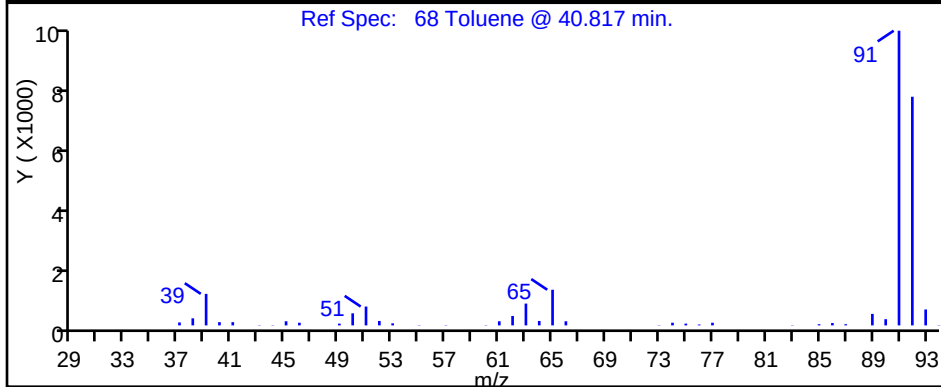
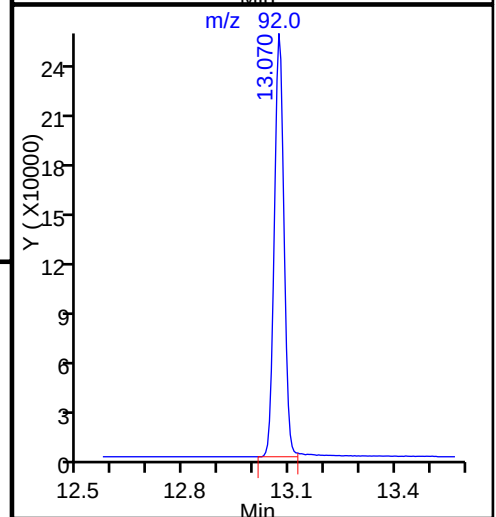
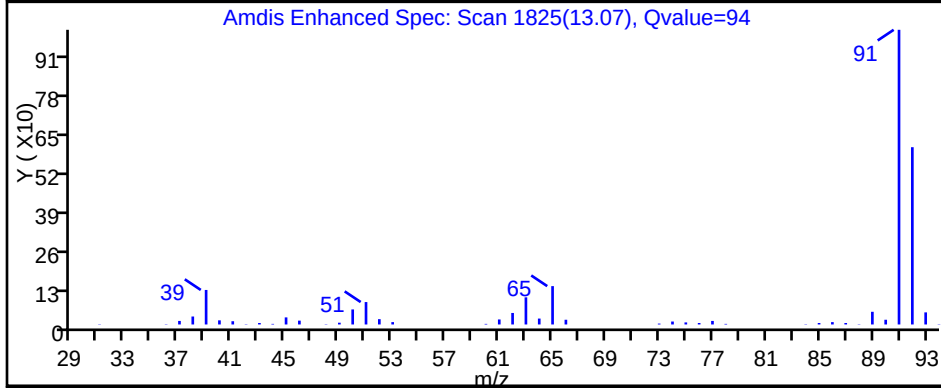
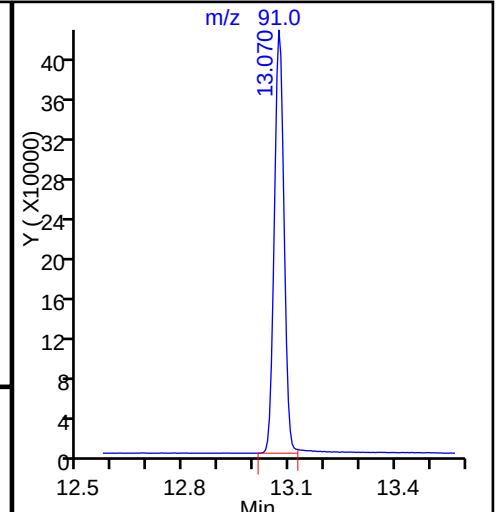
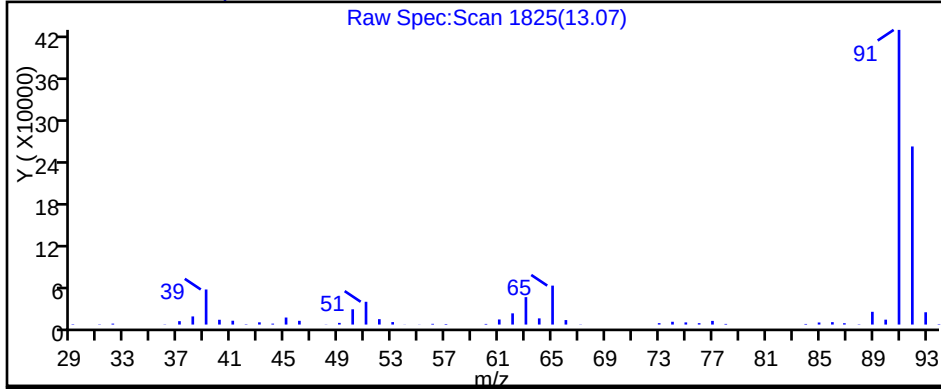
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

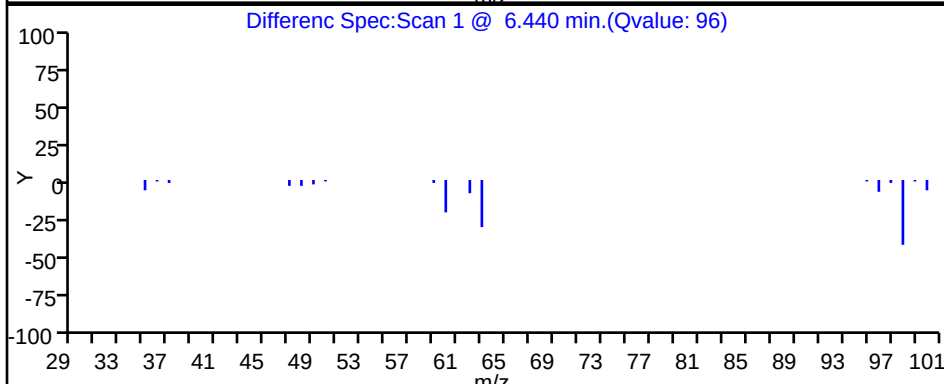
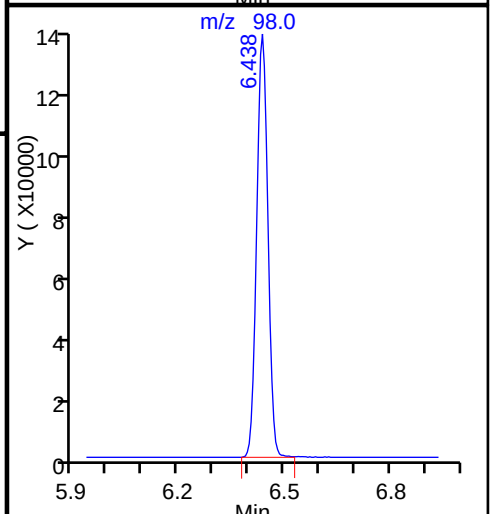
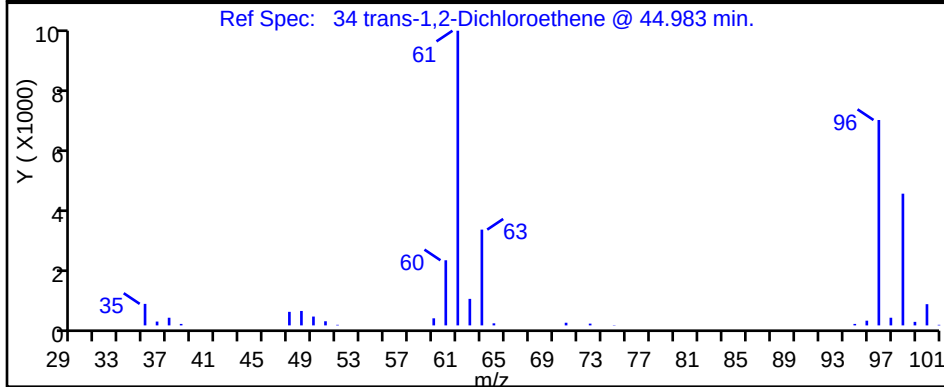
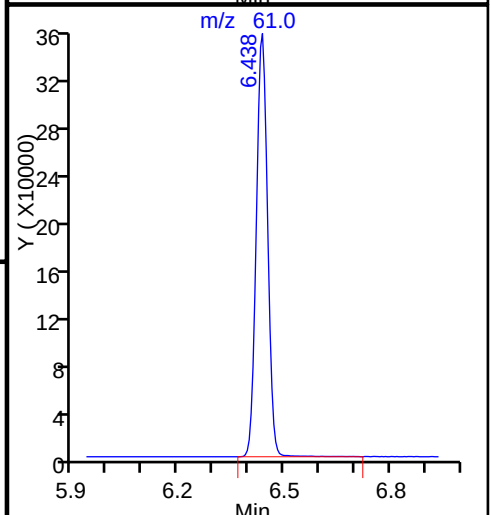
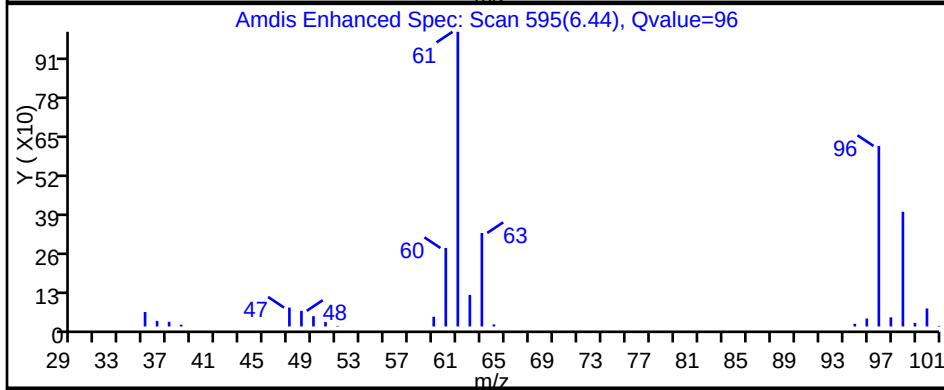
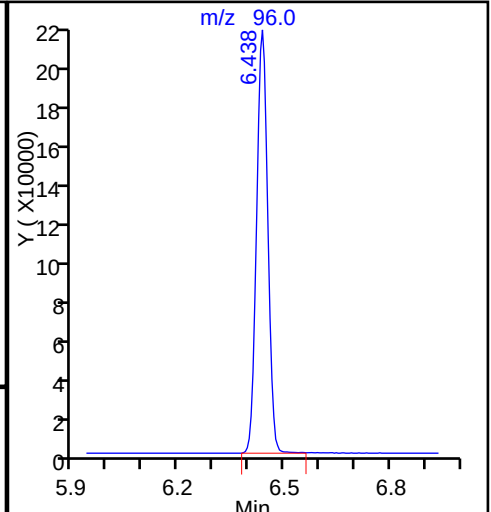
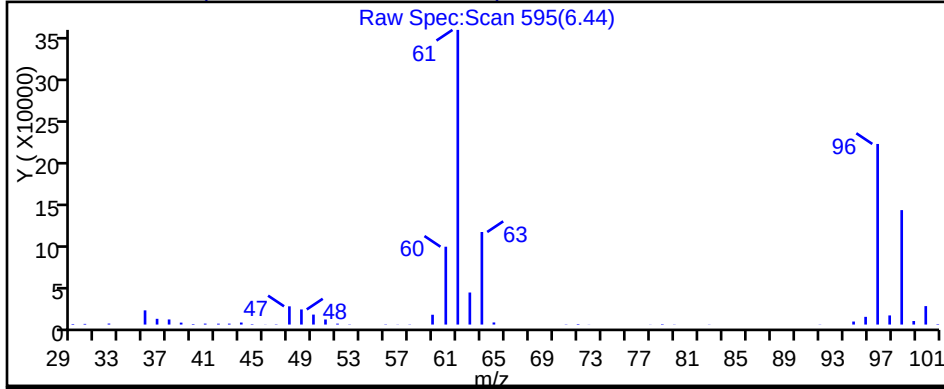
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P111.D

Injection Date: 17-Dec-2016 01:00:30

Instrument ID: MG

Lims ID: 140-6566-A-1

Lab Sample ID: 140-6566-1

Client ID: 140-SSV-1

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 22

Purge Vol: 500.000 mL

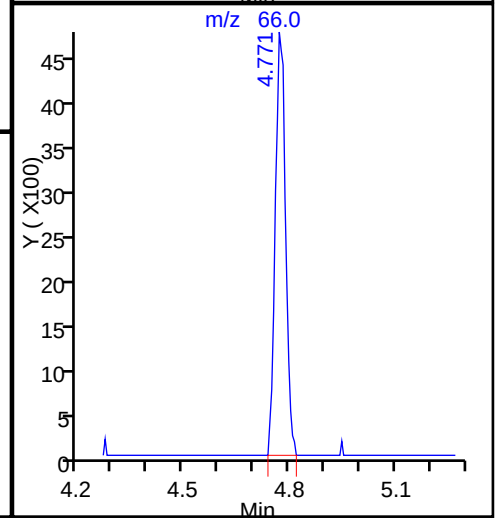
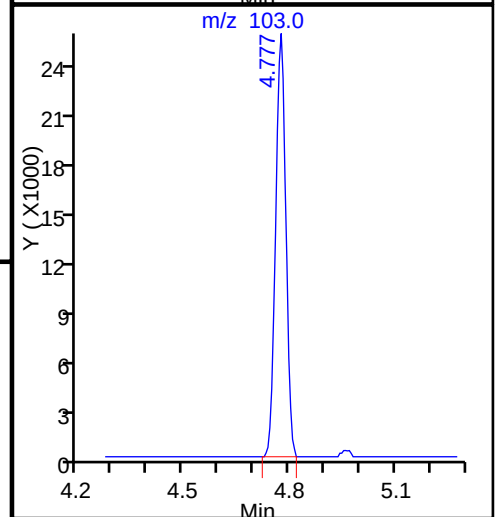
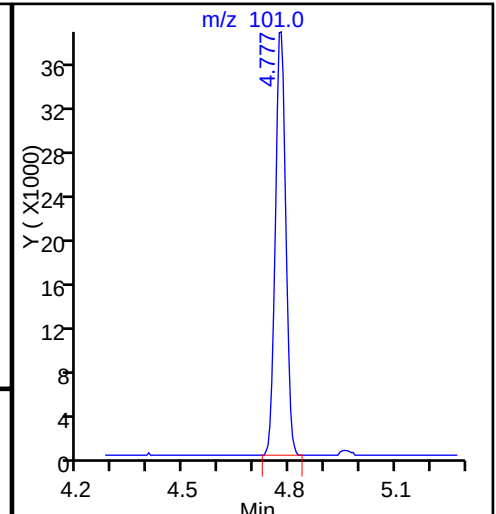
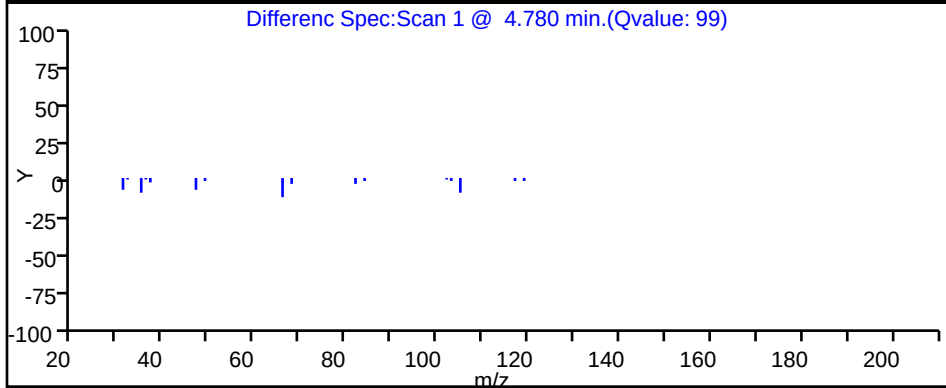
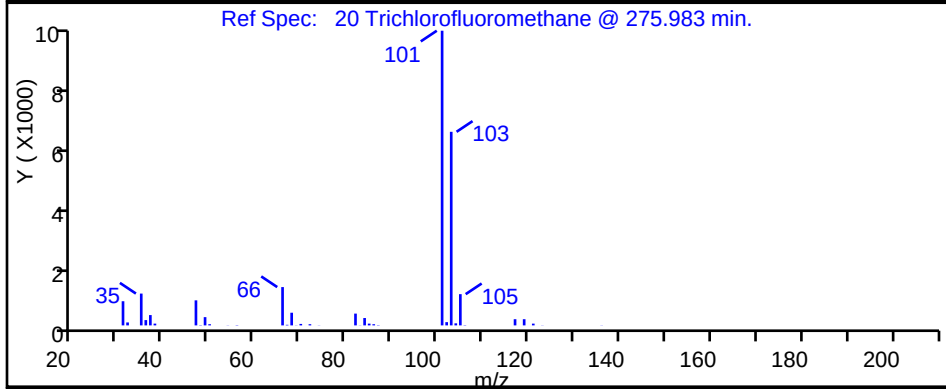
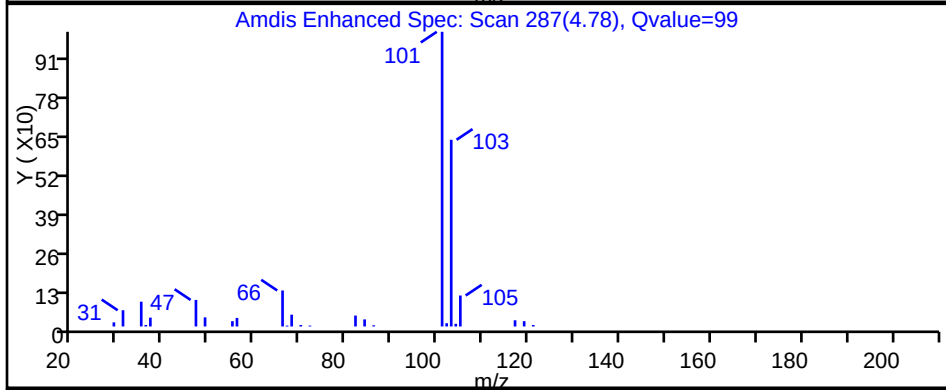
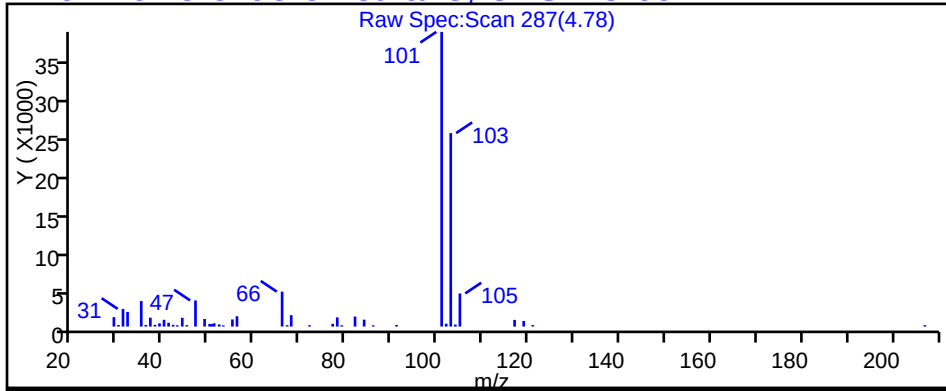
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-1 Lab Sample ID: 140-6566-2
 Matrix: Air Lab File ID: GL16P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:50
 Sample wt/vol: 1000 (mL) Date Analyzed: 12/17/2016 01:50
 Soil Aliquot Vol: _____ Dilution Factor: 2.47
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.099	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.099	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.099	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.099	
75-34-3	1,1-Dichloroethane	98.96	ND		0.099	
75-35-4	1,1-Dichloroethene	96.94	ND		0.099	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.099	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.099	
106-93-4	1,2-Dibromoethane	187.87	ND		0.099	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.099	
107-06-2	1,2-Dichloroethane	98.96	ND		0.099	
78-87-5	1,2-Dichloropropane	112.99	ND		0.099	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.099	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.099	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.099	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.099	
123-91-1	1,4-Dioxane	88.11	ND		0.25	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.25	
78-93-3	2-Butanone	72.11	3.2		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.25	
71-43-2	Benzene	78.11	0.24		0.099	
100-44-7	Benzyl chloride	126.58	ND		0.20	
75-27-4	Bromodichloromethane	163.83	ND		0.099	
75-25-2	Bromoform	252.75	ND		0.099	
74-83-9	Bromomethane	94.94	ND		0.099	
56-23-5	Carbon tetrachloride	153.81	0.065		0.049	
108-90-7	Chlorobenzene	112.56	ND		0.099	
75-00-3	Chloroethane	64.52	ND		0.099	
67-66-3	Chloroform	119.38	0.16		0.099	
74-87-3	Chloromethane	50.49	0.52		0.25	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.099	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.099	
110-82-7	Cyclohexane	84.16	ND		0.25	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-1 Lab Sample ID: 140-6566-2
 Matrix: Air Lab File ID: GL16P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:50
 Sample wt/vol: 1000 (mL) Date Analyzed: 12/17/2016 01:50
 Soil Aliquot Vol: _____ Dilution Factor: 2.47
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.099	
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.099	
64-17-5	Ethanol	46.07	50		2.5	
100-41-4	Ethylbenzene	106.17	0.13		0.099	
87-68-3	Hexachlorobutadiene	260.76	ND		0.099	
110-54-3	Hexane	86.17	0.34		0.25	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.20	
75-09-2	Methylene Chloride	84.93	0.42		0.25	
179601-23-1	m-Xylene & p-Xylene	106.17	0.42		0.099	
95-47-6	o-Xylene	106.17	0.16		0.099	
100-42-5	Styrene	104.15	0.12		0.099	
75-65-0	t-Butyl alcohol	74.12	ND		0.40	
127-18-4	Tetrachloroethene	165.83	ND		0.099	
108-88-3	Toluene	92.14	2.2		0.15	
156-60-5	trans-1,2-Dichloroethene	96.94	11		0.099	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.099	
79-01-6	Trichloroethene	131.39	ND		0.049	
75-69-4	Trichlorofluoromethane	137.37	0.22		0.099	
75-01-4	Vinyl chloride	62.50	ND		0.049	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-1 Lab Sample ID: 140-6566-2
 Matrix: Air Lab File ID: GL16P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:50
 Sample wt/vol: 1000 (mL) Date Analyzed: 12/17/2016 01:50
 Soil Aliquot Vol: _____ Dilution Factor: 2.47
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.54	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.68	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.54	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.76	
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	
75-35-4	1,1-Dichloroethene	96.94	ND		0.39	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.73	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.49	
106-93-4	1,2-Dibromoethane	187.87	ND		0.76	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.59	
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	
78-87-5	1,2-Dichloropropane	112.99	ND		0.46	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.69	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.49	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.59	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.59	
123-91-1	1,4-Dioxane	88.11	ND		0.89	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.2	
78-93-3	2-Butanone	72.11	9.5		1.2	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.0	
71-43-2	Benzene	78.11	0.76		0.32	
100-44-7	Benzyl chloride	126.58	ND		1.0	
75-27-4	Bromodichloromethane	163.83	ND		0.66	
75-25-2	Bromoform	252.75	ND		1.0	
74-83-9	Bromomethane	94.94	ND		0.38	
56-23-5	Carbon tetrachloride	153.81	0.41		0.31	
108-90-7	Chlorobenzene	112.56	ND		0.45	
75-00-3	Chloroethane	64.52	ND		0.26	
67-66-3	Chloroform	119.38	0.76		0.48	
74-87-3	Chloromethane	50.49	1.1		0.51	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.39	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.45	
110-82-7	Cyclohexane	84.16	ND		0.85	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-1 Lab Sample ID: 140-6566-2
 Matrix: Air Lab File ID: GL16P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:50
 Sample wt/vol: 1000 (mL) Date Analyzed: 12/17/2016 01:50
 Soil Aliquot Vol: _____ Dilution Factor: 2.47
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.84	
75-71-8	Dichlorodifluoromethane	120.91	2.3		0.49	
64-17-5	Ethanol	46.07	95		4.7	
100-41-4	Ethylbenzene	106.17	0.56		0.43	
87-68-3	Hexachlorobutadiene	260.76	ND		1.1	
110-54-3	Hexane	86.17	1.2		0.87	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.71	
75-09-2	Methylene Chloride	84.93	1.5		0.86	
179601-23-1	m-Xylene & p-Xylene	106.17	1.8		0.43	
95-47-6	o-Xylene	106.17	0.68		0.43	
100-42-5	Styrene	104.15	0.51		0.42	
75-65-0	t-Butyl alcohol	74.12	ND		1.2	
127-18-4	Tetrachloroethene	165.83	ND		0.67	
108-88-3	Toluene	92.14	8.4		0.56	
156-60-5	trans-1,2-Dichloroethene	96.94	43		0.39	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.45	
79-01-6	Trichloroethene	131.39	ND		0.27	
75-69-4	Trichlorofluoromethane	137.37	1.3		0.56	
75-01-4	Vinyl chloride	62.50	ND		0.13	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D
 Lims ID: 140-6566-A-2
 Client ID: 140-IA-1
 Sample Type: Client
 Inject. Date: 17-Dec-2016 01:50:30 ALS Bottle#: 12 Worklist Smp#: 23
 Purge Vol: 500.000 mL Dil. Factor: 2.4700
 Sample Info: 140-0003720-023
 Misc. Info.: 140-6566-a-2@2.47
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:53:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.066	8.055	0.011	96	406056	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.223	0.006	95	1956252	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	86	1938087	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	96	1273837	3.97	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	130352	0.3751	
9 Chloromethane	52	3.688	3.682	0.006	100	15863	0.4250	
17 Ethanol	31	4.405	4.383	0.022	95	1649675	40.7	
20 Trichlorofluoromethane	101	4.782	4.777	0.005	99	61311	0.1820	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.564	0.006	96	11158	0.0524	
31 Methylene Chloride	84	5.715	5.704	0.011	95	29552	0.3422	
34 trans-1,2-Dichloroethene	96	6.448	6.443	0.005	97	1028086	8.81	
39 2-Butanone (MEK)	72	7.338	7.333	0.005	99	124866	2.60	
40 Hexane	56	7.387	7.387	0.000	77	26677	0.2764	
44 Chloroform	83	8.082	8.077	0.005	96	32220	0.1265	
49 Benzene	78	9.652	9.646	0.006	97	67348	0.1914	
50 Cyclohexane	69	9.652	9.651	0.001	62	7712	0.1189	
52 Carbon tetrachloride	117	9.679	9.673	0.006	97	16411	0.0522	
56 Isooctane	57	10.471	10.471	0.000	93	44518	0.0698	
62 1,4-Dioxane	88	11.232	11.199	0.033	68	1861	0.0394	
65 4-Methyl-2-pentanone (MIBK	43	12.191	12.181	0.011	98	32430	0.1354	
68 Toluene	91	13.076	13.076	0.000	94	702214	1.81	
76 Tetrachloroethene	129	14.246	14.246	0.000	30	5345	0.0314	
79 Ethylbenzene	91	15.438	15.437	0.001	99	53219	0.1047	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	100	134072	0.3423	
84 Styrene	104	16.068	16.074	-0.006	90	26750	0.0961	
85 o-Xylene	91	16.133	16.133	0.000	97	52404	0.1269	
92 1,3,5-Trimethylbenzene	120	17.530	17.535	-0.005	92	8090	0.0300	
96 1,2,4-Trimethylbenzene	105	17.994	17.993	0.001	98	35608	0.0758	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Worklist Smp#: 23

Client ID: 140-IA-1

Purge Vol: 500.000 mL

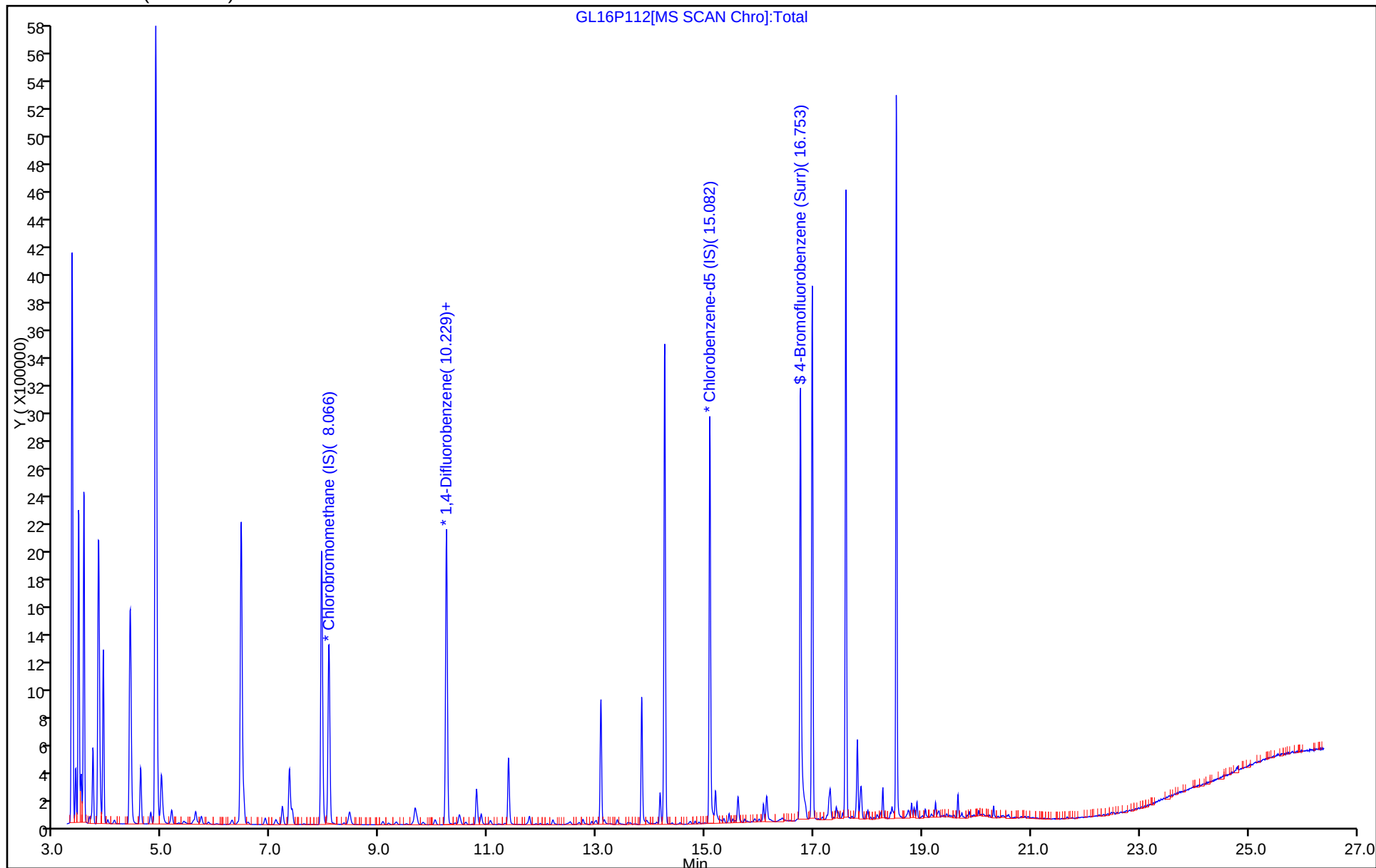
Dil. Factor: 2.4700

ALS Bottle#: 12

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D
Lims ID: 140-6566-A-2
Client ID: 140-IA-1
Sample Type: Client
Inject. Date: 17-Dec-2016 01:50:30 ALS Bottle#: 12 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 2.4700
Sample Info: 140-0003720-023
Misc. Info.: 140-6566-a-2@2.47
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:53:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.97	99.36

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

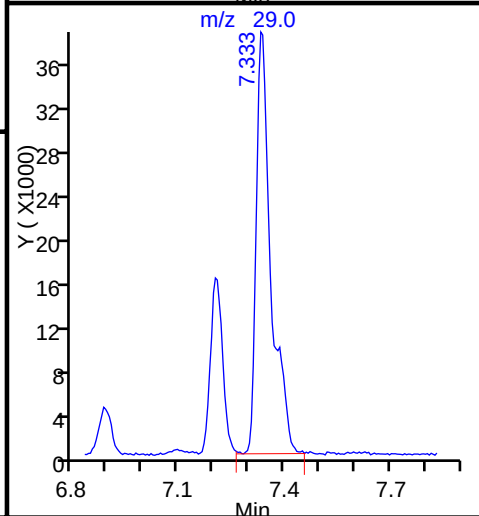
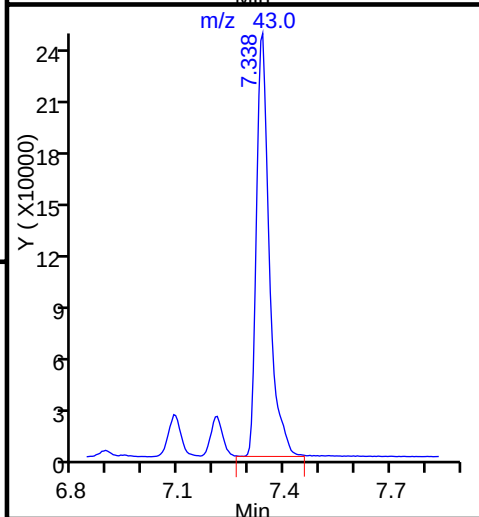
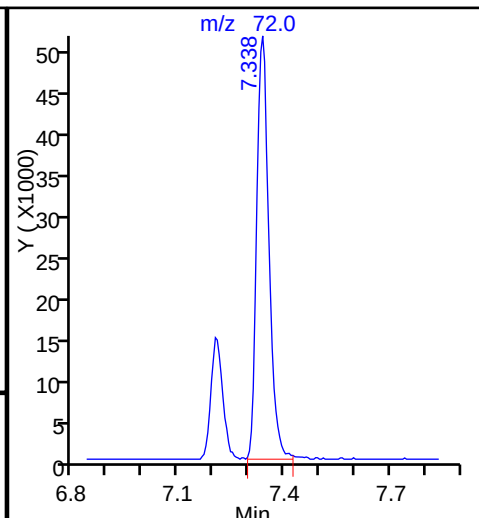
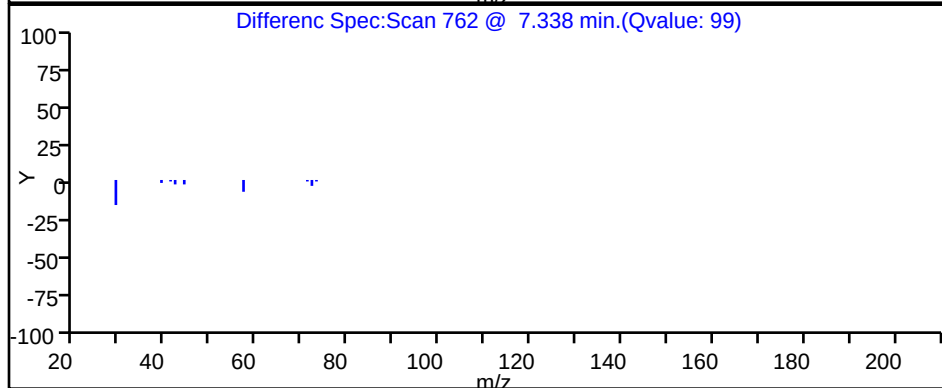
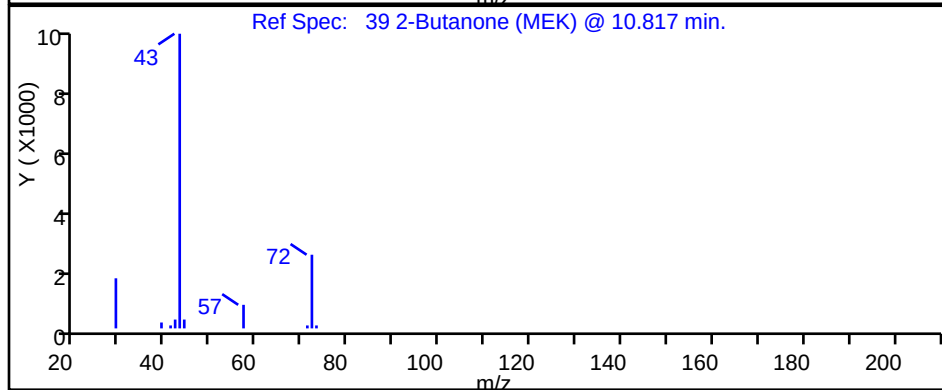
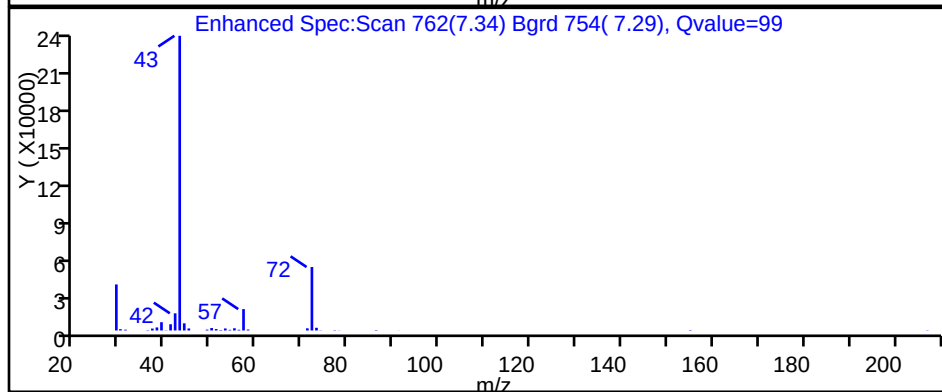
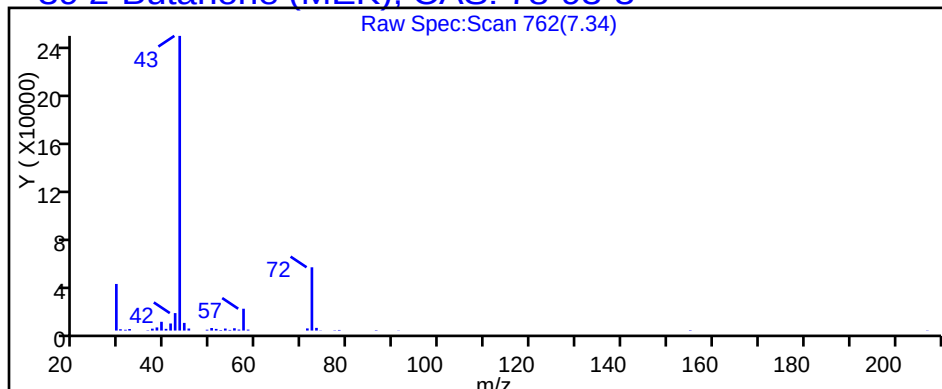
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

Dil. Factor: 2.4700

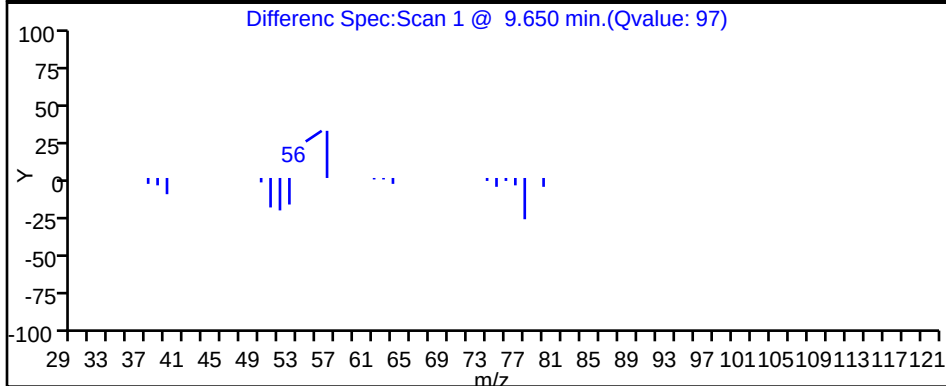
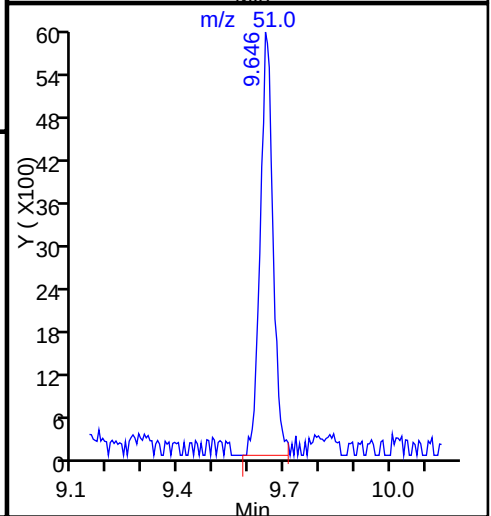
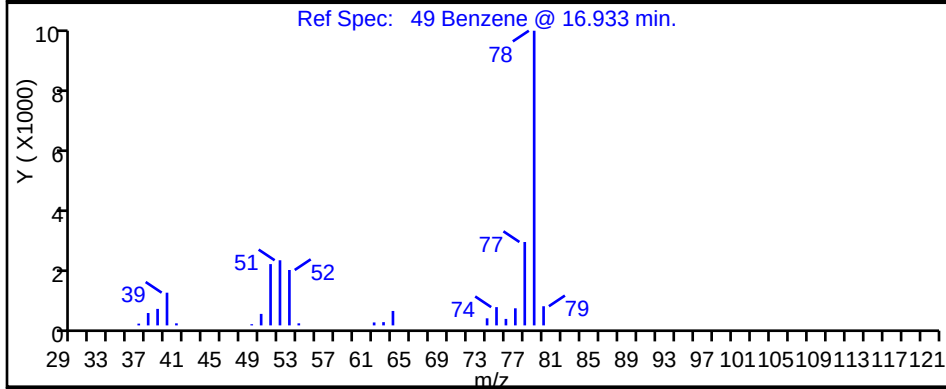
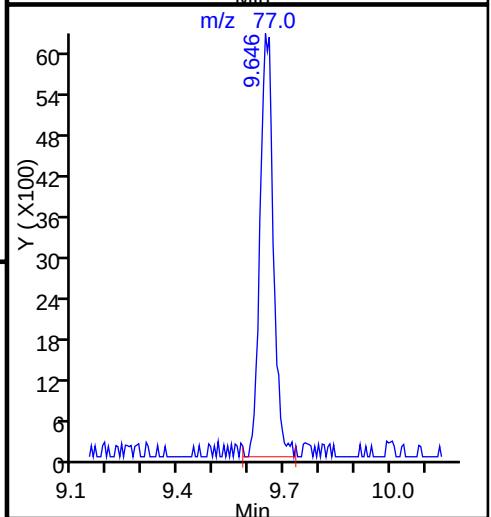
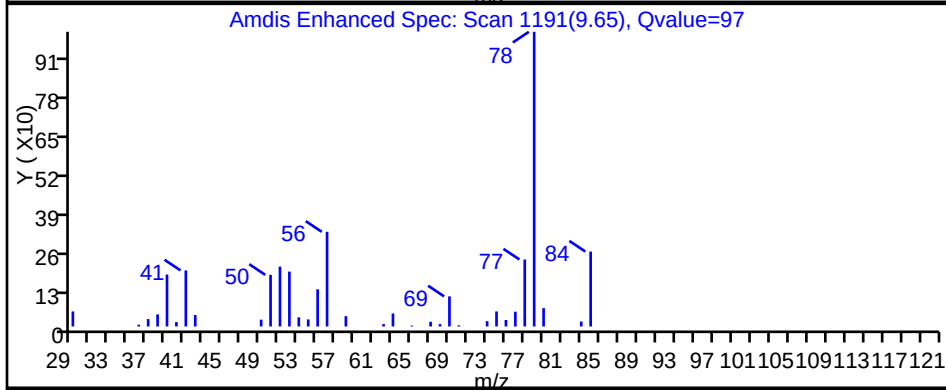
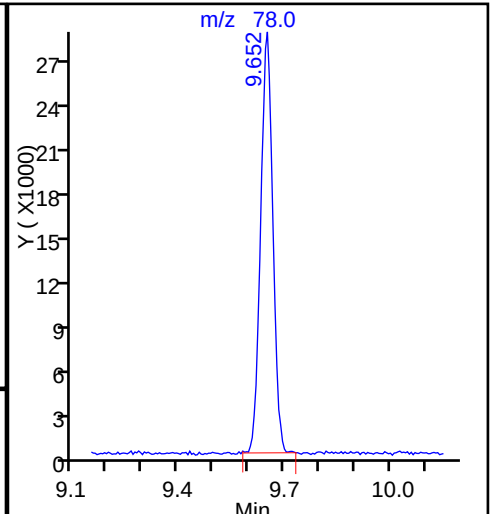
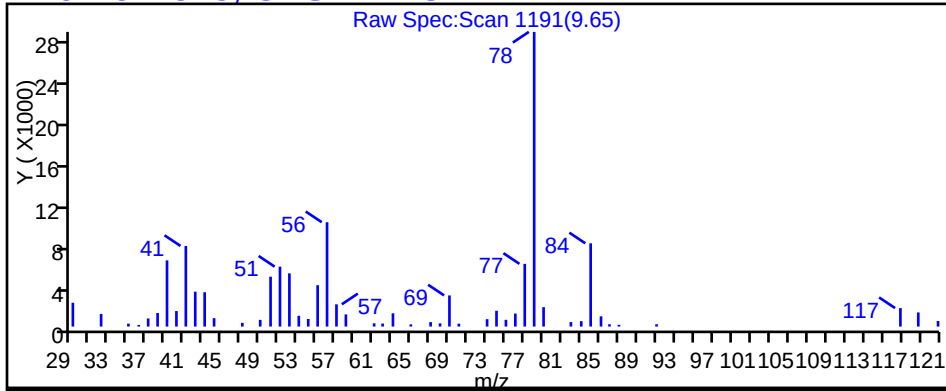
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

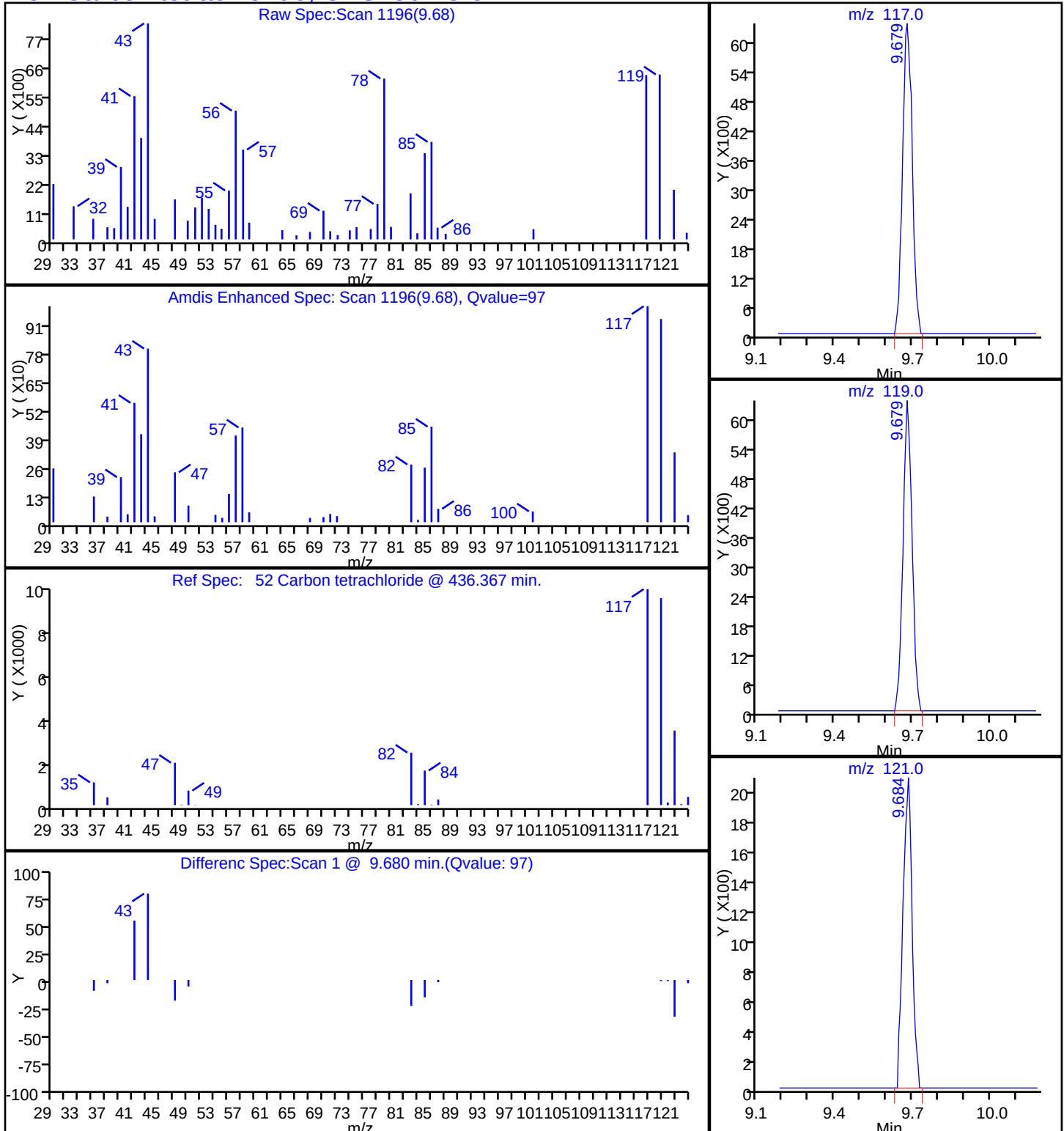
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

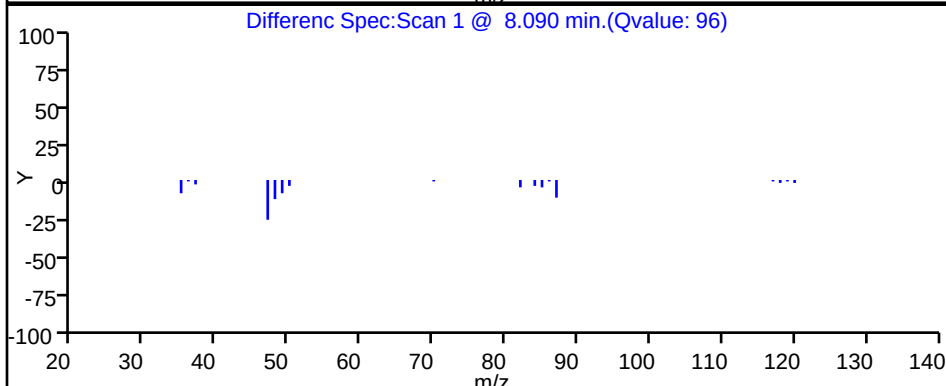
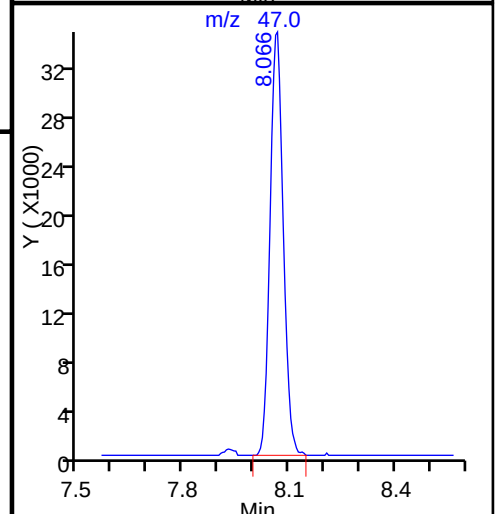
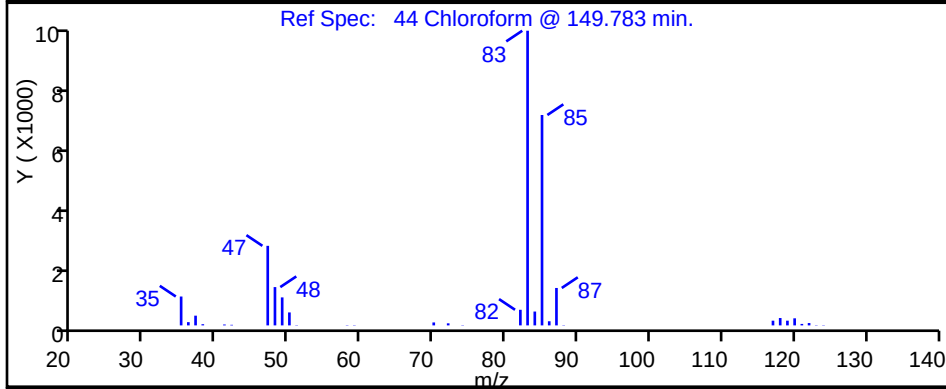
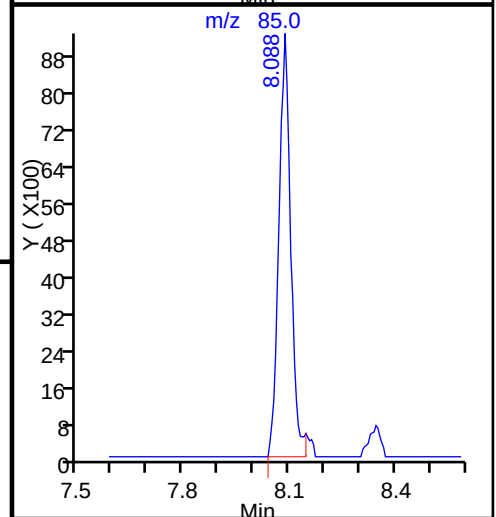
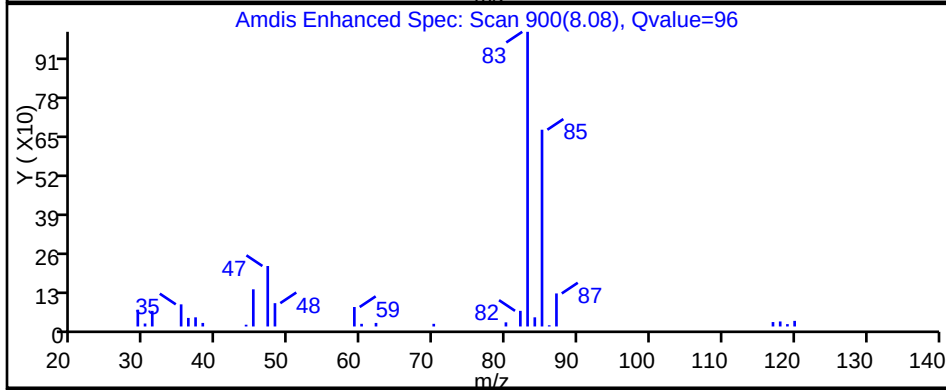
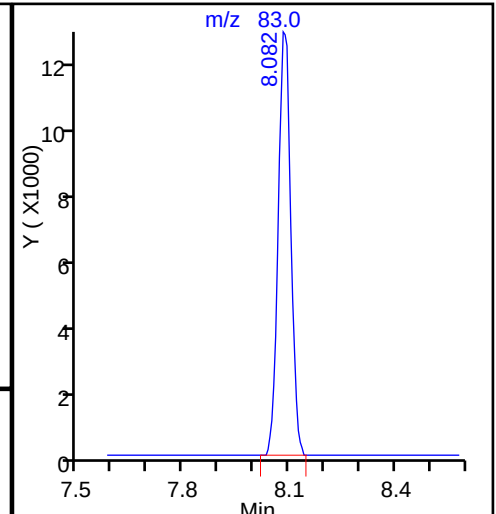
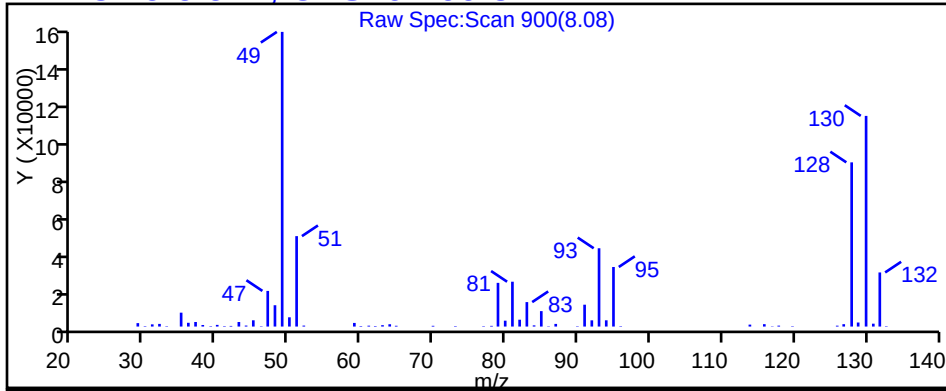
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

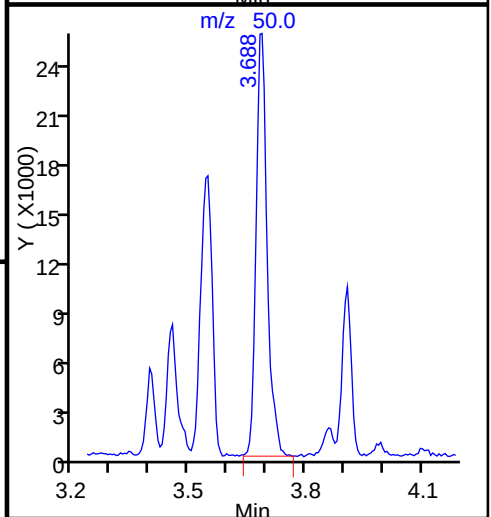
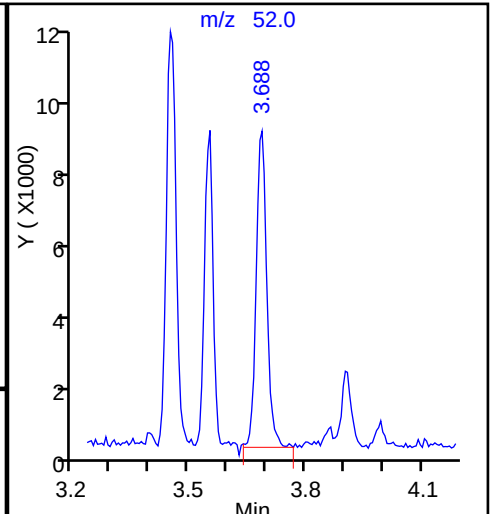
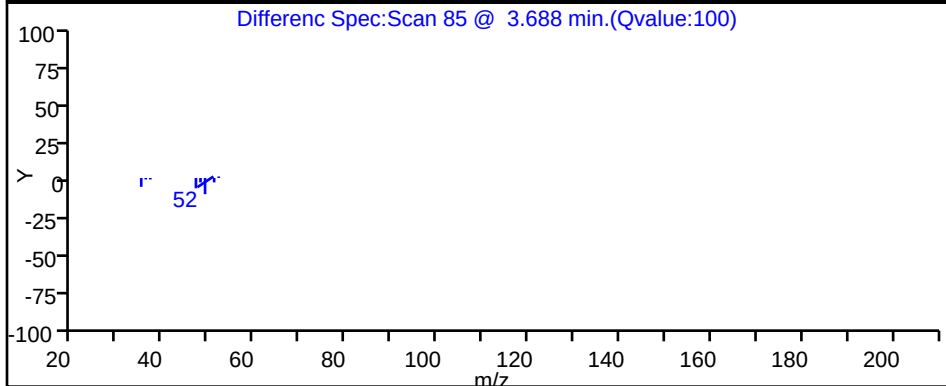
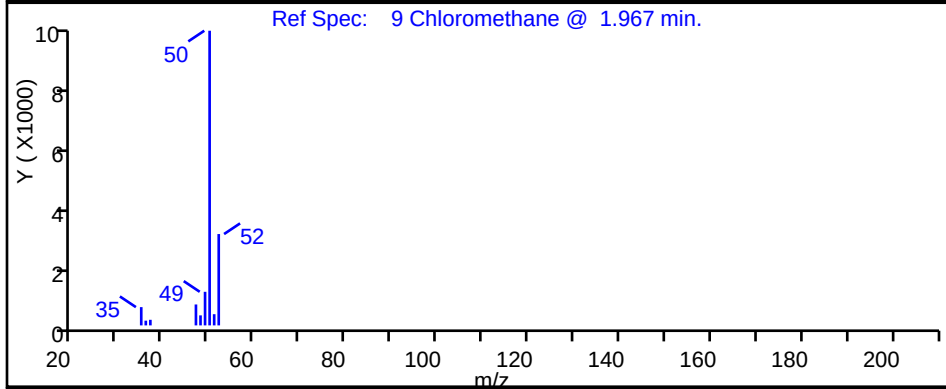
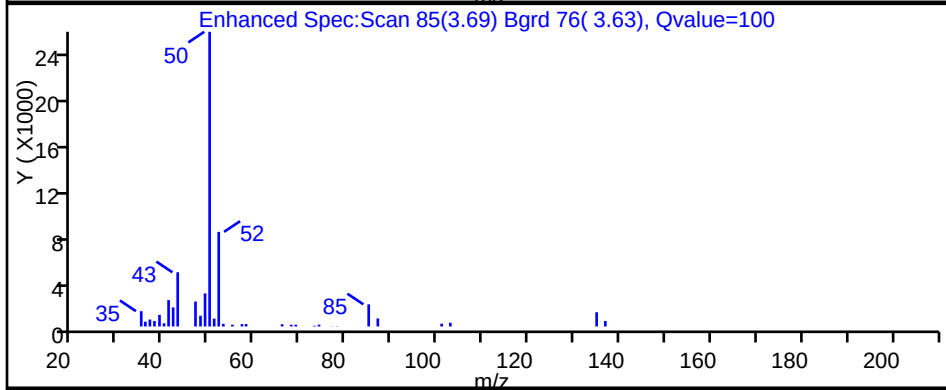
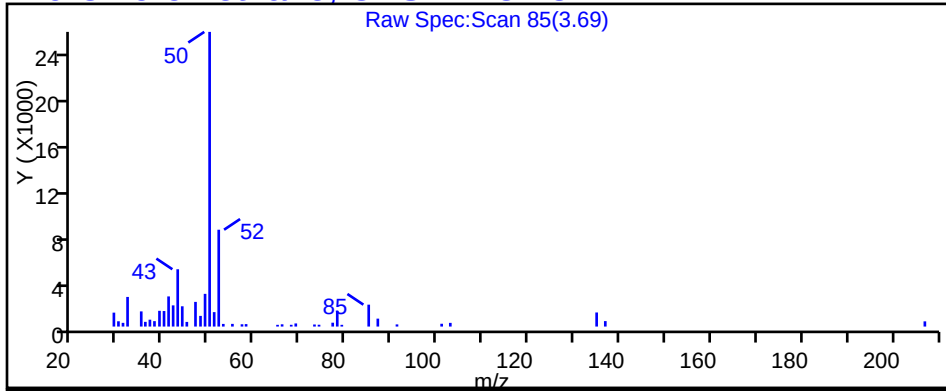
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

Dil. Factor: 2.4700

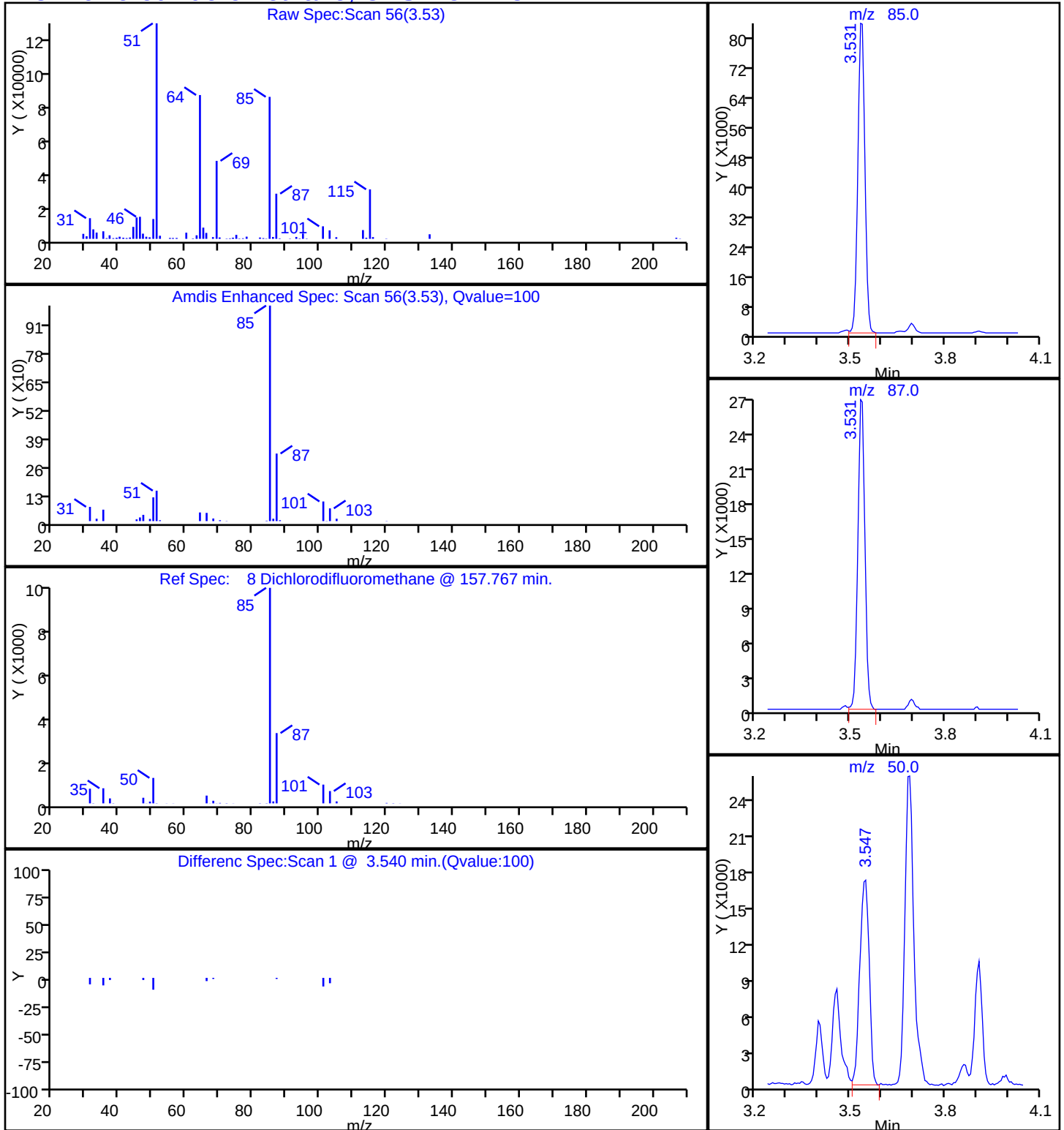
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

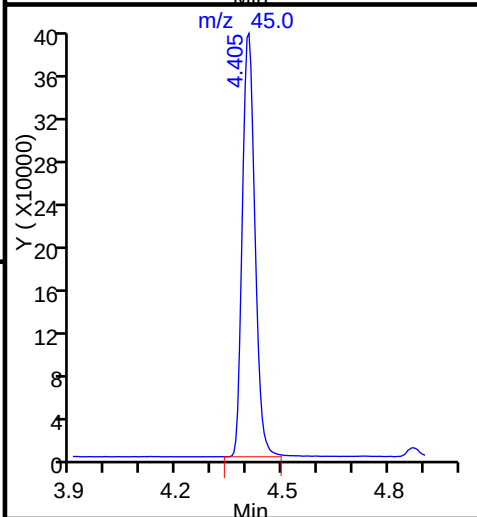
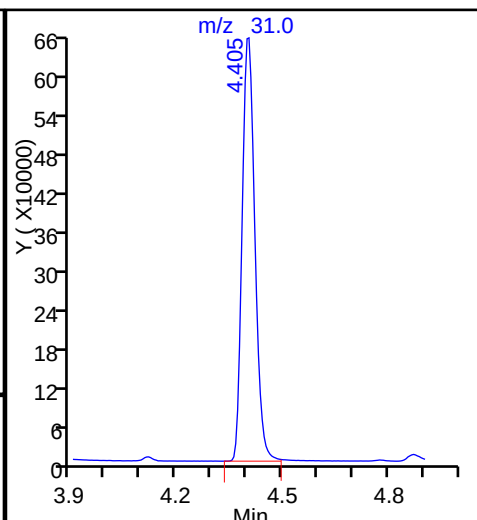
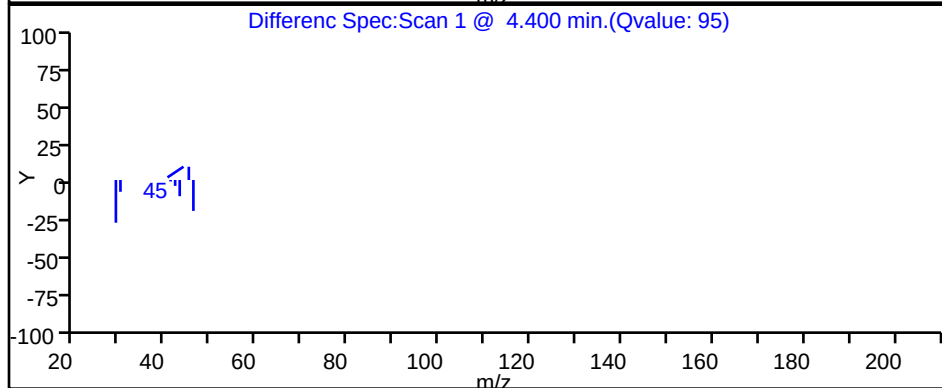
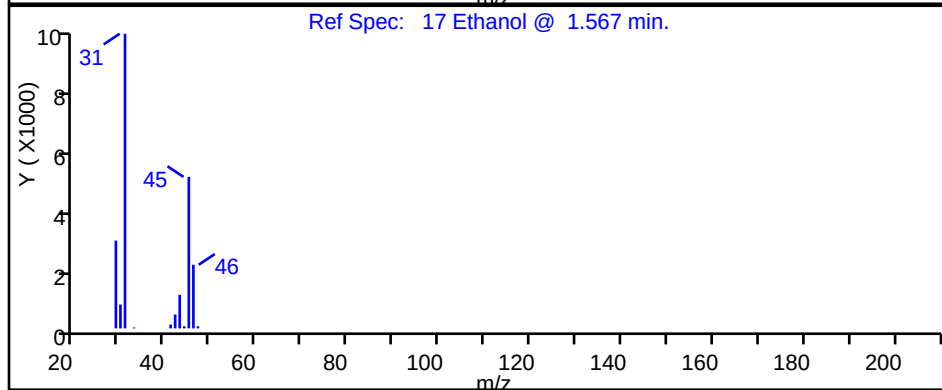
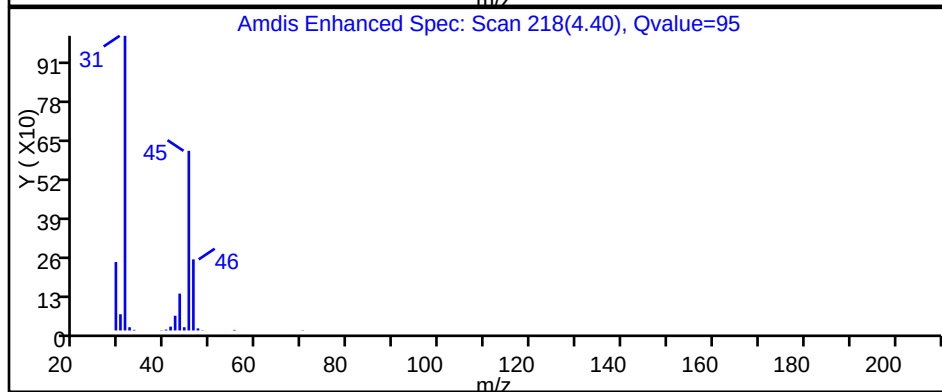
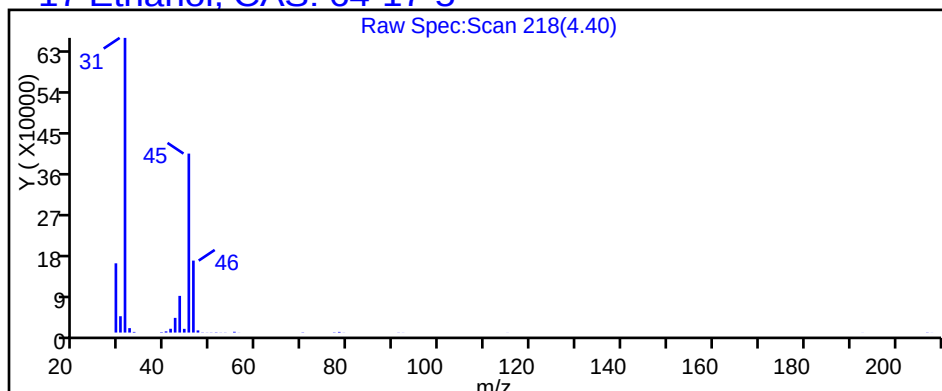
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

Dil. Factor: 2.4700

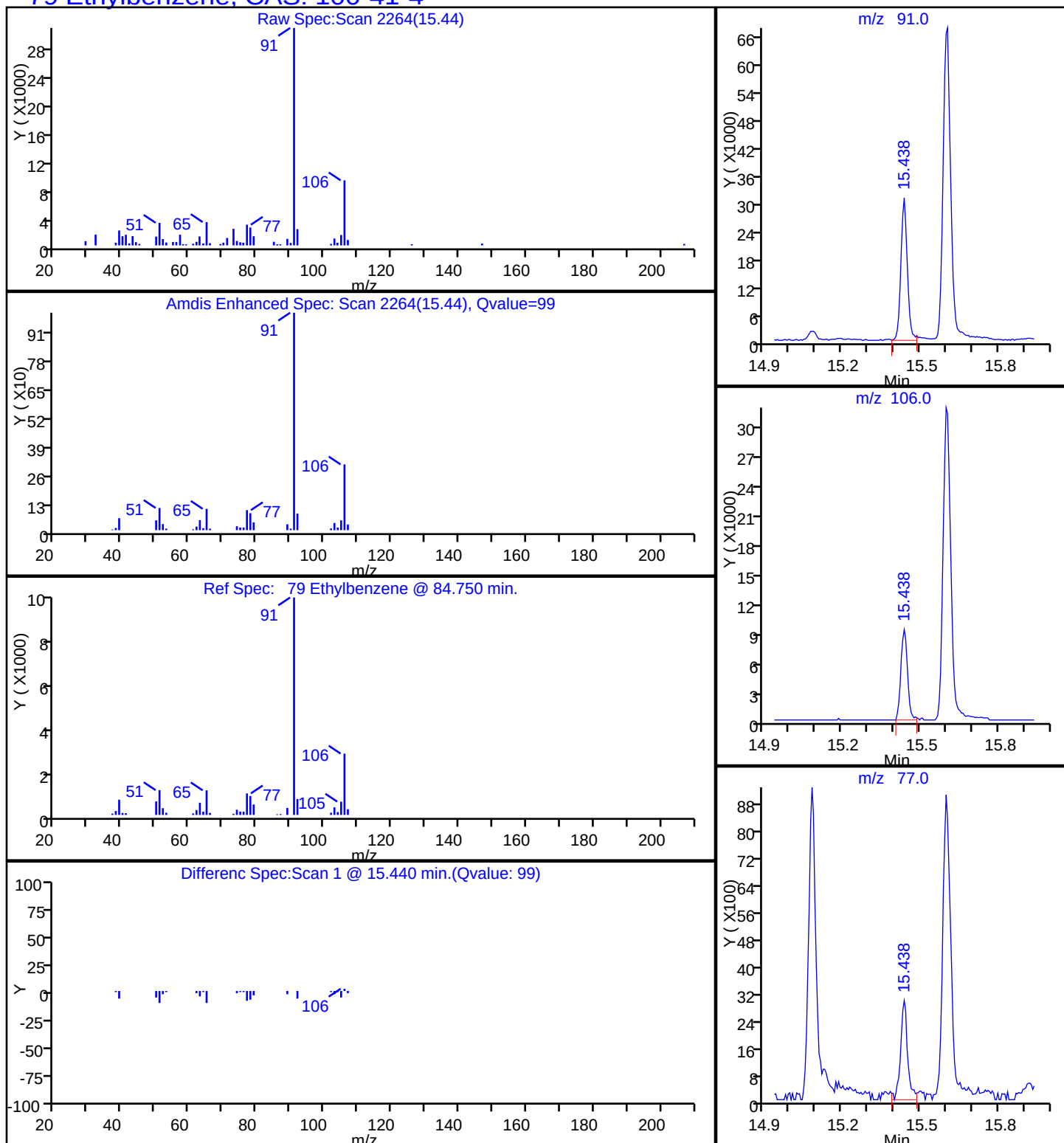
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

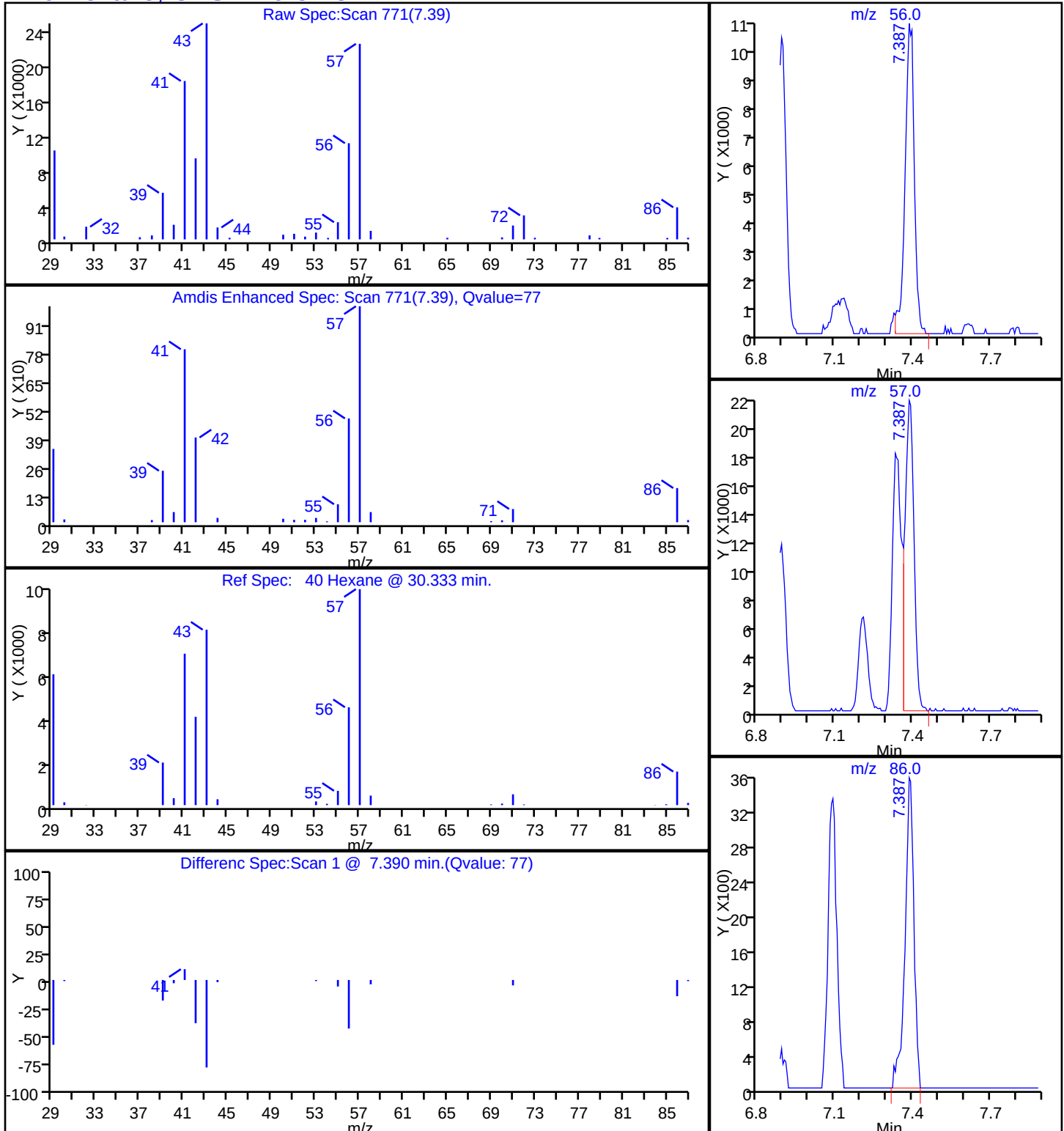
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

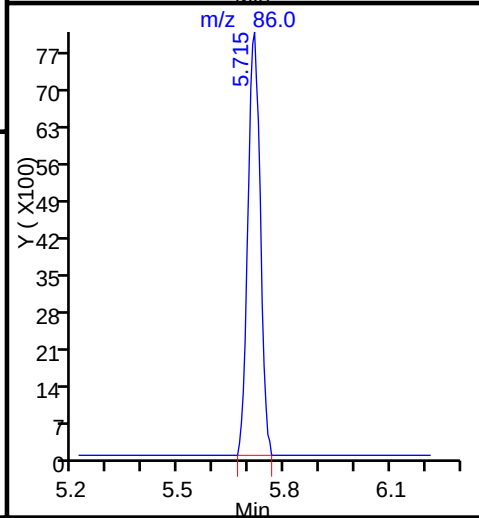
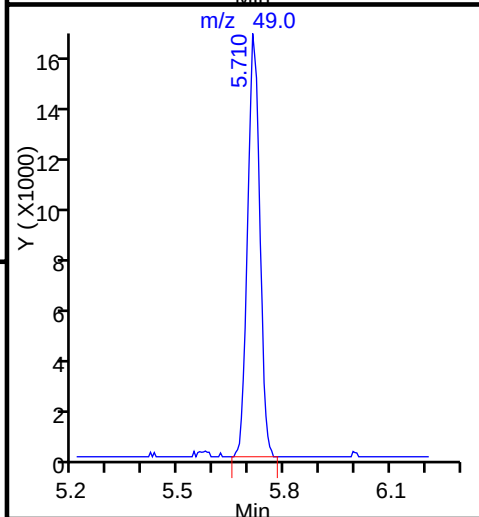
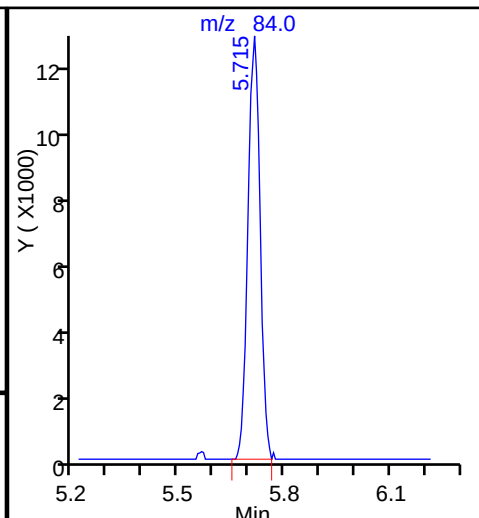
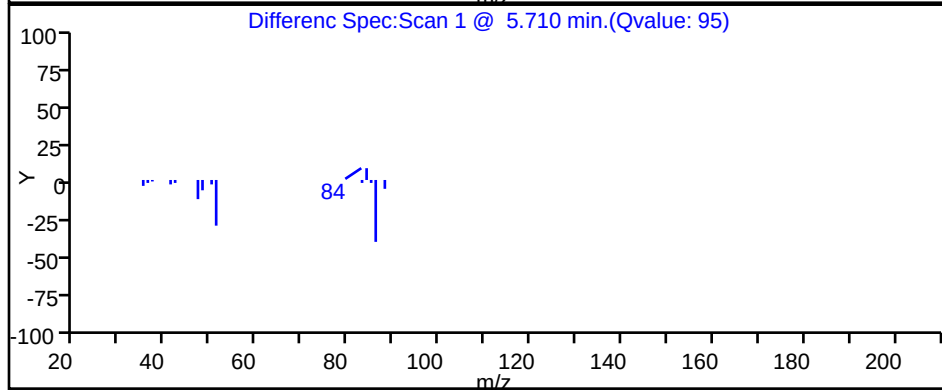
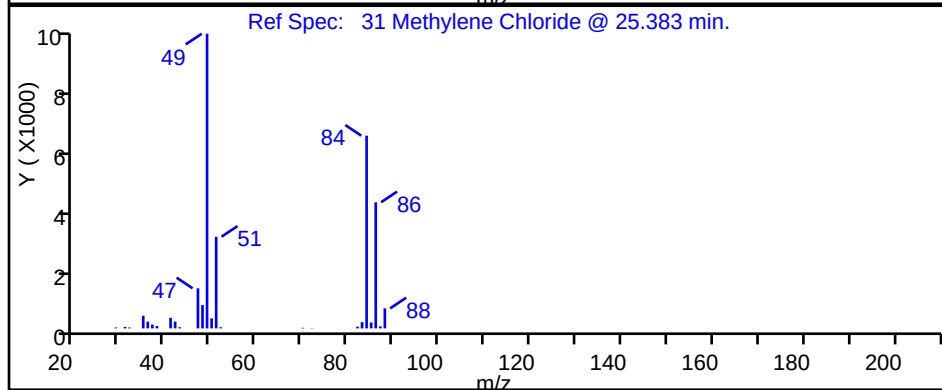
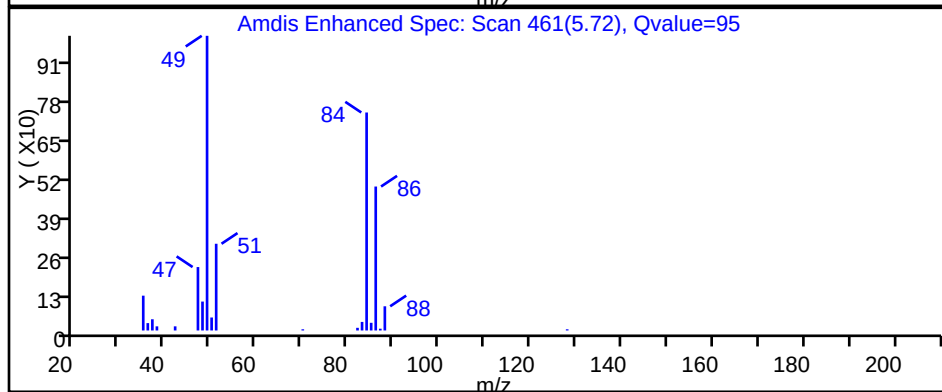
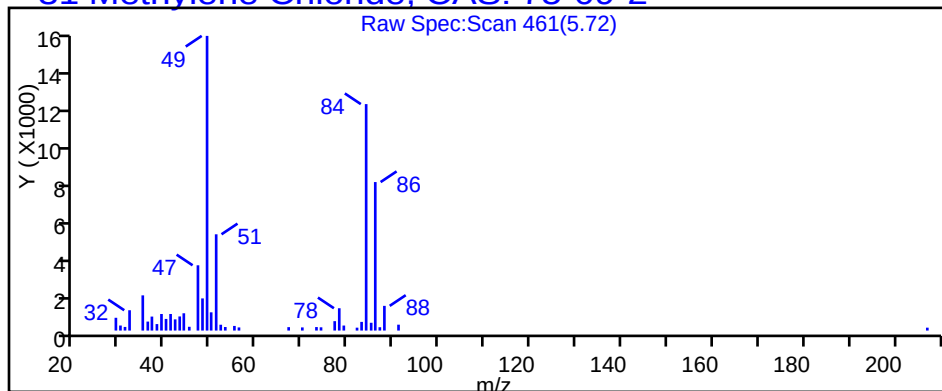
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

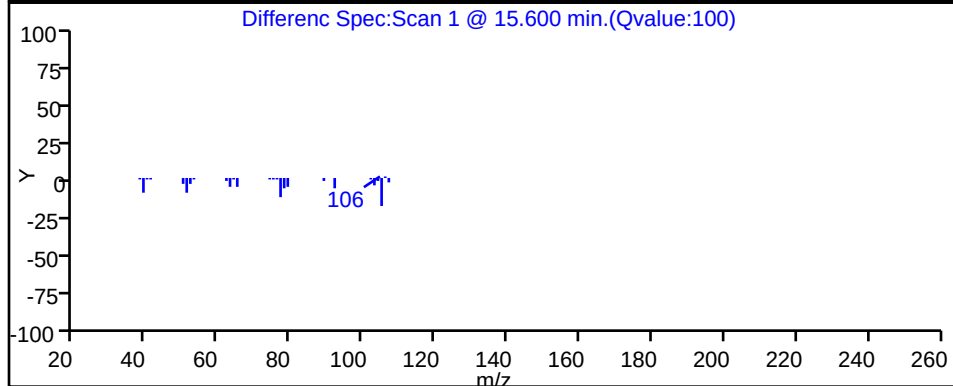
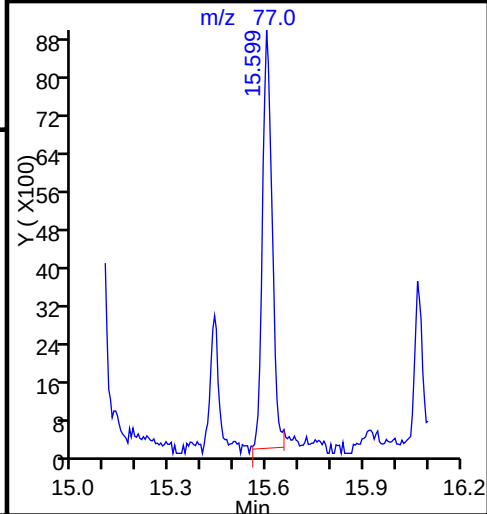
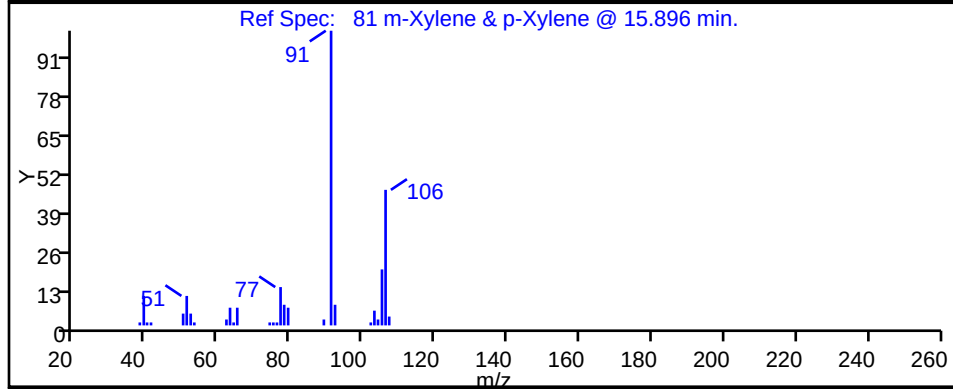
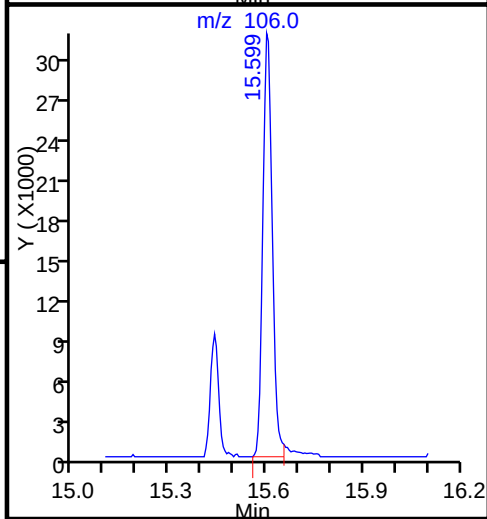
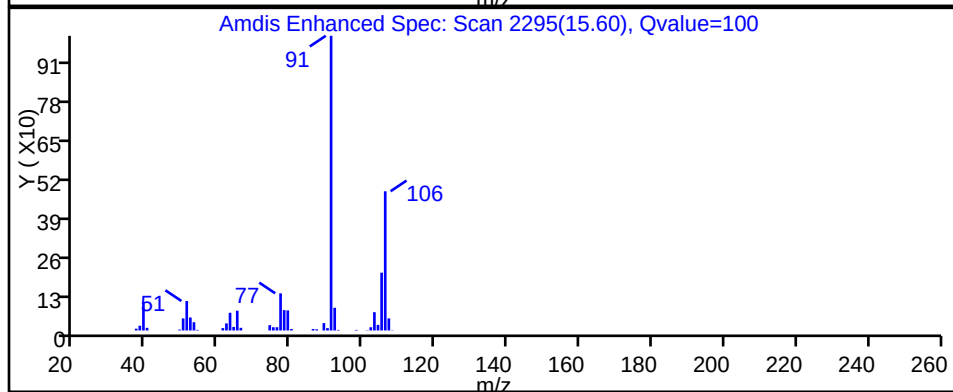
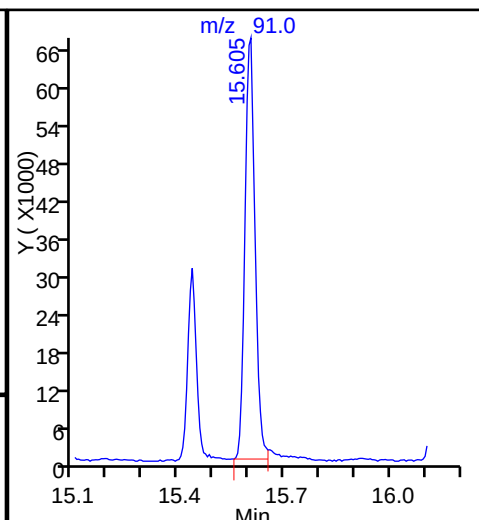
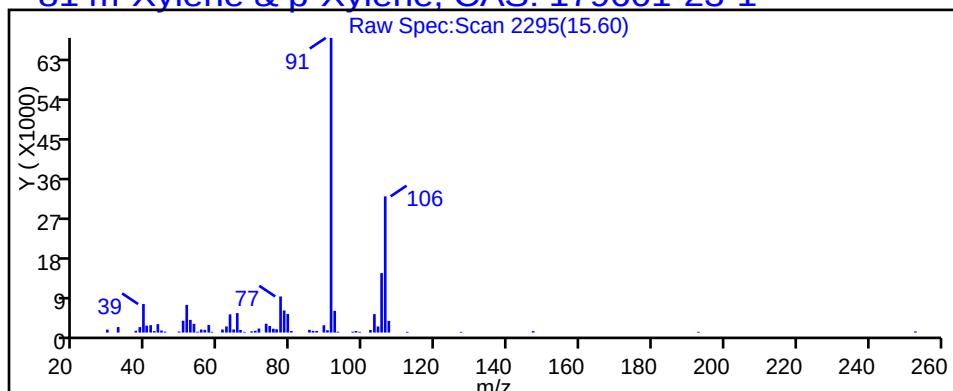
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

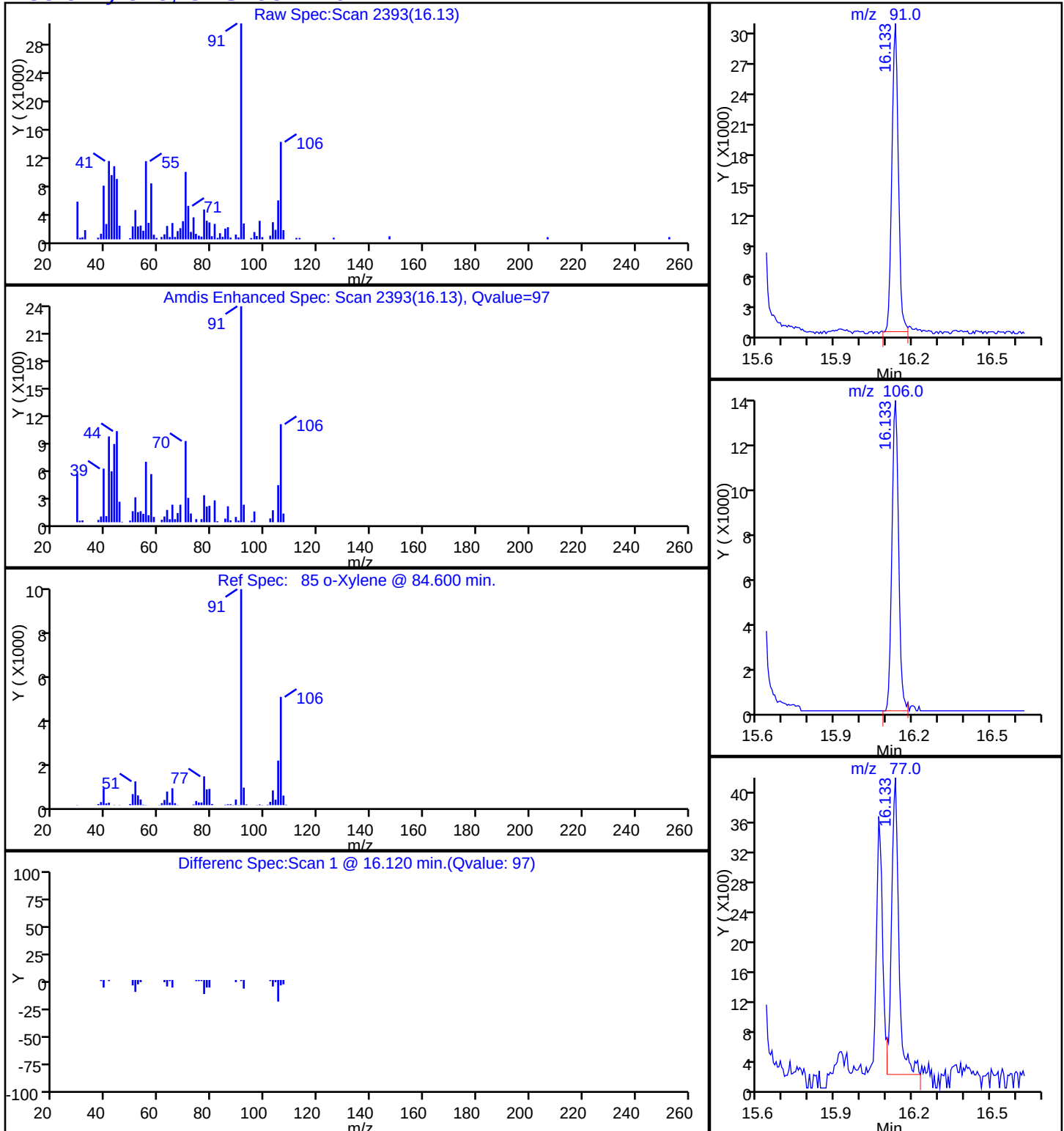
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

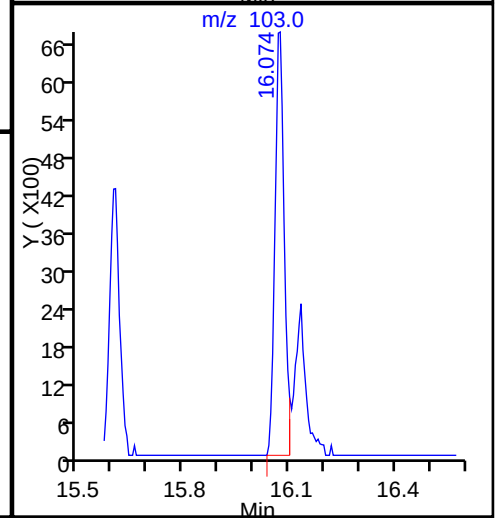
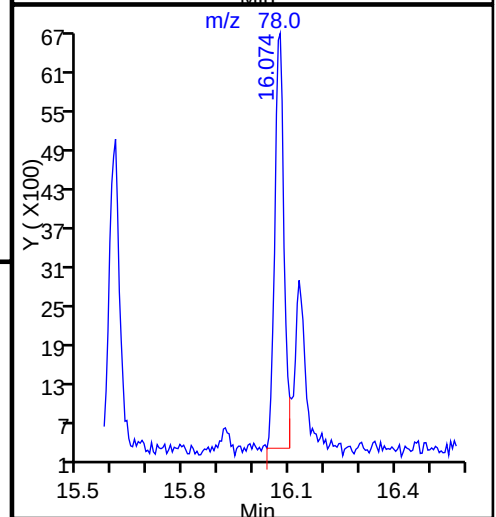
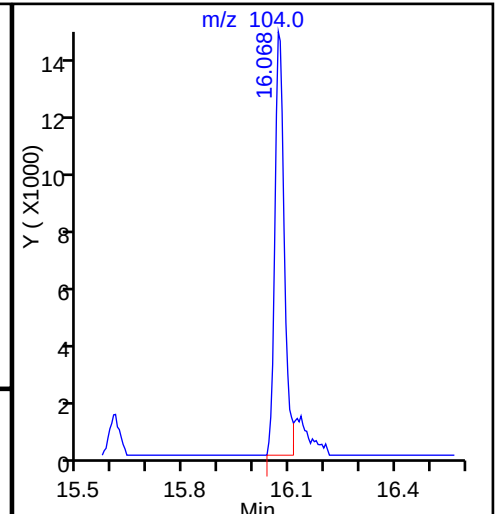
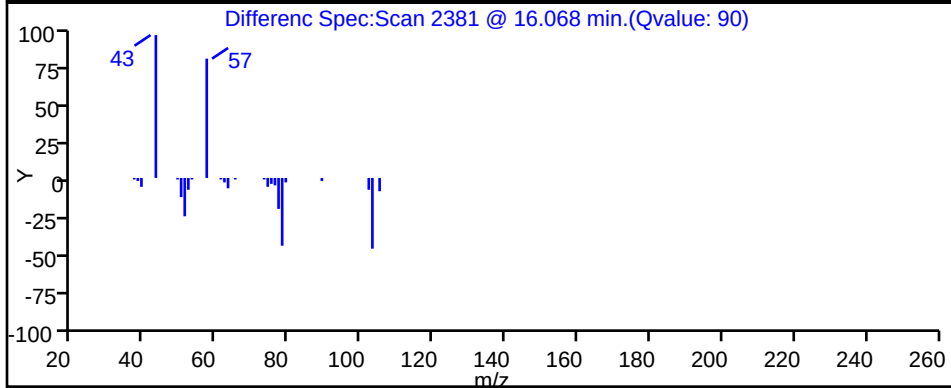
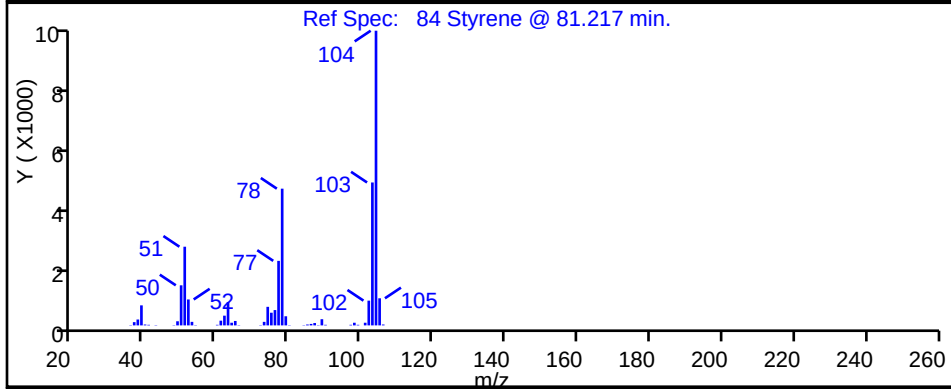
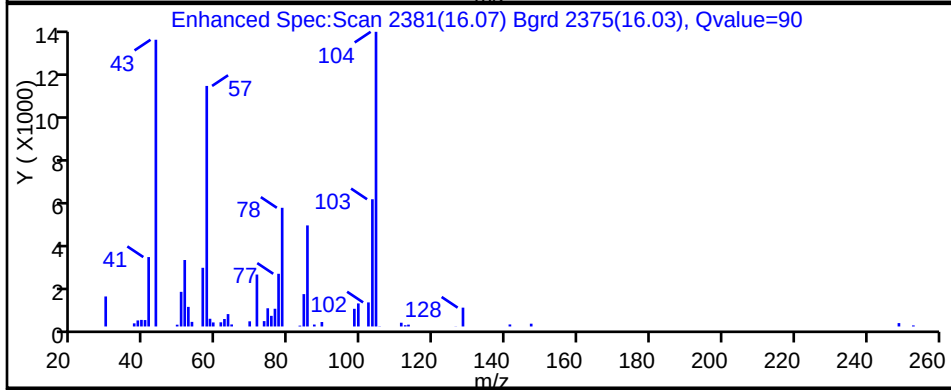
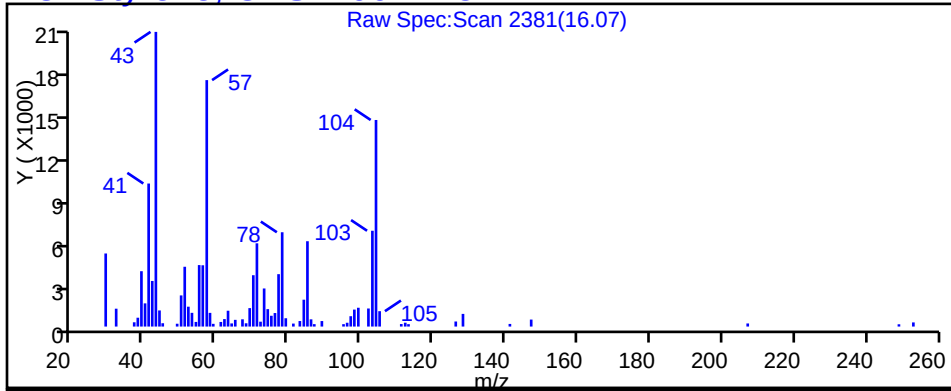
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

84 Styrene, CAS: 100-42-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

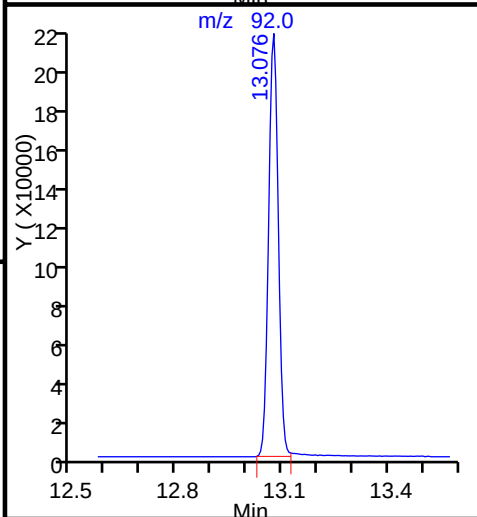
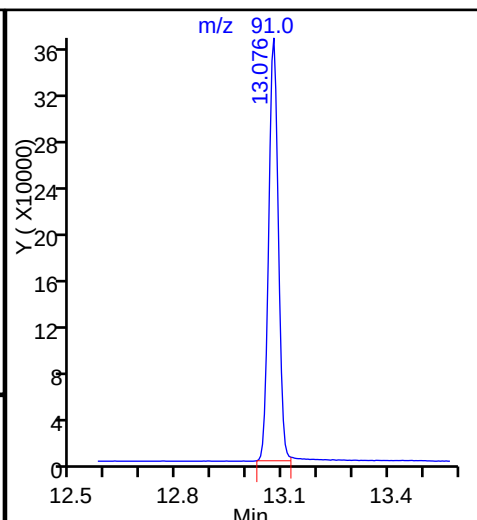
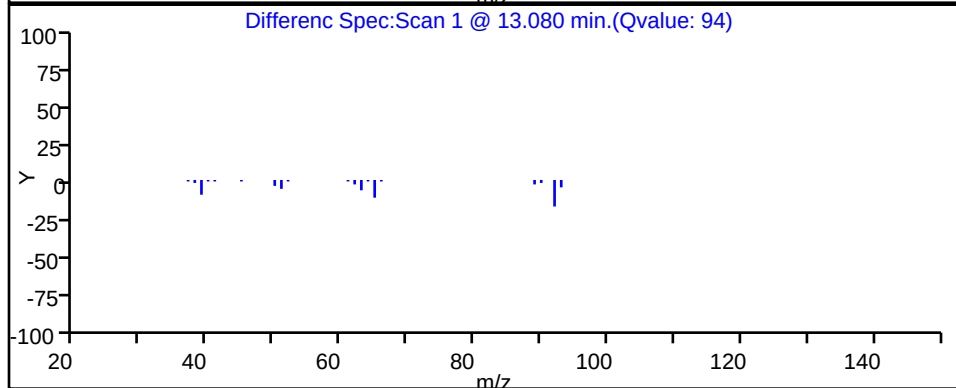
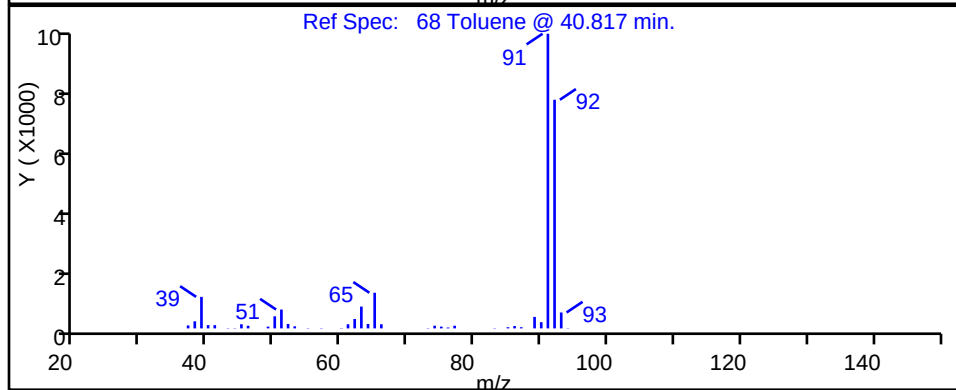
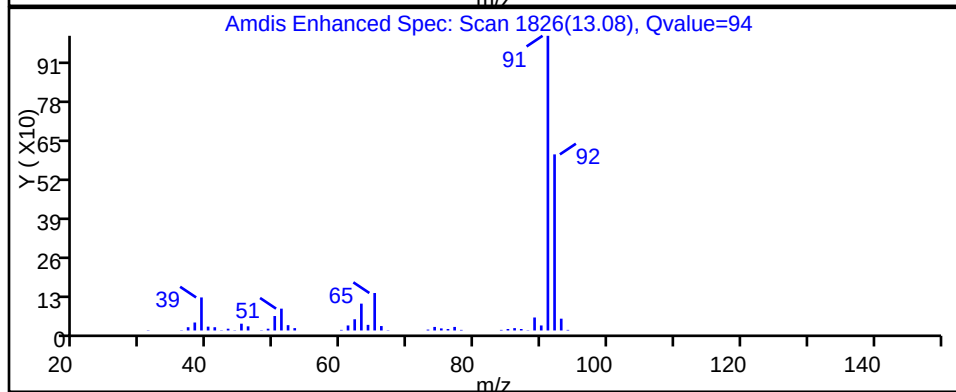
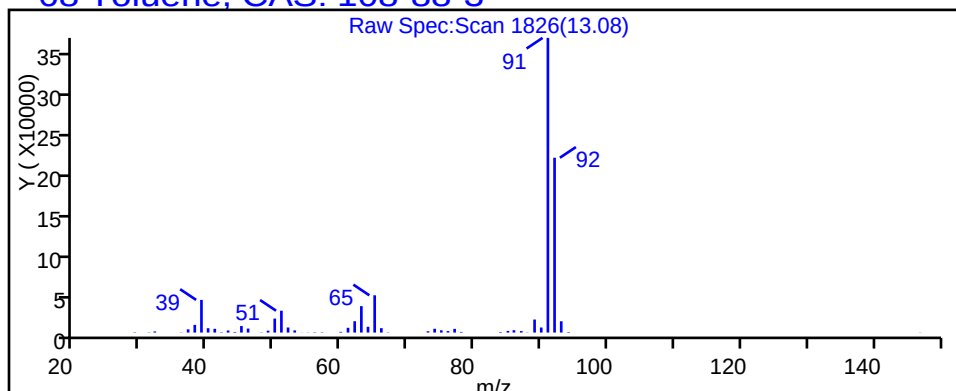
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

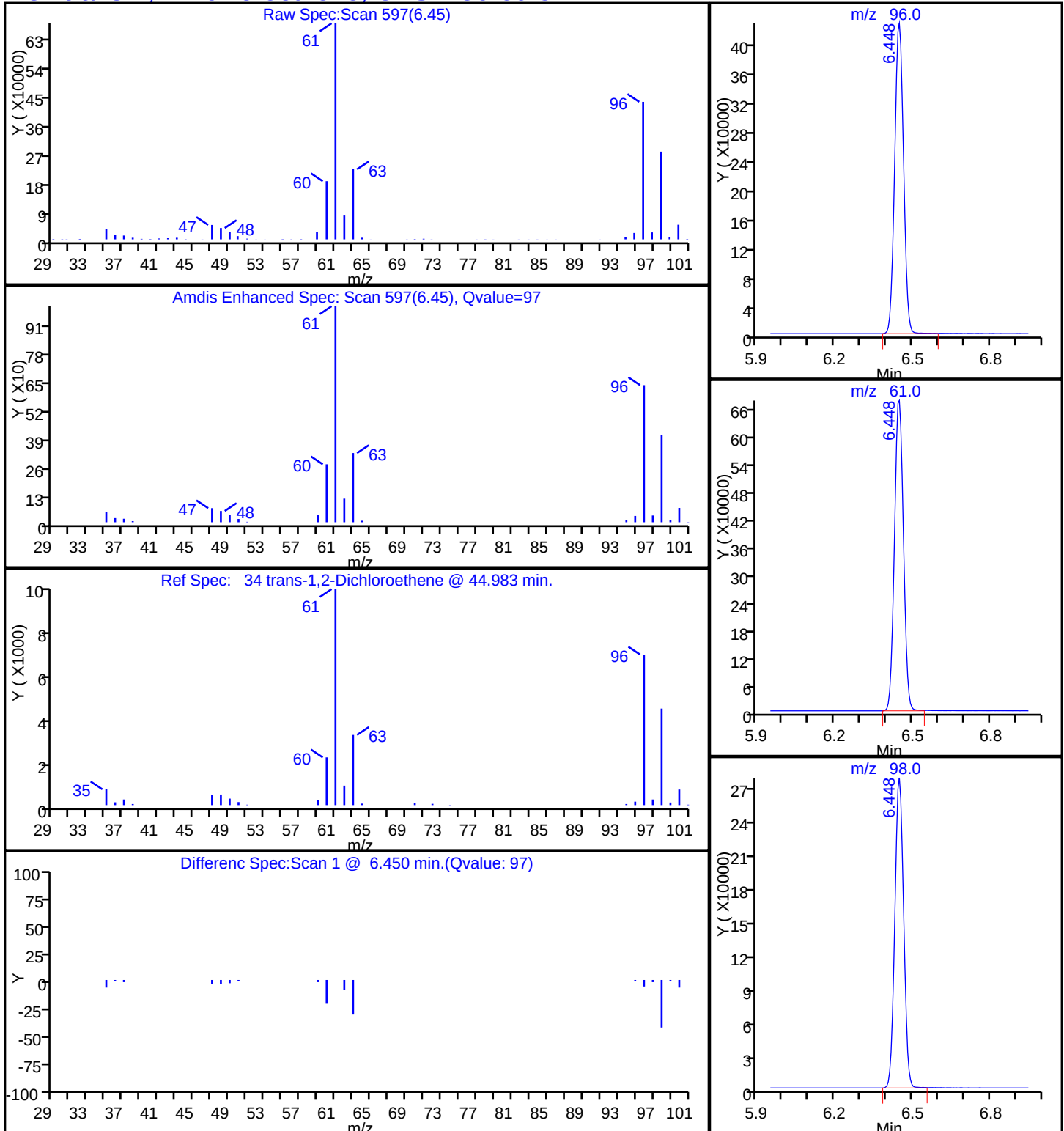
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P112.D

Injection Date: 17-Dec-2016 01:50:30

Instrument ID: MG

Lims ID: 140-6566-A-2

Lab Sample ID: 140-6566-2

Client ID: 140-IA-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 23

Purge Vol: 500.000 mL

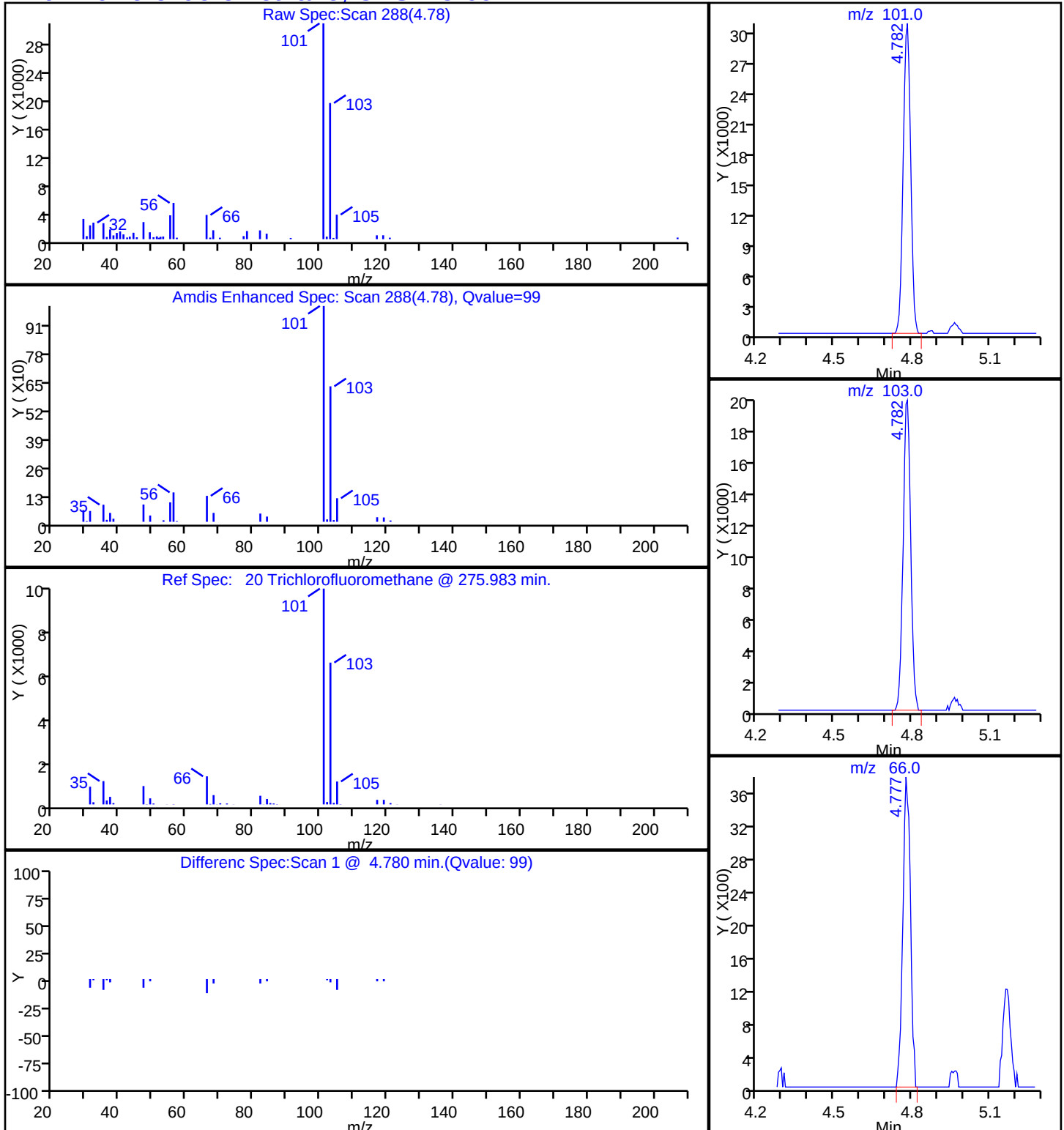
Dil. Factor: 2.4700

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-2 Lab Sample ID: 140-6566-3
 Matrix: Air Lab File ID: GL16P113.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:25
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.9		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.45		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	0.56		0.080	
123-91-1	1,4-Dioxane	88.11	0.22		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	13		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.25		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	0.33		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.067		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	7.0		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	0.11		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	0.25		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-2 Lab Sample ID: 140-6566-3
 Matrix: Air Lab File ID: GL16P113.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:25
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.080	
64-17-5	Ethanol	46.07	33		2.0	
100-41-4	Ethylbenzene	106.17	0.89		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.45		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	2.6		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	3.7		0.080	
95-47-6	o-Xylene	106.17	1.4		0.080	
100-42-5	Styrene	104.15	0.16		0.080	
75-65-0	t-Butyl alcohol	74.12	0.70		0.32	
127-18-4	Tetrachloroethene	165.83	0.20		0.080	
108-88-3	Toluene	92.14	3.3		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	10		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.28		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-2 Lab Sample ID: 140-6566-3
 Matrix: Air Lab File ID: GL16P113.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:25
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.5		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.2		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	3.4		0.48	
123-91-1	1,4-Dioxane	88.11	0.79		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	40		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	0.80		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	2.2		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.42		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	34		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	0.45		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	0.86		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-SSV-2 Lab Sample ID: 140-6566-3
 Matrix: Air Lab File ID: GL16P113.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:25
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.5		0.40	
64-17-5	Ethanol	46.07	63		3.8	
100-41-4	Ethylbenzene	106.17	3.9		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	1.6		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	9.1		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	16		0.35	
95-47-6	o-Xylene	106.17	6.1		0.35	
100-42-5	Styrene	104.15	0.66		0.34	
75-65-0	t-Butyl alcohol	74.12	2.1		0.97	
127-18-4	Tetrachloroethene	165.83	1.3		0.54	
108-88-3	Toluene	92.14	12		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	41		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.6		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D
 Lims ID: 140-6566-A-3
 Client ID: 140-SSV-2
 Sample Type: Client
 Inject. Date: 17-Dec-2016 02:35:30 ALS Bottle#: 13 Worklist Smp#: 24
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-024
 Misc. Info.: 140-6566-a-3
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 10:00:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.061	8.055	0.006	95	388147	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.223	0.005	95	1936327	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1889633	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	95	1235632	3.95	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	169753	0.5110	
9 Chloromethane	52	3.682	3.682	0.000	80	1746	0.0489	7M
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	91	3284	0.0149	
16 Chloroethane	64	4.291	4.286	0.005	52	1048	0.0168	
17 Ethanol	31	4.405	4.383	0.022	96	1289043	33.2	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	91621	0.2846	
29 2-Methyl-2-propanol	59	5.521	5.494	0.027	94	102106	0.7020	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	95	15268	0.0750	
31 Methylene Chloride	84	5.704	5.704	0.000	96	217435	2.63	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	96	1140666	10.2	
39 2-Butanone (MEK)	72	7.327	7.333	-0.006	99	618584	13.5	
40 Hexane	56	7.387	7.387	0.000	65	41457	0.4494	
42 cis-1,2-Dichloroethene	96	7.753	7.748	0.005	96	12921	0.1142	
44 Chloroform	83	8.082	8.077	0.005	98	1699449	6.98	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	36	3975	0.0150	
49 Benzene	78	9.646	9.646	0.000	98	87691	0.2518	
50 Cyclohexane	69	9.646	9.651	-0.005	80	16071	0.2503	
52 Carbon tetrachloride	117	9.678	9.673	0.005	44	20952	0.0674	
56 Isooctane	57	10.471	10.471	0.000	96	81550	0.1291	
59 Trichloroethene	130	10.956	10.956	0.000	94	7186	0.0355	
61 Dichlorobromomethane	83	11.188	11.188	0.000	99	93279	0.3344	
62 1,4-Dioxane	88	11.210	11.199	0.011	93	10216	0.2186	
65 4-Methyl-2-pentanone (MIBK	43	12.191	12.181	0.011	98	41155	0.1736	
68 Toluene	91	13.076	13.076	0.000	94	1234545	3.27	
76 Tetrachloroethene	129	14.246	14.246	0.000	93	32725	0.1974	
79 Ethylbenzene	91	15.437	15.437	0.000	99	440598	0.8894	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	1413435	3.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.074	0.000	51	42297	0.1559	
85 o-Xylene	91	16.133	16.133	0.000	99	567869	1.41	
92 1,3,5-Trimethylbenzene	120	17.530	17.535	-0.005	92	117918	0.4489	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	98	881836	1.93	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	181957	0.5629	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Worklist Smp#: 24

Client ID: 140-SSV-2

Purge Vol: 500.000 mL

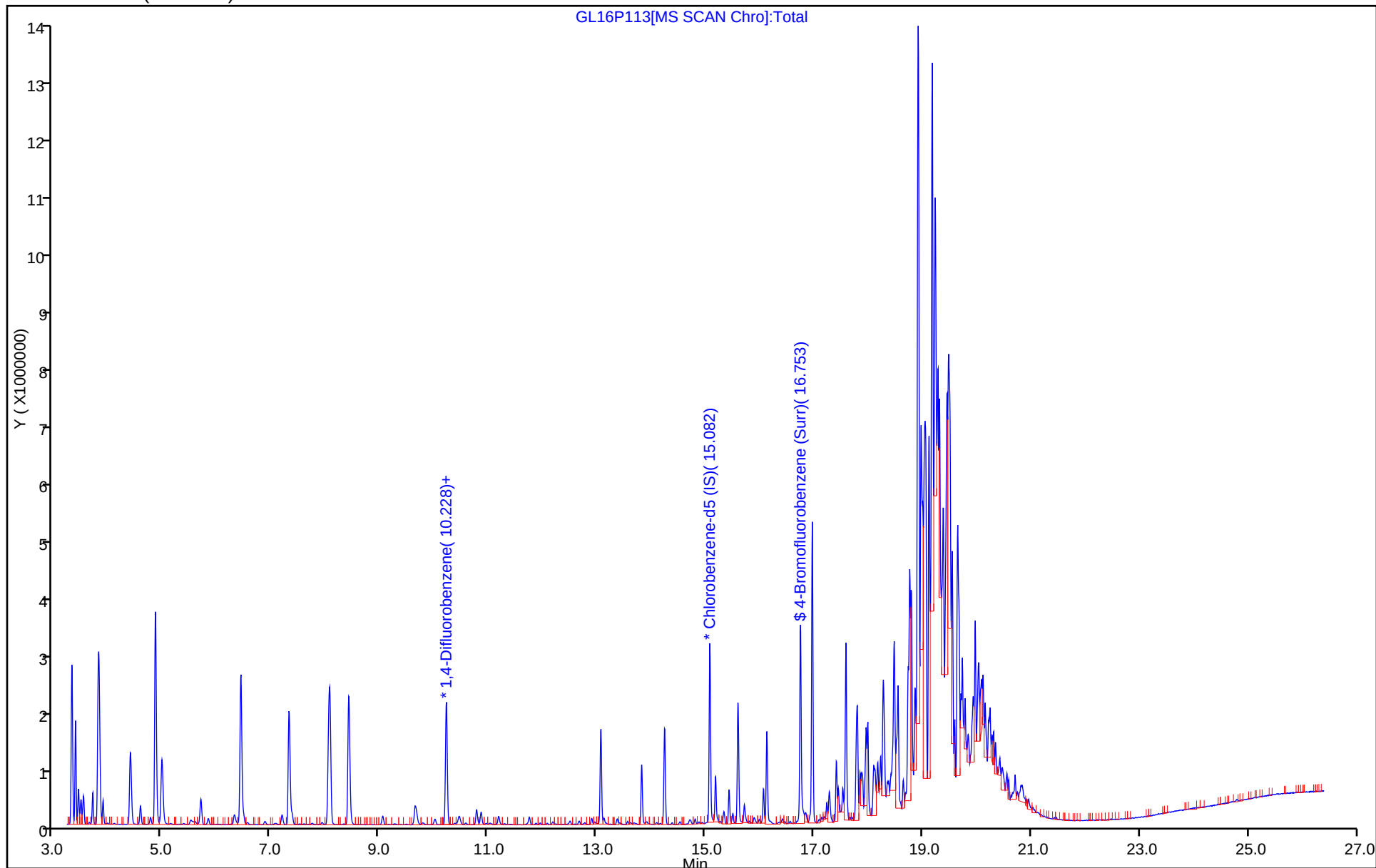
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D
Lims ID: 140-6566-A-3
Client ID: 140-SSV-2
Sample Type: Client
Inject. Date: 17-Dec-2016 02:35:30 ALS Bottle#: 13 Worklist Smp#: 24
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-024
Misc. Info.: 140-6566-a-3
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 10:00:17

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.95	98.85

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

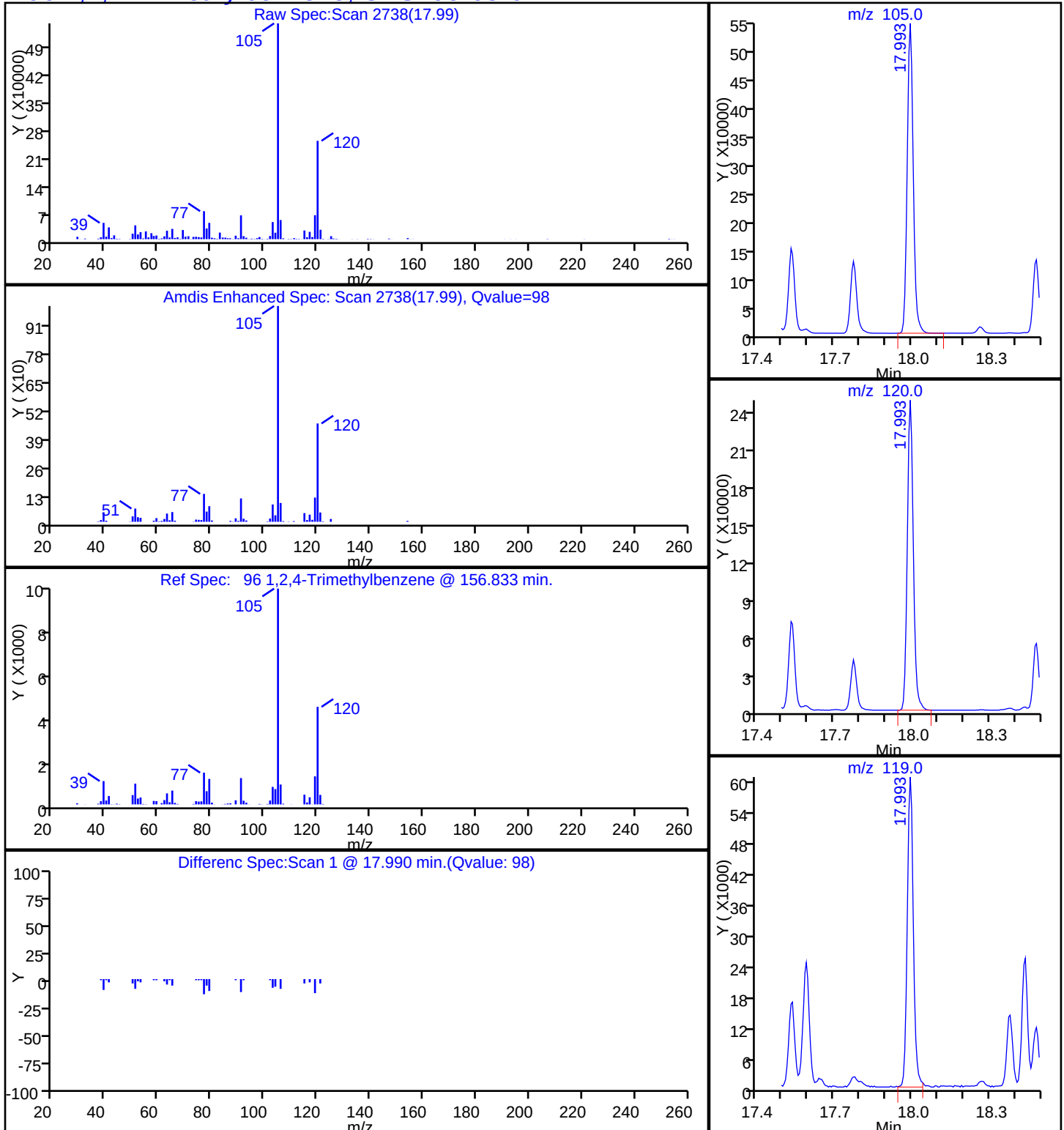
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

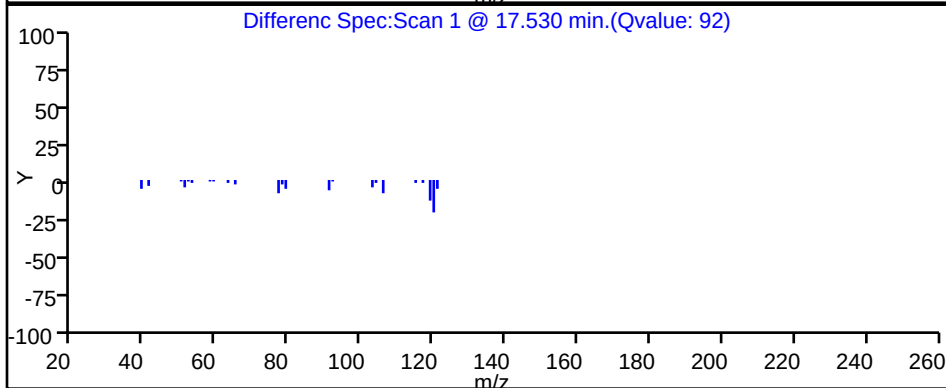
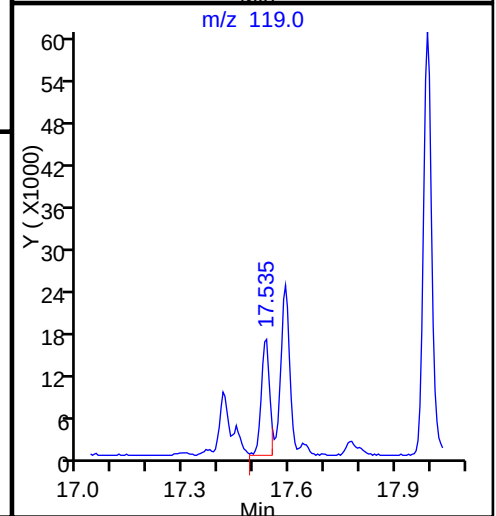
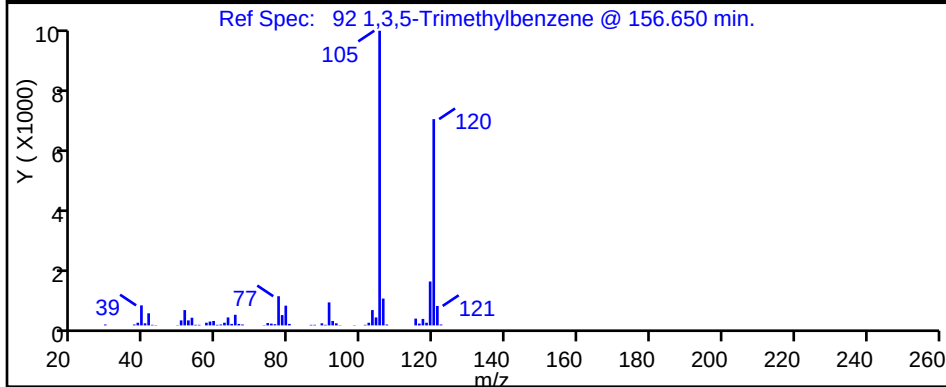
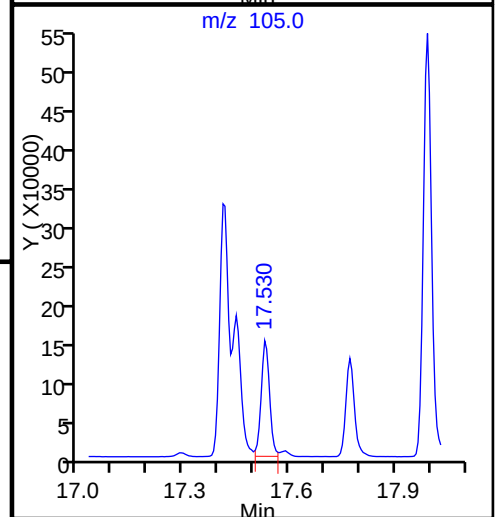
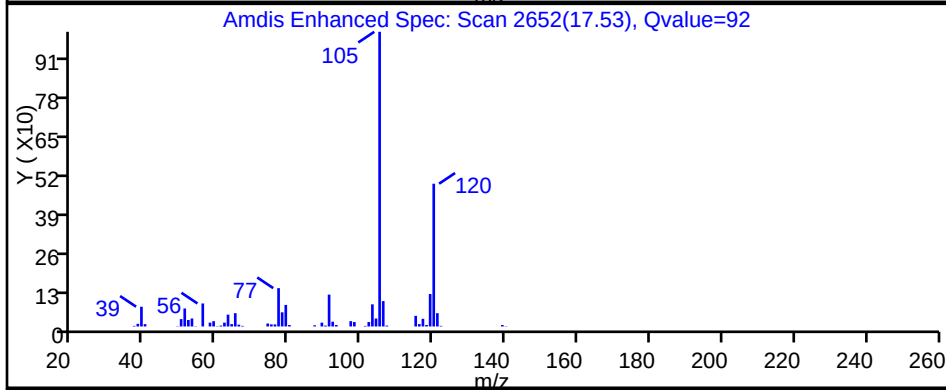
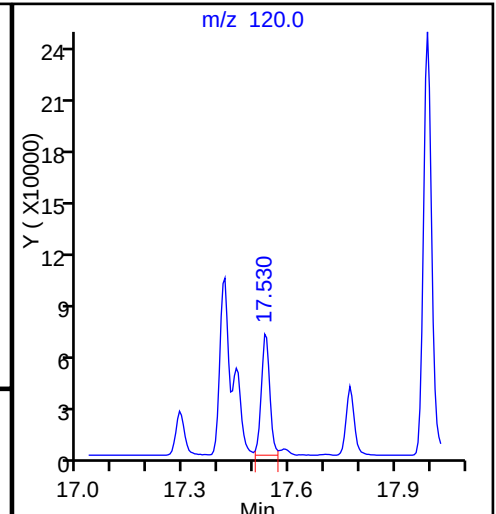
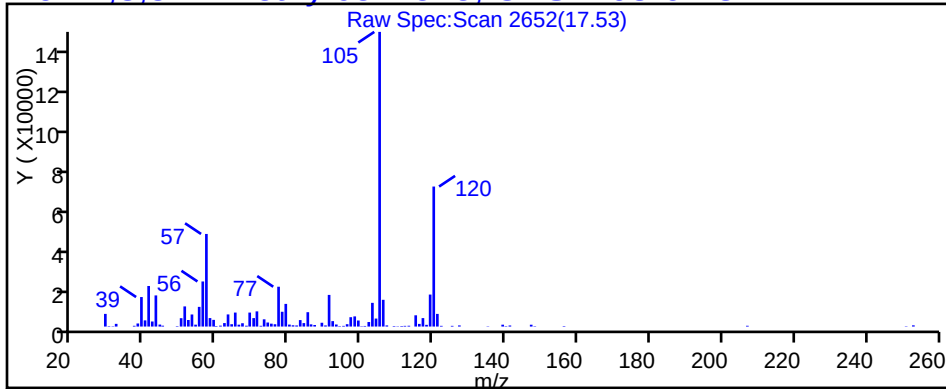
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

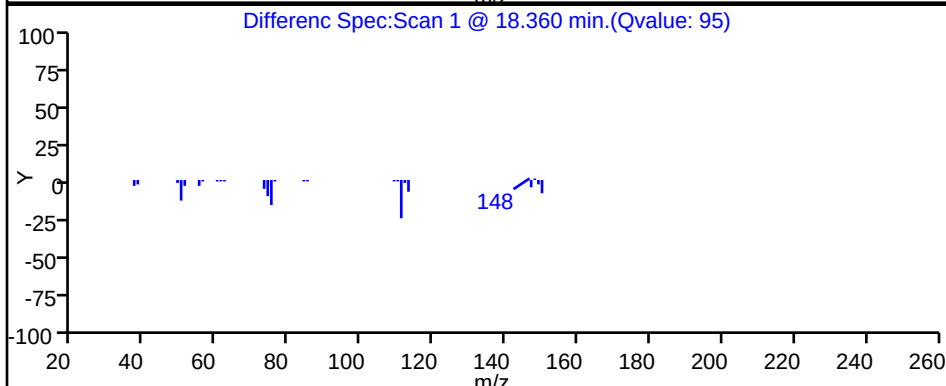
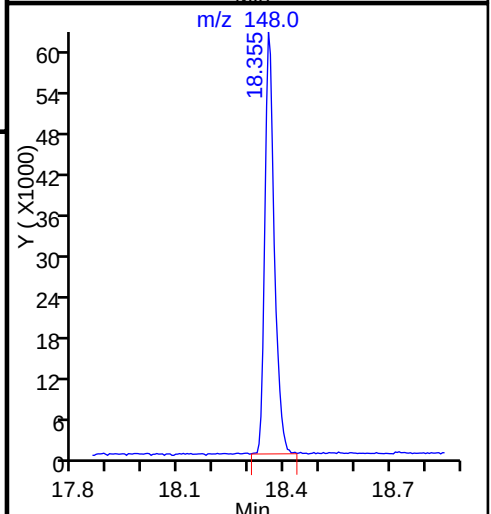
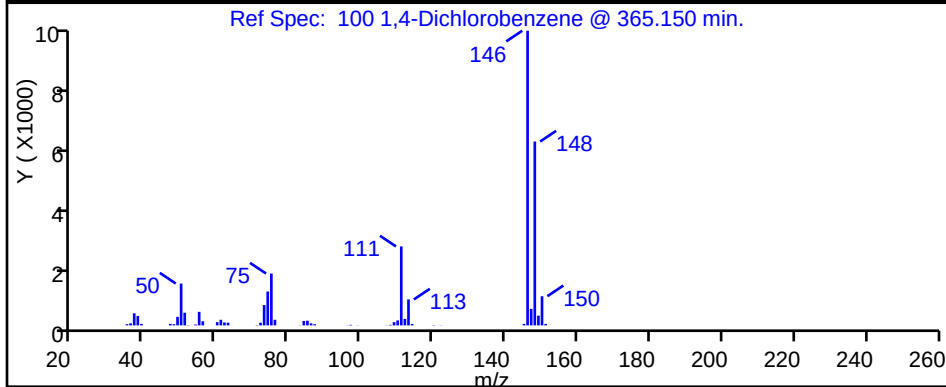
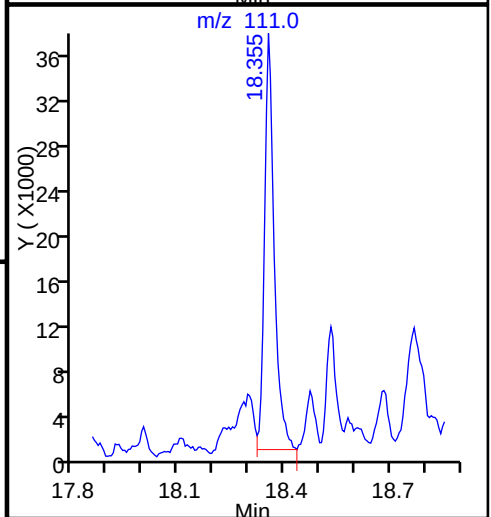
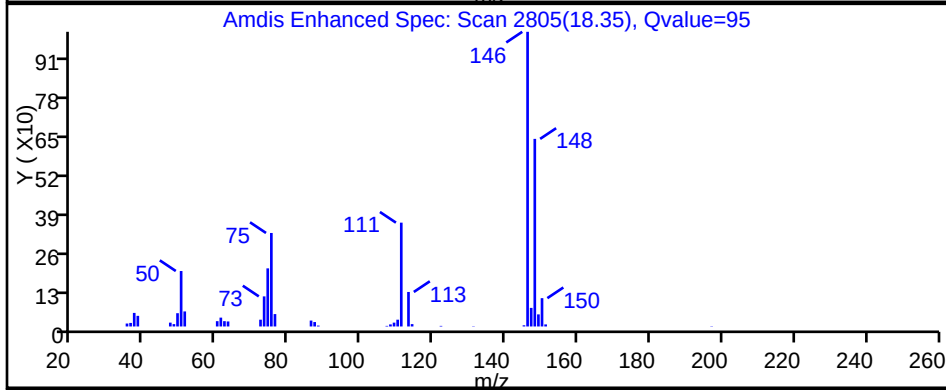
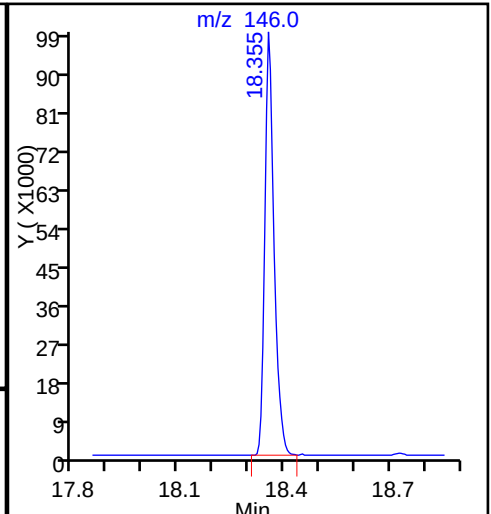
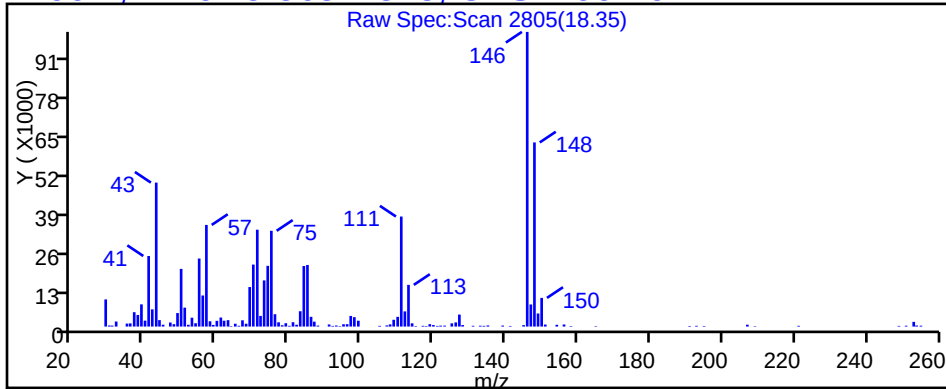
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

100 1,4-Dichlorobenzene, CAS: 106-46-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

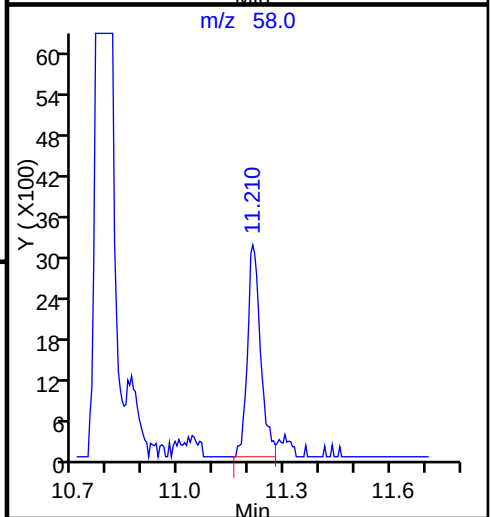
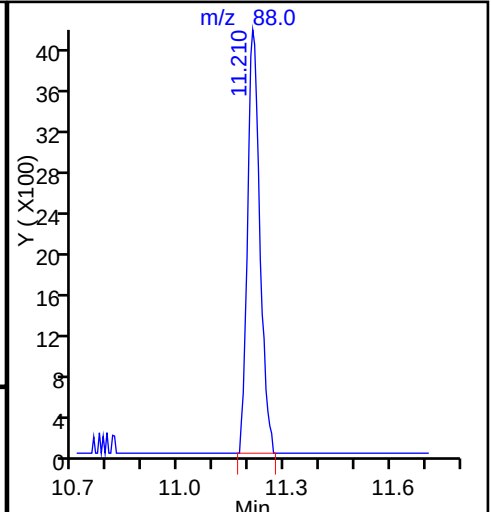
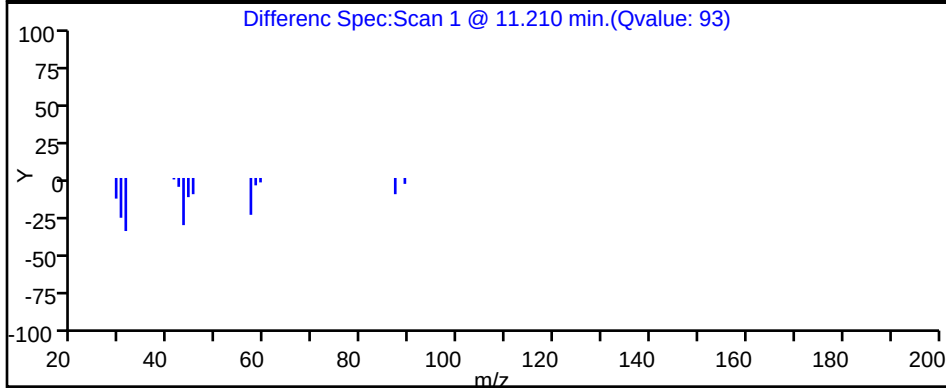
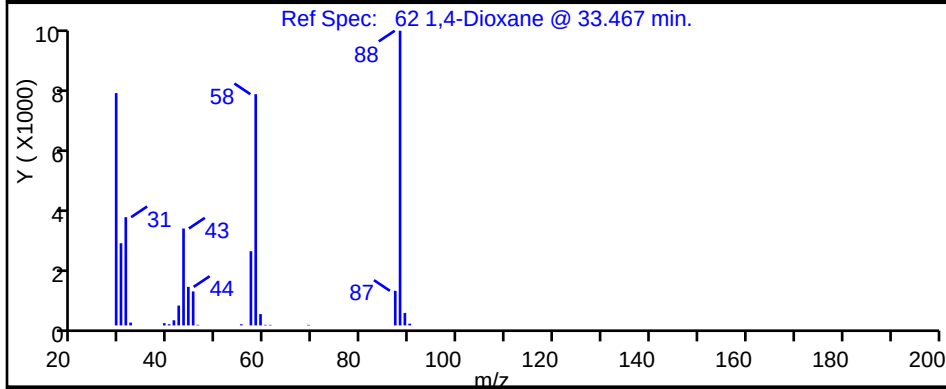
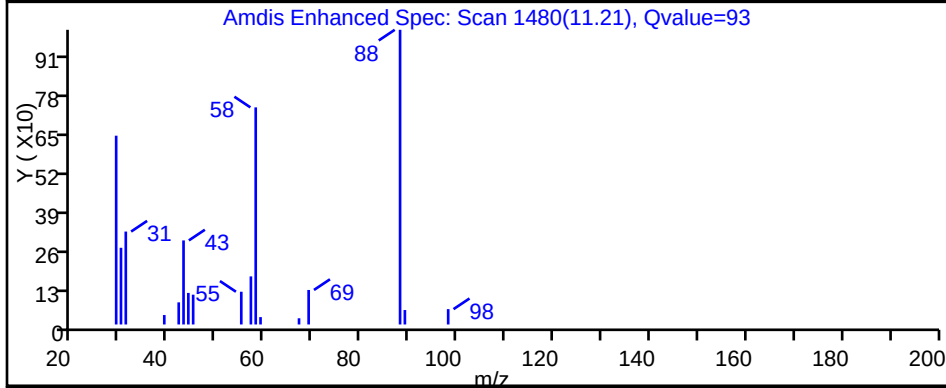
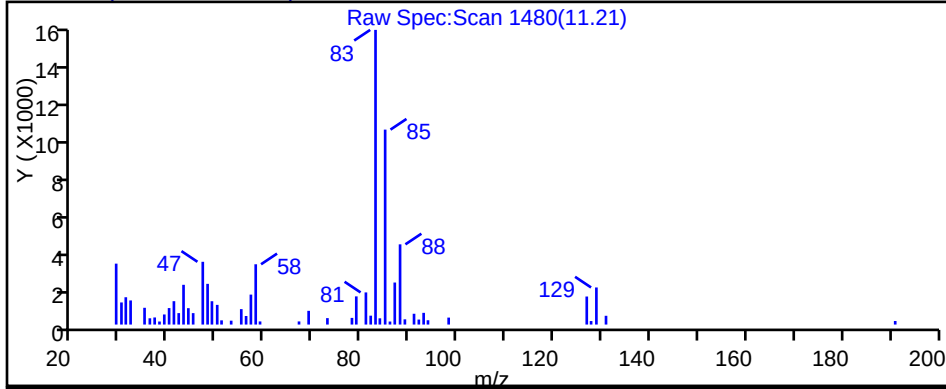
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 1,4-Dioxane, CAS: 123-91-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

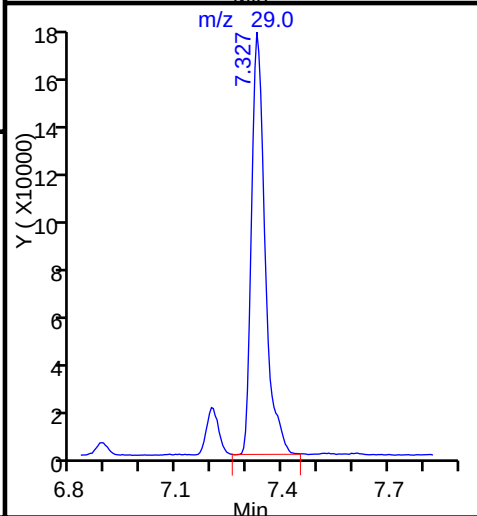
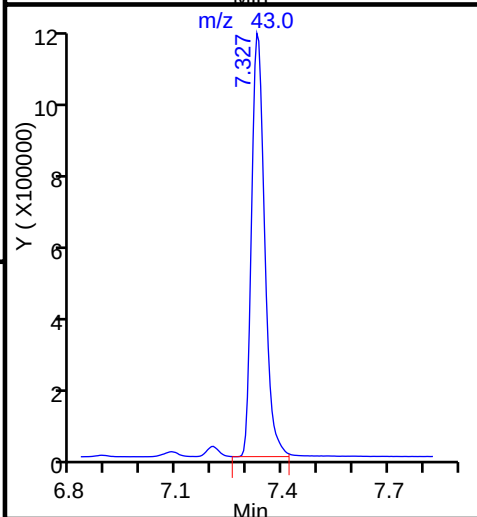
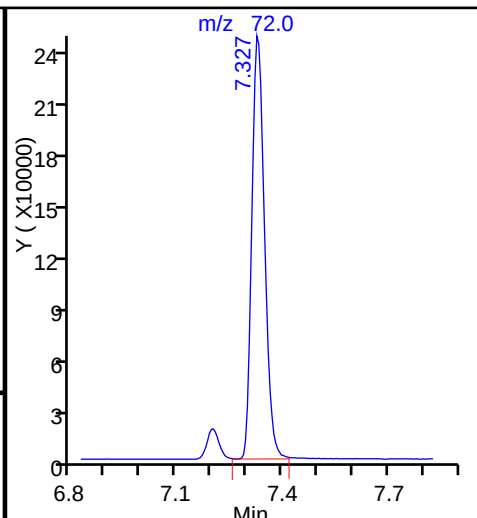
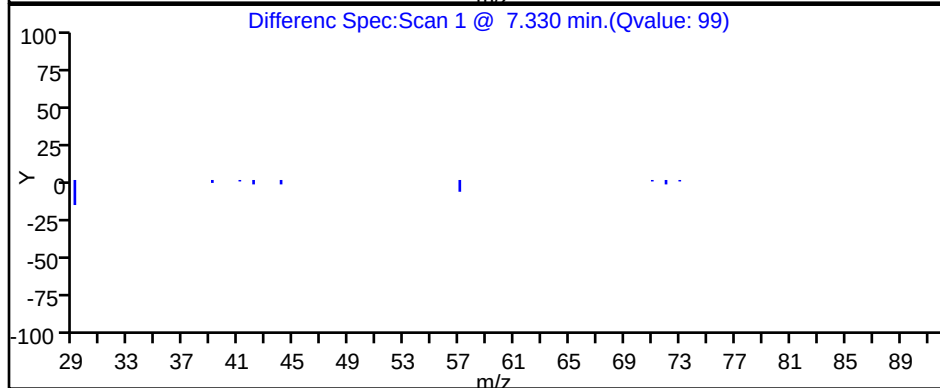
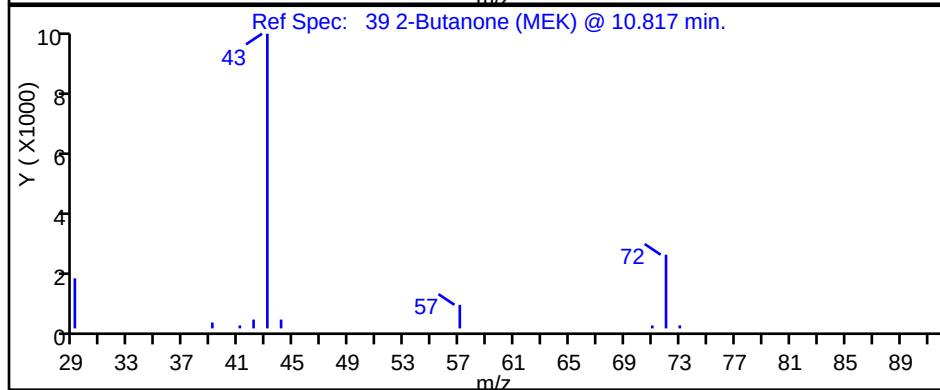
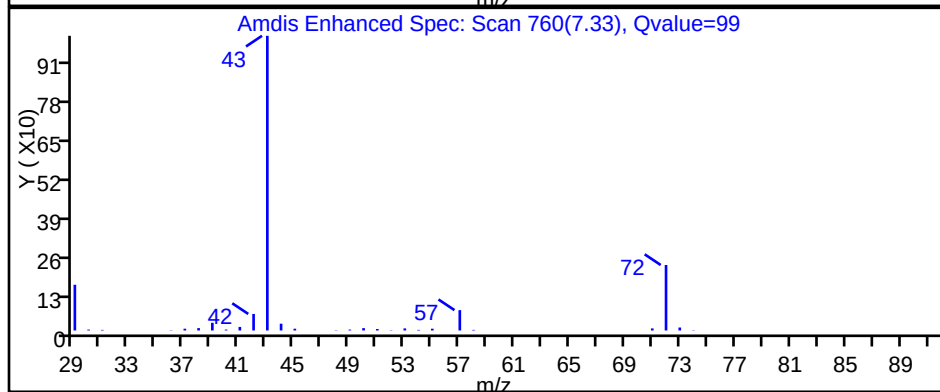
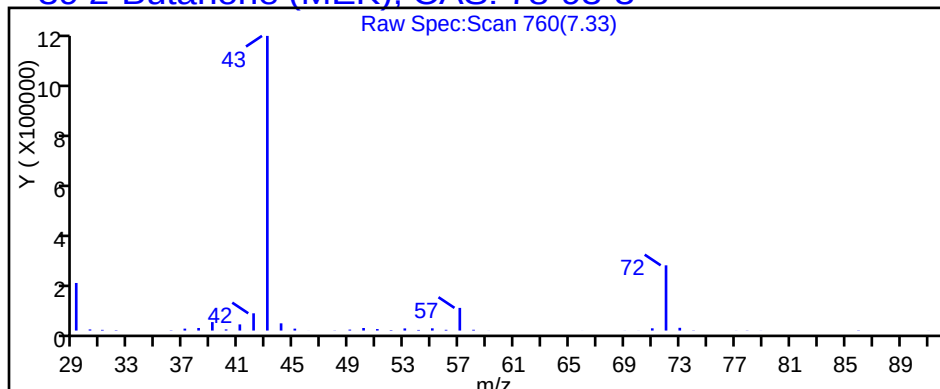
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

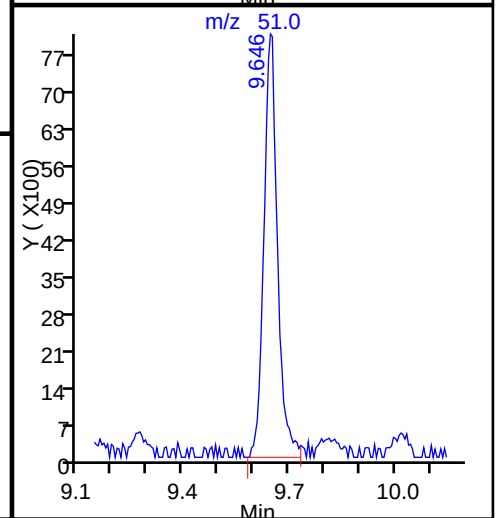
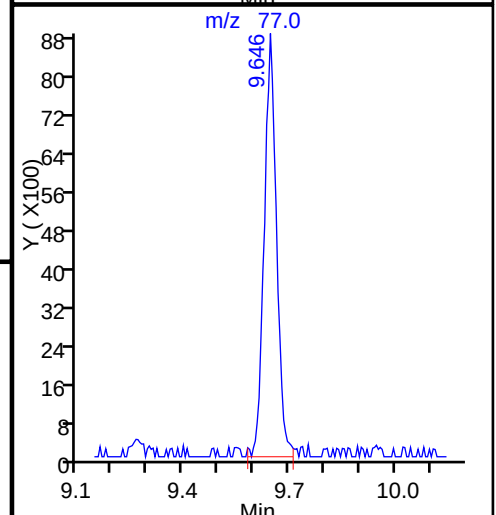
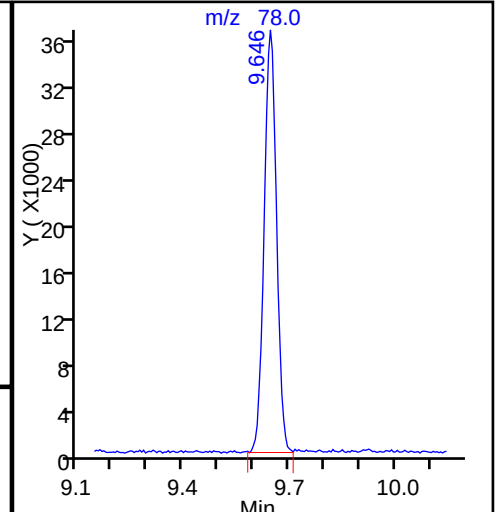
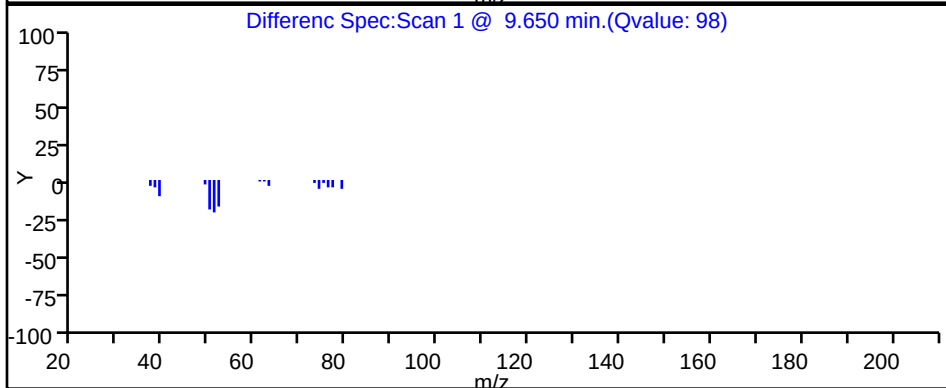
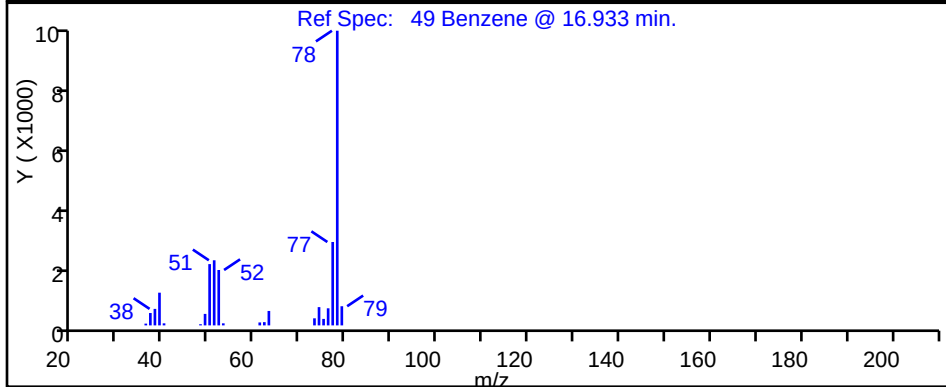
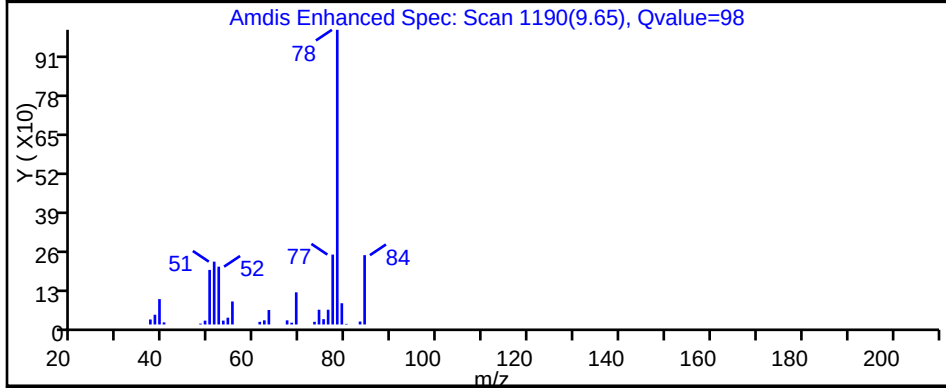
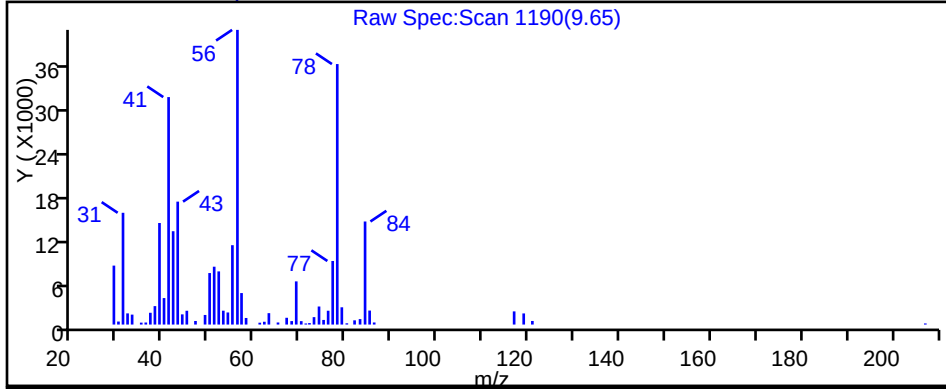
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

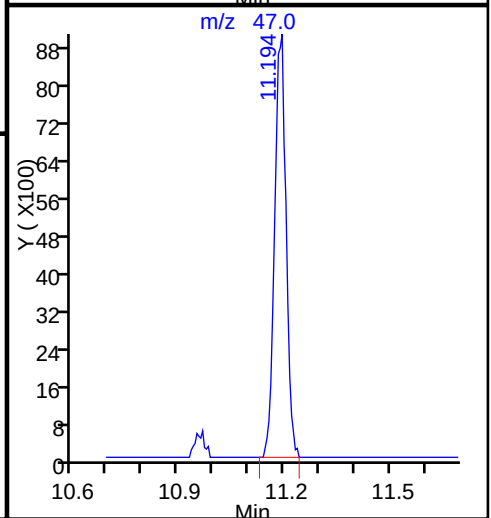
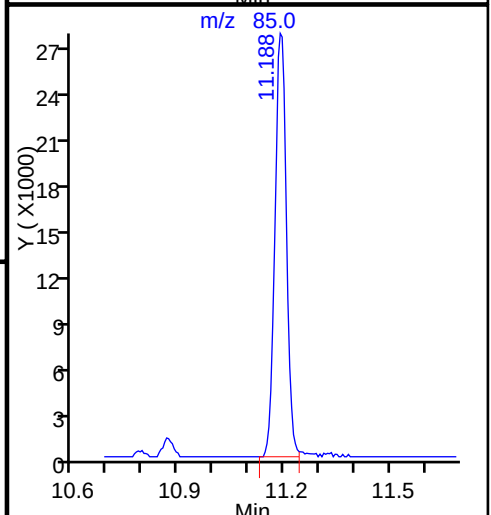
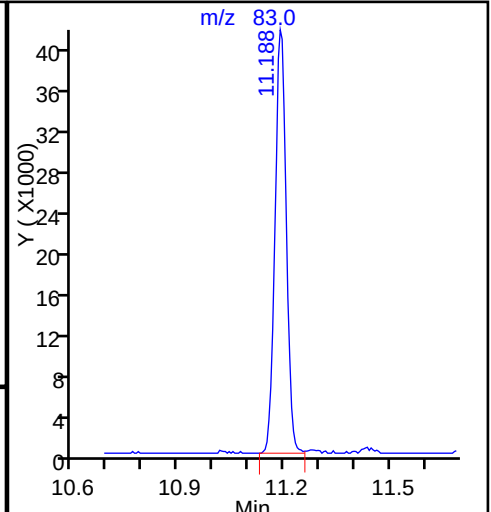
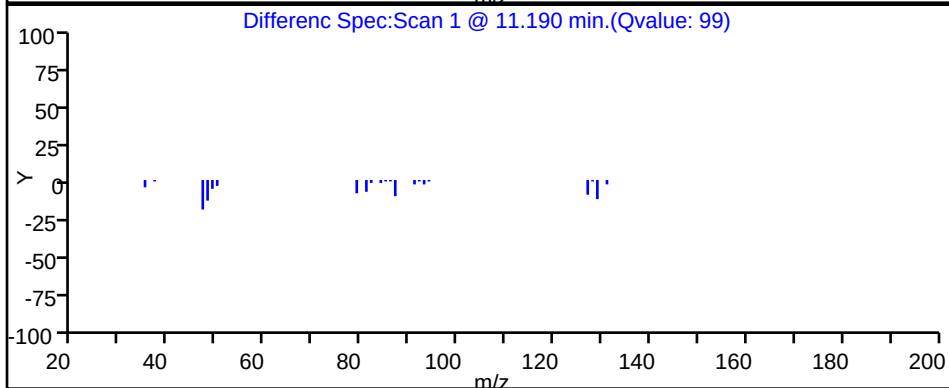
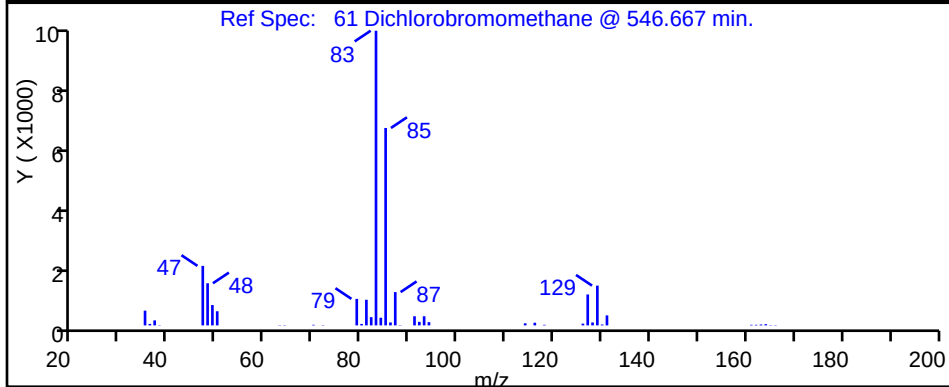
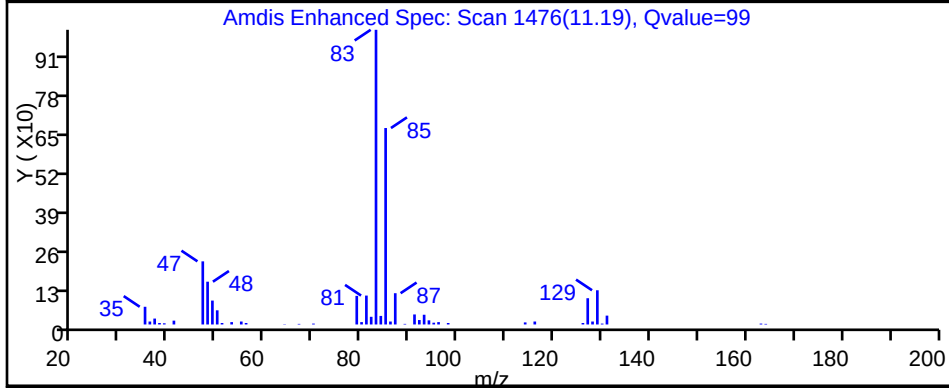
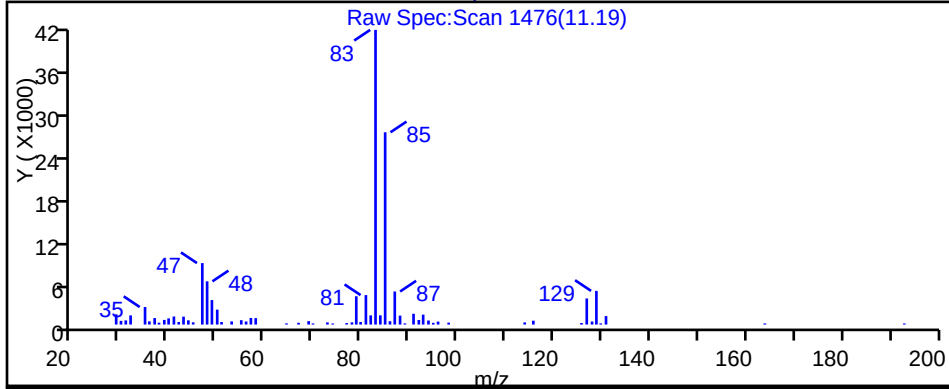
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

61 Dichlorobromomethane, CAS: 75-27-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

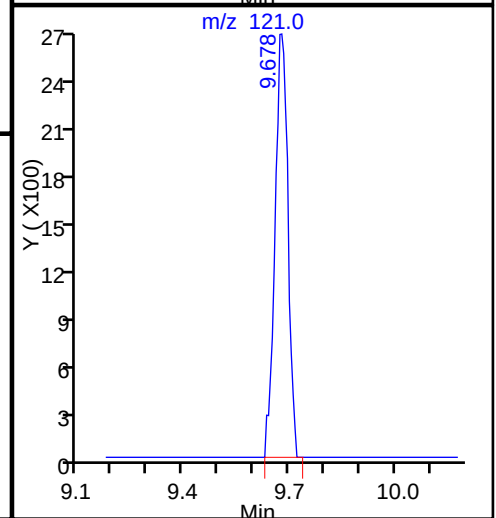
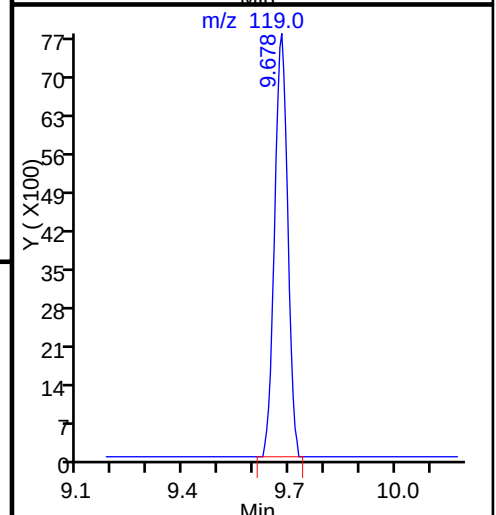
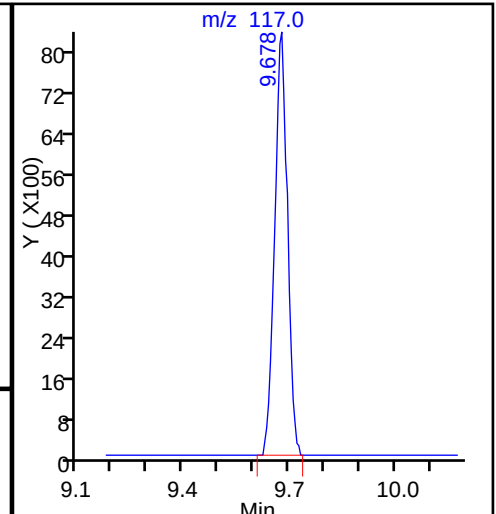
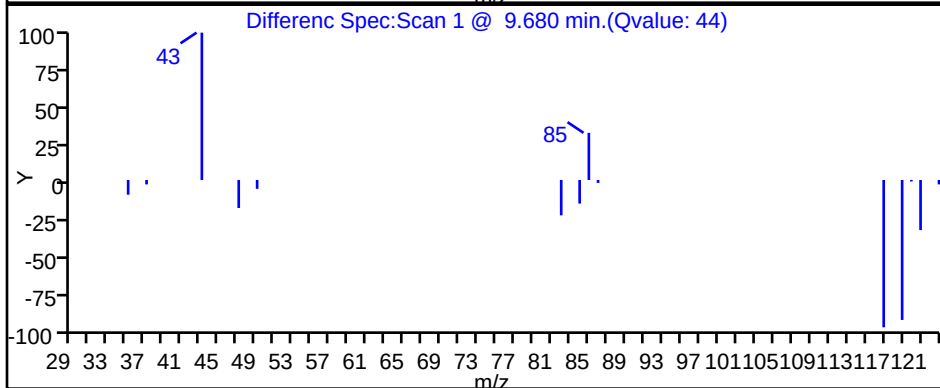
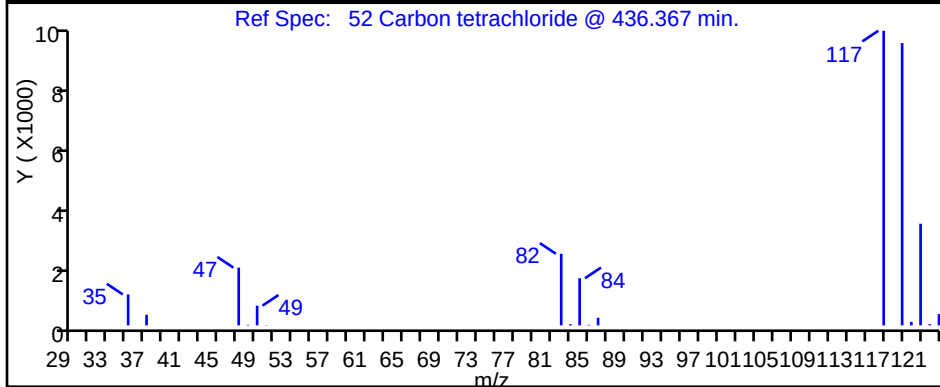
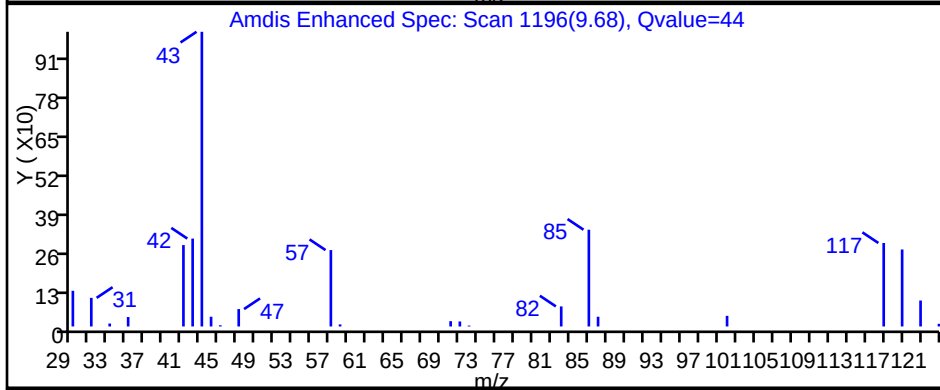
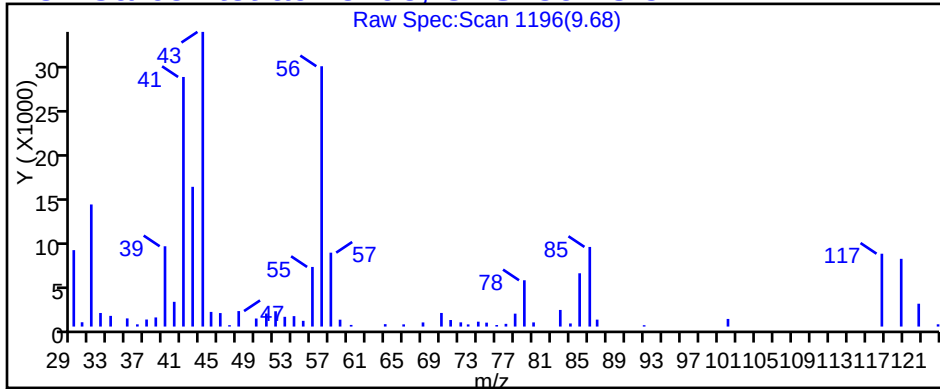
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

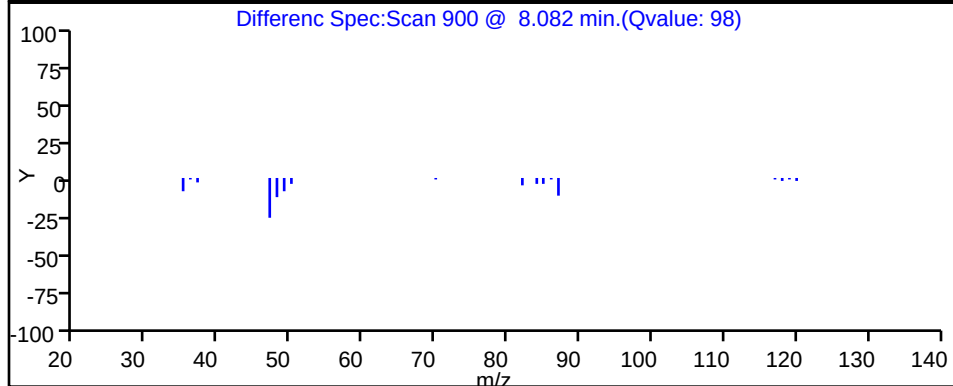
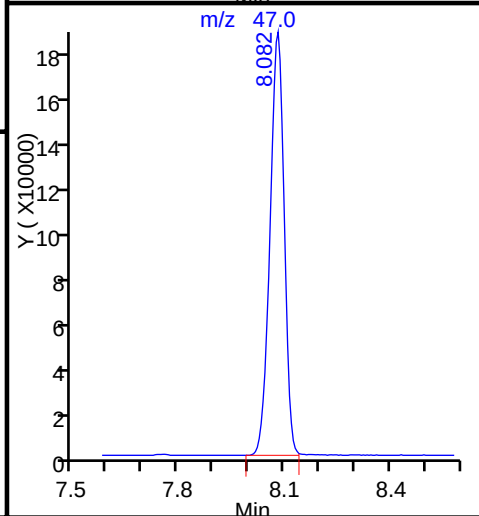
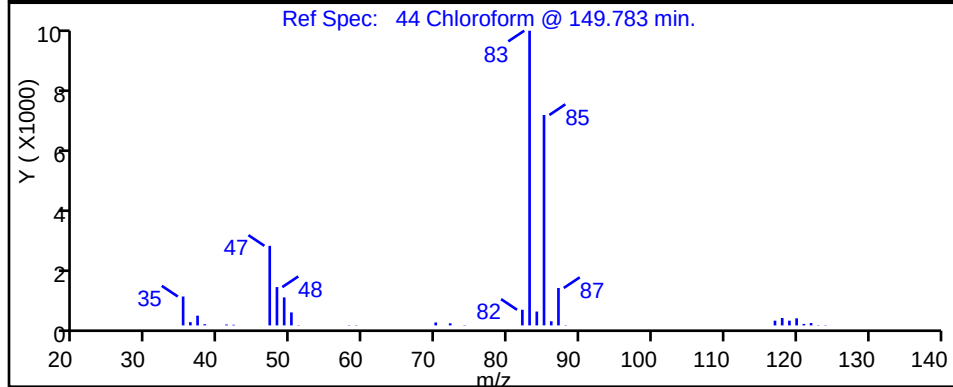
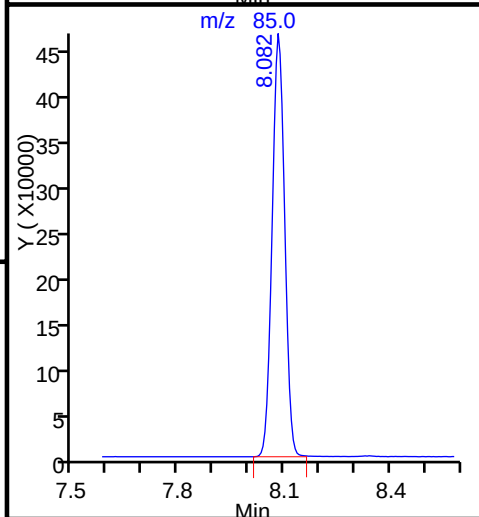
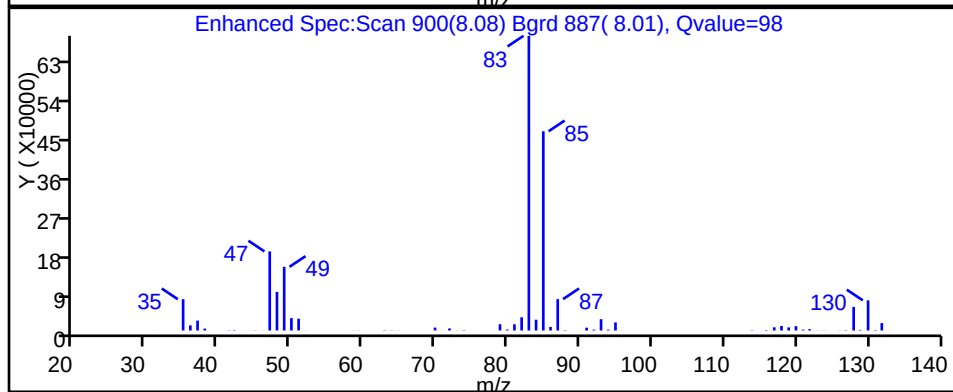
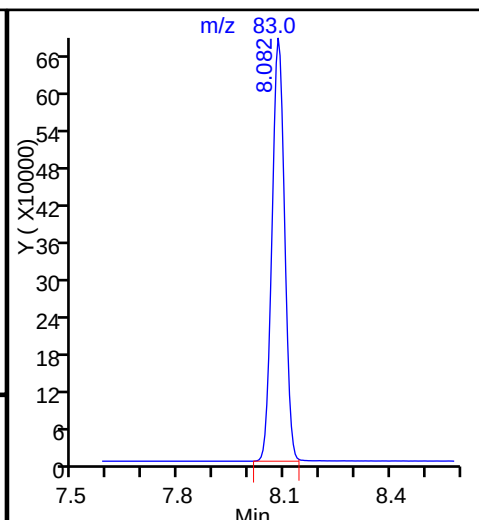
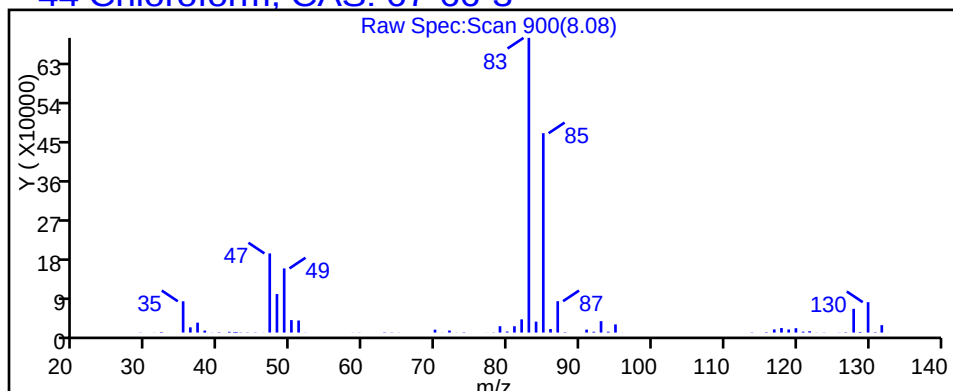
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

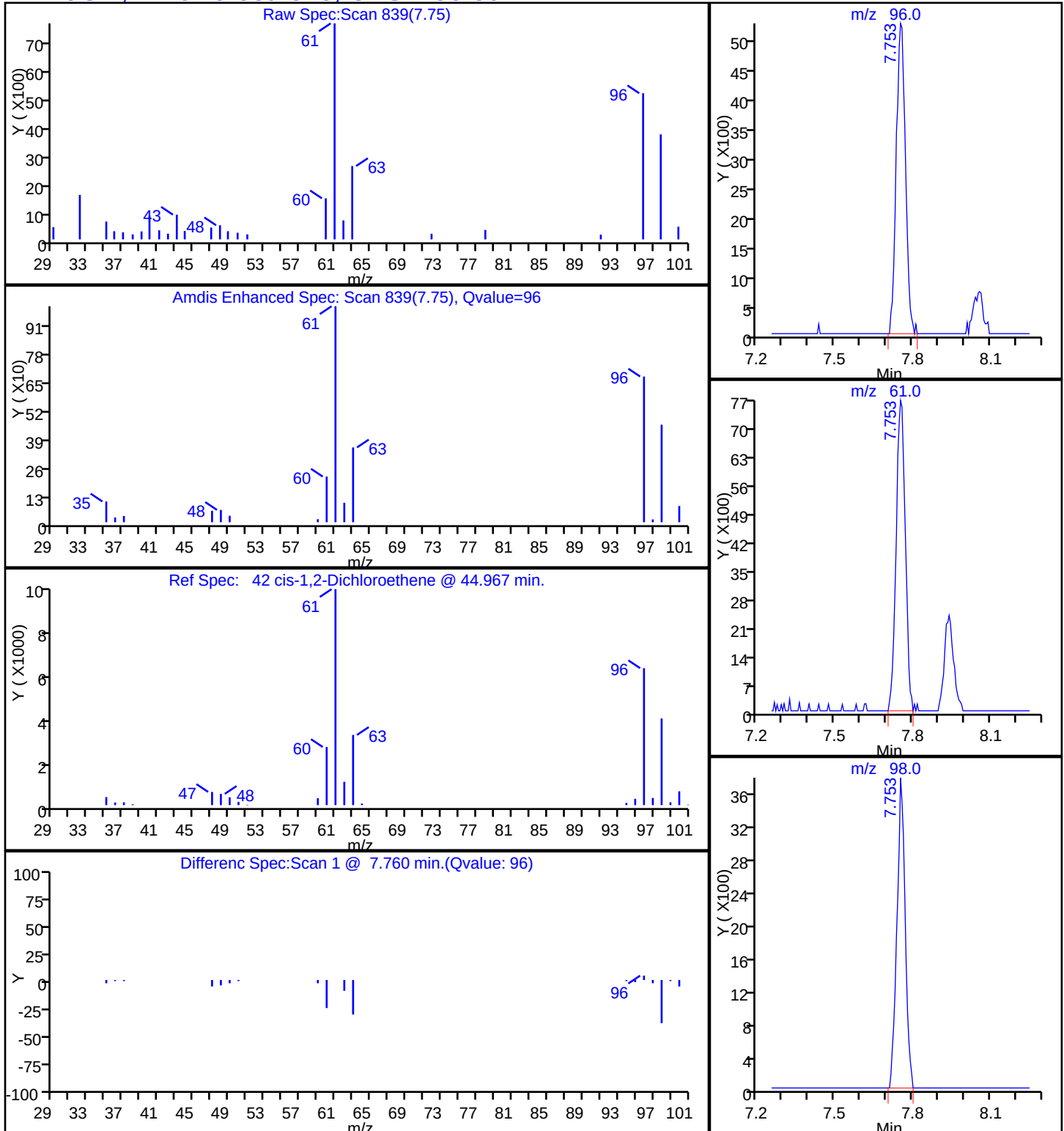
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

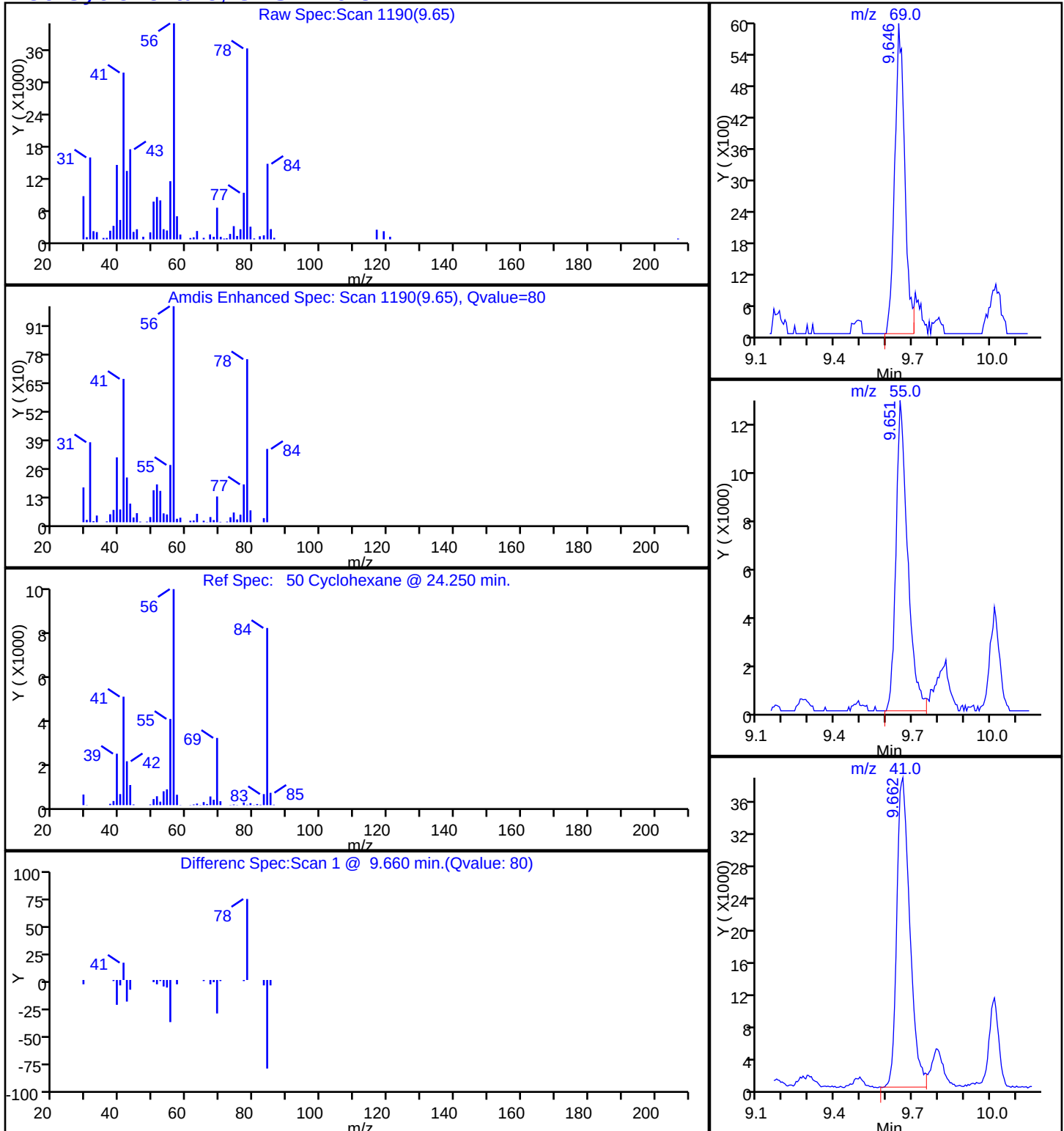
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

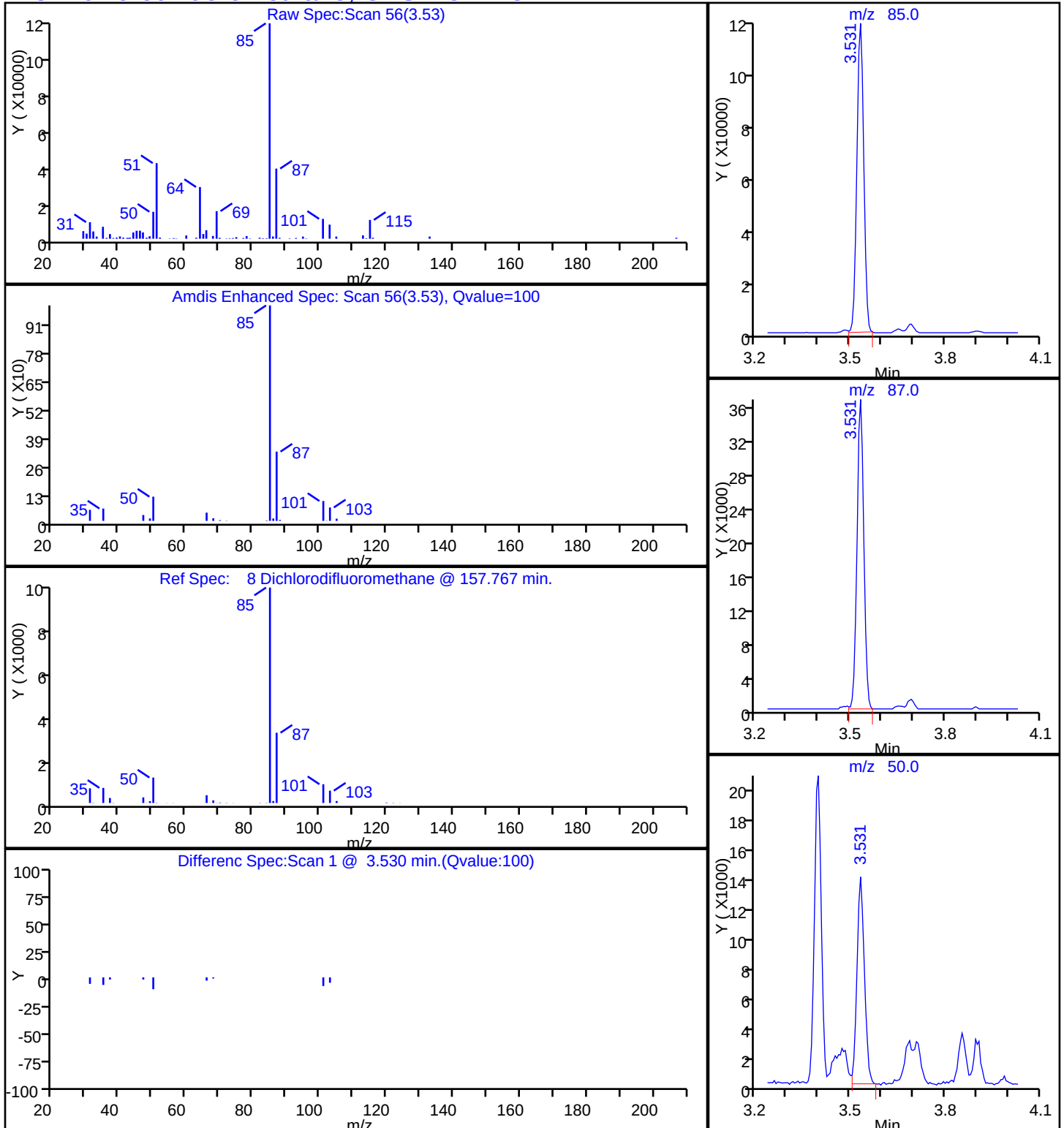
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

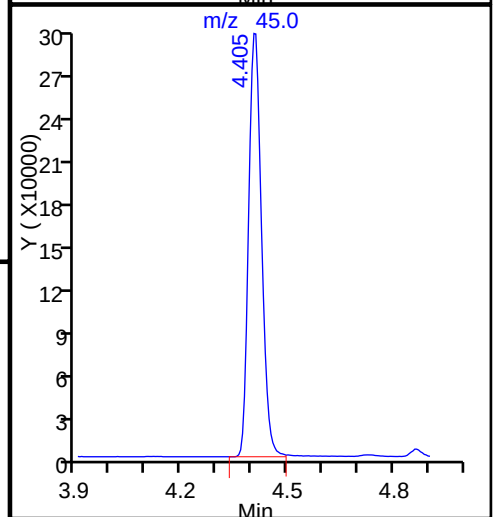
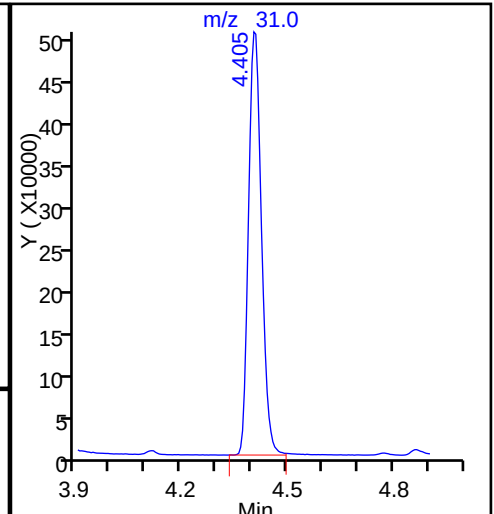
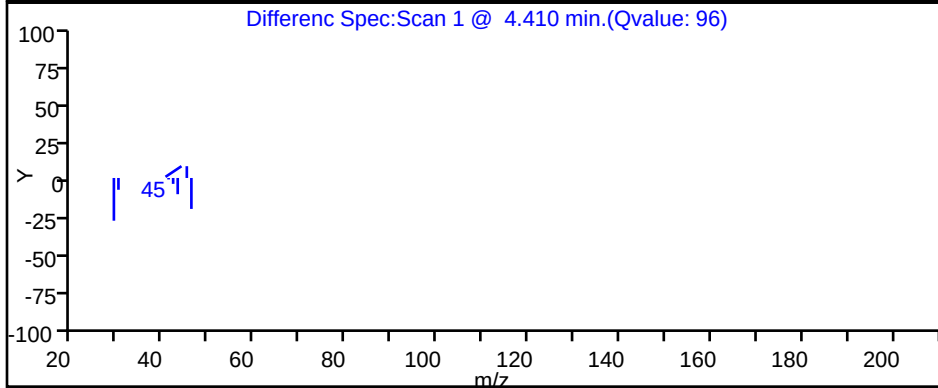
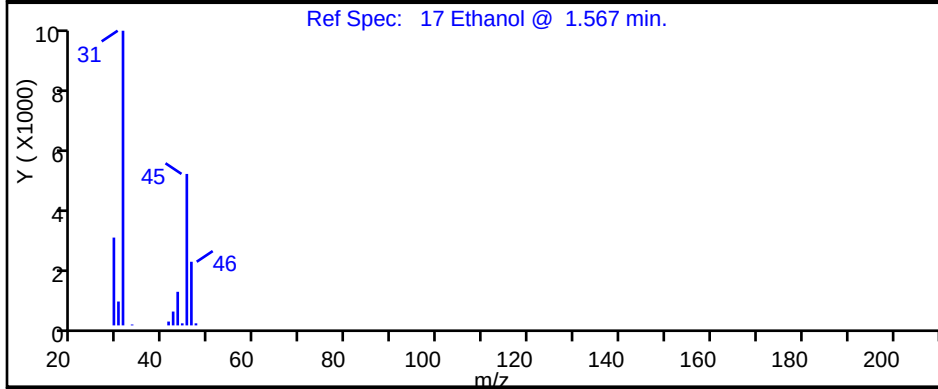
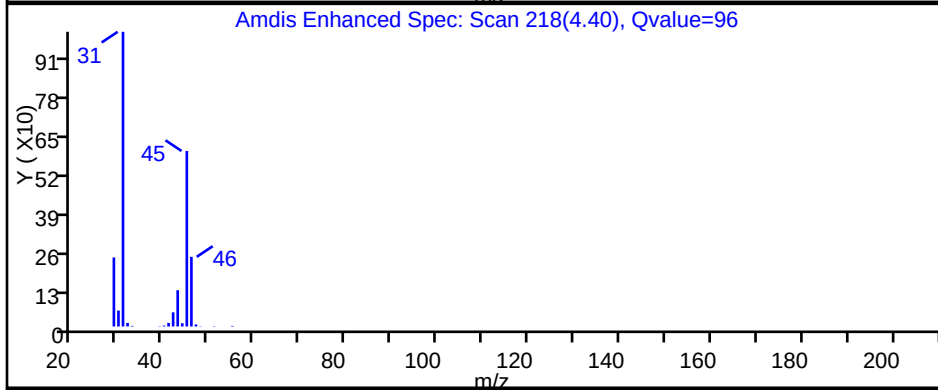
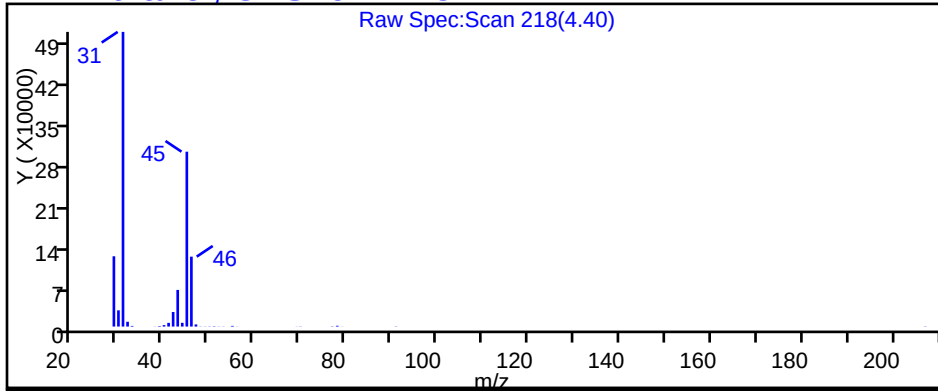
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

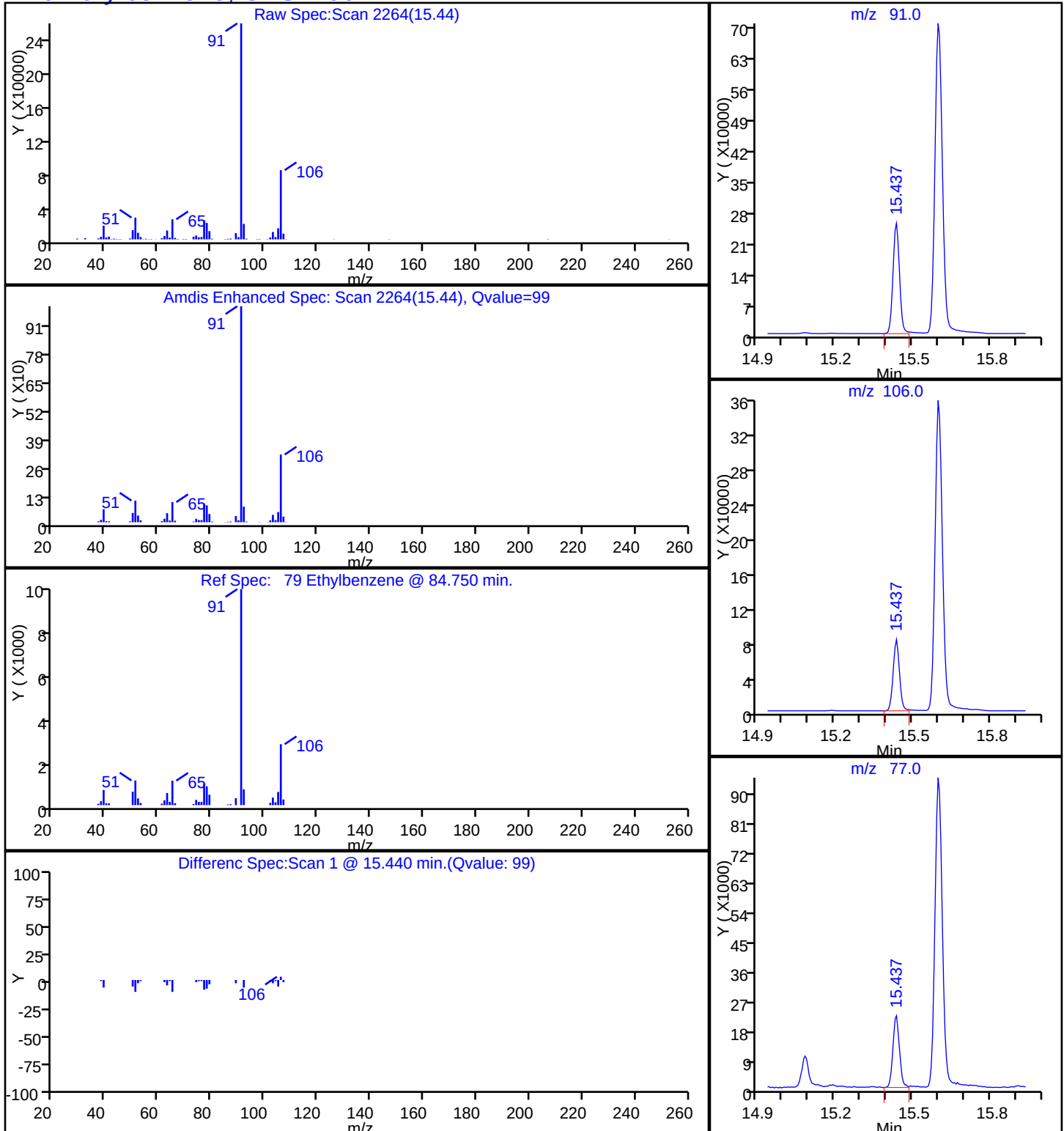
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

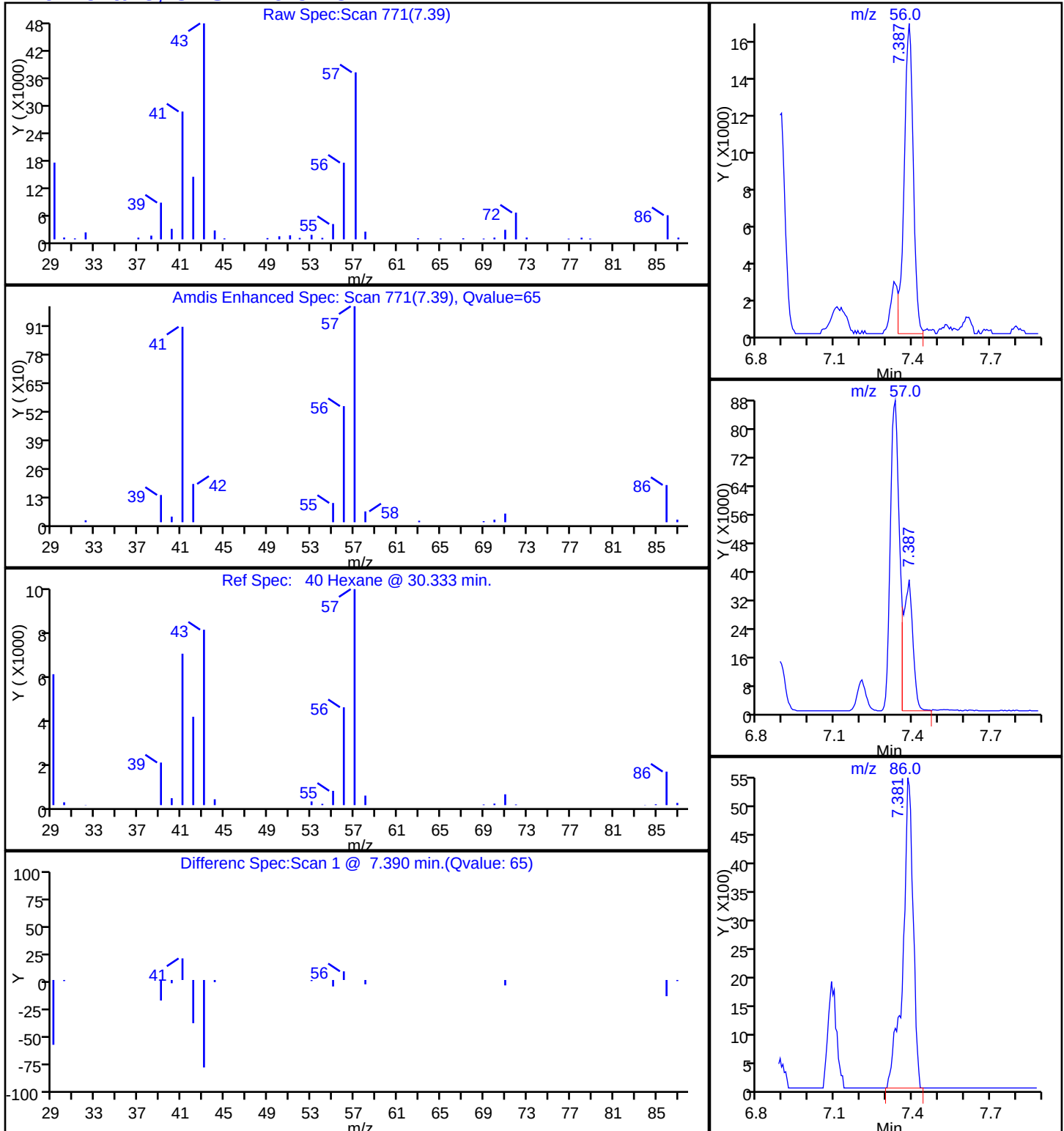
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

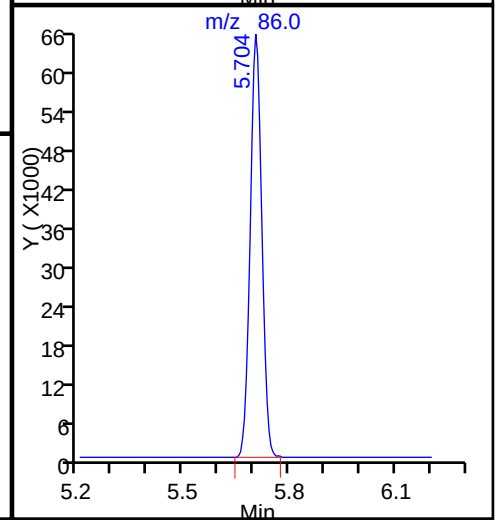
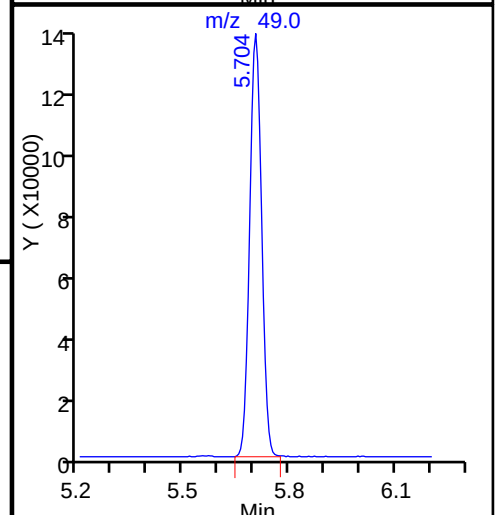
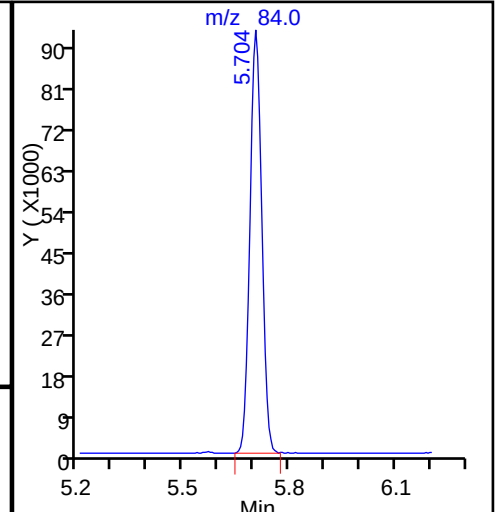
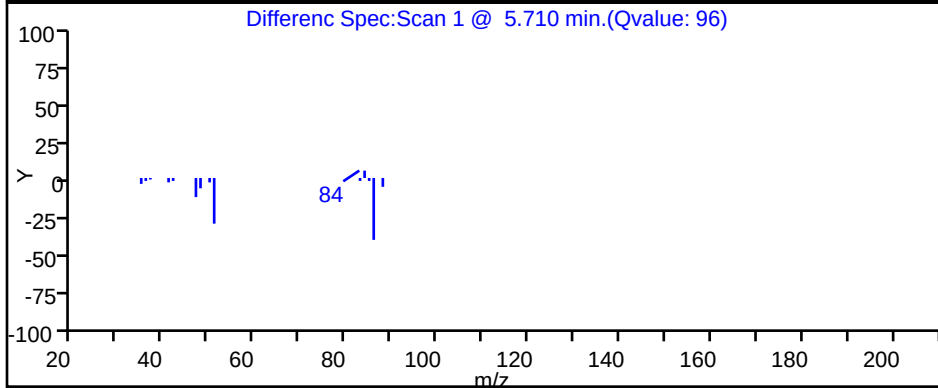
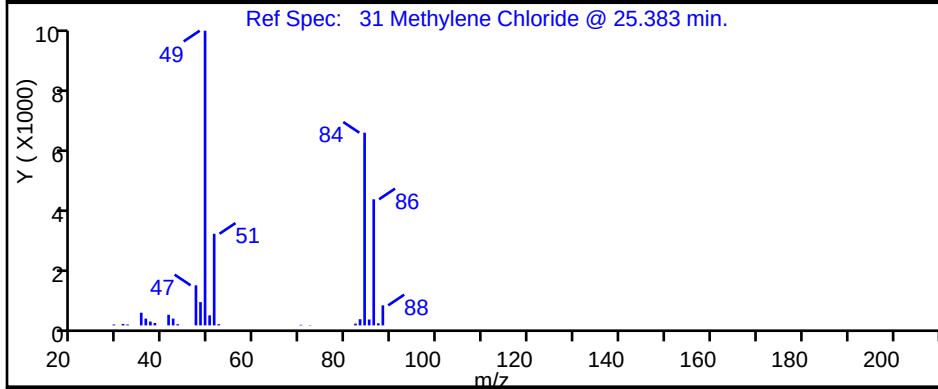
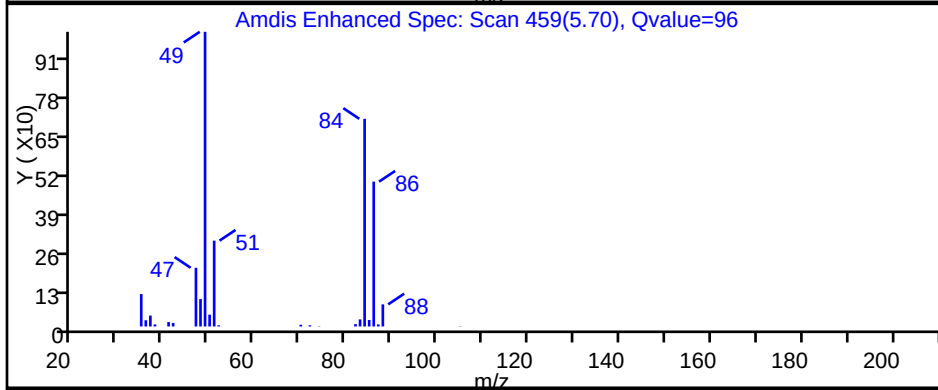
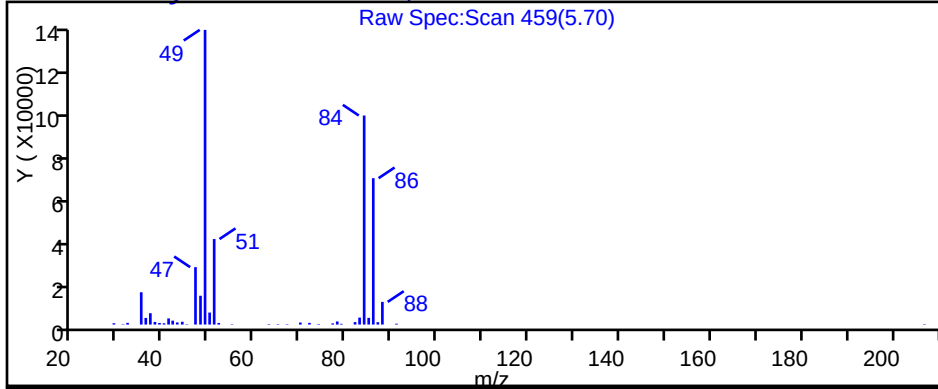
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

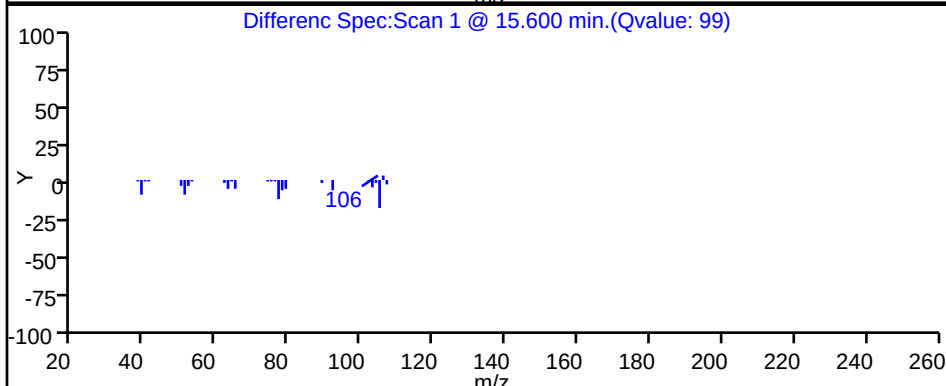
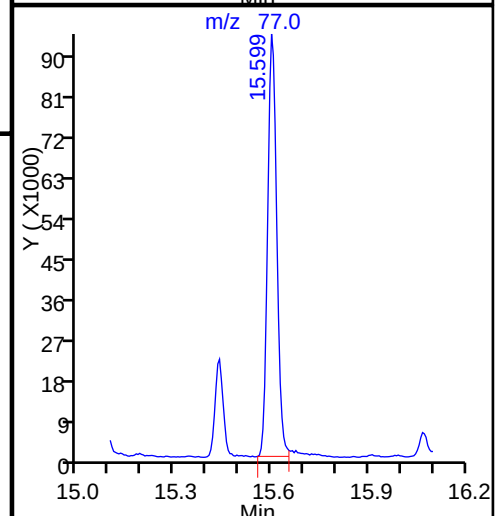
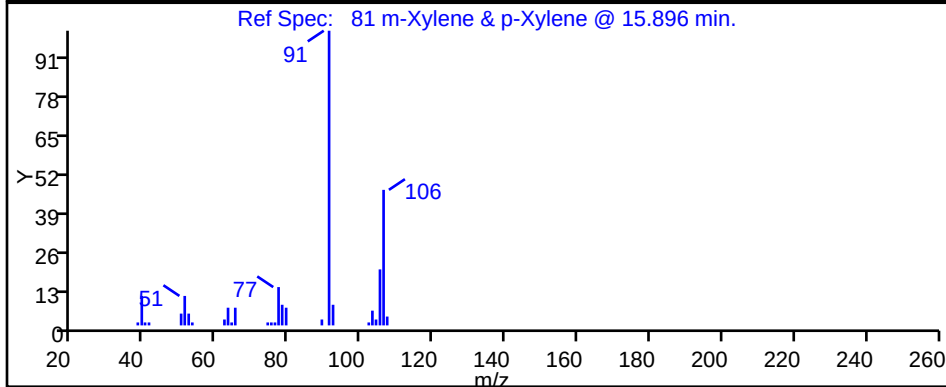
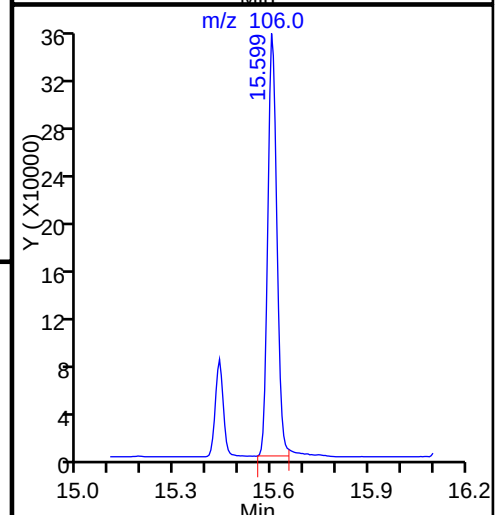
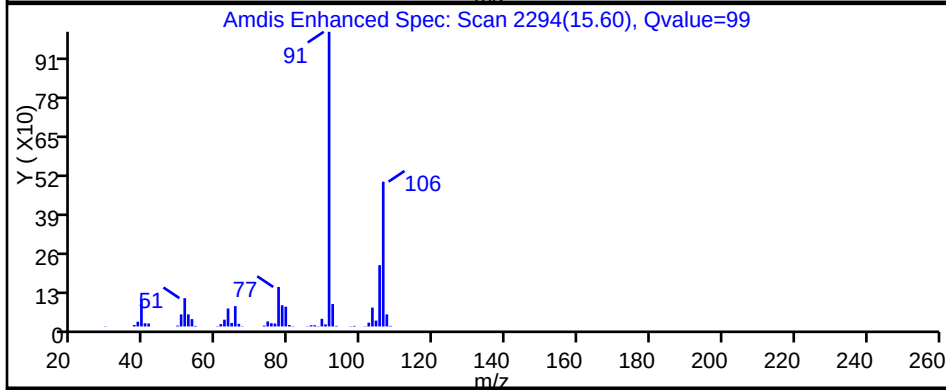
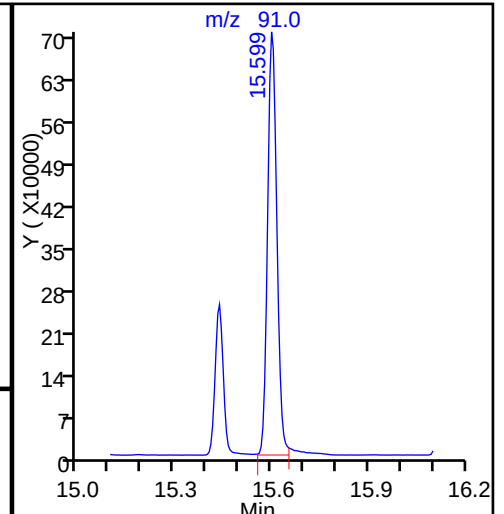
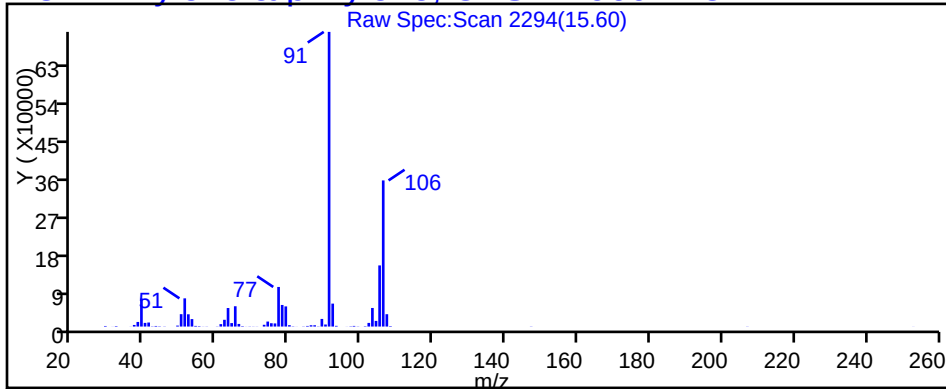
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

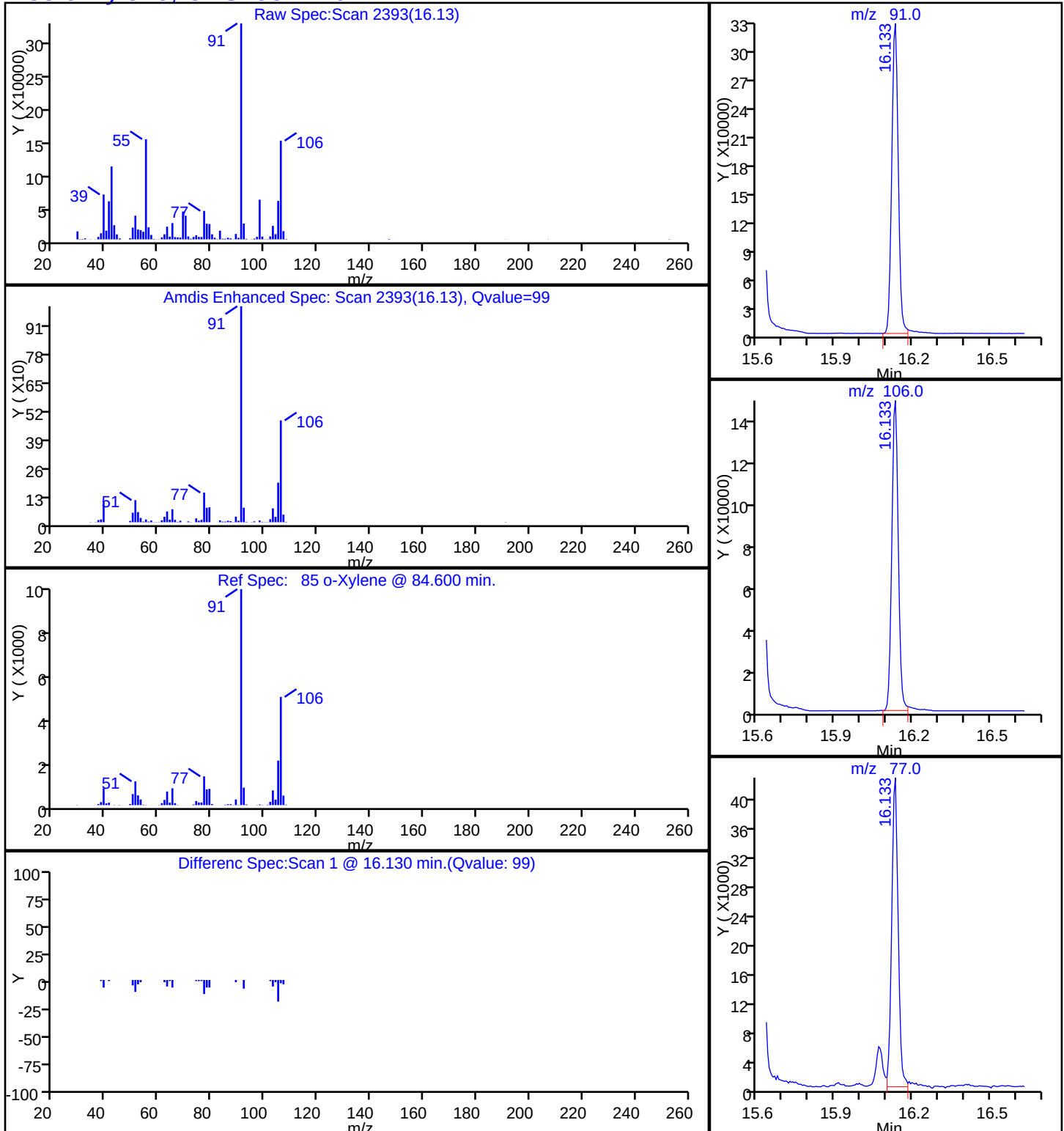
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

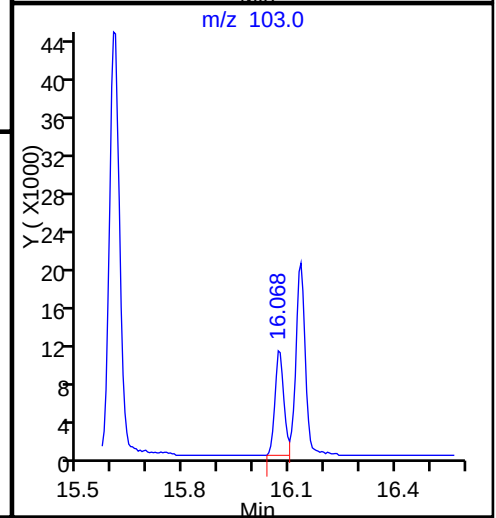
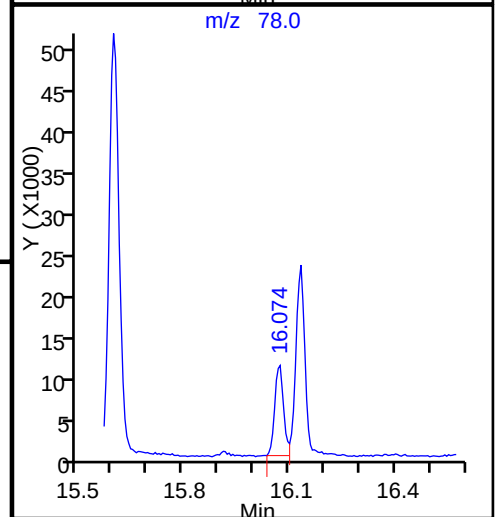
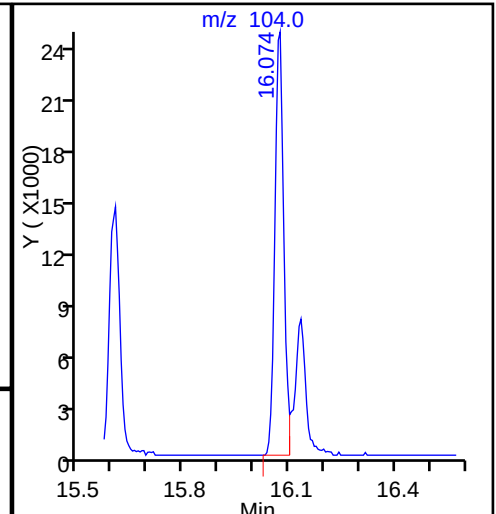
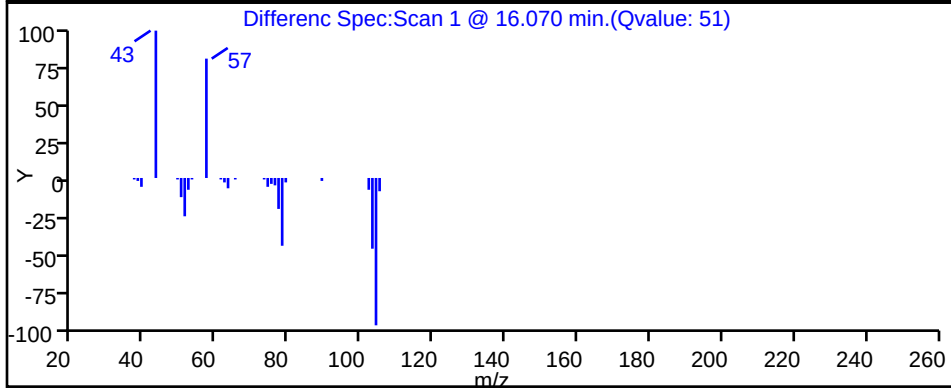
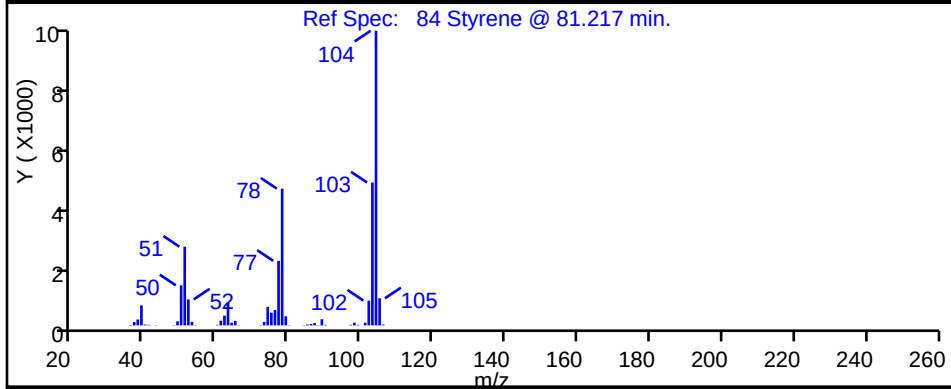
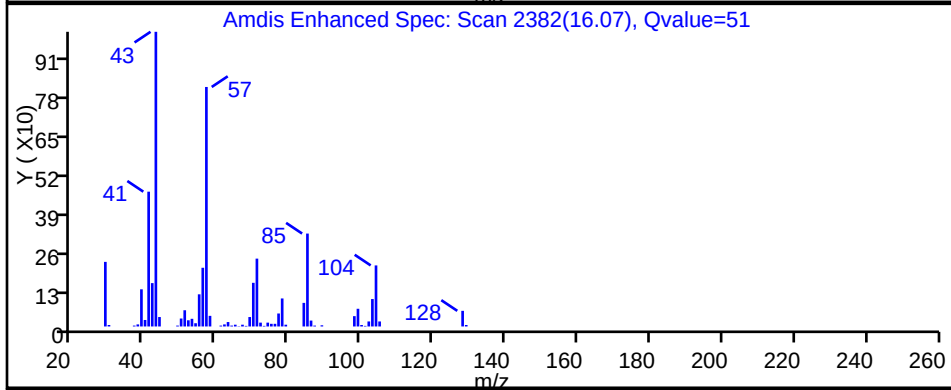
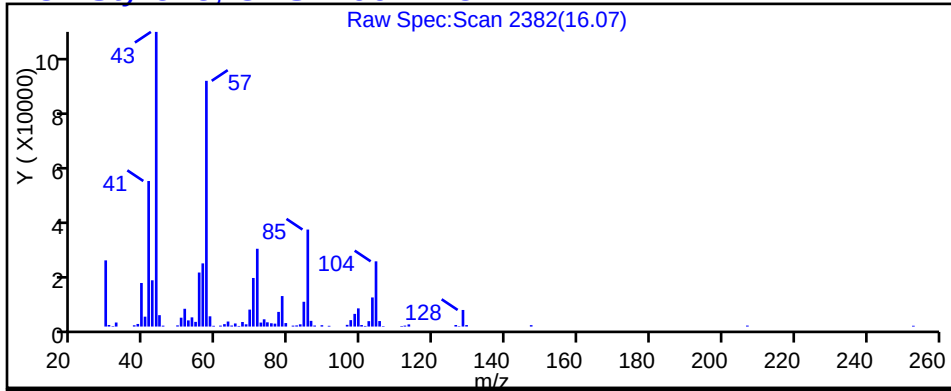
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

84 Styrene, CAS: 100-42-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

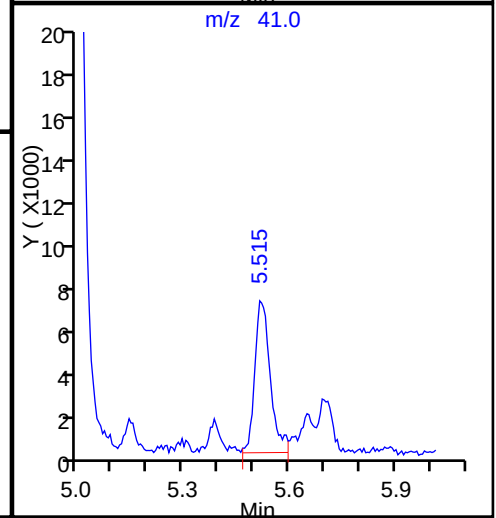
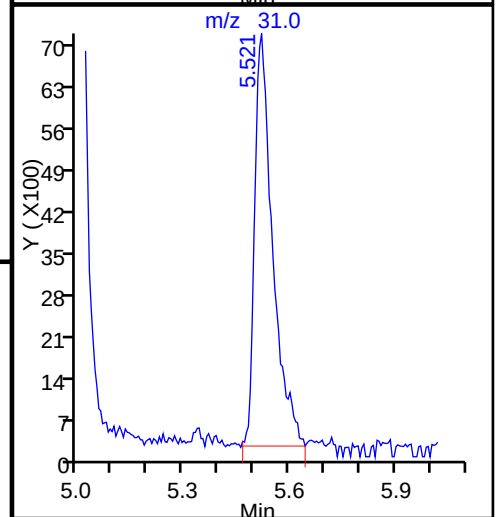
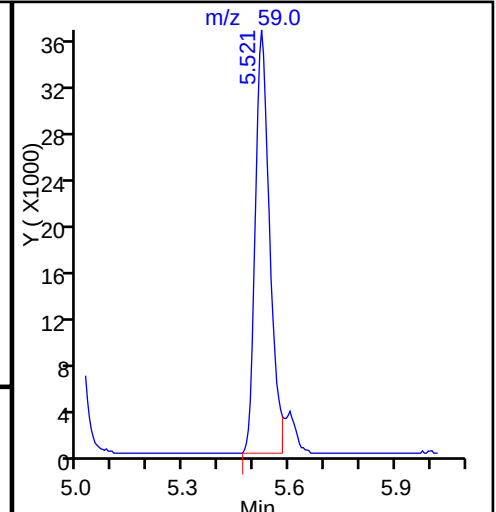
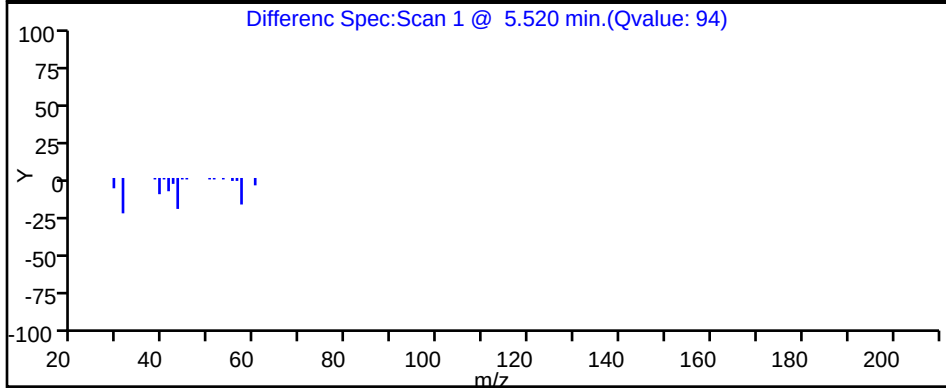
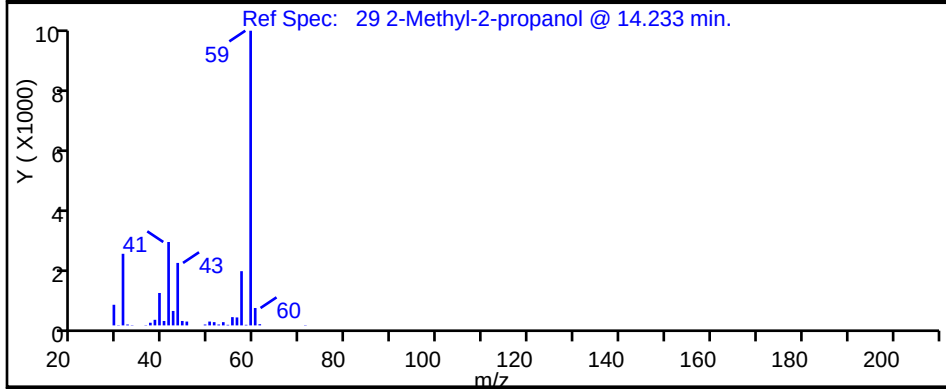
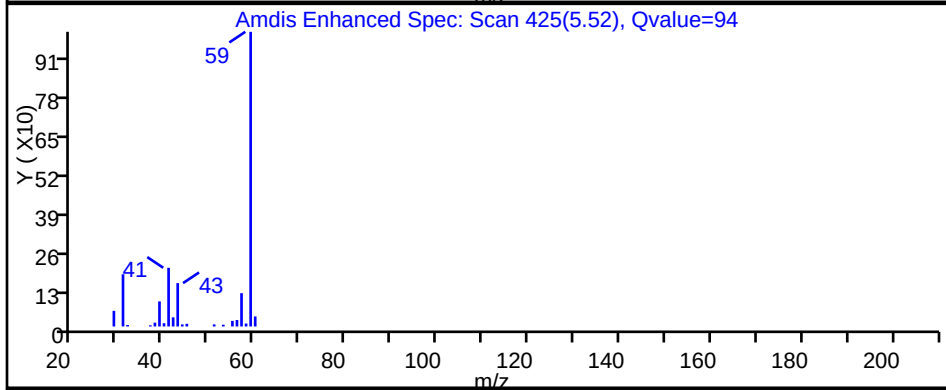
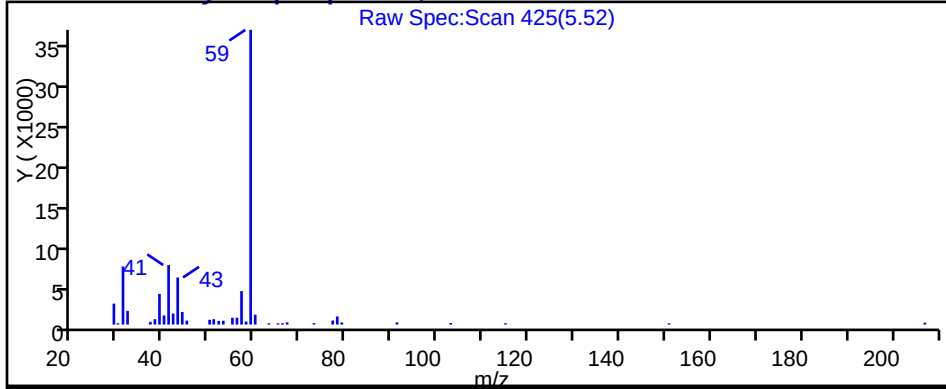
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

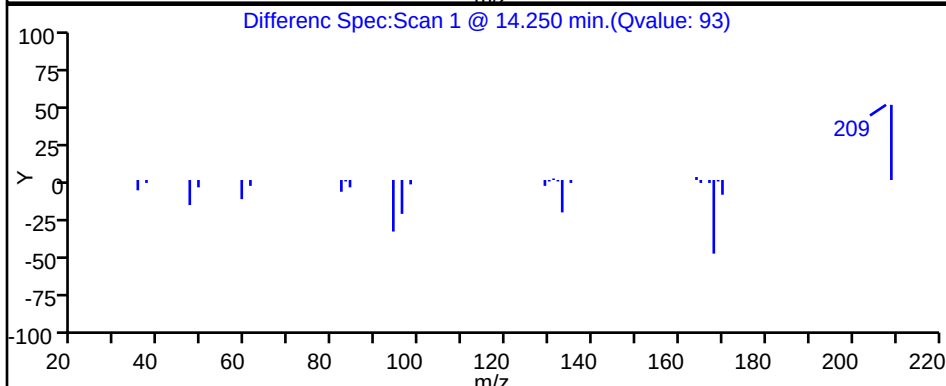
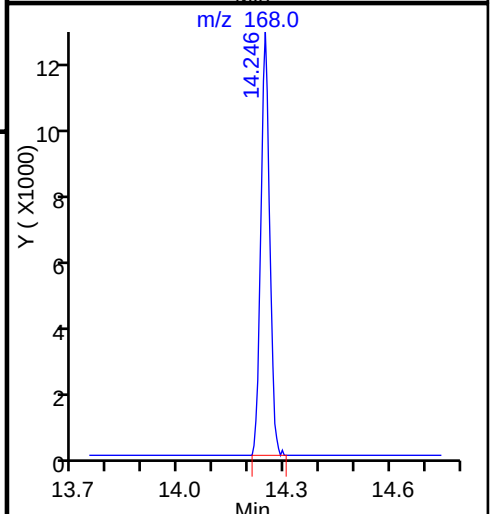
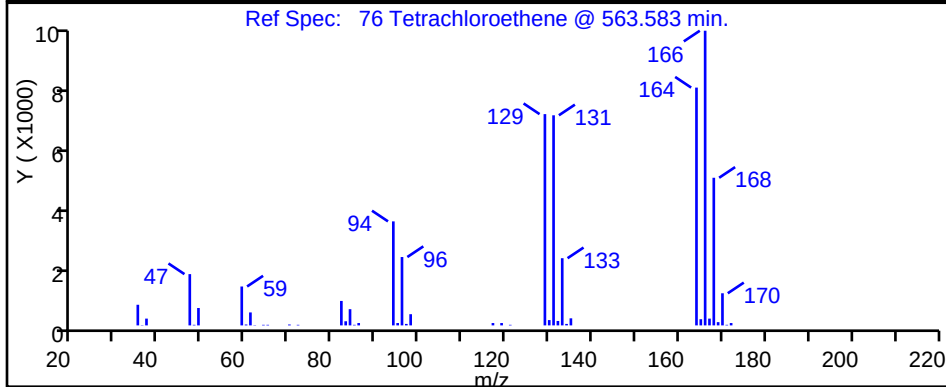
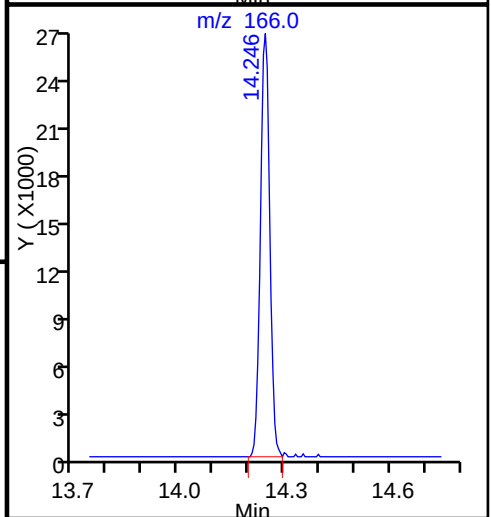
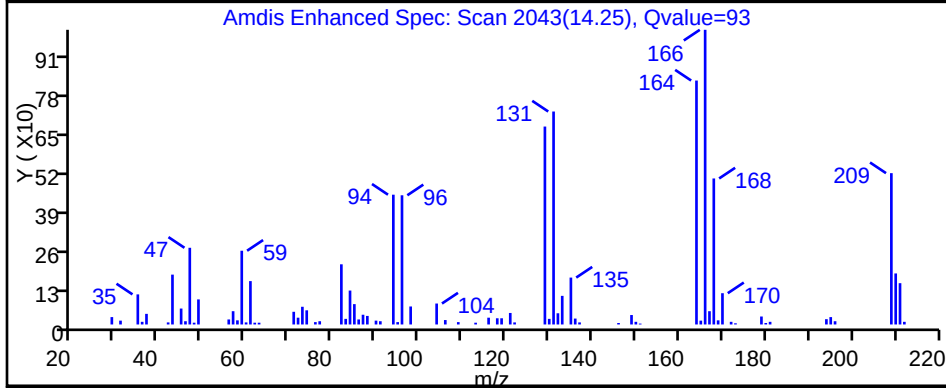
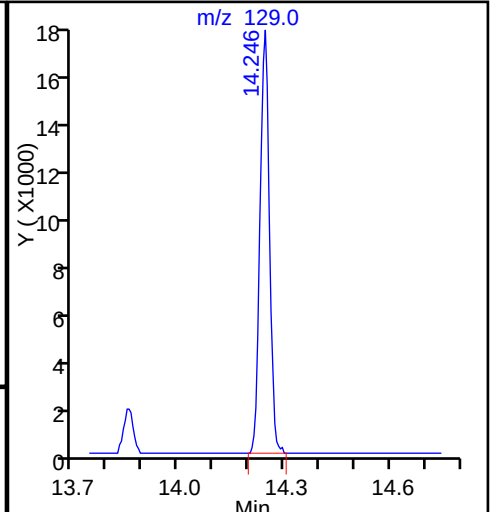
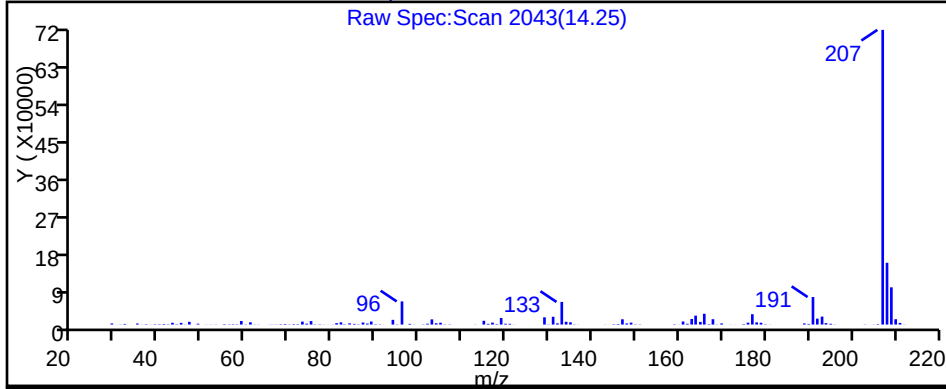
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

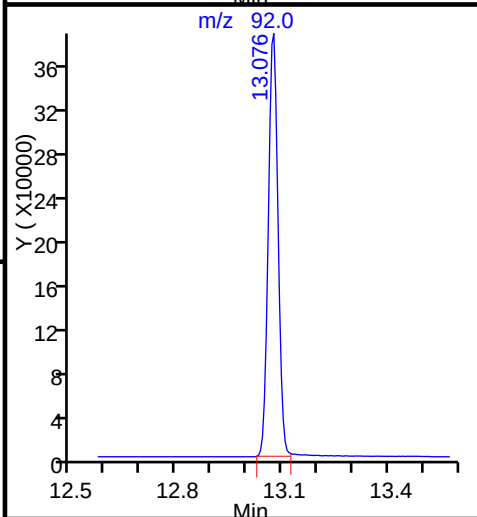
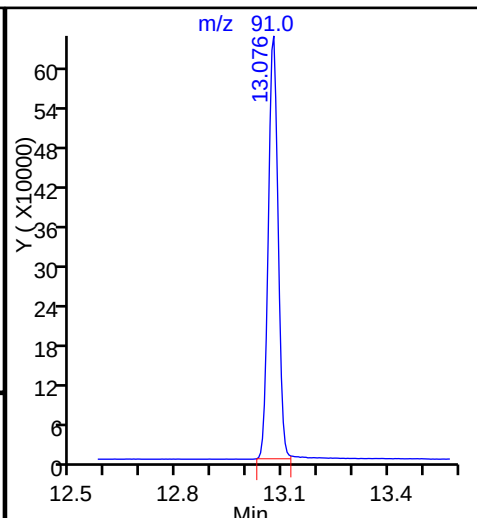
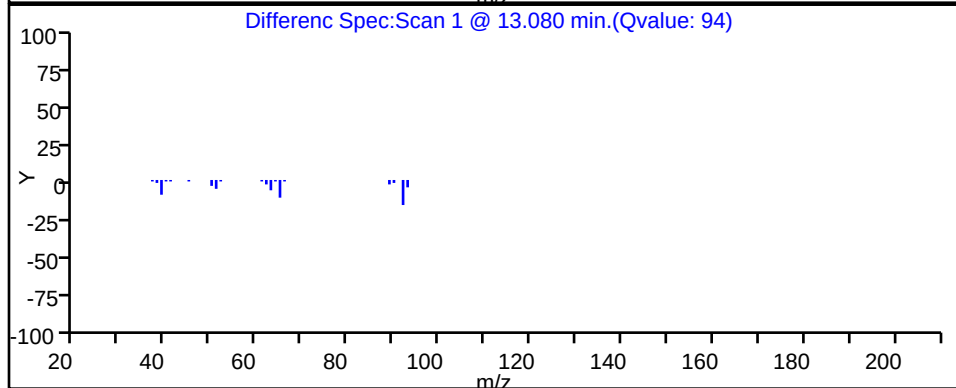
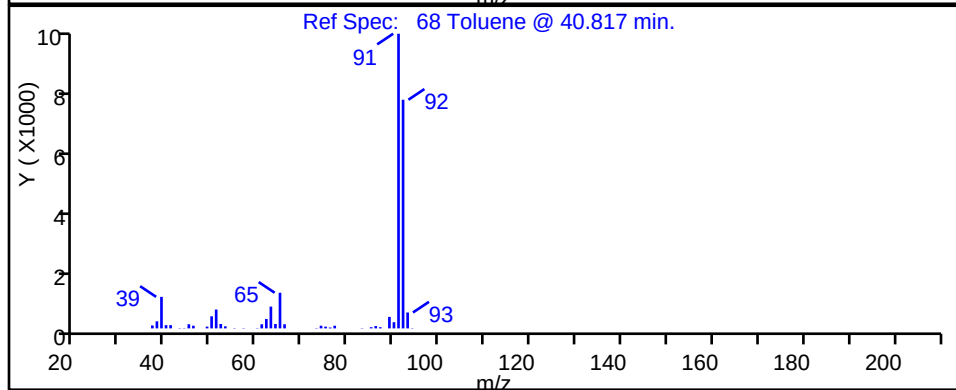
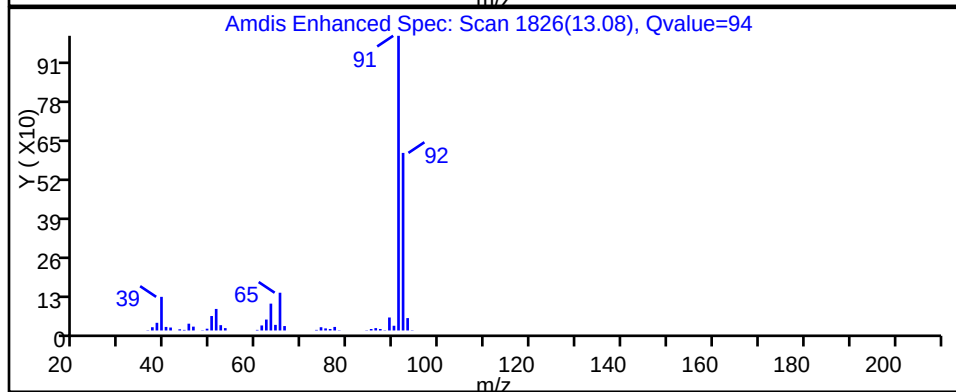
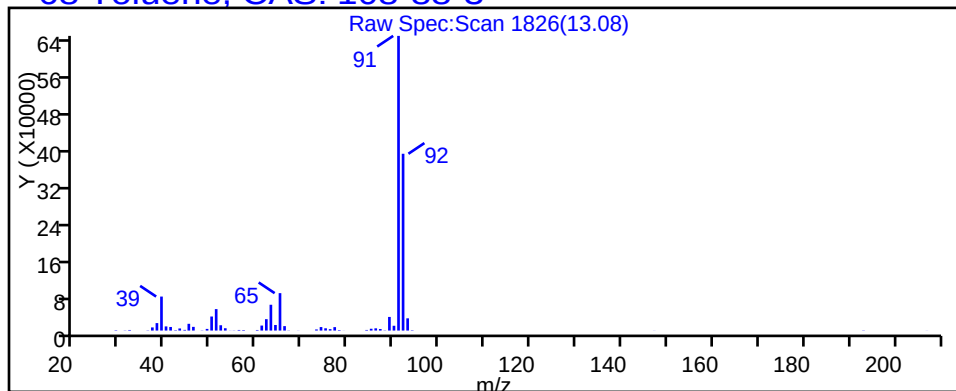
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

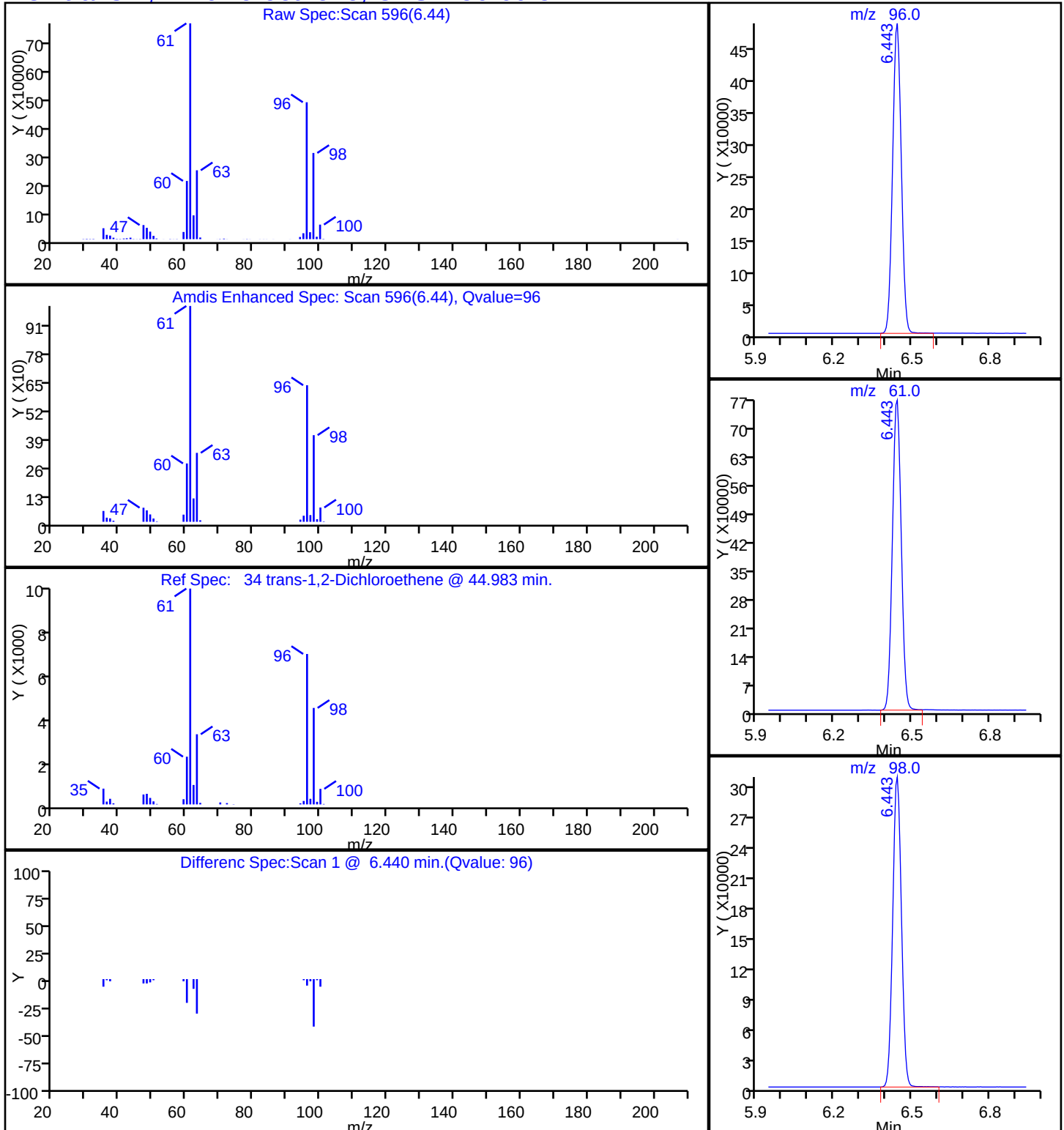
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

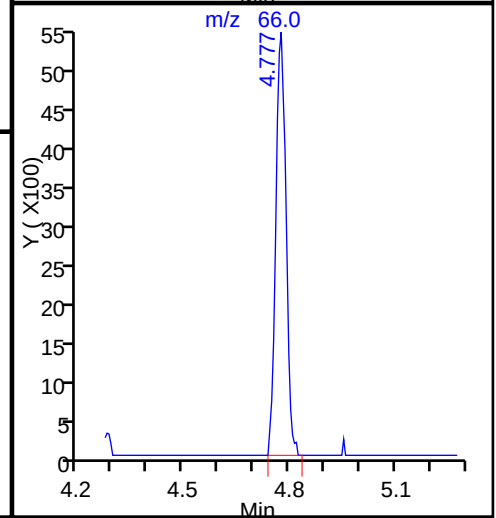
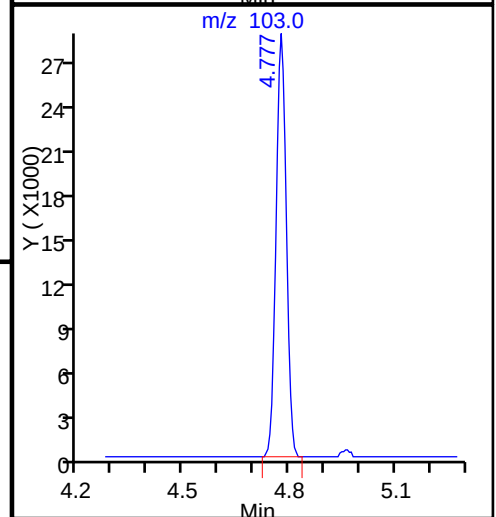
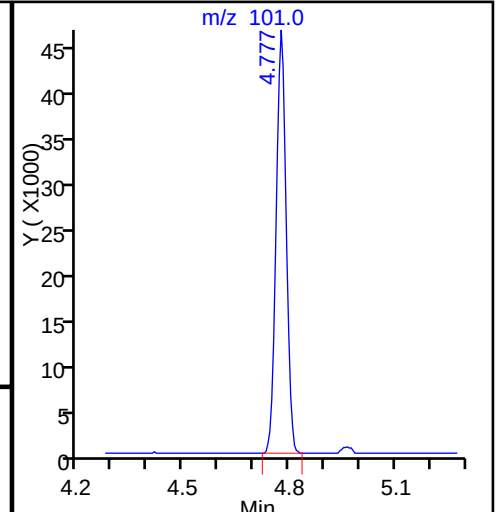
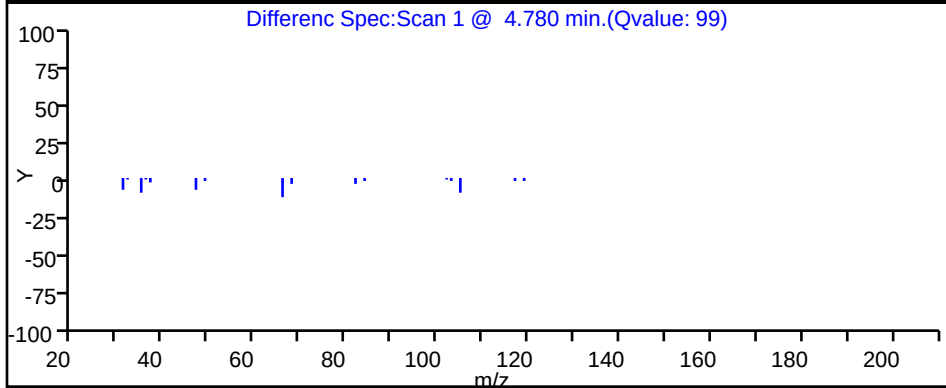
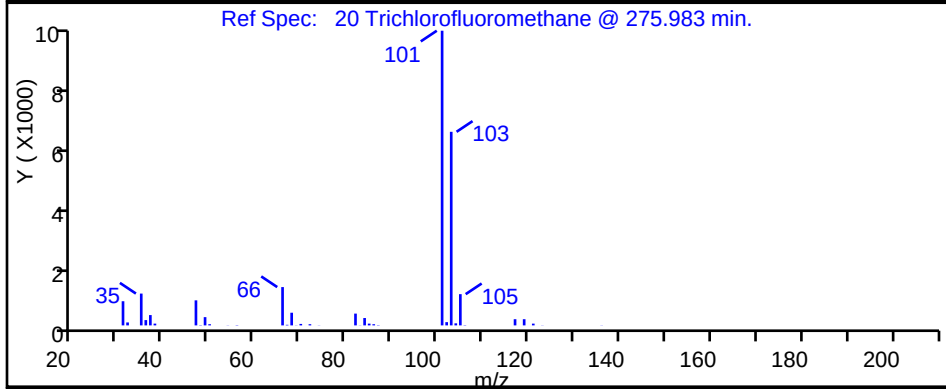
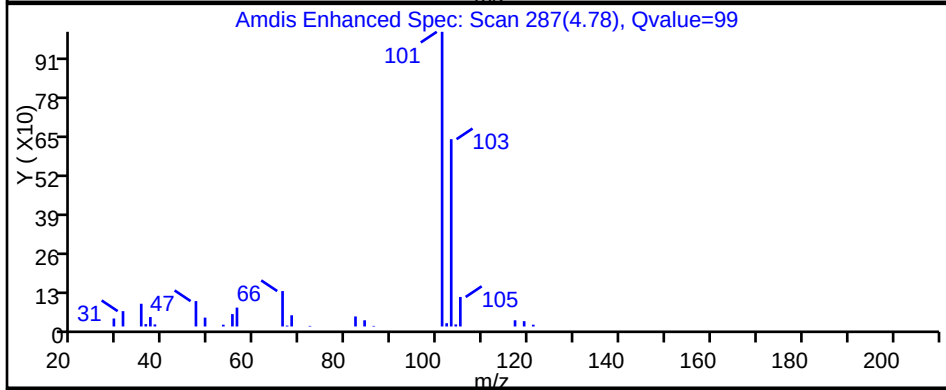
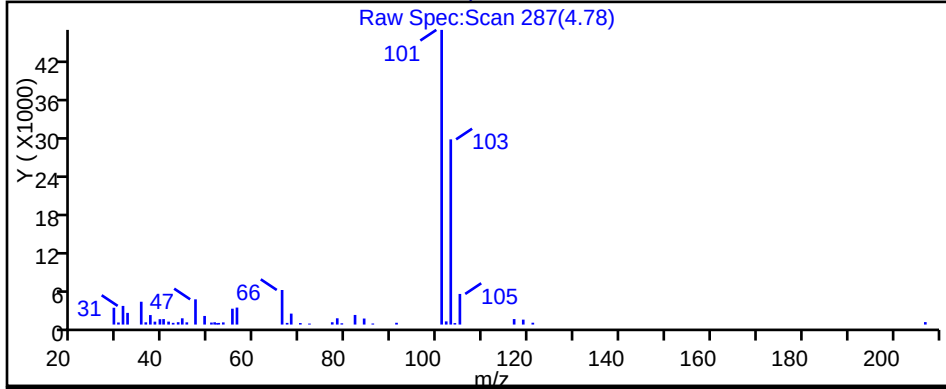
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P113.D

Injection Date: 17-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6566-A-3

Lab Sample ID: 140-6566-3

Client ID: 140-SSV-2

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 24

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

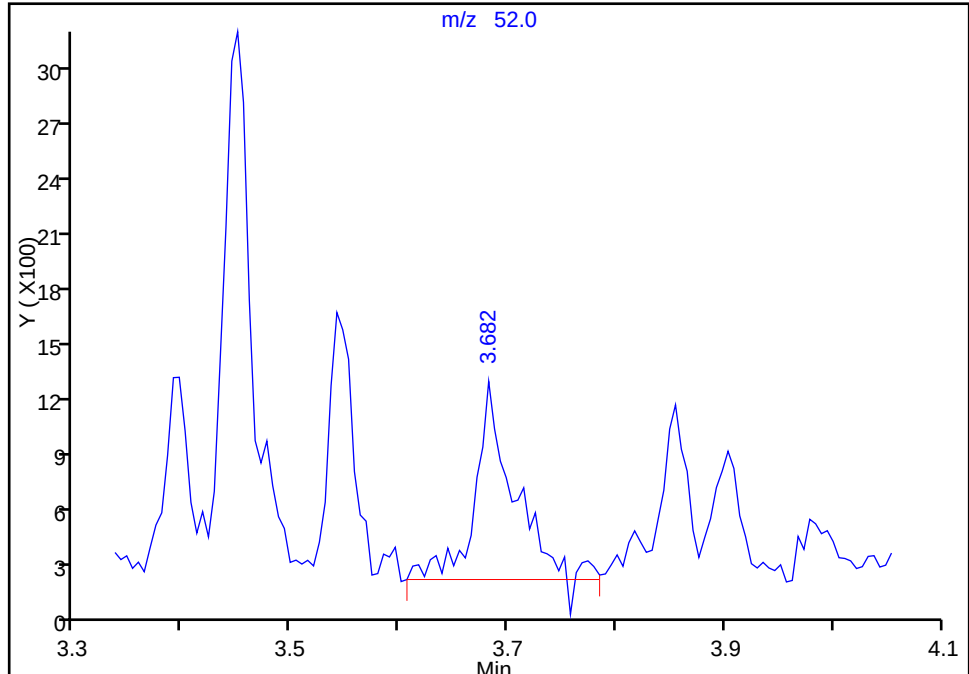
Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

Signal: 1

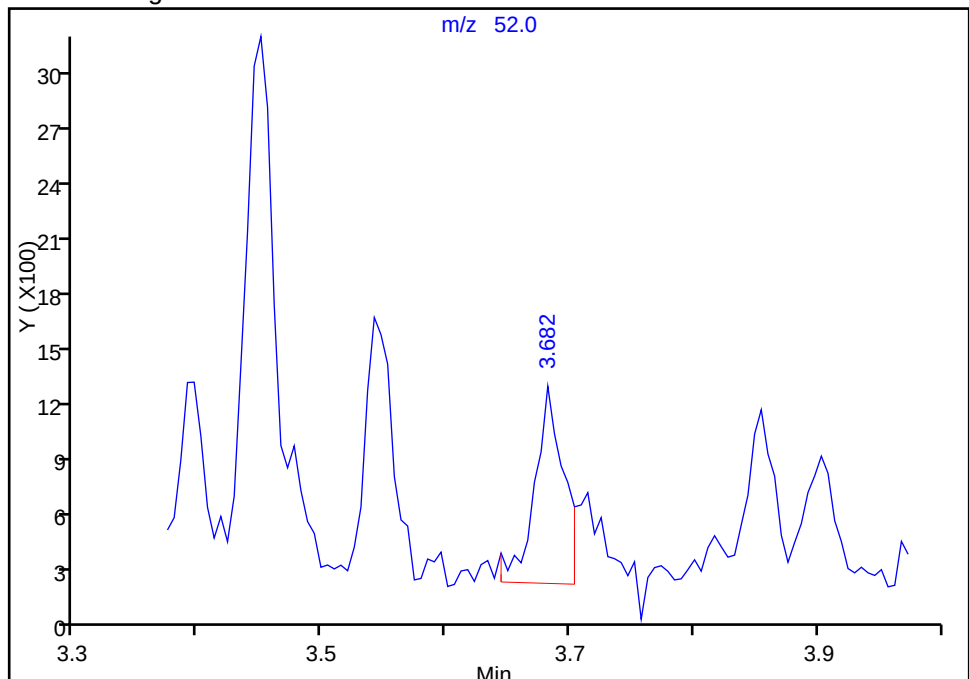
RT: 3.68
Area: 2642
Amount: 0.074049
Amount Units: ppb v/v

Processing Integration Results



RT: 3.68
Area: 1746
Amount: 0.048936
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 19-Dec-2016 10:00:17

Audit Action: Manually Integrated

Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 Lab Sample ID: 140-6566-4
 Matrix: Air Lab File ID: GL16P114.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	1.3		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.25		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.070		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	0.20		0.080	
74-87-3	Chloromethane	50.49	0.55		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 Lab Sample ID: 140-6566-4
 Matrix: Air Lab File ID: GL16P114.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.080	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>89</i>	<i>E</i>	<i>2.0</i>	
100-41-4	Ethylbenzene	106.17	0.10		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.59		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	1.0		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.34		0.080	
95-47-6	o-Xylene	106.17	0.12		0.080	
100-42-5	Styrene	104.15	0.083		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	1.3		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	11		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.29		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 Lab Sample ID: 140-6566-4
 Matrix: Air Lab File ID: GL16P114.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	3.9		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	0.80		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.44		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	0.95		0.39	
74-87-3	Chloromethane	50.49	1.1		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 Lab Sample ID: 140-6566-4
 Matrix: Air Lab File ID: GL16P114.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.5		0.40	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>170</i>	<i>E</i>	<i>3.8</i>	
100-41-4	Ethylbenzene	106.17	0.45		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	2.1		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	3.6		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	1.5		0.35	
95-47-6	o-Xylene	106.17	0.53		0.35	
100-42-5	Styrene	104.15	0.35		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	4.8		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	42		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.6		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D
 Lims ID: 140-6566-A-4
 Client ID: 140-IA-2
 Sample Type: Client
 Inject. Date: 17-Dec-2016 03:20:30 ALS Bottle#: 14 Worklist Smp#: 25
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-025
 Misc. Info.: 140-6566-a-4
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 10:01:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.066	8.055	0.011	96	385519	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.223	0.005	95	1840334	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	89	1857550	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	95	1188373	3.87	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	163686	0.4961	
9 Chloromethane	52	3.688	3.682	0.006	99	19538	0.5513	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	36	3325	0.0152	
17 Ethanol	31	4.415	4.383	0.032	95	3420867	88.8	E
20 Trichlorofluoromethane	101	4.782	4.777	0.005	99	92593	0.2896	
29 2-Methyl-2-propanol	59	5.537	5.494	0.043	90	29116	0.2016	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.564	0.005	95	13696	0.0678	
31 Methylene Chloride	84	5.715	5.704	0.011	96	84563	1.03	
34 trans-1,2-Dichloroethene	96	6.448	6.443	0.005	97	1176267	10.6	
39 2-Butanone (MEK)	72	7.338	7.333	0.005	99	59906	1.31	
40 Hexane	56	7.387	7.387	0.000	92	54045	0.5898	
44 Chloroform	83	8.088	8.077	0.011	96	47276	0.1955	
49 Benzene	78	9.651	9.646	0.005	97	83195	0.2513	
50 Cyclohexane	69	9.651	9.651	0.000	62	9023	0.1479	
52 Carbon tetrachloride	117	9.684	9.673	0.011	73	20811	0.0704	
56 Isooctane	57	10.471	10.471	0.000	86	54368	0.0906	
62 1,4-Dioxane	88	11.215	11.199	0.016	92	2802	0.0631	
65 4-Methyl-2-pentanone (MIBK	43	12.191	12.181	0.011	99	24085	0.1069	
68 Toluene	91	13.076	13.076	0.000	94	473036	1.27	
76 Tetrachloroethene	129	14.246	14.246	0.000	30	3351	0.0206	
79 Ethylbenzene	91	15.437	15.437	0.000	98	50901	0.1045	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	127054	0.3384	
84 Styrene	104	16.074	16.074	0.000	90	22148	0.0830	
85 o-Xylene	91	16.133	16.133	0.000	99	47899	0.1211	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	33924	0.0754	

[QC Flag Legend](#)

Processing Flags

E - Exceeded Maximum Amount

[Reagents:](#)

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Worklist Smp#: 25

Client ID: 140-IA-2

Purge Vol: 500.000 mL

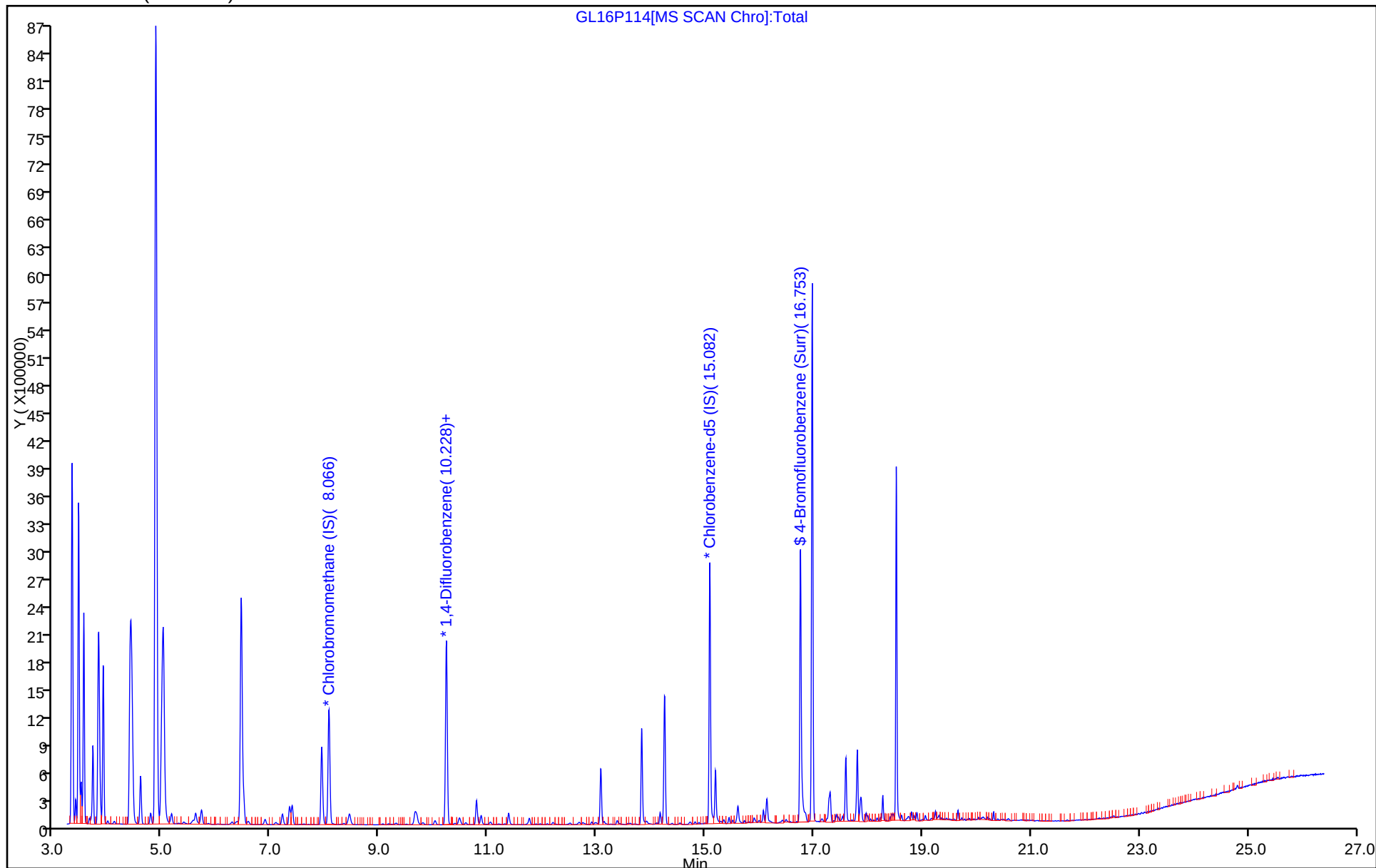
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D
Lims ID: 140-6566-A-4
Client ID: 140-IA-2
Sample Type: Client
Inject. Date: 17-Dec-2016 03:20:30 ALS Bottle#: 14 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-025
Misc. Info.: 140-6566-a-4
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 10:01:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.87	96.71

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

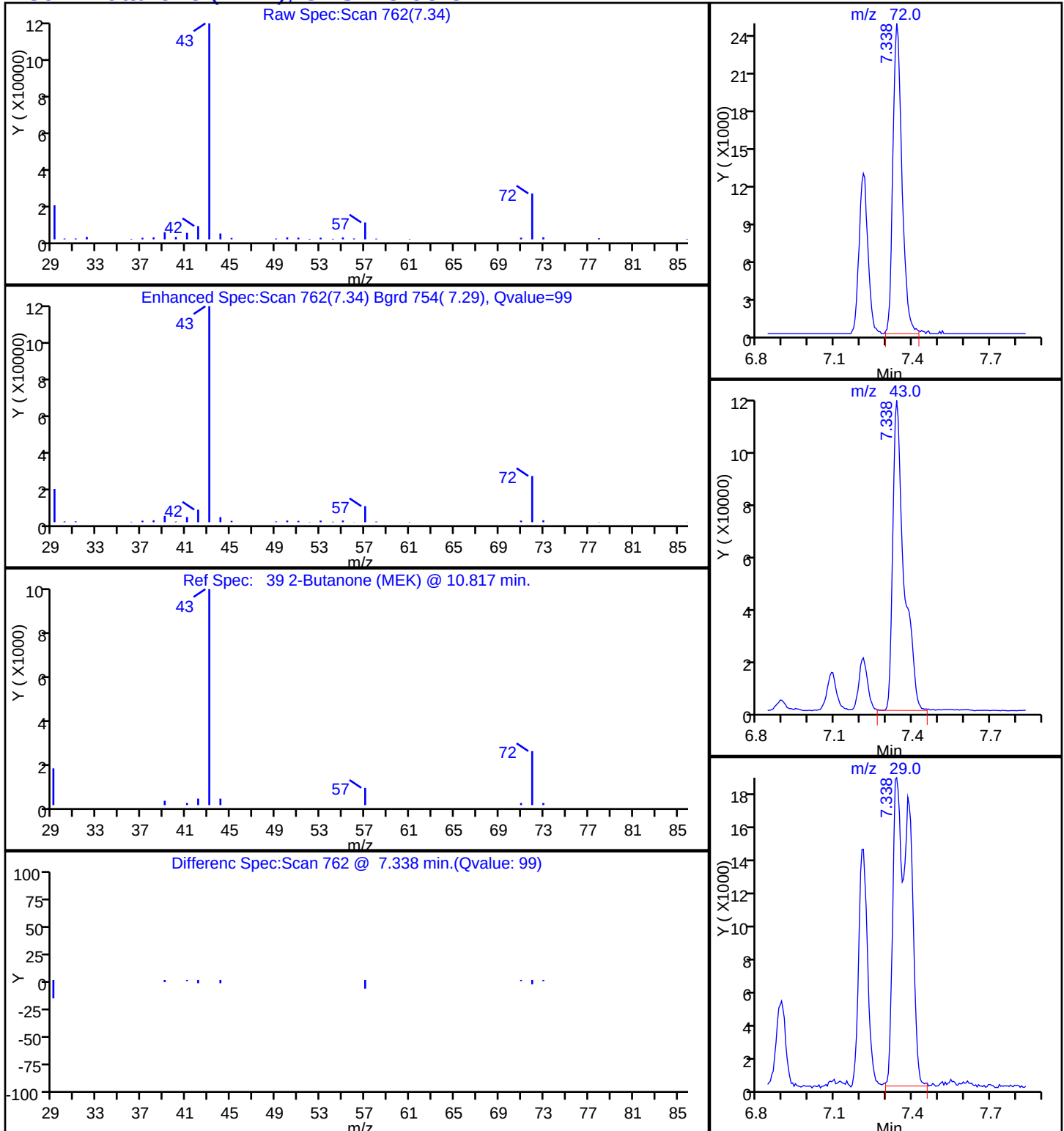
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

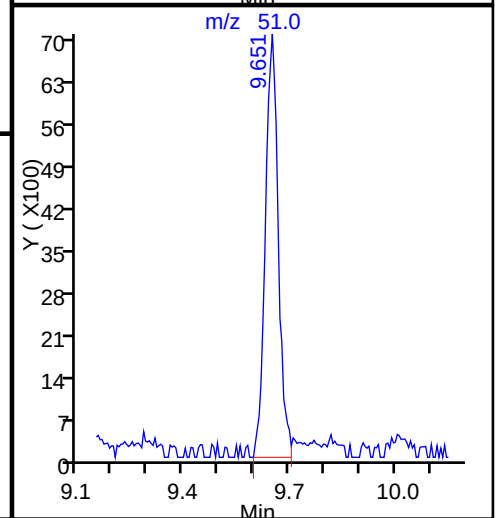
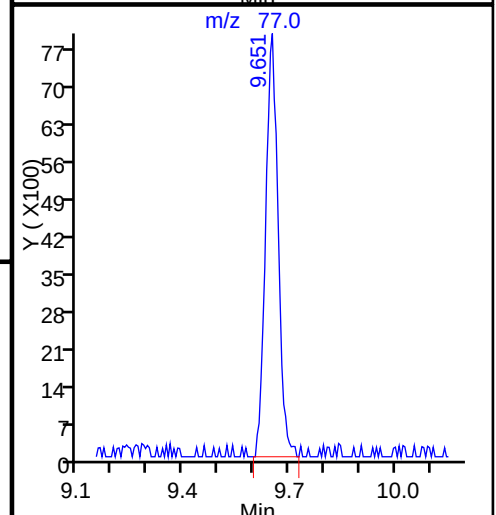
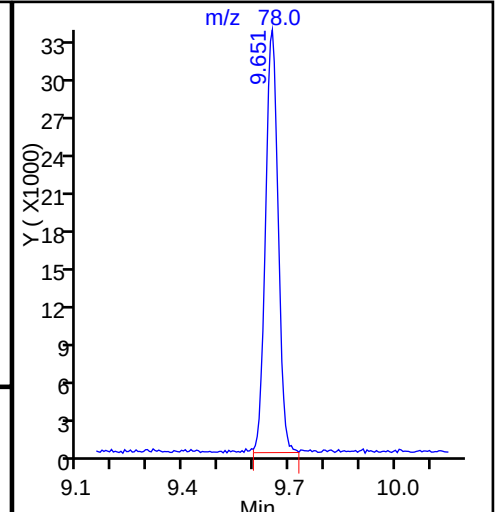
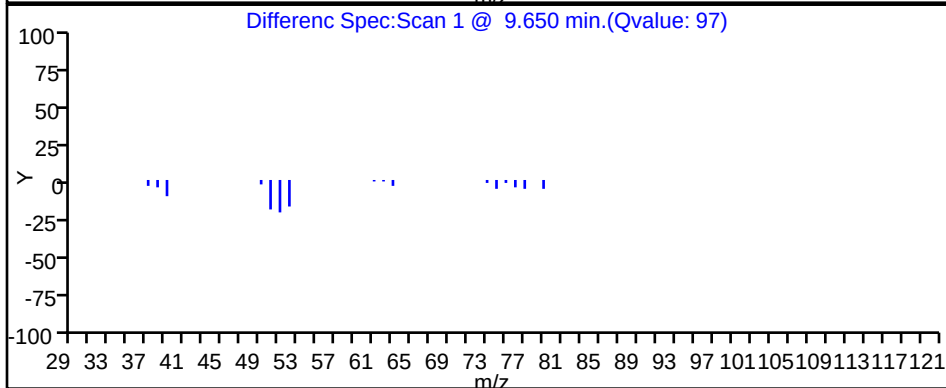
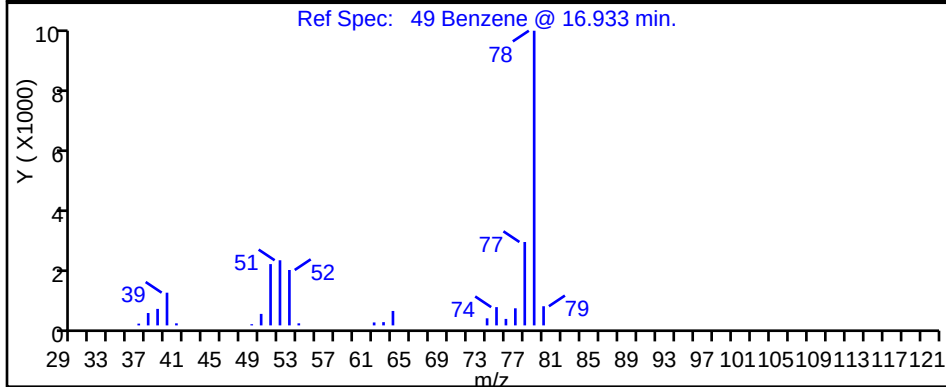
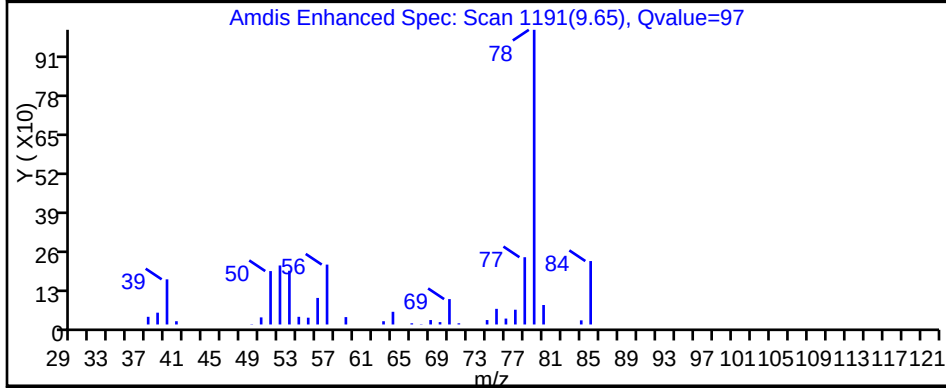
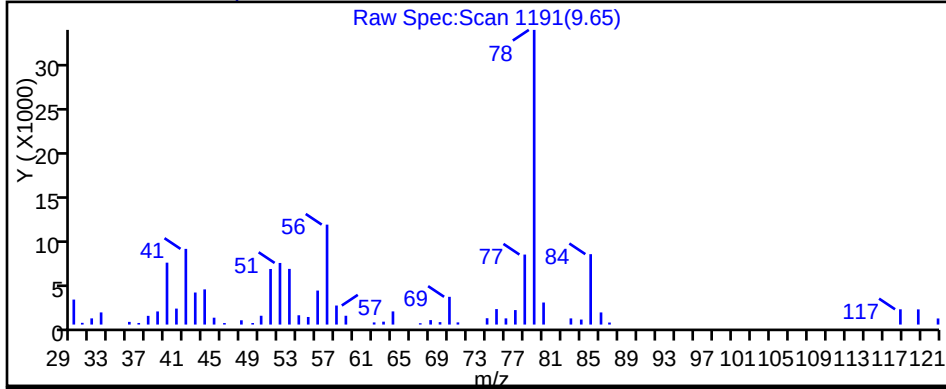
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

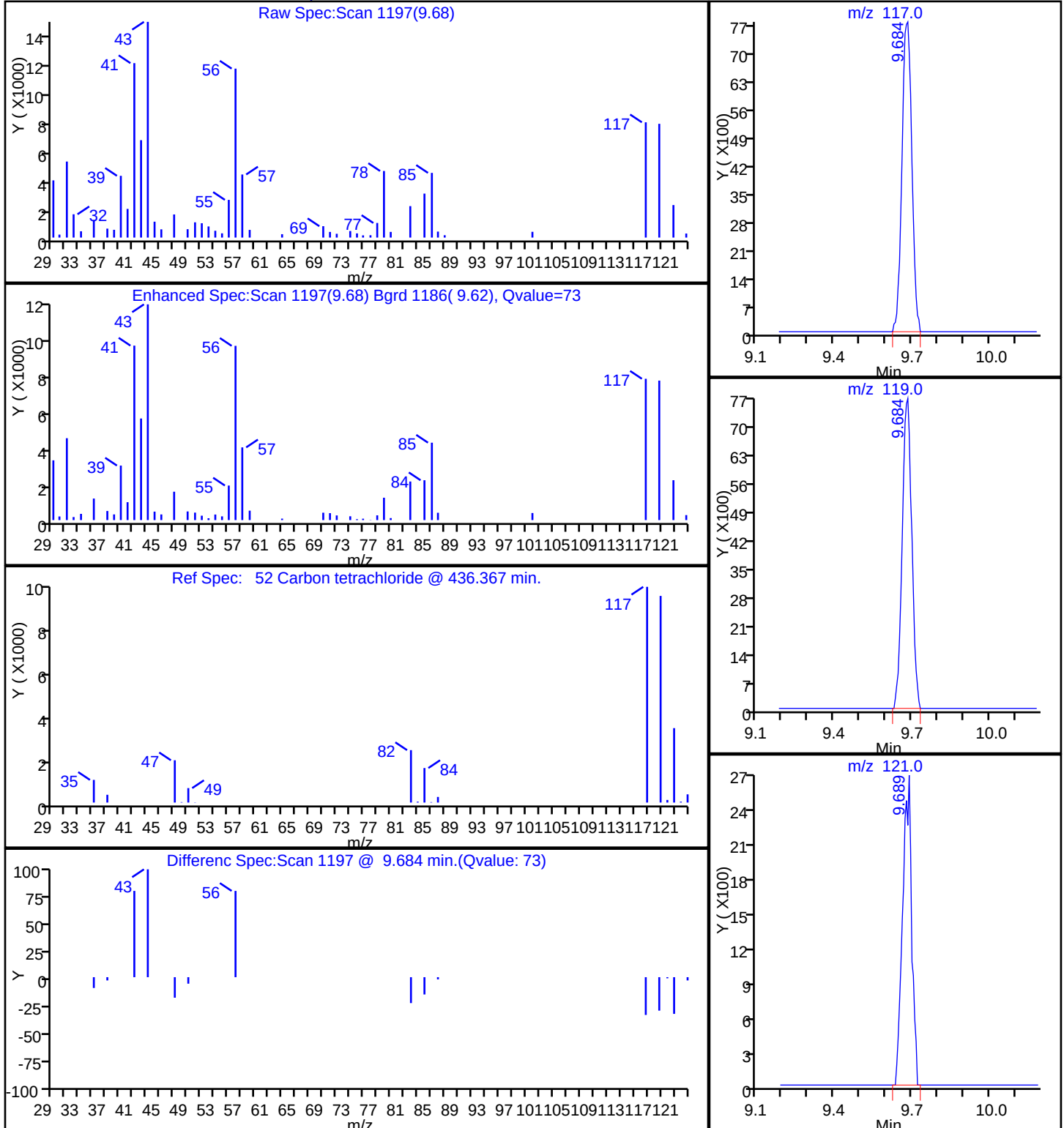
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

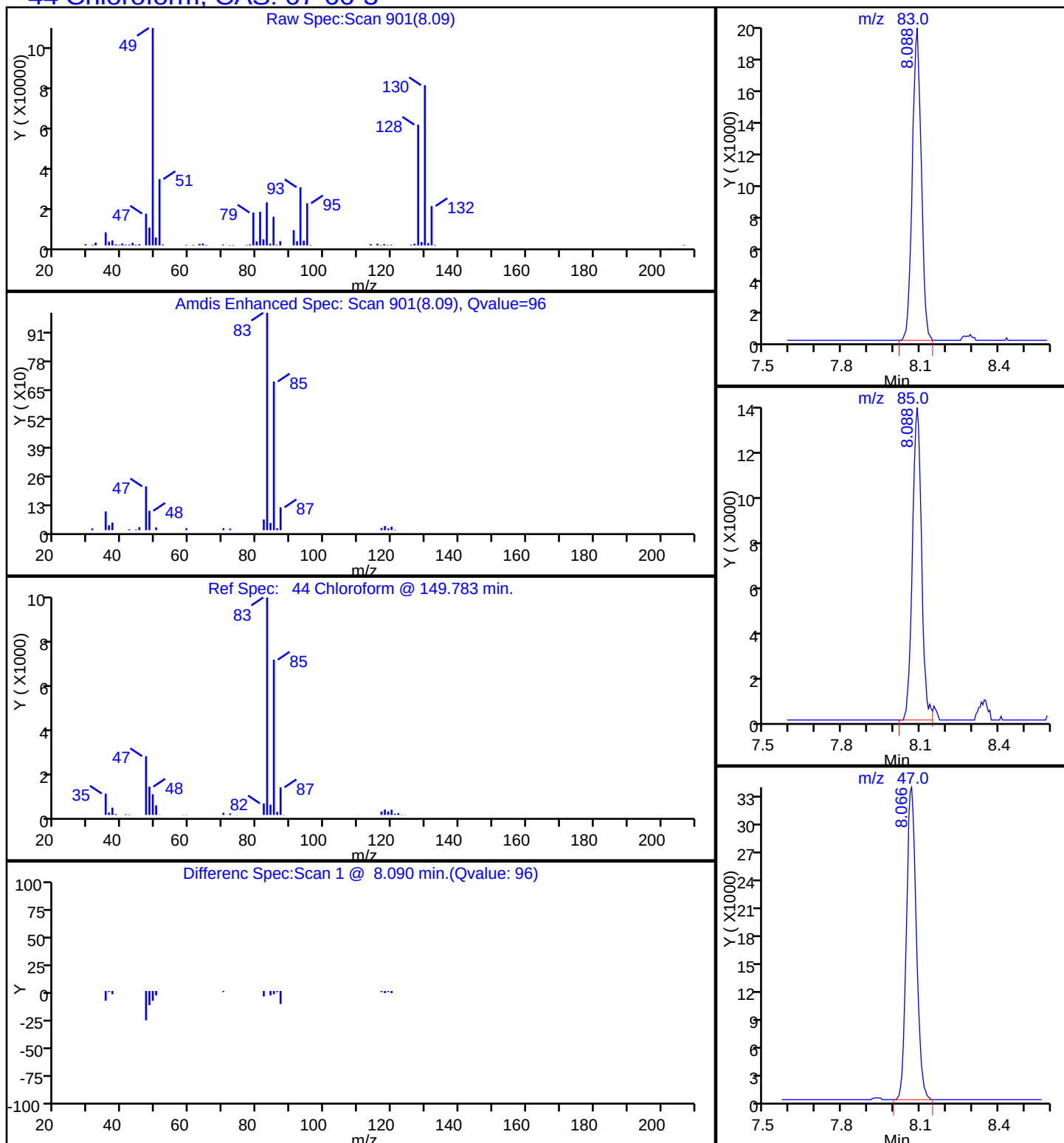
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

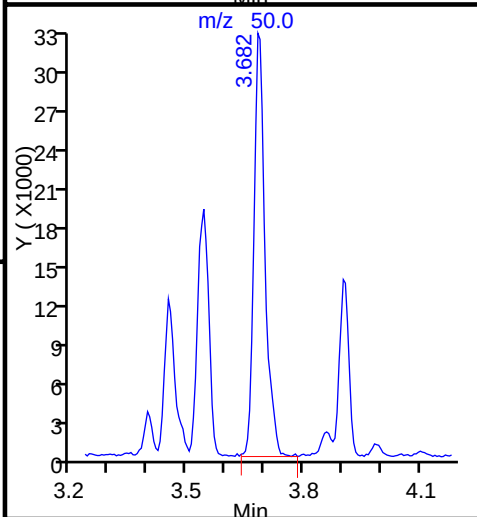
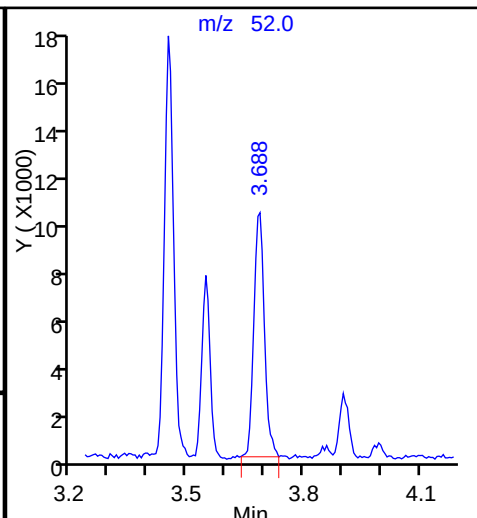
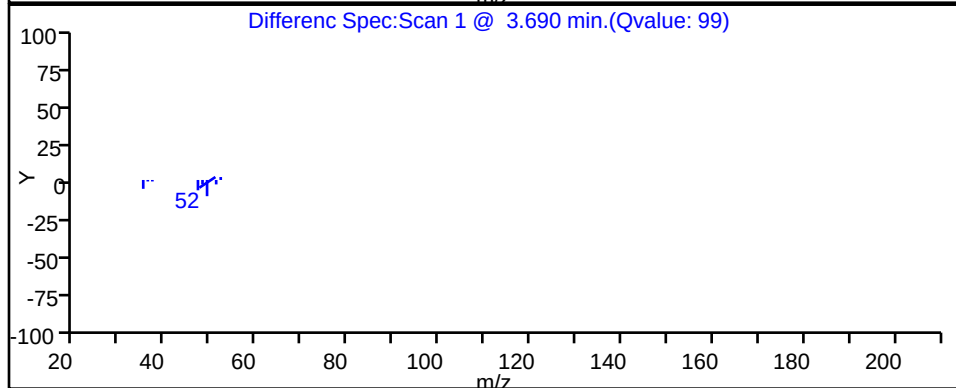
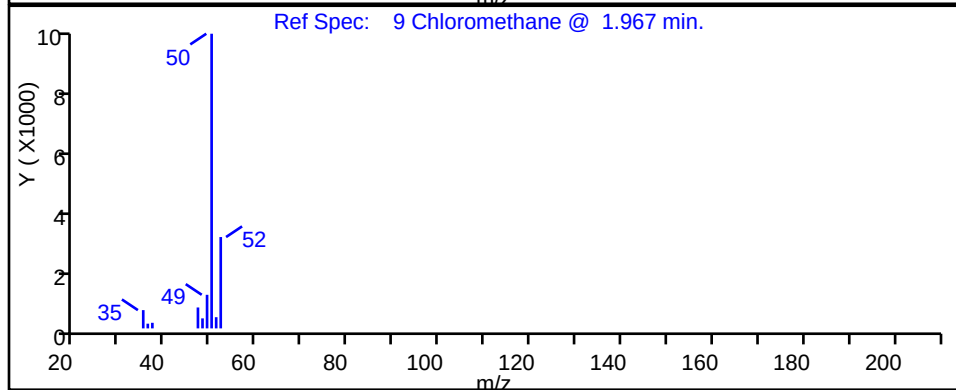
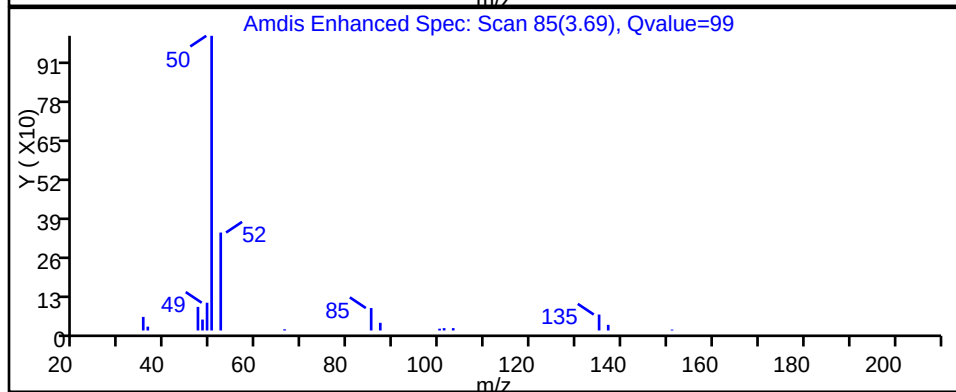
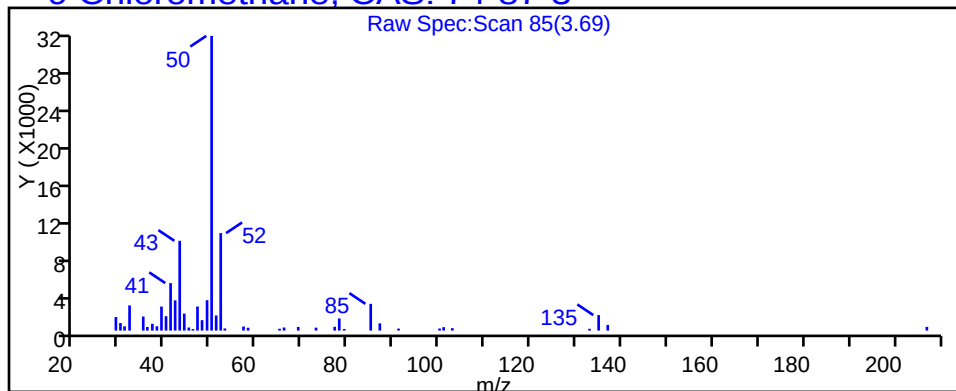
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

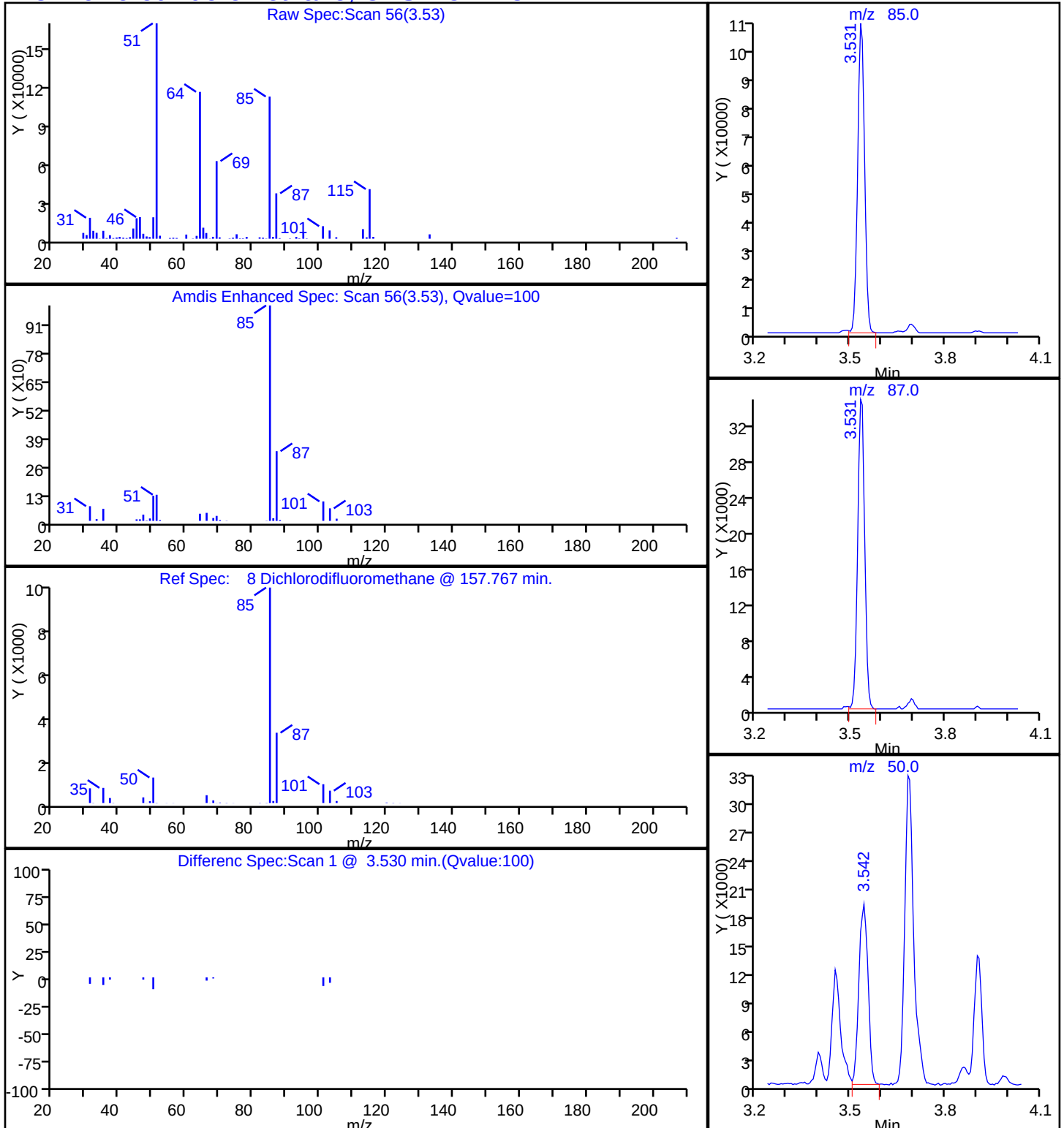
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

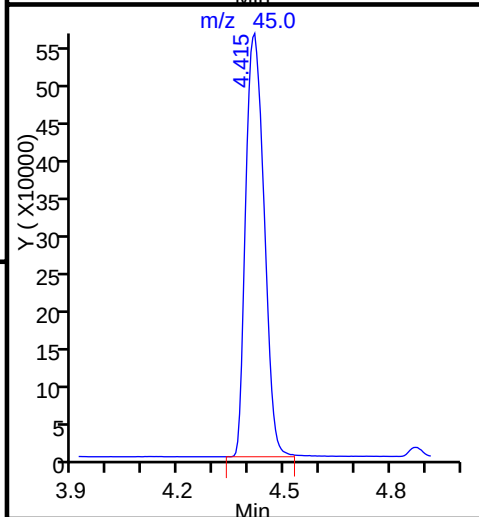
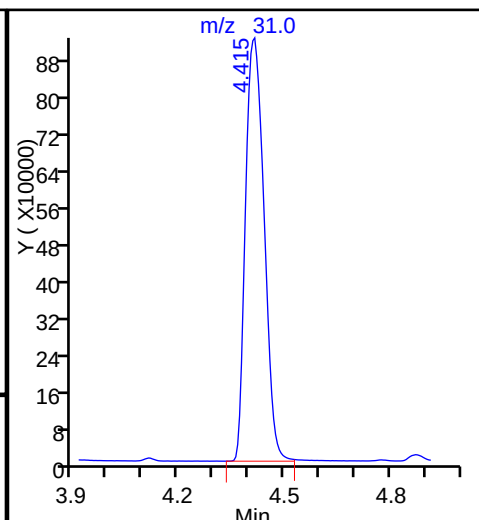
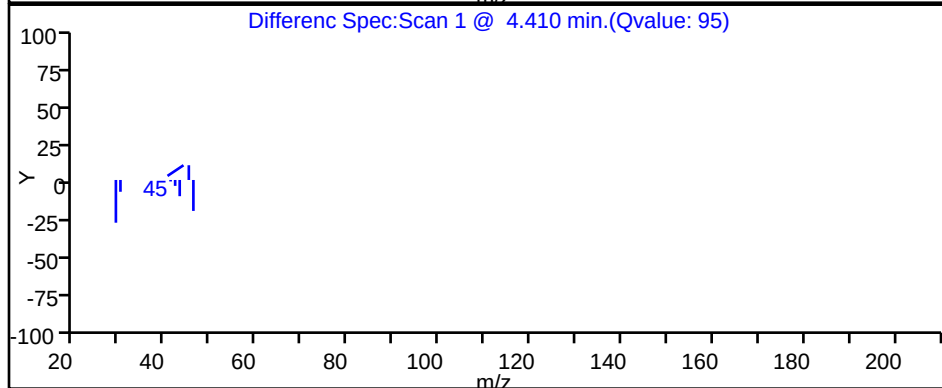
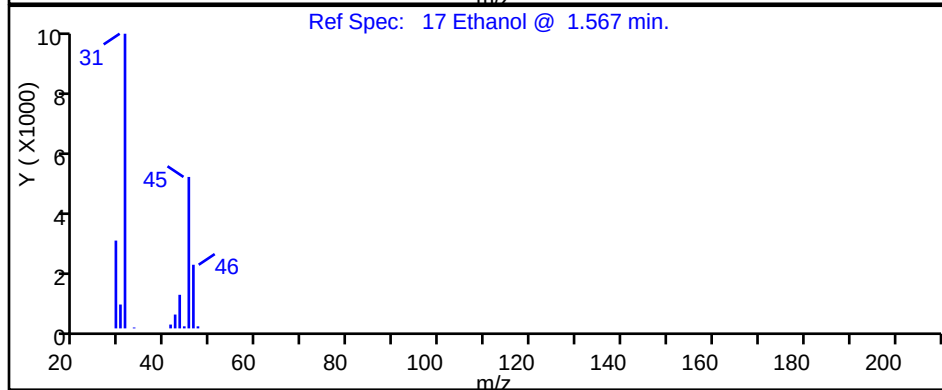
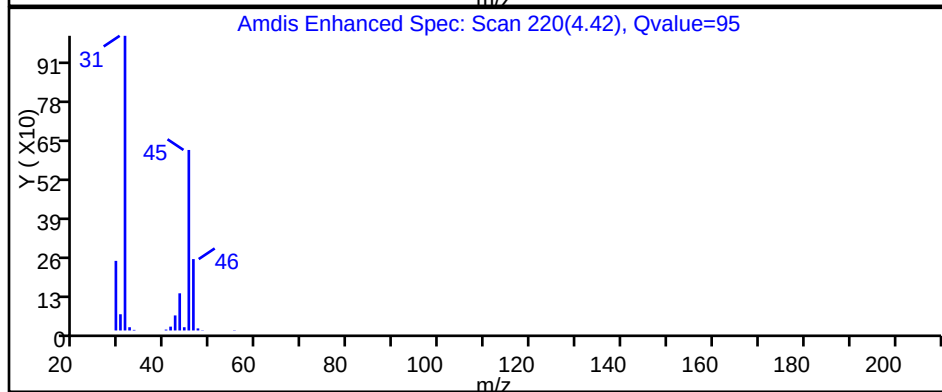
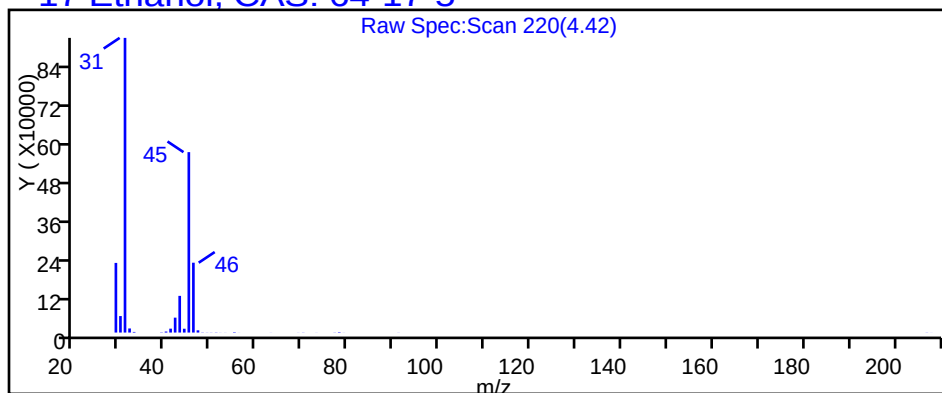
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

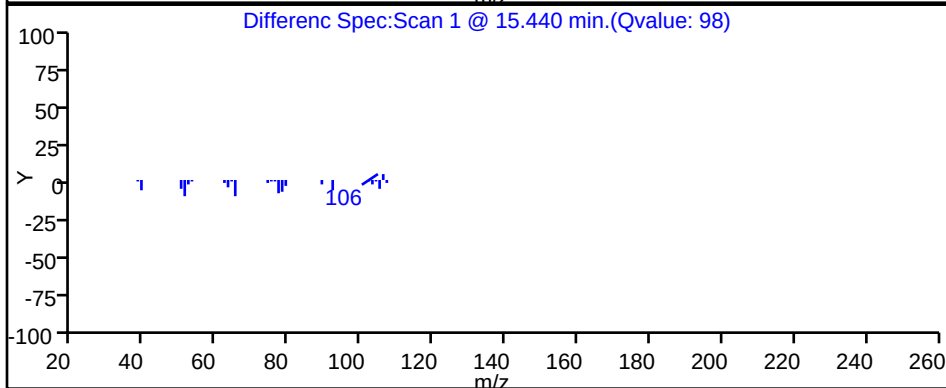
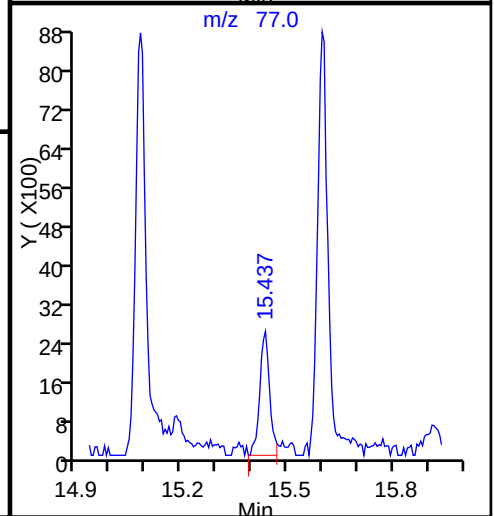
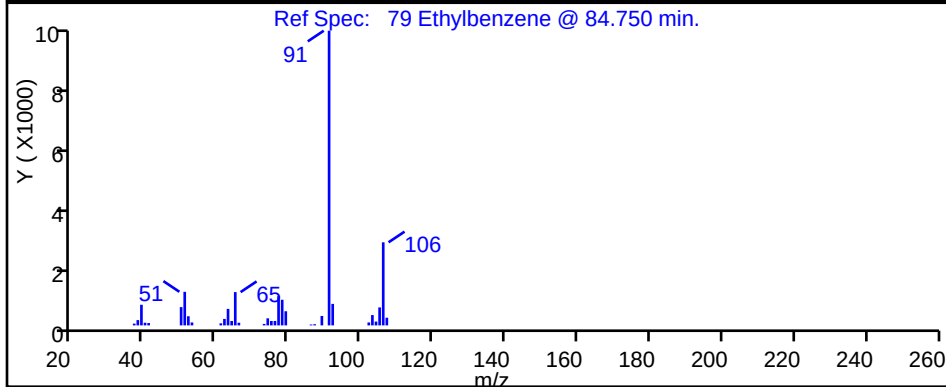
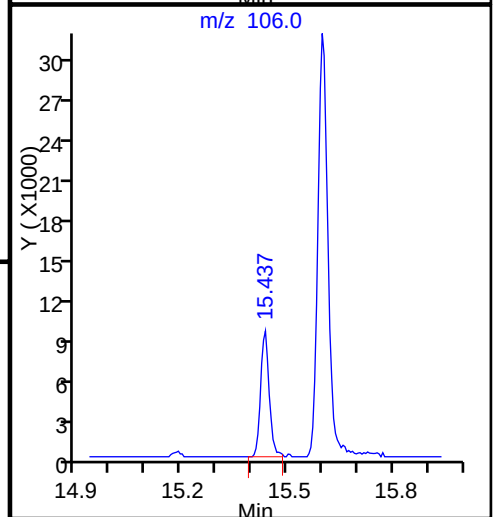
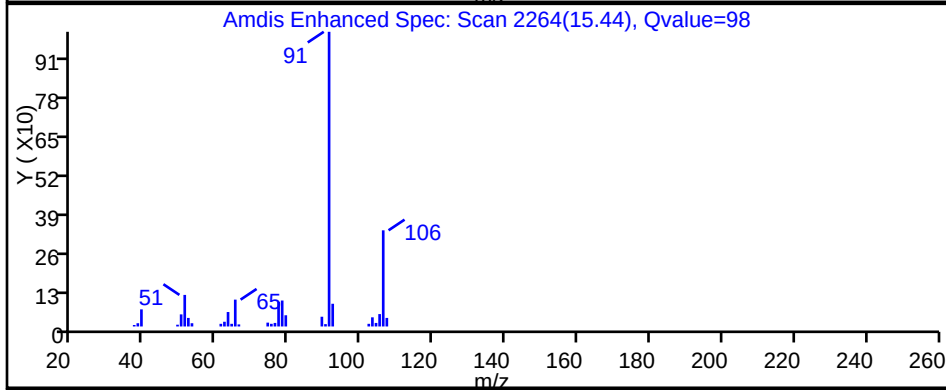
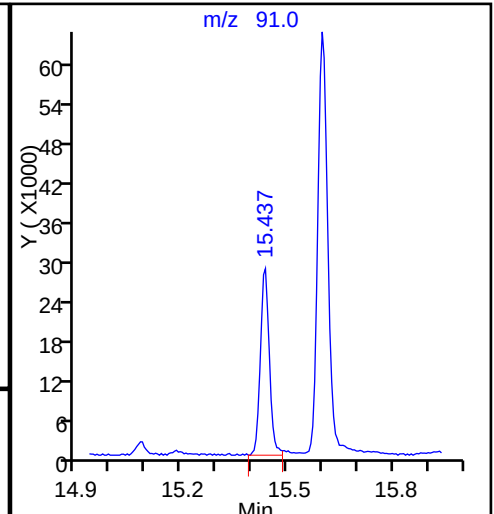
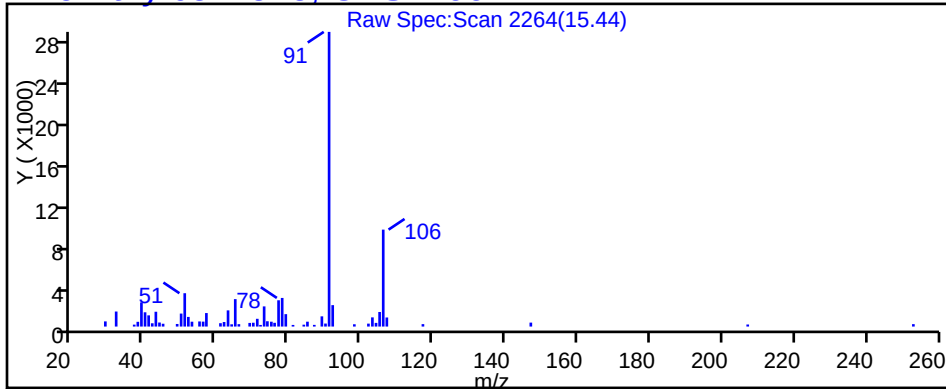
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

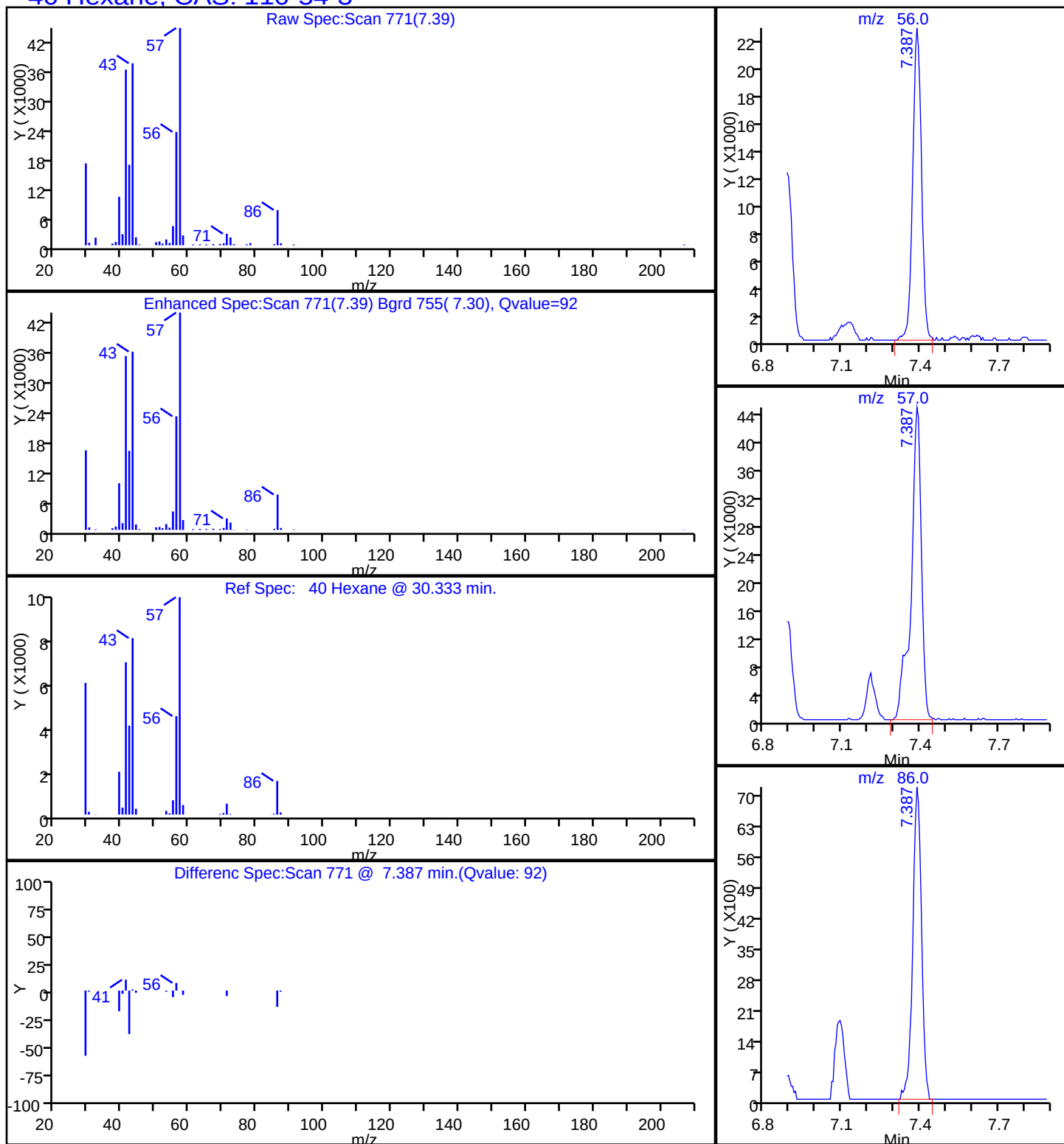
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

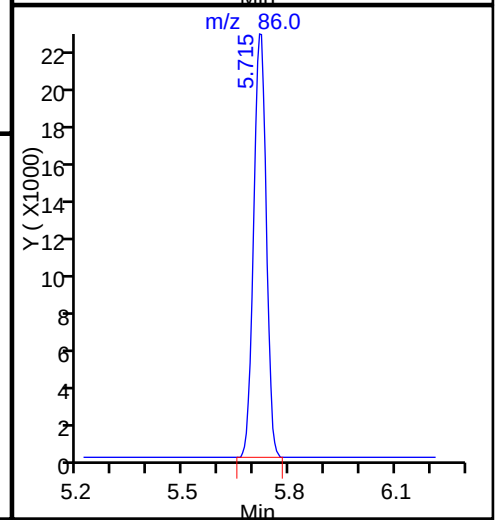
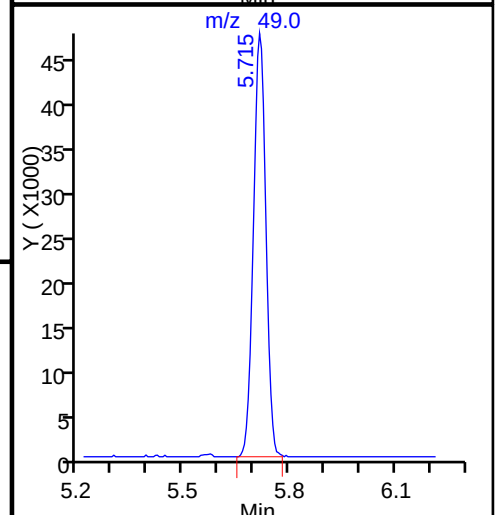
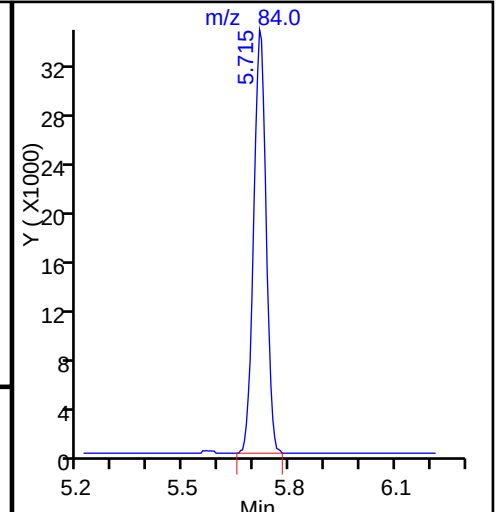
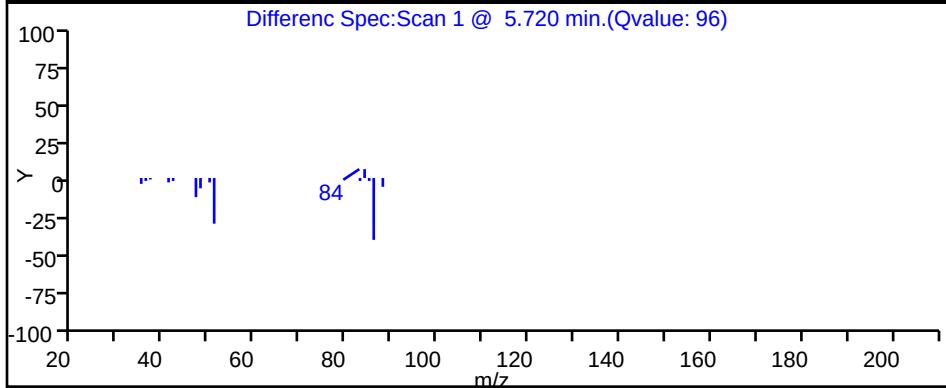
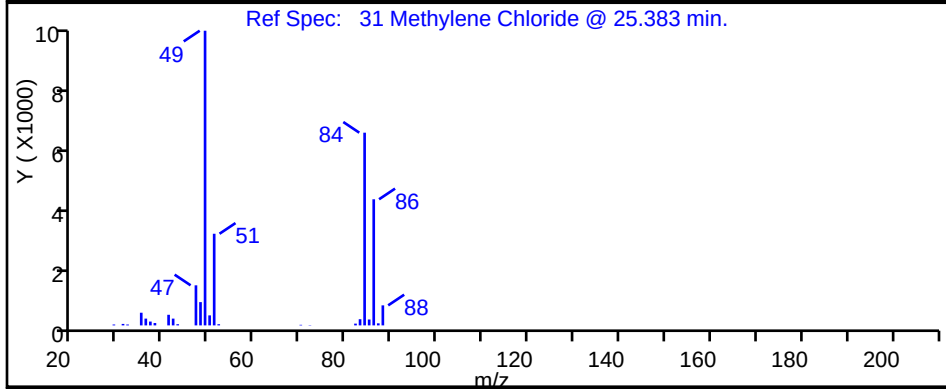
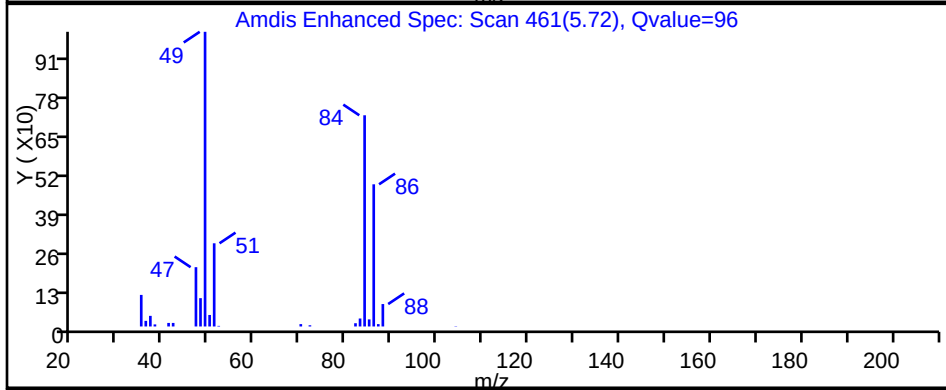
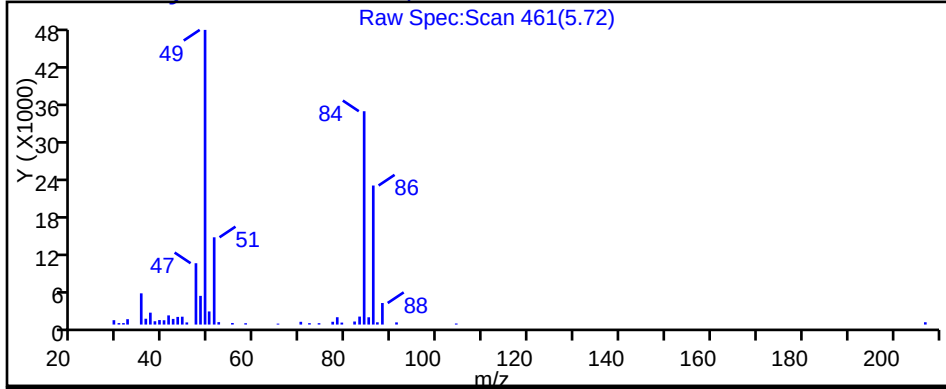
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

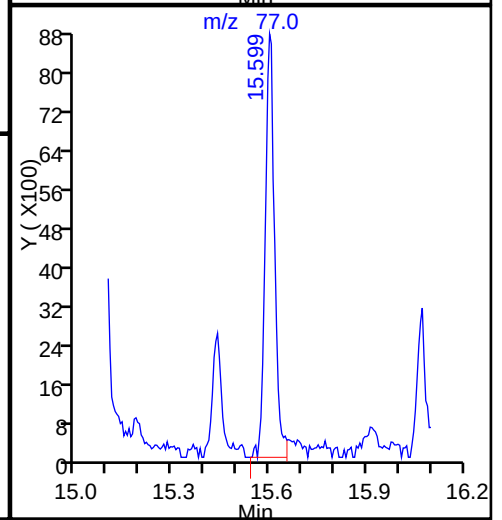
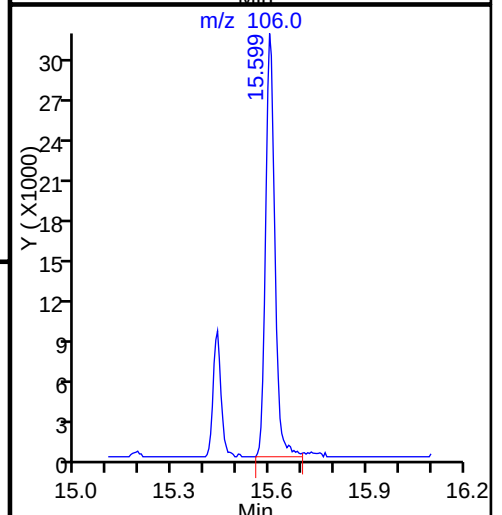
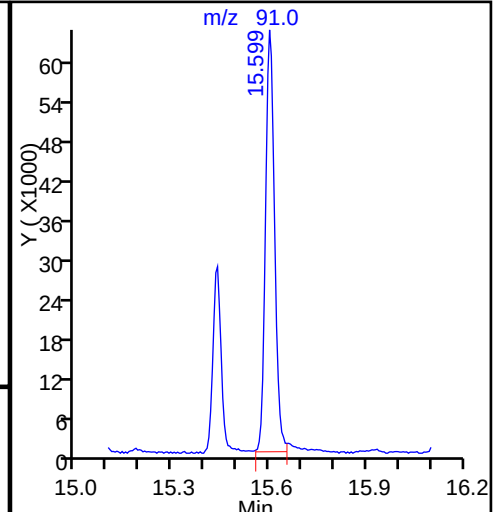
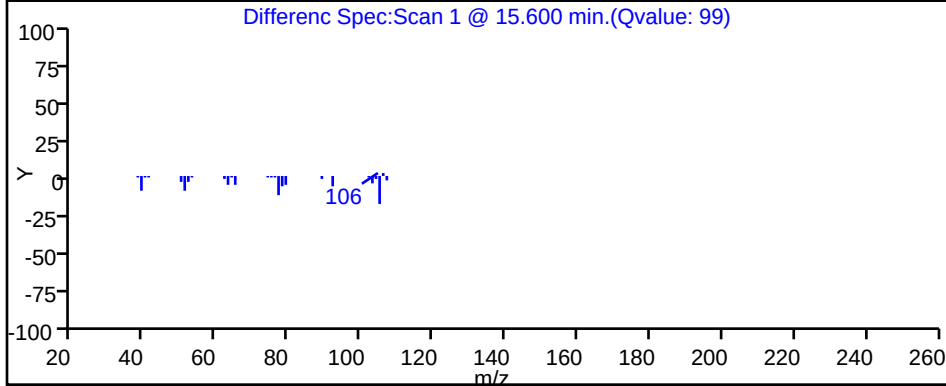
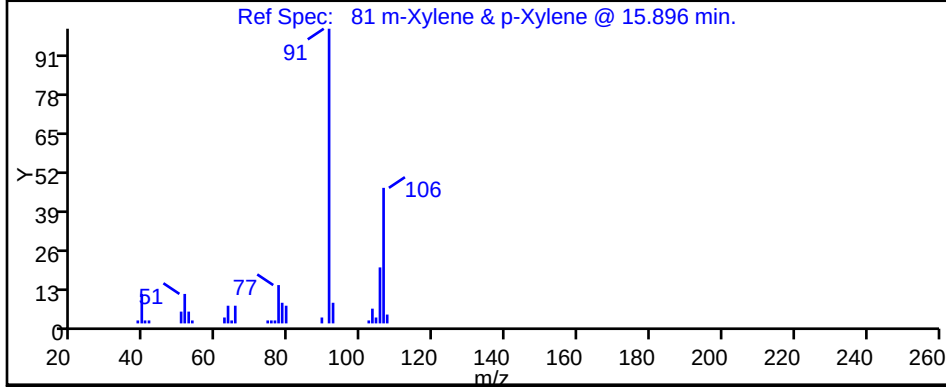
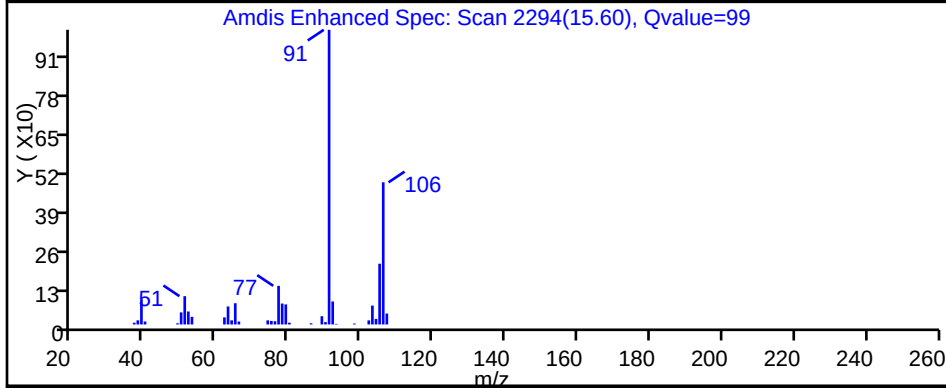
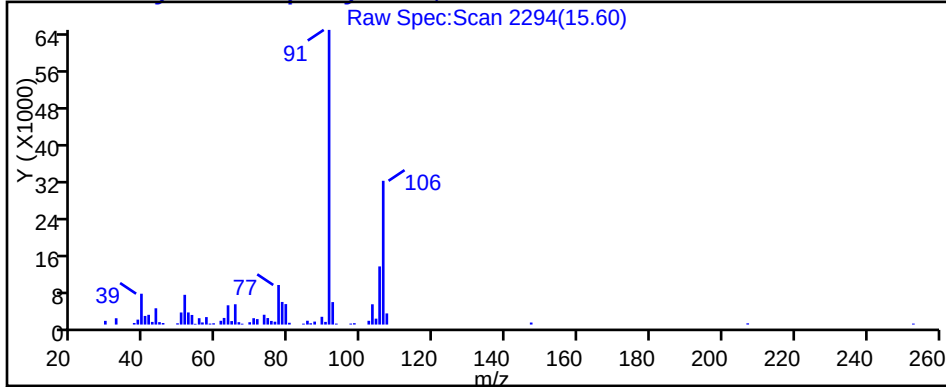
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

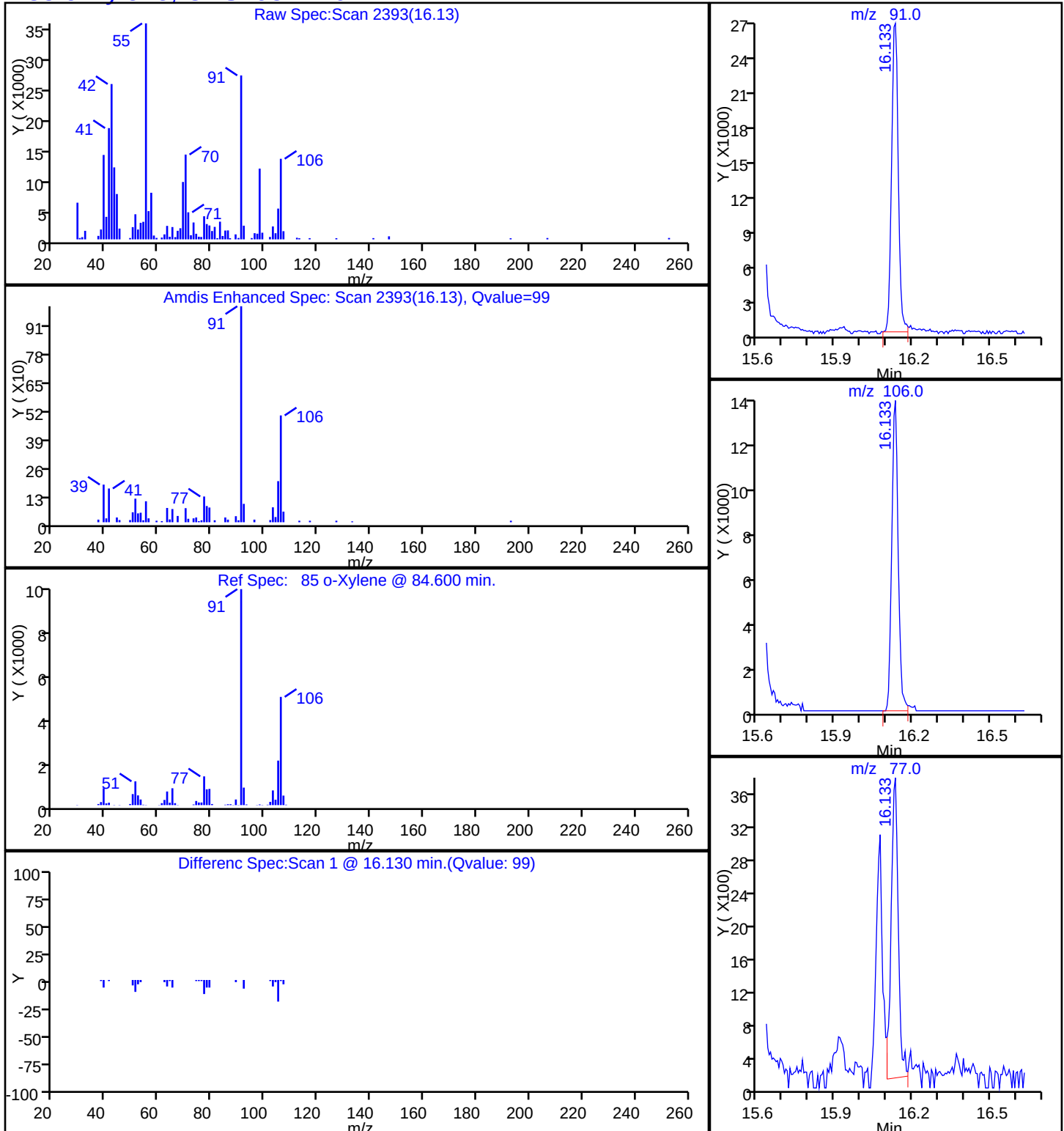
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

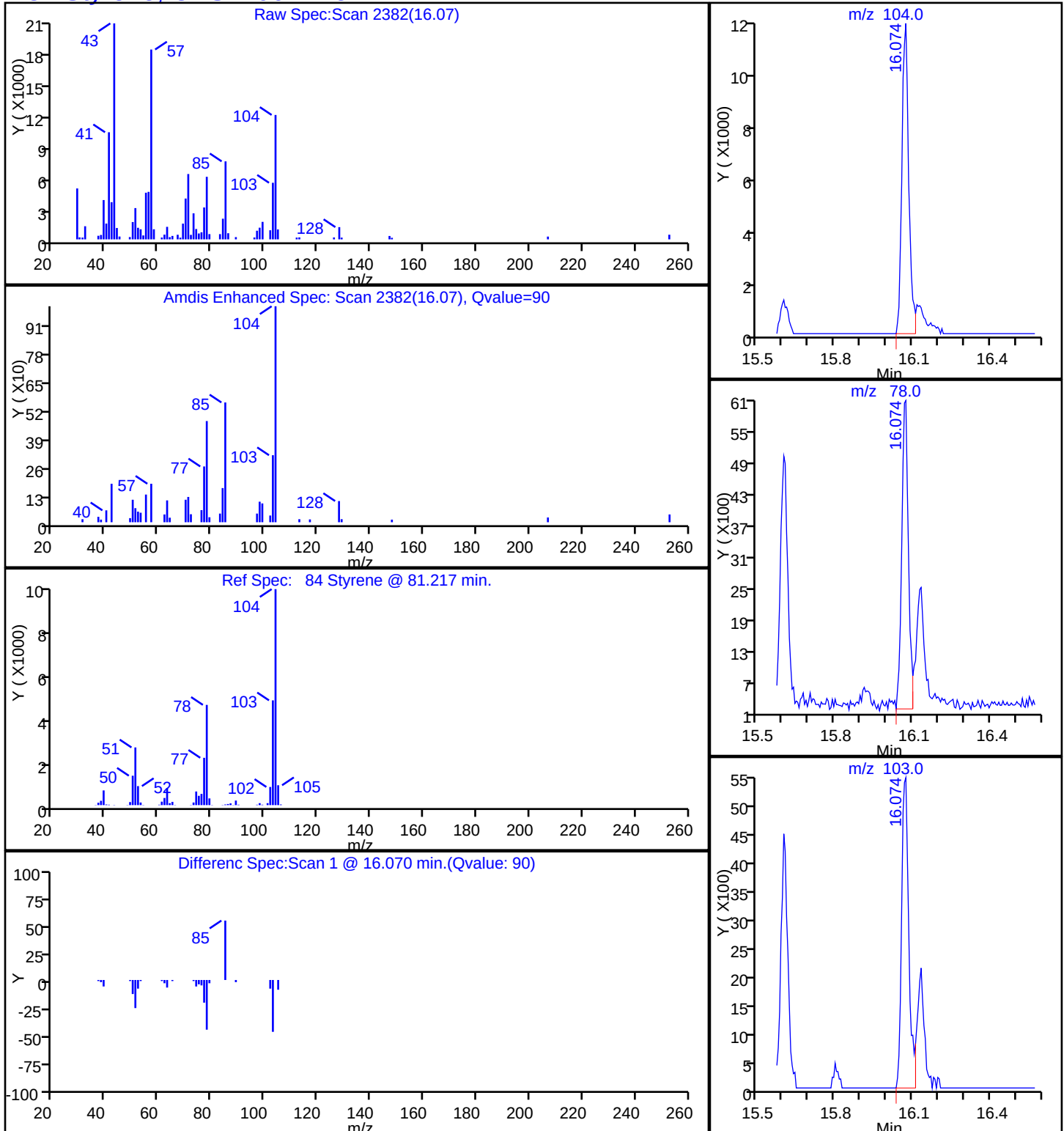
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

84 Styrene, CAS: 100-42-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

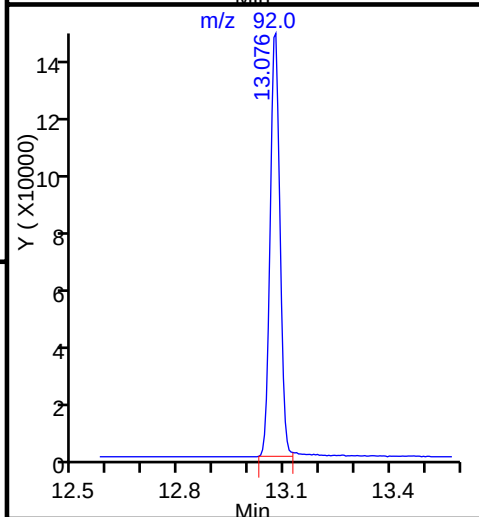
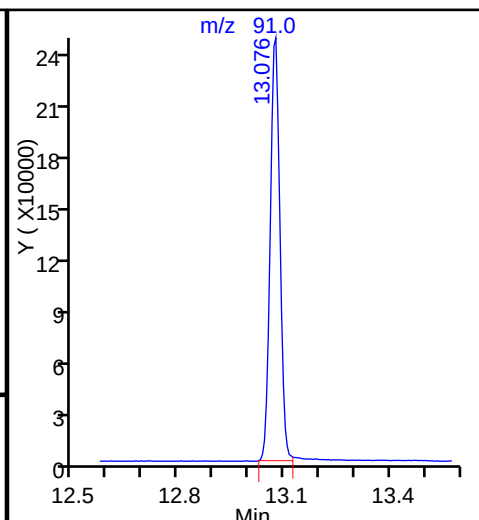
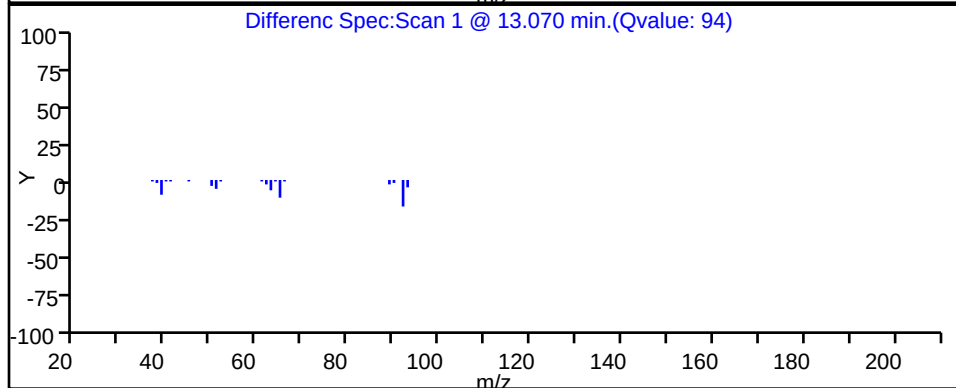
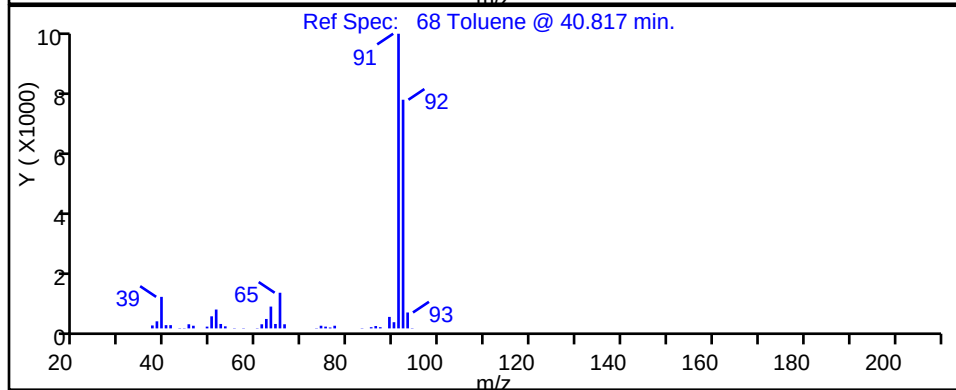
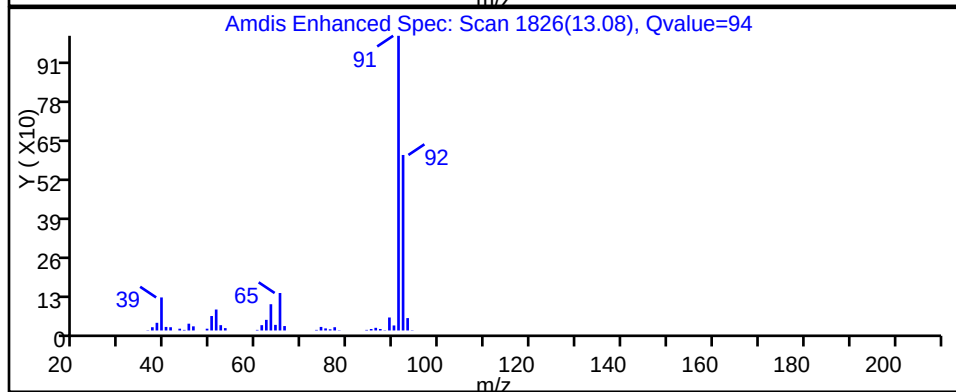
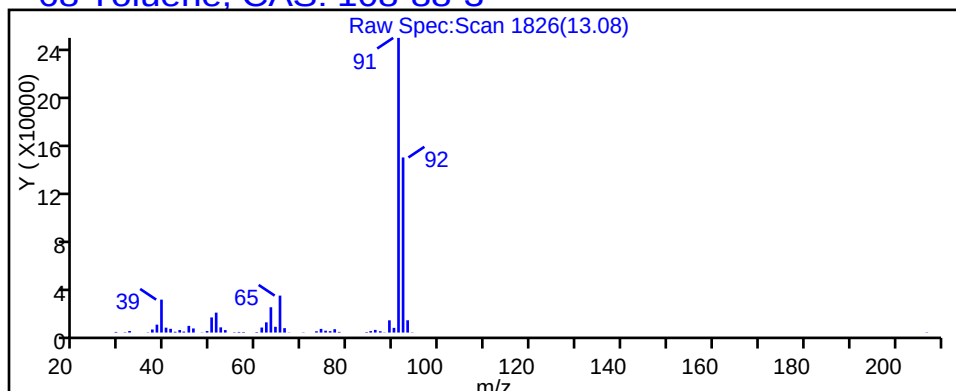
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

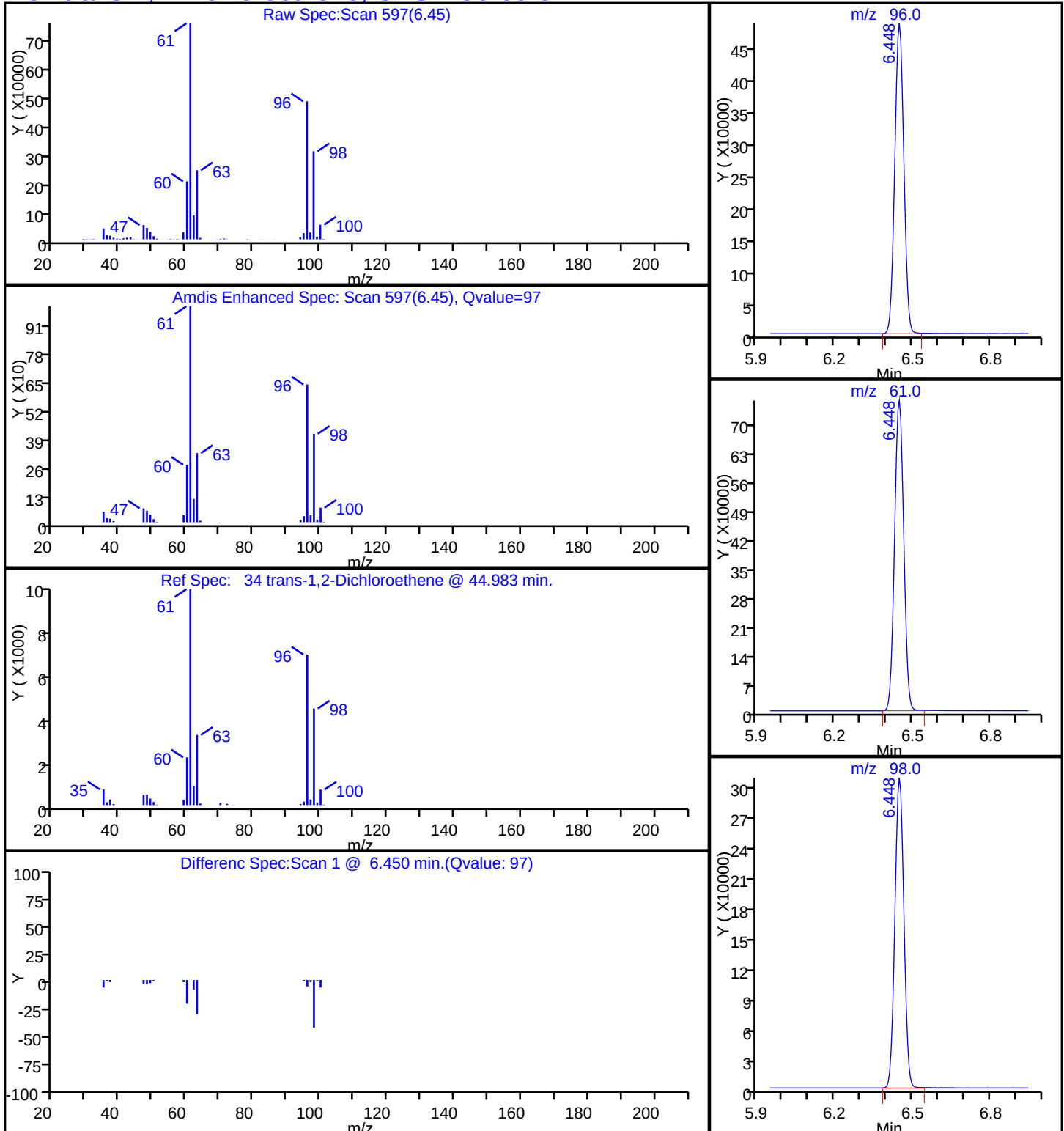
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GL16P114.D

Injection Date: 17-Dec-2016 03:20:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 14

Worklist Smp#: 25

Purge Vol: 500.000 mL

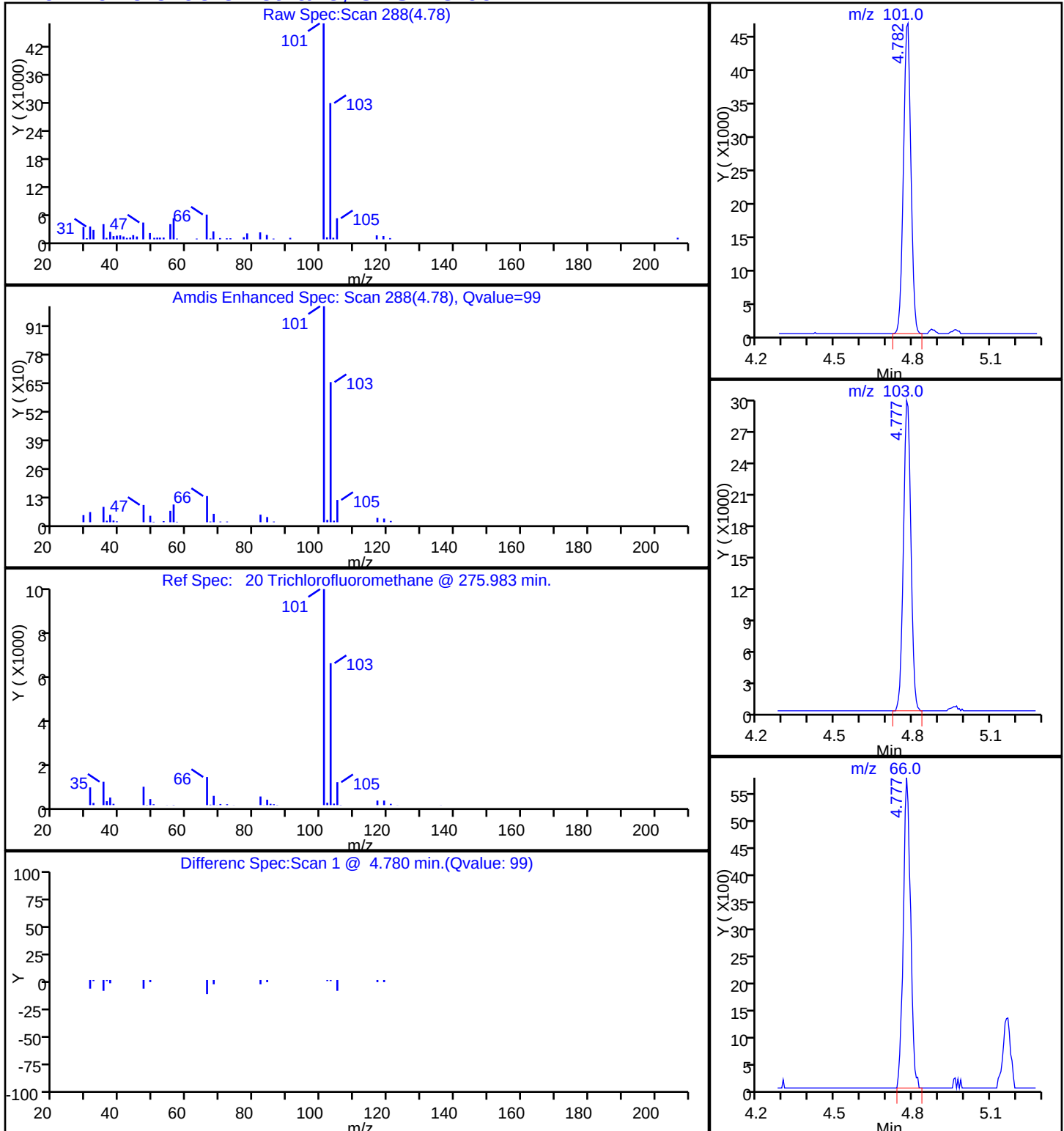
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 DL Lab Sample ID: 140-6566-4 DL
 Matrix: Air Lab File ID: GL19P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2016 22:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	81	D	5.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: 140-IA-2 DL Lab Sample ID: 140-6566-4 DL
 Matrix: Air Lab File ID: GL19P112.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 17:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2016 22:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	150	D	9.4	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GL19P112.D
 Lims ID: 140-6566-A-4
 Client ID: 140-IA-2
 Sample Type: Client
 Inject. Date: 19-Dec-2016 22:23:30 ALS Bottle#: 12 Worklist Smp#: 17
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003721-017
 Misc. Info.: 140-6566-a-4
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 10:06:46 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 10:15:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	352515	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.229	-0.006	95	1705810	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	87	1682140	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1130883	4.07	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	99	67152	0.2226	
9 Chloromethane	52	3.682	3.682	0.000	99	9901	0.3056	
17 Ethanol	31	4.394	4.383	0.011	96	1134551	32.2	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	59490	0.2035	
29 2-Methyl-2-propanol	59	5.516	5.499	0.017	94	15893	0.1203	
30 1,1,2-Trichloro-1,2,2-trif	101	5.559	5.564	-0.005	94	5162	0.0279	
31 Methylene Chloride	84	5.704	5.704	0.000	97	103574	1.38	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	96	394509	3.90	
39 2-Butanone (MEK)	72	7.344	7.333	0.011	96	15831	0.3792	
40 Hexane	56	7.387	7.387	0.000	88	63029	0.7522	
44 Chloroform	83	8.077	8.077	0.000	92	15338	0.0694	
49 Benzene	78	9.646	9.646	0.000	98	31396	0.1023	
50 Cyclohexane	69	9.657	9.652	0.005	62	2950	0.0522	
52 Carbon tetrachloride	117	9.678	9.679	-0.001	71	7960	0.0291	
56 Isooctane	57	10.471	10.471	0.000	87	21476	0.0386	
65 4-Methyl-2-pentanone (MIBK	43	12.197	12.181	0.016	98	7311	0.0350	
68 Toluene	91	13.070	13.076	-0.006	94	238361	0.7086	
79 Ethylbenzene	91	15.432	15.438	-0.006	98	17253	0.0391	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	40724	0.1198	
84 Styrene	104	16.068	16.069	0.000	64	6113	0.0253	
85 o-Xylene	91	16.133	16.133	0.000	97	15331	0.0428	
96 1,2,4-Trimethylbenzene	105	17.993	17.994	-0.001	97	10242	0.0251	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GL19P112.D

Injection Date: 19-Dec-2016 22:23:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Worklist Smp#: 17

Client ID: 140-IA-2

Purge Vol: 500.000 mL

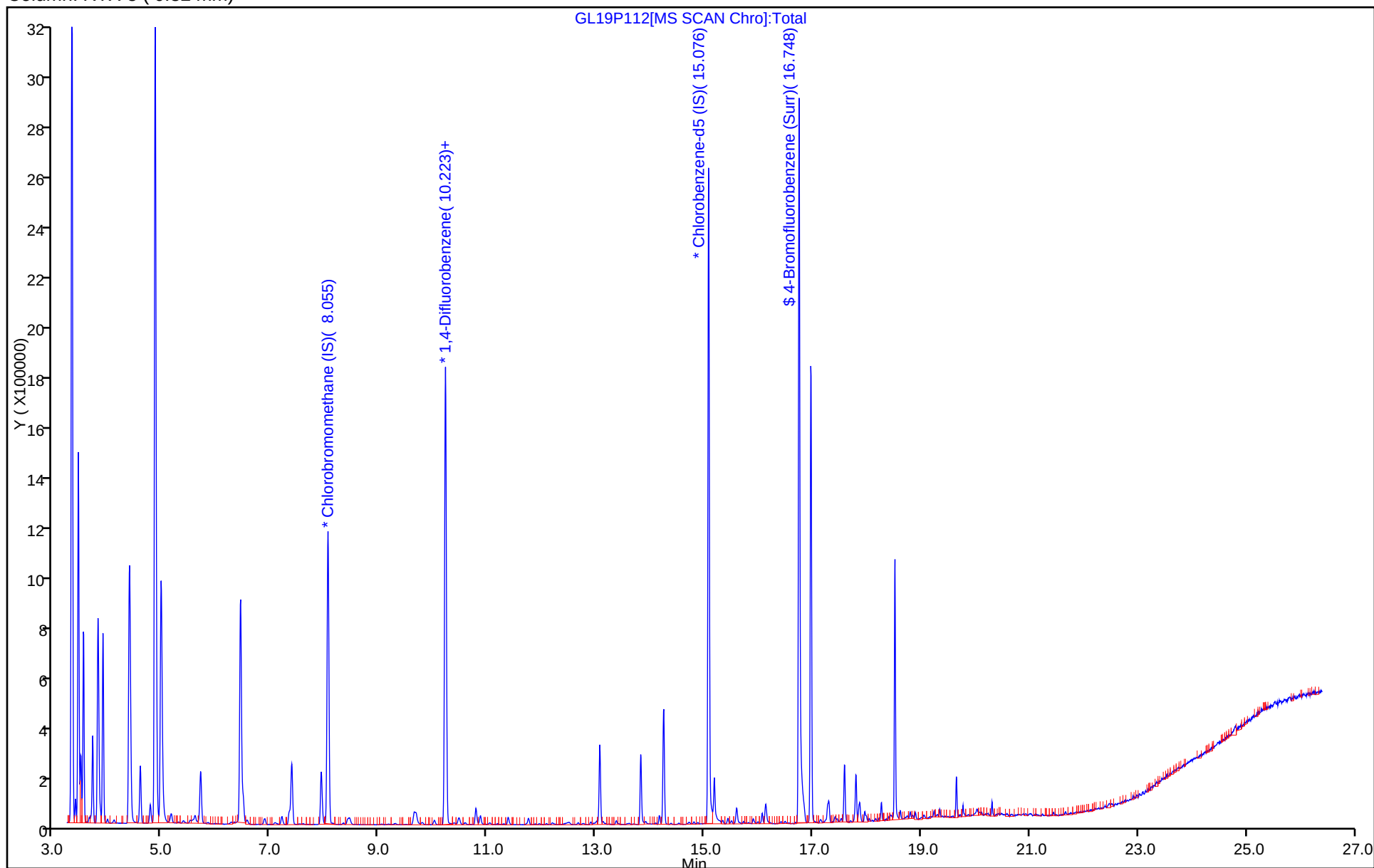
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GL19P112.D
Lims ID: 140-6566-A-4
Client ID: 140-IA-2
Sample Type: Client
Inject. Date: 19-Dec-2016 22:23:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003721-017
Misc. Info.: 140-6566-a-4
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 10:06:46 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 10:15:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.07	101.63

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GL19P112.D

Injection Date: 19-Dec-2016 22:23:30

Instrument ID: MG

Lims ID: 140-6566-A-4

Lab Sample ID: 140-6566-4

Client ID: 140-IA-2

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 17

Purge Vol: 500.000 mL

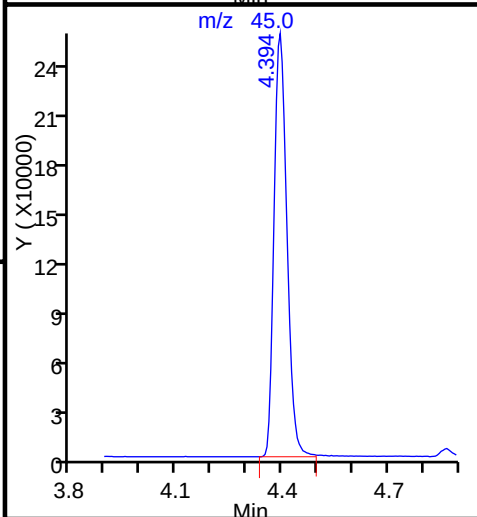
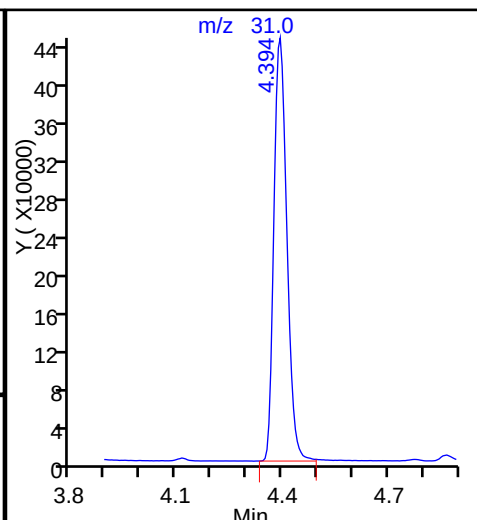
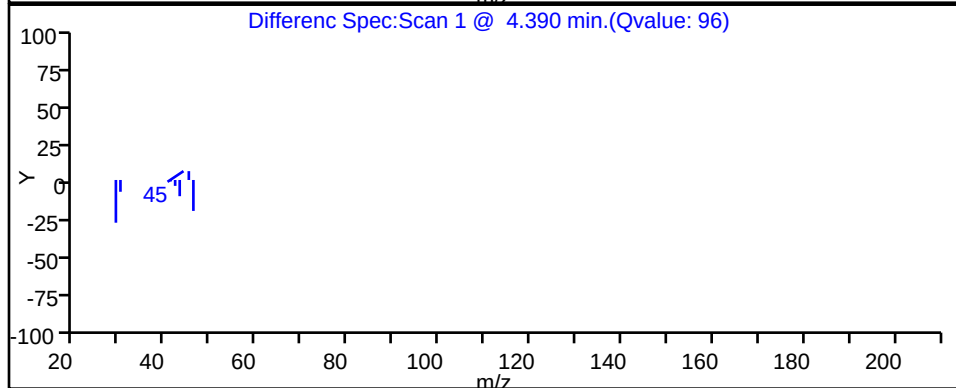
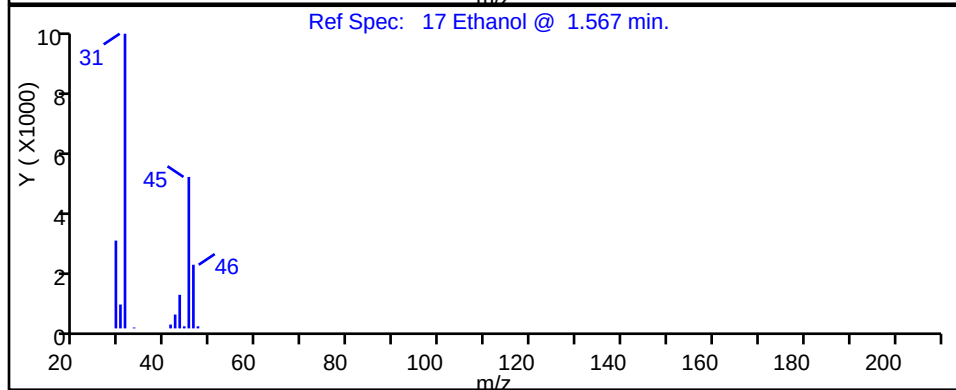
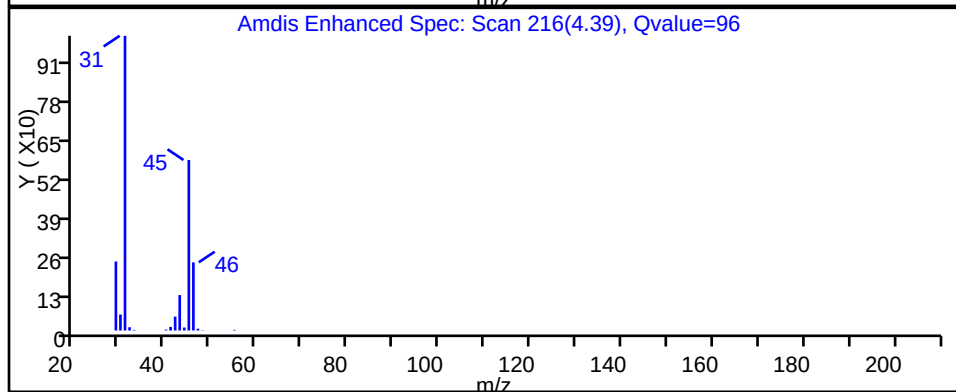
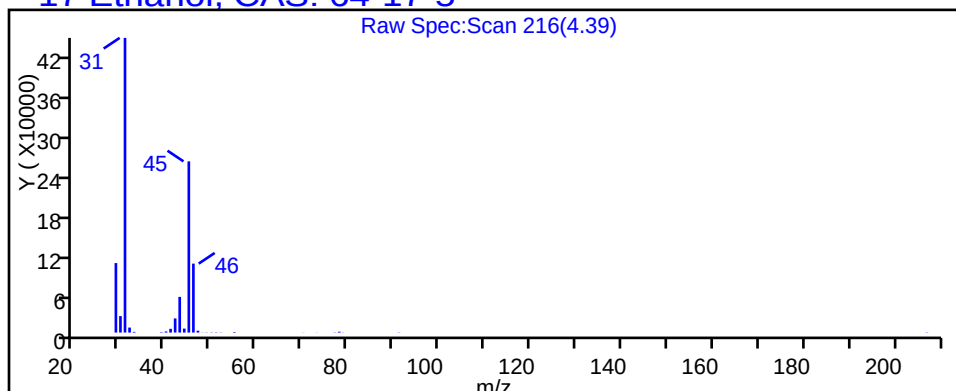
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chlorodifluoromethane	+++++ 0.3338	0.3549 0.3328	0.3159 0.3273	0.3020 0.3307	0.3270	Ave		0.3281				4.6		30.0			
Propene	1.2860 1.0804	1.1416 1.0379	1.1371 1.0519	1.0563 0.9734	1.0793	Ave		1.0938				8.1		30.0			
Dichlorodifluoromethane	3.5519 3.5420	3.2652 3.5274	3.3991 3.3976	3.1949 3.3711	3.5614	Ave		3.4234				3.9		30.0			
Chloromethane	0.4642 0.3785	0.3502 0.3686	0.4124 0.3215	0.3696 0.2816	0.3627	Ave		0.3677				14.0		30.0			
1,2-Dichlorotetrafluoroethane	2.2681 2.4009	2.1889 2.3241	2.2548 2.1971	2.0996 2.2948	2.3833	Ave		2.2679				4.3		30.0			
Acetaldehyde	+++++ 0.3575	+++++ 0.4076	0.5646 0.3521	0.4816 0.3144	0.3640	Ave		0.4060				21.6		30.0			
Vinyl chloride	1.2352 1.3504	1.1289 1.3032	1.2170 1.1616	1.1270 1.0433	1.2922	Ave		1.2065				8.3		30.0			
1,3-Butadiene	1.0799 1.0580	0.9526 1.0238	0.9911 0.8986	0.9061 0.8042	1.0507	Ave		0.9739				9.4		30.0			
Butane	2.0162 2.1057	1.8907 2.0272	1.9252 1.7380	1.7981 1.5045	2.1121	Ave		1.9020				10.4		30.0			
Bromomethane	1.2300 1.1902	1.1372 1.1693	1.1764 1.1123	1.0754 1.0923	1.1843	Ave		1.1519				4.4		30.0			
Chloroethane	0.6827 0.6648	0.6301 0.6570	0.6426 0.6188	0.6039 0.6101	0.6608	Ave		0.6412				4.2		30.0			
Ethanol	0.4632 0.3935	0.4508 0.3994	0.4105 0.3500	0.3911 0.3540	0.3846	Ave		0.3997				9.6		30.0			
Vinyl bromide	1.1201 1.1240	1.0611 1.1048	1.0843 1.0697	1.0215 1.0777	1.1262	Ave		1.0877				3.2		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylbutane	1.6287 1.4313	1.3884 1.3874	1.4670 1.2605	1.3095 1.1548	1.4767	Ave		1.3894				9.9		30.0			
Acrolein	0.4901 0.2366	0.4360 0.2850	0.3176 0.2404	0.2661 0.2673	0.2638	Ave		0.3114				29.0		30.0			
Trichlorofluoromethane	3.3655 3.4720	3.1181 3.3885	3.3067 3.2629	3.0936 3.4188	3.4342	Ave		3.3178				4.1		30.0			
Acetonitrile	++++ 0.3472	++++ 0.3982	++++ 0.3461	0.3570 0.3845	0.3624	Ave		0.3691				5.7		30.0			
Acetone	++++ 0.4106	++++ 0.4310	++++ 0.3643	0.5157 0.3900	0.4174	Ave		0.4215				12.3		30.0			
Pentane	++++ 0.2080	++++ 0.2016	0.2135 0.1880	0.2029 0.1993	0.2119	Ave		0.2036				4.3		30.0			
Isopropyl alcohol	1.5310 1.4991	1.4716 1.4952	1.4150 1.2414	1.4097 1.3387	1.4318	Ave		1.4259				6.3		30.0			
Ethyl ether	0.9311 0.7873	0.9543 0.8900	0.7717 0.7765	0.8221 0.8369	0.7922	Ave		0.8402				8.2		30.0			
1,1-Dichloroethene	++++ 1.0245	0.9453 0.9956	1.0023 0.9515	0.9046 0.9955	1.0043	Ave		0.9780				4.1		30.0			
Acrylonitrile	++++ 0.4527	0.6271 0.5522	0.5612 0.4923	0.4969 0.5774	0.4676	Ave		0.5284				11.4		30.0			
t-Butyl alcohol	1.3992 1.6383	1.4977 1.6364	1.4347 1.4716	1.4123 1.4970	1.5027	Ave		1.4989				5.8		30.0			
1,1,2-Trichlorotrifluoroethane	2.2525 2.1037	2.0113 2.1372	2.0917 2.0319	1.9628 2.1889	2.0970	Ave		2.0974				4.3		30.0			
Methylene Chloride	++++ 0.8104	++++ 0.7861	1.1795 0.7336	0.8593 0.7645	0.8223	Ave		0.8508				17.7		30.0			
3-Chloropropene	++++ 0.8454	0.9298 0.8445	0.8789 0.7578	0.8154 0.7846	0.8810	Ave		0.8422				6.6		30.0			
Carbon disulfide	3.1962 3.3493	2.9586 3.3443	3.2582 3.1210	3.0541 3.1717	3.3143	Ave		3.1964				4.2		30.0			
trans-1,2-Dichloroethene	1.2095 1.1840	1.1122 1.2104	1.1533 1.1267	1.0720 1.1183	1.1569	Ave		1.1493				4.1		30.0			
2-Methylpentane	2.6087 2.5424	2.3638 2.7079	2.5060 2.4671	2.3560 2.2074	2.5248	Ave		2.4760				6.0		30.0			
Methyl tert-butyl ether	2.9720 2.5613	2.8703 2.9618	2.3122 2.7718	2.5070 3.1078	2.5023	Ave		2.7296				9.9		30.0			
1,1-Dichloroethane	2.3404 2.1332	2.0906 2.2606	2.0615 2.1913	2.0008 2.2460	2.1042	Ave		2.1587				5.0		30.0			
Vinyl acetate	2.9307 2.4017	2.8215 2.9126	2.1645 2.8518	2.4824 3.2385	2.3517	Ave		2.6840				13.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Butanone	0.4922 0.4381	0.5130 0.5011	0.4615 0.4635	0.4677 0.5091	0.4170	Ave		0.4737				6.9		30.0			
Hexane	++++ 0.9349	1.0515 0.9857	1.0034 0.9194	0.9087 0.8655	0.9371	Ave		0.9508				6.2		30.0			
Isopropyl ether	3.6385 3.2521	3.5918 3.8494	2.8822 3.4934	3.1928 3.6458	3.1568	Ave		3.4114				9.0		30.0			
cis-1,2-Dichloroethene	1.1808 1.1866	1.1264 1.2421	1.1288 1.1663	1.1069 1.2041	1.1563	Ave		1.1665				3.6		30.0			
Ethyl acetate	++++ 1.9841	2.3762 2.3590	1.6829 2.1967	1.9349 2.5285	1.8625	Ave		2.1156				13.9		30.0			
Chloroform	2.7445 2.4932	2.4677 2.6082	2.4462 2.4420	2.3597 2.5302	2.4907	Ave		2.5092				4.4		30.0			
Tert-butyl ethyl ether	3.1089 2.8510	3.0927 3.3589	2.4522 3.0495	2.7295 3.3330	2.7203	Ave		2.9662				10.2		30.0			
Tetrahydrofuran	++++ 1.0133	1.2244 1.1796	0.9443 1.1231	1.0049 1.2635	0.9847	Ave		1.0922				11.1		30.0			
1,1,1-Trichloroethane	2.8646 2.7270	2.6636 2.8877	2.6517 2.7208	2.5679 2.8512	2.6959	Ave		2.7367				4.0		30.0			
1,2-Dichloroethane	0.3530 0.3840	0.3341 0.4140	0.3734 0.3709	0.3352 0.4164	0.3754	Ave		0.3729				8.0		30.0			
Benzene	0.7199 0.7857	0.6720 0.7833	0.7520 0.6448	0.6879 0.6669	0.7631	Ave		0.7195				7.5		30.0			
Cyclohexane	++++ 0.1599	0.1191 0.1382	0.1518 0.1112	0.1255 0.1123	0.1430	Ave		0.1326				13.8		30.0			
Carbon tetrachloride	0.5841 0.7981	0.5511 0.7296	0.6608 0.4256	0.5781 0.7543	0.6997	Ave		0.6424				18.3		30.0			
1-Butanol	0.0816 0.1131	0.0817 0.0985	0.0943 0.0738	0.0738 0.0787	0.0917	Ave		0.0875				14.9		30.0			
2,3-Dimethylpentane	0.1701 0.2181	0.1635 0.2048	0.1997 0.1735	0.1678 0.1822	0.1936	Ave		0.1859				10.2		30.0			
Thiophene	0.4033 0.4904	0.3656 0.4775	0.4326 0.4144	0.3889 0.4535	0.4495	Ave		0.4306				9.6		30.0			
Tert-amyl methyl ether	++++ 0.7246	0.5422 0.7657	0.5885 0.6251	0.5528 0.7334	0.6168	Ave		0.6436				13.4		30.0			
2,2,4-Trimethylpentane	1.2559 1.5774	1.1480 1.4297	1.3694 1.1835	1.1880 1.2127	1.3776	Ave		1.3047				10.9		30.0			
Heptane	++++ 0.3469	0.2548 0.3154	0.3019 0.2596	0.2588 0.2705	0.3035	Ave		0.2889				11.5		30.0			
1,2-Dichloropropane	0.2906 0.2837	0.2676 0.3088	0.2584 0.2567	0.2529 0.2703	0.2644	Ave		0.2726				6.7		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Trichloroethene	0.3688 0.5033	0.3440 0.4316	0.5123 0.3780	0.3593 0.4151	0.4551	Ave		0.4186				14.8		30.0			
Dibromomethane	++++ 0.3889	0.2900 0.3594	0.3299 0.3041	0.2976 0.3375	0.3454	Ave		0.3316				10.1		30.0			
Bromodichloromethane	0.5174 0.6936	0.4743 0.6569	0.5538 0.5626	0.5007 0.6303	0.5963	Ave		0.5762				12.8		30.0			
1,4-Dioxane	0.0817 0.1219	0.0851 0.1140	0.0928 0.0904	0.0829 0.1034	0.0967	Ave		0.0965				14.6		30.0			
Methyl methacrylate	0.2938 0.3203	0.2764 0.3675	0.2381 0.2963	0.2499 0.3421	0.2672	Ave		0.2946				14.5		30.0			
Methylcyclohexane	0.5798 0.7090	0.5275 0.6371	0.6323 0.5277	0.5432 0.5612	0.6402	Ave		0.5953				10.5		30.0			
4-Methyl-2-pentanone (MIBK)	0.4023 0.5929	0.4101 0.5966	0.4735 0.4754	0.4187 0.5284	0.5089	Ave		0.4897				15.0		30.0			
cis-1,3-Dichloropropene	0.4002 0.4569	0.3982 0.4973	0.4013 0.4303	0.3994 0.4690	0.4235	Ave		0.4307				8.4		30.0			
trans-1,3-Dichloropropene	0.3658 0.4061	0.3540 0.4491	0.3426 0.4020	0.3354 0.4498	0.3686	Ave		0.3859				11.2		30.0			
Toluene Range	++++ 2.0836	++++ 2.2682	++++ 1.9120	1.8759 2.1660	1.8779	Ave		2.0306				8.2		30.0			
Toluene	0.8254 0.8322	0.7743 0.8957	0.7328 0.7761	0.7273 0.8596	0.7761	Ave		0.7999				7.1		30.0			
1,1,2-Trichloroethane	0.2336 0.2534	0.2227 0.2680	0.2207 0.2294	0.2124 0.2492	0.2336	Ave		0.2359				7.5		30.0			
2-Methylthiophene	0.6613 0.7027	0.6575 0.7544	0.6376 0.6612	0.6096 0.7240	0.6640	Ave		0.6747				6.6		30.0			
3-Methylthiophene	0.6737 0.6801	0.6274 0.7378	0.6026 0.6464	0.5887 0.7136	0.6452	Ave		0.6573				7.5		30.0			
2-Hexanone	++++ 0.2915	0.1900 0.2710	0.2213 0.2338	0.1764 0.2631	0.2313	Ave		0.2348				16.8		30.0			
Octane	++++ 0.3727	0.2881 0.3343	0.3227 0.2834	0.2768 0.2924	0.3462	Ave		0.3146				11.0		30.0			
C8 Range	++++ 3.9288	++++ 3.5290	++++ 2.7837	2.8399 2.2545	3.5748	Ave		3.1518				19.9		30.0			
Dibromochloromethane	0.4510 0.6078	0.4328 0.6378	0.4973 0.5733	0.4548 0.6752	0.5555	Ave		0.5428				16.2		30.0			
1,2-Dibromoethane	0.4272 0.5036	0.4148 0.5296	0.4331 0.4740	0.3963 0.5288	0.4689	Ave		0.4640				10.6		30.0			
Tetrachloroethene	0.3393 0.3979	0.3144 0.3644	0.3519 0.3344	0.3031 0.3796	0.3738	Ave		0.3510				8.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chlorobenzene	0.6294 0.7178	0.6279 0.7389	0.6200 0.6505	0.5900 0.7362	0.6651	Ave		0.6640				8.2		30.0			
2,3-Dimethylheptane	0.8109 0.9418	0.7539 0.8768	0.8388 0.6840	0.7385 0.6154	0.8750	Ave		0.7928				13.1		30.0			
Ethylbenzene	1.0036 1.1526	1.0133 1.1923	0.9508 1.0222	0.9310 1.1519	1.0198	Ave		1.0486				8.9		30.0			
2-Ethylthiophene	0.7321 0.8577	0.7363 0.9084	0.6843 0.7890	0.6841 0.8999	0.7684	Ave		0.7845				11.0		30.0			
m-Xylene & p-Xylene	0.7983 0.9029	0.7794 0.9012	0.7339 0.7616	0.7175 0.8713	0.8098	Ave		0.8084				8.6		30.0			
Bromoform	++++ 0.5811	0.3397 0.6513	0.4073 0.6476	0.4101 ++++	0.4599	Ave		0.4996				25.2		30.0			
Nonane	0.5140 0.6372	0.5365 0.5614	0.5472 0.4343	0.4988 0.3895	0.5982	Ave		0.5241				14.7		30.0			
Styrene	0.5025 0.6687	0.5069 0.6733	0.4719 0.5858	0.4870 0.6908	0.5821	Ave		0.5743				15.1		30.0			
o-Xylene	0.8448 0.9402	0.8143 0.9607	0.7706 0.8183	0.7503 0.9298	0.8397	Ave		0.8521				8.8		30.0			
1,1,2,2-Tetrachloroethane	0.5467 0.6672	0.5314 0.6754	0.3873 0.5632	0.4923 0.6232	0.5771	Ave		0.5626				16.0		30.0			
1,2,3-Trichloropropane	0.1698 0.2072	0.1776 0.2127	0.1592 0.1836	0.1595 0.2171	0.1811	Ave		0.1853				11.9		30.0			
Isopropylbenzene	1.2213 1.3188	1.2143 1.3047	1.0675 1.1252	1.0400 1.3154	1.1807	Ave		1.1987				8.8		30.0			
Propylbenzene	0.3083 0.3741	0.3035 0.3706	0.2942 0.3183	0.2692 0.3791	0.3203	Ave		0.3264				12.0		30.0			
2-Chlorotoluene	0.2803 0.3401	0.2908 0.3361	0.2713 0.2938	0.2596 0.3435	0.2980	Ave		0.3015				10.3		30.0			
4-Ethyltoluene	1.0725 1.3245	1.0762 1.3261	1.0167 1.1334	0.9755 1.3366	1.1448	Ave		1.1563				12.1		30.0			
1,3,5-Trimethylbenzene	0.5114 0.6375	0.5316 0.6202	0.4943 0.5337	0.4675 0.6484	0.5604	Ave		0.5561				11.7		30.0			
Alpha Methyl Styrene	0.3588 0.5521	0.3762 0.5659	0.3674 0.4999	0.3490 0.5992	0.4597	Ave		0.4587				21.6		30.0			
Decane	0.5871 0.7749	0.5831 0.6868	0.6267 0.5492	0.5632 0.5302	0.6657	Ave		0.6186				12.7		30.0			
tert-Butylbenzene	1.0198 1.2271	1.0123 1.1883	0.9710 1.0325	0.9055 1.2566	1.0851	Ave		1.0776				11.2		30.0			
1,2,4-Trimethylbenzene	0.8612 1.1298	0.8911 1.0825	0.8780 0.9378	0.8224 1.1204	0.9973	Ave		0.9689				12.2		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	0.6141 0.7899	0.6013 0.7691	0.6150 0.7360	0.5662 0.9169	0.6918	Ave		0.7000				16.2		30.0			
sec-Butylbenzene	1.3032 1.6296	1.3128 1.5477	1.3058 1.3412	1.1931 1.5425	1.4403	Ave		1.4018				10.4		30.0			
Benzyl chloride	0.6148 0.9678	0.6350 0.9569	0.6408 0.8508	0.5951 0.9807	0.7219	Ave		0.7737				21.3		30.0			
1,4-Dichlorobenzene	0.6036 0.7841	0.5931 0.7519	0.6005 0.7111	0.5563 0.8865	0.6711	Ave		0.6842				15.9		30.0			
4-Isopropyltoluene	1.0603 1.3938	1.0612 1.3544	1.0692 1.1734	0.9923 1.4119	1.2263	Ave		1.1936				13.5		30.0			
1,2,3-Trimethylbenzene	0.6714 0.8522	0.6994 0.8473	0.6784 0.7260	0.6250 0.8489	0.7562	Ave		0.7450				11.6		30.0			
Butylcyclohexane	0.7330 0.8802	0.7198 0.7920	0.7649 0.6757	0.6877 0.7014	0.7915	Ave		0.7496				8.7		30.0			
1,2-Dichlorobenzene	0.5841 0.7718	0.5719 0.7333	0.5959 0.6864	0.5354 0.8615	0.6801	Ave		0.6689				16.0		30.0			
Indane	0.8027 1.0536	0.8227 1.0032	0.8131 0.8882	0.7463 1.0683	0.9208	Ave		0.9021				13.0		30.0			
Indene	++++ 0.7925	++++ 0.7841	0.5682 0.6876	0.5181 0.8297	0.6730	Lin1	-0.062	0.7892							0.9930		0.9900
Butylbenzene	0.8919 1.2730	0.9217 1.1984	0.9649 0.9995	0.8698 1.1339	1.0888	Ave		1.0380				13.7		30.0			
Undecane	0.6021 0.8423	0.6055 0.7396	0.6714 0.5739	0.5764 0.5367	0.7308	Ave		0.6532				15.3		30.0			
1,2-Dimethyl-4-Ethylbenzene	++++ 1.0231	0.7153 0.9883	0.7844 0.8445	0.6729 1.0112	0.8866	Ave		0.8658				15.6		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.3428	0.1955 0.3390	0.2062 0.3139	0.1926 0.4055	0.2526	Ave		0.2810				28.6		30.0			
1,2,4,5-Tetramethylbenzene	0.8105 1.2627	0.8397 1.1843	0.9470 1.0243	0.8035 1.2216	1.0664	Ave		1.0178				17.6		30.0			
1,2,3,5-Tetramethylbenzene	0.5153 0.7560	0.5255 0.7179	0.5723 0.6194	0.4969 0.7358	0.6589	Ave		0.6220				16.1		30.0			
1,2,3,4-Tetramethylbenzene	0.6713 1.0417	0.6881 0.9783	0.7946 0.8420	0.6480 0.9968	0.9053	Ave		0.8407				17.8		30.0			
Dodecane	0.4776 0.7387	0.4838 0.6800	0.6528 0.5350	0.4608 0.5001	0.6724	Ave		0.5779				18.5		30.0			
1,2,4-Trichlorobenzene	0.2836 0.5853	0.3012 0.5779	0.3547 0.5740	0.2992 0.7434	0.4654	Ave		0.4650				35.3	*	30.0			
Naphthalene	0.6545 1.2900	0.6877 1.2421	0.8457 1.1172	0.6647 1.3186	1.0568	Ave		0.9864				28.1		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzo(b)thiophene	+++++	0.3568	0.4044	0.3280	0.5262	Ave		0.5407				29.8		30.0			
	0.6697	0.6621	0.6235	0.7552													
Hexachlorobutadiene	0.6234	0.5709	0.6554	0.5172	0.7444	Ave		0.7142				18.5		30.0			
	0.8147	0.7703	0.7981	0.9331													
1,2,3-Trichlorobenzene	0.3108	0.3138	0.3999	0.2901	0.4883	Ave		0.4535				28.3		30.0			
	0.5783	0.5460	0.5209	0.6336													
2-Methylnaphthalene	+++++	+++++	0.1300	0.0618	0.1529	Ave		0.1438				33.0		50.0			
	0.2002	0.1790	0.1732	0.1093													
1-Methylnaphthalene	+++++	+++++	0.1609	0.0678	0.1661	Ave		0.1465				34.5		50.0			
	0.2051	0.1772	0.1640	0.0845													
4-Bromofluorobenzene (Surr)	0.6532	0.6564	0.6386	0.6628	0.6595	Ave		0.6615				1.8		30.0			
	0.6804	0.6665	0.6726	0.6636													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Chlorodifluoromethane	CBM	Ave	+++++ 72767	3430 147523	5647 292311	14013 570750	36626	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Propene	CBM	Ave	5954 235491	11034 460046	20326 939449	49008 1680175	120900	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dichlorodifluoromethane	CBM	Ave	16445 772063	31559 1563438	60760 3034352	148238 5818805	398936	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloromethane	CBM	Ave	2149 82499	3385 163356	7372 287150	17148 486023	40624	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorotetrafluoroethane	CBM	Ave	10501 523333	21156 1030111	40305 1962149	97416 3960934	266972	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acetaldehyde	CBM	Ave	+++++ 389664	+++++ 903339	50465 1572354	111731 2713131	203897	+++++ 9.99	+++++ 20.0	0.793 40.0	2.00 80.0	5.01
Vinyl chloride	CBM	Ave	5719 294355	10911 577610	21755 1037365	52292 1800793	144743	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Butadiene	CBM	Ave	5000 230625	9207 453774	17716 802516	42040 1388093	117692	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butane	CBM	Ave	9335 458987	18274 898506	34413 1552213	83428 2596919	236594	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromomethane	CBM	Ave	5695 259428	10991 518278	21028 993397	49897 1885484	132665	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloroethane	CBM	Ave	3161 144914	6090 291201	11486 552656	28019 1053045	74023	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethanol	CBM	Ave	10722 428898	21784 885156	36685 1562780	90742 3054812	215410	0.196 9.99	0.392 20.0	0.793 40.0	2.00 80.0	5.01
Vinyl bromide	CBM	Ave	5186 245002	10256 489664	19383 955316	47395 1860265	126157	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylbutane	CBM	Ave	7541 311988	13419 614930	26223 1125727	60759 1993361	165413	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acrolein	CBM	Ave	2269 51584	4214 126307	5678 214693	12347 461450	29554	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Trichlorofluoromethane	CBM	Ave	15582 756823	30137 1501894	59109 2914069	143536 5901125	384683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acetonitrile	CBM	Ave	++++ 75671	++++ 176495	6381 309105	18027 663618	40598	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Acetone	CBM	Ave	++++ 268511	++++ 573107	++++ 976001	71784 2019556	140276	++++ 5.99	++++ 12.0	++++ 24.0	1.20 48.0	3.01
Pentane	CBM	Ave	++++ 45337	++++ 89358	3817 167888	9414 343931	23731	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Isopropyl alcohol	CBM	Ave	21267 980401	42673 1988338	75884 3326202	196241 6932486	481177	0.118 5.99	0.235 12.0	0.476 24.0	1.20 48.0	3.01
Ethyl ether	CBM	Ave	4311 171608	9224 394490	13794 693477	38146 1444630	88736	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethene	CBM	Ave	++++ 223308	9137 441297	17917 849769	41972 1718361	112496	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acrylonitrile	CBM	Ave	++++ 98680	6061 244751	10031 439702	23057 996643	52384	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
t-Butyl alcohol	CBM	Ave	6478 357104	14476 725277	25645 1314289	65529 2583882	168323	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichlorotrifluoroethane	CBM	Ave	10429 458554	19440 947278	37390 1814621	91069 3778238	234900	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylene Chloride	CBM	Ave	++++ 176649	++++ 348409	21084 655205	39868 1319618	92116	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
3-Chloropropene	CBM	Ave	++++ 184286	8987 374322	15711 676808	37831 1354242	98686	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon disulfide	CBM	Ave	14798 730062	28596 1482267	58242 2787285	141704 5474536	371252	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,2-Dichloroethene	CBM	Ave	5600 258077	10750 536489	20615 1006280	49737 1930221	129589	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylpentane	CBM	Ave	12078 554181	22847 1200210	44795 2203279	109315 3810096	282816	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methyl tert-butyl ether	CBM	Ave	13760 558292	27742 1312740	41332 2475436	116320 5364390	280300	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethane	CBM	Ave	10836 464990	20206 1001975	36850 1957037	92833 3876835	235707	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Vinyl acetate	CBM	Ave	13569 523514	27271 1290955	38691 2546899	115180 5589948	263434	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Butanone	CBM	Ave	2279 95501	4958 222106	8249 413943	21700 878803	46710	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Hexane	CBM	Ave	++++ 203795	10163 436872	17936 821099	42161 1493982	104967	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Isopropyl ether	CBM	Ave	16846 708886	34716 1706140	51520 3119866	148142 6292986	353610	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,2-Dichloroethene	CBM	Ave	5467 258646	10887 550542	20178 1041594	51356 2078366	129520	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethyl acetate	CBM	Ave	++++ 432491	22967 1045560	30082 1961789	89774 4364408	208629	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloroform	CBM	Ave	12707 543452	23851 1156020	43727 2180906	109487 4367350	278997	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-butyl ethyl ether	CBM	Ave	14394 621453	29892 1488774	43833 2723491	126645 5753046	304722	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrahydrofuran	CBM	Ave	++++ 220876	11834 522810	16880 1002984	46626 2180844	110305	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,1-Trichloroethane	CBM	Ave	13263 594430	25744 1279894	47399 2429887	119146 4921388	301989	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloroethane	DFBZ	Ave	7958 312783	15561 768059	27221 1498236	70665 3034051	172759	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzene	DFBZ	Ave	16231 639987	31296 1453265	54815 2604625	145030 4859184	351164	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Cyclohexane	DFBZ	Ave	++++ 130219	5547 256435	11068 449383	26449 818029	65816	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon tetrachloride	DFBZ	Ave	13169 650072	25667 1353700	48171 1719063	121879 5495740	321989	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1-Butanol	DFBZ	Ave	1840 92138	3804 182779	15567 297985	15567 573494	42204	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylpentane	DFBZ	Ave	3834 177632	7617 379931	14554 701048	35370 1327614	89073	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Thiophene	DFBZ	Ave	9092 399453	17029 886036	31533 1674022	81985 3303884	206846	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-amyl methyl ether	DFBZ	Ave	++++ 590187	25252 1420675	42901 2525168	116541 5343717	283852	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,2,4-Trimethylpentane	DFBZ	Ave	28315 1284826	53468 2652622	99827 4780993	250466 8835628	633974	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Heptane	DFBZ	Ave	++++ 282575	11865 585125	22004 1048692	54557 1970974	139658	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloropropane	DFBZ	Ave	6551 231049	12462 573027	18837 1037078	53314 1969395	121683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Trichloroethene	DFBZ	Ave	8316 409949	16022 800842	37343 1527011	75756 3024239	209417	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dibromomethane	DFBZ	Ave	++++ 316778	13508 666745	24045 1228541	62732 2458883	158962	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromodichloromethane	DFBZ	Ave	11665 564938	22090 1218893	40369 2272827	105567 4592413	274425	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DFBZ	Ave	1842 99307	3963 211493	6766 365186	17470 753201	44488	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methyl methacrylate	DFBZ	Ave	6623 260860	12871 681937	17354 1196974	52693 2492814	122959	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylcyclohexane	DFBZ	Ave	13072 577507	24568 1182033	46095 2131544	114511 4088614	294616	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	9071 482907	19102 1106976	34513 1920348	88279 3849816	234208	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,3-Dichloropropene	DFBZ	Ave	9023 372121	18544 922671	29255 1738337	84196 3417073	194871	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,3-Dichloropropene	CBZd 5	Ave	8154 337087	16090 854993	24864 1632235	72970 3420157	167829	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Toluene Range	DFBZ	Ave	++++ 1697187	++++ 4208350	++++ 7723720	395488 15781323	864195	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0	1.00
Toluene	CBZd 5	Ave	18400 690854	35196 1705333	53183 3151028	158232 6535309	353389	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichloroethane	CBZd 5	Ave	5207 210396	10122 510325	16016 931501	46210 1894431	106377	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylthiophene	CBZd 5	Ave	14742 583362	29885 1436338	46273 2684721	132638 5504671	302331	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
3-Methylthiophene	CBZd 5	Ave	15017 564583	28520 1404632	43735 2624633	128096 5425286	293803	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Hexanone	CBZd 5	Ave	++++ 241991	8635 515917	16057 949384	38378 2000620	105315	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Octane	CBZd 5	Ave	++++ 309364	13095 636410	23418 1150679	60225 2222803	157625	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
C8 Range	DFBZ	Ave	++++ 3200146	++++ 6547717	++++ 11244888	598729 16425810	1645102	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0	1.00
Dibromochloromethane	CBZd 5	Ave	10054 504583	19673 1214365	36091 2327802	98960 5133377	252927	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromoethane	CBZd 5	Ave	9522 418094	18853 1008301	31431 1924671	86235 4020392	213500	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrachloroethene	CBZd 5	Ave	7563 330273	14290 693825	25535 1357814	65941 2885902	170189	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chlorobenzene	CBZd 5	Ave	14030 595827	28541 1406777	44998 2641230	128374 5597166	302836	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylheptane	CBZd 5	Ave	18076 781836	34268 1669310	60872 2777262	160682 4679067	398405	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethylbenzene	CBZd 5	Ave	22371 956791	46059 2269899	69003 4150248	202566 8758179	464337	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Ethylthiophene	CBZd 5	Ave	16319 711981	33470 1729533	49663 3203327	148846 6841807	349903	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
m-Xylene & p-Xylene	CBZd 5	Ave	35593 1499037	70859 3431351	106515 6184279	312199 13248413	737471	0.0784 3.99	0.157 8.00	0.317 16.0	0.800 32.0	2.00
Bromoform	CBZd 5	Ave	++++ 482422	15443 1239966	29557 2629265	89222 ++++	209416	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 ++++	1.00
Nonane	CBZd 5	Ave	11459 528980	24385 1068900	39709 1763559	108527 2961409	272373	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Styrene	CBZd 5	Ave	11201 555108	23040 1281806	34245 2378609	105962 5251876	265036	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
o-Xylene	CBZd 5	Ave	18832 780466	37013 1829078	55923 3322495	163242 7069465	382333	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	12186 553887	24155 1285895	28104 2286622	107105 4738085	262784	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichloropropane	CBZd 5	Ave	3786 171965	8073 404993	11556 745283	34699 1650297	82463	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Isopropylbenzene	CBZd 5	Ave	27225 1094815	55196 2484064	77471 4568570	226287 10000909	537636	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Propylbenzene	CBZd 5	Ave	6872 310526	13794 705553	21354 1292302	58580 2882014	145833	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Chlorotoluene	CBZd 5	Ave	6249 282300	13217 639799	19691 1192871	56487 2611501	135683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Ethyltoluene	CBZd 5	Ave	23908 1099531	48918 2524681	73785 4602017	212251 10162010	521274	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3,5-Trimethylbenzene	CBZd 5	Ave	11399 529246	24162 1180801	35870 2166860	101711 4929710	255158	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Alpha Methyl Styrene	CBZd 5	Ave	7999 458316	17099 1077457	26661 2029631	75940 4555512	209327	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Decane	CBZd 5	Ave	13088 643304	26505 1307633	45478 2230034	122535 4031286	303112	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
tert-Butylbenzene	CBZd 5	Ave	22733 1018631	46016 2262282	70467 4192051	197002 9554102	494103	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trimethylbenzene	CBZd 5	Ave	19197 937912	40505 2060865	63716 3807592	178941 8518690	454094	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Dichlorobenzene	CBZd 5	Ave	13689 655726	27331 1464206	44633 2988285	123184 6970912	314991	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
sec-Butylbenzene	CBZd 5	Ave	29050 1352819	59671 2946631	94767 5445613	259583 11727632	655811	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzyl chloride	CBZd 5	Ave	13705 803407	28862 1821777	46504 3454376	129478 7456385	328706	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,4-Dichlorobenzene	CBZd 5	Ave	13455 650905	26961 1431445	43579 2887306	121046 6739732	305569	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Isopropyltoluene	CBZd 5	Ave	23637 1157019	48237 2578526	77592 4764104	215898 10734531	558404	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2,3-Trimethylbenzene	CBZd 5	Ave	14966 707435	31790 1613155	49232 2947828	135985 6454183	344310	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butylcyclohexane	CBZd 5	Ave	16339 730710	32718 1507917	55512 2743371	149636 5332453	360384	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorobenzene	CBZd 5	Ave	13020 640659	25995 1396045	43248 2786845	116482 6549763	309696	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indane	CBZd 5	Ave	17893 874588	37395 1909882	59010 3606458	162369 8122275	419286	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indene	CBZd 5	Lin1	++++ 657876	++++ 1492896	41234 2791759	112729 6308476	306444	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Butylbenzene	CBZd 5	Ave	19881 1056764	41896 2281578	70024 4058346	189235 8621259	495756	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Undecane	CBZd 5	Ave	13423 699188	27524 1408070	48725 2329972	125419 4080761	332785	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dimethyl-4-Ethylbenzene	CBZd 5	Ave	++++ 849288	32514 1881502	56926 3428964	146402 7688453	403699	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	++++ 284562	8887 645406	14967 1274571	41895 3083243	114997	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	18067 1048174	38169 2254750	68727 4158725	174813 9287987	485595	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,5-Tetramethylbenzene	CBZd 5	Ave	11487 627559	23885 1366732	41533 2514994	108120 5594149	300031	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,4-Tetramethylbenzene	CBZd 5	Ave	14964 864752	31277 1862467	57669 3418581	140998 7579036	412238	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dodecane	CBZd 5	Ave	10646 613207	21993 1294655	47372 2172344	100259 3802595	306173	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trichlorobenzene	CBZd 5	Ave	6322 485907	13692 1100159	25744 2330633	65094 5651953	211936	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Naphthalene	CBZd 5	Ave	14591 1070871	31260 2364720	61374 4535967	144616 10025298	481190	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzo(b)thiophene	CBZd 5	Ave	++++ 555961	16219 1260466	29349 2531375	71357 5741539	239611	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Hexachlorobutadiene	CBZd 5	Ave	13896 676266	25952 1466454	47564 3240488	112530 7094731	338964	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichlorobenzene	CBZd 5	Ave	6929 480029	14265 1039517	29020 2115119	63109 4817115	222349	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylnaphthalene	CBZd 5	Ave	++++ 519281	++++ 1064971	29488 2197530	42003 2595825	217545	++++ 6.24	++++ 12.5	0.496 25.0	1.25 50.0	3.13
1-Methylnaphthalene	CBZd 5	Ave	++++ 532152	++++ 1054061	36495 2081286	46064 2006398	236387	++++ 6.24	++++ 12.5	0.496 25.0	1.25 50.0	3.13
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	1485890 1131193	1522231 1268973	1168369 1365365	1442147 1261386	1199357	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Curve Type Legend:

Ave = Average ISTD Lin1 = Linear 1/conc ISTD

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D
 Lims ID: IC L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 08-Dec-2016 19:58:30 ALS Bottle#: 1 Worklist Smp#: 3
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-003
 Misc. Info.: 067941
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:27:52 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:15:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	472443	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	2300638	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2274673	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	96	1485890	4.00	3.95	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	1701	0.0392	0.0439	
7 Propene	41	3.493	3.489	0.004	99	5954	0.0392	0.0461	
8 Dichlorodifluoromethane	85	3.536	3.533	0.003	100	16445	0.0392	0.0407	
9 Chloromethane	52	3.687	3.685	0.002	57	2149	0.0392	0.0495	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	89	10501	0.0392	0.0392	
11 Acetaldehyde	44	3.822	3.816	0.006	91	19638	0.1960	0.4095	
12 Vinyl chloride	62	3.828	3.830	-0.002	31	5719	0.0392	0.0401	
13 Butadiene	54	3.909	3.906	0.003	67	5000	0.0392	0.0435	
14 Butane	43	3.909	3.907	0.002	85	9335	0.0392	0.0416	
15 Bromomethane	94	4.178	4.174	0.004	97	5695	0.0392	0.0419	
16 Chloroethane	64	4.286	4.292	-0.006	97	3161	0.0392	0.0417	
17 Ethanol	31	4.399	4.393	0.006	94	10722	0.1960	0.2271	
18 Vinyl bromide	106	4.550	4.550	0.000	97	5186	0.0392	0.0404	
19 2-Methylbutane	43	4.599	4.598	0.001	94	7541	0.0392	0.0460	
21 Acrolein	56	4.782	4.783	-0.001	32	2269	0.0392	0.0617	
20 Trichlorofluoromethane	101	4.787	4.785	0.002	99	15582	0.0392	0.0398	
22 Acetonitrile	40	4.847	4.838	0.009	97	2777	0.0392	0.0637	
23 Acetone	58	4.895	4.882	0.013	98	8449	0.1176	0.1697	
24 Pentane	72	4.976	4.978	-0.002	97	961	0.0392	0.0400	
25 Isopropyl alcohol	45	4.998	4.987	0.011	94	21267	0.1176	0.1263	
26 Ethyl ether	31	5.143	5.124	0.019	92	4311	0.0392	0.0434	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	5003	0.0392	0.0433	
28 Acrylonitrile	53	5.488	5.487	0.001	97	3614	0.0392	0.0579	
29 2-Methyl-2-propanol	59	5.553	5.526	0.027	90	6478	0.0392	0.0366	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	10429	0.0392	0.0421	
31 Methylene Chloride	84	5.704	5.708	-0.004	95	10526	0.0392	0.1047	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	98	5945	0.0392	0.0598	
33 Carbon disulfide	76	5.850	5.849	0.001	99	14798	0.0392	0.0392	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	5600	0.0392	0.0413	
35 2-Methylpentane	43	6.481	6.481	0.000	95	12078	0.0392	0.0413	
36 Methyl tert-butyl ether	73	6.594	6.575	0.019	95	13760	0.0392	0.0427	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	99	10836	0.0392	0.0425	
38 Vinyl acetate	43	6.950	6.942	0.008	100	13569	0.0392	0.0428	
39 2-Butanone (MEK)	72	7.365	7.349	0.016	98	2279	0.0392	0.0407	
40 Hexane	56	7.397	7.397	0.000	90	5695	0.0392	0.0507	
41 Isopropyl ether	45	7.559	7.547	0.012	96	16846	0.0392	0.0418	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	5467	0.0392	0.0397	
43 Ethyl acetate	43	7.958	7.946	0.012	98	10226	0.0392	0.0409	
44 Chloroform	83	8.082	8.085	-0.003	90	12707	0.0392	0.0429	
45 Tert-butyl ethyl ether	59	8.212	8.191	0.021	94	14394	0.0392	0.0411	
46 Tetrahydrofuran	42	8.487	8.460	0.027	90	6976	0.0392	0.0541	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	96	13263	0.0392	0.0410	
48 1,2-Dichloroethane	62	9.155	9.160	-0.005	97	7958	0.0392	0.0371	
49 Benzene	78	9.651	9.654	-0.003	97	16231	0.0392	0.0392	
50 Cyclohexane	69	9.657	9.659	-0.002	79	3093	0.0392	0.0405	
52 Carbon tetrachloride	117	9.678	9.684	-0.006	97	13169	0.0392	0.0356	
51 n-Butanol	31	9.738	9.685	0.053	1	1840	0.0392	0.0366	
53 2,3-Dimethylpentane	71	9.802	9.808	-0.006	92	3834	0.0392	0.0359	
54 Thiophene	84	9.921	9.930	-0.009	96	9092	0.0392	0.0367	
56 Isooctane	57	10.476	10.479	-0.003	98	28315	0.0392	0.0377	
57 n-Heptane	71	10.881	10.881	0.000	89	6398	0.0392	0.0385	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	89	6551	0.0392	0.0418	
59 Trichloroethene	130	10.962	10.966	-0.004	96	8316	0.0392	0.0345	
60 Dibromomethane	93	11.026	11.033	-0.007	93	7413	0.0392	0.0389	
61 Dichlorobromomethane	83	11.183	11.194	-0.011	99	11665	0.0392	0.0352	
62 1,4-Dioxane	88	11.248	11.222	0.026	51	1842	0.0392	0.0332	
63 Methyl methacrylate	41	11.334	11.327	0.007	94	6623	0.0392	0.0391	
64 Methylcyclohexane	83	11.765	11.766	-0.001	93	13072	0.0392	0.0382	
65 4-Methyl-2-pentanone (MIBK)	43	12.213	12.198	0.015	98	9071	0.0392	0.0322	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	97	9023	0.0392	0.0364	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	8154	0.0392	0.0372	
68 Toluene	91	13.081	13.083	-0.002	95	18400	0.0392	0.0404	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	5207	0.0392	0.0388	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	14742	0.0392	0.0384	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	15017	0.0392	0.0402	
72 2-Hexanone	58	13.593	13.578	0.015	92	3835	0.0392	0.0287	
73 n-Octane	85	13.830	13.833	-0.003	92	6548	0.0392	0.0366	
74 Chlorodibromomethane	129	13.852	13.862	-0.010	97	10054	0.0392	0.0326	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	96	9522	0.0392	0.0361	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	7563	0.0392	0.0379	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	14030	0.0392	0.0372	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	95	18076	0.0392	0.0401	
79 Ethylbenzene	91	15.443	15.445	-0.002	99	22371	0.0392	0.0375	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	97	16319	0.0392	0.0366	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	35593	0.0784	0.0774	
83 Bromoform	173	16.025	16.034	-0.009	97	7407	0.0392	0.0261	
82 n-Nonane	57	16.074	16.076	-0.002	91	11459	0.0392	0.0384	
84 Styrene	104	16.074	16.079	-0.005	80	11201	0.0392	0.0343	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	16.138	16.140	-0.002	98	18832	0.0392	0.0389	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	98	12186	0.0392	0.0381	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	97	3786	0.0392	0.0359	
88 Isopropylbenzene	105	16.737	16.740	-0.003	92	27225	0.0392	0.0399	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	6872	0.0392	0.0370	
90 2-Chlorotoluene	126	17.319	17.327	-0.008	97	6249	0.0392	0.0364	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	23908	0.0392	0.0364	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	94	11399	0.0392	0.0360	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	88	7999	0.0392	0.0307	
94 n-Decane	57	17.875	17.878	-0.003	91	13088	0.0392	0.0372	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	22733	0.0392	0.0371	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	95	19197	0.0392	0.0348	
98 1,3-Dichlorobenzene	146	18.263	18.270	-0.007	61	13689	0.0392	0.0344	
97 sec-Butylbenzene	105	18.263	18.270	-0.007	98	29050	0.0392	0.0364	
99 Benzyl chloride	91	18.349	18.349	0.000	98	13705	0.0392	0.0311	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	94	13455	0.0392	0.0346	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	23637	0.0392	0.0348	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	14966	0.0392	0.0353	
103 Butylcyclohexane	83	18.554	18.561	-0.007	93	16339	0.0392	0.0383	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	85	13020	0.0392	0.0342	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	17893	0.0392	0.0349	
106 Indene	116	18.867	18.869	-0.002	91	11402	0.0392	0.1046	
107 n-Butylbenzene	91	18.894	18.896	-0.002	99	19881	0.0392	0.0337	
108 Undecane	57	19.244	19.247	-0.003	96	13423	0.0392	0.0361	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	98	15729	0.0392	0.0319	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.352	-0.005	94	3661	0.0392	0.0229	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	18067	0.0392	0.0312	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	95	11487	0.0392	0.0325	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	14964	0.0392	0.0313	
114 Dodecane	57	20.312	20.313	-0.001	98	10646	0.0392	0.0324	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	93	6322	0.0392	0.0239	
116 Naphthalene	128	20.587	20.588	-0.001	99	14591	0.0392	0.0260	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	6923	0.0392	0.0225	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	13896	0.0392	0.0342	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	93	6929	0.0392	0.0269	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	98	5309	0.1225	0.0649	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	6381	0.1225	0.0766	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	42514	0.0392	0.0364	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	95281	0.0392	0.0526	
S 126 Xylenes, Total	100				0		0.1176	0.1163	
S 127 1,2-Dichloroethene, Total	1				0		0.0784	0.0809	

Reagents:

40L12DNP_00008

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L1

Worklist Smp#: 3

Client ID:

Purge Vol: 500.000 mL

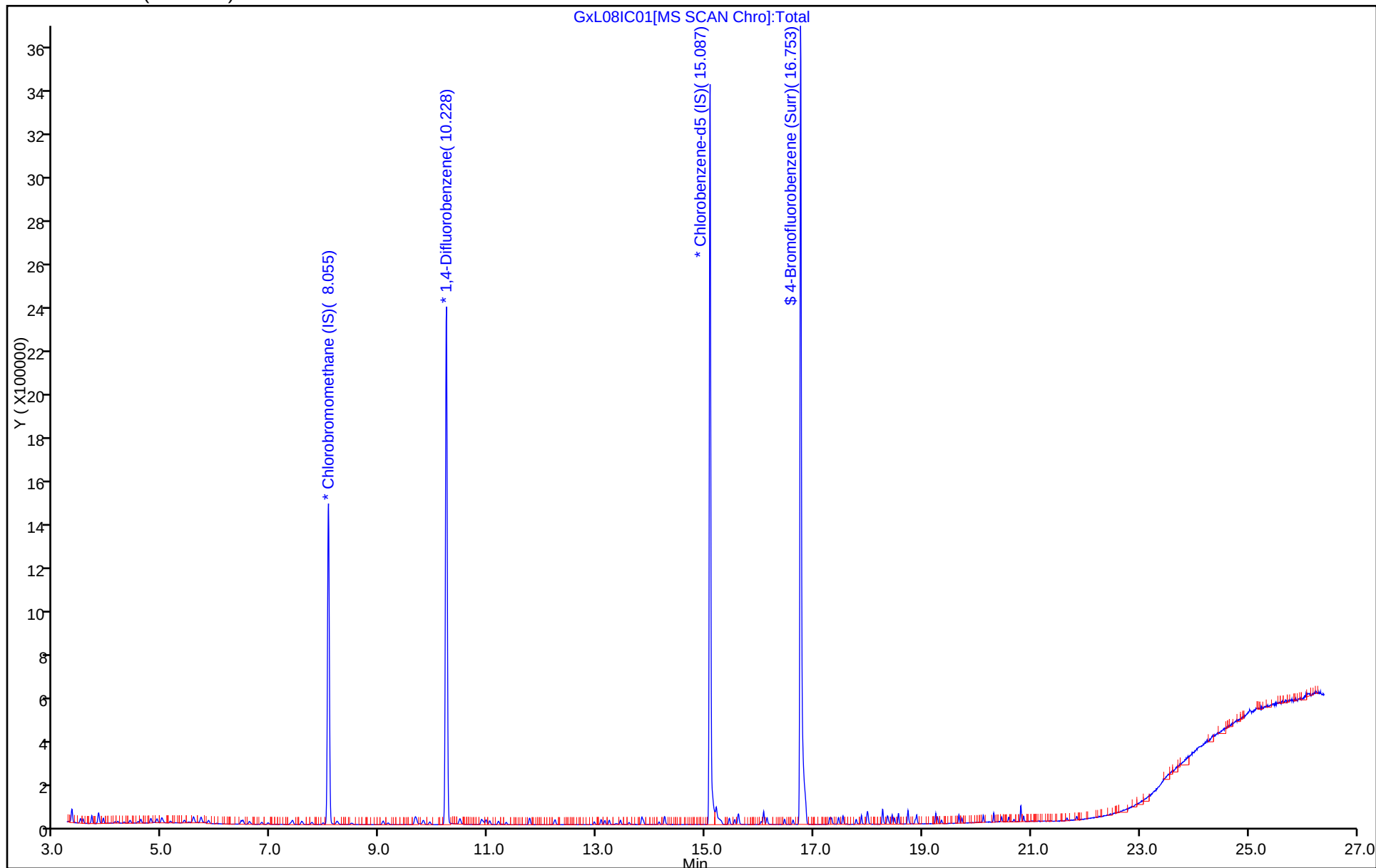
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 3

Purge Vol: 500.000 mL

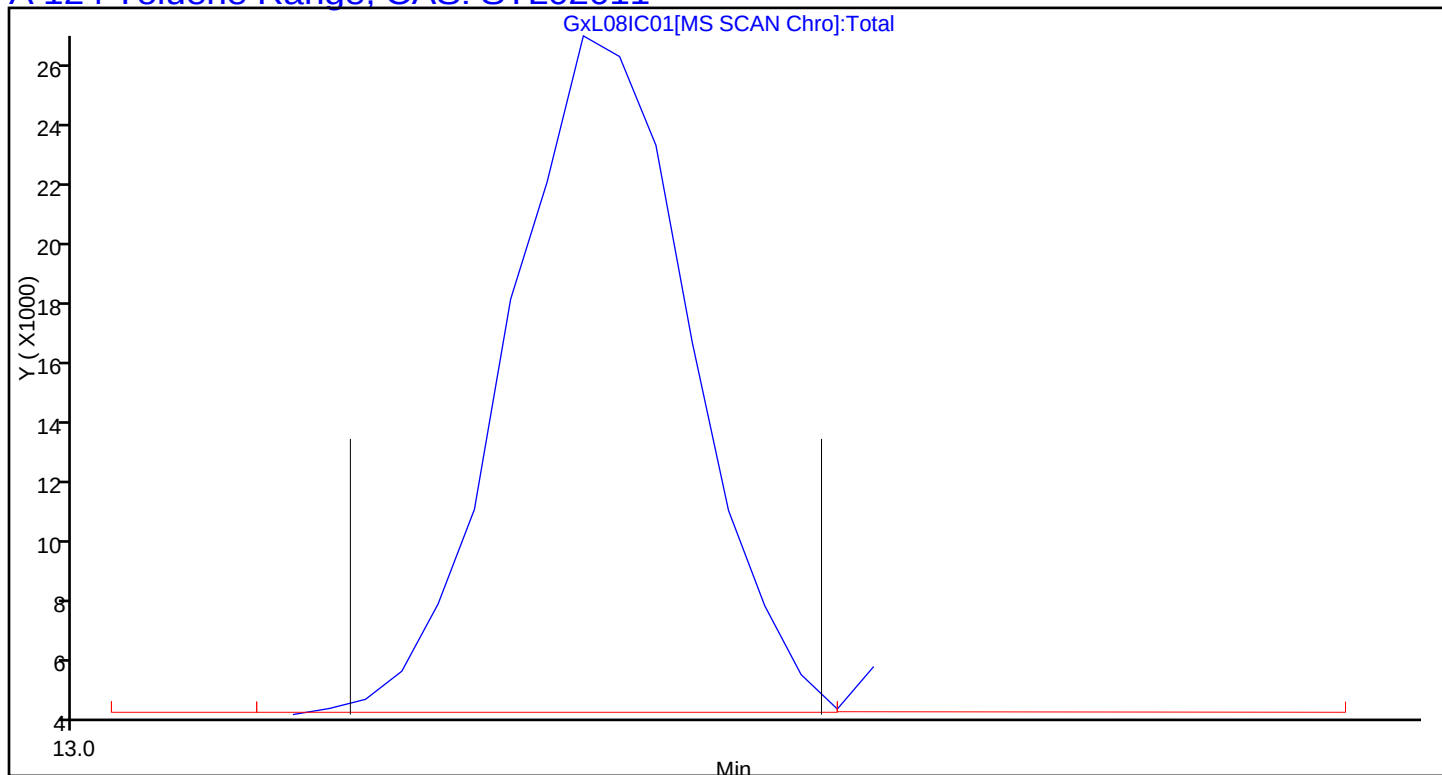
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

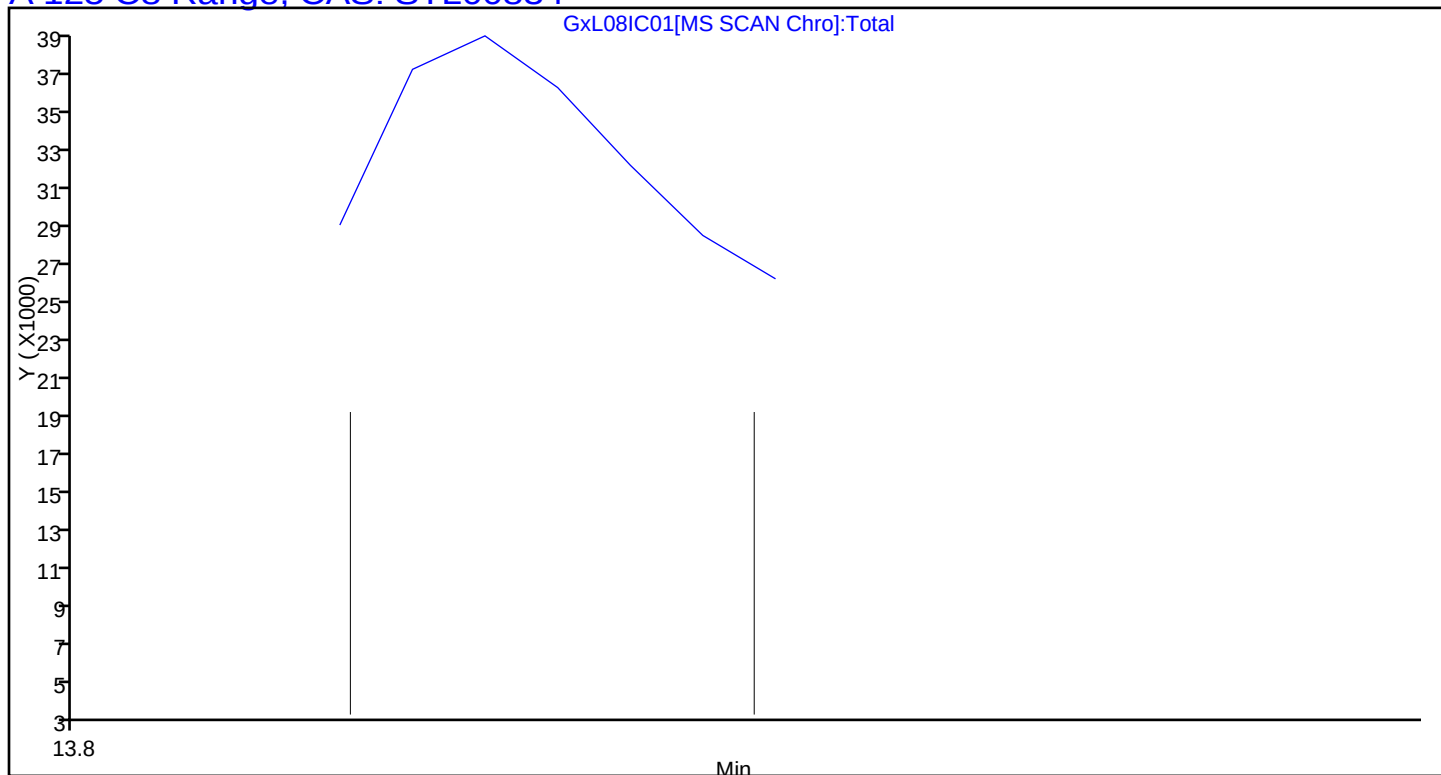
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D
 Lims ID: IC L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 08-Dec-2016 20:42:30 ALS Bottle#: 1 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-004
 Misc. Info.: 067941
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:27:57 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:42:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	493126	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	2376200	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2319128	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	96	1522231	4.00	3.97	
6 Chlorodifluoromethane	67	3.482	3.481	0.001	96	3430	0.0784	0.0848	
7 Propene	41	3.488	3.489	-0.001	98	11034	0.0784	0.0818	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	99	31559	0.0784	0.0748	
9 Chloromethane	52	3.682	3.685	-0.003	71	3385	0.0784	0.0747	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	90	21156	0.0784	0.0757	
11 Acetaldehyde	44	3.817	3.816	0.001	94	35860	0.3920	0.7165	
12 Vinyl chloride	62	3.828	3.830	-0.002	98	10911	0.0784	0.0734	
13 Butadiene	54	3.908	3.906	0.002	66	9207	0.0784	0.0767	
14 Butane	43	3.903	3.907	-0.004	85	18274	0.0784	0.0779	
15 Bromomethane	94	4.173	4.174	-0.001	98	10991	0.0784	0.0774	
16 Chloroethane	64	4.291	4.292	-0.001	99	6090	0.0784	0.0770	
17 Ethanol	31	4.383	4.393	-0.010	95	21784	0.3920	0.4421	
18 Vinyl bromide	106	4.550	4.550	0.000	98	10256	0.0784	0.0765	
19 2-Methylbutane	43	4.593	4.598	-0.005	91	13419	0.0784	0.0783	
21 Acrolein	56	4.782	4.783	-0.001	34	4214	0.0784	0.1098	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	100	30137	0.0784	0.0737	
22 Acetonitrile	40	4.836	4.838	-0.002	95	5381	0.0784	0.1182	
23 Acetone	58	4.884	4.882	0.002	98	16050	0.2352	0.3089	
24 Pentane	72	4.976	4.978	-0.002	75	2067	0.0784	0.0824	
25 Isopropyl alcohol	45	4.976	4.987	-0.011	82	42673	0.2352	0.2427	
26 Ethyl ether	31	5.133	5.124	0.009	94	9224	0.0784	0.0890	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	97	9137	0.0784	0.0758	
28 Acrylonitrile	53	5.488	5.487	0.001	92	6061	0.0784	0.0930	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	92	14476	0.0784	0.0783	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	97	19440	0.0784	0.0752	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	14718	0.0784	0.1403	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	98	8987	0.0784	0.0866	
33 Carbon disulfide	76	5.844	5.849	-0.005	100	28596	0.0784	0.0726	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	10750	0.0784	0.0759	
35 2-Methylpentane	43	6.481	6.481	0.000	93	22847	0.0784	0.0748	
36 Methyl tert-butyl ether	73	6.583	6.575	0.008	96	27742	0.0784	0.0824	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	20206	0.0784	0.0759	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	27271	0.0784	0.0824	
39 2-Butanone (MEK)	72	7.354	7.349	0.005	99	4958	0.0784	0.0849	
40 Hexane	56	7.392	7.397	-0.005	87	10163	0.0784	0.0867	
41 Isopropyl ether	45	7.554	7.547	0.007	98	34716	0.0784	0.0825	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	94	10887	0.0784	0.0757	
43 Ethyl acetate	43	7.947	7.946	0.001	99	22967	0.0784	0.0881	
44 Chloroform	83	8.071	8.085	-0.014	95	23851	0.0784	0.0771	
45 Tert-butyl ethyl ether	59	8.201	8.191	0.010	95	29892	0.0784	0.0817	
46 Tetrahydrofuran	42	8.476	8.460	0.016	93	11834	0.0784	0.0879	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	97	25744	0.0784	0.0763	
48 1,2-Dichloroethane	62	9.150	9.160	-0.010	98	15561	0.0784	0.0702	
49 Benzene	78	9.646	9.654	-0.008	96	31296	0.0784	0.0732	
50 Cyclohexane	69	9.657	9.659	-0.002	80	5547	0.0784	0.0704	
52 Carbon tetrachloride	117	9.678	9.684	-0.006	97	25667	0.0784	0.0673	
51 n-Butanol	31	9.700	9.685	0.015	49	3804	0.0784	0.0732	
53 2,3-Dimethylpentane	71	9.802	9.808	-0.006	90	7617	0.0784	0.0690	
54 Thiophene	84	9.921	9.930	-0.009	97	17029	0.0784	0.0666	
55 Tert-amyl methyl ether	73	10.196	10.181	0.015	96	25252	0.0784	0.0660	M
56 Isooctane	57	10.471	10.479	-0.008	98	53468	0.0784	0.0690	
57 n-Heptane	71	10.875	10.881	-0.006	88	11865	0.0784	0.0691	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	90	12462	0.0784	0.0770	
59 Trichloroethene	130	10.962	10.966	-0.004	97	16022	0.0784	0.0644	
60 Dibromomethane	93	11.026	11.033	-0.007	94	13508	0.0784	0.0686	
61 Dichlorobromomethane	83	11.183	11.194	-0.011	100	22090	0.0784	0.0645	
62 1,4-Dioxane	88	11.231	11.222	0.009	92	3963	0.0784	0.0691	
63 Methyl methacrylate	41	11.323	11.327	-0.004	90	12871	0.0784	0.0735	
64 Methylcyclohexane	83	11.760	11.766	-0.006	95	24568	0.0784	0.0695	
65 4-Methyl-2-pentanone (MIBK)	43	12.202	12.198	0.004	96	19102	0.0784	0.0657	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	96	18544	0.0784	0.0725	
67 trans-1,3-Dichloropropene	75	12.951	12.958	-0.007	98	16090	0.0784	0.0719	
68 Toluene	91	13.081	13.083	-0.002	94	35196	0.0784	0.0759	
69 1,1,2-Trichloroethane	83	13.146	13.154	-0.008	98	10122	0.0784	0.0740	
70 2-Methylthiophene	97	13.226	13.233	-0.007	97	29885	0.0784	0.0764	
71 3-Methylthiophene	97	13.431	13.439	-0.008	99	28520	0.0784	0.0748	
72 2-Hexanone	58	13.582	13.578	0.004	93	8635	0.0784	0.0634	
73 n-Octane	85	13.830	13.833	-0.003	92	13095	0.0784	0.0718	
74 Chlorodibromomethane	129	13.857	13.862	-0.005	97	19673	0.0784	0.0625	
75 Ethylene Dibromide	107	14.143	14.152	-0.009	99	18853	0.0784	0.0701	
76 Tetrachloroethene	129	14.246	14.251	-0.005	95	14290	0.0784	0.0702	
77 Chlorobenzene	112	15.135	15.138	-0.003	95	28541	0.0784	0.0741	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	34268	0.0784	0.0746	
79 Ethylbenzene	91	15.437	15.445	-0.008	98	46059	0.0784	0.0758	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	33470	0.0784	0.0736	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	70859	0.1568	0.1512	
83 Bromoform	173	16.031	16.034	-0.003	96	15443	0.0784	0.0533	
82 n-Nonane	57	16.074	16.076	-0.002	92	24385	0.0784	0.0802	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	95	23040	0.0784	0.0692	
85 o-Xylene	91	16.133	16.140	-0.007	99	37013	0.0784	0.0749	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	98	24155	0.0784	0.0740	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	96	8073	0.0784	0.0751	
88 Isopropylbenzene	105	16.737	16.740	-0.003	96	55196	0.0784	0.0794	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	13794	0.0784	0.0729	
90 2-Chlorotoluene	126	17.319	17.327	-0.008	97	13217	0.0784	0.0756	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	98	48918	0.0784	0.0730	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	24162	0.0784	0.0749	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	89	17099	0.0784	0.0643	
94 n-Decane	57	17.875	17.878	-0.003	91	26505	0.0784	0.0739	
95 tert-Butylbenzene	119	17.977	17.985	-0.008	92	46016	0.0784	0.0737	
96 1,2,4-Trimethylbenzene	105	17.993	18.000	-0.007	95	40505	0.0784	0.0721	
98 1,3-Dichlorobenzene	146	18.263	18.270	-0.007	61	27331	0.0784	0.0673	
97 sec-Butylbenzene	105	18.263	18.270	-0.007	98	59671	0.0784	0.0734	
99 Benzyl chloride	91	18.344	18.349	-0.005	98	28862	0.0784	0.0643	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	94	26961	0.0784	0.0680	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	48237	0.0784	0.0697	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	31790	0.0784	0.0736	
103 Butylcyclohexane	83	18.554	18.561	-0.007	93	32718	0.0784	0.0753	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	93	25995	0.0784	0.0670	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	95	37395	0.0784	0.0715	
106 Indene	116	18.867	18.869	-0.002	92	25482	0.0784	0.1349	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	41896	0.0784	0.0696	
108 Undecane	57	19.244	19.247	-0.003	95	27524	0.0784	0.0727	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	98	32514	0.0784	0.0648	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.352	-0.005	95	8887	0.0784	0.0545	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	38169	0.0784	0.0647	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	96	23885	0.0784	0.0662	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	31277	0.0784	0.0642	
114 Dodecane	57	20.312	20.313	-0.001	96	21993	0.0784	0.0656	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	95	13692	0.0784	0.0508	
116 Naphthalene	128	20.587	20.588	-0.001	99	31260	0.0784	0.0547	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	16219	0.0784	0.0517	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	25952	0.0784	0.0627	
119 1,2,3-Trichlorobenzene	180	20.867	20.865	0.002	93	14265	0.0784	0.0543	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	98	10271	0.2450	0.1232	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	99	11657	0.2450	0.1372	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	87037	0.0784	0.0722	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	183246	0.0784	0.0979	
S 126 Xylenes, Total	100				0		0.2352	0.2261	
S 127 1,2-Dichloroethene, Total	1				0		0.1568	0.1516	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L12DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L2

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

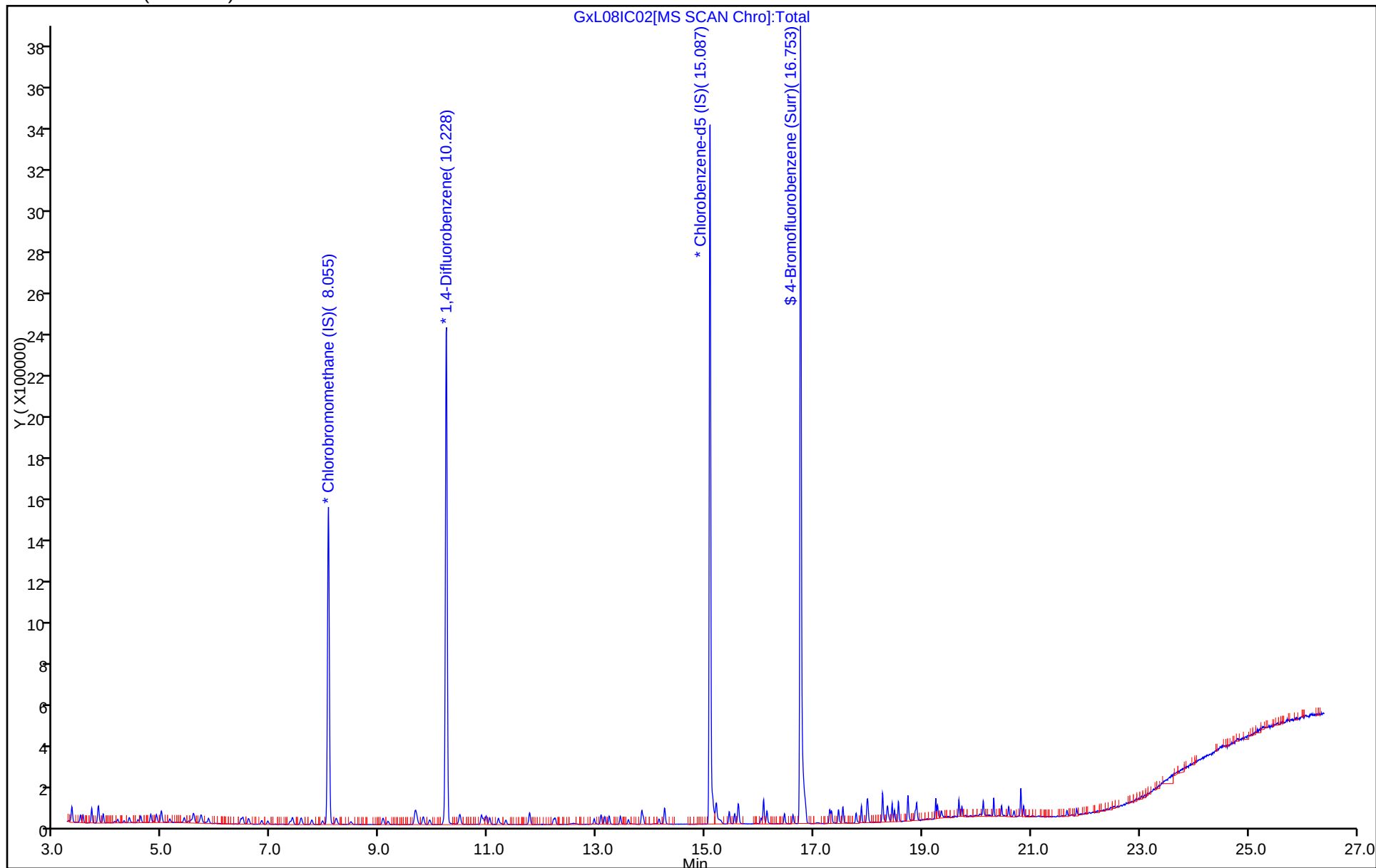
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 4

Purge Vol: 500.000 mL

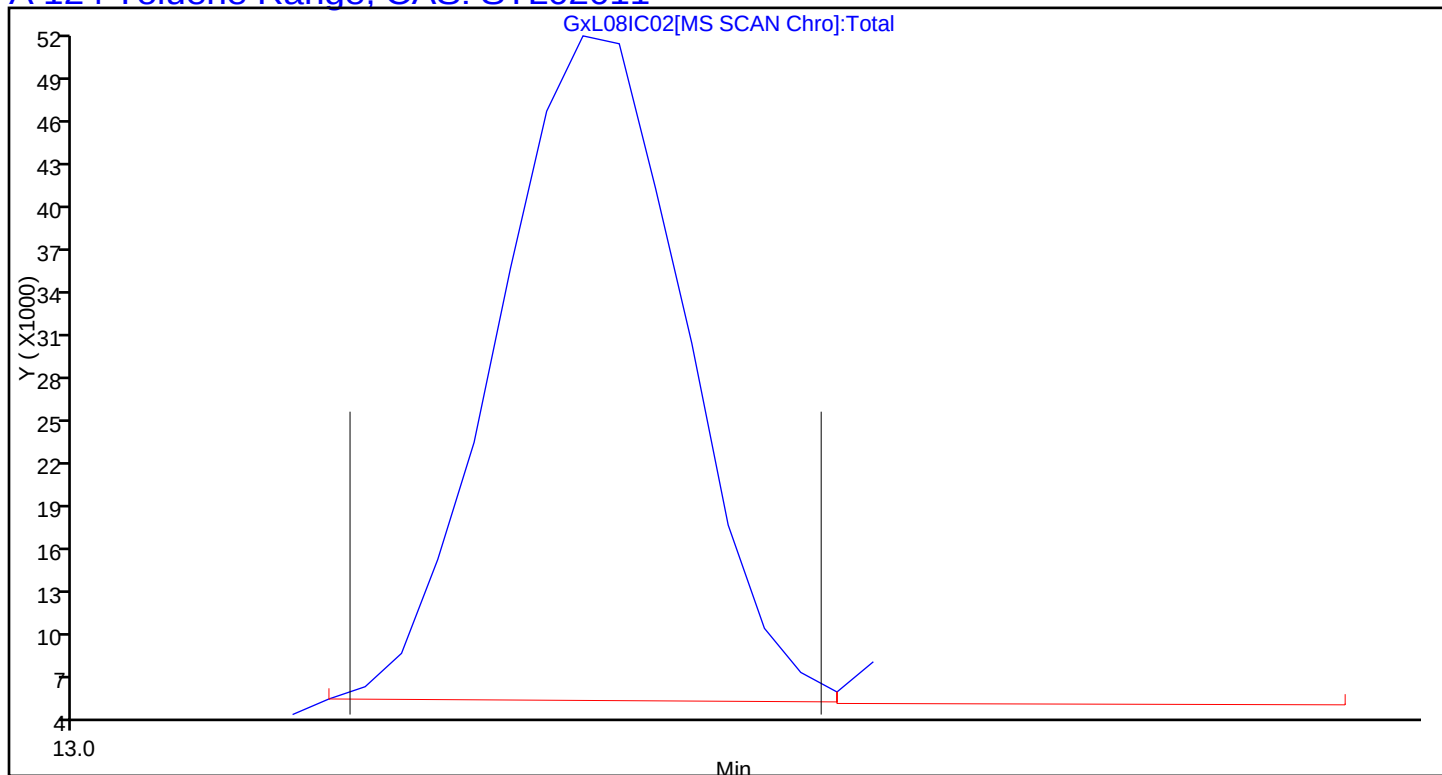
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

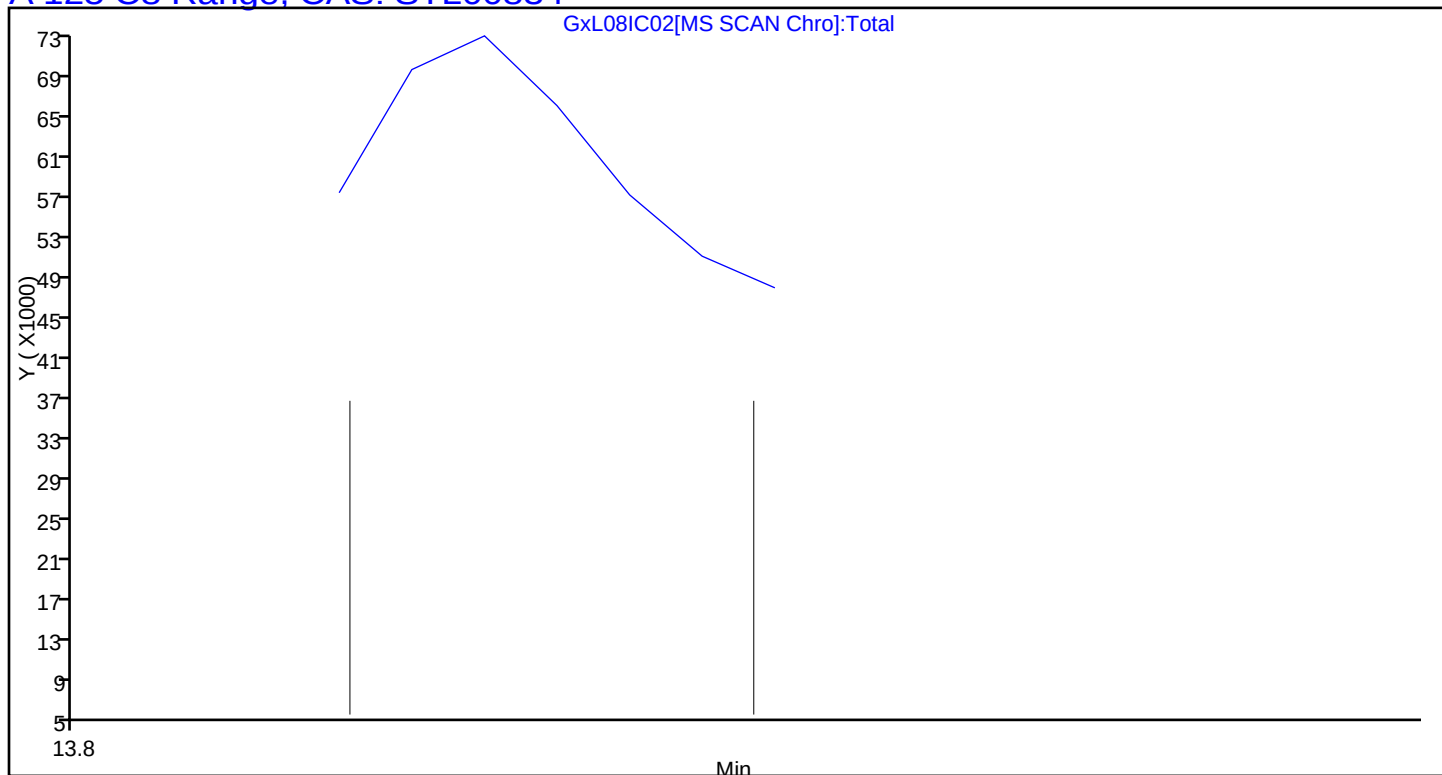
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

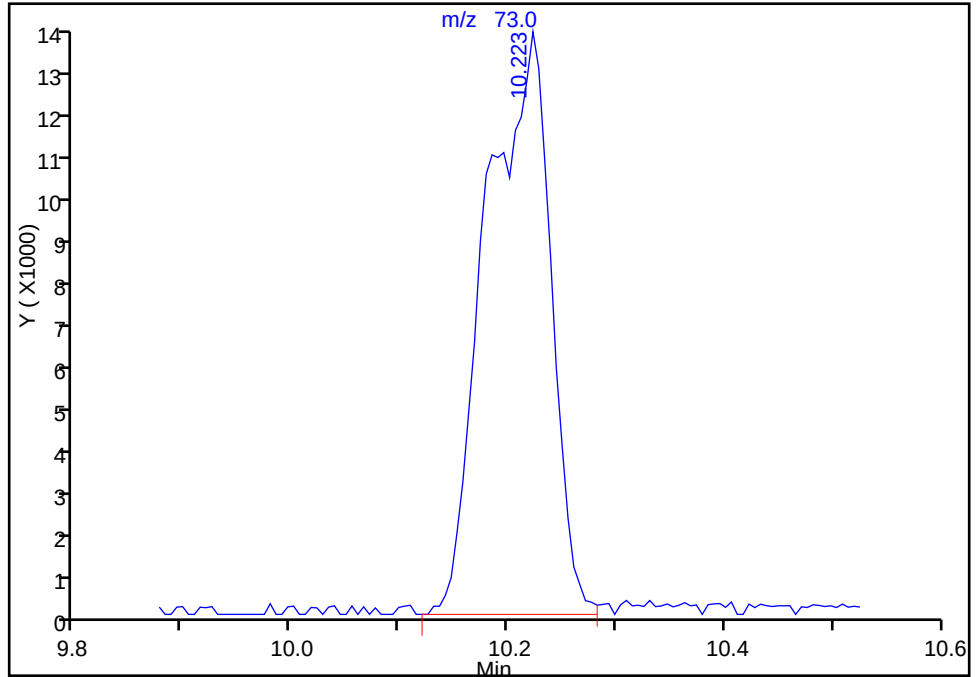
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Injection Date: 08-Dec-2016 20:42:30 Instrument ID: MG
Lims ID: IC L2
Client ID:
Operator ID: 403648 ALS Bottle#: 1 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

55 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

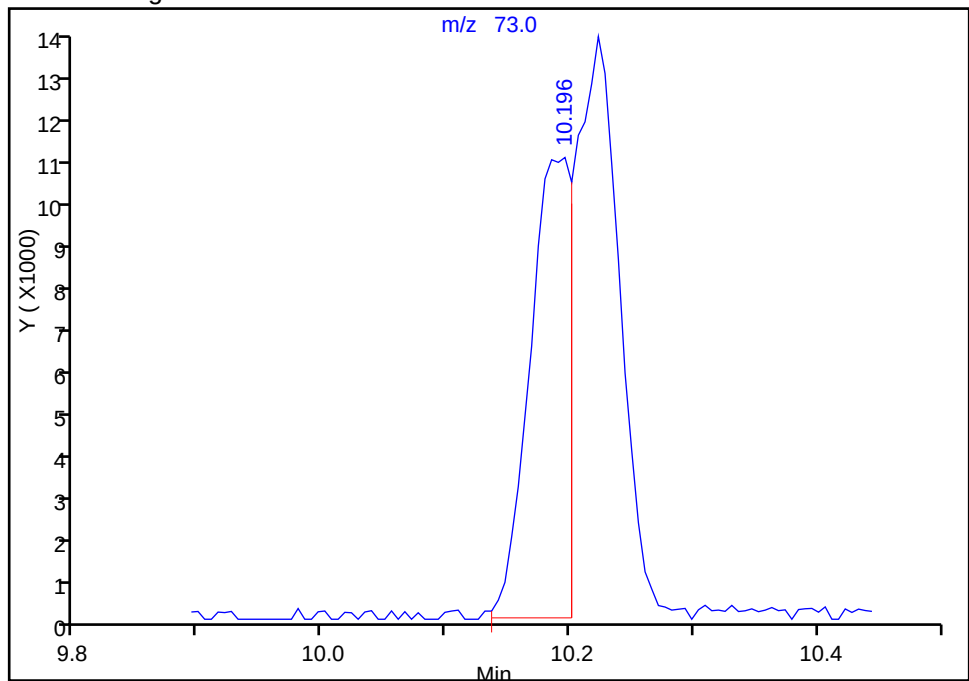
RT: 10.22
Area: 56091
Amount: 0.124118
Amount Units: ppb v/v

Processing Integration Results



RT: 10.20
Area: 25252
Amount: 0.066043
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:29:12
Audit Action: Manually Integrated

Audit Reason: Split Peak
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12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D
 Lims ID: IC L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 08-Dec-2016 21:25:30 ALS Bottle#: 2 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-005
 Misc. Info.: 067940
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:01 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:41:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	450637	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.234	-0.005	95	1837733	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	1829554	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	94	1168369	4.00	3.86	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	97	5647	0.1587	0.1528	
7 Propene	41	3.488	3.489	-0.001	99	20326	0.1587	0.1650	
8 Dichlorodifluoromethane	85	3.537	3.533	0.004	100	60760	0.1587	0.1575	
9 Chloromethane	52	3.688	3.685	0.003	63	7372	0.1587	0.1780	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	92	40305	0.1587	0.1577	
11 Acetaldehyde	44	3.817	3.816	0.001	95	50465	0.7933	1.10	
12 Vinyl chloride	62	3.833	3.830	0.003	99	21755	0.1587	0.1600	
13 Butadiene	54	3.903	3.906	-0.003	98	17716	0.1587	0.1615	
14 Butane	43	3.909	3.907	0.002	94	34413	0.1587	0.1606	
15 Bromomethane	94	4.173	4.174	-0.001	99	21028	0.1587	0.1620	
16 Chloroethane	64	4.292	4.292	0.000	97	11486	0.1587	0.1590	
17 Ethanol	31	4.383	4.393	-0.010	95	36685	0.7933	0.8147	
18 Vinyl bromide	106	4.545	4.550	-0.005	98	19383	0.1587	0.1582	
19 2-Methylbutane	43	4.599	4.598	0.001	91	26223	0.1587	0.1675	
21 Acrolein	56	4.788	4.783	0.005	32	5678	0.1587	0.1618	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	100	59109	0.1587	0.1581	
22 Acetonitrile	40	4.831	4.838	-0.007	97	6381	0.1587	0.1534	
23 Acetone	58	4.890	4.882	0.008	98	31857	0.4760	0.6709	
24 Pentane	72	4.982	4.978	0.004	96	3817	0.1587	0.1664	
25 Isopropyl alcohol	45	4.971	4.987	-0.016	93	75884	0.4760	0.4724	
26 Ethyl ether	31	5.133	5.124	0.009	96	13794	0.1587	0.1457	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	17917	0.1587	0.1626	
28 Acrylonitrile	53	5.483	5.487	-0.004	93	10031	0.1587	0.1685	
29 2-Methyl-2-propanol	59	5.521	5.526	-0.005	89	25645	0.1587	0.1519	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.572	-0.002	97	37390	0.1587	0.1582	
31 Methylene Chloride	84	5.704	5.708	-0.004	94	21084	0.1587	0.2200	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.721	5.725	-0.004	97	15711	0.1587	0.1656	
33 Carbon disulfide	76	5.845	5.849	-0.004	100	58242	0.1587	0.1617	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	99	20615	0.1587	0.1592	
35 2-Methylpentane	43	6.475	6.481	-0.006	95	44795	0.1587	0.1606	
36 Methyl tert-butyl ether	73	6.583	6.575	0.008	96	41332	0.1587	0.1344	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	36850	0.1587	0.1515	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	38691	0.1587	0.1280	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	8249	0.1587	0.1546	
40 Hexane	56	7.392	7.397	-0.005	86	17936	0.1587	0.1674	
41 Isopropyl ether	45	7.549	7.547	0.002	96	51520	0.1587	0.1341	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	96	20178	0.1587	0.1535	
43 Ethyl acetate	43	7.942	7.946	-0.004	99	30082	0.1587	0.1262	
44 Chloroform	83	8.077	8.085	-0.008	96	43727	0.1587	0.1547	
45 Tert-butyl ethyl ether	59	8.196	8.191	0.005	95	43833	0.1587	0.1312	
46 Tetrahydrofuran	42	8.465	8.460	0.005	96	16880	0.1587	0.1372	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	47399	0.1587	0.1537	
48 1,2-Dichloroethane	62	9.150	9.160	-0.010	98	27221	0.1587	0.1589	
49 Benzene	78	9.646	9.654	-0.008	97	54815	0.1587	0.1658	
50 Cyclohexane	69	9.652	9.659	-0.007	95	11068	0.1587	0.1816	
52 Carbon tetrachloride	117	9.679	9.684	-0.005	98	48171	0.1587	0.1632	
51 n-Butanol	31	9.689	9.685	0.004	59	6873	0.1587	0.1710	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	14554	0.1587	0.1704	
54 Thiophene	84	9.927	9.930	-0.003	97	31533	0.1587	0.1594	
55 Tert-amyl methyl ether	73	10.185	10.181	0.004	98	42901	0.1587	0.1451	M
56 Isooctane	57	10.477	10.479	-0.002	98	99827	0.1587	0.1665	
57 n-Heptane	71	10.876	10.881	-0.005	90	22004	0.1587	0.1658	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	87	18837	0.1587	0.1504	
59 Trichloroethene	130	10.957	10.966	-0.009	97	37343	0.1587	0.1942	
60 Dibromomethane	93	11.027	11.033	-0.006	92	24045	0.1587	0.1578	
61 Dichlorobromomethane	83	11.188	11.194	-0.006	99	40369	0.1587	0.1525	
62 1,4-Dioxane	88	11.226	11.222	0.004	90	6766	0.1587	0.1526	
63 Methyl methacrylate	41	11.323	11.327	-0.004	92	17354	0.1587	0.1282	
64 Methylcyclohexane	83	11.760	11.766	-0.006	94	46095	0.1587	0.1685	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	98	34513	0.1587	0.1534	
66 cis-1,3-Dichloropropene	75	12.235	12.240	-0.005	95	29255	0.1587	0.1479	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	24864	0.1587	0.1409	
68 Toluene	91	13.081	13.083	-0.002	93	53183	0.1587	0.1454	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	16016	0.1587	0.1484	
70 2-Methylthiophene	97	13.227	13.233	-0.006	98	46273	0.1587	0.1499	
71 3-Methylthiophene	97	13.432	13.439	-0.007	98	43735	0.1587	0.1455	
72 2-Hexanone	58	13.577	13.578	-0.001	94	16057	0.1587	0.1495	
73 n-Octane	85	13.831	13.833	-0.002	93	23418	0.1587	0.1628	
74 Chlorodibromomethane	129	13.858	13.862	-0.004	98	36091	0.1587	0.1454	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	98	31431	0.1587	0.1481	
76 Tetrachloroethene	129	14.251	14.251	0.000	96	25535	0.1587	0.1591	
77 Chlorobenzene	112	15.136	15.138	-0.002	94	44998	0.1587	0.1482	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	60872	0.1587	0.1679	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	69003	0.1587	0.1439	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	49663	0.1587	0.1384	
81 m-Xylene & p-Xylene	91	15.605	15.612	-0.007	99	106515	0.3173	0.2881	
83 Bromoform	173	16.031	16.034	-0.003	96	29557	0.1587	0.1294	
82 n-Nonane	57	16.074	16.076	-0.002	92	39709	0.1587	0.1656	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	77	34245	0.1587	0.1304	
85 o-Xylene	91	16.133	16.140	-0.007	98	55923	0.1587	0.1435	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	99	28104	0.1587	0.1092	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	96	11556	0.1587	0.1363	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	77471	0.1587	0.1413	
89 N-Propylbenzene	120	17.293	17.295	-0.002	99	21354	0.1587	0.1430	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	19691	0.1587	0.1428	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	73785	0.1587	0.1395	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	35870	0.1587	0.1410	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	26661	0.1587	0.1271	
94 n-Decane	57	17.875	17.878	-0.003	90	45478	0.1587	0.1607	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	70467	0.1587	0.1430	
96 1,2,4-Trimethylbenzene	105	17.994	18.000	-0.006	95	63716	0.1587	0.1438	
98 1,3-Dichlorobenzene	146	18.269	18.270	-0.001	63	44633	0.1587	0.1394	
97 sec-Butylbenzene	105	18.269	18.270	-0.001	98	94767	0.1587	0.1478	
99 Benzyl chloride	91	18.349	18.349	0.000	97	46504	0.1587	0.1314	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	92	43579	0.1587	0.1392	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	77592	0.1587	0.1421	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	49232	0.1587	0.1445	
103 Butylcyclohexane	83	18.560	18.561	-0.001	93	55512	0.1587	0.1619	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	43248	0.1587	0.1414	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	59010	0.1587	0.1430	
106 Indene	116	18.867	18.869	-0.002	94	41234	0.1587	0.1934	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	70024	0.1587	0.1475	
108 Undecane	57	19.245	19.247	-0.002	97	48725	0.1587	0.1631	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	56926	0.1587	0.1438	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	94	14967	0.1587	0.1164	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.673	-0.002	97	68727	0.1587	0.1476	
112 1,2,3,5-Tetramethylbenzene	119	19.725	19.727	-0.002	95	41533	0.1587	0.1460	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	98	57669	0.1587	0.1500	
114 Dodecane	57	20.312	20.313	-0.001	96	47372	0.1587	0.1792	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	25744	0.1587	0.1210	
116 Naphthalene	128	20.587	20.588	-0.001	99	61374	0.1587	0.1360	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	29349	0.1587	0.1187	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	47564	0.1587	0.1456	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	29020	0.1587	0.1399	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	29488	0.4958	0.4484	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	36495	0.4958	0.5446	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	135421	0.1587	0.1452	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	340899	0.1587	0.2354	
S 126 Xylenes, Total	100				0		0.4760	0.4316	
S 127 1,2-Dichloroethene, Total	1				0		0.3173	0.3128	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L3DNP_00009

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L3

Worklist Smp#: 5

Client ID:

Purge Vol: 500.000 mL

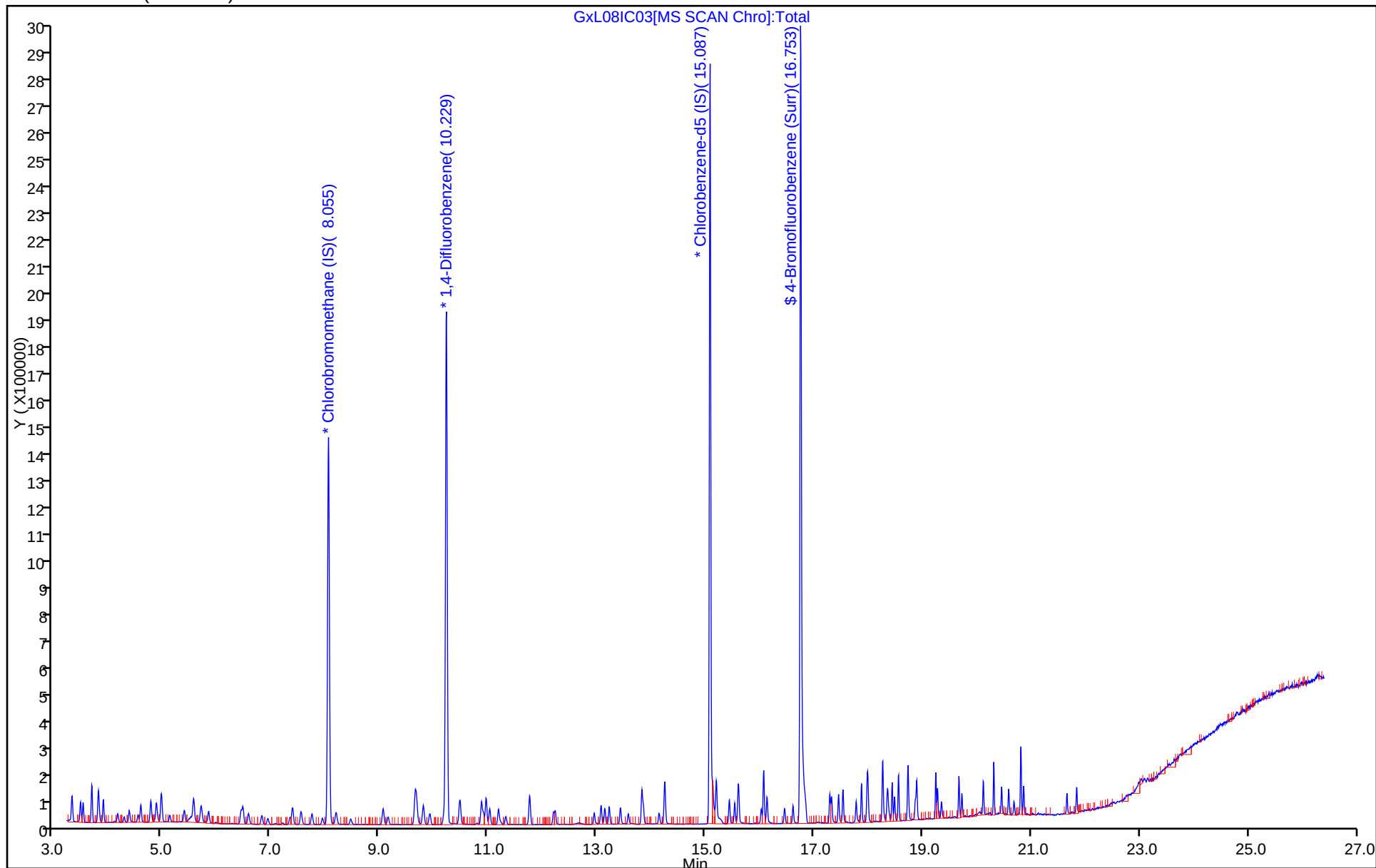
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

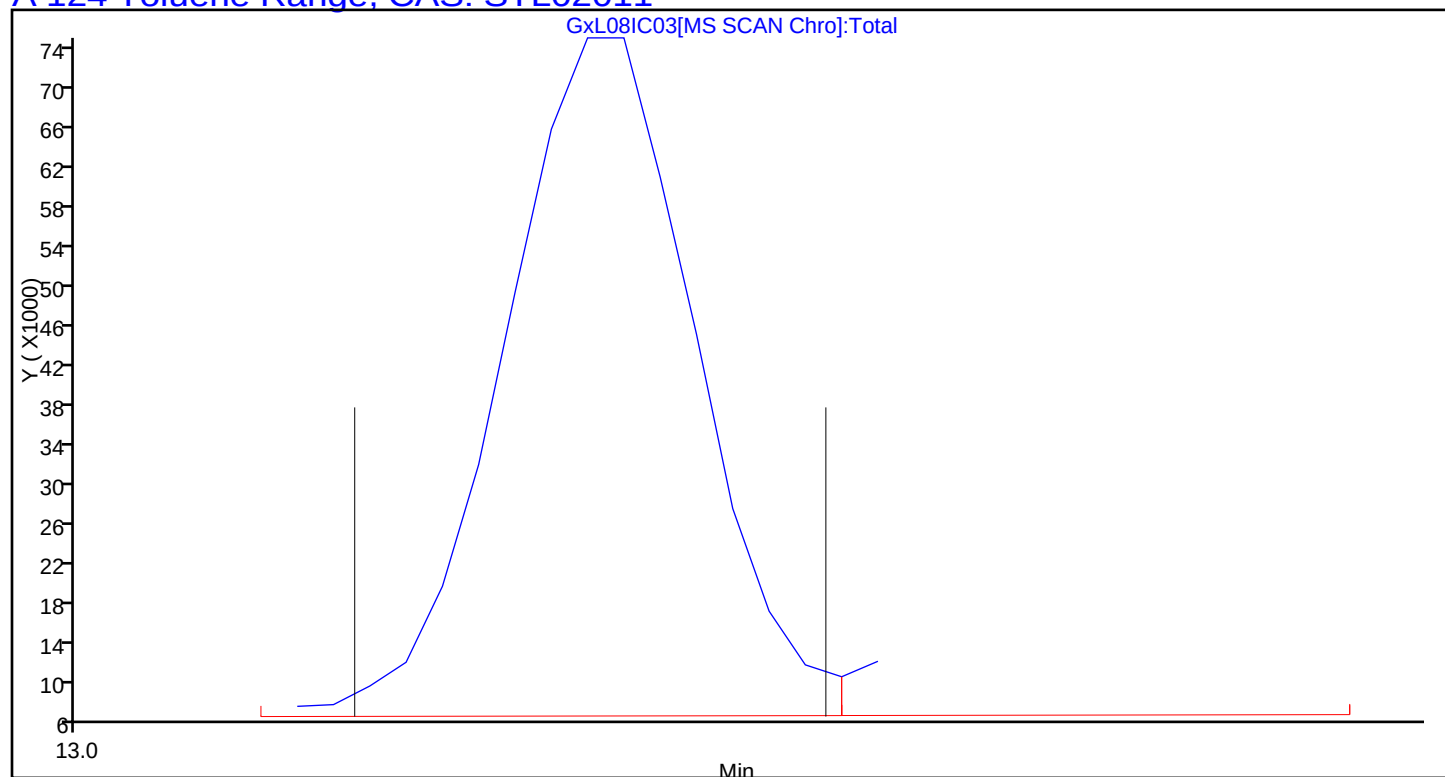
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

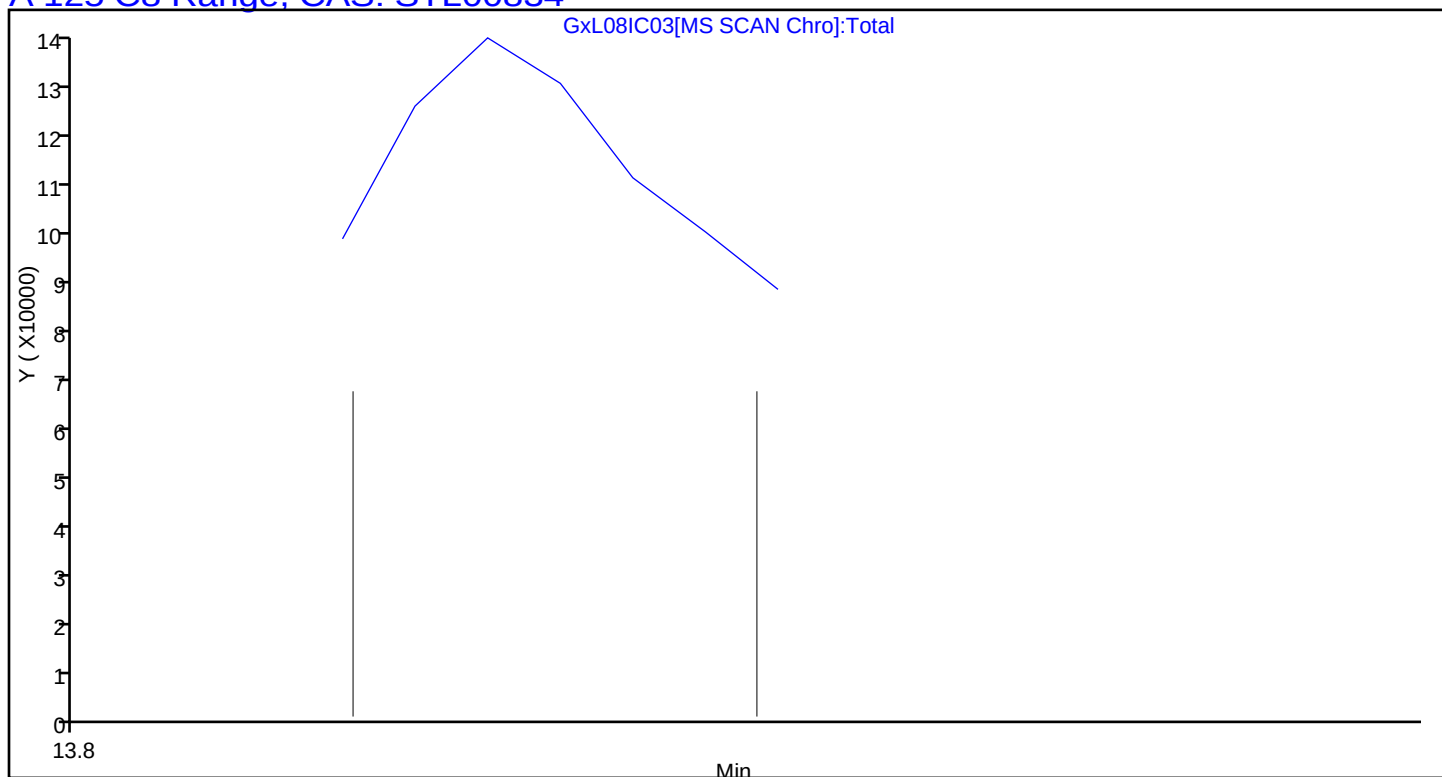
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

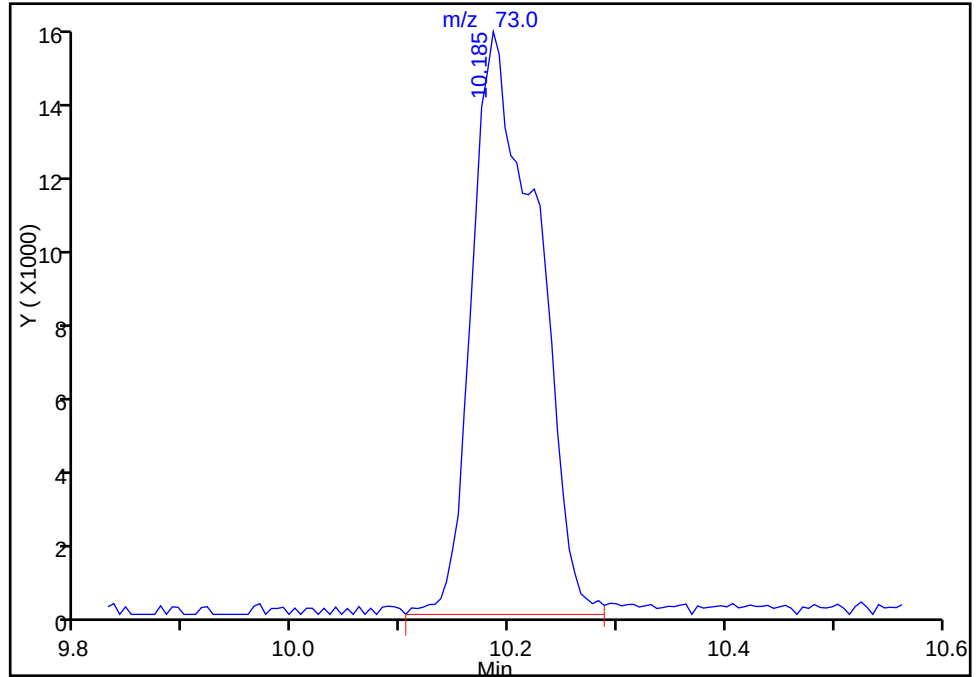
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D
Injection Date: 08-Dec-2016 21:25:30 Instrument ID: MG
Lims ID: IC L3
Client ID:
Operator ID: 403648 ALS Bottle#: 2 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

55 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

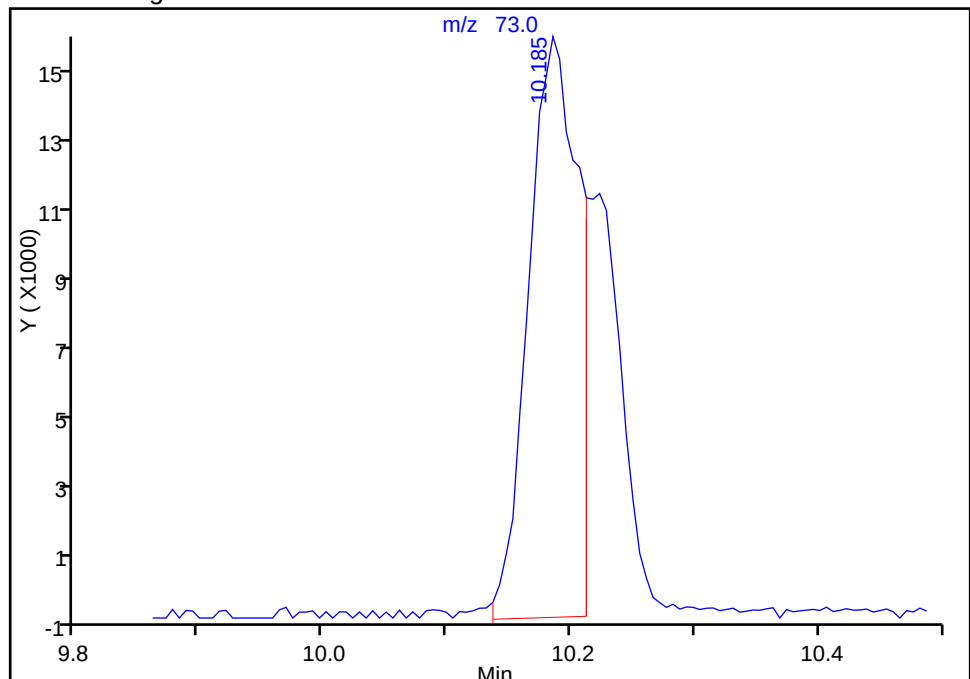
RT: 10.19
Area: 62919
Amount: 0.201999
Amount Units: ppb v/v

Processing Integration Results



RT: 10.19
Area: 42901
Amount: 0.145078
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:30:03
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 196 of 318

12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D
 Lims ID: IC L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 08-Dec-2016 22:07:30 ALS Bottle#: 3 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-006
 Misc. Info.: 067939
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:06 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:39:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	96	463981	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.234	-0.005	95	2108247	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	2175734	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	95	1442147	4.00	4.01	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	14013	0.4000	0.3683	
7 Propene	41	3.488	3.489	-0.001	97	49008	0.4000	0.3863	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	99	148238	0.4000	0.3733	
9 Chloromethane	52	3.682	3.685	-0.003	98	17148	0.4000	0.4021	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	96	97416	0.4000	0.3703	
11 Acetaldehyde	44	3.812	3.816	-0.004	98	111731	2.00	2.37	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	52292	0.4000	0.3736	
13 Butadiene	54	3.903	3.906	-0.003	89	42040	0.4000	0.3721	
14 Butane	43	3.903	3.907	-0.004	90	83428	0.4000	0.3782	
15 Bromomethane	94	4.168	4.174	-0.006	98	49897	0.4000	0.3734	
16 Chloroethane	64	4.292	4.292	0.000	97	28019	0.4000	0.3767	
17 Ethanol	31	4.378	4.393	-0.015	97	90742	2.00	1.96	
18 Vinyl bromide	106	4.545	4.550	-0.005	98	47395	0.4000	0.3756	
19 2-Methylbutane	43	4.594	4.598	-0.004	90	60759	0.4000	0.3770	
21 Acrolein	56	4.777	4.783	-0.006	32	12347	0.4000	0.3418	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	143536	0.4000	0.3730	
22 Acetonitrile	40	4.831	4.838	-0.007	97	18027	0.4000	0.4210	
23 Acetone	58	4.879	4.882	-0.003	99	71784	1.20	1.47	
24 Pentane	72	4.971	4.978	-0.007	94	9414	0.4000	0.3986	
25 Isopropyl alcohol	45	4.960	4.987	-0.027	93	196241	1.20	1.19	
26 Ethyl ether	31	5.117	5.124	-0.007	96	38146	0.4000	0.3914	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	95	41972	0.4000	0.3700	
28 Acrylonitrile	53	5.478	5.487	-0.009	93	23057	0.4000	0.3762	
29 2-Methyl-2-propanol	59	5.499	5.526	-0.027	94	65529	0.4000	0.3769	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.572	-0.002	97	91069	0.4000	0.3743	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	39868	0.4000	0.4040	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.721	5.725	-0.004	98	37831	0.4000	0.3873	
33 Carbon disulfide	76	5.845	5.849	-0.004	100	141704	0.4000	0.3822	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	97	49737	0.4000	0.3731	
35 2-Methylpentane	43	6.476	6.481	-0.005	95	109315	0.4000	0.3806	
36 Methyl tert-butyl ether	73	6.573	6.575	-0.002	97	116320	0.4000	0.3674	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	92833	0.4000	0.3707	
38 Vinyl acetate	43	6.934	6.942	-0.008	100	115180	0.4000	0.3700	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	21700	0.4000	0.3949	
40 Hexane	56	7.392	7.397	-0.005	89	42161	0.4000	0.3823	
41 Isopropyl ether	45	7.543	7.547	-0.004	97	148142	0.4000	0.3744	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	51356	0.4000	0.3796	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	89774	0.4000	0.3658	
44 Chloroform	83	8.077	8.085	-0.008	96	109487	0.4000	0.3762	
45 Tert-butyl ethyl ether	59	8.185	8.191	-0.006	94	126645	0.4000	0.3681	
46 Tetrahydrofuran	42	8.455	8.460	-0.006	95	46626	0.4000	0.3680	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	119146	0.4000	0.3753	
48 1,2-Dichloroethane	62	9.156	9.160	-0.004	98	70665	0.4000	0.3595	
49 Benzene	78	9.646	9.654	-0.008	97	145030	0.4000	0.3824	
50 Cyclohexane	69	9.657	9.659	-0.002	92	26449	0.4000	0.3784	
52 Carbon tetrachloride	117	9.679	9.684	-0.005	98	121879	0.4000	0.3600	
51 n-Butanol	31	9.668	9.685	-0.017	66	15567	0.4000	0.3377	
53 2,3-Dimethylpentane	71	9.803	9.808	-0.005	91	35370	0.4000	0.3610	
54 Thiophene	84	9.927	9.930	-0.003	96	81985	0.4000	0.3612	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	116541	0.4000	0.3435	
56 Isooctane	57	10.477	10.479	-0.002	98	250466	0.4000	0.3642	
57 n-Heptane	71	10.876	10.881	-0.005	91	54557	0.4000	0.3583	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	89	53314	0.4000	0.3711	
59 Trichloroethene	130	10.962	10.966	-0.004	97	75756	0.4000	0.3434	
60 Dibromomethane	93	11.027	11.033	-0.006	93	62732	0.4000	0.3589	
61 Dichlorobromomethane	83	11.188	11.194	-0.006	100	105567	0.4000	0.3476	
62 1,4-Dioxane	88	11.210	11.222	-0.012	89	17470	0.4000	0.3434	
63 Methyl methacrylate	41	11.318	11.327	-0.009	92	52693	0.4000	0.3393	
64 Methylcyclohexane	83	11.760	11.766	-0.006	95	114511	0.4000	0.3649	
65 4-Methyl-2-pentanone (MIBK)	43	12.191	12.198	-0.007	96	88279	0.4000	0.3421	
66 cis-1,3-Dichloropropene	75	12.235	12.240	-0.005	93	84196	0.4000	0.3709	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	72970	0.4000	0.3476	
68 Toluene	91	13.076	13.083	-0.007	94	158232	0.4000	0.3637	
69 1,1,2-Trichloroethane	83	13.146	13.154	-0.008	99	46210	0.4000	0.3601	
70 2-Methylthiophene	97	13.227	13.233	-0.006	97	132638	0.4000	0.3614	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	128096	0.4000	0.3583	
72 2-Hexanone	58	13.572	13.578	-0.006	93	38378	0.4000	0.3005	
73 n-Octane	85	13.831	13.833	-0.002	94	60225	0.4000	0.3520	
74 Chlorodibromomethane	129	13.858	13.862	-0.004	98	98960	0.4000	0.3351	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	99	86235	0.4000	0.3417	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	65941	0.4000	0.3454	
77 Chlorobenzene	112	15.136	15.138	-0.002	94	128374	0.4000	0.3555	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	97	160682	0.4000	0.3726	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	202566	0.4000	0.3551	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	97	148846	0.4000	0.3488	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	312199	0.8000	0.7100	
83 Bromoform	173	16.031	16.034	-0.003	97	89222	0.4000	0.3283	
82 n-Nonane	57	16.074	16.076	-0.002	93	108527	0.4000	0.3807	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	81	105962	0.4000	0.3392	
85 o-Xylene	91	16.133	16.140	-0.007	98	163242	0.4000	0.3522	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	100	107105	0.4000	0.3500	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	97	34699	0.4000	0.3443	
88 Isopropylbenzene	105	16.737	16.740	-0.003	96	226287	0.4000	0.3471	
89 N-Propylbenzene	120	17.293	17.295	-0.002	99	58580	0.4000	0.3300	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	56487	0.4000	0.3445	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	212251	0.4000	0.3375	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	101711	0.4000	0.3363	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	75940	0.4000	0.3044	
94 n-Decane	57	17.875	17.878	-0.003	90	122535	0.4000	0.3642	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	197002	0.4000	0.3361	
96 1,2,4-Trimethylbenzene	105	17.994	18.000	-0.006	95	178941	0.4000	0.3395	
98 1,3-Dichlorobenzene	146	18.269	18.270	-0.001	79	123184	0.4000	0.3235	
97 sec-Butylbenzene	105	18.269	18.270	-0.001	98	259583	0.4000	0.3404	
99 Benzyl chloride	91	18.344	18.349	-0.005	99	129478	0.4000	0.3076	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	96	121046	0.4000	0.3252	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	215898	0.4000	0.3325	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	135985	0.4000	0.3356	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	149636	0.4000	0.3670	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	116482	0.4000	0.3201	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	162369	0.4000	0.3309	
106 Indene	116	18.867	18.869	-0.002	93	112729	0.4000	0.3418	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	189235	0.4000	0.3352	
108 Undecane	57	19.245	19.247	-0.002	97	125419	0.4000	0.3530	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	146402	0.4000	0.3109	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	96	41895	0.4000	0.2741	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.673	-0.002	97	174813	0.4000	0.3158	
112 1,2,3,5-Tetramethylbenzene	119	19.725	19.727	-0.002	95	108120	0.4000	0.3196	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	140998	0.4000	0.3083	
114 Dodecane	57	20.312	20.313	-0.001	96	100259	0.4000	0.3189	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	65094	0.4000	0.2574	
116 Naphthalene	128	20.587	20.588	-0.001	99	144616	0.4000	0.2695	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	71357	0.4000	0.2426	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	112530	0.4000	0.2897	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	63109	0.4000	0.2558	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	99	42003	1.25	0.5371	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	99	46064	1.25	0.5780	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	395488	0.4000	0.3695	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	598729	0.4000	0.3604	M
S 126 Xylenes, Total	100				0		1.20	1.06	
S 127 1,2-Dichloroethene, Total	1				0		0.8000	0.7527	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L4DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L4

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

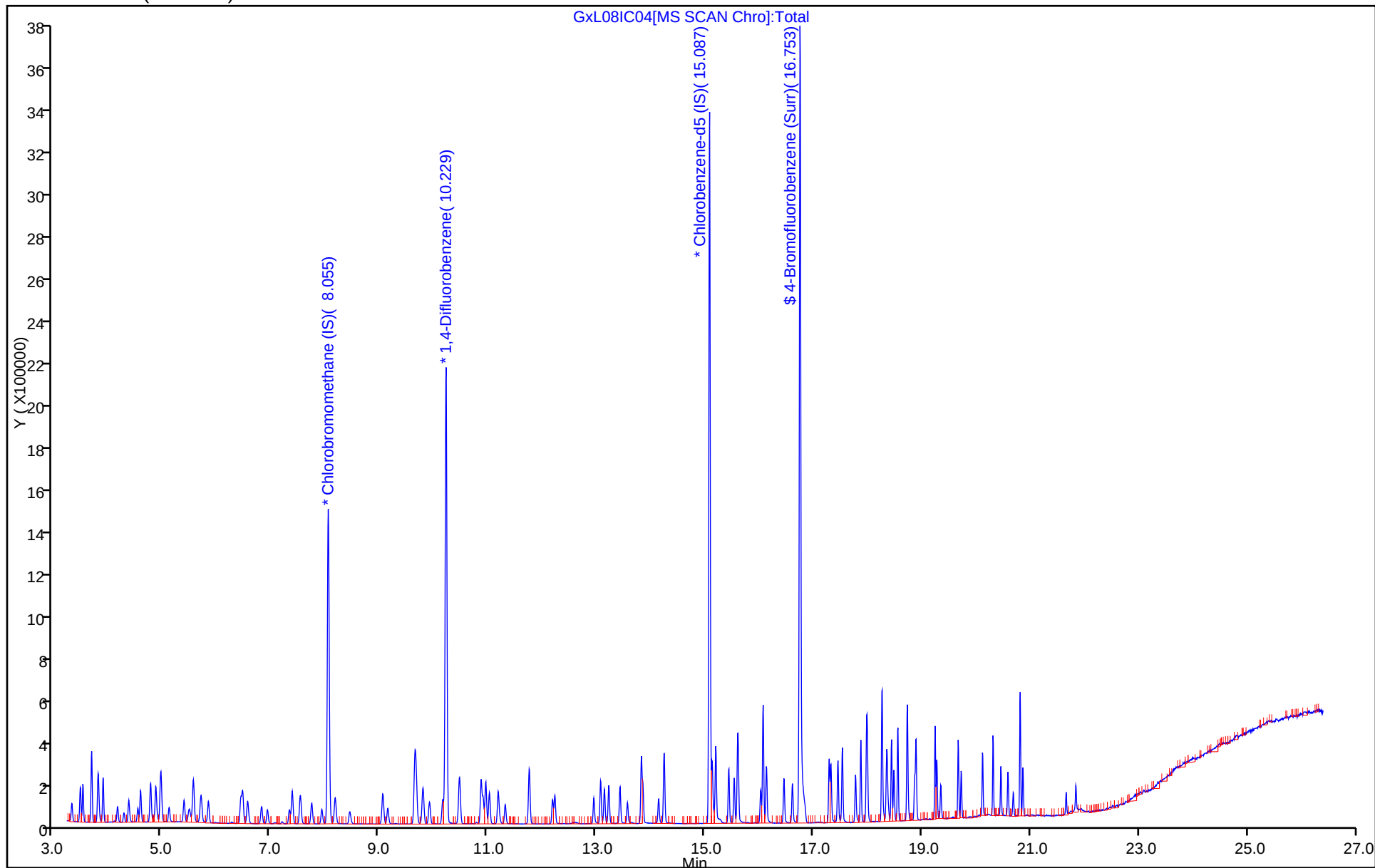
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

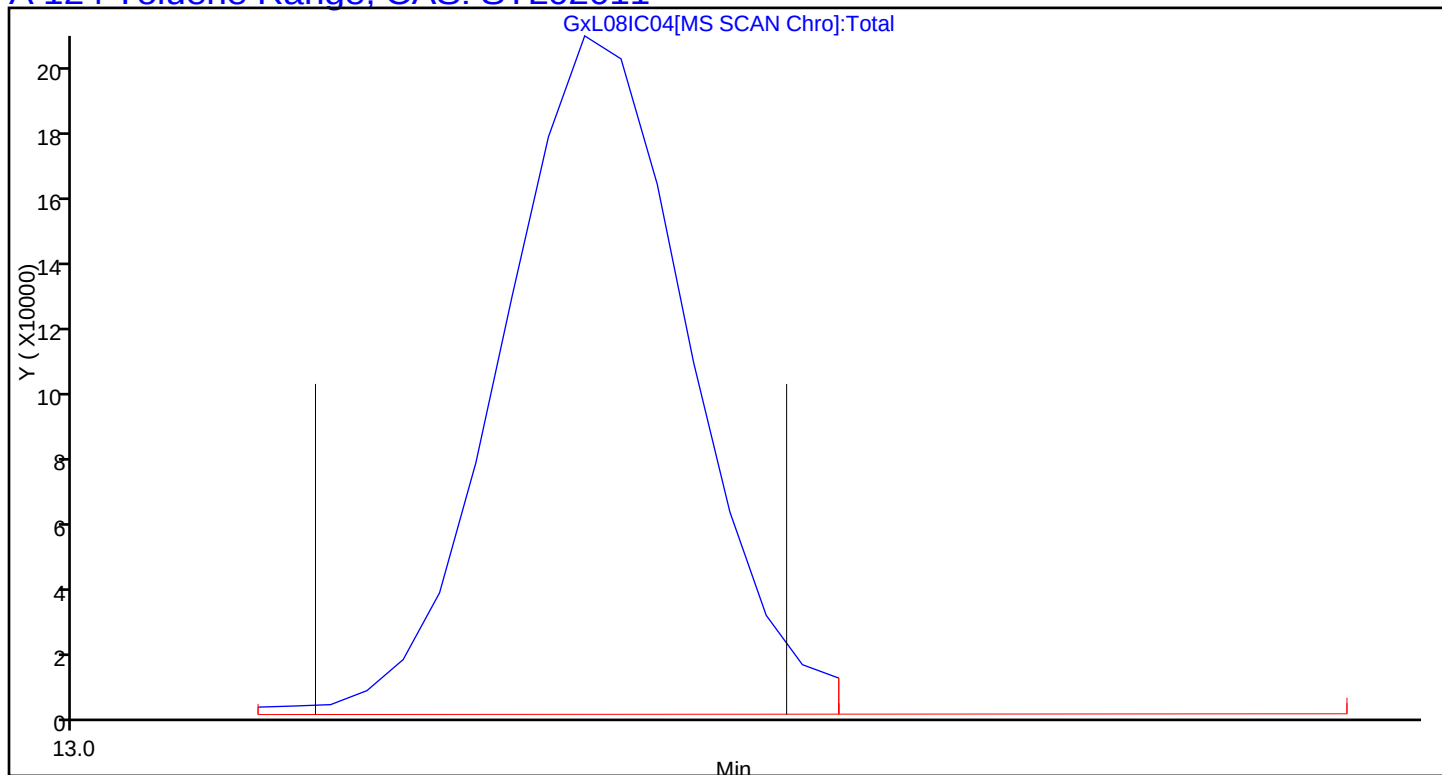
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

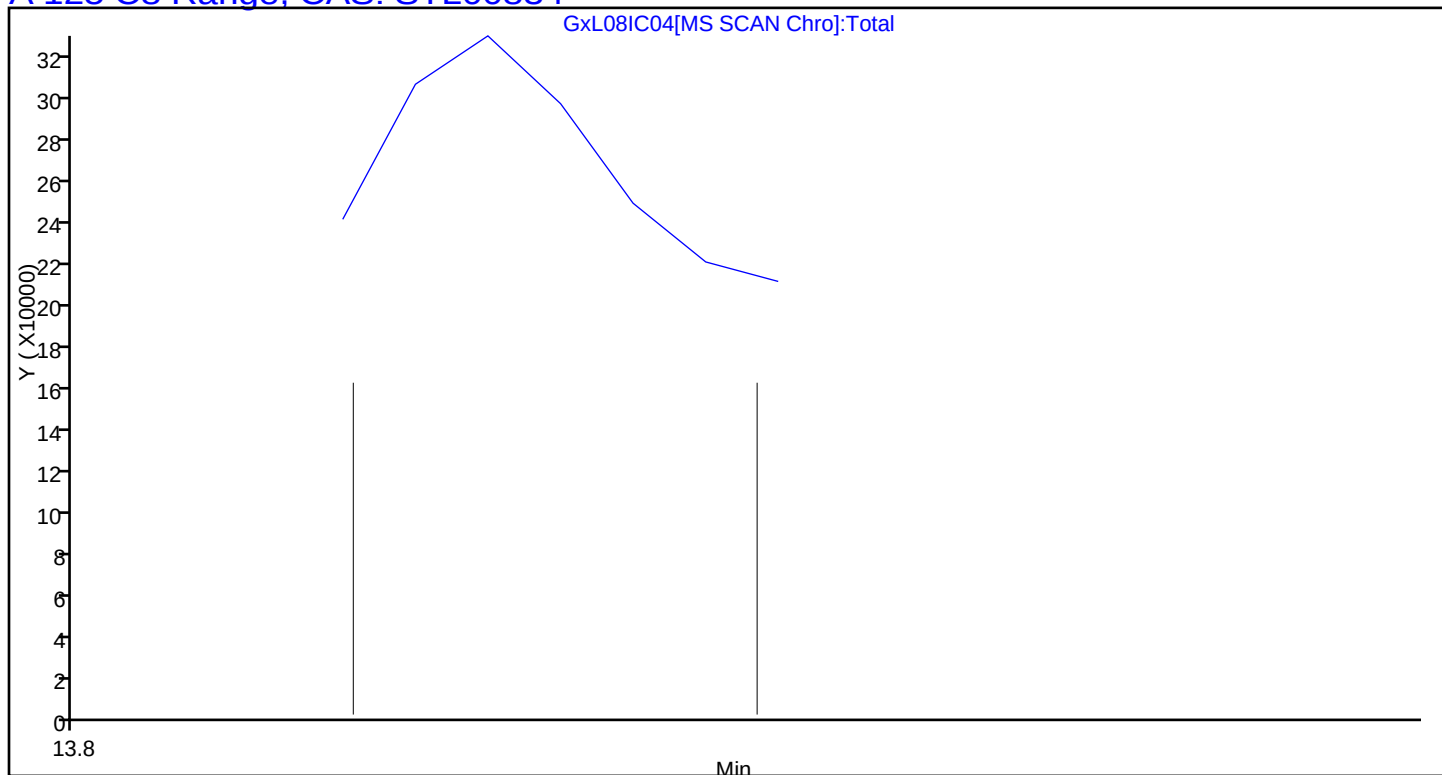
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

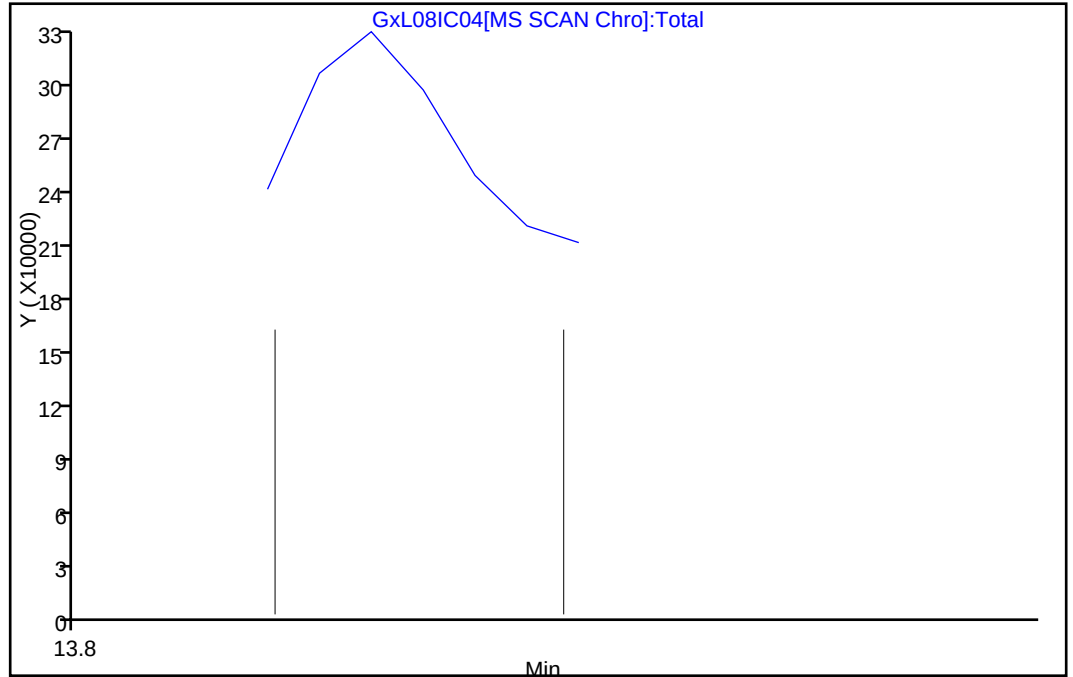
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D
Injection Date: 08-Dec-2016 22:07:30 Instrument ID: MG
Lims ID: IC L4
Client ID:
Operator ID: 403648 ALS Bottle#: 3 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

A 125 C8 Range, RT: 13.836, CAS: STL00834

Signal: 1

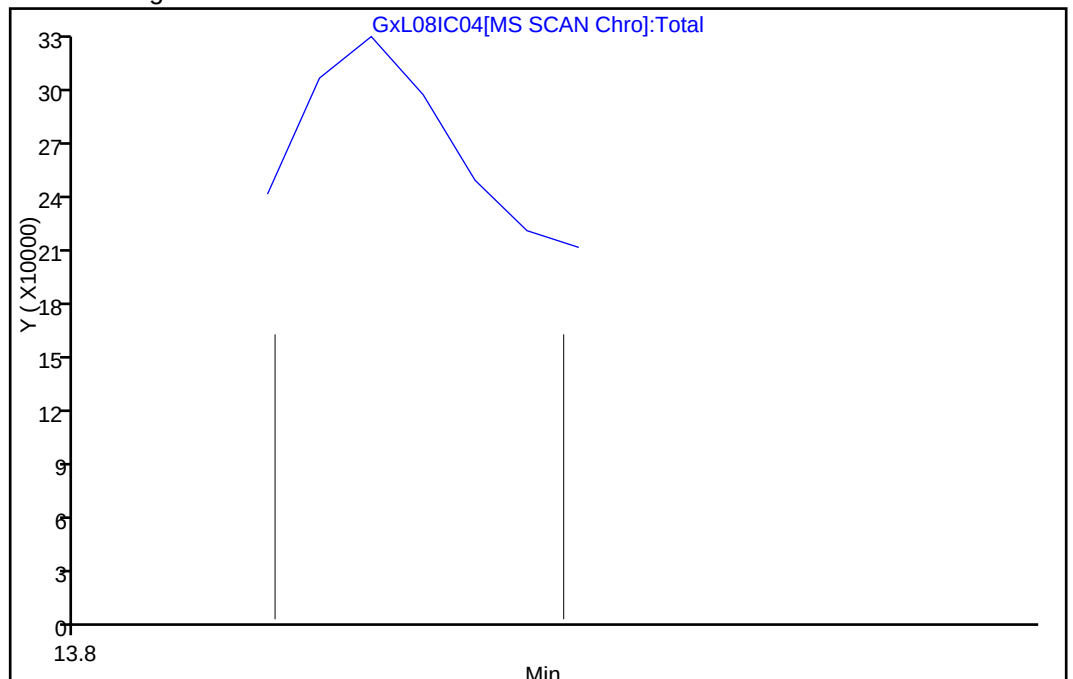
RT: 13.84
Response: 866055
Amount: 0.430360

Processing Integration Results



RT: 13.84
Response: 598729
Amount: 0.360421

Manual Integration Results



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D
 Lims ID: IC L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 08-Dec-2016 22:50:30 ALS Bottle#: 4 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-007
 Misc. Info.: 067938
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:10 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:39:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.061	8.063	-0.002	95	447350	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	1837821	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	1818459	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	97	1199357	4.00	3.99	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	36626	1.00	1.00	
7 Propene	41	3.488	3.489	-0.001	99	120900	1.00	0.9884	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	398936	1.00	1.04	
9 Chloromethane	52	3.682	3.685	-0.003	98	40624	1.00	0.9879	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	92	266972	1.00	1.05	
11 Acetaldehyde	44	3.811	3.816	-0.005	99	203897	5.01	4.49	
12 Vinyl chloride	62	3.828	3.830	-0.002	98	144743	1.00	1.07	
13 Butadiene	54	3.903	3.906	-0.003	92	117692	1.00	1.08	
14 Butane	43	3.903	3.907	-0.004	92	236594	1.00	1.11	
15 Bromomethane	94	4.173	4.174	-0.001	99	132665	1.00	1.03	
16 Chloroethane	64	4.291	4.292	-0.001	99	74023	1.00	1.03	
17 Ethanol	31	4.383	4.393	-0.010	96	215410	5.01	4.82	
18 Vinyl bromide	106	4.545	4.550	-0.005	99	126157	1.00	1.04	
19 2-Methylbutane	43	4.599	4.598	0.001	91	165413	1.00	1.06	
21 Acrolein	56	4.782	4.783	-0.001	31	29554	1.00	0.8485	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	384683	1.00	1.04	
22 Acetonitrile	40	4.831	4.838	-0.007	99	40598	1.00	0.9834	
23 Acetone	58	4.874	4.882	-0.008	98	140276	3.01	2.98	
24 Pentane	72	4.976	4.978	-0.002	96	23731	1.00	1.04	
25 Isopropyl alcohol	45	4.965	4.987	-0.022	93	481177	3.01	3.02	
26 Ethyl ether	31	5.116	5.124	-0.008	96	88736	1.00	0.9443	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	112496	1.00	1.03	
28 Acrylonitrile	53	5.478	5.487	-0.009	94	52384	1.00	0.8864	
29 2-Methyl-2-propanol	59	5.499	5.526	-0.027	94	168323	1.00	1.00	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	234900	1.00	1.00	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	92116	1.00	0.9681	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	99	98686	1.00	1.05	
33 Carbon disulfide	76	5.844	5.849	-0.005	100	371252	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	129589	1.00	1.01	
35 2-Methylpentane	43	6.481	6.481	0.000	95	282816	1.00	1.02	
36 Methyl tert-butyl ether	73	6.567	6.575	-0.008	96	280300	1.00	0.9182	
37 1,1-Dichloroethane	63	6.831	6.832	-0.001	100	235707	1.00	0.9763	
38 Vinyl acetate	43	6.934	6.942	-0.008	100	263434	1.00	0.8776	
39 2-Butanone (MEK)	72	7.338	7.349	-0.011	99	46710	1.00	0.8817	
40 Hexane	56	7.397	7.397	0.000	86	104967	1.00	0.9872	
41 Isopropyl ether	45	7.538	7.547	-0.009	97	353610	1.00	0.9268	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	129520	1.00	0.99	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	208629	1.00	0.8818	
44 Chloroform	83	8.077	8.085	-0.008	97	278997	1.00	0.99	
45 Tert-butyl ethyl ether	59	8.179	8.191	-0.012	94	304722	1.00	0.9186	
46 Tetrahydrofuran	42	8.449	8.460	-0.011	94	110305	1.00	0.9030	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	301989	1.00	0.9867	
48 1,2-Dichloroethane	62	9.155	9.160	-0.005	98	172759	1.00	1.01	
49 Benzene	78	9.651	9.654	-0.003	96	351164	1.00	1.06	
50 Cyclohexane	69	9.657	9.659	-0.002	93	65816	1.00	1.08	
52 Carbon tetrachloride	117	9.684	9.684	0.000	98	321989	1.00	1.09	
51 n-Butanol	31	9.657	9.685	-0.028	63	42204	1.00	1.05	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	89073	1.00	1.04	
54 Thiophene	84	9.926	9.930	-0.004	97	206846	1.00	1.05	
55 Tert-amyl methyl ether	73	10.164	10.181	-0.017	98	283852	1.00	0.9599	
56 Isooctane	57	10.476	10.479	-0.003	99	633974	1.00	1.06	
57 n-Heptane	71	10.875	10.881	-0.006	91	139658	1.00	1.05	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	88	121683	1.00	0.9715	
59 Trichloroethene	130	10.962	10.966	-0.004	98	209417	1.00	1.09	
60 Dibromomethane	93	11.026	11.033	-0.007	93	158962	1.00	1.04	
61 Dichlorobromomethane	83	11.194	11.194	0.000	99	274425	1.00	1.04	
62 1,4-Dioxane	88	11.204	11.222	-0.018	91	44488	1.00	1.00	
63 Methyl methacrylate	41	11.318	11.327	-0.009	92	122959	1.00	0.9084	
64 Methylcyclohexane	83	11.765	11.766	-0.001	95	294616	1.00	1.08	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.198	-0.012	96	234208	1.00	1.04	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	93	194871	1.00	0.9848	
67 trans-1,3-Dichloropropene	75	12.951	12.958	-0.007	98	167829	1.00	0.9566	
68 Toluene	91	13.081	13.083	-0.002	94	353389	1.00	0.9717	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	106377	1.00	0.99	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	302331	1.00	0.9856	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	293803	1.00	0.9832	
72 2-Hexanone	58	13.572	13.578	-0.006	93	105315	1.00	0.9866	
73 n-Octane	85	13.830	13.833	-0.003	93	157625	1.00	1.10	
74 Chlorodibromomethane	129	13.857	13.862	-0.005	98	252927	1.00	1.02	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	99	213500	1.00	1.01	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	170189	1.00	1.07	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	302836	1.00	1.00	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	398405	1.00	1.11	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	464337	1.00	0.9740	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	349903	1.00	0.9811	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	737471	2.00	2.01	
83 Bromoform	173	16.031	16.034	-0.003	98	209416	1.00	0.9221	
82 n-Nonane	57	16.074	16.076	-0.002	92	272373	1.00	1.14	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	80	265036	1.00	1.02	
85 o-Xylene	91	16.138	16.140	-0.002	98	382333	1.00	0.9870	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	99	262784	1.00	1.03	
87 1,2,3-Trichloropropane	110	16.618	16.619	-0.001	97	82463	1.00	0.9789	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	537636	1.00	0.9866	
89 N-Propylbenzene	120	17.292	17.295	-0.003	100	145833	1.00	0.9828	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	135683	1.00	0.9899	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	521274	1.00	0.99	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	255158	1.00	1.01	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	209327	1.00	1.00	
94 n-Decane	57	17.875	17.878	-0.003	91	303112	1.00	1.08	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	93	494103	1.00	1.01	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	95	454094	1.00	1.03	
98 1,3-Dichlorobenzene	146	18.268	18.270	-0.002	64	314991	1.00	0.9898	
97 sec-Butylbenzene	105	18.268	18.270	-0.002	98	655811	1.00	1.03	
99 Benzyl chloride	91	18.344	18.349	-0.005	98	328706	1.00	0.9345	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	97	305569	1.00	0.9823	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	558404	1.00	1.03	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	344310	1.00	1.02	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	360384	1.00	1.06	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	94	309696	1.00	1.02	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	94	419286	1.00	1.02	
106 Indene	116	18.867	18.869	-0.002	93	306444	1.00	0.9333	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	495756	1.00	1.05	
108 Undecane	57	19.244	19.247	-0.003	96	332785	1.00	1.12	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	403699	1.00	1.03	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	98	114997	1.00	0.9002	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	485595	1.00	1.05	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	95	300031	1.00	1.06	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	412238	1.00	1.08	
114 Dodecane	57	20.312	20.313	-0.001	96	306173	1.00	1.17	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	211936	1.00	1.00	
116 Naphthalene	128	20.587	20.588	-0.001	99	481190	1.00	1.07	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	239611	1.00	0.9747	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	338964	1.00	1.04	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	222349	1.00	1.08	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	217545	3.13	3.33	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	100	236387	3.13	3.55	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	864195	1.00	0.9263	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	1645102	1.00	1.14	M
S 126 Xylenes, Total	100				0		3.00	2.99	
S 127 1,2-Dichloroethene, Total	1				0		2.00	2.00	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L5DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L5

Worklist Smp#: 7

Client ID:

Purge Vol: 500.000 mL

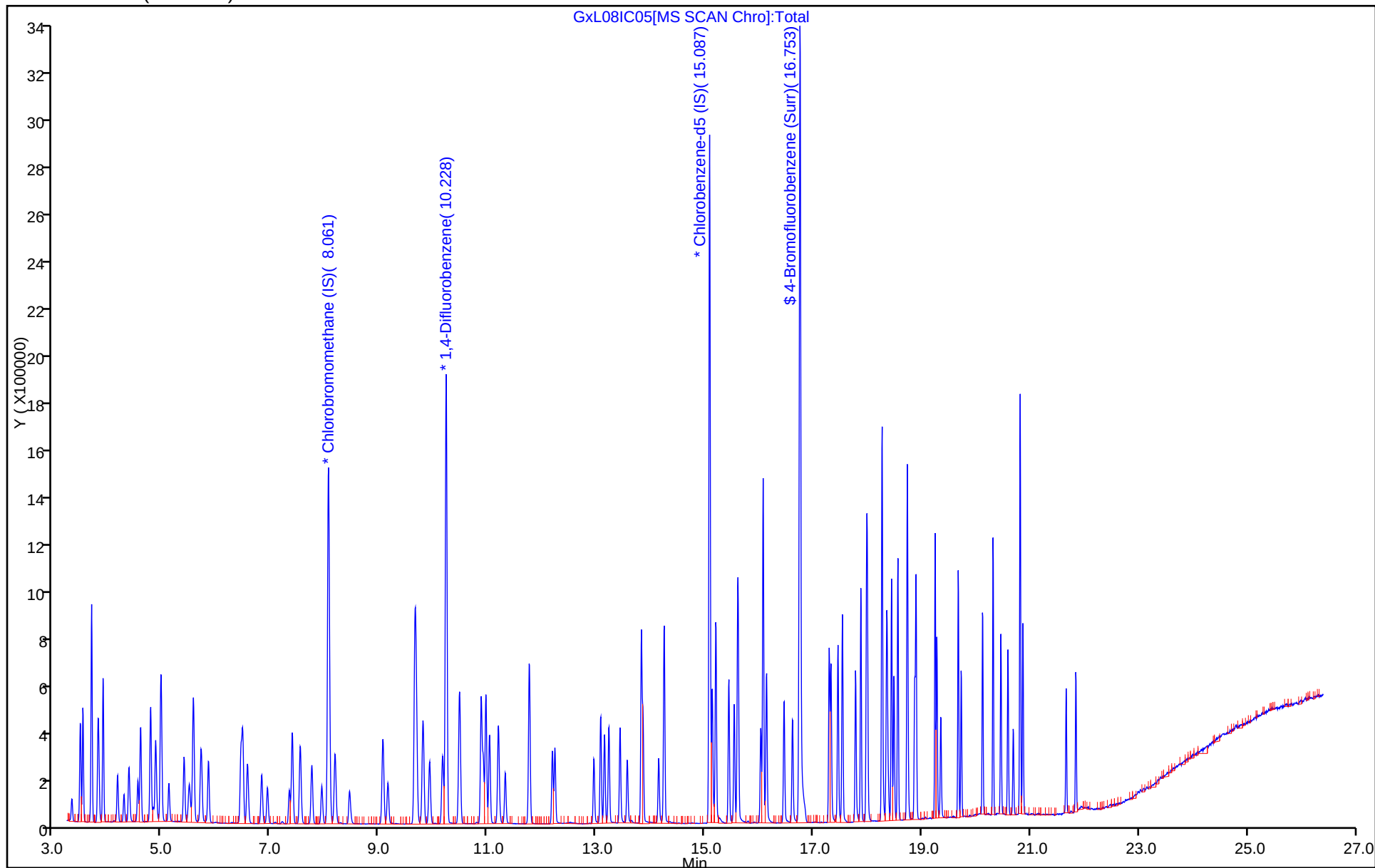
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#: 4

Worklist Smp#: 7

Purge Vol: 500.000 mL

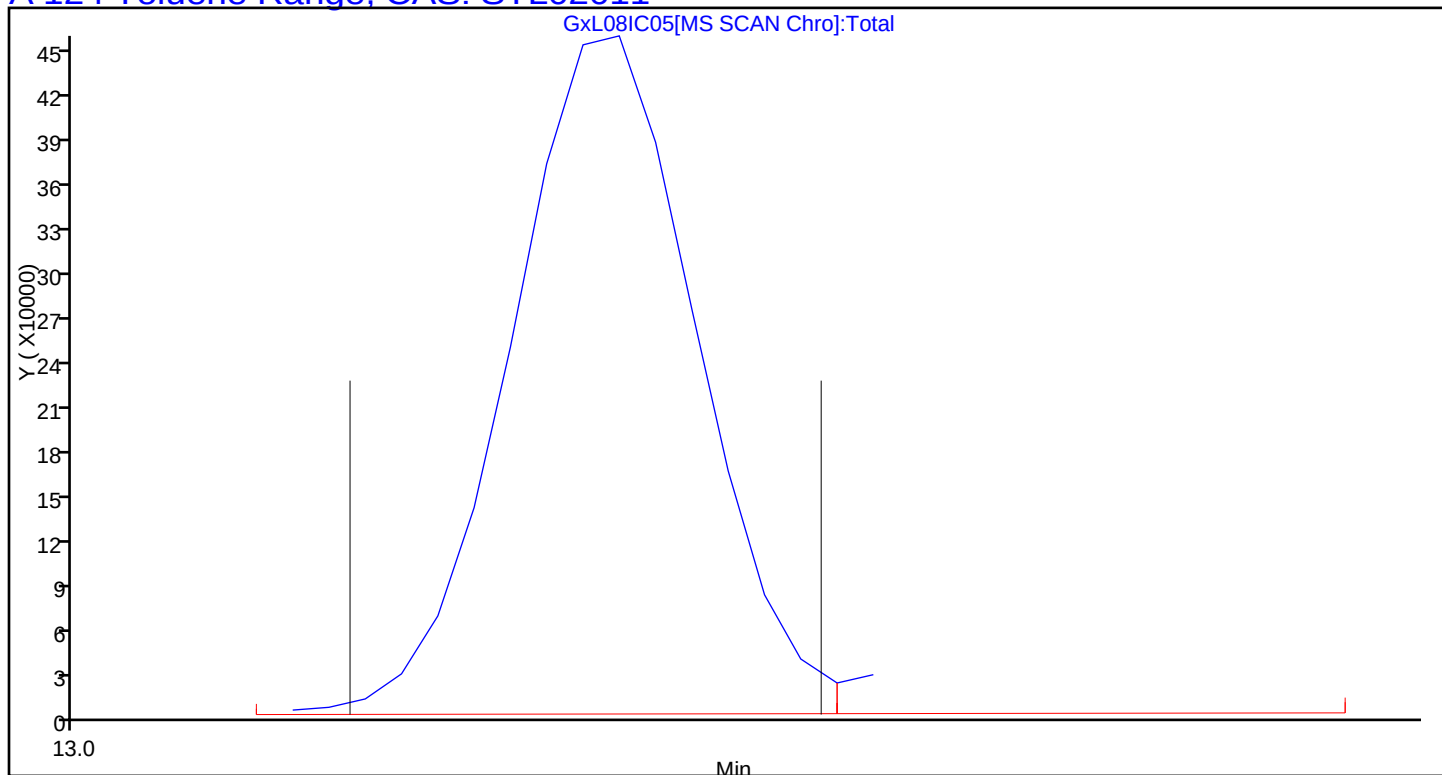
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#: 4

Worklist Smp#: 7

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

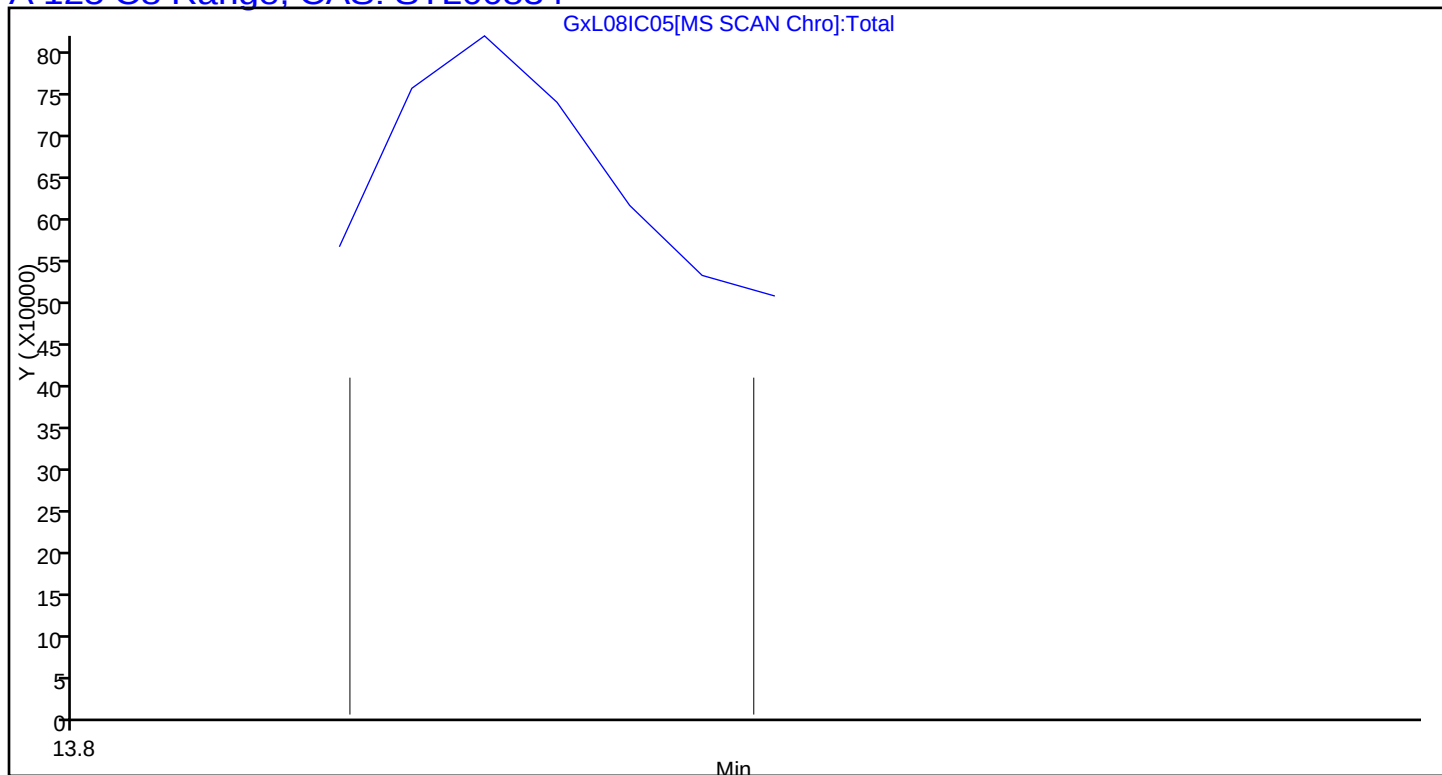
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

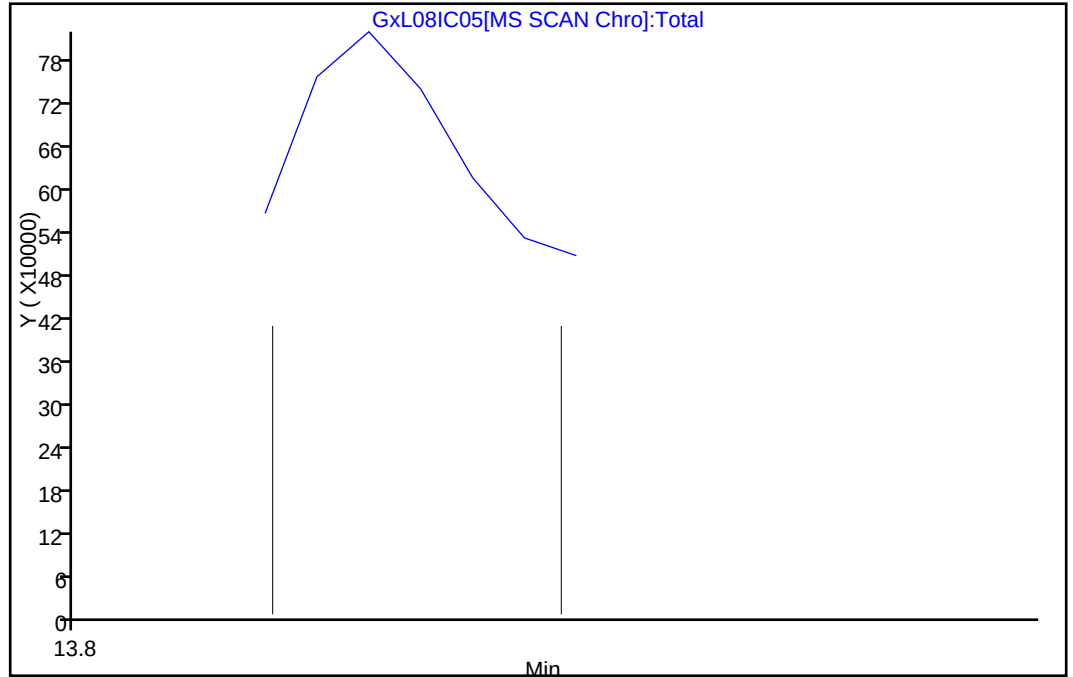
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D
Injection Date: 08-Dec-2016 22:50:30 Instrument ID: MG
Lims ID: IC L5
Client ID:
Operator ID: 403648 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

A 125 C8 Range, RT: 13.835, CAS: STL00834

Signal: 1

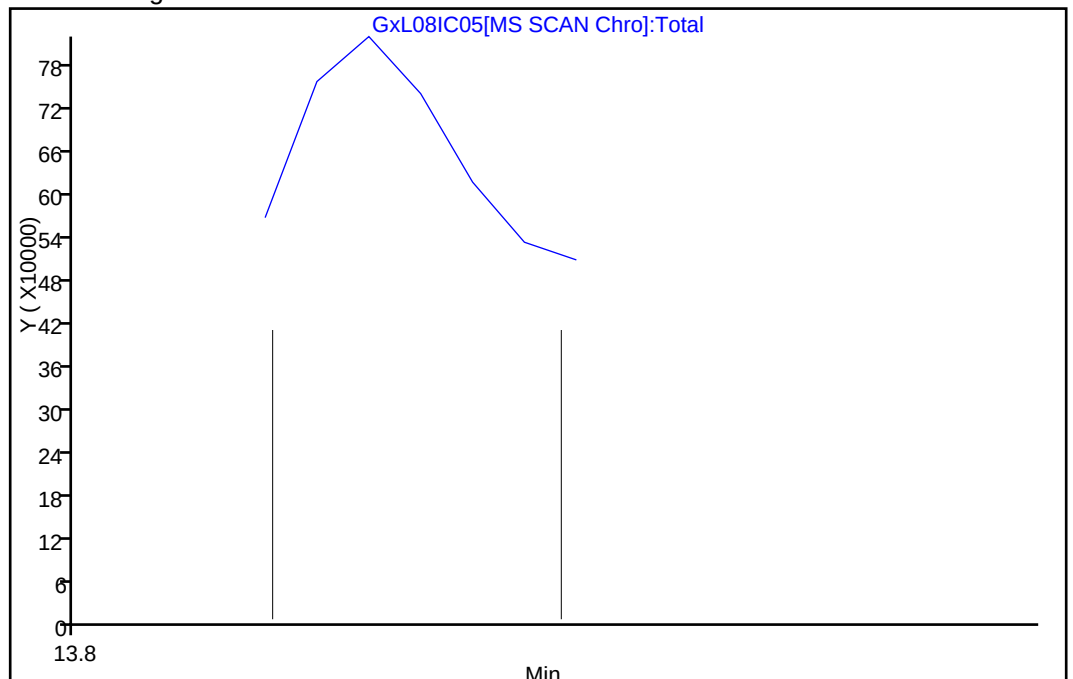
RT: 13.84
Response: 2212853
Amount: 1.335324

Processing Integration Results



RT: 13.84
Response: 1645102
Amount: 1.136034

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:37:23
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 210 of 318

12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D
 Lims ID: ICIS L6
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 08-Dec-2016 23:31:30 ALS Bottle#: 5 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-008
 Misc. Info.: 067937
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:14 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:09:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.061	8.063	-0.002	95	436534	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.234	10.234	0.000	95	1631243	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	1662474	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.758	0.001	97	1131193	4.00	4.11	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	72767	2.00	2.03	
7 Propene	41	3.488	3.489	-0.001	99	235491	2.00	1.97	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	772063	2.00	2.07	
9 Chloromethane	52	3.687	3.685	0.002	98	82499	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	97	523333	2.00	2.11	
11 Acetaldehyde	44	3.812	3.816	-0.004	100	389664	9.99	8.79	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	294355	2.00	2.24	
13 Butadiene	54	3.903	3.906	-0.003	91	230625	2.00	2.17	
14 Butane	43	3.909	3.907	0.002	93	458987	2.00	2.21	
15 Bromomethane	94	4.173	4.174	-0.001	98	259428	2.00	2.06	
16 Chloroethane	64	4.291	4.292	-0.001	99	144914	2.00	2.07	
17 Ethanol	31	4.383	4.393	-0.010	96	428898	9.99	9.83	
18 Vinyl bromide	106	4.550	4.550	0.000	98	245002	2.00	2.06	
19 2-Methylbutane	43	4.599	4.598	0.001	91	311988	2.00	2.06	
21 Acrolein	56	4.777	4.783	-0.006	93	51584	2.00	1.52	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	756823	2.00	2.09	
22 Acetonitrile	40	4.836	4.838	-0.002	98	75671	2.00	1.88	
23 Acetone	58	4.874	4.882	-0.008	98	268511	5.99	5.84	
24 Pentane	72	4.976	4.978	-0.002	98	45337	2.00	2.04	
25 Isopropyl alcohol	45	4.971	4.987	-0.016	94	980401	5.99	6.30	
26 Ethyl ether	31	5.116	5.124	-0.008	96	171608	2.00	1.87	
27 1,1-Dichloroethene	96	5.402	5.400	0.002	96	223308	2.00	2.09	
28 Acrylonitrile	53	5.483	5.487	-0.004	93	98680	2.00	1.71	
29 2-Methyl-2-propanol	59	5.505	5.526	-0.021	93	357104	2.00	2.18	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	458554	2.00	2.00	
31 Methylene Chloride	84	5.710	5.708	0.002	95	176649	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.725	0.001	99	184286	2.00	2.01	
33 Carbon disulfide	76	5.850	5.849	0.001	99	730062	2.00	2.09	
34 trans-1,2-Dichloroethene	96	6.448	6.448	0.000	98	258077	2.00	2.06	
35 2-Methylpentane	43	6.481	6.481	0.000	95	554181	2.00	2.05	
36 Methyl tert-butyl ether	73	6.567	6.575	-0.008	96	558292	2.00	1.87	
37 1,1-Dichloroethane	63	6.831	6.832	-0.001	100	464990	2.00	1.97	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	523514	2.00	1.79	
39 2-Butanone (MEK)	72	7.338	7.349	-0.011	99	95501	2.00	1.85	
40 Hexane	56	7.397	7.397	0.000	86	203795	2.00	1.96	
41 Isopropyl ether	45	7.538	7.547	-0.009	97	708886	2.00	1.90	
42 cis-1,2-Dichloroethene	96	7.759	7.759	0.000	94	258646	2.00	2.03	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	432491	2.00	1.87	
44 Chloroform	83	8.082	8.085	-0.003	98	543452	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.179	8.191	-0.012	94	621453	2.00	1.92	
46 Tetrahydrofuran	42	8.444	8.460	-0.016	95	220876	2.00	1.85	
47 1,1,1-Trichloroethane	97	9.069	9.068	0.001	95	594430	2.00	1.99	
48 1,2-Dichloroethane	62	9.161	9.160	0.001	98	312783	2.00	2.06	
49 Benzene	78	9.651	9.654	-0.003	97	639987	2.00	2.18	
50 Cyclohexane	69	9.657	9.659	-0.002	96	130219	2.00	2.41	
52 Carbon tetrachloride	117	9.684	9.684	0.000	98	650072	2.00	2.48	
51 n-Butanol	31	9.651	9.685	-0.034	64	92138	2.00	2.58	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	177632	2.00	2.34	
54 Thiophene	84	9.926	9.930	-0.004	96	399453	2.00	2.27	
55 Tert-amyl methyl ether	73	10.164	10.181	-0.017	98	590187	2.00	2.25	
56 Isooctane	57	10.476	10.479	-0.003	99	1284826	2.00	2.41	
57 n-Heptane	71	10.881	10.881	0.000	92	282575	2.00	2.40	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	89	231049	2.00	2.08	
59 Trichloroethene	130	10.962	10.966	-0.004	96	409949	2.00	2.40	
60 Dibromomethane	93	11.032	11.033	-0.001	94	316778	2.00	2.34	
61 Dichlorobromomethane	83	11.194	11.194	0.000	99	564938	2.00	2.40	
62 1,4-Dioxane	88	11.210	11.222	-0.012	89	99307	2.00	2.52	
63 Methyl methacrylate	41	11.323	11.327	-0.004	92	260860	2.00	2.17	
64 Methylcyclohexane	83	11.765	11.766	-0.001	94	577507	2.00	2.38	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.198	-0.012	97	482907	2.00	2.42	
66 cis-1,3-Dichloropropene	75	12.240	12.240	0.000	94	372121	2.00	2.12	
67 trans-1,3-Dichloropropene	75	12.957	12.958	-0.001	98	337087	2.00	2.10	
68 Toluene	91	13.081	13.083	-0.002	94	690854	2.00	2.08	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	99	210396	2.00	2.15	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	583362	2.00	2.08	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	564583	2.00	2.07	
72 2-Hexanone	58	13.566	13.578	-0.012	93	241991	2.00	2.48	
73 n-Octane	85	13.831	13.833	-0.002	93	309364	2.00	2.37	
74 Chlorodibromomethane	129	13.863	13.862	0.001	98	504583	2.00	2.24	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	98	418094	2.00	2.17	
76 Tetrachloroethene	129	14.251	14.251	0.000	96	330273	2.00	2.26	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	595827	2.00	2.16	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	97	781836	2.00	2.37	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	956791	2.00	2.20	
80 2-Ethylthiophene	97	15.545	15.544	0.001	98	711981	2.00	2.18	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	99	1499037	3.99	4.46	
83 Bromoform	173	16.031	16.034	-0.003	98	482422	2.00	2.32	
82 n-Nonane	57	16.074	16.076	-0.002	92	528980	2.00	2.43	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.079	0.000	97	555108	2.00	2.33	
85 o-Xylene	91	16.138	16.140	-0.002	99	780466	2.00	2.20	
86 1,1,2,2-Tetrachloroethane	83	16.462	16.462	0.000	99	553887	2.00	2.37	
87 1,2,3-Trichloropropane	110	16.618	16.619	-0.001	98	171965	2.00	2.23	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	1094815	2.00	2.20	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	310526	2.00	2.29	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	282300	2.00	2.25	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	1099531	2.00	2.29	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	529246	2.00	2.29	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	458316	2.00	2.40	
94 n-Decane	57	17.880	17.878	0.002	90	643304	2.00	2.50	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	92	1018631	2.00	2.27	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	96	937912	2.00	2.33	
98 1,3-Dichlorobenzene	146	18.268	18.270	-0.002	66	655726	2.00	2.25	
97 sec-Butylbenzene	105	18.268	18.270	-0.002	98	1352819	2.00	2.32	
99 Benzyl chloride	91	18.349	18.349	0.000	98	803407	2.00	2.50	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	96	650905	2.00	2.29	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	1157019	2.00	2.33	
102 1,2,3-Trimethylbenzene	105	18.490	18.488	0.002	97	707435	2.00	2.28	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	730710	2.00	2.35	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	640659	2.00	2.30	
105 2,3-Dihydroindene	117	18.738	18.736	0.002	94	874588	2.00	2.33	
106 Indene	116	18.867	18.869	-0.002	95	657876	2.00	2.08	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	1056764	2.00	2.45	
108 Undecane	57	19.244	19.247	-0.003	96	699188	2.00	2.58	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	849288	2.00	2.36	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	97	284562	2.00	2.44	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	1048174	2.00	2.48	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	627559	2.00	2.43	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	864752	2.00	2.47	
114 Dodecane	57	20.312	20.313	-0.001	96	613207	2.00	2.55	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	485907	2.00	2.51	
116 Naphthalene	128	20.587	20.588	-0.001	99	1070871	2.00	2.61	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	555961	2.00	2.47	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	676266	2.00	2.28	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	480029	2.00	2.55	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	519281	6.24	8.69	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	100	532152	6.24	8.74	
A 124 Toluene Range	1	13.076	(13.041-13.111)	0	0	1697187	2.00	2.05	
A 125 C8 Range	1	13.836	(13.821-13.851)	0	0	3200146	2.00	2.49	M
S 126 Xylenes, Total	100				0		5.99	6.67	
S 127 1,2-Dichloroethene, Total	1				0		3.99	4.09	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L6DNP_00009

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Operator ID: 403648

Lims ID: ICIS L6

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

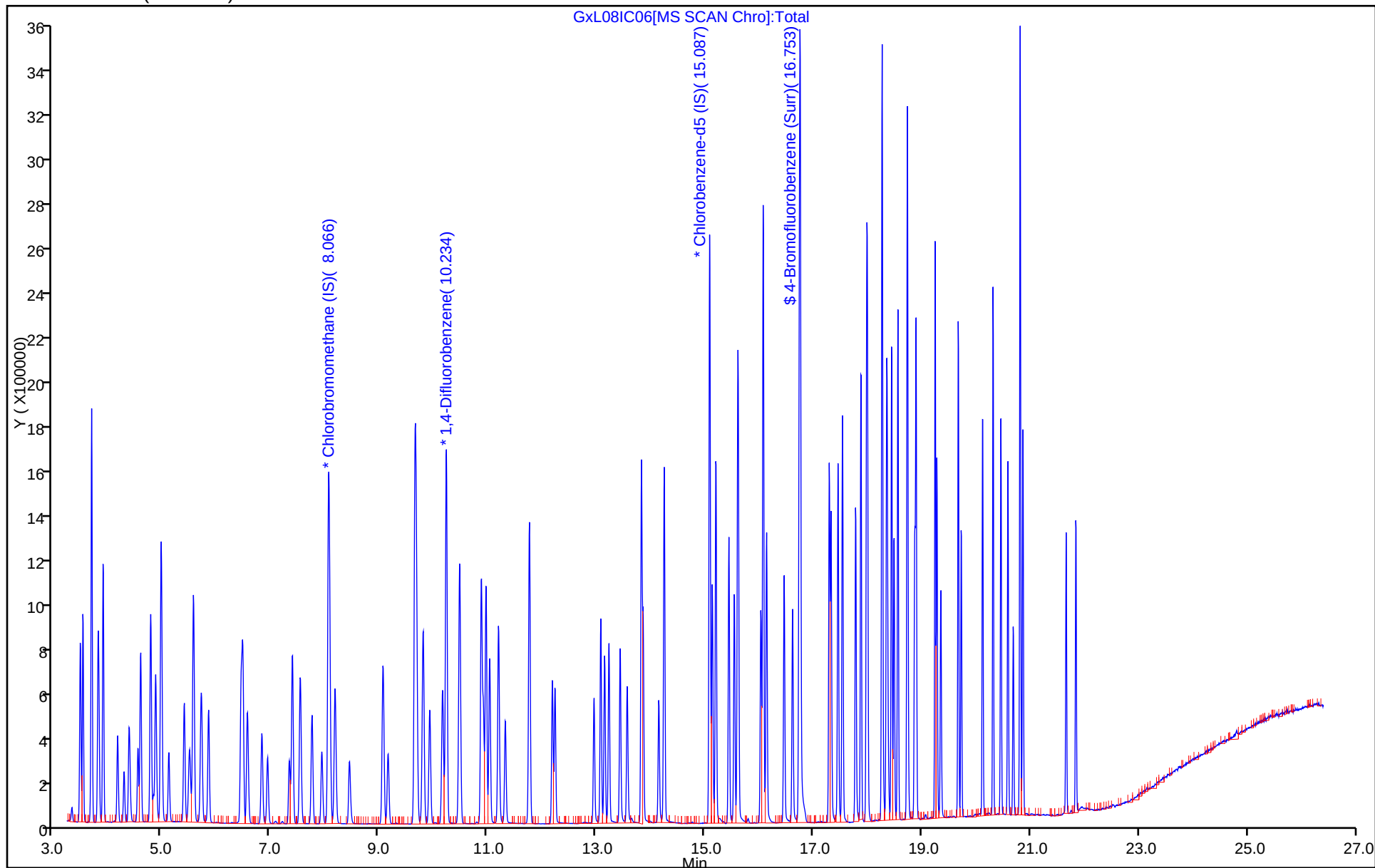
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

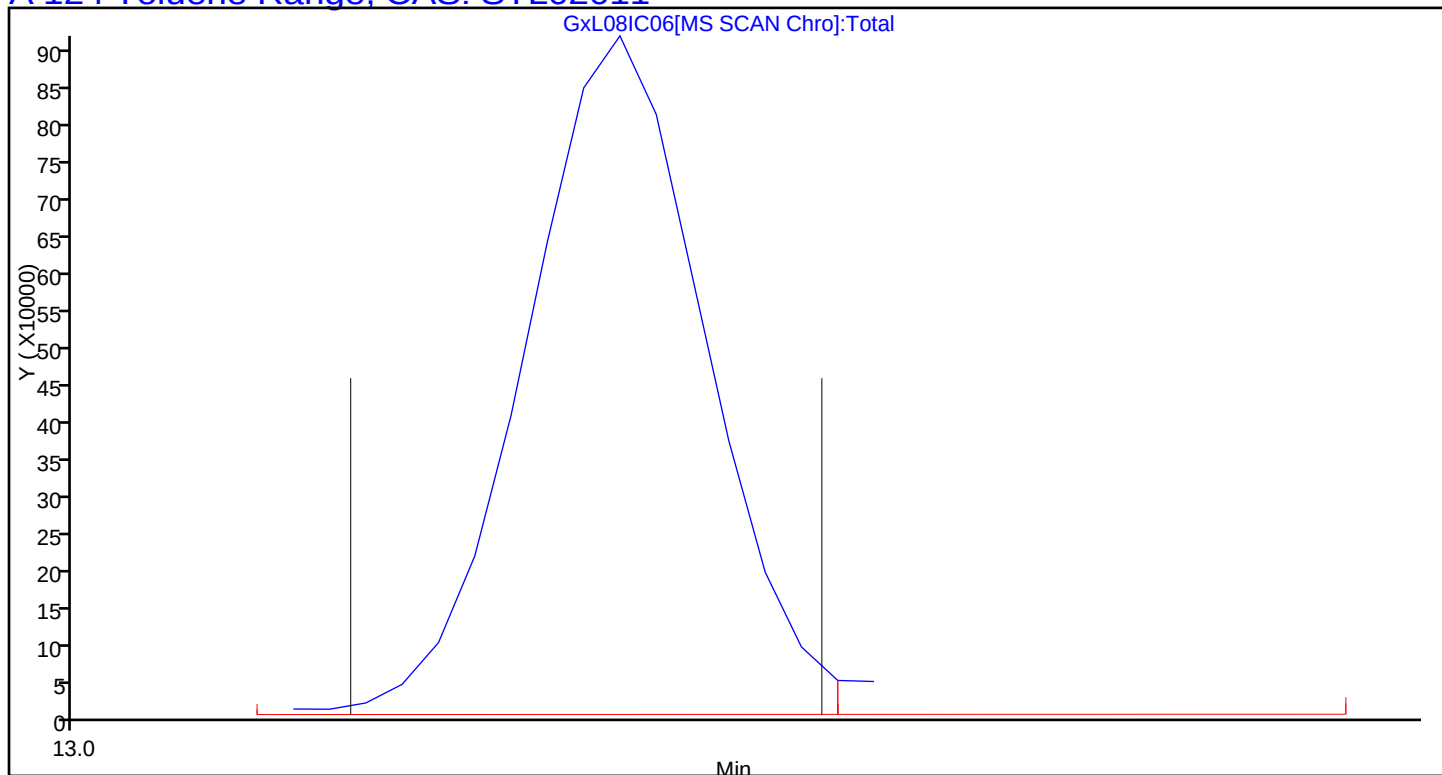
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

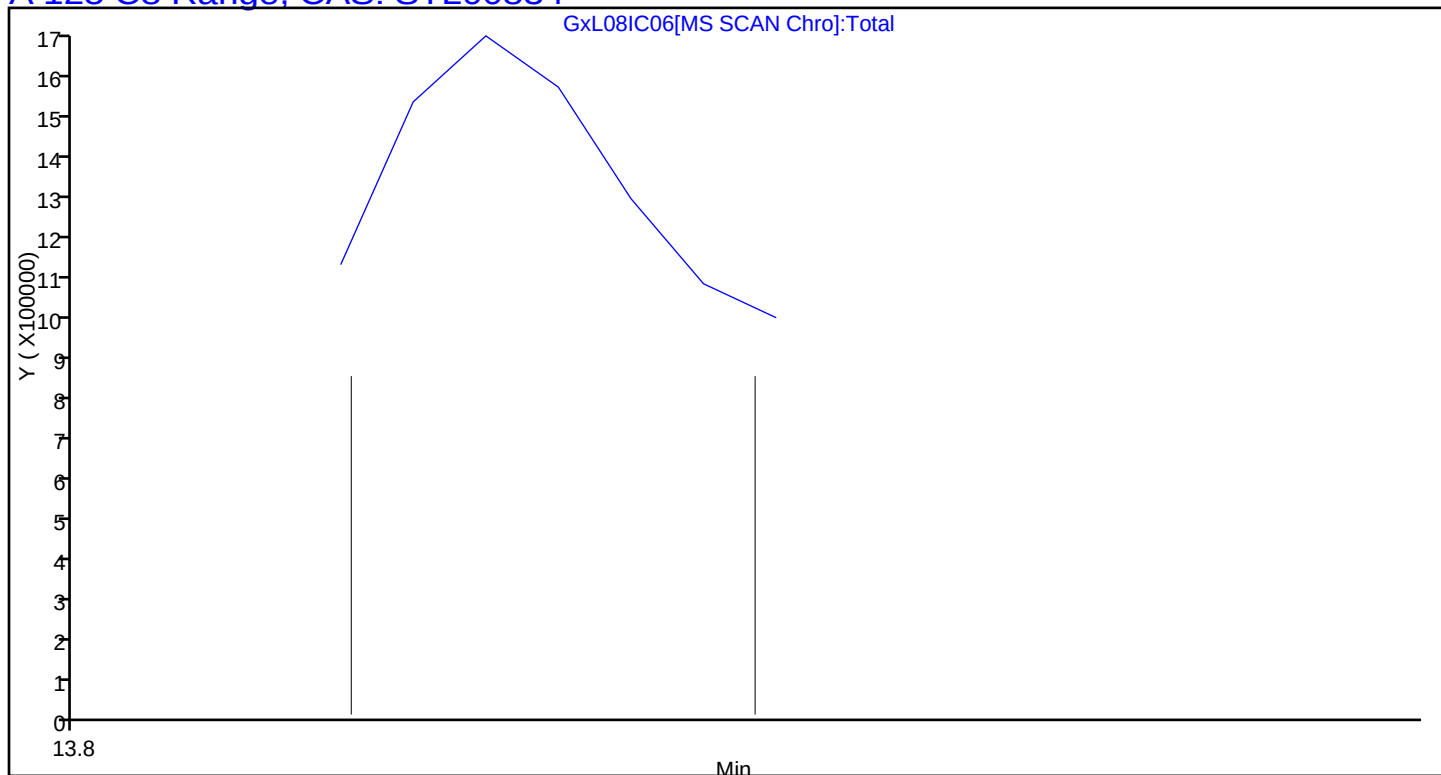
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

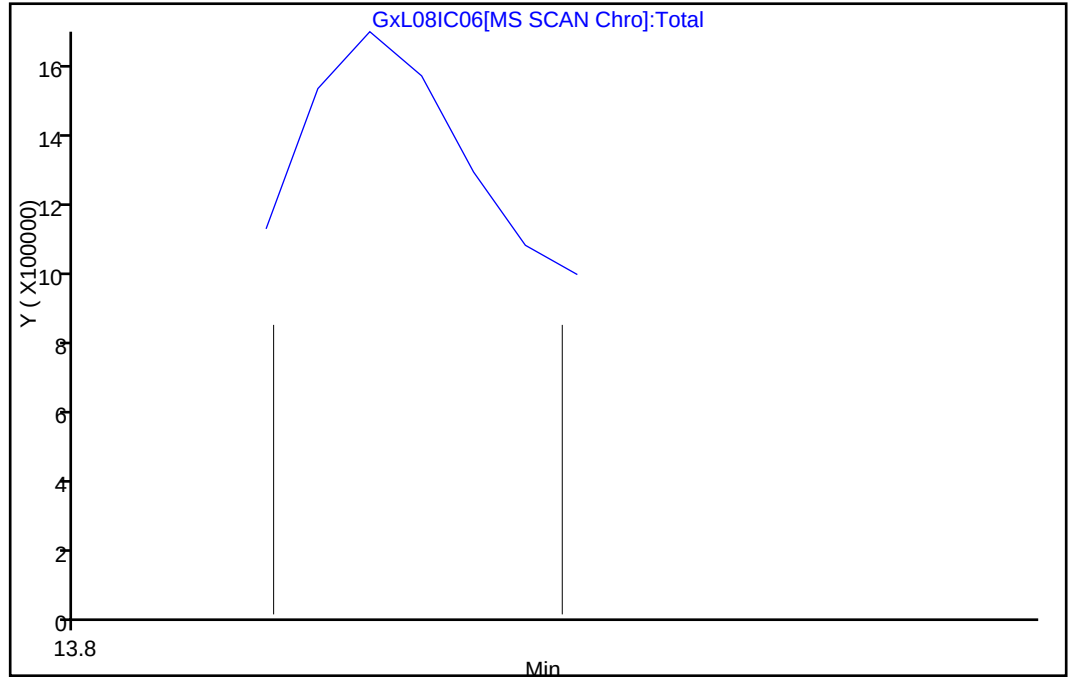
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Injection Date: 08-Dec-2016 23:31:30 Instrument ID: MG
Lims ID: ICIS L6
Client ID:
Operator ID: 403648 ALS Bottle#: 5 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

A 125 C8 Range, RT: 13.836, CAS: STL00834

Signal: 1

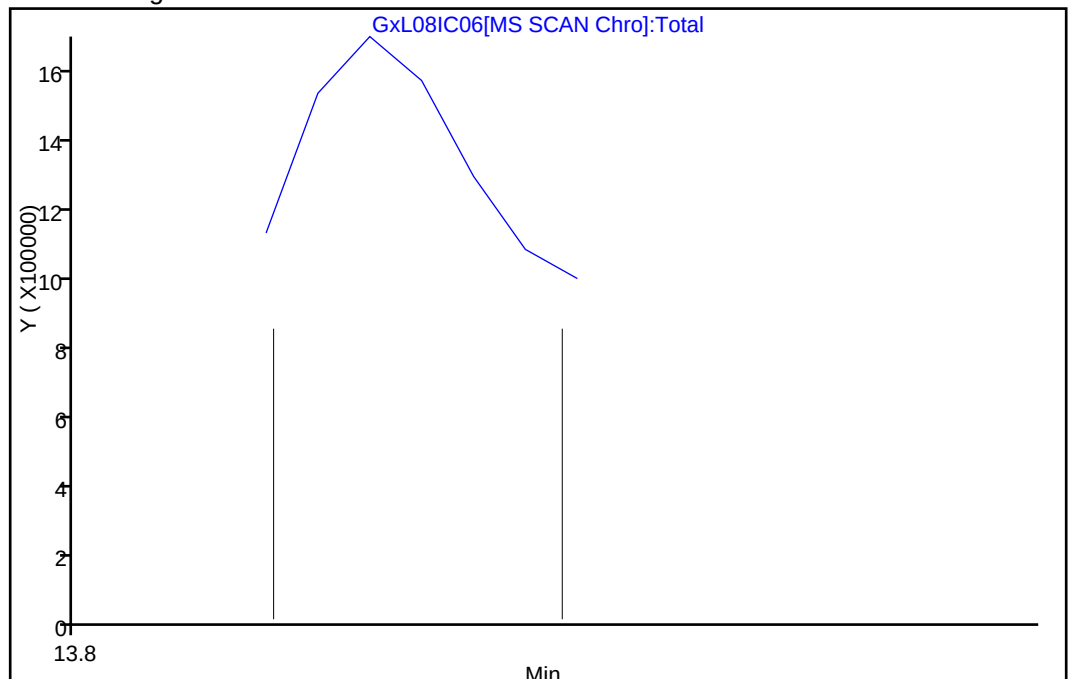
RT: 13.84
Response: 4418941
Amount: 3.185882

Processing Integration Results



RT: 13.84
Response: 3200146
Amount: 2.489733

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:39:16
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 217 of 318

12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D
 Lims ID: IC L7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 09-Dec-2016 00:14:30 ALS Bottle#: 6 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-009
 Misc. Info.: 067936
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:18 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:38:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.071	8.063	0.008	94	443228	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.239	10.234	0.005	95	1855389	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.092	15.090	0.002	86	1903864	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.758	0.001	96	1268973	4.00	4.03	
6 Chlorodifluoromethane	67	3.488	3.481	0.007	96	147523	4.00	4.06	
7 Propene	41	3.493	3.489	0.004	99	460046	4.00	3.80	
8 Dichlorodifluoromethane	85	3.536	3.533	0.003	100	1563438	4.00	4.12	
9 Chloromethane	52	3.687	3.685	0.002	99	163356	4.00	4.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.704	3.696	0.008	92	1030111	4.00	4.10	
11 Acetaldehyde	44	3.822	3.816	0.006	100	903339	20.0	20.1	
12 Vinyl chloride	62	3.838	3.830	0.008	99	577610	4.00	4.32	
13 Butadiene	54	3.909	3.906	0.003	68	453774	4.00	4.20	
14 Butane	43	3.914	3.907	0.007	86	898506	4.00	4.26	
15 Bromomethane	94	4.178	4.174	0.004	98	518278	4.00	4.06	
16 Chloroethane	64	4.297	4.292	0.005	99	291201	4.00	4.10	
17 Ethanol	31	4.405	4.393	0.012	95	885156	20.0	20.0	
18 Vinyl bromide	106	4.556	4.550	0.006	99	489664	4.00	4.06	
19 2-Methylbutane	43	4.604	4.598	0.006	91	614930	4.00	3.99	
21 Acrolein	56	4.788	4.783	0.005	94	126307	4.00	3.66	
20 Trichlorofluoromethane	101	4.793	4.785	0.008	99	1501894	4.00	4.09	
22 Acetonitrile	40	4.847	4.838	0.009	99	176495	4.00	4.32	
23 Acetone	58	4.885	4.882	0.003	98	573107	12.0	12.3	
24 Pentane	72	4.987	4.978	0.009	98	89358	4.00	3.96	
25 Isopropyl alcohol	45	4.998	4.987	0.011	96	1988338	12.0	12.6	
26 Ethyl ether	31	5.122	5.124	-0.002	96	394490	4.00	4.24	
27 1,1-Dichloroethene	96	5.408	5.400	0.008	97	441297	4.00	4.07	
28 Acrylonitrile	53	5.494	5.487	0.007	95	244751	4.00	4.18	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	91	725277	4.00	4.37	
30 1,1,2-Trichloro-1,2,2-trif	101	5.580	5.572	0.008	96	947278	4.00	4.08	
31 Methylene Chloride	84	5.715	5.708	0.007	95	348409	4.00	3.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.731	5.725	0.006	99	374322	4.00	4.01	
33 Carbon disulfide	76	5.855	5.849	0.006	99	1482267	4.00	4.19	
34 trans-1,2-Dichloroethene	96	6.459	6.448	0.011	98	536489	4.00	4.21	
35 2-Methylpentane	43	6.486	6.481	0.005	95	1200210	4.00	4.37	
36 Methyl tert-butyl ether	73	6.572	6.575	-0.003	96	1312740	4.00	4.34	
37 1,1-Dichloroethane	63	6.842	6.832	0.010	100	1001975	4.00	4.19	
38 Vinyl acetate	43	6.944	6.942	0.002	100	1290955	4.00	4.34	
39 2-Butanone (MEK)	72	7.349	7.349	0.000	100	222106	4.00	4.23	
40 Hexane	56	7.403	7.397	0.006	85	436872	4.00	4.15	
41 Isopropyl ether	45	7.548	7.547	0.001	98	1706140	4.00	4.51	
42 cis-1,2-Dichloroethene	96	7.764	7.759	0.005	95	550542	4.00	4.26	
43 Ethyl acetate	43	7.947	7.946	0.001	99	1045560	4.00	4.46	
44 Chloroform	83	8.098	8.085	0.013	97	1156020	4.00	4.16	
45 Tert-butyl ethyl ether	59	8.190	8.191	-0.001	95	1488774	4.00	4.53	
46 Tetrahydrofuran	42	8.454	8.460	-0.006	94	522810	4.00	4.32	
47 1,1,1-Trichloroethane	97	9.074	9.068	0.006	95	1279894	4.00	4.22	
48 1,2-Dichloroethane	62	9.166	9.160	0.006	98	768059	4.00	4.44	
49 Benzene	78	9.662	9.654	0.008	98	1453265	4.00	4.35	
50 Cyclohexane	69	9.662	9.659	0.003	92	256435	4.00	4.17	
52 Carbon tetrachloride	117	9.689	9.684	0.005	99	1353700	4.00	4.54	
51 n-Butanol	31	9.673	9.685	-0.012	66	182779	4.00	4.50	
53 2,3-Dimethylpentane	71	9.813	9.808	0.005	91	379931	4.00	4.41	
54 Thiophene	84	9.937	9.930	0.007	97	886036	4.00	4.44	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	1420675	4.00	4.76	
56 Isooctane	57	10.482	10.479	0.003	98	2652622	4.00	4.38	
57 n-Heptane	71	10.886	10.881	0.005	91	585125	4.00	4.37	
58 1,2-Dichloropropane	63	10.924	10.916	0.008	88	573027	4.00	4.53	
59 Trichloroethene	130	10.973	10.966	0.007	97	800842	4.00	4.12	
60 Dibromomethane	93	11.037	11.033	0.004	94	666745	4.00	4.33	
61 Dichlorobromomethane	83	11.199	11.194	0.005	99	1218893	4.00	4.56	
62 1,4-Dioxane	88	11.215	11.222	-0.007	89	211493	4.00	4.72	
63 Methyl methacrylate	41	11.328	11.327	0.001	92	681937	4.00	4.99	
64 Methylcyclohexane	83	11.771	11.766	0.005	95	1182033	4.00	4.28	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	97	1106976	4.00	4.87	
66 cis-1,3-Dichloropropene	75	12.245	12.240	0.005	94	922671	4.00	4.62	
67 trans-1,3-Dichloropropene	75	12.962	12.958	0.004	98	854993	4.00	4.65	
68 Toluene	91	13.086	13.083	0.003	94	1705333	4.00	4.48	
69 1,1,2-Trichloroethane	83	13.156	13.154	0.002	99	510325	4.00	4.55	
70 2-Methylthiophene	97	13.237	13.233	0.004	97	1436338	4.00	4.47	
71 3-Methylthiophene	97	13.442	13.439	0.003	99	1404632	4.00	4.49	
72 2-Hexanone	58	13.577	13.578	-0.001	93	515917	4.00	4.62	
73 n-Octane	85	13.836	13.833	0.003	93	636410	4.00	4.25	
74 Chlorodibromomethane	129	13.868	13.862	0.006	98	1214365	4.00	4.70	
75 Ethylene Dibromide	107	14.154	14.152	0.002	100	1008301	4.00	4.57	
76 Tetrachloroethene	129	14.257	14.251	0.006	96	693825	4.00	4.15	
77 Chlorobenzene	112	15.141	15.138	0.003	93	1406777	4.00	4.45	
78 2,3-Dimethylheptane	43	15.206	15.203	0.003	95	1669310	4.00	4.42	
79 Ethylbenzene	91	15.448	15.445	0.003	98	2269899	4.00	4.55	
80 2-Ethylthiophene	97	15.545	15.544	0.001	98	1729533	4.00	4.63	
81 m-Xylene & p-Xylene	91	15.615	15.612	0.003	98	3431351	8.00	8.92	
83 Bromoform	173	16.036	16.034	0.002	98	1239966	4.00	5.21	
82 n-Nonane	57	16.079	16.076	0.003	90	1068900	4.00	4.28	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.079	0.000	97	1281806	4.00	4.69	
85 o-Xylene	91	16.144	16.140	0.004	99	1829078	4.00	4.51	
86 1,1,2,2-Tetrachloroethane	83	16.467	16.462	0.005	99	1285895	4.00	4.80	
87 1,2,3-Trichloropropane	110	16.624	16.619	0.005	98	404993	4.00	4.59	
88 Isopropylbenzene	105	16.742	16.740	0.002	96	2484064	4.00	4.35	
89 N-Propylbenzene	120	17.298	17.295	0.003	99	705553	4.00	4.54	
90 2-Chlorotoluene	126	17.330	17.327	0.003	97	639799	4.00	4.46	
91 4-Ethyltoluene	105	17.460	17.457	0.003	99	2524681	4.00	4.59	
92 1,3,5-Trimethylbenzene	120	17.540	17.539	0.001	93	1180801	4.00	4.46	
93 Alpha Methyl Styrene	118	17.783	17.781	0.002	90	1077457	4.00	4.94	
94 n-Decane	57	17.880	17.878	0.002	91	1307633	4.00	4.44	
95 tert-Butylbenzene	119	17.988	17.985	0.003	94	2262282	4.00	4.41	
96 1,2,4-Trimethylbenzene	105	18.004	18.000	0.004	95	2060865	4.00	4.47	
98 1,3-Dichlorobenzene	146	18.274	18.270	0.004	95	1464206	4.00	4.39	
97 sec-Butylbenzene	105	18.274	18.270	0.004	98	2946631	4.00	4.42	
99 Benzyl chloride	91	18.349	18.349	0.000	98	1821777	4.00	4.95	
100 1,4-Dichlorobenzene	146	18.366	18.363	0.003	95	1431445	4.00	4.40	
101 4-Isopropyltoluene	119	18.446	18.444	0.002	97	2578526	4.00	4.54	
102 1,2,3-Trimethylbenzene	105	18.490	18.488	0.002	97	1613155	4.00	4.55	
103 Butylcyclohexane	83	18.565	18.561	0.004	94	1507917	4.00	4.23	
104 1,2-Dichlorobenzene	146	18.738	18.735	0.003	96	1396045	4.00	4.38	
105 2,3-Dihydroindene	117	18.738	18.736	0.002	94	1909882	4.00	4.45	
106 Indene	116	18.872	18.869	0.003	93	1492896	4.00	4.05	
107 n-Butylbenzene	91	18.899	18.896	0.003	98	2281578	4.00	4.62	
108 Undecane	57	19.250	19.247	0.003	96	1408070	4.00	4.53	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.282	19.279	0.003	97	1881502	4.00	4.57	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	98	645406	4.00	4.83	
111 1,2,4,5-Tetramethylbenzene	119	19.676	19.673	0.003	97	2254750	4.00	4.65	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	1366732	4.00	4.62	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	1862467	4.00	4.65	
114 Dodecane	57	20.312	20.313	-0.001	97	1294655	4.00	4.71	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	1100159	4.00	4.97	
116 Naphthalene	128	20.587	20.588	-0.001	99	2364720	4.00	5.04	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	1260466	4.00	4.90	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	93	1466454	4.00	4.31	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	95	1039517	4.00	4.82	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	1064971	12.5	15.6	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	100	1054061	12.5	15.1	
A 124 Toluene Range	1	13.081	(13.046-13.116)	0	0	4208350	4.00	4.47	
A 125 C8 Range	1	13.841	(13.826-13.856)	0	0	6547717	4.00	4.48	
S 126 Xylenes, Total	100				0		12.0	13.4	
S 127 1,2-Dichloroethene, Total	1				0		8.00	8.47	

Reagents:

40L7DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L7

Worklist Smp#: 9

Client ID:

Purge Vol: 500.000 mL

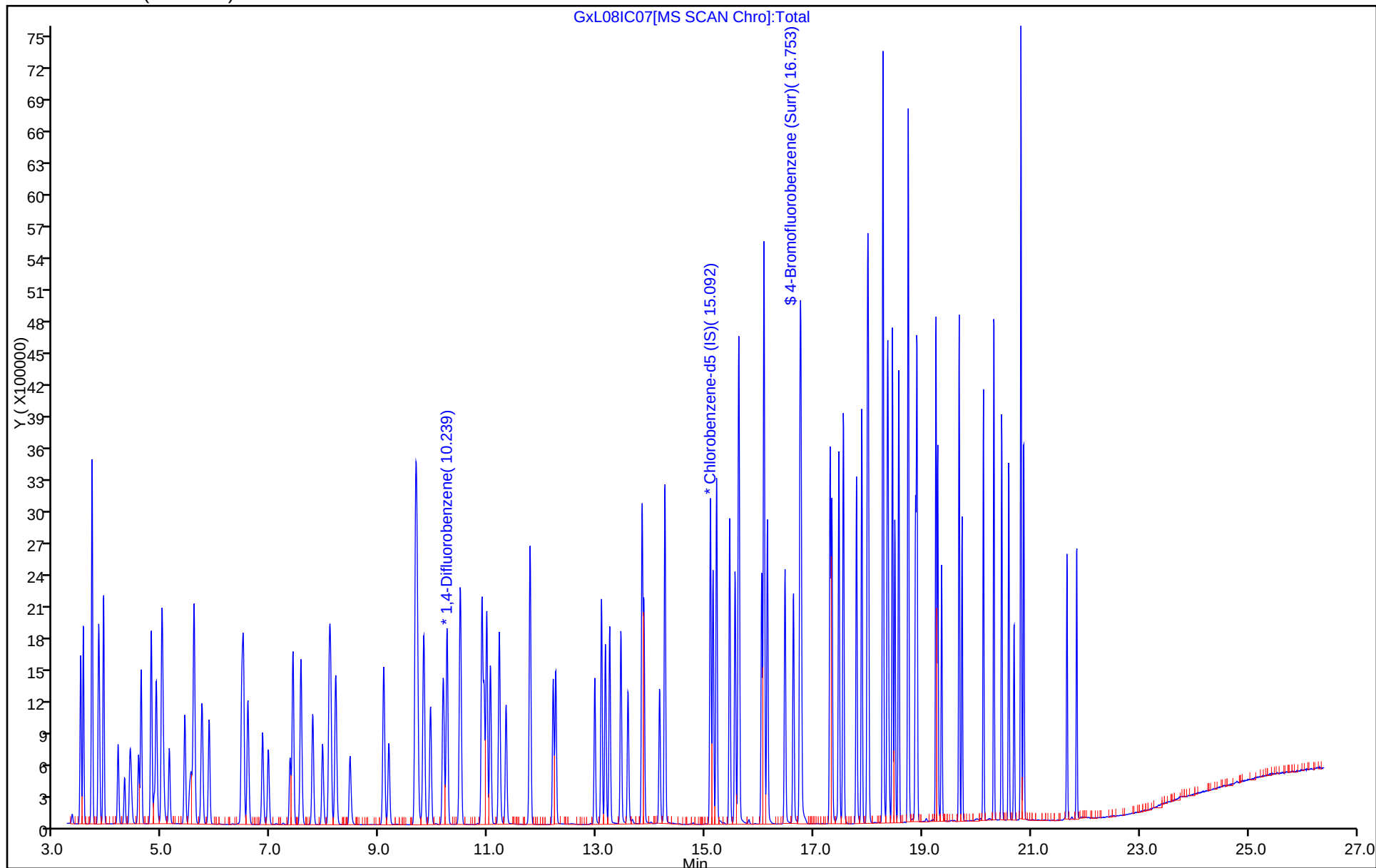
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

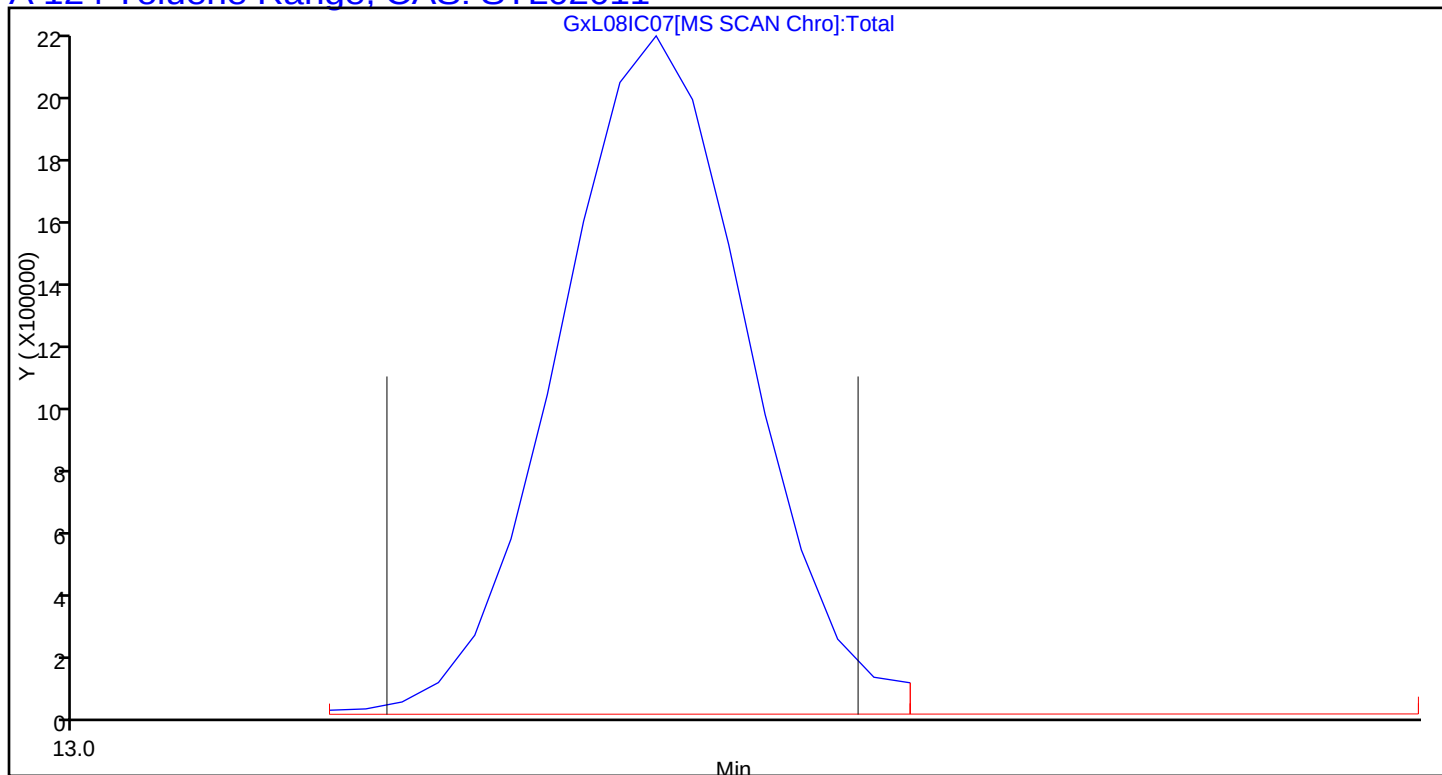
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

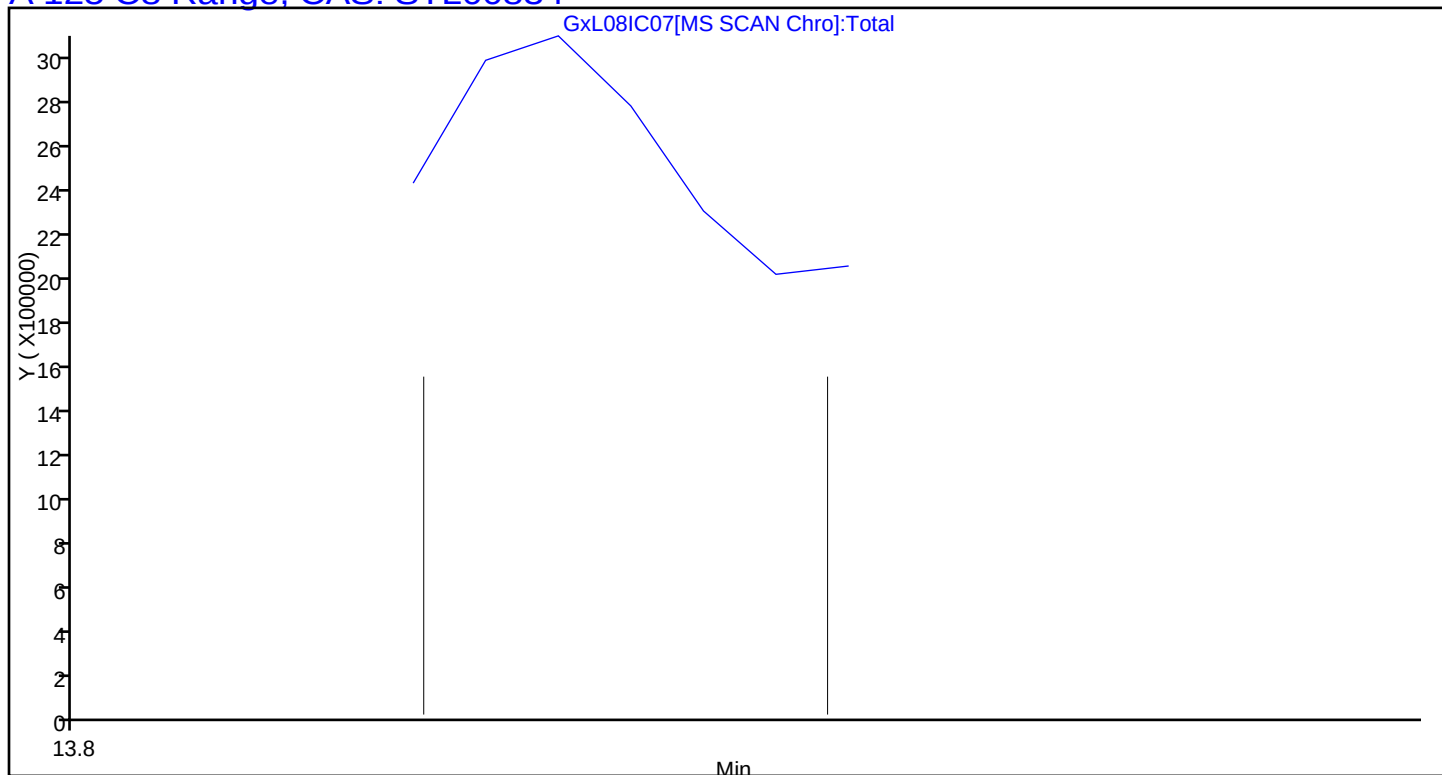
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D
 Lims ID: IC L8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 09-Dec-2016 00:56:30 ALS Bottle#: 7 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-010
 Misc. Info.: 067935
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:22 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:40:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.072	8.063	0.009	94	446541	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.239	10.234	0.005	95	2019784	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.092	15.090	0.002	86	2030113	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.764	16.758	0.006	96	1365365	4.00	4.07	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	292311	8.00	7.98	
7 Propene	41	3.488	3.489	-0.001	99	939449	8.00	7.69	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	3034352	8.00	7.94	
9 Chloromethane	52	3.682	3.685	-0.003	99	287150	8.00	7.00	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	91	1962149	8.00	7.75	
11 Acetaldehyde	44	3.812	3.816	-0.004	99	1572354	40.0	34.7	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	1037365	8.00	7.70	
13 Butadiene	54	3.903	3.906	-0.003	68	802516	8.00	7.38	
14 Butane	43	3.903	3.907	-0.004	85	1552213	8.00	7.31	
15 Bromomethane	94	4.173	4.174	-0.001	99	993397	8.00	7.72	
16 Chloroethane	64	4.291	4.292	-0.001	100	552656	8.00	7.72	
17 Ethanol	31	4.399	4.393	0.006	96	1562780	40.0	35.0	
18 Vinyl bromide	106	4.550	4.550	0.000	99	955316	8.00	7.87	
19 2-Methylbutane	43	4.599	4.598	0.001	90	1125727	8.00	7.26	
21 Acrolein	56	4.782	4.783	-0.001	95	214693	8.00	6.17	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	2914069	8.00	7.87	
22 Acetonitrile	40	4.836	4.838	-0.002	99	309105	8.00	7.50	
23 Acetone	58	4.874	4.882	-0.008	98	976001	24.0	20.7	
24 Pentane	72	4.976	4.978	-0.002	96	167888	8.00	7.39	
25 Isopropyl alcohol	45	4.998	4.987	0.011	94	3326202	24.0	20.9	
26 Ethyl ether	31	5.116	5.124	-0.008	95	693477	8.00	7.39	
27 1,1-Dichloroethene	96	5.402	5.400	0.002	97	849769	8.00	7.78	
28 Acrylonitrile	53	5.489	5.487	0.002	94	439702	8.00	7.45	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	91	1314289	8.00	7.85	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.572	0.003	95	1814621	8.00	7.75	
31 Methylene Chloride	84	5.710	5.708	0.002	94	655205	8.00	6.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.725	0.001	99	676808	8.00	7.20	
33 Carbon disulfide	76	5.850	5.849	0.001	99	2787285	8.00	7.81	
34 trans-1,2-Dichloroethene	96	6.454	6.448	0.006	97	1006280	8.00	7.84	
35 2-Methylpentane	43	6.481	6.481	0.000	95	2203279	8.00	7.97	
36 Methyl tert-butyl ether	73	6.562	6.575	-0.013	96	2475436	8.00	8.12	
37 1,1-Dichloroethane	63	6.837	6.832	0.005	100	1957037	8.00	8.12	
38 Vinyl acetate	43	6.945	6.942	0.002	100	2546899	8.00	8.50	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	413943	8.00	7.83	
40 Hexane	56	7.397	7.397	0.000	89	821099	8.00	7.74	
41 Isopropyl ether	45	7.543	7.547	-0.004	97	3119866	8.00	8.19	
42 cis-1,2-Dichloroethene	96	7.764	7.759	0.005	96	1041594	8.00	8.00	
43 Ethyl acetate	43	7.942	7.946	-0.004	99	1961789	8.00	8.31	
44 Chloroform	83	8.093	8.085	0.008	97	2180906	8.00	7.79	
45 Tert-butyl ethyl ether	59	8.185	8.191	-0.006	95	2723491	8.00	8.22	
46 Tetrahydrofuran	42	8.449	8.460	-0.011	94	1002984	8.00	8.23	
47 1,1,1-Trichloroethane	97	9.069	9.068	0.001	95	2429887	8.00	7.95	
48 1,2-Dichloroethane	62	9.166	9.160	0.006	99	1498236	8.00	7.96	
49 Benzene	78	9.657	9.654	0.003	97	2604625	8.00	7.17	
50 Cyclohexane	69	9.662	9.659	0.003	93	449383	8.00	6.71	
52 Carbon tetrachloride	117	9.689	9.684	0.005	99	1719063	8.00	5.30	
51 n-Butanol	31	9.662	9.685	-0.023	63	297985	8.00	6.75	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	701048	8.00	7.47	
54 Thiophene	84	9.937	9.930	0.007	97	1674022	8.00	7.70	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	2525168	8.00	7.77	
56 Isooctane	57	10.482	10.479	0.003	99	4780993	8.00	7.26	
57 n-Heptane	71	10.886	10.881	0.005	90	1048692	8.00	7.19	
58 1,2-Dichloropropane	63	10.924	10.916	0.008	89	1037078	8.00	7.53	
59 Trichloroethene	130	10.973	10.966	0.007	98	1527011	8.00	7.22	
60 Dibromomethane	93	11.037	11.033	0.004	91	1228541	8.00	7.34	
61 Dichlorobromomethane	83	11.199	11.194	0.005	99	2272827	8.00	7.81	
62 1,4-Dioxane	88	11.215	11.222	-0.007	88	365186	8.00	7.49	
63 Methyl methacrylate	41	11.329	11.327	0.001	92	1196974	8.00	8.05	
64 Methylcyclohexane	83	11.771	11.766	0.005	95	2131544	8.00	7.09	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	97	1920348	8.00	7.77	
66 cis-1,3-Dichloropropene	75	12.245	12.240	0.005	94	1738337	8.00	7.99	
67 trans-1,3-Dichloropropene	75	12.962	12.958	0.004	97	1632235	8.00	8.33	
68 Toluene	91	13.086	13.083	0.003	94	3151028	8.00	7.76	
69 1,1,2-Trichloroethane	83	13.157	13.154	0.003	99	931501	8.00	7.78	
70 2-Methylthiophene	97	13.237	13.233	0.004	97	2684721	8.00	7.84	
71 3-Methylthiophene	97	13.442	13.439	0.003	99	2624633	8.00	7.87	
72 2-Hexanone	58	13.572	13.578	-0.006	93	949384	8.00	7.97	
73 n-Octane	85	13.836	13.833	0.003	90	1150679	8.00	7.21	
74 Chlorodibromomethane	129	13.868	13.862	0.006	97	2327802	8.00	8.45	
75 Ethylene Dibromide	107	14.160	14.152	0.008	98	1924671	8.00	8.17	
76 Tetrachloroethene	129	14.257	14.251	0.006	96	1357814	8.00	7.62	
77 Chlorobenzene	112	15.141	15.138	0.003	94	2641230	8.00	7.84	
78 2,3-Dimethylheptane	43	15.206	15.203	0.003	92	2777262	8.00	6.90	
79 Ethylbenzene	91	15.448	15.445	0.003	98	4150248	8.00	7.80	
80 2-Ethylthiophene	97	15.545	15.544	0.001	97	3203327	8.00	8.05	
81 m-Xylene & p-Xylene	91	15.615	15.612	0.003	98	6184279	16.0	15.1	
83 Bromoform	173	16.036	16.034	0.002	99	2629265	8.00	10.4	
82 n-Nonane	57	16.079	16.076	0.003	89	1763559	8.00	6.63	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.085	16.079	0.006	97	2378609	8.00	8.16	
85 o-Xylene	91	16.144	16.140	0.004	98	3322495	8.00	7.68	
86 1,1,2,2-Tetrachloroethane	83	16.467	16.462	0.005	99	2286622	8.00	8.01	
87 1,2,3-Trichloropropane	110	16.624	16.619	0.005	97	745283	8.00	7.92	
88 Isopropylbenzene	105	16.742	16.740	0.002	96	4568570	8.00	7.51	
89 N-Propylbenzene	120	17.298	17.295	0.003	99	1292302	8.00	7.80	
90 2-Chlorotoluene	126	17.330	17.327	0.003	97	1192871	8.00	7.80	
91 4-Ethyltoluene	105	17.460	17.457	0.003	99	4602017	8.00	7.84	
92 1,3,5-Trimethylbenzene	120	17.546	17.539	0.007	93	2166860	8.00	7.68	
93 Alpha Methyl Styrene	118	17.783	17.781	0.002	90	2029631	8.00	8.72	
94 n-Decane	57	17.880	17.878	0.002	92	2230034	8.00	7.10	
95 tert-Butylbenzene	119	17.988	17.985	0.003	94	4192051	8.00	7.67	
96 1,2,4-Trimethylbenzene	105	18.004	18.000	0.004	95	3807592	8.00	7.74	
98 1,3-Dichlorobenzene	146	18.274	18.270	0.004	70	2988285	8.00	8.41	
97 sec-Butylbenzene	105	18.274	18.270	0.004	98	5445613	8.00	7.65	
99 Benzyl chloride	91	18.355	18.349	0.006	99	3454376	8.00	8.80	
100 1,4-Dichlorobenzene	146	18.366	18.363	0.003	97	2887306	8.00	8.31	
101 4-Isopropyltoluene	119	18.446	18.444	0.002	97	4764104	8.00	7.86	
102 1,2,3-Trimethylbenzene	105	18.495	18.488	0.007	98	2947828	8.00	7.80	
103 Butylcyclohexane	83	18.565	18.561	0.004	96	2743371	8.00	7.21	
104 1,2-Dichlorobenzene	146	18.738	18.735	0.003	97	2786845	8.00	8.21	
105 2,3-Dihydroindene	117	18.743	18.736	0.007	94	3606458	8.00	7.88	
106 Indene	116	18.872	18.869	0.003	94	2791759	8.00	7.05	
107 n-Butylbenzene	91	18.899	18.896	0.003	98	4058346	8.00	7.70	
108 Undecane	57	19.250	19.247	0.003	93	2329972	8.00	7.03	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.282	19.279	0.003	98	3428964	8.00	7.80	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	99	1274571	8.00	8.94	
111 1,2,4,5-Tetramethylbenzene	119	19.676	19.673	0.003	97	4158725	8.00	8.05	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	2514994	8.00	7.97	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	3418581	8.00	8.01	
114 Dodecane	57	20.318	20.313	0.005	97	2172344	8.00	7.41	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	2330633	8.00	9.88	
116 Naphthalene	128	20.587	20.588	-0.001	99	4535967	8.00	9.06	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	2531375	8.00	9.22	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	91	3240488	8.00	8.94	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	2115119	8.00	9.19	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	99	2197530	25.0	30.1	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	2081286	25.0	28.0	
A 124 Toluene Range	1	13.081	(13.046-13.116)		0	7723720	8.00	7.53	
A 125 C8 Range	1	13.841	(13.826-13.856)		0	11244888	8.00	7.07	
S 126 Xylenes, Total	100				0		24.0	22.8	
S 127 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L8DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L8

Worklist Smp#: 10

Client ID:

Purge Vol: 500.000 mL

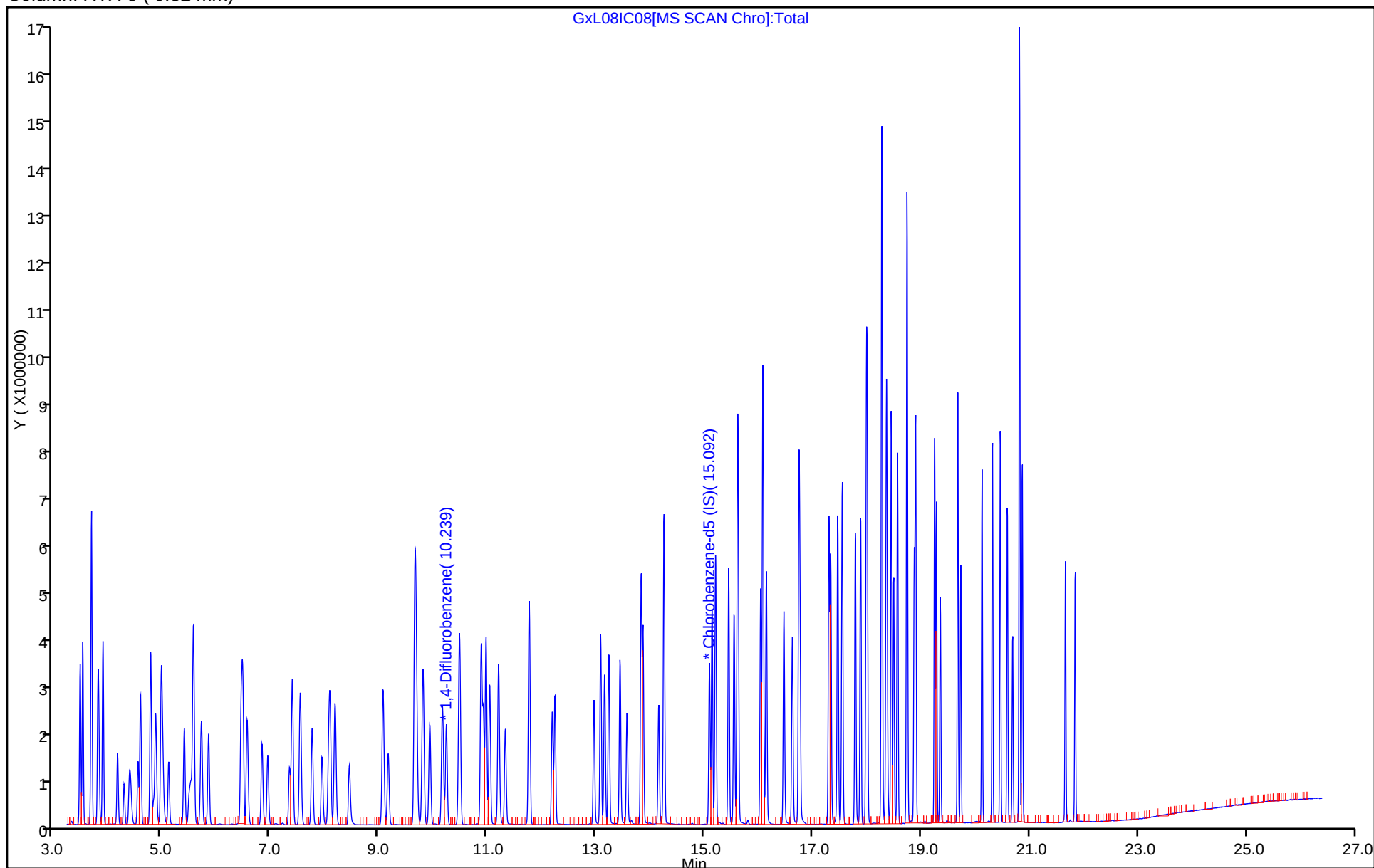
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Lims ID: IC L8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

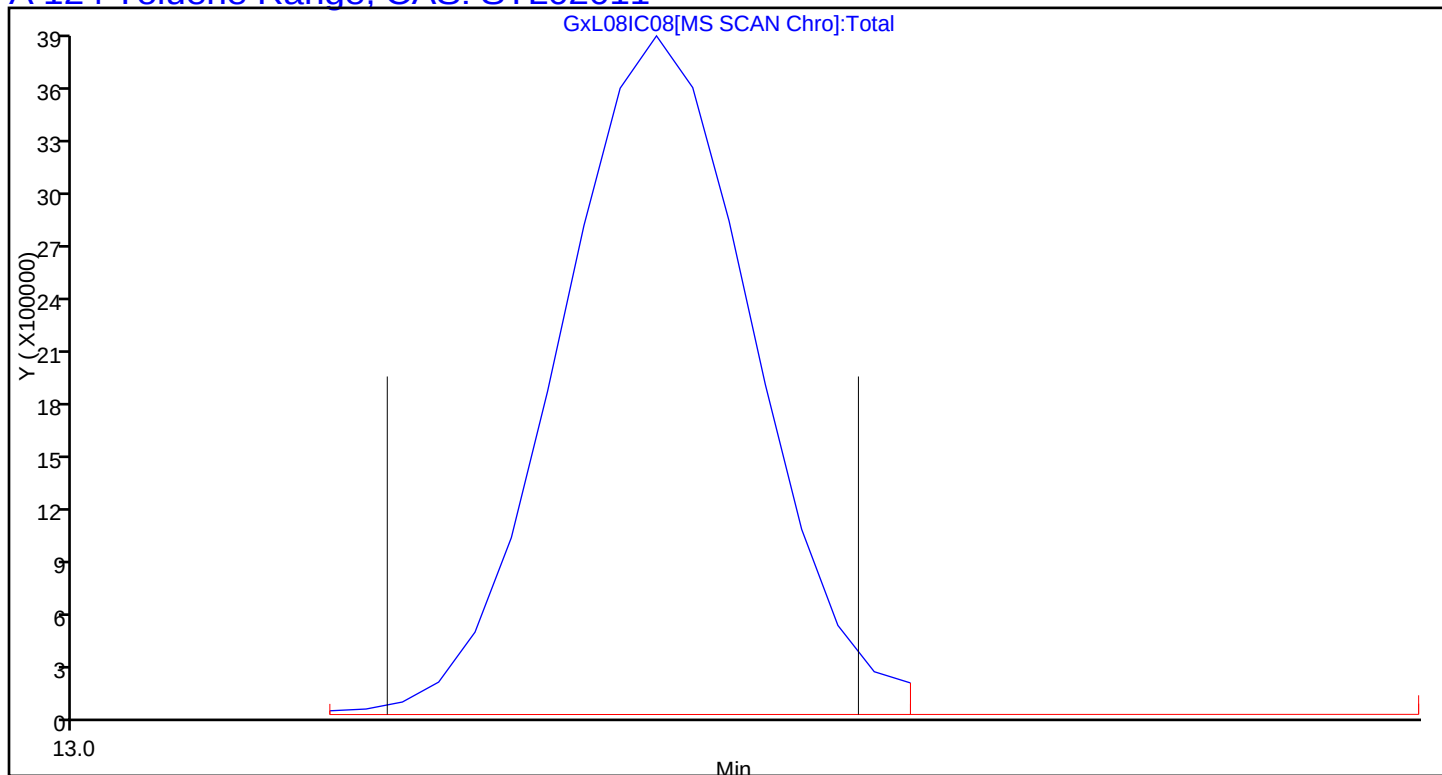
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Lims ID: IC L8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

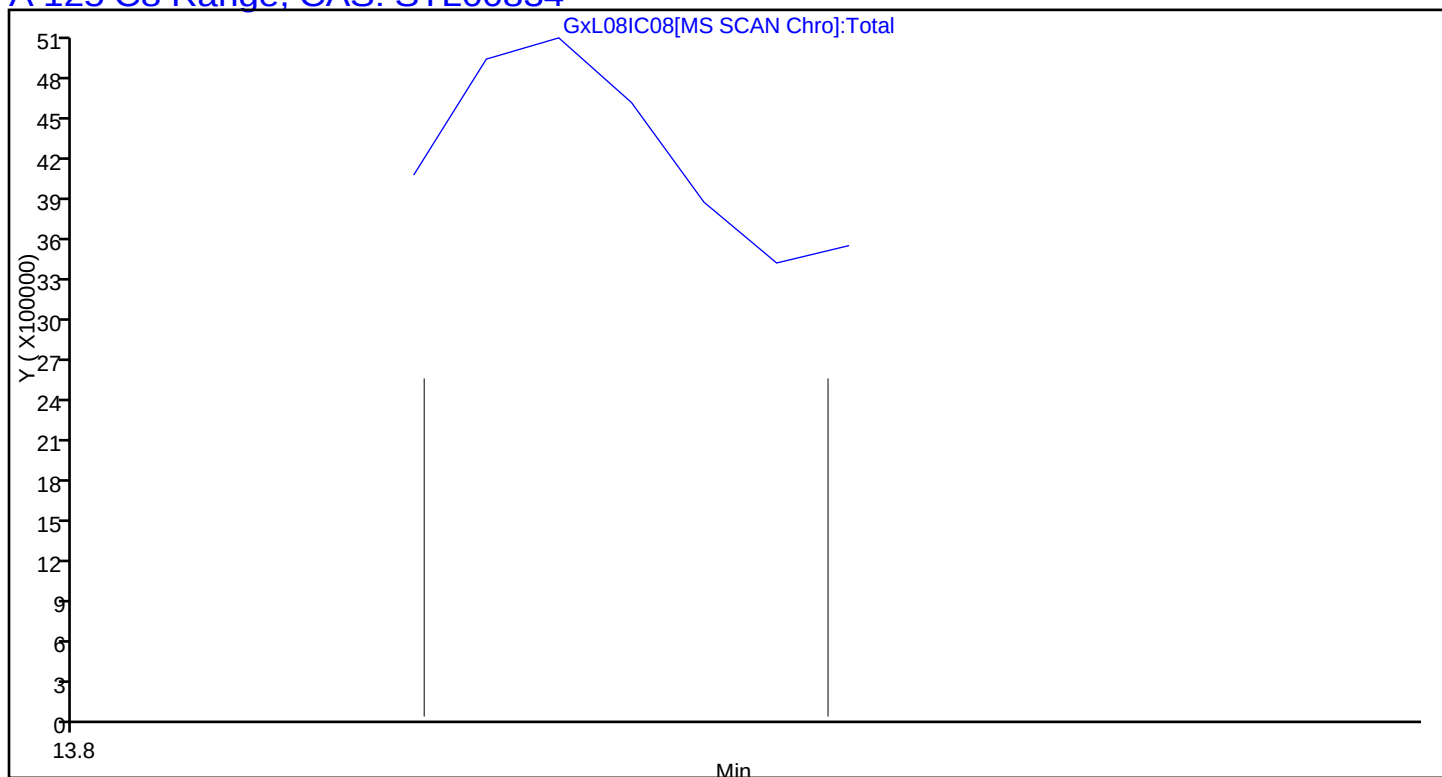
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D
 Lims ID: IC L9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 09-Dec-2016 01:38:30 ALS Bottle#: 8 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-011
 Misc. Info.: 067934
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:26 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:32:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.082	8.063	0.019	93	431521	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.255	10.234	0.021	95	1821448	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.103	15.090	0.013	85	1900751	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.775	16.758	0.017	96	1261386	4.00	4.01	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	570750	16.0	16.1	
7 Propene	41	3.488	3.489	-0.001	99	1680175	16.0	14.2	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	5818805	16.0	15.8	
9 Chloromethane	52	3.682	3.685	-0.003	99	486023	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	93	3960934	16.0	16.2	
11 Acetaldehyde	44	3.817	3.816	0.001	99	2713131	80.0	61.9	
12 Vinyl chloride	62	3.833	3.830	0.003	99	1800793	16.0	13.8	
13 Butadiene	54	3.909	3.906	0.003	69	1388093	16.0	13.2	
14 Butane	43	3.909	3.907	0.002	84	2596919	16.0	12.7	
15 Bromomethane	94	4.178	4.174	0.004	99	1885484	16.0	15.2	
16 Chloroethane	64	4.297	4.292	0.005	100	1053045	16.0	15.2	
17 Ethanol	31	4.426	4.393	0.033	95	3054812	80.0	70.9	
18 Vinyl bromide	106	4.556	4.550	0.006	99	1860265	16.0	15.9	
19 2-Methylbutane	43	4.599	4.598	0.001	89	1993361	16.0	13.3	
21 Acrolein	56	4.788	4.783	0.005	94	461450	16.0	13.7	
20 Trichlorofluoromethane	101	4.788	4.785	0.003	99	5901125	16.0	16.5	
22 Acetonitrile	40	4.852	4.838	0.014	99	663618	16.0	16.7	
23 Acetone	58	4.885	4.882	0.003	98	2019556	48.0	44.4	
24 Pentane	72	4.982	4.978	0.004	99	343931	16.0	15.7	
25 Isopropyl alcohol	45	5.046	4.987	0.059	98	6932486	48.0	45.1	
26 Ethyl ether	31	5.122	5.124	-0.002	91	1444630	16.0	15.9	
27 1,1-Dichloroethene	96	5.408	5.400	0.008	98	1718361	16.0	16.3	
28 Acrylonitrile	53	5.505	5.487	0.018	94	996643	16.0	17.5	
29 2-Methyl-2-propanol	59	5.575	5.526	0.049	94	2583882	16.0	16.0	
30 1,1,2-Trichloro-1,2,2-trif	101	5.580	5.572	0.008	93	3778238	16.0	16.7	
31 Methylene Chloride	84	5.720	5.708	0.012	93	1319618	16.0	14.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.737	5.725	0.012	97	1354242	16.0	14.9	
33 Carbon disulfide	76	5.855	5.849	0.006	99	5474536	16.0	15.9	
34 trans-1,2-Dichloroethene	96	6.459	6.448	0.011	99	1930221	16.0	15.6	
35 2-Methylpentane	43	6.492	6.481	0.011	96	3810096	16.0	14.3	
36 Methyl tert-butyl ether	73	6.572	6.575	-0.003	96	5364390	16.0	18.2	
37 1,1-Dichloroethane	63	6.848	6.832	0.016	100	3876835	16.0	16.6	
38 Vinyl acetate	43	6.955	6.942	0.013	100	5589948	16.0	19.3	
39 2-Butanone (MEK)	72	7.365	7.349	0.016	99	878803	16.0	17.2	
40 Hexane	56	7.403	7.397	0.006	90	1493982	16.0	14.6	
41 Isopropyl ether	45	7.554	7.547	0.007	97	6292986	16.0	17.1	
42 cis-1,2-Dichloroethene	96	7.775	7.759	0.016	95	2078366	16.0	16.5	
43 Ethyl acetate	43	7.964	7.946	0.018	99	4364408	16.0	19.1	
44 Chloroform	83	8.109	8.085	0.024	97	4367350	16.0	16.1	
45 Tert-butyl ethyl ether	59	8.196	8.191	0.005	94	5753046	16.0	18.0	
46 Tetrahydrofuran	42	8.460	8.460	0.000	94	2180844	16.0	18.5	
47 1,1,1-Trichloroethane	97	9.080	9.068	0.012	94	4921388	16.0	16.7	
48 1,2-Dichloroethane	62	9.182	9.160	0.022	98	3034051	16.0	17.9	
49 Benzene	78	9.673	9.654	0.019	96	4859184	16.0	14.8	
50 Cyclohexane	69	9.668	9.659	0.009	86	818029	16.0	13.5	
52 Carbon tetrachloride	117	9.695	9.684	0.011	97	5495740	16.0	18.8	
51 n-Butanol	31	9.727	9.685	0.042	73	573494	16.0	14.4	
53 2,3-Dimethylpentane	71	9.819	9.808	0.011	90	1327614	16.0	15.7	
54 Thiophene	84	9.948	9.930	0.018	96	3303884	16.0	16.8	
55 Tert-amyl methyl ether	73	10.180	10.181	-0.001	98	5343717	16.0	18.2	
56 Isooctane	57	10.493	10.479	0.014	98	8835628	16.0	14.9	
57 n-Heptane	71	10.892	10.881	0.011	87	1970974	16.0	15.0	
58 1,2-Dichloropropane	63	10.935	10.916	0.019	89	1969395	16.0	15.9	
59 Trichloroethene	130	10.983	10.966	0.017	96	3024239	16.0	15.9	
60 Dibromomethane	93	11.054	11.033	0.021	88	2458883	16.0	16.3	
61 Dichlorobromomethane	83	11.215	11.194	0.021	99	4592413	16.0	17.5	
62 1,4-Dioxane	88	11.237	11.222	0.015	87	753201	16.0	17.1	
63 Methyl methacrylate	41	11.345	11.327	0.018	89	2492814	16.0	18.6	
64 Methylcyclohexane	83	11.776	11.766	0.010	95	4088614	16.0	15.1	
65 4-Methyl-2-pentanone (MIBK)	43	12.213	12.198	0.015	96	3849816	16.0	17.3	
66 cis-1,3-Dichloropropene	75	12.256	12.240	0.016	92	3417073	16.0	17.4	
67 trans-1,3-Dichloropropene	75	12.979	12.958	0.021	97	3420157	16.0	18.6	
68 Toluene	91	13.097	13.083	0.014	94	6535309	16.0	17.2	
69 1,1,2-Trichloroethane	83	13.173	13.154	0.019	98	1894431	16.0	16.9	
70 2-Methylthiophene	97	13.248	13.233	0.015	97	5504671	16.0	17.2	
71 3-Methylthiophene	97	13.459	13.439	0.020	98	5425286	16.0	17.4	
72 2-Hexanone	58	13.588	13.578	0.010	94	2000620	16.0	17.9	
73 n-Octane	85	13.841	13.833	0.008	86	2222803	16.0	14.9	
74 Chlorodibromomethane	129	13.879	13.862	0.017	97	5133377	16.0	19.9	
75 Ethylene Dibromide	107	14.170	14.152	0.018	98	4020392	16.0	18.2	
76 Tetrachloroethene	129	14.262	14.251	0.011	96	2885902	16.0	17.3	
77 Chlorobenzene	112	15.152	15.138	0.014	96	5597166	16.0	17.7	
78 2,3-Dimethylheptane	43	15.216	15.203	0.013	86	4679067	16.0	12.4	
79 Ethylbenzene	91	15.459	15.445	0.014	98	8758179	16.0	17.6	
80 2-Ethylthiophene	97	15.556	15.544	0.012	97	6841807	16.0	18.4	
81 m-Xylene & p-Xylene	91	15.626	15.612	0.014	97	13248413	32.0	34.5	
83 Bromoform	173	16.052	16.034	0.018	99	6594138	16.0	27.8	
82 n-Nonane	57	16.085	16.076	0.009	85	2961409	16.0	11.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.095	16.079	0.016	95	5251876	16.0	19.2	
85 o-Xylene	91	16.155	16.140	0.015	98	7069465	16.0	17.5	
86 1,1,2,2-Tetrachloroethane	83	16.478	16.462	0.016	99	4738085	16.0	17.7	
87 1,2,3-Trichloropropane	110	16.635	16.619	0.016	97	1650297	16.0	18.7	
88 Isopropylbenzene	105	16.753	16.740	0.013	95	10000909	16.0	17.6	
89 N-Propylbenzene	120	17.309	17.295	0.014	100	2882014	16.0	18.6	
90 2-Chlorotoluene	126	17.341	17.327	0.014	96	2611501	16.0	18.2	
91 4-Ethyltoluene	105	17.470	17.457	0.013	98	10162010	16.0	18.5	
92 1,3,5-Trimethylbenzene	120	17.557	17.539	0.018	93	4929710	16.0	18.7	
93 Alpha Methyl Styrene	118	17.794	17.781	0.013	91	4555512	16.0	20.9	
94 n-Decane	57	17.891	17.878	0.013	93	4031286	16.0	13.7	
95 tert-Butylbenzene	119	17.999	17.985	0.014	94	9554102	16.0	18.7	
96 1,2,4-Trimethylbenzene	105	18.015	18.000	0.015	95	8518690	16.0	18.5	
98 1,3-Dichlorobenzene	146	18.279	18.270	0.009	92	6970912	16.0	21.0	
97 sec-Butylbenzene	105	18.285	18.270	0.015	97	11727632	16.0	17.6	
99 Benzyl chloride	91	18.360	18.349	0.011	99	7456385	16.0	20.3	
100 1,4-Dichlorobenzene	146	18.376	18.363	0.013	98	6739732	16.0	20.7	
101 4-Isopropyltoluene	119	18.457	18.444	0.013	97	10734531	16.0	18.9	
102 1,2,3-Trimethylbenzene	105	18.500	18.488	0.012	97	6454183	16.0	18.2	
103 Butylcyclohexane	83	18.571	18.561	0.009	96	5332453	16.0	15.0	
104 1,2-Dichlorobenzene	146	18.743	18.735	0.008	99	6549763	16.0	20.6	
105 2,3-Dihydroindene	117	18.748	18.736	0.012	94	8122275	16.0	18.9	
106 Indene	116	18.878	18.869	0.009	94	6308476	16.0	16.9	
107 n-Butylbenzene	91	18.905	18.896	0.009	97	8621259	16.0	17.5	
108 Undecane	57	19.255	19.247	0.008	89	4080761	16.0	13.1	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.288	19.279	0.009	98	7688453	16.0	18.7	
110 1,2-Dibromo-3-Chloropropan	157	19.358	19.352	0.006	90	3083243	16.0	23.1	
111 1,2,4,5-Tetramethylbenzene	119	19.681	19.673	0.008	98	9287987	16.0	19.2	
112 1,2,3,5-Tetramethylbenzene	119	19.735	19.727	0.008	96	5594149	16.0	18.9	
113 1,2,3,4-Tetramethylbenzene	119	20.129	20.121	0.008	97	7579036	16.0	19.0	
114 Dodecane	57	20.318	20.313	0.005	96	3802595	16.0	13.8	
115 1,2,4-Trichlorobenzene	180	20.463	20.458	0.005	93	5651953	16.0	25.6	
116 Naphthalene	128	20.593	20.588	0.005	99	10025298	16.0	21.4	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	100	5741539	16.0	22.3	
118 Hexachlorobutadiene	225	20.819	20.814	0.005	92	7094731	16.0	20.9	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	4817115	16.0	22.4	
120 2-Methylnaphthalene	142	21.666	21.661	0.005	99	2595825	50.0	38.0	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	100	2006398	50.0	28.8	
A 124 Toluene Range	1	13.092	(13.057-13.127)		0	15781323	16.0	17.1	
A 125 C8 Range	1	13.839	(13.831-13.861)		0	16425810	16.0	11.4	
S 126 Xylenes, Total	100				0		48.0	51.9	
S 127 1,2-Dichloroethene, Total	1				0		32.0	32.1	

Reagents:

40L9DNP_00011

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L9

Worklist Smp#: 11

Client ID:

Purge Vol: 500.000 mL

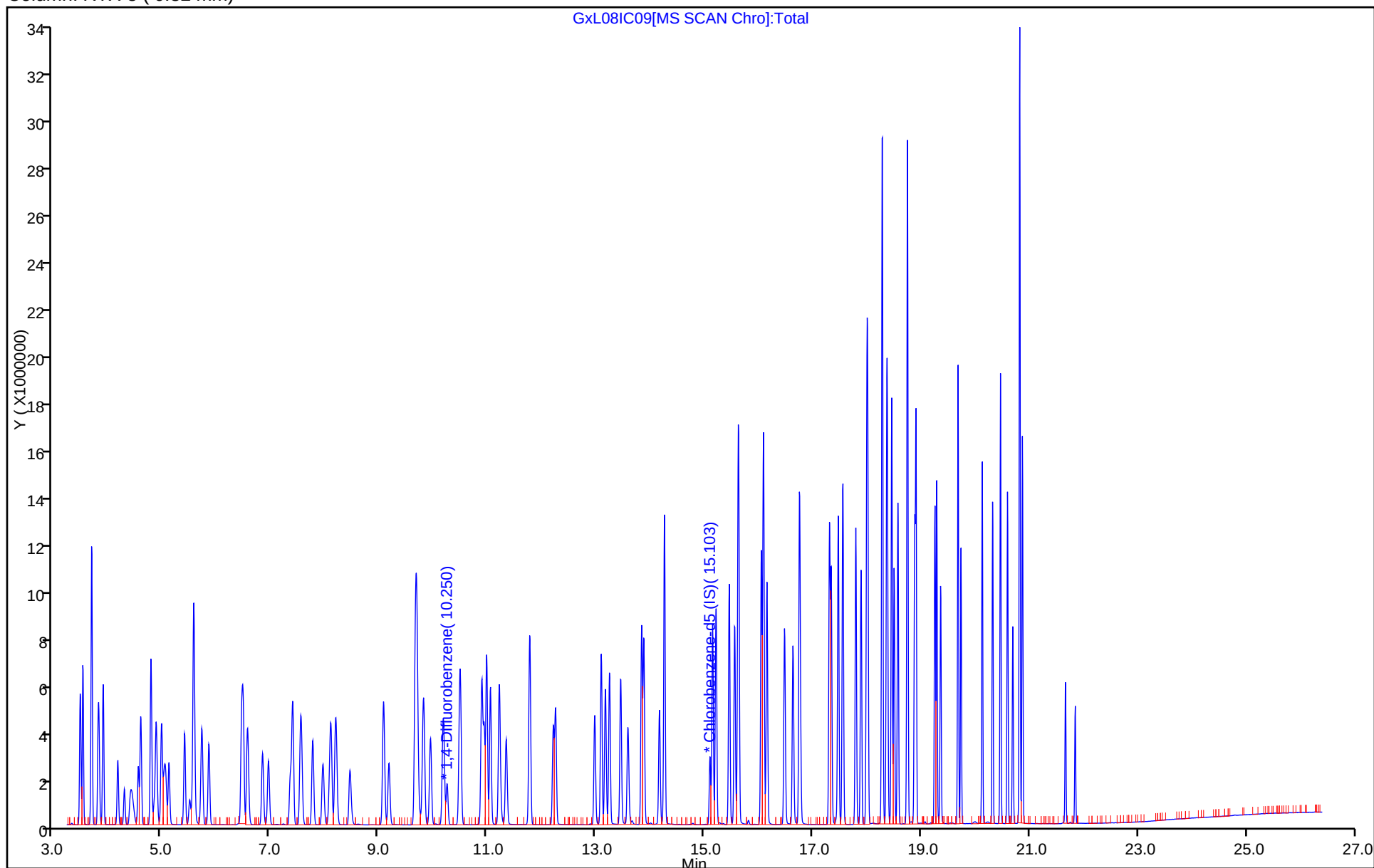
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

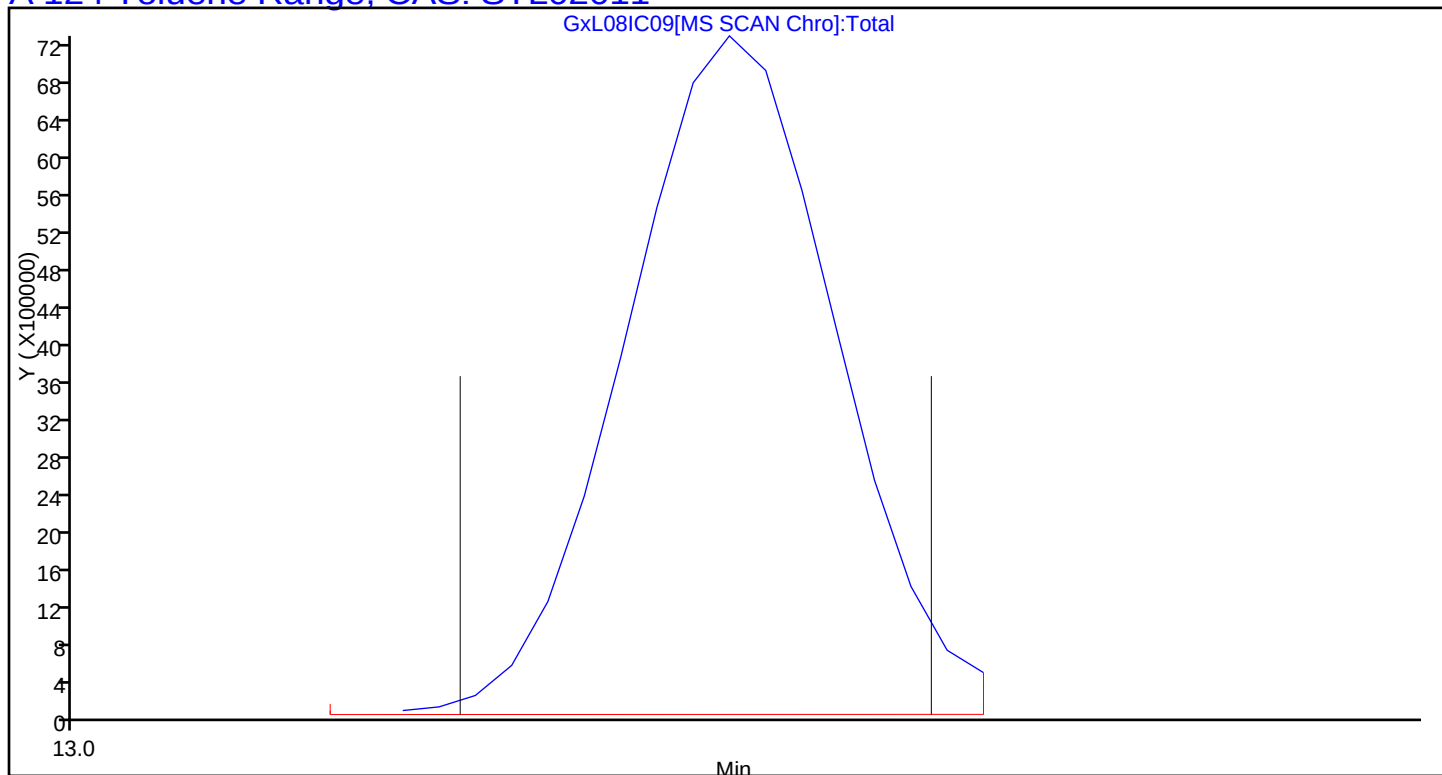
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

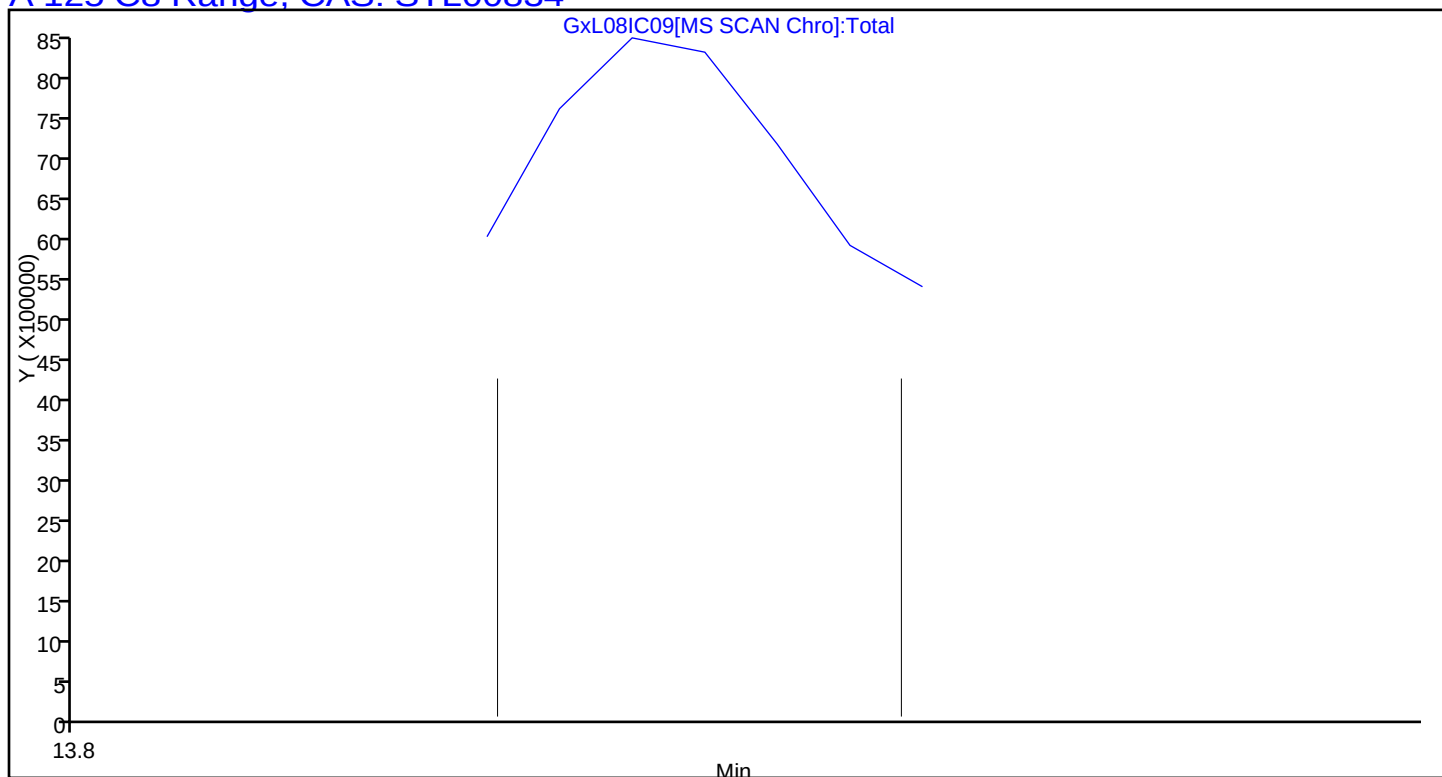
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.3236		1.97	2.00	-1.4	35.0
Propene	Ave	1.094	0.9705		1.78	2.00	-11.3	35.0
Dichlorodifluoromethane	Ave	3.423	3.406		1.99	2.00	-0.5	35.0
Chloromethane	Ave	0.3677	0.3523		1.92	2.00	-4.2	35.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.334		2.06	2.00	2.9	35.0
Acetaldehyde	Ave	0.4060	0.3719		9.25	10.1	-8.4	35.0
Vinyl chloride	Ave	1.207	1.290		2.14	2.00	6.9	35.0
1,3-Butadiene	Ave	0.9739	0.9802		2.01	2.00	0.6	35.0
Butane	Ave	1.902	1.981		2.08	2.00	4.2	35.0
Bromomethane	Ave	1.152	1.136		1.97	2.00	-1.3	35.0
Chloroethane	Ave	0.6412	0.6501		2.03	2.00	1.4	35.0
Ethanol	Ave	0.3997	0.3651		9.22	10.1	-8.7	35.0
Vinyl bromide	Ave	1.088	1.131		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.389	1.300		1.87	2.00	-6.4	35.0
Acrolein	Ave	0.3114	0.3670		2.36	2.00	17.8	35.0
Trichlorofluoromethane	Ave	3.318	3.275		1.98	2.00	-1.3	35.0
Acetonitrile	Ave	0.3691	0.3926		2.13	2.00	6.4	35.0
Acetone	Ave	0.4215	0.3992		5.69	6.00	-5.3	35.0
Isopropyl alcohol	Ave	1.426	1.281		5.39	6.00	-10.2	35.0
Pentane	Ave	0.2036	0.2061		2.03	2.00	1.2	35.0
Ethyl ether	Ave	0.8402	0.9143		2.18	2.00	8.8	35.0
1,1-Dichloroethene	Ave	0.9780	1.007		2.06	2.00	3.0	35.0
Acrylonitrile	Ave	0.5284	0.5968		2.26	2.00	12.9	35.0
t-Butyl alcohol	Ave	1.499	1.552		2.07	2.00	3.6	35.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.166		2.07	2.00	3.3	35.0
Methylene Chloride	Ave	0.8508	0.8027		1.89	2.00	-5.7	35.0
3-Chloropropene	Ave	0.8422	0.8616		2.05	2.00	2.3	35.0
Carbon disulfide	Ave	3.196	3.222		2.02	2.00	0.8	35.0
trans-1,2-Dichloroethene	Ave	1.149	1.187		2.07	2.00	3.3	35.0
2-Methylpentane	Ave	2.476	2.725		2.22	2.02	10.0	35.0
Methyl tert-butyl ether	Ave	2.730	2.998		2.20	2.00	9.8	35.0
1,1-Dichloroethane	Ave	2.159	2.201		2.04	2.00	2.0	35.0
Vinyl acetate	Ave	2.684	2.988		2.23	2.00	11.3	35.0
2-Butanone	Ave	0.4737	0.4890		2.07	2.00	3.2	35.0
Hexane	Ave	0.9508	0.9358		1.97	2.00	-1.6	35.0
Isopropyl ether	Ave	3.411	3.300		1.94	2.00	-3.3	35.0
cis-1,2-Dichloroethene	Ave	1.166	1.266		2.17	2.00	8.6	35.0
Ethyl acetate	Ave	2.116	2.203		2.08	2.00	4.1	35.0
Chloroform	Ave	2.509	2.652		2.12	2.00	5.7	35.0
Tert-butyl ethyl ether	Ave	2.966	3.191		2.15	2.00	7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.159		2.12	2.00	6.1	35.0
1,1,1-Trichloroethane	Ave	2.737	2.877		2.10	2.00	5.1	35.0
1,2-Dichloroethane	Ave	0.3729	0.3726		2.00	2.00	-0.0	35.0
1-Butanol	Ave	0.0875	0.0829		1.90	2.00	-5.3	35.0
Benzene	Ave	0.7195	0.7701		2.14	2.00	7.0	35.0
Cyclohexane	Ave	0.1326	0.1303		1.97	2.00	-1.7	35.0
Carbon tetrachloride	Ave	0.6424	0.6881		2.14	2.00	7.1	35.0
2,3-Dimethylpentane	Ave	0.1859	0.1743		1.89	2.02	-6.3	35.0
Thiophene	Ave	0.4306	0.4580		2.15	2.02	6.4	35.0
Tert-amyl methyl ether	Ave	0.6436	0.6299		1.96	2.00	-2.1	35.0
2,2,4-Trimethylpentane	Ave	1.305	1.349		2.07	2.00	3.4	35.0
Heptane	Ave	0.2889	0.2957		2.05	2.00	2.4	35.0
1,2-Dichloropropane	Ave	0.2726	0.2948		2.16	2.00	8.2	35.0
Trichloroethene	Ave	0.4186	0.4089		1.95	2.00	-2.3	35.0
Dibromomethane	Ave	0.3316	0.3406		2.06	2.00	2.7	35.0
Bromodichloromethane	Ave	0.5762	0.6095		2.12	2.00	5.8	35.0
1,4-Dioxane	Ave	0.0965	0.0942		1.95	2.00	-2.4	35.0
Methyl methacrylate	Ave	0.2946	0.3180		2.16	2.00	7.9	35.0
Methylcyclohexane	Ave	0.5953	0.4923		1.67	2.02	-17.3	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.5064		2.07	2.00	3.4	35.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4736		2.20	2.00	10.0	35.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4267		2.21	2.00	10.6	35.0
Toluene	Ave	0.7999	0.9016		2.26	2.00	12.7	35.0
1,1,2-Trichloroethane	Ave	0.2359	0.2509		2.13	2.00	6.4	35.0
2-Methylthiophene	Ave	0.6747	0.7635		2.29	2.02	13.2	35.0
3-Methylthiophene	Ave	0.6573	0.7766		2.39	2.02	18.1	35.0
2-Hexanone	Ave	0.2348	0.2349		2.00	2.00	0.0	35.0
Octane	Ave	0.3146	0.3321		2.11	2.00	5.6	35.0
Dibromochloromethane	Ave	0.5428	0.5993		2.21	2.00	10.4	35.0
1,2-Dibromoethane	Ave	0.4640	0.5103		2.20	2.00	10.0	35.0
Tetrachloroethene	Ave	0.3510	0.3558		2.03	2.00	1.4	35.0
Chlorobenzene	Ave	0.6640	0.7299		2.20	2.00	9.9	35.0
2,3-Dimethylheptane	Ave	0.7928	0.8543		2.18	2.02	7.8	35.0
Ethylbenzene	Ave	1.049	1.170		2.23	2.00	11.6	35.0
2-Ethylthiophene	Ave	0.7845	0.8673		2.23	2.02	10.6	35.0
m-Xylene & p-Xylene	Ave	0.8084	0.9051		4.48	4.00	12.0	35.0
Bromoform	Ave	0.4996	0.6071		2.43	2.00	21.5	35.0
Nonane	Ave	0.5241	0.5669		2.16	2.00	8.2	35.0
Styrene	Ave	0.5743	0.6733		2.35	2.00	17.2	35.0
o-Xylene	Ave	0.8521	0.9247		2.17	2.00	8.5	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.6210		2.21	2.00	10.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.2006		2.17	2.00	8.3	35.0
Isopropylbenzene	Ave	1.199	1.311		2.19	2.00	9.4	35.0
Propylbenzene	Ave	0.3264	0.3686		2.26	2.00	12.9	35.0
2-Chlorotoluene	Ave	0.3015	0.3368		2.24	2.00	11.7	35.0
4-Ethyltoluene	Ave	1.156	1.213		2.10	2.00	4.9	35.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.6152		2.21	2.00	10.6	35.0
Alpha Methyl Styrene	Ave	0.4587	0.5349		2.33	2.00	16.6	35.0
Decane	Ave	0.6186	0.6732		2.18	2.00	8.8	35.0
tert-Butylbenzene	Ave	1.078	1.171		2.18	2.00	8.7	35.0
1,2,4-Trimethylbenzene	Ave	0.9689	1.060		2.19	2.00	9.4	35.0
1,3-Dichlorobenzene	Ave	0.7000	0.7298		2.09	2.00	4.3	35.0
sec-Butylbenzene	Ave	1.402	1.517		2.16	2.00	8.2	35.0
Benzyl chloride	Ave	0.7737	0.8985		2.32	2.00	16.1	35.0
1,4-Dichlorobenzene	Ave	0.6842	0.7278		2.13	2.00	6.4	35.0
4-Isopropyltoluene	Ave	1.194	1.279		2.14	2.00	7.2	35.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.8540		2.32	2.02	14.6	35.0
Butylcyclohexane	Ave	0.7496	0.7541		2.03	2.02	0.6	35.0
1,2-Dichlorobenzene	Ave	0.6689	0.6954		2.08	2.00	4.0	35.0
Indane	Ave	0.9021	0.9132		2.04	2.02	1.2	35.0
Indene	Lin1		0.9290		2.46	2.02	21.6	35.0
Butylbenzene	Ave	1.038	1.127		2.17	2.00	8.6	35.0
Undecane	Ave	0.6532	0.6961		2.13	2.00	6.6	35.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	1.121		2.62	2.02	29.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2588		1.84	2.00	-7.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	1.156		2.29	2.02	13.6	35.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.7154		2.32	2.02	15.0	35.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.9200		2.21	2.02	9.4	35.0
Dodecane	Ave	0.5779	0.5706		1.98	2.00	-1.3	35.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.5108		2.20	2.00	9.9	35.0
Naphthalene	Ave	0.9864	1.076		2.18	2.00	9.1	35.0
Benzo (b) thiophene	Ave	0.5407	0.5926		2.21	2.02	9.6	35.0
Hexachlorobutadiene	Ave	0.7142	0.6829		1.91	2.00	-4.4	35.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.4825		2.13	2.00	6.4	35.0
2-Methylnaphthalene	Ave	0.1438	0.1444		6.28	6.25	0.4	50.0
1-Methylnaphthalene	Ave	0.1465	0.1599		6.83	6.25	9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.6635		4.01	4.00	0.3	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08ICV.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 09-Dec-2016 03:01:30 ALS Bottle#: 9 Worklist Smp#: 13
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-013
 Misc. Info.: 069464/S28
 Operator ID: 403648 Instrument ID: MG
 Sublist:
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:47:06 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: tajh

Date: 13-Dec-2016 14:47:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.066	8.063	0.003	93	455645	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.234	10.234	0.000	95	2097795	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2138644	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.755	0.001	96	1418993	4.00	4.01	
6 Chlorodifluoromethane	67	3.483	3.483	0.002	96	73764	2.00	1.97	
7 Propene	41	3.488	3.490	-0.001	99	221216	2.00	1.78	
8 Dichlorodifluoromethane	85	3.531	3.534	-0.002	100	776329	2.00	1.99	
9 Chloromethane	52	3.682	3.686	-0.003	99	80300	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.697	-0.003	92	531914	2.00	2.06	
11 Acetaldehyde	44	3.817	3.817	0.001	99	427719	10.1	9.25	
12 Vinyl chloride	62	3.833	3.832	0.003	99	294073	2.00	2.14	
13 Butadiene	54	3.903	3.907	-0.003	94	223428	2.00	2.01	
14 Butane	43	3.909	3.908	0.002	93	451643	2.00	2.08	
15 Bromomethane	94	4.173	4.176	-0.001	99	259037	2.00	1.97	
16 Chloroethane	64	4.291	4.294	-0.001	100	148192	2.00	2.03	
17 Ethanol	31	4.388	4.395	-0.005	95	419908	10.1	9.22	
18 Vinyl bromide	106	4.550	4.551	0.000	99	257715	2.00	2.08	
19 2-Methylbutane	43	4.599	4.600	0.001	91	296393	2.00	1.87	
21 Acrolein	56	4.782	4.785	-0.001	94	83657	2.00	2.36	
20 Trichlorofluoromethane	101	4.782	4.786	-0.003	99	746453	2.00	1.98	
22 Acetonitrile	40	4.836	4.840	-0.002	100	89496	2.00	2.13	
23 Acetone	58	4.874	4.884	-0.008	98	273013	6.00	5.69	
24 Pentane	72	4.976	4.980	-0.002	96	46978	2.00	2.03	
25 Isopropyl alcohol	45	4.976	4.989	-0.011	94	875906	6.00	5.39	
26 Ethyl ether	31	5.116	5.126	-0.008	95	208404	2.00	2.18	
27 1,1-Dichloroethene	96	5.402	5.402	0.002	97	229563	2.00	2.06	
28 Acrylonitrile	53	5.483	5.489	-0.004	95	136037	2.00	2.26	
29 2-Methyl-2-propanol	59	5.505	5.528	-0.021	93	353853	2.00	2.07	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.574	0.003	96	493702	2.00	2.07	
31 Methylene Chloride	84	5.710	5.711	0.002	95	182976	2.00	1.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.727	0.001	99	196390	2.00	2.05	
33 Carbon disulfide	76	5.850	5.851	0.001	99	734444	2.00	2.02	
34 trans-1,2-Dichloroethene	96	6.448	6.451	0.000	98	270488	2.00	2.07	
35 2-Methylpentane	43	6.481	6.484	0.000	94	626773	2.02	2.22	
36 Methyl tert-butyl ether	73	6.567	6.577	-0.008	96	683319	2.00	2.20	
37 1,1-Dichloroethane	63	6.837	6.835	0.005	100	501806	2.00	2.04	
38 Vinyl acetate	43	6.939	6.945	-0.003	100	681191	2.00	2.23	
39 2-Butanone (MEK)	72	7.343	7.352	-0.006	99	111467	2.00	2.07	
40 Hexane	56	7.397	7.400	0.000	86	213309	2.00	1.97	
41 Isopropyl ether	45	7.543	7.550	-0.004	97	752403	2.00	1.94	
42 cis-1,2-Dichloroethene	96	7.759	7.762	0.000	94	288670	2.00	2.17	
43 Ethyl acetate	43	7.937	7.949	-0.009	99	502092	2.00	2.08	
44 Chloroform	83	8.088	8.088	0.003	97	604584	2.00	2.12	
45 Tert-butyl ethyl ether	59	8.185	8.194	-0.006	94	727385	2.00	2.15	
46 Tetrahydrofuran	42	8.449	8.463	-0.011	94	264214	2.00	2.12	
47 1,1,1-Trichloroethane	97	9.069	9.071	0.001	95	655693	2.00	2.10	
48 1,2-Dichloroethane	62	9.161	9.160	0.001	98	391063	2.00	2.00	
49 Benzene	78	9.657	9.653	0.003	97	808204	2.00	2.14	
50 Cyclohexane	69	9.657	9.658	-0.002	94	136764	2.00	1.97	
52 Carbon tetrachloride	117	9.684	9.683	0.000	99	722109	2.00	2.14	
51 n-Butanol	31	9.657	9.684	-0.028	66	86948	2.00	1.90	
53 2,3-Dimethylpentane	71	9.808	9.807	0.000	91	184564	2.02	1.89	
54 Thiophene	84	9.926	9.929	-0.004	96	485117	2.02	2.15	
55 Tert-amyl methyl ether	73	10.164	10.180	-0.017	98	661085	2.00	1.96	
56 Isooctane	57	10.482	10.478	0.003	99	1415446	2.00	2.07	
57 n-Heptane	71	10.881	10.880	0.000	91	310368	2.00	2.05	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	91	309406	2.00	2.16	
59 Trichloroethene	130	10.967	10.965	0.001	97	429100	2.00	1.95	
60 Dibromomethane	93	11.032	11.032	-0.001	93	357390	2.00	2.06	
61 Dichlorobromomethane	83	11.194	11.193	0.000	99	639678	2.00	2.12	
62 1,4-Dioxane	88	11.210	11.221	-0.012	88	98880	2.00	1.95	
63 Methyl methacrylate	41	11.323	11.326	-0.004	92	333725	2.00	2.16	
64 Methylcyclohexane	83	11.765	11.765	-0.001	95	521357	2.02	1.67	
65 4-Methyl-2-pentanone (MIBK)	43	12.191	12.197	-0.007	96	531479	2.00	2.07	
66 cis-1,3-Dichloropropene	75	12.240	12.239	0.000	94	497067	2.00	2.20	
67 trans-1,3-Dichloropropene	75	12.957	12.955	-0.001	98	456545	2.00	2.21	
68 Toluene	91	13.081	13.081	-0.002	94	964585	2.00	2.26	
69 1,1,2-Trichloroethane	83	13.151	13.158	-0.003	99	268415	2.00	2.13	
70 2-Methylthiophene	97	13.232	13.231	-0.001	97	824414	2.02	2.29	
71 3-Methylthiophene	97	13.437	13.437	-0.002	99	838500	2.02	2.39	
72 2-Hexanone	58	13.566	13.575	-0.012	94	251264	2.00	2.00	
73 n-Octane	85	13.831	13.830	-0.003	93	355304	2.00	2.11	
74 Chlorodibromomethane	129	13.863	13.860	0.001	98	641200	2.00	2.21	
75 Ethylene Dibromide	107	14.149	14.149	-0.003	99	545908	2.00	2.20	
76 Tetrachloroethene	129	14.251	14.248	0.000	96	380622	2.00	2.03	
77 Chlorobenzene	112	15.135	15.135	-0.003	94	780861	2.00	2.20	
78 2,3-Dimethylheptane	43	15.200	15.200	-0.003	96	922396	2.02	2.18	
79 Ethylbenzene	91	15.443	15.442	-0.002	98	1251681	2.00	2.23	
80 2-Ethylthiophene	97	15.545	15.540	0.001	98	936467	2.02	2.23	
81 m-Xylene & p-Xylene	91	15.610	15.609	-0.002	99	1936648	4.00	4.48	
83 Bromoform	173	16.031	16.030	-0.003	98	649507	2.00	2.43	
82 n-Nonane	57	16.074	16.073	-0.002	93	606554	2.00	2.16	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.075	0.000	97	720373	2.00	2.35	
85 o-Xylene	91	16.138	16.136	-0.002	99	989344	2.00	2.17	
86 1,1,2,2-Tetrachloroethane	83	16.462	16.459	0.000	99	664451	2.00	2.21	
87 1,2,3-Trichloropropane	110	16.618	16.616	-0.001	98	214617	2.00	2.17	
88 Isopropylbenzene	105	16.737	16.737	-0.003	96	1402660	2.00	2.19	
89 N-Propylbenzene	120	17.292	17.292	-0.003	99	394328	2.00	2.26	
90 2-Chlorotoluene	126	17.325	17.323	-0.002	97	360349	2.00	2.24	
91 4-Ethyltoluene	105	17.454	17.454	-0.003	99	1297483	2.00	2.10	
92 1,3,5-Trimethylbenzene	120	17.540	17.536	0.001	93	658225	2.00	2.21	
93 Alpha Methyl Styrene	118	17.783	17.777	0.002	90	572326	2.00	2.33	
94 n-Decane	57	17.880	17.875	0.002	91	720270	2.00	2.18	
95 tert-Butylbenzene	119	17.983	17.981	-0.002	94	1253144	2.00	2.18	
96 1,2,4-Trimethylbenzene	105	17.999	17.996	-0.001	96	1134339	2.00	2.19	
98 1,3-Dichlorobenzene	146	18.268	18.266	-0.002	66	780831	2.00	2.09	
97 sec-Butylbenzene	105	18.268	18.267	-0.002	98	1622625	2.00	2.16	
99 Benzyl chloride	91	18.349	18.346	0.000	98	961343	2.00	2.32	
100 1,4-Dichlorobenzene	146	18.360	18.359	-0.003	96	778649	2.00	2.13	
101 4-Isopropyltoluene	119	18.446	18.440	0.002	97	1368466	2.00	2.14	
102 1,2,3-Trimethylbenzene	105	18.490	18.485	0.002	97	922084	2.02	2.32	
103 Butylcyclohexane	83	18.560	18.557	-0.001	94	814182	2.02	2.03	
104 1,2-Dichlorobenzene	146	18.732	18.731	-0.003	95	744005	2.00	2.08	
105 2,3-Dihydroindene	117	18.738	18.733	0.002	94	986039	2.02	2.04	
106 Indene	116	18.867	18.866	-0.002	94	1003097	2.02	2.46	
107 n-Butylbenzene	91	18.894	18.893	-0.002	98	1205992	2.00	2.17	
108 Undecane	57	19.244	19.243	-0.003	96	744777	2.00	2.13	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.275	-0.002	98	1210567	2.02	2.62	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.348	0.000	95	276949	2.00	1.84	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.669	-0.003	97	1248695	2.02	2.29	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.723	-0.003	96	772406	2.02	2.32	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.117	0.002	97	993390	2.02	2.21	
114 Dodecane	57	20.312	20.309	-0.001	96	610489	2.00	1.98	
115 1,2,4-Trichlorobenzene	180	20.458	20.454	0.000	94	546506	2.00	2.20	
116 Naphthalene	128	20.587	20.584	-0.001	99	1150964	2.00	2.18	
117 Benzo(b)thiophene	134	20.684	20.684	-0.004	99	639879	2.02	2.21	
118 Hexachlorobutadiene	225	20.814	20.810	0.000	94	730666	2.00	1.91	
119 1,2,3-Trichlorobenzene	180	20.862	20.861	-0.003	94	516240	2.00	2.13	
120 2-Methylnaphthalene	142	21.660	21.656	-0.001	100	482725	6.25	6.28	
121 1-Methylnaphthalene	142	21.838	21.837	-0.003	100	534706	6.25	6.83	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	2336088	2.00	2.19	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	3958974	2.00	2.40	M
S 126 Xylenes, Total	100				0		6.00	6.65	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.24	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08ICV.D

Injection Date: 09-Dec-2016 03:01:30

Instrument ID: MG

Operator ID: 403648

Lims ID: ICV

Worklist Smp#: 13

Client ID:

Purge Vol: 500.000 mL

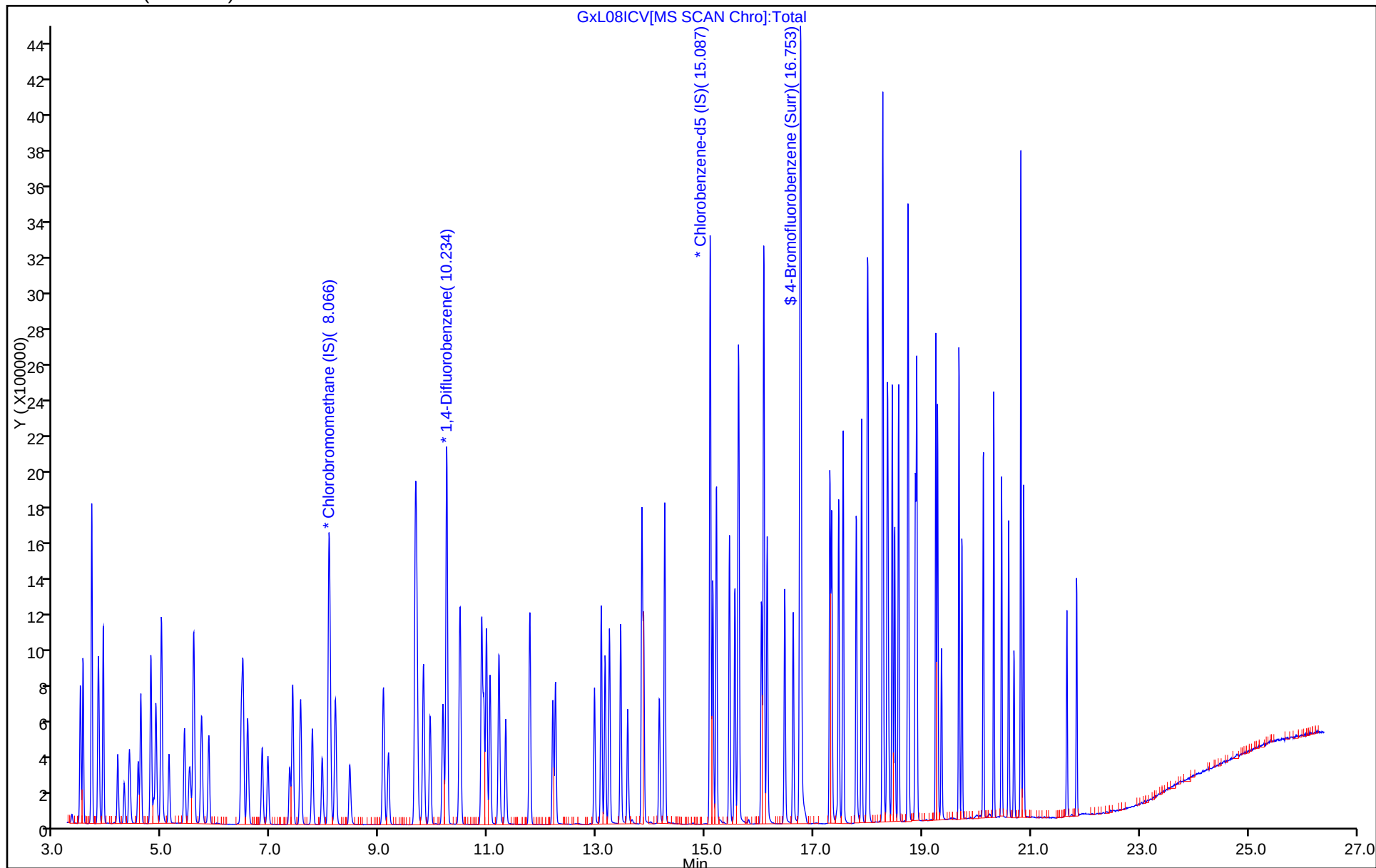
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7414/6 Calibration Date: 12/16/2016 11:55
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL16A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.4081		2.49	2.00	24.4	30.0
Propene	Ave	1.094	1.317		2.41	2.00	20.4	30.0
Dichlorodifluoromethane	Ave	3.423	4.256		2.49	2.00	24.3	30.0
Chloromethane	Ave	0.3677	0.4251		2.31	2.00	15.6	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.558		2.26	2.00	12.8	30.0
Acetaldehyde	Ave	0.4060	0.4632		11.5	10.1	14.1	30.0
Vinyl chloride	Ave	1.207	1.428		2.37	2.00	18.4	30.0
1,3-Butadiene	Ave	0.9739	1.132		2.33	2.00	16.2	30.0
Butane	Ave	1.902	2.320		2.44	2.00	22.0	30.0
Bromomethane	Ave	1.152	1.238		2.15	2.00	7.5	30.0
Chloroethane	Ave	0.6412	0.6906		2.16	2.00	7.7	30.0
Ethanol	Ave	0.3997	0.4013		10.1	10.1	0.4	30.0
Vinyl bromide	Ave	1.088	1.174		2.16	2.00	7.9	30.0
2-Methylbutane	Ave	1.389	1.541		2.22	2.00	10.9	30.0
Acrolein	Ave	0.3114	0.3096		1.99	2.00	-0.6	30.0
Trichlorofluoromethane	Ave	3.318	3.948		2.38	2.00	19.0	30.0
Acetonitrile	Ave	0.3691	0.4326		2.35	2.00	17.2	30.0
Acetone	Ave	0.4215	0.4381		6.24	6.00	3.9	30.0
Isopropyl alcohol	Ave	1.426	1.511		6.36	6.00	5.9	30.0
Pentane	Ave	0.2036	0.2188		2.15	2.00	7.5	30.0
Ethyl ether	Ave	0.8402	1.033		2.46	2.00	22.9	30.0
1,1-Dichloroethene	Ave	0.9780	1.077		2.20	2.00	10.1	30.0
Acrylonitrile	Ave	0.5284	0.5962		2.26	2.00	12.8	30.0
t-Butyl alcohol	Ave	1.499	1.651		2.20	2.00	10.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.378		2.27	2.00	13.4	30.0
Methylene Chloride	Ave	0.8508	0.8686		2.04	2.00	2.1	30.0
3-Chloropropene	Ave	0.8422	0.9528		2.26	2.00	13.1	30.0
Carbon disulfide	Ave	3.196	3.400		2.13	2.00	6.4	30.0
trans-1,2-Dichloroethene	Ave	1.149	1.268		2.21	2.00	10.3	30.0
2-Methylpentane	Ave	2.476	3.158		2.58	2.02	27.6	30.0
Methyl tert-butyl ether	Ave	2.730	3.268		2.40	2.00	19.7	30.0
1,1-Dichloroethane	Ave	2.159	2.582		2.39	2.00	19.6	30.0
Vinyl acetate	Ave	2.684	3.498		2.61	2.00	30.3*	30.0
2-Butanone	Ave	0.4737	0.5174		2.19	2.00	9.2	30.0
Hexane	Ave	0.9508	1.111		2.34	2.00	16.9	30.0
Isopropyl ether	Ave	3.411	4.467		2.62	2.00	30.9*	30.0
cis-1,2-Dichloroethene	Ave	1.166	1.304		2.24	2.00	11.8	30.0
Ethyl acetate	Ave	2.116	2.794		2.64	2.00	32.1*	30.0
Chloroform	Ave	2.509	2.916		2.33	2.00	16.2	30.0
Tert-butyl ethyl ether	Ave	2.966	3.727		2.51	2.00	25.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7414/6 Calibration Date: 12/16/2016 11:55
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL16A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.399		2.56	2.00	28.1	30.0
1,1,1-Trichloroethane	Ave	2.737	3.219		2.35	2.00	17.6	30.0
1,2-Dichloroethane	Ave	0.3729	0.4201		2.25	2.00	12.6	30.0
1-Butanol	Ave	0.0875	0.0856		1.96	2.00	-2.2	30.0
Benzene	Ave	0.7195	0.7466		2.08	2.00	3.8	30.0
Cyclohexane	Ave	0.1326	0.1297		1.96	2.00	-2.2	30.0
Carbon tetrachloride	Ave	0.6424	0.6877		2.14	2.00	7.0	30.0
2,3-Dimethylpentane	Ave	0.1859	0.1853		2.01	2.02	-0.3	30.0
Thiophene	Ave	0.4306	0.4337		2.03	2.02	0.7	30.0
Tert-amyl methyl ether	Ave	0.6436	0.6765		2.10	2.00	5.1	30.0
2,2,4-Trimethylpentane	Ave	1.305	1.371		2.10	2.00	5.1	30.0
Heptane	Ave	0.2889	0.2935		2.03	2.00	1.6	30.0
1,2-Dichloropropane	Ave	0.2726	0.2938		2.16	2.00	7.8	30.0
Trichloroethene	Ave	0.4186	0.3824		1.83	2.00	-8.7	30.0
Dibromomethane	Ave	0.3316	0.3301		1.99	2.00	-0.4	30.0
Bromodichloromethane	Ave	0.5762	0.6197		2.15	2.00	7.5	30.0
1,4-Dioxane	Ave	0.0965	0.0854		1.77	2.00	-11.5	30.0
Methyl methacrylate	Ave	0.2946	0.3393		2.30	2.00	15.2	30.0
Methylcyclohexane	Ave	0.5953	0.5811		1.97	2.02	-2.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.5228		2.14	2.00	6.8	30.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4678		2.17	2.00	8.6	30.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4199		2.18	2.00	8.8	30.0
Toluene	Ave	0.7999	0.8277		2.07	2.00	3.5	30.0
1,1,2-Trichloroethane	Ave	0.2359	0.2464		2.09	2.00	4.5	30.0
2-Methylthiophene	Ave	0.6747	0.6844		2.05	2.02	1.4	30.0
3-Methylthiophene	Ave	0.6573	0.6705		2.06	2.02	2.0	30.0
2-Hexanone	Ave	0.2348	0.2279		1.94	2.00	-2.9	30.0
Octane	Ave	0.3146	0.3162		2.01	2.00	0.5	30.0
Dibromochloromethane	Ave	0.5428	0.5707		2.10	2.00	5.1	30.0
1,2-Dibromoethane	Ave	0.4640	0.4882		2.11	2.00	5.2	30.0
Tetrachloroethene	Ave	0.3510	0.3376		1.92	2.00	-3.8	30.0
Chlorobenzene	Ave	0.6640	0.6757		2.04	2.00	1.8	30.0
2,3-Dimethylheptane	Ave	0.7928	0.9086		2.31	2.02	14.6	30.0
Ethylbenzene	Ave	1.049	1.096		2.09	2.00	4.6	30.0
2-Ethylthiophene	Ave	0.7845	0.8248		2.12	2.02	5.1	30.0
m-Xylene & p-Xylene	Ave	0.8084	0.8467		4.19	4.00	4.7	30.0
Bromoform	Ave	0.4996	0.5419		2.17	2.00	8.5	30.0
Nonane	Ave	0.5241	0.5812		2.22	2.00	10.9	30.0
Styrene	Ave	0.5743	0.6061		2.11	2.00	5.5	30.0
o-Xylene	Ave	0.8521	0.8922		2.10	2.00	4.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.5976		2.13	2.00	6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7414/6 Calibration Date: 12/16/2016 11:55
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL16A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.1901		2.05	2.00	2.6	30.0
Isopropylbenzene	Ave	1.199	1.193		1.99	2.00	-0.5	30.0
Propylbenzene	Ave	0.3264	0.3217		1.97	2.00	-1.5	30.0
2-Chlorotoluene	Ave	0.3015	0.2981		1.98	2.00	-1.1	30.0
4-Ethyltoluene	Ave	1.156	1.175		2.03	2.00	1.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.5464		1.97	2.00	-1.7	30.0
Alpha Methyl Styrene	Ave	0.4587	0.4676		2.04	2.00	1.9	30.0
Decane	Ave	0.6186	0.6828		2.21	2.00	10.4	30.0
tert-Butylbenzene	Ave	1.078	1.076		2.00	2.00	-0.2	30.0
1,2,4-Trimethylbenzene	Ave	0.9689	0.997		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.7000	0.6834		1.95	2.00	-2.4	30.0
sec-Butylbenzene	Ave	1.402	1.423		2.03	2.00	1.5	30.0
Benzyl chloride	Ave	0.7737	0.8561		2.21	2.00	10.6	30.0
1,4-Dichlorobenzene	Ave	0.6842	0.6737		1.97	2.00	-1.5	30.0
4-Isopropyltoluene	Ave	1.194	1.204		2.02	2.00	0.8	30.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.7482		2.03	2.02	0.4	30.0
Butylcyclohexane	Ave	0.7496	0.7721		2.08	2.02	3.0	30.0
1,2-Dichlorobenzene	Ave	0.6689	0.6442		1.93	2.00	-3.7	30.0
Indane	Ave	0.9021	0.8889		1.99	2.02	-1.5	30.0
Indene	Lin1		0.6587		1.76	2.02	-12.6	30.0
Butylbenzene	Ave	1.038	1.108		2.14	2.00	6.8	30.0
Undecane	Ave	0.6532	0.7112		2.18	2.00	8.9	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	0.8369		1.95	2.02	-3.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2602		1.85	2.00	-7.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	1.001		1.99	2.02	-1.6	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.6011		1.95	2.02	-3.4	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.8112		1.95	2.02	-3.5	30.0
Dodecane	Ave	0.5779	0.5838		2.02	2.00	1.0	30.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.4384		1.89	2.00	-5.7	30.0
Naphthalene	Ave	0.9864	0.9713		1.97	2.00	-1.5	30.0
Benzo (b) thiophene	Ave	0.5407	0.4928		1.84	2.02	-8.9	30.0
Hexachlorobutadiene	Ave	0.7142	0.6378		1.79	2.00	-10.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.4150		1.83	2.00	-8.5	30.0
2-Methylnaphthalene	Ave	0.1438	0.1181		5.14	6.25	-17.8	50.0
1-Methylnaphthalene	Ave	0.1465	0.1221		5.21	6.25	-16.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.7024		4.25	4.00	6.2	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GCCVL16A.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 16-Dec-2016 11:55:30 ALS Bottle#: 15 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Dec-2016 15:47:39 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: tajh

Date: 16-Dec-2016 13:12:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	355344	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.223	0.000	96	1762300	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1799904	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	96	1264216	4.00	4.25	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	72537	2.00	2.49	
7 Propene	41	3.483	3.483	0.000	99	234059	2.00	2.41	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	756542	2.00	2.49	
9 Chloromethane	52	3.682	3.682	0.000	99	75575	2.00	2.31	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	92	454815	2.00	2.26	
11 Acetaldehyde	44	3.806	3.806	0.000	100	415484	10.1	11.5	
12 Vinyl chloride	62	3.828	3.828	0.000	99	253934	2.00	2.37	
13 Butadiene	54	3.898	3.898	0.000	88	201218	2.00	2.33	
14 Butane	43	3.903	3.903	0.000	93	412465	2.00	2.44	
15 Bromomethane	94	4.167	4.167	0.000	98	220058	2.00	2.15	
16 Chloroethane	64	4.286	4.286	0.000	96	122773	2.00	2.16	
17 Ethanol	31	4.383	4.383	0.000	97	360004	10.1	10.1	
18 Vinyl bromide	106	4.545	4.545	0.000	98	208709	2.00	2.16	
19 2-Methylbutane	43	4.593	4.593	0.000	91	273907	2.00	2.22	
21 Acrolein	56	4.777	4.777	0.000	97	55032	2.00	1.99	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	701758	2.00	2.38	
22 Acetonitrile	40	4.825	4.825	0.000	98	76908	2.00	2.35	
23 Acetone	58	4.868	4.868	0.000	99	233658	6.00	6.24	
25 Isopropyl alcohol	45	4.966	4.966	0.000	93	805619	6.00	6.36	
24 Pentane	72	4.971	4.971	0.000	96	38900	2.00	2.15	
26 Ethyl ether	31	5.111	5.111	0.000	96	183620	2.00	2.46	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	191387	2.00	2.20	
28 Acrylonitrile	53	5.478	5.478	0.000	94	105981	2.00	2.26	
29 2-Methyl-2-propanol	59	5.494	5.494	0.000	94	293537	2.00	2.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	96	422783	2.00	2.27	
31 Methylene Chloride	84	5.704	5.704	0.000	97	154413	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.715	5.715	0.000	98	169372	2.00	2.26	
33 Carbon disulfide	76	5.844	5.844	0.000	100	604379	2.00	2.13	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	96	225346	2.00	2.21	
35 2-Methylpentane	43	6.470	6.470	0.000	96	566637	2.02	2.58	
36 Methyl tert-butyl ether	73	6.556	6.556	0.000	97	581017	2.00	2.40	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	458932	2.00	2.39	
38 Vinyl acetate	43	6.934	6.934	0.000	100	621916	2.00	2.61	
39 2-Butanone (MEK)	72	7.333	7.333	0.000	97	91981	2.00	2.19	
40 Hexane	56	7.387	7.387	0.000	86	197511	2.00	2.34	
41 Isopropyl ether	45	7.532	7.532	0.000	97	794103	2.00	2.62	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	231812	2.00	2.24	
43 Ethyl acetate	43	7.931	7.931	0.000	98	496622	2.00	2.64	
44 Chloroform	83	8.077	8.077	0.000	98	518311	2.00	2.33	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	662656	2.00	2.51	
46 Tetrahydrofuran	42	8.438	8.438	0.000	94	248650	2.00	2.56	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	95	572193	2.00	2.35	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	370342	2.00	2.25	
51 n-Butanol	31	9.646	9.646	0.000	67	75432	2.00	1.96	
49 Benzene	78	9.646	9.646	0.000	98	658213	2.00	2.08	
50 Cyclohexane	69	9.651	9.651	0.000	93	114329	2.00	1.96	
52 Carbon tetrachloride	117	9.673	9.673	0.000	99	606251	2.00	2.14	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	164896	2.02	2.01	
54 Thiophene	84	9.921	9.921	0.000	97	385851	2.02	2.03	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	596461	2.00	2.10	
56 Isooctane	57	10.471	10.471	0.000	98	1208922	2.00	2.10	
57 n-Heptane	71	10.870	10.870	0.000	93	258719	2.00	2.03	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	88	258980	2.00	2.16	
59 Trichloroethene	130	10.956	10.956	0.000	95	337117	2.00	1.83	
60 Dibromomethane	93	11.027	11.027	0.000	96	291029	2.00	1.99	
61 Dichlorobromomethane	83	11.188	11.188	0.000	100	546350	2.00	2.15	
62 1,4-Dioxane	88	11.199	11.199	0.000	93	75305	2.00	1.77	
63 Methyl methacrylate	41	11.312	11.312	0.000	94	299127	2.00	2.30	
64 Methylcyclohexane	83	11.760	11.760	0.000	93	517036	2.02	1.97	
65 4-Methyl-2-pentanone (MIBK)	43	12.181	12.181	0.000	97	460945	2.00	2.14	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	96	412409	2.00	2.17	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	98	378094	2.00	2.18	
68 Toluene	91	13.076	13.076	0.000	93	745293	2.00	2.07	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	99	221875	2.00	2.09	
70 2-Methylthiophene	97	13.227	13.227	0.000	97	621956	2.02	2.05	
71 3-Methylthiophene	97	13.432	13.432	0.000	100	609332	2.02	2.06	
72 2-Hexanone	58	13.561	13.561	0.000	91	205184	2.00	1.94	
73 n-Octane	85	13.825	13.825	0.000	94	284730	2.00	2.01	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	513915	2.00	2.10	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	439598	2.00	2.11	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	303946	2.00	1.92	
77 Chlorobenzene	112	15.130	15.130	0.000	92	608381	2.00	2.04	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	97	825680	2.02	2.31	
79 Ethylbenzene	91	15.437	15.437	0.000	99	987309	2.00	2.09	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	749504	2.02	2.12	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1524758	4.00	4.19	
83 Bromoform	173	16.025	16.025	0.000	97	487937	2.00	2.17	
82 n-Nonane	57	16.068	16.068	0.000	95	523333	2.00	2.22	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.074	0.000	99	545755	2.00	2.11	
85 o-Xylene	91	16.133	16.133	0.000	98	803378	2.00	2.10	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	538088	2.00	2.13	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	97	171190	2.00	2.05	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1073949	2.00	1.99	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	289626	2.00	1.97	
90 2-Chlorotoluene	126	17.319	17.319	0.000	97	268451	2.00	1.98	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	1057973	2.00	2.03	
92 1,3,5-Trimethylbenzene	120	17.535	17.535	0.000	92	491971	2.00	1.97	
93 Alpha Methyl Styrene	118	17.778	17.778	0.000	88	421021	2.00	2.04	
94 n-Decane	57	17.875	17.875	0.000	91	614844	2.00	2.21	
95 tert-Butylbenzene	119	17.977	17.977	0.000	93	968724	2.00	2.00	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	96	897476	2.00	2.06	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	66	615385	2.00	1.95	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1281351	2.00	2.03	
99 Benzyl chloride	91	18.344	18.344	0.000	98	770830	2.00	2.21	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	94	606589	2.00	1.97	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1083886	2.00	2.02	
102 1,2,3-Trimethylbenzene	105	18.484	18.484	0.000	98	679898	2.02	2.03	
103 Butylcyclohexane	83	18.554	18.554	0.000	92	701641	2.02	2.08	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	94	580029	2.00	1.93	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	807784	2.02	1.99	
106 Indene	116	18.867	18.867	0.000	93	598570	2.02	1.76	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	997860	2.00	2.14	
108 Undecane	57	19.239	19.239	0.000	96	640422	2.00	2.18	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.277	0.000	97	760472	2.02	1.95	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	234347	2.00	1.85	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.671	0.000	97	910007	2.02	1.99	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.724	0.000	95	546227	2.02	1.95	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.118	0.000	97	737141	2.02	1.95	
114 Dodecane	57	20.312	20.312	0.000	95	525642	2.00	2.02	
115 1,2,4-Trichlorobenzene	180	20.452	20.452	0.000	94	394703	2.00	1.89	
116 Naphthalene	128	20.582	20.582	0.000	99	874615	2.00	1.97	
117 Benzo(b)thiophene	134	20.684	20.684	0.000	99	447774	2.02	1.84	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	574290	2.00	1.79	
119 1,2,3-Trichlorobenzene	180	20.862	20.862	0.000	94	373690	2.00	1.83	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	332371	6.25	5.14	
121 1-Methylnaphthalene	142	21.838	21.838	0.000	100	343542	6.25	5.21	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1884898	2.00	2.11	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3146900	2.00	2.27	M
S 126 Xylenes, Total	100				0		6.00	6.29	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.44	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GCCVL16A.D

Injection Date: 16-Dec-2016 11:55:30

Instrument ID: MG

Operator ID: 7126

Lims ID: CCVIS

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

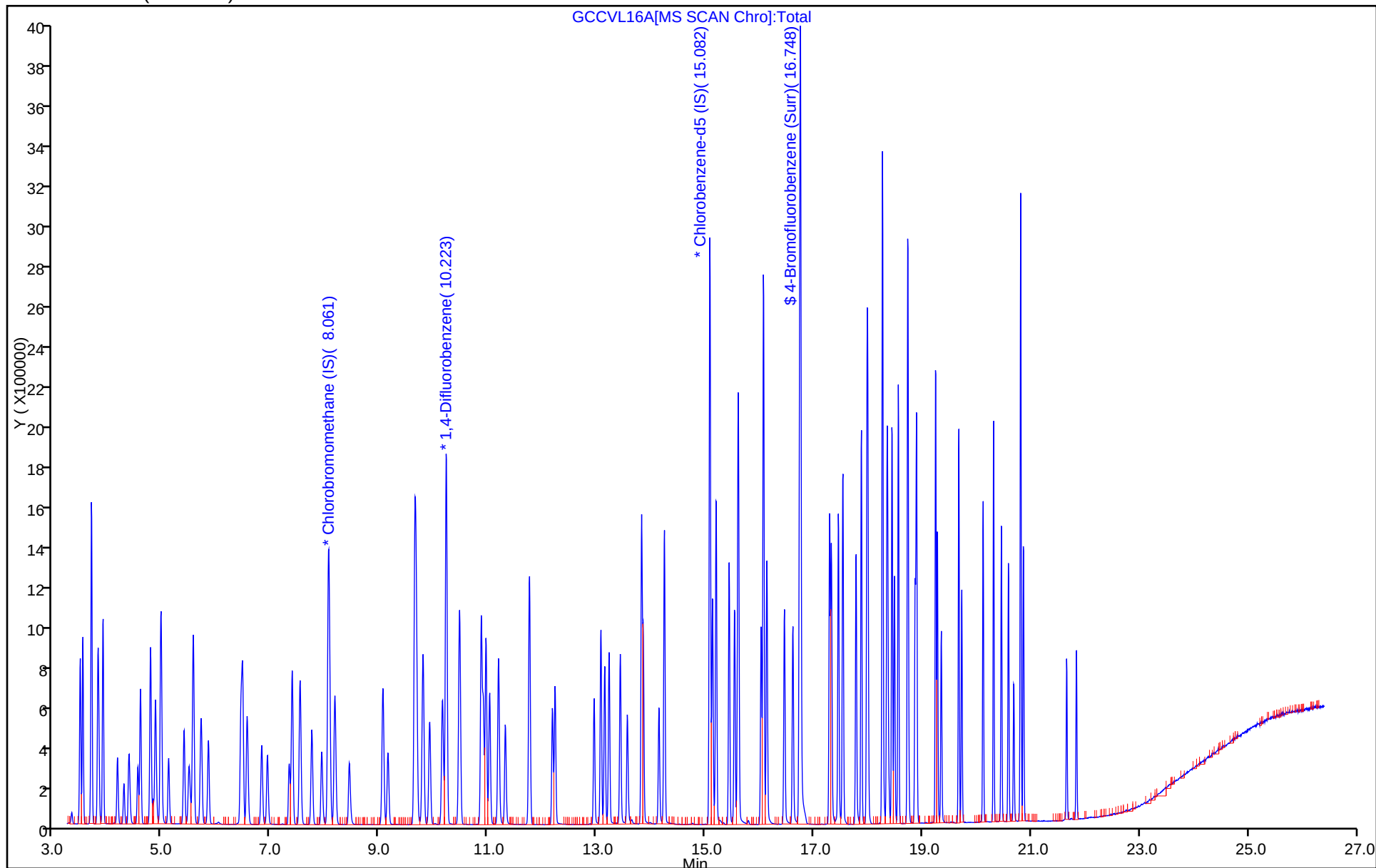
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7415/2 Calibration Date: 12/19/2016 10:19
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.4358		2.66	2.00	32.8*	30.0
Propene	Ave	1.094	1.382		2.53	2.00	26.3	30.0
Dichlorodifluoromethane	Ave	3.423	4.428		2.59	2.00	29.3	30.0
Chloromethane	Ave	0.3677	0.4421		2.41	2.00	20.2	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.638		2.33	2.00	16.3	30.0
Acetaldehyde	Ave	0.4060	0.5072		12.6	10.1	24.9	30.0
Vinyl chloride	Ave	1.207	1.477		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	0.9739	1.169		2.40	2.00	20.1	30.0
Butane	Ave	1.902	2.478		2.61	2.00	30.3*	30.0
Bromomethane	Ave	1.152	1.238		2.15	2.00	7.5	30.0
Chloroethane	Ave	0.6412	0.7035		2.20	2.00	9.7	30.0
Ethanol	Ave	0.3997	0.4415		11.2	10.1	10.5	30.0
Vinyl bromide	Ave	1.088	1.168		2.15	2.00	7.4	30.0
2-Methylbutane	Ave	1.389	1.631		2.35	2.00	17.4	30.0
Acrolein	Ave	0.3114	0.3275		2.10	2.00	5.2	30.0
Trichlorofluoromethane	Ave	3.318	3.973		2.40	2.00	19.8	30.0
Acetonitrile	Ave	0.3691	0.4868		2.64	2.00	31.9*	30.0
Acetone	Ave	0.4215	0.4670		6.65	6.00	10.8	30.0
Isopropyl alcohol	Ave	1.426	1.620		6.82	6.00	13.6	30.0
Pentane	Ave	0.2036	0.2175		2.14	2.00	6.8	30.0
Ethyl ether	Ave	0.8402	1.163		2.77	2.00	38.4*	30.0
1,1-Dichloroethene	Ave	0.9780	1.061		2.17	2.00	8.5	30.0
Acrylonitrile	Ave	0.5284	0.6355		2.41	2.00	20.3	30.0
t-Butyl alcohol	Ave	1.499	1.746		2.33	2.00	16.5	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.356		2.25	2.00	12.3	30.0
Methylene Chloride	Ave	0.8508	0.8622		2.03	2.00	1.3	30.0
3-Chloropropene	Ave	0.8422	1.041		2.47	2.00	23.6	30.0
Carbon disulfide	Ave	3.196	3.263		2.04	2.00	2.1	30.0
trans-1,2-Dichloroethene	Ave	1.149	1.248		2.17	2.00	8.6	30.0
2-Methylpentane	Ave	2.476	3.190		2.60	2.02	28.8	30.0
Methyl tert-butyl ether	Ave	2.730	3.456		2.53	2.00	26.6	30.0
1,1-Dichloroethane	Ave	2.159	2.630		2.44	2.00	21.8	30.0
Vinyl acetate	Ave	2.684	3.865		2.88	2.00	44.0*	30.0
2-Butanone	Ave	0.4737	0.5263		2.22	2.00	11.1	30.0
Hexane	Ave	0.9508	1.147		2.41	2.00	20.6	30.0
Isopropyl ether	Ave	3.411	4.808		2.82	2.00	40.9*	30.0
cis-1,2-Dichloroethene	Ave	1.166	1.322		2.27	2.00	13.3	30.0
Ethyl acetate	Ave	2.116	2.961		2.80	2.00	40.0*	30.0
Chloroform	Ave	2.509	3.001		2.39	2.00	19.6	30.0
Tert-butyl ethyl ether	Ave	2.966	3.975		2.68	2.00	34.0*	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7415/2 Calibration Date: 12/19/2016 10:19
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.536		2.81	2.00	40.6*	30.0
1,1,1-Trichloroethane	Ave	2.737	3.353		2.45	2.00	22.5	30.0
1,2-Dichloroethane	Ave	0.3729	0.4329		2.32	2.00	16.1	30.0
1-Butanol	Ave	0.0875	0.0933		2.13	2.00	6.7	30.0
Benzene	Ave	0.7195	0.7464		2.08	2.00	3.7	30.0
Cyclohexane	Ave	0.1326	0.1327		2.00	2.00	0.0	30.0
Carbon tetrachloride	Ave	0.6424	0.7107		2.21	2.00	10.6	30.0
2,3-Dimethylpentane	Ave	0.1859	0.1880		2.04	2.02	1.1	30.0
Thiophene	Ave	0.4306	0.4318		2.03	2.02	0.3	30.0
Tert-amyl methyl ether	Ave	0.6436	0.7163		2.23	2.00	11.3	30.0
2,2,4-Trimethylpentane	Ave	1.305	1.415		2.17	2.00	8.5	30.0
Heptane	Ave	0.2889	0.2949		2.04	2.00	2.1	30.0
1,2-Dichloropropane	Ave	0.2726	0.3022		2.22	2.00	10.9	30.0
Trichloroethene	Ave	0.4186	0.3772		1.80	2.00	-9.9	30.0
Dibromomethane	Ave	0.3316	0.3374		2.04	2.00	1.7	30.0
Bromodichloromethane	Ave	0.5762	0.6332		2.20	2.00	9.9	30.0
1,4-Dioxane	Ave	0.0965	0.0894		1.85	2.00	-7.4	30.0
Methyl methacrylate	Ave	0.2946	0.3610		2.45	2.00	22.5	30.0
Methylcyclohexane	Ave	0.5953	0.5880		1.99	2.02	-1.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.5585		2.28	2.00	14.1	30.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4798		2.23	2.00	11.4	30.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4404		2.28	2.00	14.1	30.0
Toluene	Ave	0.7999	0.8584		2.15	2.00	7.3	30.0
1,1,2-Trichloroethane	Ave	0.2359	0.2515		2.13	2.00	6.6	30.0
2-Methylthiophene	Ave	0.6747	0.6913		2.07	2.02	2.5	30.0
3-Methylthiophene	Ave	0.6573	0.6890		2.12	2.02	4.8	30.0
2-Hexanone	Ave	0.2348	0.2410		2.05	2.00	2.6	30.0
Octane	Ave	0.3146	0.3222		2.05	2.00	2.4	30.0
Dibromochloromethane	Ave	0.5428	0.5781		2.13	2.00	6.5	30.0
1,2-Dibromoethane	Ave	0.4640	0.4968		2.14	2.00	7.1	30.0
Tetrachloroethene	Ave	0.3510	0.3391		1.93	2.00	-3.4	30.0
Chlorobenzene	Ave	0.6640	0.6871		2.07	2.00	3.5	30.0
2,3-Dimethylheptane	Ave	0.7928	0.9501		2.42	2.02	19.8	30.0
Ethylbenzene	Ave	1.049	1.185		2.26	2.00	13.0	30.0
2-Ethylthiophene	Ave	0.7845	0.8813		2.27	2.02	12.3	30.0
m-Xylene & p-Xylene	Ave	0.8084	0.9150		4.53	4.00	13.2	30.0
Bromoform	Ave	0.4996	0.5635		2.26	2.00	12.8	30.0
Nonane	Ave	0.5241	0.6122		2.34	2.00	16.8	30.0
Styrene	Ave	0.5743	0.6485		2.26	2.00	12.9	30.0
o-Xylene	Ave	0.8521	0.9524		2.24	2.00	11.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.6405		2.28	2.00	13.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7415/2 Calibration Date: 12/19/2016 10:19
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.2063		2.23	2.00	11.3	30.0
Isopropylbenzene	Ave	1.199	1.293		2.16	2.00	7.9	30.0
Propylbenzene	Ave	0.3264	0.3495		2.14	2.00	7.1	30.0
2-Chlorotoluene	Ave	0.3015	0.3176		2.11	2.00	5.3	30.0
4-Ethyltoluene	Ave	1.156	1.277		2.21	2.00	10.4	30.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.5854		2.11	2.00	5.3	30.0
Alpha Methyl Styrene	Ave	0.4587	0.5067		2.21	2.00	10.5	30.0
Decane	Ave	0.6186	0.7423		2.40	2.00	20.0	30.0
tert-Butylbenzene	Ave	1.078	1.163		2.16	2.00	7.9	30.0
1,2,4-Trimethylbenzene	Ave	0.9689	1.075		2.22	2.00	10.9	30.0
1,3-Dichlorobenzene	Ave	0.7000	0.7301		2.09	2.00	4.3	30.0
sec-Butylbenzene	Ave	1.402	1.534		2.19	2.00	9.5	30.0
Benzyl chloride	Ave	0.7737	0.9336		2.41	2.00	20.7	30.0
1,4-Dichlorobenzene	Ave	0.6842	0.7124		2.08	2.00	4.1	30.0
4-Isopropyltoluene	Ave	1.194	1.289		2.16	2.00	8.0	30.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.8186		2.22	2.02	9.9	30.0
Butylcyclohexane	Ave	0.7496	0.8176		2.20	2.02	9.1	30.0
1,2-Dichlorobenzene	Ave	0.6689	0.7001		2.09	2.00	4.7	30.0
Indane	Ave	0.9021	0.9668		2.16	2.02	7.2	30.0
Indene	Lin1		0.7106		1.90	2.02	-6.0	30.0
Butylbenzene	Ave	1.038	1.194		2.30	2.00	15.0	30.0
Undecane	Ave	0.6532	0.7788		2.39	2.00	19.2	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	0.9096		2.12	2.02	5.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2808		2.00	2.00	-0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	1.088		2.16	2.02	6.9	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.6636		2.15	2.02	6.7	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.8889		2.14	2.02	5.7	30.0
Dodecane	Ave	0.5779	0.6018		2.08	2.00	4.1	30.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.4930		2.12	2.00	6.0	30.0
Naphthalene	Ave	0.9864	1.083		2.20	2.00	9.8	30.0
Benzo (b) thiophene	Ave	0.5407	0.5450		2.04	2.02	0.8	30.0
Hexachlorobutadiene	Ave	0.7142	0.6910		1.94	2.00	-3.2	30.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.4601		2.03	2.00	1.4	30.0
2-Methylnaphthalene	Ave	0.1438	0.1336		5.81	6.25	-7.0	50.0
1-Methylnaphthalene	Ave	0.1465	0.1358		5.80	6.25	-7.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.7100		4.29	4.00	7.3	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GCCVL19.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 19-Dec-2016 10:19:30 ALS Bottle#: 15 Worklist Smp#: 2
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003721-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 15:29:54 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 15:29:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	342576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.229	0.000	96	1699783	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1743044	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	96	1237525	4.00	4.29	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	74684	2.00	2.66	
7 Propene	41	3.488	3.488	0.000	99	236829	2.00	2.53	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	758843	2.00	2.59	
9 Chloromethane	52	3.682	3.682	0.000	98	75763	2.00	2.41	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	92	452127	2.00	2.33	
11 Acetaldehyde	44	3.812	3.812	0.000	95	438645	10.1	12.6	
12 Vinyl chloride	62	3.828	3.828	0.000	99	253056	2.00	2.45	
13 Butadiene	54	3.903	3.903	0.000	87	200393	2.00	2.40	
14 Butane	43	3.903	3.903	0.000	93	424682	2.00	2.61	
15 Bromomethane	94	4.173	4.173	0.000	99	212168	2.00	2.15	
16 Chloroethane	64	4.292	4.292	0.000	96	120573	2.00	2.20	
17 Ethanol	31	4.383	4.383	0.000	98	381763	10.1	11.2	
18 Vinyl bromide	106	4.545	4.545	0.000	98	200219	2.00	2.15	
19 2-Methylbutane	43	4.594	4.594	0.000	92	279477	2.00	2.35	
21 Acrolein	56	4.777	4.777	0.000	97	56131	2.00	2.10	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	680913	2.00	2.40	
22 Acetonitrile	40	4.831	4.831	0.000	95	83426	2.00	2.64	
23 Acetone	58	4.874	4.874	0.000	99	240111	6.00	6.65	
25 Isopropyl alcohol	45	4.971	4.971	0.000	92	832950	6.00	6.82	
24 Pentane	72	4.976	4.976	0.000	95	37278	2.00	2.14	
26 Ethyl ether	31	5.111	5.111	0.000	94	199358	2.00	2.77	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	181765	2.00	2.17	
28 Acrylonitrile	53	5.478	5.478	0.000	94	108904	2.00	2.41	
29 2-Methyl-2-propanol	59	5.499	5.499	0.000	94	299312	2.00	2.33	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	97	403763	2.00	2.25	
31 Methylene Chloride	84	5.704	5.704	0.000	98	147770	2.00	2.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.721	5.721	0.000	97	178455	2.00	2.47	
33 Carbon disulfide	76	5.845	5.845	0.000	100	559184	2.00	2.04	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	95	213927	2.00	2.17	
35 2-Methylpentane	43	6.475	6.475	0.000	96	551706	2.02	2.60	
36 Methyl tert-butyl ether	73	6.562	6.562	0.000	97	592346	2.00	2.53	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	450686	2.00	2.44	
38 Vinyl acetate	43	6.934	6.934	0.000	100	662312	2.00	2.88	
39 2-Butanone (MEK)	72	7.333	7.333	0.000	98	90190	2.00	2.22	
40 Hexane	56	7.387	7.387	0.000	90	196566	2.00	2.41	
41 Isopropyl ether	45	7.532	7.532	0.000	97	824130	2.00	2.82	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	226504	2.00	2.27	
43 Ethyl acetate	43	7.931	7.931	0.000	98	507538	2.00	2.80	
44 Chloroform	83	8.077	8.077	0.000	98	514390	2.00	2.39	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	681332	2.00	2.68	
46 Tetrahydrofuran	42	8.444	8.444	0.000	94	263179	2.00	2.81	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	95	574663	2.00	2.45	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	368112	2.00	2.32	
51 n-Butanol	31	9.646	9.646	0.000	68	79328	2.00	2.13	
49 Benzene	78	9.646	9.646	0.000	98	634699	2.00	2.08	
50 Cyclohexane	69	9.652	9.652	0.000	92	112801	2.00	2.00	
52 Carbon tetrachloride	117	9.679	9.679	0.000	98	604378	2.00	2.21	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	161308	2.02	2.04	
54 Thiophene	84	9.921	9.921	0.000	97	370572	2.02	2.03	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	609133	2.00	2.23	
56 Isooctane	57	10.471	10.471	0.000	97	1203425	2.00	2.17	
57 n-Heptane	71	10.870	10.870	0.000	94	250777	2.00	2.04	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	87	256955	2.00	2.22	
59 Trichloroethene	130	10.957	10.957	0.000	95	320765	2.00	1.80	
60 Dibromomethane	93	11.027	11.027	0.000	96	286898	2.00	2.04	
61 Dichlorobromomethane	83	11.188	11.188	0.000	99	538456	2.00	2.20	
62 1,4-Dioxane	88	11.205	11.205	0.000	95	75989	2.00	1.85	
63 Methyl methacrylate	41	11.312	11.312	0.000	94	306969	2.00	2.45	
64 Methylcyclohexane	83	11.760	11.760	0.000	93	504620	2.02	1.99	
65 4-Methyl-2-pentanone (MIBK)	43	12.181	12.181	0.000	97	474878	2.00	2.28	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	97	407982	2.00	2.23	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	97	384030	2.00	2.28	
68 Toluene	91	13.076	13.076	0.000	93	748517	2.00	2.15	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	98	219283	2.00	2.13	
70 2-Methylthiophene	97	13.227	13.227	0.000	98	608389	2.02	2.07	
71 3-Methylthiophene	97	13.432	13.432	0.000	100	606341	2.02	2.12	
72 2-Hexanone	58	13.561	13.561	0.000	91	210113	2.00	2.05	
73 n-Octane	85	13.825	13.825	0.000	95	280975	2.00	2.05	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	504069	2.00	2.13	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	433181	2.00	2.14	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	295647	2.00	1.93	
77 Chlorobenzene	112	15.130	15.130	0.000	91	599153	2.00	2.07	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	96	836105	2.02	2.42	
79 Ethylbenzene	91	15.438	15.438	0.000	99	1033548	2.00	2.26	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	775549	2.02	2.27	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1595663	4.00	4.53	
83 Bromoform	173	16.025	16.025	0.000	96	491391	2.00	2.26	
82 n-Nonane	57	16.069	16.069	0.000	93	533841	2.00	2.34	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.069	16.069	0.000	97	565467	2.00	2.26	
85 o-Xylene	91	16.133	16.133	0.000	98	830519	2.00	2.24	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	558509	2.00	2.28	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	96	179868	2.00	2.23	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1127293	2.00	2.16	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	304715	2.00	2.14	
90 2-Chlorotoluene	126	17.320	17.320	0.000	97	276898	2.00	2.11	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	1113398	2.00	2.21	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	510434	2.00	2.11	
93 Alpha Methyl Styrene	118	17.772	17.772	0.000	88	441825	2.00	2.21	
94 n-Decane	57	17.870	17.870	0.000	90	647251	2.00	2.40	
95 tert-Butylbenzene	119	17.977	17.977	0.000	91	1014151	2.00	2.16	
96 1,2,4-Trimethylbenzene	105	17.994	17.994	0.000	96	937039	2.00	2.22	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	66	636644	2.00	2.09	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1338008	2.00	2.19	
99 Benzyl chloride	91	18.339	18.339	0.000	98	814078	2.00	2.41	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	621184	2.00	2.08	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1123964	2.00	2.16	
102 1,2,3-Trimethylbenzene	105	18.479	18.479	0.000	98	720406	2.02	2.22	
103 Butylcyclohexane	83	18.554	18.554	0.000	91	719514	2.02	2.20	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	93	610517	2.00	2.09	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	850794	2.02	2.16	
106 Indene	116	18.862	18.862	0.000	93	625361	2.02	1.90	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	1041173	2.00	2.30	
108 Undecane	57	19.239	19.239	0.000	96	679070	2.00	2.39	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.272	19.272	0.000	97	800414	2.02	2.12	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	244879	2.00	2.00	
111 1,2,4,5-Tetramethylbenzene	119	19.665	19.665	0.000	97	957611	2.02	2.16	
112 1,2,3,5-Tetramethylbenzene	119	19.719	19.719	0.000	95	583926	2.02	2.15	
113 1,2,3,4-Tetramethylbenzene	119	20.113	20.113	0.000	97	782252	2.02	2.14	
114 Dodecane	57	20.307	20.307	0.000	94	524740	2.00	2.08	
115 1,2,4-Trichlorobenzene	180	20.453	20.453	0.000	94	429874	2.00	2.12	
116 Naphthalene	128	20.582	20.582	0.000	99	944111	2.00	2.20	
117 Benzo(b)thiophene	134	20.679	20.679	0.000	99	479622	2.02	2.04	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	602531	2.00	1.94	
119 1,2,3-Trichlorobenzene	180	20.857	20.857	0.000	94	401179	2.00	2.03	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	364215	6.25	5.81	
121 1-Methylnaphthalene	142	21.833	21.833	0.000	100	370188	6.25	5.80	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1918708	2.00	2.22	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3549526	2.00	2.65	M
S 126 Xylenes, Total	100				0		6.00	6.77	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.44	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GCCVL19.D

Injection Date: 19-Dec-2016 10:19:30

Instrument ID: MG

Operator ID: 7126

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 500.000 mL

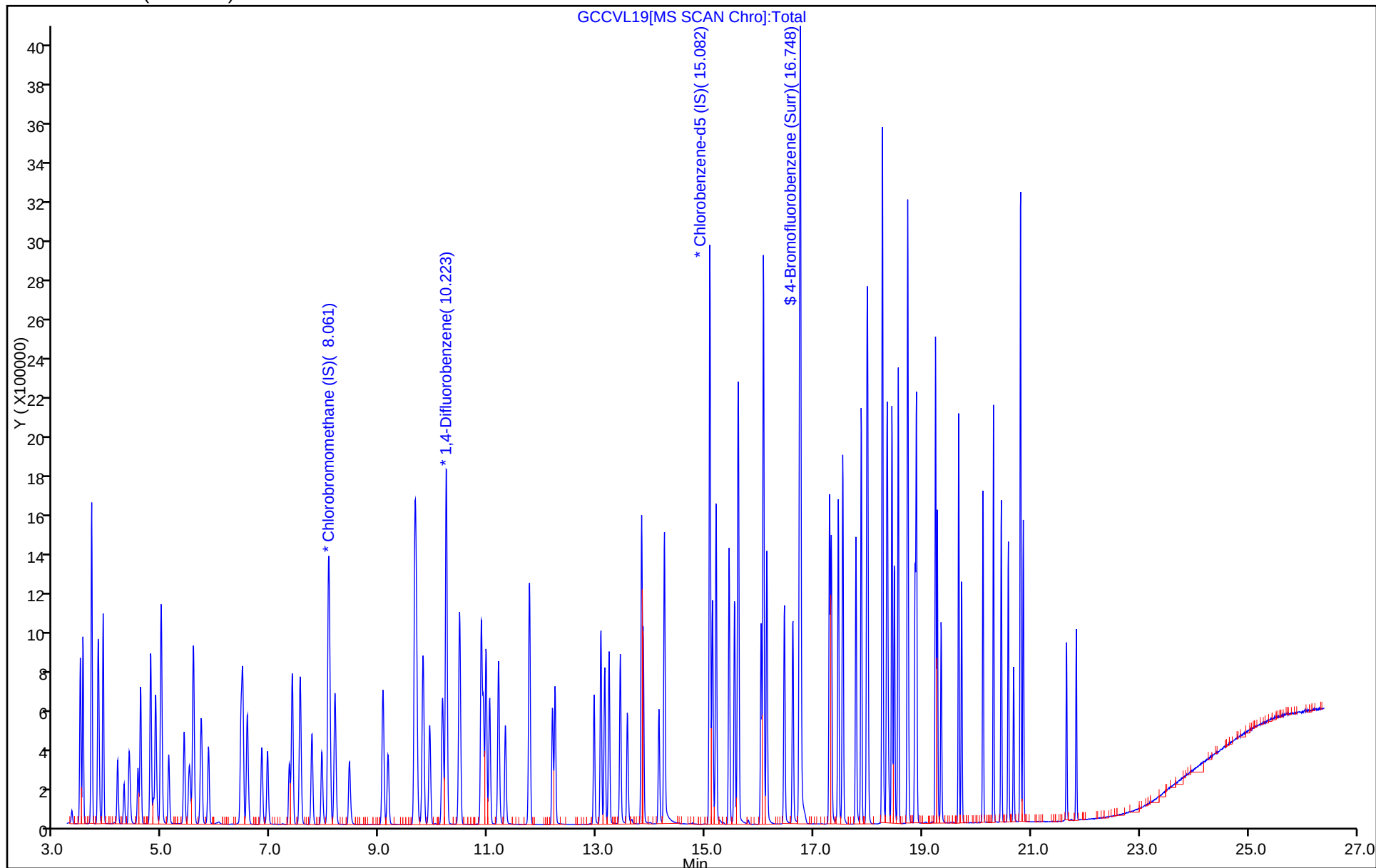
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 08-Dec-2016 19:26:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003696-001
Misc. Info.: BFB
Operator ID: 403648 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Dec-2016 15:01:18 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 15:01:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB 95 4.755 4.755 0.000 0 657457 NR NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D

Injection Date: 08-Dec-2016 19:26:30

Instrument ID: MG

Lims ID: BFB

Client ID:

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 1

Injection Vol: 500.0 mL

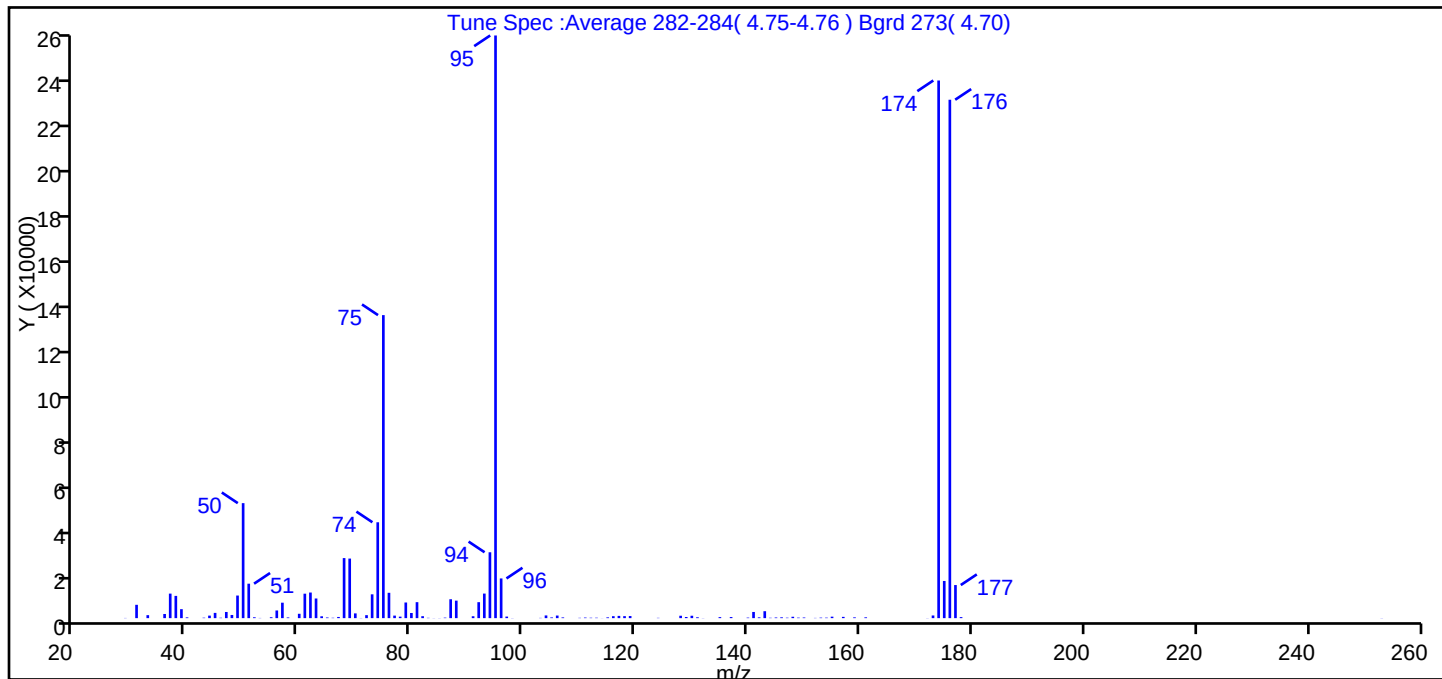
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.7
75	30 to 60% of m/z 95	52.0
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	92.3
175	5 to 9% of m/z 174	6.4 (6.9)
176	Greater than 95% but less than 101% of m/z 174	89.0 (96.4)
177	5 to 9% of m/z 176	5.7 (6.4)

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D\MG_TO15.rslt\spectra.d
Injection Date: 08-Dec-2016 19:26:30
Spectrum: Tune Spec :Average 282-284(4.75-4.76) Bgrd 273(4.70)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	83	65.00	282	95.00	251840	141.00	2671
31.00	5761	66.00	160	96.00	17160	142.00	334
33.00	1289	67.00	511	97.00	675	143.00	2997
36.00	1796	68.00	25960	98.00	57	144.00	155
37.00	10602	69.00	25744	103.00	107	145.00	281
38.00	9616	70.00	2052	104.00	1170	146.00	353
39.00	3881	71.00	65	105.00	312	147.00	197
40.00	333	72.00	1291	106.00	1120	148.00	598
43.00	193	73.00	10294	107.00	315	149.00	219
44.00	1093	74.00	41440	110.00	136	150.00	274
45.00	2271	75.00	130976	111.00	247	152.00	103
46.00	169	76.00	10957	112.00	177	153.00	221
47.00	2665	77.00	1097	113.00	185	154.00	216
48.00	1366	78.00	647	114.00	35	155.00	638
49.00	9770	79.00	6762	115.00	334	157.00	549
50.00	49704	80.00	2228	116.00	842	159.00	334
51.00	14891	81.00	6906	117.00	972	161.00	350
52.00	372	82.00	844	118.00	863	172.00	54
53.00	86	83.00	133	119.00	908	173.00	1154
55.00	388	84.00	48	124.00	128	174.00	232384
56.00	3315	85.00	53	128.00	1035	175.00	16065
57.00	6681	86.00	218	129.00	493	176.00	224064
58.00	304	87.00	8165	130.00	1038	177.00	14304
60.00	1885	88.00	7564	131.00	370	178.00	441
61.00	10569	91.00	815	132.00	55	253.00	57
62.00	11068	92.00	6899	135.00	438		
63.00	8492	93.00	10617	137.00	467		
64.00	798	94.00	28472	140.00	229		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D

Injection Date: 08-Dec-2016 19:26:30

Instrument ID: MG

Operator ID: 403648

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

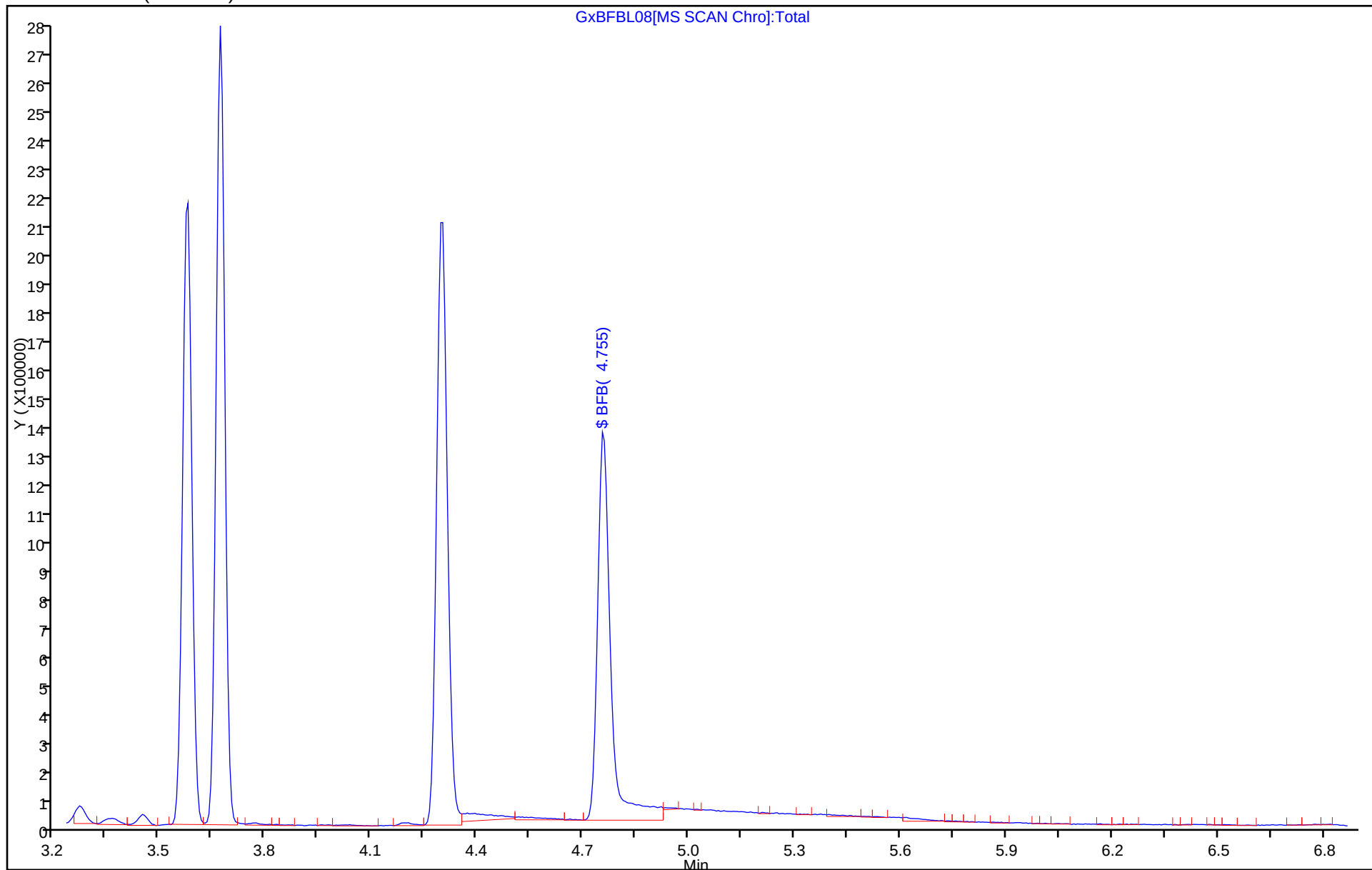
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GBFBL16A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Dec-2016 11:23:30 ALS Bottle#: 16 Worklist Smp#: 5
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-001
Misc. Info.: BFB
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Dec-2016 15:47:36 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK030

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
\$ 5 BFB	95	4.734	4.734	0.000	0	718774	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GBFBL16A.D

Injection Date: 16-Dec-2016 11:23:30

Instrument ID: MG

Lims ID: BFB

Client ID:

Operator ID: 7126

ALS Bottle#: 16

Worklist Smp#: 5

Injection Vol: 500.0 mL

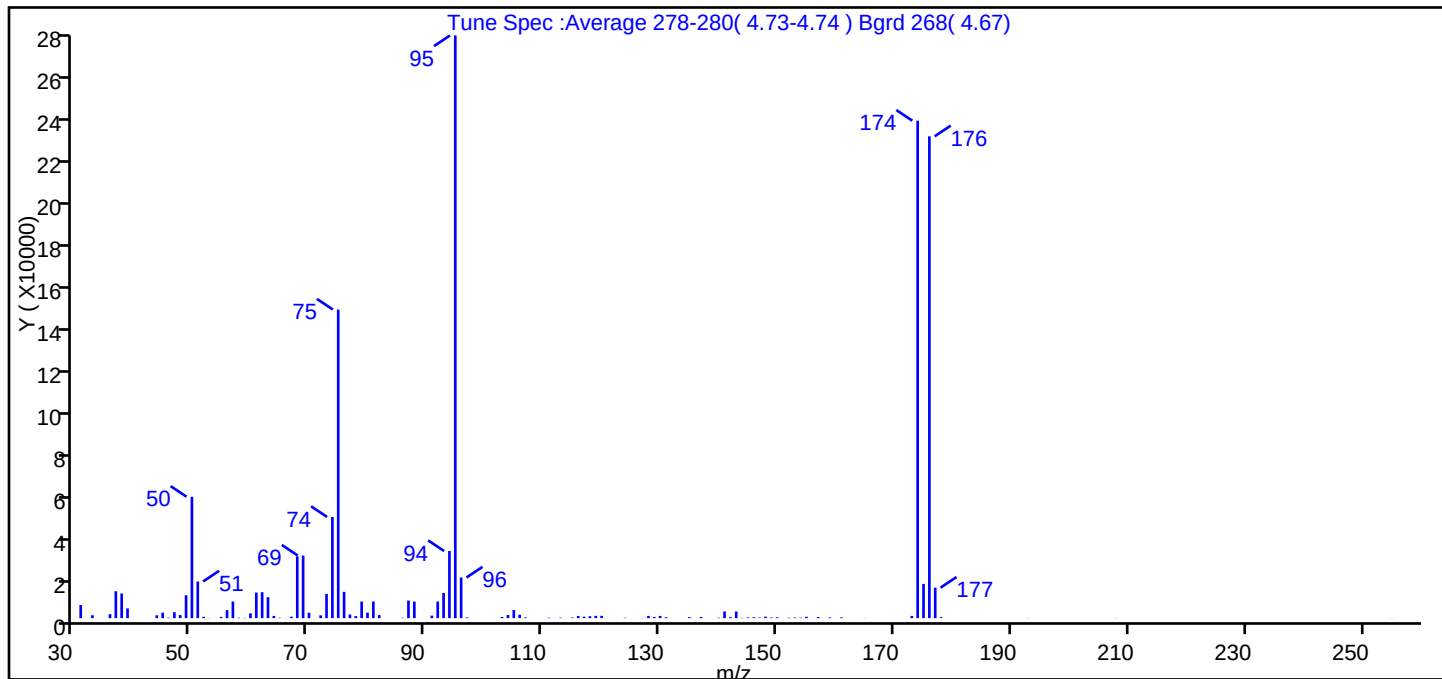
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.8
75	30 to 60% of m/z 95	53.0
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	85.4
175	5 to 9% of m/z 174	5.9 (6.9)
176	Greater than 95% but less than 101% of m/z 174	82.7 (96.9)
177	5 to 9% of m/z 176	5.2 (6.3)

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GBFBL16A.D\MG_TO15.rslt\spectra.d
Injection Date: 16-Dec-2016 11:23:30
Spectrum: Tune Spec :Average 278-280(4.73-4.74) Bgrd 268(4.67)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	22	64.00	1058	97.00	328	144.00	158
31.00	6257	65.00	184	103.00	544	145.00	331
33.00	1384	66.00	52	104.00	1505	146.00	430
36.00	1870	67.00	693	105.00	3860	147.00	262
37.00	12803	68.00	29384	106.00	1639	148.00	701
38.00	11703	69.00	29744	107.00	362	149.00	283
39.00	4634	70.00	2584	111.00	216	150.00	410
40.00	10	72.00	1322	113.00	231	152.00	203
44.00	1341	73.00	11506	115.00	311	153.00	306
45.00	2603	74.00	48104	116.00	1041	154.00	234
46.00	203	75.00	146688	117.00	693	155.00	655
47.00	2831	76.00	12494	118.00	913	156.00	21
48.00	1467	77.00	1736	119.00	1097	157.00	532
49.00	10895	78.00	983	120.00	1099	159.00	345
50.00	57704	79.00	7887	121.00	51	161.00	386
51.00	17424	80.00	2618	124.00	189	165.00	56
52.00	631	81.00	7880	127.00	108	173.00	1058
53.00	78	82.00	1462	128.00	1069	174.00	236480
55.00	588	86.00	175	129.00	569	175.00	16264
56.00	3803	87.00	8363	130.00	1063	176.00	229056
57.00	7912	88.00	7870	131.00	430	177.00	14490
58.00	204	91.00	1183	135.00	488	178.00	451
59.00	118	92.00	7902	137.00	575	193.00	54
60.00	2282	93.00	11978	140.00	210	208.00	58
61.00	12157	94.00	31904	141.00	3193	255.00	55
62.00	12328	95.00	276992	142.00	439		
63.00	9956	96.00	19312	143.00	3147		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GBFBL16A.D

Injection Date: 16-Dec-2016 11:23:30

Instrument ID: MG

Operator ID: 7126

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 500.0 mL

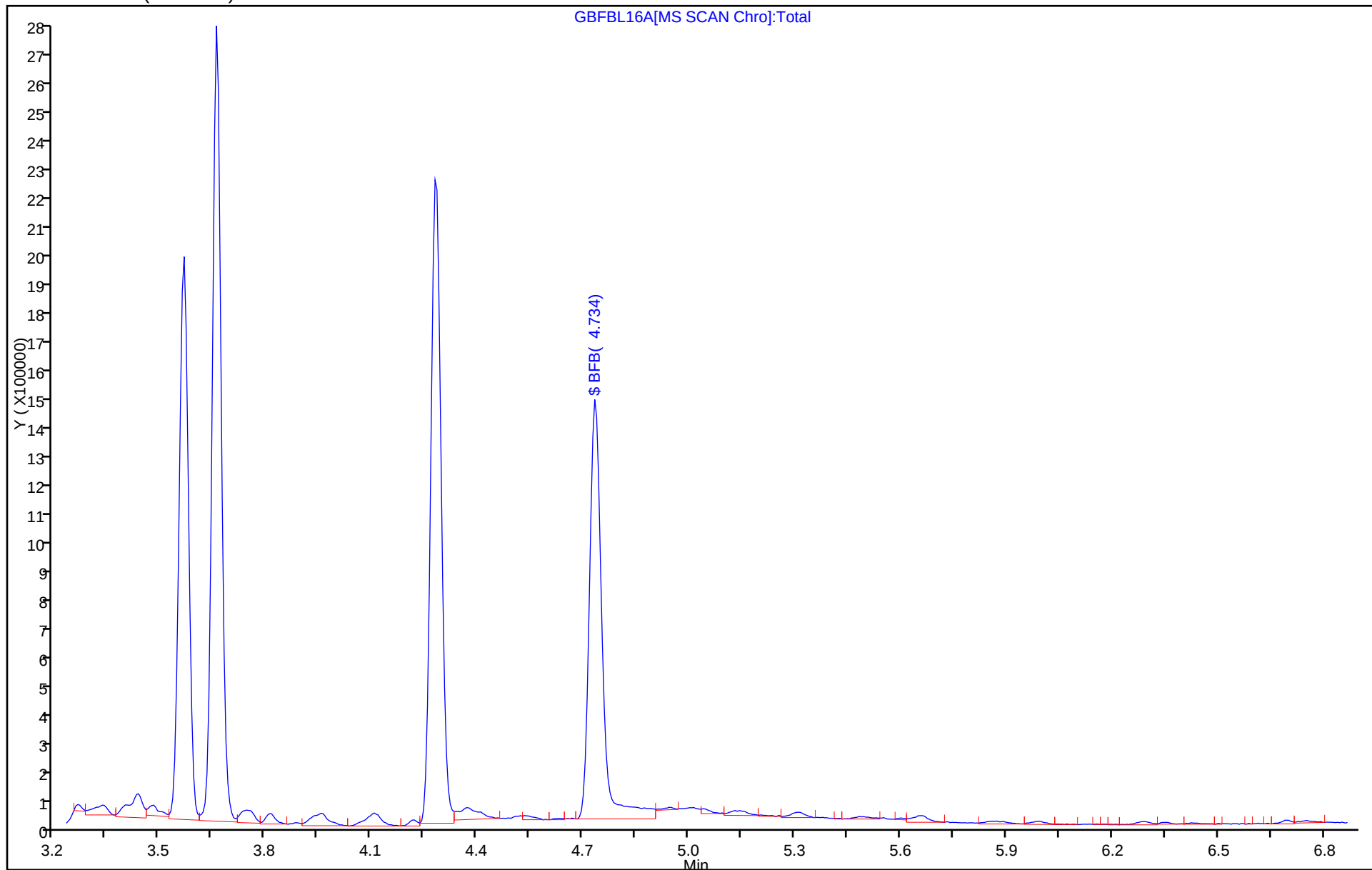
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GBFBL19.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Dec-2016 09:48:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003721-001
Misc. Info.: BFB
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 15:27:28 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 15:27:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB	95	4.744	4.744	0.000	0	818180	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GBFBL19.D

Injection Date: 19-Dec-2016 09:48:30

Instrument ID: MG

Lims ID: BFB

Client ID:

Operator ID: 7126

ALS Bottle#: 16

Worklist Smp#: 1

Injection Vol: 500.0 mL

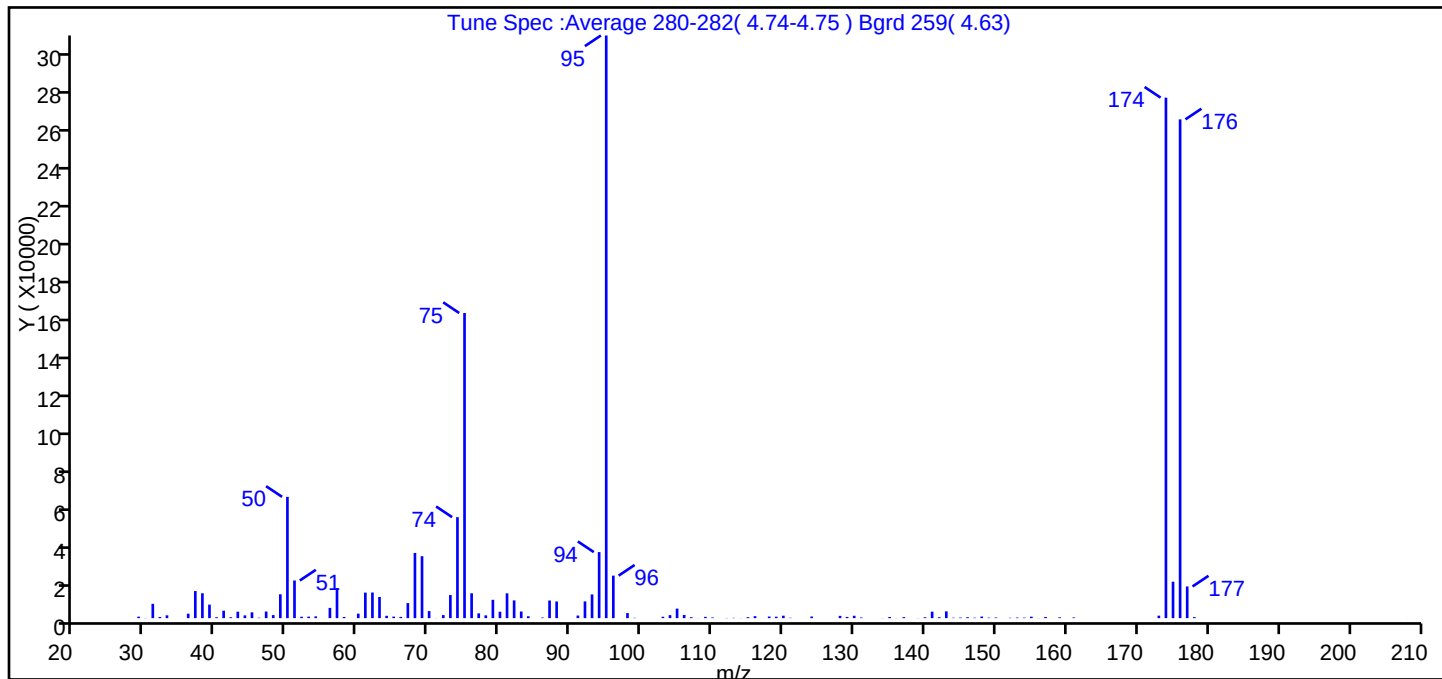
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.8
75	30 to 60% of m/z 95	52.4
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	89.3
175	5 to 9% of m/z 174	6.3 (7.0)
176	Greater than 95% but less than 101% of m/z 174	85.6 (95.8)
177	5 to 9% of m/z 176	5.4 (6.3)

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GBFBL19.D\MG_TO15.rslt\spectra.d
Injection Date: 19-Dec-2016 09:48:30
Spectrum: Tune Spec :Average 280-282(4.74-4.75) Bgrd 259(4.63)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 117

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	774	63.00	11029	95.00	304064	139.00	57
30.00	81	64.00	1215	96.00	22184	140.00	458
31.00	7467	65.00	805	98.00	2646	141.00	3375
32.00	611	66.00	645	99.00	177	142.00	471
33.00	1472	67.00	7858	103.00	729	143.00	3543
36.00	2326	68.00	34024	104.00	1569	144.00	215
37.00	14141	69.00	32336	105.00	4981	145.00	309
38.00	12985	70.00	3679	106.00	1664	146.00	472
39.00	7063	71.00	50	107.00	479	147.00	234
40.00	486	72.00	1603	108.00	50	148.00	833
41.00	3871	73.00	12052	109.00	672	149.00	250
42.00	477	74.00	52704	110.00	347	150.00	334
43.00	3362	75.00	159232	112.00	103	152.00	198
44.00	1438	76.00	12968	113.00	175	153.00	314
45.00	3033	77.00	2493	114.00	53	154.00	262
46.00	224	78.00	1455	115.00	511	155.00	760
47.00	3460	79.00	9563	116.00	1036	156.00	50
48.00	1595	80.00	3337	118.00	832	157.00	607
49.00	12446	81.00	12950	119.00	754	159.00	430
50.00	63296	82.00	9267	120.00	1278	161.00	367
51.00	19648	83.00	3464	121.00	187	173.00	1304
52.00	741	84.00	975	124.00	858	174.00	271616
53.00	788	86.00	306	128.00	1183	175.00	19016
54.00	923	87.00	9215	129.00	628	176.00	260288
56.00	5344	88.00	8696	130.00	1247	177.00	16528
57.00	15627	89.00	2	131.00	331	178.00	533
58.00	607	91.00	1352	134.00	57	208.00	18
60.00	2334	92.00	8738	135.00	609		
61.00	13316	93.00	12383	136.00	55		
62.00	13376	94.00	34464	137.00	541		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GBFBL19.D

Injection Date: 19-Dec-2016 09:48:30

Instrument ID: MG

Operator ID: 7126

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

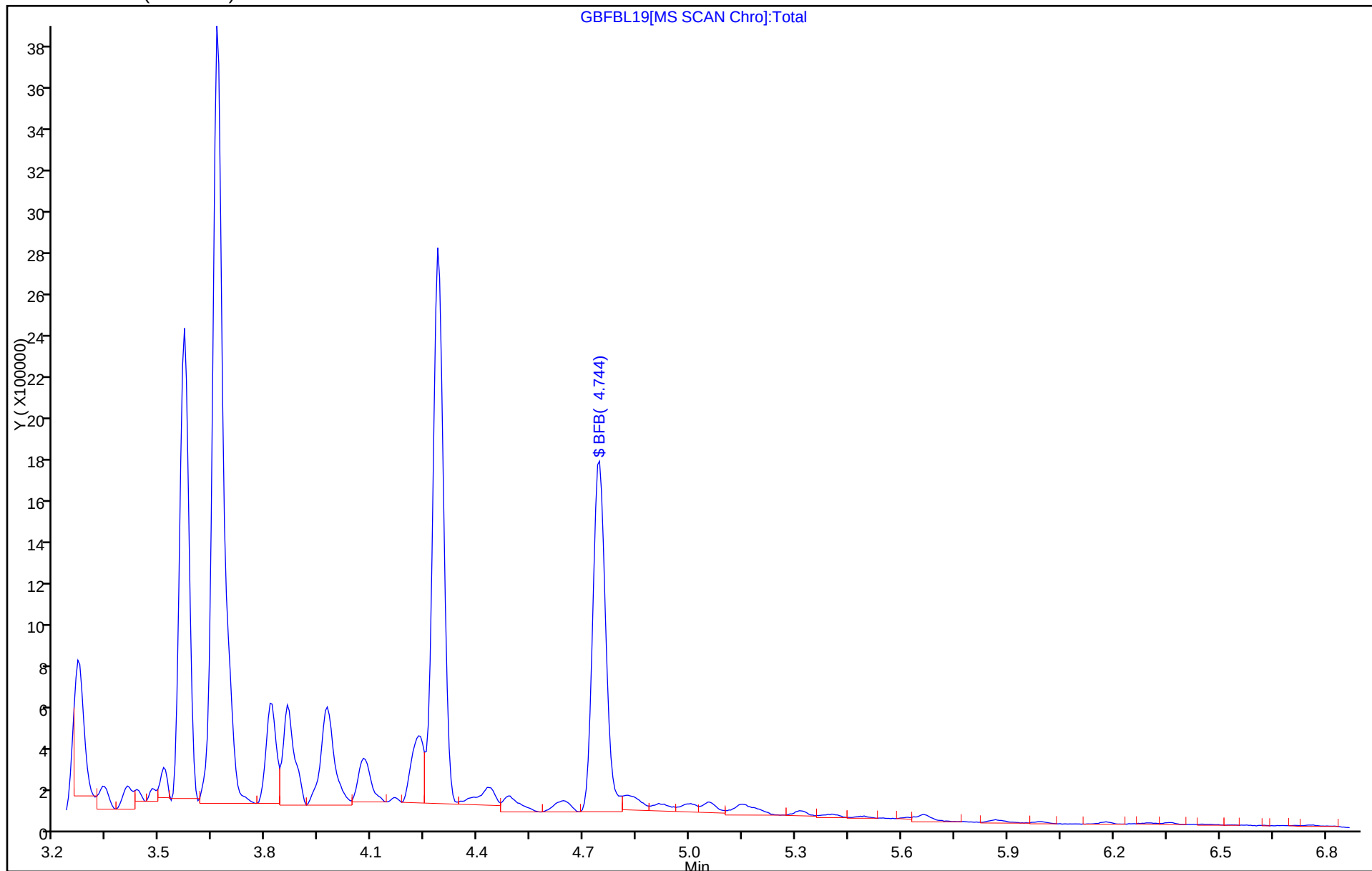
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7414/21
 Matrix: Air Lab File ID: GMB500L16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 00:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	ND		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	ND		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7414/21
 Matrix: Air Lab File ID: GMB500L16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 00:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	ND		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.080	
95-47-6	o-Xylene	106.17	ND		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	ND		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7414/21
 Matrix: Air Lab File ID: GMB500L16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 00:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	ND		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	ND		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7414/21
 Matrix: Air Lab File ID: GMB500L16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/17/2016 00:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	ND		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	ND		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.35	
95-47-6	o-Xylene	106.17	ND		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	ND		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	ND		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GMB500L16.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 17-Dec-2016 00:15:30 ALS Bottle#: 16 Worklist Smp#: 21
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-021
 Misc. Info.: 500ML BLK
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:51:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	97	366953	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.223	0.000	95	1712091	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1748257	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1137715	4.00	3.93	
25 Isopropyl alcohol	45	4.998	4.966	0.032	96	5991		0.0458	
31 Methylene Chloride	84	5.699	5.704	-0.005	94	5768		0.0739	
65 4-Methyl-2-pentanone (MIBK	43	12.213	12.181	0.033	98	12590		0.0601	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GMB500L16.D

Injection Date: 17-Dec-2016 00:15:30

Instrument ID: MG

Operator ID: 7126

Lims ID: mb

Worklist Smp#: 21

Client ID:

Purge Vol: 500.000 mL

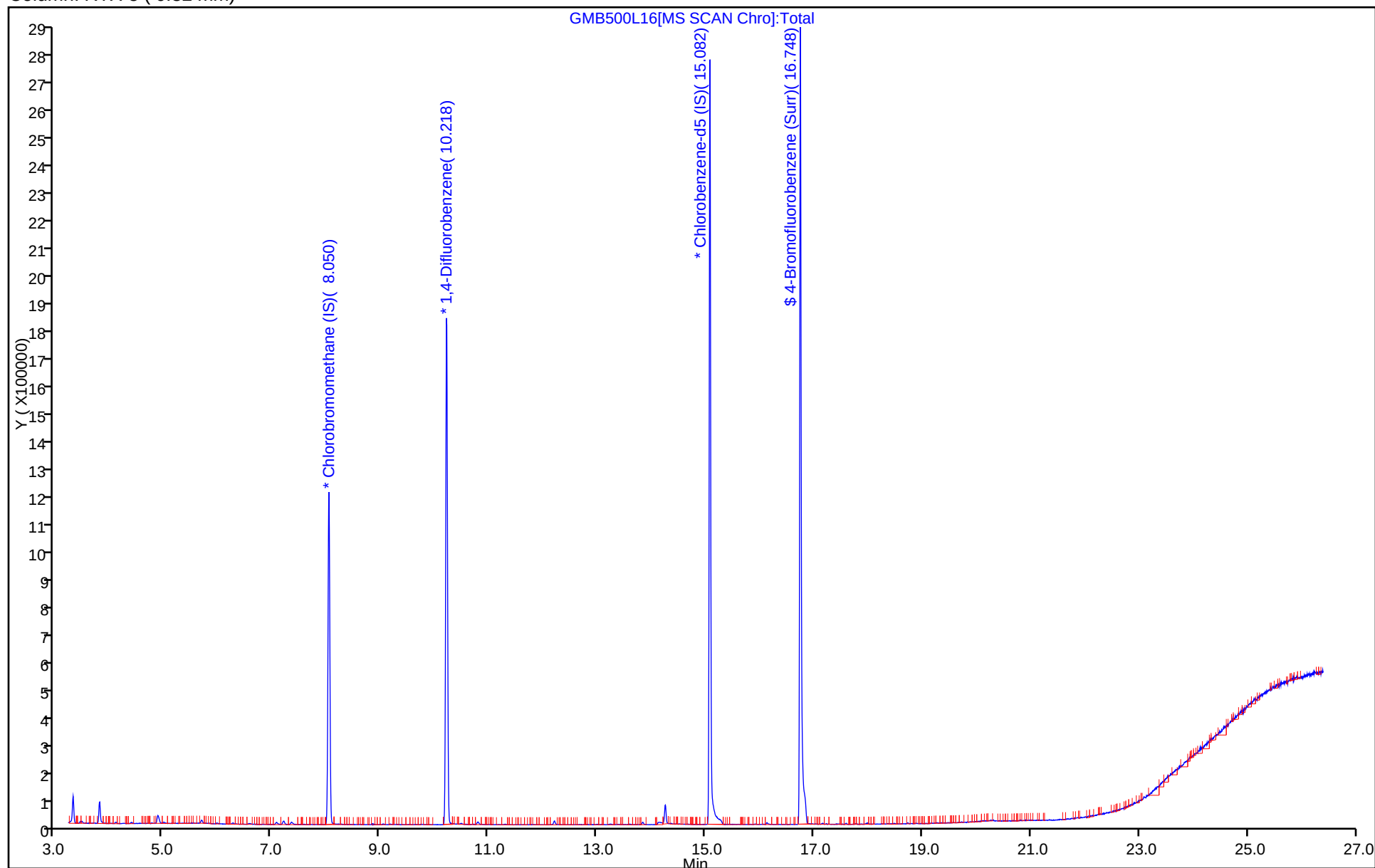
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GMB500L16.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 17-Dec-2016 00:15:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-021
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 10:05:41 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 09:51:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.93	98.37

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7415/4
 Matrix: Air Lab File ID: GMB500L19.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 12:46
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	ND		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	ND		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7415/4
 Matrix: Air Lab File ID: GMB500L19.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 12:46
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	ND		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.080	
95-47-6	o-Xylene	106.17	ND		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	ND		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7415/4
 Matrix: Air Lab File ID: GMB500L19.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 12:46
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	ND		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	ND		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7415/4
 Matrix: Air Lab File ID: GMB500L19.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 12:46
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	ND		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	ND		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.35	
95-47-6	o-Xylene	106.17	ND		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	ND		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	ND		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GMB500L19.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 19-Dec-2016 12:46:30 ALS Bottle#: 16 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003721-004
 Misc. Info.: 500ML BLK
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 15:29:54 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 13:26:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	98	333718	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.229	-0.011	96	1516833	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1534759	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	92	1064470	4.00	4.19	
31 Methylene Chloride	84	5.699	5.704	-0.005	98	5254		0.0740	
65 4-Methyl-2-pentanone (MIBK	43	12.208	12.181	0.027	99	13198		0.0711	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GMB500L19.D

Injection Date: 19-Dec-2016 12:46:30

Instrument ID: MG

Operator ID: 7126

Lims ID: mb

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

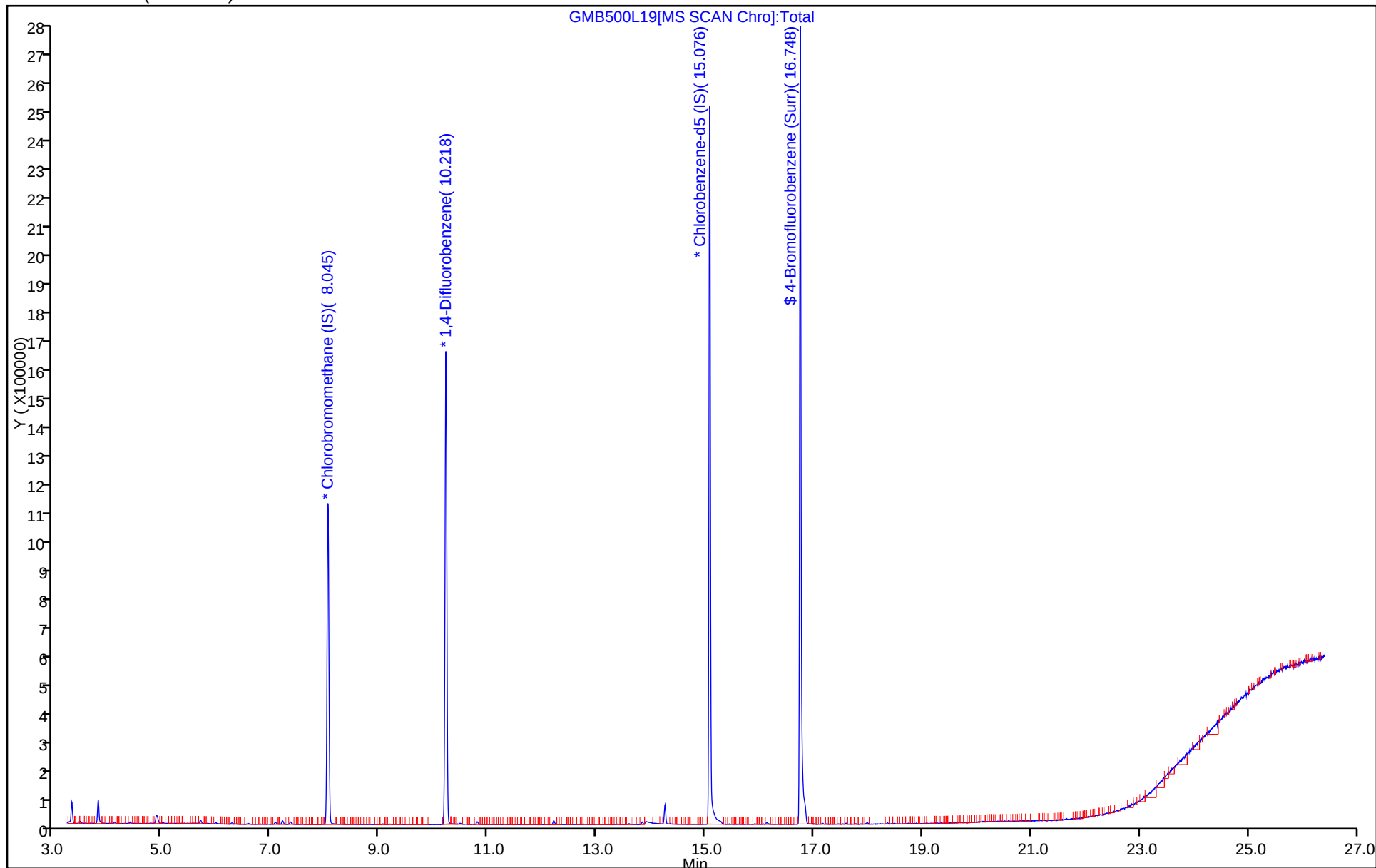
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GMB500L19.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-Dec-2016 12:46:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003721-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 15:29:54 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 13:26:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.84

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7414/1006
 Matrix: Air Lab File ID: GCCVL16A-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/16/2016 11:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	2.35		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.13		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	2.09		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	2.27		0.080	
75-34-3	1,1-Dichloroethane	98.96	2.39		0.080	
75-35-4	1,1-Dichloroethene	96.94	2.20		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	1.89		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.06		0.080	
106-93-4	1,2-Dibromoethane	187.87	2.11		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	1.93		0.080	
107-06-2	1,2-Dichloroethane	98.96	2.25		0.080	
78-87-5	1,2-Dichloropropane	112.99	2.16		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.26		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.97		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	1.95		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	1.97		0.080	
123-91-1	1,4-Dioxane	88.11	1.77		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	2.10		0.20	
78-93-3	2-Butanone	72.11	2.19		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.14		0.20	
71-43-2	Benzene	78.11	2.08		0.080	
100-44-7	Benzyl chloride	126.58	2.21		0.16	
75-27-4	Bromodichloromethane	163.83	2.15		0.080	
75-25-2	Bromoform	252.75	2.17		0.080	
74-83-9	Bromomethane	94.94	2.15		0.080	
56-23-5	Carbon tetrachloride	153.81	2.14		0.040	
108-90-7	Chlorobenzene	112.56	2.04		0.080	
75-00-3	Chloroethane	64.52	2.16		0.080	
67-66-3	Chloroform	119.38	2.33		0.080	
74-87-3	Chloromethane	50.49	2.31		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	2.24		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.17		0.080	
110-82-7	Cyclohexane	84.16	1.96		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7414/1006
 Matrix: Air Lab File ID: GCCVL16A-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/16/2016 11:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7414 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	2.10		0.080	
75-71-8	Dichlorodifluoromethane	120.91	2.49		0.080	
64-17-5	Ethanol	46.07	10.1		2.0	
100-41-4	Ethylbenzene	106.17	2.09		0.080	
87-68-3	Hexachlorobutadiene	260.76	1.79		0.080	
110-54-3	Hexane	86.17	2.34		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	2.40		0.16	
75-09-2	Methylene Chloride	84.93	2.04		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	4.19		0.080	
95-47-6	o-Xylene	106.17	2.10		0.080	
100-42-5	Styrene	104.15	2.11		0.080	
75-65-0	t-Butyl alcohol	74.12	2.20		0.32	
127-18-4	Tetrachloroethene	165.83	1.92		0.080	
108-88-3	Toluene	92.14	2.07		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	2.21		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.18		0.080	
79-01-6	Trichloroethene	131.39	1.83		0.040	
75-69-4	Trichlorofluoromethane	137.37	2.38		0.080	
75-01-4	Vinyl chloride	62.50	2.37		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GCCVL16A-LCS.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Dec-2016 11:55:30 ALS Bottle#: 15 Worklist Smp#: 1006
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003720-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Dec-2016 15:47:39 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: tajh

Date: 16-Dec-2016 13:12:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	355344	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.223	0.000	96	1762300	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1799904	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	96	1264216	4.00	4.25	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	72537	2.00	2.49	
7 Propene	41	3.483	3.483	0.000	99	234059	2.00	2.41	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	756542	2.00	2.49	
9 Chloromethane	52	3.682	3.682	0.000	99	75575	2.00	2.31	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	92	454815	2.00	2.26	
11 Acetaldehyde	44	3.806	3.806	0.000	100	415484	10.1	11.5	
12 Vinyl chloride	62	3.828	3.828	0.000	99	253934	2.00	2.37	
13 Butadiene	54	3.898	3.898	0.000	88	201218	2.00	2.33	
14 Butane	43	3.903	3.903	0.000	93	412465	2.00	2.44	
15 Bromomethane	94	4.167	4.167	0.000	98	220058	2.00	2.15	
16 Chloroethane	64	4.286	4.286	0.000	96	122773	2.00	2.16	
17 Ethanol	31	4.383	4.383	0.000	97	360004	10.1	10.1	
18 Vinyl bromide	106	4.545	4.545	0.000	98	208709	2.00	2.16	
19 2-Methylbutane	43	4.593	4.593	0.000	91	273907	2.00	2.22	
21 Acrolein	56	4.777	4.777	0.000	97	55032	2.00	1.99	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	701758	2.00	2.38	
22 Acetonitrile	40	4.825	4.825	0.000	98	76908	2.00	2.35	
23 Acetone	58	4.868	4.868	0.000	99	233658	6.00	6.24	
25 Isopropyl alcohol	45	4.966	4.966	0.000	93	805619	6.00	6.36	
24 Pentane	72	4.971	4.971	0.000	96	38900	2.00	2.15	
26 Ethyl ether	31	5.111	5.111	0.000	96	183620	2.00	2.46	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	191387	2.00	2.20	
28 Acrylonitrile	53	5.478	5.478	0.000	94	105981	2.00	2.26	
29 2-Methyl-2-propanol	59	5.494	5.494	0.000	94	293537	2.00	2.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	96	422783	2.00	2.27	
31 Methylene Chloride	84	5.704	5.704	0.000	97	154413	2.00	2.04	
32 3-Chloro-1-propene	39	5.715	5.715	0.000	98	169372	2.00	2.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	5.844	5.844	0.000	100	604379	2.00	2.13	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	96	225346	2.00	2.21	
35 2-Methylpentane	43	6.470	6.470	0.000	96	566637	2.02	2.58	
36 Methyl tert-butyl ether	73	6.556	6.556	0.000	97	581017	2.00	2.40	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	458932	2.00	2.39	
38 Vinyl acetate	43	6.934	6.934	0.000	100	621916	2.00	2.61	
39 2-Butanone (MEK)	72	7.333	7.333	0.000	97	91981	2.00	2.19	
40 Hexane	56	7.387	7.387	0.000	86	197511	2.00	2.34	
41 Isopropyl ether	45	7.532	7.532	0.000	97	794103	2.00	2.62	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	231812	2.00	2.24	
43 Ethyl acetate	43	7.931	7.931	0.000	98	496622	2.00	2.64	
44 Chloroform	83	8.077	8.077	0.000	98	518311	2.00	2.33	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	662656	2.00	2.51	
46 Tetrahydrofuran	42	8.438	8.438	0.000	94	248650	2.00	2.56	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	95	572193	2.00	2.35	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	370342	2.00	2.25	
51 n-Butanol	31	9.646	9.646	0.000	67	75432	2.00	1.96	
49 Benzene	78	9.646	9.646	0.000	98	658213	2.00	2.08	
50 Cyclohexane	69	9.651	9.651	0.000	93	114329	2.00	1.96	
52 Carbon tetrachloride	117	9.673	9.673	0.000	99	606251	2.00	2.14	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	164896	2.02	2.01	
54 Thiophene	84	9.921	9.921	0.000	97	385851	2.02	2.03	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	596461	2.00	2.10	
56 Isooctane	57	10.471	10.471	0.000	98	1208922	2.00	2.10	
57 n-Heptane	71	10.870	10.870	0.000	93	258719	2.00	2.03	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	88	258980	2.00	2.16	
59 Trichloroethene	130	10.956	10.956	0.000	95	337117	2.00	1.83	
60 Dibromomethane	93	11.027	11.027	0.000	96	291029	2.00	1.99	
61 Dichlorobromomethane	83	11.188	11.188	0.000	100	546350	2.00	2.15	
62 1,4-Dioxane	88	11.199	11.199	0.000	93	75305	2.00	1.77	
63 Methyl methacrylate	41	11.312	11.312	0.000	94	299127	2.00	2.30	
64 Methylcyclohexane	83	11.760	11.760	0.000	93	517036	2.02	1.97	
65 4-Methyl-2-pentanone (MIBK)	43	12.181	12.181	0.000	97	460945	2.00	2.14	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	96	412409	2.00	2.17	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	98	378094	2.00	2.18	
68 Toluene	91	13.076	13.076	0.000	93	745293	2.00	2.07	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	99	221875	2.00	2.09	
70 2-Methylthiophene	97	13.227	13.227	0.000	97	621956	2.02	2.05	
71 3-Methylthiophene	97	13.432	13.432	0.000	100	609332	2.02	2.06	
72 2-Hexanone	58	13.561	13.561	0.000	91	205184	2.00	1.94	
73 n-Octane	85	13.825	13.825	0.000	94	284730	2.00	2.01	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	513915	2.00	2.10	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	439598	2.00	2.11	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	303946	2.00	1.92	
77 Chlorobenzene	112	15.130	15.130	0.000	92	608381	2.00	2.04	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	97	825680	2.02	2.31	
79 Ethylbenzene	91	15.437	15.437	0.000	99	987309	2.00	2.09	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	749504	2.02	2.12	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1524758	4.00	4.19	
83 Bromoform	173	16.025	16.025	0.000	97	487937	2.00	2.17	
82 n-Nonane	57	16.068	16.068	0.000	95	523333	2.00	2.22	
84 Styrene	104	16.074	16.074	0.000	99	545755	2.00	2.11	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	16.133	16.133	0.000	98	803378	2.00	2.10	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	538088	2.00	2.13	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	97	171190	2.00	2.05	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1073949	2.00	1.99	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	289626	2.00	1.97	
90 2-Chlorotoluene	126	17.319	17.319	0.000	97	268451	2.00	1.98	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	1057973	2.00	2.03	
92 1,3,5-Trimethylbenzene	120	17.535	17.535	0.000	92	491971	2.00	1.97	
93 Alpha Methyl Styrene	118	17.778	17.778	0.000	88	421021	2.00	2.04	
94 n-Decane	57	17.875	17.875	0.000	91	614844	2.00	2.21	
95 tert-Butylbenzene	119	17.977	17.977	0.000	93	968724	2.00	2.00	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	96	897476	2.00	2.06	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	66	615385	2.00	1.95	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1281351	2.00	2.03	
99 Benzyl chloride	91	18.344	18.344	0.000	98	770830	2.00	2.21	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	94	606589	2.00	1.97	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1083886	2.00	2.02	
102 1,2,3-Trimethylbenzene	105	18.484	18.484	0.000	98	679898	2.02	2.03	
103 Butylcyclohexane	83	18.554	18.554	0.000	92	701641	2.02	2.08	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	94	580029	2.00	1.93	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	807784	2.02	1.99	
106 Indene	116	18.867	18.867	0.000	93	598570	2.02	1.76	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	997860	2.00	2.14	
108 Undecane	57	19.239	19.239	0.000	96	640422	2.00	2.18	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.277	0.000	97	760472	2.02	1.95	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	234347	2.00	1.85	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.671	0.000	97	910007	2.02	1.99	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.724	0.000	95	546227	2.02	1.95	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.118	0.000	97	737141	2.02	1.95	
114 Dodecane	57	20.312	20.312	0.000	95	525642	2.00	2.02	
115 1,2,4-Trichlorobenzene	180	20.452	20.452	0.000	94	394703	2.00	1.89	
116 Naphthalene	128	20.582	20.582	0.000	99	874615	2.00	1.97	
117 Benzo(b)thiophene	134	20.684	20.684	0.000	99	447774	2.02	1.84	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	574290	2.00	1.79	
119 1,2,3-Trichlorobenzene	180	20.862	20.862	0.000	94	373690	2.00	1.83	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	332371	6.25	5.14	
121 1-Methylnaphthalene	142	21.838	21.838	0.000	100	343542	6.25	5.21	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1884898	2.00	2.11	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3146900	2.00	2.27	M
S 126 Xylenes, Total	100				0		6.00	6.29	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.44	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Laboratories

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GCCVL16A-LCS.d

Injection Date: 16-Dec-2016 11:55:30

Instrument ID: MG

Operator ID: 7126

Lims ID: LCS

Worklist Smp#: 1006

Client ID:

Purge Vol: 500.000 mL

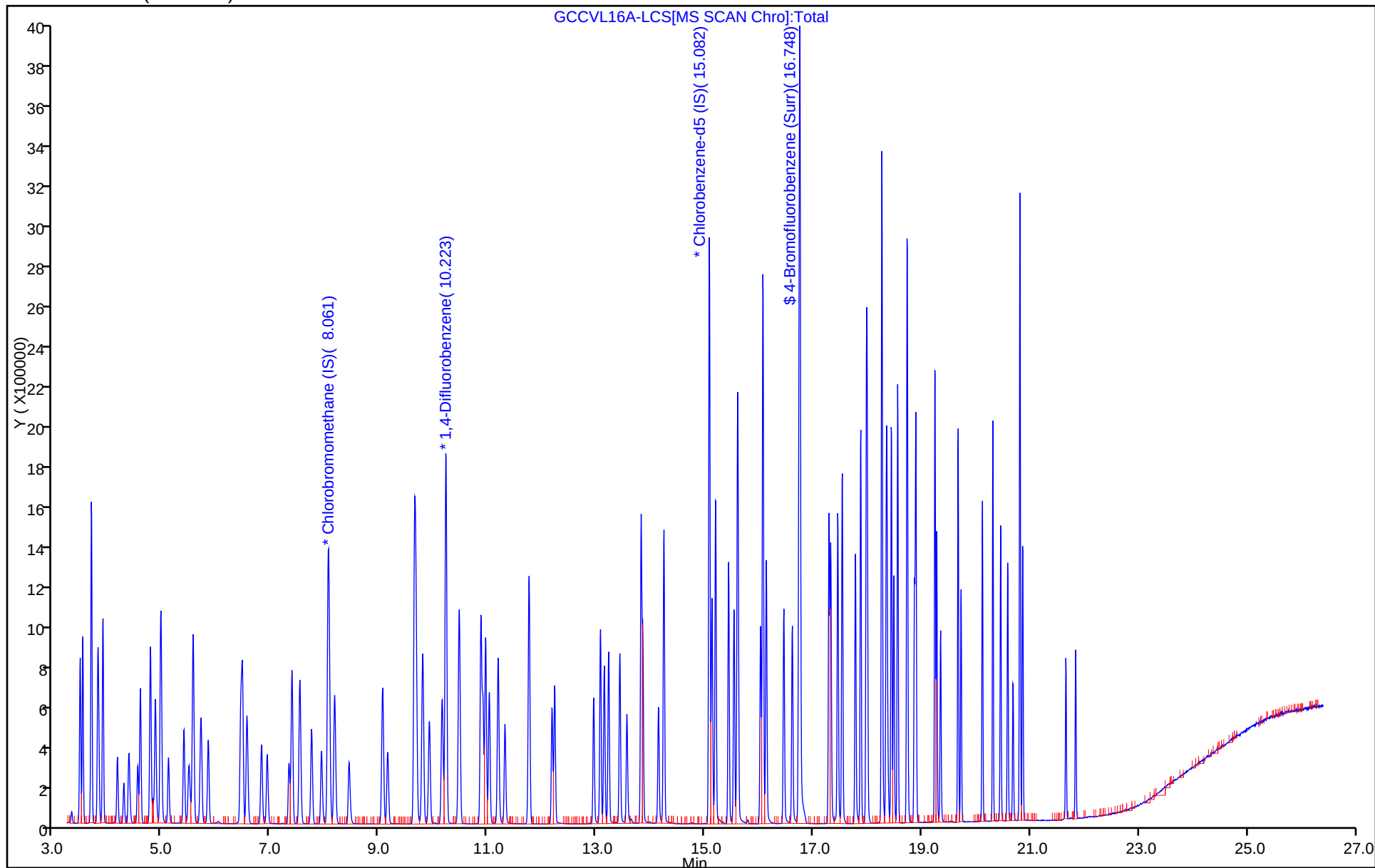
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\GCCVL16A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-Dec-2016 11:55:30 ALS Bottle#: 15 Worklist Smp#: 1006
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003720-002
Misc. Info.: P28
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3720.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Dec-2016 15:47:39 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: tajh

Date: 16-Dec-2016 13:12:37

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.25	106.18

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7415/1002
 Matrix: Air Lab File ID: GCCVL19-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 10:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	2.45		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.28		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	2.25		0.080	
75-34-3	1,1-Dichloroethane	98.96	2.44		0.080	
75-35-4	1,1-Dichloroethene	96.94	2.17		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	2.12		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.22		0.080	
106-93-4	1,2-Dibromoethane	187.87	2.14		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	2.09		0.080	
107-06-2	1,2-Dichloroethane	98.96	2.32		0.080	
78-87-5	1,2-Dichloropropane	112.99	2.22		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.33		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.11		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	2.09		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	2.08		0.080	
123-91-1	1,4-Dioxane	88.11	1.85		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	2.17		0.20	
78-93-3	2-Butanone	72.11	2.22		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.28		0.20	
71-43-2	Benzene	78.11	2.08		0.080	
100-44-7	Benzyl chloride	126.58	2.41		0.16	
75-27-4	Bromodichloromethane	163.83	2.20		0.080	
75-25-2	Bromoform	252.75	2.26		0.080	
74-83-9	Bromomethane	94.94	2.15		0.080	
56-23-5	Carbon tetrachloride	153.81	2.21		0.040	
108-90-7	Chlorobenzene	112.56	2.07		0.080	
75-00-3	Chloroethane	64.52	2.20		0.080	
67-66-3	Chloroform	119.38	2.39		0.080	
74-87-3	Chloromethane	50.49	2.41		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	2.27		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.23		0.080	
110-82-7	Cyclohexane	84.16	2.00		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7415/1002
 Matrix: Air Lab File ID: GCCVL19-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/19/2016 10:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7415 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	2.13		0.080	
75-71-8	Dichlorodifluoromethane	120.91	2.59		0.080	
64-17-5	Ethanol	46.07	11.2		2.0	
100-41-4	Ethylbenzene	106.17	2.26		0.080	
87-68-3	Hexachlorobutadiene	260.76	1.94		0.080	
110-54-3	Hexane	86.17	2.41		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	2.53		0.16	
75-09-2	Methylene Chloride	84.93	2.03		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	4.53		0.080	
95-47-6	o-Xylene	106.17	2.24		0.080	
100-42-5	Styrene	104.15	2.26		0.080	
75-65-0	t-Butyl alcohol	74.12	2.33		0.32	
127-18-4	Tetrachloroethene	165.83	1.93		0.080	
108-88-3	Toluene	92.14	2.15		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	2.17		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.28		0.080	
79-01-6	Trichloroethene	131.39	1.80		0.040	
75-69-4	Trichlorofluoromethane	137.37	2.40		0.080	
75-01-4	Vinyl chloride	62.50	2.45		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GCCVL19-LCS.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 19-Dec-2016 10:19:30 ALS Bottle#: 15 Worklist Smp#: 1002
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003721-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Dec-2016 15:29:54 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 15:29:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	342576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.229	0.000	96	1699783	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1743044	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	96	1237525	4.00	4.29	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	74684	2.00	2.66	
7 Propene	41	3.488	3.488	0.000	99	236829	2.00	2.53	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	758843	2.00	2.59	
9 Chloromethane	52	3.682	3.682	0.000	98	75763	2.00	2.41	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	92	452127	2.00	2.33	
11 Acetaldehyde	44	3.812	3.812	0.000	95	438645	10.1	12.6	
12 Vinyl chloride	62	3.828	3.828	0.000	99	253056	2.00	2.45	
13 Butadiene	54	3.903	3.903	0.000	87	200393	2.00	2.40	
14 Butane	43	3.903	3.903	0.000	93	424682	2.00	2.61	
15 Bromomethane	94	4.173	4.173	0.000	99	212168	2.00	2.15	
16 Chloroethane	64	4.292	4.292	0.000	96	120573	2.00	2.20	
17 Ethanol	31	4.383	4.383	0.000	98	381763	10.1	11.2	
18 Vinyl bromide	106	4.545	4.545	0.000	98	200219	2.00	2.15	
19 2-Methylbutane	43	4.594	4.594	0.000	92	279477	2.00	2.35	
21 Acrolein	56	4.777	4.777	0.000	97	56131	2.00	2.10	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	680913	2.00	2.40	
22 Acetonitrile	40	4.831	4.831	0.000	95	83426	2.00	2.64	
23 Acetone	58	4.874	4.874	0.000	99	240111	6.00	6.65	
25 Isopropyl alcohol	45	4.971	4.971	0.000	92	832950	6.00	6.82	
24 Pentane	72	4.976	4.976	0.000	95	37278	2.00	2.14	
26 Ethyl ether	31	5.111	5.111	0.000	94	199358	2.00	2.77	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	181765	2.00	2.17	
28 Acrylonitrile	53	5.478	5.478	0.000	94	108904	2.00	2.41	
29 2-Methyl-2-propanol	59	5.499	5.499	0.000	94	299312	2.00	2.33	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	97	403763	2.00	2.25	
31 Methylene Chloride	84	5.704	5.704	0.000	98	147770	2.00	2.03	
32 3-Chloro-1-propene	39	5.721	5.721	0.000	97	178455	2.00	2.47	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	5.845	5.845	0.000	100	559184	2.00	2.04	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	95	213927	2.00	2.17	
35 2-Methylpentane	43	6.475	6.475	0.000	96	551706	2.02	2.60	
36 Methyl tert-butyl ether	73	6.562	6.562	0.000	97	592346	2.00	2.53	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	450686	2.00	2.44	
38 Vinyl acetate	43	6.934	6.934	0.000	100	662312	2.00	2.88	
39 2-Butanone (MEK)	72	7.333	7.333	0.000	98	90190	2.00	2.22	
40 Hexane	56	7.387	7.387	0.000	90	196566	2.00	2.41	
41 Isopropyl ether	45	7.532	7.532	0.000	97	824130	2.00	2.82	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	226504	2.00	2.27	
43 Ethyl acetate	43	7.931	7.931	0.000	98	507538	2.00	2.80	
44 Chloroform	83	8.077	8.077	0.000	98	514390	2.00	2.39	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	681332	2.00	2.68	
46 Tetrahydrofuran	42	8.444	8.444	0.000	94	263179	2.00	2.81	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	95	574663	2.00	2.45	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	368112	2.00	2.32	
51 n-Butanol	31	9.646	9.646	0.000	68	79328	2.00	2.13	
49 Benzene	78	9.646	9.646	0.000	98	634699	2.00	2.08	
50 Cyclohexane	69	9.652	9.652	0.000	92	112801	2.00	2.00	
52 Carbon tetrachloride	117	9.679	9.679	0.000	98	604378	2.00	2.21	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	161308	2.02	2.04	
54 Thiophene	84	9.921	9.921	0.000	97	370572	2.02	2.03	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	609133	2.00	2.23	
56 Isooctane	57	10.471	10.471	0.000	97	1203425	2.00	2.17	
57 n-Heptane	71	10.870	10.870	0.000	94	250777	2.00	2.04	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	87	256955	2.00	2.22	
59 Trichloroethene	130	10.957	10.957	0.000	95	320765	2.00	1.80	
60 Dibromomethane	93	11.027	11.027	0.000	96	286898	2.00	2.04	
61 Dichlorobromomethane	83	11.188	11.188	0.000	99	538456	2.00	2.20	
62 1,4-Dioxane	88	11.205	11.205	0.000	95	75989	2.00	1.85	
63 Methyl methacrylate	41	11.312	11.312	0.000	94	306969	2.00	2.45	
64 Methylcyclohexane	83	11.760	11.760	0.000	93	504620	2.02	1.99	
65 4-Methyl-2-pentanone (MIBK)	43	12.181	12.181	0.000	97	474878	2.00	2.28	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	97	407982	2.00	2.23	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	97	384030	2.00	2.28	
68 Toluene	91	13.076	13.076	0.000	93	748517	2.00	2.15	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	98	219283	2.00	2.13	
70 2-Methylthiophene	97	13.227	13.227	0.000	98	608389	2.02	2.07	
71 3-Methylthiophene	97	13.432	13.432	0.000	100	606341	2.02	2.12	
72 2-Hexanone	58	13.561	13.561	0.000	91	210113	2.00	2.05	
73 n-Octane	85	13.825	13.825	0.000	95	280975	2.00	2.05	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	504069	2.00	2.13	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	433181	2.00	2.14	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	295647	2.00	1.93	
77 Chlorobenzene	112	15.130	15.130	0.000	91	599153	2.00	2.07	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	96	836105	2.02	2.42	
79 Ethylbenzene	91	15.438	15.438	0.000	99	1033548	2.00	2.26	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	775549	2.02	2.27	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1595663	4.00	4.53	
83 Bromoform	173	16.025	16.025	0.000	96	491391	2.00	2.26	
82 n-Nonane	57	16.069	16.069	0.000	93	533841	2.00	2.34	
84 Styrene	104	16.069	16.069	0.000	97	565467	2.00	2.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	16.133	16.133	0.000	98	830519	2.00	2.24	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	558509	2.00	2.28	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	96	179868	2.00	2.23	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1127293	2.00	2.16	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	304715	2.00	2.14	
90 2-Chlorotoluene	126	17.320	17.320	0.000	97	276898	2.00	2.11	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	1113398	2.00	2.21	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	510434	2.00	2.11	
93 Alpha Methyl Styrene	118	17.772	17.772	0.000	88	441825	2.00	2.21	
94 n-Decane	57	17.870	17.870	0.000	90	647251	2.00	2.40	
95 tert-Butylbenzene	119	17.977	17.977	0.000	91	1014151	2.00	2.16	
96 1,2,4-Trimethylbenzene	105	17.994	17.994	0.000	96	937039	2.00	2.22	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	66	636644	2.00	2.09	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1338008	2.00	2.19	
99 Benzyl chloride	91	18.339	18.339	0.000	98	814078	2.00	2.41	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	621184	2.00	2.08	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1123964	2.00	2.16	
102 1,2,3-Trimethylbenzene	105	18.479	18.479	0.000	98	720406	2.02	2.22	
103 Butylcyclohexane	83	18.554	18.554	0.000	91	719514	2.02	2.20	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	93	610517	2.00	2.09	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	850794	2.02	2.16	
106 Indene	116	18.862	18.862	0.000	93	625361	2.02	1.90	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	1041173	2.00	2.30	
108 Undecane	57	19.239	19.239	0.000	96	679070	2.00	2.39	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.272	19.272	0.000	97	800414	2.02	2.12	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	244879	2.00	2.00	
111 1,2,4,5-Tetramethylbenzene	119	19.665	19.665	0.000	97	957611	2.02	2.16	
112 1,2,3,5-Tetramethylbenzene	119	19.719	19.719	0.000	95	583926	2.02	2.15	
113 1,2,3,4-Tetramethylbenzene	119	20.113	20.113	0.000	97	782252	2.02	2.14	
114 Dodecane	57	20.307	20.307	0.000	94	524740	2.00	2.08	
115 1,2,4-Trichlorobenzene	180	20.453	20.453	0.000	94	429874	2.00	2.12	
116 Naphthalene	128	20.582	20.582	0.000	99	944111	2.00	2.20	
117 Benzo(b)thiophene	134	20.679	20.679	0.000	99	479622	2.02	2.04	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	602531	2.00	1.94	
119 1,2,3-Trichlorobenzene	180	20.857	20.857	0.000	94	401179	2.00	2.03	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	364215	6.25	5.81	
121 1-Methylnaphthalene	142	21.833	21.833	0.000	100	370188	6.25	5.80	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1918708	2.00	2.22	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3549526	2.00	2.65	M
S 126 Xylenes, Total	100				0		6.00	6.77	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.44	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Laboratories

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GCCVL19-LCS.d

Injection Date: 19-Dec-2016 10:19:30

Instrument ID: MG

Operator ID: 7126

Lims ID: LCS

Worklist Smp#: 1002

Client ID:

Purge Vol: 500.000 mL

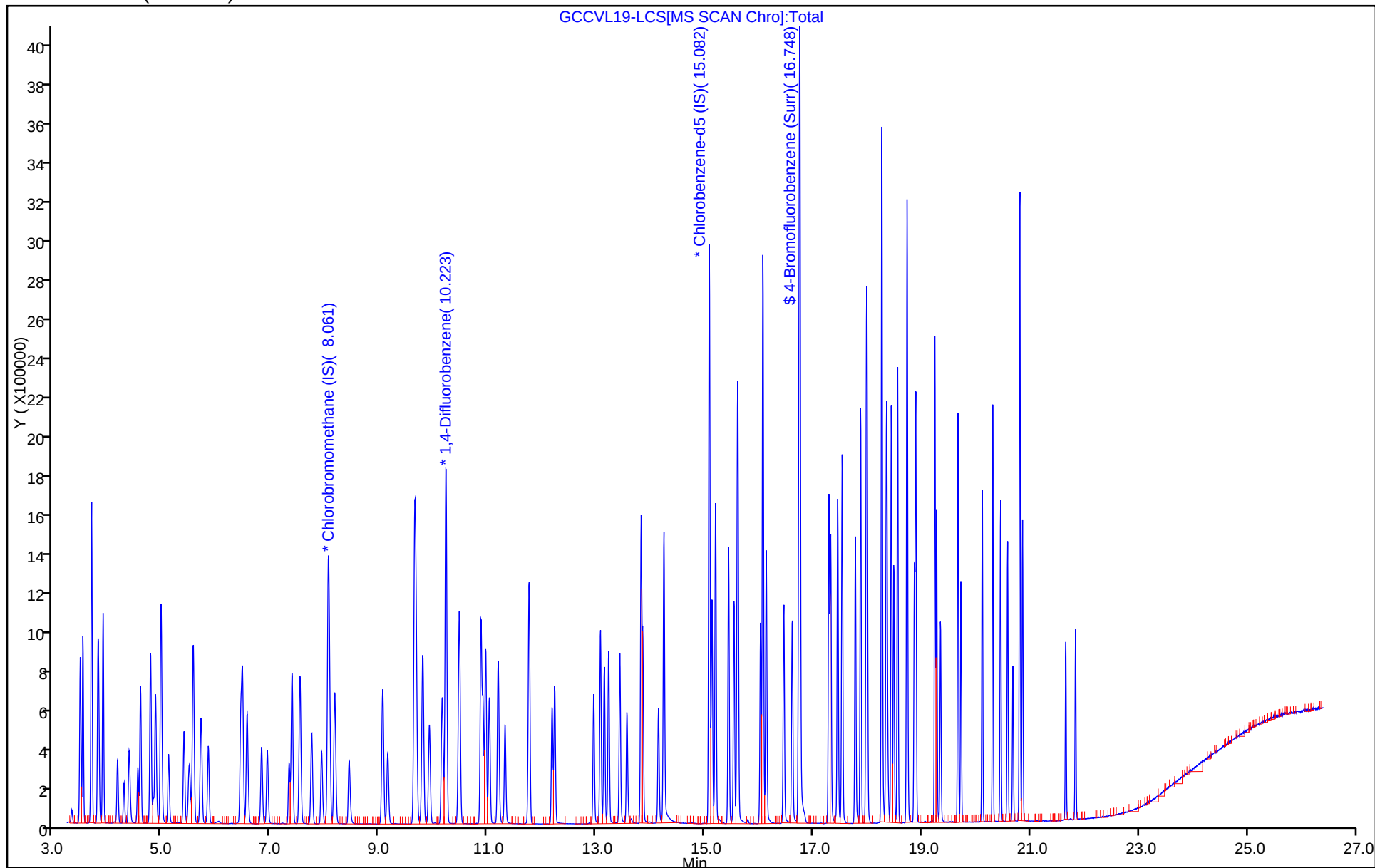
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\GCCVL19-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Dec-2016 10:19:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003721-002
Misc. Info.: P28
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161213-3721.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Dec-2016 15:29:54 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: tajh

Date: 19-Dec-2016 15:29:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.29	107.32

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6566-1

SDG No.: _____

Instrument ID: MGStart Date: 12/08/2016 19:26Analysis Batch Number: 7384End Date: 12/09/2016 12:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7384/1		12/08/2016 19:26	1	GxBFBL08.D	RTX-5 0.32 (mm)
IC 140-7384/3		12/08/2016 19:58	1	GxL08IC01.D	RTX-5 0.32 (mm)
140-6463-A-1 MDLV		12/08/2016 19:58	1		RTX-5 0.32 (mm)
IC 140-7384/4		12/08/2016 20:42	1	GxL08IC02.D	RTX-5 0.32 (mm)
140-6463-A-2 MDLV		12/08/2016 20:42	1		RTX-5 0.32 (mm)
IC 140-7384/5		12/08/2016 21:25	1	GxL08IC03.D	RTX-5 0.32 (mm)
140-6463-A-3 MDLV		12/08/2016 21:25	1		RTX-5 0.32 (mm)
IC 140-7384/6		12/08/2016 22:07	1	GxL08IC04.D	RTX-5 0.32 (mm)
140-6463-A-4 MDLV		12/08/2016 22:07	1		RTX-5 0.32 (mm)
IC 140-7384/7		12/08/2016 22:50	1	GxL08IC05.D	RTX-5 0.32 (mm)
140-6463-A-5 MDLV		12/08/2016 22:50	1		RTX-5 0.32 (mm)
ICIS 140-7384/8		12/08/2016 23:31	1	GxL08IC06.D	RTX-5 0.32 (mm)
IC 140-7384/9		12/09/2016 00:14	1	GxL08IC07.D	RTX-5 0.32 (mm)
IC 140-7384/10		12/09/2016 00:56	1	GxL08IC08.D	RTX-5 0.32 (mm)
IC 140-7384/11		12/09/2016 01:38	1	GxL08IC09.D	RTX-5 0.32 (mm)
ICV 140-7384/13		12/09/2016 03:01	1	GxL08ICV.D	RTX-5 0.32 (mm)
ZZZZZ		12/09/2016 04:19	1		RTX-5 0.32 (mm)
ZZZZZ		12/09/2016 06:27	1		RTX-5 0.32 (mm)
IC 140-7384/28		12/09/2016 10:00	1		RTX-5 0.32 (mm)
IC 140-7384/29		12/09/2016 10:42	1		RTX-5 0.32 (mm)
IC 140-7384/30		12/09/2016 11:26	1		RTX-5 0.32 (mm)
IC 140-7384/31		12/09/2016 12:09	1		RTX-5 0.32 (mm)
IC 140-7384/32		12/09/2016 12:54	1		RTX-5 0.32 (mm)

161208.ZZZ

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
CLEAN	16 - 201 mL	32.4	12/8/2016	6:55:40 PM
BFB	16 - 101 mL	32.5	12/8/2016	7:26:24 PM
ICAL01	1 - 101 mL	28.1	12/8/2016	7:58:57 PM
ICAL02	1 - 201 mL	27.1	12/8/2016	8:42:09 PM
ICAL03	2 - 201 mL	26.3	12/8/2016	9:25:29 PM
ICAL04	3 - 201 mL	22.4	12/8/2016	10:07:57 PM
ICAL05	4 - 201 mL	30.5	12/8/2016	10:50:34 PM
ICAL06	5 - 201 mL	30.4	12/8/2016	11:31:52 PM
ICAL07	6 - 201 mL	29.5	12/9/2016	12:14:55 AM
ICAL08	7 - 201 mL	23.8	12/9/2016	12:56:50 AM
ICAL09	8 - 201 mL	27.5	12/9/2016	1:38:42 AM
DNUPRIME	9 - 22 mL	36.2	12/9/2016	2:19:54 AM
ICV	9 - 102 mL	35.7	12/9/2016	3:01:43 AM
DNUCLEAN	16 - 100 mL	32.3	12/9/2016	3:43:27 AM
BLANK	16 - 500 mL	31.2	12/9/2016	4:19:41 AM
MDL	1 - 51 mL	27.8	12/9/2016	5:01:33 AM
TEST	10 - 101 mL	24.7	12/9/2016	5:43:19 AM
TPH	11 - 201 mL	34.9	12/9/2016	6:27:11 AM
LCS	12 - 101 mL	35.6	12/9/2016	7:08:57 AM
EXPSTD13	13 - 51 mL	25.6	12/9/2016	7:50:17 AM
EXPSTD14	14 - 51 mL	22.7	12/9/2016	8:31:56 AM
BLANK	16 - 501 mL	30	12/9/2016	9:19:16 AM
EOICL04	15 - 21 mL	23.1	12/9/2016	10:00:40 AM
EOICL05	15 - 51 mL	22.8	12/9/2016	10:42:41 AM
EOICL06	15 - 101 mL	22.2	12/9/2016	11:26:20 AM
EOICL07	15 - 201 mL	21.3	12/9/2016	12:09:10 PM
EOICL08	15 - 501 mL	18.4	12/9/2016	12:54:24 PM
BLANK	16 - 500 mL	30.3	12/9/2016	1:40:43 PM

MG WL 3696

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

802 ethoxide

Analysis Date:	12/9/16	Instrument:	UG	Chrom WL #:	3696	TALS Batch & Event #	TO14/15: 7384/798	AFCCE: 7387/801
							DOD: 7386/800	OHIO: 7385/799

Chrom/Worklist Review	1 st	Comments	2 nd
1. Re-read each Limit Group [method editor-limit groups]	✓		
2. Verify LODV in Chrom [method editor → edit → LOD]	✓		
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓	#55 1W 2,3 C8 1W 4,5,6 split peak	✓
9. RT for each IS ±20 sec avg. RT? [F6 IsdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IsdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓		✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration? DMU TPH as Hexane	✓	C8 (M) # 4.5.6, 10V.	✓

MLG Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓				124 TBA 35%	✓	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓					✓	✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓					✓	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? Note: Ohio does not allow quad [F6]	✓				Indene (TO15)	✓	✓	✓	✓
18. If curves were used, is correlation coefficient ≥ 0.990? [F6]	✓	NA				✓	✓	✓	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	NA				✓	✓	✓	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	NA				NA			
21. Is the second source analysis within limits? [F8 - icy]	✓					✓	✓	✓	✓

22. Analyst/Date: *AKS 12/9/16* 2nd Level Reviewer/Date: *AKS 12/9/16*

Comments: *Ethylene oxide 4pt 15pt cal ± 0.802*

TALS Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
23. Upload ICAL	✓	✓	✓	✓		✓	✓	✓	✓
24. Graphics uploaded? [Sample List Tab]	✓	✓	✓	✓		✓	✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events - "Fix ICAL linkage" if needed]	✓	✓	✓	✓		✓	✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓	✓		✓	✓	✓	✓
27. If criteria not met, was a NCM generated?	NA					NA			
28. After review in TALS, approve the method in TALS.	✓	✓	✓	✓		✓	✓	✓	✓
29. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	✓	✓	✓	✓		✓	✓	✓	✓
30. Checklist & Entech report scanned, attached & assigned properly?	✓	✓	✓	✓		✓	✓	✓	✓

Analyst: *AKS* Date: *12/9/16* 2nd Level Reviewer: *AKS* Date: *12/9/16*

Comments: *AKS Brown form 2*

MS017r41, 5/23/2016

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6566-1

SDG No.: _____

Instrument ID: MGStart Date: 12/16/2016 11:23Analysis Batch Number: 7414End Date: 12/17/2016 07:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7414/5		12/16/2016 11:23	1	GBFBL16A.D	RTX-5 0.32 (mm)
CCVIS 140-7414/6		12/16/2016 11:55	1	GCCVL16A.D	RTX-5 0.32 (mm)
LCS 140-7414/1006		12/16/2016 11:55	1	GCCVL16A-LCS.d	RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 13:43	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 14:26	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 15:10	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 15:52	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 16:34	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 17:17	20.95		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 17:58	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 18:39	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 19:22	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 20:04	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 20:50	2.01		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 21:35	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 22:17	1		RTX-5 0.32 (mm)
ZZZZZ		12/16/2016 22:58	1		RTX-5 0.32 (mm)
MB 140-7414/21		12/17/2016 00:15	1	GMB500L16.D	RTX-5 0.32 (mm)
140-6566-1		12/17/2016 01:00	1	GL16P111.D	RTX-5 0.32 (mm)
140-6566-2		12/17/2016 01:50	2.47	GL16P112.D	RTX-5 0.32 (mm)
140-6566-3		12/17/2016 02:35	1	GL16P113.D	RTX-5 0.32 (mm)
140-6566-4		12/17/2016 03:20	1	GL16P114.D	RTX-5 0.32 (mm)
ZZZZZ		12/17/2016 04:02	1		RTX-5 0.32 (mm)
ZZZZZ		12/17/2016 04:45	1		RTX-5 0.32 (mm)
ZZZZZ		12/17/2016 06:17	1		RTX-5 0.32 (mm)
ZZZZZ		12/17/2016 07:05	1		RTX-5 0.32 (mm)

161216.ZZZ

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	26.3	12/16/2016	11:23:43 AM
CCV	15 - 101 mL	27.3	12/16/2016	11:55:10 AM
DNULEAK	16 - 20 mL	26.4	12/16/2016	1:08:19 PM
BLANK	16 - 200 mL	26	12/16/2016	1:43:04 PM
6571-09	1 - 11 mL	12.5	12/16/2016	2:26:41 PM
6571-10	2 - 11 mL	12.5	12/16/2016	3:10:35 PM
6584-01	1 - 11 mL	12.5	12/16/2016	3:52:17 PM
6584-02	2 - 11 mL	12.5	12/16/2016	4:34:31 PM
6571-07	3 - 210 mL	7.4	12/16/2016	5:17:20 PM
118318-01	4 - 11 mL	10	12/16/2016	5:58:38 PM
118318-02	5 - 21 mL	11.2	12/16/2016	6:39:25 PM
118318-03	6 - 21 mL	11.3	12/16/2016	7:22:15 PM
118318-04	7 - 21 mL	11.1	12/16/2016	8:04:27 PM
118318-05	8 - 403 mL	8.9	12/16/2016	8:50:24 PM
118318-06	9 - 200 mL	9.7	12/16/2016	9:34:58 PM
6557-01	10 - 21 mL	12.2	12/16/2016	10:17:44 PM
6557-01	10 - 21 mL	11.5	12/16/2016	10:58:56 PM
DNU	16 - 21 mL	25.8	12/16/2016	11:40:18 PM
BLANK	16 - 501 mL	23.1	12/17/2016	12:15:42 AM
6566-01	11 - 502 mL	4.9	12/17/2016	1:00:37 AM
6566-02	12 - 1001 mL	5.7	12/17/2016	1:50:12 AM
6566-03	13 - 501 mL	1.2	12/17/2016	2:35:16 AM
6566-04	14 - 501 mL	1.8	12/17/2016	3:20:30 AM
121403-02	15 - 51 mL	11.1	12/17/2016	4:02:24 AM
121403-02	15 - 50 mL	9.7	12/17/2016	4:45:38 AM
BLANK	16 - 202 mL	24.9	12/17/2016	5:30:02 AM
LOT6527	1 - 501 mL	19.4	12/17/2016	6:17:35 AM
LOT6532	2 - 501 mL	19.4	12/17/2016	7:05:15 AM

MG WL 3720

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

Page 1 of 2

Instrument/Date	MG 12/16/16		Routine	AFCEE	DOD	OHIO
CCAL Chrom WL #	3720	CCAL Batch #	7414			
ICAL Chrom WL #	3696	ICAL Batch # / Event #	7381 798	/	/	/

Chrom Review	1 st	If No, why is data reportable?	2 nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		/
2. Did BFB meet tune criteria? [F8]	/	☐ [Failed TO-14A, but passes TO-15] (NCM# _____)	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICAL File batch #/start/end Cal date/time)? [F8]	/		/
4. Is the %D ≤ 30% for all target analytes? [≤ 40% for AFCEE non-table analytes] [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab] IPE 30.9 E/A 32	/	☐ CCV - %D - LCS criteria met (NCM# _____) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM# _____)	/
5. Elution order checked on isomeric pairs? [Chrom]	/		/
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3-, 1,4-, and 1,2-dichlorobenzene	/		/
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	/		/
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
6. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	/		/
7. Has the RT been updated to the method?	/		/
Analyst: <u>[Signature]</u> Date: 12/16/16	2nd Level Reviewer: <u>[Signature]</u> Date: 12/19/16		
Comments:	Comments:		
8. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/		/
9. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/		/
10. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
11. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). If no, list blank ID:	/	☐ Method Blank -- Report, ND (NCM# _____) ☐ Method Blank -- Report, 10X (NCM# _____)	/
12. All runs - peaks ID'd correctly and false positives removed?	/		/
13. If manual integrations performed, are they properly performed, correctly ID'd, baseline clearly identified, and reason given?	/		/
14. IS/Surr within limits? List samples and reason (e.g., 1 thru 5): [Batch Results IS & SUR Tab]	/	☐ (1) Surrogate - Matrix (NCM# _____) ☐ (2) Surrogate - High, ND (NCM# _____) ☐ (3) ISTD - RA/RA Concur (NCM# _____) ☐ (4) Surrogate -RX concur, Report both (NCM# _____) ☐ (5) ISTD - Matrix, DL required (NCM# _____)	/
Sample Reason Sample Reason			
15. Samples outside calibration range scheduled for dilution?	/	☐ ICAL - Range Exceeded; Minimum Dilution	/
Samples:			
Chrom Review	1 st	If No, why is data reportable?	2 nd
16. For first analysis that is at a dilution, is highest target analyte >20% cal range? List samples and reason: Sample Reason Sample Reason	/	☐ (1) Reporting Limit - Dilution, Matrix (NCM# _____) ☐ (2) Reporting Limit - Dilution, Non-Target (NCM# _____) ☐ (3) Issues with initial collection volume; see DRC.	/
17. RIC inspected for proper integration for TPH?	/		/
18. Obvious non-TPH peaks excluded?	/		/

Page 2 of 2

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

MS017r41, 5/25/2016

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6566-1

SDG No.: _____

Instrument ID: MGStart Date: 12/19/2016 09:48Analysis Batch Number: 7415End Date: 12/20/2016 04:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7415/1		12/19/2016 09:48	1	GBFBL19.D	RTX-5 0.32 (mm)
CCVIS 140-7415/2		12/19/2016 10:19	1	GCCVL19.D	RTX-5 0.32 (mm)
LCS 140-7415/1002		12/19/2016 10:19	1	GCCVL19-LCS.d	RTX-5 0.32 (mm)
MB 140-7415/4		12/19/2016 12:46	1	GMB500L19.D	RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 13:29	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 14:12	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 14:56	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 15:41	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 16:26	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 17:12	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 17:56	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 18:41	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 19:26	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 20:11	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 20:56	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 21:41	1		RTX-5 0.32 (mm)
140-6566-4 DL		12/19/2016 22:23	1	GL19P112.D	RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 23:06	1		RTX-5 0.32 (mm)
ZZZZZ		12/19/2016 23:51	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 00:36	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 01:19	7.87		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 02:02	28.96		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 02:45	30.82		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 03:26	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 04:09	1		RTX-5 0.32 (mm)

161219.ZZZ

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	24.9	12/19/2016	9:48:19 AM
CCV	15 - 100 mL	26.5	12/19/2016	10:19:38 AM
DNULEAK	16 - 21 mL	25.1	12/19/2016	12:09:27 PM
BLANK	16 - 501 mL	22.1	12/19/2016	12:46:09 PM
6564-03	1 - 26 mL	12.8	12/19/2016	1:29:42 PM
6564-01	2 - 101 mL	10.6	12/19/2016	2:12:52 PM
6564-02	3 - 100 mL	11.1	12/19/2016	2:56:23 PM
6587-01	4 - 501 mL	4.4	12/19/2016	3:41:48 PM
6587-02	5 - 500 mL	8.9	12/19/2016	4:26:41 PM
6587-03	6 - 500 mL	6	12/19/2016	5:12:03 PM
6587-04	7 - 500 mL	6.6	12/19/2016	5:56:47 PM
6588-01	8 - 502 mL	5.4	12/19/2016	6:41:27 PM
6588-02	9 - 500 mL	7.4	12/19/2016	7:26:43 PM
6588-03	10 - 501 mL	4.8	12/19/2016	8:11:38 PM
6588-04	11 - 500 mL	7	12/19/2016	8:56:32 PM
6588-04D	11 - 500 mL	5.2	12/19/2016	9:41:00 PM
6566-04	12 - 200 mL	9.3	12/19/2016	10:23:27 PM
6573-11	13 - 26 mL	10.5	12/19/2016	11:06:00 PM
6573-12	14 - 500 mL	1.5	12/19/2016	11:51:45 PM
6573-13	15 - 500 mL	6	12/20/2016	12:36:33 AM
6573-08	16 - 81 mL	11.9	12/20/2016	1:19:30 AM
6573-10	1 - 56 mL	14.8	12/20/2016	2:02:24 AM
6573-14	2 - 46 mL	14.6	12/20/2016	2:45:24 AM
6564-02	3 - 21 mL	12	12/20/2016	3:26:14 AM
6564-01	4 - 25 mL	10.1	12/20/2016	4:09:29 AM

MG WL 3721

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

Page 1 of 2

Instrument/Date	MG 1/8/19/18		Routine	AFCEE	DOD	OHIO
CCAL Chrom WL #	3701	CCAL Batch #	7415			
ICAL Chrom WL #	3696	ICAL Batch # / Event #	7384 / 798	/	/	/

Chrom Review	1 st	If No, why is data reportable?	2 nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		/
2. Did BFB meet tune criteria? [F8]	/	☐ [Failed TO-14A, but passes TO-15] (NCM# _____)	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICAL File batch #/start/end Cal date/time)? [F8]	/		/
4. Is the %D ≤ 30% for all target analytes? [≤ 40% for AFCEE non-table analytes] CDFM - [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	☒ CCV - %D - LCS criteria met (NCM# 5602) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM# _____)	/
5. Elution order checked on isomeric pairs? [Chrom]	/		/
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3-, 1,4-, and 1,2-dichlorobenzene	/		/
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	/		/
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
6. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	/		/
7. Has the RT been updated to the method?	/		/
Analyst: _____ Date: 1/8/19/18	2nd Level Reviewer: _____	Date: 1/8/19/18	
Comments: _____	Comments: _____		
8. Has the vol injected been verified vs Btech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/		/
9. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/		/
10. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
11. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). If no, list blank ID:	/	☐ Method Blank - Report, ND (NCM# _____) ☐ Method Blank - Report, 10X (NCM# _____)	/
12. All runs - peaks ID'd correctly and false positives removed?	/		/
13. If manual integrations performed, are they properly performed, correctly ID'd, baseline clearly identified, and reason given?	/		/
14. IS/Surr within limits? List samples and reason (e.g., 1 thru 5): [Batch Results IS & SUR Tab]	/	☐ (1) Surrogate - Matrix (NCM# _____) ☐ (2) Surrogate - High, ND (NCM# _____) ☐ (3) ISTD - RA/RA Concur (NCM# _____) ☐ (4) Surrogate -RX concur, Report both (NCM# _____) ☐ (5) ISTD - Matrix, DL required (NCM# _____)	/
Sample Reason Sample Reason			
15. Samples outside calibration range scheduled for dilution?	/	☐ ICAL - Range Exceeded; Minimum Dilution	/
Samples: _____			
Chrom Review	1 st	If No, why is data reportable?	2 nd
16. For first analysis that is at a dilution, is highest target analyte >20% cal range? List samples and reason:	/	☐ (1) Reporting Limit - Dilution, Matrix (NCM# _____) ☐ (2) Reporting Limit - Dilution, Non-Target (NCM# _____) ☐ (3) Issues with initial collection volume; see DRC.	/
Sample Reason Sample Reason			
17. RIC inspected for proper integration for TPH?	/		/
18. Obvious non-TPH peaks excluded?	/		/

Page 2 of 2

Analyst:	Date: 11/10/16	2nd Level Reviewer :	Date: 12/20/16
Comments:		Comments:	
Example Calculation: 6573-8 The			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
1,7695 x 80 mL x 7.87 = 60.79			

Summa Canister Dilution Worksheet

Client: CHA Inc

Job No.: 140-6566-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-6566-2	6	-16.5	0.45	2.69	1.6	1.11	6.65		2.47	2.47	12/15/16 15:28	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo (b) thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND		0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6399-1
SDG No.: _____
Client Sample ID: 09936 Lab Sample ID: 140-6399-5
Matrix: Air Lab File ID: LOT6399.D
Analysis Method: TO 15 LL Date Collected: 11/21/2016 08:41
Sample wt/vol: 500 (mL) Date Analyzed: 11/26/2016 02:32
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 7274 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\LOT6399.D
 Lims ID: 140-6399-A-5
 Client ID: 09936
 Sample Type: Client
 Inject. Date: 26-Nov-2016 02:32:30 ALS Bottle#: 12 Worklist Smp#: 20
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003661-020
 Misc. Info.: 09936
 Operator ID: 007126 Instrument ID: ME
 Method: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\ME_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 02-Dec-2016 13:51:21 Calib Date: 25-Nov-2016 19:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\EK25IC09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: barlozhetskayaa

Date: 02-Dec-2016 13:56:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.551	7.557	-0.006	93	271538	4.00	
* 2 1,4-Difluorobenzene	114	9.773	9.777	-0.004	96	1213244	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.772	14.777	-0.005	94	1100734	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.454	16.455	-0.001	93	912194	3.95	
13 Butane	43	3.383	3.378	0.005	92	8244	0.0534	
31 Methylene Chloride	84	5.136	5.137	-0.001	96	6521	0.0654	
33 Carbon disulfide	76	5.276	5.279	-0.003	94	6761	0.0203	
65 4-Methyl-2-pentanone (MIBK	43	11.860	11.851	0.009	96	5863	0.0344	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\LOT6399.D

Injection Date: 26-Nov-2016 02:32:30

Instrument ID: ME

Operator ID: 007126

Lims ID: 140-6399-A-5

Lab Sample ID: 140-6399-5

Worklist Smp#: 20

Client ID: 09936

Purge Vol: 500.000 mL

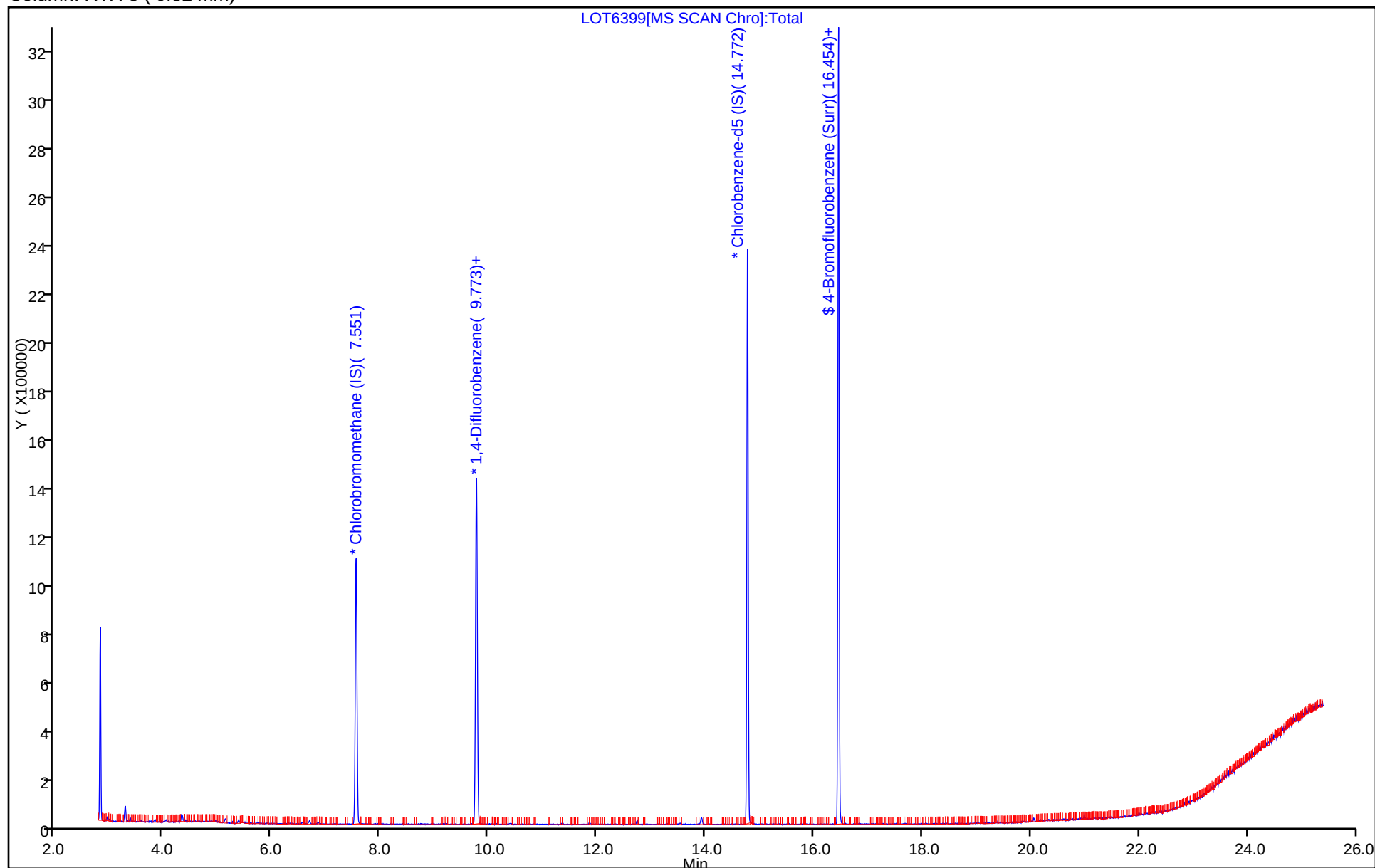
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: ME_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information Company: CAA Consulting Inc. Address: 10 Winters Circle City/State/Zip: Albany NY 12205 Phone: 518-453-4503 FAX: 518-453-4773 Project Name: 140 STATE STREET Site/location: ALBANY, NY PO # 21645		Project Manager: Seth Fowler Phone: (518) 453-4547 Site Contact: TAL Contact:		Sampled By: Seth Roseman		1 of 1 COCS													
		140-6566 Chain of Custody																	
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
140-SSV-1	12-13-16	9:50	17:20	30	6	10452	09523	✓											
140-IA-1	↓	9:50	17:50	30	18	10793	09871	✓											
140-SSV-2	↓	9:51	17:25	30	7	11542	09839	✓											
140-IA-2	↓	9:51	17:15	30	6	10647	09942	✓											
Sampled by: <i>Seth Roseman</i>																			
Received @ ambient, 1 box FedEx 50, Trk# 7164 7164 2336 No custody seal, KU12/15/16																			
Special Instructions/QC Requirements & Comments:																			
Category B Deliverable																			
Canisters Shipped by:		Date/Time:		Canisters Received by:		Date/Time:		Received by:		Date/Time:		Received by:		Date/Time:		Received by:		Date/Time:	
Samples Relinquished by:		Date/Time: 12-13-16/1900		Received by:		Date/Time: 12-13-16/1900		Received by:		Date/Time: 12-13-16/1900		Received by:		Date/Time: 12-13-16/1900		Received by:		Date/Time: 12-13-16/1900	
Relinquished by:		Date/Time: 12/14/16 1800		Received by:		Date/Time: 12/14/16 1800		Received by:		Date/Time: 12/14/16 1800		Received by:		Date/Time: 12/14/16 1800		Received by:		Date/Time: 12/14/16 1800	

Log In Number:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			☐ Containers, Broken	
2. Were ambient air containers received intact?				☒ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?				☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : _____ Correction factor: _____				☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	
6. Were samples received in appropriate containers?	/			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	/			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?	/			☐ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			☐ COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	/			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?				☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?				☐ Headspace (VOA only) ☐ Residual Chlorine	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____					
19. For 1613B water samples is pH<9?				☐ If no, lab will adjust	
20. For rad samples was sample activity info. Provided?				☐ Project missing info	
Project #: 14003094 PM Instructions: _____					
Sample Receiving Associate:  Date: 12/15/16					
QA026R30.doc, 080916					

140-6566

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 12/15/2016

[illegible]

APPENDIX D
DATA USABILITY SUMMARY REPORT



Geology

Hydrology

Remediation

Water Supply

January 11, 2017

Mr. John L. Favreau
Senior Scientist V
CHA
III Winners Circle
P.O. Box 5269
Albany, New York 12205

Re: Data Validation Report
140 State Street
December 2016 Air Sampling Event

Dear Mr. Favreau:

The data usability summary report (DUSR) and data validation summary are attached to this letter for the 140 State Street, December 2016 air sampling event. The data for TestAmerica Knoxville Job: 140-6566-1 are acceptable with one minor issue identified in the validation summary. There are no data qualified as unusable (R) in the data pack.

A list of common data validation acronyms is attached to this letter to assist you in interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist CHA.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

- U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
- R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
- N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
- J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report for
TestAmerica Knoxville, Job No: 140-6566-1**

**4 Air/Vapor Samples
Collected December 13, 2016**

Prepared by: Donald Anné
January 11, 2017

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results of TO15 volatile analyses for 4 air/vapor samples.

The overall performances of the analyses are acceptable. TestAmerica Knoxville did fulfill the requirements of the analytical method.

The data are acceptable with minor issues that are identified in the accompanying data validation review. The following data are flagged:

- There is a volatile result for ethanol in sample 140-IA-2 that was quantitated using data that was extrapolated beyond the highest calibration standard and flagged "E" by the laboratory. The result for ethanol marked "E" in the undiluted sample is qualified as estimated (J).

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of TO15 Volatiles Data for
TestAmerica Knoxville, Job No: 140-6566-1**

**4 Air/Vapor Samples
Collected December 13, 2016**

Prepared by: Donald Anné
January 11, 2017

Holding Times: Samples were analyzed within the EPA recommended holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.010), as required.

The %RSD for 1,2,4-trichlorobenzene was above the allowable maximum (30%) for instrument MG on 12-08-16. Positive results for 1,2,4-trichlorobenzene should be considered estimated (J) in associated samples.

Continuing Calibration: The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %Ds for vinyl acetate, isopropyl ether, and ethyl acetate were above the allowable maximum (30%) on 12-16-16 (GCCVL16A.D). Positive results for these compounds should be considered estimated (J) in associated samples

Blanks: The analyses of the method blanks reported target compounds as not detected. The certification analyses of summa canisters reported target compounds as not detected.

Surrogate Recovery: The surrogate recoveries were within control limits for the soil vapor samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for samples LCS 140-7414/1006 and LCS 140-7415/1002.

Compound ID: Checked compounds were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

There was a volatile result for ethanol in sample 140-IA-2 that was quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The sample was diluted by the laboratory and re-analyzed. Therefore, the result for ethanol that is flagged as 'E' in the undiluted sample should be considered estimated (J), and the use of the diluted result for ethanol is recommended. It is recommended that the undiluted results be used for all other compounds.

Canister Pressure: The laboratory reported "received" pressures for soil gas samples were below zero (residual vacuum), as required.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.:
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5			B	M1	M2								
Chlorodifluoromethane	++++	0.3549	0.3159	0.3020	0.3270	Ave			0.3281						4.6	30.0		
Propene	0.3338	0.3328	0.3273	0.3307											8.1	30.0		
Dichlorodifluoromethane	1.2860	1.1416	1.1371	1.0563	1.0793	Ave			1.0938									
	1.0804	1.0379	1.0519	0.9734														
	3.5519	3.2652	3.3991	3.1949	3.5614	Ave			3.4234						3.9	30.0		
	3.5420	3.5274	3.3976	3.3711														
Chloromethane	0.4642	0.3502	0.4124	0.3696	0.3627	Ave			0.3677						14.0	30.0		
	0.3785	0.3686	0.3215	0.2816														
1,2-Dichlorotetrafluoroethane	2.2681	2.1889	2.2548	2.0996	2.3833	Ave			2.2679						4.3	30.0		
	2.4009	2.3241	2.1971	2.2948														
Acetaldehyde	++++	++++	0.5646	0.4816	0.3640	Ave			0.4060						21.6	30.0		
	0.3575	0.4076	0.3521	0.3144														
Vinyl chloride	1.2352	1.1289	1.2170	1.1270	1.2922	Ave			1.2065						8.3	30.0		
	1.3504	1.3032	1.1616	1.0433														
1,3-Butadiene	1.0799	0.9526	0.9911	0.9061	1.0507	Ave			0.9739						9.4	30.0		
	1.0580	1.0238	0.8986	0.8042														
Butane	2.0162	1.8907	1.9252	1.7981	2.1121	Ave			1.9020						10.4	30.0		
	2.1057	2.0272	1.7380	1.5045														
Bromomethane	1.2300	1.1372	1.11764	1.0754	1.1843	Ave			1.1519						4.4	30.0		
	1.1902	1.1693	1.1123	1.0923														
Chloroethane	0.6827	0.6301	0.6426	0.6039	0.6608	Ave			0.6412						4.2	30.0		
	0.6648	0.6570	0.6188	0.6101														
Ethanol	0.4632	0.4508	0.4105	0.3911	0.3846	Ave			0.3997						9.6	30.0		
	0.3935	0.3994	0.3500	0.3540														
Vinyl bromide	1.1201	1.0611	1.0843	1.0215	1.1262	Ave			1.0877						3.2	30.0		
	1.1240	1.1048	1.0697	1.0777														

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9		B	M1	M2								
2-Methylbutane	1.6287 1.4313	1.3884 1.3874	1.4670 1.2605	1.3095 1.1548	1.4767 Ave		1.3894				9.9		30.0			
Acrolein	0.4901 0.2366	0.4360 0.2850	0.3176 0.2404	0.2661 0.2673	0.2638 Ave		0.3114				29.0		30.0			
Trichlorofluoromethane	3.3655 3.4720	3.1181 3.3885	3.3067 3.2629	3.4342 3.4188	Ave		3.3178				4.1		30.0			
Acetonitrile	++++ 0.3472	++++ 0.3982	0.3570 0.3461	0.3885 0.3845	Ave		0.3691				5.7		30.0			
Acetone	++++ 0.4106	++++ 0.4310	++++ 0.3643	0.5157 0.3900	Ave		0.4215				12.3		30.0			
Pentane	++++ 0.2080	++++ 0.2016	0.2135 0.1880	0.2029 0.1993	Ave		0.2036				4.3		30.0			
Isopropyl alcohol	1.5310 1.4991	1.4716 1.4952	1.4150 1.2414	1.4097 1.3387	Ave		1.4259				6.3		30.0			
Ethyl ether	0.9311 0.7873	0.9543 0.8900	0.7717 0.7765	0.8221 0.8369	Ave		0.8402				8.2		30.0			
1,1-Dichloroethene	++++ 1.0245	0.9453 0.9956	1.0023 0.9515	0.9046 0.9955	Ave		0.9780				4.1		30.0			
Acrylonitrile	++++ 0.4527	0.6271 0.5522	0.5612 0.4923	0.4969 0.5774	Ave		0.5284				11.4		30.0			
t-Butyl alcohol	1.3992 1.6383	1.4977 1.6364	1.4347 1.4716	1.4123 1.4970	Ave		1.4989				5.8		30.0			
1,1,2-Trichlorotrifluoroethane	2.2525 2.1037	2.0113 2.1372	2.0917 2.0319	1.9628 2.1889	Ave		2.0974				4.3		30.0			
Methylene Chloride	++++ 0.8104	++++ 0.7861	1.1795 0.7336	0.8593 0.7645	Ave		0.8508				17.7		30.0			
3-Chloropropene	++++ 0.8454	0.9298 0.8445	0.8789 0.7578	0.8154 0.7846	Ave		0.8422				6.6		30.0			
Carbon disulfide	3.1962 3.3493	2.9586 3.3443	3.2582 3.1210	3.0541 3.1717	Ave		3.1964				4.2		30.0			
trans-1,2-Dichloroethene	1.2095 1.1840	1.1122 1.2104	1.1533 1.1267	1.0720 1.1183	Ave		1.1493				4.1		30.0			
2-Methylpentane	2.6087 2.5424	2.3638 2.7079	2.5060 2.4671	2.3560 2.2074	Ave		2.4760				6.0		30.0			
Methyl tert-butyl ether	2.9720 2.5613	2.8703 2.9618	2.3122 2.7718	2.5070 3.1078	Ave		2.7296				9.9		30.0			
1,1-Dichloroethane	2.3404 2.1332	2.0906 2.2606	2.0615 2.1913	2.0008 2.2460	Ave		2.1587				5.0		30.0			
Vinyl acetate	2.9307 2.4017	2.8215 2.9126	2.1645 2.8518	2.4824 3.2385	Ave		2.6840				13.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE			COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	TYPE			B	M1	M2								
2-Butanone	0.4922 0.4381	0.5130 0.5011	0.4615 0.4635	0.4677 0.5091	0.4170	Ave				0.4737				6.9		30.0			
Hexane	++++ 0.9349	1.0515 0.9857	1.0034 0.9194	0.9087 0.8655	0.9371	Ave				0.9508				6.2		30.0			
Isopropyl ether	3.6385 3.2521	3.5918 3.8494	2.8822 3.4934	3.1928 3.6458	3.1568	Ave				3.4114				9.0		30.0			
cis-1,2-Dichloroethene	1.1808 1.1866	1.1264 1.2421	1.1288 1.1663	1.1069 1.2041	1.1563	Ave				1.1665				3.6		30.0			
Ethyl acetate	++++ 1.9841	2.3762 2.3590	1.6829 2.1967	1.9349 2.5285	1.8625	Ave				2.1156				13.9		30.0			
Chloroform	2.7445 2.4932	2.4677 2.6082	2.4462 2.4420	2.3597 2.5302	2.4907	Ave				2.5092				4.4		30.0			
Tert-butyl ethyl ether	3.1089 2.8510	3.0927 3.3589	2.4522 3.0495	2.7295 3.3330	2.7203	Ave				2.9662				10.2		30.0			
Tetrahydrofuran	++++ 1.0133	1.2244 1.1796	0.9443 1.1231	1.0049 1.2635	0.9847	Ave				1.0922				11.1		30.0			
1,1,1-Trichloroethane	2.8646 2.7270	2.6636 2.8877	2.6517 2.7208	2.5679 2.8512	2.6959	Ave				2.7367				4.0		30.0			
1,2-Dichloroethane	0.3530 0.3840	0.3341 0.4140	0.3734 0.3709	0.3352 0.4164	0.3754	Ave				0.3729				8.0		30.0			
Benzene	0.7199 0.7857	0.6720 0.7833	0.7520 0.6448	0.6879 0.6669	0.7631	Ave				0.7195				7.5		30.0			
Cyclohexane	++++ 0.1599	0.1191 0.1382	0.1518 0.1112	0.1255 0.1123	0.1430	Ave				0.1326				13.8		30.0			
Carbon tetrachloride	0.5841 0.7981	0.5511 0.7296	0.6608 0.4256	0.5781 0.7543	0.6997	Ave				0.6424				18.3		30.0			
1-Butanol	0.0816 0.1131	0.0817 0.0985	0.0943 0.0738	0.0738 0.0787	0.0917	Ave				0.0875				14.9		30.0			
2,3-Dimethylpentane	0.1701 0.2181	0.1635 0.2048	0.1997 0.1735	0.1678 0.1822	0.1936	Ave				0.1859				10.2		30.0			
Thiophene	0.4033 0.4904	0.3656 0.4775	0.4326 0.4144	0.3889 0.4535	0.4495	Ave				0.4306				9.6		30.0			
Tert-amyl methyl ether	++++ 0.7246	0.5422 0.7657	0.5885 0.6251	0.5528 0.7334	0.6168	Ave				0.6436				13.4		30.0			
2,2,4-Trimethylpentane	1.2559 1.5774	1.1480 1.4297	1.3694 1.1835	1.1880 1.2127	1.3776	Ave				1.3047				10.9		30.0			
Heptane	++++ 0.3469	0.2548 0.3154	0.3019 0.2596	0.2588 0.2705	0.3035	Ave				0.2889				11.5		30.0			
1,2-Dichloropropane	0.2906 0.2837	0.2676 0.3088	0.2584 0.2567	0.2529 0.2703	0.2644	Ave				0.2726				6.7		30.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9		B	M1	M2								
Trichloroethene	0.3688 0.5033	0.3440 0.4316	0.5123 0.3780	0.3593 0.4151	Ave		0.4186				14.8		30.0			
Dibromomethane	++++ 0.3889	0.2900 0.3594	0.3299 0.3041	0.2976 0.3375	Ave		0.3316				10.1		30.0			
Bromodichloromethane	0.5174 0.6936	0.4743 0.6569	0.5538 0.5626	0.5007 0.6303	Ave		0.5762				12.8		30.0			
1,4-Dioxane	0.0817 0.1219	0.0851 0.1140	0.0928 0.0904	0.0829 0.1034	Ave		0.0965				14.6		30.0			
Methyl methacrylate	0.2938 0.3203	0.2764 0.3675	0.2381 0.2963	0.2499 0.3421	Ave		0.2946				14.5		30.0			
Methylcyclohexane	0.5798 0.7090	0.5275 0.6371	0.6323 0.5277	0.5432 0.5612	Ave		0.5953				10.5		30.0			
4-Methyl-2-pentanone (MIBK)	0.4023 0.5929	0.4101 0.5966	0.4735 0.4754	0.4187 0.5284	Ave		0.4897				15.0		30.0			
cis-1,3-Dichloropropene	0.4002 0.4569	0.3982 0.4973	0.4013 0.4303	0.3994 0.4690	Ave		0.4307				8.4		30.0			
trans-1,3-Dichloropropene	0.3658 0.4061	0.3540 0.4491	0.3426 0.4020	0.3354 0.4498	Ave		0.3859				11.2		30.0			
Toluene Range	++++ 2.0836	++++ 2.2682	++++ 1.9120	1.8759 2.1660	Ave		2.0306				8.2		30.0			
Toluene	0.8254 0.8322	0.7743 0.8957	0.7328 0.7761	0.7273 0.8596	Ave		0.7999				7.1		30.0			
1,1,2-Trichloroethane	0.2336 0.2534	0.2227 0.2680	0.2207 0.2294	0.2124 0.2492	Ave		0.2359				7.5		30.0			
2-Methylthiophene	0.6613 0.7027	0.6575 0.7544	0.6376 0.6612	0.6096 0.7240	Ave		0.6747				6.6		30.0			
3-Methylthiophene	0.6737 0.6801	0.6274 0.7378	0.6026 0.6464	0.5887 0.7136	Ave		0.6573				7.5		30.0			
2-Hexanone	++++ 0.2915	0.1900 0.2710	0.2213 0.2338	0.1764 0.2631	Ave		0.2348				16.8		30.0			
Octane	++++ 0.3727	0.2881 0.3343	0.3227 0.2834	0.2768 0.2924	Ave		0.3146				11.0		30.0			
C8 Range	++++ 3.9288	++++ 3.5290	++++ 2.7837	2.8399 2.2545	Ave		3.1518				19.9		30.0			
Dibromochloromethane	0.4510 0.6078	0.4328 0.6378	0.4973 0.5733	0.4548 0.6752	Ave		0.5428				16.2		30.0			
1,2-Dibromoethane	0.4272 0.5036	0.4148 0.5296	0.4331 0.4740	0.3963 0.5288	Ave		0.4640				10.6		30.0			
Tetrachloroethene	0.3393 0.3979	0.3144 0.3644	0.3519 0.3344	0.3031 0.3796	Ave		0.3510				8.9		30.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9		B	M1	M2								
Chlorobenzene	0.6294 0.7178	0.6279 0.7389	0.6200 0.6505	0.5900 0.7362	0.6651 Ave		0.6640				8.2		30.0			
2,3-Dimethylheptane	0.8109 0.9418	0.7539 0.8768	0.8388 0.6840	0.7385 0.6154	0.8750 Ave		0.7928				13.1		30.0			
Ethylbenzene	1.0036 1.1526	1.0133 1.1923	0.9508 1.0222	0.9310 1.1519	1.0198 Ave		1.0486				8.9		30.0			
2-Ethylthiophene	0.7321 0.8577	0.7363 0.9084	0.6843 0.7890	0.6841 0.8999	0.7684 Ave		0.7845				11.0		30.0			
m-Xylene & p-Xylene	0.7983 0.9029	0.7794 0.9012	0.7339 0.7616	0.7175 0.8713	0.8098 Ave		0.8084				8.6		30.0			
Bromoforn	++++ 0.5811	0.3397 0.6513	0.4073 0.6476	0.4101 ++++	0.4599 Ave		0.4996				25.2		30.0			
Nonane	0.5140 0.6372	0.5365 0.5614	0.5472 0.4343	0.4988 0.3895	0.5982 Ave		0.5241				14.7		30.0			
Styrene	0.5025 0.6687	0.5069 0.6733	0.4719 0.5858	0.4870 0.6908	0.5821 Ave		0.5743				15.1		30.0			
o-Xylene	0.8448 0.9402	0.8143 0.9607	0.7706 0.8183	0.7503 0.9298	0.8397 Ave		0.8521				8.8		30.0			
1,1,2,2-Tetrachloroethane	0.5467 0.6672	0.5314 0.6754	0.3873 0.5632	0.4923 0.6232	0.5771 Ave		0.5626				16.0		30.0			
1,2,3-Trichloropropane	0.1698 0.2072	0.1776 0.2127	0.1592 0.1836	0.1811 0.2171	0.1592 Ave		0.1853				11.9		30.0			
Isopropylbenzene	1.2213 1.3188	1.2143 1.3047	1.0675 1.1252	1.0400 1.3154	1.1807 Ave		1.1987				8.8		30.0			
Propylbenzene	0.3083 0.3741	0.3035 0.3706	0.2942 0.3183	0.2692 0.3791	0.3203 Ave		0.3264				12.0		30.0			
2-Chlorotoluene	0.2803 0.3401	0.2908 0.3361	0.2713 0.2938	0.2596 0.3435	0.2980 Ave		0.3015				10.3		30.0			
4-Ethyltoluene	1.0725 1.3245	1.0762 1.3261	1.0167 1.1334	0.9755 1.3366	1.1448 Ave		1.1563				12.1		30.0			
1,3,5-Trimethylbenzene	0.5114 0.6375	0.5316 0.6202	0.4943 0.5337	0.4675 0.6484	0.5604 Ave		0.5561				11.7		30.0			
Alpha Methyl Styrene	0.3588 0.5521	0.3762 0.5659	0.3674 0.4999	0.3490 0.5992	0.4597 Ave		0.4587				21.6		30.0			
Decane	0.5871 0.7749	0.5831 0.6868	0.6267 0.5492	0.5632 0.5302	0.6657 Ave		0.6186				12.7		30.0			
tert-Butylbenzene	1.0198 1.2271	1.0123 1.1883	0.9710 1.0325	1.0851 1.2566	1.0851 Ave		1.0776				11.2		30.0			
1,2,4-Trimethylbenzene	0.8612 1.1298	0.8911 1.0825	0.8780 0.9378	0.8224 1.1204	0.9973 Ave		0.9689				12.2		30.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analytical Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5			B	M1	M2								
1,3-Dichlorobenzene	0.6141 0.7899	0.6013 0.7691	0.6150 0.7360	0.5662 0.9169	0.6918 Ave				0.7000				16.2		30.0			
sec-Butylbenzene	1.3032 1.6296	1.3128 1.5477	1.3058 1.3412	1.1931 1.5425	1.4403 Ave				1.4018				10.4		30.0			
Benzyl chloride	0.6148 0.9678	0.6350 0.9569	0.6408 0.8508	0.5951 0.9807	0.7219 Ave				0.7737				21.3		30.0			
1,4-Dichlorobenzene	0.6036 0.7841	0.5931 0.7519	0.6005 0.7111	0.5563 0.8865	0.6711 Ave				0.6842				15.9		30.0			
4-Isopropyltoluene	1.0603 1.3938	1.0612 1.3544	1.0692 1.1734	0.9923 1.4119	1.2263 Ave				1.1936				13.5		30.0			
1,2,3-Trimethylbenzene	0.6714 0.8522	0.6994 0.8473	0.6784 0.7260	0.6250 0.8489	0.7562 Ave				0.7450				11.6		30.0			
Butylcyclohexane	0.7330 0.8802	0.7198 0.7920	0.7649 0.6757	0.6877 0.7014	0.7915 Ave				0.7496				8.7		30.0			
1,2-Dichlorobenzene	0.5841 0.7718	0.5719 0.7333	0.5959 0.6864	0.5354 0.8615	0.6801 Ave				0.6689				16.0		30.0			
Indane	0.8027 1.0536	0.8227 1.0032	0.8131 0.8882	0.7463 1.0683	0.9208 Ave				0.9021				13.0		30.0			
Indene	++++ 0.7925	++++ 0.7841	++++ 0.5682	0.5181 0.8297	0.6730 Lin1			-0.062	0.7892						0.9930	0.9900		
Butylbenzene	0.8919 1.2730	0.9217 1.1984	0.9649 0.9995	0.8698 1.1339	1.0888 Ave				1.0380				13.7		30.0			
Undecane	0.6021 0.8423	0.6055 0.7396	0.6714 0.5739	0.5764 0.5367	0.7308 Ave				0.6532				15.3		30.0			
1,2-Dimethyl-4-Ethylbenzene	++++ 1.0231	0.7153 0.9883	0.7844 0.8445	0.6729 1.0112	0.8866 Ave				0.8658				15.6		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.3428	0.1955 0.3390	0.2082 0.3139	0.1926 0.4055	0.2526 Ave				0.2810				28.6		30.0			
1,2,4,5-Tetramethylbenzene	0.8105 1.2627	0.8397 1.1843	0.9470 1.0243	0.8035 1.2216	1.0664 Ave				1.0178				17.6		30.0			
1,2,3,5-Tetramethylbenzene	0.5153 0.7560	0.5255 0.7179	0.5723 0.6194	0.4969 0.7358	0.6589 Ave				0.6220				16.1		30.0			
1,2,3,4-Tetramethylbenzene	0.6713 1.0417	0.6881 0.9783	0.7946 0.8420	0.6480 0.9968	0.9053 Ave				0.8407				17.8		30.0			
Dodecane	0.4776 0.7387	0.4838 0.6800	0.6528 0.5350	0.4608 0.5001	0.6724 Ave				0.5779				18.5		30.0			
1,2,4-Trichlorobenzene	0.2836 0.5853	0.3012 0.5779	0.3547 0.5740	0.2992 0.7434	0.4654 Ave				0.4650				35.3 *		30.0			
Naphthalene	0.6545 1.2900	0.6877 1.2421	0.8457 1.1172	0.6647 1.3186	1.0568 Ave				0.9864				28.1		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6566-1 Analy Batch No.: 7384
SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF						CURVE TYPE			COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		Ave			B	M1	M2								
Benzo(b)thiophene	++++ 0.6697	0.3568 0.6621	0.4044 0.6235	0.3280 0.7552	0.5262		Ave				0.5407				29.8		30.0			
Hexachlorobutadiene	0.6234 0.8147	0.5709 0.7703	0.6554 0.7981	0.5172 0.9331	0.7444		Ave				0.7142				18.5		30.0			
1,2,3-Trichlorobenzene	0.3108 0.5783	0.3138 0.5460	0.3999 0.5209	0.2901 0.6336	0.4883		Ave				0.4535				28.3		30.0			
2-Methylnaphthalene	++++ 0.2002	++++ 0.1790	0.1300 0.1732	0.0618 0.1093	0.1529		Ave				0.1438				33.0		50.0			
1-Methylnaphthalene	++++ 0.2051	++++ 0.1772	0.1609 0.1640	0.0678 0.0845	0.1661		Ave				0.1465				34.5		50.0			
4-Bromofluorobenzene (Surr)	0.6532 0.6804	0.6564 0.6665	0.6386 0.6726	0.6628 0.6636	0.6595		Ave				0.6615				1.8		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6566-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7414/6

Calibration Date: 12/16/2016 11:55

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL16A.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.4081		2.49	2.00	24.4	30.0
Propene	Ave	1.094	1.317		2.41	2.00	20.4	30.0
Dichlorodifluoromethane	Ave	3.423	4.256		2.49	2.00	24.3	30.0
Chloromethane	Ave	0.3677	0.4251		2.31	2.00	15.6	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.558		2.26	2.00	12.8	30.0
Acetaldehyde	Ave	0.4060	0.4632		11.5	10.1	14.1	30.0
Vinyl chloride	Ave	1.207	1.428		2.37	2.00	18.4	30.0
1,3-Butadiene	Ave	0.9739	1.132		2.33	2.00	16.2	30.0
Butane	Ave	1.902	2.320		2.44	2.00	22.0	30.0
Bromomethane	Ave	1.152	1.238		2.15	2.00	7.5	30.0
Chloroethane	Ave	0.6412	0.6906		2.16	2.00	7.7	30.0
Ethanol	Ave	0.3997	0.4013		10.1	10.1	0.4	30.0
Vinyl bromide	Ave	1.088	1.174		2.16	2.00	7.9	30.0
2-Methylbutane	Ave	1.389	1.541		2.22	2.00	10.9	30.0
Acrolein	Ave	0.3114	0.3096		1.99	2.00	-0.6	30.0
Trichlorofluoromethane	Ave	3.318	3.948		2.38	2.00	19.0	30.0
Acetonitrile	Ave	0.3691	0.4326		2.35	2.00	17.2	30.0
Acetone	Ave	0.4215	0.4381		6.24	6.00	3.9	30.0
Isopropyl alcohol	Ave	1.426	1.511		6.36	6.00	5.9	30.0
Pentane	Ave	0.2036	0.2188		2.15	2.00	7.5	30.0
Ethyl ether	Ave	0.8402	1.033		2.46	2.00	22.9	30.0
1,1-Dichloroethene	Ave	0.9780	1.077		2.20	2.00	10.1	30.0
Acrylonitrile	Ave	0.5284	0.5962		2.26	2.00	12.8	30.0
t-Butyl alcohol	Ave	1.499	1.651		2.20	2.00	10.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.378		2.27	2.00	13.4	30.0
Methylene Chloride	Ave	0.8508	0.8686		2.04	2.00	2.1	30.0
3-Chloropropene	Ave	0.8422	0.9528		2.26	2.00	13.1	30.0
Carbon disulfide	Ave	3.196	3.400		2.13	2.00	6.4	30.0
trans-1,2-Dichloroethene	Ave	1.149	1.268		2.21	2.00	10.3	30.0
2-Methylpentane	Ave	2.476	3.158		2.58	2.02	27.6	30.0
Methyl tert-butyl ether	Ave	2.730	3.268		2.40	2.00	19.7	30.0
1,1-Dichloroethane	Ave	2.159	2.582		2.39	2.00	19.6	30.0
Vinyl acetate	Ave	2.684	3.498		2.61	2.00	30.3	30.0
2-Butanone	Ave	0.4737	0.5174		2.19	2.00	9.2	30.0
Hexane	Ave	0.9508	1.111		2.34	2.00	16.9	30.0
Isopropyl ether	Ave	3.411	4.467		2.62	2.00	30.9	30.0
cis-1,2-Dichloroethene	Ave	1.166	1.304		2.24	2.00	11.8	30.0
Ethyl acetate	Ave	2.116	2.794		2.64	2.00	32.1	30.0
Chloroform	Ave	2.509	2.916		2.33	2.00	16.2	30.0
Tert-butyl ethyl ether	Ave	2.966	3.727		2.51	2.00	25.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6566-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7414/6

Calibration Date: 12/16/2016 11:55

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL16A.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.399		2.56	2.00	28.1	30.0
1,1,1-Trichloroethane	Ave	2.737	3.219		2.35	2.00	17.6	30.0
1,2-Dichloroethane	Ave	0.3729	0.4201		2.25	2.00	12.6	30.0
1-Butanol	Ave	0.0875	0.0856		1.96	2.00	-2.2	30.0
Benzene	Ave	0.7195	0.7466		2.08	2.00	3.8	30.0
Cyclohexane	Ave	0.1326	0.1297		1.96	2.00	-2.2	30.0
Carbon tetrachloride	Ave	0.6424	0.6877		2.14	2.00	7.0	30.0
2,3-Dimethylpentane	Ave	0.1859	0.1853		2.01	2.02	-0.3	30.0
Thiophene	Ave	0.4306	0.4337		2.03	2.02	0.7	30.0
Tert-amyl methyl ether	Ave	0.6436	0.6765		2.10	2.00	5.1	30.0
2,2,4-Trimethylpentane	Ave	1.305	1.371		2.10	2.00	5.1	30.0
Heptane	Ave	0.2889	0.2935		2.03	2.00	1.6	30.0
1,2-Dichloropropane	Ave	0.2726	0.2938		2.16	2.00	7.8	30.0
Trichloroethene	Ave	0.4186	0.3824		1.83	2.00	-8.7	30.0
Dibromomethane	Ave	0.3316	0.3301		1.99	2.00	-0.4	30.0
Bromodichloromethane	Ave	0.5762	0.6197		2.15	2.00	7.5	30.0
1,4-Dioxane	Ave	0.0965	0.0854		1.77	2.00	-11.5	30.0
Methyl methacrylate	Ave	0.2946	0.3393		2.30	2.00	15.2	30.0
Methylcyclohexane	Ave	0.5953	0.5811		1.97	2.02	-2.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.5228		2.14	2.00	6.8	30.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4678		2.17	2.00	8.6	30.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4199		2.18	2.00	8.8	30.0
Toluene	Ave	0.7999	0.8277		2.07	2.00	3.5	30.0
1,1,2-Trichloroethane	Ave	0.2359	0.2464		2.09	2.00	4.5	30.0
2-Methylthiophene	Ave	0.6747	0.6844		2.05	2.02	1.4	30.0
3-Methylthiophene	Ave	0.6573	0.6705		2.06	2.02	2.0	30.0
2-Hexanone	Ave	0.2348	0.2279		1.94	2.00	-2.9	30.0
Octane	Ave	0.3146	0.3162		2.01	2.00	0.5	30.0
Dibromochloromethane	Ave	0.5428	0.5707		2.10	2.00	5.1	30.0
1,2-Dibromoethane	Ave	0.4640	0.4882		2.11	2.00	5.2	30.0
Tetrachloroethene	Ave	0.3510	0.3376		1.92	2.00	-3.8	30.0
Chlorobenzene	Ave	0.6640	0.6757		2.04	2.00	1.8	30.0
2,3-Dimethylheptane	Ave	0.7928	0.9086		2.31	2.02	14.6	30.0
Ethylbenzene	Ave	1.049	1.096		2.09	2.00	4.6	30.0
2-Ethylthiophene	Ave	0.7845	0.8248		2.12	2.02	5.1	30.0
m-Xylene & p-Xylene	Ave	0.8084	0.8467		4.19	4.00	4.7	30.0
Bromoform	Ave	0.4996	0.5419		2.17	2.00	8.5	30.0
Nonane	Ave	0.5241	0.5812		2.22	2.00	10.9	30.0
Styrene	Ave	0.5743	0.6061		2.11	2.00	5.5	30.0
o-Xylene	Ave	0.8521	0.8922		2.10	2.00	4.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.5976		2.13	2.00	6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6566-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7414/6

Calibration Date: 12/16/2016 11:55

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL16A.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.1901		2.05	2.00	2.6	30.0
Isopropylbenzene	Ave	1.199	1.193		1.99	2.00	-0.5	30.0
Propylbenzene	Ave	0.3264	0.3217		1.97	2.00	-1.5	30.0
2-Chlorotoluene	Ave	0.3015	0.2981		1.98	2.00	-1.1	30.0
4-Ethyltoluene	Ave	1.156	1.175		2.03	2.00	1.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.5464		1.97	2.00	-1.7	30.0
Alpha Methyl Styrene	Ave	0.4587	0.4676		2.04	2.00	1.9	30.0
Decane	Ave	0.6186	0.6828		2.21	2.00	10.4	30.0
tert-Butylbenzene	Ave	1.078	1.076		2.00	2.00	-0.2	30.0
1,2,4-Trimethylbenzene	Ave	0.9689	0.997		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.7000	0.6834		1.95	2.00	-2.4	30.0
sec-Butylbenzene	Ave	1.402	1.423		2.03	2.00	1.5	30.0
Benzyl chloride	Ave	0.7737	0.8561		2.21	2.00	10.6	30.0
1,4-Dichlorobenzene	Ave	0.6842	0.6737		1.97	2.00	-1.5	30.0
4-Isopropyltoluene	Ave	1.194	1.204		2.02	2.00	0.8	30.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.7482		2.03	2.02	0.4	30.0
Butylcyclohexane	Ave	0.7496	0.7721		2.08	2.02	3.0	30.0
1,2-Dichlorobenzene	Ave	0.6689	0.6442		1.93	2.00	-3.7	30.0
Indane	Ave	0.9021	0.8889		1.99	2.02	-1.5	30.0
Indene	Lin1		0.6587		1.76	2.02	-12.6	30.0
Butylbenzene	Ave	1.038	1.108		2.14	2.00	6.8	30.0
Undecane	Ave	0.6532	0.7112		2.18	2.00	8.9	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	0.8369		1.95	2.02	-3.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2602		1.85	2.00	-7.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	1.001		1.99	2.02	-1.6	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.6011		1.95	2.02	-3.4	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.8112		1.95	2.02	-3.5	30.0
Dodecane	Ave	0.5779	0.5838		2.02	2.00	1.0	30.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.4384		1.89	2.00	-5.7	30.0
Naphthalene	Ave	0.9864	0.9713		1.97	2.00	-1.5	30.0
Benzo (b) thiophene	Ave	0.5407	0.4928		1.84	2.02	-8.9	30.0
Hexachlorobutadiene	Ave	0.7142	0.6378		1.79	2.00	-10.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.4150		1.83	2.00	-8.5	30.0
2-Methylnaphthalene	Ave	0.1438	0.1181		5.14	6.25	-17.8	50.0
1-Methylnaphthalene	Ave	0.1465	0.1221		5.21	6.25	-16.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.7024		4.25	4.00	6.2	30.0

APPENDIX C

Sub-Slab Vapor & Indoor Air Monitoring Report 2016-2017 Heating Season, 144 State Street

SUB-SLAB VAPOR AND INDOOR AIR MONITORING REPORT 2016-2017 HEATING SEASON

**144 State Street
Albany, New York**

Site No. 401061

CHA Project Number: 21645.5003.31000

Prepared for:

***Columbia Eagle, LLC
302 Washington Avenue Extension
Albany, NY 12203***

Prepared by:



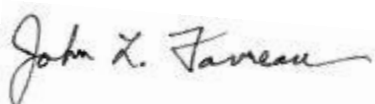
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Albany, New York 12205
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April 13, 2017

QUALIFICATIONS AND CERTIFICATION STATEMENT

This Report was compiled by qualified environmental scientists and engineers employed by CHA and was prepared expressly for the use of Columbia Eagle, LLC. No other parties are entitled to rely upon this report unless our express written consent is first obtained. All conclusions drawn were based on CHA's field inspection and analytical results from sampling performed during the course of this project. Recommendations are submitted based on CHA's knowledge, experience and professional judgement.

Report Completed By:



John L. Favreau
Senior Scientist V

Report Reviewed By:



Seth H. Fowler, CHMM
Associate Vice President

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1.0 OVERVIEW

The Site is the Renaissance Hotel, located at 144 State Street in the City of Albany, County of Albany, New York. In February 2011, a portion of the properties currently located at 67 Howard Street and 140 State Street, which are located immediately east of the Site, and known as the Former Albany Laboratories Site (NYSDEC Site No. 401061), was listed on the New York State Registry of Inactive Waste Disposal Sites.

After completion of the remedial work in 2008 and 2011, it was determined that excavation was limited by the foundation of the Site building. As a result, sub-slab vapor, indoor air, and outdoor air samples were collected in February and November 2012, within and outside the building to determine if any actions were necessary to address exposures related to soil vapor intrusion. The findings from the two sampling events indicated that a mitigation response was recommended in accordance with the NYSDOH October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*.

A Site Management Plan (SMP) for the Former Albany Laboratories Site, dated June 20, 2014, was prepared to manage remaining contamination at the Site. As part of the approved SMP, a sub-slab depressurization system (SSDS) was installed on the 144 State Street portion of the Site during the renovation of the Renaissance Hotel which was completed by BBL Construction Services (BBL) in the summer and fall of 2015.

An initial, post-installation/activation sub-slab vapor and indoor air sampling event was conducted during the 2015-2016 heating season. The findings of the sampling event were presented in CHA's report dated March 7, 2016. The NYSDEC-approved SMP required that sampling be completed again at least one year following installation to verify the effectiveness of the vapor mitigation system.

Sections 2.0 and 3.0 of this report discuss the field activities and results associated with the second sub-slab vapor and indoor air sampling event at the 144 State Street building, conducted during the 2016-2017 heating season. CHA's conclusions and recommendations are presented and discussed in Section 4.0.

2.0 FIELD ACTIVITIES

2.1 SAMPLE COLLECTION

On December 13, 2016, prior to sample collection, a helium tracer gas study was performed as a quality assurance/quality control measure to verify the integrity of the three sub-slab vapor sampling probes which were installed in January 2016, prior to the completion of the initial post-installation sampling event. The locations of the sub-slab vapor probes are shown on Figure 1. To facilitate the study at each location, bentonite slurry was spread on the concrete surface in a 2-foot diameter circle around the vapor probe and a two foot by two foot square section of plastic sheeting was placed over the bentonite slurry thereby creating an enclosure. Next, a hole was opened in the plastic sheeting to insert the sampling tube and the plastic sheeting/tube interface was sealed with a small amount of plumber's putty. An additional hole was made in the enclosure to introduce the tracer gas (helium) into the enclosure. Next, the tracer gas was released into the enclosure to displace any ambient air within the enclosure and provide positive pressure. Finally, a Dielectric MGD-2002 Helium Detector was utilized to detect potential leaks prior to sample collection by purging vapor through the sample tube. Helium concentrations of 1,900 parts per million (ppm), 250 ppm and 1,225 ppm were detected at sub-slab vapor probes SSV-1, SSV-2 and SSV-3, respectively. Per the NYSDOH guidance, given the concentrations of helium were detected below 10,000 ppm, the sub-slab vapor probes were determined to be adequately sealed. Following the tracer gas study, one to three implant volumes (volume of the sample probe and tube) were purged at each vapor probe location.

In addition to the sub-slab vapor samples, indoor air samples (IA-1, IA-2 and IA-3) were collected concurrently, in the immediate vicinity of the sub-slab vapor probes, in order to quantify the actual indoor air quality relative to subsurface conditions. CHA collected one outdoor ambient air (background) sample, identified as AM-1, southwest of 140 State Street, along the east side of the Renaissance Hotel (144 State Street) which is located adjacent to the Site. The purpose of the background sample was to determine if compounds detected in the indoor air sample could be attributable to ambient air levels at the Site at the time of sampling. Refer to Figure 1 for sample locations.

All of the samples were collected using six-liter SUMMA canisters and pre-calibrated flow controllers, batch certified clean by TestAmerica Inc. (TestAmerica). The flow controllers were set for an eight-hour sampling period. All of the samples were analyzed by TestAmerica for the presence of volatile organic compounds (VOCs) via EPA Method TO-15. TestAmerica is a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. The results of the analyses are presented by the laboratory with a targeted minimum reporting limit of 1.0 microgram per cubic meter.

2.2 BUILDING CHEMICAL INVENTORY

In addition to the sub-slab and indoor air sampling, CHA completed the NYSDOH Indoor Air Quality Questionnaire and Building Inventory. The questionnaire and building inventory pertain to uses and chemicals present in the building that could impact indoor air quality and also affect the results of the indoor air samples that were collected.

During the survey, CHA observed three 1-gallon sized containers of unopened Ecolab Lime-Away, eight 1-gallon containers of unopened Ecolab food contact surface sanitizer, four 1-gallon containers of unopened Ecolab Kool Klene freezer cleaner; and four 2.5-gallon containers of unopened Ecolab all-purpose cleaner in the basement cooler storage. CHA also observed a 4 pound container of Ecolab laundry stain remover, a 1-pound container of Ecolab stain blaster, and a 6-pound container of Ecolab laundry detergent and an 8-pound container of Ecolab solid dual surge laundry detergent in the basement laundry room. No petroleum or chemical odors were observed in the basement. A copy of the questionnaire is provided in Appendix A.

3.0 RESULTS

3.1 GUIDANCE/SCREENING LEVELS

The laboratory results for the samples were compared to a number of guidance values. More specifically, the results reported for the compounds carbon tetrachloride, 1,1-dichloroethylene, cis-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichloroethane, trichloroethene, and vinyl chloride in both the sub-slab and ambient air samples were compared to the decision matrices that are presented in the NYSDOH October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. It should be noted that these seven compounds are the only compounds that are considered by the NYSDOH decision matrices to determine the need for monitoring or mitigation pertaining to soil vapor intrusion.

The results for the analyses of the samples are summarized in Tables 1 through 3 relative to the matrix threshold values for these key parameters. The matrix threshold values are in Tables 1 and 2 of the referenced October 2006 NYSDOH vapor intrusion guidance.

In addition to the 2006 NYSDOH vapor intrusion guidance matrix VOCs, the volatile organics that are not listed in the matrices can be and are commonly compared to one or all of the “screening levels” specified in the 1997-2003 NYSDOH *Study of VOCs in Air for Fuel Oil Heated Homes* (90th Percentile). This set of data is referenced for comparison purposes only, as the values referenced in this document is not enforceable regulatory guidance or standard. As noted in Table 1, these values are referred to as screening levels for the purposes of this report.

3.2 ANALYTICAL RESULTS

The sub-slab vapor and indoor air sample results, both current and historic, are summarized in Tables 1 through 3, attached to this report. A copy of the complete laboratory report can be found in Appendix B. The seven compounds that are considered by the NYSDOH decision matrices are discussed below.

3.2.1 Sub-Slab Vapor Sample SSV-1 and Indoor Air Sample IA-1

The results from the analysis of the sub-slab vapor sample SSV-1 and indoor air sample IA-1 identified the detection of a limited number of VOCs at levels above the respective laboratory method detection limits. Four of the seven NYSDOH decision matrices compounds were detected in sample locations SSV-1 and/or IA-1. Carbon tetrachloride was detected above the NYSDOH indoor air matrix threshold, as shown below in Table 3-1.

Table 3-1

Parameter	Matrix	Sub-Slab Vapor Concentration	Indoor Air Concentration	Recommended Action (NYSDOH Matrices)
Carbon tetrachloride	1	0.64 µg/m ³	0.46 µg/m ³	Take reasonable and practical actions
Cis-1,2-Dichloroethene	2	2 µg/m ³	ND	No further action
Tetrachloroethene	2	0.68 µg/m ³	ND	No further action
Trichloroethene	1	4.1 µg/m ³	ND	No further action

ND= Not detected

As indicated above, carbon tetrachloride was detected at low concentrations in both the sub-slab vapor and the indoor air sample at this location. Based on the detected concentrations of this compound in the sub-slab vapor and indoor air samples, the applicable NYSDOH decision matrix recommends taking reasonable and practical actions to identify source(s) and reduce exposures. It should be noted that carbon tetrachloride was also detected in the outdoor/ambient air sample, AM-1, at a concentration of $0.39 \mu\text{g}/\text{m}^3$. Cis-1,2-Dichloroethene, tetrachloroethene and trichloroethene were detected in the sub-slab vapor; however, these compounds were not detected in the indoor air. Based on the detected concentrations of these compounds in the sub-slab vapor, the NYSDOH matrices recommend no further action.

In the indoor air sample IA-1, several VOCs not included in the NYSDOH decision matrices were detected at concentrations above the laboratory detection limits (2-Butanone, benzene, chloroform, chloromethane, dichlorodifluoromethane, ethanol, ethylbenzene, hexane, xylenes, methylene chloride, toluene, trans-1,2-Dichloroethene and trichlorofluoromethane). The analytical results for these compounds were compared to the “screening levels”, and only two were detected at concentrations above the screening levels: chloroform at $9.9 \mu\text{g}/\text{m}^3$ (screening level $1.4 \mu\text{g}/\text{m}^3$); and trans-1,2-Dichloroethene at $2.9 \mu\text{g}/\text{m}^3$ (screening level of $<0.25 \mu\text{g}/\text{m}^3$).

3.2.2 Sub-Slab Vapor Sample SSV-2 and Indoor Air Sample IA-2

The results from the analysis of the sub-slab vapor sample SSV-2 and indoor air sample IA-2 identified the detection of a limited number of VOCs at levels above the respective laboratory method detection limits. Three of the seven NYSDOH decision matrices compounds were detected in sub-slab vapor sample SSV-2, while none of the seven compounds was detected in indoor air sample IA-2, as shown below in Table 3-2.

Table 3-2

Parameter	Matrix	Sub-Slab Vapor Concentration	Indoor Air Concentration	Application of Matrix
Cis-1,2-Dichloroethene	2	$130 \mu\text{g}/\text{m}^3$	ND	Monitor
Tetrachloroethene	2	$5.1 \mu\text{g}/\text{m}^3$	ND	No further action
Trichloroethene	1	$33 \mu\text{g}/\text{m}^3$	ND	No further action

ND= Not detected

Cis-1,2-Dichloroethene was detected above the minimum NYSDOH sub-slab vapor matrix threshold; however, the compound was not detected in the corresponding indoor air sample. Based on the concentration of cis-1,2-Dichloroethene in the sub-slab vapor sample, the applicable NYSDOH decision matrix recommends continued monitoring. Based on the concentrations of tetrachloroethene and trichloroethene detected in the sub-slab vapor sample, and the absence of these compounds in the indoor air sample, the NYSDOH matrices recommend no further action.

Three additional VOCs, not included in the NYSDOH decision matrices, were detected at concentrations above the laboratory detection limits in indoor air sample IA-2 (dichlorodifluoromethane, ethanol and trans-1,2-Dichloroethene). The analytical results for these compounds were compared to the “screening levels” and only one was detected at a concentration above the screening level: trans-1,2-Dichloroethene at $9.9 \mu\text{g}/\text{m}^3$ (screening level $<0.25 \mu\text{g}/\text{m}^3$).

3.2.3 Sub-Slab Vapor Sample SSV-3 and Indoor Air Sample IA-3

The results from the analysis of the sub-slab vapor sample SSV-3 and indoor air sample IA-3 identified the detection of a limited number of VOCs at levels above the respective laboratory method detection limits. One of the seven NYSDOH decision matrices compounds, carbon tetrachloride, was detected in sub-slab vapor sample SSV-3, while none of the seven compounds was detected in indoor air sample IA-3, as shown below in Table 3-3.

Table 3-3

Parameter	Matrix	Sub-Slab Vapor Concentration	Indoor Air Concentration	Application of Matrix
Carbon tetrachloride	1	0.4 $\mu\text{g}/\text{m}^3$	ND	No further action

ND= Not detected

Based on the concentration of carbon tetrachloride in the sub-slab vapor sample, and the absence of this compound in the indoor air sample, the applicable NYSDOH matrix recommends no further action. It should be noted that carbon tetrachloride was also detected in the outdoor/ambient air sample, AM-1, at a concentration of 0.39 $\mu\text{g}/\text{m}^3$.

Five additional VOCs, not included in the NYSDOH decision matrices, were detected at concentrations above the laboratory detection limits in indoor air sample IA-3 (chloroform, dichlorodifluoromethane, ethanol, toluene and trans-1,2-Dichloroethene). The analytical results for these compounds were compared to the “screening levels”, and only two were detected at concentrations above the screening levels: chloroform at 1.6 $\mu\text{g}/\text{m}^3$ (screening level 1.4 $\mu\text{g}/\text{m}^3$) and trans-1,2-Dichloroethene at 9.9 $\mu\text{g}/\text{m}^3$ (screening level <0.25 $\mu\text{g}/\text{m}^3$).

3.2.4 Outdoor Ambient Air Sample OA-1

The ambient sample AM-1 was found to contain low concentrations of a number of VOCs. Of the seven NYSDOH decision matrices target compounds, only carbon tetrachloride was detected, at a concentration of 0.39 $\mu\text{g}/\text{m}^3$.

3.3 DATA VALIDATION SUMMARY

The analytical laboratory deliverable ASP Category B deliverable package was submitted to Alpha Geoscience for independent data validation. The data usability summary report (DUSR) indicates that the data is acceptable with minor issues, as described below. There were no data that were flagged as unusable. A copy of the DUSR is included as Appendix C.

- There are volatile results for ethanol in samples SSV-1 and IA-1 that were quantitated using data that were extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. Results for ethanol marked “E” in the undiluted samples are qualified as estimated.
- There is a volatile result for trans-1,2-Dichloroethene in sample SSV-2 that was quantitated using data that were extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. The result for trans-1,2-Dichloroethene marked “E” in the undiluted samples is qualified as estimated.

4.0 CONCLUSIONS/RECOMMENDATIONS

4.1 CONCLUSIONS

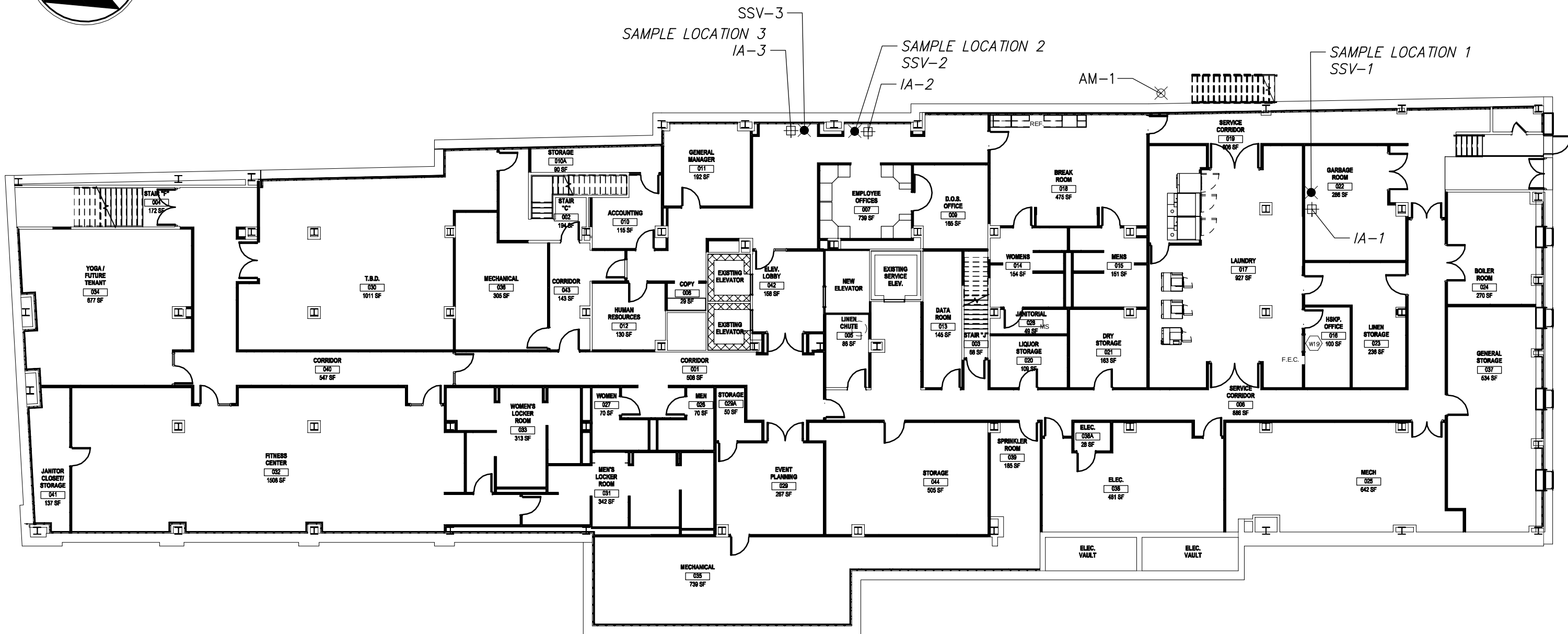
- VOCs subject to the NYSDOH decision matrices that were detected during the December 2016 sampling event were limited to cis-1,2-Dichloroethene, tetrachloroethene and trichloroethene, which were detected in sub-slab vapor samples SSV-1 and SSV-2, but not in the corresponding indoor air samples IA-1 and IA-2, and carbon tetrachloride, which was detected in sub-slab vapor samples SSV-1 and SSV-3, but only in the indoor air sample IA-1. It should be noted that carbon tetrachloride was also detected in the outdoor ambient air sample, AM-1, at a similar concentration to that of indoor air sample IA-1. In addition, note that this compound was also detected in the outdoor ambient air sample during the previous sampling event in January 2016. Based on the analytical results of both sub-slab vapor and indoor air samples, no additional mitigation (beyond the current vapor mitigation system) is warranted at this time.
- At the time of this monitoring event, CHA observed several unopened containers of cleaners and sanitizer within the basement cooler storage. In addition, CHA observed several laundry cleaning products in the basement laundry room. Based on the observed condition of the containers and the indoor air sample results, the contents of the containers are not considered to have adversely impacted indoor air quality at the time of the sampling event.
- Based on the analytical results of sub-slab vapor and indoor air sampling conducted in December 2016, the vapor mitigation system continues to be effective in mitigating vapor intrusion concerns relative to residual subsurface VOCs associated with the adjacent Former Albany Laboratories Site.

4.2 RECOMMENDATIONS

- It is recommended that the vapor mitigation system activated during the fall of 2015 remain in operation, subject to inspection at the time of the annual site-wide inspection, as required by the NYSDEC-approved Site Management Plan (revised February 2017).
- In accordance with the monitoring schedule presented in section 4.3.1 of the NYSDEC-approved Site Management Plan (revised February 2017), the next sub-slab vapor and indoor air sampling event will be conducted during the 2021-2022 heating season.

FIGURE 1

File: V:\PROJECTS\ANY\K2\21645\CADD\COORDINATION\RECEIVED_FILES\ORIGINALS\144 STATE_FLOOR PLAN_11-12-14\RA-SHEET - A-100 - FIRST PERIODIC SUBSLAB VAPOR REPORT.DWG
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LEGEND:

SUB-SLAB VAPOR PROBE SAMPLE LOCATION ●

INDOOR AIR SAMPLE LOCATION ⊕

AMBIENT AIR SAMPLE LOCATION ⊗

NOTE: SAMPLING DATE – DECEMBER 13, 2016

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SUB-SLAB VAPOR AND INDOOR AIR
SAMPLING LOCATIONS
144 STATE STREET
ALBANY, NEW YORK

PROJECT NO. 21645
DATE: 02/28/17
FIGURE 1

TABLES

Table 1
Sub-Slab Vapor and Indoor/Ambient Air Sample Analytical Results
144 State Street, Albany, New York

Compound	Location 1										Exterior						NYSDOH Matrix Specific Minimum Sub-Slab Concentration (µg/m3)	NYSDOH Matrix Specific Minimum Indoor Concentration (µg/m3)	1997-2003 NYSDOH Summary of Indoor Levels of VOCs from Fuel Oil Heated Homes in NYS, 90th Percentile (ug/m3)
	2/29/12	11/27/12	4/4/13	1/25/16	12/13/16	2/29/12	11/27/12	4/4/13	1/25/16	12/13/16	2/29/12	11/27/12	4/4/13	1/18/16	1/25/16	12/13/16			
	SSV-1 (µg/m3)	SSV-1 (µg/m3)	SSV-1 (µg/m3)	SSV-1 (µg/m3)	SSV-1 (µg/m3)	IA-1 (µg/m3)	IA-1 (µg/m3)	IA-1 (µg/m3)	IA-1 (µg/m3)	IA-1 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	OA-1 (µg/m3)	AM-1 (µg/m3)			
1,1,1-Trichloroethane	190	130	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	3.5
1,1-Dichloroethane	33	21	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.23
1,2,4-Trimethylbenzene	ND	ND	NA	5.3	9.2	ND	ND	ND	0.44	ND	ND	ND	ND	ND	ND	ND			11
1,2-Dichloroethene (total)	150	520	950	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
1,3,5-Trimethylbenzene	5.5	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			3.8
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	ND	0.49	ND	ND	ND	0.21	0.35	ND	ND	ND	ND			--
2-Butanone	ND	ND	ND	6	3.9	ND	ND	ND	4.1	1.3	ND	ND	ND	1.4	ND	ND			--
4-Ethyltoluene	7.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	ND	ND			--
Benzene	ND	ND	ND	ND	0.65	0.65	0.71	0.44	1.2	1	0.7	0.58	0.24	0.43	0.94	1.1			15
Carbon Tetrachloride	35	32	40	ND	0.64	0.36	0.43	0.54	0.42	0.46	0.41	0.39	0.43	0.35	0.31	0.39	5	0.25	0.87
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.25
Chloroform	83	98	180	5.9	7.1	ND	ND	ND	ND	9.9	ND	ND	ND	ND	ND	ND			1.4
Chloromethane	ND	ND	ND	3.1	ND	ND	ND	ND	1.3	1.2	ND	ND	ND	1	1.1	1.1			3.3
cis-1,2-Dichloroethene	140	510	930	4	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.24
Cyclohexane	ND	ND	ND	ND	ND	ND	0.81	ND	ND	ND	0.19	0.16	ND	ND	ND	ND			9.1
Dichlorodifluoromethane	ND	ND	ND	2.3	2.7	2.7	2.4	3.2	2	2.5	2.1	2.8	2.7	1.8	1.8	2.6			15
Ethanol	ND	ND	ND	340 J	340	ND	ND	ND	660	490	ND	ND	ND	24	28 J	26			--
Ethyl Benzene	9.7	ND	ND	2.5	3	0.17	0.4	0.22	0.57	0.4	0.21	ND	ND	ND	ND	0.41			7.3
Hexane	ND	ND	ND	ND	0.93	2.0	1.0	0.6	1.3	1.0	3	0.66	ND	ND	1	1.2			--
m/p-Xylene	35	ND	ND	11	14	0.56	1.2	0.48	2.1	1.4	0.53	0.47	ND	0.66	0.87	1.6			12
Methylene Chloride	ND	ND	ND	ND	1.2	ND	1.7	ND	0.77	1.2	ND	ND	ND	2.1	0.87	1.4			22
n-Heptane	1.6	ND	ND	ND	ND	0.36	0.73	0.34	ND	ND	0.49	0.26	ND	ND	ND	ND			--
o-Xylene	12	ND	ND	3.8	5.2	0.2	0.41	0.27	0.78	0.51	0.22	0.18	ND	ND	ND	0.49			--
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND			1.3
tert-Butyl Alcohol	ND	ND	ND	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
Tetrachloroethene	4.1	17	38	ND	0.68	0.5	0.88	0.34	ND	ND	ND	ND	ND	ND	ND	ND	100	3	2.9
Toluene	23	ND	ND	6	7.6	1.3	2.1	0.88	2.5	2.3	1.4	0.9	ND	0.7	1.3	2.4			59
trans-1,2-Dichloroethene	3.6	12	25	5.8	2	ND	ND	ND	7.9	2.9	ND	ND	ND	0.47	0.43	ND			<0.25
Trichloroethene	260	940	1,700	7.8	4.1	0.34	0.56	ND	ND	ND	0.24	ND	ND	ND	ND	ND	5	0.25	0.48
Trichlorofluoromethane	2.5	ND	ND	ND	1.4	1.7	1.6	2.2	1.2	1.3	1	1.4	1.4	1.1	1.2	1.4			17
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	0.25	<0.25
Xylene (total)	47	14	ND	ND	ND	0.75	1.6	0.75	ND	ND	0.75	0.65	ND	ND	ND	ND			--

Notes:
µg/m3 = Micrograms per cubic meter
ND = Analyte not detected
D = Dilution factor of 1.52 or 1.9
J = Estimated concentration

	Seven Volatile Chemicals on NYSDOH decision matrixes
	Exceeds Minimum Concentration to possibly warrant "Monitoring", based on indoor air concentration
	Exceeds Minimum Concentration (250 ug/m3 - Matrix 1 & 1,000 ug/m3 - Matrix 2) to warrant "Mitigation", regardless of indoor air concentration

Table 2
Sub-Slab Vapor and Indoor/Ambient Air Sample Analytical Results
144 State Street, Albany, New York

Compound	Location 2										Exterior					NYSDOH Matrix Specific Minimum Sub-Slab Concentration (µg/m3)	NYSDOH Matrix Specific Minimum Indoor Concentration (µg/m3)	1997-2003 NYSDOH Summary of Indoor Levels of VOCs from Fuel Oil Heated Homes in NYS, 90th Percentile (ug/m3)
	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16			
	SSV-2 (µg/m3)	SSV-2 (µg/m3)	SSV-2 (µg/m3)	SSV-2 (µg/m3)	SSV-2 (µg/m3)	IA-2 (µg/m3)	IA-2 (µg/m3)	IA-2 (µg/m3)	IA-2 (µg/m3)	IA-2 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	OA-1 (µg/m3)	AM-1 (µg/m3)			
1,1,1-Trichloroethane	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	3.5
1,1-Dichloroethane	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.23
1,2,4-Trimethylbenzene	ND	ND	NA	ND	9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			11
1,2-Dichloroethene (total)	4.2	5.6	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
1,3,5-Trimethylbenzene	ND	2.0	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			3.8
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND			--
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	0.19	0.43	ND	ND	ND	0.21	0.35	ND	ND	ND			--
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	1.4	ND			--
4-Ethyltoluene	0.97	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
4-Methyl-2-Pentanone	ND	ND	ND	ND	2.3	ND	ND	ND	9.4	ND	ND	ND	ND	4.7	ND			--
Benzene	0.76	ND	ND	ND	0.89	0.61	0.86	0.44	0.56	ND	0.7	0.58	0.24	0.43	1.1			15
Carbon Tetrachloride	ND	ND	ND	ND	ND	0.41	0.79	0.49	0.38	ND	0.41	0.39	0.43	0.35	0.39	5	0.25	0.87
Chloroform	3.3	1.5	1.4	ND	1.1	ND	ND	0.27	ND	ND	ND	ND	ND	ND	ND			1.4
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	1	1.1			3.3
cis-1,2-Dichloroethene	4.2	5.6	2.5	160	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.24
Cyclohexane	ND	ND	ND	ND	ND	0.16	0.28	ND	ND	ND	0.19	0.16	ND	ND	ND			9.1
Dichlorodifluoromethane	3.3	4.7	9.7	ND	2.7	2.5	6.6	3.1	2	2.5	2.1	2.8	2.7	1.8	2.6			15
Ethanol	ND	ND	ND	ND	20	ND	ND	ND	280 J	370	ND	ND	ND	24	26			--
Ethyl Benzene	3.9	2.8	ND	ND	4.1	0.18	0.2	ND	0.93	ND	0.21	ND	ND	ND	0.41			7.3
Hexane	1.3	0.8	ND	ND	2	1.8	1.2	0.53	ND	ND	3	0.66	ND	ND	1.2			--
m/p-Xylene	8.7	12	ND	9.4	19	0.52	0.6	0.7	4	ND	0.53	0.47	ND	0.66	1.6			12
Methylene Chloride	ND	3.4	ND	ND	1.7	ND	24	ND	0.84	ND	ND	ND	ND	2.1	1.4			22
n-Heptane	1.1	ND	ND	ND	ND	0.39	0.39	ND	ND	ND	0.49	0.26	ND	ND	ND			--
o-Xylene	2.2	4.5	ND	ND	6.9	ND	0.21	0.27	1.5	ND	0.22	0.18	ND	ND	0.49			--
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	0.43	ND	ND	ND	ND	ND	ND			1.3
tert-Butyl Alcohol	ND	ND	ND	56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
Tetrachloroethene	10	14	3	ND	5.1	0.45	0.93	1	ND	ND	ND	ND	ND	ND	ND	100	3	2.9
Toluene	14	8.2	1.6	ND	12	1.2	1.1	0.65	2.3	ND	1.4	0.9	ND	0.7	2.4			59
trans-1,2-Dichloroethene	ND	ND	ND	340	260	ND	ND	ND	13	9.9	ND	ND	ND	0.47	ND			<0.25
Trichloroethene	12	16	6.6	56	33	0.33	0.44	ND	ND	ND	0.24	ND	ND	ND	ND	5	0.25	0.48
Trichlorofluoromethane	2.1	5.5	14	ND	1.9	1.8	3.3	2	1.3	ND	1	1.4	1.4	1.1	1.4			17
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	0.25	<0.25
Xylene (total)	11	17	ND	ND	ND	0.69	0.81	0.97	ND	ND	0.75	0.65	ND	ND	ND			--

Notes:
µg/m3 = Micrograms per cubic meter
ND = Analyte not detected
D = Dilution factor of 1.52 or 1.9
J = estimated concentration

	Seven Volatile Chemicals on NYSDOH decision matrixes
	Exceeds Minimum Concentration to possibly warrant "Monitoring", based on indoor air concentration
	Exceeds Minimum Concentration (250 ug/m3 - Matrix 1 & 1,000 ug/m3 - Matrix 2) to warrant "Mitigation", regardless of indoor air concentration

Table 3
Sub-Slab Vapor and Indoor/Ambient Air Sample Analytical Results
144 State Street, Albany, New York

Compound	Location 3										Exterior					NYSDOH Matrix Specific Minimum Sub-Slab Concentration (µg/m3)	NYSDOH Matrix Specific Minimum Indoor Concentration (µg/m3)	1997-2003 NYSDOH Summary of Indoor Levels of VOCs from Fuel Oil Heated Homes in NYS, 90th Percentile (ug/m3)
	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16	2/29/12	11/27/12	4/4/13	1/18/16	12/13/16			
	SSV-3 (µg/m3)	SSV-3 (µg/m3)	SSV-3 (µg/m3)	SSV-3 (µg/m3)	SSV-3 (µg/m3)	IA-3 (µg/m3)	IA-3 (µg/m3)	IA-3 (µg/m3)	IA-3 (µg/m3)	IA-3 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	AM-1 (µg/m3)	OA-1 (µg/m3)	AM-1 (µg/m3)			
1,1,1-Trichloroethane	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	3.5
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.23
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.23
1,2,4-Trimethylbenzene	ND	ND	NA	ND	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			11
1,2-Dichloroethene (total)	0.83	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
1,3,5-Trimethylbenzene	4.4	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			3.8
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND			--
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	ND	0.53	ND	ND	ND	0.21	0.35	ND	ND	ND			--
2-Butanone	ND	ND	ND	ND	6.7	ND	ND	ND	0.95	ND	ND	ND	ND	1.4	ND			--
4-Ethyltoluene	6.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			--
4-Methyl-2-Pentanone	ND	ND	ND	46	1.2	ND	ND	ND	65 D	ND	ND	ND	ND	4.7	ND			--
Benzene	0.73	ND	ND	ND	1.1	0.57	0.74	0.36	0.47	ND	0.7	0.58	0.24	0.43	1.1			15
Carbon Tetrachloride	ND	ND	ND	ND	0.4	0.38	0.45	0.35	0.34	ND	0.41	0.39	0.43	0.35	0.39	5	0.25	0.87
Chloroform	0.97	ND	ND	ND	0.72	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND			1.4
Chloromethane	ND	ND	ND	ND	1.3	ND	ND	ND	0.81	ND	ND	ND	ND	1	1.1			3.3
cis-1,2-Dichloroethene	0.83	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	3	0.24
Cyclohexane	ND	ND	ND	ND	ND	ND	0.29	ND	ND	ND	0.19	0.16	ND	ND	ND			9.1
Dichlorodifluoromethane	5	3.8	6.6	ND	2.8	0.49	3.1	2.9	1.6	2.6	2.1	2.8	2.7	1.8	2.6			15
Ethanol	ND	ND	ND	130	170	ND	ND	ND	200 D	420	ND	ND	ND	24	26			--
Ethyl Benzene	7.7	ND	1.7	ND	2.6	ND	0.2	ND	0.85	ND	0.21	ND	ND	ND	0.41			7.3
Hexane	0.98	ND	ND	ND	2	1.9	1.1	0.51	ND	ND	3	0.66	ND	1	1.2			--
m/p-Xylene	28	ND	6.9	6.7	11	ND	0.65	ND	3.7	ND	0.53	0.47	ND	0.66	1.6			12
Methylene Chloride	ND	ND	ND	ND	2.1	ND	ND	ND	0.97	ND	ND	ND	ND	2.1	1.4			22
n-Heptane	1.5	ND	ND	ND	ND	0.16	0.45	ND	ND	ND	0.49	0.26	ND	ND	ND			--
o-Xylene	9.5	ND	2.2	ND	4.3	ND	0.24	ND	1.4	ND	0.22	0.18	ND	ND	0.49			--
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	0.38	ND	ND	ND	ND	ND	ND			1.3
tert-Butyl Alcohol	ND	ND	ND	370	3.4	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND			--
Tetrachloroethene	6.1	5.8	6.8	ND	ND	0.29	1.1	0.33	ND	ND	ND	ND	ND	ND	ND	100	3	2.9
Toluene	20	3.9	6.3	ND	8.8	0.23	1.1	0.53	2	2.2	1.4	0.9	ND	0.7	2.4			59
trans-1,2-Dichloroethene	ND	ND	ND	26	22	ND	ND	ND	12	9.9	ND	ND	ND	0.47	ND			<0.25
Trichloroethene	27	12	13	ND	ND	0.32	0.48	0.43	ND	ND	0.24	ND	ND	ND	ND	5	0.25	0.48
Trichlorofluoromethane	4.9	3.8	8.9	ND	1.6	1.7	2.1	1.9	1.2	ND	1	1.4	1.4	1.1	1.4			17
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	0.25	<0.25
Xylene (total)	37	1.7	9.1	ND	ND	ND	0.89	0.46	ND	ND	0.75	0.65	ND	ND	ND			--

Notes:

µg/m3 = Micrograms per cubic meter

ND = Analyte not detected

D = Dilution factor of 1.52 or 1.9

J = Estimated concentration

	Seven Volatile Chemicals on NYSDOH decision matrixes
	Exceeds Minimum Concentration to possibly warrant "Monitoring", based on indoor air concentration
	Exceeds Minimum Concentration (250 ug/m3 - Matrix 1 & 1,000 ug/m3 - Matrix 2) to warrant "Mitigation", regardless of indoor air concentration

APPENDIX A

NYSDOH INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Scott Rosecrans (CHH Consulting, Inc) Date/Time Prepared 12-13-16 / 1:30 PM

Preparer's Affiliation On Behalf of Columbia Development Phone No. 518-453-8782

Purpose of Investigation 2016/2017 Vapor Intrusion Investigation, 144 State Street, Albany, NY

1. OCCUPANT:

Interviewed: Y / ☒ N

Last Name: _____ First Name: _____

Address: Renaissance Hotel, 144 State Street, Albany, NY

County: Albany

Home Phone: 518-396-7412 Office Phone: _____

Number of Occupants/persons at this location four Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ☐)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: Hotel

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Hotel

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 12

Building age _____

Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with floor tiles / carpet
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _____ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other Roof

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	<u>Office, Breakroom, Storage</u>
1 st Floor	<u>Lobby, Restaurant</u>
2 nd Floor	<u>Hotel Rooms</u>
3 rd Floor	
4 th Floor	
12 th floor	



8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?	Y / ☒ N
b. Does the garage have a separate heating unit?	Y / N / ☒ NA
c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)	Y / N / ☒ NA Please specify _____
d. Has the building ever had a fire?	Y / ☒ N When? _____
e. Is a kerosene or unvented gas space heater present?	Y / ☒ N Where? _____
f. Is there a workshop or hobby/craft area?	Y / ☒ N Where & Type? _____
g. Is there smoking in the building?	Y / ☒ N How frequently? _____
h. Have cleaning products been used recently?	☒ Y / N When & Type? _____
i. Have cosmetic products been used recently?	Y / ☒ N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / ☒ Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / ☒ Where & When? _____
- l. Have air fresheners been used recently? Y / ☒ When & Type? _____
- m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____
- o. Is there a clothes dryer? ☒ / N If yes, is it vented outside? ☒ / N
- p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / ☒

If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / ☒

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

☒ No

Unknown

Is there a radon mitigation system for the building/structure? ☒ / N Date of Installation: _____

Is the system active or passive? ☒ Active ☐ Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: ☒ Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

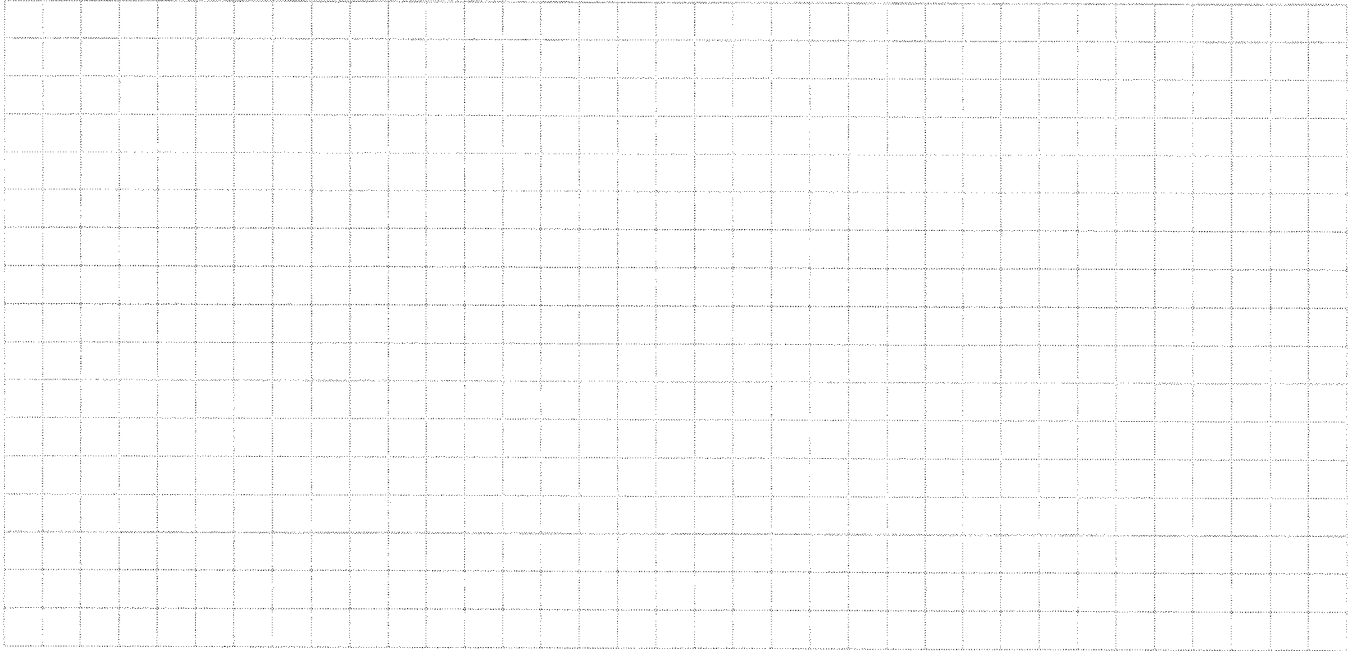
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

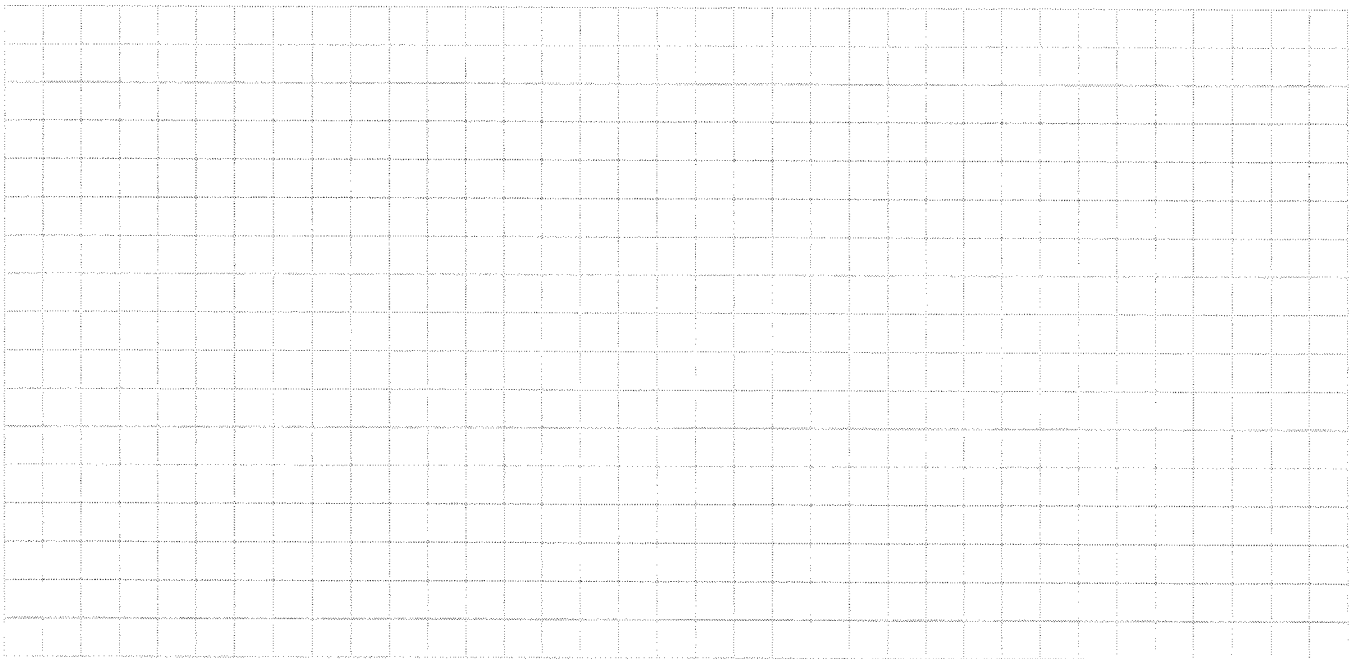
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



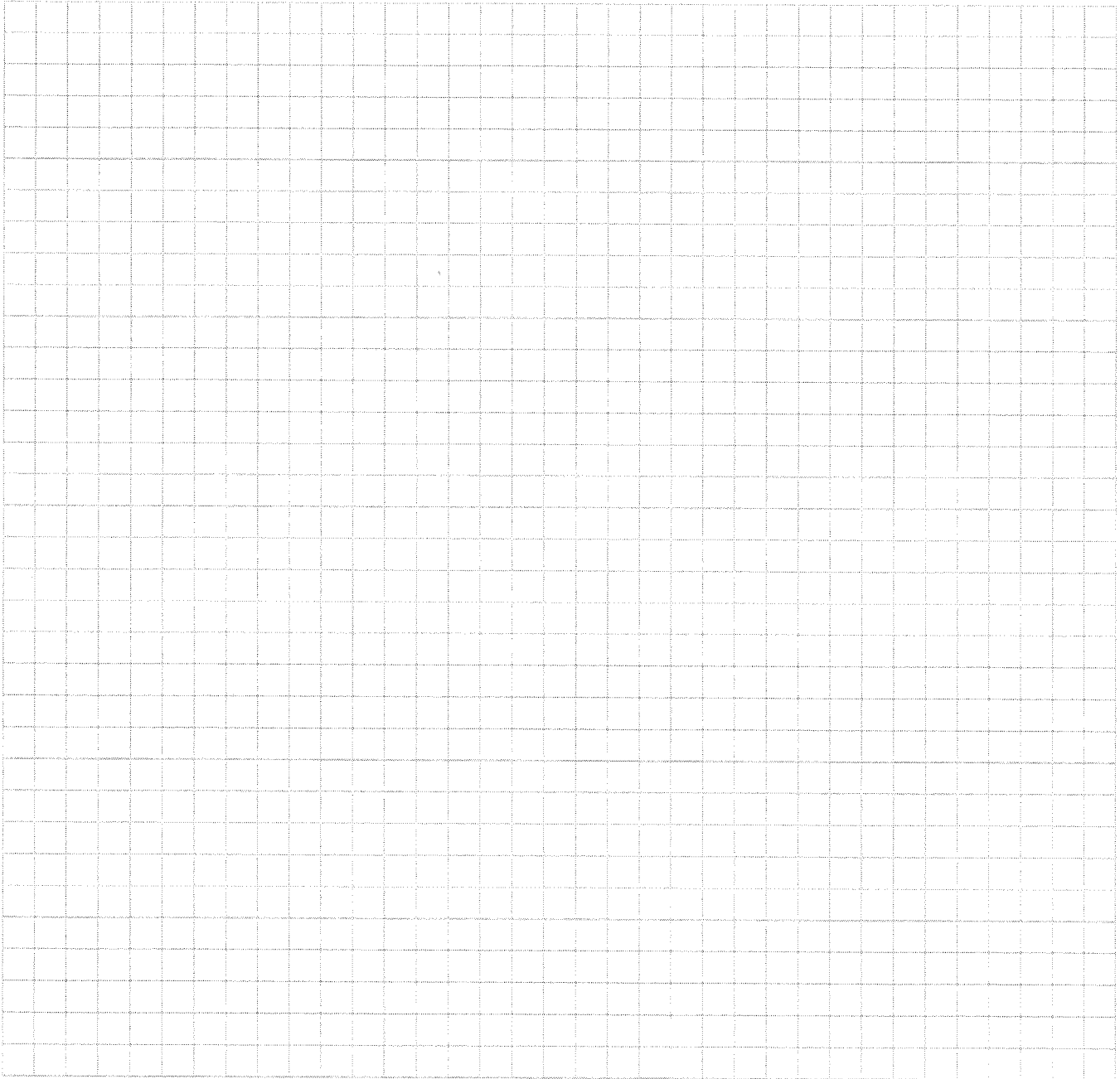
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: NA

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y/N</u>
Basement	Ecolab Lime-Away	3-1gal	U ~~B~~		N	N
Cooler Storage	Ecolab Microklean Food	5-1gal	U ~~B~~		N	N
	Contact Surface Sanitizer					
	Ecolab Microklean	4-1gal	U ~~B~~		N	N
	Freezer Cleaner					
	Ecolab All Purpose	4-2.5gal	U ~~B~~		N	N
	Cleaner					
Basement	Ecolab Solid Stain Away -	4 lb	U ~~B~~		N	N
Laundry	Ecolab Laundry Detergent	1 lb	U ~~B~~		N	N
	Ecolab Laundry Solid	6 lb	U ~~B~~		N	N
	Sour					
	Ecolab Solid Detergent	8 lb	U ~~B~~		N	N
	Surge Detergent					

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

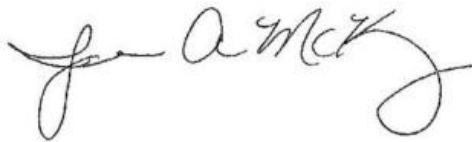
APPENDIX B
LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Job Number: 140-6565-1

Job Description: 144 State St. - Albany, NY

For:
CHA Inc
111 Winners Circle
PO BOX 5269
Albany, NY 12205-0269
Attention: Mr. John Favreau



Approved for release.
Jamie A McKinney
Senior Project Manager
12/28/2016 12:53 PM

Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
12/28/2016

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Definitions/Glossary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-6565-1

Comments

No additional comments.

Receipt

The samples were received on 12/15/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) D1946, TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-1

Lab Sample ID: 140-6565-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.9		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.43		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
1,4-Dichlorobenzene	0.48		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
2-Butanone	1.3		0.32		ppb v/v	1.46		TO 15 LL	Total/NA
Benzene	0.20		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Carbon tetrachloride	0.10		0.040		ppb v/v	1.46		TO 15 LL	Total/NA
Chloroform	1.5		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.50		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.55		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Ethanol	100	E	2.0		ppb v/v	1.46		TO 15 LL	Total/NA
Ethylbenzene	0.69		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Hexane	0.26		0.20		ppb v/v	1.46		TO 15 LL	Total/NA
Methylene Chloride	0.34		0.20		ppb v/v	1.46		TO 15 LL	Total/NA
m-Xylene & p-Xylene	3.2		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
o-Xylene	1.2		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Tetrachloroethene	0.10		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Toluene	2.0		0.12		ppb v/v	1.46		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.51		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Trichloroethene	0.77		0.040		ppb v/v	1.46		TO 15 LL	Total/NA
Trichlorofluoromethane	0.26		0.080		ppb v/v	1.46		TO 15 LL	Total/NA
Ethanol - DL	180	D	4.9		ppb v/v	1.46		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	9.2		0.39		ug/m3	1.46		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	2.1		0.39		ug/m3	1.46		TO 15 LL	Total/NA
1,4-Dichlorobenzene	2.9		0.48		ug/m3	1.46		TO 15 LL	Total/NA
2-Butanone	3.9		0.94		ug/m3	1.46		TO 15 LL	Total/NA
Benzene	0.65		0.26		ug/m3	1.46		TO 15 LL	Total/NA
Carbon tetrachloride	0.64		0.25		ug/m3	1.46		TO 15 LL	Total/NA
Chloroform	7.1		0.39		ug/m3	1.46		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.0		0.32		ug/m3	1.46		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		0.40		ug/m3	1.46		TO 15 LL	Total/NA
Ethanol	190	E	3.8		ug/m3	1.46		TO 15 LL	Total/NA
Ethylbenzene	3.0		0.35		ug/m3	1.46		TO 15 LL	Total/NA
Hexane	0.93		0.70		ug/m3	1.46		TO 15 LL	Total/NA
Methylene Chloride	1.2		0.69		ug/m3	1.46		TO 15 LL	Total/NA
m-Xylene & p-Xylene	14		0.35		ug/m3	1.46		TO 15 LL	Total/NA
o-Xylene	5.2		0.35		ug/m3	1.46		TO 15 LL	Total/NA
Tetrachloroethene	0.68		0.54		ug/m3	1.46		TO 15 LL	Total/NA
Toluene	7.6		0.45		ug/m3	1.46		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.0		0.32		ug/m3	1.46		TO 15 LL	Total/NA
Trichloroethene	4.1		0.21		ug/m3	1.46		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1.46		TO 15 LL	Total/NA
Ethanol - DL	340	D	9.2		ug/m3	1.46		TO 15 LL	Total/NA

Client Sample ID: IA-1

Lab Sample ID: 140-6565-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.45		0.32		ppb v/v	1.44		TO 15 LL	Total/NA
Benzene	0.32		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Carbon tetrachloride	0.073		0.040		ppb v/v	1.44		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-1 (Continued)

Lab Sample ID: 140-6565-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.0		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Chloromethane	0.60		0.20		ppb v/v	1.44		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Ethanol	290	E	2.0		ppb v/v	1.44		TO 15 LL	Total/NA
Ethylbenzene	0.091		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Hexane	0.29		0.20		ppb v/v	1.44		TO 15 LL	Total/NA
Methylene Chloride	0.35		0.20		ppb v/v	1.44		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.31		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
o-Xylene	0.12		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Toluene	0.60		0.12		ppb v/v	1.44		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.72		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Trichlorofluoromethane	0.24		0.080		ppb v/v	1.44		TO 15 LL	Total/NA
Ethanol - DL	260	D	14		ppb v/v	1.44		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	1.3		0.94		ug/m3	1.44		TO 15 LL	Total/NA
Benzene	1.0		0.26		ug/m3	1.44		TO 15 LL	Total/NA
Carbon tetrachloride	0.46		0.25		ug/m3	1.44		TO 15 LL	Total/NA
Chloroform	9.9		0.39		ug/m3	1.44		TO 15 LL	Total/NA
Chloromethane	1.2		0.41		ug/m3	1.44		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		0.40		ug/m3	1.44		TO 15 LL	Total/NA
Ethanol	540	E	3.8		ug/m3	1.44		TO 15 LL	Total/NA
Ethylbenzene	0.40		0.35		ug/m3	1.44		TO 15 LL	Total/NA
Hexane	1.0		0.70		ug/m3	1.44		TO 15 LL	Total/NA
Methylene Chloride	1.2		0.69		ug/m3	1.44		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.4		0.35		ug/m3	1.44		TO 15 LL	Total/NA
o-Xylene	0.51		0.35		ug/m3	1.44		TO 15 LL	Total/NA
Toluene	2.3		0.45		ug/m3	1.44		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.9		0.32		ug/m3	1.44		TO 15 LL	Total/NA
Trichlorofluoromethane	1.3		0.45		ug/m3	1.44		TO 15 LL	Total/NA
Ethanol - DL	490	D	27		ug/m3	1.44		TO 15 LL	Total/NA

Client Sample ID: SSV-2

Lab Sample ID: 140-6565-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.50		0.20		ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.9		0.20		ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.47		0.20		ppb v/v	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	0.48		0.20		ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.56		0.50		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.28		0.20		ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.23		0.20		ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	32		0.20		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.54		0.20		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	11		5.0		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.95		0.20		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.56		0.50		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.50		0.50		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	4.3		0.20		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	1.6		0.20		ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.75		0.20		ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-2 (Continued)

Lab Sample ID: 140-6565-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	3.1		0.30		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	62	E	0.20		ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.2		0.10		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.35		0.20		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene - DL	64	D	0.50		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.0		0.81		ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	9.5		0.98		ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	2.3		0.98		ug/m3	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	2.9		1.2		ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.3		2.0		ug/m3	1		TO 15 LL	Total/NA
Benzene	0.89		0.64		ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.1		0.98		ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	130		0.79		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		0.99		ug/m3	1		TO 15 LL	Total/NA
Ethanol	20		9.4		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	4.1		0.87		ug/m3	1		TO 15 LL	Total/NA
Hexane	2.0		1.8		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	1.7		1.7		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	19		0.87		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	6.9		0.87		ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	5.1		1.4		ug/m3	1		TO 15 LL	Total/NA
Toluene	12		1.1		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	250	E	0.79		ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	33		0.54		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.9		1.1		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene - DL	260	D	2.0		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-2

Lab Sample ID: 140-6565-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.51		0.40		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	190		10		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.5		0.40		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.5		2.0		ug/m3	1		TO 15 LL	Total/NA
Ethanol	370		19		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	9.9		1.6		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SSV-3

Lab Sample ID: 140-6565-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.2		0.10		ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.29		0.10		ppb v/v	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	0.37		0.10		ppb v/v	1		TO 15 LL	Total/NA
2-Butanone	2.3		0.40		ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.29		0.25		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.35		0.10		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064		0.050		ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.15		0.10		ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-3 (Continued)

Lab Sample ID: 140-6565-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.61		0.25		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.56		0.10		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	89		2.5		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.61		0.10		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.58		0.25		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.61		0.25		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	2.6		0.10		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.99		0.10		ppb v/v	1		TO 15 LL	Total/NA
t-Butyl alcohol	1.1		0.40		ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.3		0.15		ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	5.5		0.10		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.28		0.10		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	6.1		0.49		ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.4		0.49		ug/m3	1		TO 15 LL	Total/NA
1,4-Dichlorobenzene	2.2		0.60		ug/m3	1		TO 15 LL	Total/NA
2-Butanone	6.7		1.2		ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	1.2		1.0		ug/m3	1		TO 15 LL	Total/NA
Benzene	1.1		0.32		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40		0.31		ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.72		0.49		ug/m3	1		TO 15 LL	Total/NA
Chloromethane	1.3		0.52		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8		0.49		ug/m3	1		TO 15 LL	Total/NA
Ethanol	170		4.7		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.6		0.43		ug/m3	1		TO 15 LL	Total/NA
Hexane	2.0		0.88		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	2.1		0.87		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	11		0.43		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	4.3		0.43		ug/m3	1		TO 15 LL	Total/NA
t-Butyl alcohol	3.4		1.2		ug/m3	1		TO 15 LL	Total/NA
Toluene	8.8		0.57		ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	22		0.40		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.6		0.56		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-3

Lab Sample ID: 140-6565-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.34		0.32		ppb v/v	1.6		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.32		ppb v/v	1.6		TO 15 LL	Total/NA
Ethanol	220		8.0		ppb v/v	1.6		TO 15 LL	Total/NA
Toluene	0.59		0.48		ppb v/v	1.6		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.5		0.32		ppb v/v	1.6		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.6		1.6		ug/m3	1.6		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		1.6		ug/m3	1.6		TO 15 LL	Total/NA
Ethanol	420		15		ug/m3	1.6		TO 15 LL	Total/NA
Toluene	2.2		1.8		ug/m3	1.6		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	9.9		1.3		ug/m3	1.6		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: AM-1

Lab Sample ID: 140-6565-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.33		0.080		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.062		0.040		ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.55		0.20		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	14		2.0		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.094		0.080		ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.35		0.20		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.40		0.20		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.36		0.080		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.11		0.080		ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.64		0.12		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.24		0.080		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		0.26		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.39		0.25		ug/m3	1		TO 15 LL	Total/NA
Chloromethane	1.1		0.41		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		0.40		ug/m3	1		TO 15 LL	Total/NA
Ethanol	26		3.8		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.41		0.35		ug/m3	1		TO 15 LL	Total/NA
Hexane	1.2		0.70		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	1.4		0.69		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.6		0.35		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	0.49		0.35		ug/m3	1		TO 15 LL	Total/NA
Toluene	2.4		0.45		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-1

Date Collected: 12/13/16 13:25

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6565-1

Matrix: Air

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,1-Dichloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,1-Dichloroethene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2,4-Trimethylbenzene	1.9		0.080		ppb v/v			12/20/16 13:27	1.46
1,2-Dibromoethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2-Dichloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2-Dichloropropane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,3,5-Trimethylbenzene	0.43		0.080		ppb v/v			12/20/16 13:27	1.46
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
1,4-Dichlorobenzene	0.48		0.080		ppb v/v			12/20/16 13:27	1.46
1,4-Dioxane	ND		0.20		ppb v/v			12/20/16 13:27	1.46
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/20/16 13:27	1.46
2-Butanone	1.3		0.32		ppb v/v			12/20/16 13:27	1.46
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/20/16 13:27	1.46
Benzene	0.20		0.080		ppb v/v			12/20/16 13:27	1.46
Benzyl chloride	ND		0.16		ppb v/v			12/20/16 13:27	1.46
Bromodichloromethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Bromoform	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Bromomethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Carbon tetrachloride	0.10		0.040		ppb v/v			12/20/16 13:27	1.46
Chlorobenzene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Chloroethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Chloroform	1.5		0.080		ppb v/v			12/20/16 13:27	1.46
Chloromethane	ND		0.20		ppb v/v			12/20/16 13:27	1.46
cis-1,2-Dichloroethene	0.50		0.080		ppb v/v			12/20/16 13:27	1.46
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Cyclohexane	ND		0.20		ppb v/v			12/20/16 13:27	1.46
Dibromochloromethane	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Dichlorodifluoromethane	0.55		0.080		ppb v/v			12/20/16 13:27	1.46
Ethanol	100	E	2.0		ppb v/v			12/20/16 13:27	1.46
Ethylbenzene	0.69		0.080		ppb v/v			12/20/16 13:27	1.46
Hexachlorobutadiene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Hexane	0.26		0.20		ppb v/v			12/20/16 13:27	1.46
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/20/16 13:27	1.46
Methylene Chloride	0.34		0.20		ppb v/v			12/20/16 13:27	1.46
m-Xylene & p-Xylene	3.2		0.080		ppb v/v			12/20/16 13:27	1.46
o-Xylene	1.2		0.080		ppb v/v			12/20/16 13:27	1.46
Styrene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
t-Butyl alcohol	ND		0.32		ppb v/v			12/20/16 13:27	1.46
Tetrachloroethene	0.10		0.080		ppb v/v			12/20/16 13:27	1.46
Toluene	2.0		0.12		ppb v/v			12/20/16 13:27	1.46
trans-1,2-Dichloroethene	0.51		0.080		ppb v/v			12/20/16 13:27	1.46

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-1

Lab Sample ID: 140-6565-1

Date Collected: 12/13/16 13:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 13:27	1.46
Trichloroethene	0.77		0.040		ppb v/v			12/20/16 13:27	1.46
Trichlorofluoromethane	0.26		0.080		ppb v/v			12/20/16 13:27	1.46
Vinyl chloride	ND		0.040		ppb v/v			12/20/16 13:27	1.46
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/20/16 13:27	1.46
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/20/16 13:27	1.46
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/20/16 13:27	1.46
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/20/16 13:27	1.46
1,1-Dichloroethane	ND		0.32		ug/m3			12/20/16 13:27	1.46
1,1-Dichloroethene	ND		0.32		ug/m3			12/20/16 13:27	1.46
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/20/16 13:27	1.46
1,2,4-Trimethylbenzene	9.2		0.39		ug/m3			12/20/16 13:27	1.46
1,2-Dibromoethane	ND		0.61		ug/m3			12/20/16 13:27	1.46
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 13:27	1.46
1,2-Dichloroethane	ND		0.32		ug/m3			12/20/16 13:27	1.46
1,2-Dichloropropane	ND		0.37		ug/m3			12/20/16 13:27	1.46
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/20/16 13:27	1.46
1,3,5-Trimethylbenzene	2.1		0.39		ug/m3			12/20/16 13:27	1.46
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 13:27	1.46
1,4-Dichlorobenzene	2.9		0.48		ug/m3			12/20/16 13:27	1.46
1,4-Dioxane	ND		0.72		ug/m3			12/20/16 13:27	1.46
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/20/16 13:27	1.46
2-Butanone	3.9		0.94		ug/m3			12/20/16 13:27	1.46
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/20/16 13:27	1.46
Benzene	0.65		0.26		ug/m3			12/20/16 13:27	1.46
Benzyl chloride	ND		0.83		ug/m3			12/20/16 13:27	1.46
Bromodichloromethane	ND		0.54		ug/m3			12/20/16 13:27	1.46
Bromoform	ND		0.83		ug/m3			12/20/16 13:27	1.46
Bromomethane	ND		0.31		ug/m3			12/20/16 13:27	1.46
Carbon tetrachloride	0.64		0.25		ug/m3			12/20/16 13:27	1.46
Chlorobenzene	ND		0.37		ug/m3			12/20/16 13:27	1.46
Chloroethane	ND		0.21		ug/m3			12/20/16 13:27	1.46
Chloroform	7.1		0.39		ug/m3			12/20/16 13:27	1.46
Chloromethane	ND		0.41		ug/m3			12/20/16 13:27	1.46
cis-1,2-Dichloroethene	2.0		0.32		ug/m3			12/20/16 13:27	1.46
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 13:27	1.46
Cyclohexane	ND		0.69		ug/m3			12/20/16 13:27	1.46
Dibromochloromethane	ND		0.68		ug/m3			12/20/16 13:27	1.46
Dichlorodifluoromethane	2.7		0.40		ug/m3			12/20/16 13:27	1.46
Ethanol	190 E		3.8		ug/m3			12/20/16 13:27	1.46
Ethylbenzene	3.0		0.35		ug/m3			12/20/16 13:27	1.46
Hexachlorobutadiene	ND		0.85		ug/m3			12/20/16 13:27	1.46
Hexane	0.93		0.70		ug/m3			12/20/16 13:27	1.46
Methyl tert-butyl ether	ND		0.58		ug/m3			12/20/16 13:27	1.46
Methylene Chloride	1.2		0.69		ug/m3			12/20/16 13:27	1.46
m-Xylene & p-Xylene	14		0.35		ug/m3			12/20/16 13:27	1.46
o-Xylene	5.2		0.35		ug/m3			12/20/16 13:27	1.46

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-1

Lab Sample ID: 140-6565-1

Date Collected: 12/13/16 13:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.34		ug/m3			12/20/16 13:27	1.46
t-Butyl alcohol	ND		0.97		ug/m3			12/20/16 13:27	1.46
Tetrachloroethene	0.68		0.54		ug/m3			12/20/16 13:27	1.46
Toluene	7.6		0.45		ug/m3			12/20/16 13:27	1.46
trans-1,2-Dichloroethene	2.0		0.32		ug/m3			12/20/16 13:27	1.46
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 13:27	1.46
Trichloroethene	4.1		0.21		ug/m3			12/20/16 13:27	1.46
Trichlorofluoromethane	1.4		0.45		ug/m3			12/20/16 13:27	1.46
Vinyl chloride	ND		0.10		ug/m3			12/20/16 13:27	1.46

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		12/20/16 13:27	1.46

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	180	D	4.9		ppb v/v			12/21/16 01:52	1.46

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	340	D	9.2		ug/m3			12/21/16 01:52	1.46

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		12/21/16 01:52	1.46

Client Sample ID: IA-1

Lab Sample ID: 140-6565-2

Date Collected: 12/13/16 15:41

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,1-Dichloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,1-Dichloroethene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2-Dibromoethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2-Dichloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2-Dichloropropane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
1,4-Dioxane	ND		0.20		ppb v/v			12/20/16 14:13	1.44
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/20/16 14:13	1.44
2-Butanone	0.45		0.32		ppb v/v			12/20/16 14:13	1.44
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/20/16 14:13	1.44

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-1

Lab Sample ID: 140-6565-2

Date Collected: 12/13/16 15:41

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.32		0.080		ppb v/v			12/20/16 14:13	1.44
Benzyl chloride	ND		0.16		ppb v/v			12/20/16 14:13	1.44
Bromodichloromethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Bromoform	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Bromomethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Carbon tetrachloride	0.073		0.040		ppb v/v			12/20/16 14:13	1.44
Chlorobenzene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Chloroethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Chloroform	2.0		0.080		ppb v/v			12/20/16 14:13	1.44
Chloromethane	0.60		0.20		ppb v/v			12/20/16 14:13	1.44
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Cyclohexane	ND		0.20		ppb v/v			12/20/16 14:13	1.44
Dibromochloromethane	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Dichlorodifluoromethane	0.50		0.080		ppb v/v			12/20/16 14:13	1.44
Ethanol	290	E	2.0		ppb v/v			12/20/16 14:13	1.44
Ethylbenzene	0.091		0.080		ppb v/v			12/20/16 14:13	1.44
Hexachlorobutadiene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Hexane	0.29		0.20		ppb v/v			12/20/16 14:13	1.44
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/20/16 14:13	1.44
Methylene Chloride	0.35		0.20		ppb v/v			12/20/16 14:13	1.44
m-Xylene & p-Xylene	0.31		0.080		ppb v/v			12/20/16 14:13	1.44
o-Xylene	0.12		0.080		ppb v/v			12/20/16 14:13	1.44
Styrene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
t-Butyl alcohol	ND		0.32		ppb v/v			12/20/16 14:13	1.44
Tetrachloroethene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Toluene	0.60		0.12		ppb v/v			12/20/16 14:13	1.44
trans-1,2-Dichloroethene	0.72		0.080		ppb v/v			12/20/16 14:13	1.44
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 14:13	1.44
Trichloroethene	ND		0.040		ppb v/v			12/20/16 14:13	1.44
Trichlorofluoromethane	0.24		0.080		ppb v/v			12/20/16 14:13	1.44
Vinyl chloride	ND		0.040		ppb v/v			12/20/16 14:13	1.44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/20/16 14:13	1.44
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/20/16 14:13	1.44
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/20/16 14:13	1.44
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/20/16 14:13	1.44
1,1-Dichloroethane	ND		0.32		ug/m3			12/20/16 14:13	1.44
1,1-Dichloroethene	ND		0.32		ug/m3			12/20/16 14:13	1.44
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/20/16 14:13	1.44
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 14:13	1.44
1,2-Dibromoethane	ND		0.61		ug/m3			12/20/16 14:13	1.44
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 14:13	1.44
1,2-Dichloroethane	ND		0.32		ug/m3			12/20/16 14:13	1.44
1,2-Dichloropropane	ND		0.37		ug/m3			12/20/16 14:13	1.44
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/20/16 14:13	1.44
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 14:13	1.44
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 14:13	1.44

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-1

Lab Sample ID: 140-6565-2

Date Collected: 12/13/16 15:41

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 14:13	1.44
1,4-Dioxane	ND		0.72		ug/m3			12/20/16 14:13	1.44
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/20/16 14:13	1.44
2-Butanone	1.3		0.94		ug/m3			12/20/16 14:13	1.44
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/20/16 14:13	1.44
Benzene	1.0		0.26		ug/m3			12/20/16 14:13	1.44
Benzyl chloride	ND		0.83		ug/m3			12/20/16 14:13	1.44
Bromodichloromethane	ND		0.54		ug/m3			12/20/16 14:13	1.44
Bromoform	ND		0.83		ug/m3			12/20/16 14:13	1.44
Bromomethane	ND		0.31		ug/m3			12/20/16 14:13	1.44
Carbon tetrachloride	0.46		0.25		ug/m3			12/20/16 14:13	1.44
Chlorobenzene	ND		0.37		ug/m3			12/20/16 14:13	1.44
Chloroethane	ND		0.21		ug/m3			12/20/16 14:13	1.44
Chloroform	9.9		0.39		ug/m3			12/20/16 14:13	1.44
Chloromethane	1.2		0.41		ug/m3			12/20/16 14:13	1.44
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/20/16 14:13	1.44
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 14:13	1.44
Cyclohexane	ND		0.69		ug/m3			12/20/16 14:13	1.44
Dibromochloromethane	ND		0.68		ug/m3			12/20/16 14:13	1.44
Dichlorodifluoromethane	2.5		0.40		ug/m3			12/20/16 14:13	1.44
Ethanol	540 E		3.8		ug/m3			12/20/16 14:13	1.44
Ethylbenzene	0.40		0.35		ug/m3			12/20/16 14:13	1.44
Hexachlorobutadiene	ND		0.85		ug/m3			12/20/16 14:13	1.44
Hexane	1.0		0.70		ug/m3			12/20/16 14:13	1.44
Methyl tert-butyl ether	ND		0.58		ug/m3			12/20/16 14:13	1.44
Methylene Chloride	1.2		0.69		ug/m3			12/20/16 14:13	1.44
m-Xylene & p-Xylene	1.4		0.35		ug/m3			12/20/16 14:13	1.44
o-Xylene	0.51		0.35		ug/m3			12/20/16 14:13	1.44
Styrene	ND		0.34		ug/m3			12/20/16 14:13	1.44
t-Butyl alcohol	ND		0.97		ug/m3			12/20/16 14:13	1.44
Tetrachloroethene	ND		0.54		ug/m3			12/20/16 14:13	1.44
Toluene	2.3		0.45		ug/m3			12/20/16 14:13	1.44
trans-1,2-Dichloroethene	2.9		0.32		ug/m3			12/20/16 14:13	1.44
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 14:13	1.44
Trichloroethene	ND		0.21		ug/m3			12/20/16 14:13	1.44
Trichlorofluoromethane	1.3		0.45		ug/m3			12/20/16 14:13	1.44
Vinyl chloride	ND		0.10		ug/m3			12/20/16 14:13	1.44

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		60 - 140		12/20/16 14:13	1.44

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	260	D	14		ppb v/v			12/21/16 02:35	1.44
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	490	D	27		ug/m3			12/21/16 02:35	1.44

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		60 - 140		12/21/16 02:35	1.44

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-2

Lab Sample ID: 140-6565-3

Date Collected: 12/13/16 16:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,1,2,2-Tetrachloroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,1,2-Trichloroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,1,2-Trichlorotrifluoroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,1-Dichloroethane	0.50		0.20		ppb v/v			12/20/16 14:55	1
1,1-Dichloroethene	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2,4-Trichlorobenzene	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2,4-Trimethylbenzene	1.9		0.20		ppb v/v			12/20/16 14:55	1
1,2-Dibromoethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2-Dichlorobenzene	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2-Dichloroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2-Dichloropropane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,2-Dichlorotetrafluoroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
1,3,5-Trimethylbenzene	0.47		0.20		ppb v/v			12/20/16 14:55	1
1,3-Dichlorobenzene	ND		0.20		ppb v/v			12/20/16 14:55	1
1,4-Dichlorobenzene	0.48		0.20		ppb v/v			12/20/16 14:55	1
1,4-Dioxane	ND		0.50		ppb v/v			12/20/16 14:55	1
2,2,4-Trimethylpentane	ND		0.50		ppb v/v			12/20/16 14:55	1
2-Butanone	ND		0.80		ppb v/v			12/20/16 14:55	1
4-Methyl-2-pentanone (MIBK)	0.56		0.50		ppb v/v			12/20/16 14:55	1
Benzene	0.28		0.20		ppb v/v			12/20/16 14:55	1
Benzyl chloride	ND		0.40		ppb v/v			12/20/16 14:55	1
Bromodichloromethane	ND		0.20		ppb v/v			12/20/16 14:55	1
Bromoform	ND		0.20		ppb v/v			12/20/16 14:55	1
Bromomethane	ND		0.20		ppb v/v			12/20/16 14:55	1
Carbon tetrachloride	ND		0.10		ppb v/v			12/20/16 14:55	1
Chlorobenzene	ND		0.20		ppb v/v			12/20/16 14:55	1
Chloroethane	ND		0.20		ppb v/v			12/20/16 14:55	1
Chloroform	0.23		0.20		ppb v/v			12/20/16 14:55	1
Chloromethane	ND		0.50		ppb v/v			12/20/16 14:55	1
cis-1,2-Dichloroethene	32		0.20		ppb v/v			12/20/16 14:55	1
cis-1,3-Dichloropropene	ND		0.20		ppb v/v			12/20/16 14:55	1
Cyclohexane	ND		0.50		ppb v/v			12/20/16 14:55	1
Dibromochloromethane	ND		0.20		ppb v/v			12/20/16 14:55	1
Dichlorodifluoromethane	0.54		0.20		ppb v/v			12/20/16 14:55	1
Ethanol	11		5.0		ppb v/v			12/20/16 14:55	1
Ethylbenzene	0.95		0.20		ppb v/v			12/20/16 14:55	1
Hexachlorobutadiene	ND		0.20		ppb v/v			12/20/16 14:55	1
Hexane	0.56		0.50		ppb v/v			12/20/16 14:55	1
Methyl tert-butyl ether	ND		0.40		ppb v/v			12/20/16 14:55	1
Methylene Chloride	0.50		0.50		ppb v/v			12/20/16 14:55	1
m-Xylene & p-Xylene	4.3		0.20		ppb v/v			12/20/16 14:55	1
o-Xylene	1.6		0.20		ppb v/v			12/20/16 14:55	1
Styrene	ND		0.20		ppb v/v			12/20/16 14:55	1
t-Butyl alcohol	ND		0.80		ppb v/v			12/20/16 14:55	1
Tetrachloroethene	0.75		0.20		ppb v/v			12/20/16 14:55	1
Toluene	3.1		0.30		ppb v/v			12/20/16 14:55	1
trans-1,2-Dichloroethene	62 E		0.20		ppb v/v			12/20/16 14:55	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-2

Lab Sample ID: 140-6565-3

Date Collected: 12/13/16 16:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.20		ppb v/v			12/20/16 14:55	1
Trichloroethene	6.2		0.10		ppb v/v			12/20/16 14:55	1
Trichlorofluoromethane	0.35		0.20		ppb v/v			12/20/16 14:55	1
Vinyl chloride	ND		0.10		ppb v/v			12/20/16 14:55	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1		ug/m3			12/20/16 14:55	1
1,1,2,2-Tetrachloroethane	ND		1.4		ug/m3			12/20/16 14:55	1
1,1,2-Trichloroethane	ND		1.1		ug/m3			12/20/16 14:55	1
1,1,2-Trichlorotrifluoroethane	ND		1.5		ug/m3			12/20/16 14:55	1
1,1-Dichloroethane	2.0		0.81		ug/m3			12/20/16 14:55	1
1,1-Dichloroethene	ND		0.79		ug/m3			12/20/16 14:55	1
1,2,4-Trichlorobenzene	ND		1.5		ug/m3			12/20/16 14:55	1
1,2,4-Trimethylbenzene	9.5		0.98		ug/m3			12/20/16 14:55	1
1,2-Dibromoethane	ND		1.5		ug/m3			12/20/16 14:55	1
1,2-Dichlorobenzene	ND		1.2		ug/m3			12/20/16 14:55	1
1,2-Dichloroethane	ND		0.81		ug/m3			12/20/16 14:55	1
1,2-Dichloropropane	ND		0.92		ug/m3			12/20/16 14:55	1
1,2-Dichlorotetrafluoroethane	ND		1.4		ug/m3			12/20/16 14:55	1
1,3,5-Trimethylbenzene	2.3		0.98		ug/m3			12/20/16 14:55	1
1,3-Dichlorobenzene	ND		1.2		ug/m3			12/20/16 14:55	1
1,4-Dichlorobenzene	2.9		1.2		ug/m3			12/20/16 14:55	1
1,4-Dioxane	ND		1.8		ug/m3			12/20/16 14:55	1
2,2,4-Trimethylpentane	ND		2.3		ug/m3			12/20/16 14:55	1
2-Butanone	ND		2.4		ug/m3			12/20/16 14:55	1
4-Methyl-2-pentanone (MIBK)	2.3		2.0		ug/m3			12/20/16 14:55	1
Benzene	0.89		0.64		ug/m3			12/20/16 14:55	1
Benzyl chloride	ND		2.1		ug/m3			12/20/16 14:55	1
Bromodichloromethane	ND		1.3		ug/m3			12/20/16 14:55	1
Bromoform	ND		2.1		ug/m3			12/20/16 14:55	1
Bromomethane	ND		0.78		ug/m3			12/20/16 14:55	1
Carbon tetrachloride	ND		0.63		ug/m3			12/20/16 14:55	1
Chlorobenzene	ND		0.92		ug/m3			12/20/16 14:55	1
Chloroethane	ND		0.53		ug/m3			12/20/16 14:55	1
Chloroform	1.1		0.98		ug/m3			12/20/16 14:55	1
Chloromethane	ND		1.0		ug/m3			12/20/16 14:55	1
cis-1,2-Dichloroethene	130		0.79		ug/m3			12/20/16 14:55	1
cis-1,3-Dichloropropene	ND		0.91		ug/m3			12/20/16 14:55	1
Cyclohexane	ND		1.7		ug/m3			12/20/16 14:55	1
Dibromochloromethane	ND		1.7		ug/m3			12/20/16 14:55	1
Dichlorodifluoromethane	2.7		0.99		ug/m3			12/20/16 14:55	1
Ethanol	20		9.4		ug/m3			12/20/16 14:55	1
Ethylbenzene	4.1		0.87		ug/m3			12/20/16 14:55	1
Hexachlorobutadiene	ND		2.1		ug/m3			12/20/16 14:55	1
Hexane	2.0		1.8		ug/m3			12/20/16 14:55	1
Methyl tert-butyl ether	ND		1.4		ug/m3			12/20/16 14:55	1
Methylene Chloride	1.7		1.7		ug/m3			12/20/16 14:55	1
m-Xylene & p-Xylene	19		0.87		ug/m3			12/20/16 14:55	1
o-Xylene	6.9		0.87		ug/m3			12/20/16 14:55	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-2

Lab Sample ID: 140-6565-3

Date Collected: 12/13/16 16:15

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.85		ug/m3			12/20/16 14:55	1
t-Butyl alcohol	ND		2.4		ug/m3			12/20/16 14:55	1
Tetrachloroethene	5.1		1.4		ug/m3			12/20/16 14:55	1
Toluene	12		1.1		ug/m3			12/20/16 14:55	1
trans-1,2-Dichloroethene	250 E		0.79		ug/m3			12/20/16 14:55	1
trans-1,3-Dichloropropene	ND		0.91		ug/m3			12/20/16 14:55	1
Trichloroethene	33		0.54		ug/m3			12/20/16 14:55	1
Trichlorofluoromethane	1.9		1.1		ug/m3			12/20/16 14:55	1
Vinyl chloride	ND		0.26		ug/m3			12/20/16 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		12/20/16 14:55	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	64 D		0.50		ppb v/v			12/21/16 03:16	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	260 D		2.0		ug/m3			12/21/16 03:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		12/21/16 03:16	1

Client Sample ID: IA-2

Lab Sample ID: 140-6565-4

Date Collected: 12/13/16 16:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,1,2-Trichlorotrifluoroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,1-Dichloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,1-Dichloroethene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2,4-Trichlorobenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2,4-Trimethylbenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2-Dibromoethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2-Dichloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2-Dichloropropane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,2-Dichlorotetrafluoroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
1,4-Dioxane	ND		1.0		ppb v/v			12/20/16 15:38	1
2,2,4-Trimethylpentane	ND		1.0		ppb v/v			12/20/16 15:38	1
2-Butanone	ND		1.6		ppb v/v			12/20/16 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		1.0		ppb v/v			12/20/16 15:38	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-2

Lab Sample ID: 140-6565-4

Date Collected: 12/13/16 16:25

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40		ppb v/v			12/20/16 15:38	1
Benzyl chloride	ND		0.80		ppb v/v			12/20/16 15:38	1
Bromodichloromethane	ND		0.40		ppb v/v			12/20/16 15:38	1
Bromoform	ND		0.40		ppb v/v			12/20/16 15:38	1
Bromomethane	ND		0.40		ppb v/v			12/20/16 15:38	1
Carbon tetrachloride	ND		0.20		ppb v/v			12/20/16 15:38	1
Chlorobenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
Chloroethane	ND		0.40		ppb v/v			12/20/16 15:38	1
Chloroform	ND		0.40		ppb v/v			12/20/16 15:38	1
Chloromethane	ND		1.0		ppb v/v			12/20/16 15:38	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			12/20/16 15:38	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			12/20/16 15:38	1
Cyclohexane	ND		1.0		ppb v/v			12/20/16 15:38	1
Dibromochloromethane	ND		0.40		ppb v/v			12/20/16 15:38	1
Dichlorodifluoromethane	0.51		0.40		ppb v/v			12/20/16 15:38	1
Ethanol	190		10		ppb v/v			12/20/16 15:38	1
Ethylbenzene	ND		0.40		ppb v/v			12/20/16 15:38	1
Hexachlorobutadiene	ND		0.40		ppb v/v			12/20/16 15:38	1
Hexane	ND		1.0		ppb v/v			12/20/16 15:38	1
Methyl tert-butyl ether	ND		0.80		ppb v/v			12/20/16 15:38	1
Methylene Chloride	ND		1.0		ppb v/v			12/20/16 15:38	1
m-Xylene & p-Xylene	ND		0.40		ppb v/v			12/20/16 15:38	1
o-Xylene	ND		0.40		ppb v/v			12/20/16 15:38	1
Styrene	ND		0.40		ppb v/v			12/20/16 15:38	1
t-Butyl alcohol	ND		1.6		ppb v/v			12/20/16 15:38	1
Tetrachloroethene	ND		0.40		ppb v/v			12/20/16 15:38	1
Toluene	ND		0.60		ppb v/v			12/20/16 15:38	1
trans-1,2-Dichloroethene	2.5		0.40		ppb v/v			12/20/16 15:38	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			12/20/16 15:38	1
Trichloroethene	ND		0.20		ppb v/v			12/20/16 15:38	1
Trichlorofluoromethane	ND		0.40		ppb v/v			12/20/16 15:38	1
Vinyl chloride	ND		0.20		ppb v/v			12/20/16 15:38	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.2		ug/m3			12/20/16 15:38	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			12/20/16 15:38	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			12/20/16 15:38	1
1,1,2-Trichlorotrifluoroethane	ND		3.1		ug/m3			12/20/16 15:38	1
1,1-Dichloroethane	ND		1.6		ug/m3			12/20/16 15:38	1
1,1-Dichloroethene	ND		1.6		ug/m3			12/20/16 15:38	1
1,2,4-Trichlorobenzene	ND		3.0		ug/m3			12/20/16 15:38	1
1,2,4-Trimethylbenzene	ND		2.0		ug/m3			12/20/16 15:38	1
1,2-Dibromoethane	ND		3.1		ug/m3			12/20/16 15:38	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			12/20/16 15:38	1
1,2-Dichloroethane	ND		1.6		ug/m3			12/20/16 15:38	1
1,2-Dichloropropane	ND		1.8		ug/m3			12/20/16 15:38	1
1,2-Dichlorotetrafluoroethane	ND		2.8		ug/m3			12/20/16 15:38	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			12/20/16 15:38	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			12/20/16 15:38	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-2

Date Collected: 12/13/16 16:25

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6565-4

Matrix: Air

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		2.4		ug/m3			12/20/16 15:38	1
1,4-Dioxane	ND		3.6		ug/m3			12/20/16 15:38	1
2,2,4-Trimethylpentane	ND		4.7		ug/m3			12/20/16 15:38	1
2-Butanone	ND		4.7		ug/m3			12/20/16 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		4.1		ug/m3			12/20/16 15:38	1
Benzene	ND		1.3		ug/m3			12/20/16 15:38	1
Benzyl chloride	ND		4.1		ug/m3			12/20/16 15:38	1
Bromodichloromethane	ND		2.7		ug/m3			12/20/16 15:38	1
Bromoform	ND		4.1		ug/m3			12/20/16 15:38	1
Bromomethane	ND		1.6		ug/m3			12/20/16 15:38	1
Carbon tetrachloride	ND		1.3		ug/m3			12/20/16 15:38	1
Chlorobenzene	ND		1.8		ug/m3			12/20/16 15:38	1
Chloroethane	ND		1.1		ug/m3			12/20/16 15:38	1
Chloroform	ND		2.0		ug/m3			12/20/16 15:38	1
Chloromethane	ND		2.1		ug/m3			12/20/16 15:38	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			12/20/16 15:38	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			12/20/16 15:38	1
Cyclohexane	ND		3.4		ug/m3			12/20/16 15:38	1
Dibromochloromethane	ND		3.4		ug/m3			12/20/16 15:38	1
Dichlorodifluoromethane	2.5		2.0		ug/m3			12/20/16 15:38	1
Ethanol	370		19		ug/m3			12/20/16 15:38	1
Ethylbenzene	ND		1.7		ug/m3			12/20/16 15:38	1
Hexachlorobutadiene	ND		4.3		ug/m3			12/20/16 15:38	1
Hexane	ND		3.5		ug/m3			12/20/16 15:38	1
Methyl tert-butyl ether	ND		2.9		ug/m3			12/20/16 15:38	1
Methylene Chloride	ND		3.5		ug/m3			12/20/16 15:38	1
m-Xylene & p-Xylene	ND		1.7		ug/m3			12/20/16 15:38	1
o-Xylene	ND		1.7		ug/m3			12/20/16 15:38	1
Styrene	ND		1.7		ug/m3			12/20/16 15:38	1
t-Butyl alcohol	ND		4.9		ug/m3			12/20/16 15:38	1
Tetrachloroethene	ND		2.7		ug/m3			12/20/16 15:38	1
Toluene	ND		2.3		ug/m3			12/20/16 15:38	1
trans-1,2-Dichloroethene	9.9		1.6		ug/m3			12/20/16 15:38	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			12/20/16 15:38	1
Trichloroethene	ND		1.1		ug/m3			12/20/16 15:38	1
Trichlorofluoromethane	ND		2.2		ug/m3			12/20/16 15:38	1
Vinyl chloride	ND		0.51		ug/m3			12/20/16 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		60 - 140		12/20/16 15:38	1

Client Sample ID: SSV-3

Date Collected: 12/13/16 16:50

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6565-5

Matrix: Air

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-3

Lab Sample ID: 140-6565-5

Date Collected: 12/13/16 16:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,1,2-Trichloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,1,2-Trichlorotrifluoroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,1-Dichloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,1-Dichloroethene	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2,4-Trichlorobenzene	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2,4-Trimethylbenzene	1.2		0.10		ppb v/v			12/21/16 09:47	1
1,2-Dibromoethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2-Dichlorobenzene	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2-Dichloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2-Dichloropropane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,2-Dichlorotetrafluoroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
1,3,5-Trimethylbenzene	0.29		0.10		ppb v/v			12/21/16 09:47	1
1,3-Dichlorobenzene	ND		0.10		ppb v/v			12/21/16 09:47	1
1,4-Dichlorobenzene	0.37		0.10		ppb v/v			12/21/16 09:47	1
1,4-Dioxane	ND		0.25		ppb v/v			12/21/16 09:47	1
2,2,4-Trimethylpentane	ND		0.25		ppb v/v			12/21/16 09:47	1
2-Butanone	2.3		0.40		ppb v/v			12/21/16 09:47	1
4-Methyl-2-pentanone (MIBK)	0.29		0.25		ppb v/v			12/21/16 09:47	1
Benzene	0.35		0.10		ppb v/v			12/21/16 09:47	1
Benzyl chloride	ND		0.20		ppb v/v			12/21/16 09:47	1
Bromodichloromethane	ND		0.10		ppb v/v			12/21/16 09:47	1
Bromoform	ND		0.10		ppb v/v			12/21/16 09:47	1
Bromomethane	ND		0.10		ppb v/v			12/21/16 09:47	1
Carbon tetrachloride	0.064		0.050		ppb v/v			12/21/16 09:47	1
Chlorobenzene	ND		0.10		ppb v/v			12/21/16 09:47	1
Chloroethane	ND		0.10		ppb v/v			12/21/16 09:47	1
Chloroform	0.15		0.10		ppb v/v			12/21/16 09:47	1
Chloromethane	0.61		0.25		ppb v/v			12/21/16 09:47	1
cis-1,2-Dichloroethene	ND		0.10		ppb v/v			12/21/16 09:47	1
cis-1,3-Dichloropropene	ND		0.10		ppb v/v			12/21/16 09:47	1
Cyclohexane	ND		0.25		ppb v/v			12/21/16 09:47	1
Dibromochloromethane	ND		0.10		ppb v/v			12/21/16 09:47	1
Dichlorodifluoromethane	0.56		0.10		ppb v/v			12/21/16 09:47	1
Ethanol	89		2.5		ppb v/v			12/21/16 09:47	1
Ethylbenzene	0.61		0.10		ppb v/v			12/21/16 09:47	1
Hexachlorobutadiene	ND		0.10		ppb v/v			12/21/16 09:47	1
Hexane	0.58		0.25		ppb v/v			12/21/16 09:47	1
Methyl tert-butyl ether	ND		0.20		ppb v/v			12/21/16 09:47	1
Methylene Chloride	0.61		0.25		ppb v/v			12/21/16 09:47	1
m-Xylene & p-Xylene	2.6		0.10		ppb v/v			12/21/16 09:47	1
o-Xylene	0.99		0.10		ppb v/v			12/21/16 09:47	1
Styrene	ND		0.10		ppb v/v			12/21/16 09:47	1
t-Butyl alcohol	1.1		0.40		ppb v/v			12/21/16 09:47	1
Tetrachloroethene	ND		0.10		ppb v/v			12/21/16 09:47	1
Toluene	2.3		0.15		ppb v/v			12/21/16 09:47	1
trans-1,2-Dichloroethene	5.5		0.10		ppb v/v			12/21/16 09:47	1
trans-1,3-Dichloropropene	ND		0.10		ppb v/v			12/21/16 09:47	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-3

Lab Sample ID: 140-6565-5

Date Collected: 12/13/16 16:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.050		ppb v/v			12/21/16 09:47	1
Trichlorofluoromethane	0.28		0.10		ppb v/v			12/21/16 09:47	1
Vinyl chloride	ND		0.050		ppb v/v			12/21/16 09:47	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.55		ug/m3			12/21/16 09:47	1
1,1,2,2-Tetrachloroethane	ND		0.69		ug/m3			12/21/16 09:47	1
1,1,2-Trichloroethane	ND		0.55		ug/m3			12/21/16 09:47	1
1,1,2-Trichlorotrifluoroethane	ND		0.77		ug/m3			12/21/16 09:47	1
1,1-Dichloroethane	ND		0.40		ug/m3			12/21/16 09:47	1
1,1-Dichloroethene	ND		0.40		ug/m3			12/21/16 09:47	1
1,2,4-Trichlorobenzene	ND		0.74		ug/m3			12/21/16 09:47	1
1,2,4-Trimethylbenzene	6.1		0.49		ug/m3			12/21/16 09:47	1
1,2-Dibromoethane	ND		0.77		ug/m3			12/21/16 09:47	1
1,2-Dichlorobenzene	ND		0.60		ug/m3			12/21/16 09:47	1
1,2-Dichloroethane	ND		0.40		ug/m3			12/21/16 09:47	1
1,2-Dichloropropane	ND		0.46		ug/m3			12/21/16 09:47	1
1,2-Dichlorotetrafluoroethane	ND		0.70		ug/m3			12/21/16 09:47	1
1,3,5-Trimethylbenzene	1.4		0.49		ug/m3			12/21/16 09:47	1
1,3-Dichlorobenzene	ND		0.60		ug/m3			12/21/16 09:47	1
1,4-Dichlorobenzene	2.2		0.60		ug/m3			12/21/16 09:47	1
1,4-Dioxane	ND		0.90		ug/m3			12/21/16 09:47	1
2,2,4-Trimethylpentane	ND		1.2		ug/m3			12/21/16 09:47	1
2-Butanone	6.7		1.2		ug/m3			12/21/16 09:47	1
4-Methyl-2-pentanone (MIBK)	1.2		1.0		ug/m3			12/21/16 09:47	1
Benzene	1.1		0.32		ug/m3			12/21/16 09:47	1
Benzyl chloride	ND		1.0		ug/m3			12/21/16 09:47	1
Bromodichloromethane	ND		0.67		ug/m3			12/21/16 09:47	1
Bromoform	ND		1.0		ug/m3			12/21/16 09:47	1
Bromomethane	ND		0.39		ug/m3			12/21/16 09:47	1
Carbon tetrachloride	0.40		0.31		ug/m3			12/21/16 09:47	1
Chlorobenzene	ND		0.46		ug/m3			12/21/16 09:47	1
Chloroethane	ND		0.26		ug/m3			12/21/16 09:47	1
Chloroform	0.72		0.49		ug/m3			12/21/16 09:47	1
Chloromethane	1.3		0.52		ug/m3			12/21/16 09:47	1
cis-1,2-Dichloroethene	ND		0.40		ug/m3			12/21/16 09:47	1
cis-1,3-Dichloropropene	ND		0.45		ug/m3			12/21/16 09:47	1
Cyclohexane	ND		0.86		ug/m3			12/21/16 09:47	1
Dibromochloromethane	ND		0.85		ug/m3			12/21/16 09:47	1
Dichlorodifluoromethane	2.8		0.49		ug/m3			12/21/16 09:47	1
Ethanol	170		4.7		ug/m3			12/21/16 09:47	1
Ethylbenzene	2.6		0.43		ug/m3			12/21/16 09:47	1
Hexachlorobutadiene	ND		1.1		ug/m3			12/21/16 09:47	1
Hexane	2.0		0.88		ug/m3			12/21/16 09:47	1
Methyl tert-butyl ether	ND		0.72		ug/m3			12/21/16 09:47	1
Methylene Chloride	2.1		0.87		ug/m3			12/21/16 09:47	1
m-Xylene & p-Xylene	11		0.43		ug/m3			12/21/16 09:47	1
o-Xylene	4.3		0.43		ug/m3			12/21/16 09:47	1
Styrene	ND		0.43		ug/m3			12/21/16 09:47	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-3

Lab Sample ID: 140-6565-5

Date Collected: 12/13/16 16:50

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	3.4		1.2		ug/m3			12/21/16 09:47	1
Tetrachloroethene	ND		0.68		ug/m3			12/21/16 09:47	1
Toluene	8.8		0.57		ug/m3			12/21/16 09:47	1
trans-1,2-Dichloroethene	22		0.40		ug/m3			12/21/16 09:47	1
trans-1,3-Dichloropropene	ND		0.45		ug/m3			12/21/16 09:47	1
Trichloroethene	ND		0.27		ug/m3			12/21/16 09:47	1
Trichlorofluoromethane	1.6		0.56		ug/m3			12/21/16 09:47	1
Vinyl chloride	ND		0.13		ug/m3			12/21/16 09:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		12/21/16 09:47	1

Client Sample ID: IA-3

Lab Sample ID: 140-6565-6

Date Collected: 12/13/16 15:40

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,1,2,2-Tetrachloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,1,2-Trichloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,1,2-Trichlorotrifluoroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,1-Dichloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,1-Dichloroethene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2,4-Trichlorobenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2,4-Trimethylbenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2-Dibromoethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2-Dichlorobenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2-Dichloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2-Dichloropropane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,2-Dichlorotetrafluoroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,3,5-Trimethylbenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,3-Dichlorobenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,4-Dichlorobenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
1,4-Dioxane	ND		0.80		ppb v/v			12/20/16 17:02	1.6
2,2,4-Trimethylpentane	ND		0.80		ppb v/v			12/20/16 17:02	1.6
2-Butanone	ND		1.3		ppb v/v			12/20/16 17:02	1.6
4-Methyl-2-pentanone (MIBK)	ND		0.80		ppb v/v			12/20/16 17:02	1.6
Benzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Benzyl chloride	ND		0.64		ppb v/v			12/20/16 17:02	1.6
Bromodichloromethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Bromoform	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Bromomethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Carbon tetrachloride	ND		0.16		ppb v/v			12/20/16 17:02	1.6
Chlorobenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Chloroethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Chloroform	0.34		0.32		ppb v/v			12/20/16 17:02	1.6
Chloromethane	ND		0.80		ppb v/v			12/20/16 17:02	1.6

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-3

Lab Sample ID: 140-6565-6

Date Collected: 12/13/16 15:40

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
cis-1,3-Dichloropropene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Cyclohexane	ND		0.80		ppb v/v			12/20/16 17:02	1.6
Dibromochloromethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Dichlorodifluoromethane	0.52		0.32		ppb v/v			12/20/16 17:02	1.6
Ethanol	220		8.0		ppb v/v			12/20/16 17:02	1.6
Ethylbenzene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Hexachlorobutadiene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Hexane	ND		0.80		ppb v/v			12/20/16 17:02	1.6
Methyl tert-butyl ether	ND		0.64		ppb v/v			12/20/16 17:02	1.6
Methylene Chloride	ND		0.80		ppb v/v			12/20/16 17:02	1.6
m-Xylene & p-Xylene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
o-Xylene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Styrene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
t-Butyl alcohol	ND		1.3		ppb v/v			12/20/16 17:02	1.6
Tetrachloroethene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Toluene	0.59		0.48		ppb v/v			12/20/16 17:02	1.6
trans-1,2-Dichloroethene	2.5		0.32		ppb v/v			12/20/16 17:02	1.6
trans-1,3-Dichloropropene	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Trichloroethene	ND		0.16		ppb v/v			12/20/16 17:02	1.6
Trichlorofluoromethane	ND		0.32		ppb v/v			12/20/16 17:02	1.6
Vinyl chloride	ND		0.16		ppb v/v			12/20/16 17:02	1.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.7		ug/m3			12/20/16 17:02	1.6
1,1,2,2-Tetrachloroethane	ND		2.2		ug/m3			12/20/16 17:02	1.6
1,1,2-Trichloroethane	ND		1.7		ug/m3			12/20/16 17:02	1.6
1,1,2-Trichlorotrifluoroethane	ND		2.5		ug/m3			12/20/16 17:02	1.6
1,1-Dichloroethane	ND		1.3		ug/m3			12/20/16 17:02	1.6
1,1-Dichloroethene	ND		1.3		ug/m3			12/20/16 17:02	1.6
1,2,4-Trichlorobenzene	ND		2.4		ug/m3			12/20/16 17:02	1.6
1,2,4-Trimethylbenzene	ND		1.6		ug/m3			12/20/16 17:02	1.6
1,2-Dibromoethane	ND		2.5		ug/m3			12/20/16 17:02	1.6
1,2-Dichlorobenzene	ND		1.9		ug/m3			12/20/16 17:02	1.6
1,2-Dichloroethane	ND		1.3		ug/m3			12/20/16 17:02	1.6
1,2-Dichloropropane	ND		1.5		ug/m3			12/20/16 17:02	1.6
1,2-Dichlorotetrafluoroethane	ND		2.2		ug/m3			12/20/16 17:02	1.6
1,3,5-Trimethylbenzene	ND		1.6		ug/m3			12/20/16 17:02	1.6
1,3-Dichlorobenzene	ND		1.9		ug/m3			12/20/16 17:02	1.6
1,4-Dichlorobenzene	ND		1.9		ug/m3			12/20/16 17:02	1.6
1,4-Dioxane	ND		2.9		ug/m3			12/20/16 17:02	1.6
2,2,4-Trimethylpentane	ND		3.7		ug/m3			12/20/16 17:02	1.6
2-Butanone	ND		3.8		ug/m3			12/20/16 17:02	1.6
4-Methyl-2-pentanone (MIBK)	ND		3.3		ug/m3			12/20/16 17:02	1.6
Benzene	ND		1.0		ug/m3			12/20/16 17:02	1.6
Benzyl chloride	ND		3.3		ug/m3			12/20/16 17:02	1.6
Bromodichloromethane	ND		2.1		ug/m3			12/20/16 17:02	1.6
Bromoform	ND		3.3		ug/m3			12/20/16 17:02	1.6
Bromomethane	ND		1.2		ug/m3			12/20/16 17:02	1.6

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-3

Lab Sample ID: 140-6565-6

Date Collected: 12/13/16 15:40

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		1.0		ug/m3			12/20/16 17:02	1.6
Chlorobenzene	ND		1.5		ug/m3			12/20/16 17:02	1.6
Chloroethane	ND		0.84		ug/m3			12/20/16 17:02	1.6
Chloroform	1.6		1.6		ug/m3			12/20/16 17:02	1.6
Chloromethane	ND		1.7		ug/m3			12/20/16 17:02	1.6
cis-1,2-Dichloroethene	ND		1.3		ug/m3			12/20/16 17:02	1.6
cis-1,3-Dichloropropene	ND		1.5		ug/m3			12/20/16 17:02	1.6
Cyclohexane	ND		2.8		ug/m3			12/20/16 17:02	1.6
Dibromochloromethane	ND		2.7		ug/m3			12/20/16 17:02	1.6
Dichlorodifluoromethane	2.6		1.6		ug/m3			12/20/16 17:02	1.6
Ethanol	420		15		ug/m3			12/20/16 17:02	1.6
Ethylbenzene	ND		1.4		ug/m3			12/20/16 17:02	1.6
Hexachlorobutadiene	ND		3.4		ug/m3			12/20/16 17:02	1.6
Hexane	ND		2.8		ug/m3			12/20/16 17:02	1.6
Methyl tert-butyl ether	ND		2.3		ug/m3			12/20/16 17:02	1.6
Methylene Chloride	ND		2.8		ug/m3			12/20/16 17:02	1.6
m-Xylene & p-Xylene	ND		1.4		ug/m3			12/20/16 17:02	1.6
o-Xylene	ND		1.4		ug/m3			12/20/16 17:02	1.6
Styrene	ND		1.4		ug/m3			12/20/16 17:02	1.6
t-Butyl alcohol	ND		3.9		ug/m3			12/20/16 17:02	1.6
Tetrachloroethene	ND		2.2		ug/m3			12/20/16 17:02	1.6
Toluene	2.2		1.8		ug/m3			12/20/16 17:02	1.6
trans-1,2-Dichloroethene	9.9		1.3		ug/m3			12/20/16 17:02	1.6
trans-1,3-Dichloropropene	ND		1.5		ug/m3			12/20/16 17:02	1.6
Trichloroethene	ND		0.86		ug/m3			12/20/16 17:02	1.6
Trichlorofluoromethane	ND		1.8		ug/m3			12/20/16 17:02	1.6
Vinyl chloride	ND		0.41		ug/m3			12/20/16 17:02	1.6
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140					12/20/16 17:02	1.6

Client Sample ID: AM-1

Lab Sample ID: 140-6565-7

Date Collected: 12/13/16 16:35

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: AM-1

Lab Sample ID: 140-6565-7

Date Collected: 12/13/16 16:35

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
1,4-Dioxane	ND		0.20		ppb v/v			12/20/16 17:49	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/20/16 17:49	1
2-Butanone	ND		0.32		ppb v/v			12/20/16 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/20/16 17:49	1
Benzene	0.33		0.080		ppb v/v			12/20/16 17:49	1
Benzyl chloride	ND		0.16		ppb v/v			12/20/16 17:49	1
Bromodichloromethane	ND		0.080		ppb v/v			12/20/16 17:49	1
Bromoform	ND		0.080		ppb v/v			12/20/16 17:49	1
Bromomethane	ND		0.080		ppb v/v			12/20/16 17:49	1
Carbon tetrachloride	0.062		0.040		ppb v/v			12/20/16 17:49	1
Chlorobenzene	ND		0.080		ppb v/v			12/20/16 17:49	1
Chloroethane	ND		0.080		ppb v/v			12/20/16 17:49	1
Chloroform	ND		0.080		ppb v/v			12/20/16 17:49	1
Chloromethane	0.55		0.20		ppb v/v			12/20/16 17:49	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/20/16 17:49	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 17:49	1
Cyclohexane	ND		0.20		ppb v/v			12/20/16 17:49	1
Dibromochloromethane	ND		0.080		ppb v/v			12/20/16 17:49	1
Dichlorodifluoromethane	0.52		0.080		ppb v/v			12/20/16 17:49	1
Ethanol	14		2.0		ppb v/v			12/20/16 17:49	1
Ethylbenzene	0.094		0.080		ppb v/v			12/20/16 17:49	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/20/16 17:49	1
Hexane	0.35		0.20		ppb v/v			12/20/16 17:49	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/20/16 17:49	1
Methylene Chloride	0.40		0.20		ppb v/v			12/20/16 17:49	1
m-Xylene & p-Xylene	0.36		0.080		ppb v/v			12/20/16 17:49	1
o-Xylene	0.11		0.080		ppb v/v			12/20/16 17:49	1
Styrene	ND		0.080		ppb v/v			12/20/16 17:49	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/20/16 17:49	1
Tetrachloroethene	ND		0.080		ppb v/v			12/20/16 17:49	1
Toluene	0.64		0.12		ppb v/v			12/20/16 17:49	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			12/20/16 17:49	1
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 17:49	1
Trichloroethene	ND		0.040		ppb v/v			12/20/16 17:49	1
Trichlorofluoromethane	0.24		0.080		ppb v/v			12/20/16 17:49	1
Vinyl chloride	ND		0.040		ppb v/v			12/20/16 17:49	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/20/16 17:49	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/20/16 17:49	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/20/16 17:49	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/20/16 17:49	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/20/16 17:49	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/20/16 17:49	1

TestAmerica Knoxville

Client Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: AM-1

Lab Sample ID: 140-6565-7

Date Collected: 12/13/16 16:35

Matrix: Air

Date Received: 12/15/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/20/16 17:49	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 17:49	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/20/16 17:49	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 17:49	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/20/16 17:49	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/20/16 17:49	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/20/16 17:49	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 17:49	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 17:49	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 17:49	1
1,4-Dioxane	ND		0.72		ug/m3			12/20/16 17:49	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/20/16 17:49	1
2-Butanone	ND		0.94		ug/m3			12/20/16 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/20/16 17:49	1
Benzene	1.1		0.26		ug/m3			12/20/16 17:49	1
Benzyl chloride	ND		0.83		ug/m3			12/20/16 17:49	1
Bromodichloromethane	ND		0.54		ug/m3			12/20/16 17:49	1
Bromoform	ND		0.83		ug/m3			12/20/16 17:49	1
Bromomethane	ND		0.31		ug/m3			12/20/16 17:49	1
Carbon tetrachloride	0.39		0.25		ug/m3			12/20/16 17:49	1
Chlorobenzene	ND		0.37		ug/m3			12/20/16 17:49	1
Chloroethane	ND		0.21		ug/m3			12/20/16 17:49	1
Chloroform	ND		0.39		ug/m3			12/20/16 17:49	1
Chloromethane	1.1		0.41		ug/m3			12/20/16 17:49	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/20/16 17:49	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 17:49	1
Cyclohexane	ND		0.69		ug/m3			12/20/16 17:49	1
Dibromochloromethane	ND		0.68		ug/m3			12/20/16 17:49	1
Dichlorodifluoromethane	2.6		0.40		ug/m3			12/20/16 17:49	1
Ethanol	26		3.8		ug/m3			12/20/16 17:49	1
Ethylbenzene	0.41		0.35		ug/m3			12/20/16 17:49	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/20/16 17:49	1
Hexane	1.2		0.70		ug/m3			12/20/16 17:49	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/20/16 17:49	1
Methylene Chloride	1.4		0.69		ug/m3			12/20/16 17:49	1
m-Xylene & p-Xylene	1.6		0.35		ug/m3			12/20/16 17:49	1
o-Xylene	0.49		0.35		ug/m3			12/20/16 17:49	1
Styrene	ND		0.34		ug/m3			12/20/16 17:49	1
t-Butyl alcohol	ND		0.97		ug/m3			12/20/16 17:49	1
Tetrachloroethene	ND		0.54		ug/m3			12/20/16 17:49	1
Toluene	2.4		0.45		ug/m3			12/20/16 17:49	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			12/20/16 17:49	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 17:49	1
Trichloroethene	ND		0.21		ug/m3			12/20/16 17:49	1
Trichlorofluoromethane	1.4		0.45		ug/m3			12/20/16 17:49	1
Vinyl chloride	ND		0.10		ug/m3			12/20/16 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		60 - 140		12/20/16 17:49	1

TestAmerica Knoxville

Default Detection Limits

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,1-Trichloroethane	0.44	0.065	ug/m3	TO 15 LL
1,1,2,2-Tetrachloroethane	0.080	0.024	ppb v/v	TO 15 LL
1,1,2,2-Tetrachloroethane	0.55	0.16	ug/m3	TO 15 LL
1,1,2-Trichloroethane	0.080	0.021	ppb v/v	TO 15 LL
1,1,2-Trichloroethane	0.44	0.11	ug/m3	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.61	0.092	ug/m3	TO 15 LL
1,1-Dichloroethane	0.080	0.010	ppb v/v	TO 15 LL
1,1-Dichloroethane	0.32	0.040	ug/m3	TO 15 LL
1,1-Dichloroethene	0.080	0.014	ppb v/v	TO 15 LL
1,1-Dichloroethene	0.32	0.056	ug/m3	TO 15 LL
1,2,4-Trichlorobenzene	0.080	0.039	ppb v/v	TO 15 LL
1,2,4-Trichlorobenzene	0.59	0.29	ug/m3	TO 15 LL
1,2,4-Trimethylbenzene	0.080	0.025	ppb v/v	TO 15 LL
1,2,4-Trimethylbenzene	0.39	0.12	ug/m3	TO 15 LL
1,2-Dibromoethane	0.080	0.018	ppb v/v	TO 15 LL
1,2-Dibromoethane	0.61	0.14	ug/m3	TO 15 LL
1,2-Dichlorobenzene	0.080	0.028	ppb v/v	TO 15 LL
1,2-Dichlorobenzene	0.48	0.17	ug/m3	TO 15 LL
1,2-Dichloroethane	0.080	0.019	ppb v/v	TO 15 LL
1,2-Dichloroethane	0.32	0.077	ug/m3	TO 15 LL
1,2-Dichloropropane	0.080	0.021	ppb v/v	TO 15 LL
1,2-Dichloropropane	0.37	0.097	ug/m3	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.080	0.013	ppb v/v	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.56	0.091	ug/m3	TO 15 LL
1,3,5-Trimethylbenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3,5-Trimethylbenzene	0.39	0.13	ug/m3	TO 15 LL
1,3-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,4-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dioxane	0.20	0.032	ppb v/v	TO 15 LL
1,4-Dioxane	0.72	0.12	ug/m3	TO 15 LL
2,2,4-Trimethylpentane	0.20	0.016	ppb v/v	TO 15 LL
2,2,4-Trimethylpentane	0.93	0.075	ug/m3	TO 15 LL
2-Butanone	0.32	0.080	ppb v/v	TO 15 LL
2-Butanone	0.94	0.24	ug/m3	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.20	0.018	ppb v/v	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.82	0.074	ug/m3	TO 15 LL
Benzene	0.080	0.023	ppb v/v	TO 15 LL
Benzene	0.26	0.073	ug/m3	TO 15 LL
Benzyl chloride	0.16	0.031	ppb v/v	TO 15 LL
Benzyl chloride	0.83	0.16	ug/m3	TO 15 LL
Bromodichloromethane	0.080	0.018	ppb v/v	TO 15 LL
Bromodichloromethane	0.54	0.12	ug/m3	TO 15 LL
Bromoform	0.080	0.019	ppb v/v	TO 15 LL
Bromoform	0.83	0.20	ug/m3	TO 15 LL
Bromomethane	0.080	0.013	ppb v/v	TO 15 LL
Bromomethane	0.31	0.050	ug/m3	TO 15 LL
Carbon tetrachloride	0.040	0.015	ppb v/v	TO 15 LL
Carbon tetrachloride	0.25	0.094	ug/m3	TO 15 LL

TestAmerica Knoxville

Default Detection Limits

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Cont)

Analyte	RL	MDL	Units	Method
Chlorobenzene	0.080	0.020	ppb v/v	TO 15 LL
Chlorobenzene	0.37	0.092	ug/m3	TO 15 LL
Chloroethane	0.080	0.014	ppb v/v	TO 15 LL
Chloroethane	0.21	0.037	ug/m3	TO 15 LL
Chloroform	0.080	0.015	ppb v/v	TO 15 LL
Chloroform	0.39	0.073	ug/m3	TO 15 LL
Chloromethane	0.20	0.064	ppb v/v	TO 15 LL
Chloromethane	0.41	0.13	ug/m3	TO 15 LL
cis-1,2-Dichloroethene	0.080	0.024	ppb v/v	TO 15 LL
cis-1,2-Dichloroethene	0.32	0.095	ug/m3	TO 15 LL
cis-1,3-Dichloropropene	0.080	0.029	ppb v/v	TO 15 LL
cis-1,3-Dichloropropene	0.36	0.13	ug/m3	TO 15 LL
Cyclohexane	0.20	0.016	ppb v/v	TO 15 LL
Cyclohexane	0.69	0.055	ug/m3	TO 15 LL
Dibromochloromethane	0.080	0.017	ppb v/v	TO 15 LL
Dibromochloromethane	0.68	0.14	ug/m3	TO 15 LL
Dichlorodifluoromethane	0.080	0.027	ppb v/v	TO 15 LL
Dichlorodifluoromethane	0.40	0.13	ug/m3	TO 15 LL
Ethanol	2.0	0.64	ppb v/v	TO 15 LL
Ethanol	3.8	1.2	ug/m3	TO 15 LL
Ethylbenzene	0.080	0.027	ppb v/v	TO 15 LL
Ethylbenzene	0.35	0.12	ug/m3	TO 15 LL
Hexachlorobutadiene	0.080	0.049	ppb v/v	TO 15 LL
Hexachlorobutadiene	0.85	0.52	ug/m3	TO 15 LL
Hexane	0.20	0.013	ppb v/v	TO 15 LL
Hexane	0.70	0.046	ug/m3	TO 15 LL
Methyl tert-butyl ether	0.16	0.068	ppb v/v	TO 15 LL
Methyl tert-butyl ether	0.58	0.25	ug/m3	TO 15 LL
Methylene Chloride	0.20	0.13	ppb v/v	TO 15 LL
Methylene Chloride	0.69	0.45	ug/m3	TO 15 LL
m-Xylene & p-Xylene	0.080	0.053	ppb v/v	TO 15 LL
m-Xylene & p-Xylene	0.35	0.23	ug/m3	TO 15 LL
o-Xylene	0.080	0.024	ppb v/v	TO 15 LL
o-Xylene	0.35	0.10	ug/m3	TO 15 LL
Styrene	0.080	0.023	ppb v/v	TO 15 LL
Styrene	0.34	0.098	ug/m3	TO 15 LL
t-Butyl alcohol	0.32	0.015	ppb v/v	TO 15 LL
t-Butyl alcohol	0.97	0.045	ug/m3	TO 15 LL
Tetrachloroethene	0.080	0.016	ppb v/v	TO 15 LL
Tetrachloroethene	0.54	0.11	ug/m3	TO 15 LL
Toluene	0.12	0.12	ppb v/v	TO 15 LL
Toluene	0.45	0.45	ug/m3	TO 15 LL
trans-1,2-Dichloroethene	0.080	0.020	ppb v/v	TO 15 LL
trans-1,2-Dichloroethene	0.32	0.079	ug/m3	TO 15 LL
trans-1,3-Dichloropropene	0.080	0.019	ppb v/v	TO 15 LL
trans-1,3-Dichloropropene	0.36	0.086	ug/m3	TO 15 LL
Trichloroethene	0.040	0.014	ppb v/v	TO 15 LL
Trichloroethene	0.21	0.075	ug/m3	TO 15 LL
Trichlorofluoromethane	0.080	0.010	ppb v/v	TO 15 LL
Trichlorofluoromethane	0.45	0.056	ug/m3	TO 15 LL
Vinyl chloride	0.040	0.029	ppb v/v	TO 15 LL
Vinyl chloride	0.10	0.074	ug/m3	TO 15 LL

TestAmerica Knoxville

Surrogate Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
140-6565-1 - DL	SSV-1	105
140-6565-1	SSV-1	102
140-6565-2 - DL	IA-1	103
140-6565-2	IA-1	97
140-6565-3 - DL	SSV-2	105
140-6565-3	SSV-2	102
140-6565-4	IA-2	103
140-6565-5	SSV-3	105
140-6565-6	IA-3	102
140-6565-7	AM-1	98
LCS 140-7444/1002	Lab Control Sample	109
MB 140-7444/4	Method Blank	105

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-7444/4

Matrix: Air

Analysis Batch: 7444

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,1-Dichloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,1-Dichloroethene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2-Dibromoethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2-Dichloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2-Dichloropropane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
1,4-Dioxane	ND		0.20		ppb v/v			12/20/16 12:39	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			12/20/16 12:39	1
2-Butanone	ND		0.32		ppb v/v			12/20/16 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			12/20/16 12:39	1
Benzene	ND		0.080		ppb v/v			12/20/16 12:39	1
Benzyl chloride	ND		0.16		ppb v/v			12/20/16 12:39	1
Bromodichloromethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Bromoform	ND		0.080		ppb v/v			12/20/16 12:39	1
Bromomethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Carbon tetrachloride	ND		0.040		ppb v/v			12/20/16 12:39	1
Chlorobenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
Chloroethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Chloroform	ND		0.080		ppb v/v			12/20/16 12:39	1
Chloromethane	ND		0.20		ppb v/v			12/20/16 12:39	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			12/20/16 12:39	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 12:39	1
Cyclohexane	ND		0.20		ppb v/v			12/20/16 12:39	1
Dibromochloromethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Dichlorodifluoromethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Ethanol	ND		2.0		ppb v/v			12/20/16 12:39	1
Ethylbenzene	ND		0.080		ppb v/v			12/20/16 12:39	1
Hexachlorobutadiene	ND		0.080		ppb v/v			12/20/16 12:39	1
Hexane	ND		0.20		ppb v/v			12/20/16 12:39	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			12/20/16 12:39	1
Methylene Chloride	ND		0.20		ppb v/v			12/20/16 12:39	1
m-Xylene & p-Xylene	ND		0.080		ppb v/v			12/20/16 12:39	1
o-Xylene	ND		0.080		ppb v/v			12/20/16 12:39	1
Styrene	ND		0.080		ppb v/v			12/20/16 12:39	1
t-Butyl alcohol	ND		0.32		ppb v/v			12/20/16 12:39	1
Tetrachloroethene	ND		0.080		ppb v/v			12/20/16 12:39	1
Toluene	ND		0.12		ppb v/v			12/20/16 12:39	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			12/20/16 12:39	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7444/4
Matrix: Air
Analysis Batch: 7444

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			12/20/16 12:39	1
Trichloroethene	ND		0.040		ppb v/v			12/20/16 12:39	1
Trichlorofluoromethane	ND		0.080		ppb v/v			12/20/16 12:39	1
Vinyl chloride	ND		0.040		ppb v/v			12/20/16 12:39	1
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			12/20/16 12:39	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			12/20/16 12:39	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			12/20/16 12:39	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			12/20/16 12:39	1
1,1-Dichloroethane	ND		0.32		ug/m3			12/20/16 12:39	1
1,1-Dichloroethene	ND		0.32		ug/m3			12/20/16 12:39	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			12/20/16 12:39	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 12:39	1
1,2-Dibromoethane	ND		0.61		ug/m3			12/20/16 12:39	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 12:39	1
1,2-Dichloroethane	ND		0.32		ug/m3			12/20/16 12:39	1
1,2-Dichloropropane	ND		0.37		ug/m3			12/20/16 12:39	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			12/20/16 12:39	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			12/20/16 12:39	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 12:39	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			12/20/16 12:39	1
1,4-Dioxane	ND		0.72		ug/m3			12/20/16 12:39	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			12/20/16 12:39	1
2-Butanone	ND		0.94		ug/m3			12/20/16 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			12/20/16 12:39	1
Benzene	ND		0.26		ug/m3			12/20/16 12:39	1
Benzyl chloride	ND		0.83		ug/m3			12/20/16 12:39	1
Bromodichloromethane	ND		0.54		ug/m3			12/20/16 12:39	1
Bromoform	ND		0.83		ug/m3			12/20/16 12:39	1
Bromomethane	ND		0.31		ug/m3			12/20/16 12:39	1
Carbon tetrachloride	ND		0.25		ug/m3			12/20/16 12:39	1
Chlorobenzene	ND		0.37		ug/m3			12/20/16 12:39	1
Chloroethane	ND		0.21		ug/m3			12/20/16 12:39	1
Chloroform	ND		0.39		ug/m3			12/20/16 12:39	1
Chloromethane	ND		0.41		ug/m3			12/20/16 12:39	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			12/20/16 12:39	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 12:39	1
Cyclohexane	ND		0.69		ug/m3			12/20/16 12:39	1
Dibromochloromethane	ND		0.68		ug/m3			12/20/16 12:39	1
Dichlorodifluoromethane	ND		0.40		ug/m3			12/20/16 12:39	1
Ethanol	ND		3.8		ug/m3			12/20/16 12:39	1
Ethylbenzene	ND		0.35		ug/m3			12/20/16 12:39	1
Hexachlorobutadiene	ND		0.85		ug/m3			12/20/16 12:39	1
Hexane	ND		0.70		ug/m3			12/20/16 12:39	1
Methyl tert-butyl ether	ND		0.58		ug/m3			12/20/16 12:39	1
Methylene Chloride	ND		0.69		ug/m3			12/20/16 12:39	1

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7444/4
Matrix: Air
Analysis Batch: 7444

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.35		ug/m3			12/20/16 12:39	1
o-Xylene	ND		0.35		ug/m3			12/20/16 12:39	1
Styrene	ND		0.34		ug/m3			12/20/16 12:39	1
t-Butyl alcohol	ND		0.97		ug/m3			12/20/16 12:39	1
Tetrachloroethene	ND		0.54		ug/m3			12/20/16 12:39	1
Toluene	ND		0.45		ug/m3			12/20/16 12:39	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			12/20/16 12:39	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			12/20/16 12:39	1
Trichloroethene	ND		0.21		ug/m3			12/20/16 12:39	1
Trichlorofluoromethane	ND		0.45		ug/m3			12/20/16 12:39	1
Vinyl chloride	ND		0.10		ug/m3			12/20/16 12:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		12/20/16 12:39	1

Lab Sample ID: LCS 140-7444/1002
Matrix: Air
Analysis Batch: 7444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.39		ppb v/v		119	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.13		ppb v/v		106	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		106	70 - 130
1,1,2-Trichlorotrifluoroethane	2.00	2.29		ppb v/v		115	70 - 130
1,1-Dichloroethane	2.00	2.39		ppb v/v		119	70 - 130
1,1-Dichloroethene	2.00	2.23		ppb v/v		111	70 - 130
1,2,4-Trichlorobenzene	2.00	1.83		ppb v/v		91	60 - 140
1,2,4-Trimethylbenzene	2.00	2.02		ppb v/v		101	70 - 130
1,2-Dibromoethane	2.00	2.13		ppb v/v		106	70 - 130
1,2-Dichlorobenzene	2.00	1.90		ppb v/v		95	70 - 130
1,2-Dichloroethane	2.00	2.30		ppb v/v		115	70 - 130
1,2-Dichloropropane	2.00	2.15		ppb v/v		107	70 - 130
1,2-Dichlorotetrafluoroethane	2.00	2.34		ppb v/v		117	60 - 140
1,3,5-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,3-Dichlorobenzene	2.00	1.92		ppb v/v		96	70 - 130
1,4-Dichlorobenzene	2.00	1.94		ppb v/v		97	70 - 130
1,4-Dioxane	2.00	1.94		ppb v/v		97	60 - 140
2,2,4-Trimethylpentane	2.00	2.11		ppb v/v		105	70 - 130
2-Butanone	2.00	2.14		ppb v/v		107	60 - 140
4-Methyl-2-pentanone (MIBK)	2.00	2.03		ppb v/v		101	60 - 140
Benzene	2.00	2.11		ppb v/v		106	70 - 130
Benzyl chloride	2.00	2.12		ppb v/v		106	70 - 130
Bromodichloromethane	2.00	2.12		ppb v/v		106	70 - 130
Bromoform	2.00	2.25		ppb v/v		113	60 - 140
Bromomethane	2.00	2.23		ppb v/v		111	70 - 130
Carbon tetrachloride	2.00	2.11		ppb v/v		106	70 - 130
Chlorobenzene	2.00	2.03		ppb v/v		101	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7444/1002
Matrix: Air
Analysis Batch: 7444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	2.00	2.27		ppb v/v		114	70 - 130
Chloroform	2.00	2.35		ppb v/v		117	70 - 130
Chloromethane	2.00	2.42		ppb v/v		121	60 - 140
cis-1,2-Dichloroethene	2.00	2.24		ppb v/v		112	70 - 130
cis-1,3-Dichloropropene	2.00	2.17		ppb v/v		109	70 - 130
Cyclohexane	2.00	2.00		ppb v/v		100	70 - 130
Dibromochloromethane	2.00	2.16		ppb v/v		108	70 - 130
Dichlorodifluoromethane	2.00	2.58		ppb v/v		129	60 - 140
Ethanol	10.1	12.2		ppb v/v		121	60 - 140
Ethylbenzene	2.00	2.09		ppb v/v		104	70 - 130
Hexachlorobutadiene	2.00	1.69		ppb v/v		84	60 - 140
Hexane	2.00	2.41		ppb v/v		120	70 - 130
Methyl tert-butyl ether	2.00	2.34		ppb v/v		117	60 - 140
Methylene Chloride	2.00	2.07		ppb v/v		103	70 - 130
m-Xylene & p-Xylene	4.00	4.19		ppb v/v		105	70 - 130
o-Xylene	2.00	2.07		ppb v/v		104	70 - 130
Styrene	2.00	2.10		ppb v/v		105	70 - 130
t-Butyl alcohol	2.00	2.36		ppb v/v		118	60 - 140
Tetrachloroethene	2.00	1.91		ppb v/v		96	70 - 130
Toluene	2.00	2.08		ppb v/v		104	70 - 130
trans-1,2-Dichloroethene	2.00	2.23		ppb v/v		111	70 - 130
trans-1,3-Dichloropropene	2.00	2.19		ppb v/v		109	70 - 130
Trichloroethene	2.00	1.83		ppb v/v		91	70 - 130
Trichlorofluoromethane	2.00	2.45		ppb v/v		123	60 - 140
Vinyl chloride	2.00	2.50		ppb v/v		125	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	13.0		ug/m3		119	70 - 130
1,1,1,2-Tetrachloroethane	14	14.6		ug/m3		106	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		106	70 - 130
1,1,2-Trichlorotrifluoroethane	15	17.6		ug/m3		115	70 - 130
1,1-Dichloroethane	8.1	9.67		ug/m3		119	70 - 130
1,1-Dichloroethene	7.9	8.85		ug/m3		111	70 - 130
1,2,4-Trichlorobenzene	15	13.6		ug/m3		91	60 - 140
1,2,4-Trimethylbenzene	9.8	9.95		ug/m3		101	70 - 130
1,2-Dibromoethane	15	16.4		ug/m3		106	70 - 130
1,2-Dichlorobenzene	12	11.4		ug/m3		95	70 - 130
1,2-Dichloroethane	8.1	9.30		ug/m3		115	70 - 130
1,2-Dichloropropane	9.2	9.92		ug/m3		107	70 - 130
1,2-Dichlorotetrafluoroethane	14	16.4		ug/m3		117	60 - 140
1,3,5-Trimethylbenzene	9.8	9.52		ug/m3		97	70 - 130
1,3-Dichlorobenzene	12	11.5		ug/m3		96	70 - 130
1,4-Dichlorobenzene	12	11.7		ug/m3		97	70 - 130
1,4-Dioxane	7.2	6.98		ug/m3		97	60 - 140
2,2,4-Trimethylpentane	9.3	9.85		ug/m3		105	70 - 130
2-Butanone	5.9	6.32		ug/m3		107	60 - 140
4-Methyl-2-pentanone (MIBK)	8.2	8.31		ug/m3		101	60 - 140

TestAmerica Knoxville

QC Sample Results

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7444/1002

Matrix: Air

Analysis Batch: 7444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.75		ug/m3		106	70 - 130
Benzyl chloride	10	11.0		ug/m3		106	70 - 130
Bromodichloromethane	13	14.2		ug/m3		106	70 - 130
Bromoform	21	23.3		ug/m3		113	60 - 140
Bromomethane	7.8	8.66		ug/m3		111	70 - 130
Carbon tetrachloride	13	13.3		ug/m3		106	70 - 130
Chlorobenzene	9.2	9.34		ug/m3		101	70 - 130
Chloroethane	5.3	6.00		ug/m3		114	70 - 130
Chloroform	9.8	11.5		ug/m3		117	70 - 130
Chloromethane	4.1	5.00		ug/m3		121	60 - 140
cis-1,2-Dichloroethene	7.9	8.89		ug/m3		112	70 - 130
cis-1,3-Dichloropropene	9.1	9.86		ug/m3		109	70 - 130
Cyclohexane	6.9	6.89		ug/m3		100	70 - 130
Dibromochloromethane	17	18.4		ug/m3		108	70 - 130
Dichlorodifluoromethane	9.9	12.8		ug/m3		129	60 - 140
Ethanol	19	23.0		ug/m3		121	60 - 140
Ethylbenzene	8.7	9.06		ug/m3		104	70 - 130
Hexachlorobutadiene	21	18.0		ug/m3		84	60 - 140
Hexane	7.1	8.49		ug/m3		120	70 - 130
Methyl tert-butyl ether	7.2	8.44		ug/m3		117	60 - 140
Methylene Chloride	7.0	7.19		ug/m3		103	70 - 130
m-Xylene & p-Xylene	17	18.2		ug/m3		105	70 - 130
o-Xylene	8.7	9.00		ug/m3		104	70 - 130
Styrene	8.5	8.96		ug/m3		105	70 - 130
t-Butyl alcohol	6.1	7.16		ug/m3		118	60 - 140
Tetrachloroethene	14	13.0		ug/m3		96	70 - 130
Toluene	7.5	7.82		ug/m3		104	70 - 130
trans-1,2-Dichloroethene	7.9	8.83		ug/m3		111	70 - 130
trans-1,3-Dichloropropene	9.1	9.93		ug/m3		109	70 - 130
Trichloroethene	11	9.82		ug/m3		91	70 - 130
Trichlorofluoromethane	11	13.8		ug/m3		123	60 - 140
Vinyl chloride	5.1	6.39		ug/m3		125	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		60 - 140

QC Association Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Air - GC/MS VOA

Analysis Batch: 7444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-6565-1	SSV-1	Total/NA	Air	TO 15 LL	
140-6565-1 - DL	SSV-1	Total/NA	Air	TO 15 LL	
140-6565-2	IA-1	Total/NA	Air	TO 15 LL	
140-6565-2 - DL	IA-1	Total/NA	Air	TO 15 LL	
140-6565-3	SSV-2	Total/NA	Air	TO 15 LL	
140-6565-3 - DL	SSV-2	Total/NA	Air	TO 15 LL	
140-6565-4	IA-2	Total/NA	Air	TO 15 LL	
140-6565-5	SSV-3	Total/NA	Air	TO 15 LL	
140-6565-6	IA-3	Total/NA	Air	TO 15 LL	
140-6565-7	AM-1	Total/NA	Air	TO 15 LL	
MB 140-7444/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-7444/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: SSV-1

Date Collected: 12/13/16 13:25

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.46	730 mL	500 mL	7444	12/20/16 13:27	HMT	TAL KNX
		Instrument ID: MG								
Total/NA	Analysis	TO 15 LL	DL	1.46	300 mL	500 mL	7444	12/21/16 01:52	HMT	TAL KNX
		Instrument ID: MG								

Client Sample ID: IA-1

Date Collected: 12/13/16 15:41

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.44	720 mL	500 mL	7444	12/20/16 14:13	HMT	TAL KNX
		Instrument ID: MG								
Total/NA	Analysis	TO 15 LL	DL	1.44	100 mL	500 mL	7444	12/21/16 02:35	HMT	TAL KNX
		Instrument ID: MG								

Client Sample ID: SSV-2

Date Collected: 12/13/16 16:15

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	200 mL	500 mL	7444	12/20/16 14:55	HMT	TAL KNX
		Instrument ID: MG								
Total/NA	Analysis	TO 15 LL	DL	1	80 mL	500 mL	7444	12/21/16 03:16	HMT	TAL KNX
		Instrument ID: MG								

Client Sample ID: IA-2

Date Collected: 12/13/16 16:25

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	7444	12/20/16 15:38	HMT	TAL KNX
		Instrument ID: MG								

Client Sample ID: SSV-3

Date Collected: 12/13/16 16:50

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-5

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	400 mL	500 mL	7444	12/21/16 09:47	HMT	TAL KNX
		Instrument ID: MG								

Lab Chronicle

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Client Sample ID: IA-3

Date Collected: 12/13/16 15:40

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-6

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.6	200 mL	500 mL	7444	12/20/16 17:02	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: AM-1

Date Collected: 12/13/16 16:35

Date Received: 12/15/16 10:00

Lab Sample ID: 140-6565-7

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7444	12/20/16 17:49	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-7444/4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7444	12/20/16 12:39	HMT	TAL KNX
Instrument ID: MG										

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 140-7444/1002

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7444	12/20/16 10:44	HMT	TAL KNX
Instrument ID: MG										

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Laboratory: TestAmerica Knoxville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10781	03-31-17

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	1,1,2-Trichlorotrifluoroethane
TO 15 LL		Air	1,2,4-Trimethylbenzene
TO 15 LL		Air	1,2-Dichlorotetrafluoroethane
TO 15 LL		Air	1,3,5-Trimethylbenzene
TO 15 LL		Air	1,4-Dioxane
TO 15 LL		Air	Bromodichloromethane
TO 15 LL		Air	Cyclohexane
TO 15 LL		Air	Dibromochloromethane
TO 15 LL		Air	Dichlorodifluoromethane
TO 15 LL		Air	o-Xylene
TO 15 LL		Air	Trichlorofluoromethane

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	Ethanol
TO 15 LL		Air	t-Butyl alcohol

Method Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CHA Inc
Project/Site: 144 State St. - Albany, NY

TestAmerica Job ID: 140-6565-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-6565-1	SSV-1	Air	12/13/16 13:25	12/15/16 10:00
140-6565-2	IA-1	Air	12/13/16 15:41	12/15/16 10:00
140-6565-3	SSV-2	Air	12/13/16 16:15	12/15/16 10:00
140-6565-4	IA-2	Air	12/13/16 16:25	12/15/16 10:00
140-6565-5	SSV-3	Air	12/13/16 16:50	12/15/16 10:00
140-6565-6	IA-3	Air	12/13/16 15:40	12/15/16 10:00
140-6565-7	AM-1	Air	12/13/16 16:35	12/15/16 10:00

Method T015 Low Level

Volatile Organic Compounds - Low
level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
SDG No.: _____
Matrix: Air Level: Low
GC Column (1): RTX-5 ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	BFB #
SSV-1	140-6565-1	102
SSV-1 DL	140-6565-1 DL	105
IA-1	140-6565-2	97
IA-1 DL	140-6565-2 DL	103
SSV-2	140-6565-3	102
SSV-2 DL	140-6565-3 DL	105
IA-2	140-6565-4	103
SSV-3	140-6565-5	105
IA-3	140-6565-6	102
AM-1	140-6565-7	98
	MB 140-7444/4	105
	LCS 140-7444/1002	109

BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL20-LCS.d
 Lab ID: LCS 140-7444/1002 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2.00	2.39	119	70-130	
1,1,2,2-Tetrachloroethane	2.00	2.13	106	70-130	
1,1,2-Trichloroethane	2.00	2.13	106	70-130	
1,1,2-Trichlorotrifluoroethane	2.00	2.29	115	70-130	
1,1-Dichloroethane	2.00	2.39	119	70-130	
1,1-Dichloroethene	2.00	2.23	111	70-130	
1,2,4-Trichlorobenzene	2.00	1.83	91	60-140	
1,2,4-Trimethylbenzene	2.00	2.02	101	70-130	
1,2-Dibromoethane	2.00	2.13	106	70-130	
1,2-Dichlorobenzene	2.00	1.90	95	70-130	
1,2-Dichloroethane	2.00	2.30	115	70-130	
1,2-Dichloropropane	2.00	2.15	107	70-130	
1,2-Dichlorotetrafluoroethane	2.00	2.34	117	60-140	
1,3,5-Trimethylbenzene	2.00	1.94	97	70-130	
1,3-Dichlorobenzene	2.00	1.92	96	70-130	
1,4-Dichlorobenzene	2.00	1.94	97	70-130	
1,4-Dioxane	2.00	1.94	97	60-140	
2,2,4-Trimethylpentane	2.00	2.11	105	70-130	
2-Butanone	2.00	2.14	107	60-140	
4-Methyl-2-pentanone (MIBK)	2.00	2.03	101	60-140	
Benzene	2.00	2.11	106	70-130	
Benzyl chloride	2.00	2.12	106	70-130	
Bromodichloromethane	2.00	2.12	106	70-130	
Bromoform	2.00	2.25	113	60-140	
Bromomethane	2.00	2.23	111	70-130	
Carbon tetrachloride	2.00	2.11	106	70-130	
Chlorobenzene	2.00	2.03	101	70-130	
Chloroethane	2.00	2.27	114	70-130	
Chloroform	2.00	2.35	117	70-130	
Chloromethane	2.00	2.42	121	60-140	
cis-1,2-Dichloroethene	2.00	2.24	112	70-130	
cis-1,3-Dichloropropene	2.00	2.17	109	70-130	
Cyclohexane	2.00	2.00	100	70-130	
Dibromochloromethane	2.00	2.16	108	70-130	
Dichlorodifluoromethane	2.00	2.58	129	60-140	
Ethanol	10.1	12.2	121	60-140	
Ethylbenzene	2.00	2.09	104	70-130	
Hexachlorobutadiene	2.00	1.69	84	60-140	
Hexane	2.00	2.41	120	70-130	
Methyl tert-butyl ether	2.00	2.34	117	60-140	
Methylene Chloride	2.00	2.07	103	70-130	
m-Xylene & p-Xylene	4.00	4.19	105	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: GCCVL20-LCS.d
 Lab ID: LCS 140-7444/1002 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
o-Xylene	2.00	2.07	104	70-130	
Styrene	2.00	2.10	105	70-130	
t-Butyl alcohol	2.00	2.36	118	60-140	
Tetrachloroethene	2.00	1.91	96	70-130	
Toluene	2.00	2.08	104	70-130	
trans-1,2-Dichloroethene	2.00	2.23	111	70-130	
trans-1,3-Dichloropropene	2.00	2.19	109	70-130	
Trichloroethene	2.00	1.83	91	70-130	
Trichlorofluoromethane	2.00	2.45	123	60-140	
Vinyl chloride	2.00	2.50	125	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab File ID: GMB500L20.D Lab Sample ID: MB 140-7444/4
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: MG Date Analyzed: 12/20/2016 12:39
 GC Column: RTX-5 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-7444/1002	GCCVL20-LCS .d	12/20/2016 10:44
SSV-1	140-6565-1	GL20P101.D	12/20/2016 13:27
IA-1	140-6565-2	GL20P102.D	12/20/2016 14:13
SSV-2	140-6565-3	GL20P103.D	12/20/2016 14:55
IA-2	140-6565-4	GL20P104.D	12/20/2016 15:38
IA-3	140-6565-6	GL20P106.D	12/20/2016 17:02
AM-1	140-6565-7	GL20P107.D	12/20/2016 17:49
SSV-1 DL	140-6565-1 DL	GL20P101DL. D	12/21/2016 01:52
IA-1 DL	140-6565-2 DL	GL20P102DL. D	12/21/2016 02:35
SSV-2 DL	140-6565-3 DL	GL20P103DL. D	12/21/2016 03:16
SSV-3	140-6565-5	GL20P105R.D	12/21/2016 09:47

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab File ID: GxBFBL08.D BFB Injection Date: 12/08/2016
 Instrument ID: MG BFB Injection Time: 19:26
 Analysis Batch No.: 7384

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.7
75	30.0 - 60.0 % of mass 95	52.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	0.5 (0.5) 1
174	50.0 - 120.00 % of mass 95	92.3
175	5.0 - 9.0 % of mass 174	6.4 (6.9) 1
176	95.0 - 101.0 % of mass 174	89.0 (96.4) 1
177	5.0 - 9.0 % of mass 176	5.7 (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 SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-7384/3	GxL08IC01.D	12/08/2016	19:58
	IC 140-7384/4	GxL08IC02.D	12/08/2016	20:42
	IC 140-7384/5	GxL08IC03.D	12/08/2016	21:25
	IC 140-7384/6	GxL08IC04.D	12/08/2016	22:07
	IC 140-7384/7	GxL08IC05.D	12/08/2016	22:50
	ICIS 140-7384/8	GxL08IC06.D	12/08/2016	23:31
	IC 140-7384/9	GxL08IC07.D	12/09/2016	00:14
	IC 140-7384/10	GxL08IC08.D	12/09/2016	00:56
	IC 140-7384/11	GxL08IC09.D	12/09/2016	01:38
	ICV 140-7384/13	GxL08ICV.D	12/09/2016	03:01

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab File ID: GBFBL20.D BFB Injection Date: 12/20/2016
 Instrument ID: MG BFB Injection Time: 10:09
 Analysis Batch No.: 7444

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.2
75	30.0 - 60.0 % of mass 95	53.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.1
173	Less than 2.0 % of mass 174	0.5 (0.5) 1
174	50.0 - 120.00 % of mass 95	88.3
175	5.0 - 9.0 % of mass 174	6.1 (6.9) 1
176	95.0 - 101.0 % of mass 174	85.1 (96.4) 1
177	5.0 - 9.0 % of mass 176	5.6 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-7444/2	GCCVL20.D	12/20/2016	10:44
	LCS 140-7444/1002	GCCVL20-LCS.d	12/20/2016	10:44
	MB 140-7444/4	GMB500L20.D	12/20/2016	12:39
SSV-1	140-6565-1	GL20P101.D	12/20/2016	13:27
IA-1	140-6565-2	GL20P102.D	12/20/2016	14:13
SSV-2	140-6565-3	GL20P103.D	12/20/2016	14:55
IA-2	140-6565-4	GL20P104.D	12/20/2016	15:38
IA-3	140-6565-6	GL20P106.D	12/20/2016	17:02
AM-1	140-6565-7	GL20P107.D	12/20/2016	17:49
SSV-1 DL	140-6565-1 DL	GL20P101DL.D	12/21/2016	01:52
IA-1 DL	140-6565-2 DL	GL20P102DL.D	12/21/2016	02:35
SSV-2 DL	140-6565-3 DL	GL20P103DL.D	12/21/2016	03:16
SSV-3	140-6565-5	GL20P105R.D	12/21/2016	09:47

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Sample No.: ICIS 140-7384/8 Date Analyzed: 12/08/2016 23:31
 Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): GxL08IC06.D Heated Purge: (Y/N) N
 Calibration ID: 798

	CBM		DFBZ		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	436534	8.06	1631243	10.23	1662474	15.09	
UPPER LIMIT	611148	8.39	2283740	10.56	2327464	15.42	
LOWER LIMIT	261920	7.73	978746	9.90	997484	14.76	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-7384/13		455645	8.07	2097795	10.23	2138644	15.09

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Sample No.: CCVIS 140-7444/2 Date Analyzed: 12/20/2016 10:44
 Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): GCCVL20.D Heated Purge: (Y/N) N
 Calibration ID: 802

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	338706	8.06	1718986	10.23	1729180	15.08
UPPER LIMIT	474188	8.39	2406580	10.56	2420852	15.41
LOWER LIMIT	203224	7.73	1031392	9.90	1037508	14.75
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 140-7444/1002		338706	8.06	1718986	10.23	1729180
MB 140-7444/4		336335	8.04	1607490	10.22	1657150
140-6565-1	SSV-1	342486	8.05	1578214	10.22	1653377
140-6565-2	IA-1	378699	8.06	1760721	10.23	1791013
140-6565-3	SSV-2	351318	8.06	1651371	10.22	1709103
140-6565-4	IA-2	389668	8.05	1907659	10.22	1887432
140-6565-6	IA-3	382602	8.05	1860099	10.22	1856029
140-6565-7	AM-1	374584	8.05	1824828	10.22	1786116
140-6565-1 DL	SSV-1 DL	350813	8.06	1650420	10.22	1725817
140-6565-2 DL	IA-1 DL	375191	8.05	1866528	10.22	1871912
140-6565-3 DL	SSV-2 DL	338666	8.05	1511688	10.22	1601256
140-6565-5	SSV-3	354975	8.05	1795749	10.22	1805149

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 Lab Sample ID: 140-6565-1
 Matrix: Air Lab File ID: GL20P101.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 730 (mL) Date Analyzed: 12/20/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.9		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.43		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	0.48		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	1.3		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.20		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.10		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	1.5		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	0.50		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 Lab Sample ID: 140-6565-1
 Matrix: Air Lab File ID: GL20P101.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 730 (mL) Date Analyzed: 12/20/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.080	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>100</i>	<i>E</i>	<i>2.0</i>	
100-41-4	Ethylbenzene	106.17	0.69		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.26		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	0.34		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	3.2		0.080	
95-47-6	o-Xylene	106.17	1.2		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	0.10		0.080	
108-88-3	Toluene	92.14	2.0		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	0.51		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.77		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.26		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 Lab Sample ID: 140-6565-1
 Matrix: Air Lab File ID: GL20P101.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 730 (mL) Date Analyzed: 12/20/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.2		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.1		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	2.9		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	3.9		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	0.65		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.64		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	7.1		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 Lab Sample ID: 140-6565-1
 Matrix: Air Lab File ID: GL20P101.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 730 (mL) Date Analyzed: 12/20/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.7		0.40	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>190</i>	<i>E</i>	<i>3.8</i>	
100-41-4	Ethylbenzene	106.17	3.0		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	0.93		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	1.2		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	14		0.35	
95-47-6	o-Xylene	106.17	5.2		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	0.68		0.54	
108-88-3	Toluene	92.14	7.6		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	2.0		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	4.1		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D
 Lims ID: 140-6565-A-1
 Client ID: SSV-1
 Sample Type: Client
 Inject. Date: 20-Dec-2016 13:27:30 ALS Bottle#: 1 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.4600
 Sample Info: 140-0003728-005
 Misc. Info.: 140-6565-a-1@1.46
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 14:15:58 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:09:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	97	342486	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.228	-0.005	96	1578214	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1653377	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	93	1120763	4.10	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	160867	0.5488	
9 Chloromethane	52	3.688	3.682	0.006	50	2336	0.0742	M
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.693	0.005	86	3157	0.0163	
17 Ethanol	31	4.405	4.383	0.022	96	3417202	99.9	E
20 Trichlorofluoromethane	101	4.777	4.777	0.000	98	73065	0.2572	
29 2-Methyl-2-propanol	59	5.532	5.499	0.033	94	10867	0.0847	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	96	12293	0.0685	
31 Methylene Chloride	84	5.699	5.704	-0.005	97	25040	0.3437	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	95	50141	0.5096	
39 2-Butanone (MEK)	72	7.333	7.338	-0.005	99	53902	1.33	
40 Hexane	56	7.387	7.387	0.000	92	21516	0.2643	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	98	50377	0.5044	
44 Chloroform	83	8.072	8.077	-0.005	98	313063	1.46	
47 1,1,1-Trichloroethane	97	9.053	9.058	-0.005	90	3378	0.0144	
49 Benzene	78	9.641	9.646	-0.005	98	57575	0.2028	
50 Cyclohexane	69	9.641	9.651	-0.010	79	5763	0.1101	
52 Carbon tetrachloride	117	9.668	9.678	-0.010	96	25631	0.1011	
56 Isooctane	57	10.466	10.471	-0.005	90	37239	0.0723	
59 Trichloroethene	130	10.951	10.956	-0.005	96	126680	0.7670	
61 Dichlorobromomethane	83	11.183	11.188	-0.005	97	5647	0.0248	
65 4-Methyl-2-pentanone (MIBK	43	12.191	12.186	0.005	98	30386	0.1573	
68 Toluene	91	13.070	13.076	-0.006	93	663369	2.01	
76 Tetrachloroethene	129	14.240	14.246	-0.006	72	14541	0.1002	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	298576	0.6889	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	1074024	3.21	
84 Styrene	104	16.068	16.074	-0.006	47	17682	0.0745	
85 o-Xylene	91	16.128	16.133	-0.005	99	419593	1.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	98753	0.4296	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	745941	1.86	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	94	136810	0.4837	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Worklist Smp#: 5

Client ID: SSV-1

Purge Vol: 500.000 mL

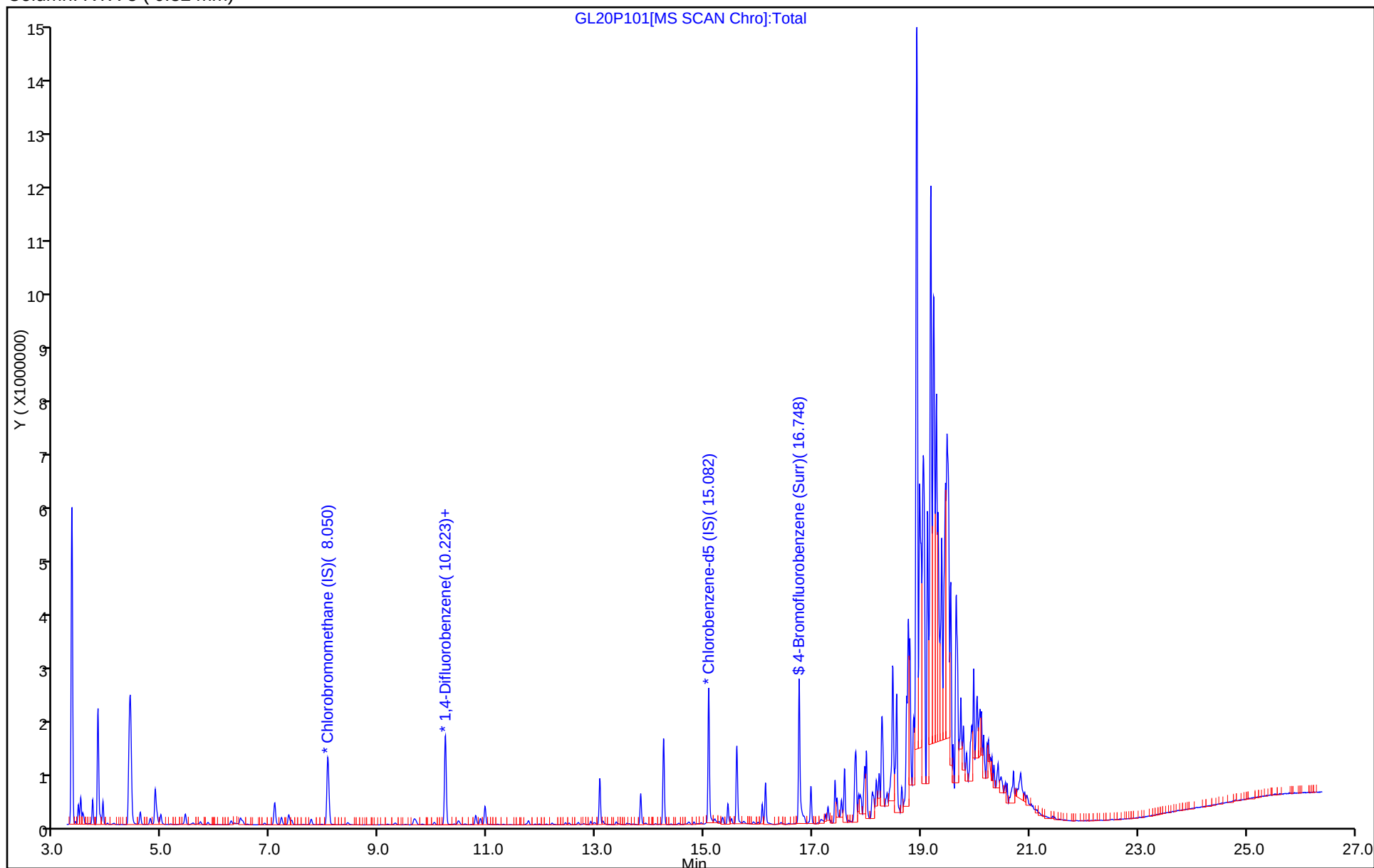
Dil. Factor: 1.4600

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D
Lims ID: 140-6565-A-1
Client ID: SSV-1
Sample Type: Client
Inject. Date: 20-Dec-2016 13:27:30 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.4600
Sample Info: 140-0003728-005
Misc. Info.: 140-6565-a-1@1.46
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 14:15:58 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:09:01

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.10	102.47

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

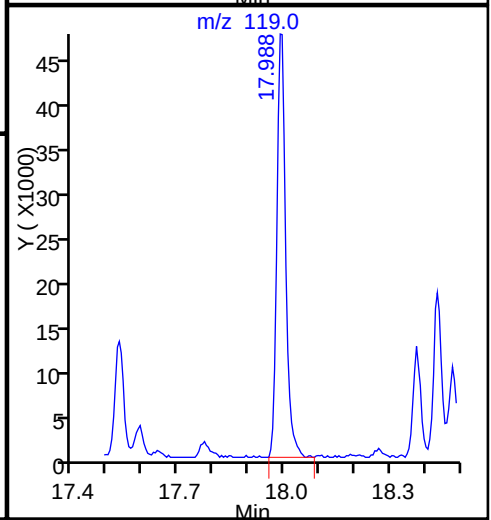
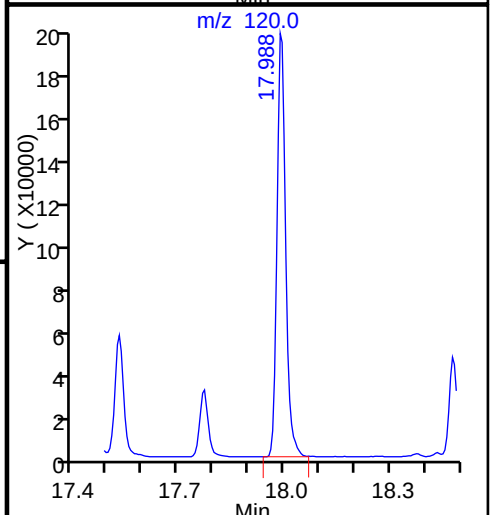
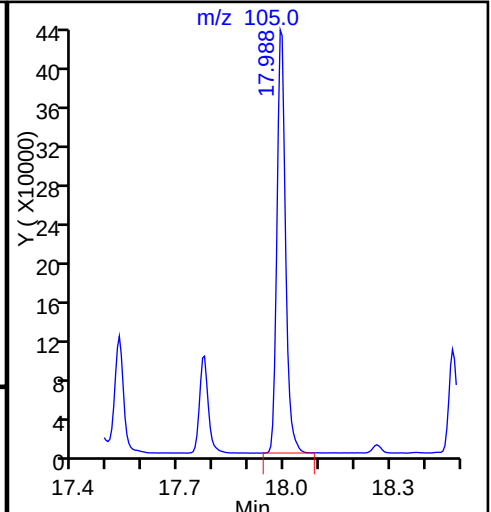
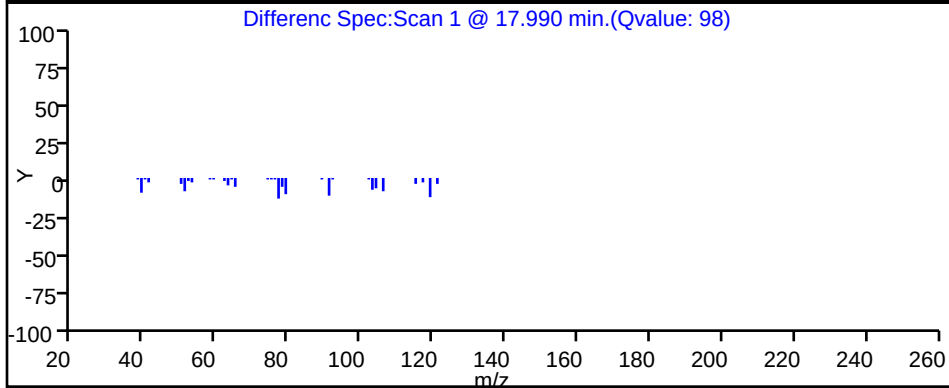
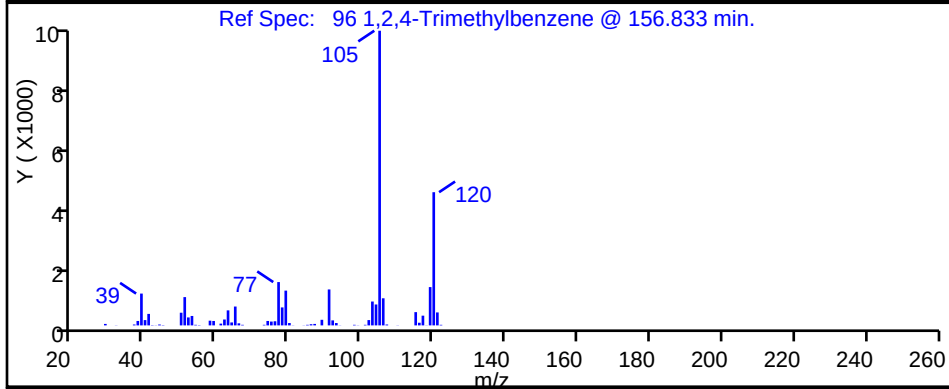
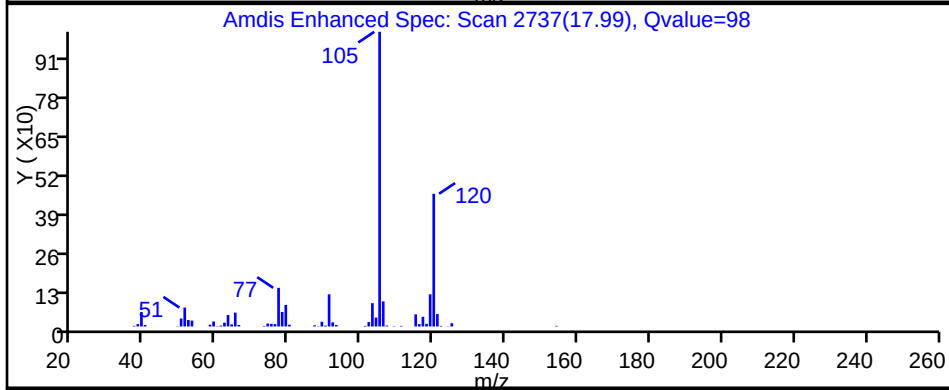
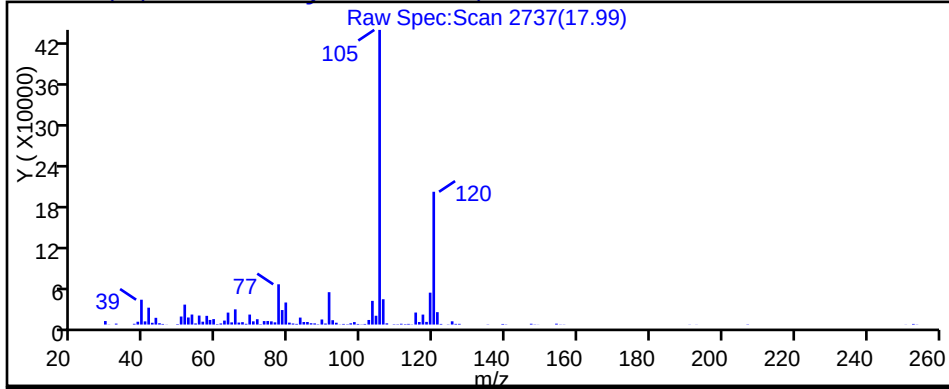
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

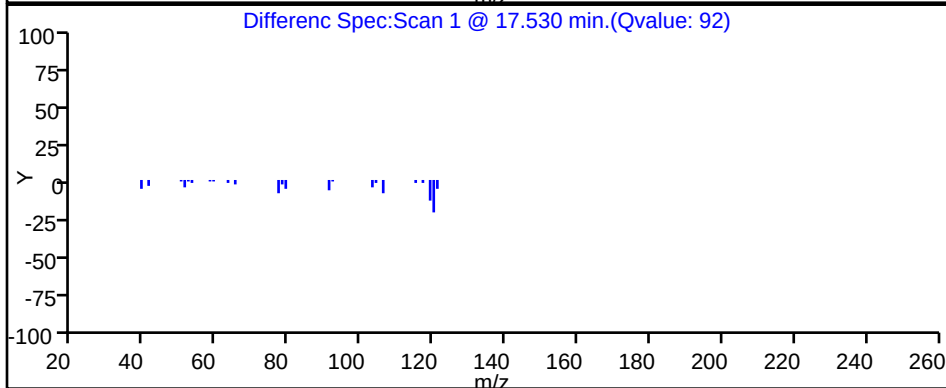
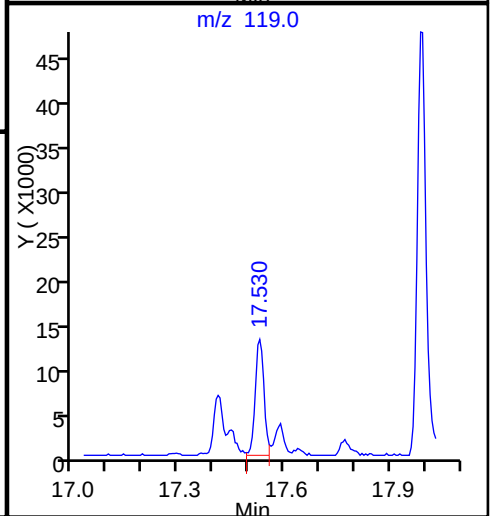
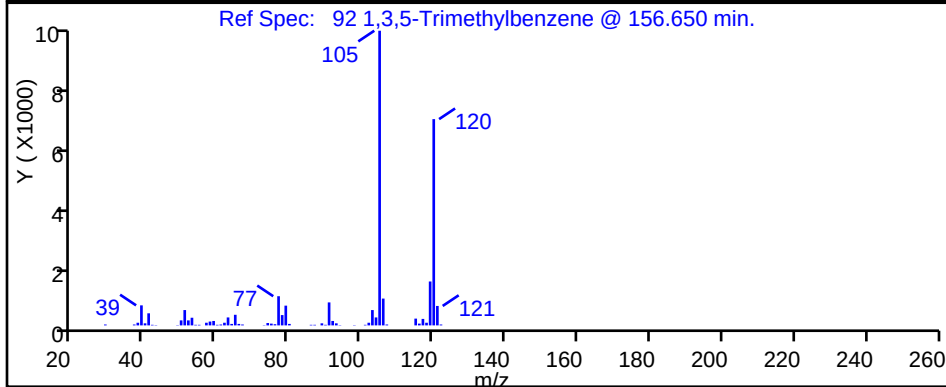
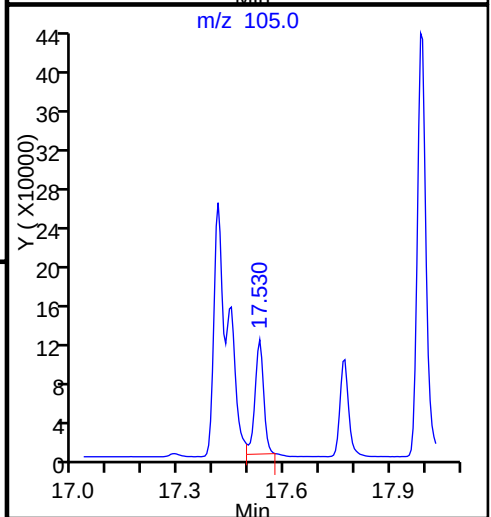
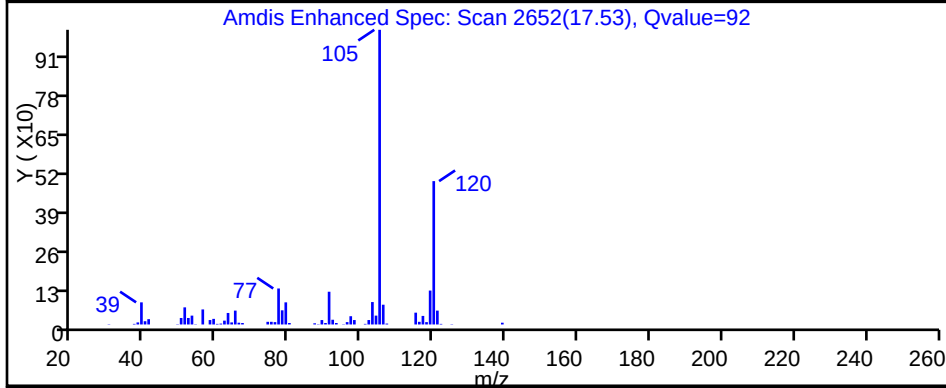
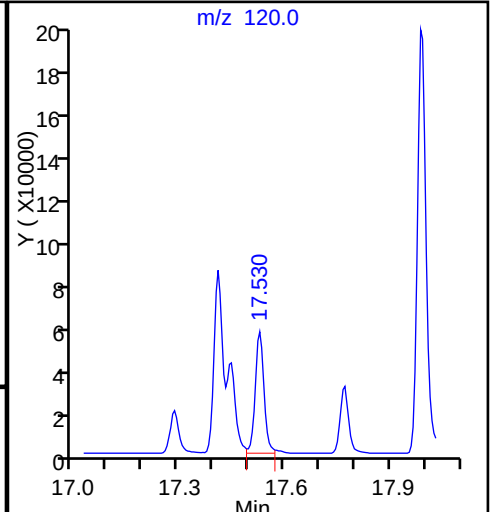
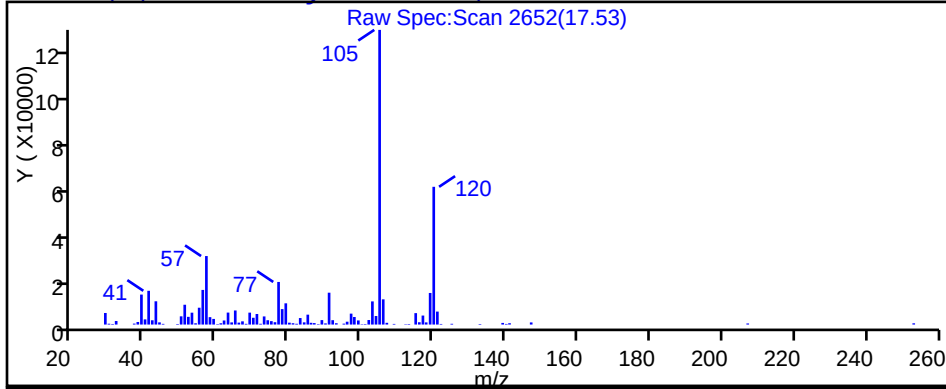
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

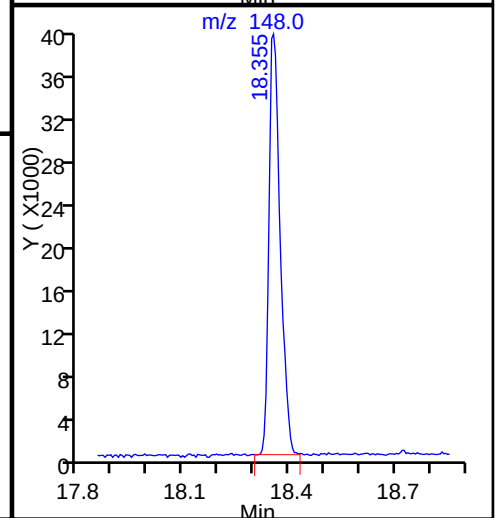
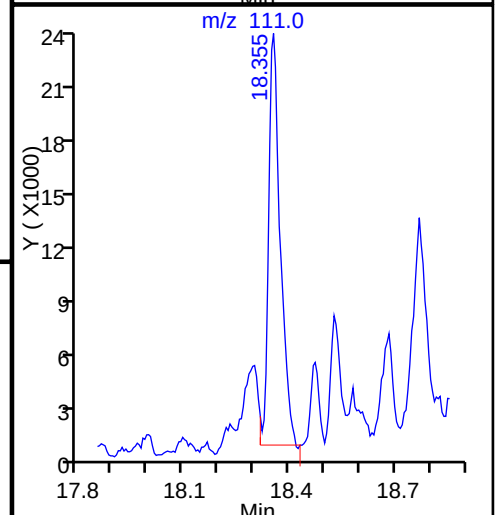
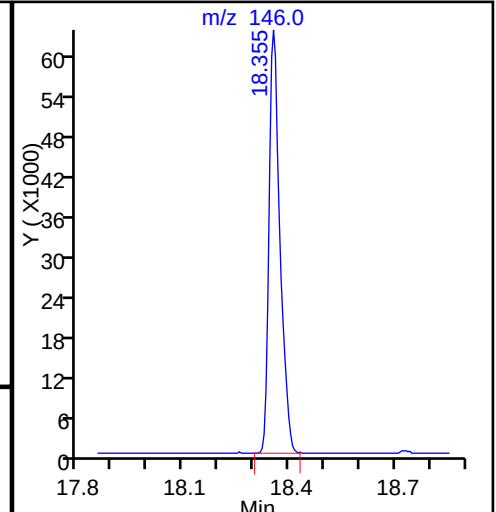
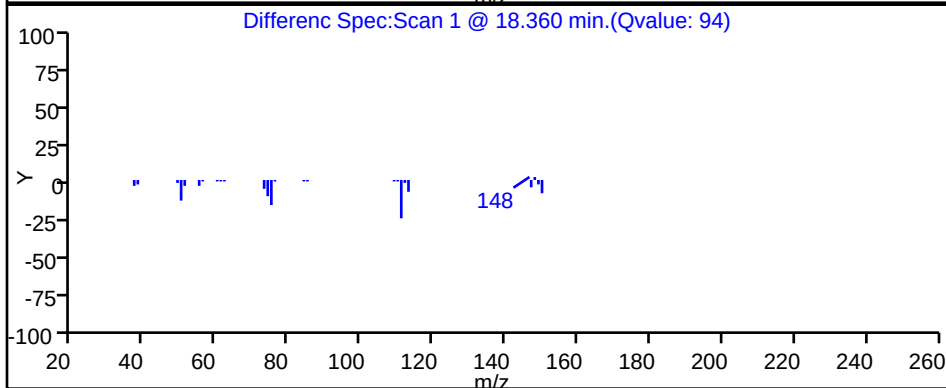
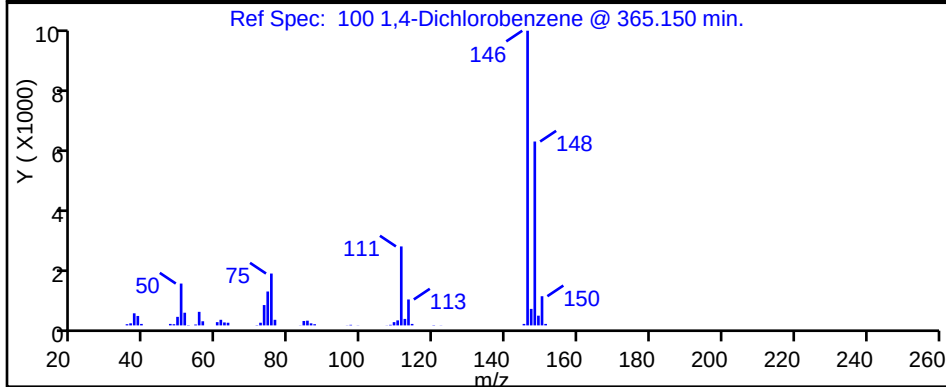
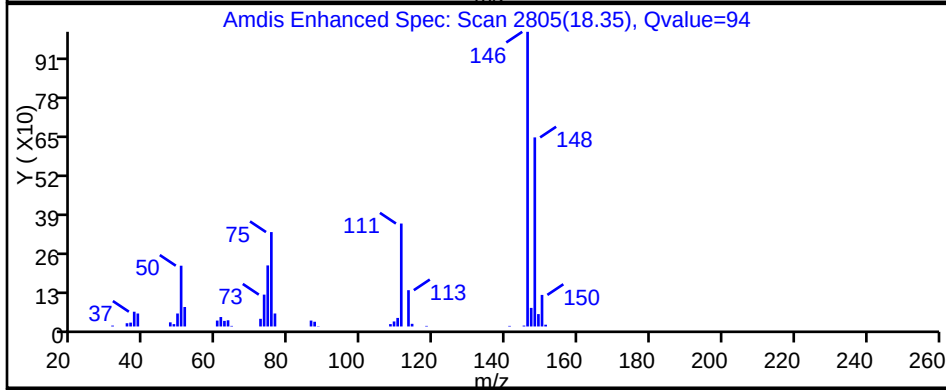
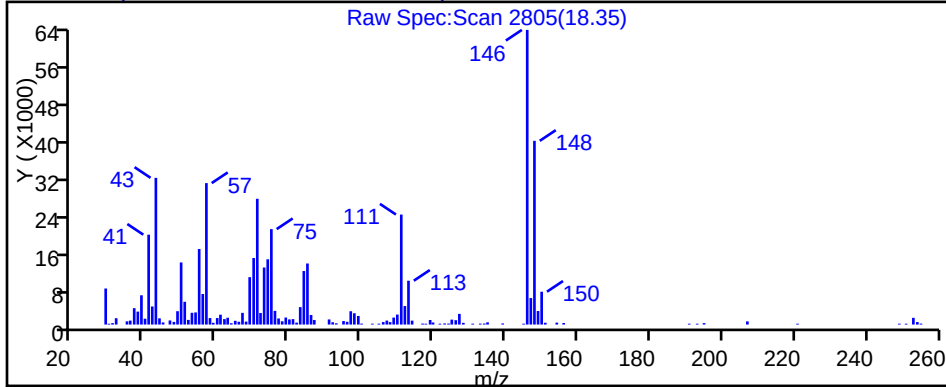
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

100 1,4-Dichlorobenzene, CAS: 106-46-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

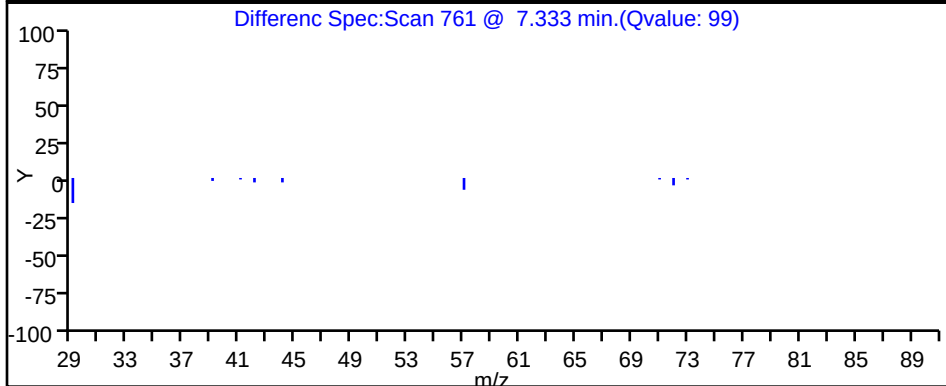
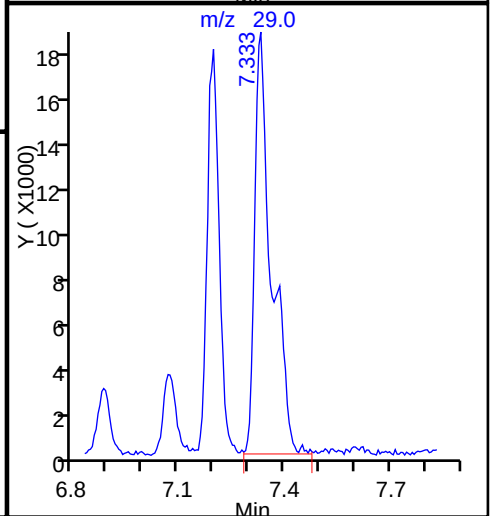
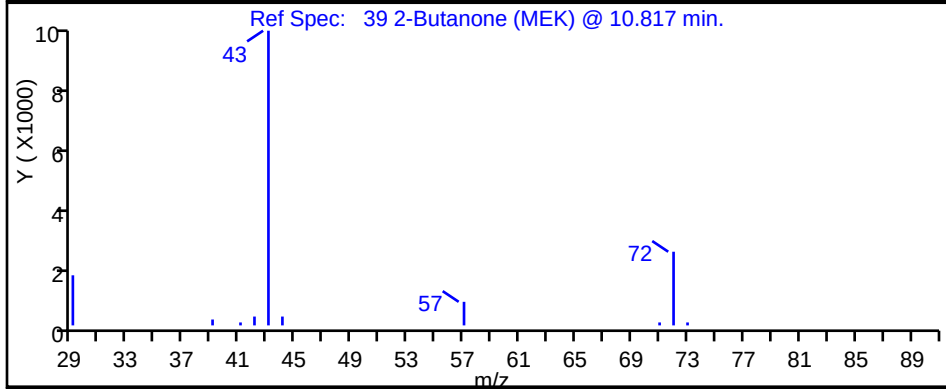
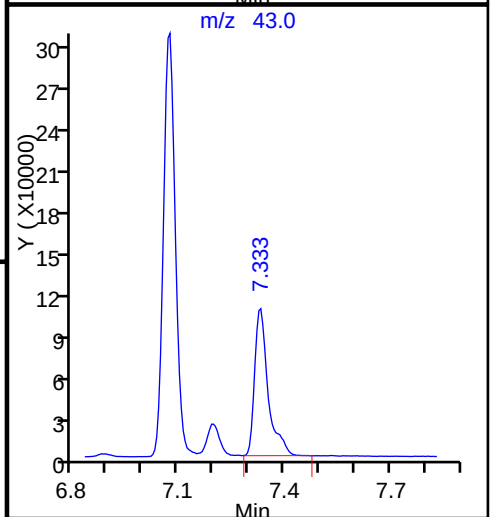
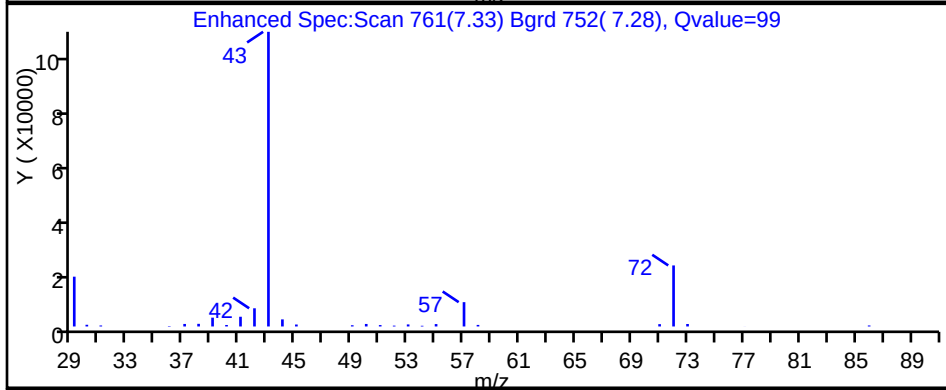
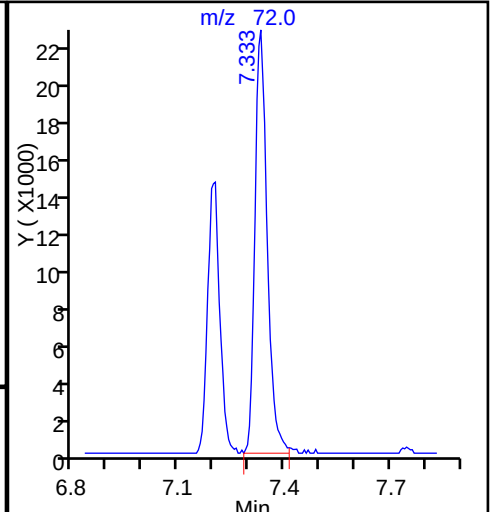
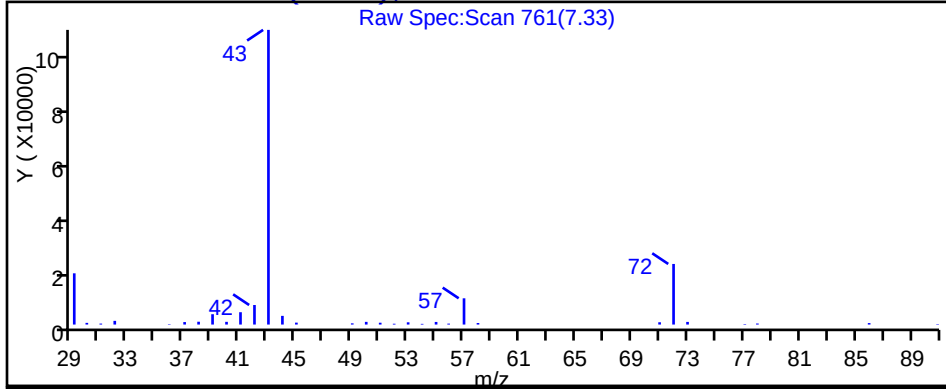
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.4600

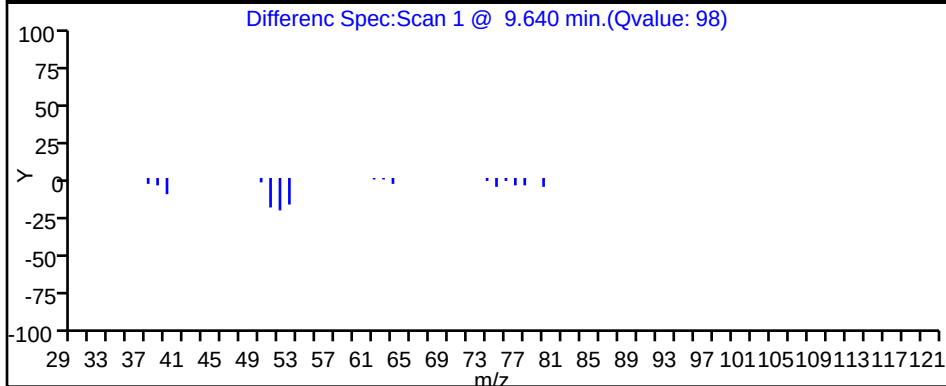
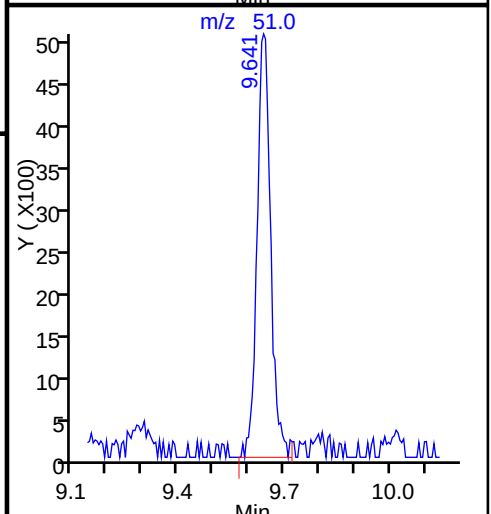
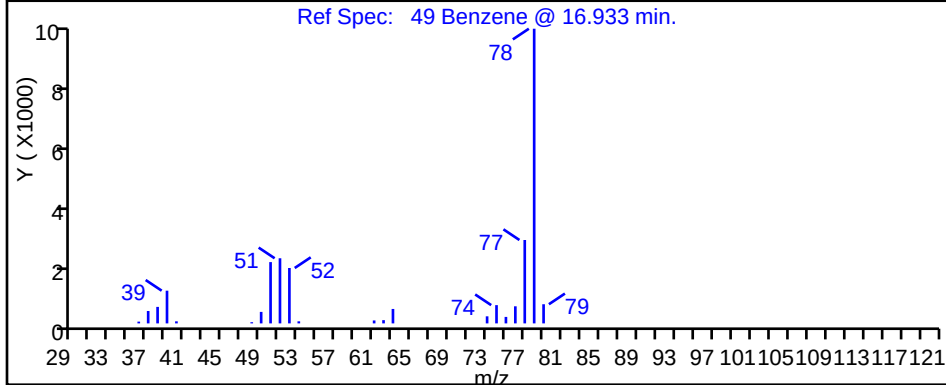
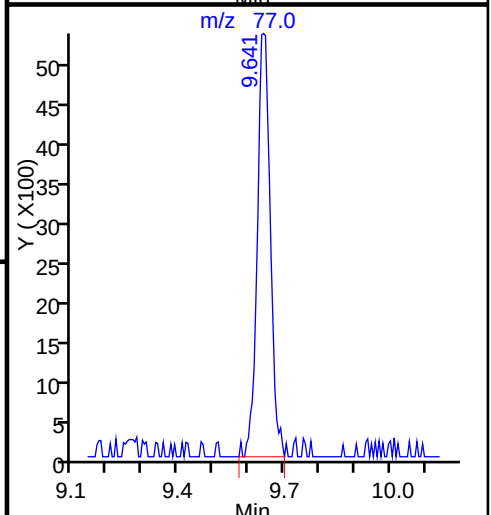
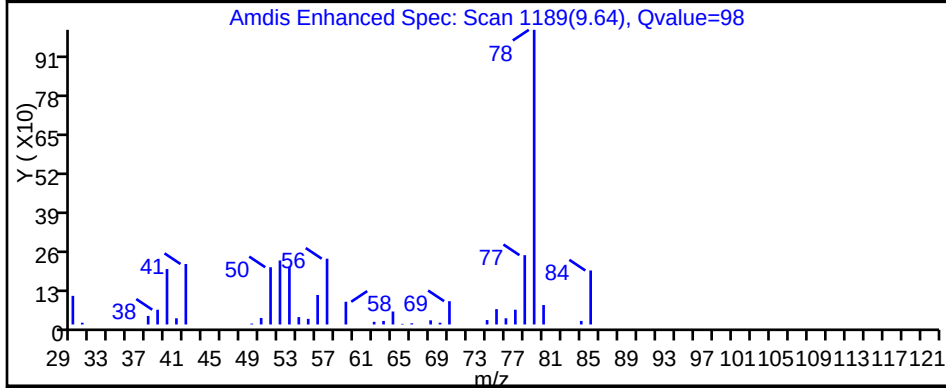
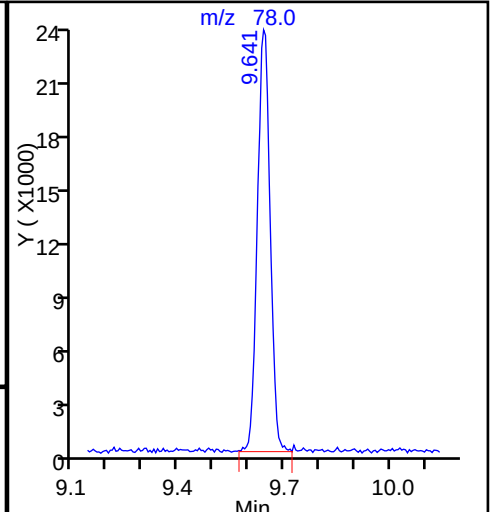
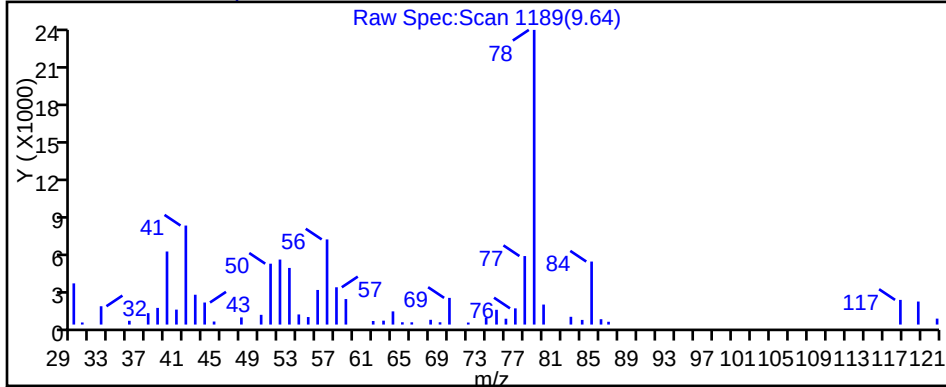
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.4600

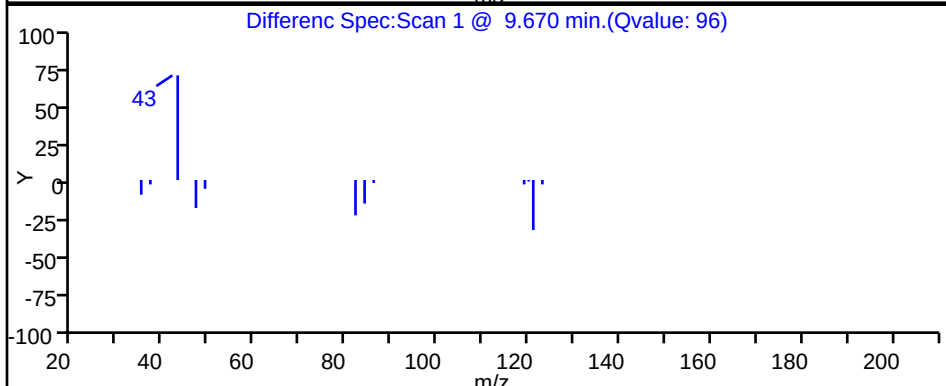
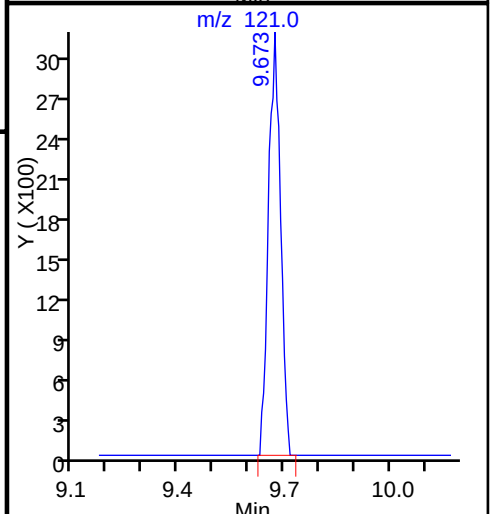
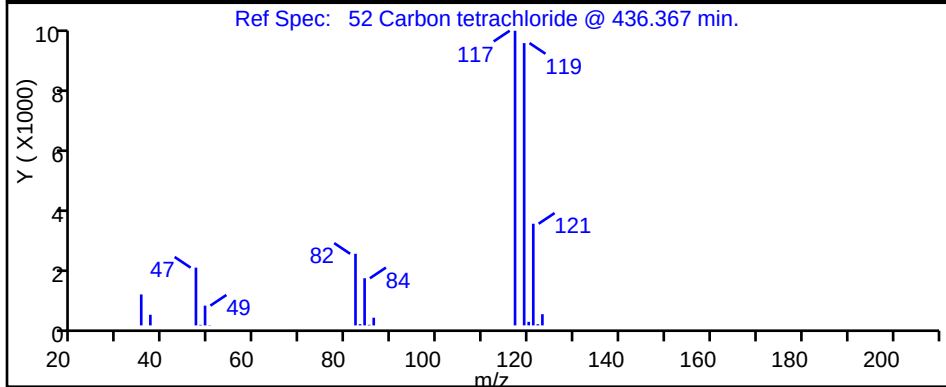
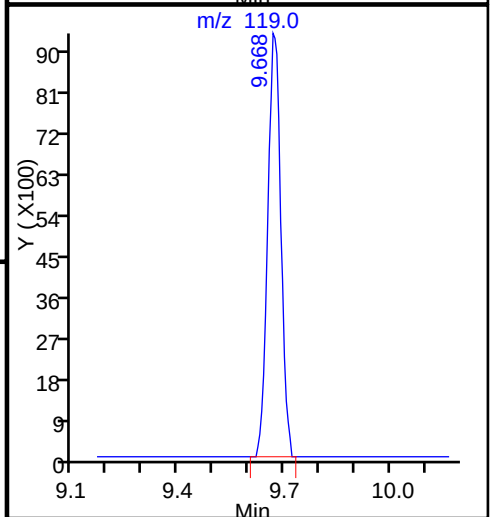
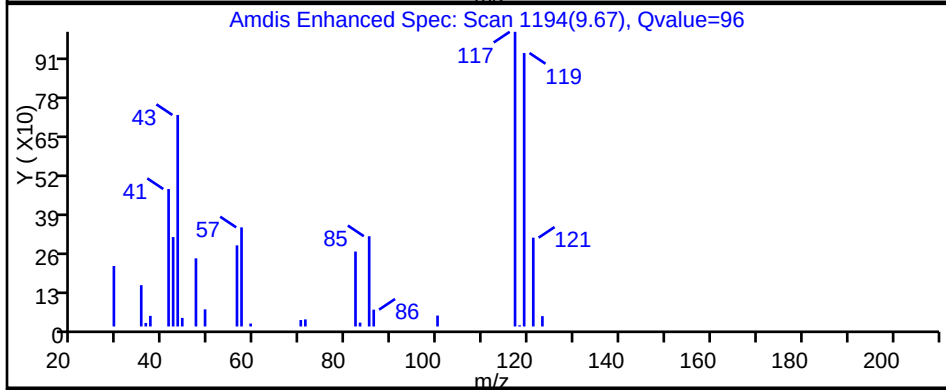
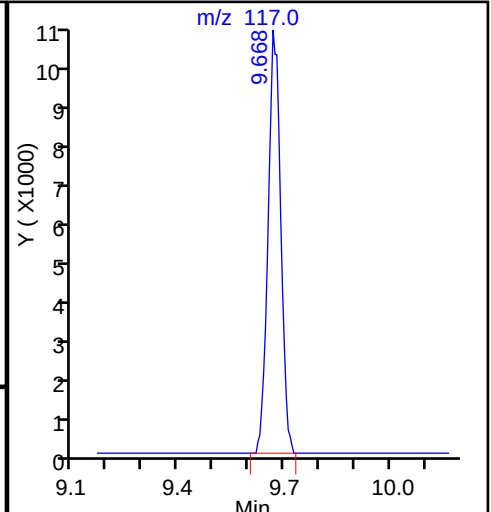
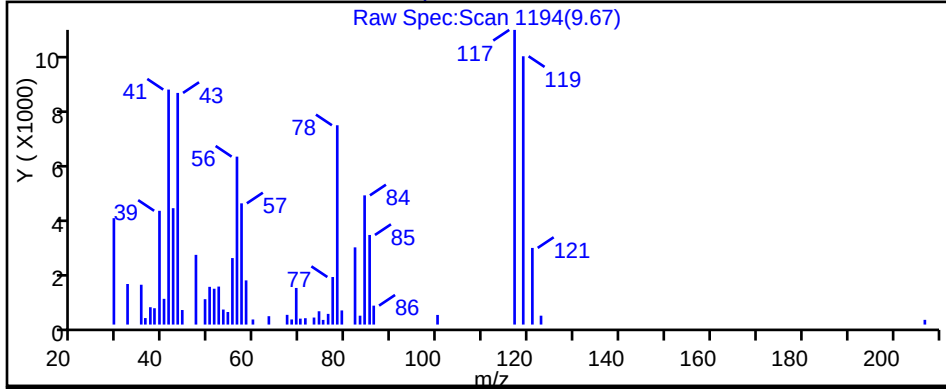
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

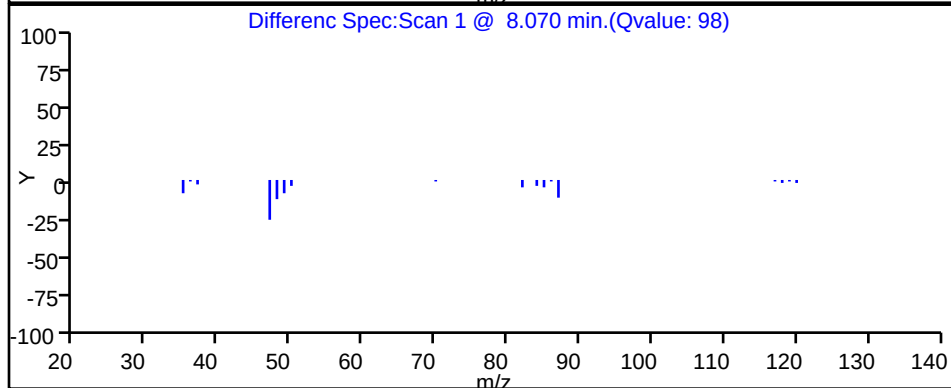
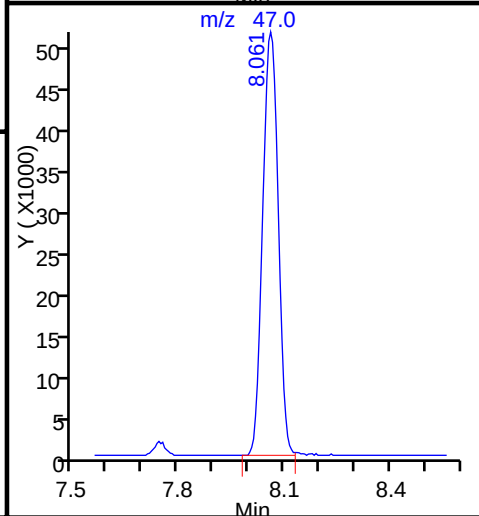
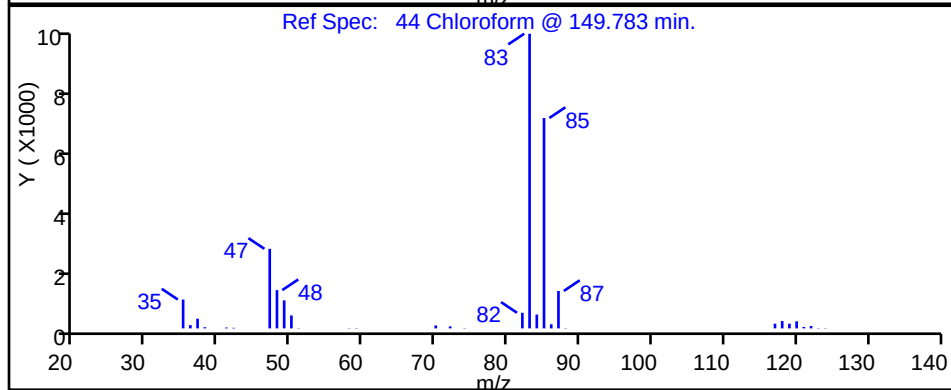
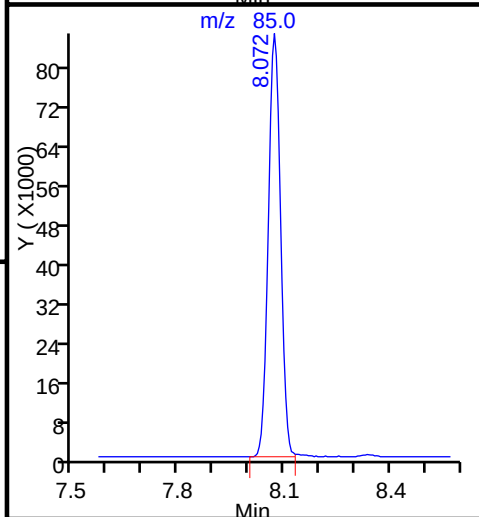
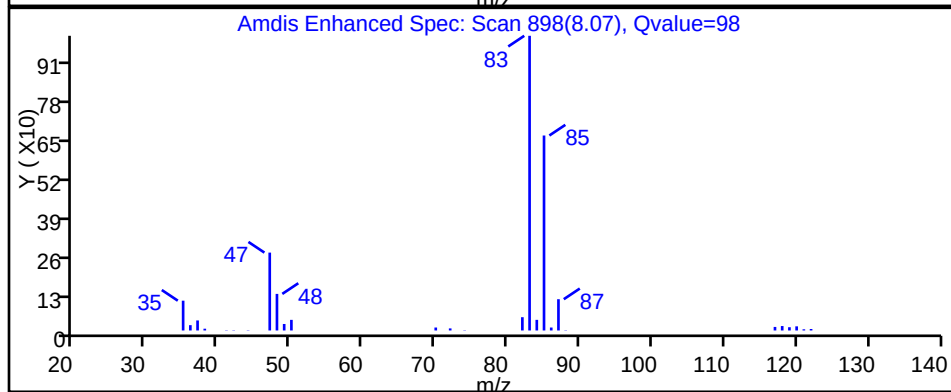
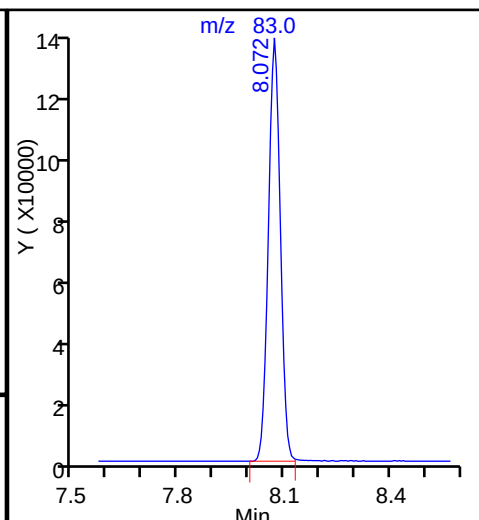
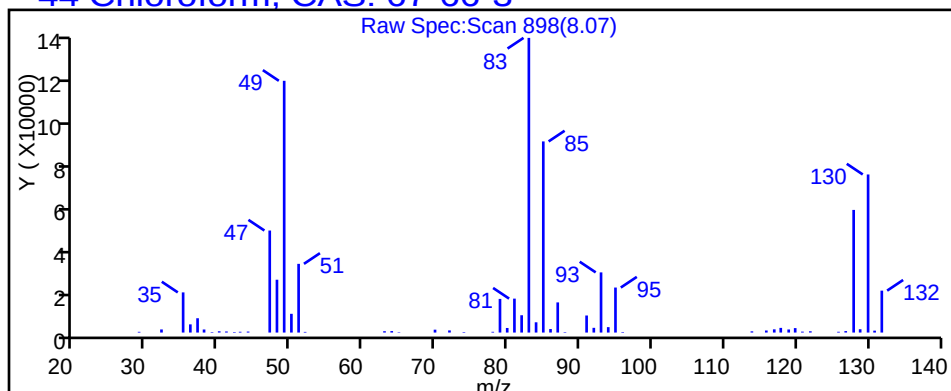
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

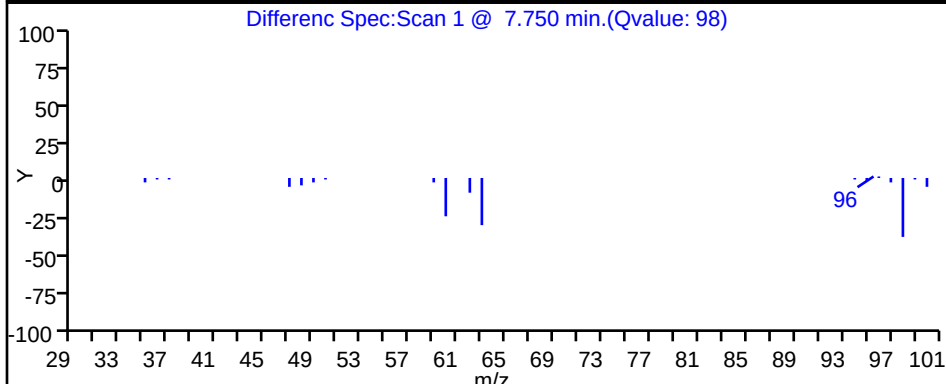
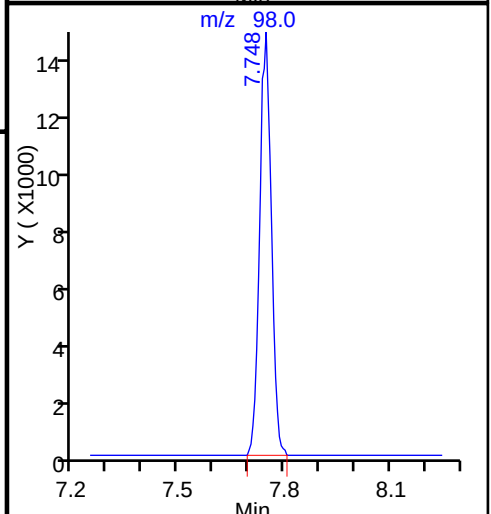
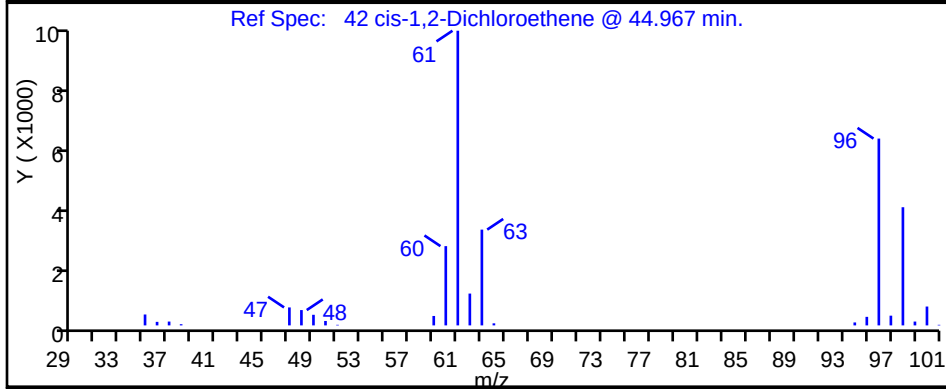
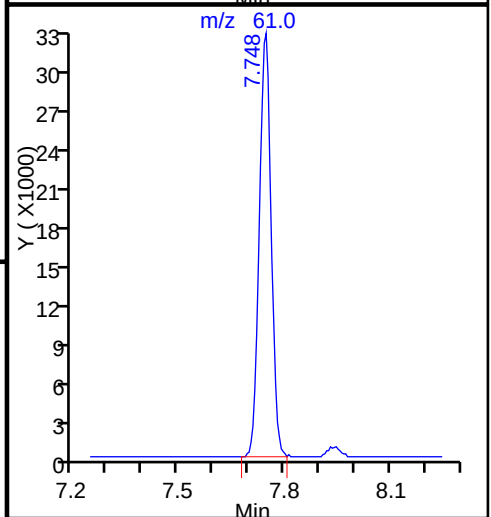
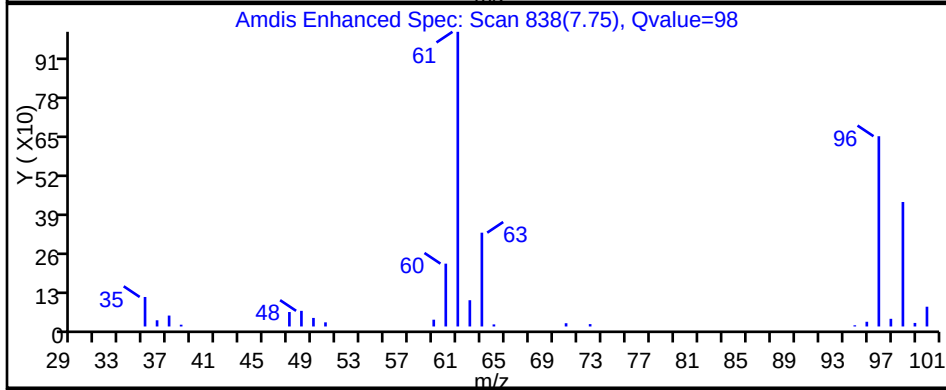
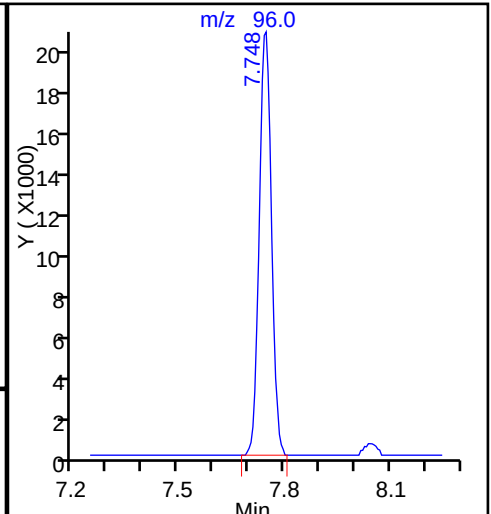
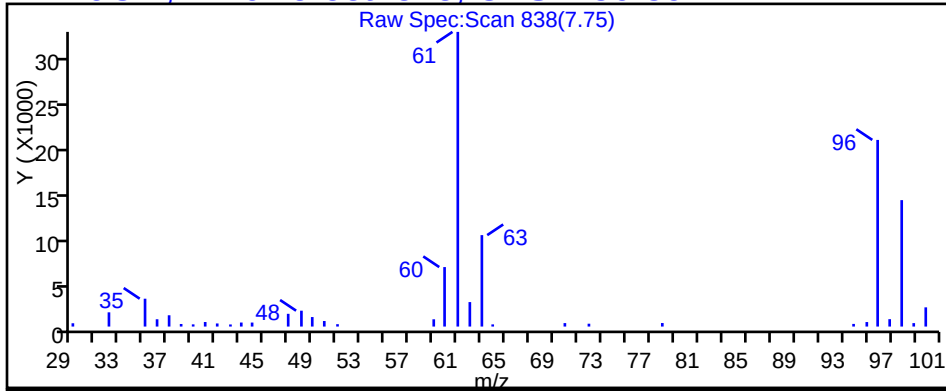
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.4600

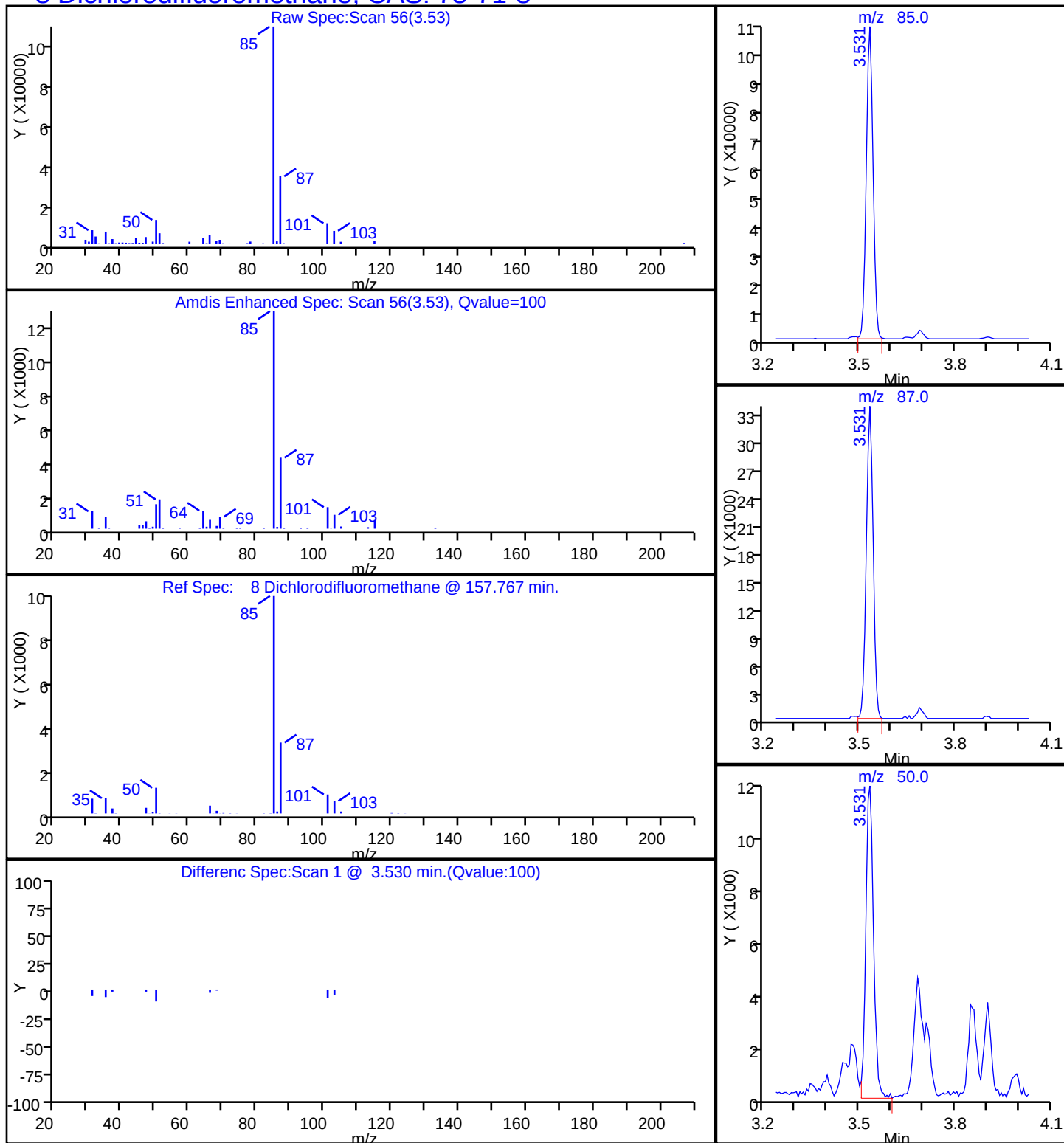
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

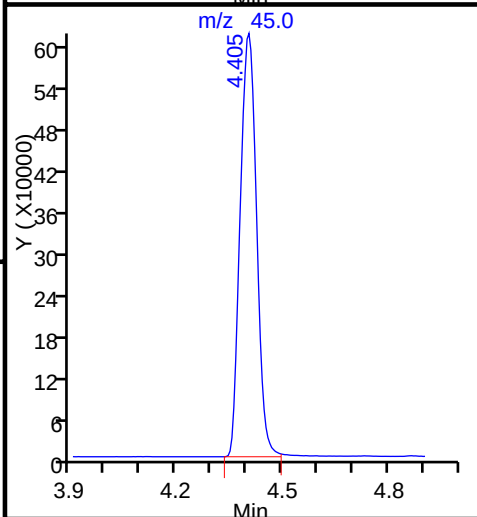
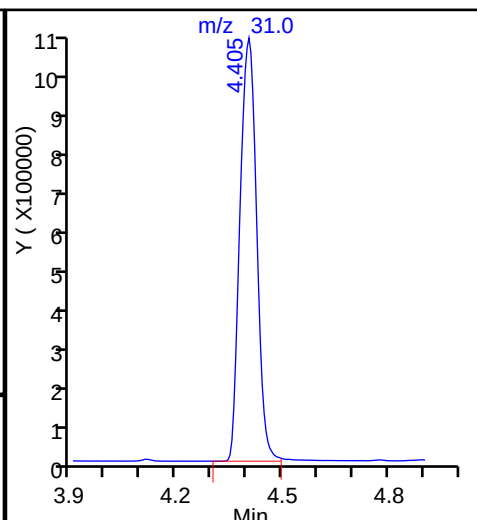
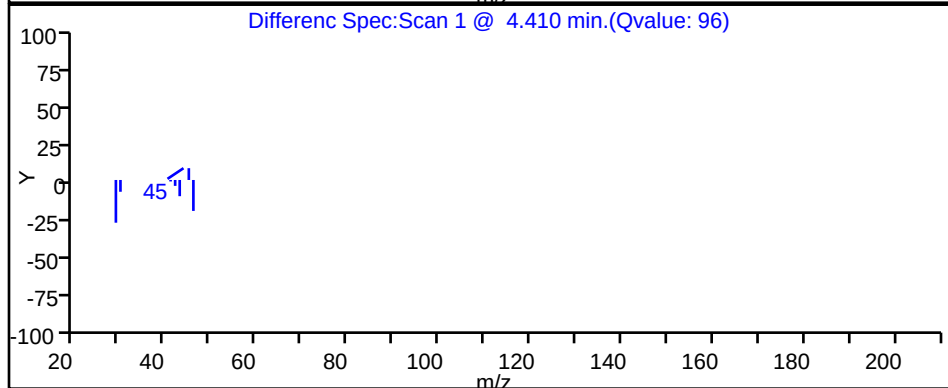
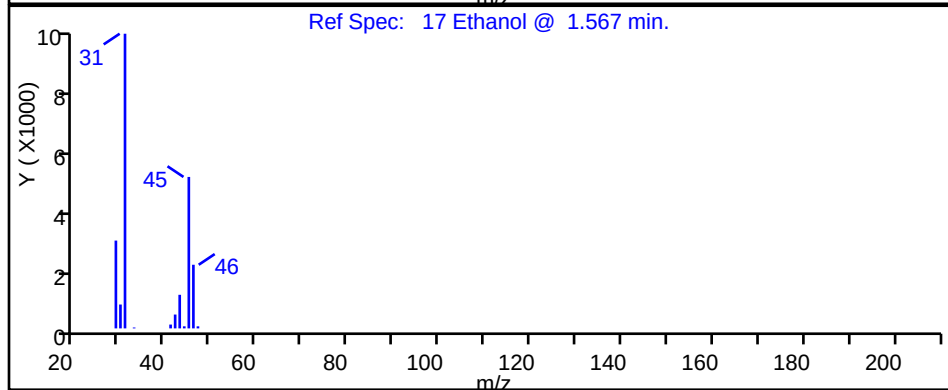
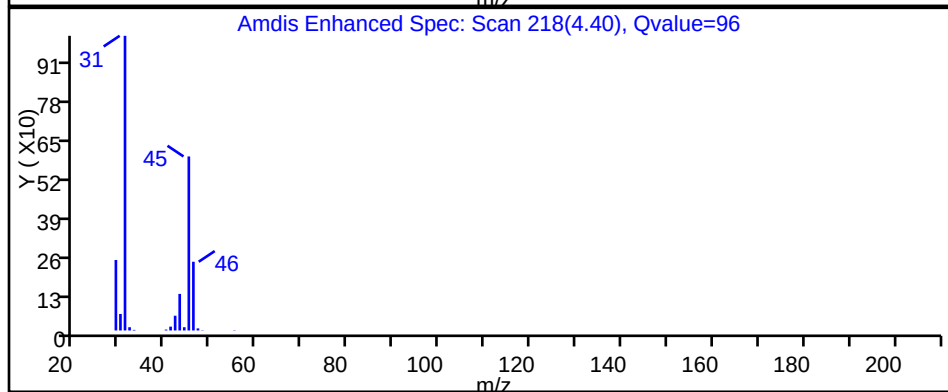
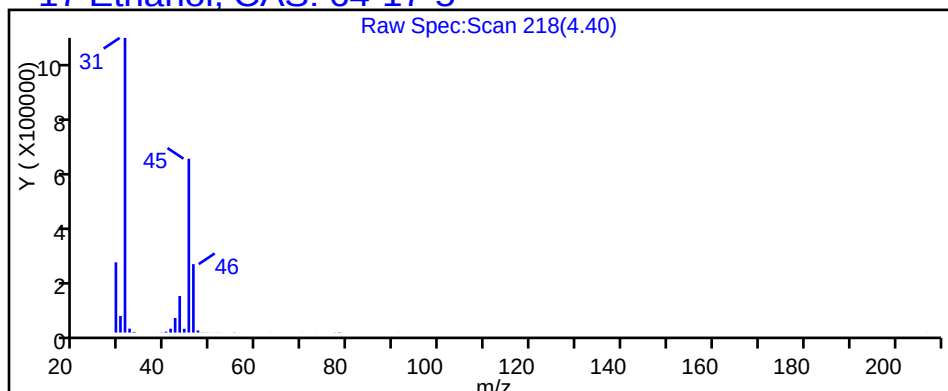
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

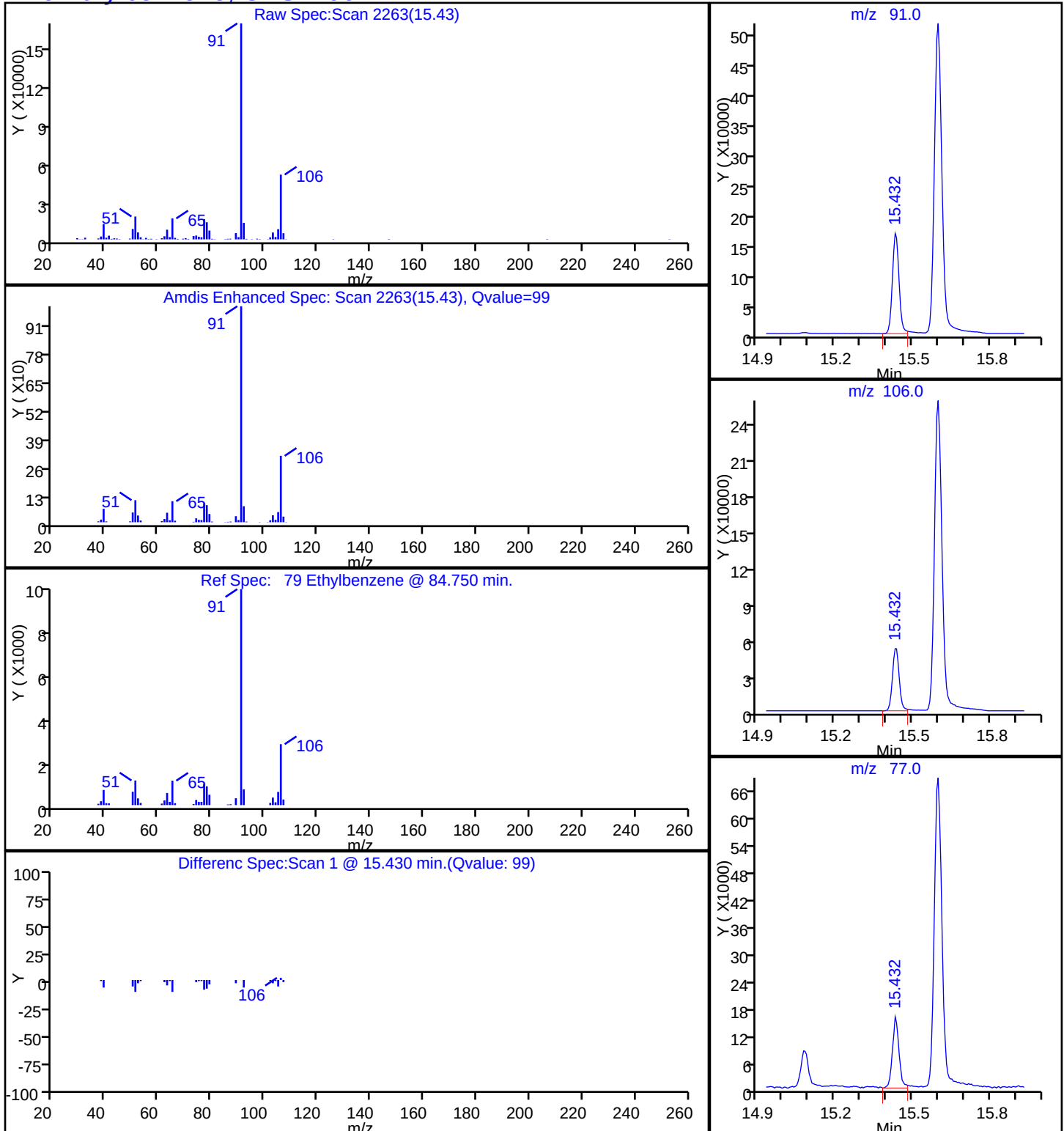
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

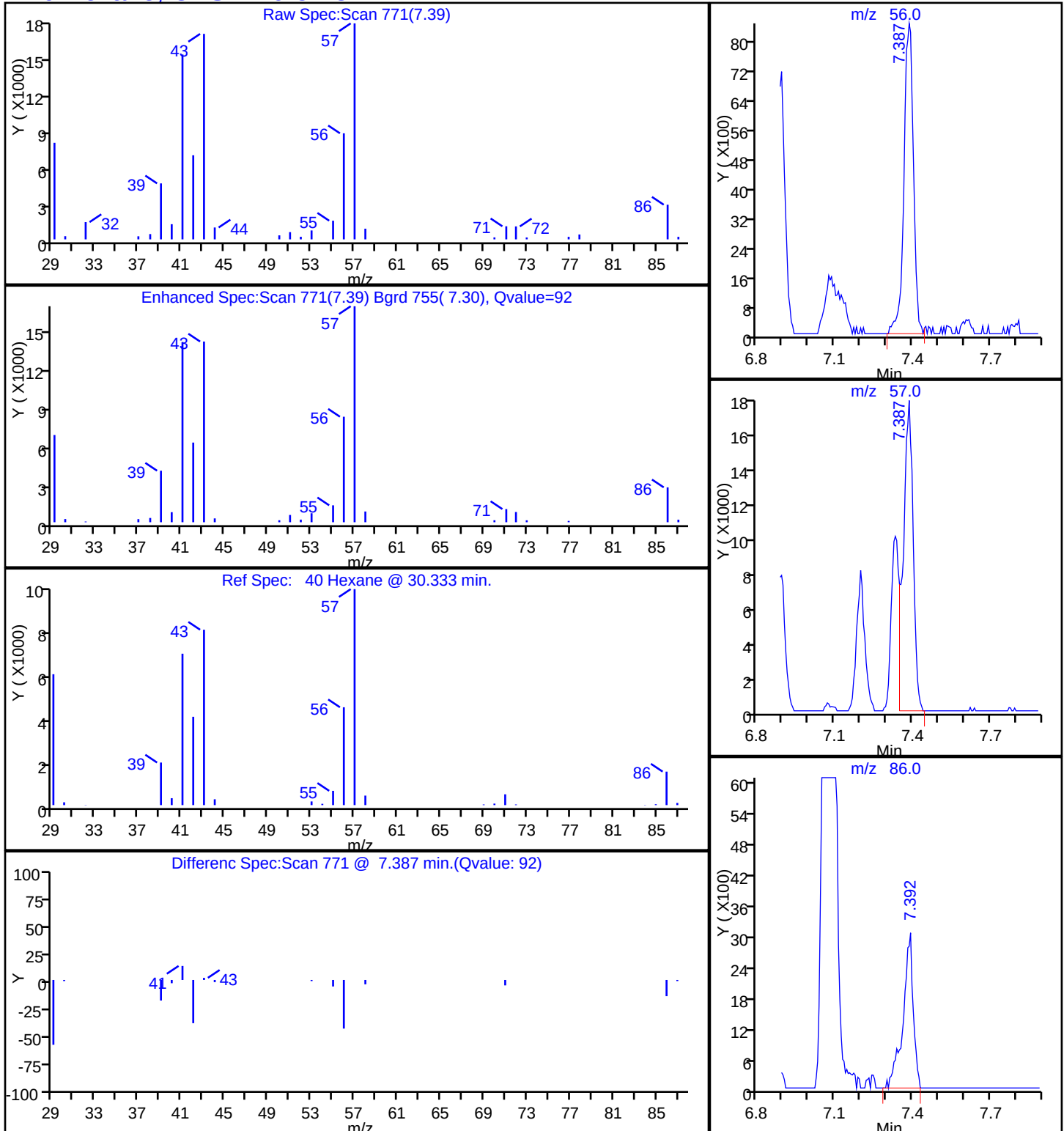
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

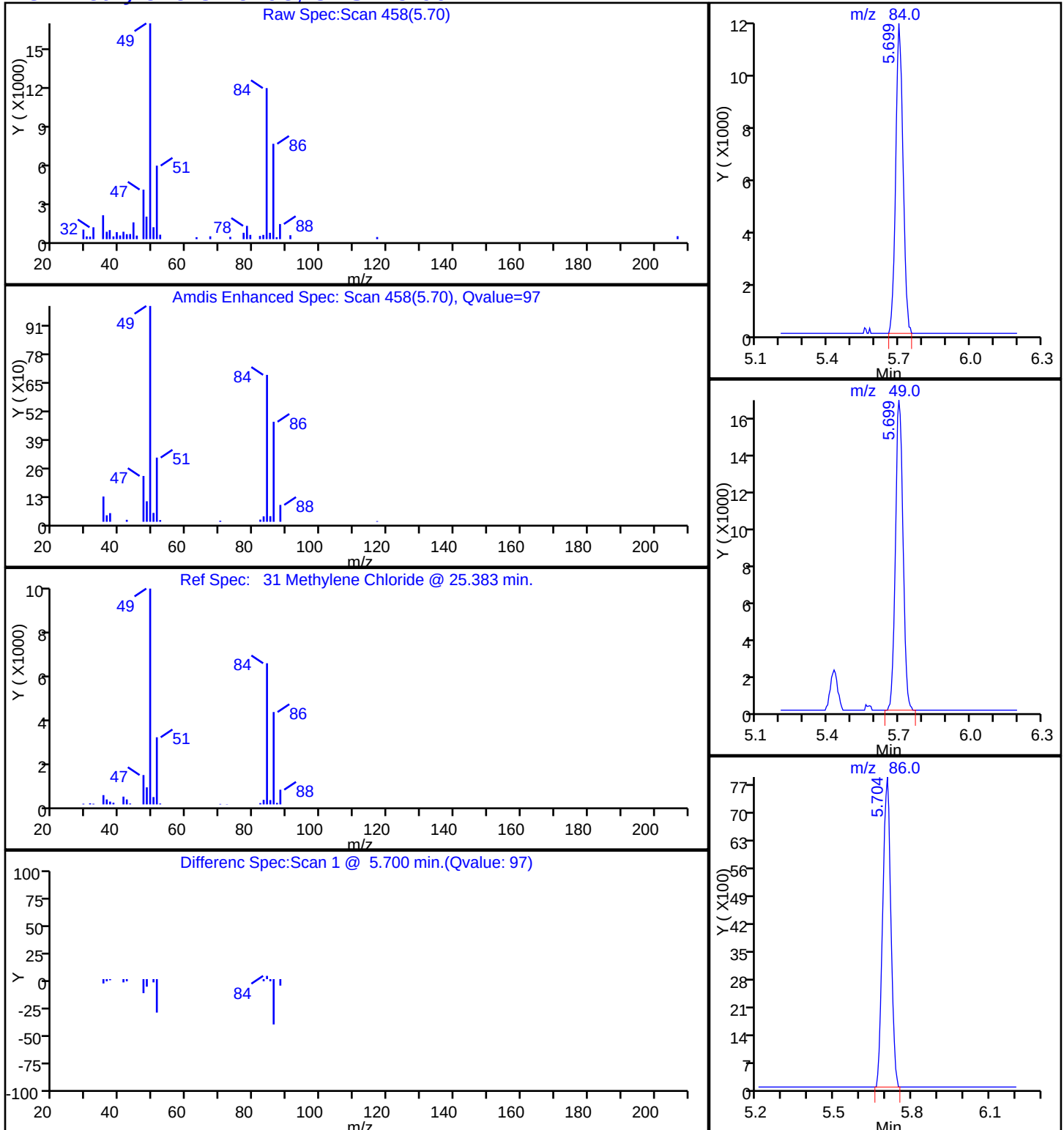
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

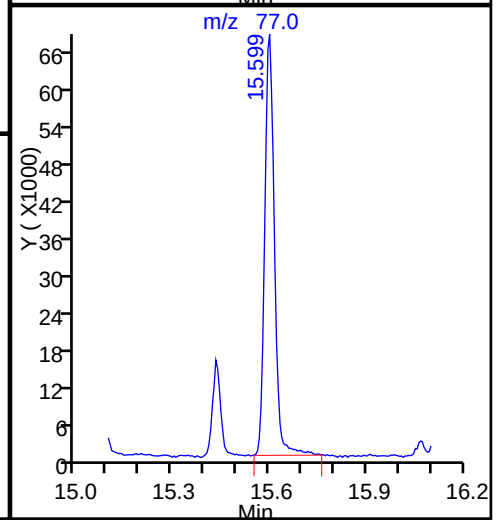
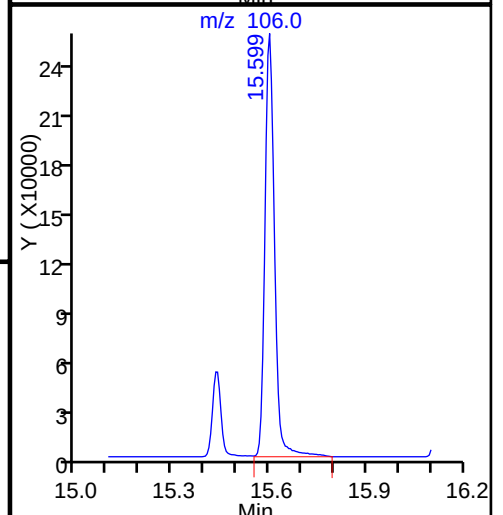
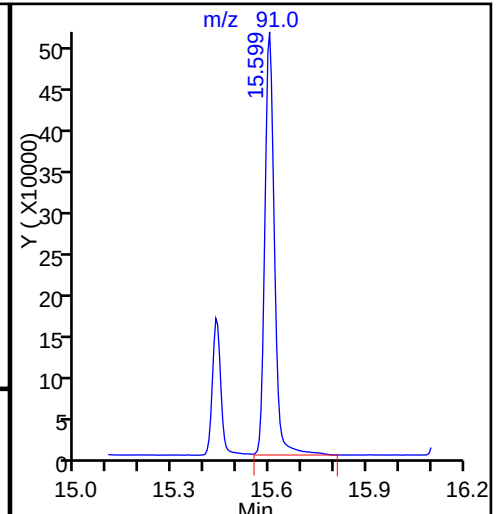
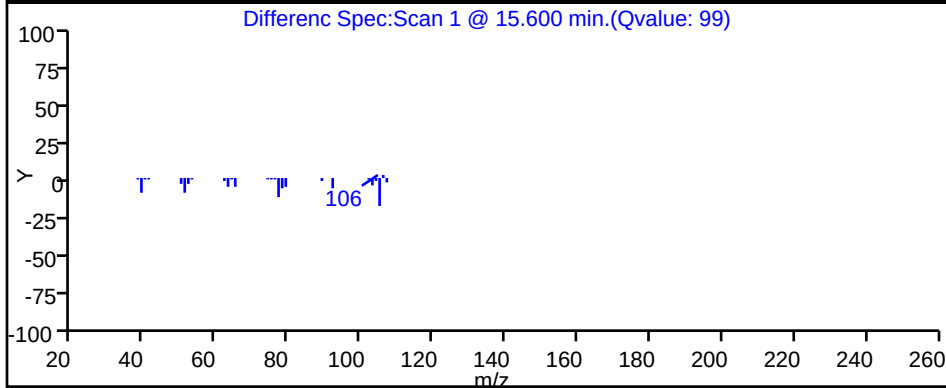
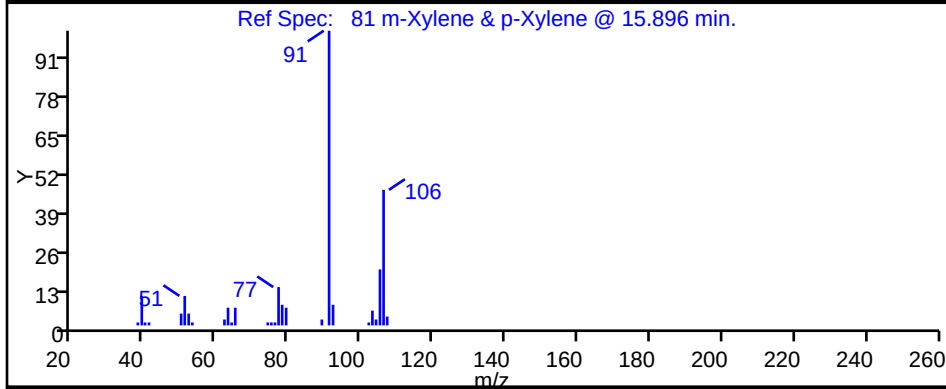
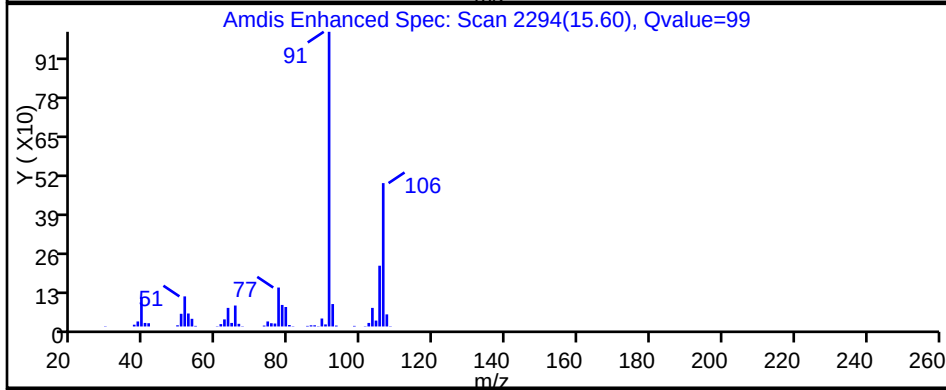
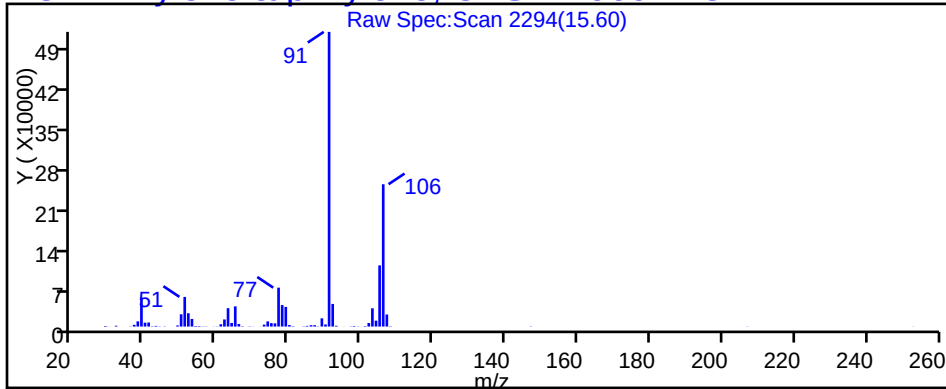
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.4600

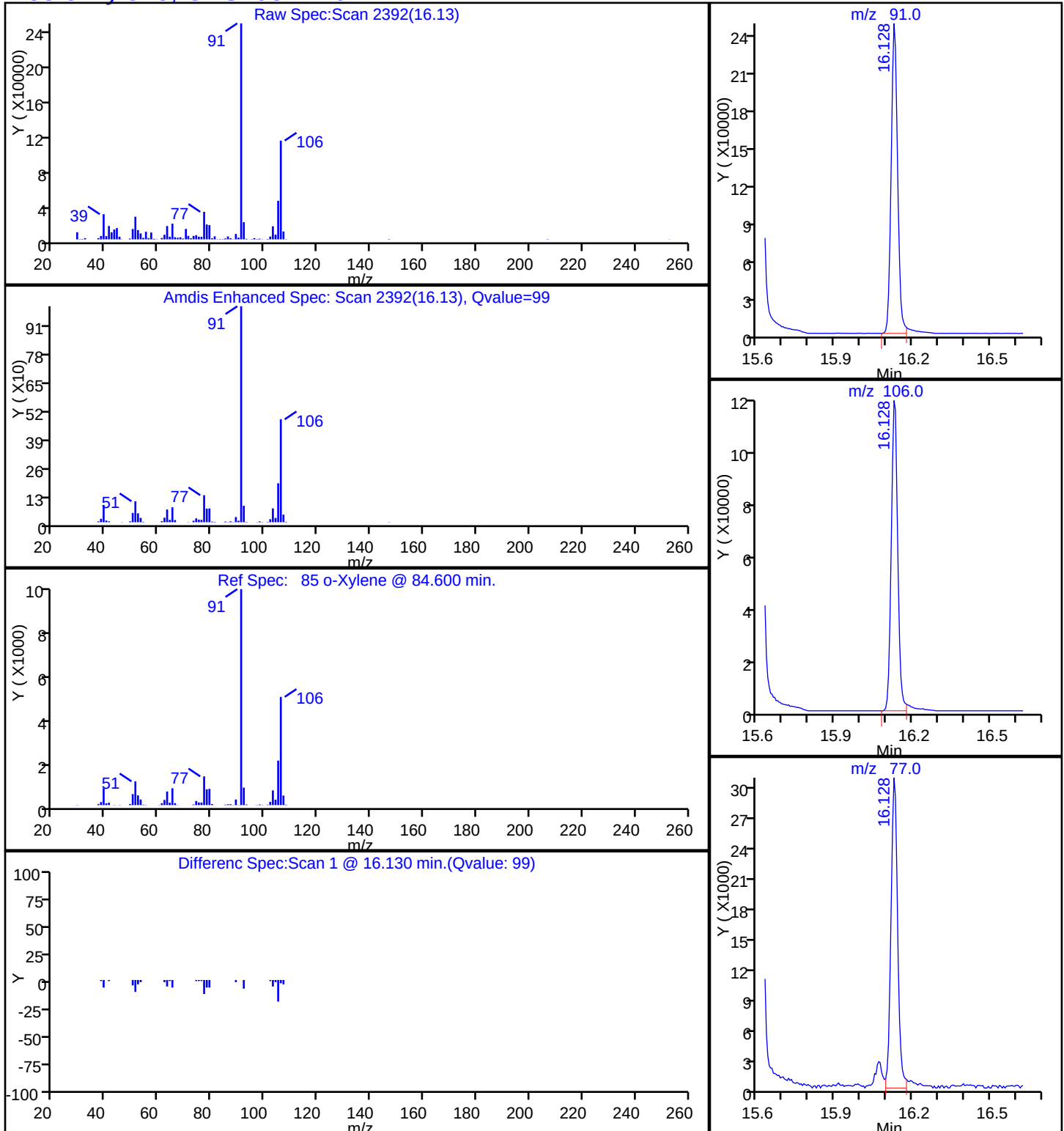
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

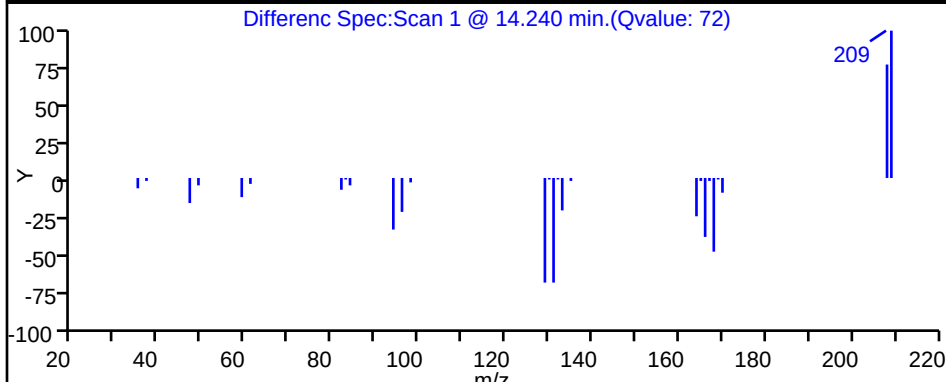
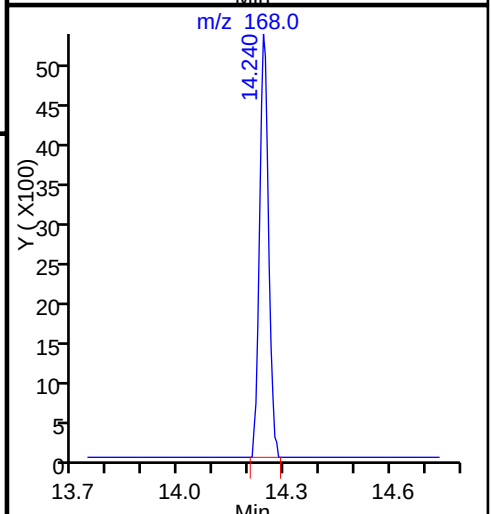
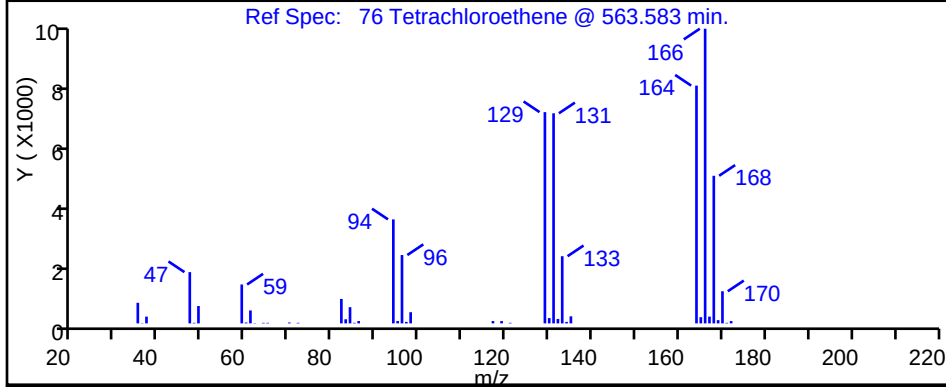
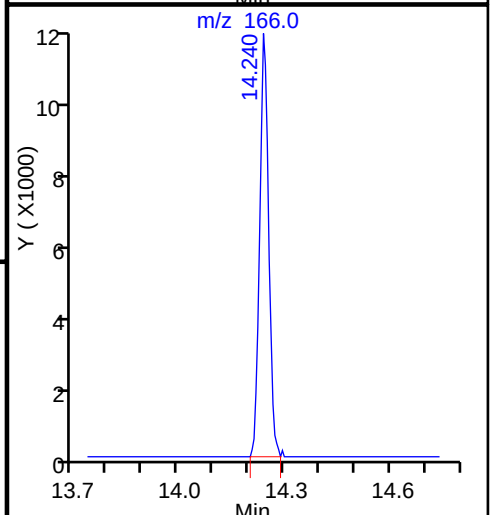
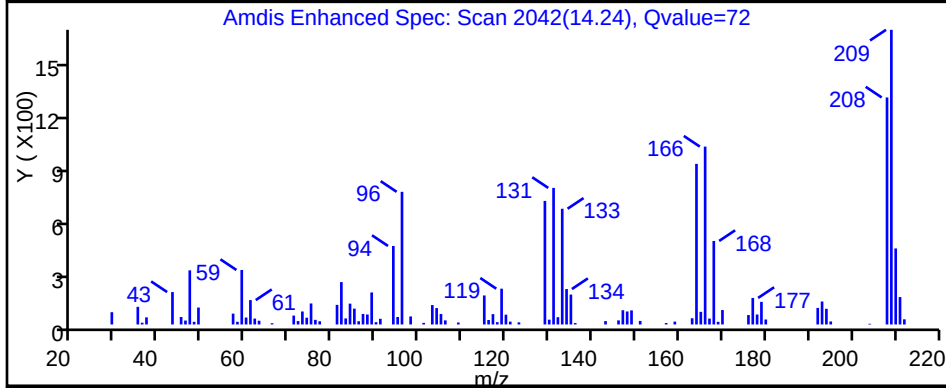
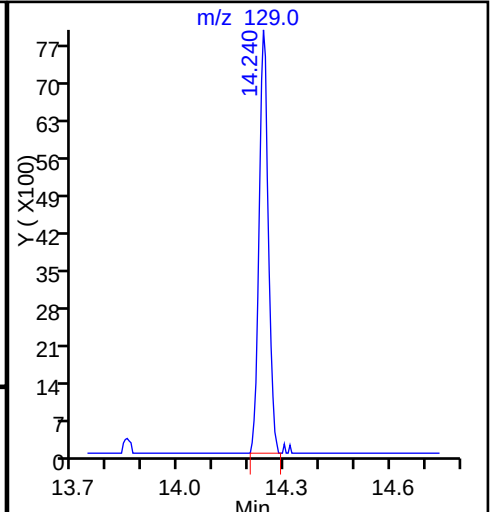
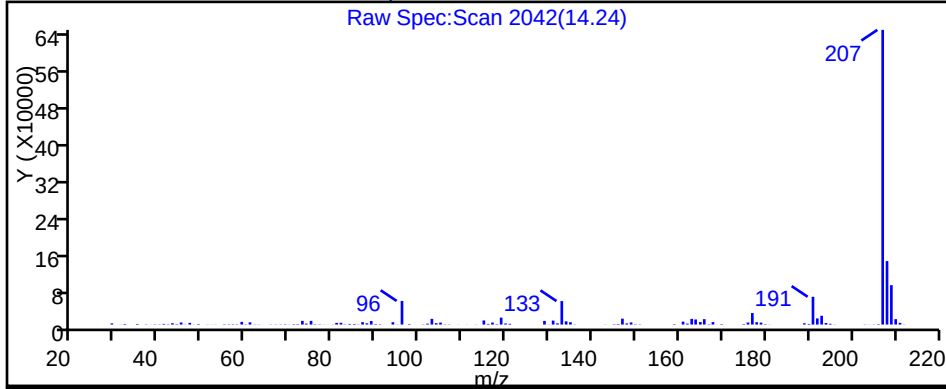
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

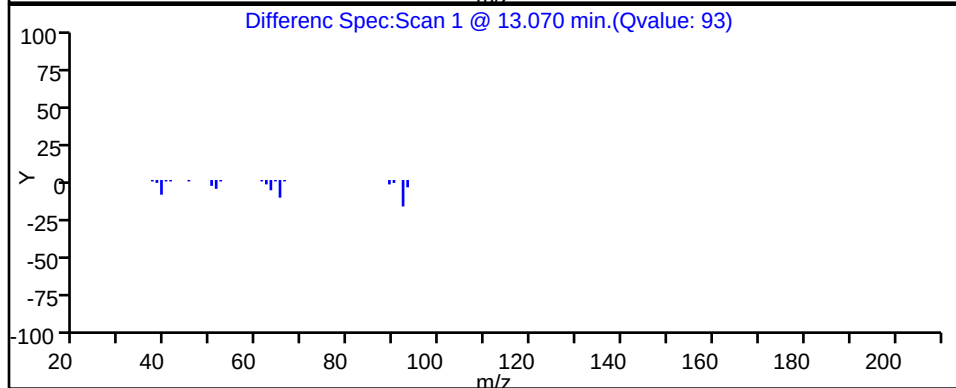
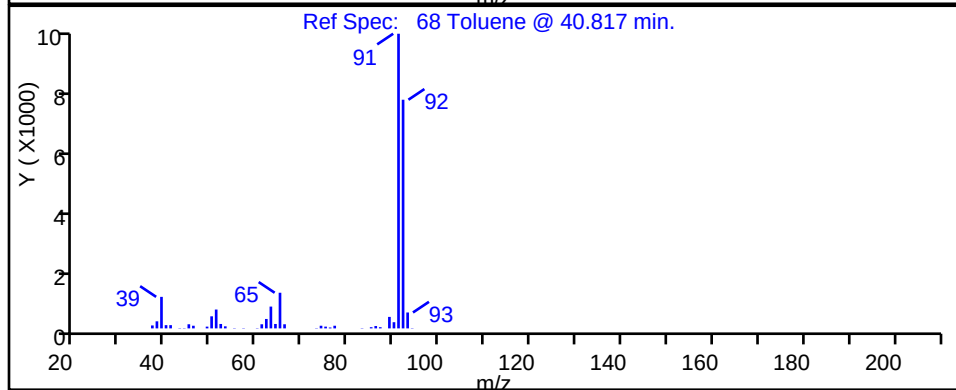
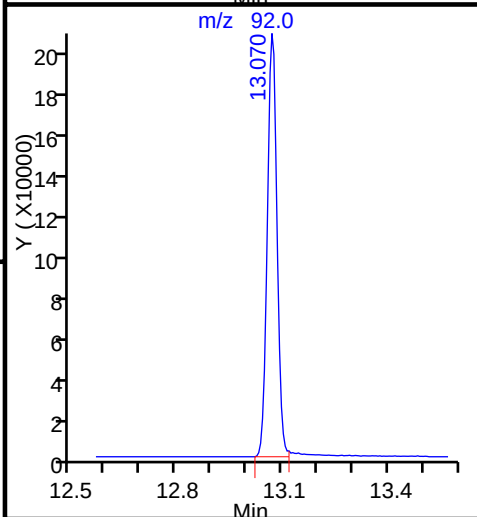
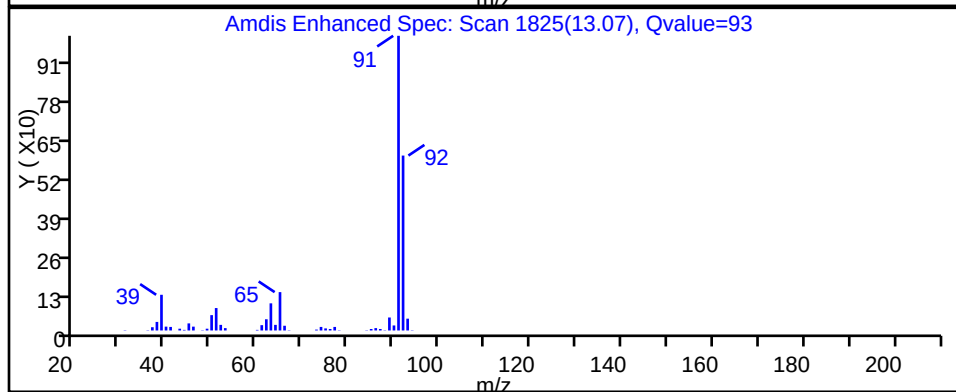
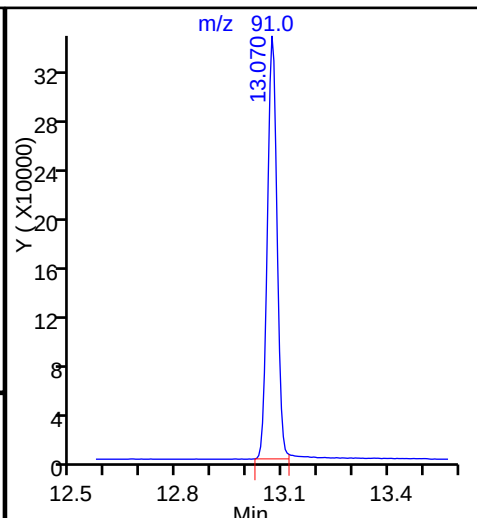
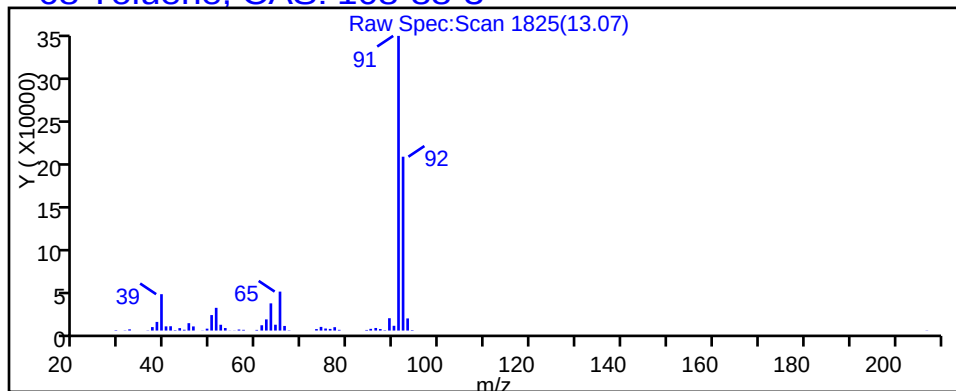
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

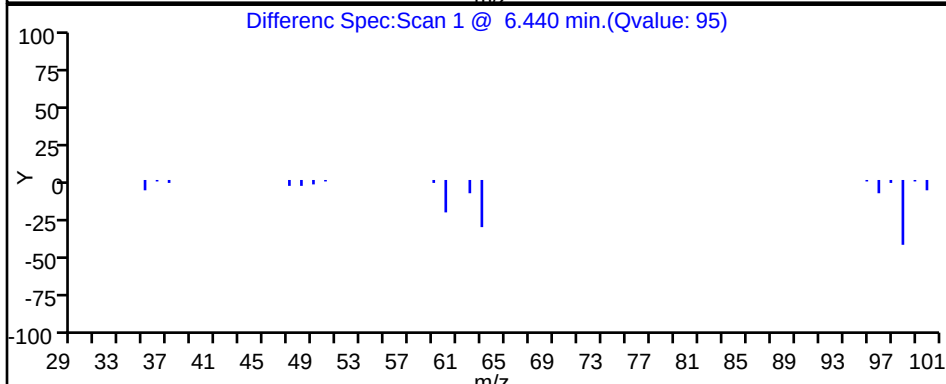
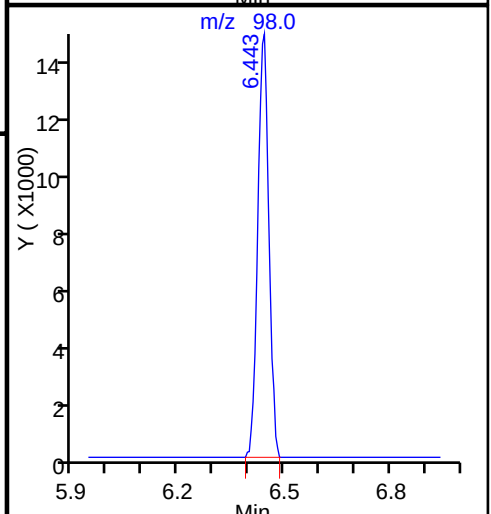
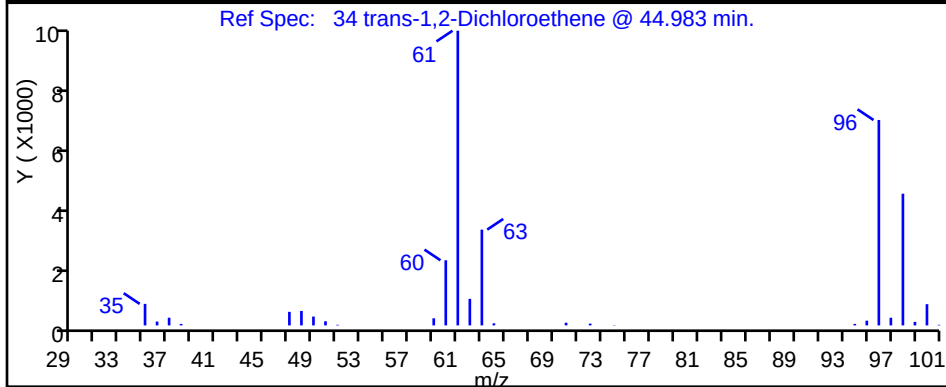
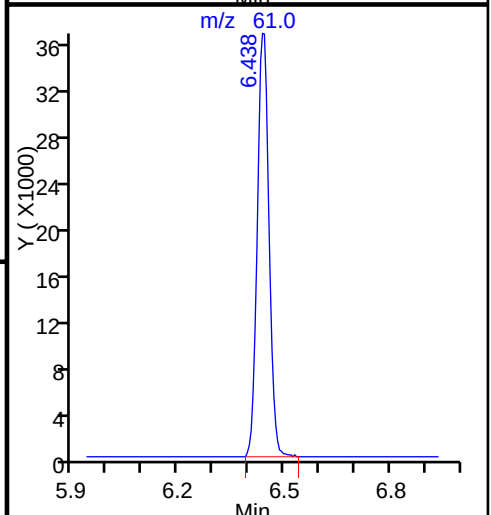
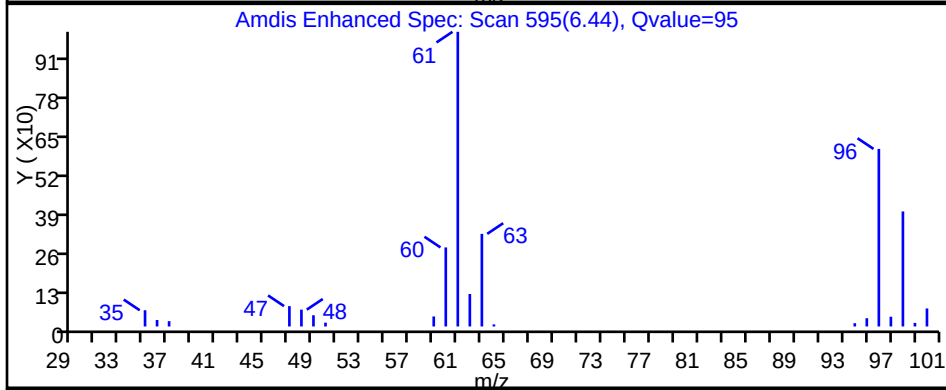
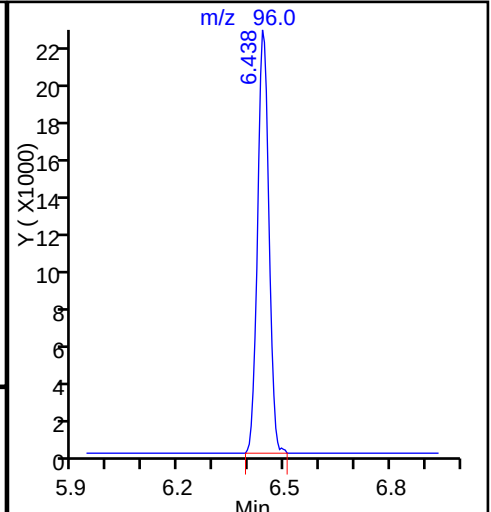
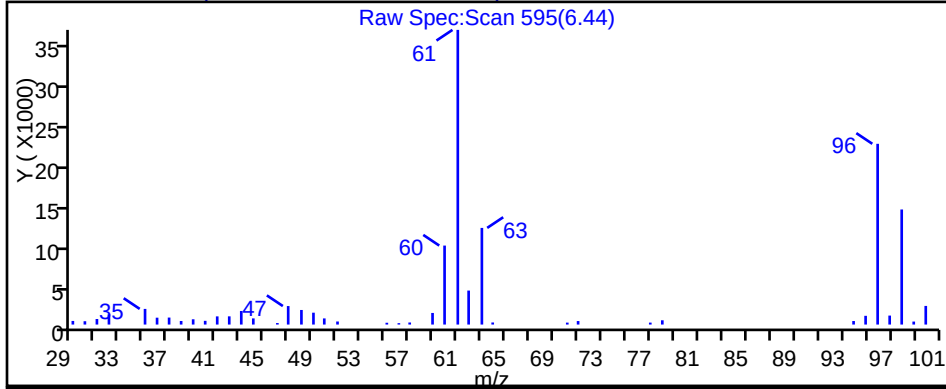
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

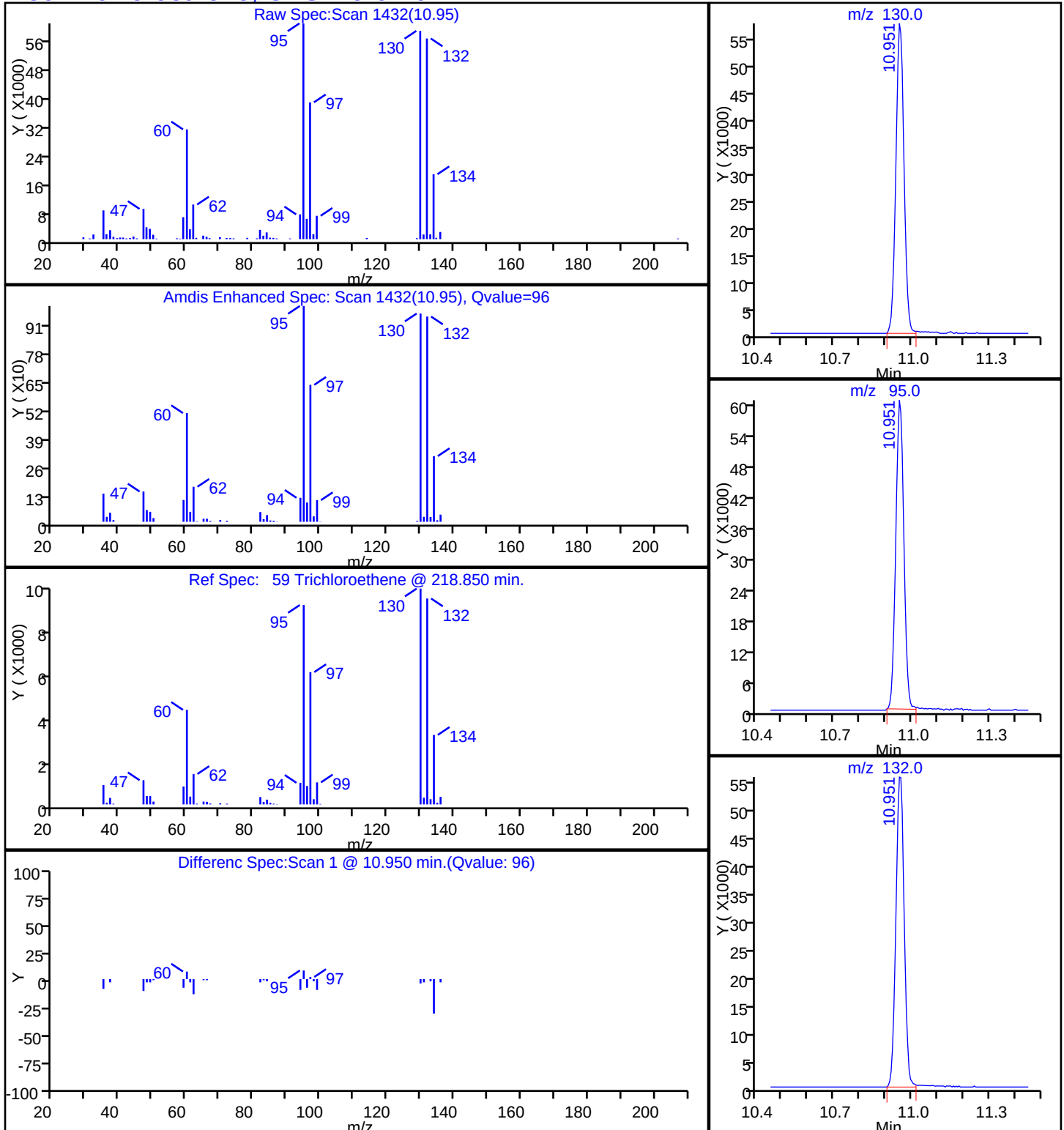
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 5

Purge Vol: 500.000 mL

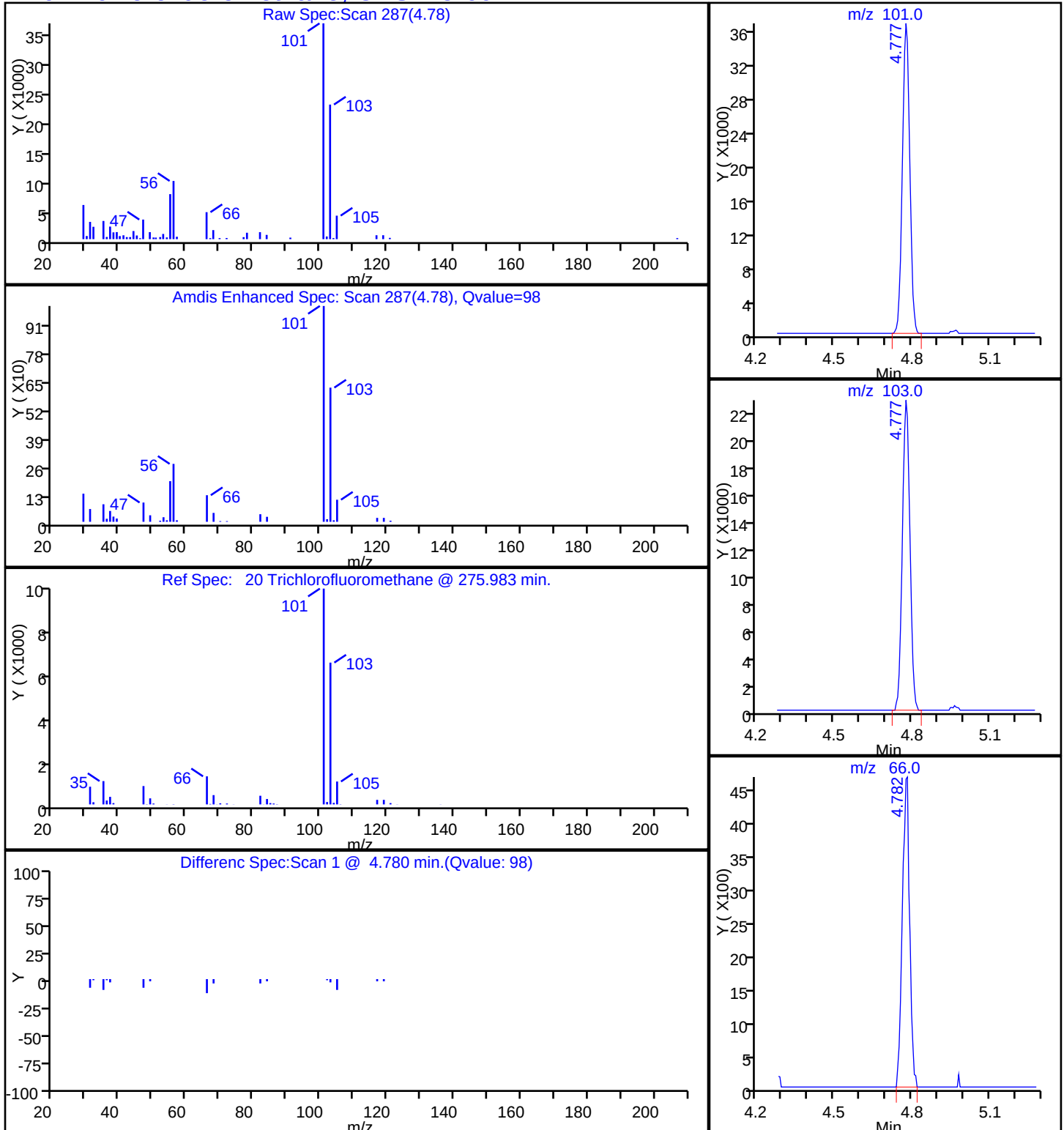
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101.D

Injection Date: 20-Dec-2016 13:27:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1 Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

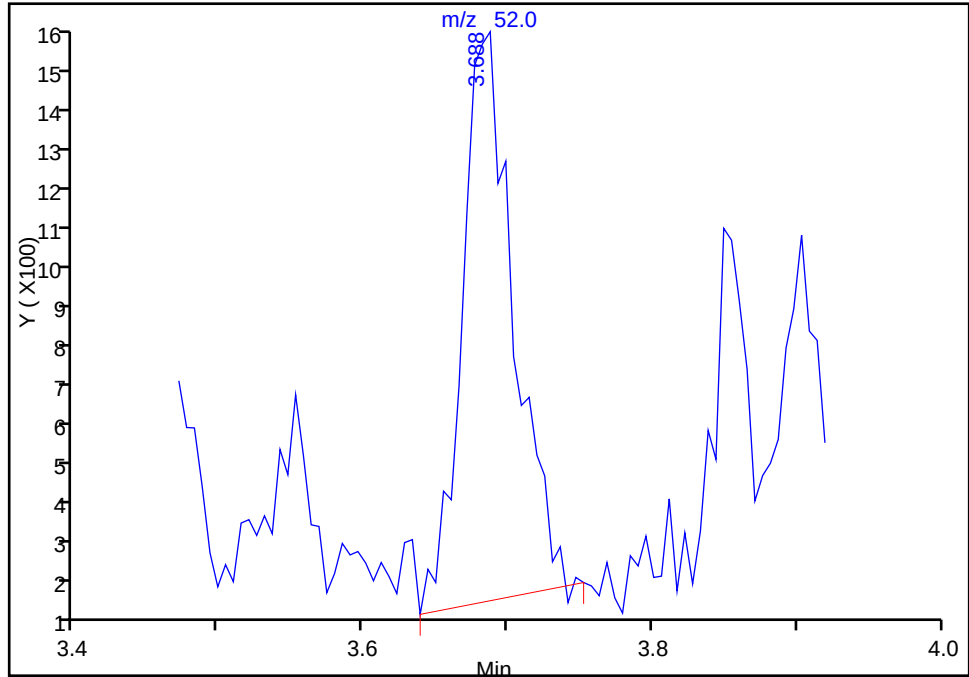
Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

Signal: 1

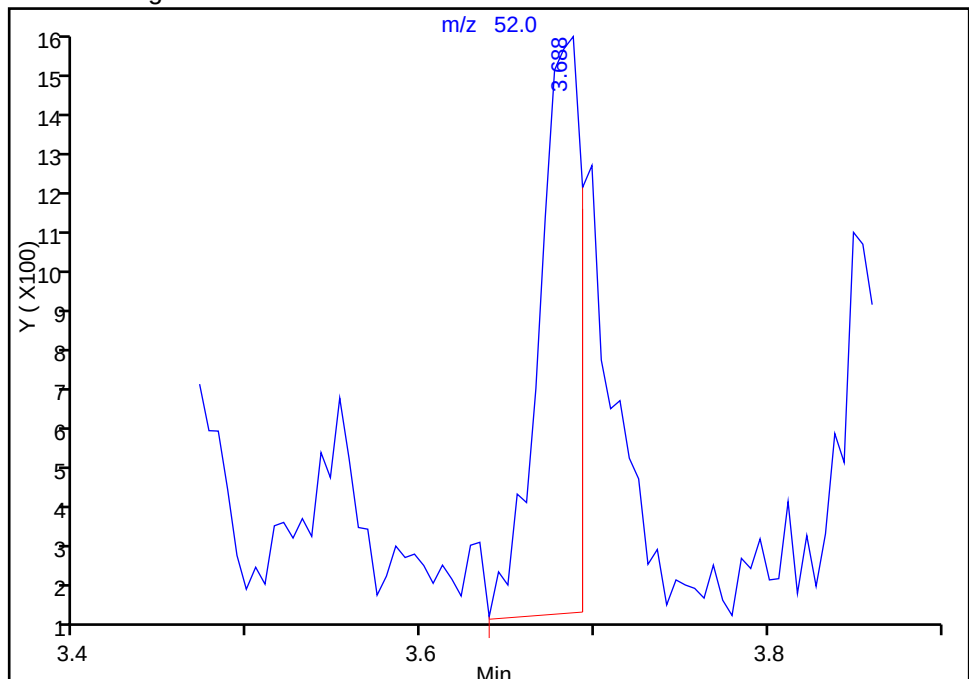
RT: 3.69
Area: 3324
Amount: 0.105585
Amount Units: ppb v/v

Processing Integration Results



RT: 3.69
Area: 2336
Amount: 0.074202
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 20-Dec-2016 14:09:01

Audit Action: Manually Integrated

Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 DL Lab Sample ID: 140-6565-1 DL
 Matrix: Air Lab File ID: GL20P101DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 300 (mL) Date Analyzed: 12/21/2016 01:52
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	180	D	4.9	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-1 DL Lab Sample ID: 140-6565-1 DL
 Matrix: Air Lab File ID: GL20P101DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 13:25
 Sample wt/vol: 300 (mL) Date Analyzed: 12/21/2016 01:52
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	340	D	9.2	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101DL.D
 Lims ID: 140-6565-A-1
 Client ID: SSV-1
 Sample Type: Client
 Inject. Date: 21-Dec-2016 01:52:30 ALS Bottle#: 1 Worklist Smp#: 22
 Purge Vol: 500.000 mL Dil. Factor: 1.4600
 Sample Info: 140-0003728-022
 Misc. Info.: 140-6565-a-1@1.46
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:40:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	350813	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.228	-0.005	95	1650420	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1725817	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1198837	4.20	
8 Dichlorodifluoromethane	85	3.537	3.531	0.006	100	68426	0.2279	
17 Ethanol	31	4.405	4.383	0.022	96	2622409	74.8	
20 Trichlorofluoromethane	101	4.782	4.777	0.005	99	30806	0.1059	
29 2-Methyl-2-propanol	59	5.532	5.499	0.033	94	57397	0.4366	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.564	0.011	94	5406	0.0294	
31 Methylene Chloride	84	5.710	5.704	0.006	98	14472	0.1939	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	96	21791	0.2162	
39 2-Butanone (MEK)	72	7.344	7.338	0.006	99	22055	0.5309	
40 Hexane	56	7.392	7.387	0.005	91	9308	0.1116	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	22441	0.2194	
44 Chloroform	83	8.077	8.077	0.000	97	132757	0.6033	
49 Benzene	78	9.646	9.646	0.000	98	25338	0.0854	
50 Cyclohexane	69	9.641	9.651	-0.010	56	2427	0.0444	
52 Carbon tetrachloride	117	9.678	9.678	0.000	96	10865	0.0410	
56 Isooctane	57	10.471	10.471	0.000	58	15703	0.0292	
59 Trichloroethene	130	10.956	10.956	0.000	96	54197	0.3138	
65 4-Methyl-2-pentanone (MIBK	43	12.197	12.186	0.011	97	13392	0.0663	
68 Toluene	91	13.070	13.076	-0.006	94	271309	0.7861	
76 Tetrachloroethene	129	14.240	14.246	-0.006	90	6096	0.0403	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	121023	0.2675	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	421088	1.21	
84 Styrene	104	16.068	16.074	-0.006	47	7514	0.0303	
85 o-Xylene	91	16.128	16.133	-0.005	98	168912	0.4595	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	93	39137	0.1631	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	296196	0.7085	
98 1,3-Dichlorobenzene	146	18.355	18.263	0.092	97	58173	0.1926	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	58168	0.1970	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101DL.D

Injection Date: 21-Dec-2016 01:52:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Worklist Smp#: 22

Client ID: SSV-1

Purge Vol: 500.000 mL

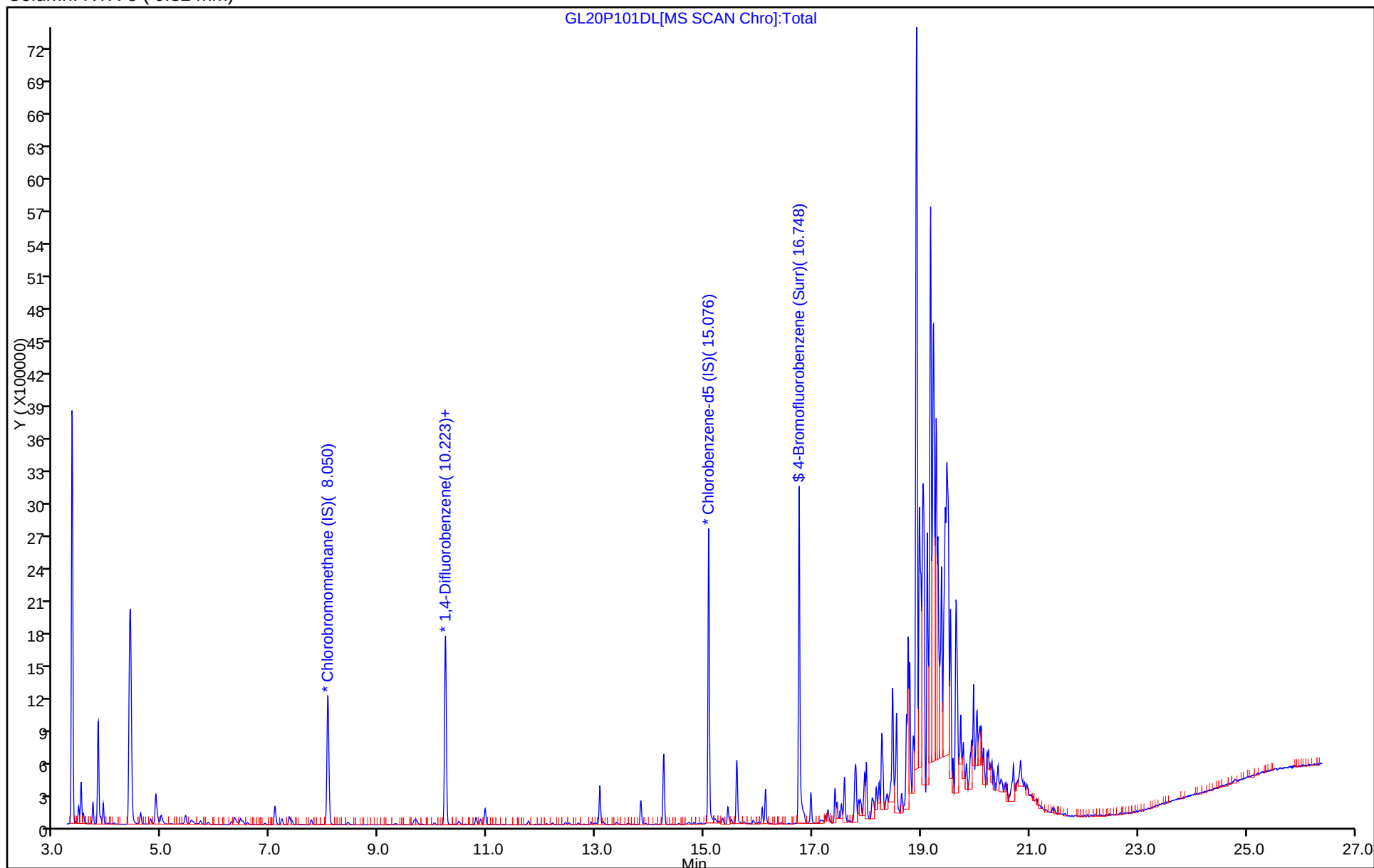
Dil. Factor: 1.4600

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101DL.D
Lims ID: 140-6565-A-1
Client ID: SSV-1
Sample Type: Client
Inject. Date: 21-Dec-2016 01:52:30 ALS Bottle#: 1 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.4600
Sample Info: 140-0003728-022
Misc. Info.: 140-6565-a-1@1.46
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:40:34

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.20	105.01

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P101DL.D

Injection Date: 21-Dec-2016 01:52:30

Instrument ID: MG

Lims ID: 140-6565-A-1

Lab Sample ID: 140-6565-1

Client ID: SSV-1

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 22

Purge Vol: 500.000 mL

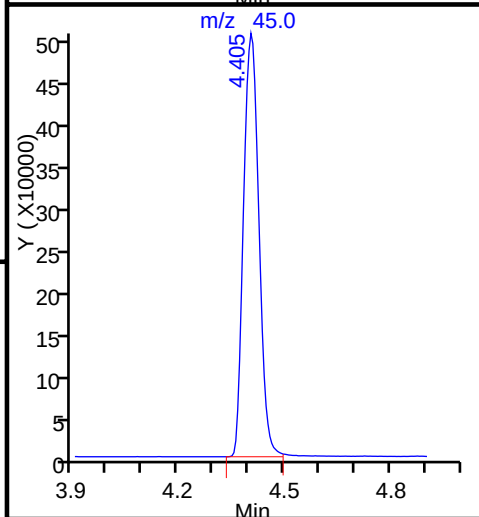
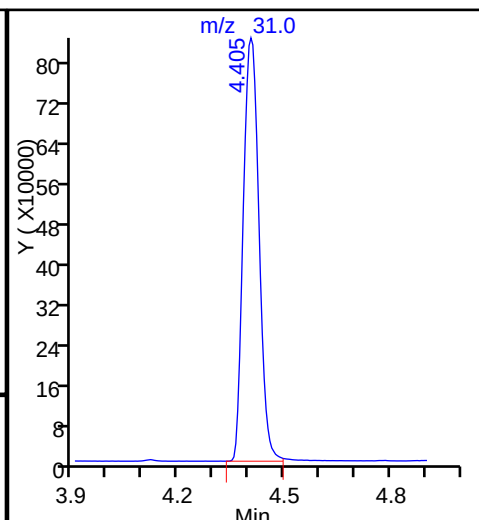
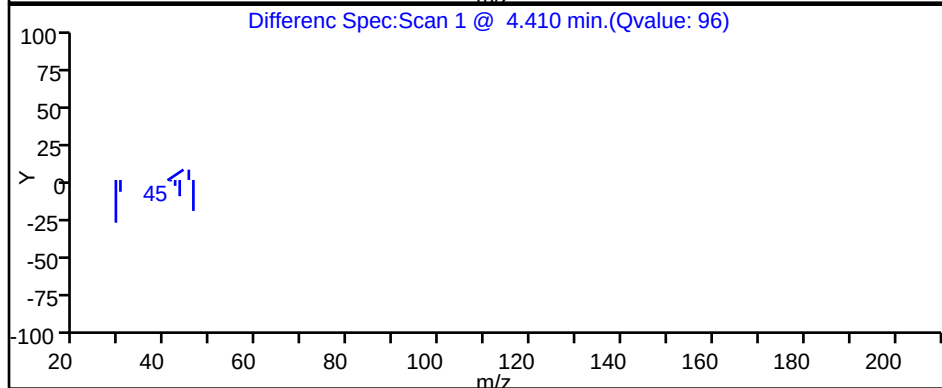
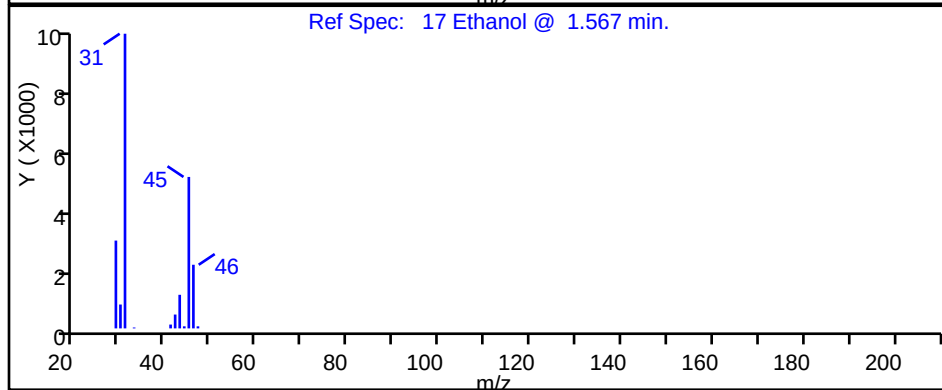
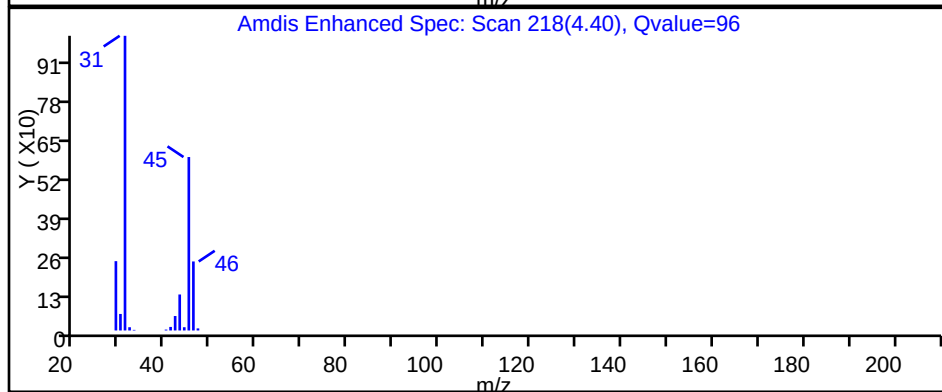
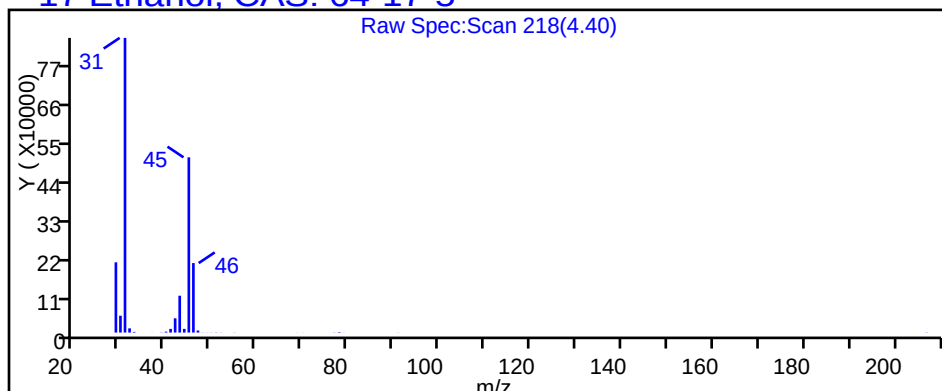
Dil. Factor: 1.4600

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 Lab Sample ID: 140-6565-2
 Matrix: Air Lab File ID: GL20P102.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 720 (mL) Date Analyzed: 12/20/2016 14:13
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	0.45		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.32		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.073		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	2.0		0.080	
74-87-3	Chloromethane	50.49	0.60		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 Lab Sample ID: 140-6565-2
 Matrix: Air Lab File ID: GL20P102.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 720 (mL) Date Analyzed: 12/20/2016 14:13
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.080	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>290</i>	<i>E</i>	<i>2.0</i>	
100-41-4	Ethylbenzene	106.17	0.091		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.29		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	0.35		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.31		0.080	
95-47-6	o-Xylene	106.17	0.12		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	0.60		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	0.72		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.24		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 Lab Sample ID: 140-6565-2
 Matrix: Air Lab File ID: GL20P102.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 720 (mL) Date Analyzed: 12/20/2016 14:13
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	1.3		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	1.0		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.46		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	9.9		0.39	
74-87-3	Chloromethane	50.49	1.2		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 Lab Sample ID: 140-6565-2
 Matrix: Air Lab File ID: GL20P102.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 720 (mL) Date Analyzed: 12/20/2016 14:13
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.5		0.40	
64-17-5	<i>Ethanol</i>	46.07	540	<i>E</i>	3.8	
100-41-4	Ethylbenzene	106.17	0.40		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	1.0		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	1.2		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	1.4		0.35	
95-47-6	o-Xylene	106.17	0.51		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	2.3		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	2.9		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.3		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D
 Lims ID: 140-6565-A-2
 Client ID: IA-1
 Sample Type: Client
 Inject. Date: 20-Dec-2016 14:13:30 ALS Bottle#: 2 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.4400
 Sample Info: 140-0003728-006
 Misc. Info.: 140-6565-a-2@1.44
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 15:52:52 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK052

First Level Reviewer: wilesd

Date: 21-Dec-2016 15:52:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	378699	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.228	0.001	95	1760721	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1791013	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	93	1148764	3.88	
8 Dichlorodifluoromethane	85	3.542	3.531	0.011	100	161961	0.4997	
9 Chloromethane	52	3.688	3.682	0.006	99	20955	0.6020	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.704	3.693	0.011	88	3263	0.0152	
17 Ethanol	31	4.464	4.383	0.081	95	10844971	286.6	E
20 Trichlorofluoromethane	101	4.788	4.777	0.011	99	74342	0.2367	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.564	0.011	97	13019	0.0656	
31 Methylene Chloride	84	5.710	5.704	0.006	96	28436	0.3530	
34 trans-1,2-Dichloroethene	96	6.449	6.443	0.006	95	78613	0.7225	
39 2-Butanone (MEK)	72	7.349	7.338	0.011	99	20333	0.4534	
40 Hexane	56	7.398	7.387	0.011	91	26510	0.2945	
44 Chloroform	83	8.082	8.077	0.005	97	479286	2.02	
49 Benzene	78	9.652	9.646	0.006	97	100504	0.3173	
50 Cyclohexane	69	9.657	9.651	0.006	67	6315	0.1082	
52 Carbon tetrachloride	117	9.679	9.678	0.001	95	20583	0.0728	
56 Isooctane	57	10.477	10.471	0.006	91	64173	0.1117	
61 Dichlorobromomethane	83	11.188	11.188	0.000	98	8040	0.0317	
65 4-Methyl-2-pentanone (MIBK	43	12.197	12.186	0.011	98	34905	0.1619	
68 Toluene	91	13.076	13.076	0.000	94	216650	0.6049	
76 Tetrachloroethene	129	14.246	14.246	0.000	59	2517	0.0160	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	42818	0.0912	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	113316	0.3131	
84 Styrene	104	16.074	16.074	0.000	83	9216	0.0358	
85 o-Xylene	91	16.128	16.133	-0.005	97	45006	0.1180	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	30670	0.0707	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Worklist Smp#: 6

Client ID: IA-1

Purge Vol: 500.000 mL

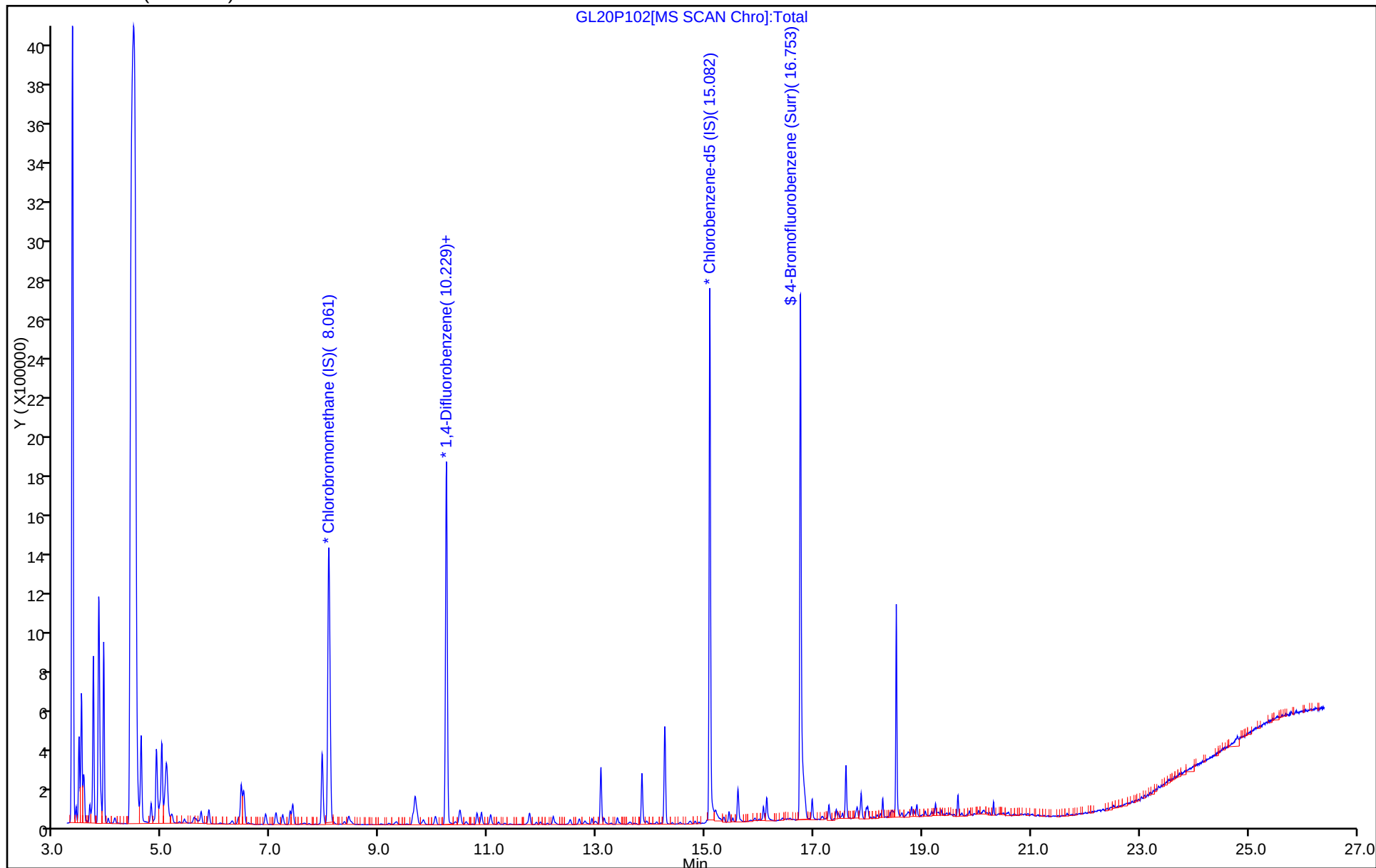
Dil. Factor: 1.4400

ALS Bottle#: 2

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D
Lims ID: 140-6565-A-2
Client ID: IA-1
Sample Type: Client
Inject. Date: 20-Dec-2016 14:13:30 ALS Bottle#: 2 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.4400
Sample Info: 140-0003728-006
Misc. Info.: 140-6565-a-2@1.44
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 15:52:52 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: wilestd

Date: 21-Dec-2016 15:52:52

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.88	96.96

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

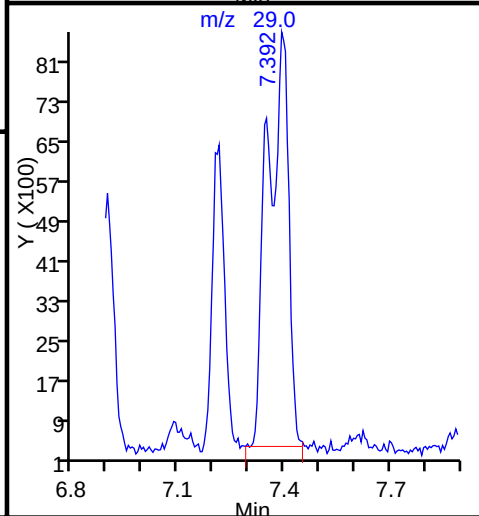
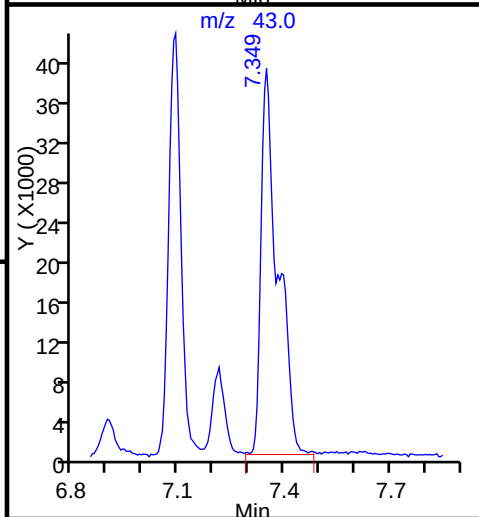
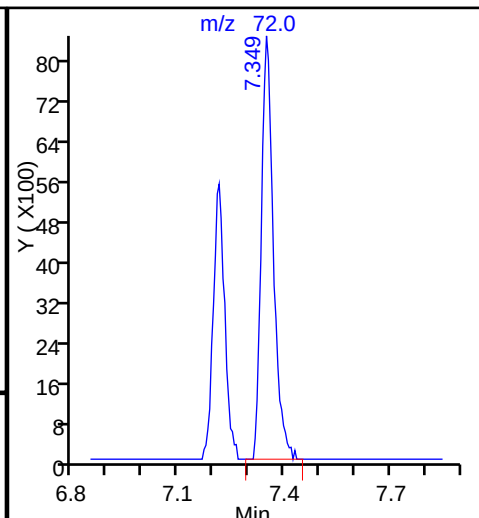
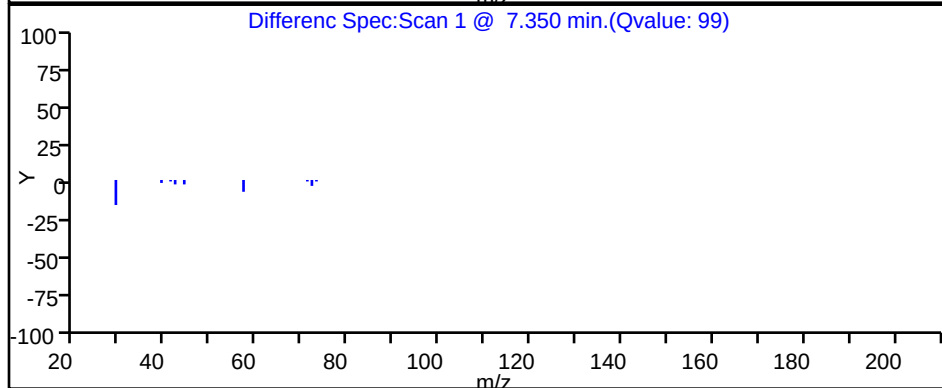
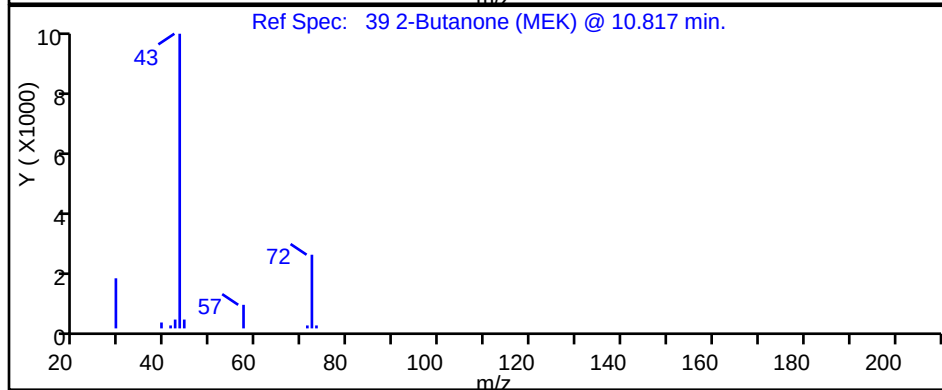
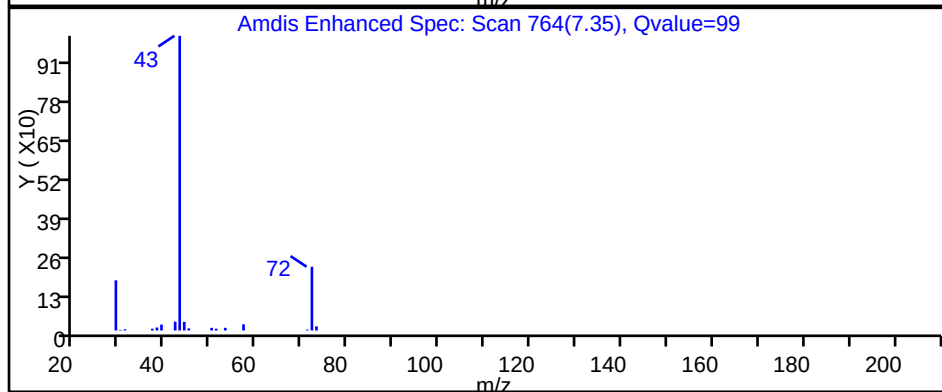
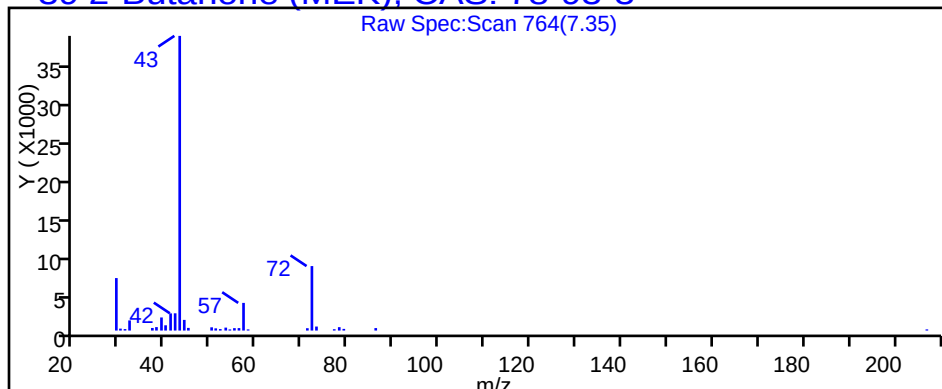
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.4400

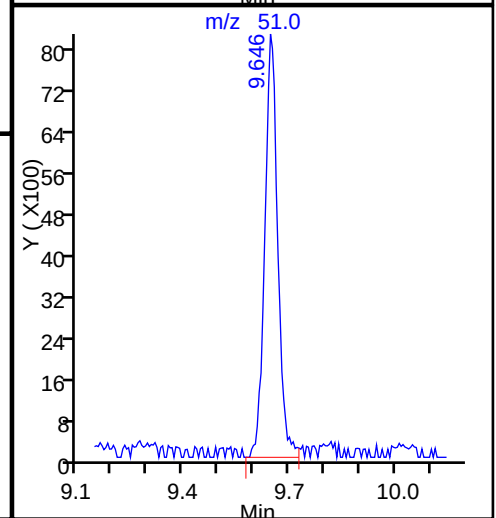
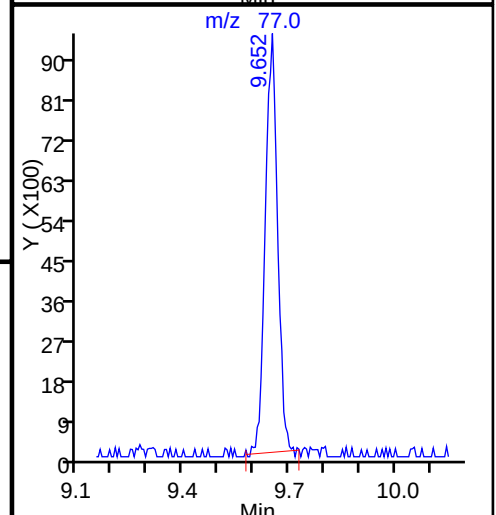
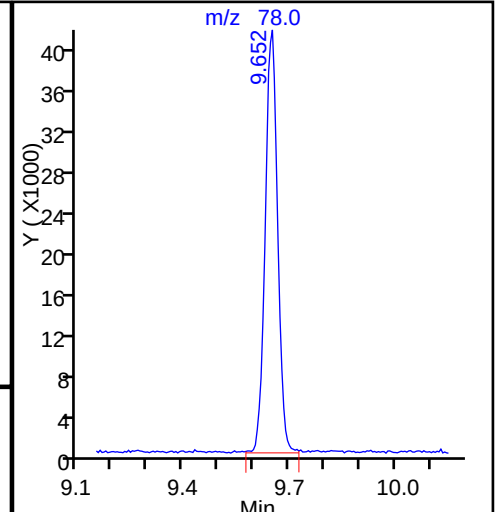
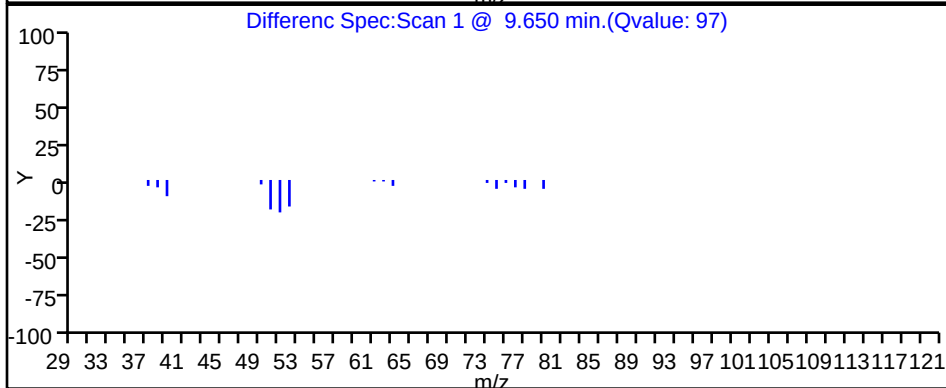
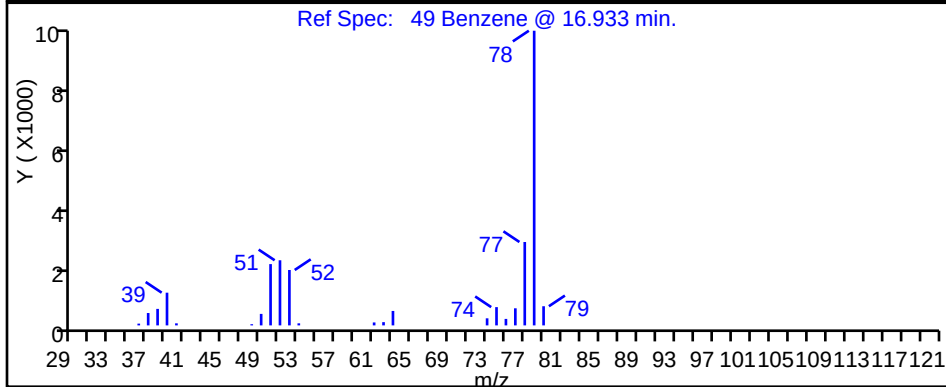
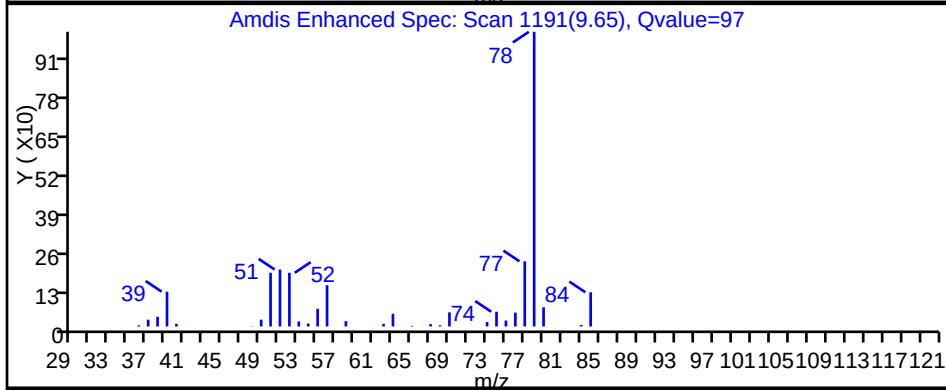
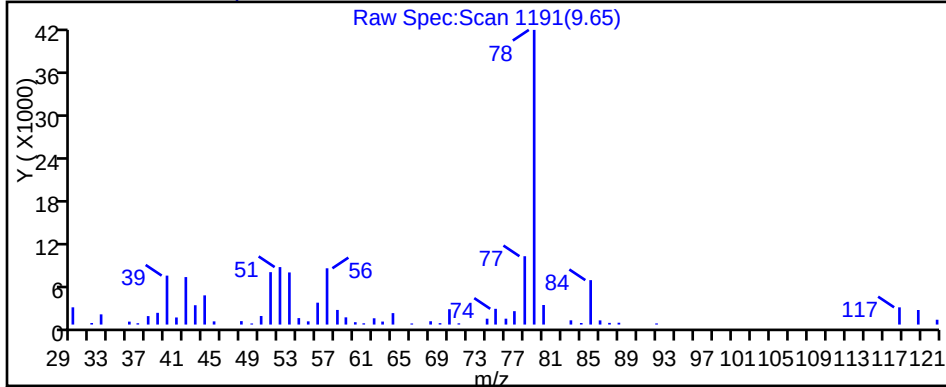
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

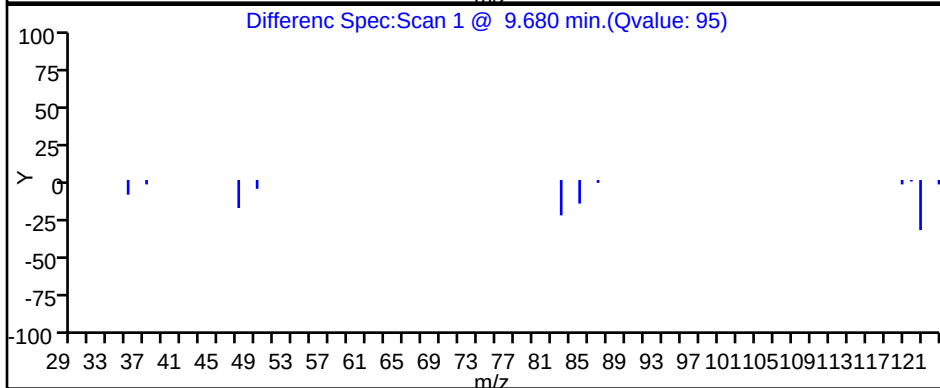
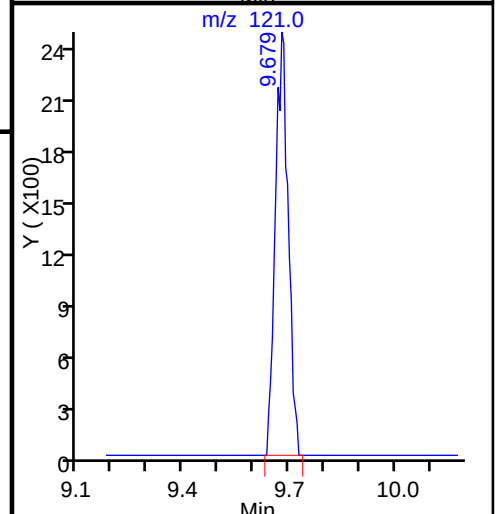
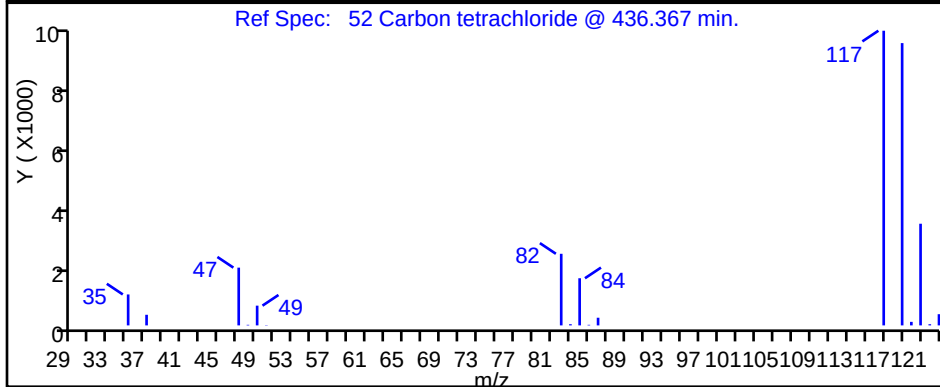
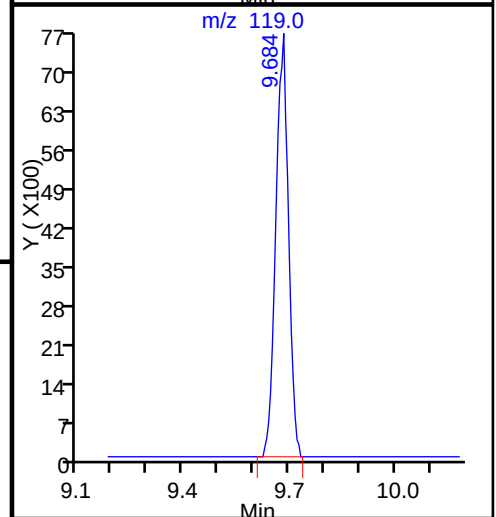
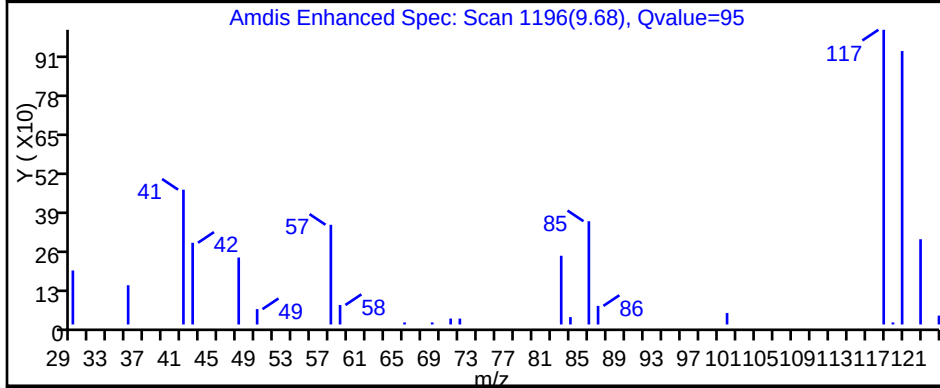
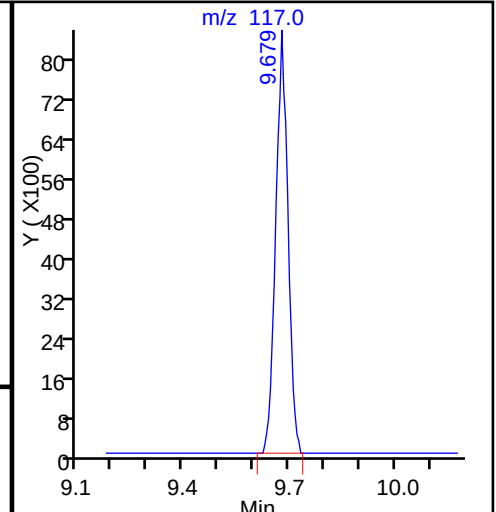
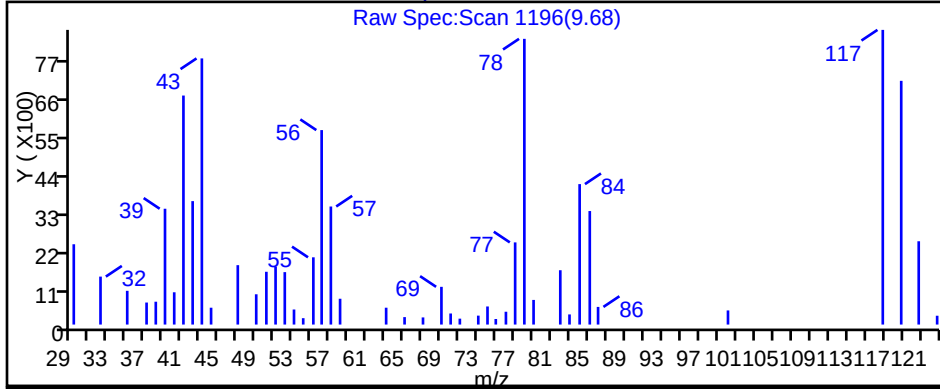
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

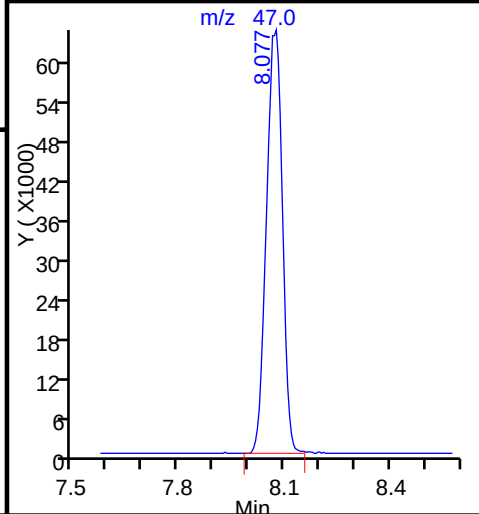
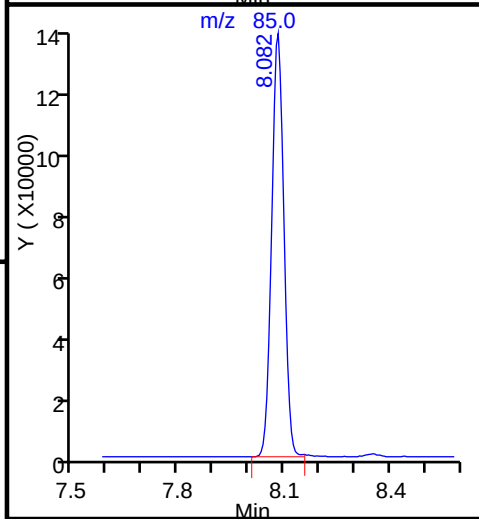
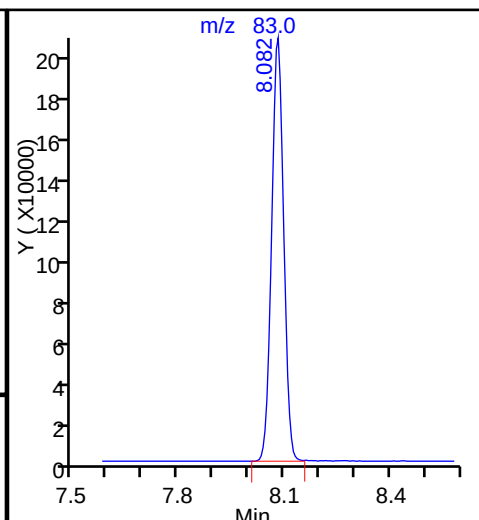
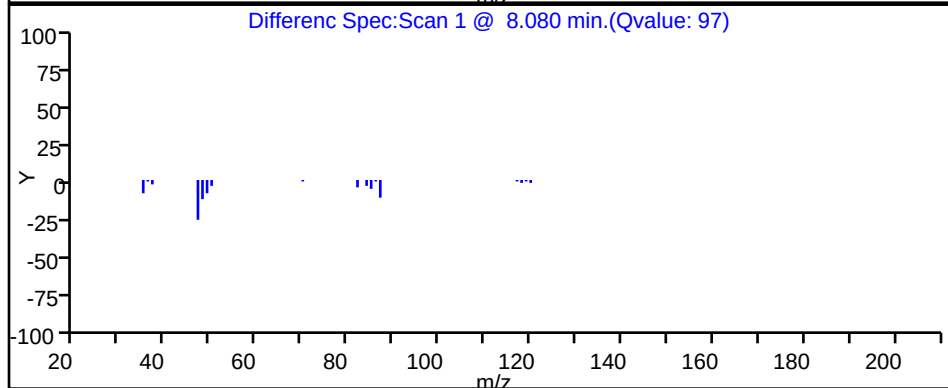
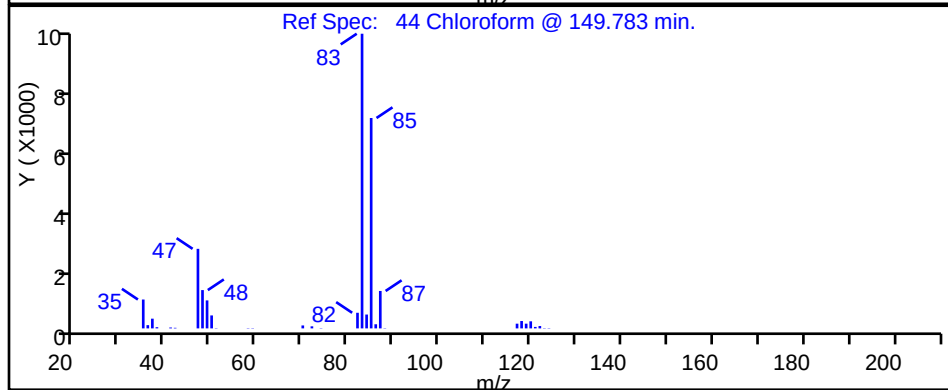
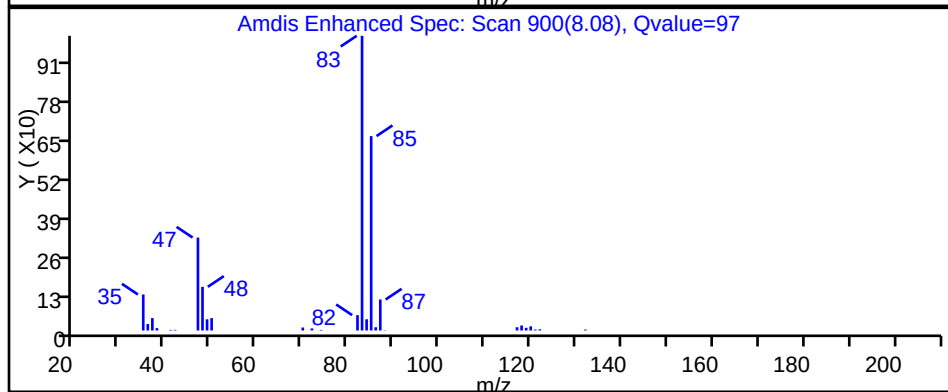
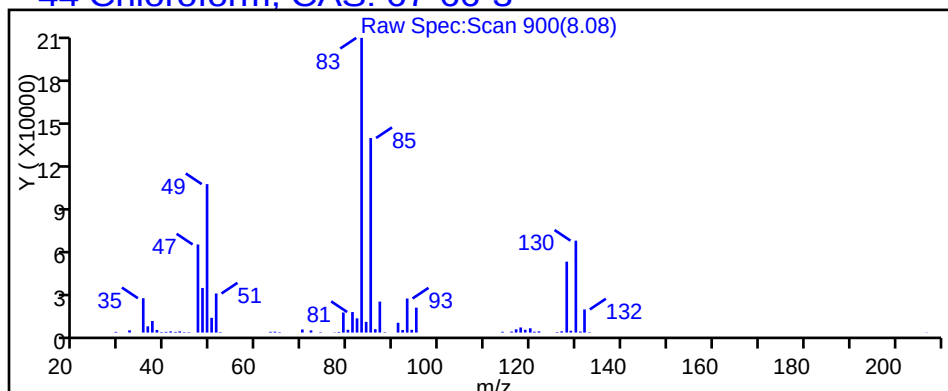
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

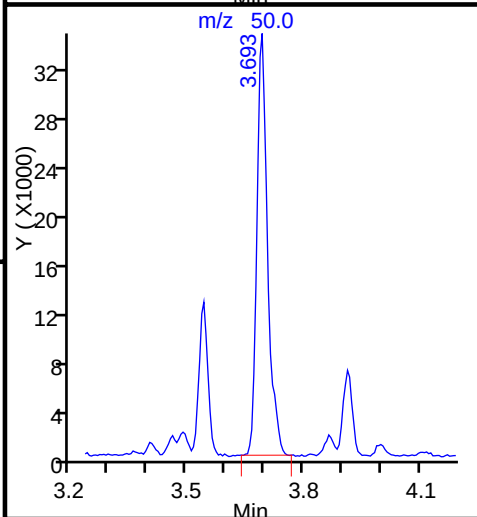
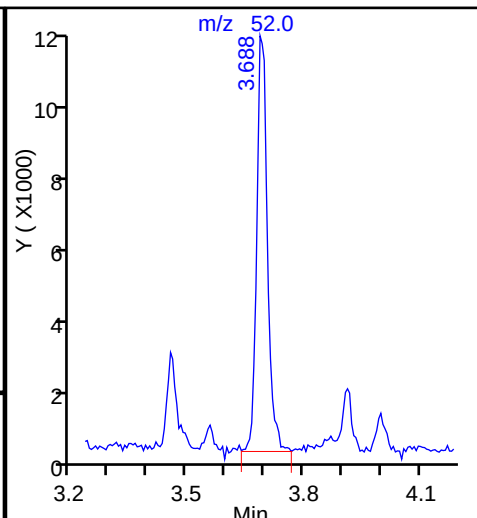
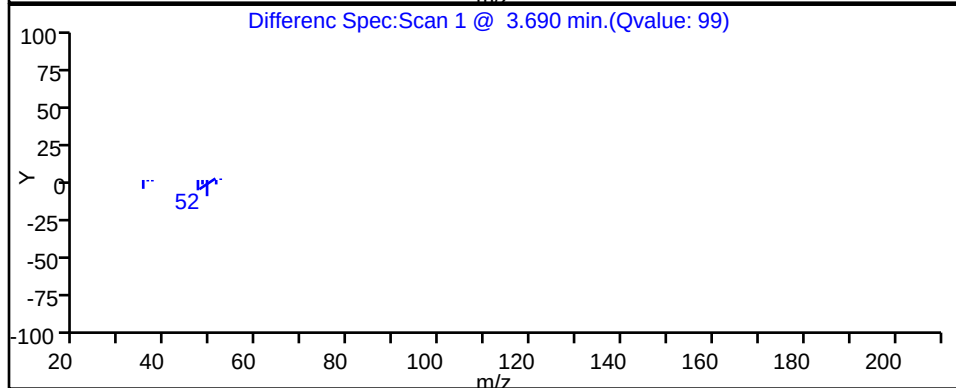
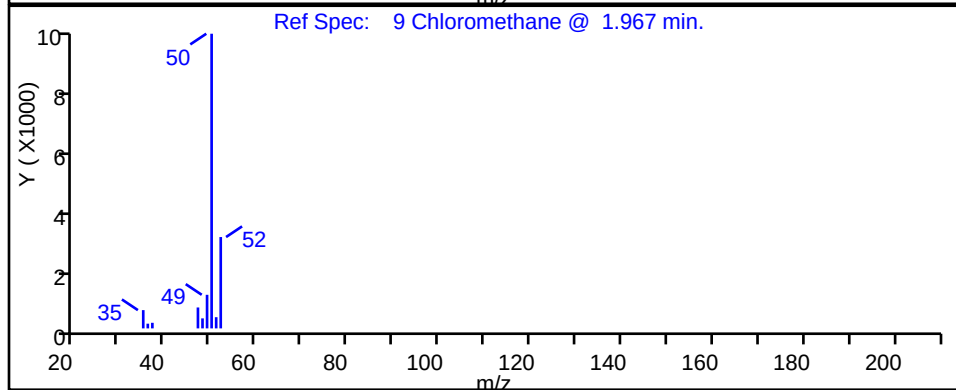
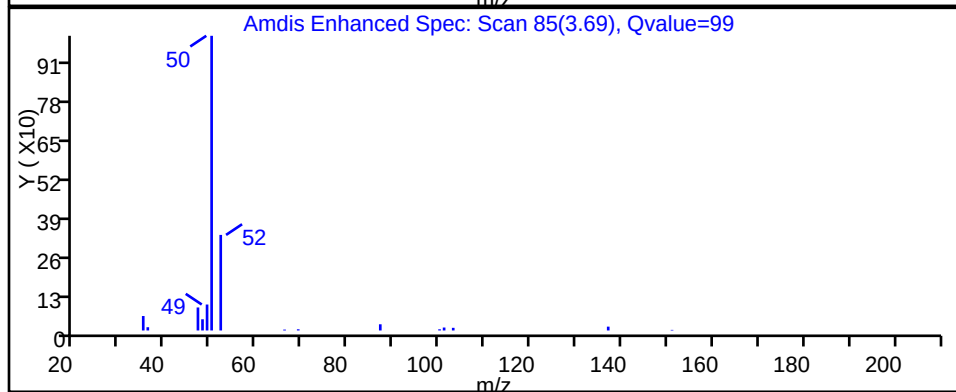
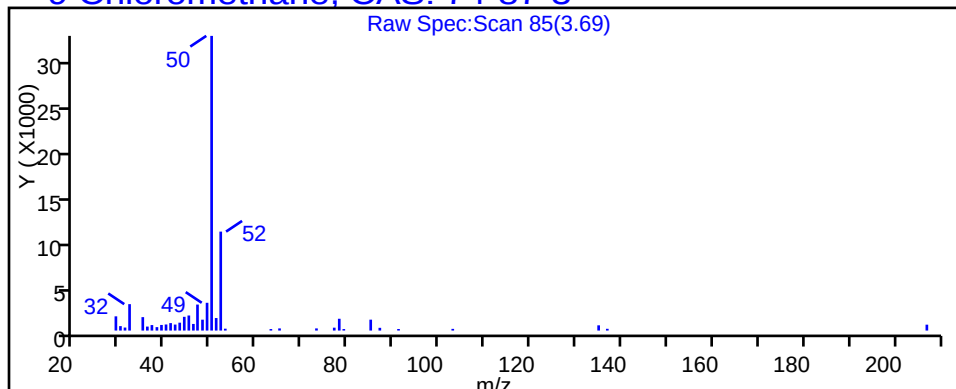
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.4400

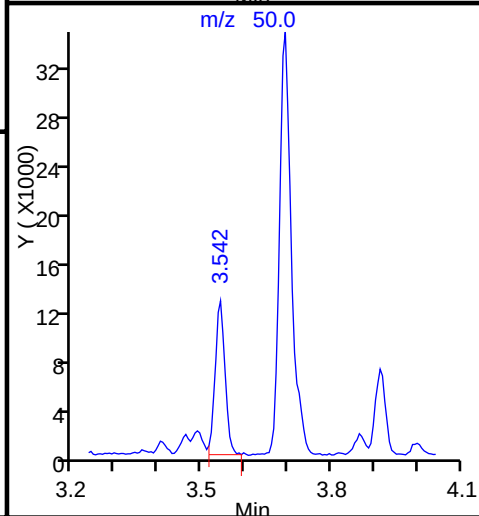
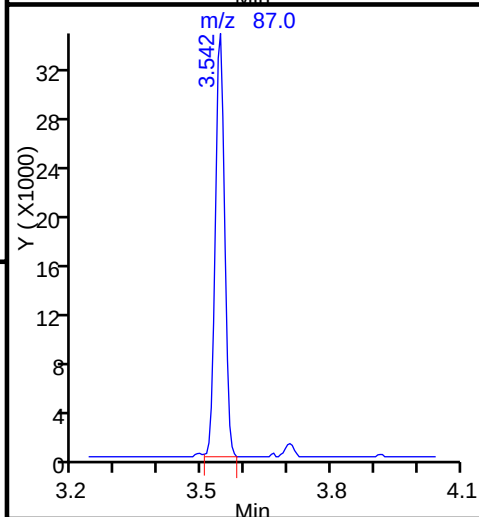
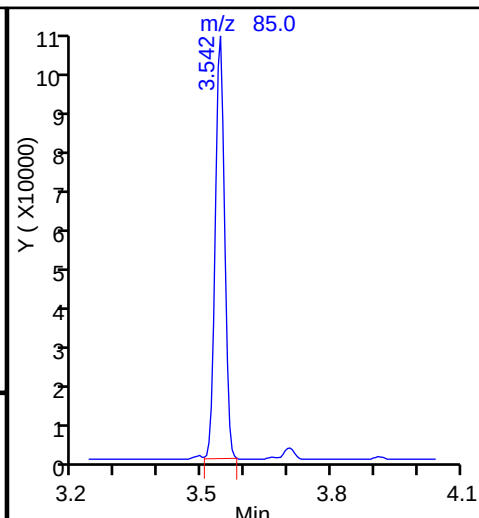
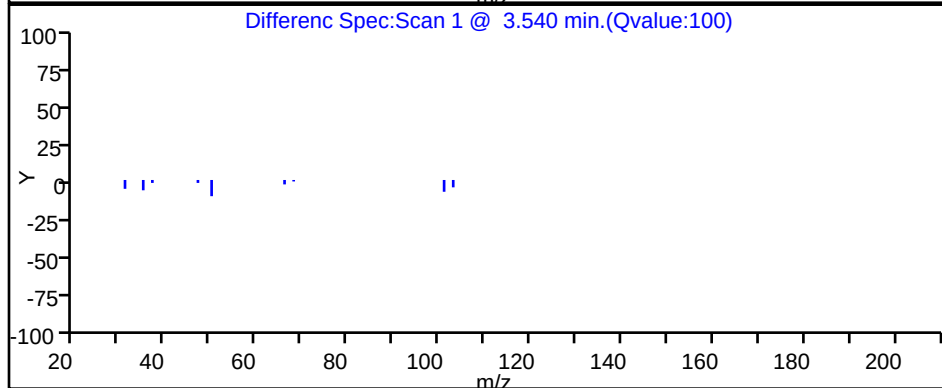
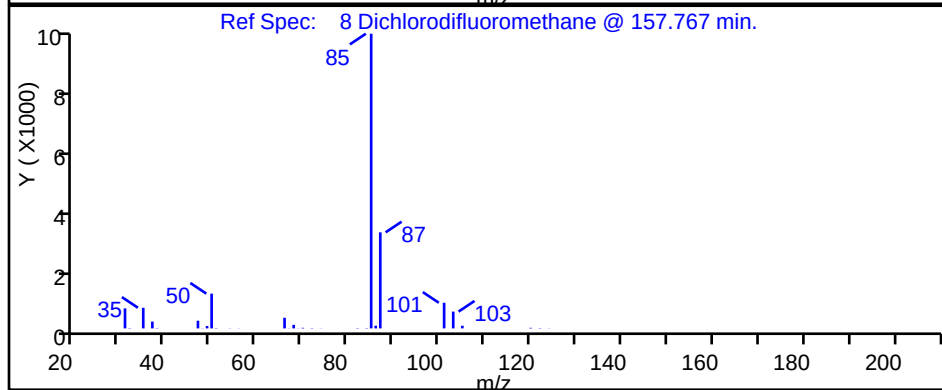
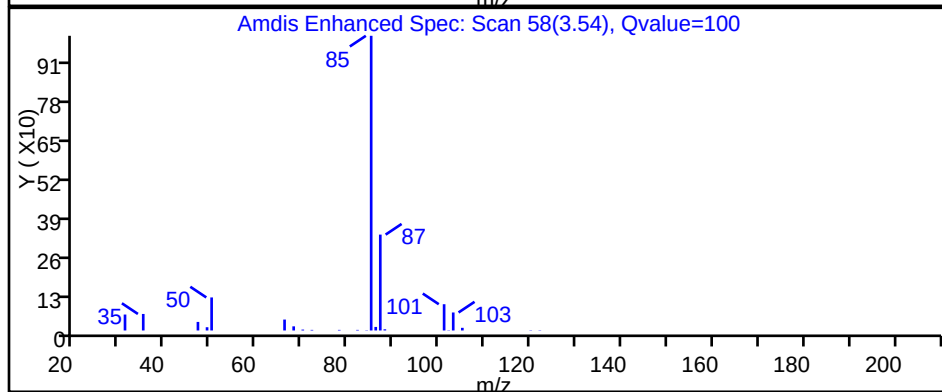
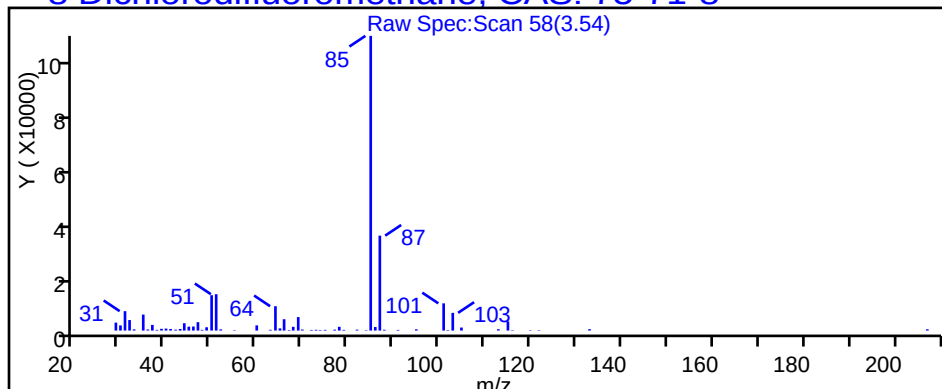
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

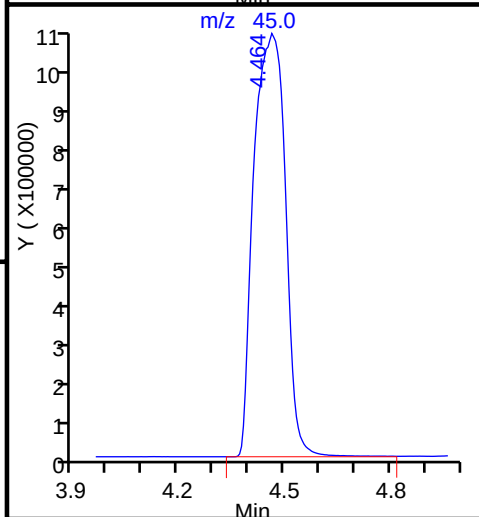
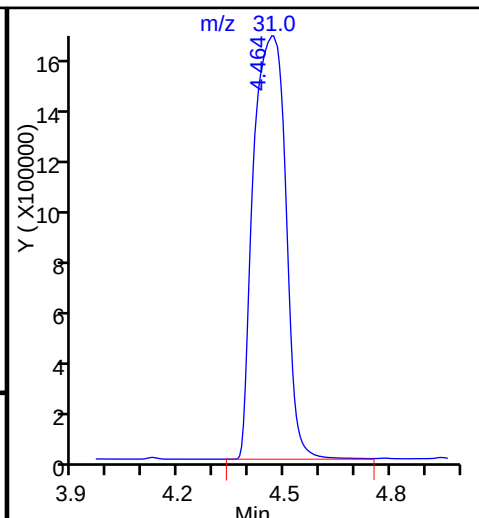
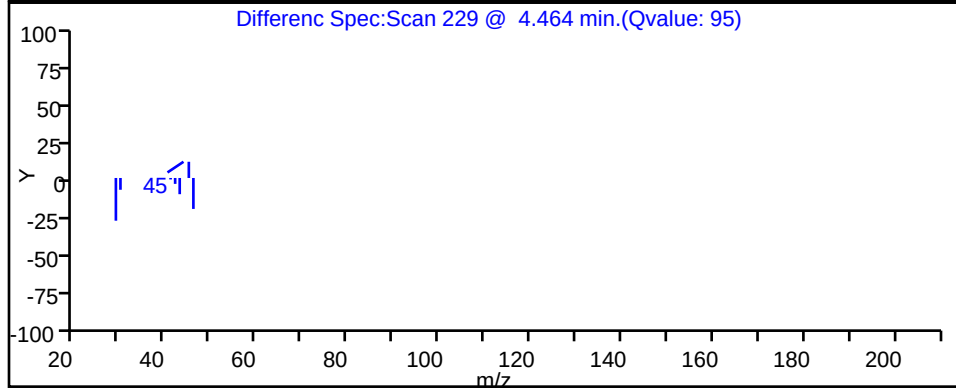
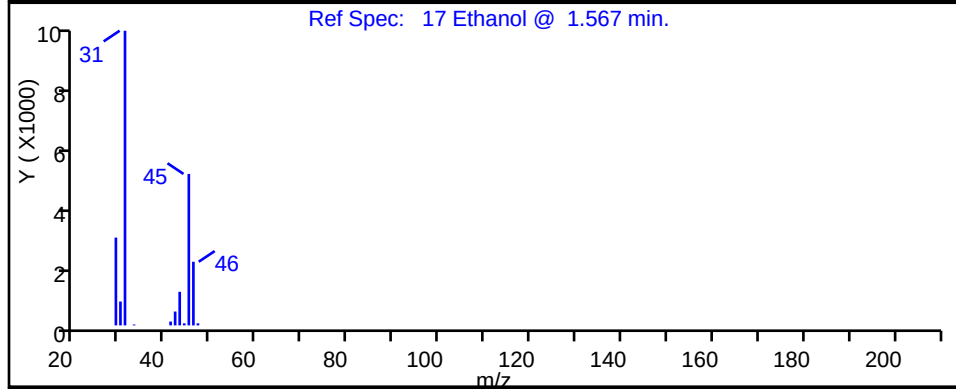
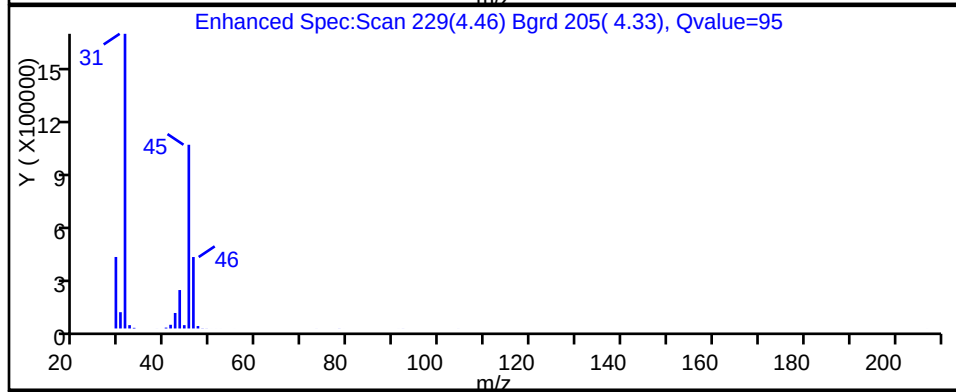
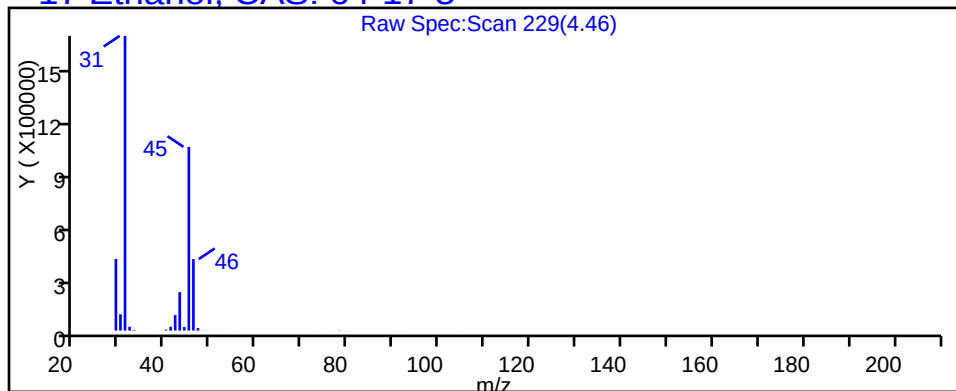
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

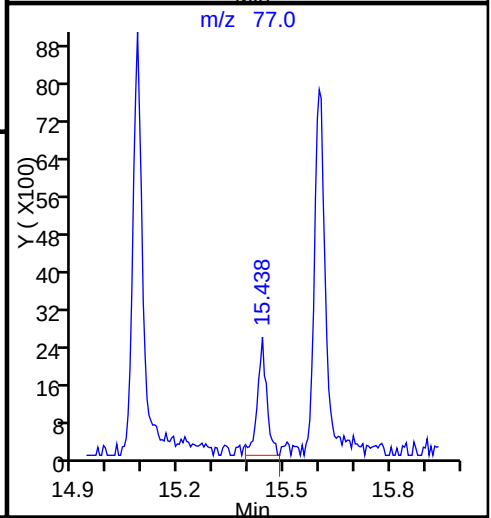
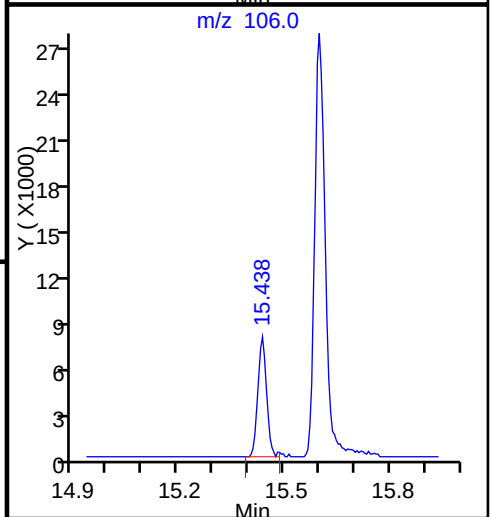
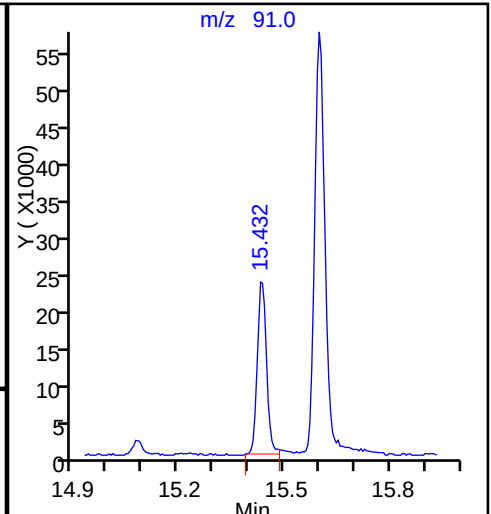
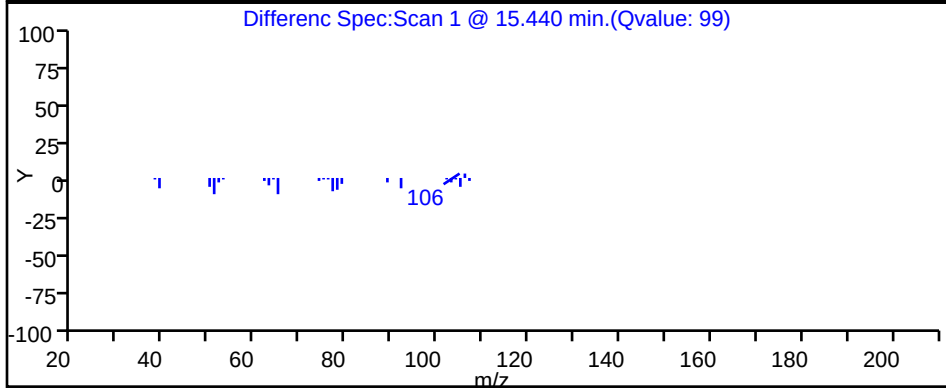
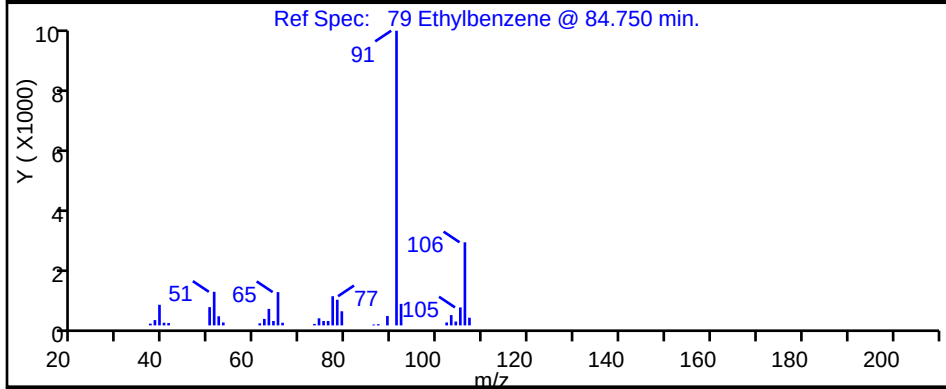
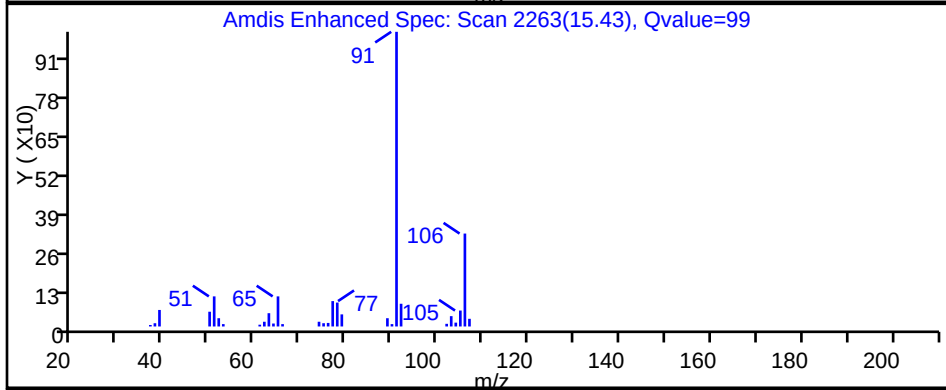
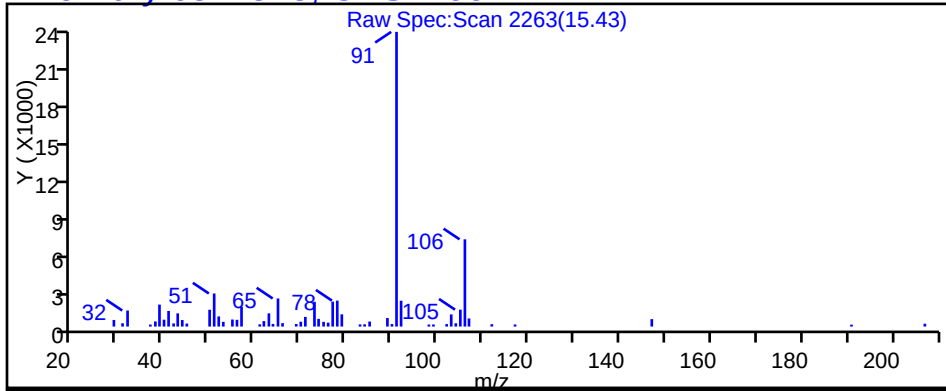
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

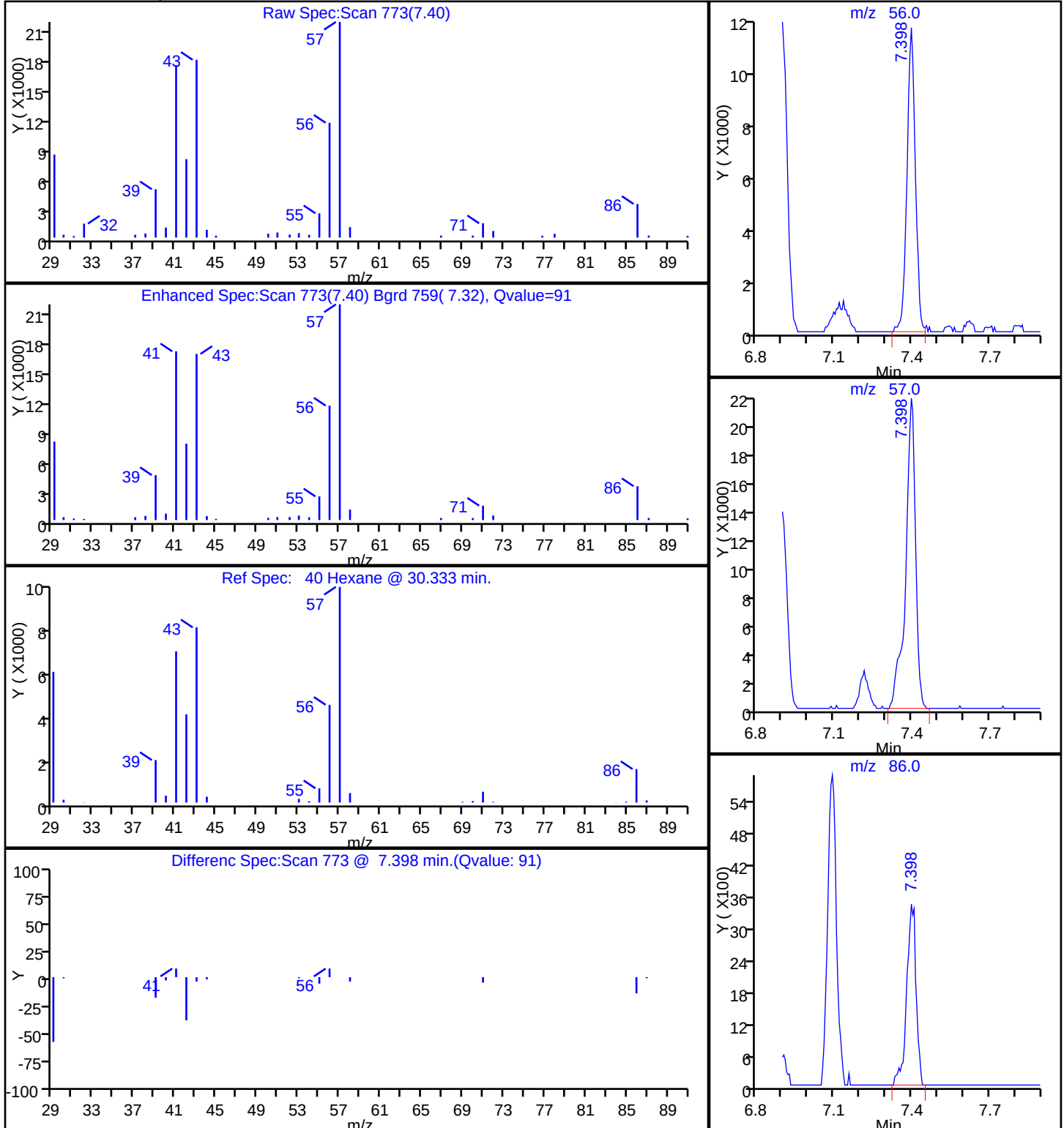
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

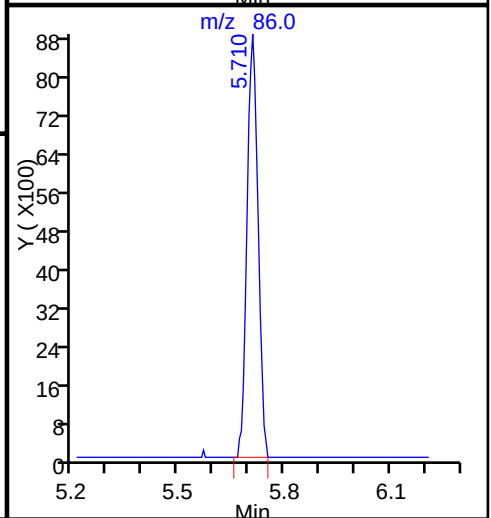
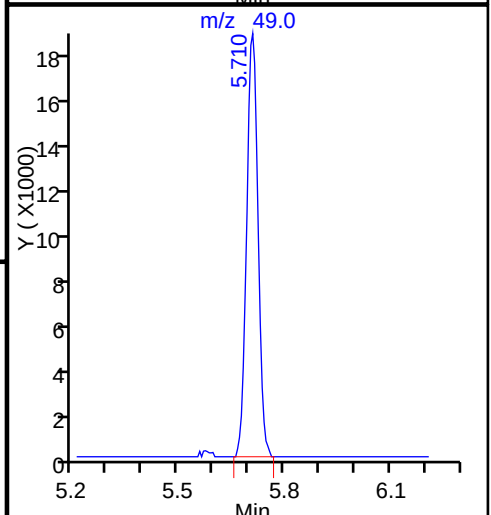
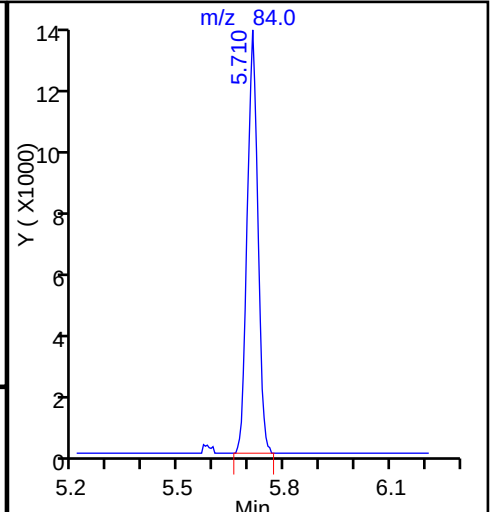
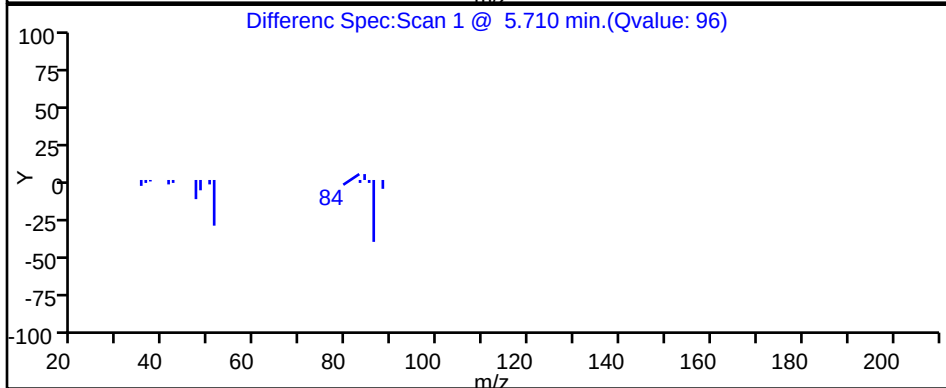
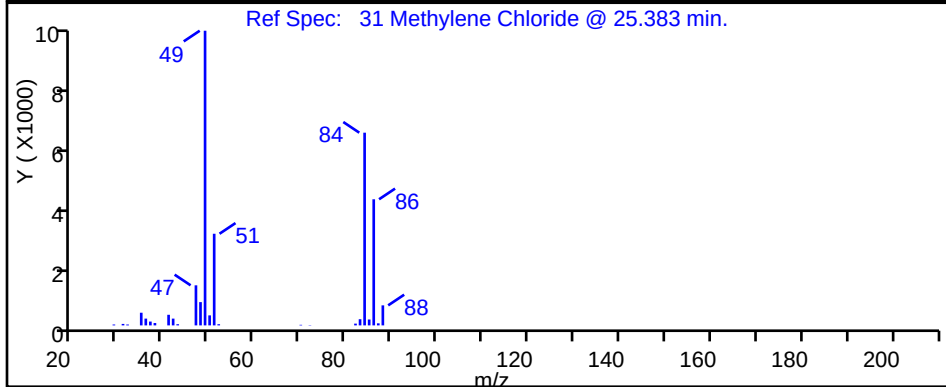
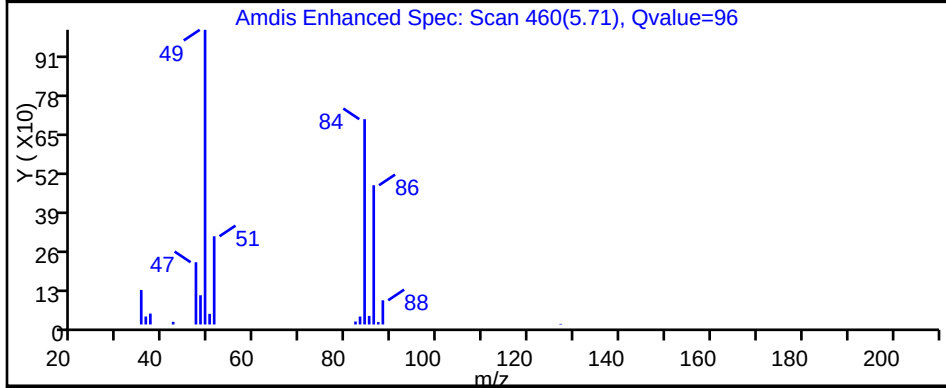
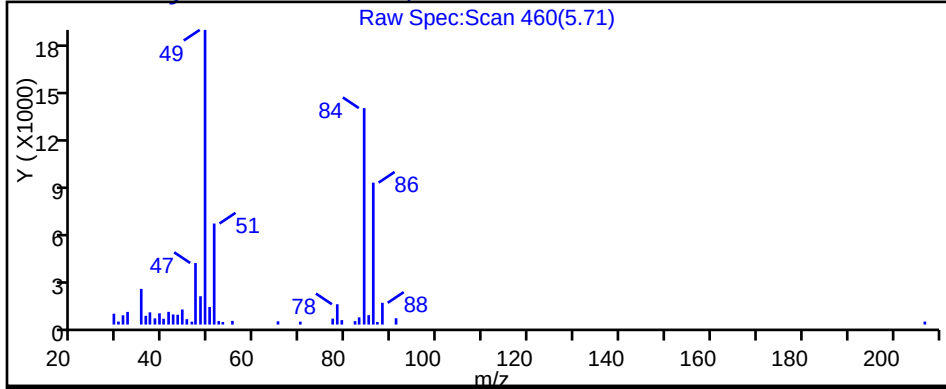
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

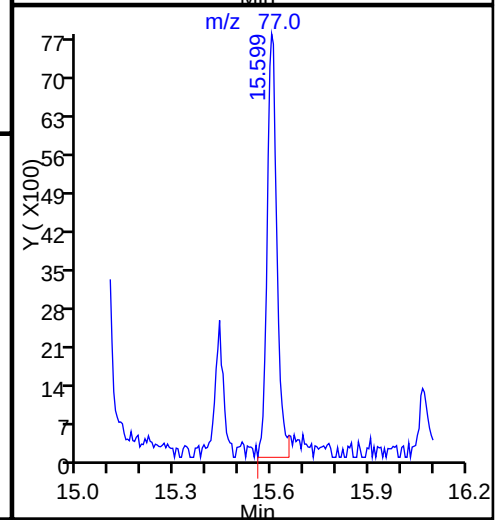
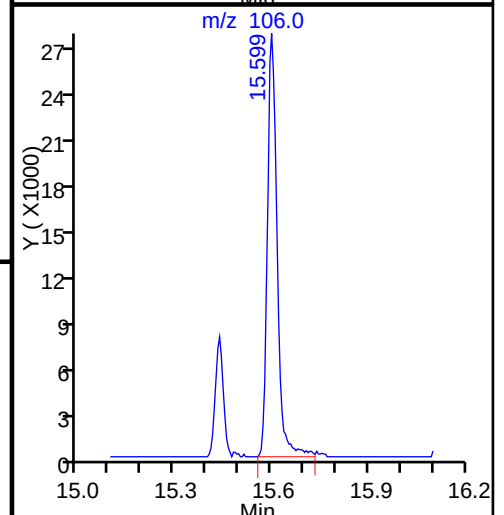
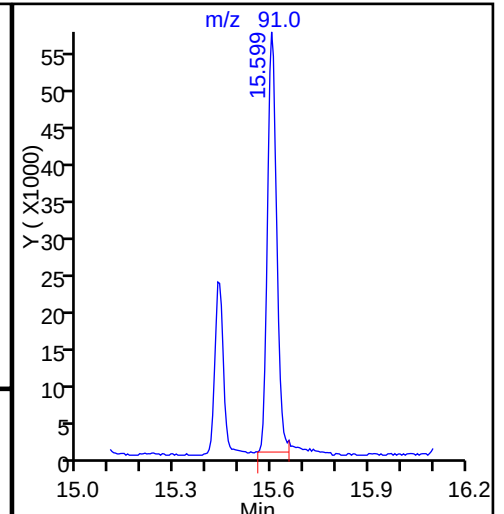
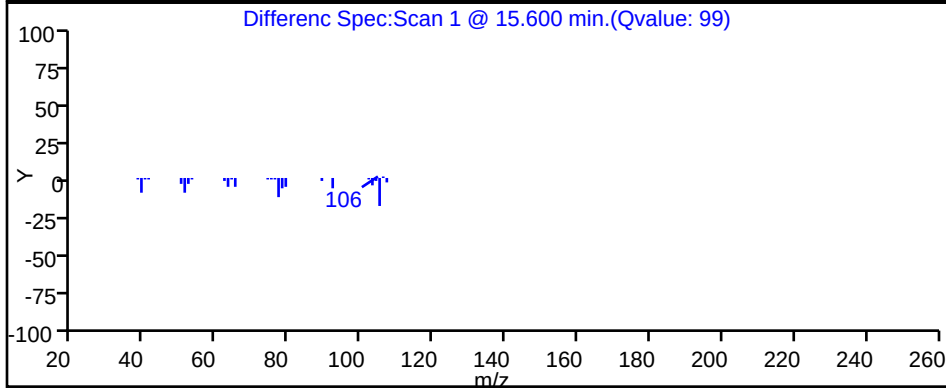
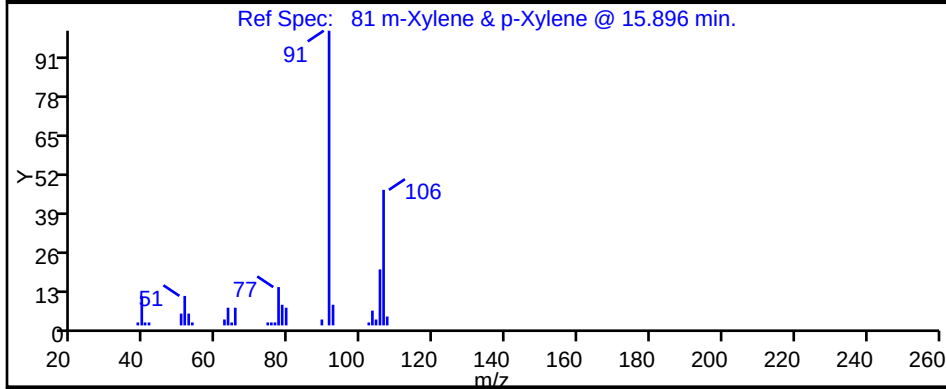
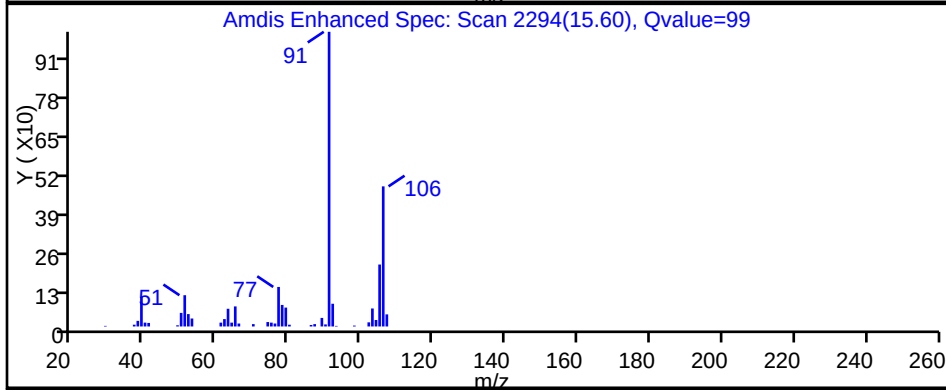
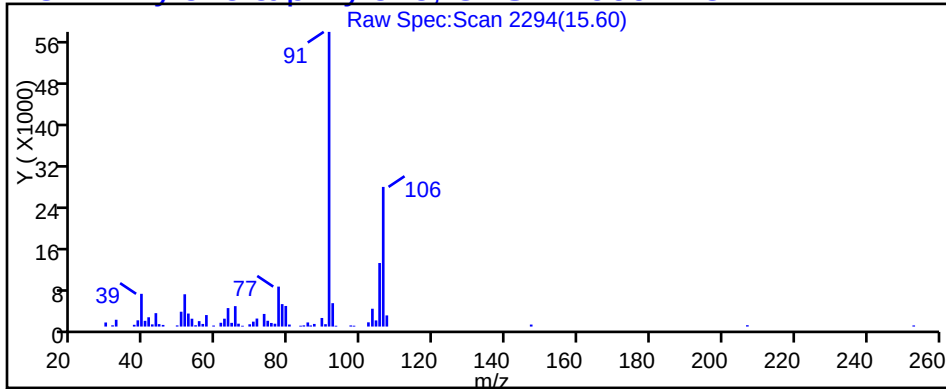
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.4400

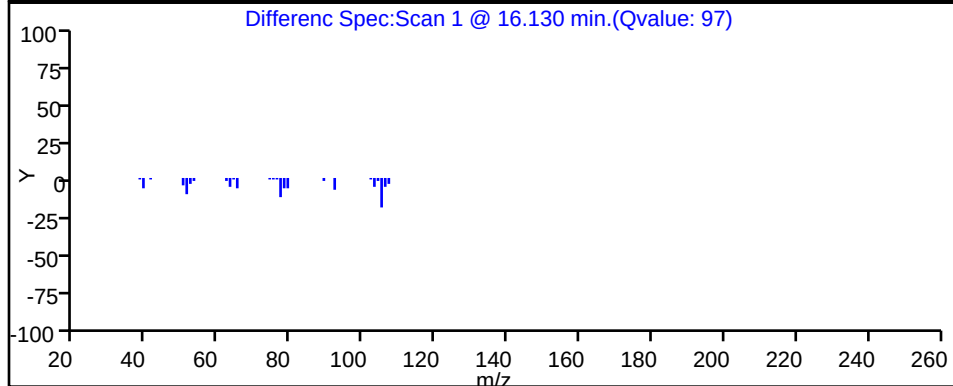
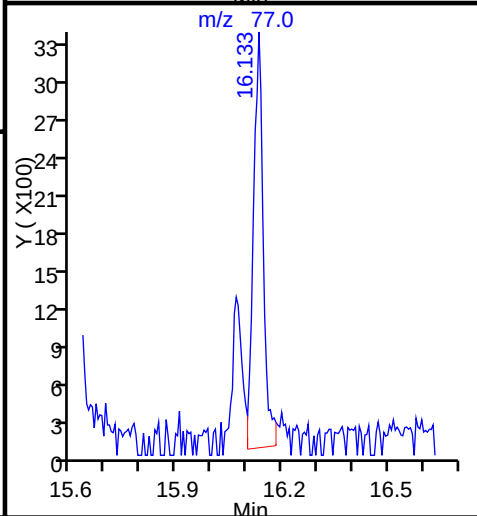
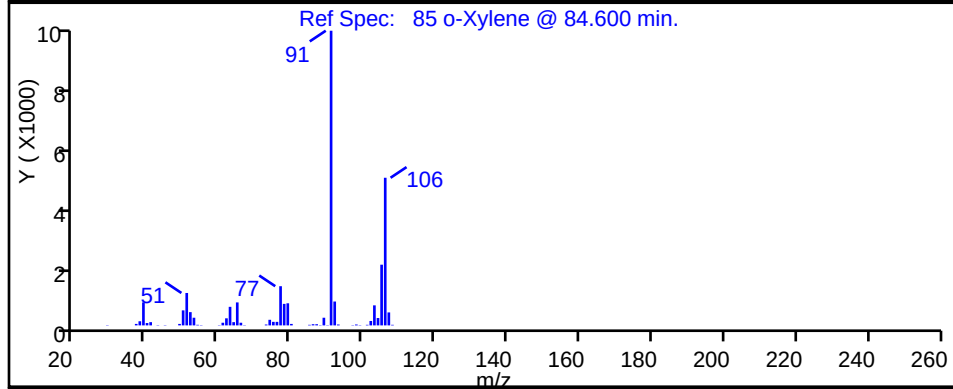
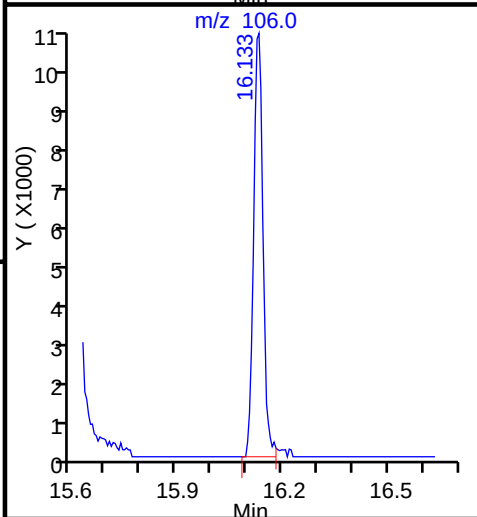
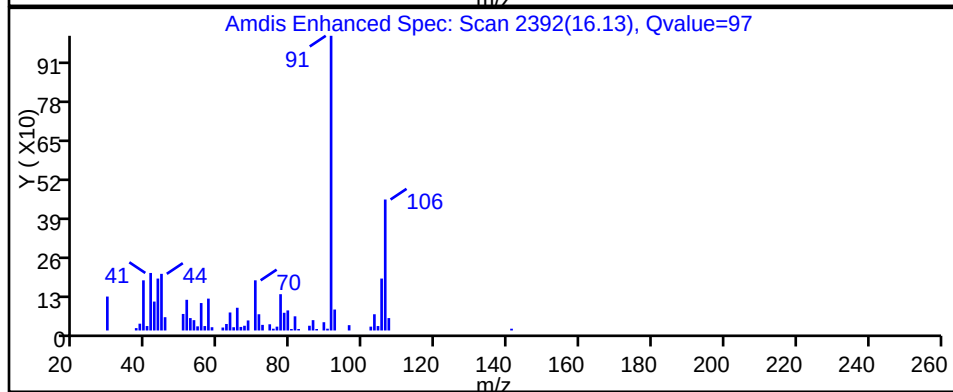
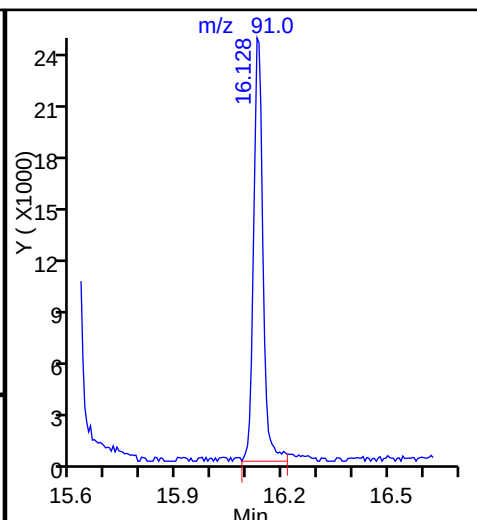
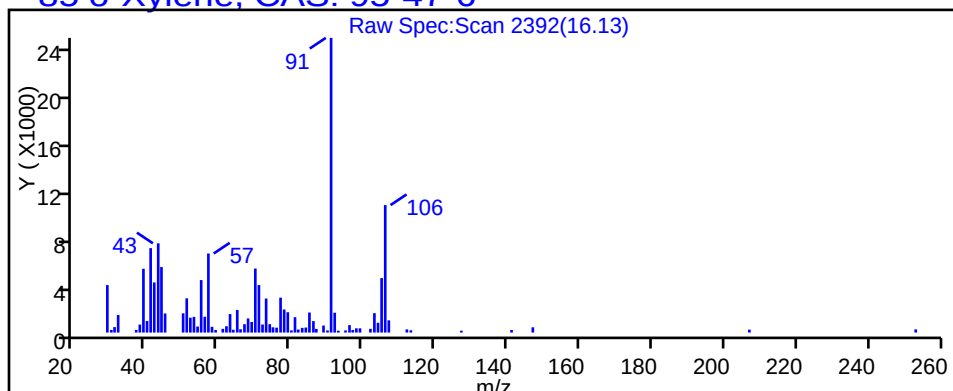
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

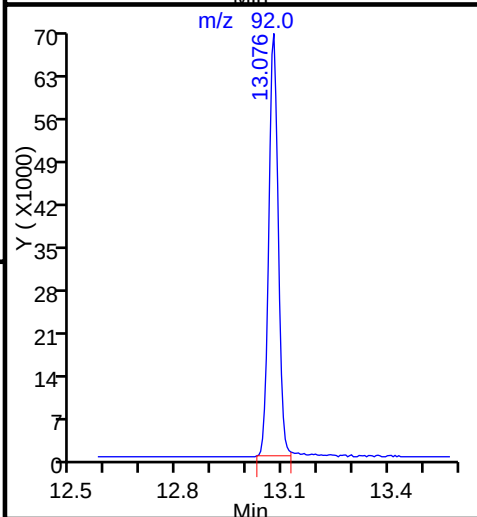
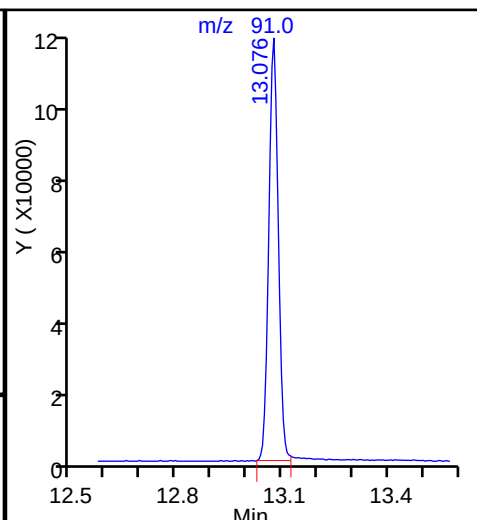
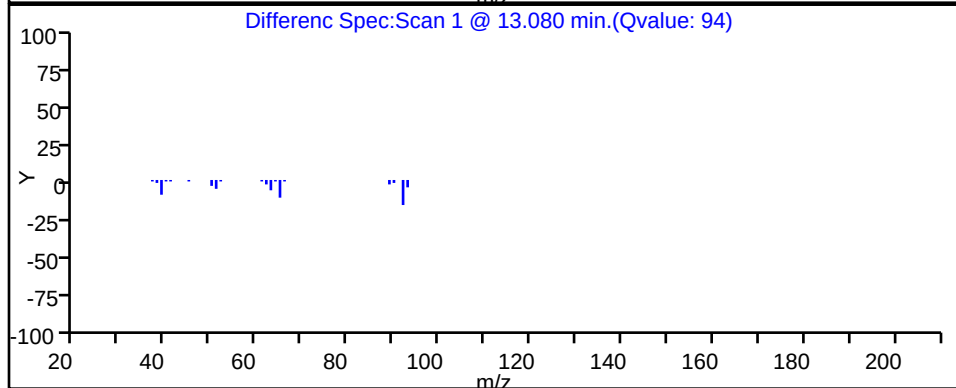
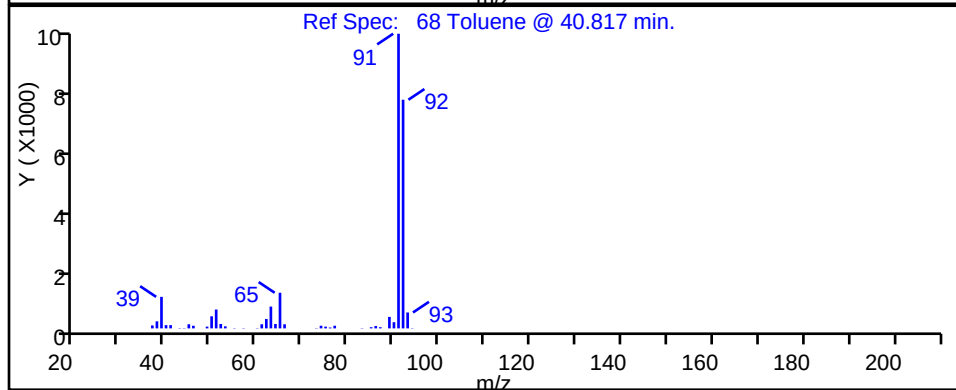
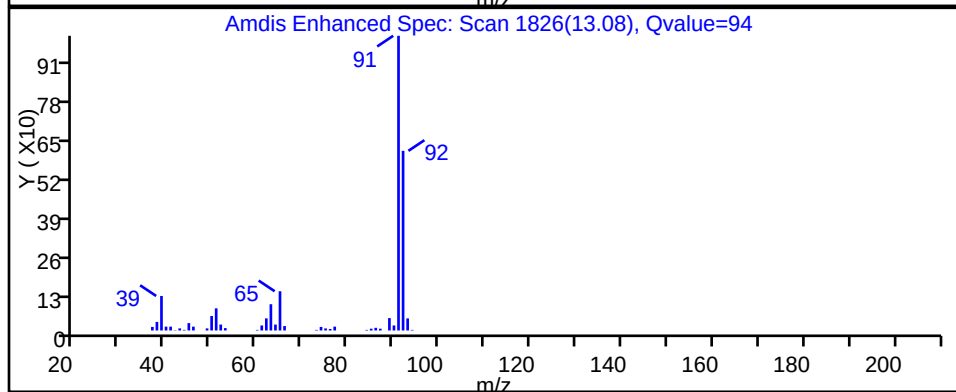
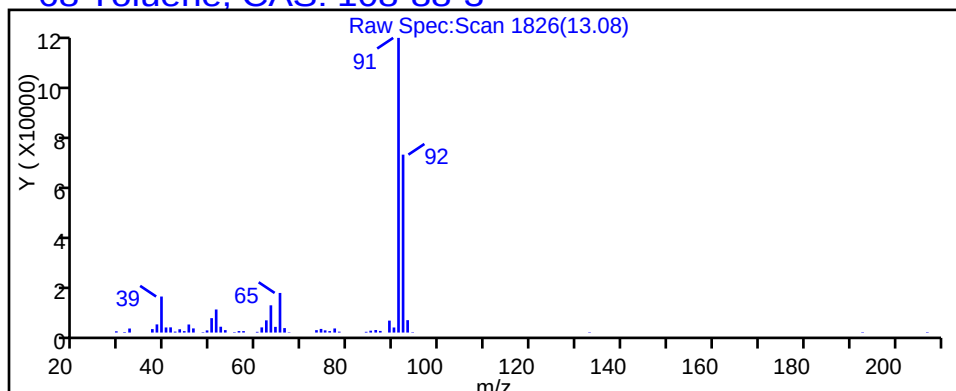
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

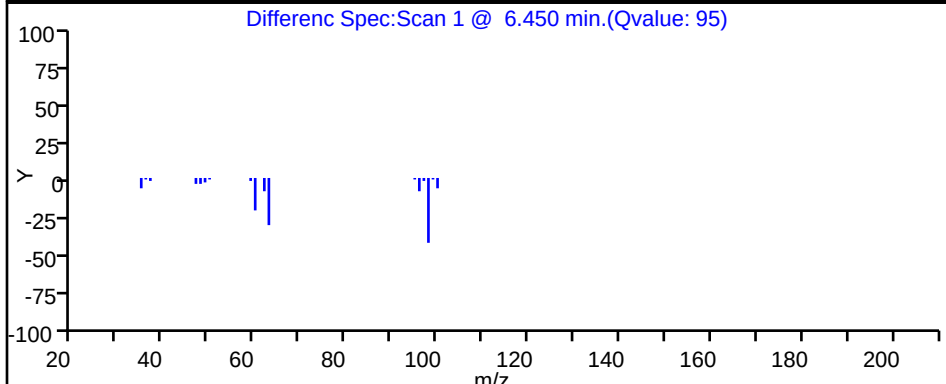
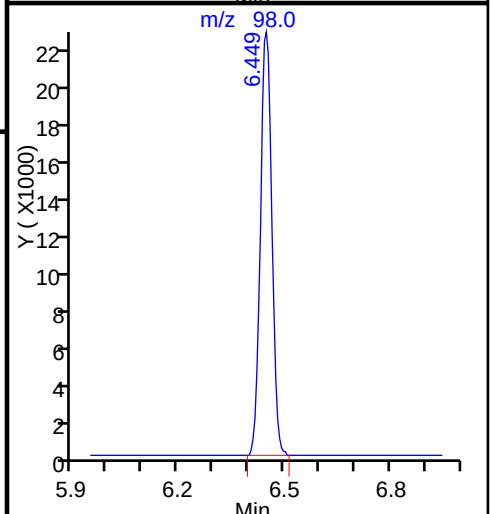
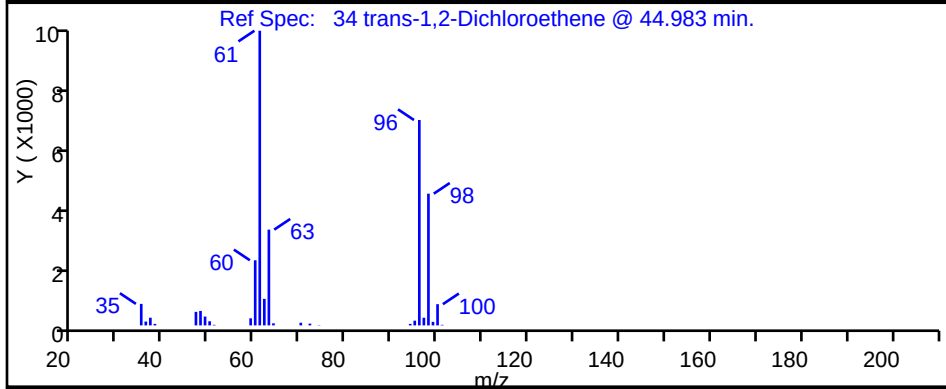
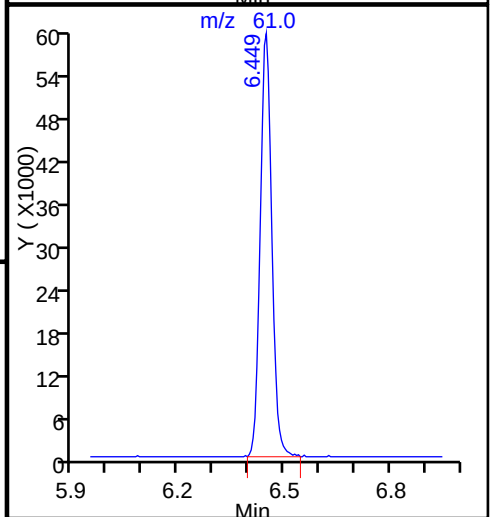
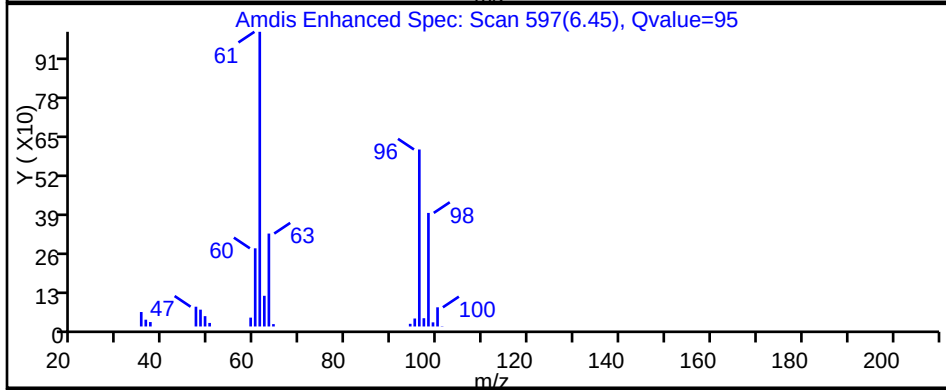
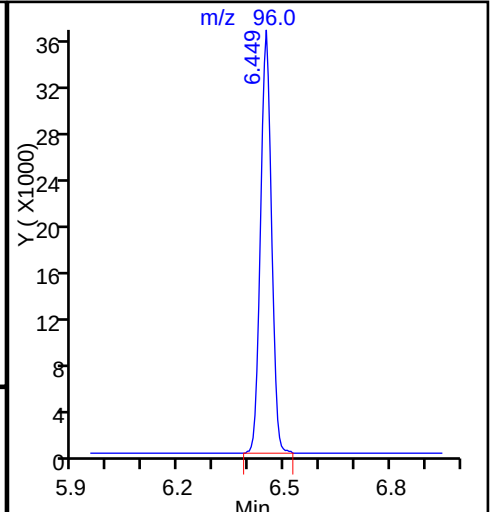
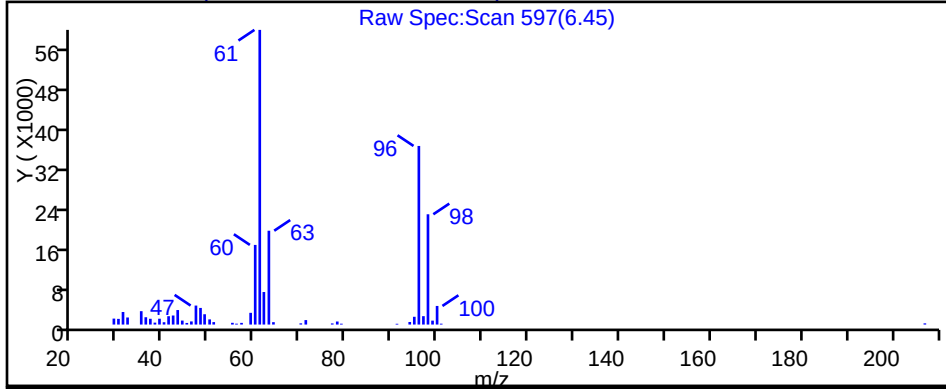
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102.D

Injection Date: 20-Dec-2016 14:13:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 6

Purge Vol: 500.000 mL

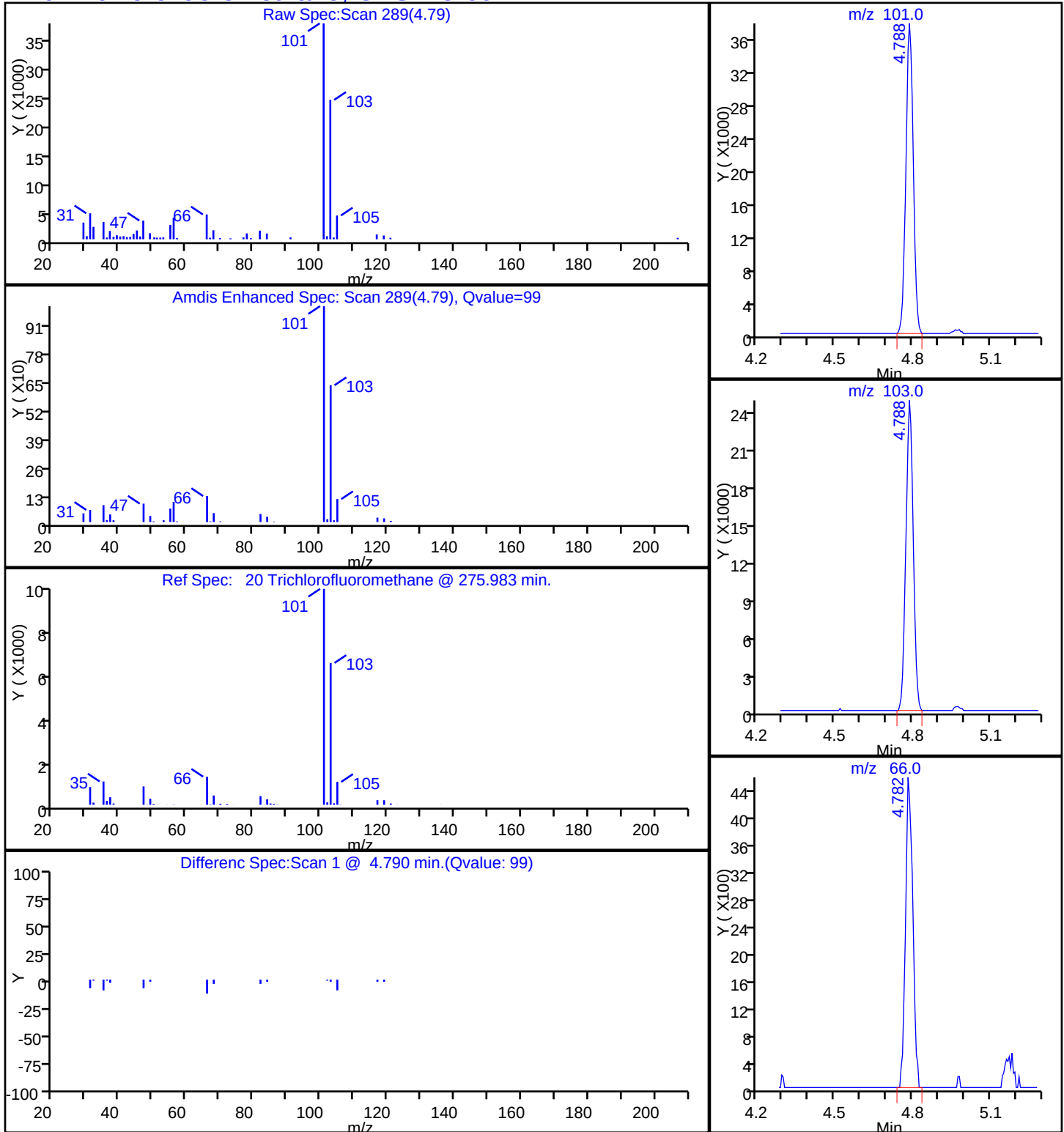
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 DL Lab Sample ID: 140-6565-2 DL
 Matrix: Air Lab File ID: GL20P102DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 100 (mL) Date Analyzed: 12/21/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	260	D	14	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-1 DL Lab Sample ID: 140-6565-2 DL
 Matrix: Air Lab File ID: GL20P102DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:41
 Sample wt/vol: 100 (mL) Date Analyzed: 12/21/2016 02:35
 Soil Aliquot Vol: _____ Dilution Factor: 1.44
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	490	D	27	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102DL.D
 Lims ID: 140-6565-A-2
 Client ID: IA-1
 Sample Type: Client
 Inject. Date: 21-Dec-2016 02:35:30 ALS Bottle#: 2 Worklist Smp#: 23
 Purge Vol: 500.000 mL Dil. Factor: 1.4400
 Sample Info: 140-0003728-023
 Misc. Info.: 140-6565-a-2@1.44
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	97	375191	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	96	1866528	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	87	1871912	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1277484	4.13	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	99	23678	0.0737	
9 Chloromethane	52	3.682	3.682	0.000	100	3508	0.1017	
17 Ethanol	31	4.388	4.383	0.005	96	1357587	36.2	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	10595	0.0340	
31 Methylene Chloride	84	5.693	5.704	-0.011	97	9308	0.1166	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	96	11214	0.1040	
40 Hexane	56	7.392	7.387	0.005	84	4025	0.0451	
44 Chloroform	83	8.066	8.077	-0.011	96	64111	0.2724	
49 Benzene	78	9.635	9.646	-0.011	98	14110	0.0420	
56 Isooctane	57	10.471	10.471	0.000	95	9793	0.0161	
65 4-Methyl-2-pentanone (MIBK	43	12.213	12.186	0.027	93	4300	0.0188	
68 Toluene	91	13.070	13.076	-0.006	92	23765	0.0635	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102DL.D

Injection Date: 21-Dec-2016 02:35:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Worklist Smp#: 23

Client ID: IA-1

Purge Vol: 500.000 mL

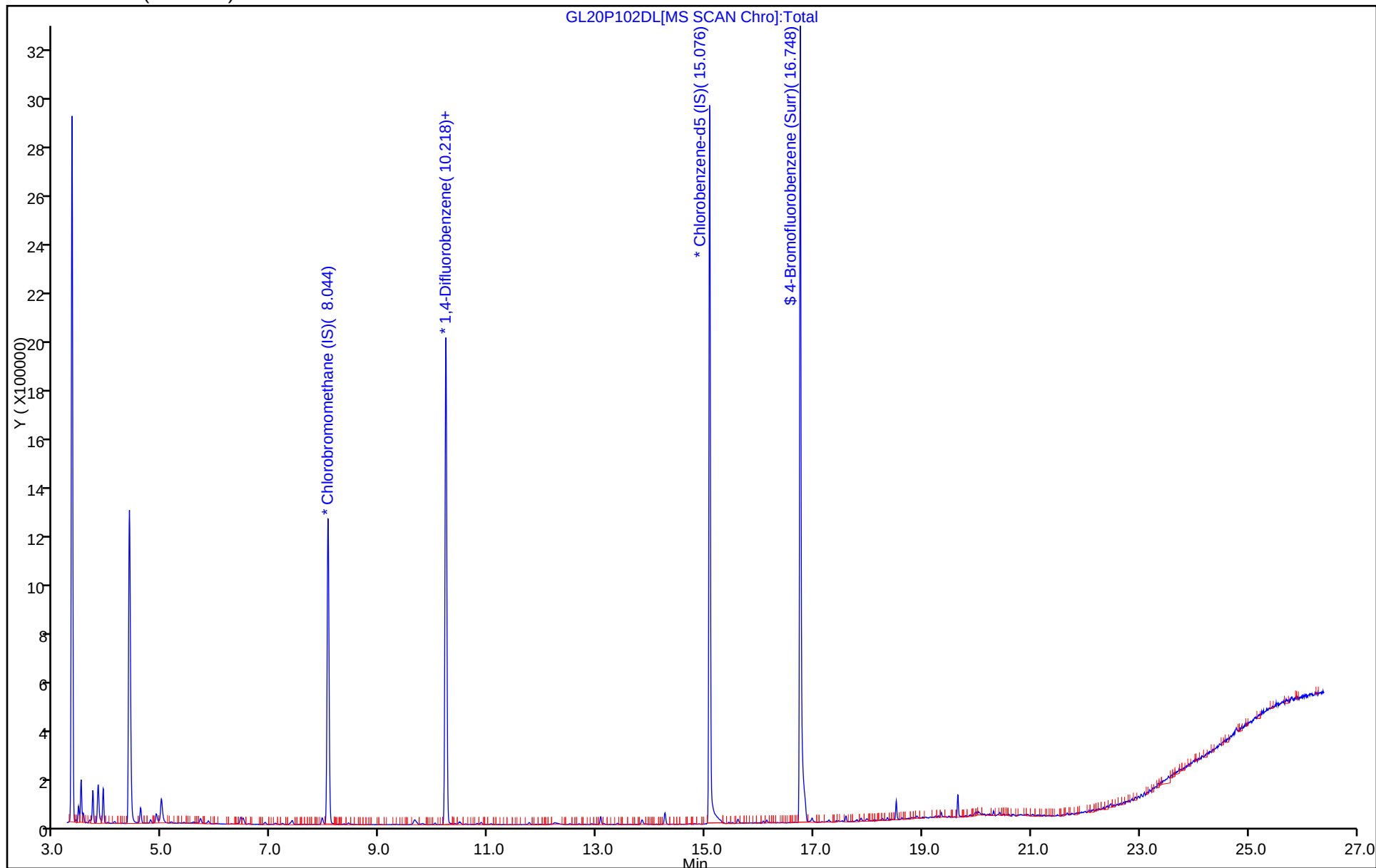
Dil. Factor: 1.4400

ALS Bottle#: 2

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102DL.D
Lims ID: 140-6565-A-2
Client ID: IA-1
Sample Type: Client
Inject. Date: 21-Dec-2016 02:35:30 ALS Bottle#: 2 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.4400
Sample Info: 140-0003728-023
Misc. Info.: 140-6565-a-2@1.44
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.13	103.16

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P102DL.D

Injection Date: 21-Dec-2016 02:35:30

Instrument ID: MG

Lims ID: 140-6565-A-2

Lab Sample ID: 140-6565-2

Client ID: IA-1

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 23

Purge Vol: 500.000 mL

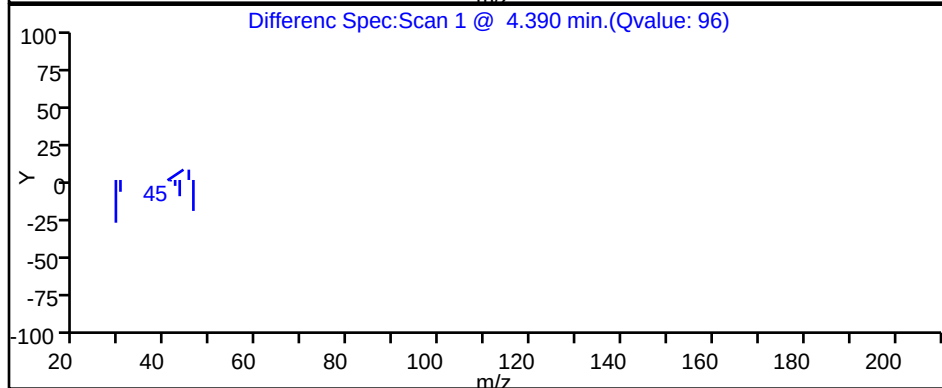
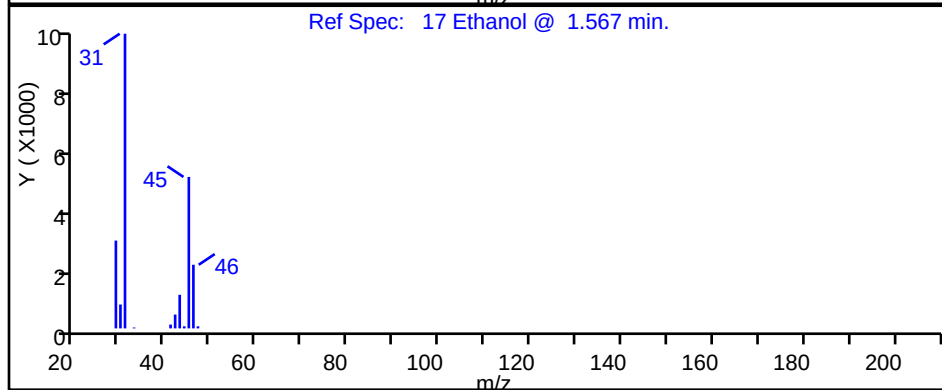
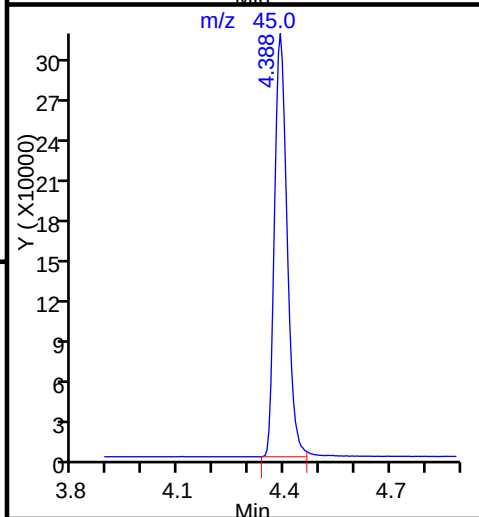
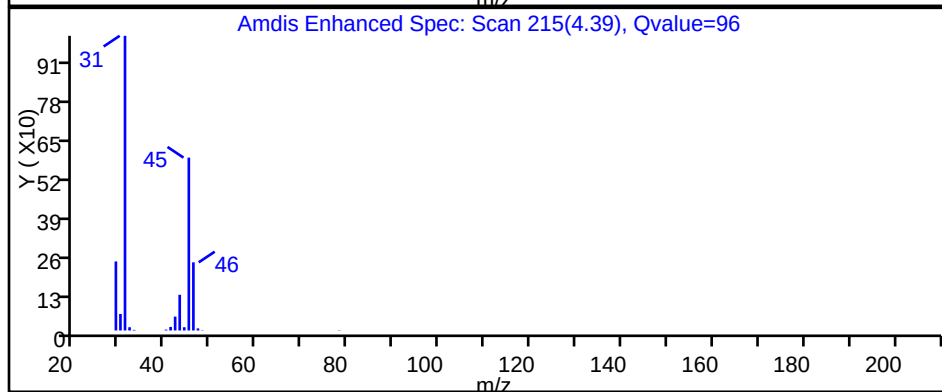
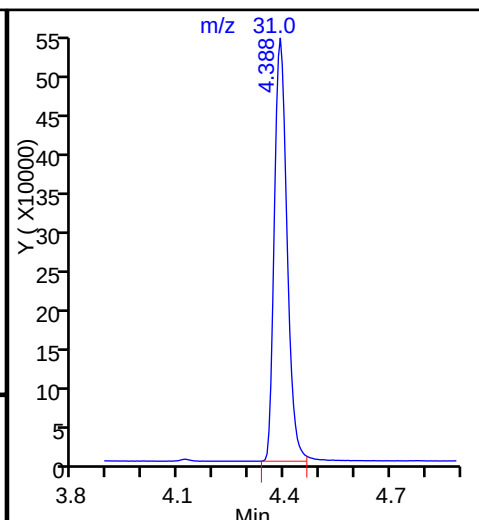
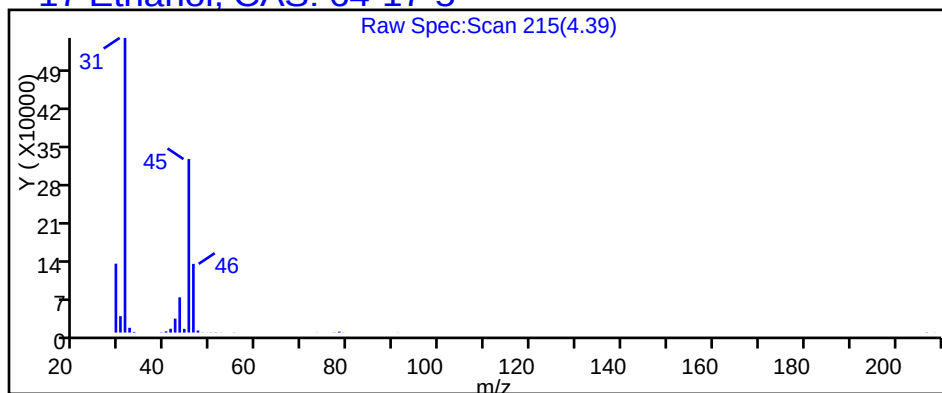
Dil. Factor: 1.4400

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 Lab Sample ID: 140-6565-3
 Matrix: Air Lab File ID: GL20P103.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 14:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.20	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.20	
75-34-3	1,1-Dichloroethane	98.96	0.50		0.20	
75-35-4	1,1-Dichloroethene	96.94	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.20	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.9		0.20	
106-93-4	1,2-Dibromoethane	187.87	ND		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.20	
107-06-2	1,2-Dichloroethane	98.96	ND		0.20	
78-87-5	1,2-Dichloropropane	112.99	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.47		0.20	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.20	
106-46-7	1,4-Dichlorobenzene	147.00	0.48		0.20	
123-91-1	1,4-Dioxane	88.11	ND		0.50	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.50	
78-93-3	2-Butanone	72.11	ND		0.80	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.56		0.50	
71-43-2	Benzene	78.11	0.28		0.20	
100-44-7	Benzyl chloride	126.58	ND		0.40	
75-27-4	Bromodichloromethane	163.83	ND		0.20	
75-25-2	Bromoform	252.75	ND		0.20	
74-83-9	Bromomethane	94.94	ND		0.20	
56-23-5	Carbon tetrachloride	153.81	ND		0.10	
108-90-7	Chlorobenzene	112.56	ND		0.20	
75-00-3	Chloroethane	64.52	ND		0.20	
67-66-3	Chloroform	119.38	0.23		0.20	
74-87-3	Chloromethane	50.49	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	96.94	32		0.20	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.20	
110-82-7	Cyclohexane	84.16	ND		0.50	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 Lab Sample ID: 140-6565-3
 Matrix: Air Lab File ID: GL20P103.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 14:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.20	
75-71-8	Dichlorodifluoromethane	120.91	0.54		0.20	
64-17-5	Ethanol	46.07	11		5.0	
100-41-4	Ethylbenzene	106.17	0.95		0.20	
87-68-3	Hexachlorobutadiene	260.76	ND		0.20	
110-54-3	Hexane	86.17	0.56		0.50	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	
75-09-2	Methylene Chloride	84.93	0.50		0.50	
179601-23-1	m-Xylene & p-Xylene	106.17	4.3		0.20	
95-47-6	o-Xylene	106.17	1.6		0.20	
100-42-5	Styrene	104.15	ND		0.20	
75-65-0	t-Butyl alcohol	74.12	ND		0.80	
127-18-4	Tetrachloroethene	165.83	0.75		0.20	
108-88-3	Toluene	92.14	3.1		0.30	
156-60-5	trans-1,2-Dichloroethene	96.94	62	E	0.20	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.20	
79-01-6	Trichloroethene	131.39	6.2		0.10	
75-69-4	Trichlorofluoromethane	137.37	0.35		0.20	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 Lab Sample ID: 140-6565-3
 Matrix: Air Lab File ID: GL20P103.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 14:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.1	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.4	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.1	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		1.5	
75-34-3	1,1-Dichloroethane	98.96	2.0		0.81	
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.5	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.5		0.98	
106-93-4	1,2-Dibromoethane	187.87	ND		1.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.2	
107-06-2	1,2-Dichloroethane	98.96	ND		0.81	
78-87-5	1,2-Dichloropropane	112.99	ND		0.92	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		1.4	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.3		0.98	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.2	
106-46-7	1,4-Dichlorobenzene	147.00	2.9		1.2	
123-91-1	1,4-Dioxane	88.11	ND		1.8	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		2.3	
78-93-3	2-Butanone	72.11	ND		2.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.3		2.0	
71-43-2	Benzene	78.11	0.89		0.64	
100-44-7	Benzyl chloride	126.58	ND		2.1	
75-27-4	Bromodichloromethane	163.83	ND		1.3	
75-25-2	Bromoform	252.75	ND		2.1	
74-83-9	Bromomethane	94.94	ND		0.78	
56-23-5	Carbon tetrachloride	153.81	ND		0.63	
108-90-7	Chlorobenzene	112.56	ND		0.92	
75-00-3	Chloroethane	64.52	ND		0.53	
67-66-3	Chloroform	119.38	1.1		0.98	
74-87-3	Chloromethane	50.49	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	96.94	130		0.79	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.91	
110-82-7	Cyclohexane	84.16	ND		1.7	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 Lab Sample ID: 140-6565-3
 Matrix: Air Lab File ID: GL20P103.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 14:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		1.7	
75-71-8	Dichlorodifluoromethane	120.91	2.7		0.99	
64-17-5	Ethanol	46.07	20		9.4	
100-41-4	Ethylbenzene	106.17	4.1		0.87	
87-68-3	Hexachlorobutadiene	260.76	ND		2.1	
110-54-3	Hexane	86.17	2.0		1.8	
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	
75-09-2	Methylene Chloride	84.93	1.7		1.7	
179601-23-1	m-Xylene & p-Xylene	106.17	19		0.87	
95-47-6	o-Xylene	106.17	6.9		0.87	
100-42-5	Styrene	104.15	ND		0.85	
75-65-0	t-Butyl alcohol	74.12	ND		2.4	
127-18-4	Tetrachloroethene	165.83	5.1		1.4	
108-88-3	Toluene	92.14	12		1.1	
156-60-5	trans-1,2-Dichloroethene	96.94	250	E	0.79	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.91	
79-01-6	Trichloroethene	131.39	33		0.54	
75-69-4	Trichlorofluoromethane	137.37	1.9		1.1	
75-01-4	Vinyl chloride	62.50	ND		0.26	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D
 Lims ID: 140-6565-A-3
 Client ID: SSV-2
 Sample Type: Client
 Inject. Date: 20-Dec-2016 14:55:30 ALS Bottle#: 3 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-007
 Misc. Info.: 140-6565-a-3
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 15:43:14 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 15:43:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	351318	4.00	
* 2 1,4-Difluorobenzene	114	10.223	10.228	-0.005	95	1651371	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.081	15.082	-0.001	87	1709103	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	93	1153385	4.08	
8 Dichlorodifluoromethane	85	3.536	3.531	0.005	99	65207	0.2169	
9 Chloromethane	52	3.682	3.682	0.000	100	3785	0.1172	
16 Chloroethane	64	4.291	4.286	0.005	96	1737	0.0308	
17 Ethanol	31	4.383	4.383	0.000	97	149037	4.25	
20 Trichlorofluoromethane	101	4.782	4.777	0.005	100	40359	0.1385	
29 2-Methyl-2-propanol	59	5.521	5.499	0.022	95	23818	0.1809	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.564	0.005	95	5489	0.0298	
31 Methylene Chloride	84	5.704	5.704	0.000	98	14877	0.1991	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	98	2500659	24.8	E
37 1,1-Dichloroethane	63	6.831	6.826	0.005	100	37905	0.1999	
39 2-Butanone (MEK)	72	7.349	7.338	0.011	98	12280	0.2952	
40 Hexane	56	7.392	7.387	0.005	89	18558	0.2222	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	97	1326468	12.9	
44 Chloroform	83	8.077	8.077	0.000	93	20202	0.0917	
47 1,1,1-Trichloroethane	97	9.064	9.058	0.006	35	3454	0.0144	
49 Benzene	78	9.646	9.646	0.000	98	33200	0.1118	
50 Cyclohexane	69	9.657	9.651	0.006	90	5273	0.0963	
52 Carbon tetrachloride	117	9.678	9.678	0.000	95	7143	0.0269	
56 Isooctane	57	10.471	10.471	0.000	78	32449	0.0602	
59 Trichloroethene	130	10.956	10.956	0.000	96	426684	2.47	
65 4-Methyl-2-pentanone (MIBK	43	12.191	12.186	0.005	98	45066	0.2229	
68 Toluene	91	13.070	13.076	-0.006	93	423848	1.24	
76 Tetrachloroethene	129	14.240	14.246	-0.006	94	44892	0.2994	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	169477	0.3783	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	588695	1.70	
84 Styrene	104	16.068	16.074	-0.006	46	9266	0.0378	
85 o-Xylene	91	16.128	16.133	-0.005	98	231522	0.6359	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	44966	0.1892	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	319946	0.7728	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	94	56061	0.1918	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Worklist Smp#: 7

Client ID: SSV-2

Purge Vol: 500.000 mL

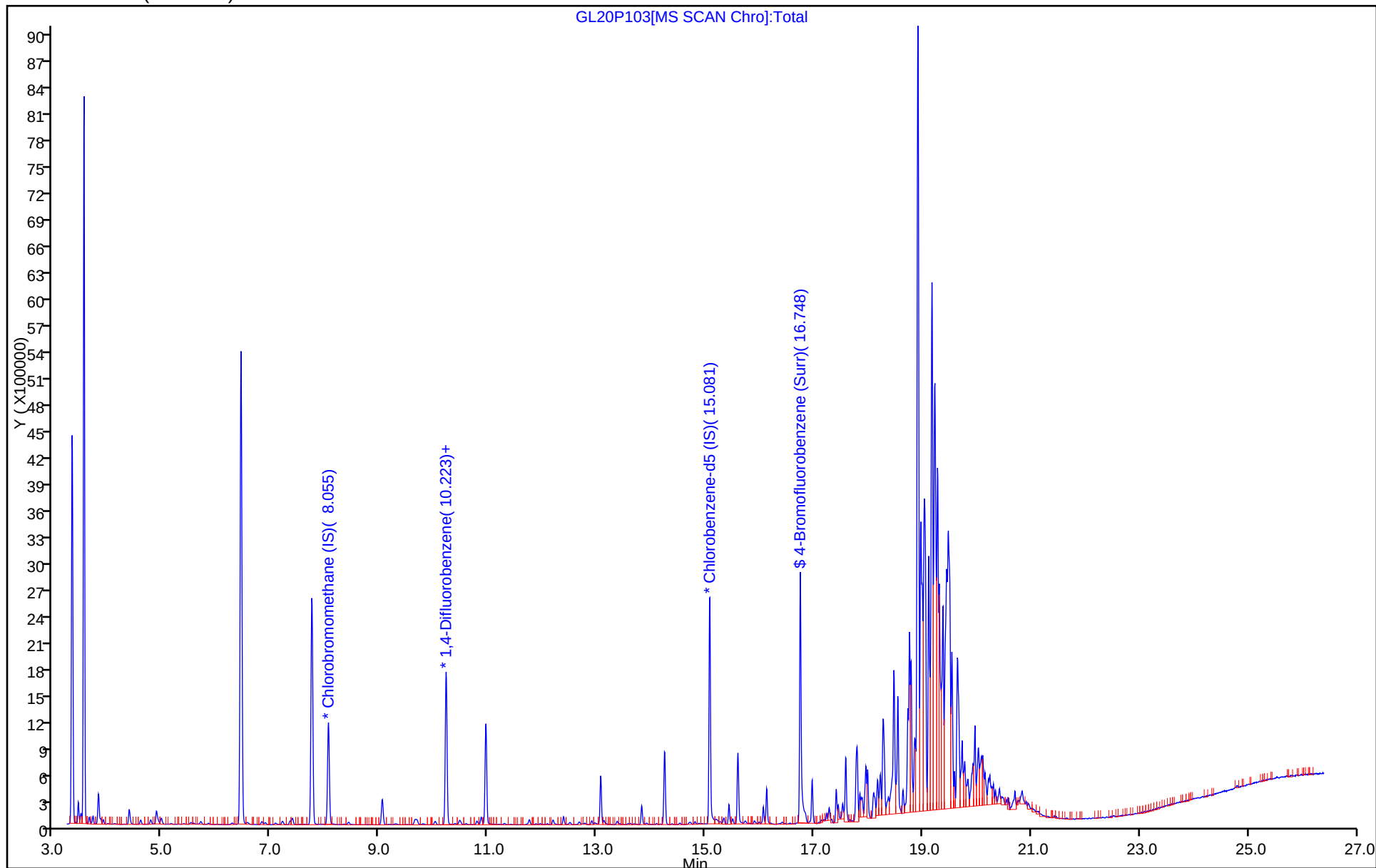
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D
Lims ID: 140-6565-A-3
Client ID: SSV-2
Sample Type: Client
Inject. Date: 20-Dec-2016 14:55:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-007
Misc. Info.: 140-6565-a-3
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 15:43:14 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 15:43:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.08	102.01

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

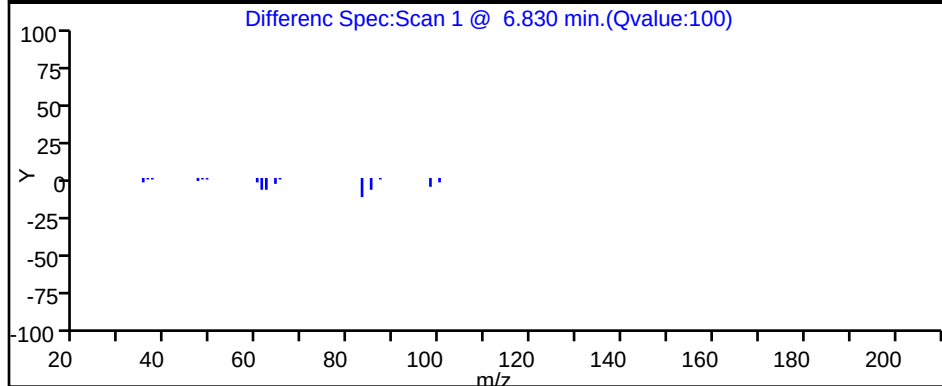
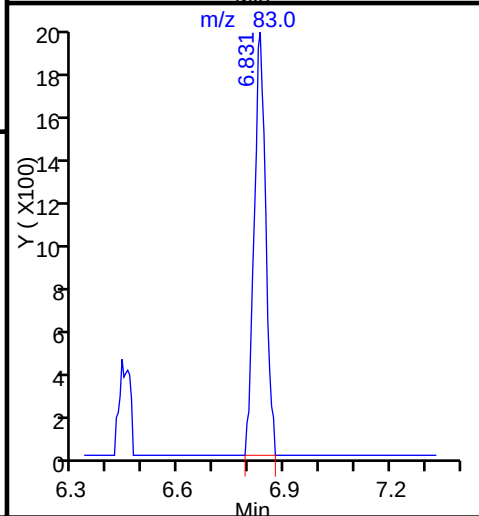
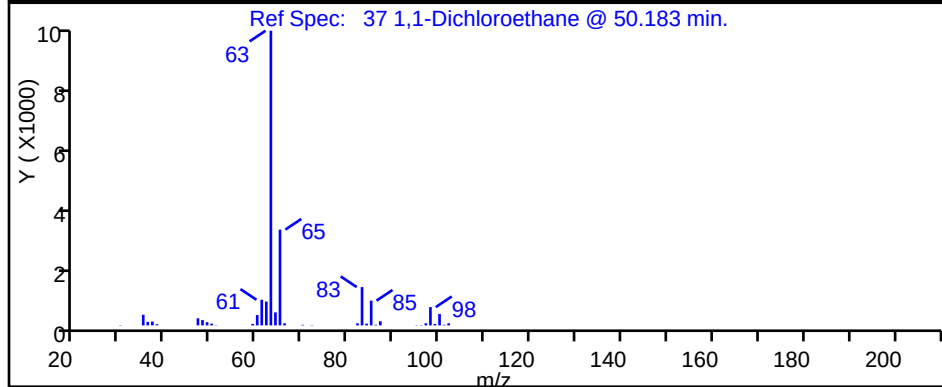
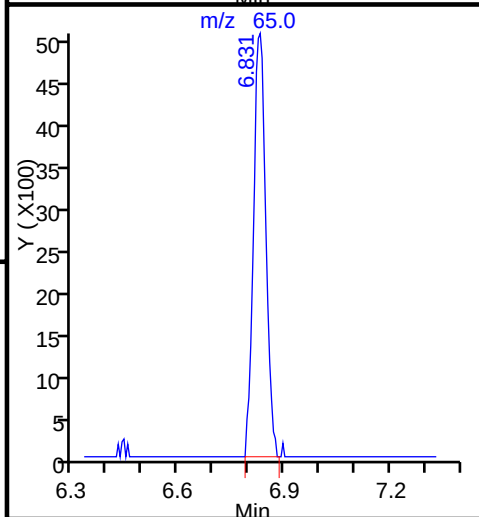
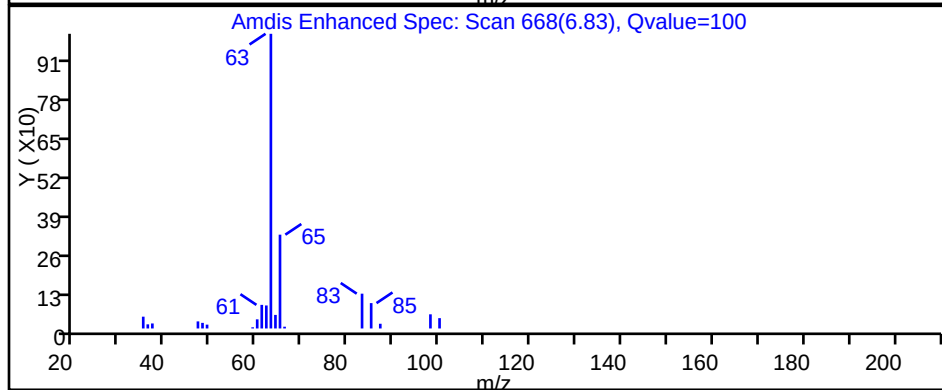
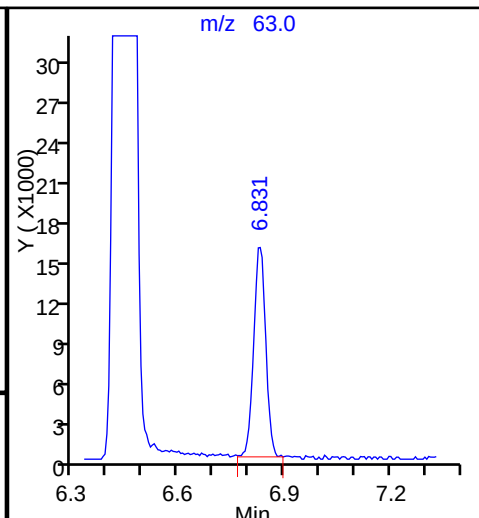
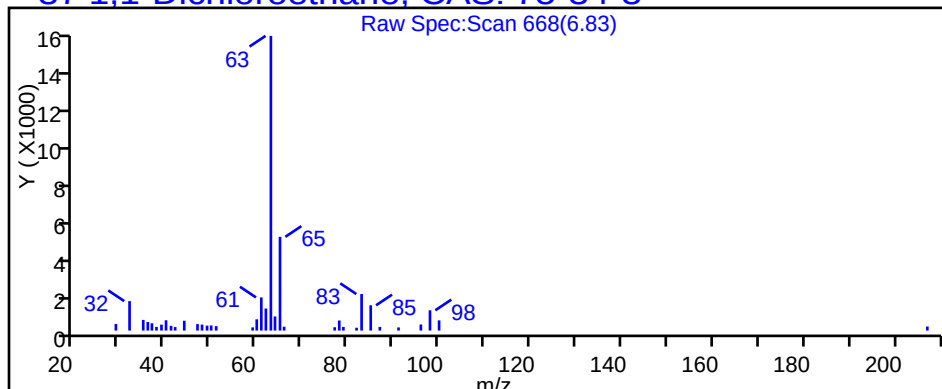
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

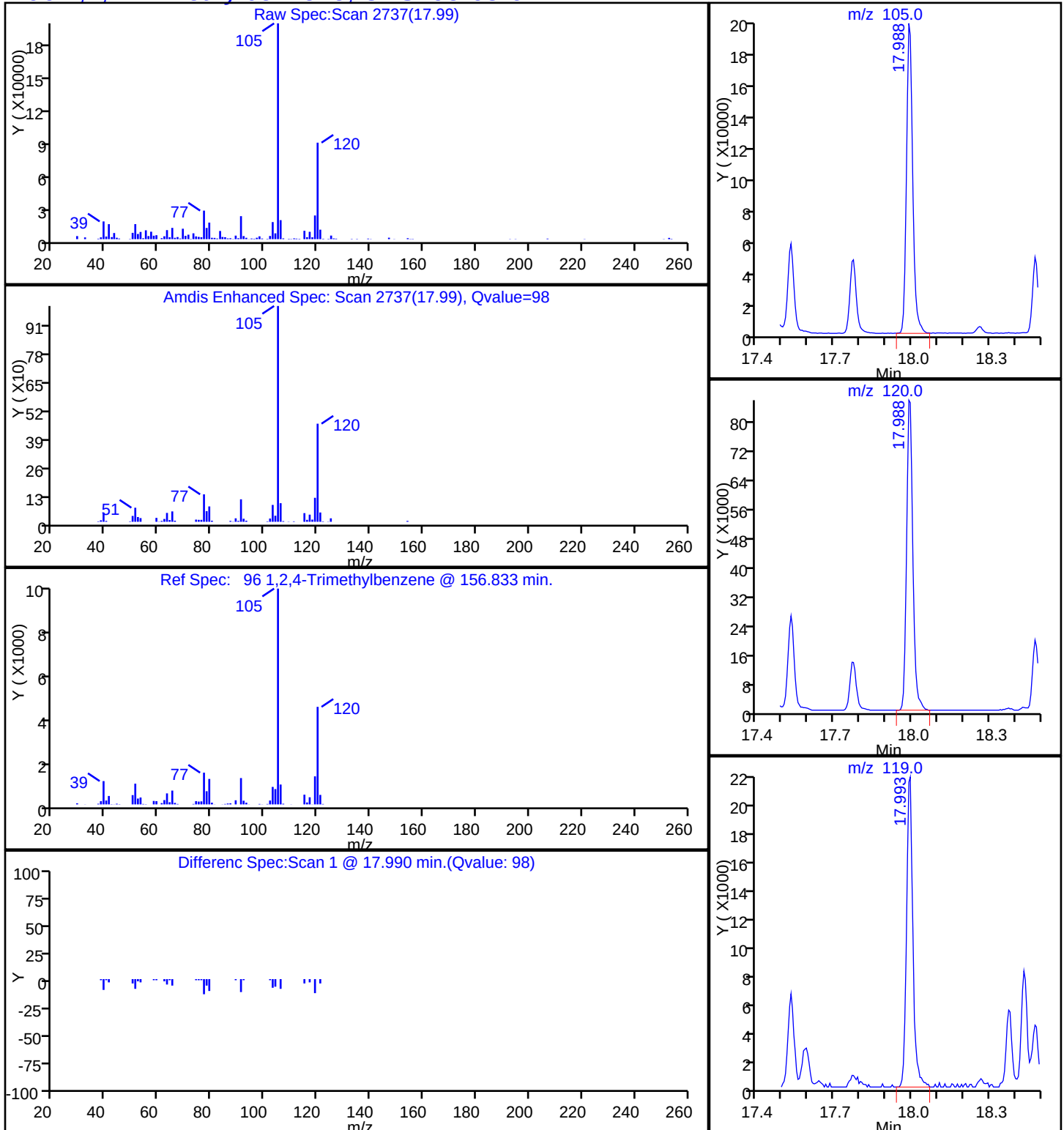
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

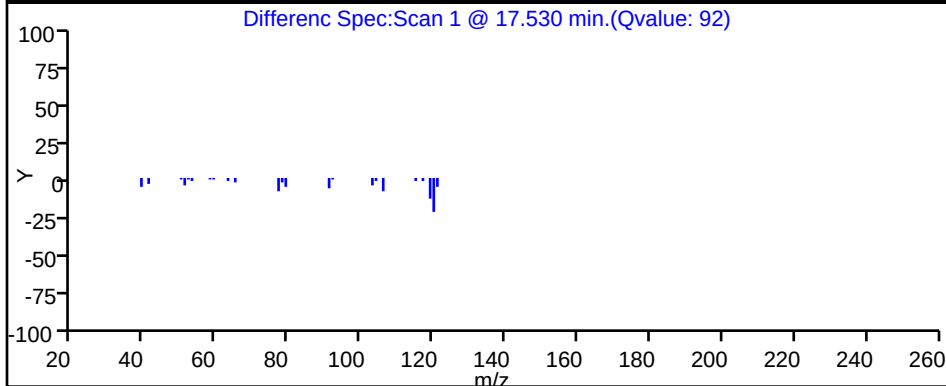
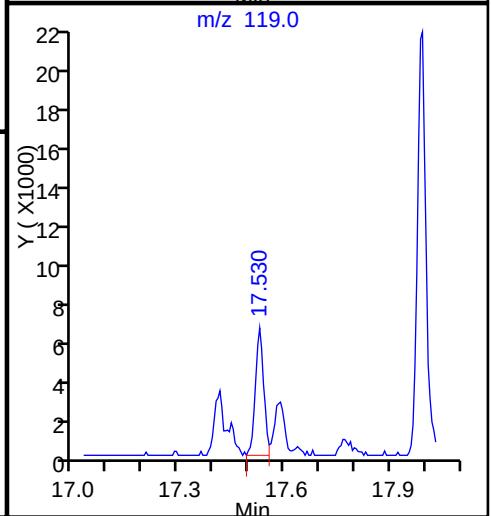
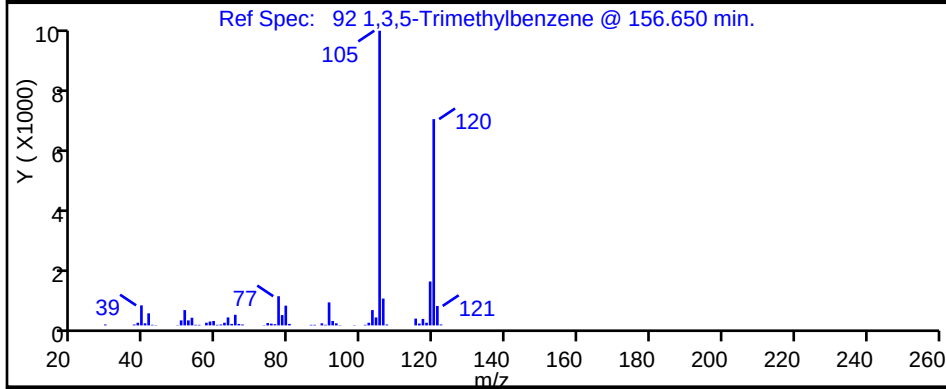
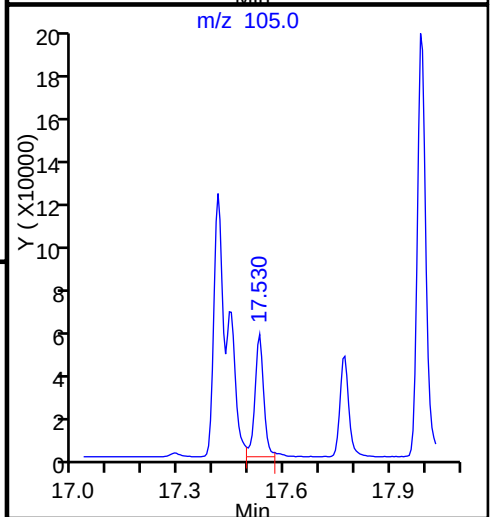
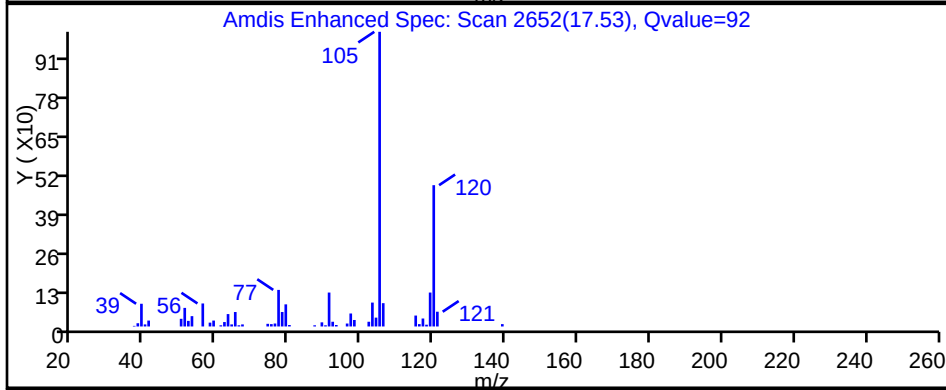
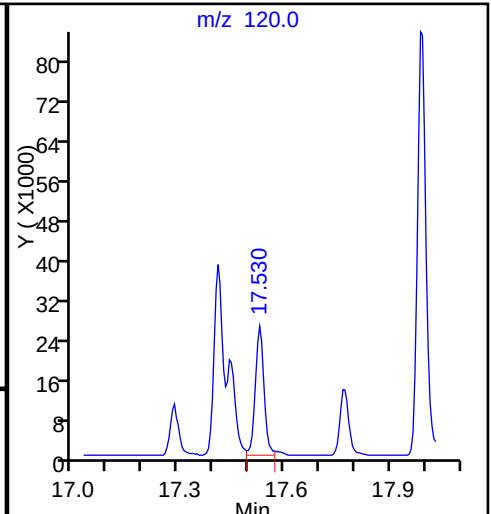
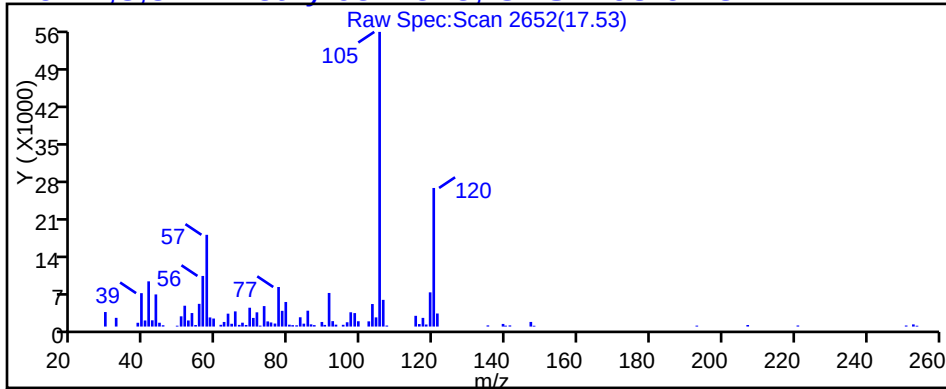
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

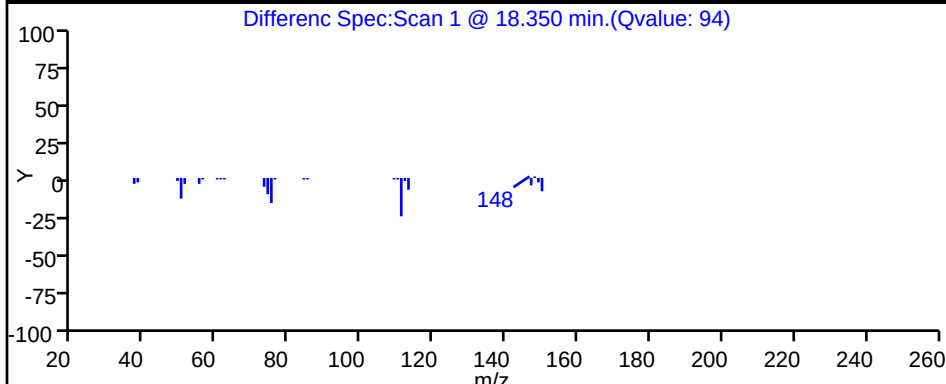
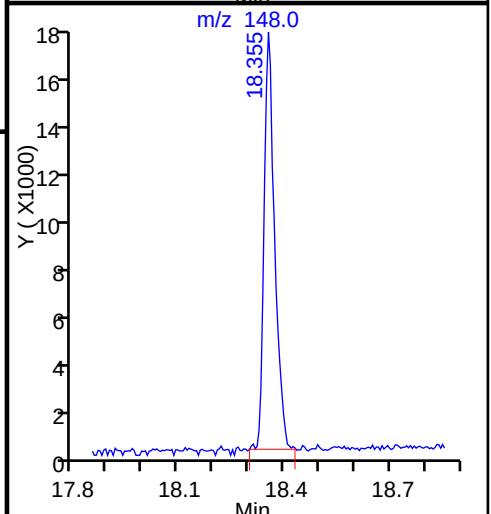
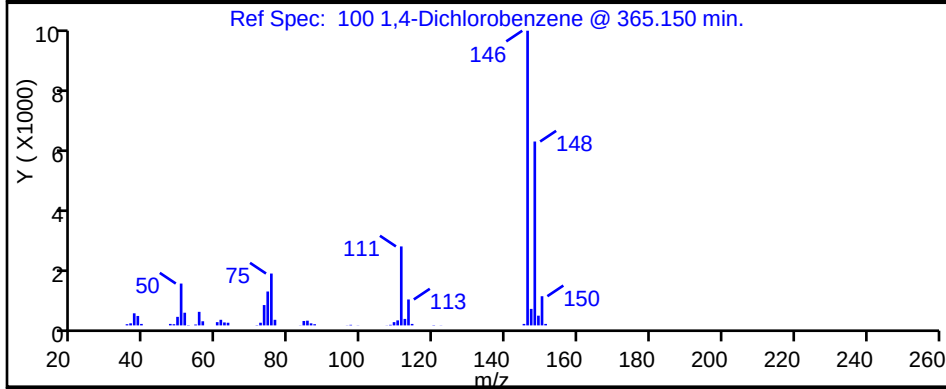
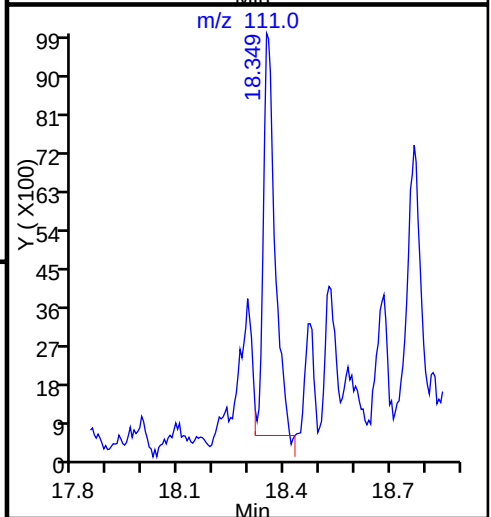
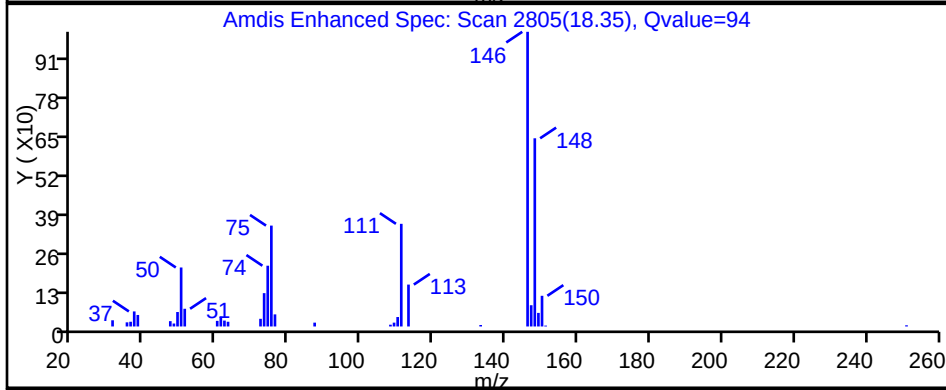
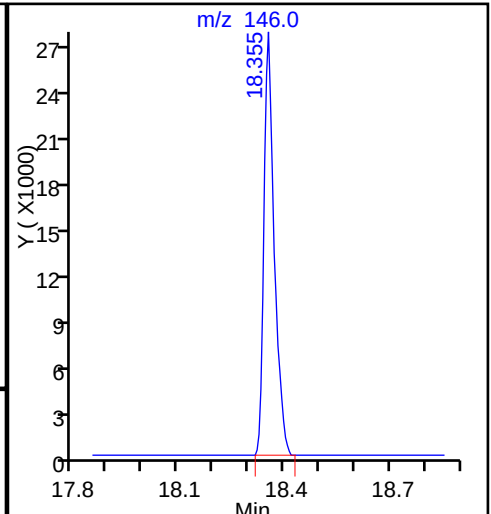
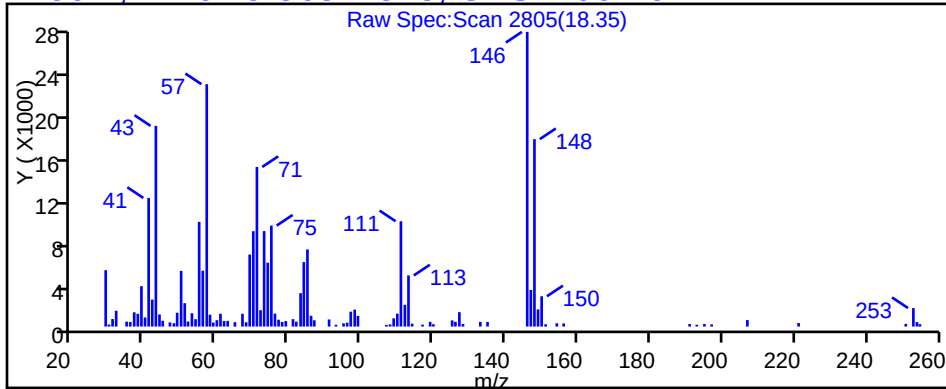
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

100 1,4-Dichlorobenzene, CAS: 106-46-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

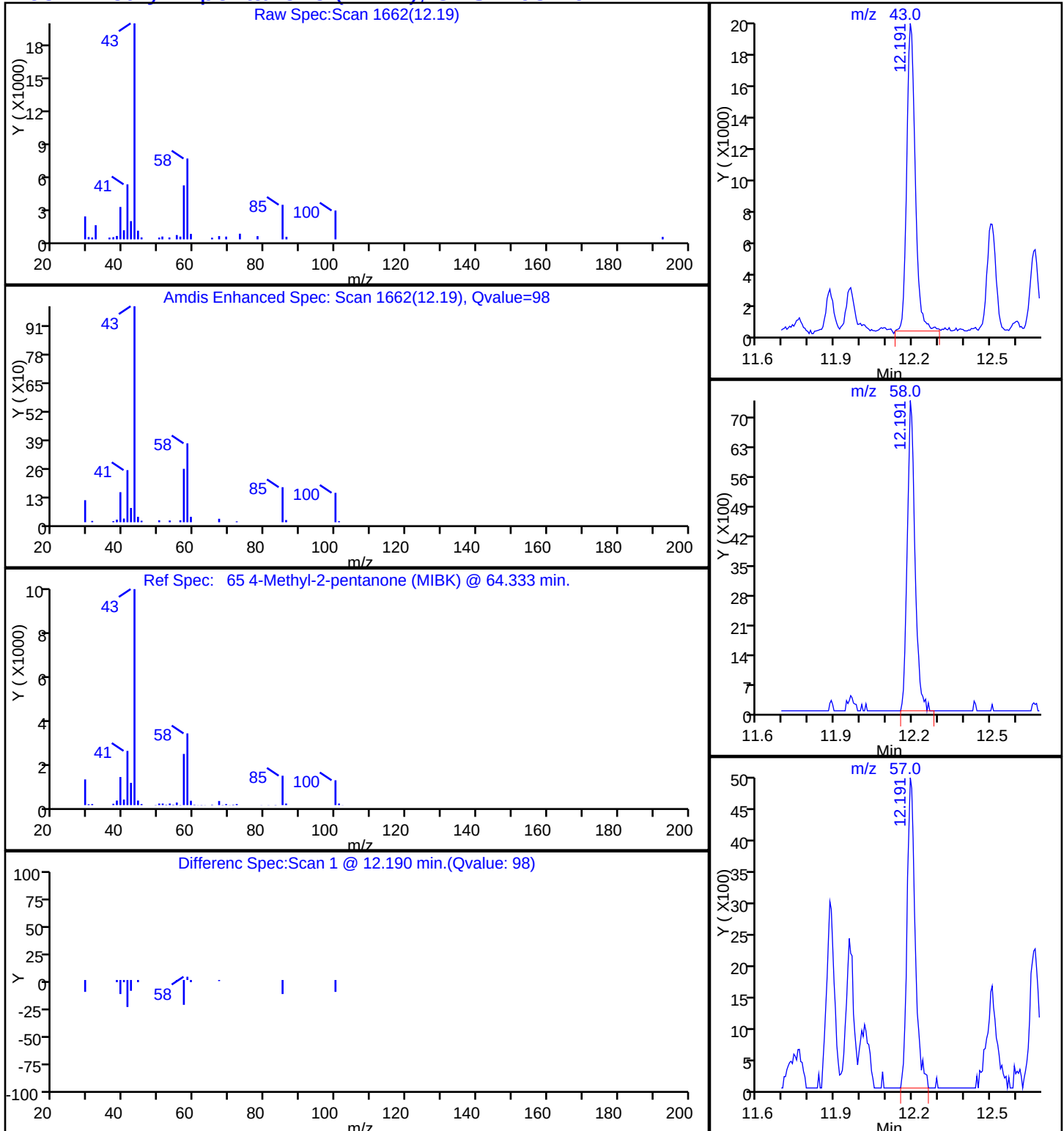
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

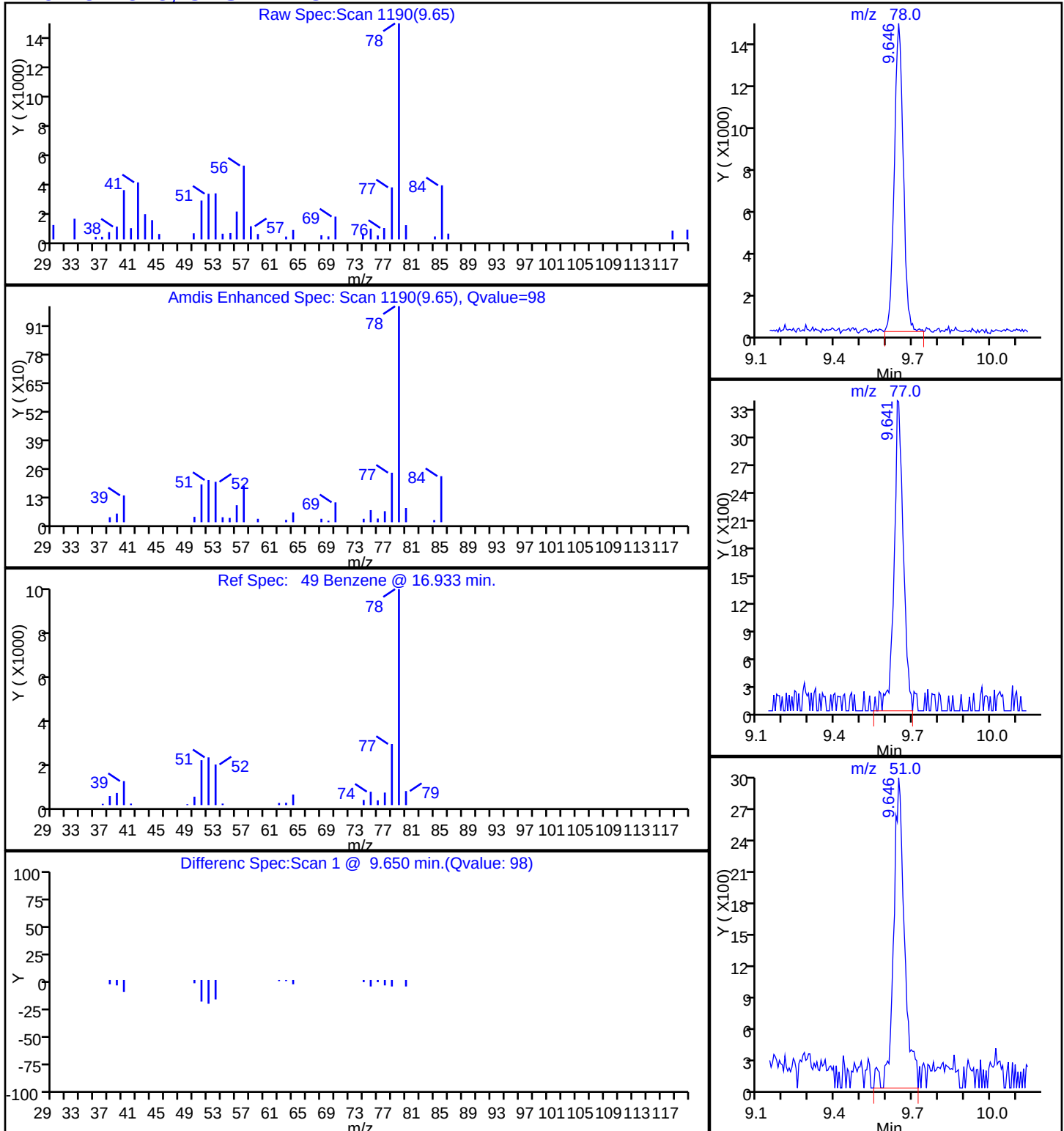
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

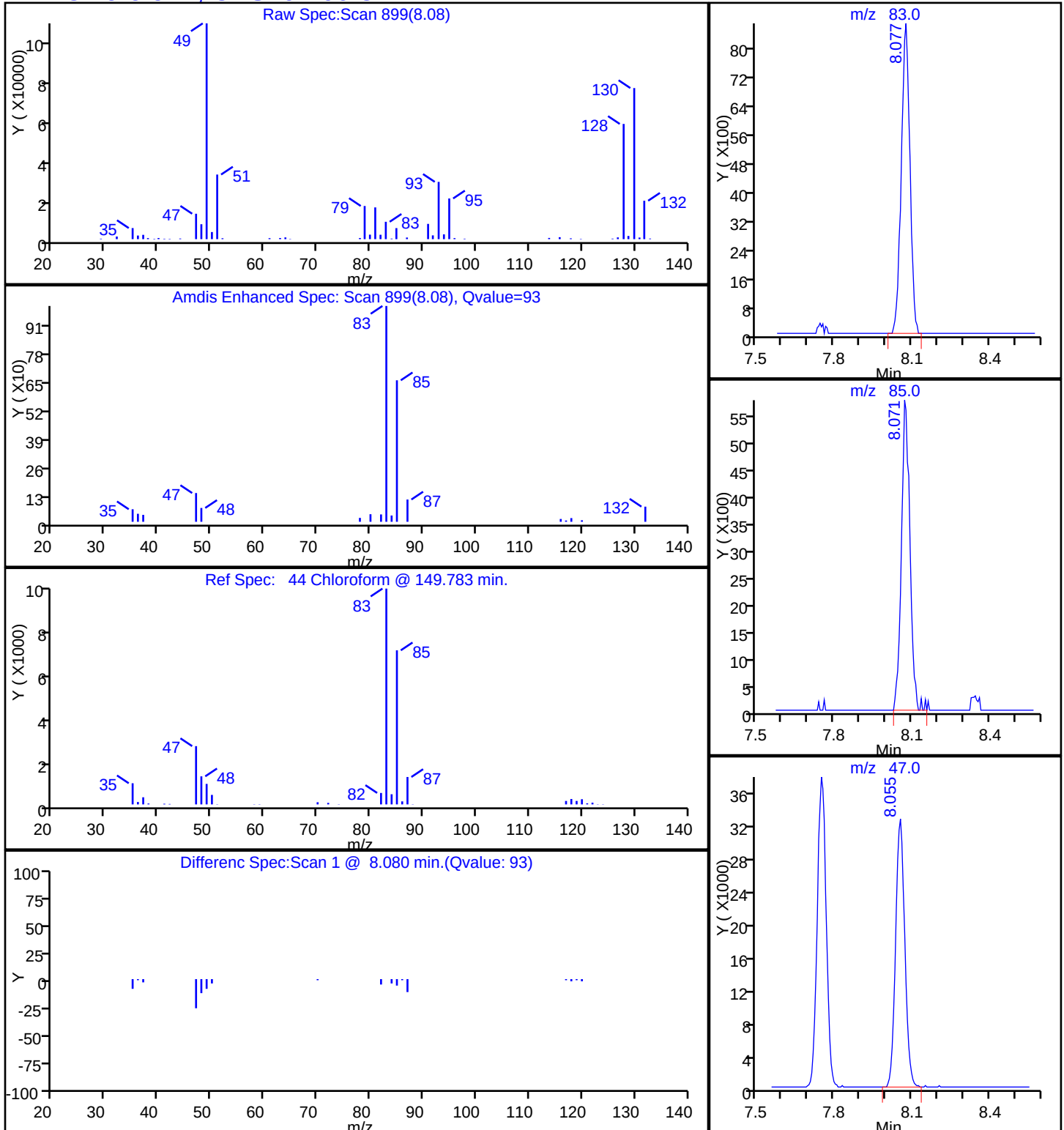
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

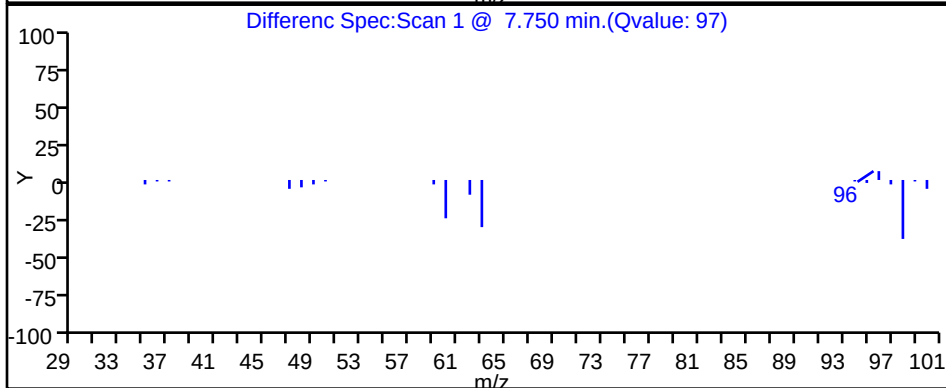
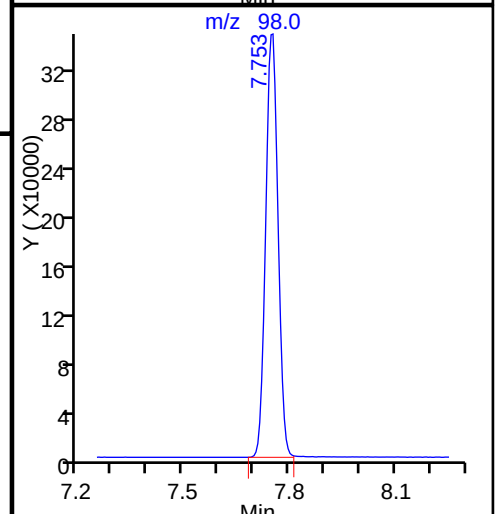
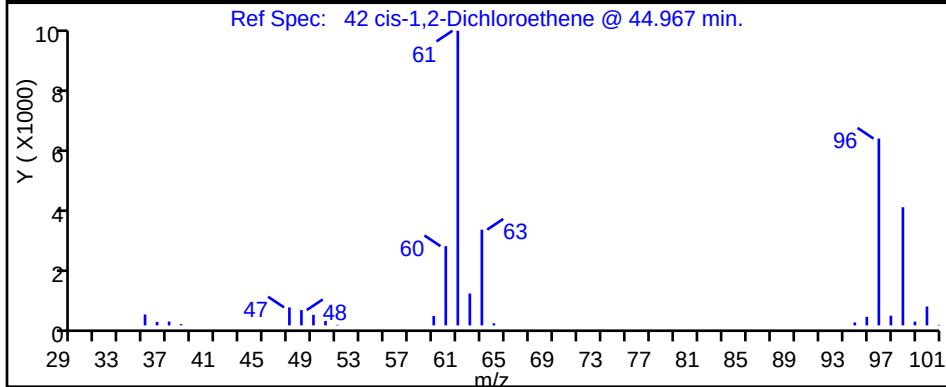
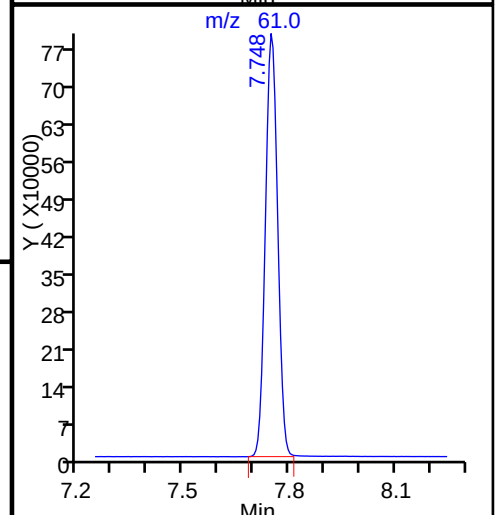
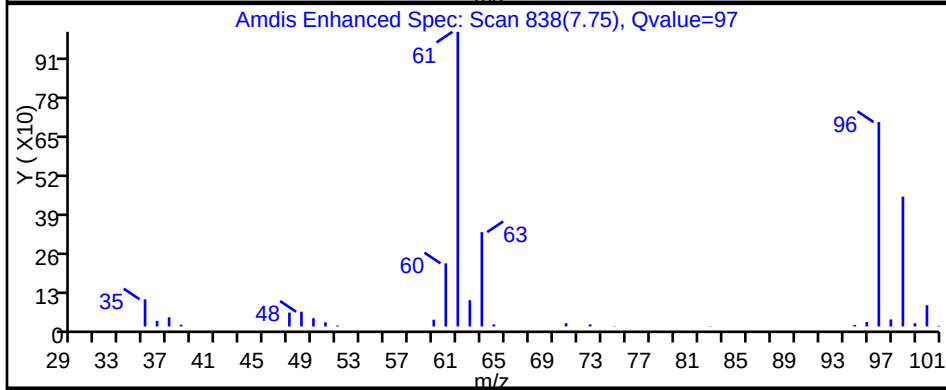
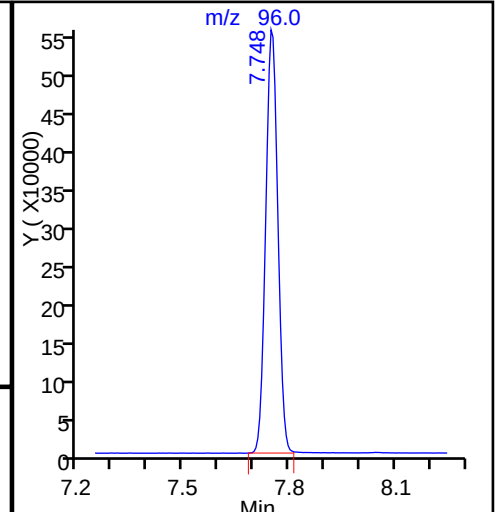
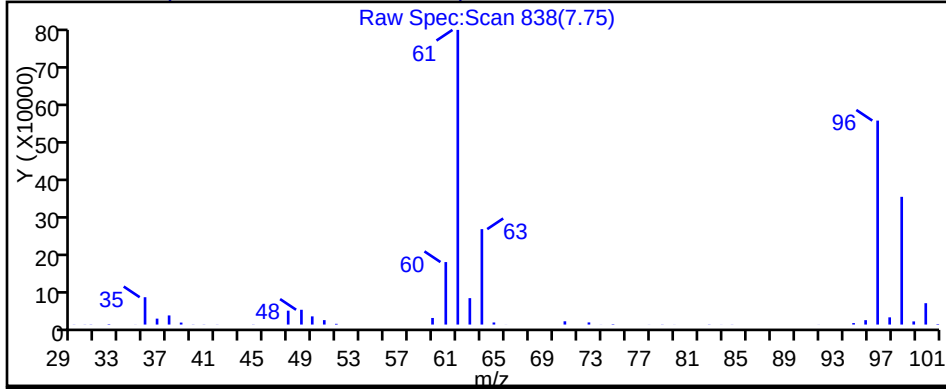
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

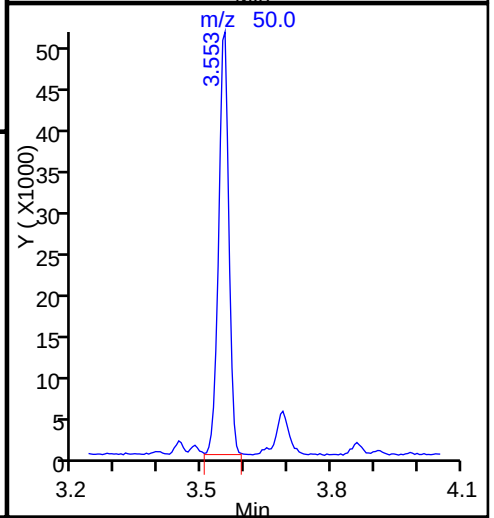
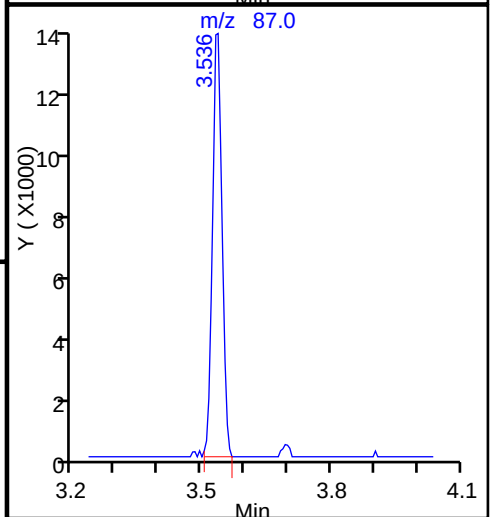
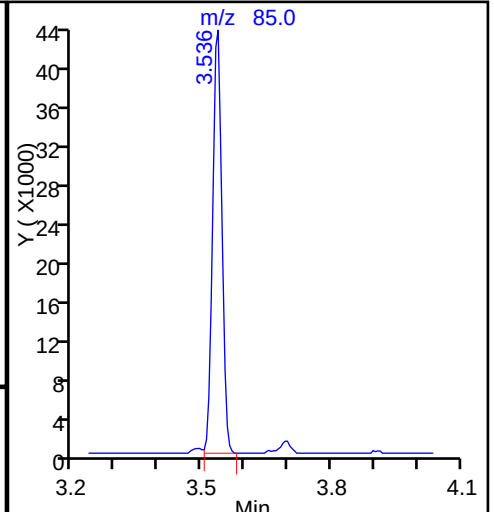
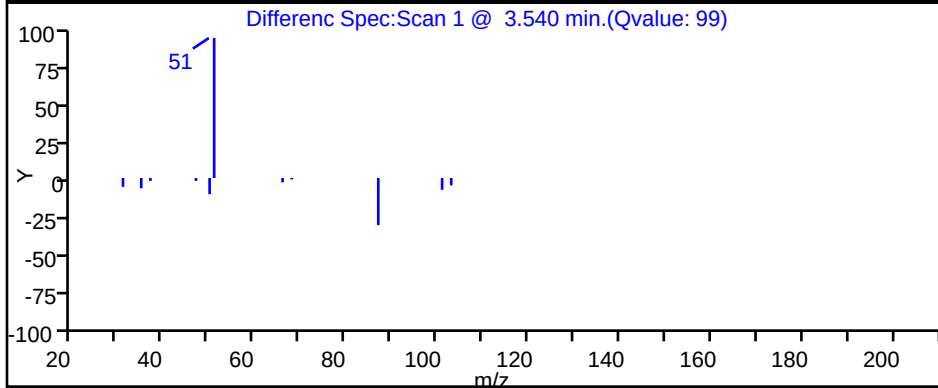
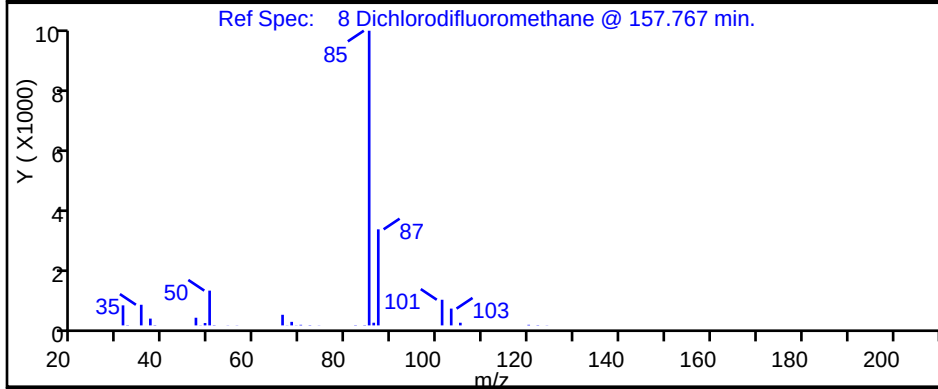
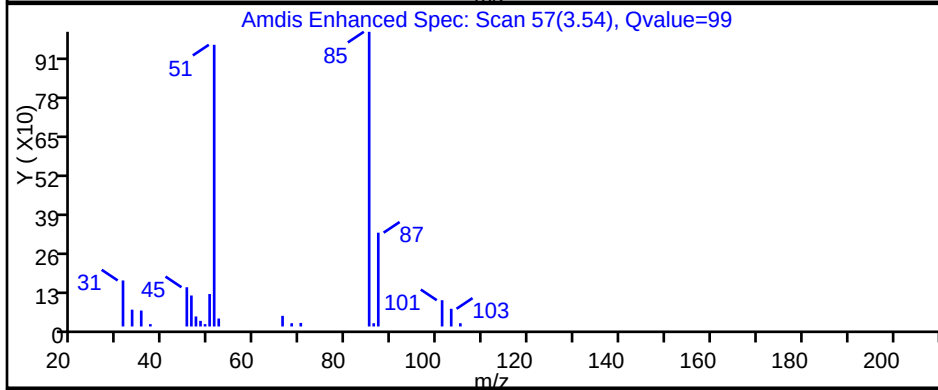
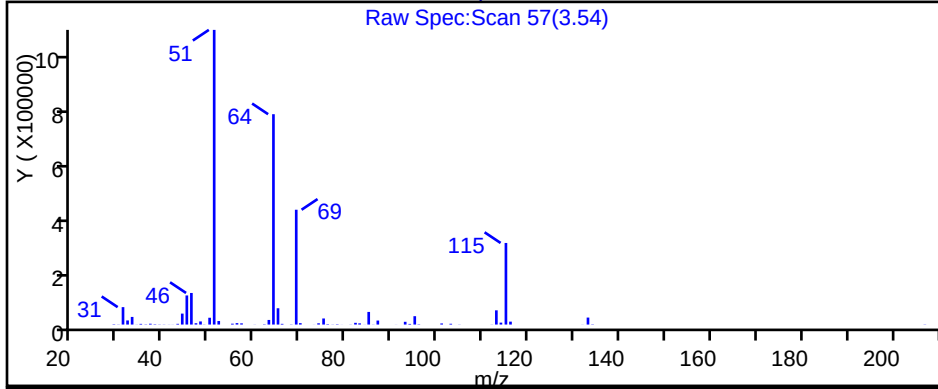
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

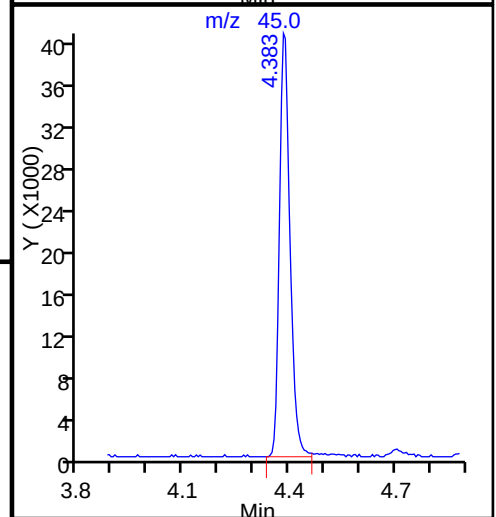
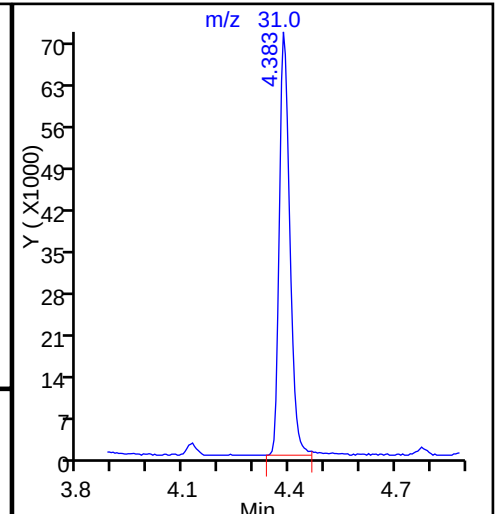
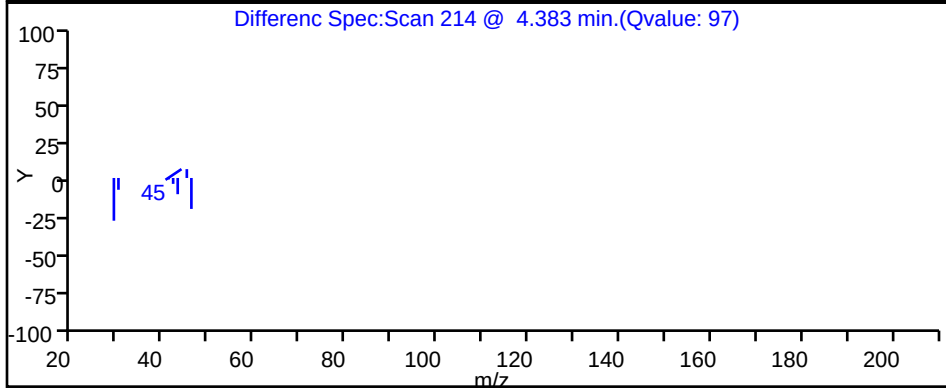
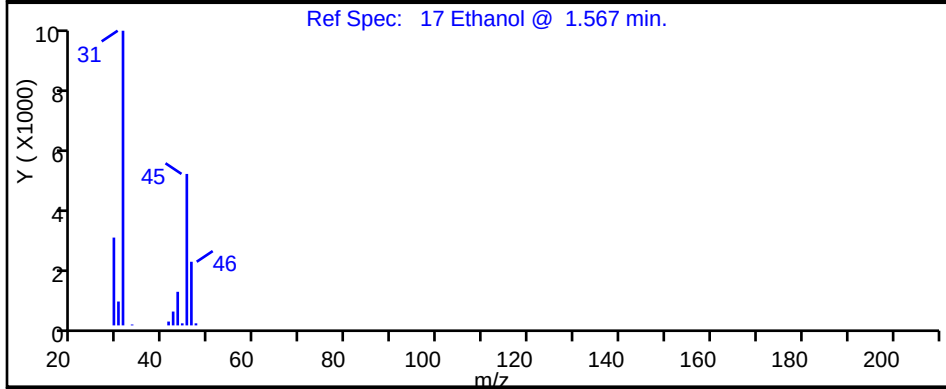
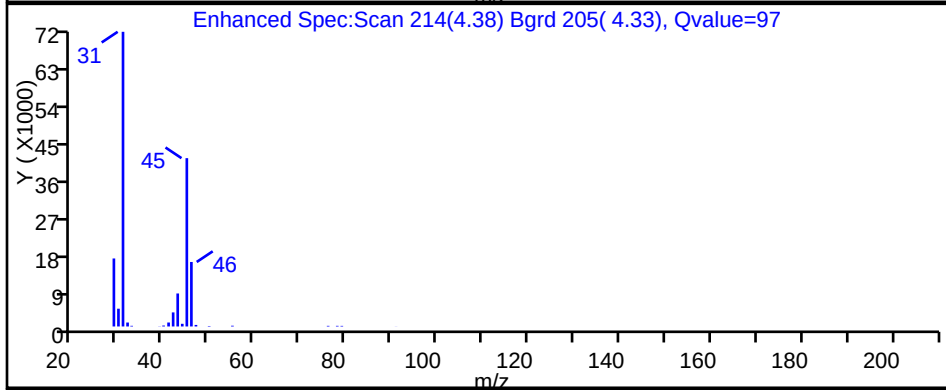
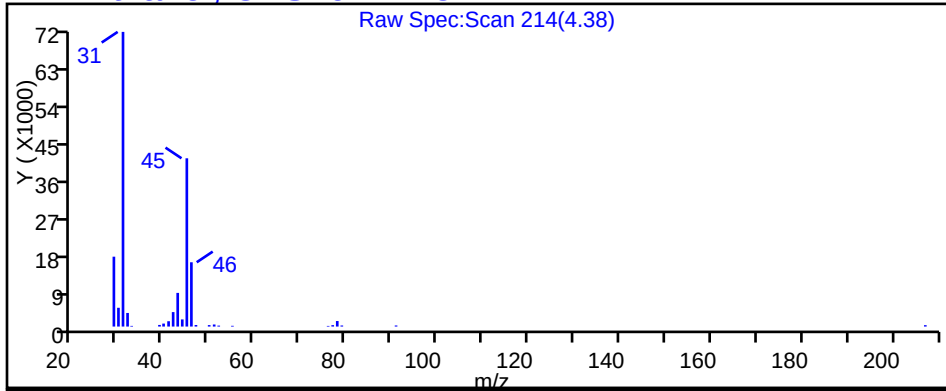
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

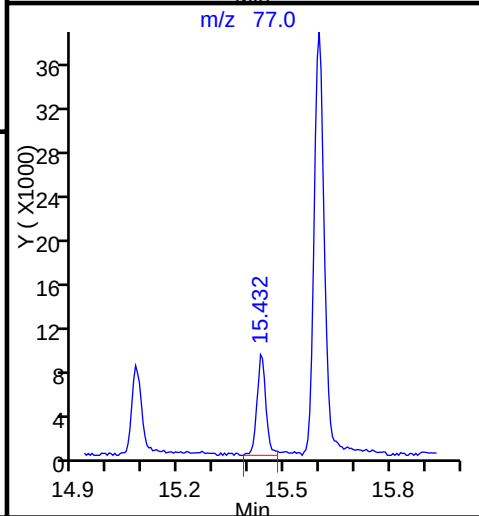
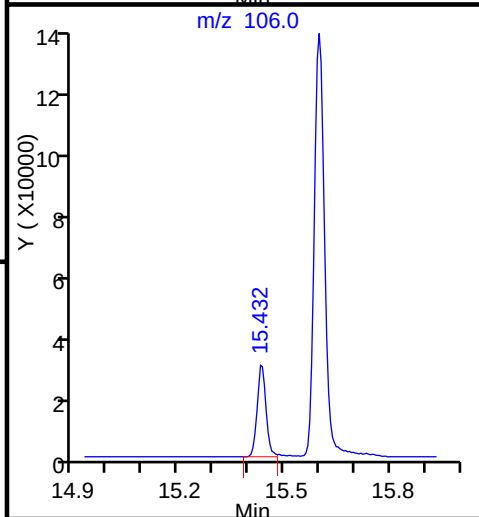
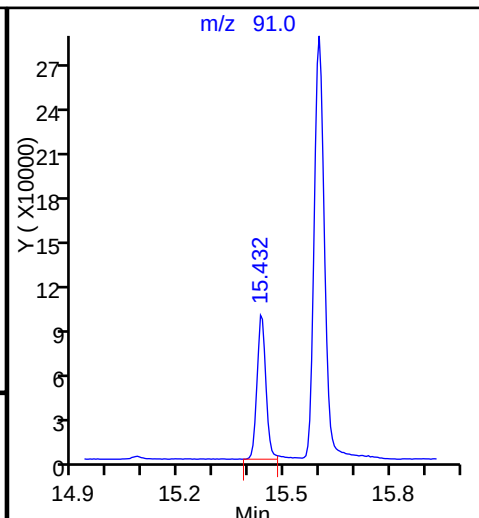
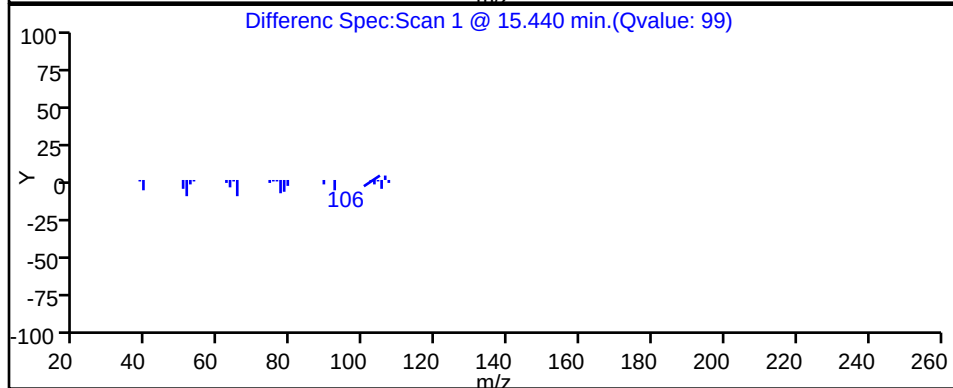
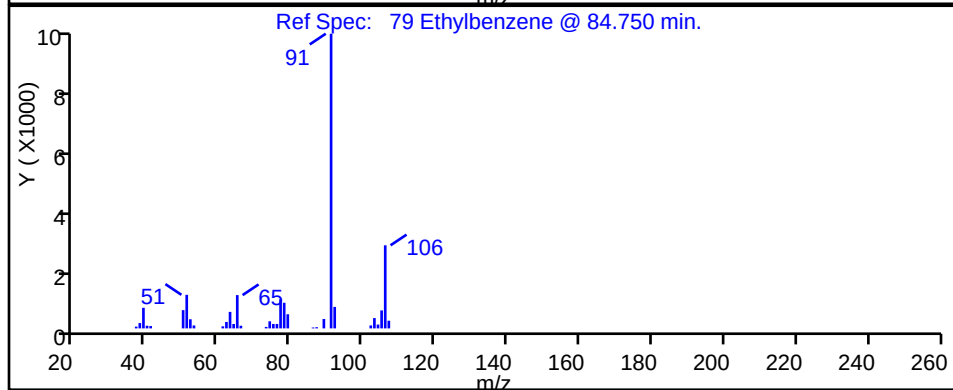
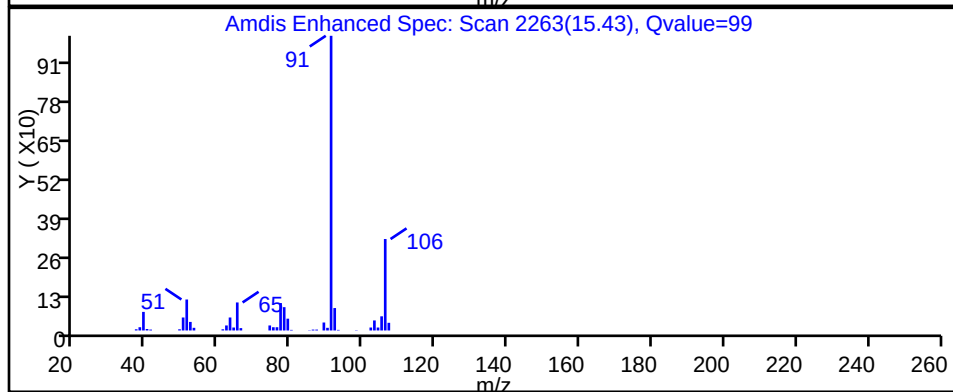
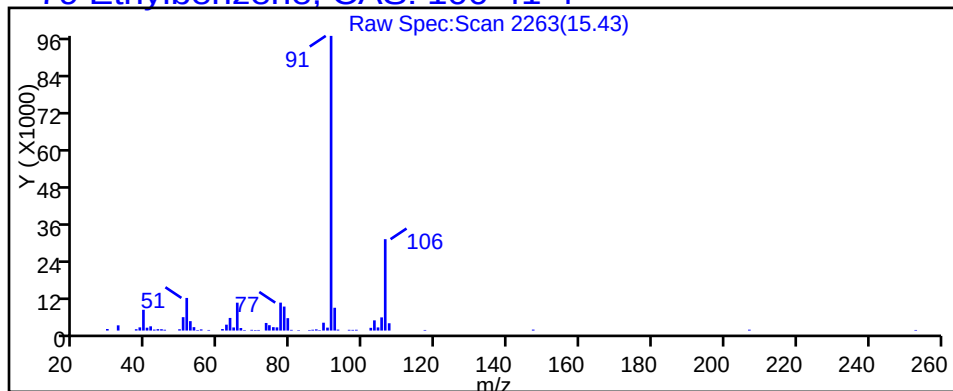
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

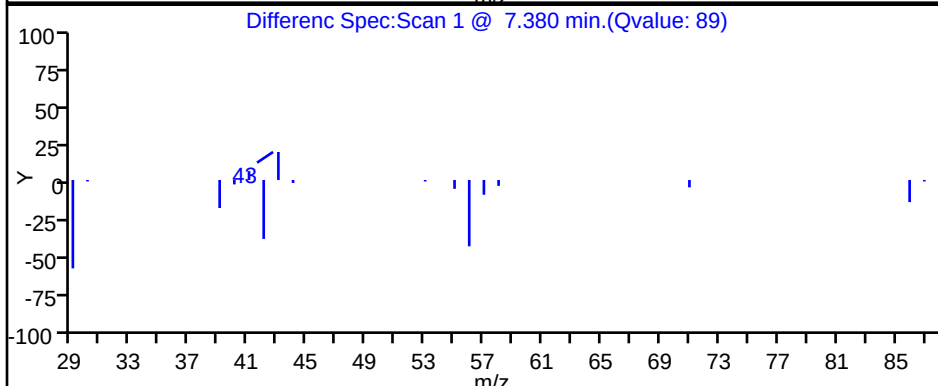
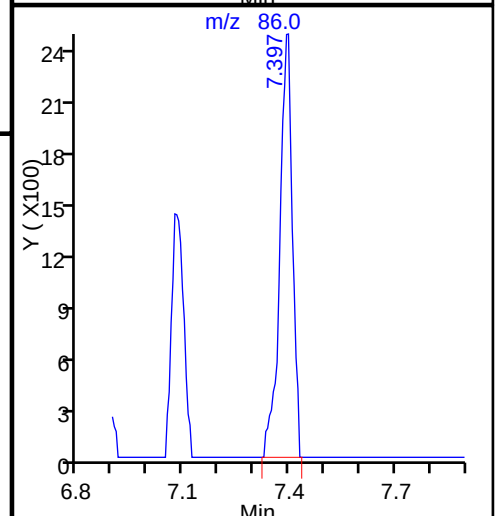
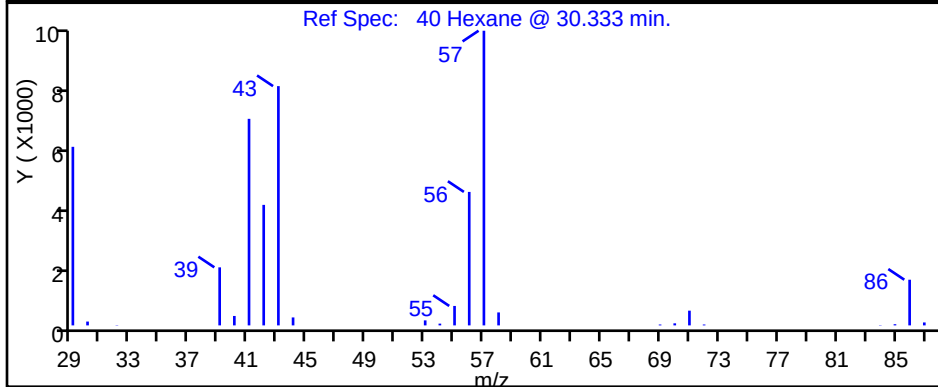
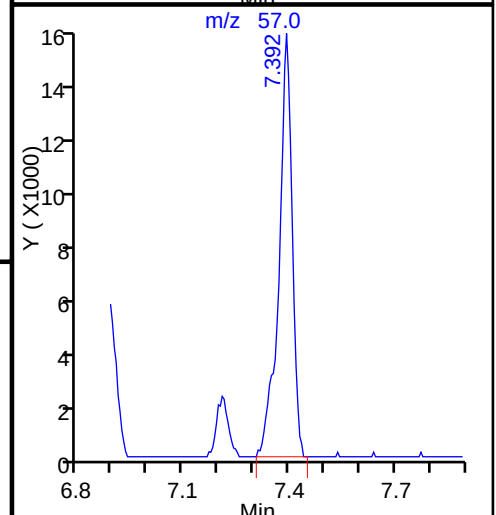
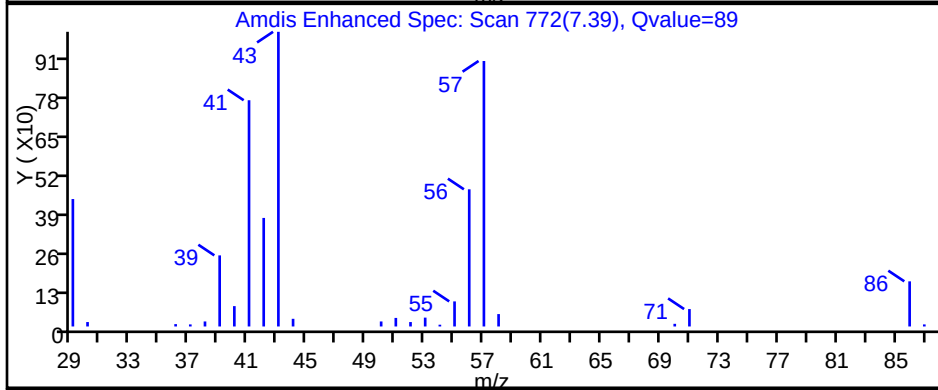
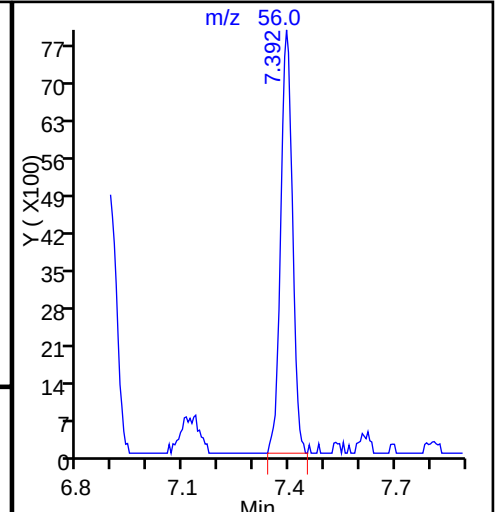
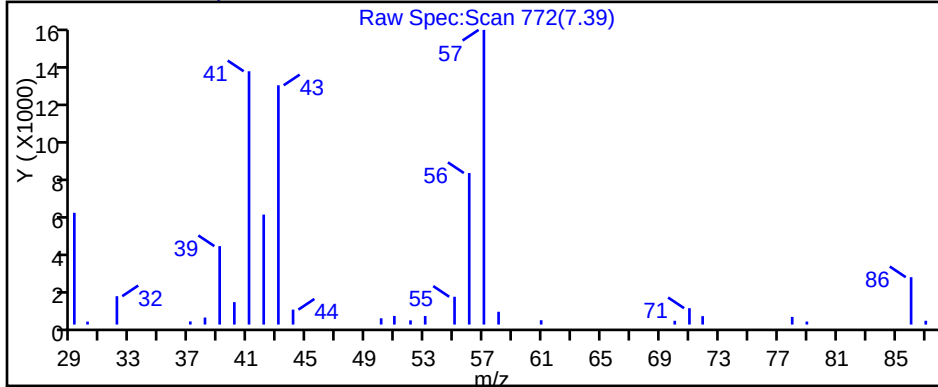
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

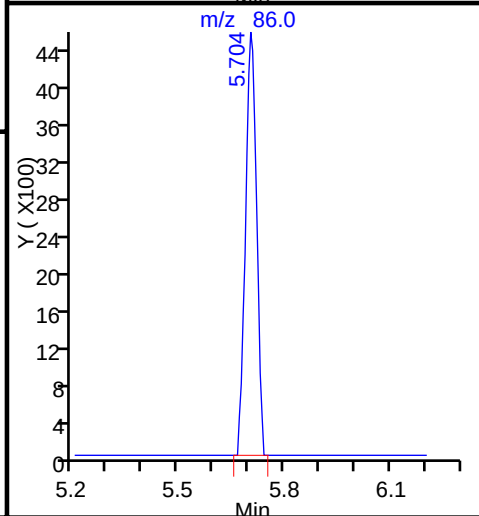
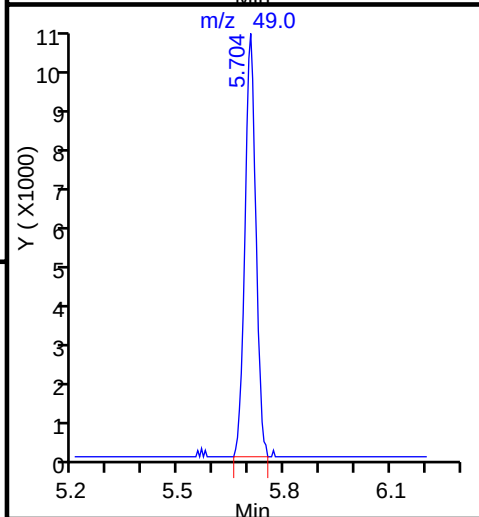
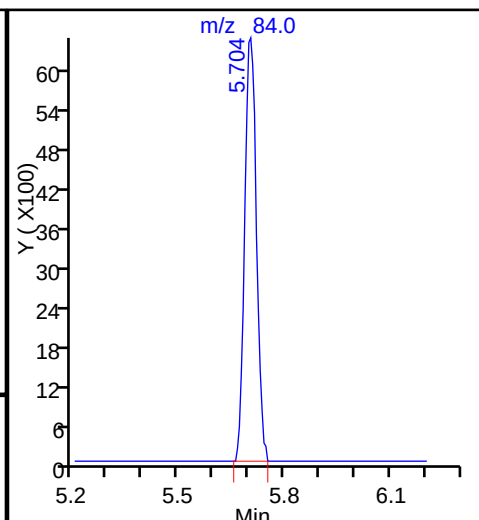
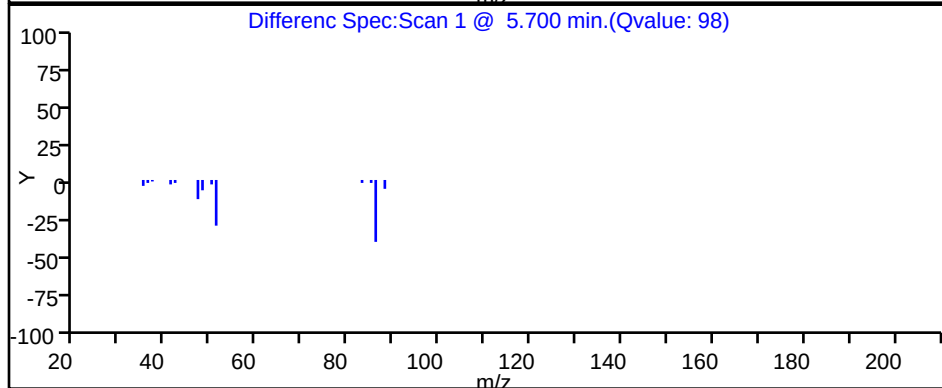
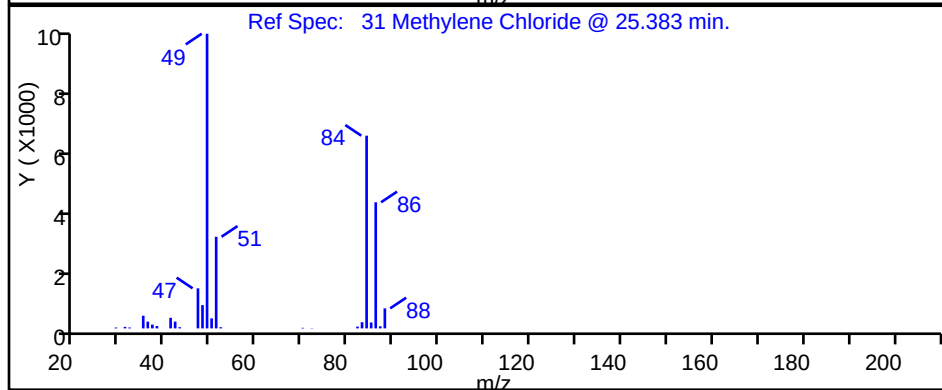
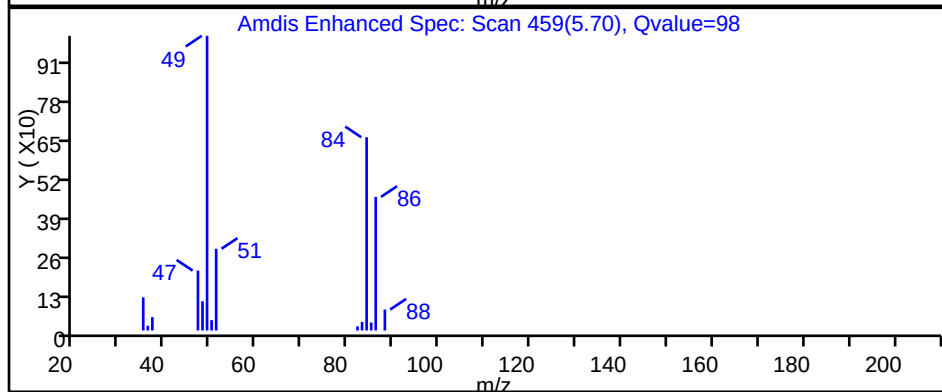
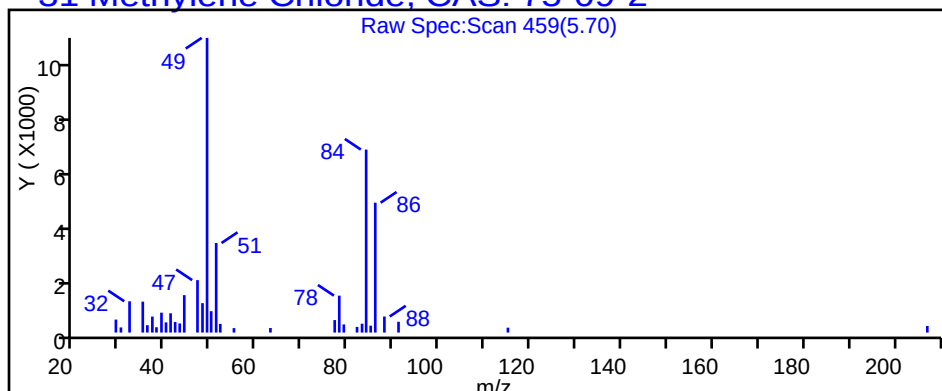
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

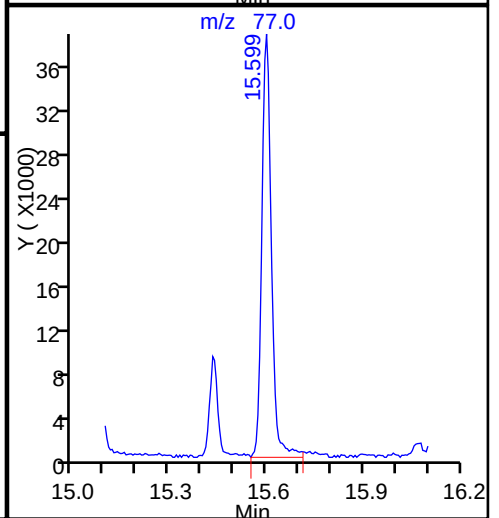
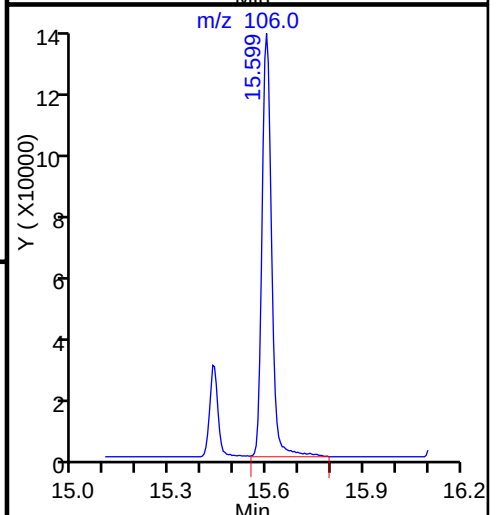
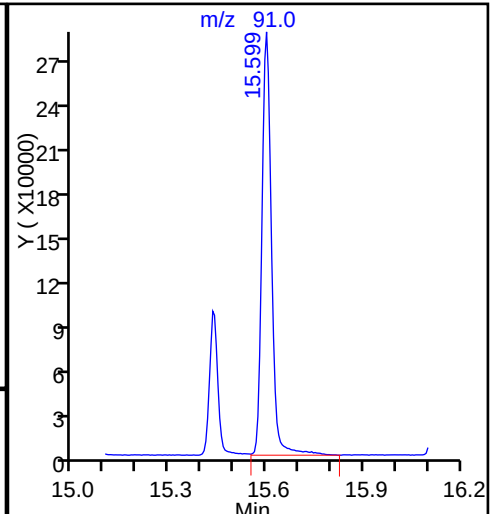
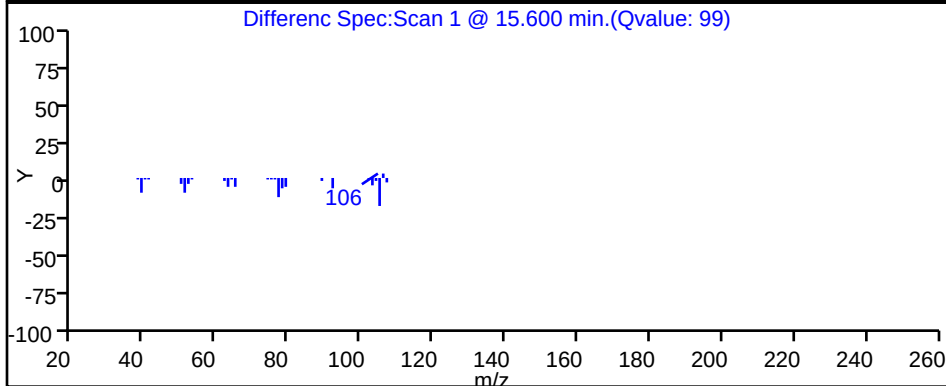
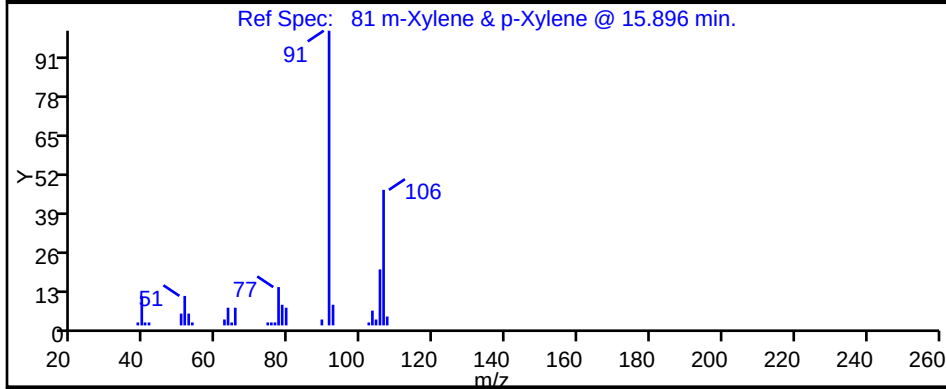
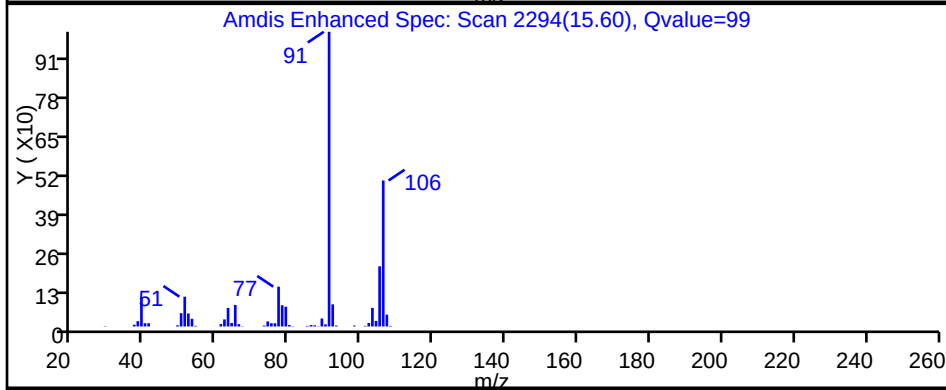
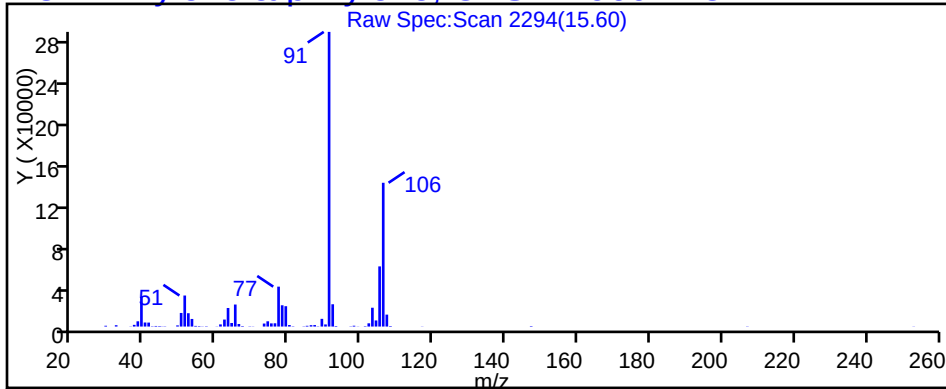
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

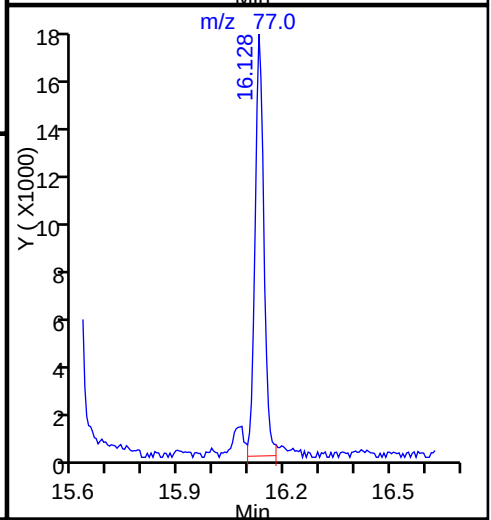
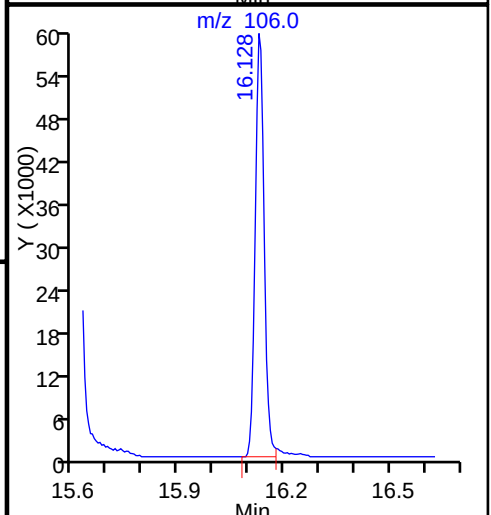
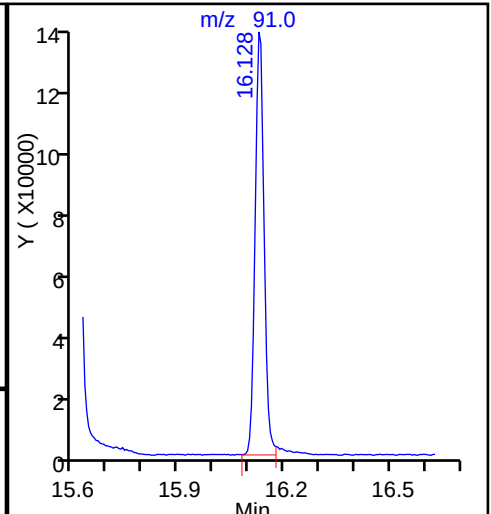
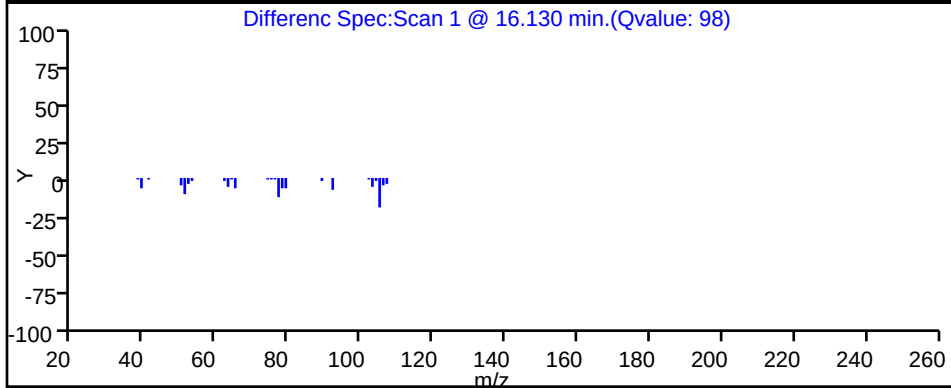
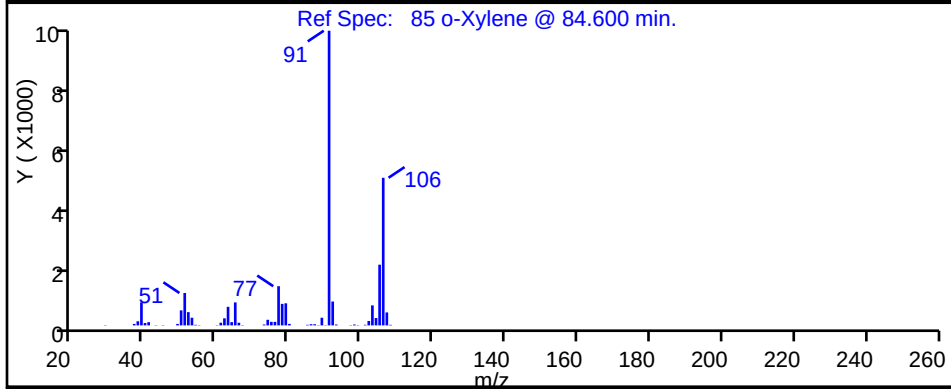
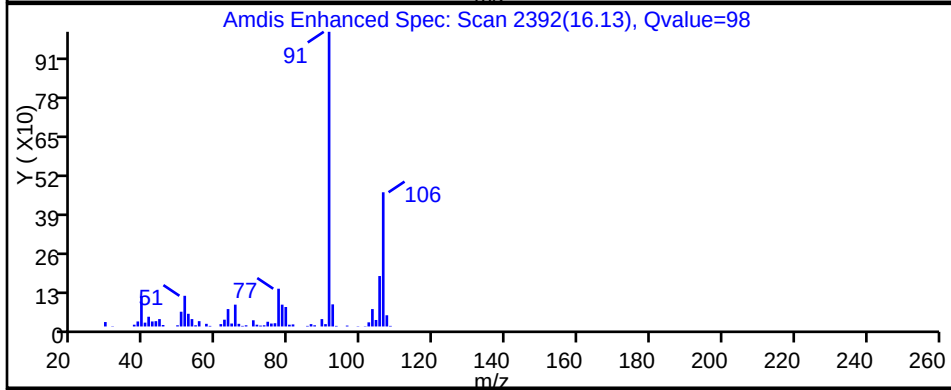
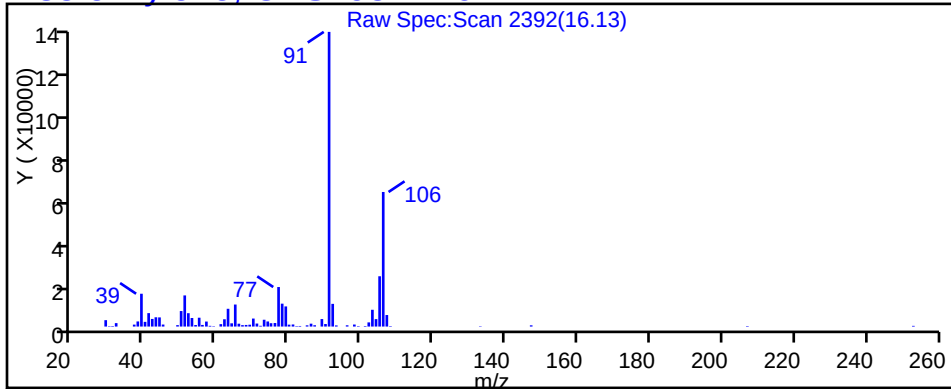
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

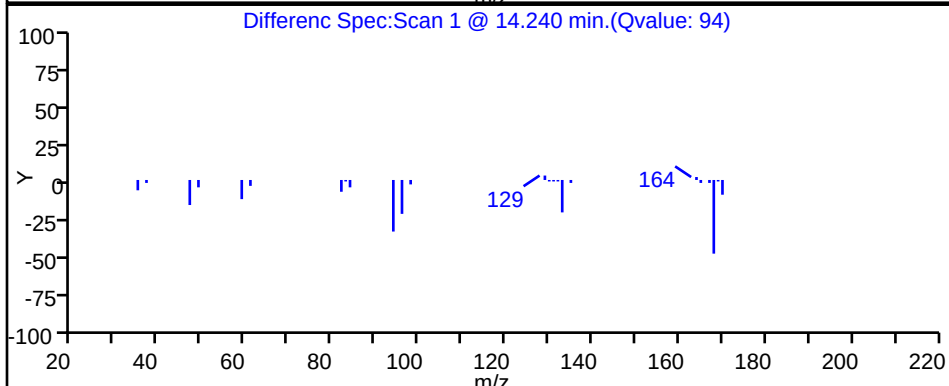
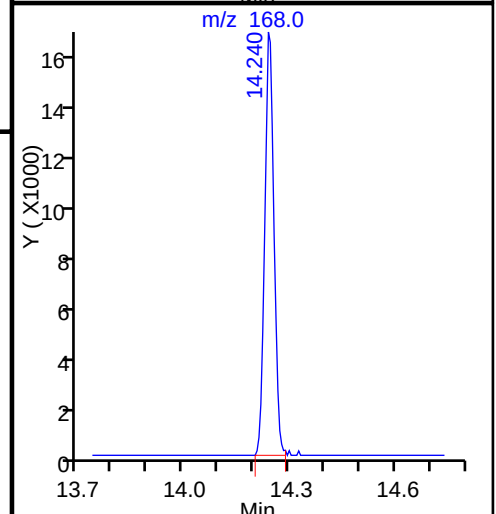
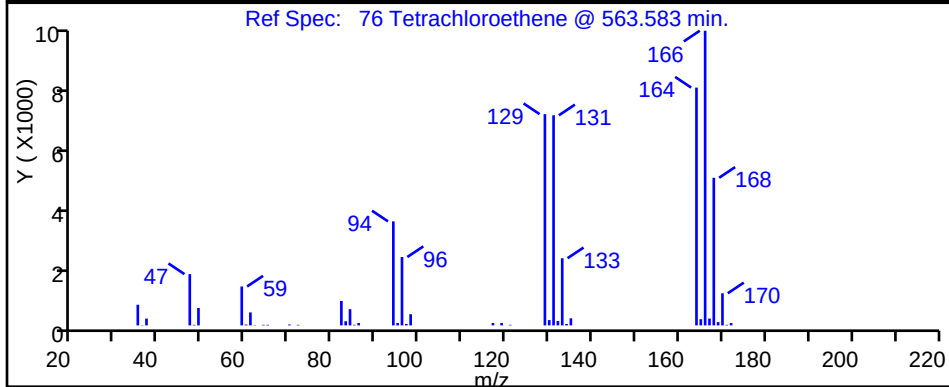
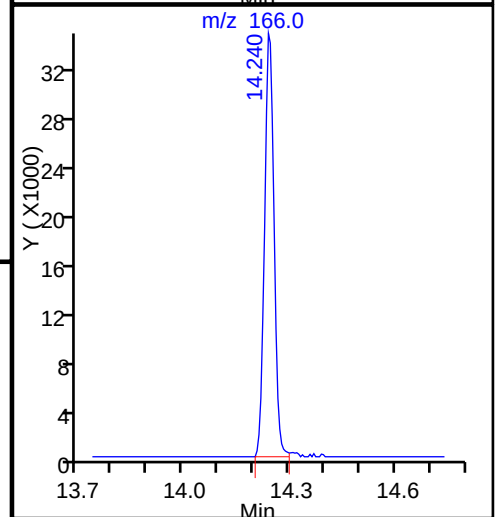
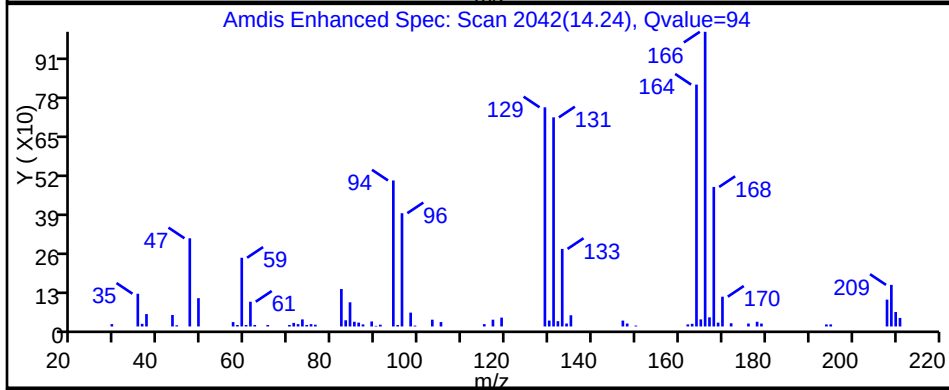
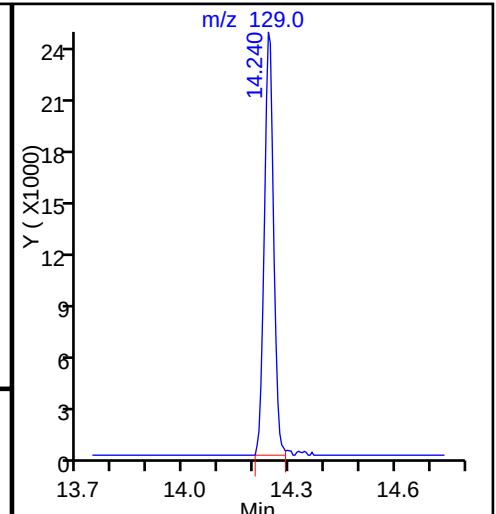
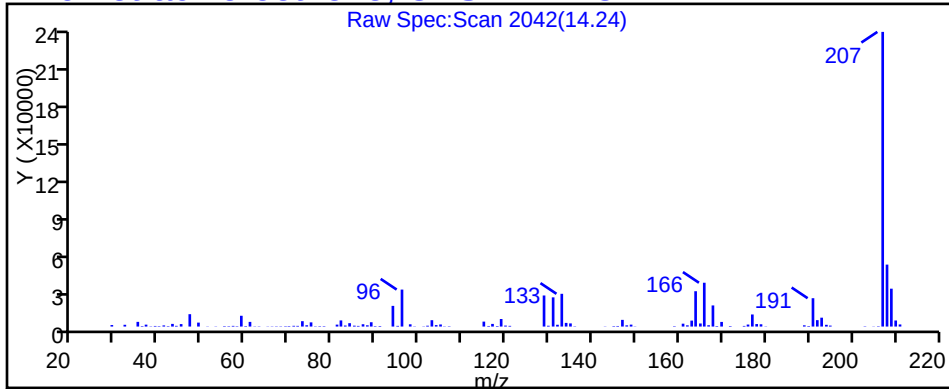
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

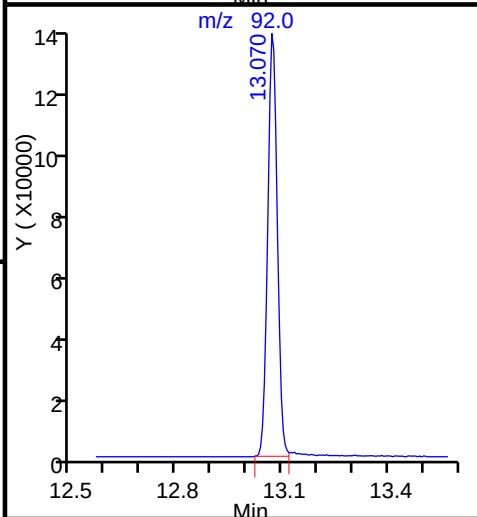
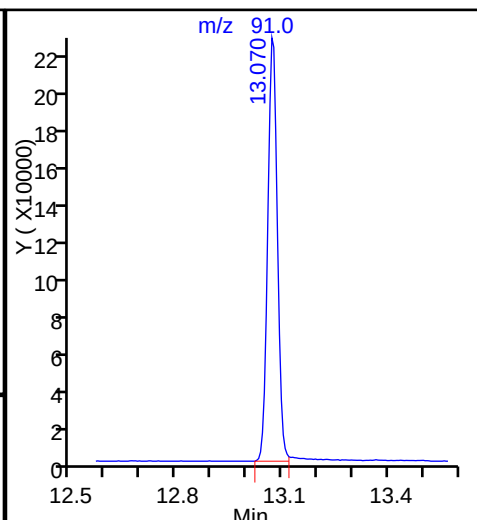
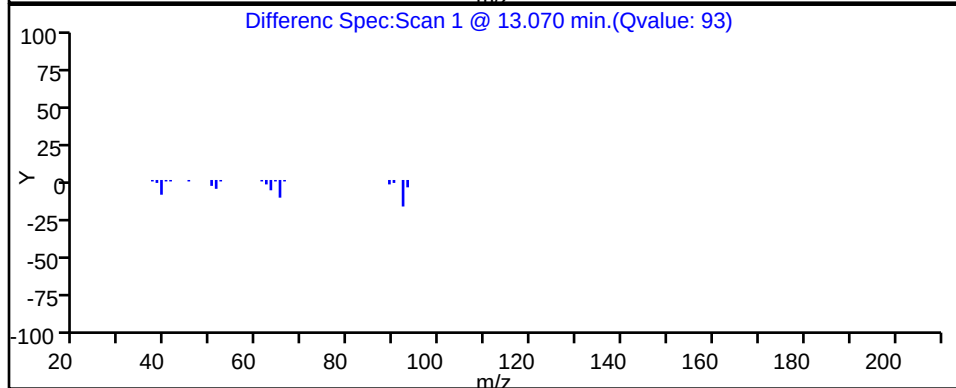
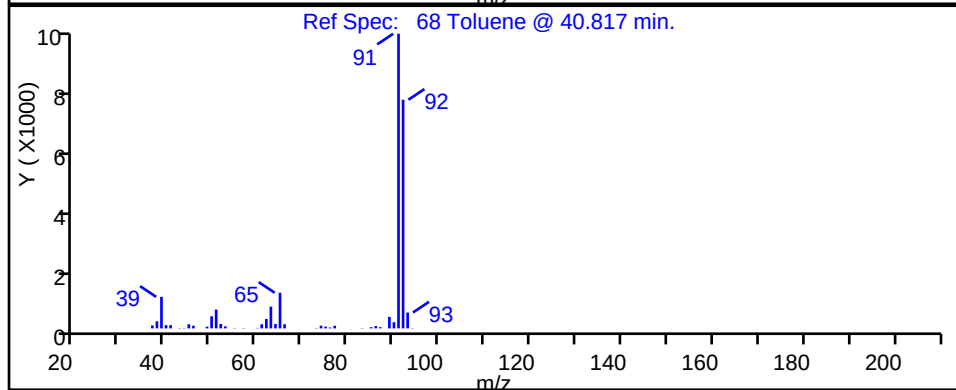
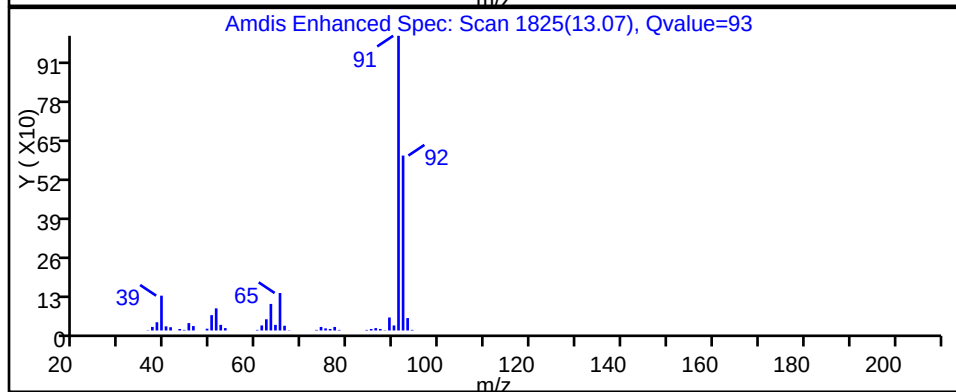
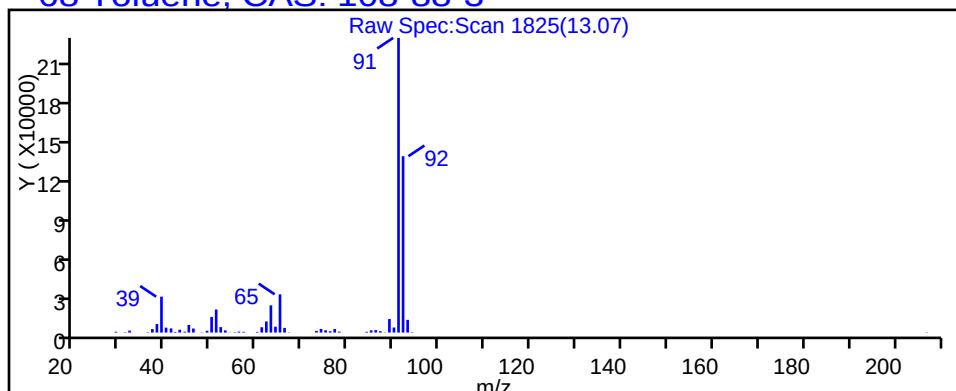
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

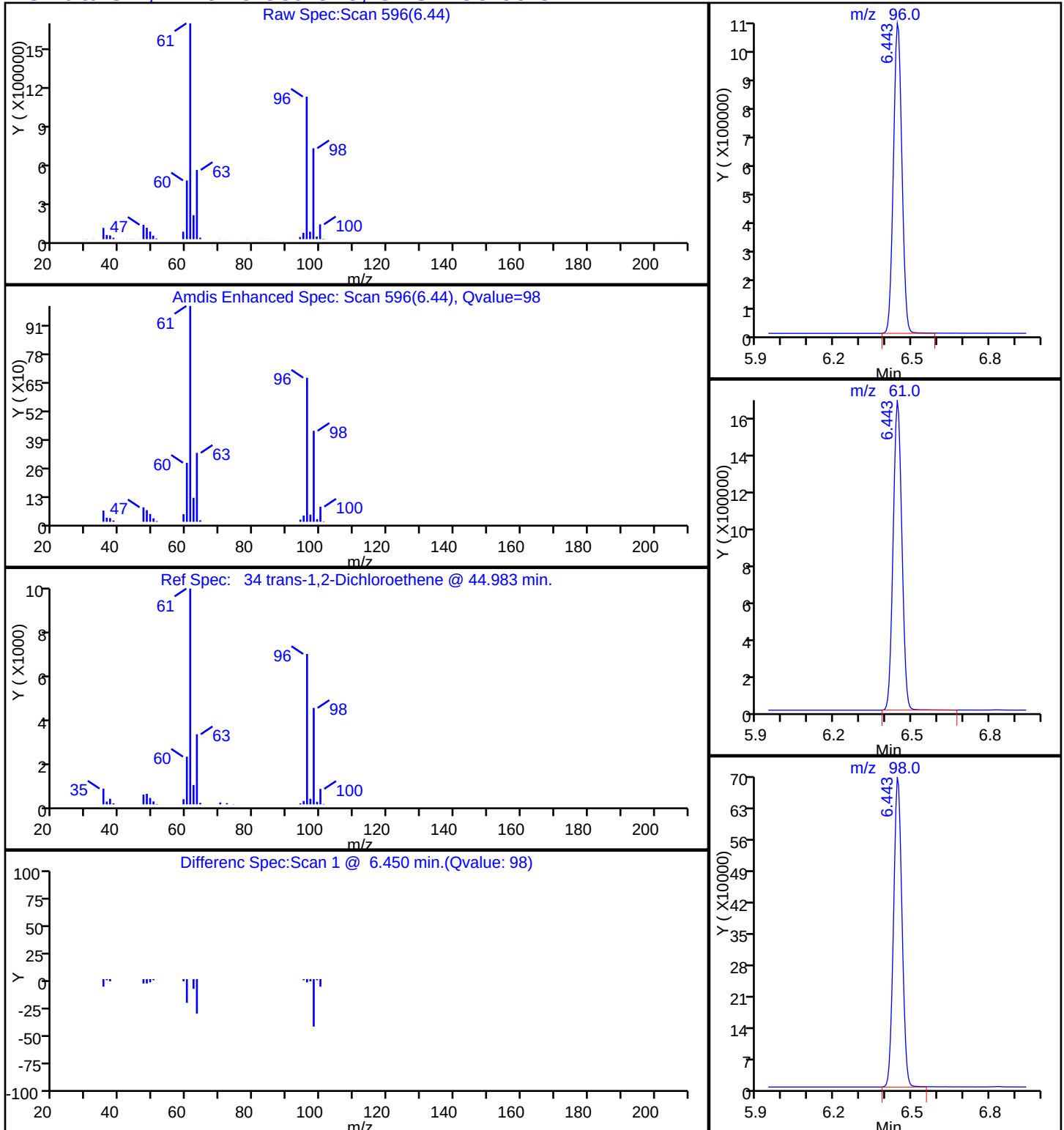
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

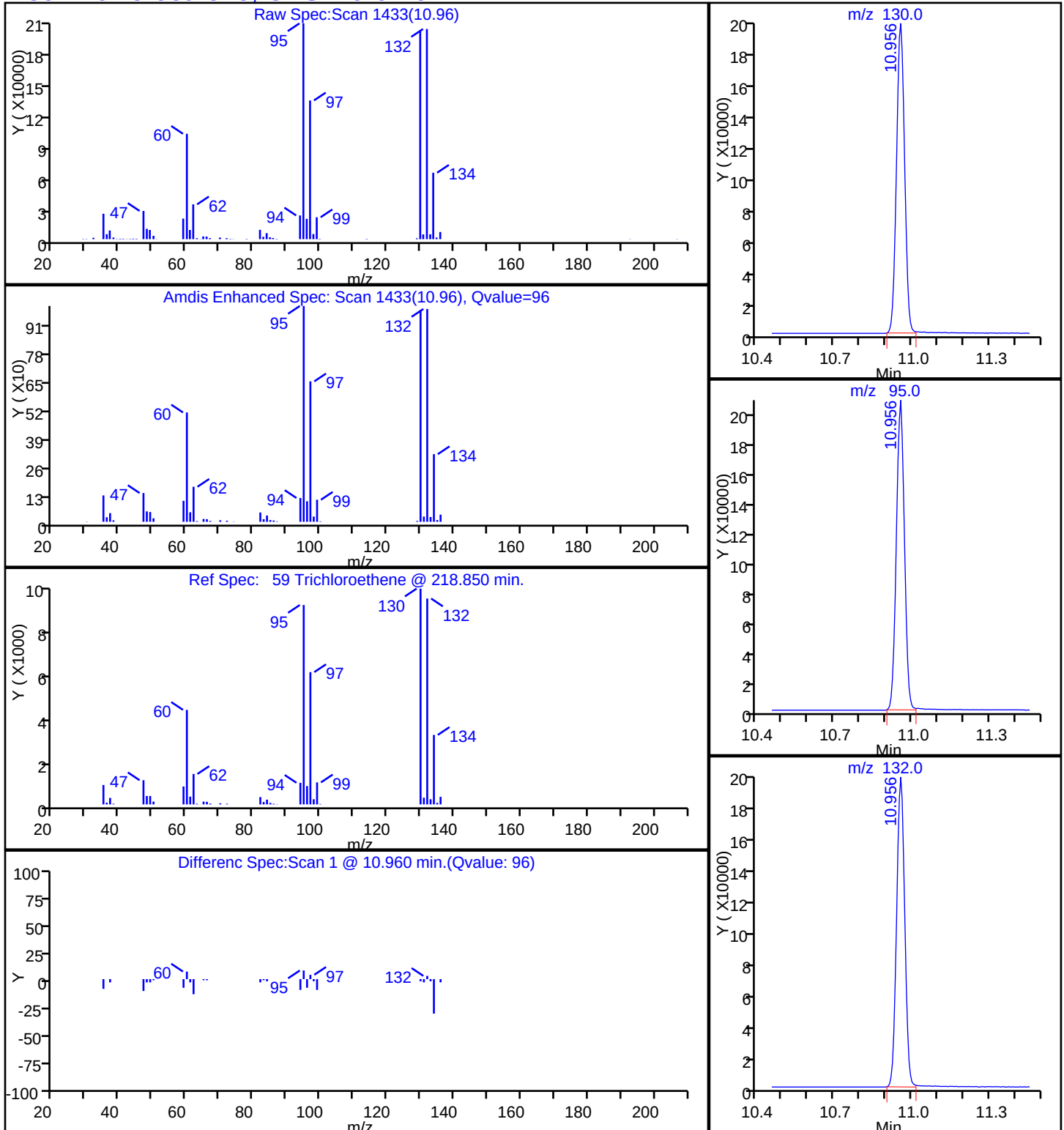
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103.D

Injection Date: 20-Dec-2016 14:55:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 7

Purge Vol: 500.000 mL

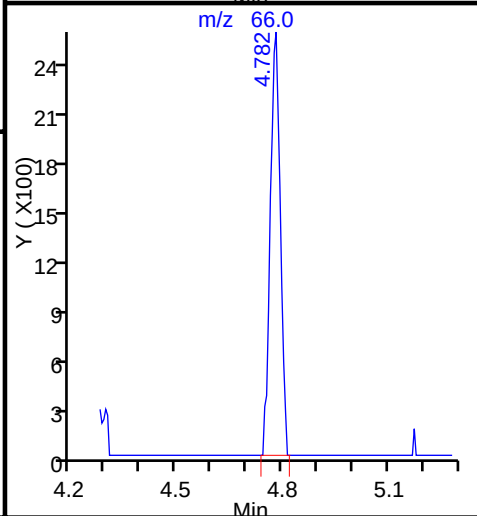
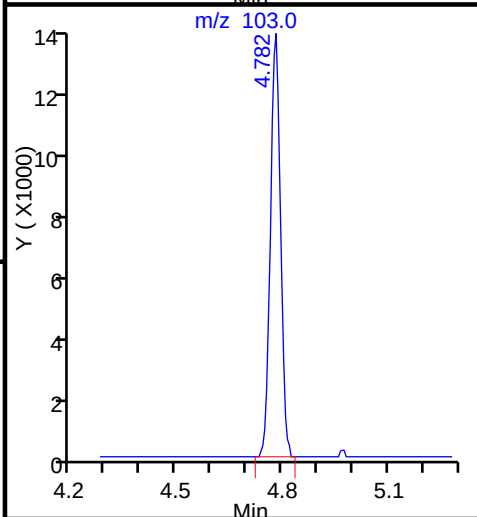
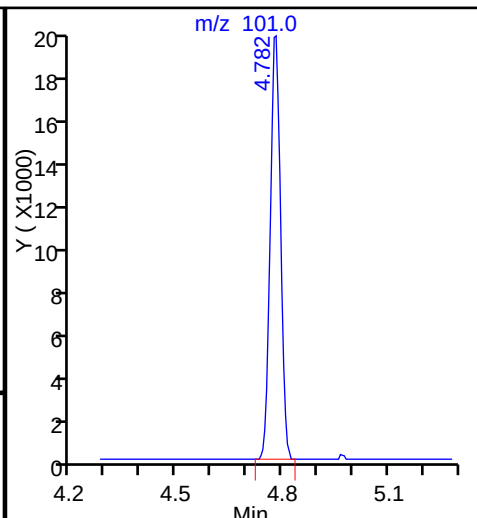
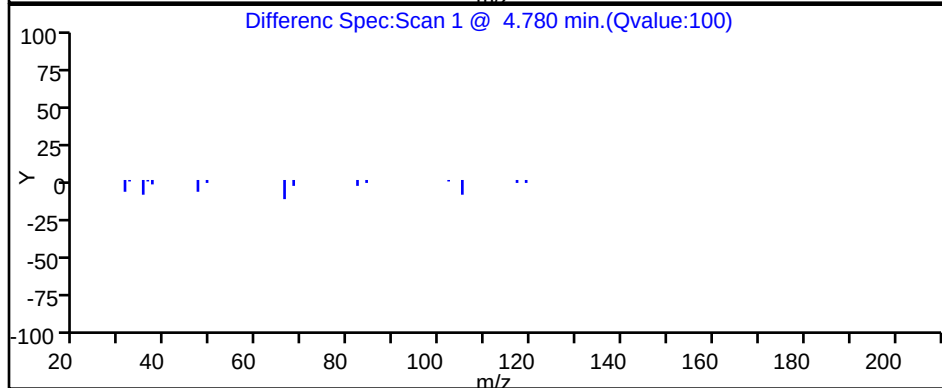
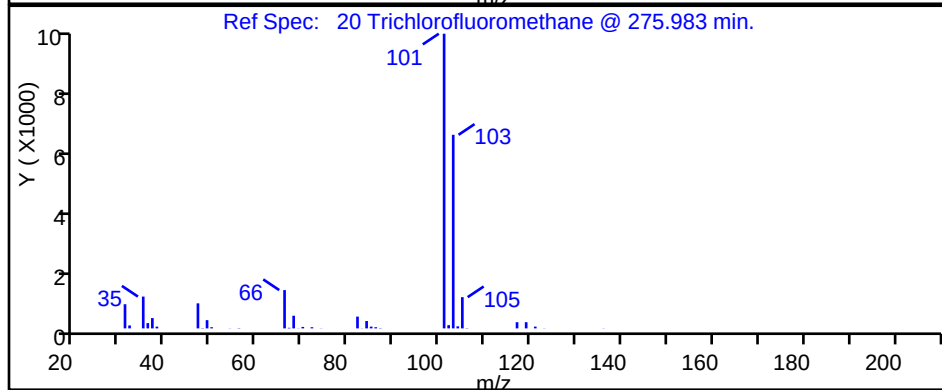
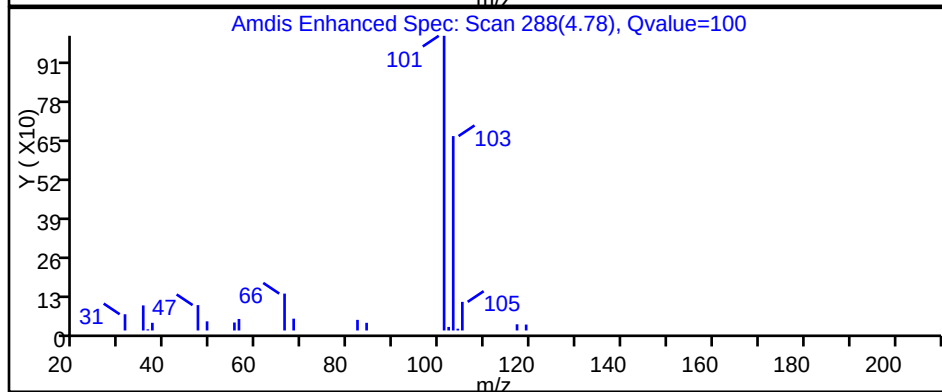
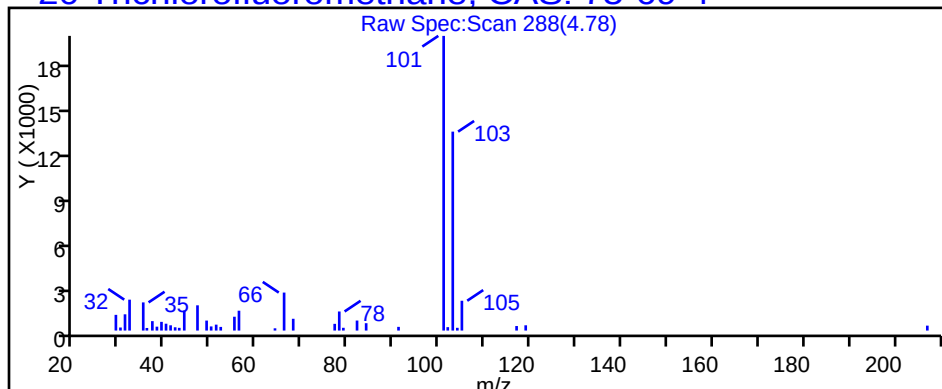
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 DL Lab Sample ID: 140-6565-3 DL
 Matrix: Air Lab File ID: GL20P103DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 80 (mL) Date Analyzed: 12/21/2016 03:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
156-60-5	trans-1,2-Dichloroethene	96.94	64	D	0.50	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-2 DL Lab Sample ID: 140-6565-3 DL
 Matrix: Air Lab File ID: GL20P103DL.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:15
 Sample wt/vol: 80 (mL) Date Analyzed: 12/21/2016 03:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
156-60-5	trans-1,2-Dichloroethene	96.94	260	D	2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103DL.D
 Lims ID: 140-6565-A-3
 Client ID: SSV-2
 Sample Type: Client
 Inject. Date: 21-Dec-2016 03:16:30 ALS Bottle#: 3 Worklist Smp#: 24
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-007
 Misc. Info.: 140-6565-a-3
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	98	338666	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	96	1511688	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	88	1601256	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	93	1116083	4.21	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	98	27480	0.0948	
9 Chloromethane	52	3.547	3.682	-0.135	33	18111	0.5818	
17 Ethanol	31	4.383	4.383	0.000	97	71376	2.11	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	18606	0.0662	
29 2-Methyl-2-propanol	59	5.537	5.499	0.038	95	8337	0.0657	
30 1,1,2-Trichloro-1,2,2-trif	101	5.559	5.564	-0.005	78	2223	0.0125	
31 Methylene Chloride	84	5.699	5.704	-0.005	97	38300	0.5317	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	96	1003117	10.3	
37 1,1-Dichloroethane	63	6.815	6.826	-0.011	99	14584	0.0798	
39 2-Butanone (MEK)	72	7.354	7.338	0.016	98	3687	0.0919	
40 Hexane	56	7.387	7.387	0.000	91	16490	0.2048	
42 cis-1,2-Dichloroethene	96	7.743	7.748	-0.005	97	513526	5.20	
44 Chloroform	83	8.066	8.077	-0.011	93	7800	0.0367	
49 Benzene	78	9.635	9.646	-0.011	97	15060	0.0554	
50 Cyclohexane	69	9.652	9.651	0.001	87	1733	0.0346	
56 Isooctane	57	10.471	10.471	0.000	94	16362	0.0332	
59 Trichloroethene	130	10.951	10.956	-0.005	96	159547	1.01	
65 4-Methyl-2-pentanone (MIBK	43	12.202	12.186	0.016	98	14626	0.0790	
68 Toluene	91	13.070	13.076	-0.006	94	156100	0.4875	
76 Tetrachloroethene	129	14.235	14.246	-0.011	93	16546	0.1178	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	50937	0.1213	
81 m-Xylene & p-Xylene	91	15.594	15.605	-0.011	100	174939	0.5406	
85 o-Xylene	91	16.128	16.133	-0.005	98	68924	0.2021	
92 1,3,5-Trimethylbenzene	120	17.524	17.530	-0.006	93	13730	0.0617	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	97	94699	0.2441	
98 1,3-Dichlorobenzene	146	18.350	18.263	0.087	97	19807	0.0707	
100 1,4-Dichlorobenzene	146	18.350	18.355	-0.005	94	19807	0.0723	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103DL.D

Injection Date: 21-Dec-2016 03:16:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Worklist Smp#: 24

Client ID: SSV-2

Purge Vol: 500.000 mL

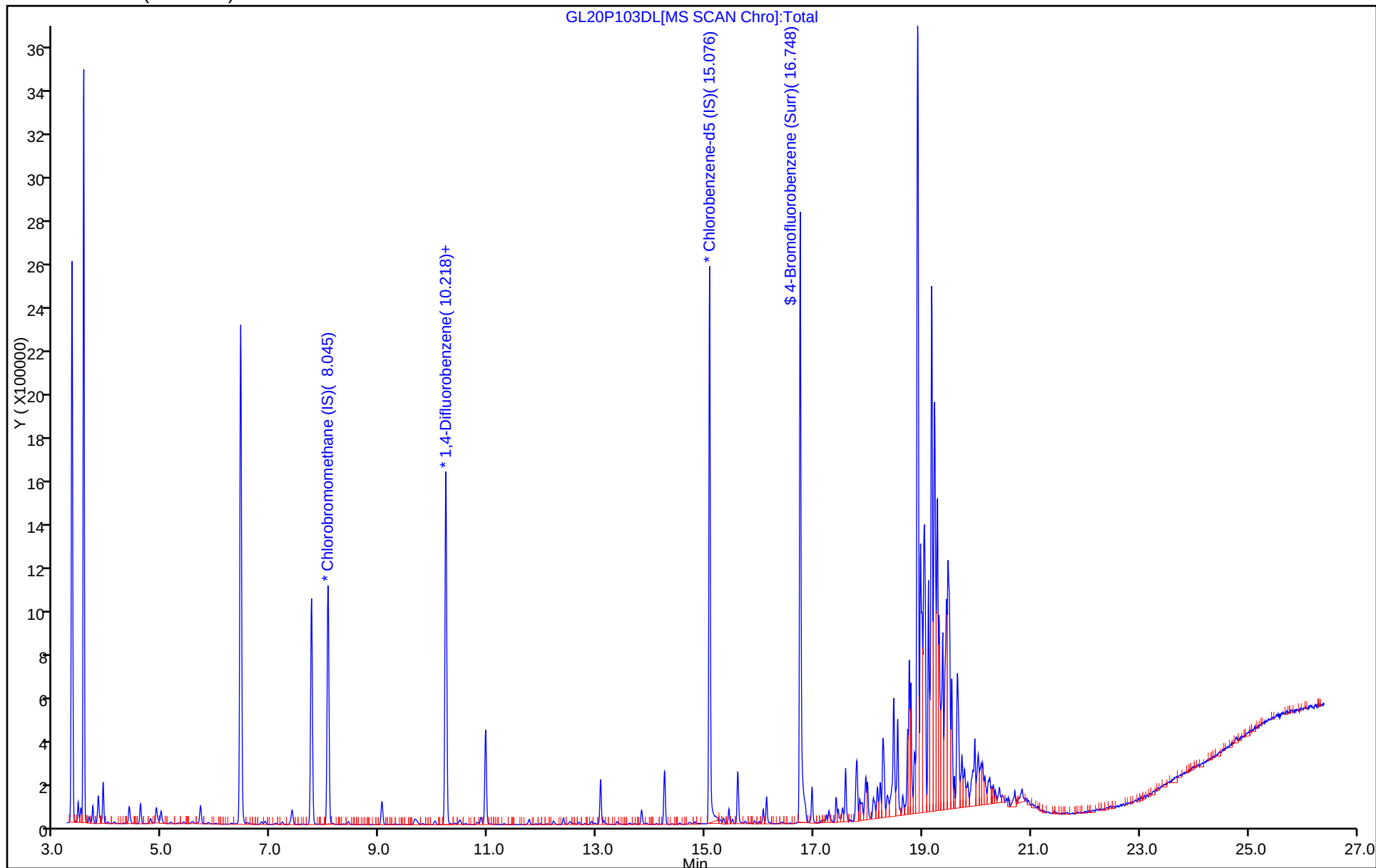
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103DL.D
Lims ID: 140-6565-A-3
Client ID: SSV-2
Sample Type: Client
Inject. Date: 21-Dec-2016 03:16:30 ALS Bottle#: 3 Worklist Smp#: 24
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-007
Misc. Info.: 140-6565-a-3
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.21	105.36

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P103DL.D

Injection Date: 21-Dec-2016 03:16:30

Instrument ID: MG

Lims ID: 140-6565-A-3

Lab Sample ID: 140-6565-3

Client ID: SSV-2

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 24

Purge Vol: 500.000 mL

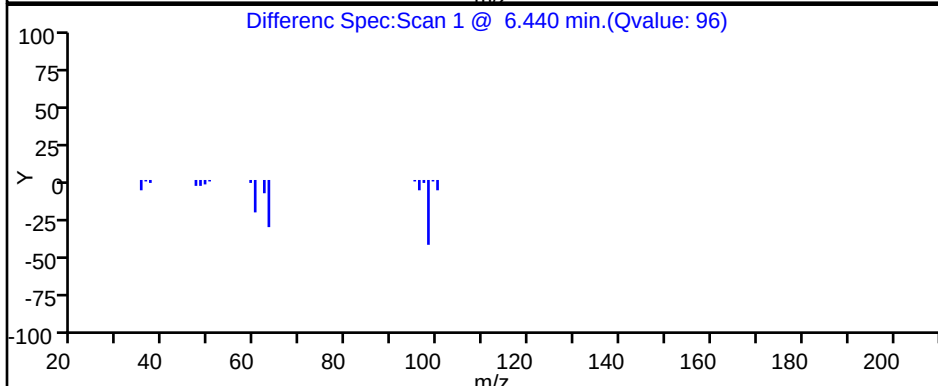
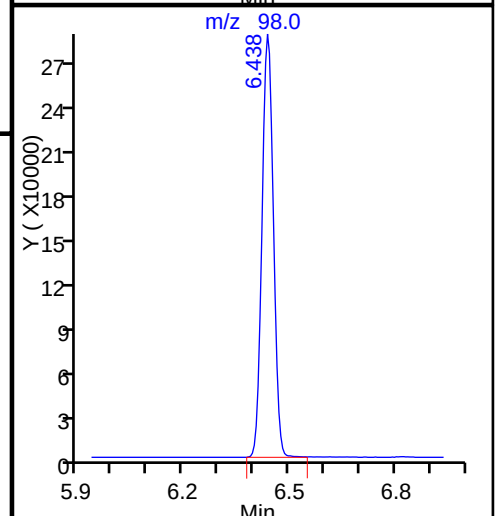
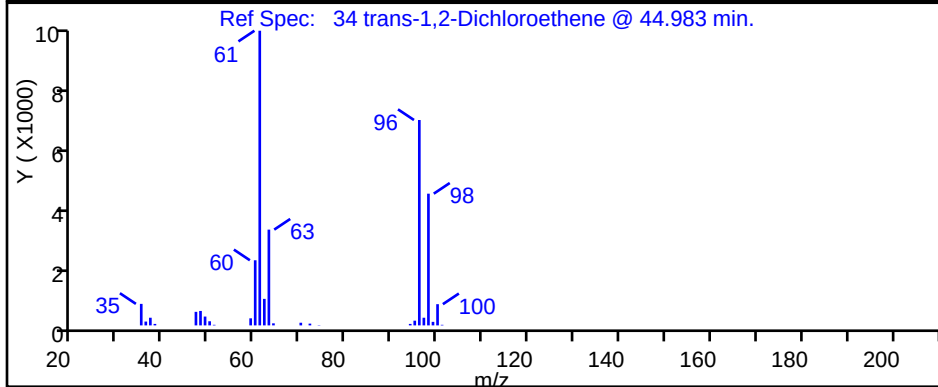
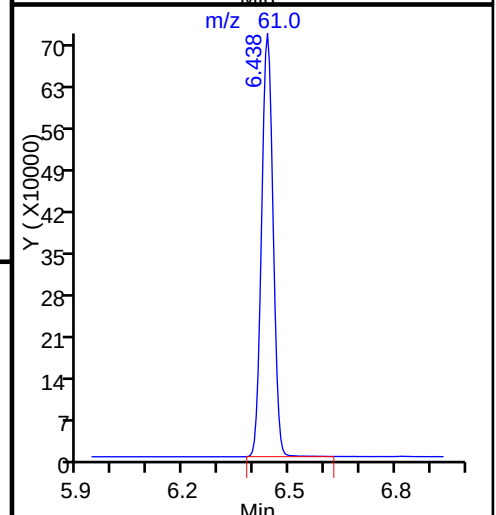
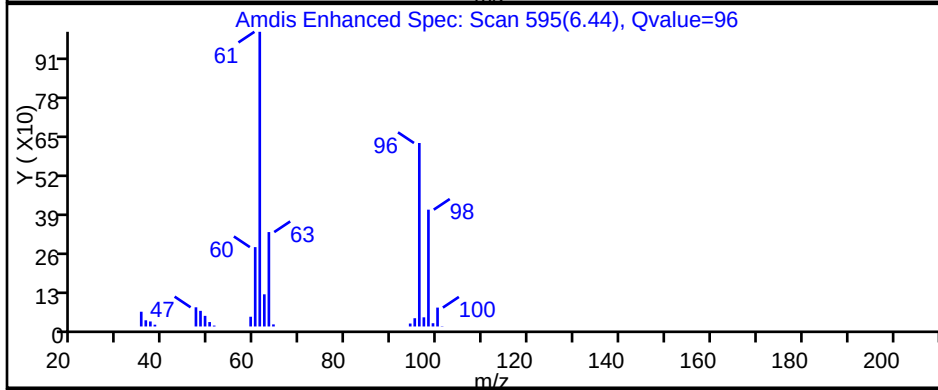
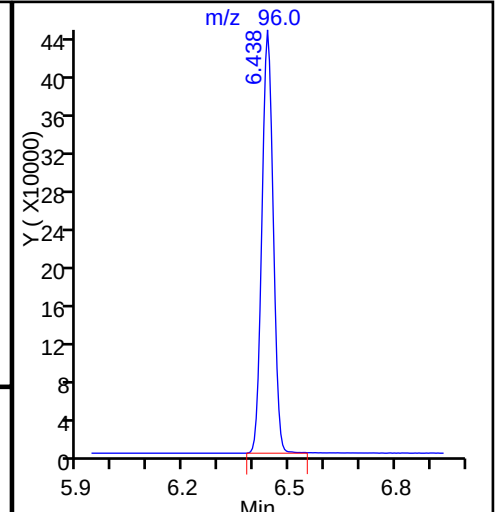
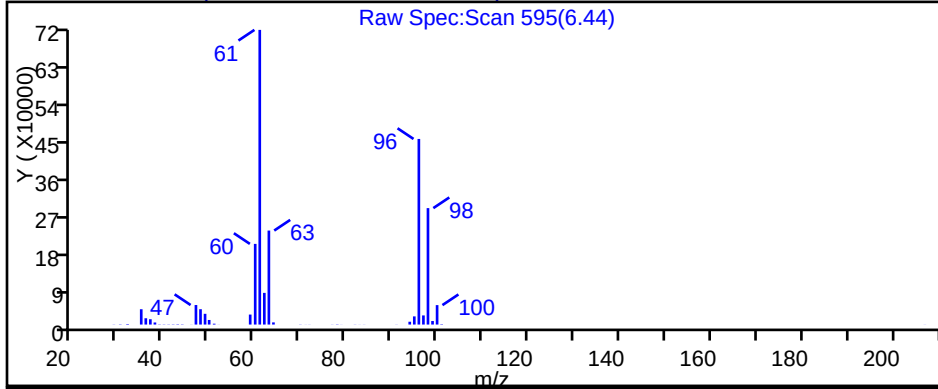
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-2 Lab Sample ID: 140-6565-4
 Matrix: Air Lab File ID: GL20P104.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:25
 Sample wt/vol: 100 (mL) Date Analyzed: 12/20/2016 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.40	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.40	
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	
106-93-4	1,2-Dibromoethane	187.87	ND		0.40	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.40	
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	
78-87-5	1,2-Dichloropropane	112.99	ND		0.40	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.40	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.40	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.40	
123-91-1	1,4-Dioxane	88.11	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.0	
78-93-3	2-Butanone	72.11	ND		1.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.0	
71-43-2	Benzene	78.11	ND		0.40	
100-44-7	Benzyl chloride	126.58	ND		0.80	
75-27-4	Bromodichloromethane	163.83	ND		0.40	
75-25-2	Bromoform	252.75	ND		0.40	
74-83-9	Bromomethane	94.94	ND		0.40	
56-23-5	Carbon tetrachloride	153.81	ND		0.20	
108-90-7	Chlorobenzene	112.56	ND		0.40	
75-00-3	Chloroethane	64.52	ND		0.40	
67-66-3	Chloroform	119.38	ND		0.40	
74-87-3	Chloromethane	50.49	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.40	
110-82-7	Cyclohexane	84.16	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-2 Lab Sample ID: 140-6565-4
 Matrix: Air Lab File ID: GL20P104.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:25
 Sample wt/vol: 100 (mL) Date Analyzed: 12/20/2016 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.40	
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	
64-17-5	Ethanol	46.07	190		10	
100-41-4	Ethylbenzene	106.17	ND		0.40	
87-68-3	Hexachlorobutadiene	260.76	ND		0.40	
110-54-3	Hexane	86.17	ND		1.0	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.80	
75-09-2	Methylene Chloride	84.93	ND		1.0	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.40	
95-47-6	o-Xylene	106.17	ND		0.40	
100-42-5	Styrene	104.15	ND		0.40	
75-65-0	t-Butyl alcohol	74.12	ND		1.6	
127-18-4	Tetrachloroethene	165.83	ND		0.40	
108-88-3	Toluene	92.14	ND		0.60	
156-60-5	trans-1,2-Dichloroethene	96.94	2.5		0.40	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.40	
79-01-6	Trichloroethene	131.39	ND		0.20	
75-69-4	Trichlorofluoromethane	137.37	ND		0.40	
75-01-4	Vinyl chloride	62.50	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-2 Lab Sample ID: 140-6565-4
 Matrix: Air Lab File ID: GL20P104.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:25
 Sample wt/vol: 100 (mL) Date Analyzed: 12/20/2016 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.7	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		3.1	
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
106-93-4	1,2-Dibromoethane	187.87	ND		3.1	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.4	
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	
78-87-5	1,2-Dichloropropane	112.99	ND		1.8	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		2.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.4	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.4	
123-91-1	1,4-Dioxane	88.11	ND		3.6	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		4.7	
78-93-3	2-Butanone	72.11	ND		4.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		4.1	
71-43-2	Benzene	78.11	ND		1.3	
100-44-7	Benzyl chloride	126.58	ND		4.1	
75-27-4	Bromodichloromethane	163.83	ND		2.7	
75-25-2	Bromoform	252.75	ND		4.1	
74-83-9	Bromomethane	94.94	ND		1.6	
56-23-5	Carbon tetrachloride	153.81	ND		1.3	
108-90-7	Chlorobenzene	112.56	ND		1.8	
75-00-3	Chloroethane	64.52	ND		1.1	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		2.1	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.8	
110-82-7	Cyclohexane	84.16	ND		3.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-2 Lab Sample ID: 140-6565-4
 Matrix: Air Lab File ID: GL20P104.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:25
 Sample wt/vol: 100 (mL) Date Analyzed: 12/20/2016 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		3.4	
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	
64-17-5	Ethanol	46.07	370		19	
100-41-4	Ethylbenzene	106.17	ND		1.7	
87-68-3	Hexachlorobutadiene	260.76	ND		4.3	
110-54-3	Hexane	86.17	ND		3.5	
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.9	
75-09-2	Methylene Chloride	84.93	ND		3.5	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		1.7	
95-47-6	o-Xylene	106.17	ND		1.7	
100-42-5	Styrene	104.15	ND		1.7	
75-65-0	t-Butyl alcohol	74.12	ND		4.9	
127-18-4	Tetrachloroethene	165.83	ND		2.7	
108-88-3	Toluene	92.14	ND		2.3	
156-60-5	trans-1,2-Dichloroethene	96.94	9.9		1.6	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.8	
79-01-6	Trichloroethene	131.39	ND		1.1	
75-69-4	Trichlorofluoromethane	137.37	ND		2.2	
75-01-4	Vinyl chloride	62.50	ND		0.51	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D
 Lims ID: 140-6565-A-4
 Client ID: IA-2
 Sample Type: Client
 Inject. Date: 20-Dec-2016 15:38:30 ALS Bottle#: 4 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-008
 Misc. Info.: 140-6565-a-4
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 16:25:43 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 16:25:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.045	8.055	-0.010	97	389668	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	95	1907659	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	87	1887432	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	95	1281227	4.10	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	33977	0.1019	
9 Chloromethane	52	3.682	3.682	0.000	99	4808	0.1342	
17 Ethanol	31	4.389	4.383	0.006	96	1515877	38.9	
20 Trichlorofluoromethane	101	4.782	4.777	0.005	99	16090	0.0498	
29 2-Methyl-2-propanol	59	5.548	5.499	0.049	83	2278	0.0156	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.564	0.006	95	2616	0.0128	
31 Methylene Chloride	84	5.694	5.704	-0.010	97	9924	0.1197	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	96	55948	0.4997	
40 Hexane	56	7.392	7.387	0.005	89	4988	0.0539	
44 Chloroform	83	8.072	8.077	-0.005	95	17985	0.0736	
49 Benzene	78	9.635	9.646	-0.011	98	15980	0.0466	
56 Isooctane	57	10.471	10.471	0.000	97	12795	0.0206	
65 4-Methyl-2-pentanone (MIBK	43	12.208	12.186	0.022	98	4885	0.0209	
68 Toluene	91	13.070	13.076	-0.006	93	32135	0.0851	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D

Injection Date: 20-Dec-2016 15:38:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-4

Lab Sample ID: 140-6565-4

Worklist Smp#: 8

Client ID: IA-2

Purge Vol: 500.000 mL

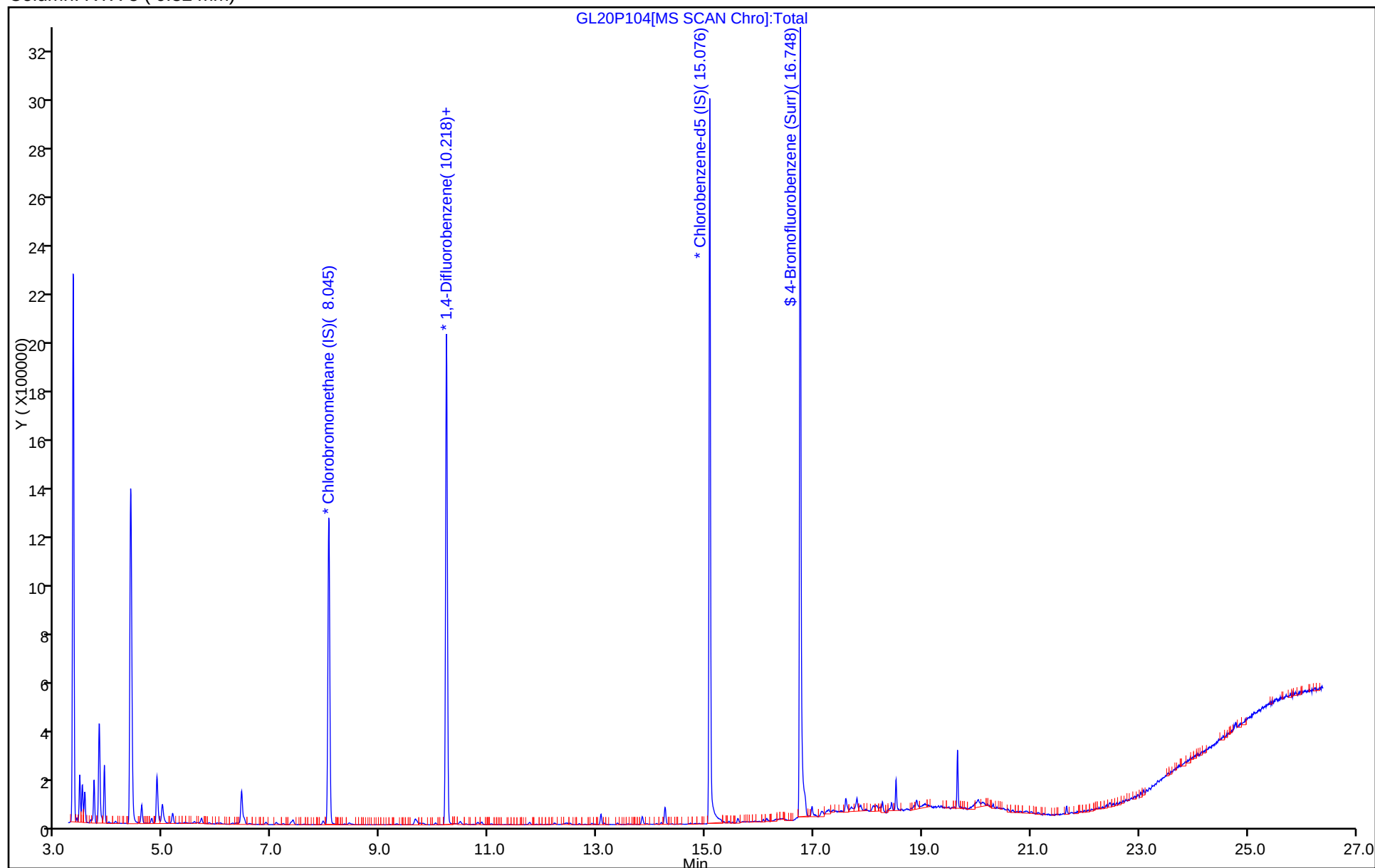
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D
Lims ID: 140-6565-A-4
Client ID: IA-2
Sample Type: Client
Inject. Date: 20-Dec-2016 15:38:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-008
Misc. Info.: 140-6565-a-4
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 16:25:43 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 16:25:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.10	102.61

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D

Injection Date: 20-Dec-2016 15:38:30

Instrument ID: MG

Lims ID: 140-6565-A-4

Lab Sample ID: 140-6565-4

Client ID: IA-2

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 8

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

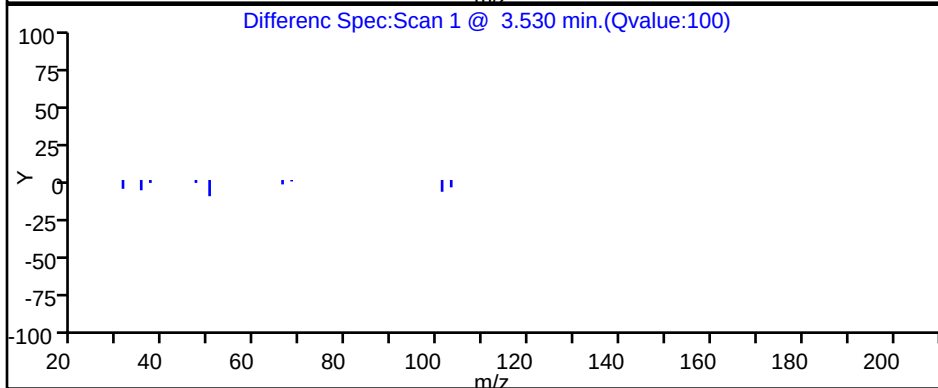
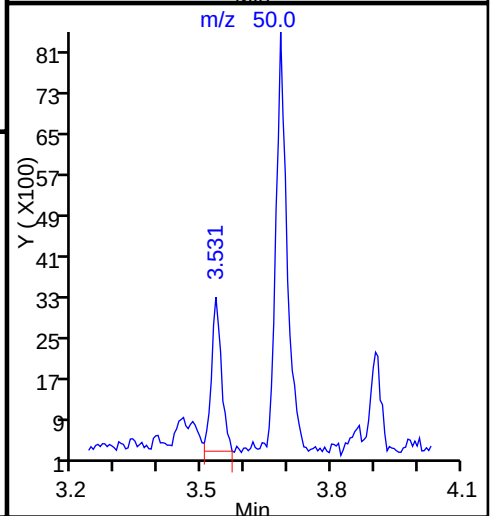
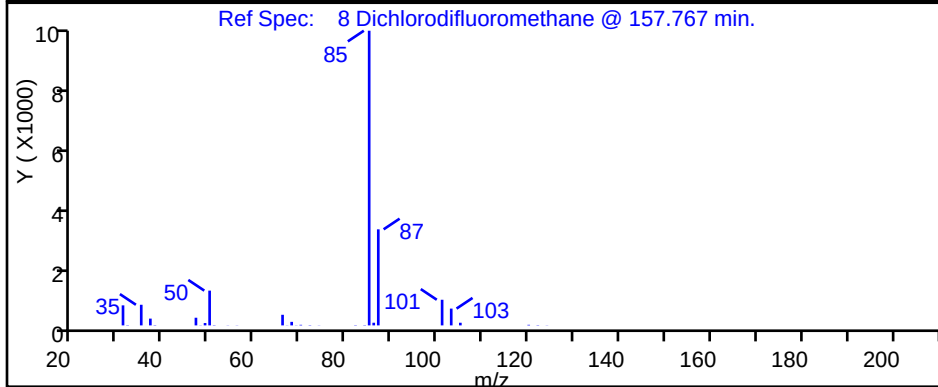
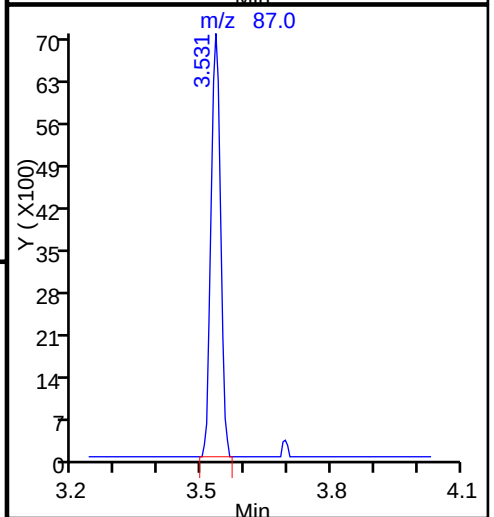
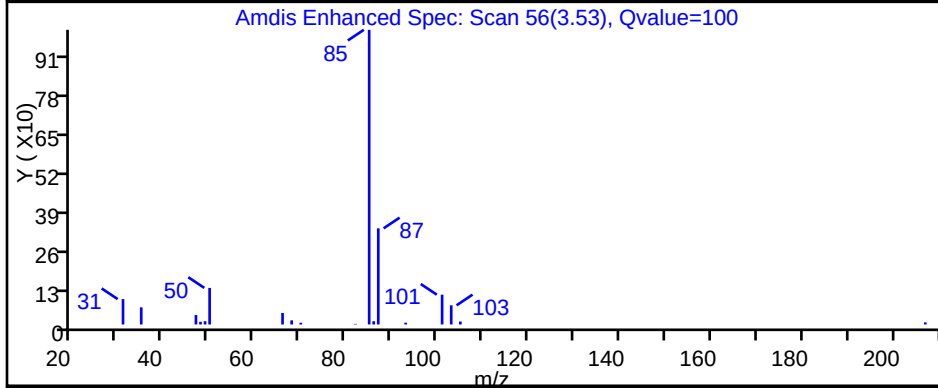
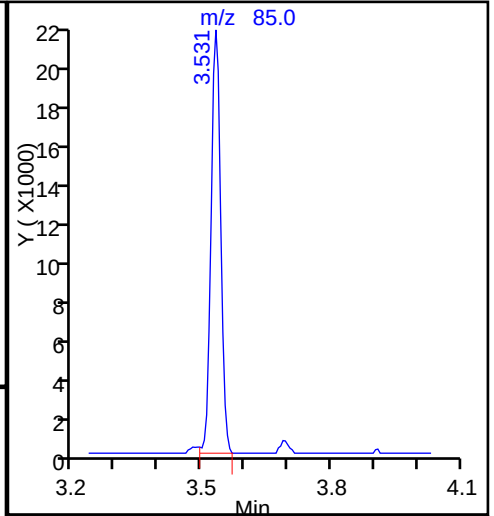
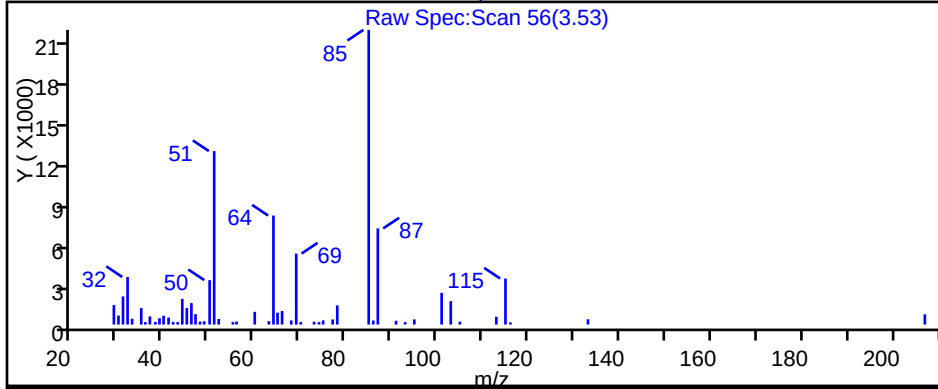
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D

Injection Date: 20-Dec-2016 15:38:30

Instrument ID: MG

Lims ID: 140-6565-A-4

Lab Sample ID: 140-6565-4

Client ID: IA-2

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 8

Purge Vol: 500.000 mL

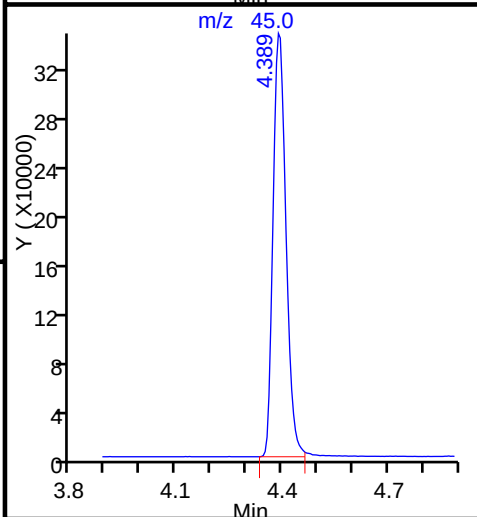
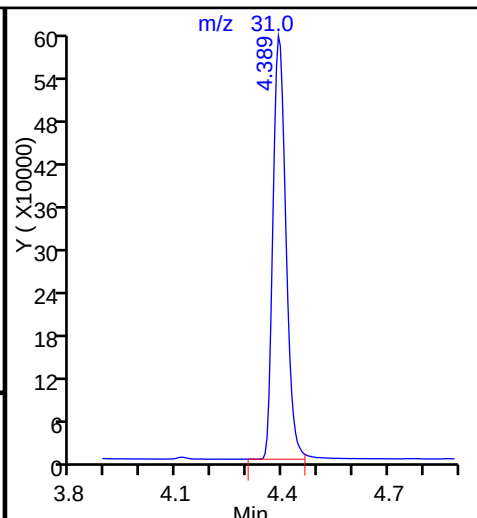
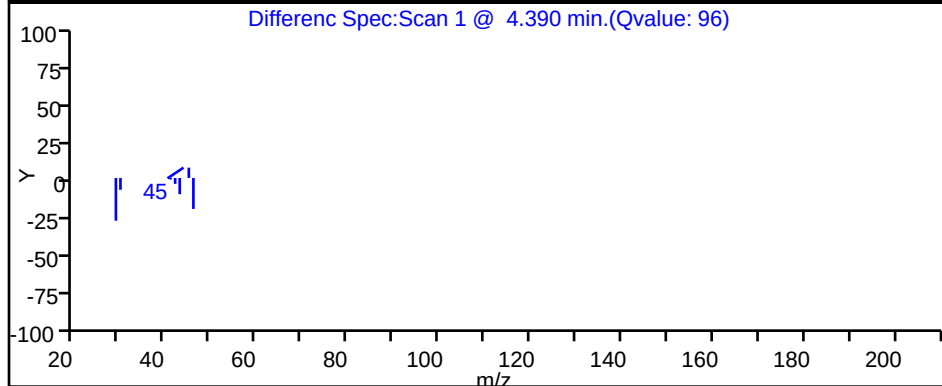
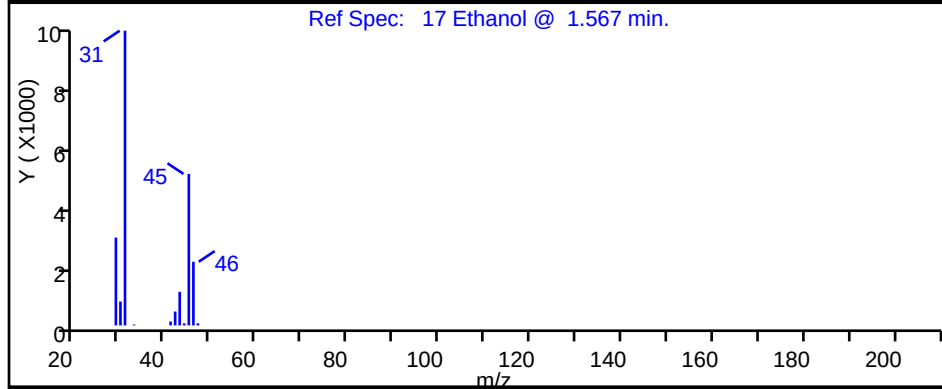
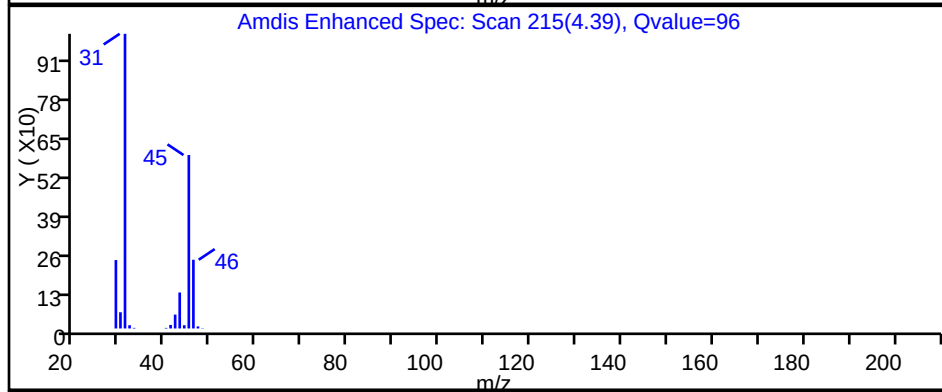
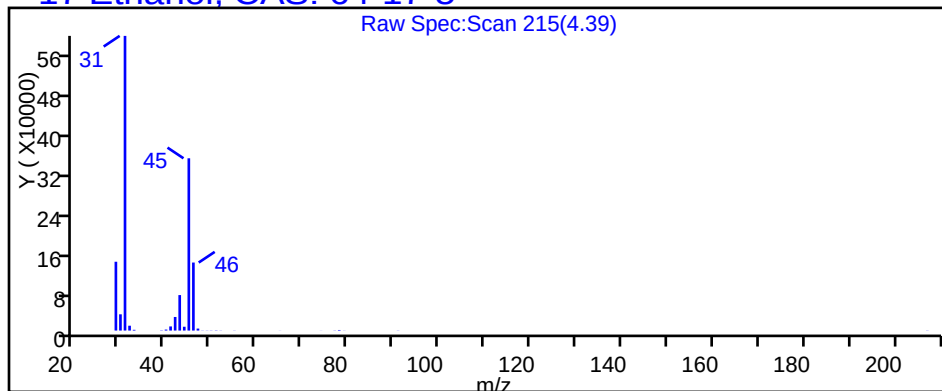
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P104.D

Injection Date: 20-Dec-2016 15:38:30

Instrument ID: MG

Lims ID: 140-6565-A-4

Lab Sample ID: 140-6565-4

Client ID: IA-2

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 8

Purge Vol: 500.000 mL

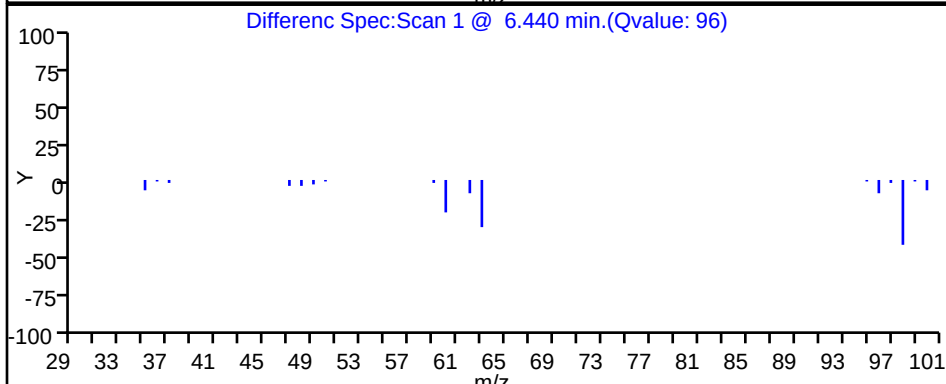
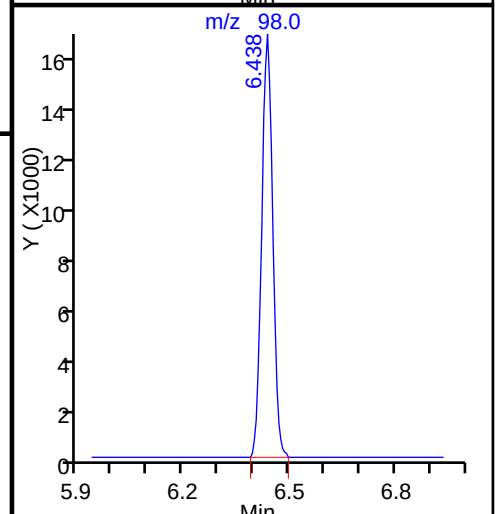
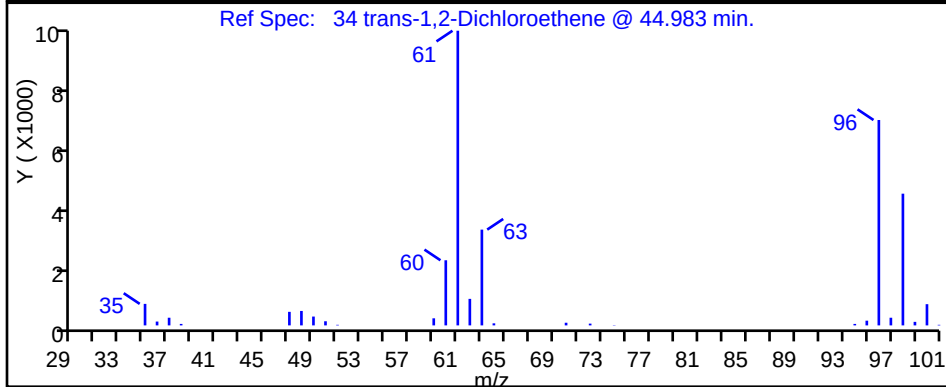
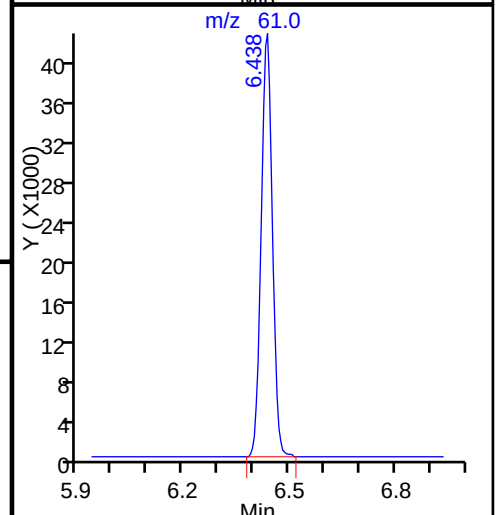
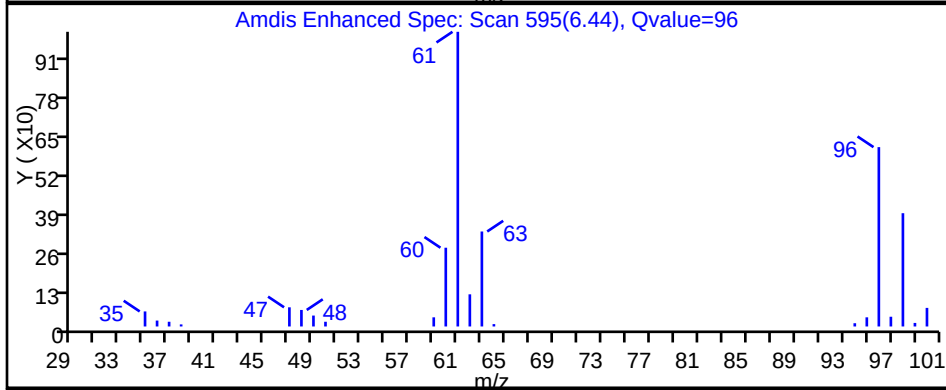
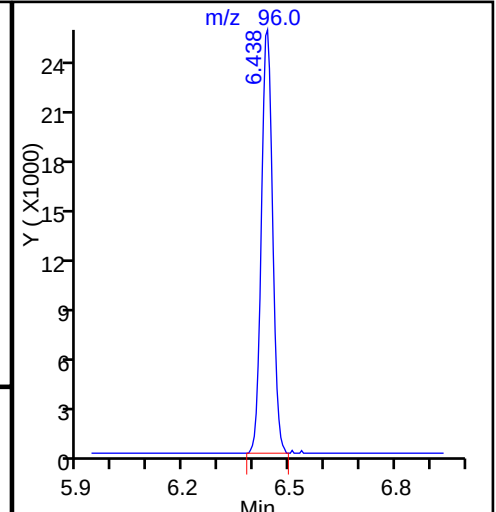
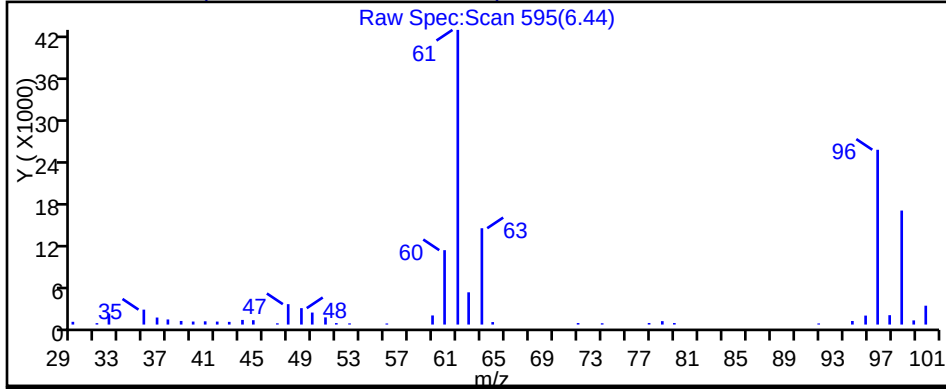
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-3 Lab Sample ID: 140-6565-5
 Matrix: Air Lab File ID: GL20P105R.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:50
 Sample wt/vol: 400 (mL) Date Analyzed: 12/21/2016 09:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.10	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.10	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.10	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.10	
75-34-3	1,1-Dichloroethane	98.96	ND		0.10	
75-35-4	1,1-Dichloroethene	96.94	ND		0.10	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.10	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2		0.10	
106-93-4	1,2-Dibromoethane	187.87	ND		0.10	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.10	
107-06-2	1,2-Dichloroethane	98.96	ND		0.10	
78-87-5	1,2-Dichloropropane	112.99	ND		0.10	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.10	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.29		0.10	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.10	
106-46-7	1,4-Dichlorobenzene	147.00	0.37		0.10	
123-91-1	1,4-Dioxane	88.11	ND		0.25	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.25	
78-93-3	2-Butanone	72.11	2.3		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.29		0.25	
71-43-2	Benzene	78.11	0.35		0.10	
100-44-7	Benzyl chloride	126.58	ND		0.20	
75-27-4	Bromodichloromethane	163.83	ND		0.10	
75-25-2	Bromoform	252.75	ND		0.10	
74-83-9	Bromomethane	94.94	ND		0.10	
56-23-5	Carbon tetrachloride	153.81	0.064		0.050	
108-90-7	Chlorobenzene	112.56	ND		0.10	
75-00-3	Chloroethane	64.52	ND		0.10	
67-66-3	Chloroform	119.38	0.15		0.10	
74-87-3	Chloromethane	50.49	0.61		0.25	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.10	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.10	
110-82-7	Cyclohexane	84.16	ND		0.25	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-3 Lab Sample ID: 140-6565-5
 Matrix: Air Lab File ID: GL20P105R.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:50
 Sample wt/vol: 400 (mL) Date Analyzed: 12/21/2016 09:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.10	
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.10	
64-17-5	Ethanol	46.07	89		2.5	
100-41-4	Ethylbenzene	106.17	0.61		0.10	
87-68-3	Hexachlorobutadiene	260.76	ND		0.10	
110-54-3	Hexane	86.17	0.58		0.25	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.20	
75-09-2	Methylene Chloride	84.93	0.61		0.25	
179601-23-1	m-Xylene & p-Xylene	106.17	2.6		0.10	
95-47-6	o-Xylene	106.17	0.99		0.10	
100-42-5	Styrene	104.15	ND		0.10	
75-65-0	t-Butyl alcohol	74.12	1.1		0.40	
127-18-4	Tetrachloroethene	165.83	ND		0.10	
108-88-3	Toluene	92.14	2.3		0.15	
156-60-5	trans-1,2-Dichloroethene	96.94	5.5		0.10	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.10	
79-01-6	Trichloroethene	131.39	ND		0.050	
75-69-4	Trichlorofluoromethane	137.37	0.28		0.10	
75-01-4	Vinyl chloride	62.50	ND		0.050	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-3 Lab Sample ID: 140-6565-5
 Matrix: Air Lab File ID: GL20P105R.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:50
 Sample wt/vol: 400 (mL) Date Analyzed: 12/21/2016 09:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.55	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.69	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.55	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.77	
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.74	
95-63-6	1,2,4-Trimethylbenzene	120.20	6.1		0.49	
106-93-4	1,2-Dibromoethane	187.87	ND		0.77	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.60	
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	
78-87-5	1,2-Dichloropropane	112.99	ND		0.46	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.70	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.4		0.49	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.60	
106-46-7	1,4-Dichlorobenzene	147.00	2.2		0.60	
123-91-1	1,4-Dioxane	88.11	ND		0.90	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.2	
78-93-3	2-Butanone	72.11	6.7		1.2	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	1.2		1.0	
71-43-2	Benzene	78.11	1.1		0.32	
100-44-7	Benzyl chloride	126.58	ND		1.0	
75-27-4	Bromodichloromethane	163.83	ND		0.67	
75-25-2	Bromoform	252.75	ND		1.0	
74-83-9	Bromomethane	94.94	ND		0.39	
56-23-5	Carbon tetrachloride	153.81	0.40		0.31	
108-90-7	Chlorobenzene	112.56	ND		0.46	
75-00-3	Chloroethane	64.52	ND		0.26	
67-66-3	Chloroform	119.38	0.72		0.49	
74-87-3	Chloromethane	50.49	1.3		0.52	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.45	
110-82-7	Cyclohexane	84.16	ND		0.86	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: SSV-3 Lab Sample ID: 140-6565-5
 Matrix: Air Lab File ID: GL20P105R.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:50
 Sample wt/vol: 400 (mL) Date Analyzed: 12/21/2016 09:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.85	
75-71-8	Dichlorodifluoromethane	120.91	2.8		0.49	
64-17-5	Ethanol	46.07	170		4.7	
100-41-4	Ethylbenzene	106.17	2.6		0.43	
87-68-3	Hexachlorobutadiene	260.76	ND		1.1	
110-54-3	Hexane	86.17	2.0		0.88	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.72	
75-09-2	Methylene Chloride	84.93	2.1		0.87	
179601-23-1	m-Xylene & p-Xylene	106.17	11		0.43	
95-47-6	o-Xylene	106.17	4.3		0.43	
100-42-5	Styrene	104.15	ND		0.43	
75-65-0	t-Butyl alcohol	74.12	3.4		1.2	
127-18-4	Tetrachloroethene	165.83	ND		0.68	
108-88-3	Toluene	92.14	8.8		0.57	
156-60-5	trans-1,2-Dichloroethene	96.94	22		0.40	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.45	
79-01-6	Trichloroethene	131.39	ND		0.27	
75-69-4	Trichlorofluoromethane	137.37	1.6		0.56	
75-01-4	Vinyl chloride	62.50	ND		0.13	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D
 Lims ID: 140-6565-A-5
 Client ID: SSV-3
 Sample Type: Client
 Inject. Date: 21-Dec-2016 09:47:30 ALS Bottle#: 5 Worklist Smp#: 26
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-026
 Misc. Info.: 140-6565-a-5
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:43:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	98	354975	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	96	1795749	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	87	1805149	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1253083	4.20	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	135849	0.4472	
9 Chloromethane	52	3.682	3.682	0.000	100	15957	0.4890	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.687	3.693	-0.006	36	2841	0.0141	
17 Ethanol	31	4.394	4.383	0.011	96	2539041	71.6	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	100	65946	0.2240	
29 2-Methyl-2-propanol	59	5.515	5.499	0.016	95	117593	0.8841	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.564	0.005	95	9672	0.0520	
31 Methylene Chloride	84	5.704	5.704	0.000	98	37060	0.4908	
34 trans-1,2-Dichloroethene	96	6.438	6.443	-0.005	95	445205	4.37	
39 2-Butanone (MEK)	72	7.327	7.338	-0.011	98	76120	1.81	
40 Hexane	56	7.387	7.387	0.000	90	39074	0.4631	
44 Chloroform	83	8.071	8.077	-0.006	94	26326	0.1182	
49 Benzene	78	9.641	9.646	-0.005	98	91328	0.2827	
50 Cyclohexane	69	9.646	9.651	-0.005	75	8015	0.1346	
52 Carbon tetrachloride	117	9.668	9.678	-0.010	51	14700	0.0510	
56 Isooctane	57	10.466	10.471	-0.005	95	89809	0.1533	
65 4-Methyl-2-pentanone (MIBK	43	12.186	12.186	0.000	99	50570	0.2300	
68 Toluene	91	13.070	13.076	-0.006	93	678010	1.88	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	230655	0.4874	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	763150	2.09	
84 Styrene	104	16.068	16.074	-0.006	46	12156	0.0469	
85 o-Xylene	91	16.128	16.133	-0.005	98	304979	0.7931	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	58088	0.2315	
96 1,2,4-Trimethylbenzene	105	17.988	17.993	-0.005	98	433906	0.99	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	94	90871	0.2943	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Worklist Smp#: 26

Client ID: SSV-3

Purge Vol: 500.000 mL

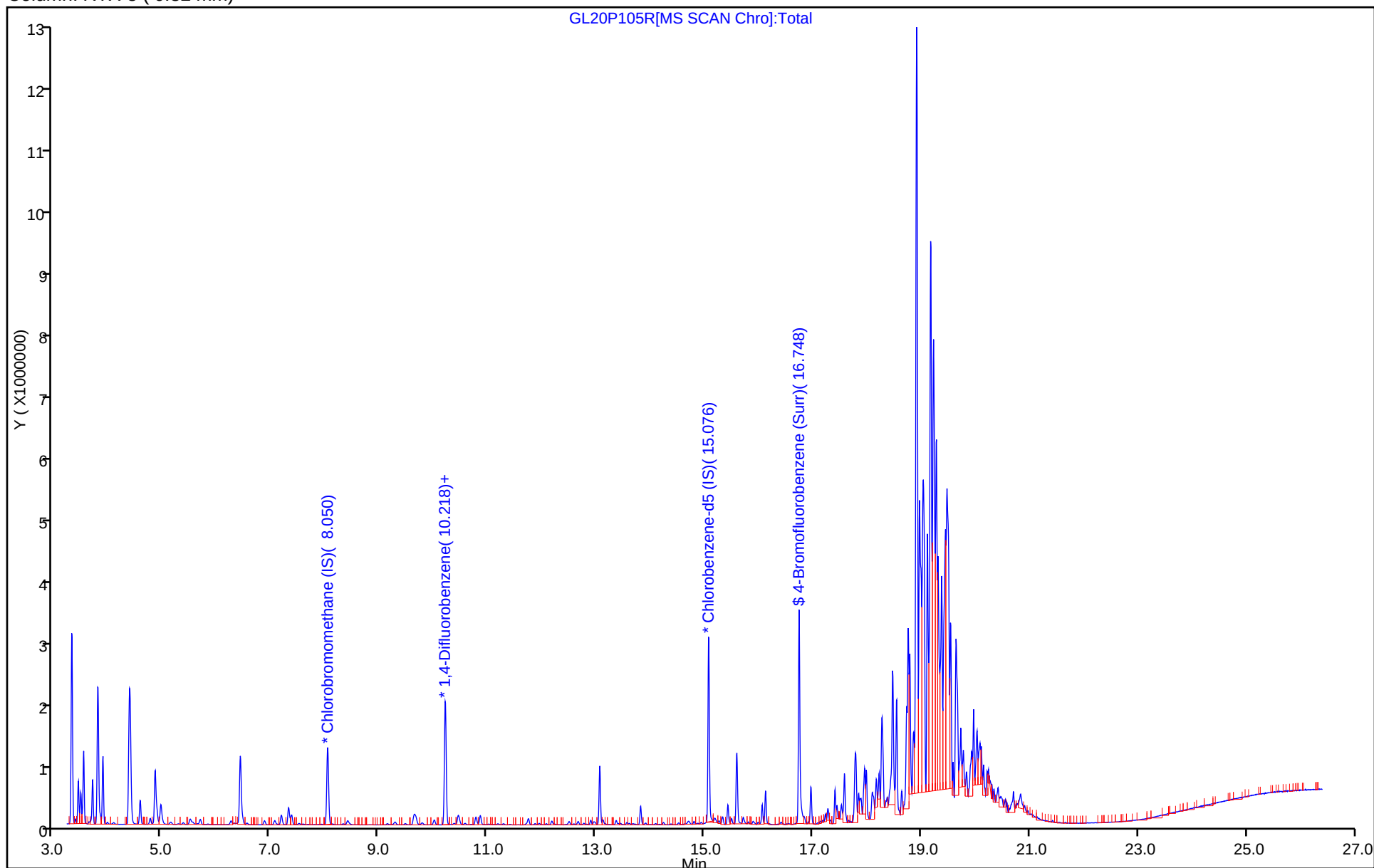
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D
Lims ID: 140-6565-A-5
Client ID: SSV-3
Sample Type: Client
Inject. Date: 21-Dec-2016 09:47:30 ALS Bottle#: 5 Worklist Smp#: 26
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-026
Misc. Info.: 140-6565-a-5
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:43:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.20	104.93

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

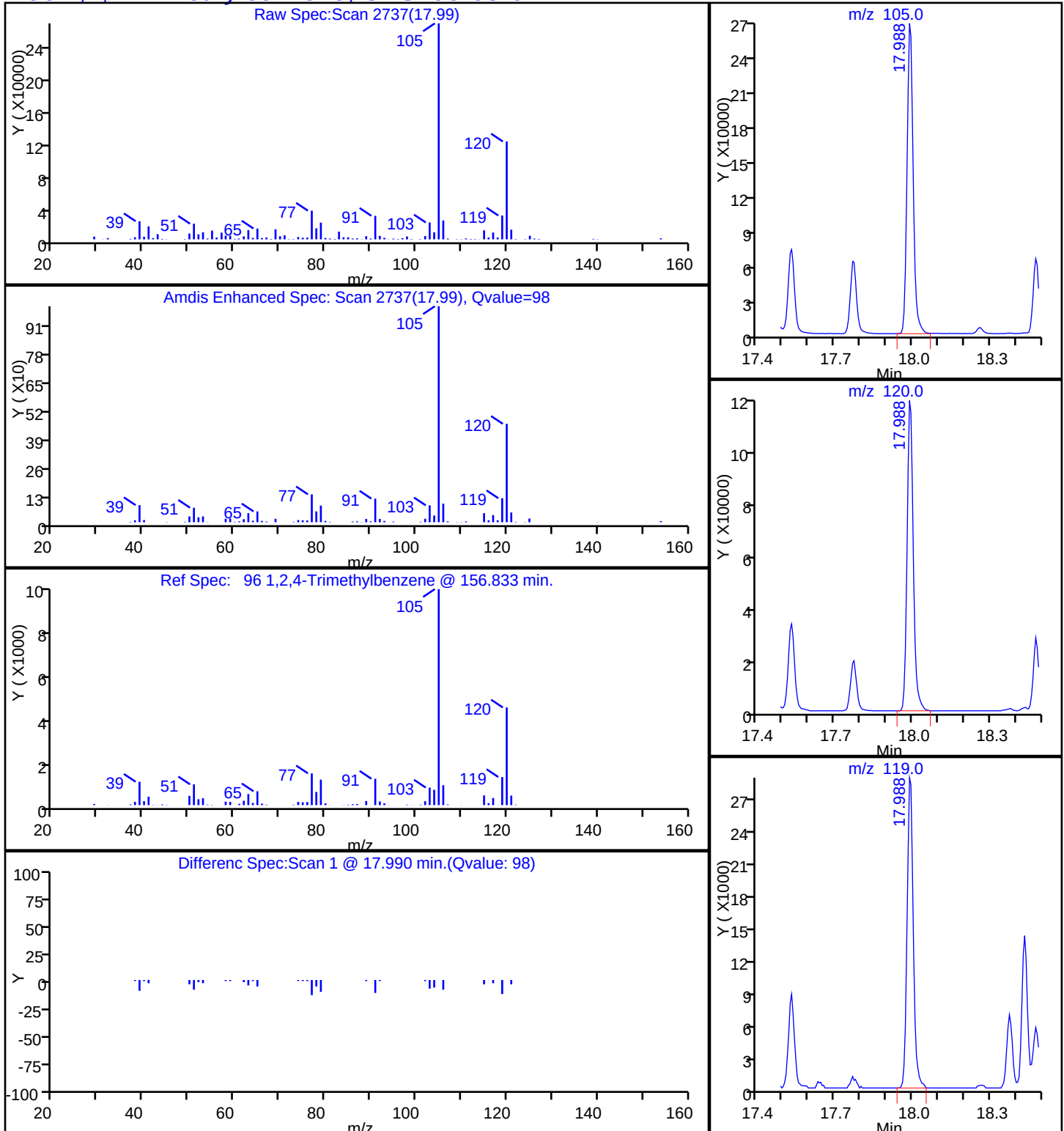
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

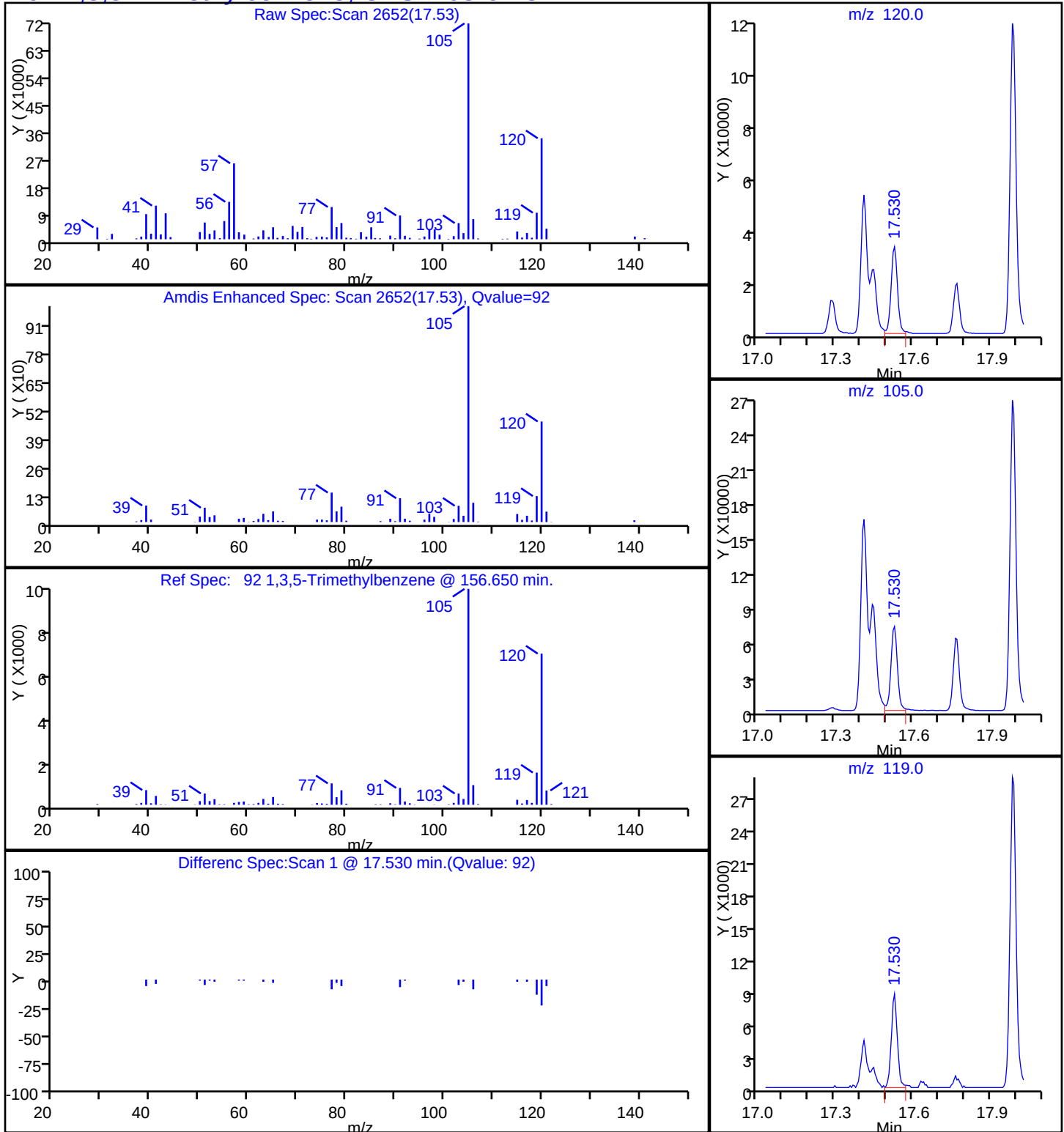
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

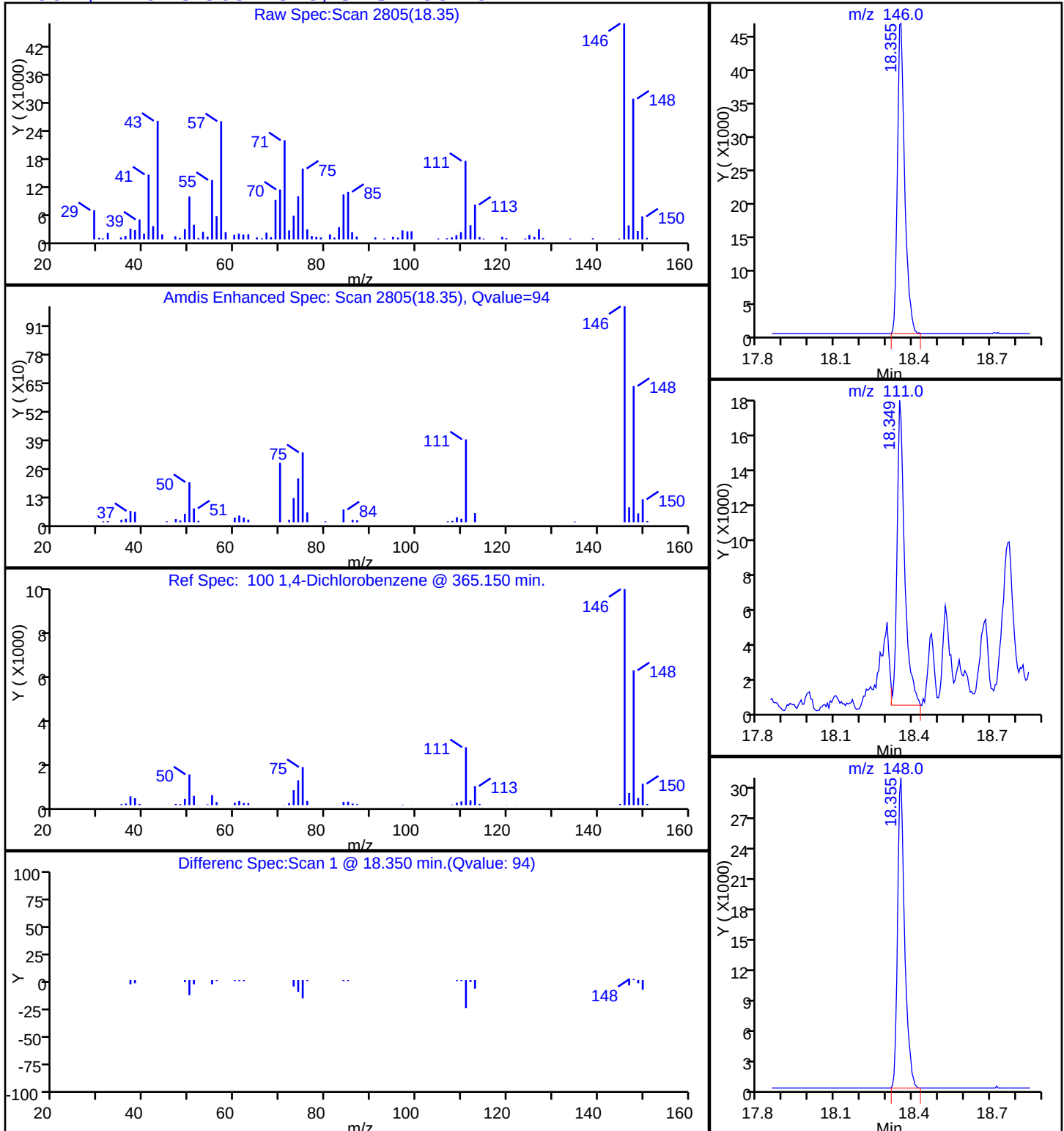
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

100 1,4-Dichlorobenzene, CAS: 106-46-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

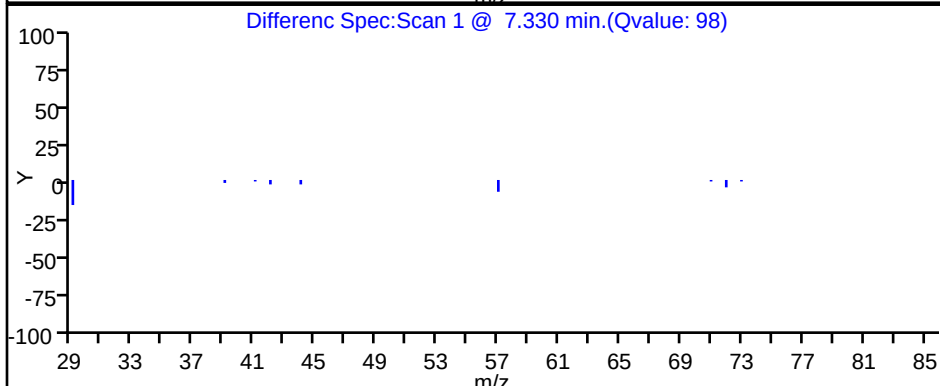
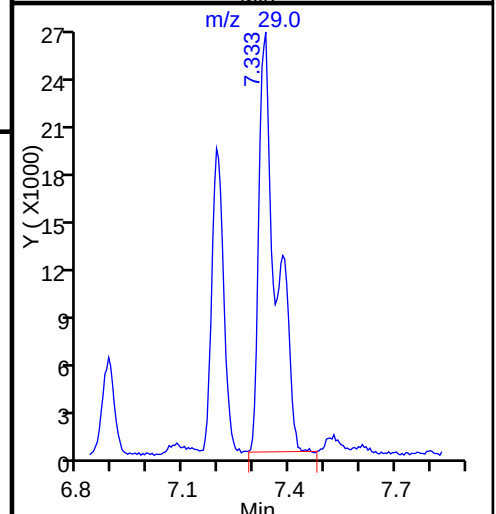
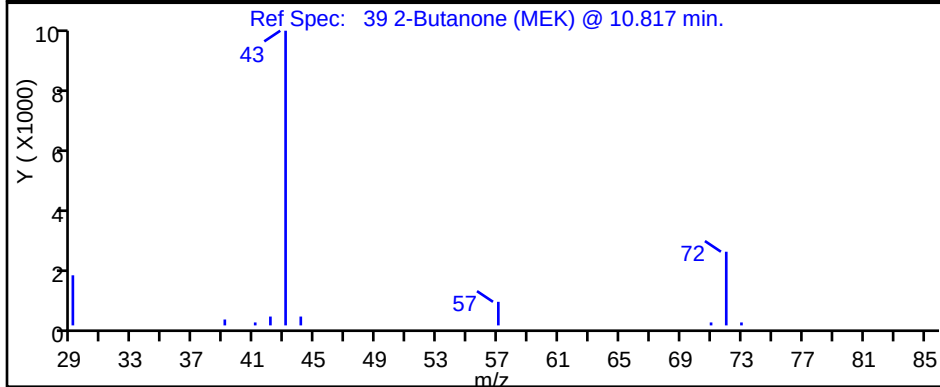
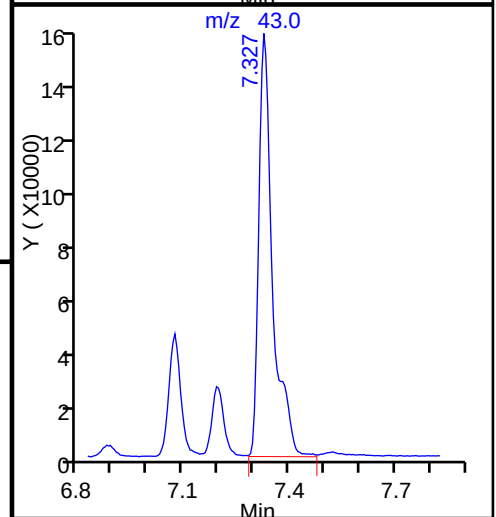
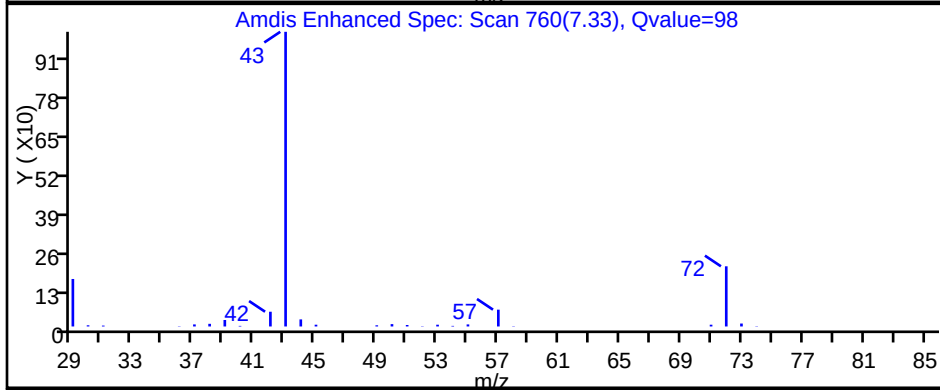
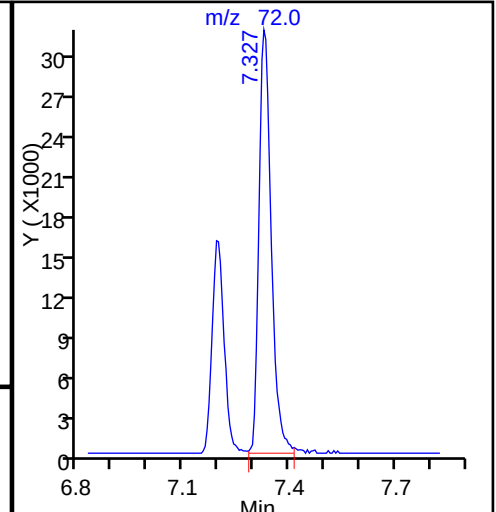
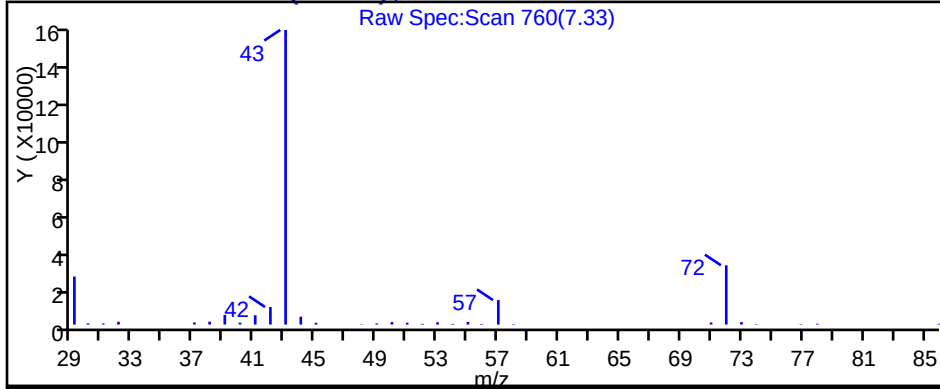
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

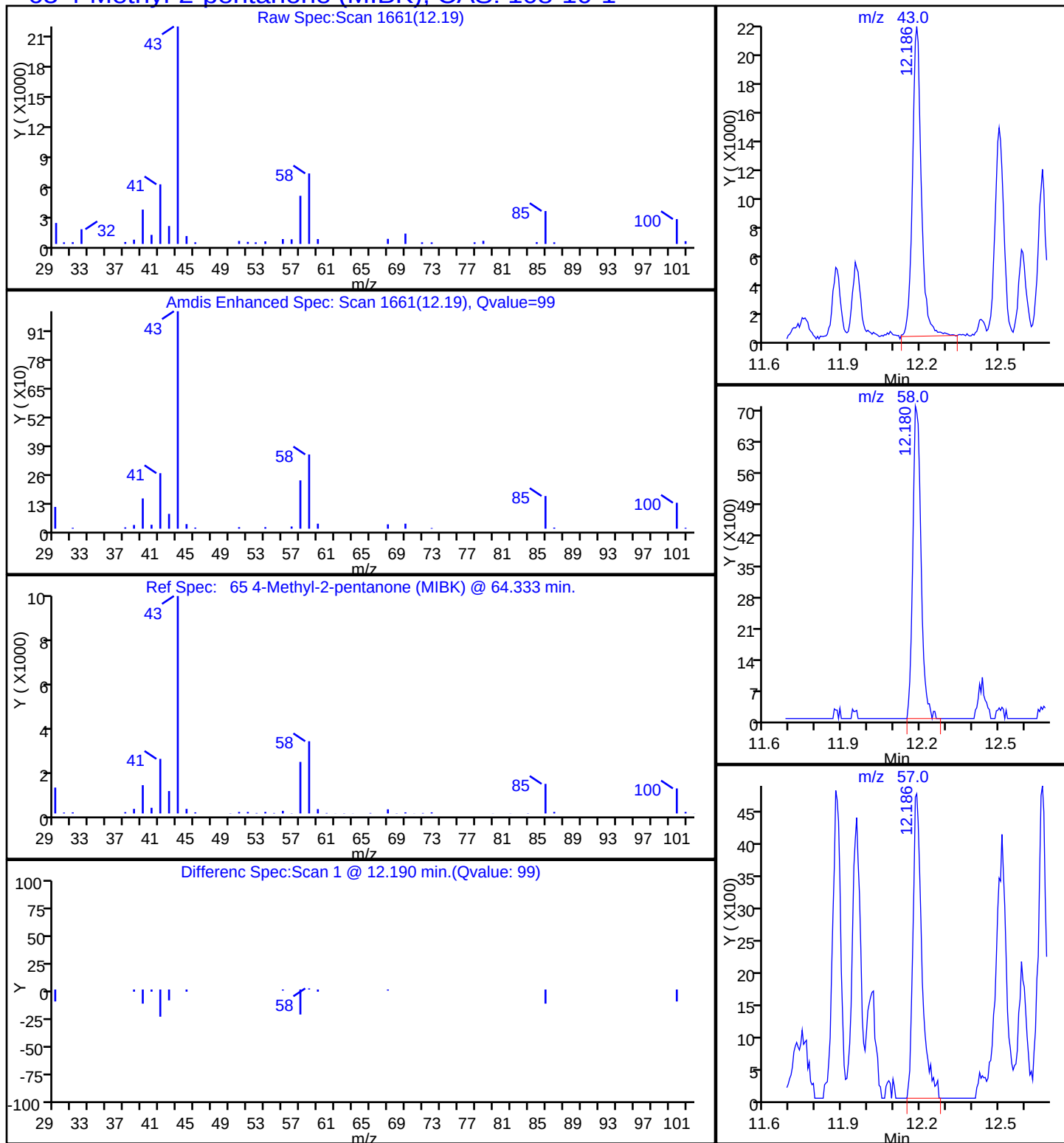
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

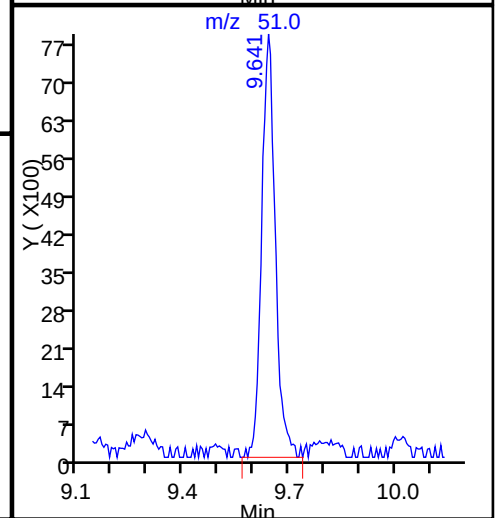
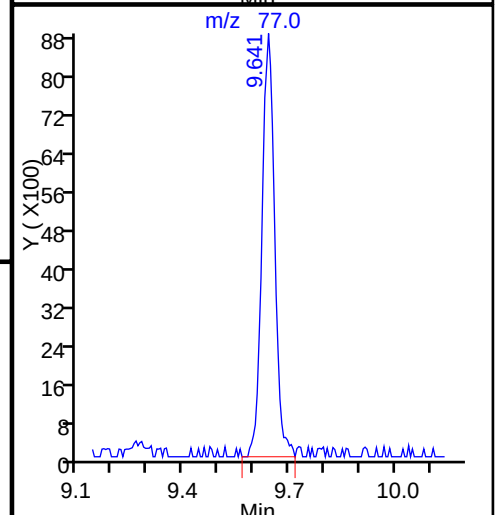
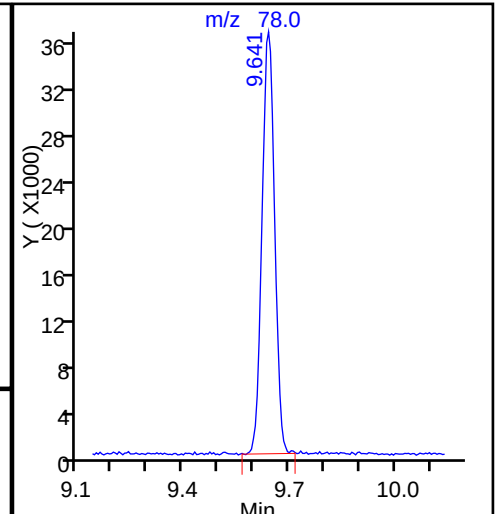
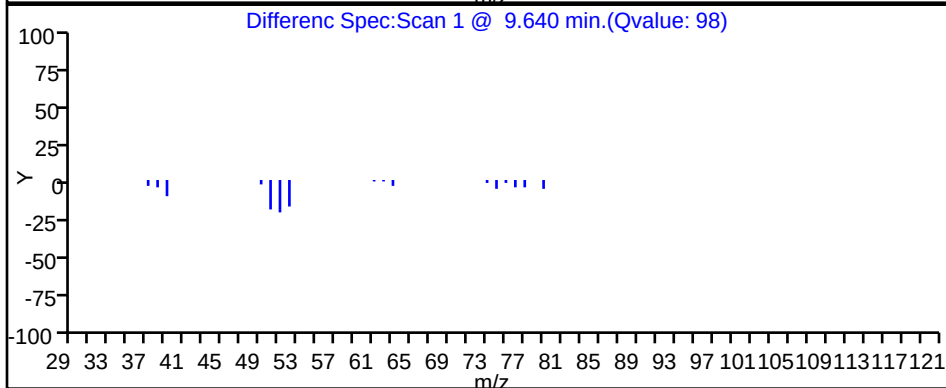
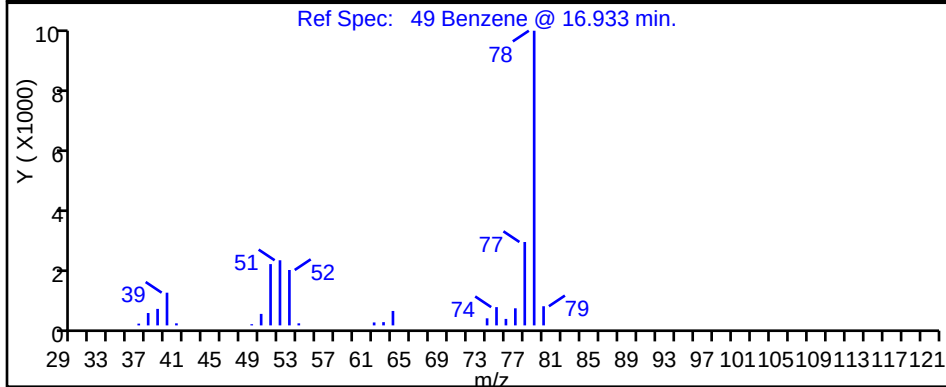
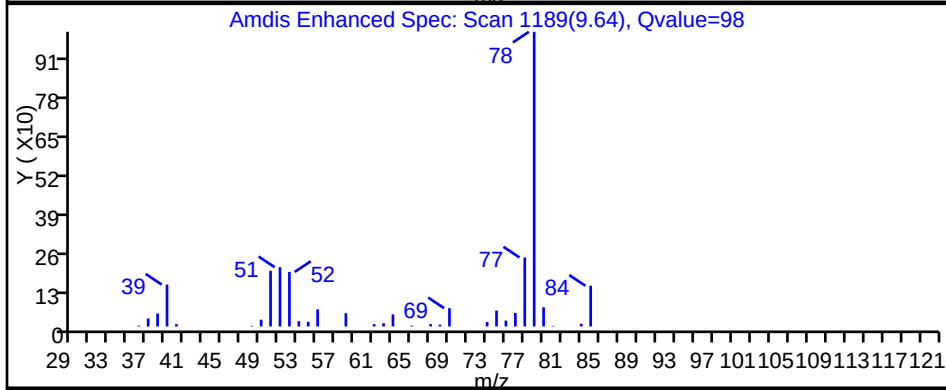
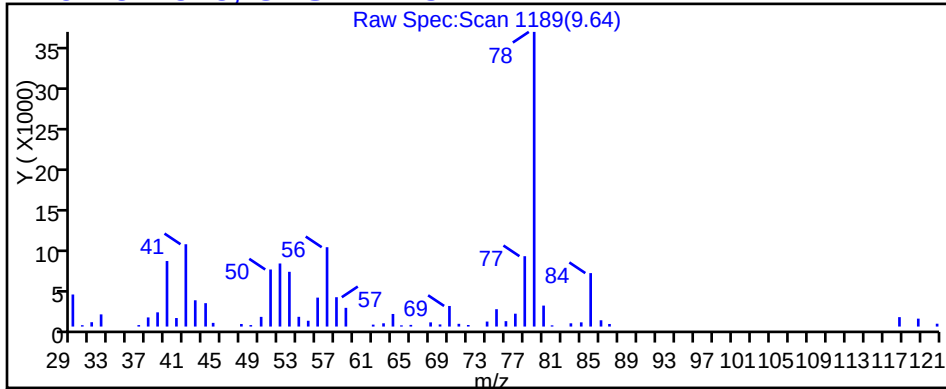
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

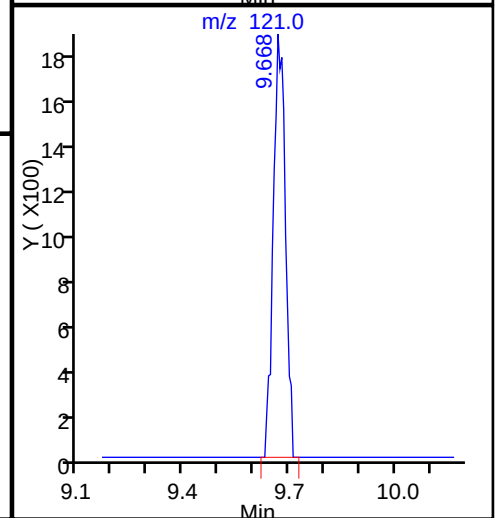
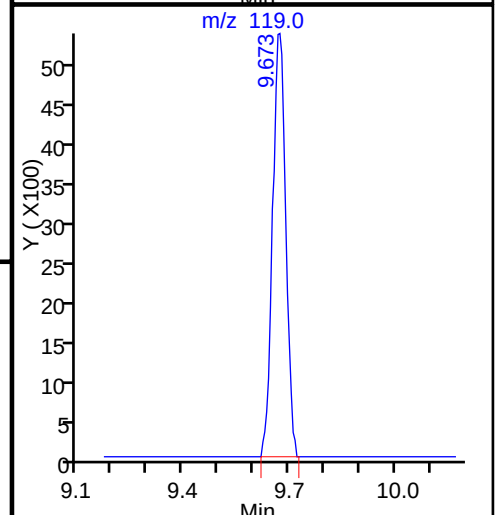
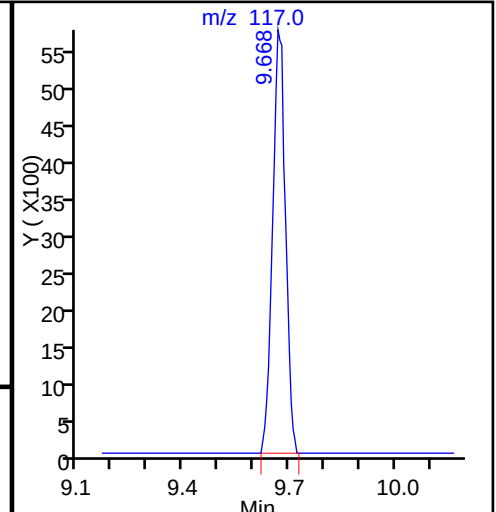
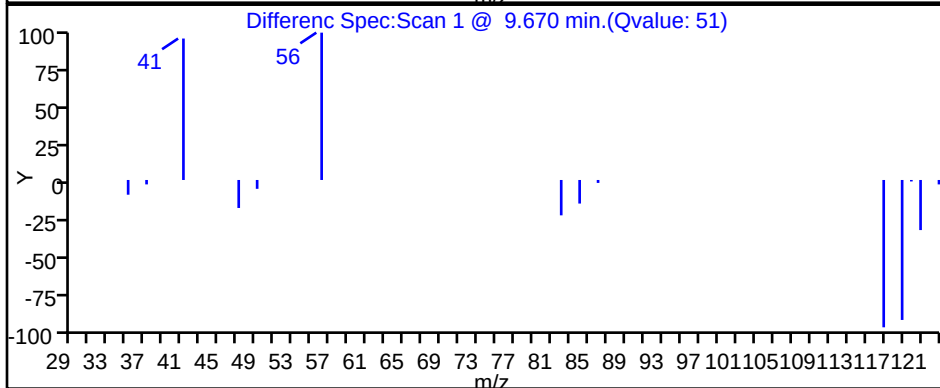
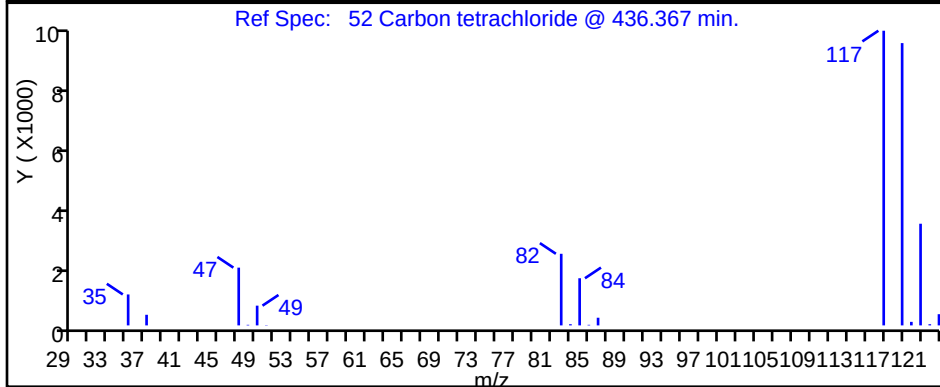
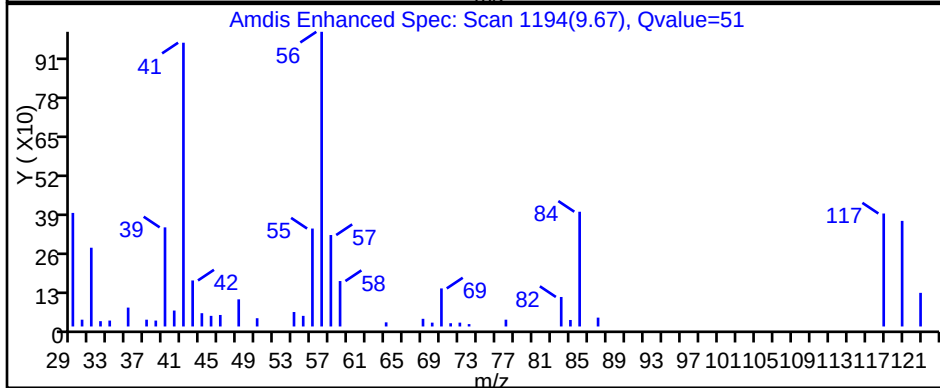
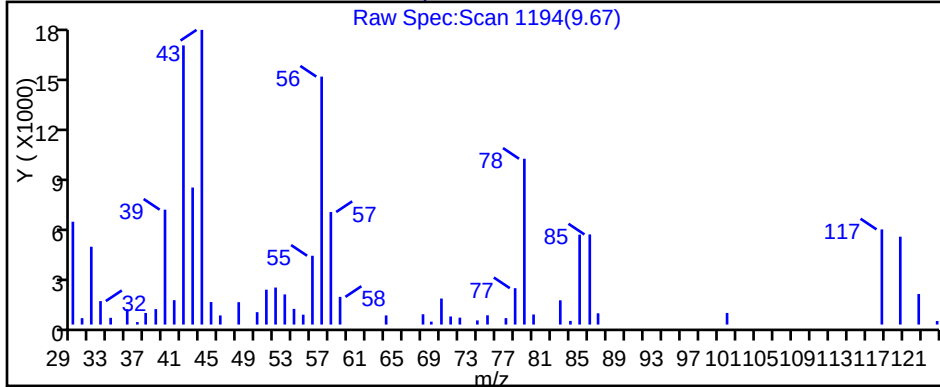
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

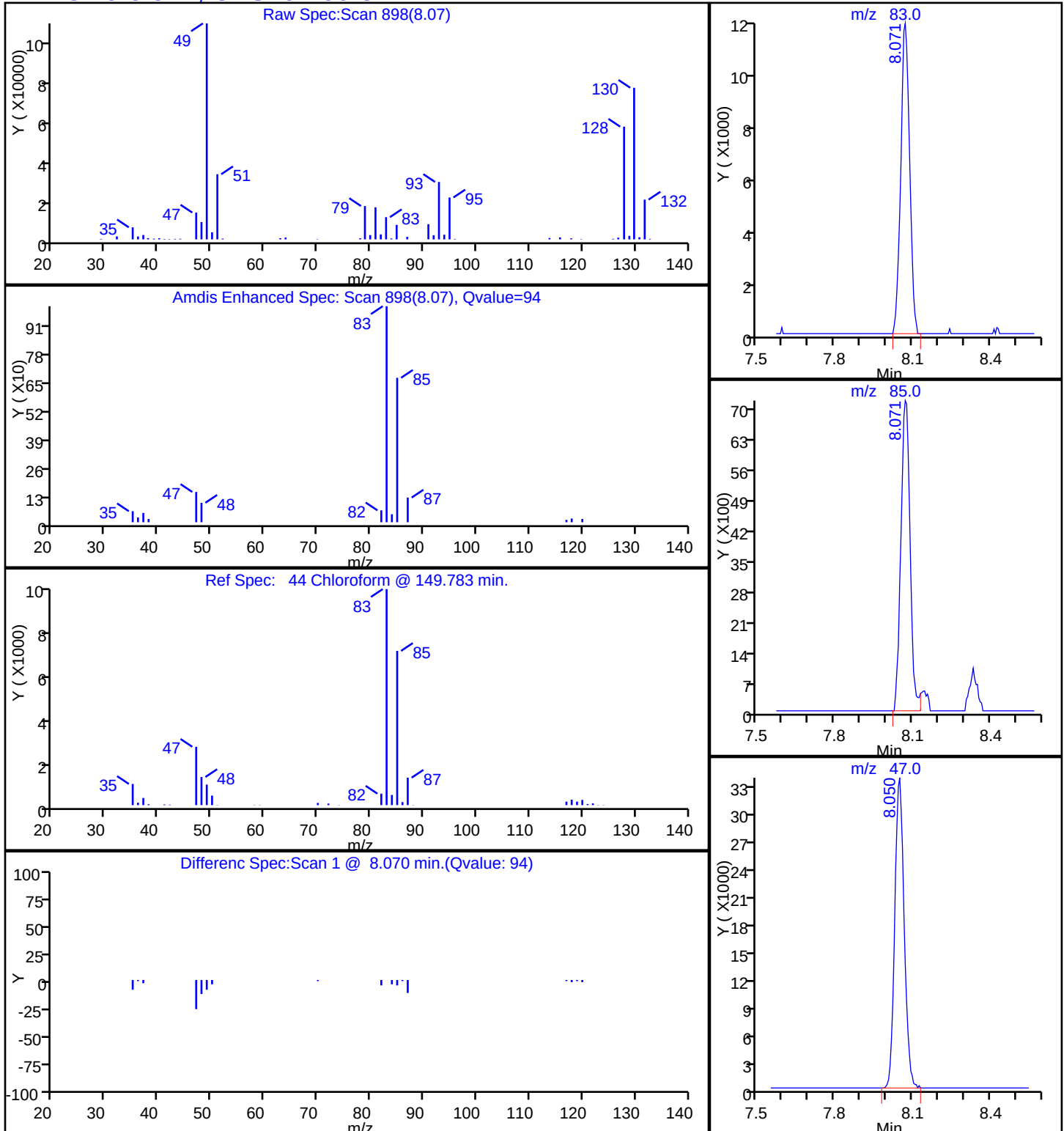
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

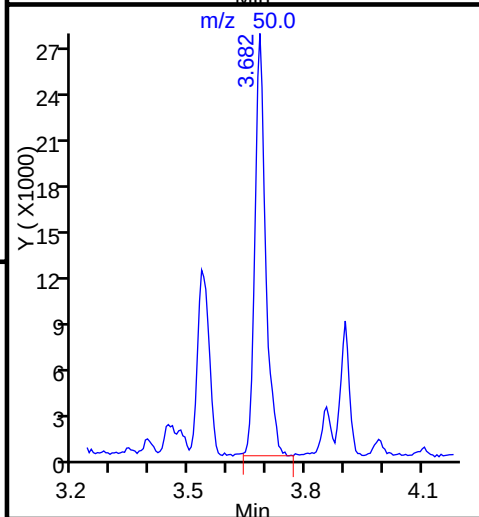
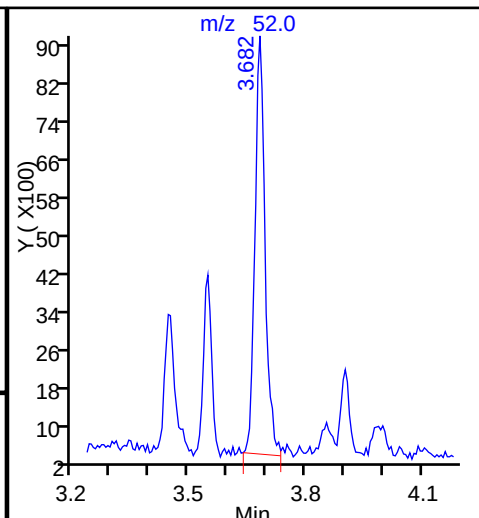
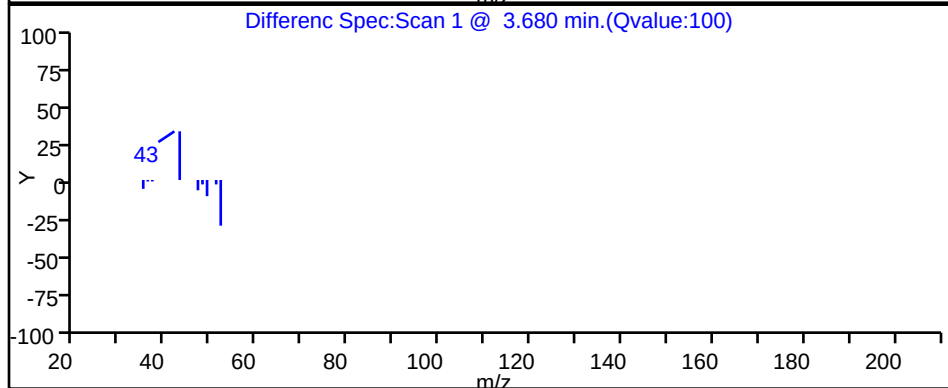
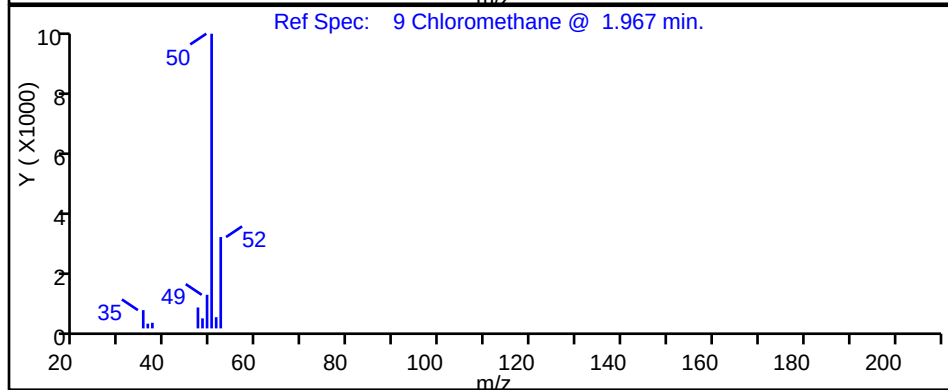
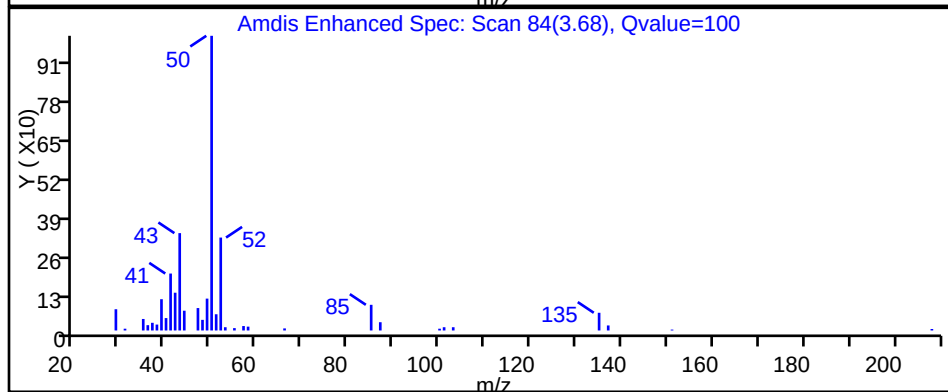
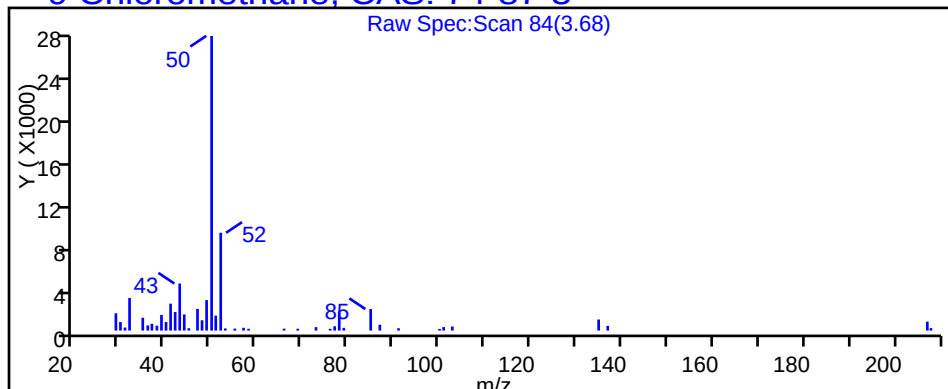
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

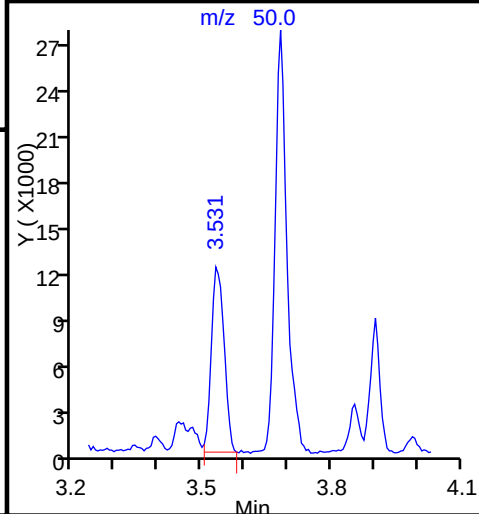
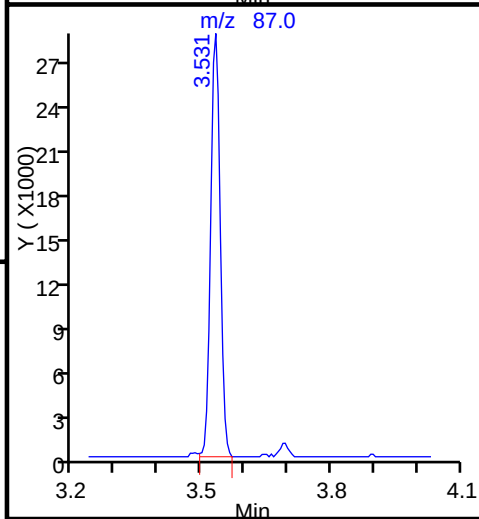
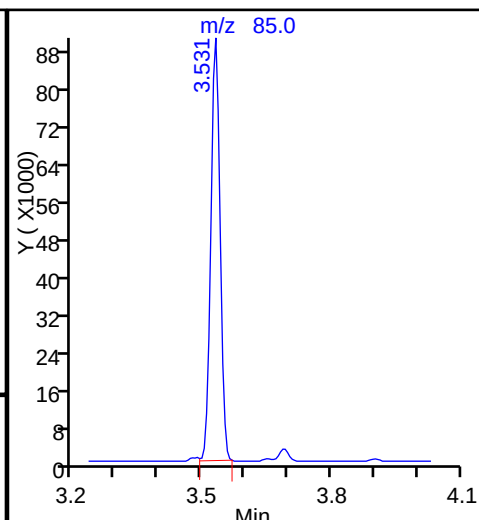
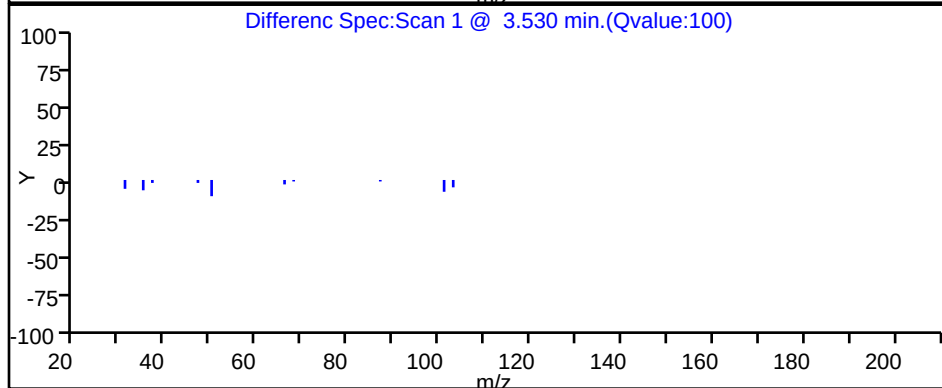
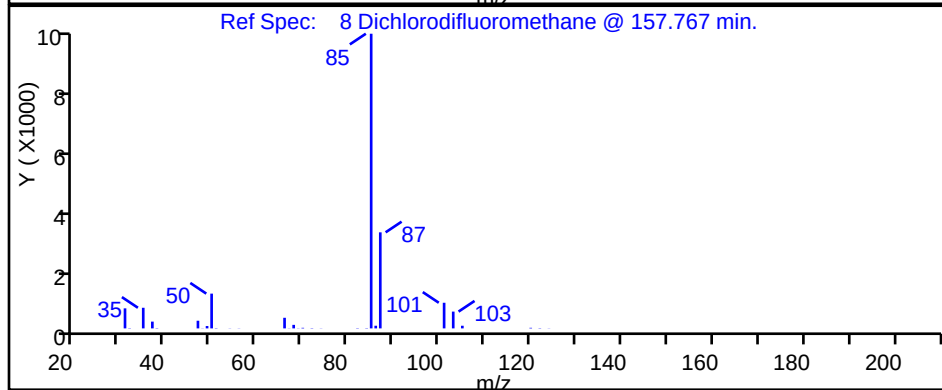
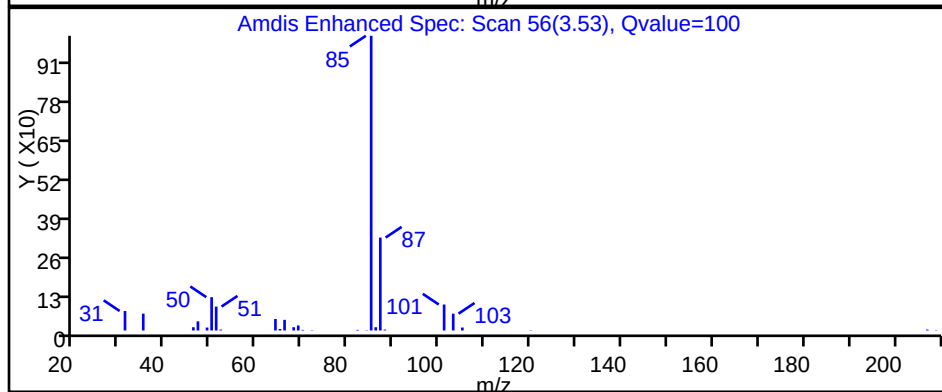
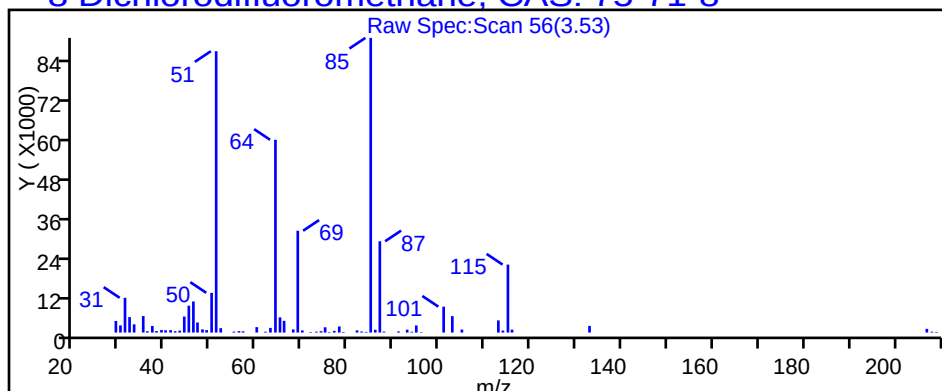
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

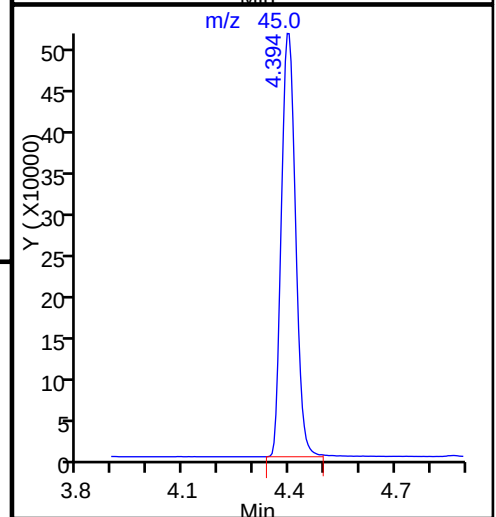
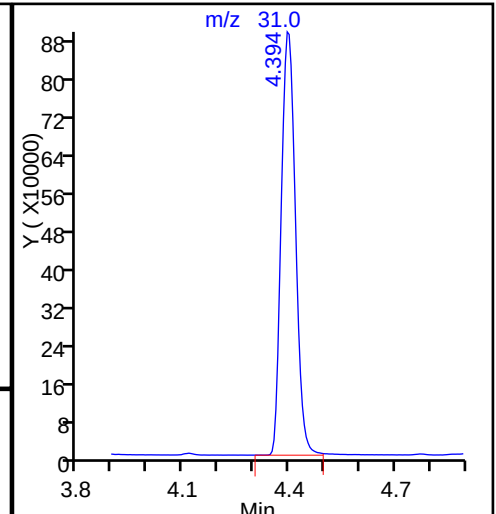
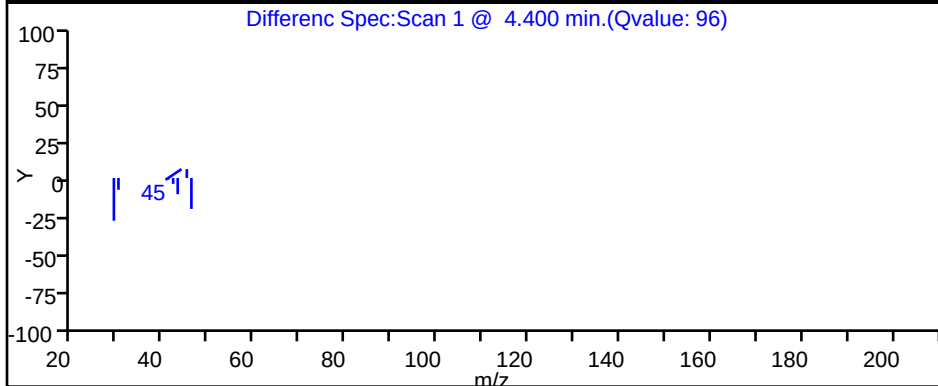
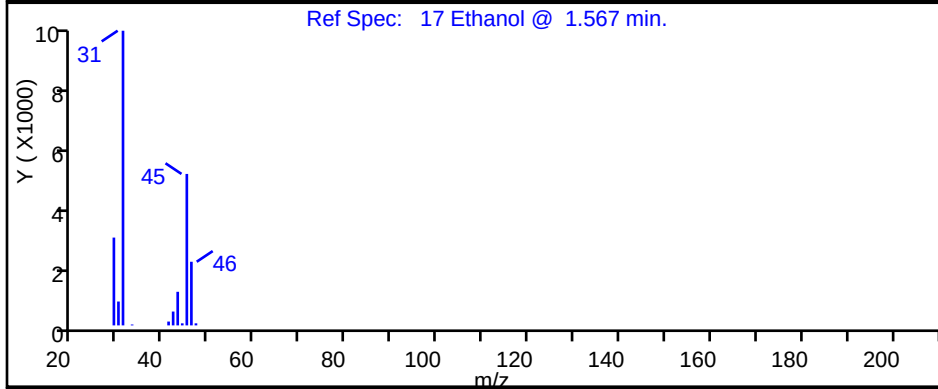
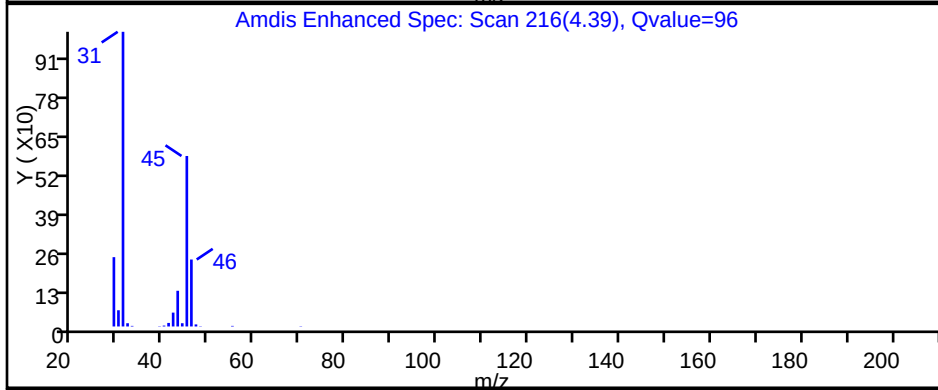
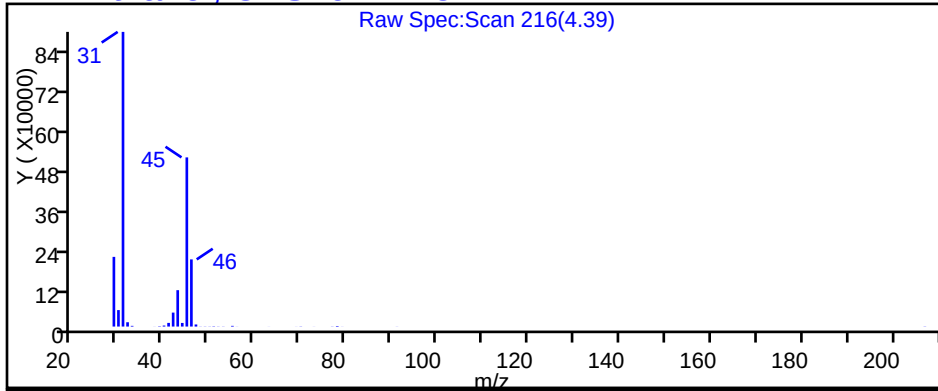
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MG\\20161216-3728.b\\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

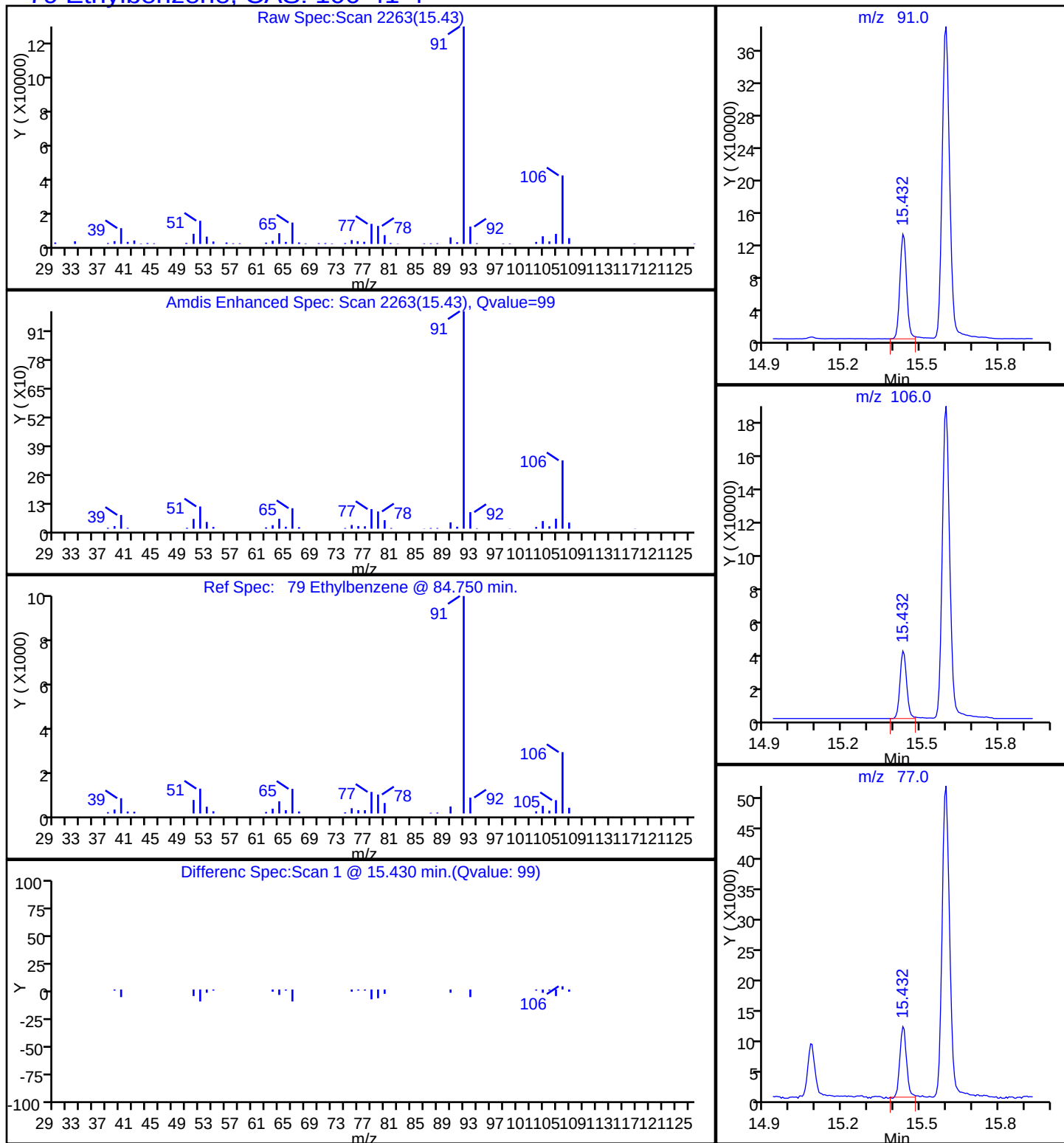
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

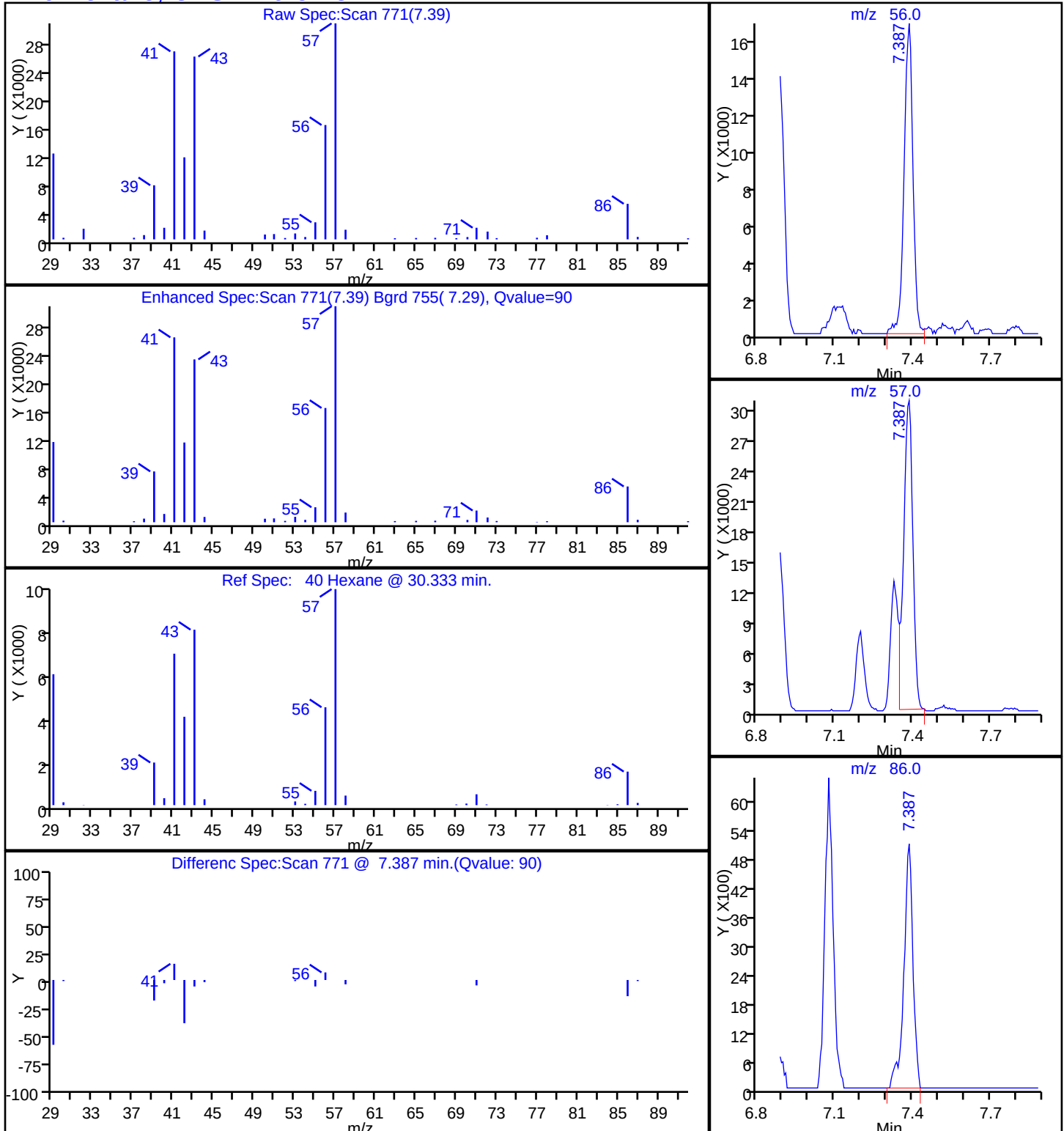
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

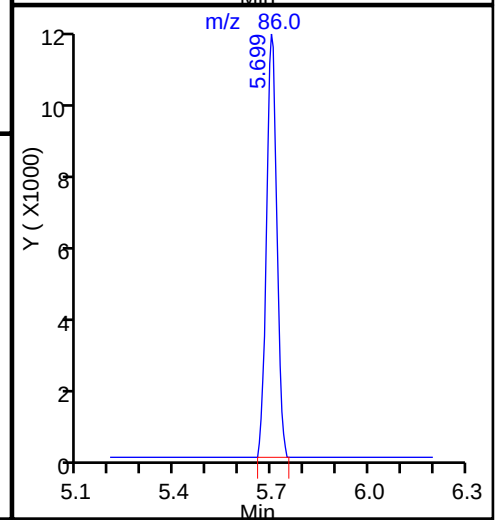
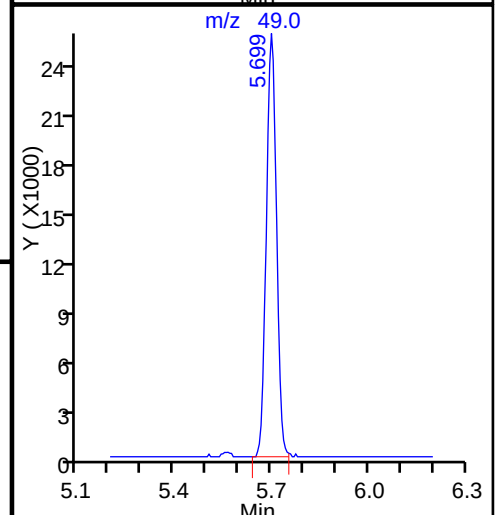
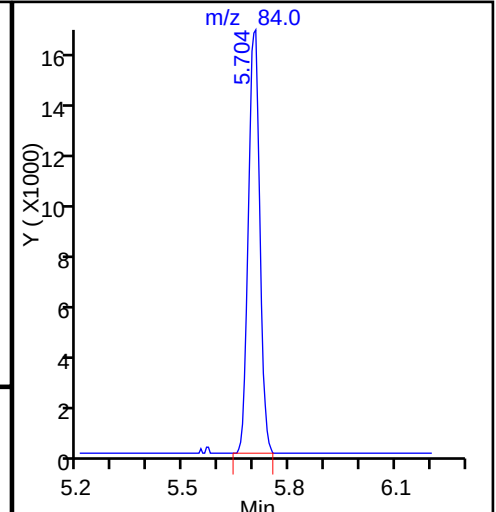
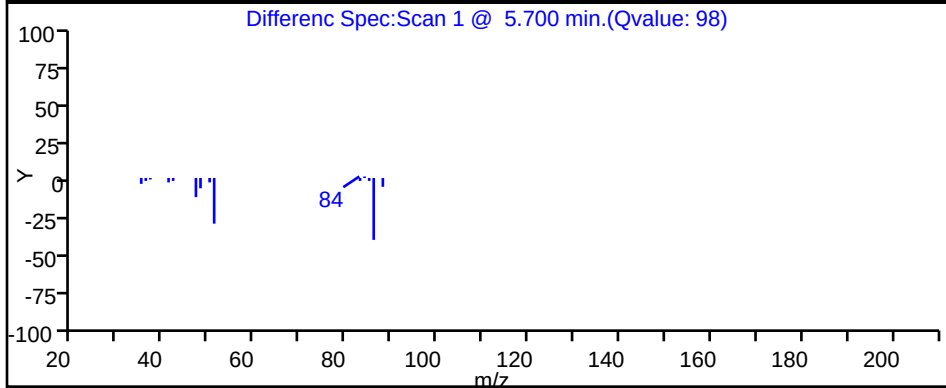
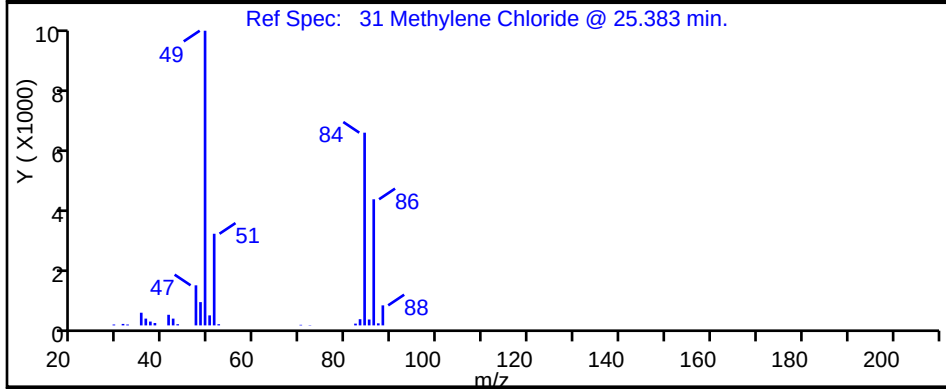
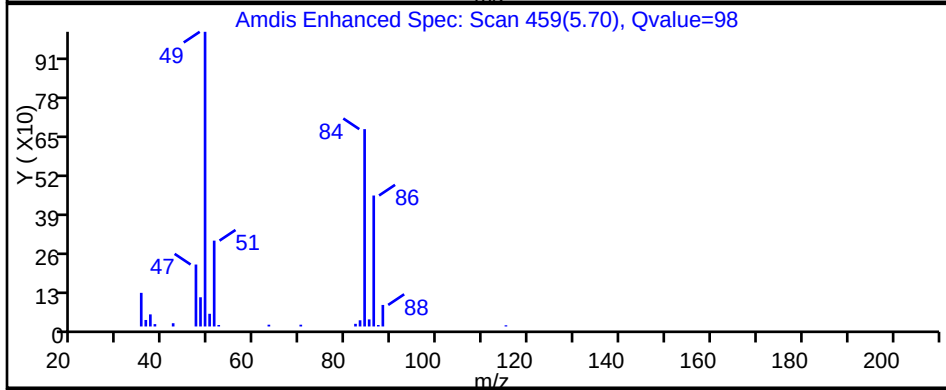
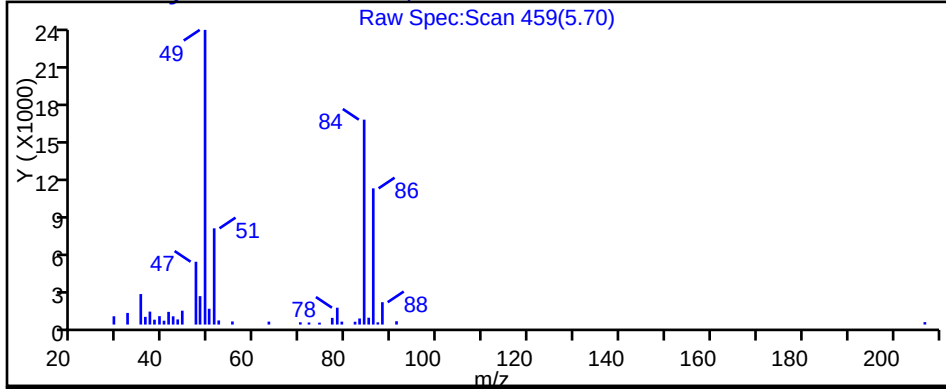
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

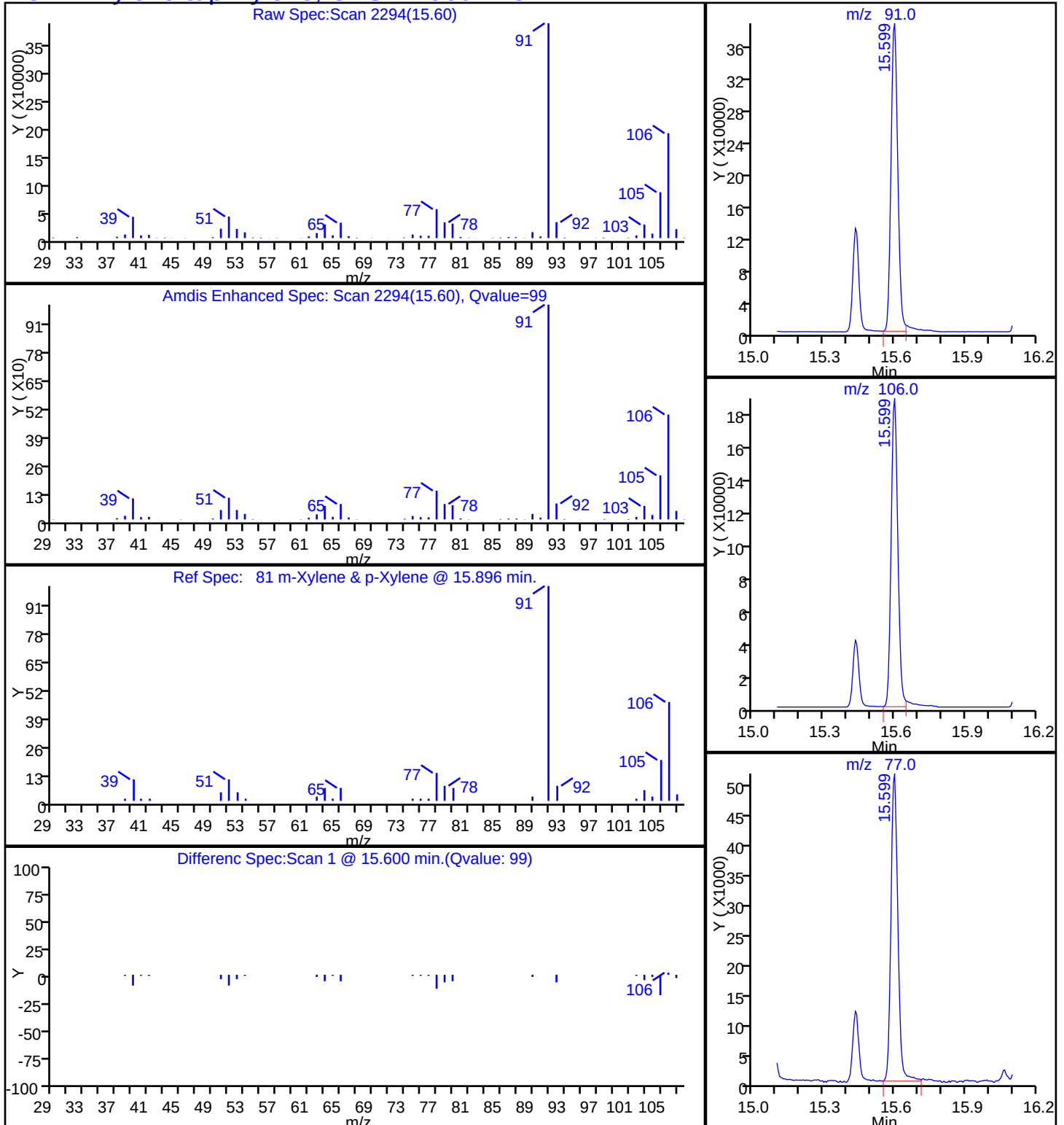
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

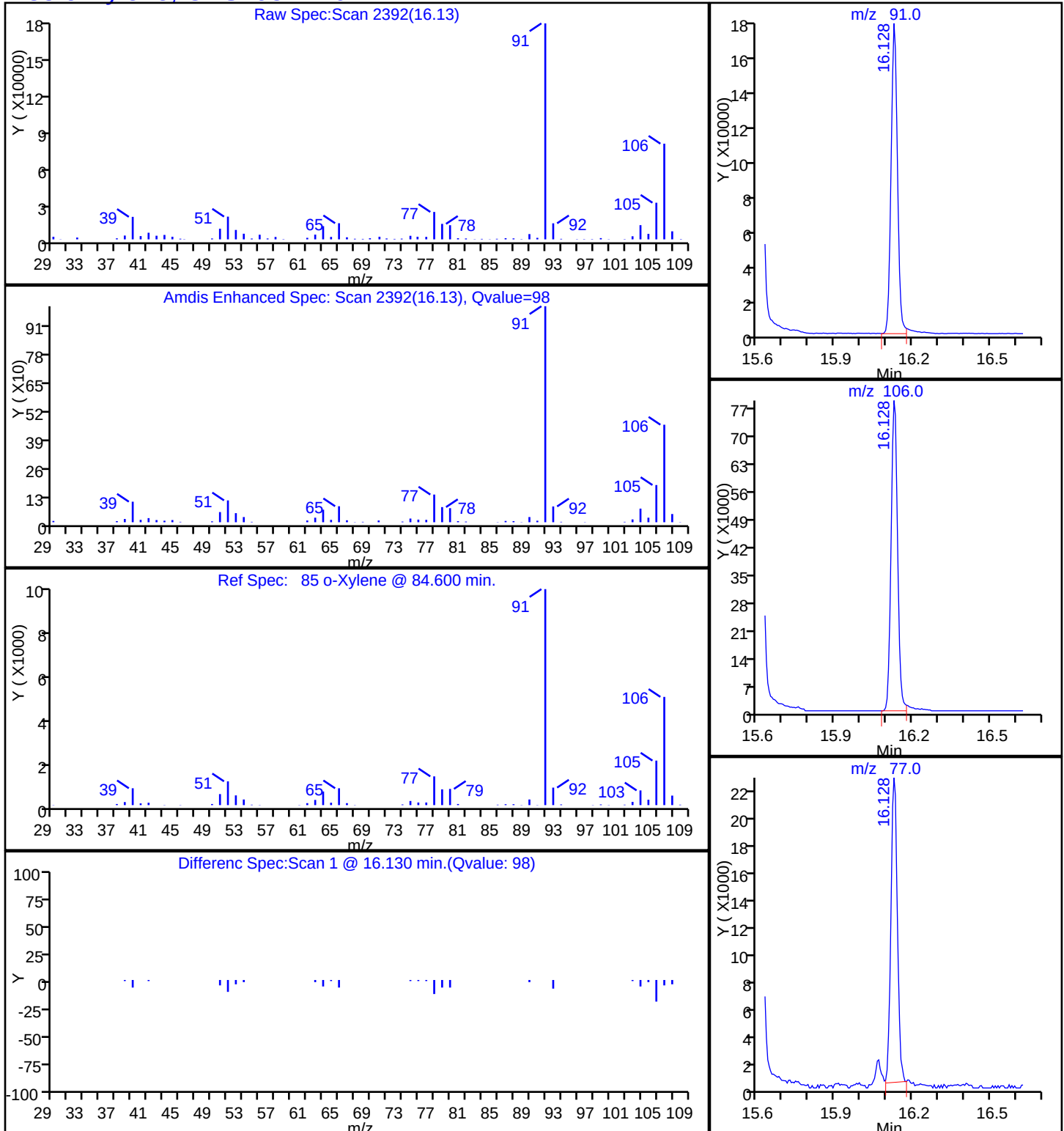
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

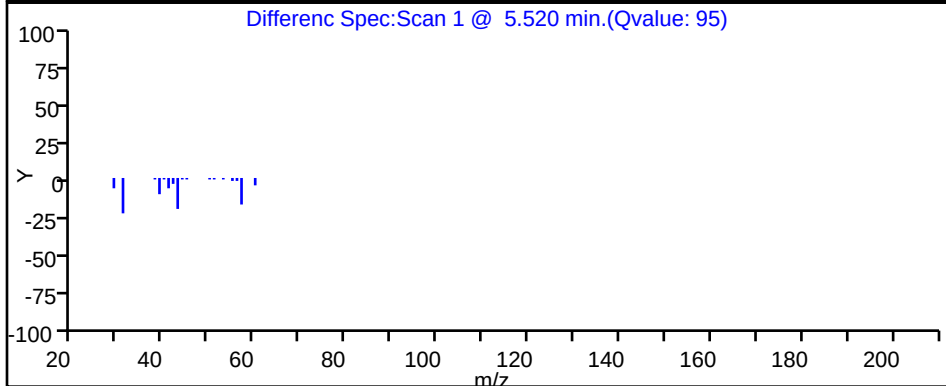
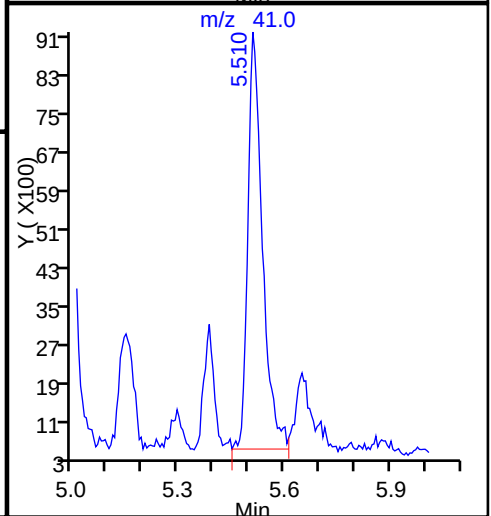
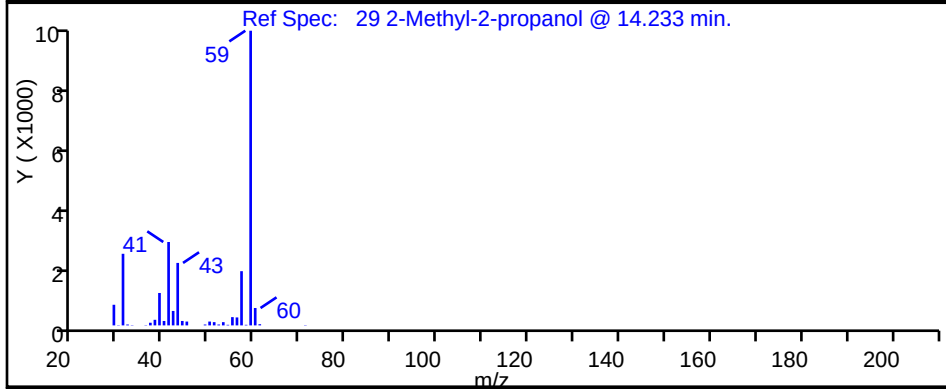
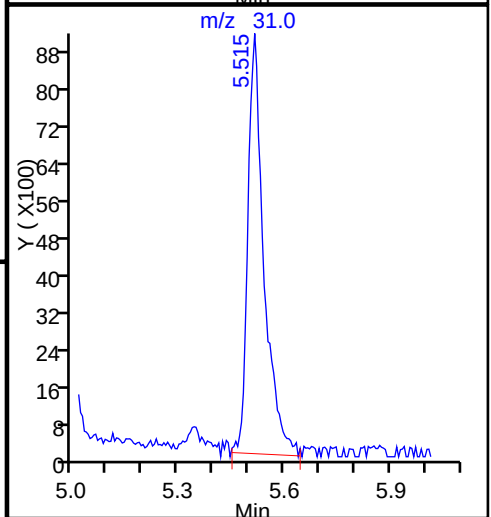
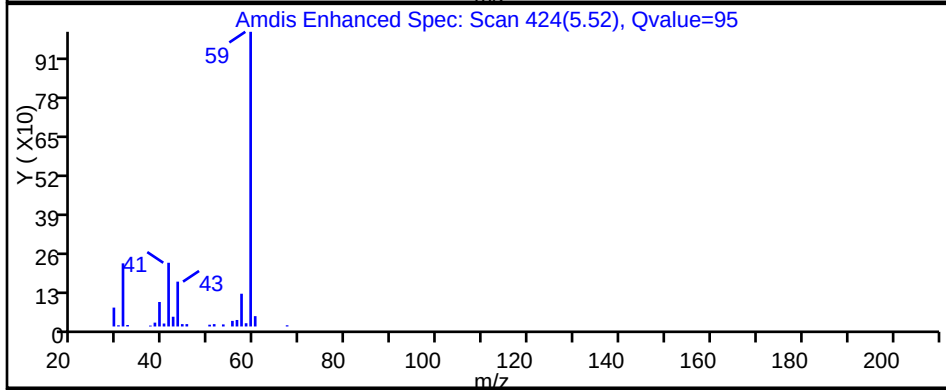
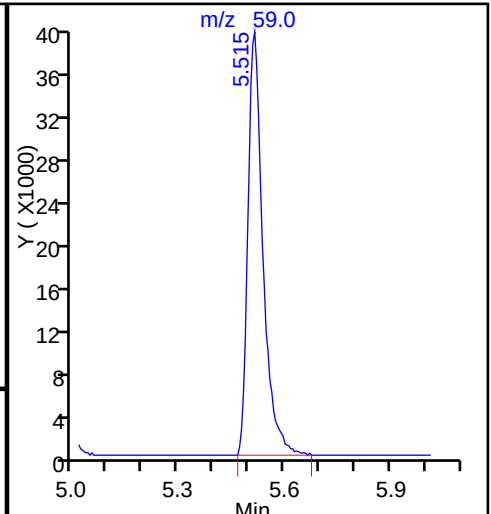
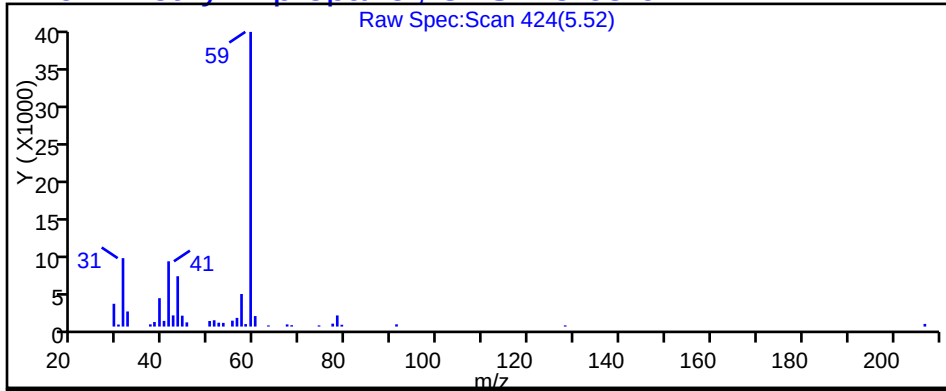
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

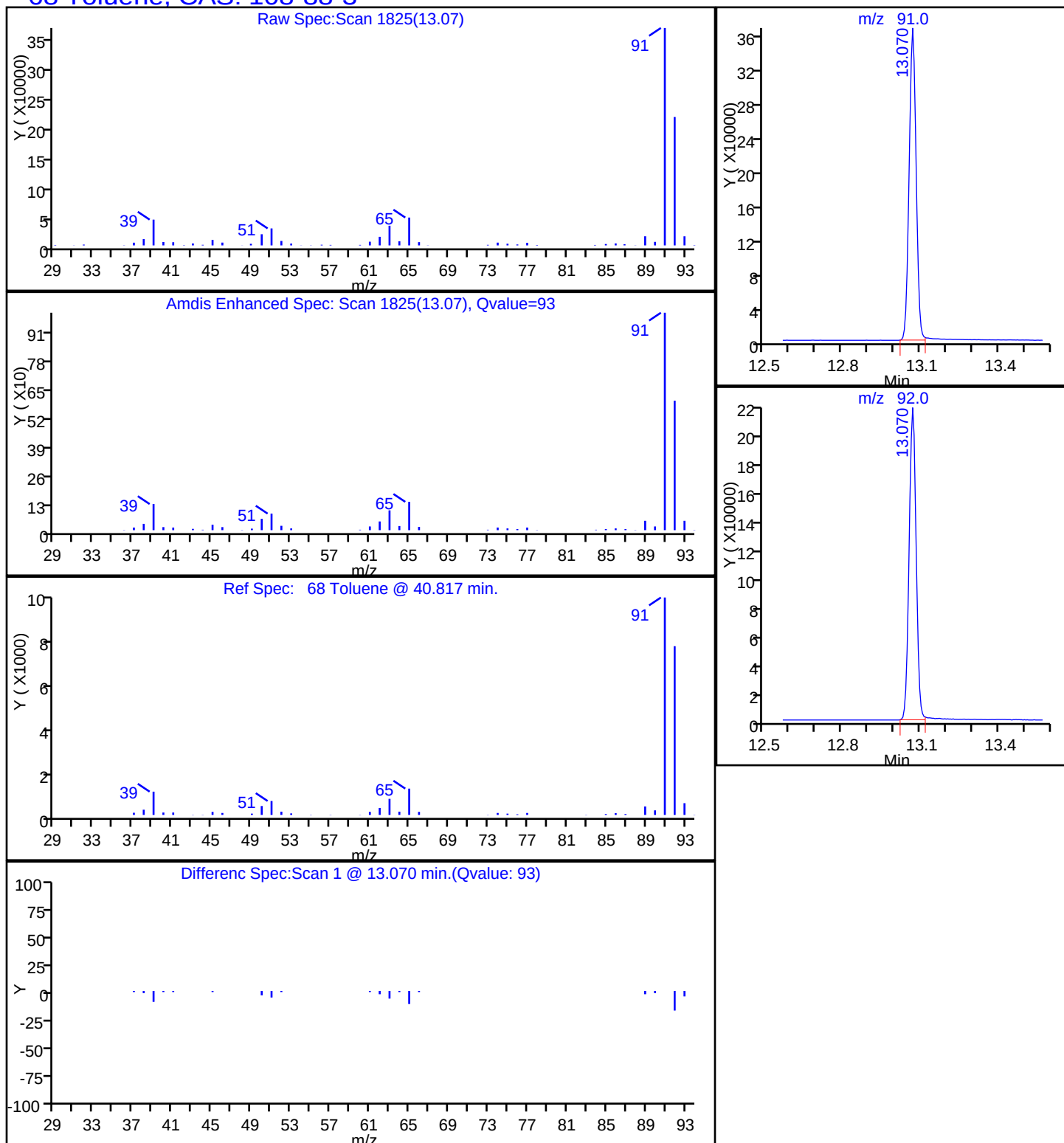
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

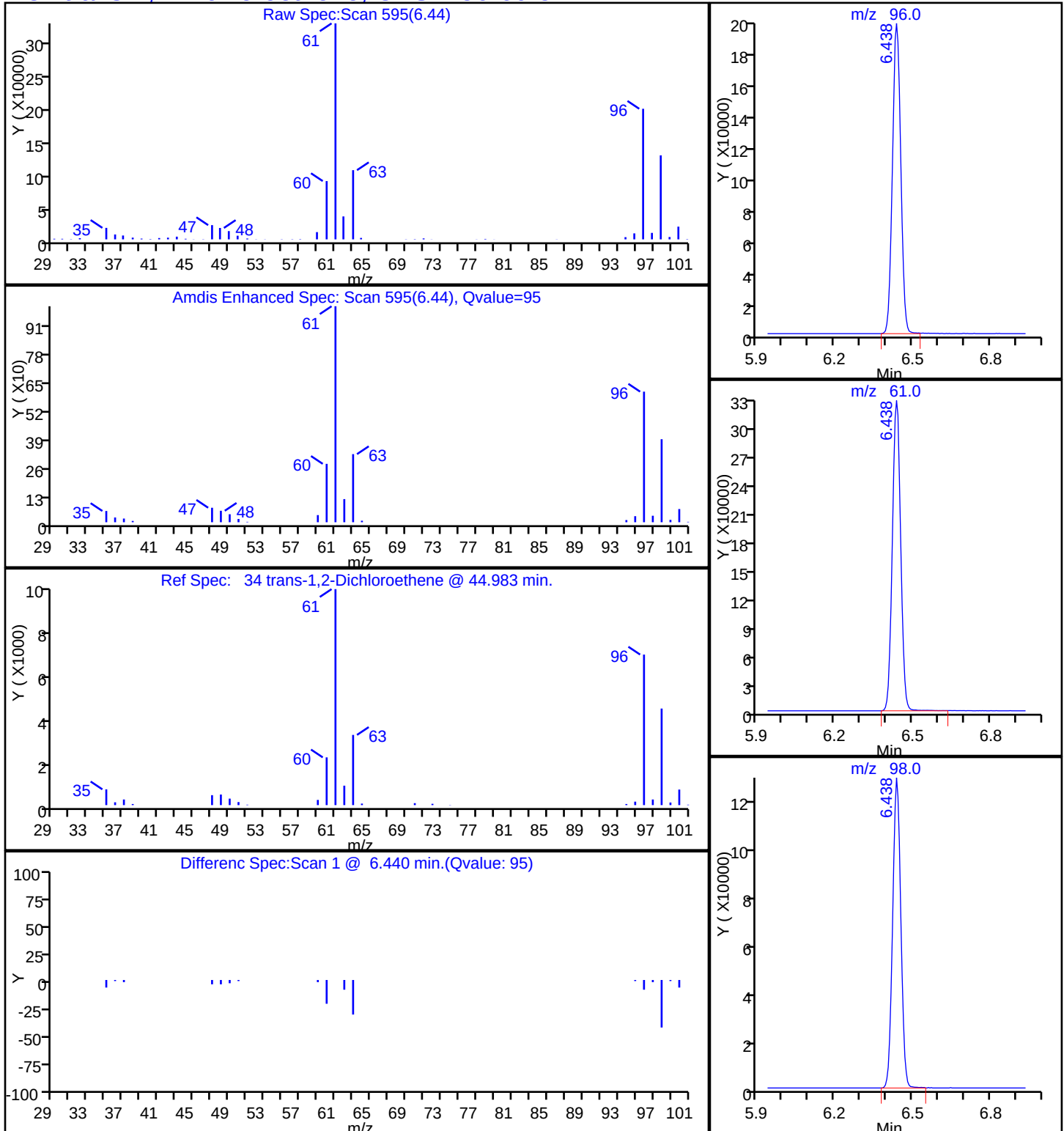
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P105R.D

Injection Date: 21-Dec-2016 09:47:30

Instrument ID: MG

Lims ID: 140-6565-A-5

Lab Sample ID: 140-6565-5

Client ID: SSV-3

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 26

Purge Vol: 500.000 mL

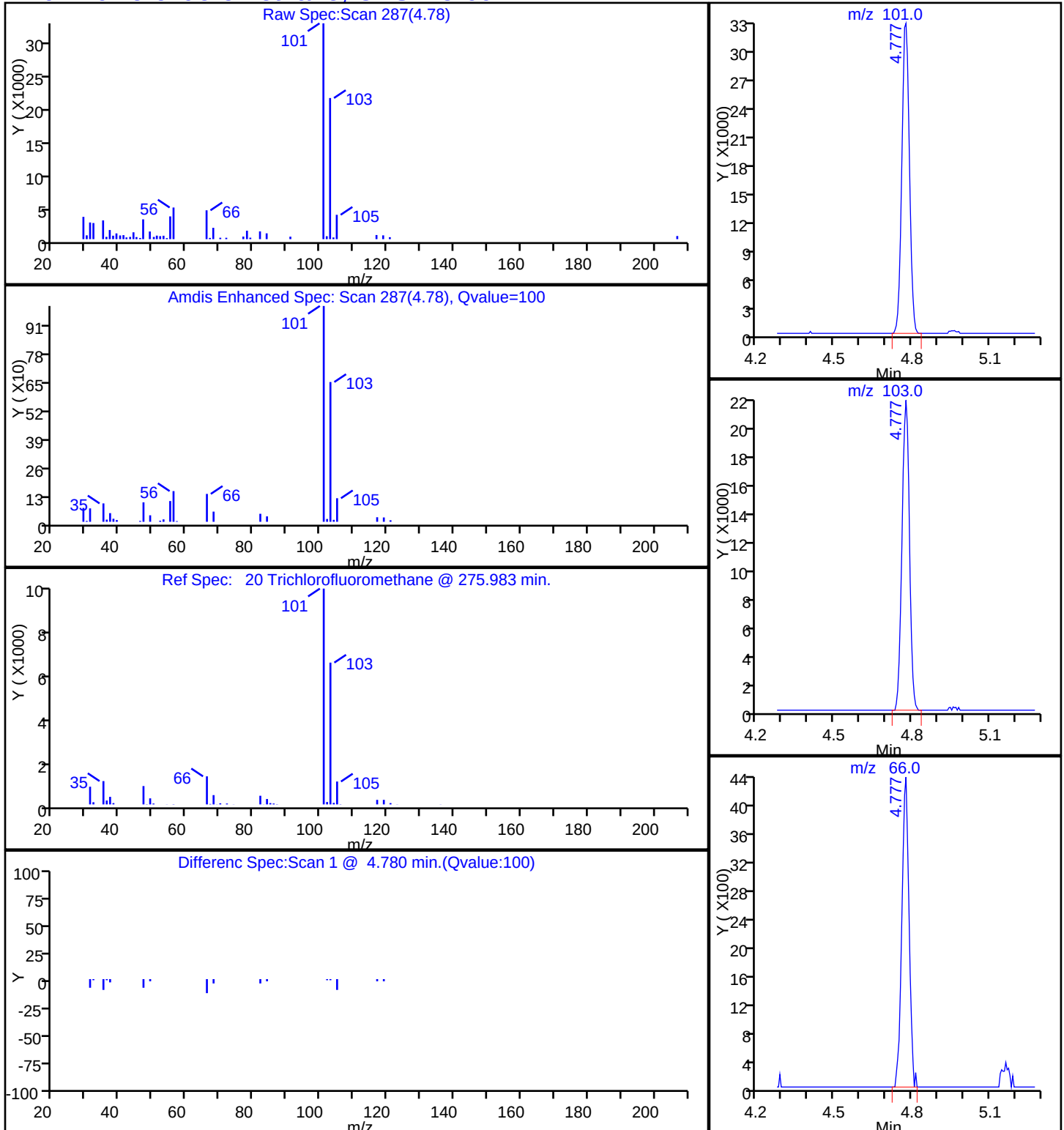
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-3 Lab Sample ID: 140-6565-6
 Matrix: Air Lab File ID: GL20P106.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:40
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 17:02
 Soil Aliquot Vol: _____ Dilution Factor: 1.6
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.32	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.32	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.32	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.32	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.32	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.32	
106-93-4	1,2-Dibromoethane	187.87	ND		0.32	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.32	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.32	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.32	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.32	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.32	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.32	
123-91-1	1,4-Dioxane	88.11	ND		0.80	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.80	
78-93-3	2-Butanone	72.11	ND		1.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.80	
71-43-2	Benzene	78.11	ND		0.32	
100-44-7	Benzyl chloride	126.58	ND		0.64	
75-27-4	Bromodichloromethane	163.83	ND		0.32	
75-25-2	Bromoform	252.75	ND		0.32	
74-83-9	Bromomethane	94.94	ND		0.32	
56-23-5	Carbon tetrachloride	153.81	ND		0.16	
108-90-7	Chlorobenzene	112.56	ND		0.32	
75-00-3	Chloroethane	64.52	ND		0.32	
67-66-3	Chloroform	119.38	0.34		0.32	
74-87-3	Chloromethane	50.49	ND		0.80	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.32	
110-82-7	Cyclohexane	84.16	ND		0.80	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-3 Lab Sample ID: 140-6565-6
 Matrix: Air Lab File ID: GL20P106.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:40
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 17:02
 Soil Aliquot Vol: _____ Dilution Factor: 1.6
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.32	
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.32	
64-17-5	Ethanol	46.07	220		8.0	
100-41-4	Ethylbenzene	106.17	ND		0.32	
87-68-3	Hexachlorobutadiene	260.76	ND		0.32	
110-54-3	Hexane	86.17	ND		0.80	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.64	
75-09-2	Methylene Chloride	84.93	ND		0.80	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.32	
95-47-6	o-Xylene	106.17	ND		0.32	
100-42-5	Styrene	104.15	ND		0.32	
75-65-0	t-Butyl alcohol	74.12	ND		1.3	
127-18-4	Tetrachloroethene	165.83	ND		0.32	
108-88-3	Toluene	92.14	0.59		0.48	
156-60-5	trans-1,2-Dichloroethene	96.94	2.5		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.32	
79-01-6	Trichloroethene	131.39	ND		0.16	
75-69-4	Trichlorofluoromethane	137.37	ND		0.32	
75-01-4	Vinyl chloride	62.50	ND		0.16	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-3 Lab Sample ID: 140-6565-6
 Matrix: Air Lab File ID: GL20P106.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:40
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 17:02
 Soil Aliquot Vol: _____ Dilution Factor: 1.6
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.7	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.2	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.7	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		2.5	
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.4	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.6	
106-93-4	1,2-Dibromoethane	187.87	ND		2.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.9	
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	
78-87-5	1,2-Dichloropropane	112.99	ND		1.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		2.2	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.6	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.9	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.9	
123-91-1	1,4-Dioxane	88.11	ND		2.9	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		3.7	
78-93-3	2-Butanone	72.11	ND		3.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		3.3	
71-43-2	Benzene	78.11	ND		1.0	
100-44-7	Benzyl chloride	126.58	ND		3.3	
75-27-4	Bromodichloromethane	163.83	ND		2.1	
75-25-2	Bromoform	252.75	ND		3.3	
74-83-9	Bromomethane	94.94	ND		1.2	
56-23-5	Carbon tetrachloride	153.81	ND		1.0	
108-90-7	Chlorobenzene	112.56	ND		1.5	
75-00-3	Chloroethane	64.52	ND		0.84	
67-66-3	Chloroform	119.38	1.6		1.6	
74-87-3	Chloromethane	50.49	ND		1.7	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.5	
110-82-7	Cyclohexane	84.16	ND		2.8	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: IA-3 Lab Sample ID: 140-6565-6
 Matrix: Air Lab File ID: GL20P106.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 15:40
 Sample wt/vol: 200 (mL) Date Analyzed: 12/20/2016 17:02
 Soil Aliquot Vol: _____ Dilution Factor: 1.6
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		2.7	
75-71-8	Dichlorodifluoromethane	120.91	2.6		1.6	
64-17-5	Ethanol	46.07	420		15	
100-41-4	Ethylbenzene	106.17	ND		1.4	
87-68-3	Hexachlorobutadiene	260.76	ND		3.4	
110-54-3	Hexane	86.17	ND		2.8	
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.3	
75-09-2	Methylene Chloride	84.93	ND		2.8	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		1.4	
95-47-6	o-Xylene	106.17	ND		1.4	
100-42-5	Styrene	104.15	ND		1.4	
75-65-0	t-Butyl alcohol	74.12	ND		3.9	
127-18-4	Tetrachloroethene	165.83	ND		2.2	
108-88-3	Toluene	92.14	2.2		1.8	
156-60-5	trans-1,2-Dichloroethene	96.94	9.9		1.3	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.5	
79-01-6	Trichloroethene	131.39	ND		0.86	
75-69-4	Trichlorofluoromethane	137.37	ND		1.8	
75-01-4	Vinyl chloride	62.50	ND		0.41	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D
 Lims ID: 140-6565-A-6
 Client ID: IA-3
 Sample Type: Client
 Inject. Date: 20-Dec-2016 17:02:30 ALS Bottle#: 6 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.6000
 Sample Info: 140-0003728-010
 Misc. Info.: 140-6565-a-6@1.60
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:35:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.045	8.055	-0.010	97	382602	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	95	1860099	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	87	1856029	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	94	1256500	4.09	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	42695	0.1304	
9 Chloromethane	52	3.682	3.682	0.000	100	6054	0.1721	
17 Ethanol	31	4.394	4.383	0.011	96	2108403	55.2	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	20697	0.0652	
29 2-Methyl-2-propanol	59	5.532	5.499	0.033	41	4724	0.0330	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	95	3248	0.0162	
31 Methylene Chloride	84	5.694	5.704	-0.010	97	12191	0.1498	
34 trans-1,2-Dichloroethene	96	6.432	6.443	-0.011	95	68763	0.6255	
39 2-Butanone (MEK)	72	7.338	7.338	0.000	97	6936	0.1531	
40 Hexane	56	7.381	7.387	-0.006	85	6138	0.0675	
44 Chloroform	83	8.072	8.077	-0.005	95	20108	0.0838	
49 Benzene	78	9.641	9.646	-0.005	98	21673	0.0648	
50 Cyclohexane	69	9.646	9.651	-0.005	44	1000	0.0162	
52 Carbon tetrachloride	117	9.668	9.678	-0.010	94	5125	0.0172	
56 Isooctane	57	10.466	10.471	-0.005	87	15350	0.0253	
65 4-Methyl-2-pentanone (MIBK	43	12.202	12.186	0.016	99	14807	0.0650	
68 Toluene	91	13.070	13.076	-0.006	93	54915	0.1479	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	98	25397	0.0677	
85 o-Xylene	91	16.133	16.133	0.000	97	9616	0.0243	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Worklist Smp#: 10

Client ID: IA-3

Purge Vol: 500.000 mL

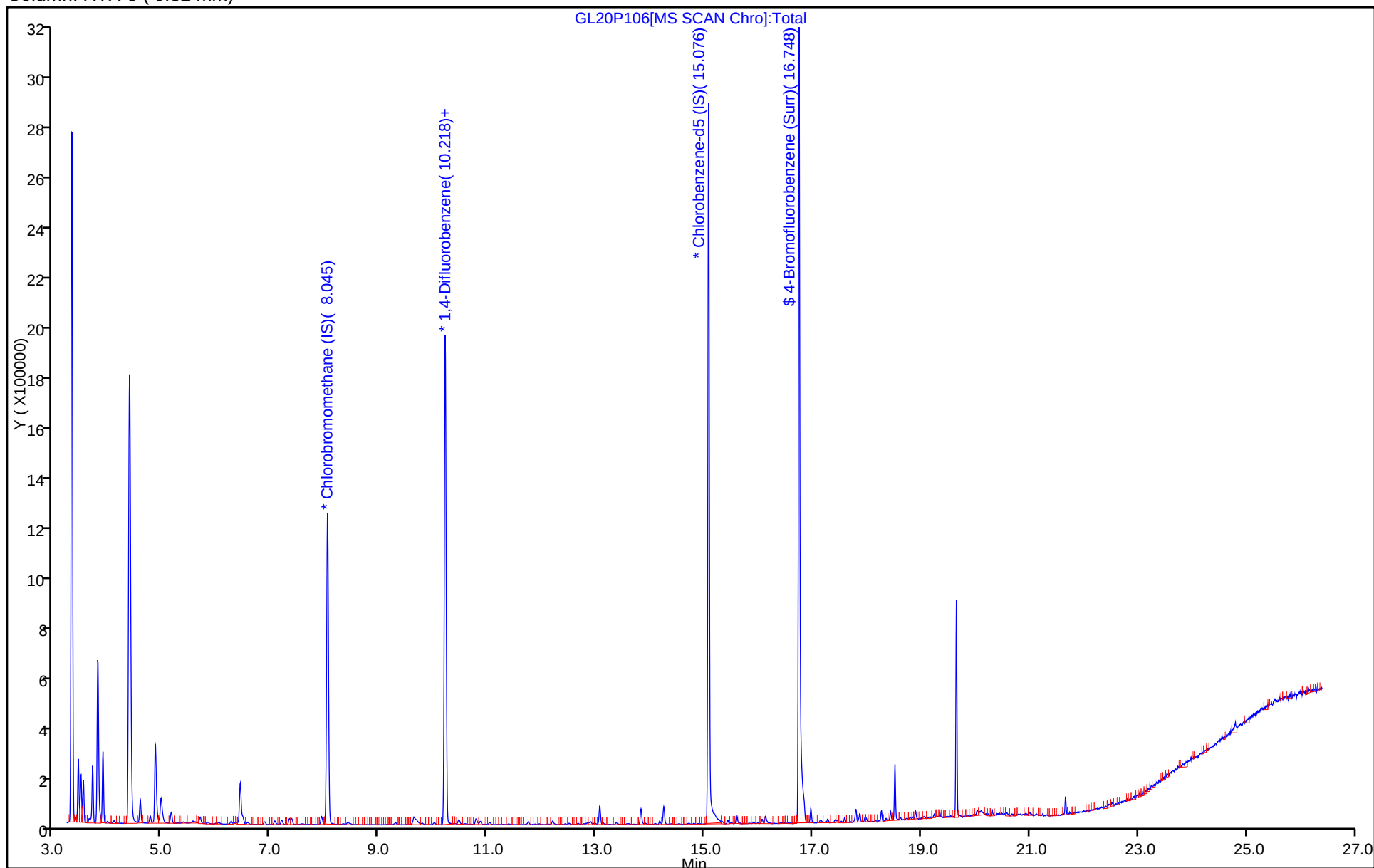
Dil. Factor: 1.6000

ALS Bottle#: 6

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D
Lims ID: 140-6565-A-6
Client ID: IA-3
Sample Type: Client
Inject. Date: 20-Dec-2016 17:02:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.6000
Sample Info: 140-0003728-010
Misc. Info.: 140-6565-a-6@1.60
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 10:35:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.34

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Client ID: IA-3

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 10

Purge Vol: 500.000 mL

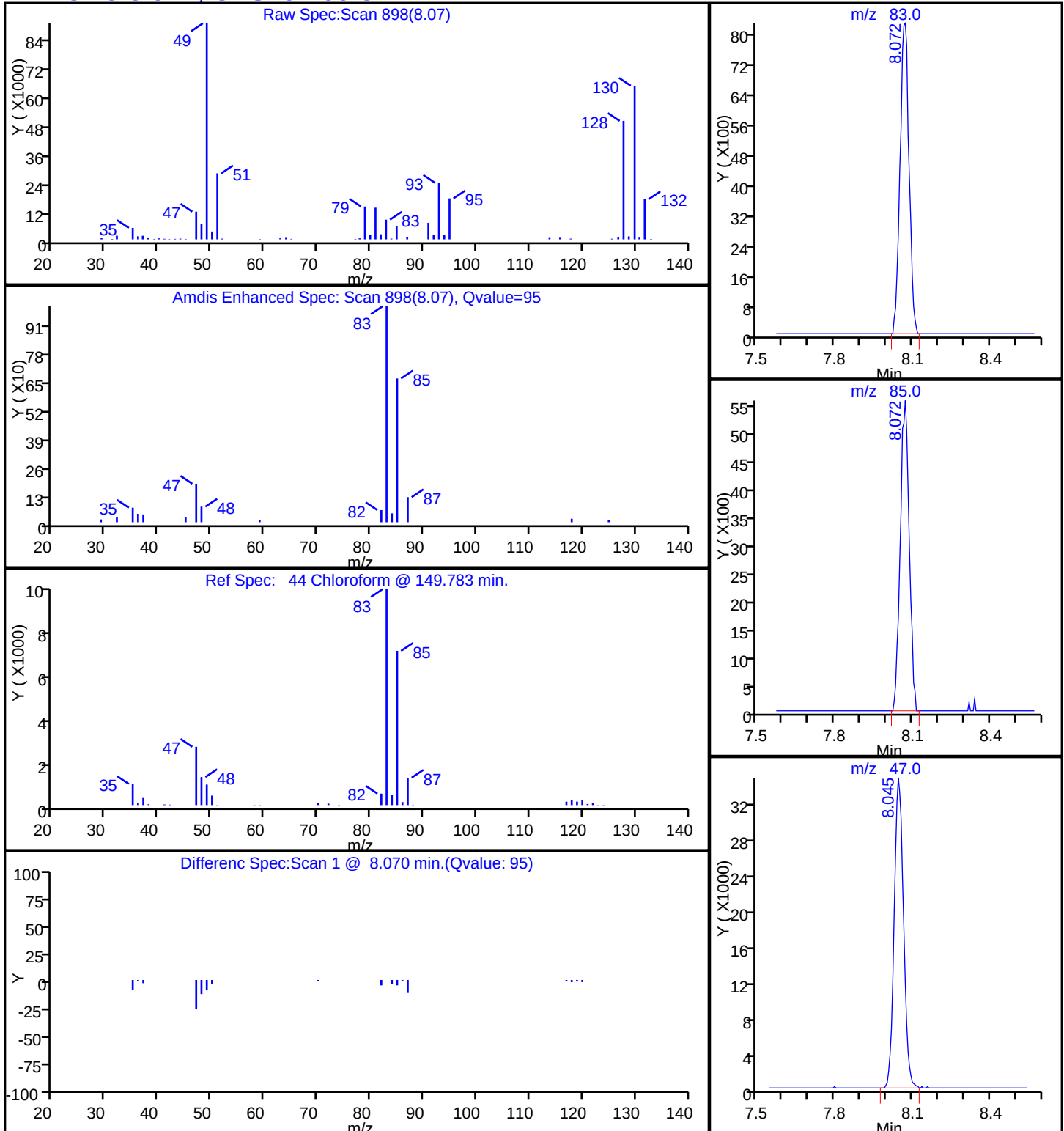
Dil. Factor: 1.6000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Client ID: IA-3

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 10

Purge Vol: 500.000 mL

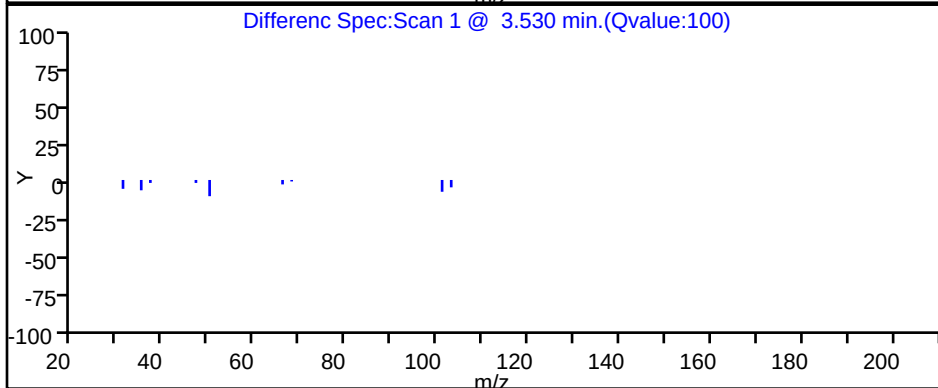
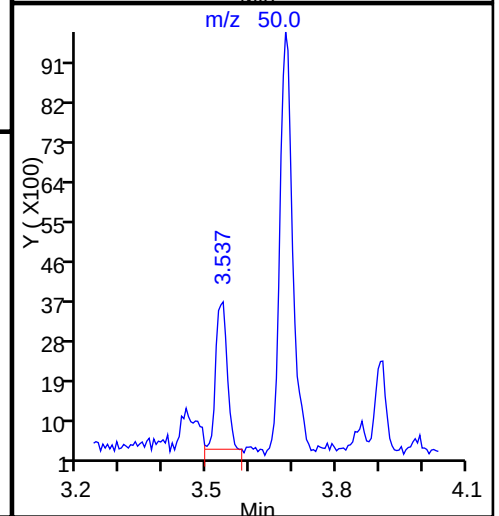
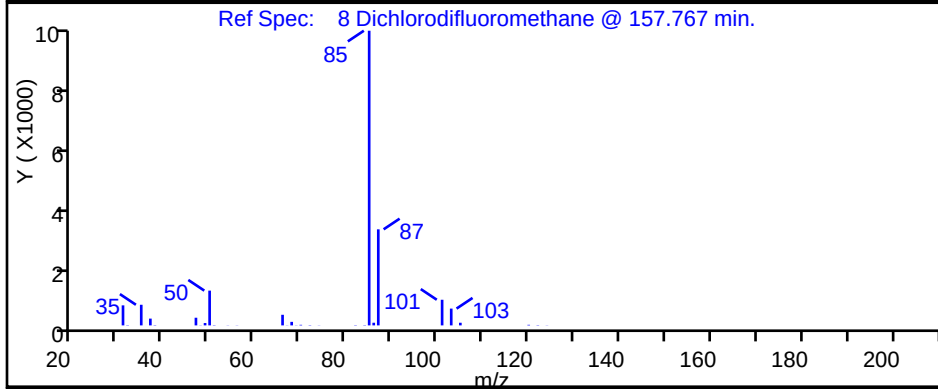
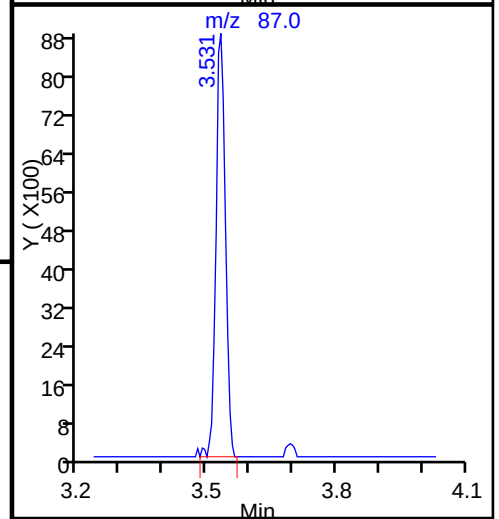
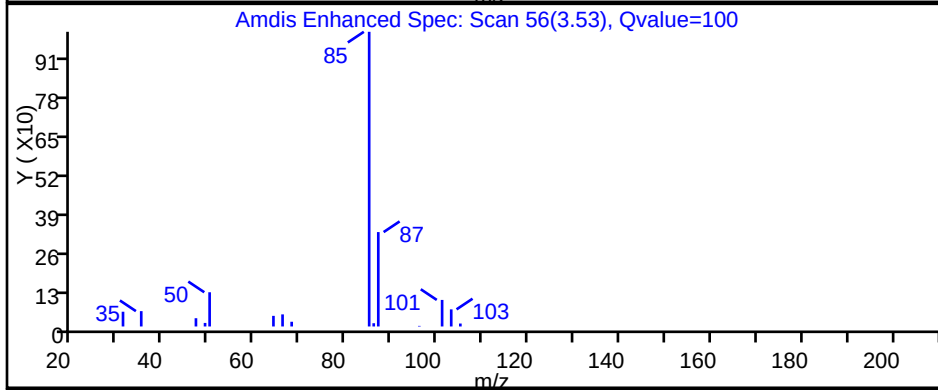
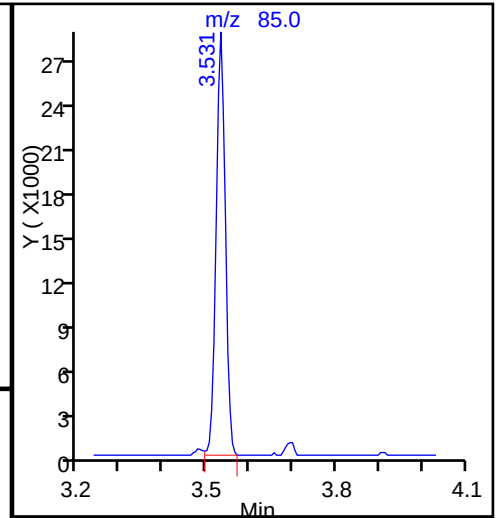
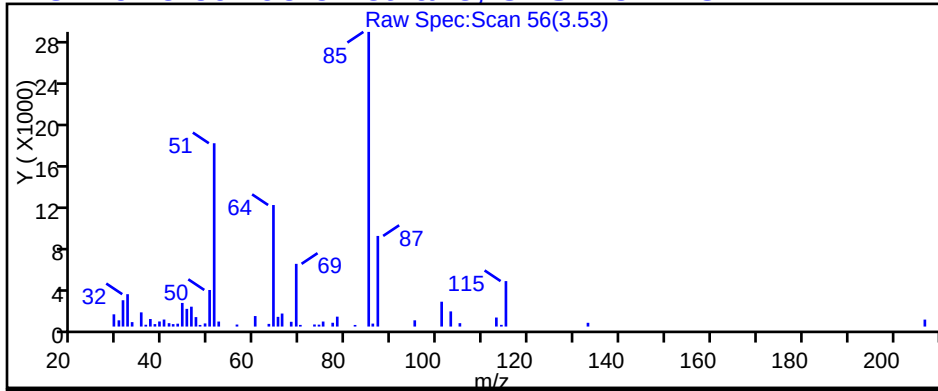
Dil. Factor: 1.6000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Client ID: IA-3

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 10

Purge Vol: 500.000 mL

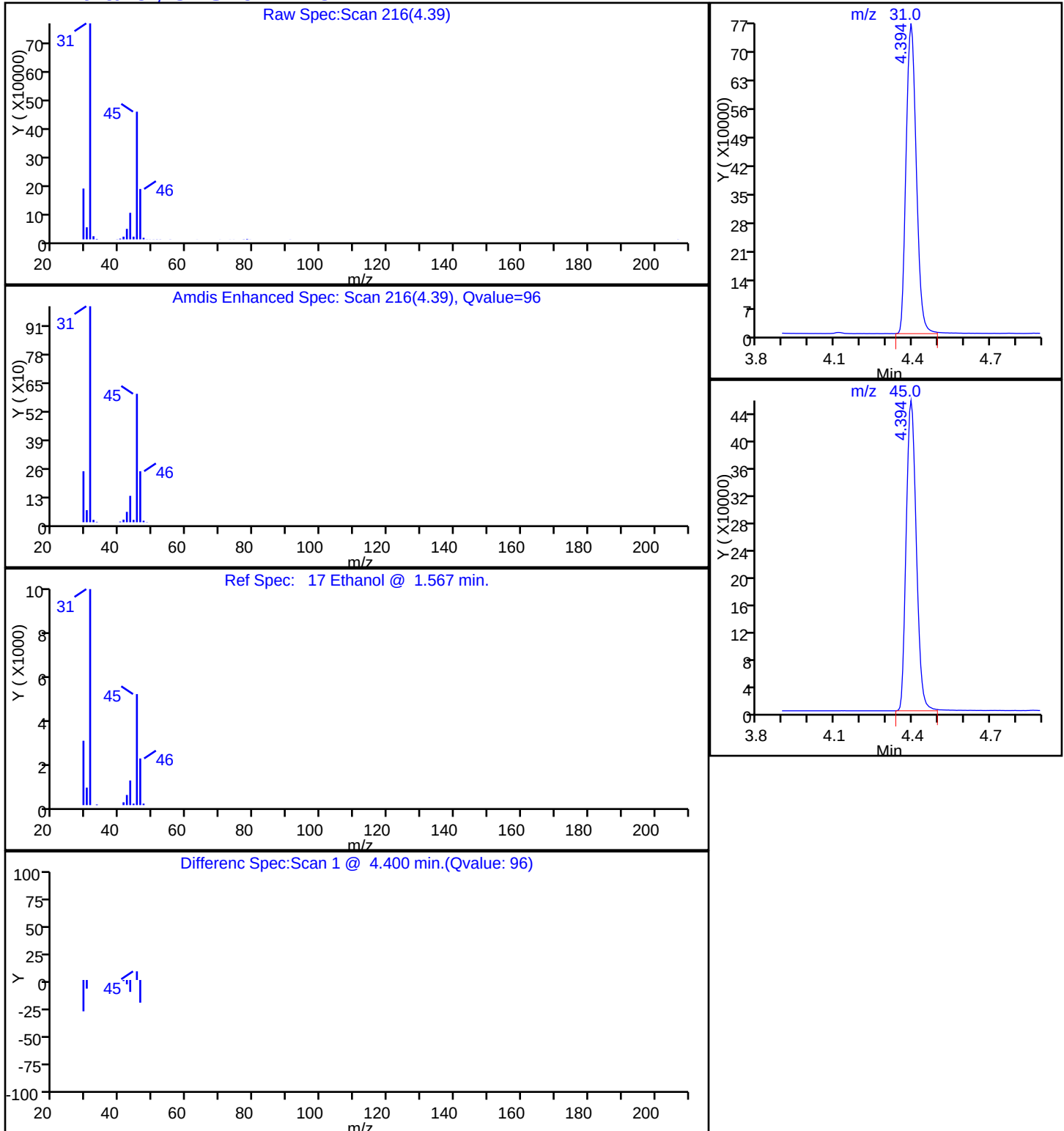
Dil. Factor: 1.6000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Client ID: IA-3

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 10

Purge Vol: 500.000 mL

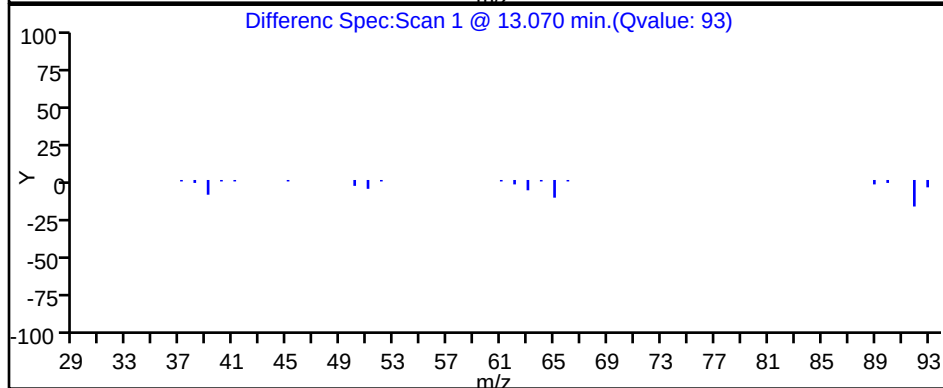
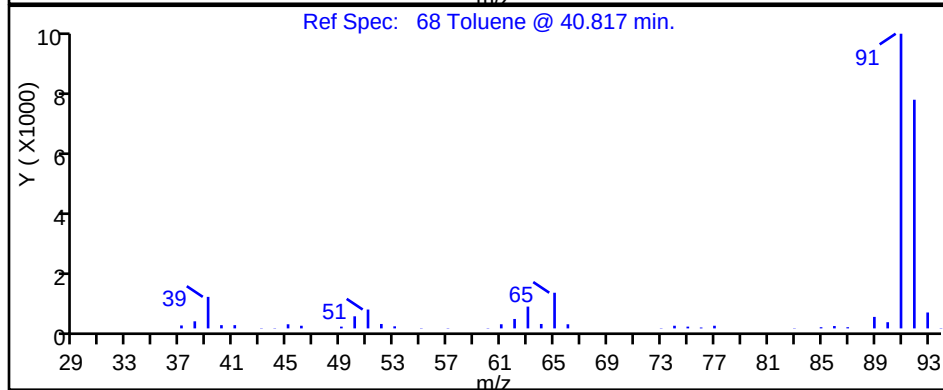
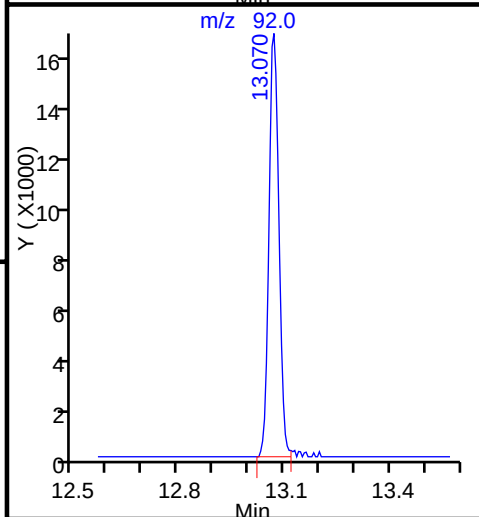
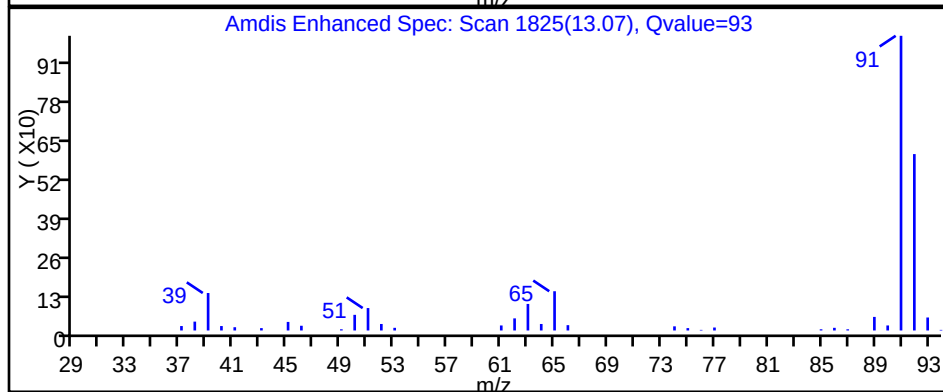
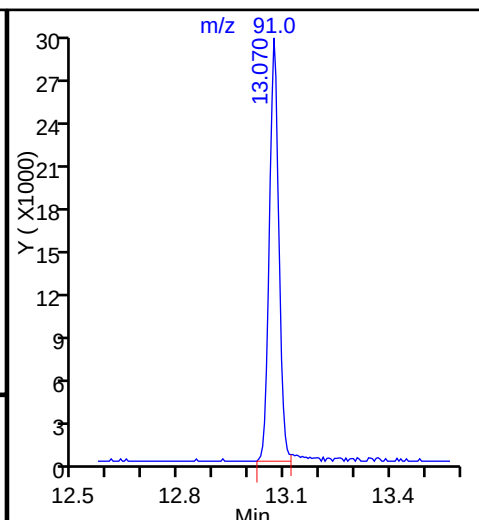
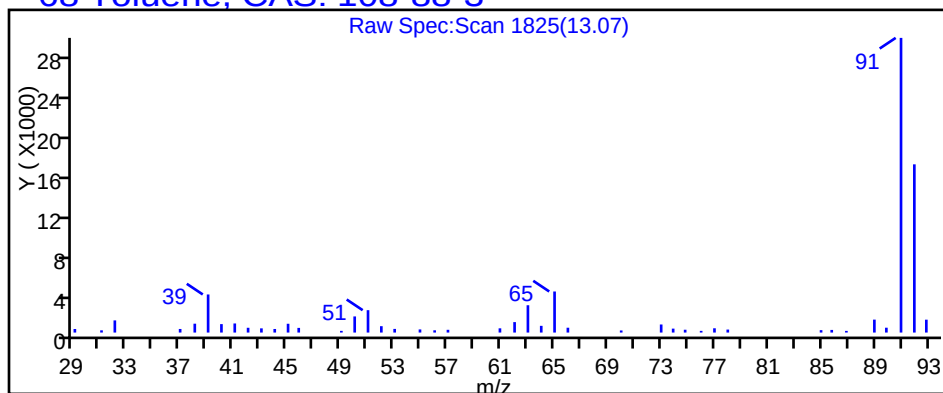
Dil. Factor: 1.6000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P106.D

Injection Date: 20-Dec-2016 17:02:30

Instrument ID: MG

Lims ID: 140-6565-A-6

Lab Sample ID: 140-6565-6

Client ID: IA-3

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 10

Purge Vol: 500.000 mL

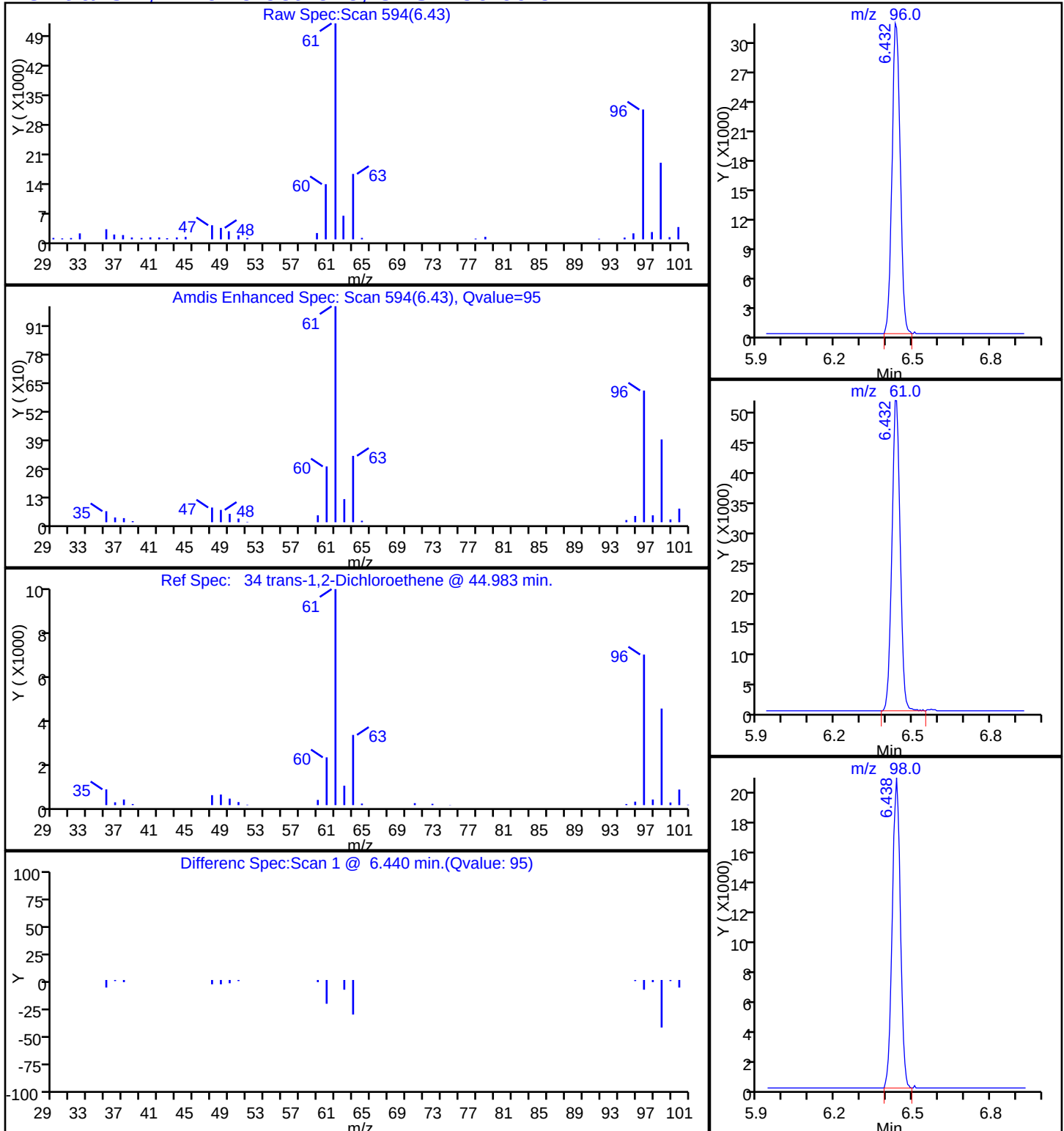
Dil. Factor: 1.6000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: AM-1 Lab Sample ID: 140-6565-7
 Matrix: Air Lab File ID: GL20P107.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:35
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 17:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.33		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.062		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	0.55		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: AM-1 Lab Sample ID: 140-6565-7
 Matrix: Air Lab File ID: GL20P107.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:35
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 17:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.080	
64-17-5	Ethanol	46.07	14		2.0	
100-41-4	Ethylbenzene	106.17	0.094		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.35		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	0.40		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.36		0.080	
95-47-6	o-Xylene	106.17	0.11		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	0.64		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.24		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: AM-1 Lab Sample ID: 140-6565-7
 Matrix: Air Lab File ID: GL20P107.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:35
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 17:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	1.1		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.39		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	1.1		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: AM-1 Lab Sample ID: 140-6565-7
 Matrix: Air Lab File ID: GL20P107.D
 Analysis Method: TO 15 LL Date Collected: 12/13/2016 16:35
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 17:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.6		0.40	
64-17-5	Ethanol	46.07	26		3.8	
100-41-4	Ethylbenzene	106.17	0.41		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	1.2		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	1.4		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	1.6		0.35	
95-47-6	o-Xylene	106.17	0.49		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	2.4		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D
 Lims ID: 140-6565-A-7
 Client ID: AM-1
 Sample Type: Client
 Inject. Date: 20-Dec-2016 17:49:30 ALS Bottle#: 7 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-011
 Misc. Info.: 140-6565-a-7
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 09:23:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.050	8.055	-0.005	97	374584	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	96	1824828	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	87	1786116	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	93	1158810	3.92	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	167565	0.5227	
9 Chloromethane	52	3.682	3.682	0.000	100	19063	0.5536	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	36	3374	0.0159	
17 Ethanol	31	4.383	4.383	0.000	96	525547	14.0	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	75978	0.2445	
29 2-Methyl-2-propanol	59	5.532	5.499	0.033	89	2828	0.0201	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	96	12694	0.0646	
31 Methylene Chloride	84	5.699	5.704	-0.005	96	31682	0.3976	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	90	7635	0.0709	
39 2-Butanone (MEK)	72	7.344	7.338	0.006	98	13027	0.2937	
40 Hexane	56	7.387	7.387	0.000	85	30825	0.3462	
44 Chloroform	83	8.072	8.077	-0.005	93	14206	0.0605	
49 Benzene	78	9.641	9.646	-0.005	98	107935	0.3288	
50 Cyclohexane	69	9.657	9.651	0.006	83	6204	0.1025	
52 Carbon tetrachloride	117	9.668	9.678	-0.010	95	18200	0.0621	
56 Isooctane	57	10.471	10.471	0.000	97	78985	0.1327	
65 4-Methyl-2-pentanone (MIBK	43	12.202	12.186	0.016	98	34362	0.1538	
68 Toluene	91	13.070	13.076	-0.006	93	230103	0.6442	
79 Ethylbenzene	91	15.432	15.438	-0.006	99	44032	0.0940	
81 m-Xylene & p-Xylene	91	15.599	15.605	-0.006	99	129738	0.3594	
85 o-Xylene	91	16.128	16.133	-0.005	99	43071	0.1132	
96 1,2,4-Trimethylbenzene	105	17.994	17.993	0.001	98	27853	0.0644	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Operator ID: 7126

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Worklist Smp#: 11

Client ID: AM-1

Purge Vol: 500.000 mL

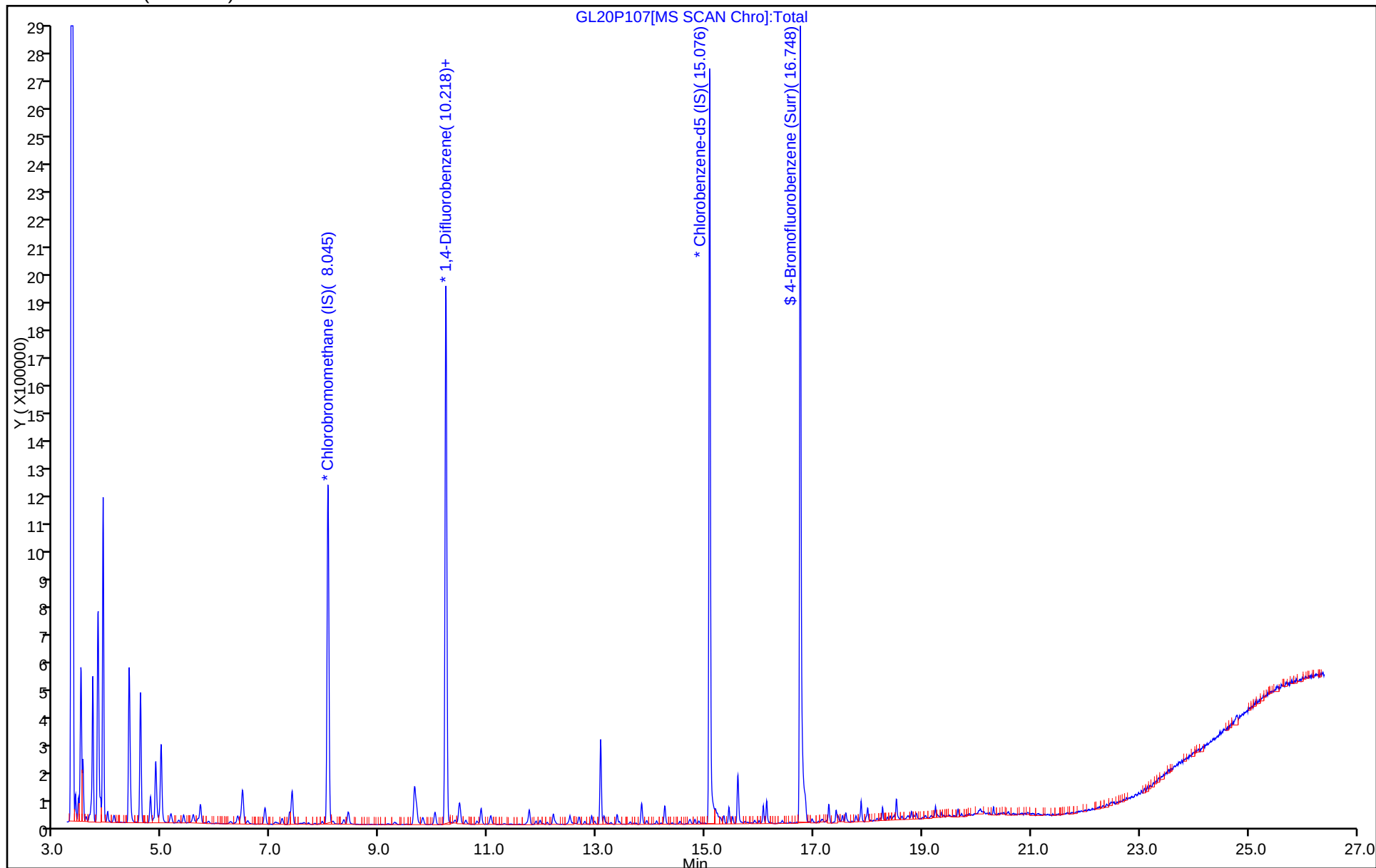
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D
Lims ID: 140-6565-A-7
Client ID: AM-1
Sample Type: Client
Inject. Date: 20-Dec-2016 17:49:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-011
Misc. Info.: 140-6565-a-7
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Dec-2016 10:43:03 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: tajh

Date: 21-Dec-2016 09:23:55

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.92	98.07

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

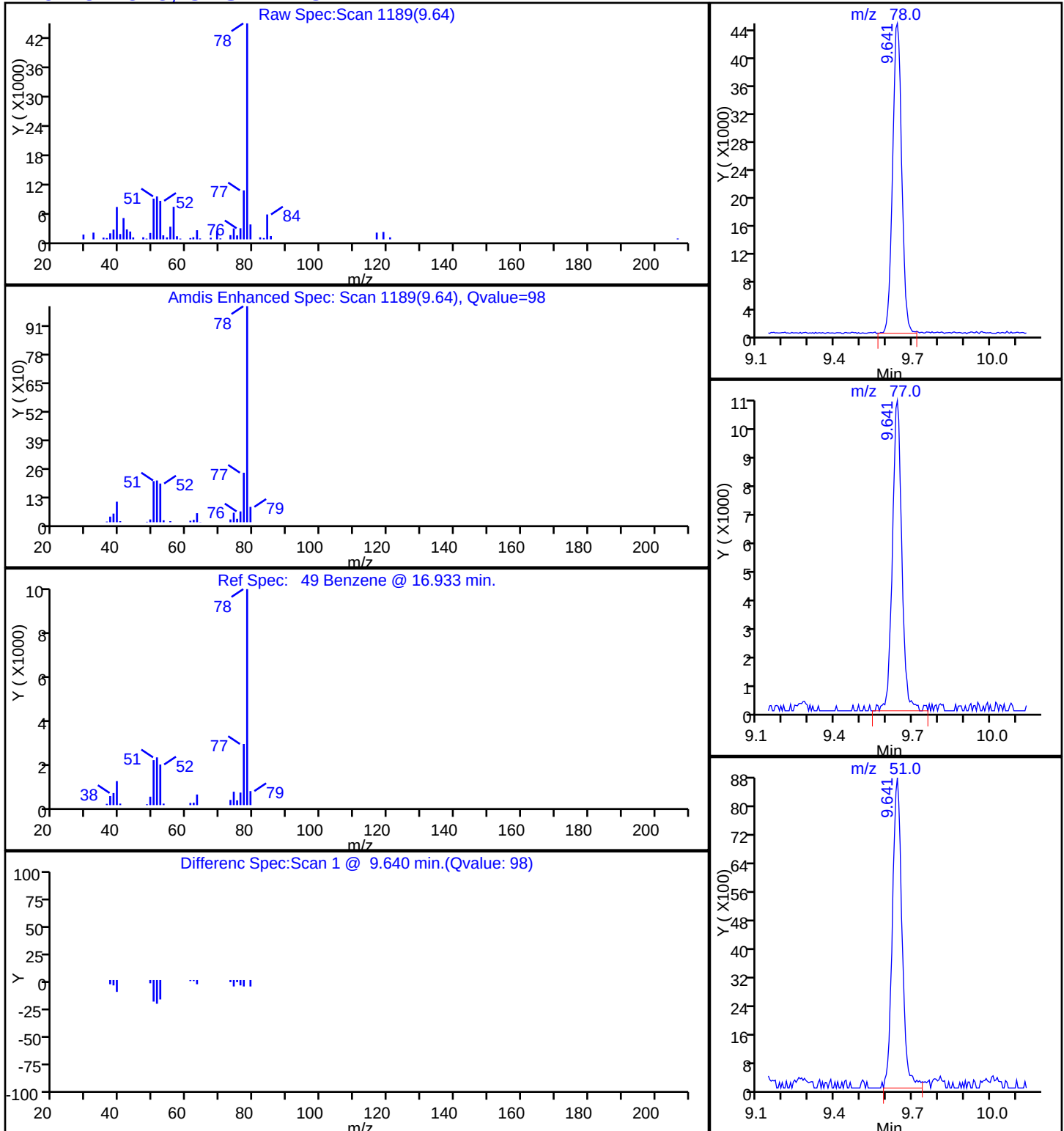
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

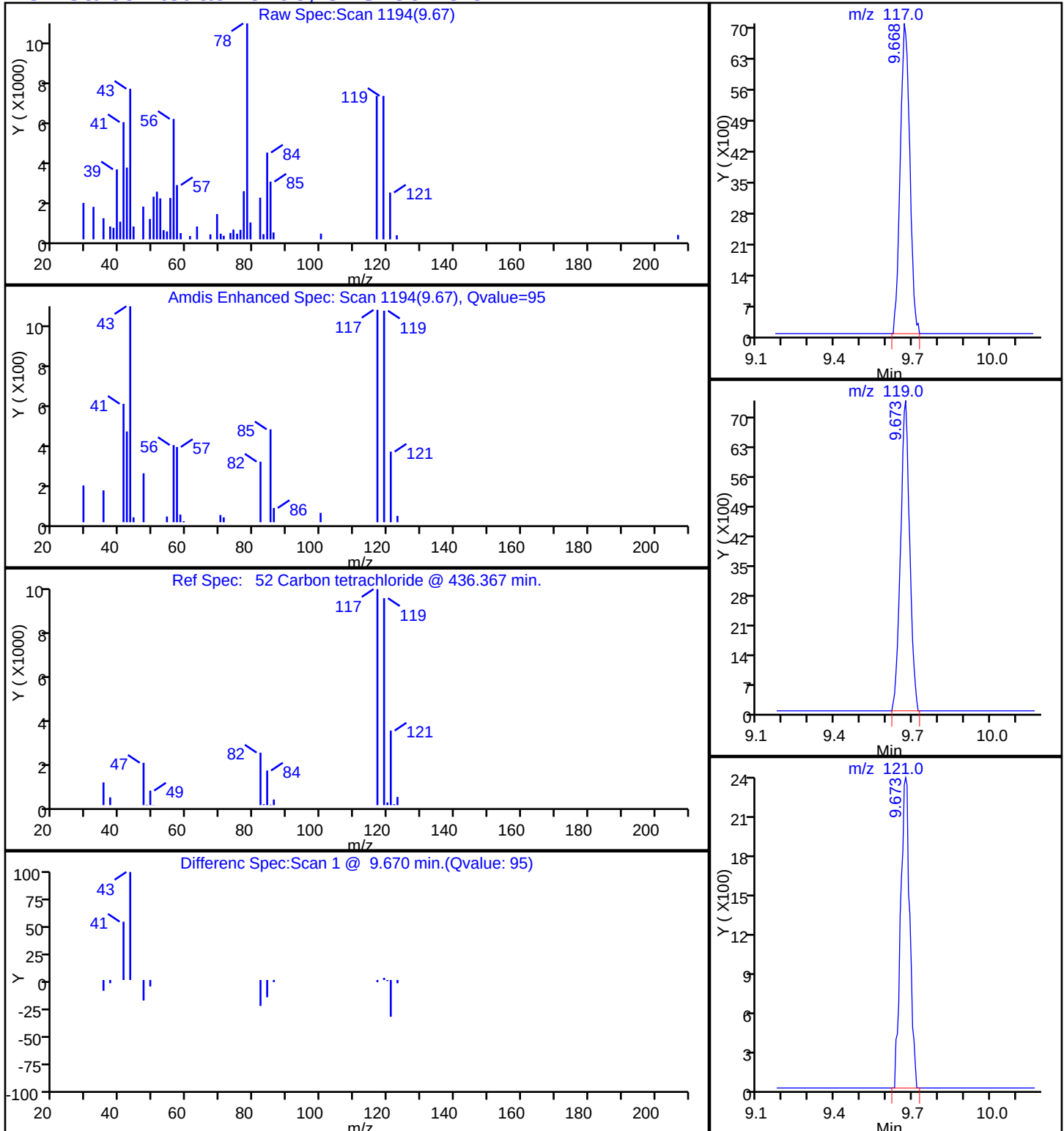
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

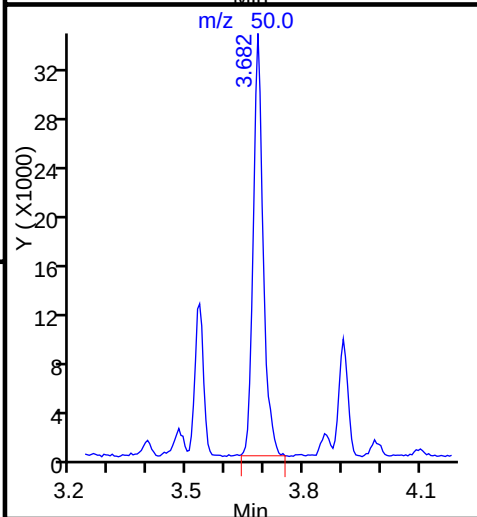
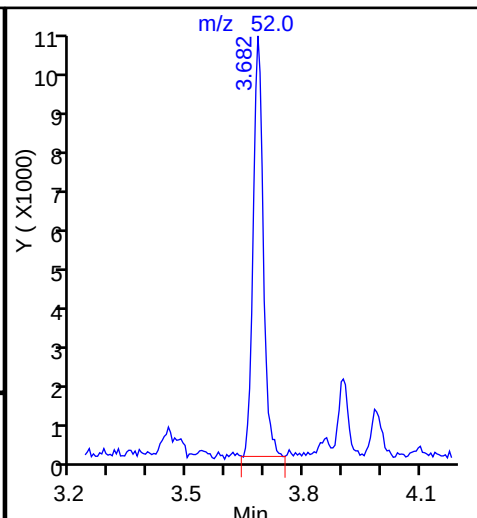
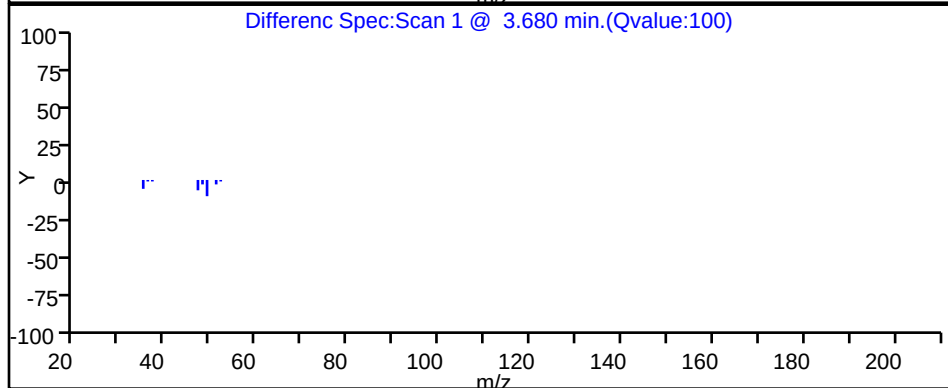
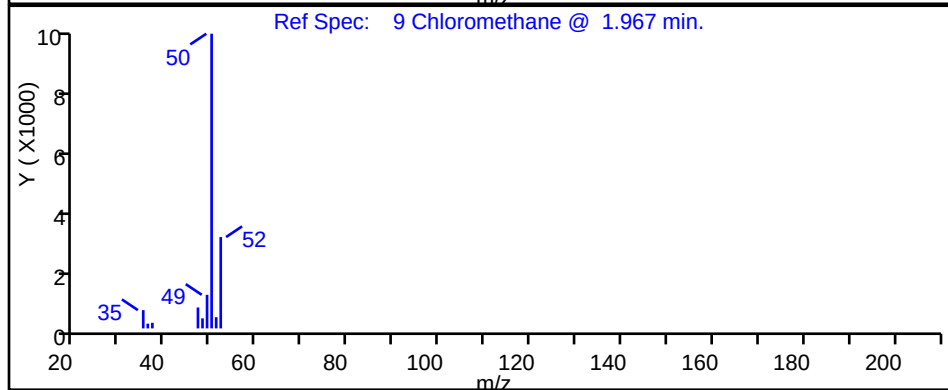
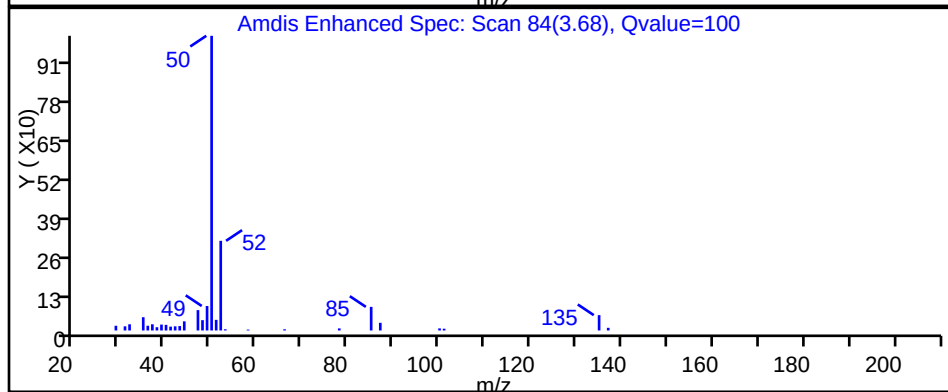
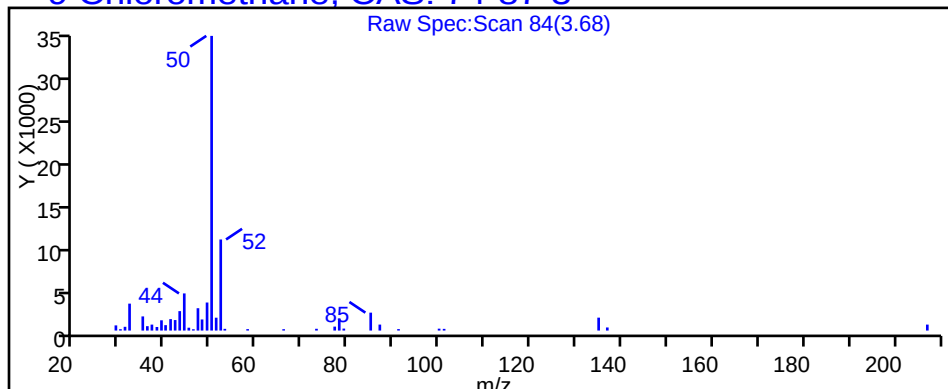
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

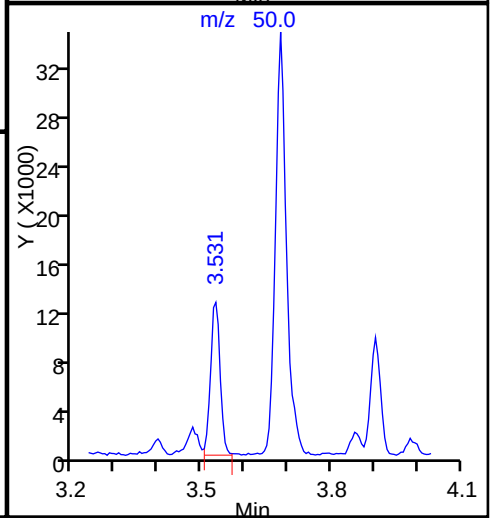
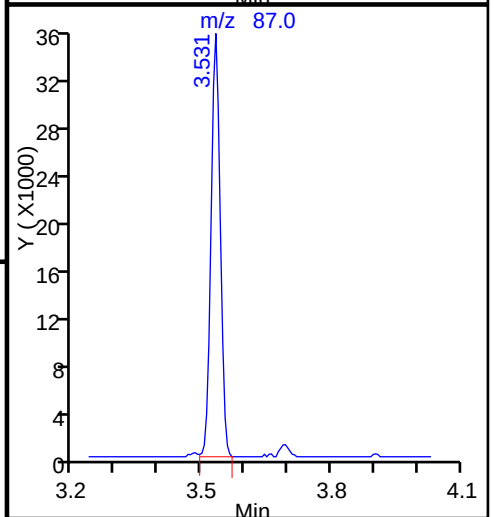
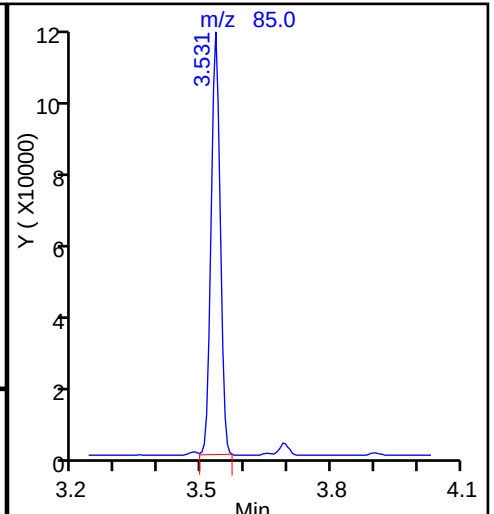
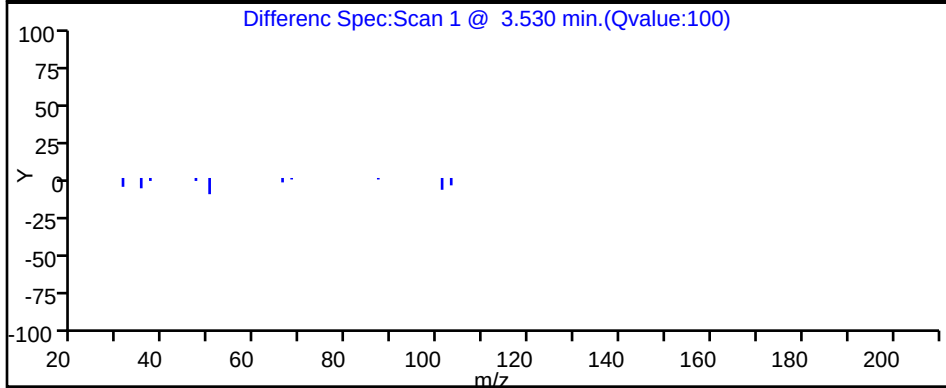
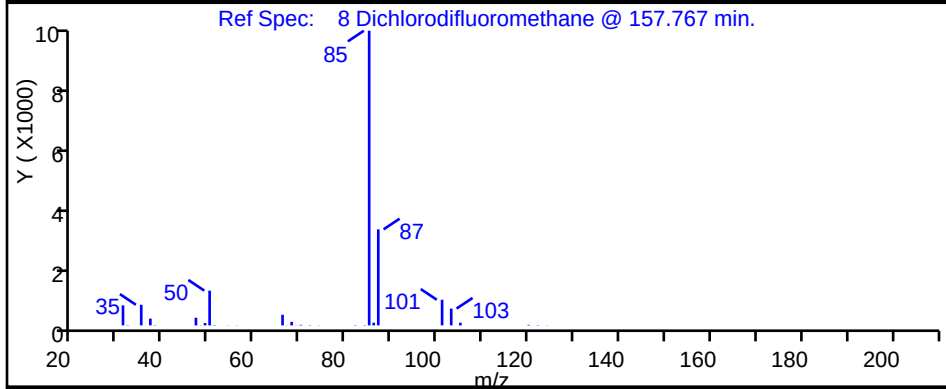
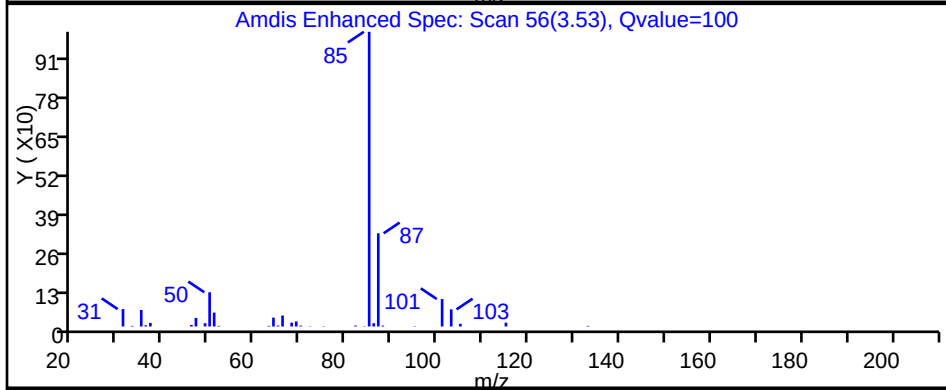
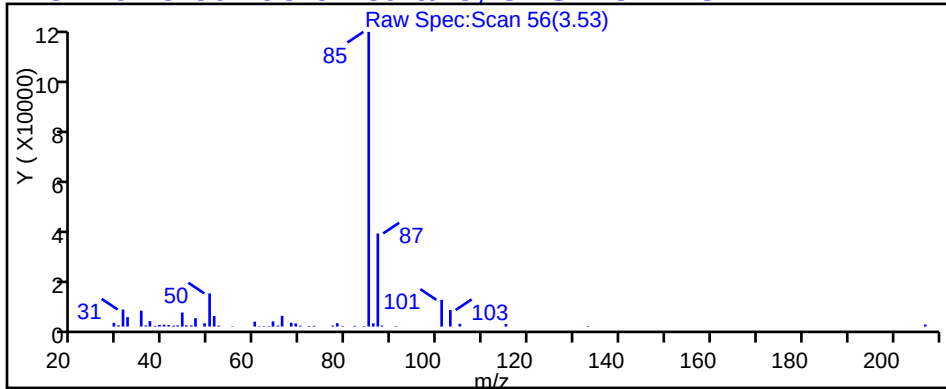
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

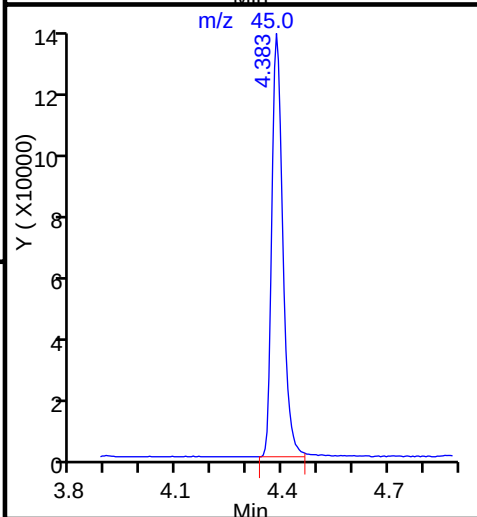
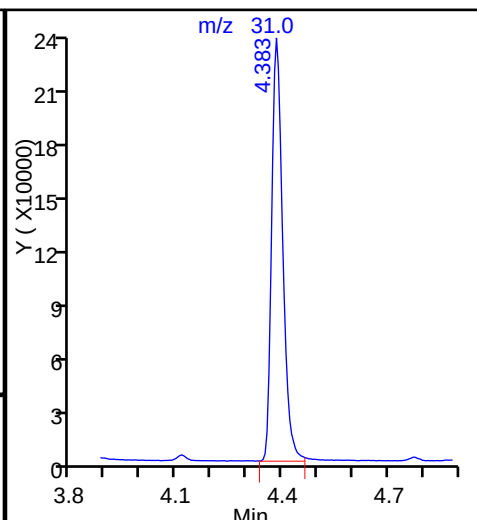
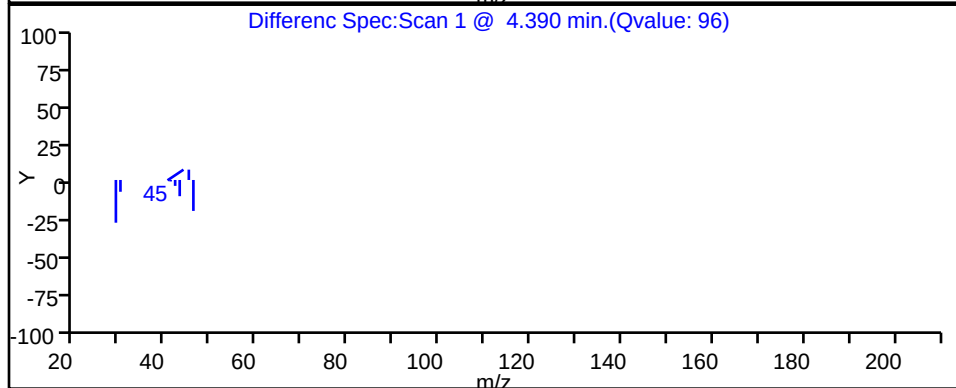
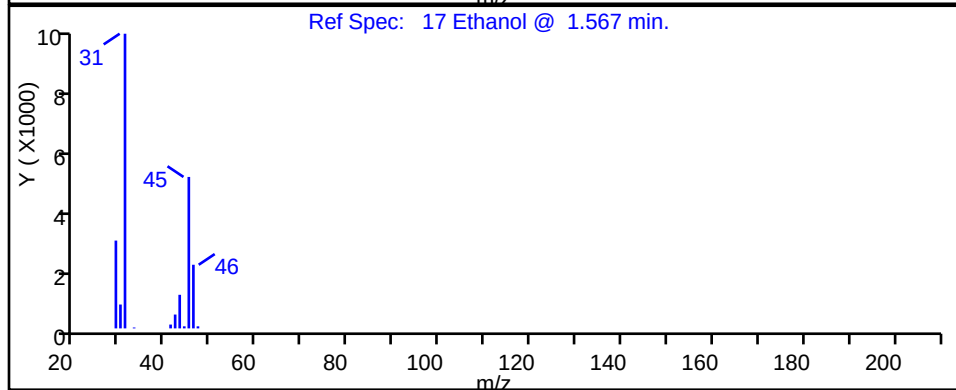
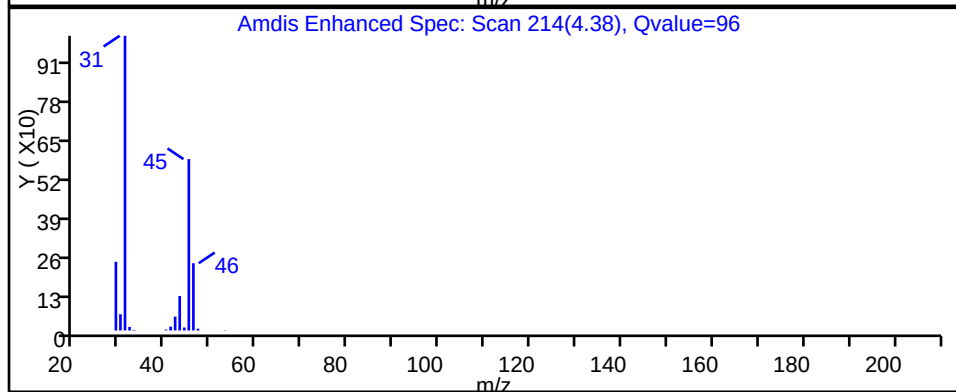
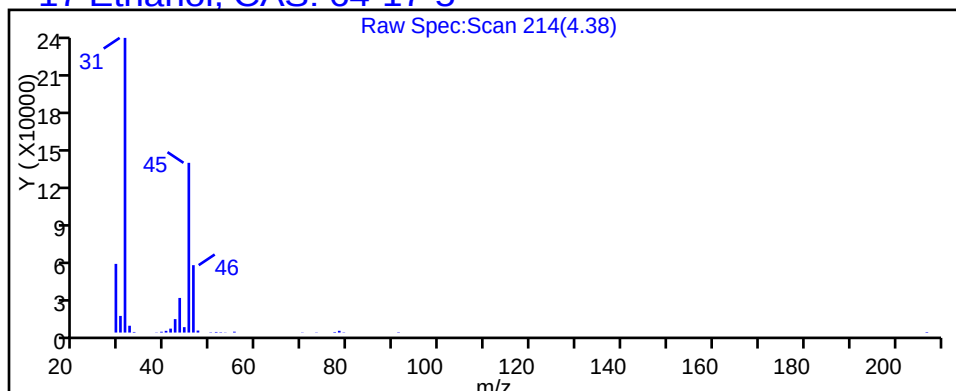
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

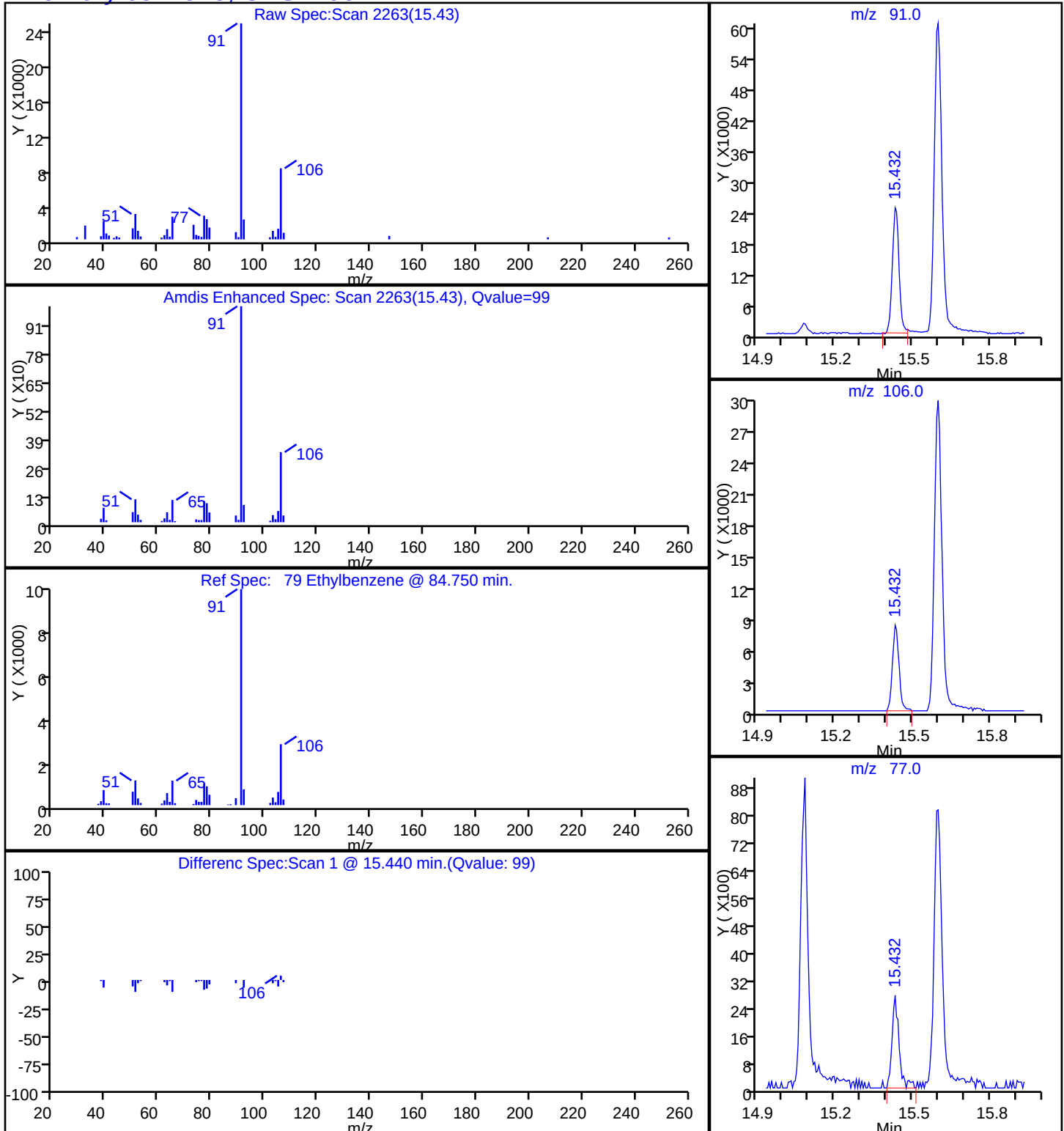
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

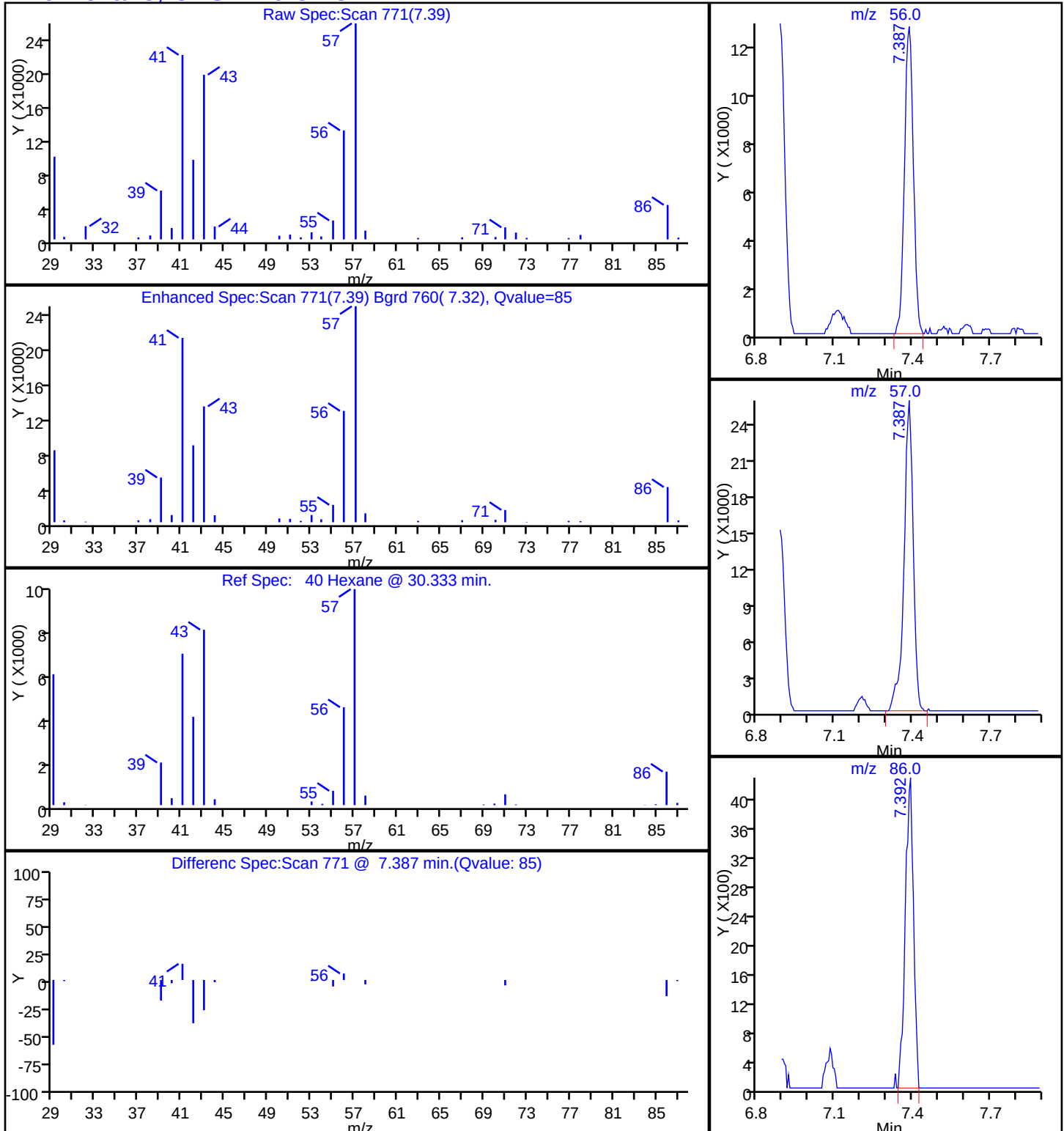
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

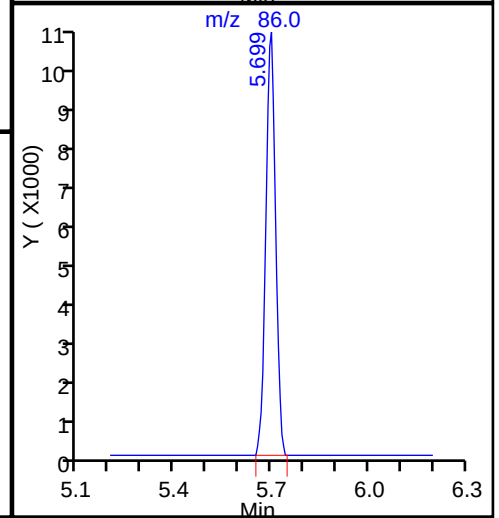
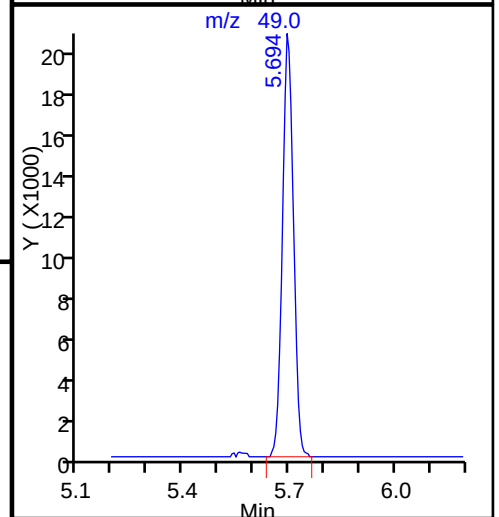
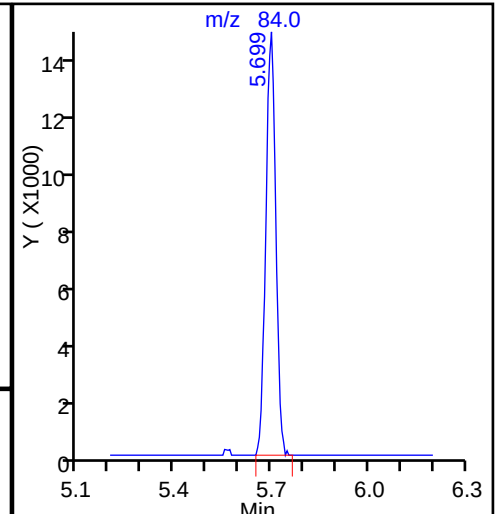
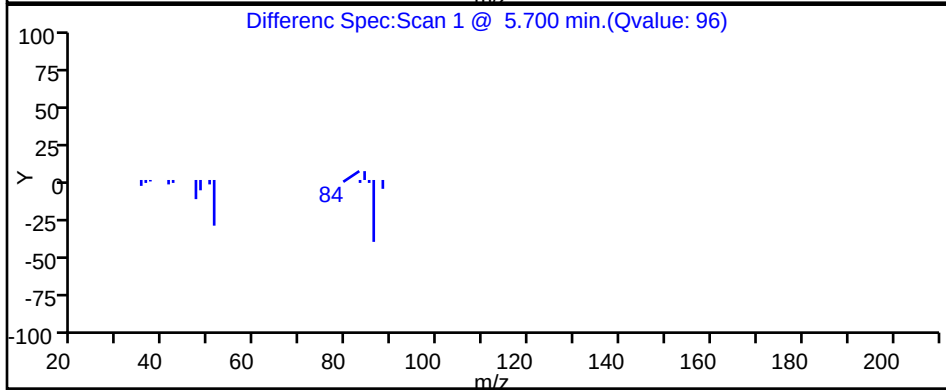
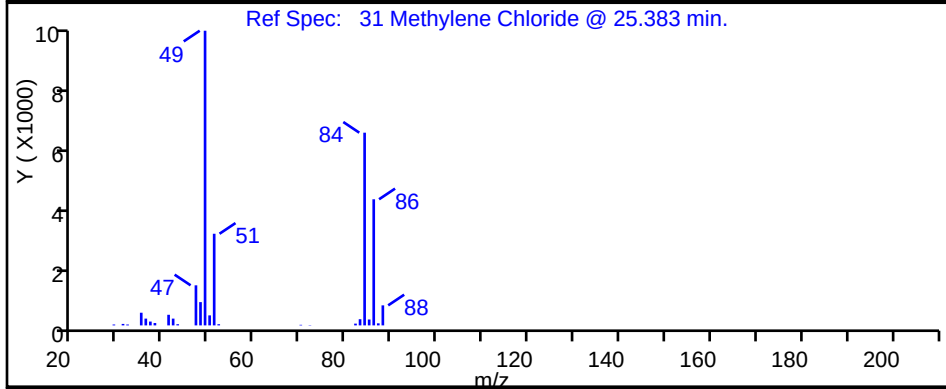
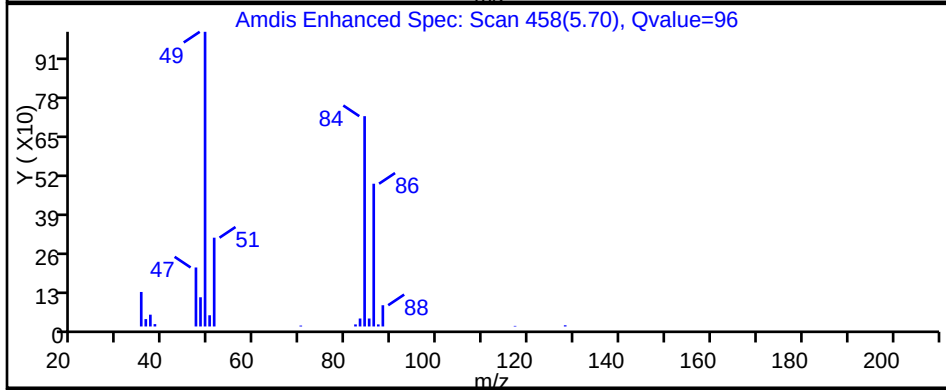
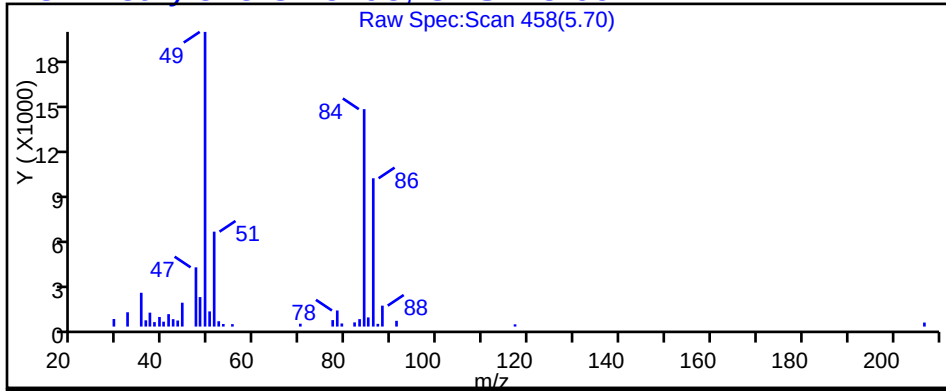
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

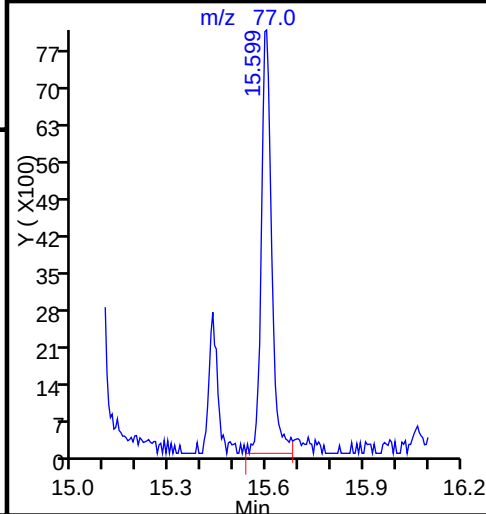
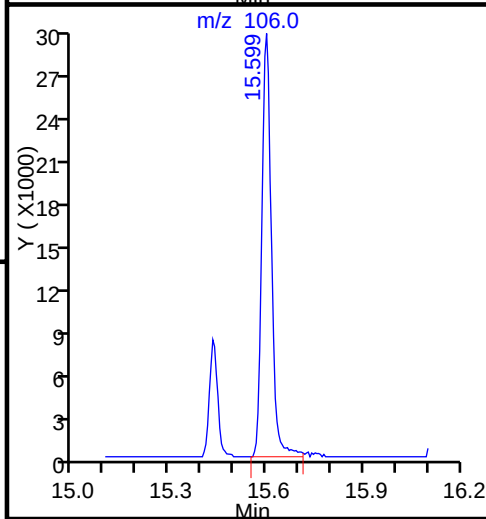
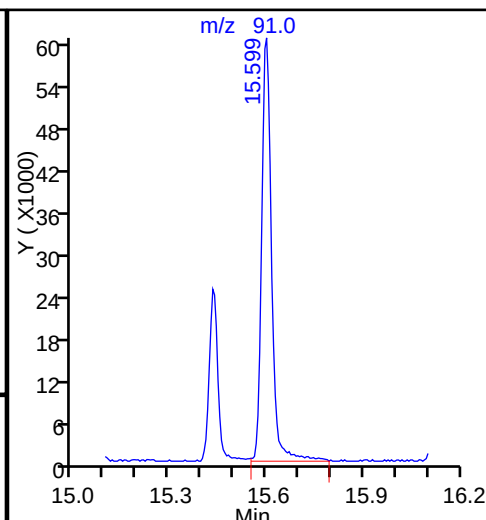
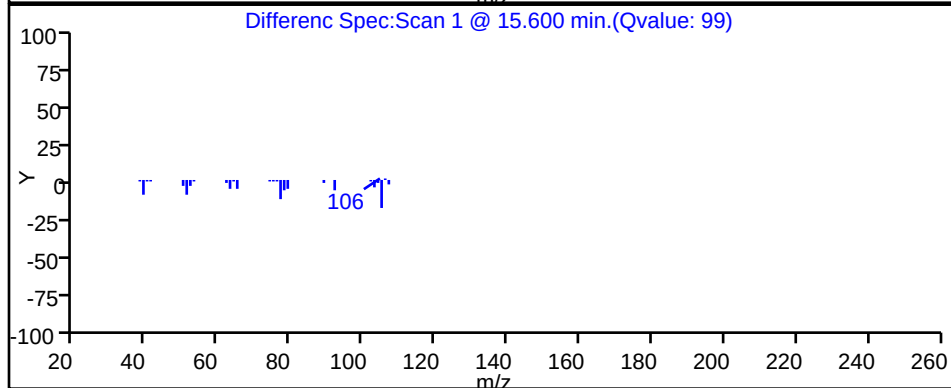
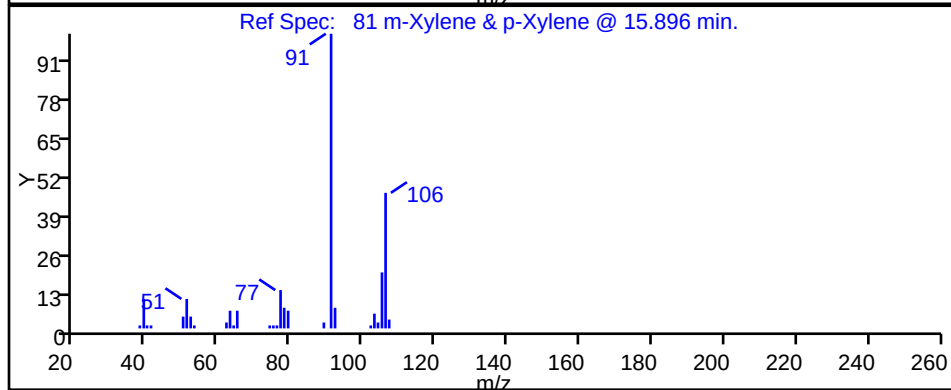
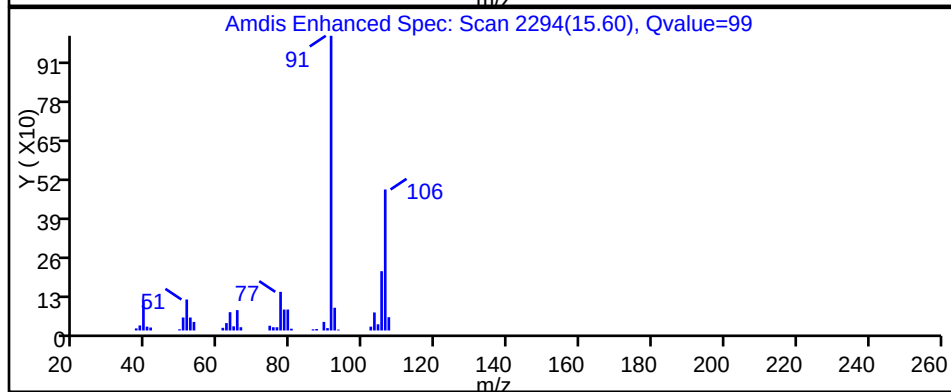
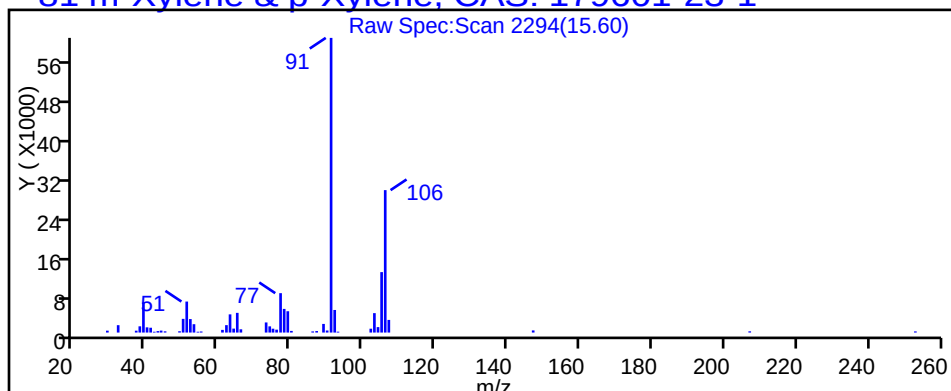
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

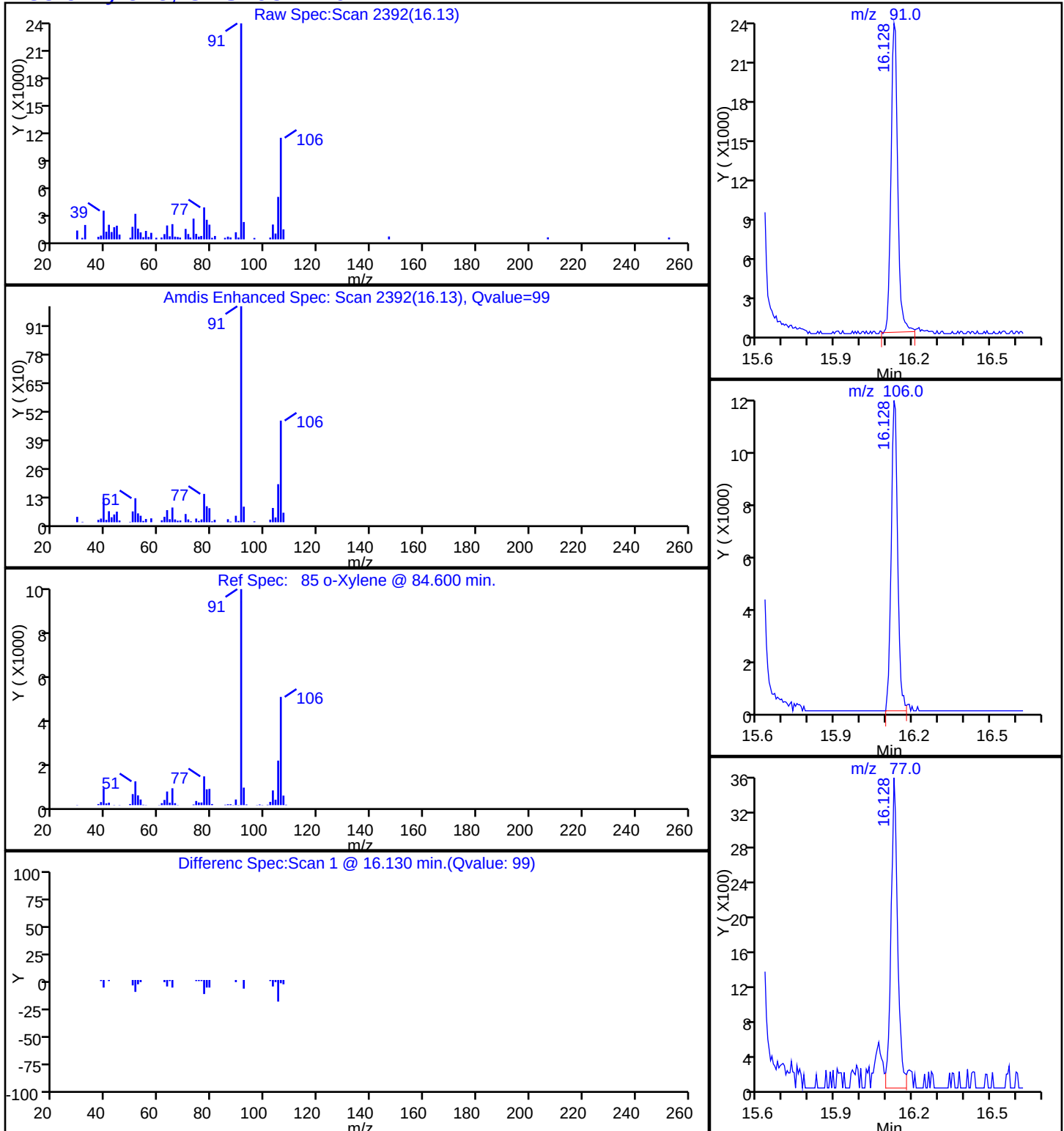
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

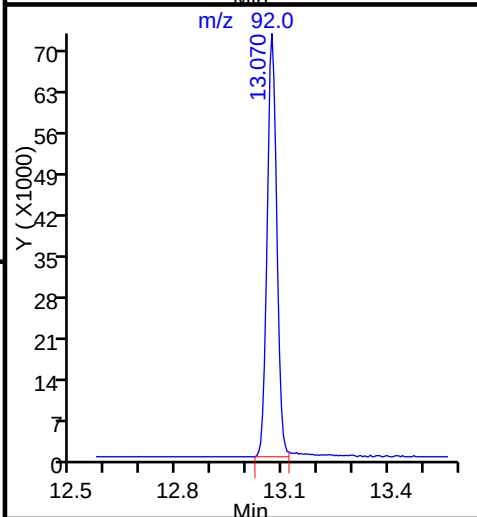
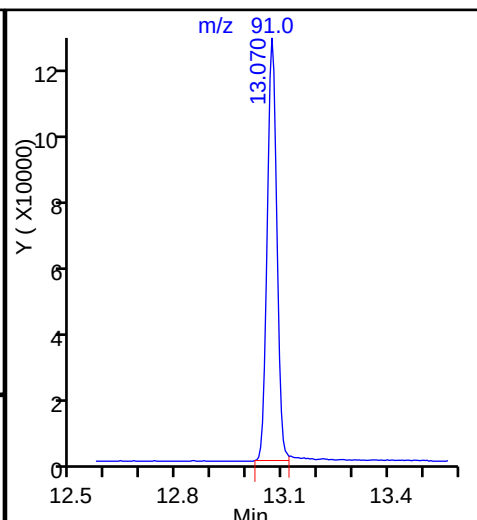
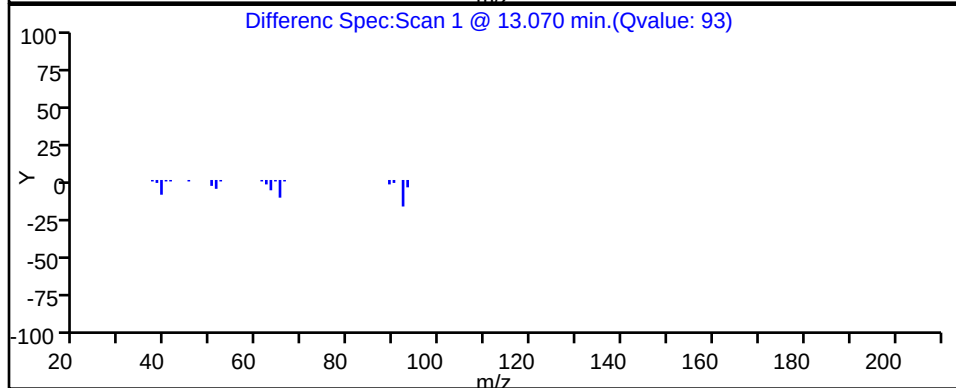
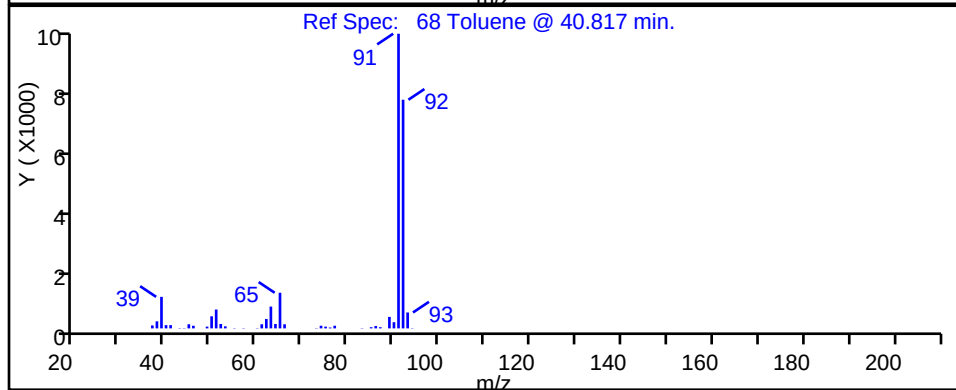
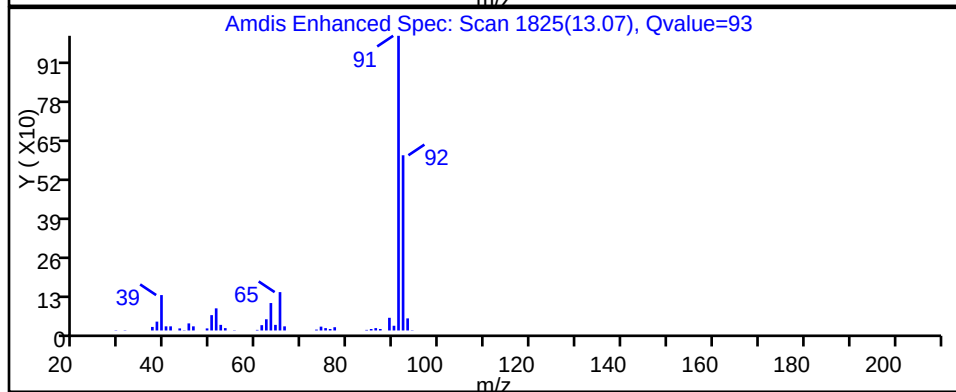
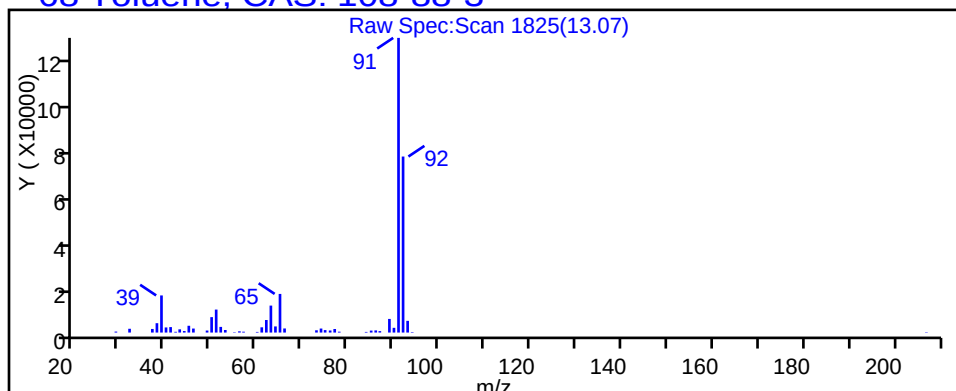
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GL20P107.D

Injection Date: 20-Dec-2016 17:49:30

Instrument ID: MG

Lims ID: 140-6565-A-7

Lab Sample ID: 140-6565-7

Client ID: AM-1

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 11

Purge Vol: 500.000 mL

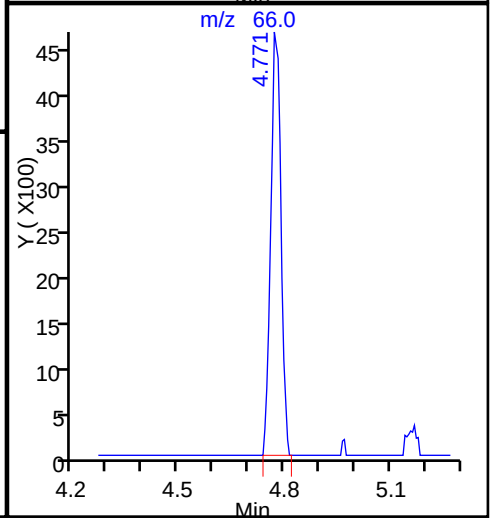
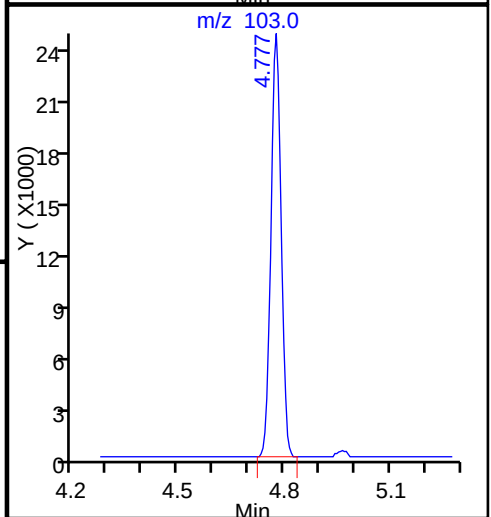
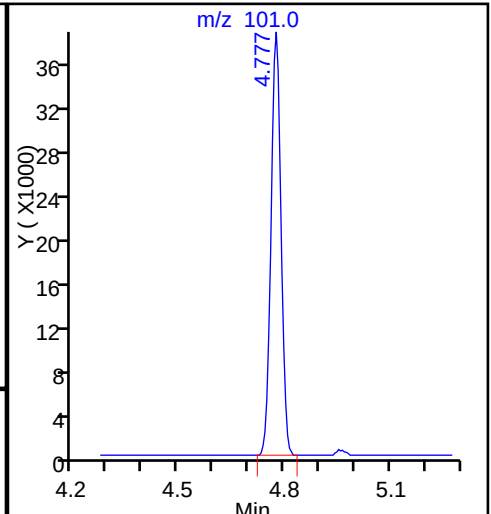
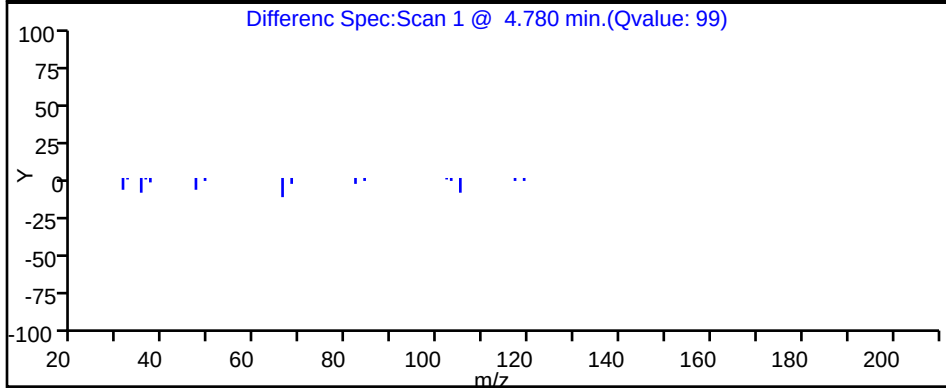
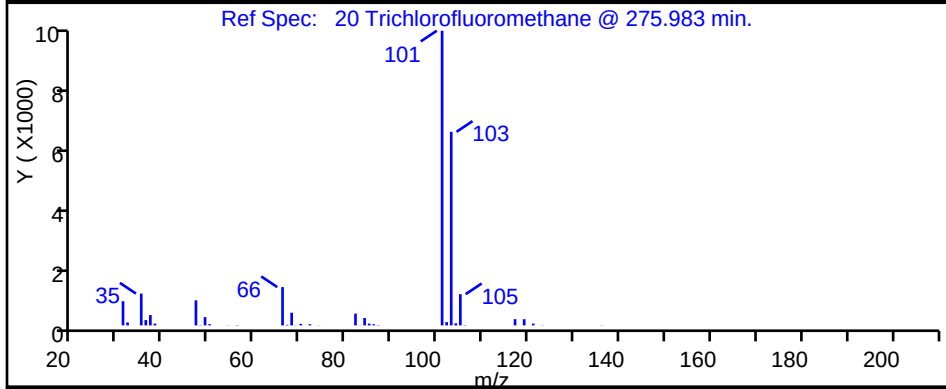
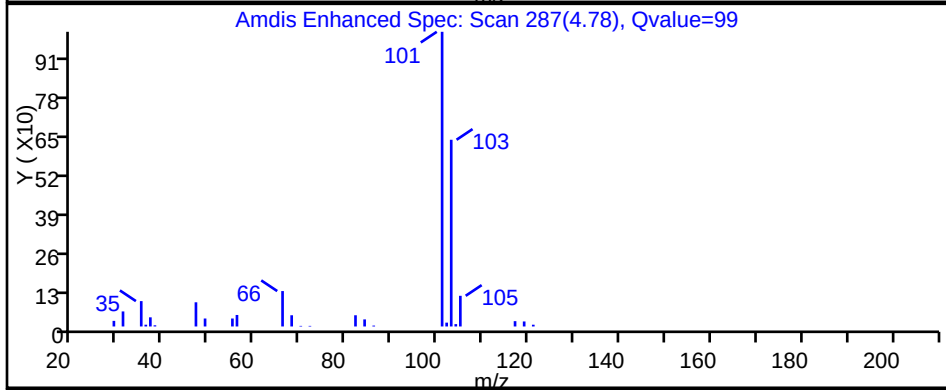
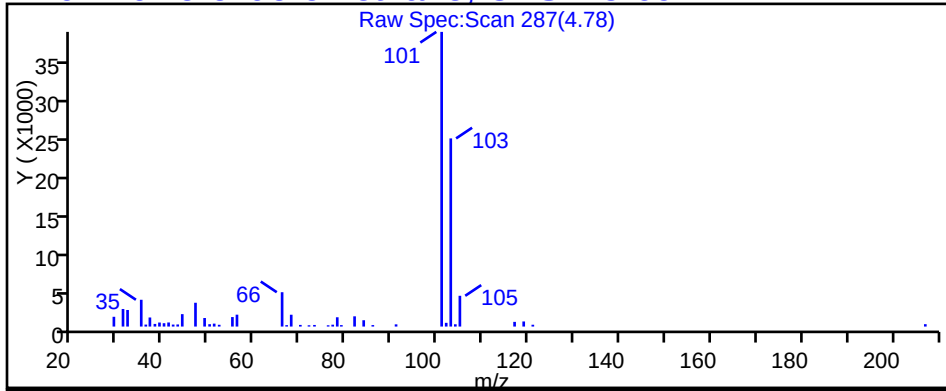
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chlorodifluoromethane	+++++ 0.3338	0.3549 0.3328	0.3159 0.3273	0.3020 0.3307	0.3270	Ave		0.3281				4.6		30.0			
Propene	1.2860 1.0804	1.1416 1.0379	1.1371 1.0519	1.0563 0.9734	1.0793	Ave		1.0938				8.1		30.0			
Dichlorodifluoromethane	3.5519 3.5420	3.2652 3.5274	3.3991 3.3976	3.1949 3.3711	3.5614	Ave		3.4234				3.9		30.0			
Chloromethane	0.4642 0.3785	0.3502 0.3686	0.4124 0.3215	0.3696 0.2816	0.3627	Ave		0.3677				14.0		30.0			
1,2-Dichlorotetrafluoroethane	2.2681 2.4009	2.1889 2.3241	2.2548 2.1971	2.0996 2.2948	2.3833	Ave		2.2679				4.3		30.0			
Acetaldehyde	+++++ 0.3575	+++++ 0.4076	0.5646 0.3521	0.4816 0.3144	0.3640	Ave		0.4060				21.6		30.0			
Vinyl chloride	1.2352 1.3504	1.1289 1.3032	1.2170 1.1616	1.1270 1.0433	1.2922	Ave		1.2065				8.3		30.0			
1,3-Butadiene	1.0799 1.0580	0.9526 1.0238	0.9911 0.8986	0.9061 0.8042	1.0507	Ave		0.9739				9.4		30.0			
Butane	2.0162 2.1057	1.8907 2.0272	1.9252 1.7380	1.7981 1.5045	2.1121	Ave		1.9020				10.4		30.0			
Bromomethane	1.2300 1.1902	1.1372 1.1693	1.1764 1.1123	1.0754 1.0923	1.1843	Ave		1.1519				4.4		30.0			
Chloroethane	0.6827 0.6648	0.6301 0.6570	0.6426 0.6188	0.6039 0.6101	0.6608	Ave		0.6412				4.2		30.0			
Ethanol	0.4632 0.3935	0.4508 0.3994	0.4105 0.3500	0.3911 0.3540	0.3846	Ave		0.3997				9.6		30.0			
Vinyl bromide	1.1201 1.1240	1.0611 1.1048	1.0843 1.0697	1.0215 1.0777	1.1262	Ave		1.0877				3.2		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylbutane	1.6287 1.4313	1.3884 1.3874	1.4670 1.2605	1.3095 1.1548	1.4767	Ave		1.3894				9.9		30.0			
Acrolein	0.4901 0.2366	0.4360 0.2850	0.3176 0.2404	0.2661 0.2673	0.2638	Ave		0.3114				29.0		30.0			
Trichlorofluoromethane	3.3655 3.4720	3.1181 3.3885	3.3067 3.2629	3.0936 3.4188	3.4342	Ave		3.3178				4.1		30.0			
Acetonitrile	++++ 0.3472	++++ 0.3982	++++ 0.3461	0.3570 0.3885 0.3845	0.3624	Ave		0.3691				5.7		30.0			
Acetone	++++ 0.4106	++++ 0.4310	++++ 0.3643	0.5157 0.3900	0.4174	Ave		0.4215				12.3		30.0			
Pentane	++++ 0.2080	++++ 0.2016	0.2135 0.1880	0.2029 0.1993	0.2119	Ave		0.2036				4.3		30.0			
Isopropyl alcohol	1.5310 1.4991	1.4716 1.4952	1.4150 1.2414	1.4097 1.3387	1.4318	Ave		1.4259				6.3		30.0			
Ethyl ether	0.9311 0.7873	0.9543 0.8900	0.7717 0.7765	0.8221 0.8369	0.7922	Ave		0.8402				8.2		30.0			
1,1-Dichloroethene	++++ 1.0245	0.9453 0.9956	1.0023 0.9515	0.9046 0.9955	1.0043	Ave		0.9780				4.1		30.0			
Acrylonitrile	++++ 0.4527	0.6271 0.5522	0.5612 0.4923	0.4969 0.5774	0.4676	Ave		0.5284				11.4		30.0			
t-Butyl alcohol	1.3992 1.6383	1.4977 1.6364	1.4347 1.4716	1.4123 1.4970	1.5027	Ave		1.4989				5.8		30.0			
1,1,2-Trichlorotrifluoroethane	2.2525 2.1037	2.0113 2.1372	2.0917 2.0319	1.9628 2.1889	2.0970	Ave		2.0974				4.3		30.0			
Methylene Chloride	++++ 0.8104	++++ 0.7861	1.1795 0.7336	0.8593 0.7645	0.8223	Ave		0.8508				17.7		30.0			
3-Chloropropene	++++ 0.8454	0.9298 0.8445	0.8789 0.7578	0.8154 0.7846	0.8810	Ave		0.8422				6.6		30.0			
Carbon disulfide	3.1962 3.3493	2.9586 3.3443	3.2582 3.1210	3.0541 3.1717	3.3143	Ave		3.1964				4.2		30.0			
trans-1,2-Dichloroethene	1.2095 1.1840	1.1122 1.2104	1.1533 1.1267	1.0720 1.1183	1.1569	Ave		1.1493				4.1		30.0			
2-Methylpentane	2.6087 2.5424	2.3638 2.7079	2.5060 2.4671	2.3560 2.2074	2.5248	Ave		2.4760				6.0		30.0			
Methyl tert-butyl ether	2.9720 2.5613	2.8703 2.9618	2.3122 2.7718	2.5070 3.1078	2.5023	Ave		2.7296				9.9		30.0			
1,1-Dichloroethane	2.3404 2.1332	2.0906 2.2606	2.0615 2.1913	2.0008 2.2460	2.1042	Ave		2.1587				5.0		30.0			
Vinyl acetate	2.9307 2.4017	2.8215 2.9126	2.1645 2.8518	2.4824 3.2385	2.3517	Ave		2.6840				13.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Butanone	0.4922 0.4381	0.5130 0.5011	0.4615 0.4635	0.4677 0.5091	0.4170	Ave		0.4737				6.9		30.0			
Hexane	++++ 0.9349	1.0515 0.9857	1.0034 0.9194	0.9087 0.8655	0.9371	Ave		0.9508				6.2		30.0			
Isopropyl ether	3.6385 3.2521	3.5918 3.8494	2.8822 3.4934	3.1928 3.6458	3.1568	Ave		3.4114				9.0		30.0			
cis-1,2-Dichloroethene	1.1808 1.1866	1.1264 1.2421	1.1288 1.1663	1.1069 1.2041	1.1563	Ave		1.1665				3.6		30.0			
Ethyl acetate	++++ 1.9841	2.3762 2.3590	1.6829 2.1967	1.9349 2.5285	1.8625	Ave		2.1156				13.9		30.0			
Chloroform	2.7445 2.4932	2.4677 2.6082	2.4462 2.4420	2.3597 2.5302	2.4907	Ave		2.5092				4.4		30.0			
Tert-butyl ethyl ether	3.1089 2.8510	3.0927 3.3589	2.4522 3.0495	2.7295 3.3330	2.7203	Ave		2.9662				10.2		30.0			
Tetrahydrofuran	++++ 1.0133	1.2244 1.1796	0.9443 1.1231	1.0049 1.2635	0.9847	Ave		1.0922				11.1		30.0			
1,1,1-Trichloroethane	2.8646 2.7270	2.6636 2.8877	2.6517 2.7208	2.5679 2.8512	2.6959	Ave		2.7367				4.0		30.0			
1,2-Dichloroethane	0.3530 0.3840	0.3341 0.4140	0.3734 0.3709	0.3352 0.4164	0.3754	Ave		0.3729				8.0		30.0			
Benzene	0.7199 0.7857	0.6720 0.7833	0.7520 0.6448	0.6879 0.6669	0.7631	Ave		0.7195				7.5		30.0			
Cyclohexane	++++ 0.1599	0.1191 0.1382	0.1518 0.1112	0.1255 0.1123	0.1430	Ave		0.1326				13.8		30.0			
Carbon tetrachloride	0.5841 0.7981	0.5511 0.7296	0.6608 0.4256	0.5781 0.7543	0.6997	Ave		0.6424				18.3		30.0			
1-Butanol	0.0816 0.1131	0.0817 0.0985	0.0943 0.0738	0.0738 0.0787	0.0917	Ave		0.0875				14.9		30.0			
2,3-Dimethylpentane	0.1701 0.2181	0.1635 0.2048	0.1997 0.1735	0.1678 0.1822	0.1936	Ave		0.1859				10.2		30.0			
Thiophene	0.4033 0.4904	0.3656 0.4775	0.4326 0.4144	0.3889 0.4535	0.4495	Ave		0.4306				9.6		30.0			
Tert-amyl methyl ether	++++ 0.7246	0.5422 0.7657	0.5885 0.6251	0.5528 0.7334	0.6168	Ave		0.6436				13.4		30.0			
2,2,4-Trimethylpentane	1.2559 1.5774	1.1480 1.4297	1.3694 1.1835	1.1880 1.2127	1.3776	Ave		1.3047				10.9		30.0			
Heptane	++++ 0.3469	0.2548 0.3154	0.3019 0.2596	0.2588 0.2705	0.3035	Ave		0.2889				11.5		30.0			
1,2-Dichloropropane	0.2906 0.2837	0.2676 0.3088	0.2584 0.2567	0.2529 0.2703	0.2644	Ave		0.2726				6.7		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Trichloroethene	0.3688 0.5033	0.3440 0.4316	0.5123 0.3780	0.3593 0.4151	0.4551	Ave		0.4186				14.8		30.0			
Dibromomethane	++++ 0.3889	0.2900 0.3594	0.3299 0.3041	0.2976 0.3375	0.3454	Ave		0.3316				10.1		30.0			
Bromodichloromethane	0.5174 0.6936	0.4743 0.6569	0.5538 0.5626	0.5007 0.6303	0.5963	Ave		0.5762				12.8		30.0			
1,4-Dioxane	0.0817 0.1219	0.0851 0.1140	0.0928 0.0904	0.0829 0.1034	0.0967	Ave		0.0965				14.6		30.0			
Methyl methacrylate	0.2938 0.3203	0.2764 0.3675	0.2381 0.2963	0.2499 0.3421	0.2672	Ave		0.2946				14.5		30.0			
Methylcyclohexane	0.5798 0.7090	0.5275 0.6371	0.6323 0.5277	0.5432 0.5612	0.6402	Ave		0.5953				10.5		30.0			
4-Methyl-2-pentanone (MIBK)	0.4023 0.5929	0.4101 0.5966	0.4735 0.4754	0.4187 0.5284	0.5089	Ave		0.4897				15.0		30.0			
cis-1,3-Dichloropropene	0.4002 0.4569	0.3982 0.4973	0.4013 0.4303	0.3994 0.4690	0.4235	Ave		0.4307				8.4		30.0			
trans-1,3-Dichloropropene	0.3658 0.4061	0.3540 0.4491	0.3426 0.4020	0.3354 0.4498	0.3686	Ave		0.3859				11.2		30.0			
Toluene Range	++++ 2.0836	++++ 2.2682	++++ 1.9120	1.8759 2.1660	1.8779	Ave		2.0306				8.2		30.0			
Toluene	0.8254 0.8322	0.7743 0.8957	0.7328 0.7761	0.7273 0.8596	0.7761	Ave		0.7999				7.1		30.0			
1,1,2-Trichloroethane	0.2336 0.2534	0.2227 0.2680	0.2207 0.2294	0.2124 0.2492	0.2336	Ave		0.2359				7.5		30.0			
2-Methylthiophene	0.6613 0.7027	0.6575 0.7544	0.6376 0.6612	0.6096 0.7240	0.6640	Ave		0.6747				6.6		30.0			
3-Methylthiophene	0.6737 0.6801	0.6274 0.7378	0.6026 0.6464	0.5887 0.7136	0.6452	Ave		0.6573				7.5		30.0			
2-Hexanone	++++ 0.2915	0.1900 0.2710	0.2213 0.2338	0.1764 0.2631	0.2313	Ave		0.2348				16.8		30.0			
Octane	++++ 0.3727	0.2881 0.3343	0.3227 0.2834	0.2768 0.2924	0.3462	Ave		0.3146				11.0		30.0			
C8 Range	++++ 3.9288	++++ 3.5290	++++ 2.7837	2.8399 2.2545	3.5748	Ave		3.1518				19.9		30.0			
Dibromochloromethane	0.4510 0.6078	0.4328 0.6378	0.4973 0.5733	0.4548 0.6752	0.5555	Ave		0.5428				16.2		30.0			
1,2-Dibromoethane	0.4272 0.5036	0.4148 0.5296	0.4331 0.4740	0.3963 0.5288	0.4689	Ave		0.4640				10.6		30.0			
Tetrachloroethene	0.3393 0.3979	0.3144 0.3644	0.3519 0.3344	0.3031 0.3796	0.3738	Ave		0.3510				8.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chlorobenzene	0.6294 0.7178	0.6279 0.7389	0.6200 0.6505	0.5900 0.7362	0.6651	Ave		0.6640				8.2		30.0			
2,3-Dimethylheptane	0.8109 0.9418	0.7539 0.8768	0.8388 0.6840	0.7385 0.6154	0.8750	Ave		0.7928				13.1		30.0			
Ethylbenzene	1.0036 1.1526	1.0133 1.1923	0.9508 1.0222	0.9310 1.1519	1.0198	Ave		1.0486				8.9		30.0			
2-Ethylthiophene	0.7321 0.8577	0.7363 0.9084	0.6843 0.7890	0.6841 0.8999	0.7684	Ave		0.7845				11.0		30.0			
m-Xylene & p-Xylene	0.7983 0.9029	0.7794 0.9012	0.7339 0.7616	0.7175 0.8713	0.8098	Ave		0.8084				8.6		30.0			
Bromoform	++++ 0.5811	0.3397 0.6513	0.4073 0.6476	0.4101 ++++	0.4599	Ave		0.4996				25.2		30.0			
Nonane	0.5140 0.6372	0.5365 0.5614	0.5472 0.4343	0.4988 0.3895	0.5982	Ave		0.5241				14.7		30.0			
Styrene	0.5025 0.6687	0.5069 0.6733	0.4719 0.5858	0.4870 0.6908	0.5821	Ave		0.5743				15.1		30.0			
o-Xylene	0.8448 0.9402	0.8143 0.9607	0.7706 0.8183	0.7503 0.9298	0.8397	Ave		0.8521				8.8		30.0			
1,1,2,2-Tetrachloroethane	0.5467 0.6672	0.5314 0.6754	0.3873 0.5632	0.4923 0.6232	0.5771	Ave		0.5626				16.0		30.0			
1,2,3-Trichloropropane	0.1698 0.2072	0.1776 0.2127	0.1592 0.1836	0.1595 0.2171	0.1811	Ave		0.1853				11.9		30.0			
Isopropylbenzene	1.2213 1.3188	1.2143 1.3047	1.0675 1.1252	1.0400 1.3154	1.1807	Ave		1.1987				8.8		30.0			
Propylbenzene	0.3083 0.3741	0.3035 0.3706	0.2942 0.3183	0.2692 0.3791	0.3203	Ave		0.3264				12.0		30.0			
2-Chlorotoluene	0.2803 0.3401	0.2908 0.3361	0.2713 0.2938	0.2596 0.3435	0.2980	Ave		0.3015				10.3		30.0			
4-Ethyltoluene	1.0725 1.3245	1.0762 1.3261	1.0167 1.1334	0.9755 1.3366	1.1448	Ave		1.1563				12.1		30.0			
1,3,5-Trimethylbenzene	0.5114 0.6375	0.5316 0.6202	0.4943 0.5337	0.4675 0.6484	0.5604	Ave		0.5561				11.7		30.0			
Alpha Methyl Styrene	0.3588 0.5521	0.3762 0.5659	0.3674 0.4999	0.3490 0.5992	0.4597	Ave		0.4587				21.6		30.0			
Decane	0.5871 0.7749	0.5831 0.6868	0.6267 0.5492	0.5632 0.5302	0.6657	Ave		0.6186				12.7		30.0			
tert-Butylbenzene	1.0198 1.2271	1.0123 1.1883	0.9710 1.0325	0.9055 1.2566	1.0851	Ave		1.0776				11.2		30.0			
1,2,4-Trimethylbenzene	0.8612 1.1298	0.8911 1.0825	0.8780 0.9378	0.8224 1.1204	0.9973	Ave		0.9689				12.2		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	0.6141 0.7899	0.6013 0.7691	0.6150 0.7360	0.5662 0.9169	0.6918	Ave		0.7000				16.2		30.0			
sec-Butylbenzene	1.3032 1.6296	1.3128 1.5477	1.3058 1.3412	1.1931 1.5425	1.4403	Ave		1.4018				10.4		30.0			
Benzyl chloride	0.6148 0.9678	0.6350 0.9569	0.6408 0.8508	0.5951 0.9807	0.7219	Ave		0.7737				21.3		30.0			
1,4-Dichlorobenzene	0.6036 0.7841	0.5931 0.7519	0.6005 0.7111	0.5563 0.8865	0.6711	Ave		0.6842				15.9		30.0			
4-Isopropyltoluene	1.0603 1.3938	1.0612 1.3544	1.0692 1.1734	0.9923 1.4119	1.2263	Ave		1.1936				13.5		30.0			
1,2,3-Trimethylbenzene	0.6714 0.8522	0.6994 0.8473	0.6784 0.7260	0.6250 0.8489	0.7562	Ave		0.7450				11.6		30.0			
Butylcyclohexane	0.7330 0.8802	0.7198 0.7920	0.7649 0.6757	0.6877 0.7014	0.7915	Ave		0.7496				8.7		30.0			
1,2-Dichlorobenzene	0.5841 0.7718	0.5719 0.7333	0.5959 0.6864	0.5354 0.8615	0.6801	Ave		0.6689				16.0		30.0			
Indane	0.8027 1.0536	0.8227 1.0032	0.8131 0.8882	0.7463 1.0683	0.9208	Ave		0.9021				13.0		30.0			
Indene	++++ 0.7925	++++ 0.7841	0.5682 0.6876	0.5181 0.8297	0.6730	Lin1	-0.062	0.7892							0.9930		0.9900
Butylbenzene	0.8919 1.2730	0.9217 1.1984	0.9649 0.9995	0.8698 1.1339	1.0888	Ave		1.0380				13.7		30.0			
Undecane	0.6021 0.8423	0.6055 0.7396	0.6714 0.5739	0.5764 0.5367	0.7308	Ave		0.6532				15.3		30.0			
1,2-Dimethyl-4-Ethylbenzene	++++ 1.0231	0.7153 0.9883	0.7844 0.8445	0.6729 1.0112	0.8866	Ave		0.8658				15.6		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.3428	0.1955 0.3390	0.2062 0.3139	0.1926 0.4055	0.2526	Ave		0.2810				28.6		30.0			
1,2,4,5-Tetramethylbenzene	0.8105 1.2627	0.8397 1.1843	0.9470 1.0243	0.8035 1.2216	1.0664	Ave		1.0178				17.6		30.0			
1,2,3,5-Tetramethylbenzene	0.5153 0.7560	0.5255 0.7179	0.5723 0.6194	0.4969 0.7358	0.6589	Ave		0.6220				16.1		30.0			
1,2,3,4-Tetramethylbenzene	0.6713 1.0417	0.6881 0.9783	0.7946 0.8420	0.6480 0.9968	0.9053	Ave		0.8407				17.8		30.0			
Dodecane	0.4776 0.7387	0.4838 0.6800	0.6528 0.5350	0.4608 0.5001	0.6724	Ave		0.5779				18.5		30.0			
1,2,4-Trichlorobenzene	0.2836 0.5853	0.3012 0.5779	0.3547 0.5740	0.2992 0.7434	0.4654	Ave		0.4650				35.3	*	30.0			
Naphthalene	0.6545 1.2900	0.6877 1.2421	0.8457 1.1172	0.6647 1.3186	1.0568	Ave		0.9864				28.1		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzo(b)thiophene	++++ 0.6697	0.3568 0.6621	0.4044 0.6235	0.3280 0.7552	0.5262	Ave		0.5407				29.8		30.0			
Hexachlorobutadiene	0.6234 0.8147	0.5709 0.7703	0.6554 0.7981	0.5172 0.9331	0.7444	Ave		0.7142				18.5		30.0			
1,2,3-Trichlorobenzene	0.3108 0.5783	0.3138 0.5460	0.3999 0.5209	0.2901 0.6336	0.4883	Ave		0.4535				28.3		30.0			
2-Methylnaphthalene	++++ 0.2002	++++ 0.1790	0.1300 0.1732	0.0618 0.1093	0.1529	Ave		0.1438				33.0		50.0			
1-Methylnaphthalene	++++ 0.2051	++++ 0.1772	0.1609 0.1640	0.0678 0.0845	0.1661	Ave		0.1465				34.5		50.0			
4-Bromofluorobenzene (Surr)	0.6532 0.6804	0.6564 0.6665	0.6386 0.6726	0.6628 0.6636	0.6595	Ave		0.6615				1.8		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Chlorodifluoromethane	CBM	Ave	+++++ 72767	3430 147523	5647 292311	14013 570750	36626	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Propene	CBM	Ave	5954 235491	11034 460046	20326 939449	49008 1680175	120900	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dichlorodifluoromethane	CBM	Ave	16445 772063	31559 1563438	60760 3034352	148238 5818805	398936	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloromethane	CBM	Ave	2149 82499	3385 163356	7372 287150	17148 486023	40624	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorotetrafluoroethane	CBM	Ave	10501 523333	21156 1030111	40305 1962149	97416 3960934	266972	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acetaldehyde	CBM	Ave	+++++ 389664	+++++ 903339	50465 1572354	111731 2713131	203897	+++++ 9.99	+++++ 20.0	0.793 40.0	2.00 80.0	5.01
Vinyl chloride	CBM	Ave	5719 294355	10911 577610	21755 1037365	52292 1800793	144743	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Butadiene	CBM	Ave	5000 230625	9207 453774	17716 802516	42040 1388093	117692	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butane	CBM	Ave	9335 458987	18274 898506	34413 1552213	83428 2596919	236594	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromomethane	CBM	Ave	5695 259428	10991 518278	21028 993397	49897 1885484	132665	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloroethane	CBM	Ave	3161 144914	6090 291201	11486 552656	28019 1053045	74023	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethanol	CBM	Ave	10722 428898	21784 885156	36685 1562780	90742 3054812	215410	0.196 9.99	0.392 20.0	0.793 40.0	2.00 80.0	5.01
Vinyl bromide	CBM	Ave	5186 245002	10256 489664	19383 955316	47395 1860265	126157	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylbutane	CBM	Ave	7541 311988	13419 614930	26223 1125727	60759 1993361	165413	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acrolein	CBM	Ave	2269 51584	4214 126307	5678 214693	12347 461450	29554	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Trichlorofluoromethane	CBM	Ave	15582 756823	30137 1501894	59109 2914069	143536 5901125	384683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acetonitrile	CBM	Ave	++++ 75671	++++ 176495	6381 309105	18027 663618	40598	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Acetone	CBM	Ave	++++ 268511	++++ 573107	++++ 976001	71784 2019556	140276	++++ 5.99	++++ 12.0	++++ 24.0	1.20 48.0	3.01
Pentane	CBM	Ave	++++ 45337	++++ 89358	3817 167888	9414 343931	23731	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Isopropyl alcohol	CBM	Ave	21267 980401	42673 1988338	75884 3326202	196241 6932486	481177	0.118 5.99	0.235 12.0	0.476 24.0	1.20 48.0	3.01
Ethyl ether	CBM	Ave	4311 171608	9224 394490	13794 693477	38146 1444630	88736	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethene	CBM	Ave	++++ 223308	9137 441297	17917 849769	41972 1718361	112496	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acrylonitrile	CBM	Ave	++++ 98680	6061 244751	10031 439702	23057 996643	52384	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
t-Butyl alcohol	CBM	Ave	6478 357104	14476 725277	25645 1314289	65529 2583882	168323	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichlorotrifluoroethane	CBM	Ave	10429 458554	19440 947278	37390 1814621	91069 3778238	234900	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylene Chloride	CBM	Ave	++++ 176649	++++ 348409	21084 655205	39868 1319618	92116	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
3-Chloropropene	CBM	Ave	++++ 184286	8987 374322	15711 676808	37831 1354242	98686	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon disulfide	CBM	Ave	14798 730062	28596 1482267	58242 2787285	141704 5474536	371252	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,2-Dichloroethene	CBM	Ave	5600 258077	10750 536489	20615 1006280	49737 1930221	129589	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylpentane	CBM	Ave	12078 554181	22847 1200210	44795 2203279	109315 3810096	282816	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methyl tert-butyl ether	CBM	Ave	13760 558292	27742 1312740	41332 2475436	116320 5364390	280300	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethane	CBM	Ave	10836 464990	20206 1001975	36850 1957037	92833 3876835	235707	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Vinyl acetate	CBM	Ave	13569 523514	27271 1290955	38691 2546899	115180 5589948	263434	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Butanone	CBM	Ave	2279 95501	4958 222106	8249 413943	21700 878803	46710	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Hexane	CBM	Ave	++++ 203795	10163 436872	17936 821099	42161 1493982	104967	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.: _____

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Isopropyl ether	CBM	Ave	16846 708886	34716 1706140	51520 3119866	148142 6292986	353610	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,2-Dichloroethene	CBM	Ave	5467 258646	10887 550542	20178 1041594	51356 2078366	129520	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethyl acetate	CBM	Ave	++++ 432491	22967 1045560	30082 1961789	89774 4364408	208629	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloroform	CBM	Ave	12707 543452	23851 1156020	43727 2180906	109487 4367350	278997	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-butyl ethyl ether	CBM	Ave	14394 621453	29892 1488774	43833 2723491	126645 5753046	304722	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrahydrofuran	CBM	Ave	++++ 220876	11834 522810	16880 1002984	46626 2180844	110305	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,1-Trichloroethane	CBM	Ave	13263 594430	25744 1279894	47399 2429887	119146 4921388	301989	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloroethane	DFBZ	Ave	7958 312783	15561 768059	27221 1498236	70665 3034051	172759	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzene	DFBZ	Ave	16231 639987	31296 1453265	54815 2604625	145030 4859184	351164	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Cyclohexane	DFBZ	Ave	++++ 130219	5547 256435	11068 449383	26449 818029	65816	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon tetrachloride	DFBZ	Ave	13169 650072	25667 1353700	48171 1719063	121879 5495740	321989	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1-Butanol	DFBZ	Ave	1840 92138	3804 182779	15567 297985	15567 573494	42204	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylpentane	DFBZ	Ave	3834 177632	7617 379931	14554 701048	35370 1327614	89073	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Thiophene	DFBZ	Ave	9092 399453	17029 886036	31533 1674022	81985 3303884	206846	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-amyl methyl ether	DFBZ	Ave	++++ 590187	25252 1420675	42901 2525168	116541 5343717	283852	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,2,4-Trimethylpentane	DFBZ	Ave	28315 1284826	53468 2652622	99827 4780993	250466 8835628	633974	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Heptane	DFBZ	Ave	++++ 282575	11865 585125	22004 1048692	54557 1970974	139658	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloropropane	DFBZ	Ave	6551 231049	12462 573027	18837 1037078	53314 1969395	121683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Trichloroethene	DFBZ	Ave	8316 409949	16022 800842	37343 1527011	75756 3024239	209417	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dibromomethane	DFBZ	Ave	++++ 316778	13508 666745	24045 1228541	62732 2458883	158962	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromodichloromethane	DFBZ	Ave	11665 564938	22090 1218893	40369 2272827	105567 4592413	274425	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DFBZ	Ave	1842 99307	3963 211493	6766 365186	17470 753201	44488	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methyl methacrylate	DFBZ	Ave	6623 260860	12871 681937	17354 1196974	52693 2492814	122959	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylcyclohexane	DFBZ	Ave	13072 577507	24568 1182033	46095 2131544	114511 4088614	294616	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	9071 482907	19102 1106976	34513 1920348	88279 3849816	234208	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,3-Dichloropropene	DFBZ	Ave	9023 372121	18544 922671	29255 1738337	84196 3417073	194871	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,3-Dichloropropene	CBZd 5	Ave	8154 337087	16090 854993	24864 1632235	72970 3420157	167829	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Toluene Range	DFBZ	Ave	++++ 1697187	++++ 4208350	++++ 7723720	395488 15781323	864195	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0	1.00
Toluene	CBZd 5	Ave	18400 690854	35196 1705333	53183 3151028	158232 6535309	353389	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichloroethane	CBZd 5	Ave	5207 210396	10122 510325	16016 931501	46210 1894431	106377	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylthiophene	CBZd 5	Ave	14742 583362	29885 1436338	46273 2684721	132638 5504671	302331	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
3-Methylthiophene	CBZd 5	Ave	15017 564583	28520 1404632	43735 2624633	128096 5425286	293803	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Hexanone	CBZd 5	Ave	++++ 241991	8635 515917	16057 949384	38378 2000620	105315	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Octane	CBZd 5	Ave	++++ 309364	13095 636410	23418 1150679	60225 2222803	157625	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
C8 Range	DFBZ	Ave	++++ 3200146	++++ 6547717	++++ 11244888	598729 16425810	1645102	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0	1.00
Dibromochloromethane	CBZd 5	Ave	10054 504583	19673 1214365	36091 2327802	98960 5133377	252927	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromoethane	CBZd 5	Ave	9522 418094	18853 1008301	31431 1924671	86235 4020392	213500	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrachloroethene	CBZd 5	Ave	7563 330273	14290 693825	25535 1357814	65941 2885902	170189	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chlorobenzene	CBZd 5	Ave	14030 595827	28541 1406777	44998 2641230	128374 5597166	302836	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylheptane	CBZd 5	Ave	18076 781836	34268 1669310	60872 2777262	160682 4679067	398405	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethylbenzene	CBZd 5	Ave	22371 956791	46059 2269899	69003 4150248	202566 8758179	464337	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Ethylthiophene	CBZd 5	Ave	16319 711981	33470 1729533	49663 3203327	148846 6841807	349903	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
m-Xylene & p-Xylene	CBZd 5	Ave	35593 1499037	70859 3431351	106515 6184279	312199 13248413	737471	0.0784 3.99	0.157 8.00	0.317 16.0	0.800 32.0	2.00
Bromoform	CBZd 5	Ave	++++ 482422	15443 1239966	29557 2629265	89222 ++++	209416	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 ++++	1.00
Nonane	CBZd 5	Ave	11459 528980	24385 1068900	39709 1763559	108527 2961409	272373	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Styrene	CBZd 5	Ave	11201 555108	23040 1281806	34245 2378609	105962 5251876	265036	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
o-Xylene	CBZd 5	Ave	18832 780466	37013 1829078	55923 3322495	163242 7069465	382333	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	12186 553887	24155 1285895	28104 2286622	107105 4738085	262784	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichloropropane	CBZd 5	Ave	3786 171965	8073 404993	11556 745283	34699 1650297	82463	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Isopropylbenzene	CBZd 5	Ave	27225 1094815	55196 2484064	77471 4568570	226287 10000909	537636	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Propylbenzene	CBZd 5	Ave	6872 310526	13794 705553	21354 1292302	58580 2882014	145833	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Chlorotoluene	CBZd 5	Ave	6249 282300	13217 639799	19691 1192871	56487 2611501	135683	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Ethyltoluene	CBZd 5	Ave	23908 1099531	48918 2524681	73785 4602017	212251 10162010	521274	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3,5-Trimethylbenzene	CBZd 5	Ave	11399 529246	24162 1180801	35870 2166860	101711 4929710	255158	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Alpha Methyl Styrene	CBZd 5	Ave	7999 458316	17099 1077457	26661 2029631	75940 4555512	209327	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Decane	CBZd 5	Ave	13088 643304	26505 1307633	45478 2230034	122535 4031286	303112	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
tert-Butylbenzene	CBZd 5	Ave	22733 1018631	46016 2262282	70467 4192051	197002 9554102	494103	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trimethylbenzene	CBZd 5	Ave	19197 937912	40505 2060865	63716 3807592	178941 8518690	454094	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Dichlorobenzene	CBZd 5	Ave	13689 655726	27331 1464206	44633 2988285	123184 6970912	314991	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
sec-Butylbenzene	CBZd 5	Ave	29050 1352819	59671 2946631	94767 5445613	259583 11727632	655811	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzyl chloride	CBZd 5	Ave	13705 803407	28862 1821777	46504 3454376	129478 7456385	328706	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,4-Dichlorobenzene	CBZd 5	Ave	13455 650905	26961 1431445	43579 2887306	121046 6739732	305569	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Isopropyltoluene	CBZd 5	Ave	23637 1157019	48237 2578526	77592 4764104	215898 10734531	558404	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2,3-Trimethylbenzene	CBZd 5	Ave	14966 707435	31790 1613155	49232 2947828	135985 6454183	344310	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butylcyclohexane	CBZd 5	Ave	16339 730710	32718 1507917	55512 2743371	149636 5332453	360384	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorobenzene	CBZd 5	Ave	13020 640659	25995 1396045	43248 2786845	116482 6549763	309696	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indane	CBZd 5	Ave	17893 874588	37395 1909882	59010 3606458	162369 8122275	419286	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indene	CBZd 5	Lin1	++++ 657876	++++ 1492896	41234 2791759	112729 6308476	306444	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Butylbenzene	CBZd 5	Ave	19881 1056764	41896 2281578	70024 4058346	189235 8621259	495756	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Undecane	CBZd 5	Ave	13423 699188	27524 1408070	48725 2329972	125419 4080761	332785	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dimethyl-4-Ethylbenzene	CBZd 5	Ave	++++ 849288	32514 1881502	56926 3428964	146402 7688453	403699	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	++++ 284562	8887 645406	14967 1274571	41895 3083243	114997	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	18067 1048174	38169 2254750	68727 4158725	174813 9287987	485595	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,5-Tetramethylbenzene	CBZd 5	Ave	11487 627559	23885 1366732	41533 2514994	108120 5594149	300031	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,4-Tetramethylbenzene	CBZd 5	Ave	14964 864752	31277 1862467	57669 3418581	140998 7579036	412238	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dodecane	CBZd 5	Ave	10646 613207	21993 1294655	47372 2172344	100259 3802595	306173	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trichlorobenzene	CBZd 5	Ave	6322 485907	13692 1100159	25744 2330633	65094 5651953	211936	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Naphthalene	CBZd 5	Ave	14591 1070871	31260 2364720	61374 4535967	144616 10025298	481190	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzo(b)thiophene	CBZd 5	Ave	++++ 555961	16219 1260466	29349 2531375	71357 5741539	239611	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Hexachlorobutadiene	CBZd 5	Ave	13896 676266	25952 1466454	47564 3240488	112530 7094731	338964	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichlorobenzene	CBZd 5	Ave	6929 480029	14265 1039517	29020 2115119	63109 4817115	222349	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylnaphthalene	CBZd 5	Ave	++++ 519281	++++ 1064971	29488 2197530	42003 2595825	217545	++++ 6.24	++++ 12.5	0.496 25.0	1.25 50.0	3.13
1-Methylnaphthalene	CBZd 5	Ave	++++ 532152	++++ 1054061	36495 2081286	46064 2006398	236387	++++ 6.24	++++ 12.5	0.496 25.0	1.25 50.0	3.13
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	1485890 1131193	1522231 1268973	1168369 1365365	1442147 1261386	1199357	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.: _____
Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

Curve Type Legend:

Ave = Average ISTD Lin1 = Linear 1/conc ISTD

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D
 Lims ID: IC L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 08-Dec-2016 19:58:30 ALS Bottle#: 1 Worklist Smp#: 3
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-003
 Misc. Info.: 067941
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:27:52 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:15:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	472443	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	2300638	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2274673	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	96	1485890	4.00	3.95	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	1701	0.0392	0.0439	
7 Propene	41	3.493	3.489	0.004	99	5954	0.0392	0.0461	
8 Dichlorodifluoromethane	85	3.536	3.533	0.003	100	16445	0.0392	0.0407	
9 Chloromethane	52	3.687	3.685	0.002	57	2149	0.0392	0.0495	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	89	10501	0.0392	0.0392	
11 Acetaldehyde	44	3.822	3.816	0.006	91	19638	0.1960	0.4095	
12 Vinyl chloride	62	3.828	3.830	-0.002	31	5719	0.0392	0.0401	
13 Butadiene	54	3.909	3.906	0.003	67	5000	0.0392	0.0435	
14 Butane	43	3.909	3.907	0.002	85	9335	0.0392	0.0416	
15 Bromomethane	94	4.178	4.174	0.004	97	5695	0.0392	0.0419	
16 Chloroethane	64	4.286	4.292	-0.006	97	3161	0.0392	0.0417	
17 Ethanol	31	4.399	4.393	0.006	94	10722	0.1960	0.2271	
18 Vinyl bromide	106	4.550	4.550	0.000	97	5186	0.0392	0.0404	
19 2-Methylbutane	43	4.599	4.598	0.001	94	7541	0.0392	0.0460	
21 Acrolein	56	4.782	4.783	-0.001	32	2269	0.0392	0.0617	
20 Trichlorofluoromethane	101	4.787	4.785	0.002	99	15582	0.0392	0.0398	
22 Acetonitrile	40	4.847	4.838	0.009	97	2777	0.0392	0.0637	
23 Acetone	58	4.895	4.882	0.013	98	8449	0.1176	0.1697	
24 Pentane	72	4.976	4.978	-0.002	97	961	0.0392	0.0400	
25 Isopropyl alcohol	45	4.998	4.987	0.011	94	21267	0.1176	0.1263	
26 Ethyl ether	31	5.143	5.124	0.019	92	4311	0.0392	0.0434	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	5003	0.0392	0.0433	
28 Acrylonitrile	53	5.488	5.487	0.001	97	3614	0.0392	0.0579	
29 2-Methyl-2-propanol	59	5.553	5.526	0.027	90	6478	0.0392	0.0366	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	10429	0.0392	0.0421	
31 Methylene Chloride	84	5.704	5.708	-0.004	95	10526	0.0392	0.1047	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	98	5945	0.0392	0.0598	
33 Carbon disulfide	76	5.850	5.849	0.001	99	14798	0.0392	0.0392	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	5600	0.0392	0.0413	
35 2-Methylpentane	43	6.481	6.481	0.000	95	12078	0.0392	0.0413	
36 Methyl tert-butyl ether	73	6.594	6.575	0.019	95	13760	0.0392	0.0427	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	99	10836	0.0392	0.0425	
38 Vinyl acetate	43	6.950	6.942	0.008	100	13569	0.0392	0.0428	
39 2-Butanone (MEK)	72	7.365	7.349	0.016	98	2279	0.0392	0.0407	
40 Hexane	56	7.397	7.397	0.000	90	5695	0.0392	0.0507	
41 Isopropyl ether	45	7.559	7.547	0.012	96	16846	0.0392	0.0418	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	5467	0.0392	0.0397	
43 Ethyl acetate	43	7.958	7.946	0.012	98	10226	0.0392	0.0409	
44 Chloroform	83	8.082	8.085	-0.003	90	12707	0.0392	0.0429	
45 Tert-butyl ethyl ether	59	8.212	8.191	0.021	94	14394	0.0392	0.0411	
46 Tetrahydrofuran	42	8.487	8.460	0.027	90	6976	0.0392	0.0541	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	96	13263	0.0392	0.0410	
48 1,2-Dichloroethane	62	9.155	9.160	-0.005	97	7958	0.0392	0.0371	
49 Benzene	78	9.651	9.654	-0.003	97	16231	0.0392	0.0392	
50 Cyclohexane	69	9.657	9.659	-0.002	79	3093	0.0392	0.0405	
52 Carbon tetrachloride	117	9.678	9.684	-0.006	97	13169	0.0392	0.0356	
51 n-Butanol	31	9.738	9.685	0.053	1	1840	0.0392	0.0366	
53 2,3-Dimethylpentane	71	9.802	9.808	-0.006	92	3834	0.0392	0.0359	
54 Thiophene	84	9.921	9.930	-0.009	96	9092	0.0392	0.0367	
56 Isooctane	57	10.476	10.479	-0.003	98	28315	0.0392	0.0377	
57 n-Heptane	71	10.881	10.881	0.000	89	6398	0.0392	0.0385	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	89	6551	0.0392	0.0418	
59 Trichloroethene	130	10.962	10.966	-0.004	96	8316	0.0392	0.0345	
60 Dibromomethane	93	11.026	11.033	-0.007	93	7413	0.0392	0.0389	
61 Dichlorobromomethane	83	11.183	11.194	-0.011	99	11665	0.0392	0.0352	
62 1,4-Dioxane	88	11.248	11.222	0.026	51	1842	0.0392	0.0332	
63 Methyl methacrylate	41	11.334	11.327	0.007	94	6623	0.0392	0.0391	
64 Methylcyclohexane	83	11.765	11.766	-0.001	93	13072	0.0392	0.0382	
65 4-Methyl-2-pentanone (MIBK)	43	12.213	12.198	0.015	98	9071	0.0392	0.0322	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	97	9023	0.0392	0.0364	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	8154	0.0392	0.0372	
68 Toluene	91	13.081	13.083	-0.002	95	18400	0.0392	0.0404	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	5207	0.0392	0.0388	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	14742	0.0392	0.0384	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	15017	0.0392	0.0402	
72 2-Hexanone	58	13.593	13.578	0.015	92	3835	0.0392	0.0287	
73 n-Octane	85	13.830	13.833	-0.003	92	6548	0.0392	0.0366	
74 Chlorodibromomethane	129	13.852	13.862	-0.010	97	10054	0.0392	0.0326	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	96	9522	0.0392	0.0361	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	7563	0.0392	0.0379	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	14030	0.0392	0.0372	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	95	18076	0.0392	0.0401	
79 Ethylbenzene	91	15.443	15.445	-0.002	99	22371	0.0392	0.0375	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	97	16319	0.0392	0.0366	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	35593	0.0784	0.0774	
83 Bromoform	173	16.025	16.034	-0.009	97	7407	0.0392	0.0261	
82 n-Nonane	57	16.074	16.076	-0.002	91	11459	0.0392	0.0384	
84 Styrene	104	16.074	16.079	-0.005	80	11201	0.0392	0.0343	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	16.138	16.140	-0.002	98	18832	0.0392	0.0389	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	98	12186	0.0392	0.0381	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	97	3786	0.0392	0.0359	
88 Isopropylbenzene	105	16.737	16.740	-0.003	92	27225	0.0392	0.0399	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	6872	0.0392	0.0370	
90 2-Chlorotoluene	126	17.319	17.327	-0.008	97	6249	0.0392	0.0364	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	23908	0.0392	0.0364	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	94	11399	0.0392	0.0360	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	88	7999	0.0392	0.0307	
94 n-Decane	57	17.875	17.878	-0.003	91	13088	0.0392	0.0372	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	22733	0.0392	0.0371	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	95	19197	0.0392	0.0348	
98 1,3-Dichlorobenzene	146	18.263	18.270	-0.007	61	13689	0.0392	0.0344	
97 sec-Butylbenzene	105	18.263	18.270	-0.007	98	29050	0.0392	0.0364	
99 Benzyl chloride	91	18.349	18.349	0.000	98	13705	0.0392	0.0311	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	94	13455	0.0392	0.0346	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	23637	0.0392	0.0348	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	14966	0.0392	0.0353	
103 Butylcyclohexane	83	18.554	18.561	-0.007	93	16339	0.0392	0.0383	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	85	13020	0.0392	0.0342	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	17893	0.0392	0.0349	
106 Indene	116	18.867	18.869	-0.002	91	11402	0.0392	0.1046	
107 n-Butylbenzene	91	18.894	18.896	-0.002	99	19881	0.0392	0.0337	
108 Undecane	57	19.244	19.247	-0.003	96	13423	0.0392	0.0361	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	98	15729	0.0392	0.0319	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.352	-0.005	94	3661	0.0392	0.0229	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	18067	0.0392	0.0312	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	95	11487	0.0392	0.0325	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	14964	0.0392	0.0313	
114 Dodecane	57	20.312	20.313	-0.001	98	10646	0.0392	0.0324	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	93	6322	0.0392	0.0239	
116 Naphthalene	128	20.587	20.588	-0.001	99	14591	0.0392	0.0260	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	6923	0.0392	0.0225	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	13896	0.0392	0.0342	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	93	6929	0.0392	0.0269	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	98	5309	0.1225	0.0649	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	6381	0.1225	0.0766	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	42514	0.0392	0.0364	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	95281	0.0392	0.0526	
S 126 Xylenes, Total	100				0		0.1176	0.1163	
S 127 1,2-Dichloroethene, Total	1				0		0.0784	0.0809	

Reagents:

40L12DNP_00008

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L1

Worklist Smp#: 3

Client ID:

Purge Vol: 500.000 mL

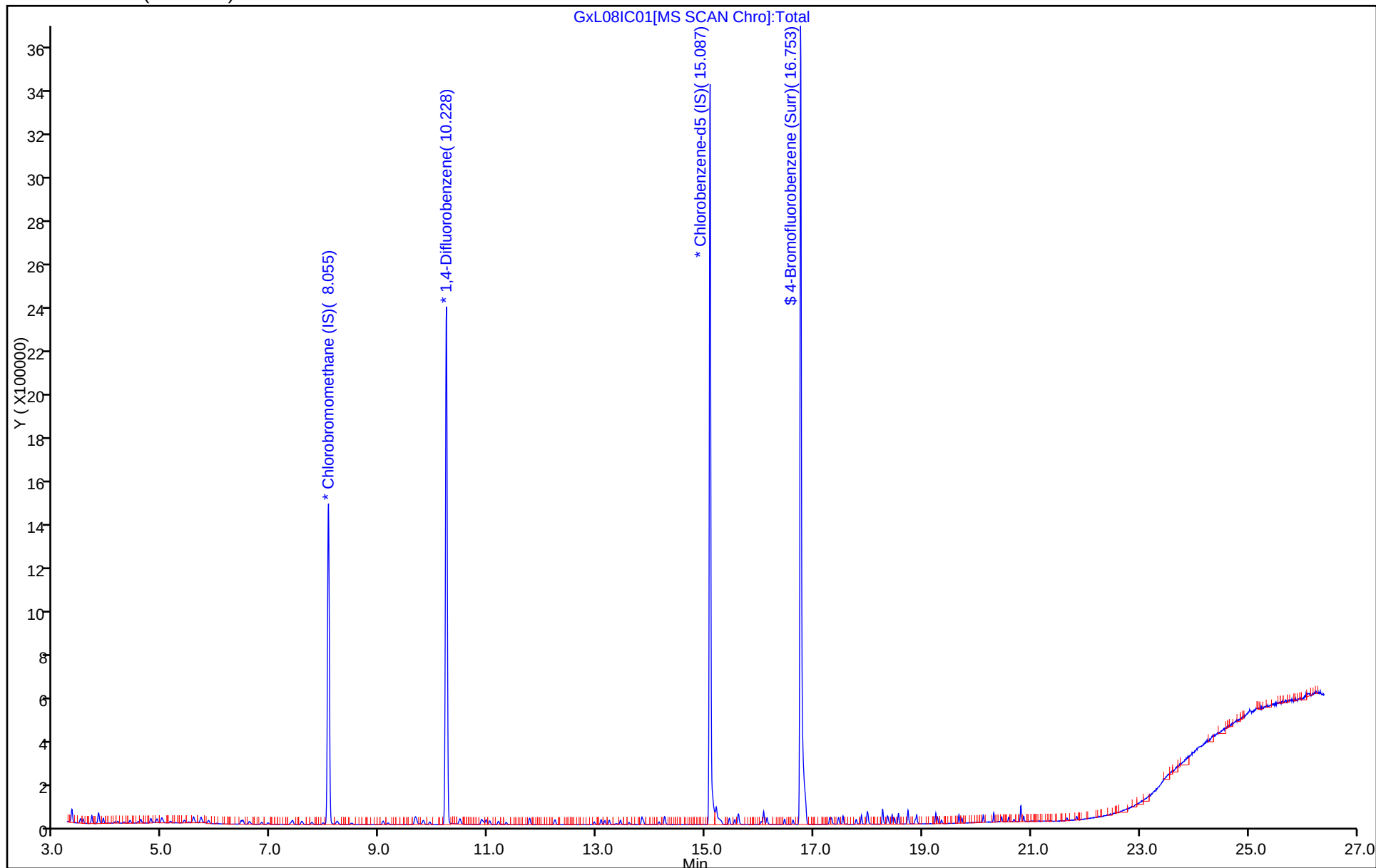
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 3

Purge Vol: 500.000 mL

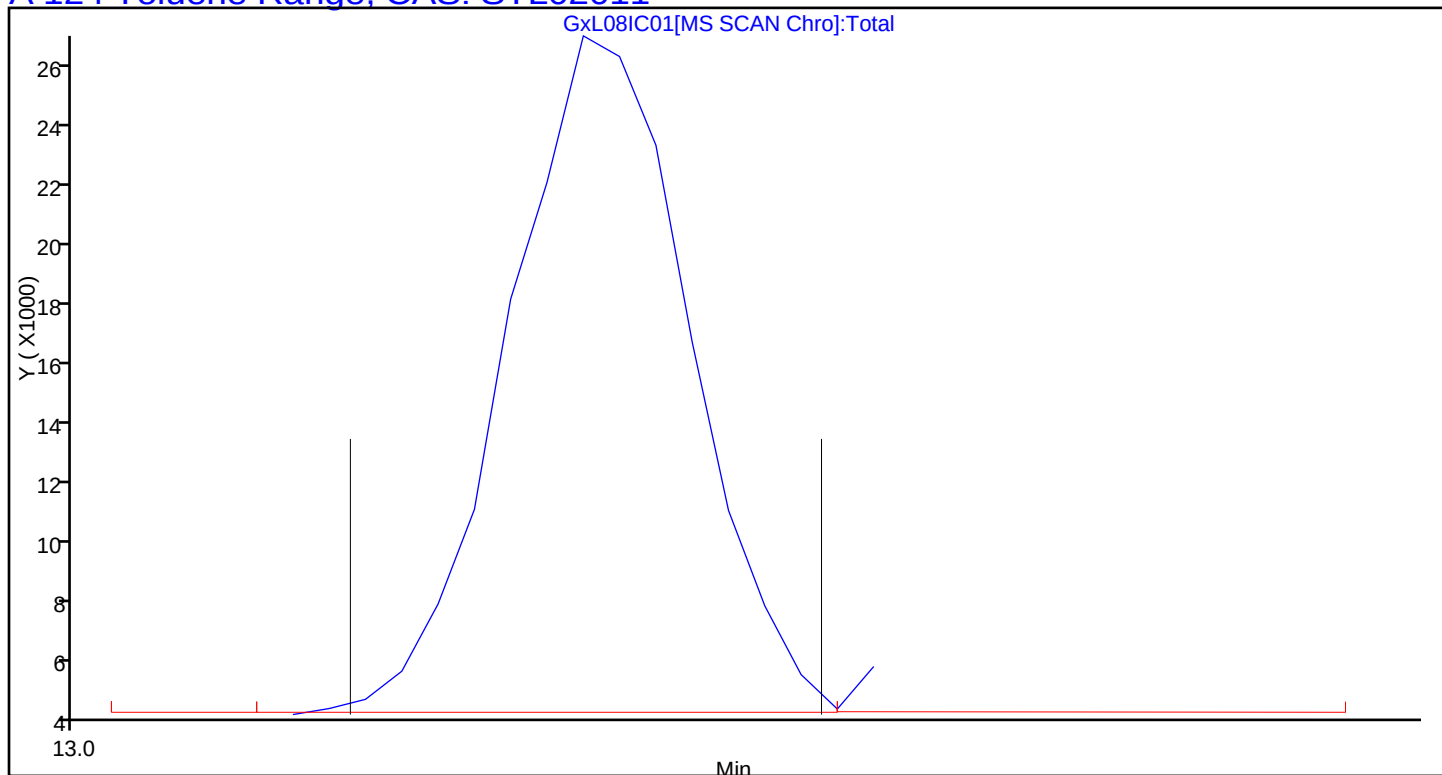
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC01.D

Injection Date: 08-Dec-2016 19:58:30

Instrument ID: MG

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

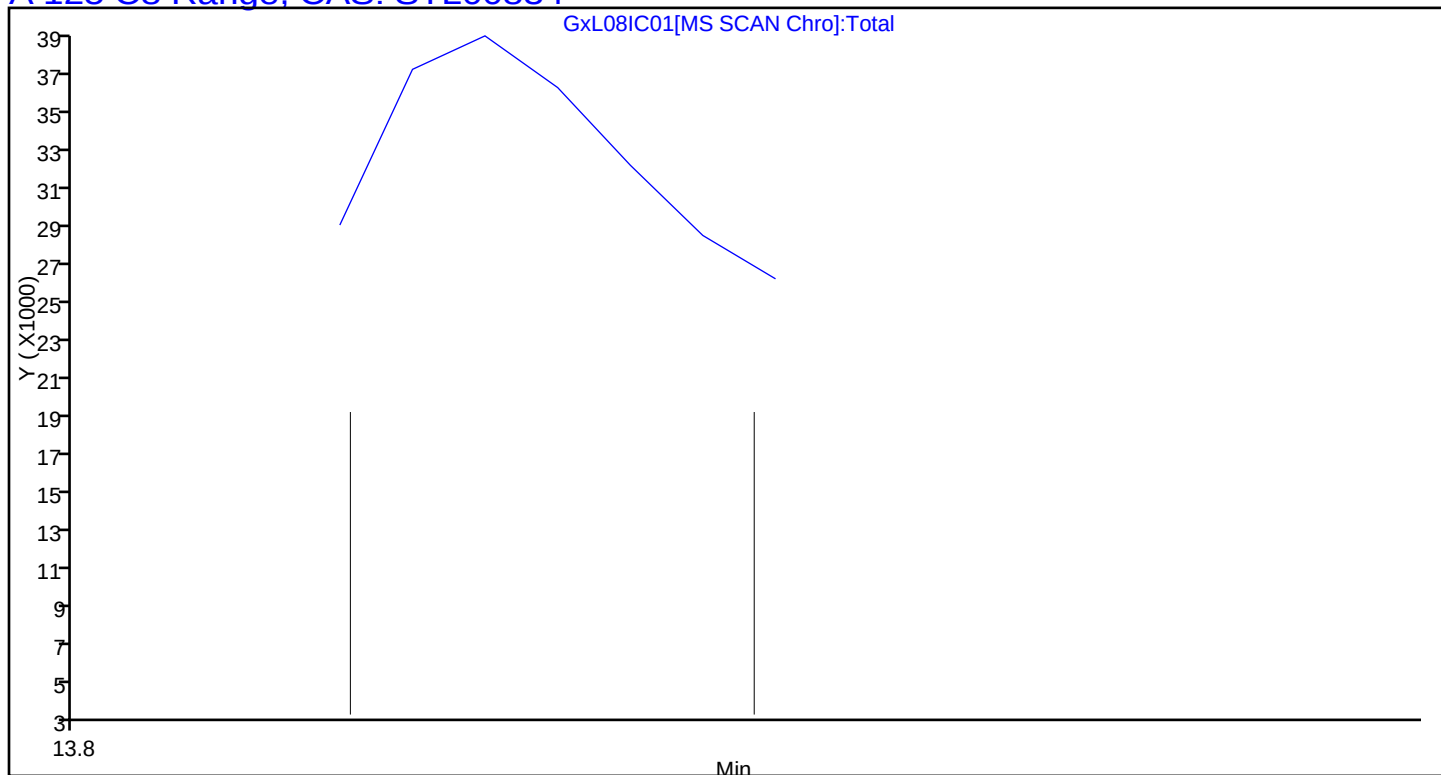
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D
 Lims ID: IC L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 08-Dec-2016 20:42:30 ALS Bottle#: 1 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-004
 Misc. Info.: 067941
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:27:57 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:42:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	493126	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	2376200	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2319128	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	96	1522231	4.00	3.97	
6 Chlorodifluoromethane	67	3.482	3.481	0.001	96	3430	0.0784	0.0848	
7 Propene	41	3.488	3.489	-0.001	98	11034	0.0784	0.0818	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	99	31559	0.0784	0.0748	
9 Chloromethane	52	3.682	3.685	-0.003	71	3385	0.0784	0.0747	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	90	21156	0.0784	0.0757	
11 Acetaldehyde	44	3.817	3.816	0.001	94	35860	0.3920	0.7165	
12 Vinyl chloride	62	3.828	3.830	-0.002	98	10911	0.0784	0.0734	
13 Butadiene	54	3.908	3.906	0.002	66	9207	0.0784	0.0767	
14 Butane	43	3.903	3.907	-0.004	85	18274	0.0784	0.0779	
15 Bromomethane	94	4.173	4.174	-0.001	98	10991	0.0784	0.0774	
16 Chloroethane	64	4.291	4.292	-0.001	99	6090	0.0784	0.0770	
17 Ethanol	31	4.383	4.393	-0.010	95	21784	0.3920	0.4421	
18 Vinyl bromide	106	4.550	4.550	0.000	98	10256	0.0784	0.0765	
19 2-Methylbutane	43	4.593	4.598	-0.005	91	13419	0.0784	0.0783	
21 Acrolein	56	4.782	4.783	-0.001	34	4214	0.0784	0.1098	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	100	30137	0.0784	0.0737	
22 Acetonitrile	40	4.836	4.838	-0.002	95	5381	0.0784	0.1182	
23 Acetone	58	4.884	4.882	0.002	98	16050	0.2352	0.3089	
24 Pentane	72	4.976	4.978	-0.002	75	2067	0.0784	0.0824	
25 Isopropyl alcohol	45	4.976	4.987	-0.011	82	42673	0.2352	0.2427	
26 Ethyl ether	31	5.133	5.124	0.009	94	9224	0.0784	0.0890	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	97	9137	0.0784	0.0758	
28 Acrylonitrile	53	5.488	5.487	0.001	92	6061	0.0784	0.0930	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	92	14476	0.0784	0.0783	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	97	19440	0.0784	0.0752	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	14718	0.0784	0.1403	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	98	8987	0.0784	0.0866	
33 Carbon disulfide	76	5.844	5.849	-0.005	100	28596	0.0784	0.0726	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	10750	0.0784	0.0759	
35 2-Methylpentane	43	6.481	6.481	0.000	93	22847	0.0784	0.0748	
36 Methyl tert-butyl ether	73	6.583	6.575	0.008	96	27742	0.0784	0.0824	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	20206	0.0784	0.0759	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	27271	0.0784	0.0824	
39 2-Butanone (MEK)	72	7.354	7.349	0.005	99	4958	0.0784	0.0849	
40 Hexane	56	7.392	7.397	-0.005	87	10163	0.0784	0.0867	
41 Isopropyl ether	45	7.554	7.547	0.007	98	34716	0.0784	0.0825	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	94	10887	0.0784	0.0757	
43 Ethyl acetate	43	7.947	7.946	0.001	99	22967	0.0784	0.0881	
44 Chloroform	83	8.071	8.085	-0.014	95	23851	0.0784	0.0771	
45 Tert-butyl ethyl ether	59	8.201	8.191	0.010	95	29892	0.0784	0.0817	
46 Tetrahydrofuran	42	8.476	8.460	0.016	93	11834	0.0784	0.0879	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	97	25744	0.0784	0.0763	
48 1,2-Dichloroethane	62	9.150	9.160	-0.010	98	15561	0.0784	0.0702	
49 Benzene	78	9.646	9.654	-0.008	96	31296	0.0784	0.0732	
50 Cyclohexane	69	9.657	9.659	-0.002	80	5547	0.0784	0.0704	
52 Carbon tetrachloride	117	9.678	9.684	-0.006	97	25667	0.0784	0.0673	
51 n-Butanol	31	9.700	9.685	0.015	49	3804	0.0784	0.0732	
53 2,3-Dimethylpentane	71	9.802	9.808	-0.006	90	7617	0.0784	0.0690	
54 Thiophene	84	9.921	9.930	-0.009	97	17029	0.0784	0.0666	
55 Tert-amyl methyl ether	73	10.196	10.181	0.015	96	25252	0.0784	0.0660	M
56 Isooctane	57	10.471	10.479	-0.008	98	53468	0.0784	0.0690	
57 n-Heptane	71	10.875	10.881	-0.006	88	11865	0.0784	0.0691	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	90	12462	0.0784	0.0770	
59 Trichloroethene	130	10.962	10.966	-0.004	97	16022	0.0784	0.0644	
60 Dibromomethane	93	11.026	11.033	-0.007	94	13508	0.0784	0.0686	
61 Dichlorobromomethane	83	11.183	11.194	-0.011	100	22090	0.0784	0.0645	
62 1,4-Dioxane	88	11.231	11.222	0.009	92	3963	0.0784	0.0691	
63 Methyl methacrylate	41	11.323	11.327	-0.004	90	12871	0.0784	0.0735	
64 Methylcyclohexane	83	11.760	11.766	-0.006	95	24568	0.0784	0.0695	
65 4-Methyl-2-pentanone (MIBK)	43	12.202	12.198	0.004	96	19102	0.0784	0.0657	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	96	18544	0.0784	0.0725	
67 trans-1,3-Dichloropropene	75	12.951	12.958	-0.007	98	16090	0.0784	0.0719	
68 Toluene	91	13.081	13.083	-0.002	94	35196	0.0784	0.0759	
69 1,1,2-Trichloroethane	83	13.146	13.154	-0.008	98	10122	0.0784	0.0740	
70 2-Methylthiophene	97	13.226	13.233	-0.007	97	29885	0.0784	0.0764	
71 3-Methylthiophene	97	13.431	13.439	-0.008	99	28520	0.0784	0.0748	
72 2-Hexanone	58	13.582	13.578	0.004	93	8635	0.0784	0.0634	
73 n-Octane	85	13.830	13.833	-0.003	92	13095	0.0784	0.0718	
74 Chlorodibromomethane	129	13.857	13.862	-0.005	97	19673	0.0784	0.0625	
75 Ethylene Dibromide	107	14.143	14.152	-0.009	99	18853	0.0784	0.0701	
76 Tetrachloroethene	129	14.246	14.251	-0.005	95	14290	0.0784	0.0702	
77 Chlorobenzene	112	15.135	15.138	-0.003	95	28541	0.0784	0.0741	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	34268	0.0784	0.0746	
79 Ethylbenzene	91	15.437	15.445	-0.008	98	46059	0.0784	0.0758	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	33470	0.0784	0.0736	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	70859	0.1568	0.1512	
83 Bromoform	173	16.031	16.034	-0.003	96	15443	0.0784	0.0533	
82 n-Nonane	57	16.074	16.076	-0.002	92	24385	0.0784	0.0802	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	95	23040	0.0784	0.0692	
85 o-Xylene	91	16.133	16.140	-0.007	99	37013	0.0784	0.0749	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	98	24155	0.0784	0.0740	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	96	8073	0.0784	0.0751	
88 Isopropylbenzene	105	16.737	16.740	-0.003	96	55196	0.0784	0.0794	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	13794	0.0784	0.0729	
90 2-Chlorotoluene	126	17.319	17.327	-0.008	97	13217	0.0784	0.0756	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	98	48918	0.0784	0.0730	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	24162	0.0784	0.0749	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	89	17099	0.0784	0.0643	
94 n-Decane	57	17.875	17.878	-0.003	91	26505	0.0784	0.0739	
95 tert-Butylbenzene	119	17.977	17.985	-0.008	92	46016	0.0784	0.0737	
96 1,2,4-Trimethylbenzene	105	17.993	18.000	-0.007	95	40505	0.0784	0.0721	
98 1,3-Dichlorobenzene	146	18.263	18.270	-0.007	61	27331	0.0784	0.0673	
97 sec-Butylbenzene	105	18.263	18.270	-0.007	98	59671	0.0784	0.0734	
99 Benzyl chloride	91	18.344	18.349	-0.005	98	28862	0.0784	0.0643	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	94	26961	0.0784	0.0680	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	48237	0.0784	0.0697	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	31790	0.0784	0.0736	
103 Butylcyclohexane	83	18.554	18.561	-0.007	93	32718	0.0784	0.0753	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	93	25995	0.0784	0.0670	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	95	37395	0.0784	0.0715	
106 Indene	116	18.867	18.869	-0.002	92	25482	0.0784	0.1349	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	41896	0.0784	0.0696	
108 Undecane	57	19.244	19.247	-0.003	95	27524	0.0784	0.0727	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	98	32514	0.0784	0.0648	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.352	-0.005	95	8887	0.0784	0.0545	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	38169	0.0784	0.0647	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	96	23885	0.0784	0.0662	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	31277	0.0784	0.0642	
114 Dodecane	57	20.312	20.313	-0.001	96	21993	0.0784	0.0656	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	95	13692	0.0784	0.0508	
116 Naphthalene	128	20.587	20.588	-0.001	99	31260	0.0784	0.0547	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	16219	0.0784	0.0517	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	25952	0.0784	0.0627	
119 1,2,3-Trichlorobenzene	180	20.867	20.865	0.002	93	14265	0.0784	0.0543	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	98	10271	0.2450	0.1232	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	99	11657	0.2450	0.1372	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	87037	0.0784	0.0722	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	183246	0.0784	0.0979	
S 126 Xylenes, Total	100				0		0.2352	0.2261	
S 127 1,2-Dichloroethene, Total	1				0		0.1568	0.1516	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L12DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L2

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

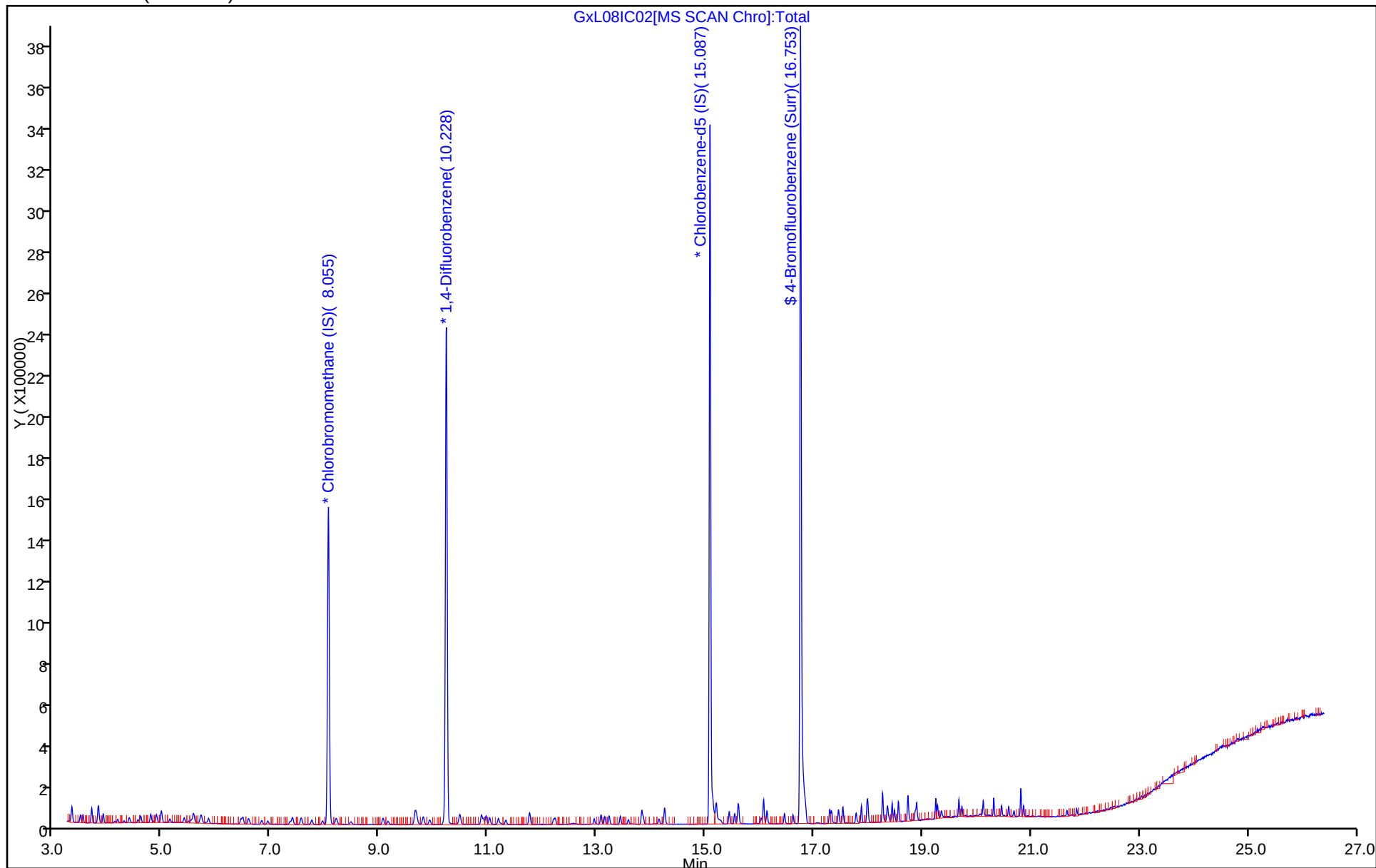
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

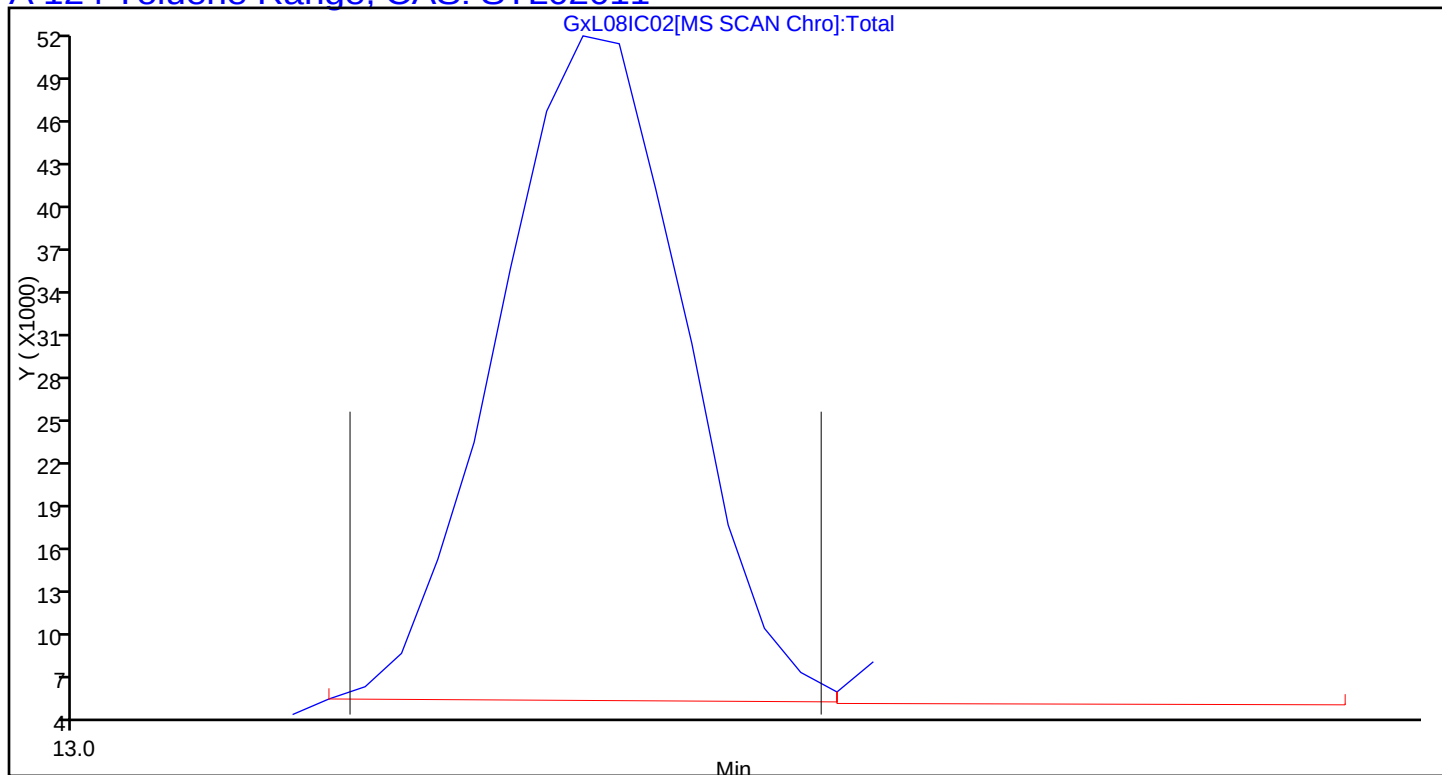
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D

Injection Date: 08-Dec-2016 20:42:30

Instrument ID: MG

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

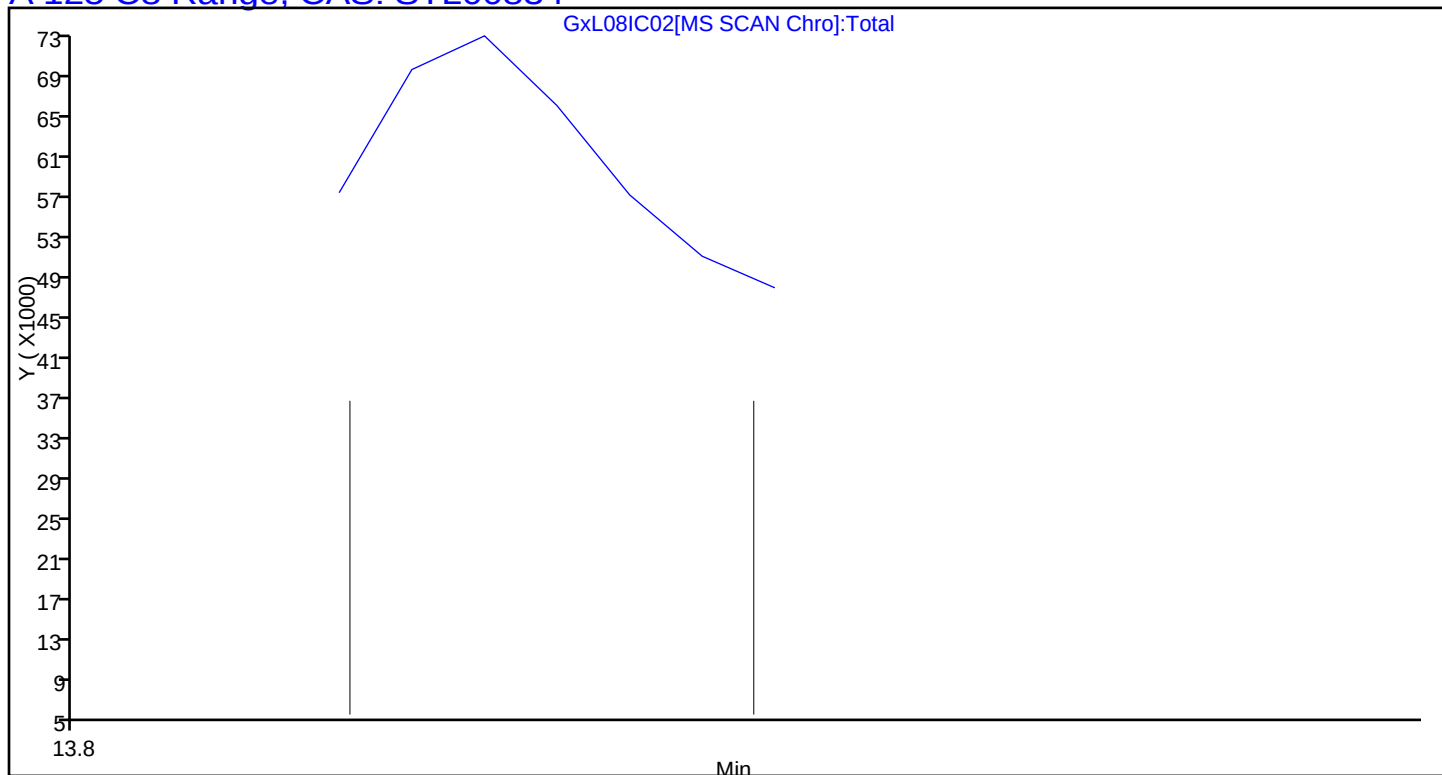
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

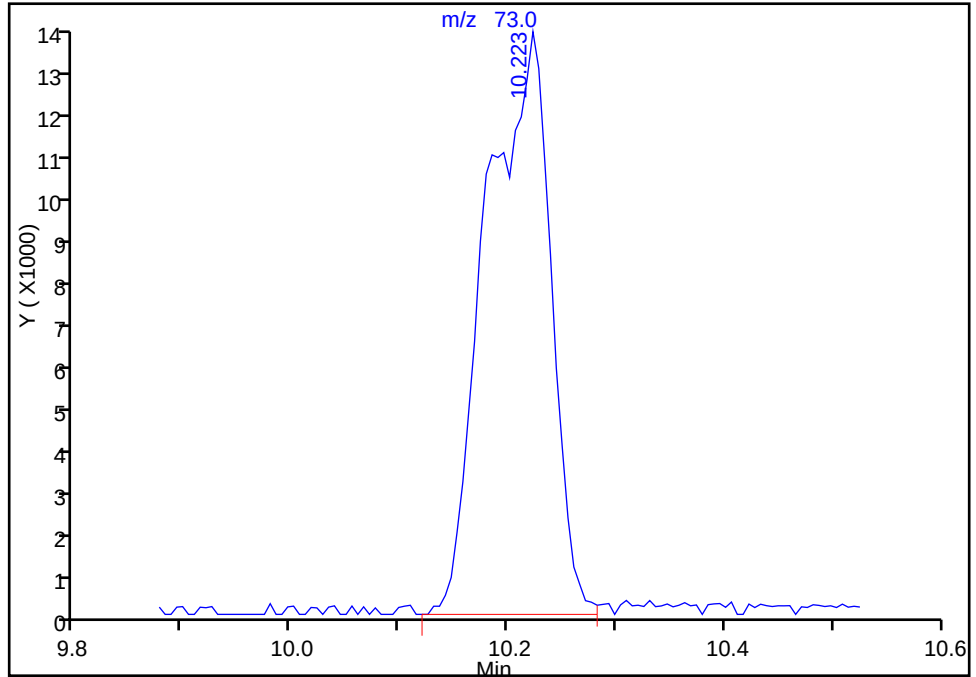
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC02.D
Injection Date: 08-Dec-2016 20:42:30 Instrument ID: MG
Lims ID: IC L2
Client ID:
Operator ID: 403648 ALS Bottle#: 1 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

55 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

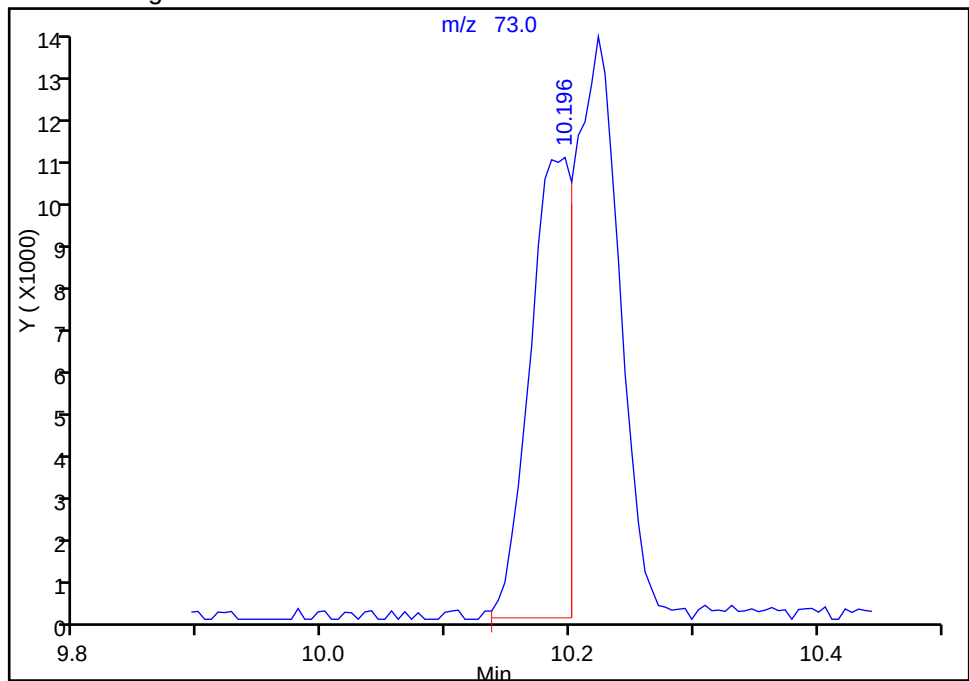
RT: 10.22
Area: 56091
Amount: 0.124118
Amount Units: ppb v/v

Processing Integration Results



RT: 10.20
Area: 25252
Amount: 0.066043
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:29:12
Audit Action: Manually Integrated

Audit Reason: Split Peak
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12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D
 Lims ID: IC L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 08-Dec-2016 21:25:30 ALS Bottle#: 2 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-005
 Misc. Info.: 067940
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:01 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:41:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	95	450637	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.234	-0.005	95	1837733	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	1829554	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	94	1168369	4.00	3.86	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	97	5647	0.1587	0.1528	
7 Propene	41	3.488	3.489	-0.001	99	20326	0.1587	0.1650	
8 Dichlorodifluoromethane	85	3.537	3.533	0.004	100	60760	0.1587	0.1575	
9 Chloromethane	52	3.688	3.685	0.003	63	7372	0.1587	0.1780	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	92	40305	0.1587	0.1577	
11 Acetaldehyde	44	3.817	3.816	0.001	95	50465	0.7933	1.10	
12 Vinyl chloride	62	3.833	3.830	0.003	99	21755	0.1587	0.1600	
13 Butadiene	54	3.903	3.906	-0.003	98	17716	0.1587	0.1615	
14 Butane	43	3.909	3.907	0.002	94	34413	0.1587	0.1606	
15 Bromomethane	94	4.173	4.174	-0.001	99	21028	0.1587	0.1620	
16 Chloroethane	64	4.292	4.292	0.000	97	11486	0.1587	0.1590	
17 Ethanol	31	4.383	4.393	-0.010	95	36685	0.7933	0.8147	
18 Vinyl bromide	106	4.545	4.550	-0.005	98	19383	0.1587	0.1582	
19 2-Methylbutane	43	4.599	4.598	0.001	91	26223	0.1587	0.1675	
21 Acrolein	56	4.788	4.783	0.005	32	5678	0.1587	0.1618	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	100	59109	0.1587	0.1581	
22 Acetonitrile	40	4.831	4.838	-0.007	97	6381	0.1587	0.1534	
23 Acetone	58	4.890	4.882	0.008	98	31857	0.4760	0.6709	
24 Pentane	72	4.982	4.978	0.004	96	3817	0.1587	0.1664	
25 Isopropyl alcohol	45	4.971	4.987	-0.016	93	75884	0.4760	0.4724	
26 Ethyl ether	31	5.133	5.124	0.009	96	13794	0.1587	0.1457	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	17917	0.1587	0.1626	
28 Acrylonitrile	53	5.483	5.487	-0.004	93	10031	0.1587	0.1685	
29 2-Methyl-2-propanol	59	5.521	5.526	-0.005	89	25645	0.1587	0.1519	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.572	-0.002	97	37390	0.1587	0.1582	
31 Methylene Chloride	84	5.704	5.708	-0.004	94	21084	0.1587	0.2200	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.721	5.725	-0.004	97	15711	0.1587	0.1656	
33 Carbon disulfide	76	5.845	5.849	-0.004	100	58242	0.1587	0.1617	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	99	20615	0.1587	0.1592	
35 2-Methylpentane	43	6.475	6.481	-0.006	95	44795	0.1587	0.1606	
36 Methyl tert-butyl ether	73	6.583	6.575	0.008	96	41332	0.1587	0.1344	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	36850	0.1587	0.1515	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	38691	0.1587	0.1280	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	8249	0.1587	0.1546	
40 Hexane	56	7.392	7.397	-0.005	86	17936	0.1587	0.1674	
41 Isopropyl ether	45	7.549	7.547	0.002	96	51520	0.1587	0.1341	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	96	20178	0.1587	0.1535	
43 Ethyl acetate	43	7.942	7.946	-0.004	99	30082	0.1587	0.1262	
44 Chloroform	83	8.077	8.085	-0.008	96	43727	0.1587	0.1547	
45 Tert-butyl ethyl ether	59	8.196	8.191	0.005	95	43833	0.1587	0.1312	
46 Tetrahydrofuran	42	8.465	8.460	0.005	96	16880	0.1587	0.1372	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	47399	0.1587	0.1537	
48 1,2-Dichloroethane	62	9.150	9.160	-0.010	98	27221	0.1587	0.1589	
49 Benzene	78	9.646	9.654	-0.008	97	54815	0.1587	0.1658	
50 Cyclohexane	69	9.652	9.659	-0.007	95	11068	0.1587	0.1816	
52 Carbon tetrachloride	117	9.679	9.684	-0.005	98	48171	0.1587	0.1632	
51 n-Butanol	31	9.689	9.685	0.004	59	6873	0.1587	0.1710	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	14554	0.1587	0.1704	
54 Thiophene	84	9.927	9.930	-0.003	97	31533	0.1587	0.1594	
55 Tert-amyl methyl ether	73	10.185	10.181	0.004	98	42901	0.1587	0.1451	M
56 Isooctane	57	10.477	10.479	-0.002	98	99827	0.1587	0.1665	
57 n-Heptane	71	10.876	10.881	-0.005	90	22004	0.1587	0.1658	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	87	18837	0.1587	0.1504	
59 Trichloroethene	130	10.957	10.966	-0.009	97	37343	0.1587	0.1942	
60 Dibromomethane	93	11.027	11.033	-0.006	92	24045	0.1587	0.1578	
61 Dichlorobromomethane	83	11.188	11.194	-0.006	99	40369	0.1587	0.1525	
62 1,4-Dioxane	88	11.226	11.222	0.004	90	6766	0.1587	0.1526	
63 Methyl methacrylate	41	11.323	11.327	-0.004	92	17354	0.1587	0.1282	
64 Methylcyclohexane	83	11.760	11.766	-0.006	94	46095	0.1587	0.1685	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	98	34513	0.1587	0.1534	
66 cis-1,3-Dichloropropene	75	12.235	12.240	-0.005	95	29255	0.1587	0.1479	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	24864	0.1587	0.1409	
68 Toluene	91	13.081	13.083	-0.002	93	53183	0.1587	0.1454	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	16016	0.1587	0.1484	
70 2-Methylthiophene	97	13.227	13.233	-0.006	98	46273	0.1587	0.1499	
71 3-Methylthiophene	97	13.432	13.439	-0.007	98	43735	0.1587	0.1455	
72 2-Hexanone	58	13.577	13.578	-0.001	94	16057	0.1587	0.1495	
73 n-Octane	85	13.831	13.833	-0.002	93	23418	0.1587	0.1628	
74 Chlorodibromomethane	129	13.858	13.862	-0.004	98	36091	0.1587	0.1454	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	98	31431	0.1587	0.1481	
76 Tetrachloroethene	129	14.251	14.251	0.000	96	25535	0.1587	0.1591	
77 Chlorobenzene	112	15.136	15.138	-0.002	94	44998	0.1587	0.1482	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	60872	0.1587	0.1679	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	69003	0.1587	0.1439	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	49663	0.1587	0.1384	
81 m-Xylene & p-Xylene	91	15.605	15.612	-0.007	99	106515	0.3173	0.2881	
83 Bromoform	173	16.031	16.034	-0.003	96	29557	0.1587	0.1294	
82 n-Nonane	57	16.074	16.076	-0.002	92	39709	0.1587	0.1656	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	77	34245	0.1587	0.1304	
85 o-Xylene	91	16.133	16.140	-0.007	98	55923	0.1587	0.1435	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	99	28104	0.1587	0.1092	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	96	11556	0.1587	0.1363	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	77471	0.1587	0.1413	
89 N-Propylbenzene	120	17.293	17.295	-0.002	99	21354	0.1587	0.1430	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	19691	0.1587	0.1428	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	73785	0.1587	0.1395	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	35870	0.1587	0.1410	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	26661	0.1587	0.1271	
94 n-Decane	57	17.875	17.878	-0.003	90	45478	0.1587	0.1607	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	70467	0.1587	0.1430	
96 1,2,4-Trimethylbenzene	105	17.994	18.000	-0.006	95	63716	0.1587	0.1438	
98 1,3-Dichlorobenzene	146	18.269	18.270	-0.001	63	44633	0.1587	0.1394	
97 sec-Butylbenzene	105	18.269	18.270	-0.001	98	94767	0.1587	0.1478	
99 Benzyl chloride	91	18.349	18.349	0.000	97	46504	0.1587	0.1314	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	92	43579	0.1587	0.1392	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	77592	0.1587	0.1421	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	49232	0.1587	0.1445	
103 Butylcyclohexane	83	18.560	18.561	-0.001	93	55512	0.1587	0.1619	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	43248	0.1587	0.1414	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	59010	0.1587	0.1430	
106 Indene	116	18.867	18.869	-0.002	94	41234	0.1587	0.1934	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	70024	0.1587	0.1475	
108 Undecane	57	19.245	19.247	-0.002	97	48725	0.1587	0.1631	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	56926	0.1587	0.1438	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	94	14967	0.1587	0.1164	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.673	-0.002	97	68727	0.1587	0.1476	
112 1,2,3,5-Tetramethylbenzene	119	19.725	19.727	-0.002	95	41533	0.1587	0.1460	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	98	57669	0.1587	0.1500	
114 Dodecane	57	20.312	20.313	-0.001	96	47372	0.1587	0.1792	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	25744	0.1587	0.1210	
116 Naphthalene	128	20.587	20.588	-0.001	99	61374	0.1587	0.1360	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	29349	0.1587	0.1187	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	47564	0.1587	0.1456	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	29020	0.1587	0.1399	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	29488	0.4958	0.4484	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	36495	0.4958	0.5446	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	135421	0.1587	0.1452	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	340899	0.1587	0.2354	
S 126 Xylenes, Total	100				0		0.4760	0.4316	
S 127 1,2-Dichloroethene, Total	1				0		0.3173	0.3128	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L3DNP_00009

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L3

Worklist Smp#: 5

Client ID:

Purge Vol: 500.000 mL

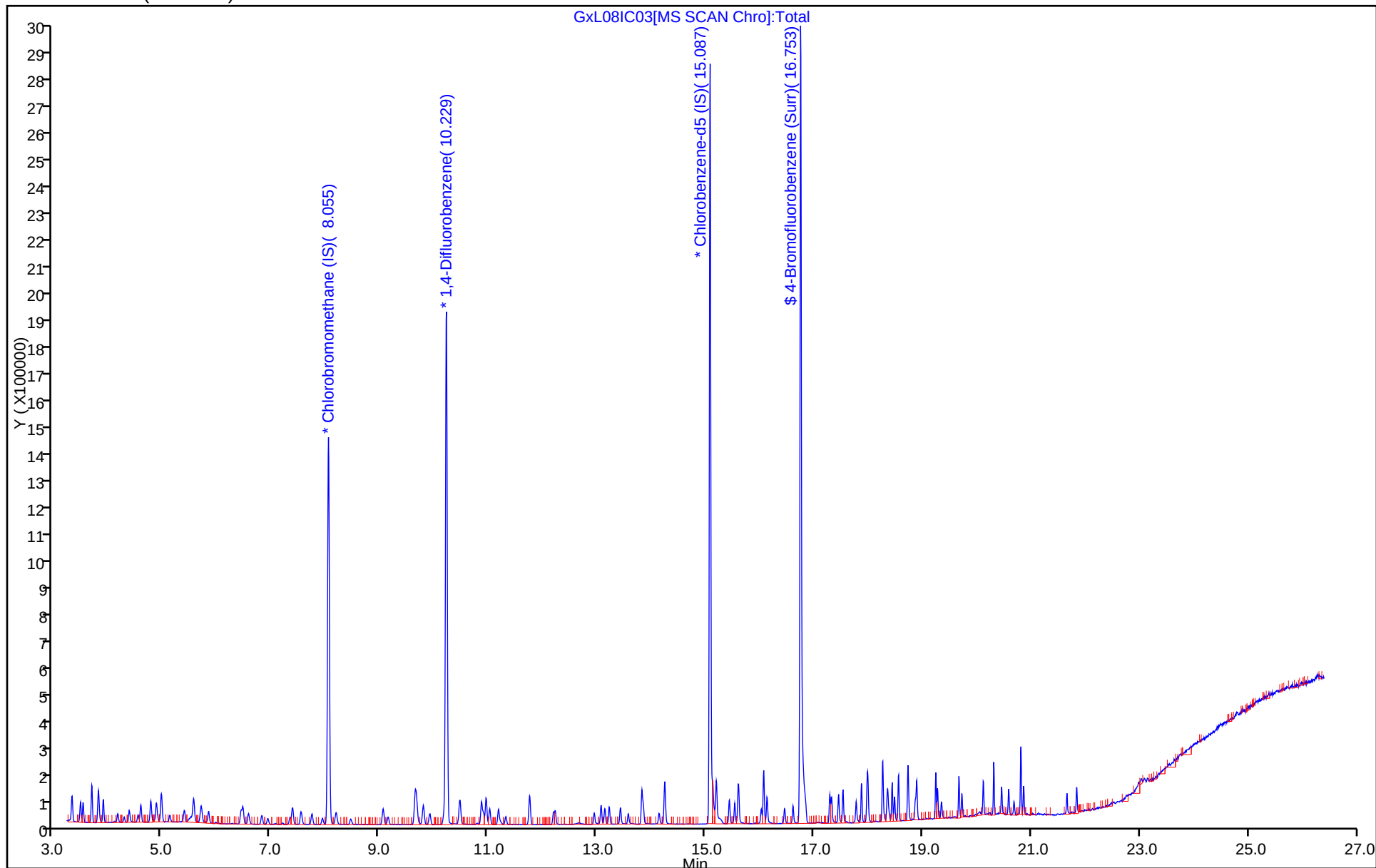
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

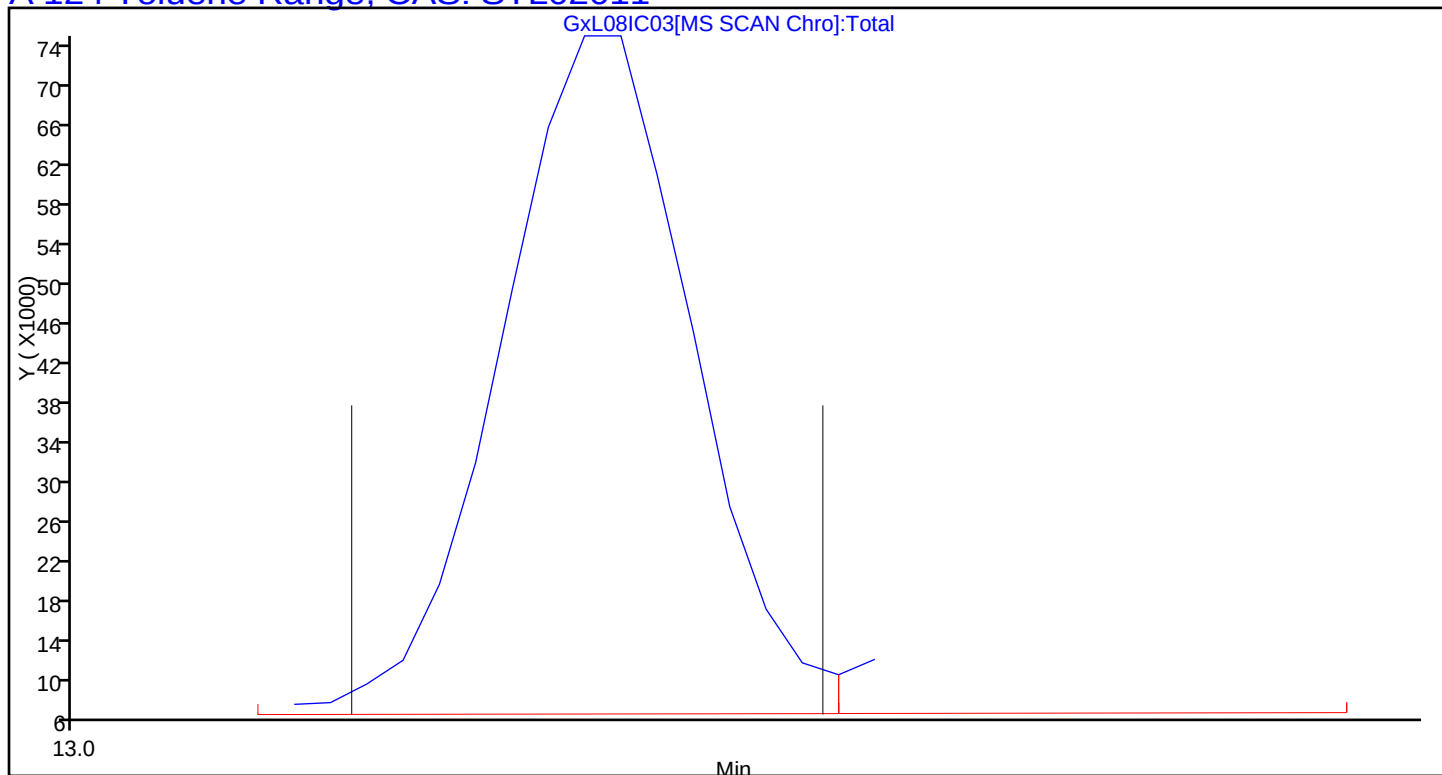
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D

Injection Date: 08-Dec-2016 21:25:30

Instrument ID: MG

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

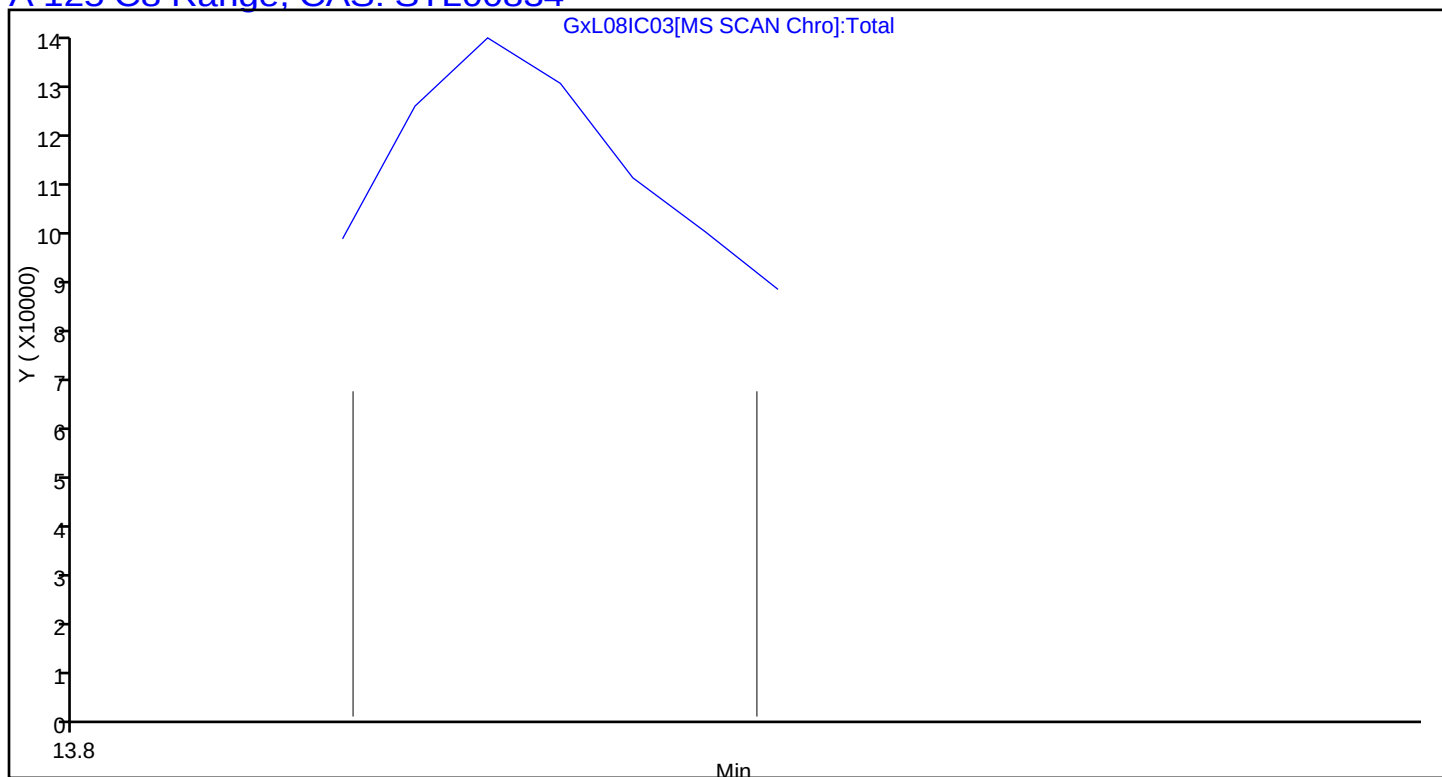
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

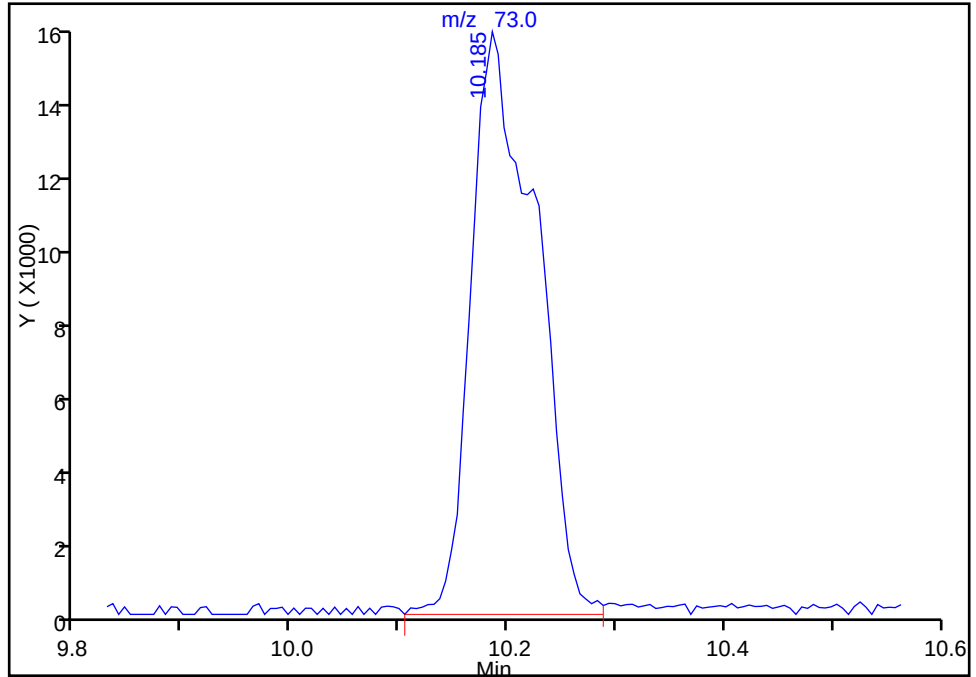
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC03.D
Injection Date: 08-Dec-2016 21:25:30 Instrument ID: MG
Lims ID: IC L3
Client ID:
Operator ID: 403648 ALS Bottle#: 2 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

55 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

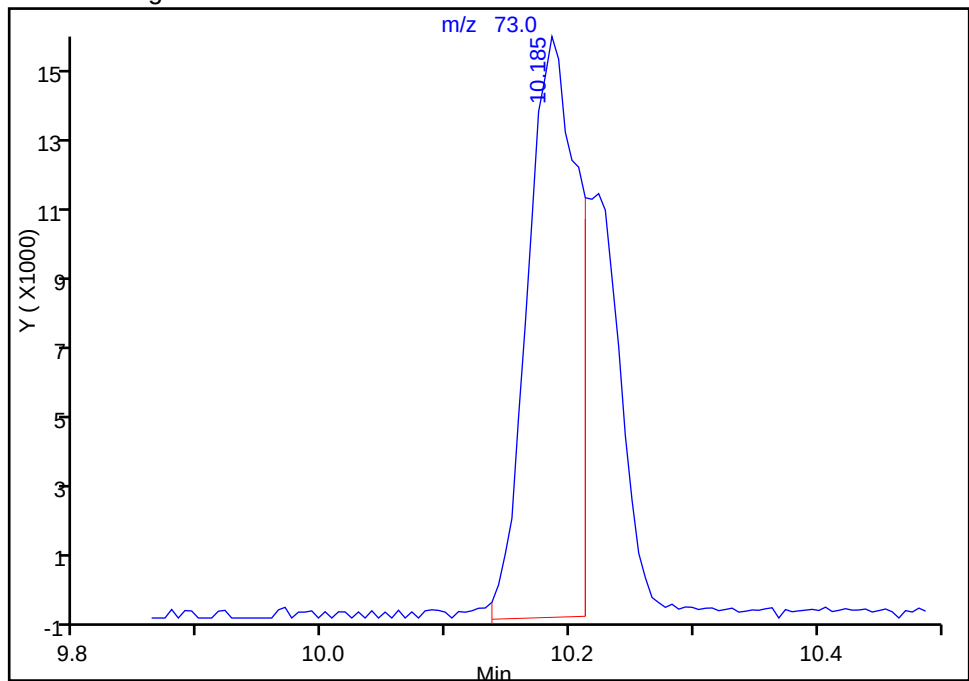
RT: 10.19
Area: 62919
Amount: 0.201999
Amount Units: ppb v/v

Processing Integration Results



RT: 10.19
Area: 42901
Amount: 0.145078
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:30:03
Audit Action: Manually Integrated

Audit Reason: Split Peak
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12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D
 Lims ID: IC L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 08-Dec-2016 22:07:30 ALS Bottle#: 3 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-006
 Misc. Info.: 067939
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:06 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:39:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.063	-0.008	96	463981	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.229	10.234	-0.005	95	2108247	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	2175734	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	95	1442147	4.00	4.01	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	14013	0.4000	0.3683	
7 Propene	41	3.488	3.489	-0.001	97	49008	0.4000	0.3863	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	99	148238	0.4000	0.3733	
9 Chloromethane	52	3.682	3.685	-0.003	98	17148	0.4000	0.4021	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	96	97416	0.4000	0.3703	
11 Acetaldehyde	44	3.812	3.816	-0.004	98	111731	2.00	2.37	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	52292	0.4000	0.3736	
13 Butadiene	54	3.903	3.906	-0.003	89	42040	0.4000	0.3721	
14 Butane	43	3.903	3.907	-0.004	90	83428	0.4000	0.3782	
15 Bromomethane	94	4.168	4.174	-0.006	98	49897	0.4000	0.3734	
16 Chloroethane	64	4.292	4.292	0.000	97	28019	0.4000	0.3767	
17 Ethanol	31	4.378	4.393	-0.015	97	90742	2.00	1.96	
18 Vinyl bromide	106	4.545	4.550	-0.005	98	47395	0.4000	0.3756	
19 2-Methylbutane	43	4.594	4.598	-0.004	90	60759	0.4000	0.3770	
21 Acrolein	56	4.777	4.783	-0.006	32	12347	0.4000	0.3418	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	143536	0.4000	0.3730	
22 Acetonitrile	40	4.831	4.838	-0.007	97	18027	0.4000	0.4210	
23 Acetone	58	4.879	4.882	-0.003	99	71784	1.20	1.47	
24 Pentane	72	4.971	4.978	-0.007	94	9414	0.4000	0.3986	
25 Isopropyl alcohol	45	4.960	4.987	-0.027	93	196241	1.20	1.19	
26 Ethyl ether	31	5.117	5.124	-0.007	96	38146	0.4000	0.3914	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	95	41972	0.4000	0.3700	
28 Acrylonitrile	53	5.478	5.487	-0.009	93	23057	0.4000	0.3762	
29 2-Methyl-2-propanol	59	5.499	5.526	-0.027	94	65529	0.4000	0.3769	
30 1,1,2-Trichloro-1,2,2-trif	101	5.570	5.572	-0.002	97	91069	0.4000	0.3743	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	39868	0.4000	0.4040	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.721	5.725	-0.004	98	37831	0.4000	0.3873	
33 Carbon disulfide	76	5.845	5.849	-0.004	100	141704	0.4000	0.3822	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	97	49737	0.4000	0.3731	
35 2-Methylpentane	43	6.476	6.481	-0.005	95	109315	0.4000	0.3806	
36 Methyl tert-butyl ether	73	6.573	6.575	-0.002	97	116320	0.4000	0.3674	
37 1,1-Dichloroethane	63	6.826	6.832	-0.006	100	92833	0.4000	0.3707	
38 Vinyl acetate	43	6.934	6.942	-0.008	100	115180	0.4000	0.3700	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	21700	0.4000	0.3949	
40 Hexane	56	7.392	7.397	-0.005	89	42161	0.4000	0.3823	
41 Isopropyl ether	45	7.543	7.547	-0.004	97	148142	0.4000	0.3744	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	51356	0.4000	0.3796	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	89774	0.4000	0.3658	
44 Chloroform	83	8.077	8.085	-0.008	96	109487	0.4000	0.3762	
45 Tert-butyl ethyl ether	59	8.185	8.191	-0.006	94	126645	0.4000	0.3681	
46 Tetrahydrofuran	42	8.455	8.460	-0.006	95	46626	0.4000	0.3680	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	119146	0.4000	0.3753	
48 1,2-Dichloroethane	62	9.156	9.160	-0.004	98	70665	0.4000	0.3595	
49 Benzene	78	9.646	9.654	-0.008	97	145030	0.4000	0.3824	
50 Cyclohexane	69	9.657	9.659	-0.002	92	26449	0.4000	0.3784	
52 Carbon tetrachloride	117	9.679	9.684	-0.005	98	121879	0.4000	0.3600	
51 n-Butanol	31	9.668	9.685	-0.017	66	15567	0.4000	0.3377	
53 2,3-Dimethylpentane	71	9.803	9.808	-0.005	91	35370	0.4000	0.3610	
54 Thiophene	84	9.927	9.930	-0.003	96	81985	0.4000	0.3612	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	116541	0.4000	0.3435	
56 Isooctane	57	10.477	10.479	-0.002	98	250466	0.4000	0.3642	
57 n-Heptane	71	10.876	10.881	-0.005	91	54557	0.4000	0.3583	
58 1,2-Dichloropropane	63	10.908	10.916	-0.008	89	53314	0.4000	0.3711	
59 Trichloroethene	130	10.962	10.966	-0.004	97	75756	0.4000	0.3434	
60 Dibromomethane	93	11.027	11.033	-0.006	93	62732	0.4000	0.3589	
61 Dichlorobromomethane	83	11.188	11.194	-0.006	100	105567	0.4000	0.3476	
62 1,4-Dioxane	88	11.210	11.222	-0.012	89	17470	0.4000	0.3434	
63 Methyl methacrylate	41	11.318	11.327	-0.009	92	52693	0.4000	0.3393	
64 Methylcyclohexane	83	11.760	11.766	-0.006	95	114511	0.4000	0.3649	
65 4-Methyl-2-pentanone (MIBK)	43	12.191	12.198	-0.007	96	88279	0.4000	0.3421	
66 cis-1,3-Dichloropropene	75	12.235	12.240	-0.005	93	84196	0.4000	0.3709	
67 trans-1,3-Dichloropropene	75	12.952	12.958	-0.006	98	72970	0.4000	0.3476	
68 Toluene	91	13.076	13.083	-0.007	94	158232	0.4000	0.3637	
69 1,1,2-Trichloroethane	83	13.146	13.154	-0.008	99	46210	0.4000	0.3601	
70 2-Methylthiophene	97	13.227	13.233	-0.006	97	132638	0.4000	0.3614	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	128096	0.4000	0.3583	
72 2-Hexanone	58	13.572	13.578	-0.006	93	38378	0.4000	0.3005	
73 n-Octane	85	13.831	13.833	-0.002	94	60225	0.4000	0.3520	
74 Chlorodibromomethane	129	13.858	13.862	-0.004	98	98960	0.4000	0.3351	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	99	86235	0.4000	0.3417	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	65941	0.4000	0.3454	
77 Chlorobenzene	112	15.136	15.138	-0.002	94	128374	0.4000	0.3555	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	97	160682	0.4000	0.3726	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	202566	0.4000	0.3551	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	97	148846	0.4000	0.3488	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	312199	0.8000	0.7100	
83 Bromoform	173	16.031	16.034	-0.003	97	89222	0.4000	0.3283	
82 n-Nonane	57	16.074	16.076	-0.002	93	108527	0.4000	0.3807	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	81	105962	0.4000	0.3392	
85 o-Xylene	91	16.133	16.140	-0.007	98	163242	0.4000	0.3522	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	100	107105	0.4000	0.3500	
87 1,2,3-Trichloropropane	110	16.613	16.619	-0.006	97	34699	0.4000	0.3443	
88 Isopropylbenzene	105	16.737	16.740	-0.003	96	226287	0.4000	0.3471	
89 N-Propylbenzene	120	17.293	17.295	-0.002	99	58580	0.4000	0.3300	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	56487	0.4000	0.3445	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	212251	0.4000	0.3375	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	101711	0.4000	0.3363	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	75940	0.4000	0.3044	
94 n-Decane	57	17.875	17.878	-0.003	90	122535	0.4000	0.3642	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	94	197002	0.4000	0.3361	
96 1,2,4-Trimethylbenzene	105	17.994	18.000	-0.006	95	178941	0.4000	0.3395	
98 1,3-Dichlorobenzene	146	18.269	18.270	-0.001	79	123184	0.4000	0.3235	
97 sec-Butylbenzene	105	18.269	18.270	-0.001	98	259583	0.4000	0.3404	
99 Benzyl chloride	91	18.344	18.349	-0.005	99	129478	0.4000	0.3076	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	96	121046	0.4000	0.3252	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	215898	0.4000	0.3325	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	135985	0.4000	0.3356	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	149636	0.4000	0.3670	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	116482	0.4000	0.3201	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	93	162369	0.4000	0.3309	
106 Indene	116	18.867	18.869	-0.002	93	112729	0.4000	0.3418	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	189235	0.4000	0.3352	
108 Undecane	57	19.245	19.247	-0.002	97	125419	0.4000	0.3530	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	146402	0.4000	0.3109	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	96	41895	0.4000	0.2741	
111 1,2,4,5-Tetramethylbenzene	119	19.671	19.673	-0.002	97	174813	0.4000	0.3158	
112 1,2,3,5-Tetramethylbenzene	119	19.725	19.727	-0.002	95	108120	0.4000	0.3196	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	140998	0.4000	0.3083	
114 Dodecane	57	20.312	20.313	-0.001	96	100259	0.4000	0.3189	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	65094	0.4000	0.2574	
116 Naphthalene	128	20.587	20.588	-0.001	99	144616	0.4000	0.2695	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	71357	0.4000	0.2426	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	112530	0.4000	0.2897	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	63109	0.4000	0.2558	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	99	42003	1.25	0.5371	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	99	46064	1.25	0.5780	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	395488	0.4000	0.3695	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	598729	0.4000	0.3604	M
S 126 Xylenes, Total	100				0		1.20	1.06	
S 127 1,2-Dichloroethene, Total	1				0		0.8000	0.7527	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L4DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L4

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

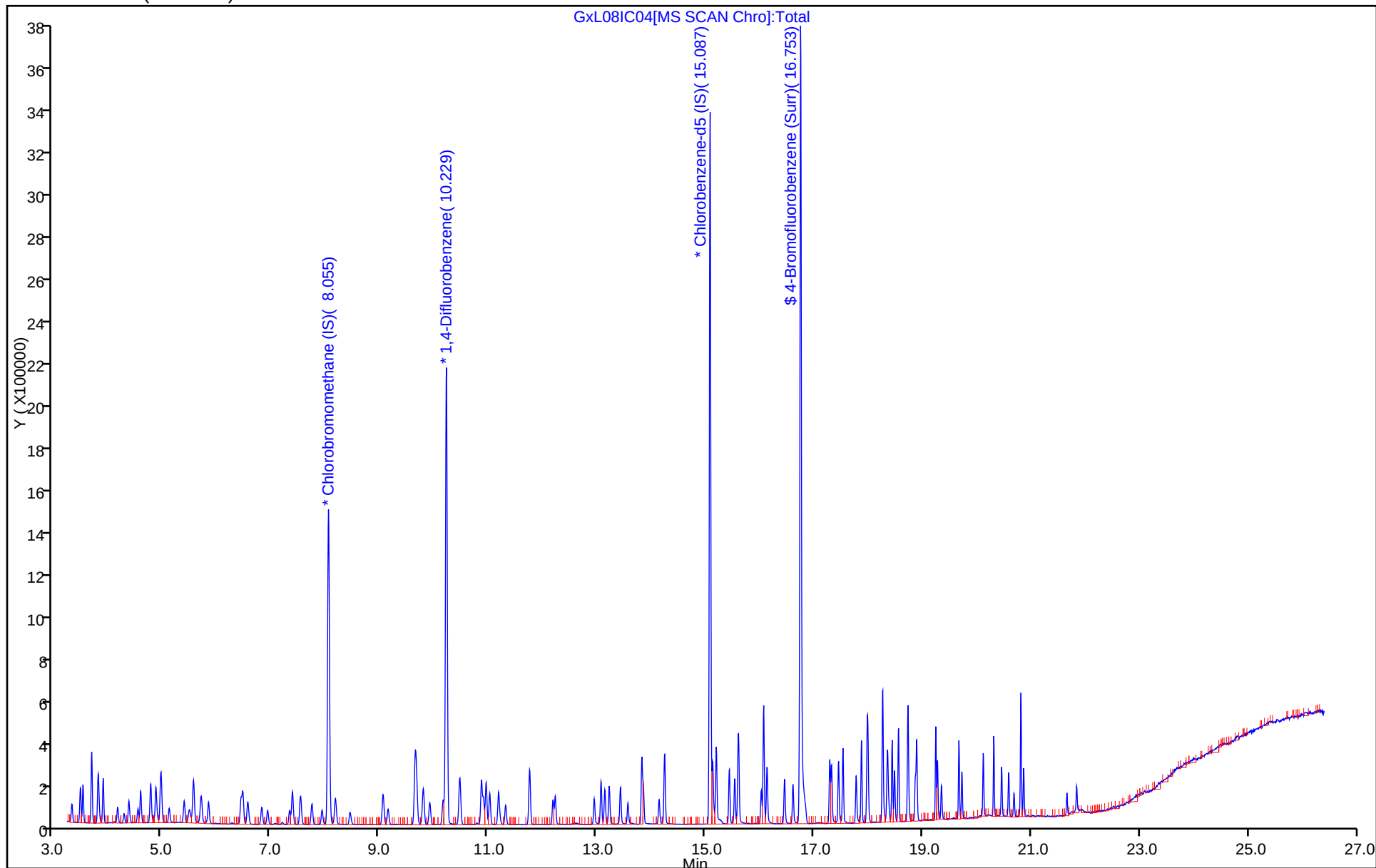
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

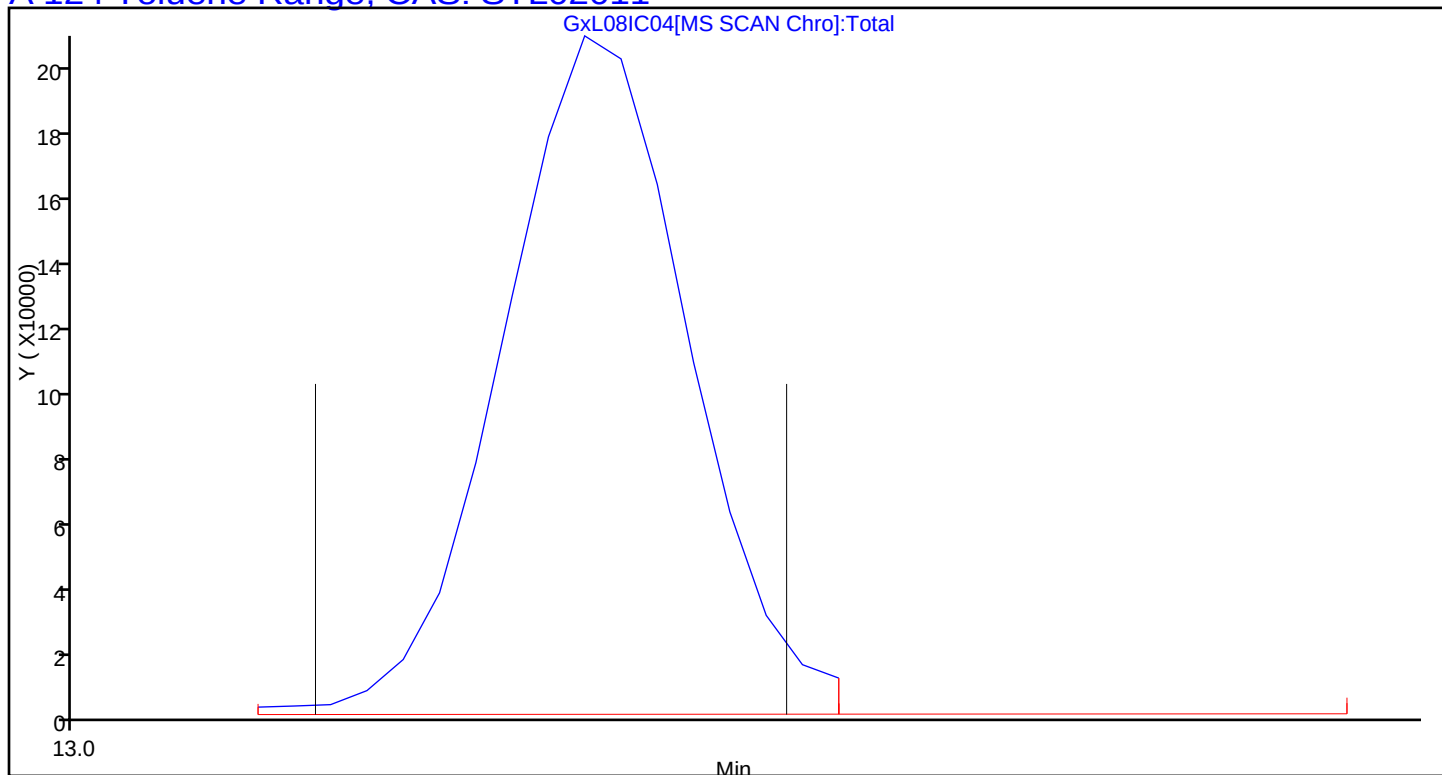
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

[A 124 Toluene Range, CAS: STL02011](#)

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC04.D

Injection Date: 08-Dec-2016 22:07:30

Instrument ID: MG

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

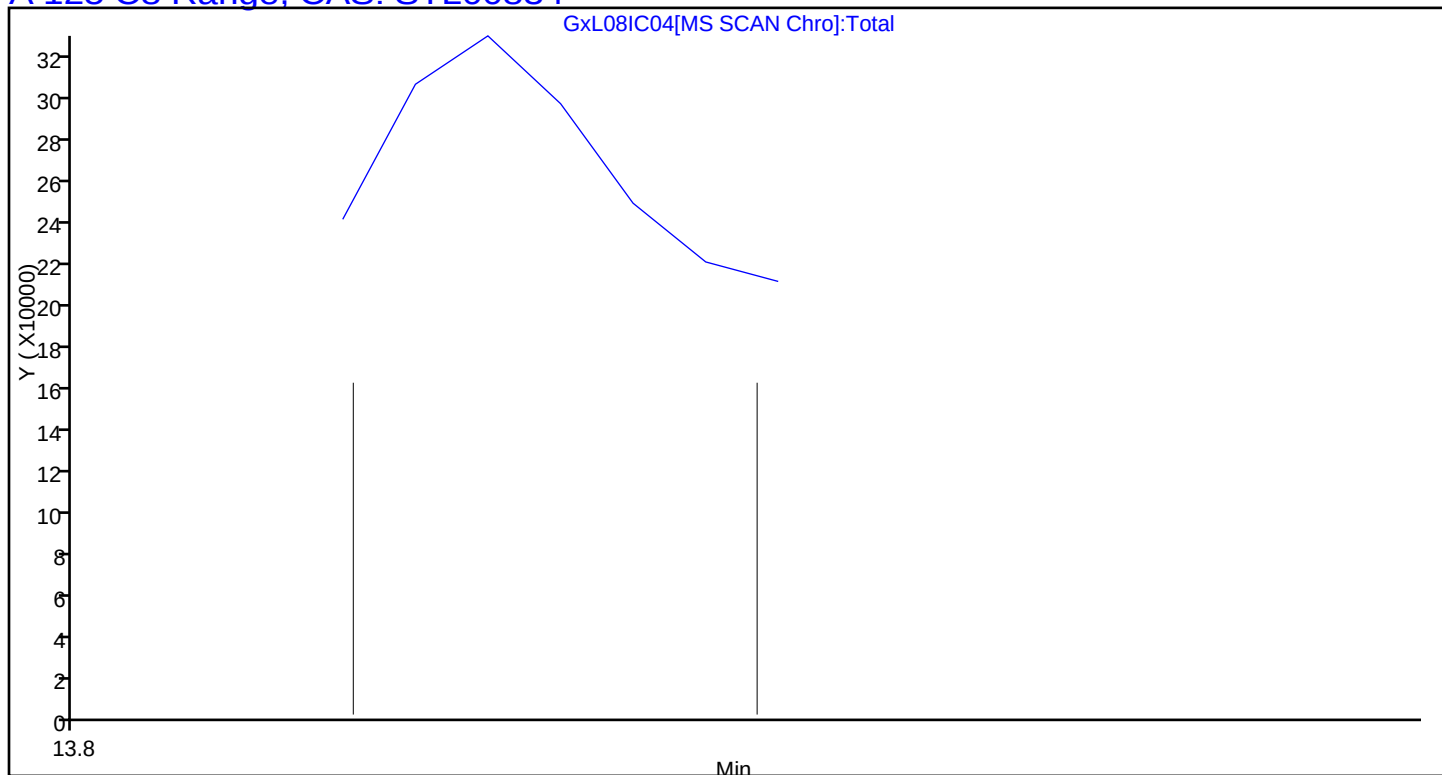
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

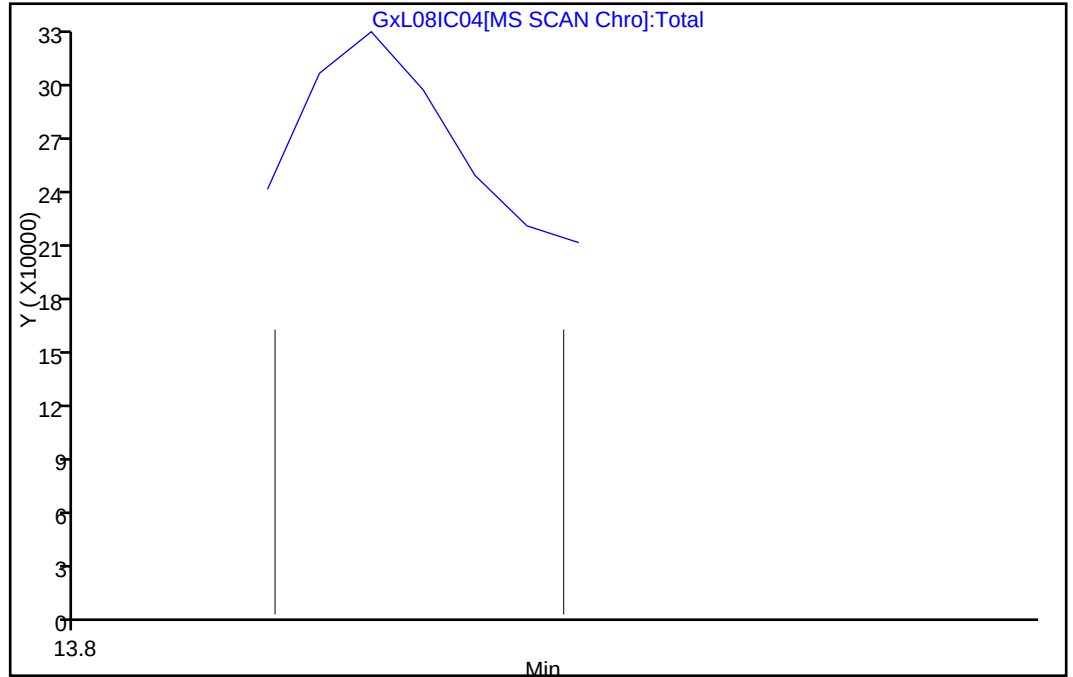
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Injection Date: 08-Dec-2016 22:07:30 Instrument ID: MG
Lims ID: IC L4
Client ID:
Operator ID: 403648 ALS Bottle#: 3 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

A 125 C8 Range, RT: 13.836, CAS: STL00834

Signal: 1

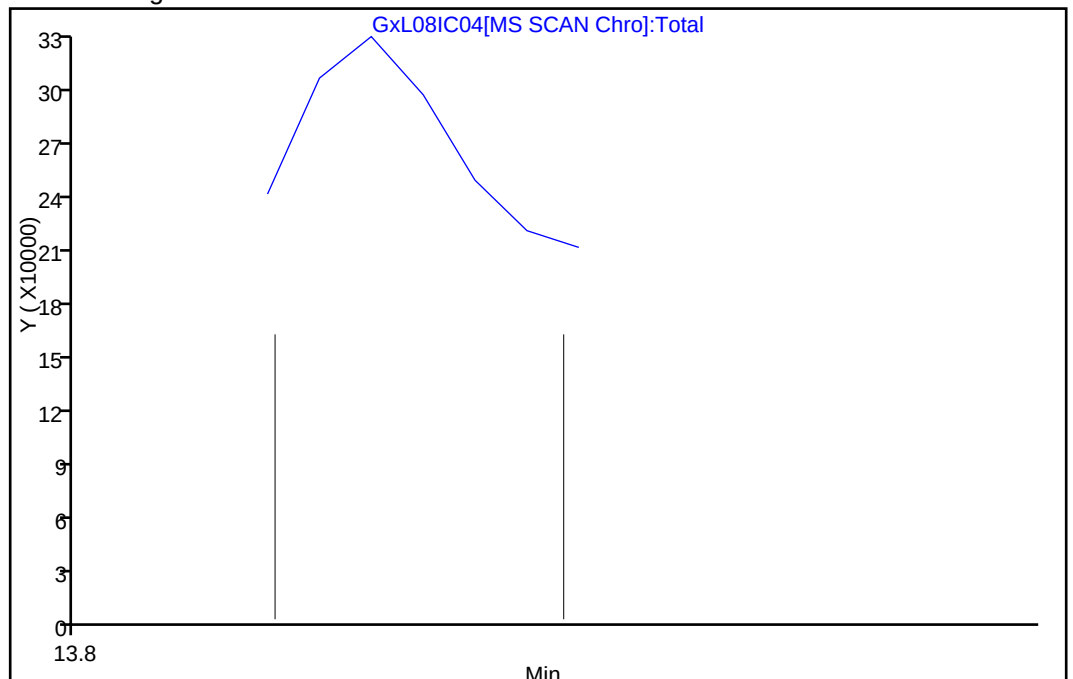
RT: 13.84
Response: 866055
Amount: 0.430360

Processing Integration Results



RT: 13.84
Response: 598729
Amount: 0.360421

Manual Integration Results



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D
 Lims ID: IC L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 08-Dec-2016 22:50:30 ALS Bottle#: 4 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-007
 Misc. Info.: 067938
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:10 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:39:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.061	8.063	-0.002	95	447350	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.234	-0.006	95	1837821	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	1818459	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.758	-0.005	97	1199357	4.00	3.99	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	36626	1.00	1.00	
7 Propene	41	3.488	3.489	-0.001	99	120900	1.00	0.9884	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	398936	1.00	1.04	
9 Chloromethane	52	3.682	3.685	-0.003	98	40624	1.00	0.9879	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	92	266972	1.00	1.05	
11 Acetaldehyde	44	3.811	3.816	-0.005	99	203897	5.01	4.49	
12 Vinyl chloride	62	3.828	3.830	-0.002	98	144743	1.00	1.07	
13 Butadiene	54	3.903	3.906	-0.003	92	117692	1.00	1.08	
14 Butane	43	3.903	3.907	-0.004	92	236594	1.00	1.11	
15 Bromomethane	94	4.173	4.174	-0.001	99	132665	1.00	1.03	
16 Chloroethane	64	4.291	4.292	-0.001	99	74023	1.00	1.03	
17 Ethanol	31	4.383	4.393	-0.010	96	215410	5.01	4.82	
18 Vinyl bromide	106	4.545	4.550	-0.005	99	126157	1.00	1.04	
19 2-Methylbutane	43	4.599	4.598	0.001	91	165413	1.00	1.06	
21 Acrolein	56	4.782	4.783	-0.001	31	29554	1.00	0.8485	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	384683	1.00	1.04	
22 Acetonitrile	40	4.831	4.838	-0.007	99	40598	1.00	0.9834	
23 Acetone	58	4.874	4.882	-0.008	98	140276	3.01	2.98	
24 Pentane	72	4.976	4.978	-0.002	96	23731	1.00	1.04	
25 Isopropyl alcohol	45	4.965	4.987	-0.022	93	481177	3.01	3.02	
26 Ethyl ether	31	5.116	5.124	-0.008	96	88736	1.00	0.9443	
27 1,1-Dichloroethene	96	5.397	5.400	-0.003	96	112496	1.00	1.03	
28 Acrylonitrile	53	5.478	5.487	-0.009	94	52384	1.00	0.8864	
29 2-Methyl-2-propanol	59	5.499	5.526	-0.027	94	168323	1.00	1.00	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	234900	1.00	1.00	
31 Methylene Chloride	84	5.704	5.708	-0.004	96	92116	1.00	0.9681	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.725	-0.005	99	98686	1.00	1.05	
33 Carbon disulfide	76	5.844	5.849	-0.005	100	371252	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.443	6.448	-0.005	98	129589	1.00	1.01	
35 2-Methylpentane	43	6.481	6.481	0.000	95	282816	1.00	1.02	
36 Methyl tert-butyl ether	73	6.567	6.575	-0.008	96	280300	1.00	0.9182	
37 1,1-Dichloroethane	63	6.831	6.832	-0.001	100	235707	1.00	0.9763	
38 Vinyl acetate	43	6.934	6.942	-0.008	100	263434	1.00	0.8776	
39 2-Butanone (MEK)	72	7.338	7.349	-0.011	99	46710	1.00	0.8817	
40 Hexane	56	7.397	7.397	0.000	86	104967	1.00	0.9872	
41 Isopropyl ether	45	7.538	7.547	-0.009	97	353610	1.00	0.9268	
42 cis-1,2-Dichloroethene	96	7.753	7.759	-0.006	95	129520	1.00	0.99	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	208629	1.00	0.8818	
44 Chloroform	83	8.077	8.085	-0.008	97	278997	1.00	0.99	
45 Tert-butyl ethyl ether	59	8.179	8.191	-0.012	94	304722	1.00	0.9186	
46 Tetrahydrofuran	42	8.449	8.460	-0.011	94	110305	1.00	0.9030	
47 1,1,1-Trichloroethane	97	9.064	9.068	-0.004	95	301989	1.00	0.9867	
48 1,2-Dichloroethane	62	9.155	9.160	-0.005	98	172759	1.00	1.01	
49 Benzene	78	9.651	9.654	-0.003	96	351164	1.00	1.06	
50 Cyclohexane	69	9.657	9.659	-0.002	93	65816	1.00	1.08	
52 Carbon tetrachloride	117	9.684	9.684	0.000	98	321989	1.00	1.09	
51 n-Butanol	31	9.657	9.685	-0.028	63	42204	1.00	1.05	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	89073	1.00	1.04	
54 Thiophene	84	9.926	9.930	-0.004	97	206846	1.00	1.05	
55 Tert-amyl methyl ether	73	10.164	10.181	-0.017	98	283852	1.00	0.9599	
56 Isooctane	57	10.476	10.479	-0.003	99	633974	1.00	1.06	
57 n-Heptane	71	10.875	10.881	-0.006	91	139658	1.00	1.05	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	88	121683	1.00	0.9715	
59 Trichloroethene	130	10.962	10.966	-0.004	98	209417	1.00	1.09	
60 Dibromomethane	93	11.026	11.033	-0.007	93	158962	1.00	1.04	
61 Dichlorobromomethane	83	11.194	11.194	0.000	99	274425	1.00	1.04	
62 1,4-Dioxane	88	11.204	11.222	-0.018	91	44488	1.00	1.00	
63 Methyl methacrylate	41	11.318	11.327	-0.009	92	122959	1.00	0.9084	
64 Methylcyclohexane	83	11.765	11.766	-0.001	95	294616	1.00	1.08	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.198	-0.012	96	234208	1.00	1.04	
66 cis-1,3-Dichloropropene	75	12.234	12.240	-0.006	93	194871	1.00	0.9848	
67 trans-1,3-Dichloropropene	75	12.951	12.958	-0.007	98	167829	1.00	0.9566	
68 Toluene	91	13.081	13.083	-0.002	94	353389	1.00	0.9717	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	98	106377	1.00	0.99	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	302331	1.00	0.9856	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	293803	1.00	0.9832	
72 2-Hexanone	58	13.572	13.578	-0.006	93	105315	1.00	0.9866	
73 n-Octane	85	13.830	13.833	-0.003	93	157625	1.00	1.10	
74 Chlorodibromomethane	129	13.857	13.862	-0.005	98	252927	1.00	1.02	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	99	213500	1.00	1.01	
76 Tetrachloroethene	129	14.246	14.251	-0.005	96	170189	1.00	1.07	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	302836	1.00	1.00	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	96	398405	1.00	1.11	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	464337	1.00	0.9740	
80 2-Ethylthiophene	97	15.540	15.544	-0.004	98	349903	1.00	0.9811	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	98	737471	2.00	2.01	
83 Bromoform	173	16.031	16.034	-0.003	98	209416	1.00	0.9221	
82 n-Nonane	57	16.074	16.076	-0.002	92	272373	1.00	1.14	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.079	-0.005	80	265036	1.00	1.02	
85 o-Xylene	91	16.138	16.140	-0.002	98	382333	1.00	0.9870	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.462	-0.005	99	262784	1.00	1.03	
87 1,2,3-Trichloropropane	110	16.618	16.619	-0.001	97	82463	1.00	0.9789	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	537636	1.00	0.9866	
89 N-Propylbenzene	120	17.292	17.295	-0.003	100	145833	1.00	0.9828	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	135683	1.00	0.9899	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	521274	1.00	0.99	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	255158	1.00	1.01	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	209327	1.00	1.00	
94 n-Decane	57	17.875	17.878	-0.003	91	303112	1.00	1.08	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	93	494103	1.00	1.01	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	95	454094	1.00	1.03	
98 1,3-Dichlorobenzene	146	18.268	18.270	-0.002	64	314991	1.00	0.9898	
97 sec-Butylbenzene	105	18.268	18.270	-0.002	98	655811	1.00	1.03	
99 Benzyl chloride	91	18.344	18.349	-0.005	98	328706	1.00	0.9345	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	97	305569	1.00	0.9823	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	558404	1.00	1.03	
102 1,2,3-Trimethylbenzene	105	18.484	18.488	-0.004	97	344310	1.00	1.02	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	360384	1.00	1.06	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	94	309696	1.00	1.02	
105 2,3-Dihydroindene	117	18.732	18.736	-0.004	94	419286	1.00	1.02	
106 Indene	116	18.867	18.869	-0.002	93	306444	1.00	0.9333	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	495756	1.00	1.05	
108 Undecane	57	19.244	19.247	-0.003	96	332785	1.00	1.12	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	403699	1.00	1.03	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	98	114997	1.00	0.9002	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	485595	1.00	1.05	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.727	-0.003	95	300031	1.00	1.06	
113 1,2,3,4-Tetramethylbenzene	119	20.118	20.121	-0.003	97	412238	1.00	1.08	
114 Dodecane	57	20.312	20.313	-0.001	96	306173	1.00	1.17	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	211936	1.00	1.00	
116 Naphthalene	128	20.587	20.588	-0.001	99	481190	1.00	1.07	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	239611	1.00	0.9747	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	95	338964	1.00	1.04	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	222349	1.00	1.08	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	217545	3.13	3.33	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	100	236387	3.13	3.55	
A 124 Toluene Range	1	13.076	(13.041-13.111)		0	864195	1.00	0.9263	
A 125 C8 Range	1	13.835	(13.820-13.850)		0	1645102	1.00	1.14	M
S 126 Xylenes, Total	100				0		3.00	2.99	
S 127 1,2-Dichloroethene, Total	1				0		2.00	2.00	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L5DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L5

Worklist Smp#: 7

Client ID:

Purge Vol: 500.000 mL

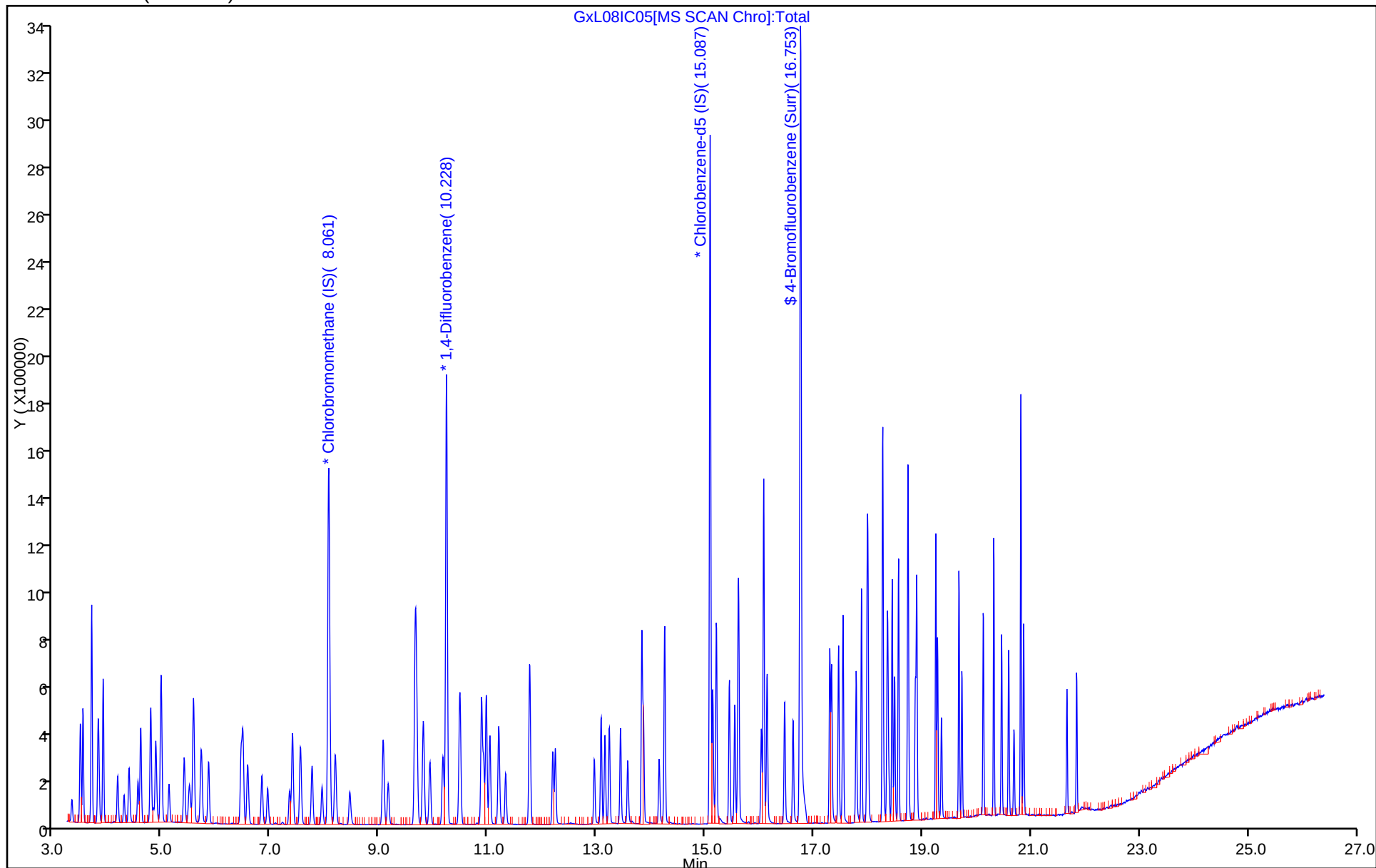
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#:

4

Worklist Smp#:

7

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MG_TO15

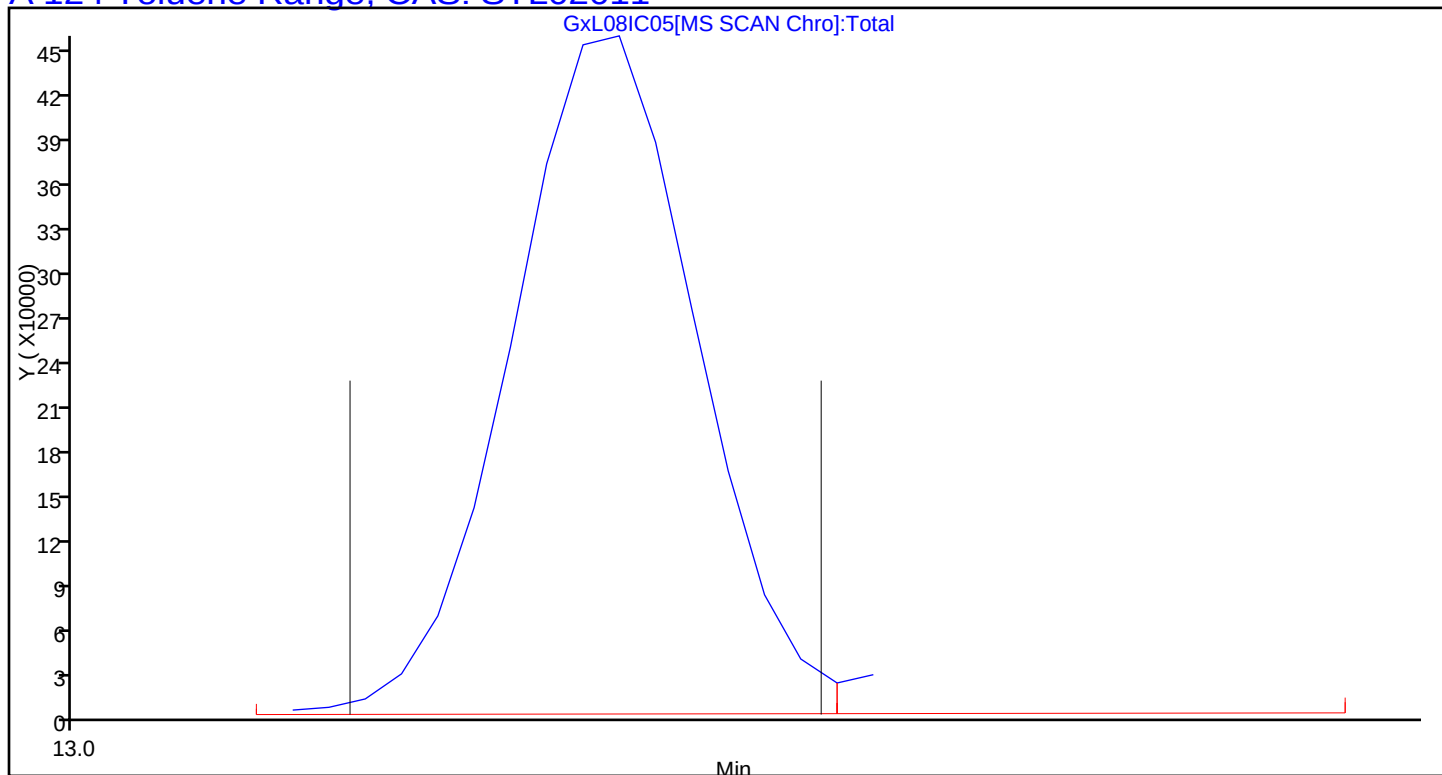
Limit Group:

MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D

Injection Date: 08-Dec-2016 22:50:30

Instrument ID: MG

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#: 4

Worklist Smp#: 7

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

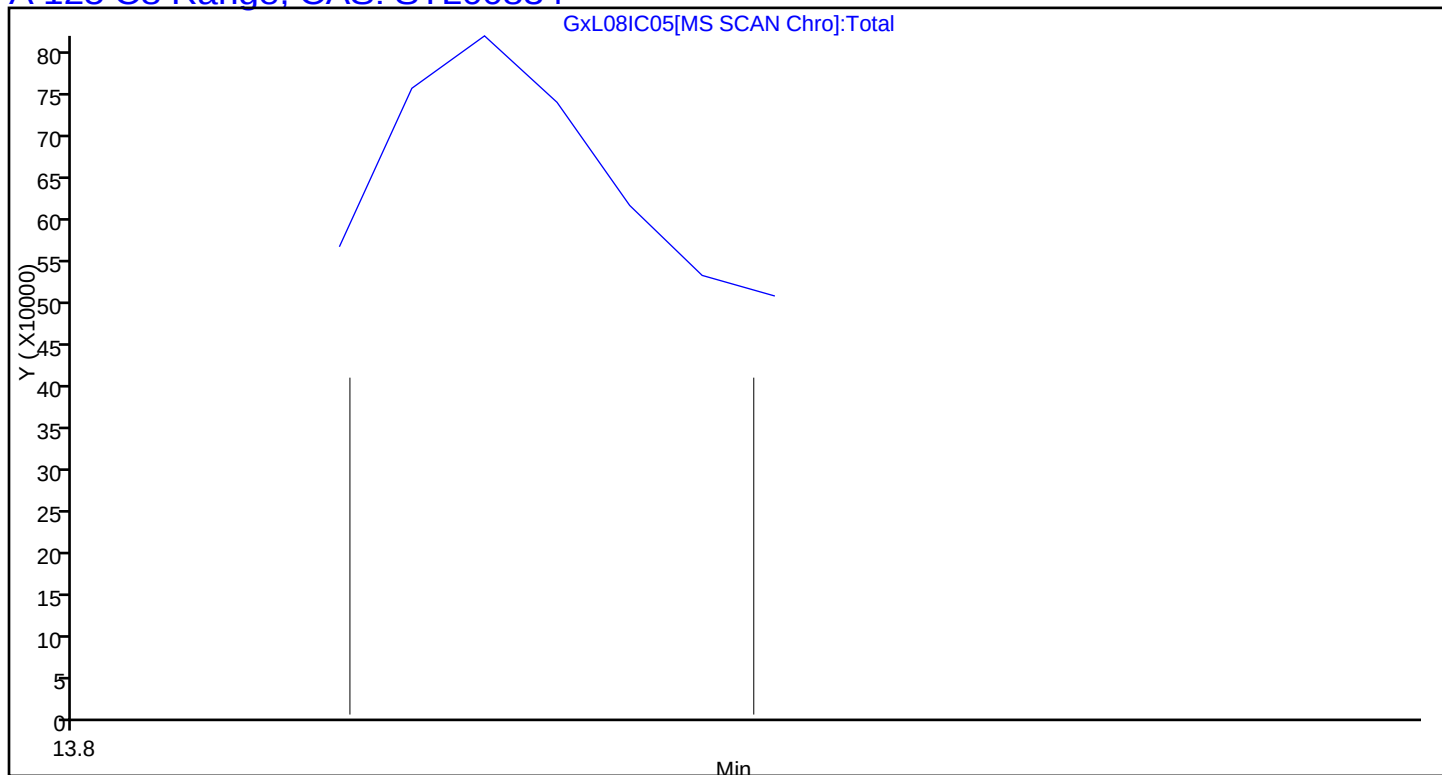
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

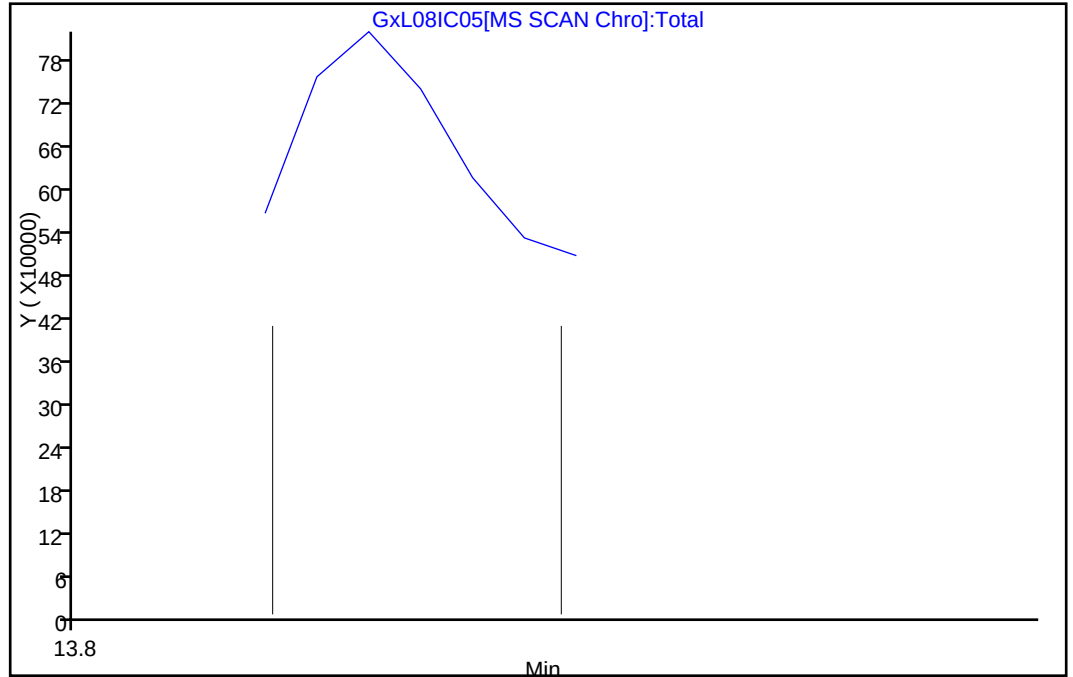
Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC05.D
Injection Date: 08-Dec-2016 22:50:30 Instrument ID: MG
Lims ID: IC L5
Client ID:
Operator ID: 403648 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

A 125 C8 Range, RT: 13.835, CAS: STL00834

Signal: 1

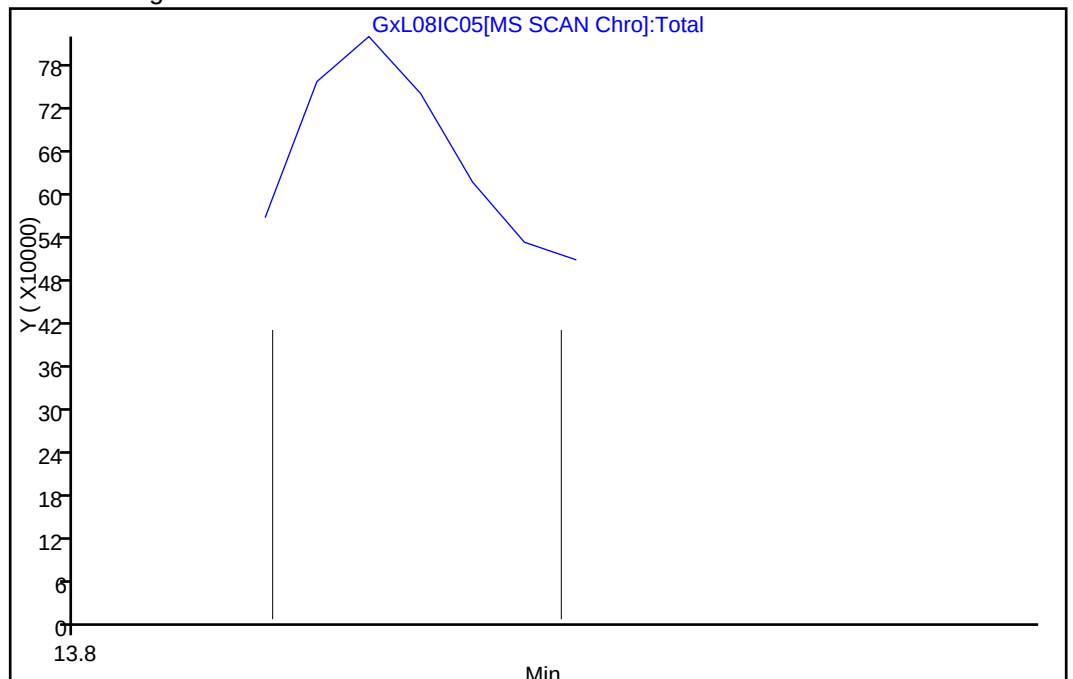
RT: 13.84
Response: 2212853
Amount: 1.335324

Processing Integration Results



RT: 13.84
Response: 1645102
Amount: 1.136034

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:37:23
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 268 of 348

12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D
 Lims ID: ICIS L6
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 08-Dec-2016 23:31:30 ALS Bottle#: 5 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-008
 Misc. Info.: 067937
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:14 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:09:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.061	8.063	-0.002	95	436534	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.234	10.234	0.000	95	1631243	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	87	1662474	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.758	0.001	97	1131193	4.00	4.11	
6 Chlorodifluoromethane	67	3.483	3.481	0.002	96	72767	2.00	2.03	
7 Propene	41	3.488	3.489	-0.001	99	235491	2.00	1.97	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	772063	2.00	2.07	
9 Chloromethane	52	3.687	3.685	0.002	98	82499	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	97	523333	2.00	2.11	
11 Acetaldehyde	44	3.812	3.816	-0.004	100	389664	9.99	8.79	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	294355	2.00	2.24	
13 Butadiene	54	3.903	3.906	-0.003	91	230625	2.00	2.17	
14 Butane	43	3.909	3.907	0.002	93	458987	2.00	2.21	
15 Bromomethane	94	4.173	4.174	-0.001	98	259428	2.00	2.06	
16 Chloroethane	64	4.291	4.292	-0.001	99	144914	2.00	2.07	
17 Ethanol	31	4.383	4.393	-0.010	96	428898	9.99	9.83	
18 Vinyl bromide	106	4.550	4.550	0.000	98	245002	2.00	2.06	
19 2-Methylbutane	43	4.599	4.598	0.001	91	311988	2.00	2.06	
21 Acrolein	56	4.777	4.783	-0.006	93	51584	2.00	1.52	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	756823	2.00	2.09	
22 Acetonitrile	40	4.836	4.838	-0.002	98	75671	2.00	1.88	
23 Acetone	58	4.874	4.882	-0.008	98	268511	5.99	5.84	
24 Pentane	72	4.976	4.978	-0.002	98	45337	2.00	2.04	
25 Isopropyl alcohol	45	4.971	4.987	-0.016	94	980401	5.99	6.30	
26 Ethyl ether	31	5.116	5.124	-0.008	96	171608	2.00	1.87	
27 1,1-Dichloroethene	96	5.402	5.400	0.002	96	223308	2.00	2.09	
28 Acrylonitrile	53	5.483	5.487	-0.004	93	98680	2.00	1.71	
29 2-Methyl-2-propanol	59	5.505	5.526	-0.021	93	357104	2.00	2.18	
30 1,1,2-Trichloro-1,2,2-trif	101	5.569	5.572	-0.003	96	458554	2.00	2.00	
31 Methylene Chloride	84	5.710	5.708	0.002	95	176649	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.725	0.001	99	184286	2.00	2.01	
33 Carbon disulfide	76	5.850	5.849	0.001	99	730062	2.00	2.09	
34 trans-1,2-Dichloroethene	96	6.448	6.448	0.000	98	258077	2.00	2.06	
35 2-Methylpentane	43	6.481	6.481	0.000	95	554181	2.00	2.05	
36 Methyl tert-butyl ether	73	6.567	6.575	-0.008	96	558292	2.00	1.87	
37 1,1-Dichloroethane	63	6.831	6.832	-0.001	100	464990	2.00	1.97	
38 Vinyl acetate	43	6.939	6.942	-0.003	100	523514	2.00	1.79	
39 2-Butanone (MEK)	72	7.338	7.349	-0.011	99	95501	2.00	1.85	
40 Hexane	56	7.397	7.397	0.000	86	203795	2.00	1.96	
41 Isopropyl ether	45	7.538	7.547	-0.009	97	708886	2.00	1.90	
42 cis-1,2-Dichloroethene	96	7.759	7.759	0.000	94	258646	2.00	2.03	
43 Ethyl acetate	43	7.937	7.946	-0.009	99	432491	2.00	1.87	
44 Chloroform	83	8.082	8.085	-0.003	98	543452	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.179	8.191	-0.012	94	621453	2.00	1.92	
46 Tetrahydrofuran	42	8.444	8.460	-0.016	95	220876	2.00	1.85	
47 1,1,1-Trichloroethane	97	9.069	9.068	0.001	95	594430	2.00	1.99	
48 1,2-Dichloroethane	62	9.161	9.160	0.001	98	312783	2.00	2.06	
49 Benzene	78	9.651	9.654	-0.003	97	639987	2.00	2.18	
50 Cyclohexane	69	9.657	9.659	-0.002	96	130219	2.00	2.41	
52 Carbon tetrachloride	117	9.684	9.684	0.000	98	650072	2.00	2.48	
51 n-Butanol	31	9.651	9.685	-0.034	64	92138	2.00	2.58	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	177632	2.00	2.34	
54 Thiophene	84	9.926	9.930	-0.004	96	399453	2.00	2.27	
55 Tert-amyl methyl ether	73	10.164	10.181	-0.017	98	590187	2.00	2.25	
56 Isooctane	57	10.476	10.479	-0.003	99	1284826	2.00	2.41	
57 n-Heptane	71	10.881	10.881	0.000	92	282575	2.00	2.40	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	89	231049	2.00	2.08	
59 Trichloroethene	130	10.962	10.966	-0.004	96	409949	2.00	2.40	
60 Dibromomethane	93	11.032	11.033	-0.001	94	316778	2.00	2.34	
61 Dichlorobromomethane	83	11.194	11.194	0.000	99	564938	2.00	2.40	
62 1,4-Dioxane	88	11.210	11.222	-0.012	89	99307	2.00	2.52	
63 Methyl methacrylate	41	11.323	11.327	-0.004	92	260860	2.00	2.17	
64 Methylcyclohexane	83	11.765	11.766	-0.001	94	577507	2.00	2.38	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.198	-0.012	97	482907	2.00	2.42	
66 cis-1,3-Dichloropropene	75	12.240	12.240	0.000	94	372121	2.00	2.12	
67 trans-1,3-Dichloropropene	75	12.957	12.958	-0.001	98	337087	2.00	2.10	
68 Toluene	91	13.081	13.083	-0.002	94	690854	2.00	2.08	
69 1,1,2-Trichloroethane	83	13.151	13.154	-0.003	99	210396	2.00	2.15	
70 2-Methylthiophene	97	13.232	13.233	-0.001	97	583362	2.00	2.08	
71 3-Methylthiophene	97	13.437	13.439	-0.002	99	564583	2.00	2.07	
72 2-Hexanone	58	13.566	13.578	-0.012	93	241991	2.00	2.48	
73 n-Octane	85	13.831	13.833	-0.002	93	309364	2.00	2.37	
74 Chlorodibromomethane	129	13.863	13.862	0.001	98	504583	2.00	2.24	
75 Ethylene Dibromide	107	14.149	14.152	-0.003	98	418094	2.00	2.17	
76 Tetrachloroethene	129	14.251	14.251	0.000	96	330273	2.00	2.26	
77 Chlorobenzene	112	15.135	15.138	-0.003	94	595827	2.00	2.16	
78 2,3-Dimethylheptane	43	15.200	15.203	-0.003	97	781836	2.00	2.37	
79 Ethylbenzene	91	15.443	15.445	-0.002	98	956791	2.00	2.20	
80 2-Ethylthiophene	97	15.545	15.544	0.001	98	711981	2.00	2.18	
81 m-Xylene & p-Xylene	91	15.610	15.612	-0.002	99	1499037	3.99	4.46	
83 Bromoform	173	16.031	16.034	-0.003	98	482422	2.00	2.32	
82 n-Nonane	57	16.074	16.076	-0.002	92	528980	2.00	2.43	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.079	0.000	97	555108	2.00	2.33	
85 o-Xylene	91	16.138	16.140	-0.002	99	780466	2.00	2.20	
86 1,1,2,2-Tetrachloroethane	83	16.462	16.462	0.000	99	553887	2.00	2.37	
87 1,2,3-Trichloropropane	110	16.618	16.619	-0.001	98	171965	2.00	2.23	
88 Isopropylbenzene	105	16.737	16.740	-0.003	97	1094815	2.00	2.20	
89 N-Propylbenzene	120	17.292	17.295	-0.003	99	310526	2.00	2.29	
90 2-Chlorotoluene	126	17.325	17.327	-0.002	97	282300	2.00	2.25	
91 4-Ethyltoluene	105	17.454	17.457	-0.003	99	1099531	2.00	2.29	
92 1,3,5-Trimethylbenzene	120	17.535	17.539	-0.004	93	529246	2.00	2.29	
93 Alpha Methyl Styrene	118	17.778	17.781	-0.003	90	458316	2.00	2.40	
94 n-Decane	57	17.880	17.878	0.002	90	643304	2.00	2.50	
95 tert-Butylbenzene	119	17.983	17.985	-0.002	92	1018631	2.00	2.27	
96 1,2,4-Trimethylbenzene	105	17.999	18.000	-0.001	96	937912	2.00	2.33	
98 1,3-Dichlorobenzene	146	18.268	18.270	-0.002	66	655726	2.00	2.25	
97 sec-Butylbenzene	105	18.268	18.270	-0.002	98	1352819	2.00	2.32	
99 Benzyl chloride	91	18.349	18.349	0.000	98	803407	2.00	2.50	
100 1,4-Dichlorobenzene	146	18.360	18.363	-0.003	96	650905	2.00	2.29	
101 4-Isopropyltoluene	119	18.441	18.444	-0.003	97	1157019	2.00	2.33	
102 1,2,3-Trimethylbenzene	105	18.490	18.488	0.002	97	707435	2.00	2.28	
103 Butylcyclohexane	83	18.560	18.561	-0.001	94	730710	2.00	2.35	
104 1,2-Dichlorobenzene	146	18.732	18.735	-0.003	95	640659	2.00	2.30	
105 2,3-Dihydroindene	117	18.738	18.736	0.002	94	874588	2.00	2.33	
106 Indene	116	18.867	18.869	-0.002	95	657876	2.00	2.08	
107 n-Butylbenzene	91	18.894	18.896	-0.002	98	1056764	2.00	2.45	
108 Undecane	57	19.244	19.247	-0.003	96	699188	2.00	2.58	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.279	-0.002	97	849288	2.00	2.36	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	97	284562	2.00	2.44	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.673	-0.003	97	1048174	2.00	2.48	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	627559	2.00	2.43	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	864752	2.00	2.47	
114 Dodecane	57	20.312	20.313	-0.001	96	613207	2.00	2.55	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	485907	2.00	2.51	
116 Naphthalene	128	20.587	20.588	-0.001	99	1070871	2.00	2.61	
117 Benzo(b)thiophene	134	20.684	20.688	-0.004	99	555961	2.00	2.47	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	94	676266	2.00	2.28	
119 1,2,3-Trichlorobenzene	180	20.862	20.865	-0.003	95	480029	2.00	2.55	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	519281	6.24	8.69	
121 1-Methylnaphthalene	142	21.838	21.841	-0.003	100	532152	6.24	8.74	
A 124 Toluene Range	1	13.076	(13.041-13.111)	0	0	1697187	2.00	2.05	
A 125 C8 Range	1	13.836	(13.821-13.851)	0	0	3200146	2.00	2.49	M
S 126 Xylenes, Total	100				0		5.99	6.67	
S 127 1,2-Dichloroethene, Total	1				0		3.99	4.09	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40L6DNP_00009

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Operator ID: 403648

Lims ID: ICIS L6

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

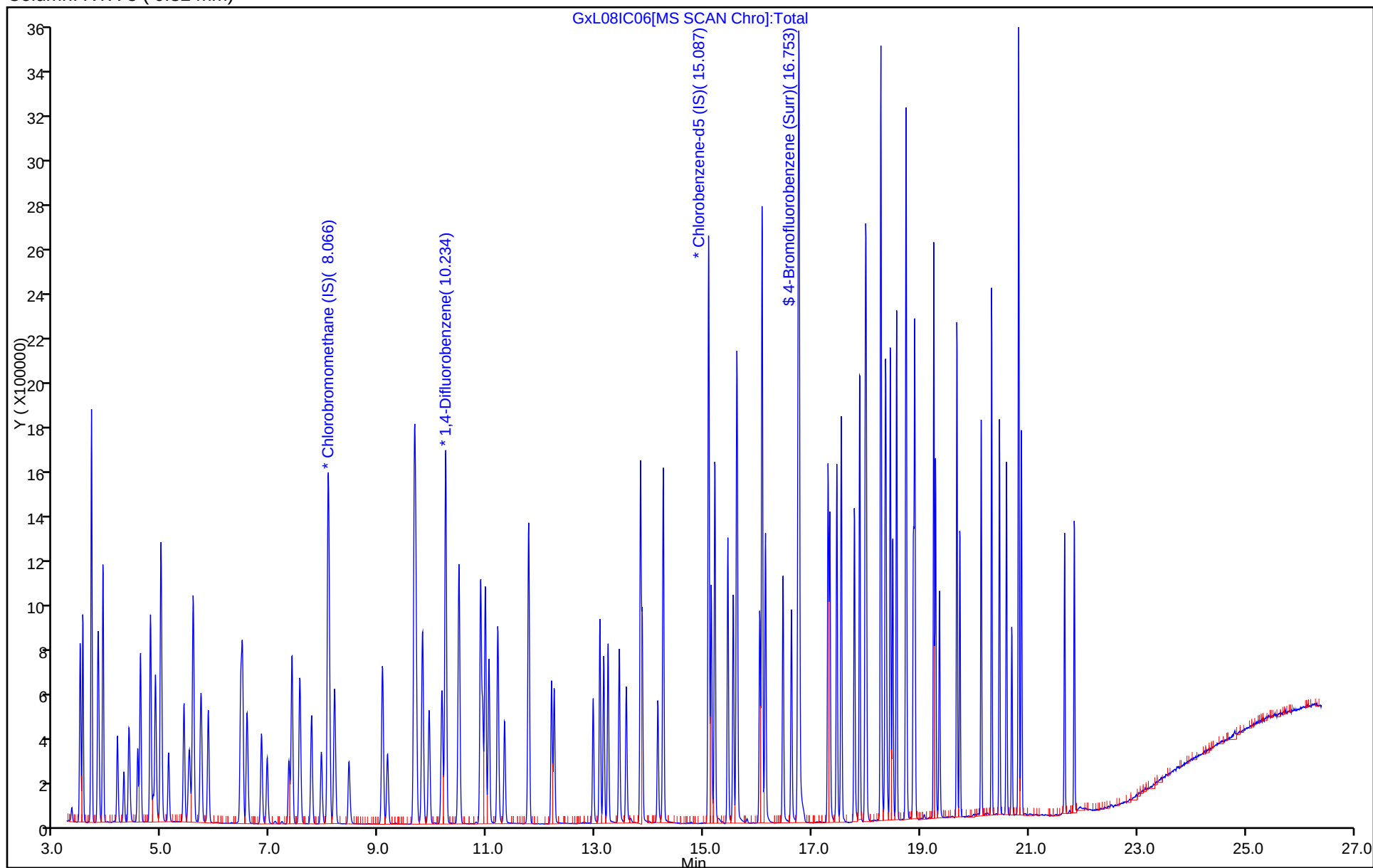
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

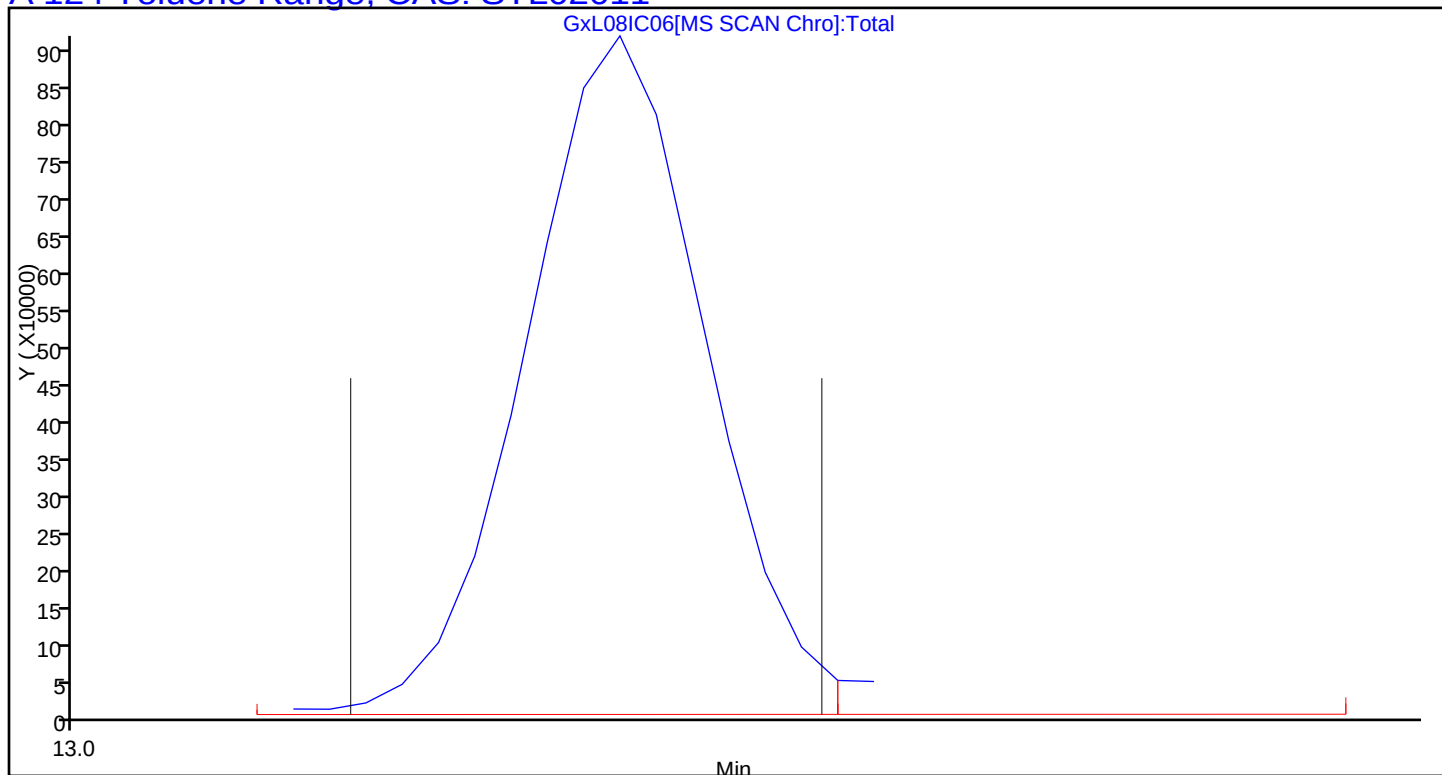
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D

Injection Date: 08-Dec-2016 23:31:30

Instrument ID: MG

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

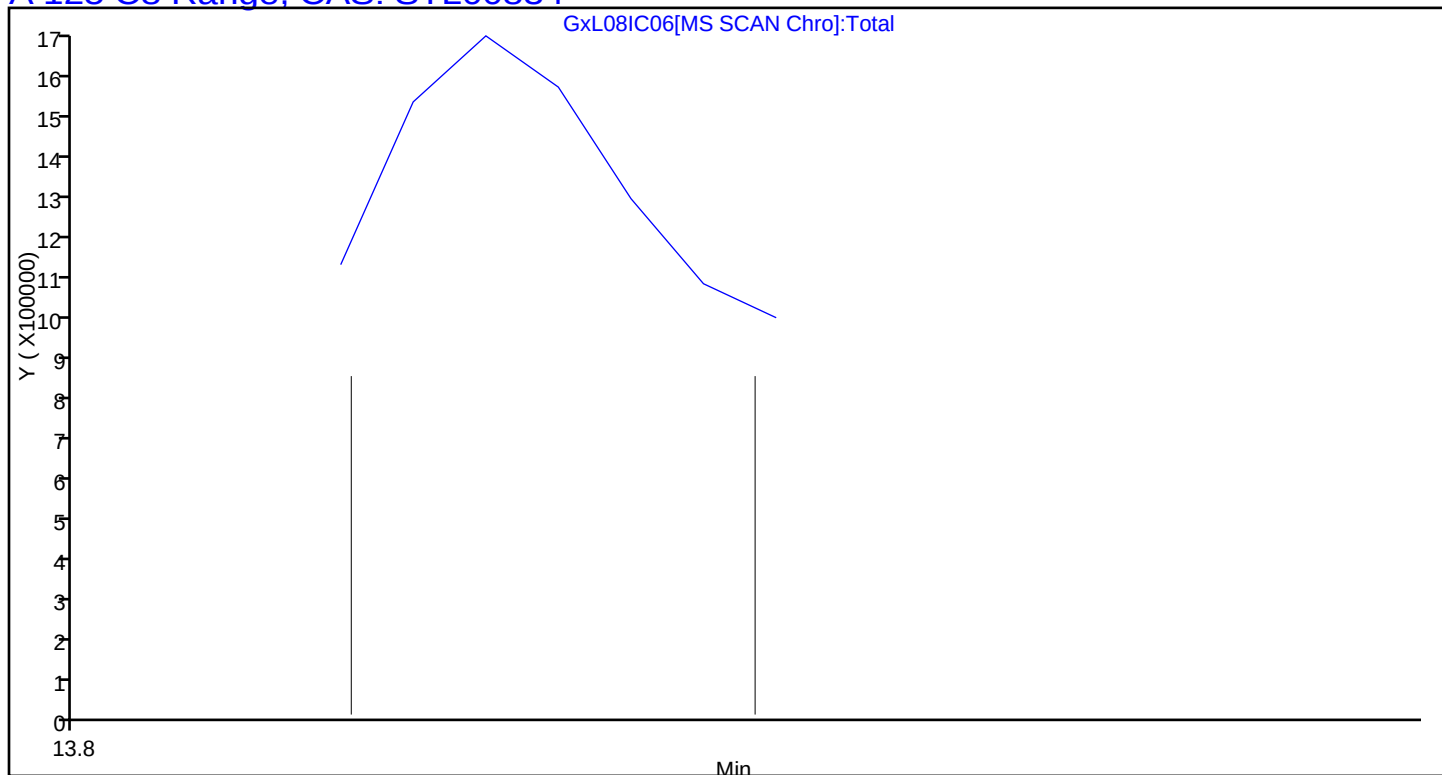
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville

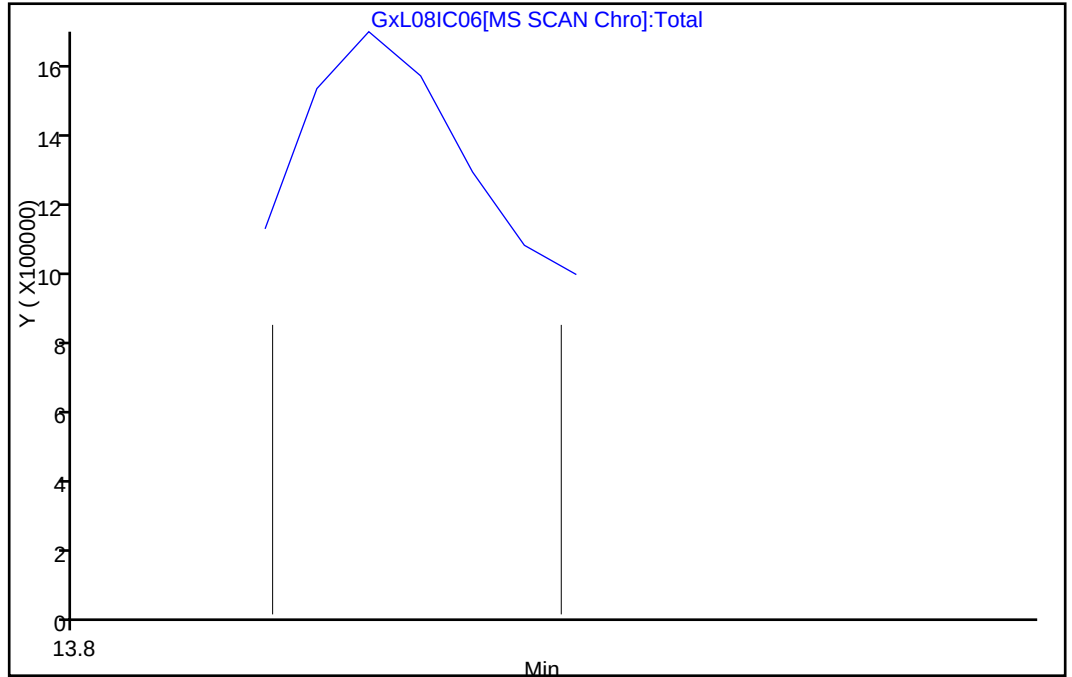
Data File:	\\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC06.D		
Injection Date:	08-Dec-2016 23:31:30	Instrument ID:	MG
Lims ID:	ICIS L6		
Client ID:			
Operator ID:	403648	ALS Bottle#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	8

A 125 C8 Range, RT: 13.836, CAS: STL00834

Signal: 1

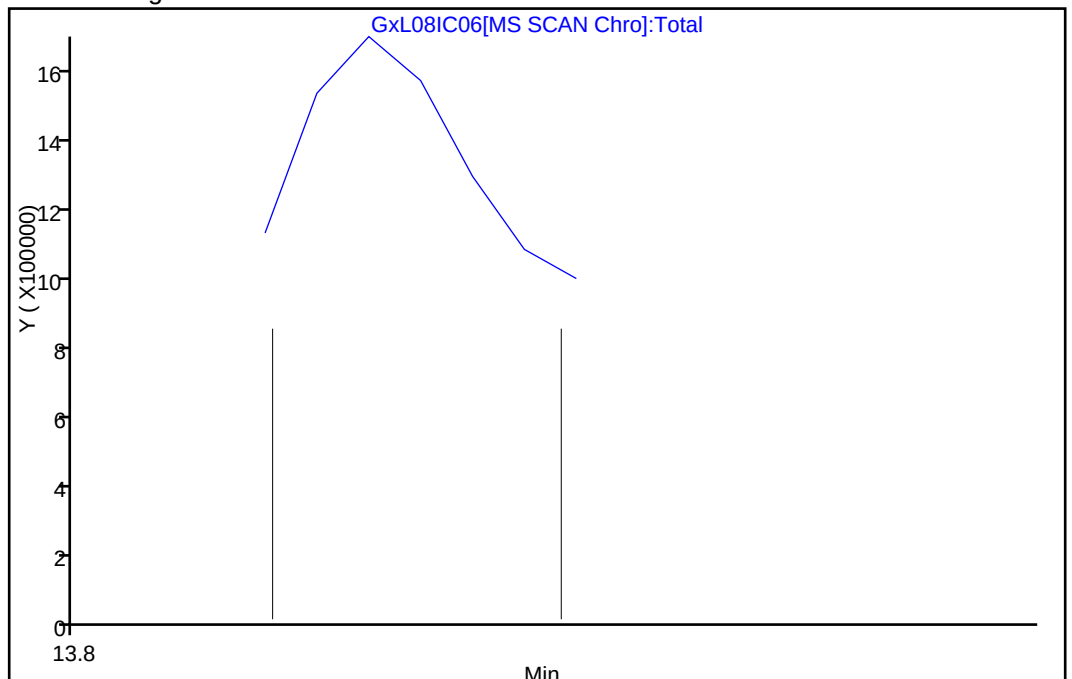
RT: 13.84
Response: 4418941
Amount: 3.185882

Processing Integration Results



RT: 13.84
Response: 3200146
Amount: 2.489733

Manual Integration Results



Reviewer: tajh, 09-Dec-2016 14:39:16
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 275 of 348

12/28/2016

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D
 Lims ID: IC L7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 09-Dec-2016 00:14:30 ALS Bottle#: 6 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-009
 Misc. Info.: 067936
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:18 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:38:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.071	8.063	0.008	94	443228	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.239	10.234	0.005	95	1855389	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.092	15.090	0.002	86	1903864	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.758	0.001	96	1268973	4.00	4.03	
6 Chlorodifluoromethane	67	3.488	3.481	0.007	96	147523	4.00	4.06	
7 Propene	41	3.493	3.489	0.004	99	460046	4.00	3.80	
8 Dichlorodifluoromethane	85	3.536	3.533	0.003	100	1563438	4.00	4.12	
9 Chloromethane	52	3.687	3.685	0.002	99	163356	4.00	4.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.704	3.696	0.008	92	1030111	4.00	4.10	
11 Acetaldehyde	44	3.822	3.816	0.006	100	903339	20.0	20.1	
12 Vinyl chloride	62	3.838	3.830	0.008	99	577610	4.00	4.32	
13 Butadiene	54	3.909	3.906	0.003	68	453774	4.00	4.20	
14 Butane	43	3.914	3.907	0.007	86	898506	4.00	4.26	
15 Bromomethane	94	4.178	4.174	0.004	98	518278	4.00	4.06	
16 Chloroethane	64	4.297	4.292	0.005	99	291201	4.00	4.10	
17 Ethanol	31	4.405	4.393	0.012	95	885156	20.0	20.0	
18 Vinyl bromide	106	4.556	4.550	0.006	99	489664	4.00	4.06	
19 2-Methylbutane	43	4.604	4.598	0.006	91	614930	4.00	3.99	
21 Acrolein	56	4.788	4.783	0.005	94	126307	4.00	3.66	
20 Trichlorofluoromethane	101	4.793	4.785	0.008	99	1501894	4.00	4.09	
22 Acetonitrile	40	4.847	4.838	0.009	99	176495	4.00	4.32	
23 Acetone	58	4.885	4.882	0.003	98	573107	12.0	12.3	
24 Pentane	72	4.987	4.978	0.009	98	89358	4.00	3.96	
25 Isopropyl alcohol	45	4.998	4.987	0.011	96	1988338	12.0	12.6	
26 Ethyl ether	31	5.122	5.124	-0.002	96	394490	4.00	4.24	
27 1,1-Dichloroethene	96	5.408	5.400	0.008	97	441297	4.00	4.07	
28 Acrylonitrile	53	5.494	5.487	0.007	95	244751	4.00	4.18	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	91	725277	4.00	4.37	
30 1,1,2-Trichloro-1,2,2-trif	101	5.580	5.572	0.008	96	947278	4.00	4.08	
31 Methylene Chloride	84	5.715	5.708	0.007	95	348409	4.00	3.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.731	5.725	0.006	99	374322	4.00	4.01	
33 Carbon disulfide	76	5.855	5.849	0.006	99	1482267	4.00	4.19	
34 trans-1,2-Dichloroethene	96	6.459	6.448	0.011	98	536489	4.00	4.21	
35 2-Methylpentane	43	6.486	6.481	0.005	95	1200210	4.00	4.37	
36 Methyl tert-butyl ether	73	6.572	6.575	-0.003	96	1312740	4.00	4.34	
37 1,1-Dichloroethane	63	6.842	6.832	0.010	100	1001975	4.00	4.19	
38 Vinyl acetate	43	6.944	6.942	0.002	100	1290955	4.00	4.34	
39 2-Butanone (MEK)	72	7.349	7.349	0.000	100	222106	4.00	4.23	
40 Hexane	56	7.403	7.397	0.006	85	436872	4.00	4.15	
41 Isopropyl ether	45	7.548	7.547	0.001	98	1706140	4.00	4.51	
42 cis-1,2-Dichloroethene	96	7.764	7.759	0.005	95	550542	4.00	4.26	
43 Ethyl acetate	43	7.947	7.946	0.001	99	1045560	4.00	4.46	
44 Chloroform	83	8.098	8.085	0.013	97	1156020	4.00	4.16	
45 Tert-butyl ethyl ether	59	8.190	8.191	-0.001	95	1488774	4.00	4.53	
46 Tetrahydrofuran	42	8.454	8.460	-0.006	94	522810	4.00	4.32	
47 1,1,1-Trichloroethane	97	9.074	9.068	0.006	95	1279894	4.00	4.22	
48 1,2-Dichloroethane	62	9.166	9.160	0.006	98	768059	4.00	4.44	
49 Benzene	78	9.662	9.654	0.008	98	1453265	4.00	4.35	
50 Cyclohexane	69	9.662	9.659	0.003	92	256435	4.00	4.17	
52 Carbon tetrachloride	117	9.689	9.684	0.005	99	1353700	4.00	4.54	
51 n-Butanol	31	9.673	9.685	-0.012	66	182779	4.00	4.50	
53 2,3-Dimethylpentane	71	9.813	9.808	0.005	91	379931	4.00	4.41	
54 Thiophene	84	9.937	9.930	0.007	97	886036	4.00	4.44	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	1420675	4.00	4.76	
56 Isooctane	57	10.482	10.479	0.003	98	2652622	4.00	4.38	
57 n-Heptane	71	10.886	10.881	0.005	91	585125	4.00	4.37	
58 1,2-Dichloropropane	63	10.924	10.916	0.008	88	573027	4.00	4.53	
59 Trichloroethene	130	10.973	10.966	0.007	97	800842	4.00	4.12	
60 Dibromomethane	93	11.037	11.033	0.004	94	666745	4.00	4.33	
61 Dichlorobromomethane	83	11.199	11.194	0.005	99	1218893	4.00	4.56	
62 1,4-Dioxane	88	11.215	11.222	-0.007	89	211493	4.00	4.72	
63 Methyl methacrylate	41	11.328	11.327	0.001	92	681937	4.00	4.99	
64 Methylcyclohexane	83	11.771	11.766	0.005	95	1182033	4.00	4.28	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	97	1106976	4.00	4.87	
66 cis-1,3-Dichloropropene	75	12.245	12.240	0.005	94	922671	4.00	4.62	
67 trans-1,3-Dichloropropene	75	12.962	12.958	0.004	98	854993	4.00	4.65	
68 Toluene	91	13.086	13.083	0.003	94	1705333	4.00	4.48	
69 1,1,2-Trichloroethane	83	13.156	13.154	0.002	99	510325	4.00	4.55	
70 2-Methylthiophene	97	13.237	13.233	0.004	97	1436338	4.00	4.47	
71 3-Methylthiophene	97	13.442	13.439	0.003	99	1404632	4.00	4.49	
72 2-Hexanone	58	13.577	13.578	-0.001	93	515917	4.00	4.62	
73 n-Octane	85	13.836	13.833	0.003	93	636410	4.00	4.25	
74 Chlorodibromomethane	129	13.868	13.862	0.006	98	1214365	4.00	4.70	
75 Ethylene Dibromide	107	14.154	14.152	0.002	100	1008301	4.00	4.57	
76 Tetrachloroethene	129	14.257	14.251	0.006	96	693825	4.00	4.15	
77 Chlorobenzene	112	15.141	15.138	0.003	93	1406777	4.00	4.45	
78 2,3-Dimethylheptane	43	15.206	15.203	0.003	95	1669310	4.00	4.42	
79 Ethylbenzene	91	15.448	15.445	0.003	98	2269899	4.00	4.55	
80 2-Ethylthiophene	97	15.545	15.544	0.001	98	1729533	4.00	4.63	
81 m-Xylene & p-Xylene	91	15.615	15.612	0.003	98	3431351	8.00	8.92	
83 Bromoform	173	16.036	16.034	0.002	98	1239966	4.00	5.21	
82 n-Nonane	57	16.079	16.076	0.003	90	1068900	4.00	4.28	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.079	0.000	97	1281806	4.00	4.69	
85 o-Xylene	91	16.144	16.140	0.004	99	1829078	4.00	4.51	
86 1,1,2,2-Tetrachloroethane	83	16.467	16.462	0.005	99	1285895	4.00	4.80	
87 1,2,3-Trichloropropane	110	16.624	16.619	0.005	98	404993	4.00	4.59	
88 Isopropylbenzene	105	16.742	16.740	0.002	96	2484064	4.00	4.35	
89 N-Propylbenzene	120	17.298	17.295	0.003	99	705553	4.00	4.54	
90 2-Chlorotoluene	126	17.330	17.327	0.003	97	639799	4.00	4.46	
91 4-Ethyltoluene	105	17.460	17.457	0.003	99	2524681	4.00	4.59	
92 1,3,5-Trimethylbenzene	120	17.540	17.539	0.001	93	1180801	4.00	4.46	
93 Alpha Methyl Styrene	118	17.783	17.781	0.002	90	1077457	4.00	4.94	
94 n-Decane	57	17.880	17.878	0.002	91	1307633	4.00	4.44	
95 tert-Butylbenzene	119	17.988	17.985	0.003	94	2262282	4.00	4.41	
96 1,2,4-Trimethylbenzene	105	18.004	18.000	0.004	95	2060865	4.00	4.47	
98 1,3-Dichlorobenzene	146	18.274	18.270	0.004	95	1464206	4.00	4.39	
97 sec-Butylbenzene	105	18.274	18.270	0.004	98	2946631	4.00	4.42	
99 Benzyl chloride	91	18.349	18.349	0.000	98	1821777	4.00	4.95	
100 1,4-Dichlorobenzene	146	18.366	18.363	0.003	95	1431445	4.00	4.40	
101 4-Isopropyltoluene	119	18.446	18.444	0.002	97	2578526	4.00	4.54	
102 1,2,3-Trimethylbenzene	105	18.490	18.488	0.002	97	1613155	4.00	4.55	
103 Butylcyclohexane	83	18.565	18.561	0.004	94	1507917	4.00	4.23	
104 1,2-Dichlorobenzene	146	18.738	18.735	0.003	96	1396045	4.00	4.38	
105 2,3-Dihydroindene	117	18.738	18.736	0.002	94	1909882	4.00	4.45	
106 Indene	116	18.872	18.869	0.003	93	1492896	4.00	4.05	
107 n-Butylbenzene	91	18.899	18.896	0.003	98	2281578	4.00	4.62	
108 Undecane	57	19.250	19.247	0.003	96	1408070	4.00	4.53	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.282	19.279	0.003	97	1881502	4.00	4.57	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	98	645406	4.00	4.83	
111 1,2,4,5-Tetramethylbenzene	119	19.676	19.673	0.003	97	2254750	4.00	4.65	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	1366732	4.00	4.62	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	1862467	4.00	4.65	
114 Dodecane	57	20.312	20.313	-0.001	97	1294655	4.00	4.71	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	1100159	4.00	4.97	
116 Naphthalene	128	20.587	20.588	-0.001	99	2364720	4.00	5.04	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	1260466	4.00	4.90	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	93	1466454	4.00	4.31	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	95	1039517	4.00	4.82	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	100	1064971	12.5	15.6	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	100	1054061	12.5	15.1	
A 124 Toluene Range	1	13.081	(13.046-13.116)	0	0	4208350	4.00	4.47	
A 125 C8 Range	1	13.841	(13.826-13.856)	0	0	6547717	4.00	4.48	
S 126 Xylenes, Total	100				0		12.0	13.4	
S 127 1,2-Dichloroethene, Total	1				0		8.00	8.47	

Reagents:

40L7DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L7

Worklist Smp#: 9

Client ID:

Purge Vol: 500.000 mL

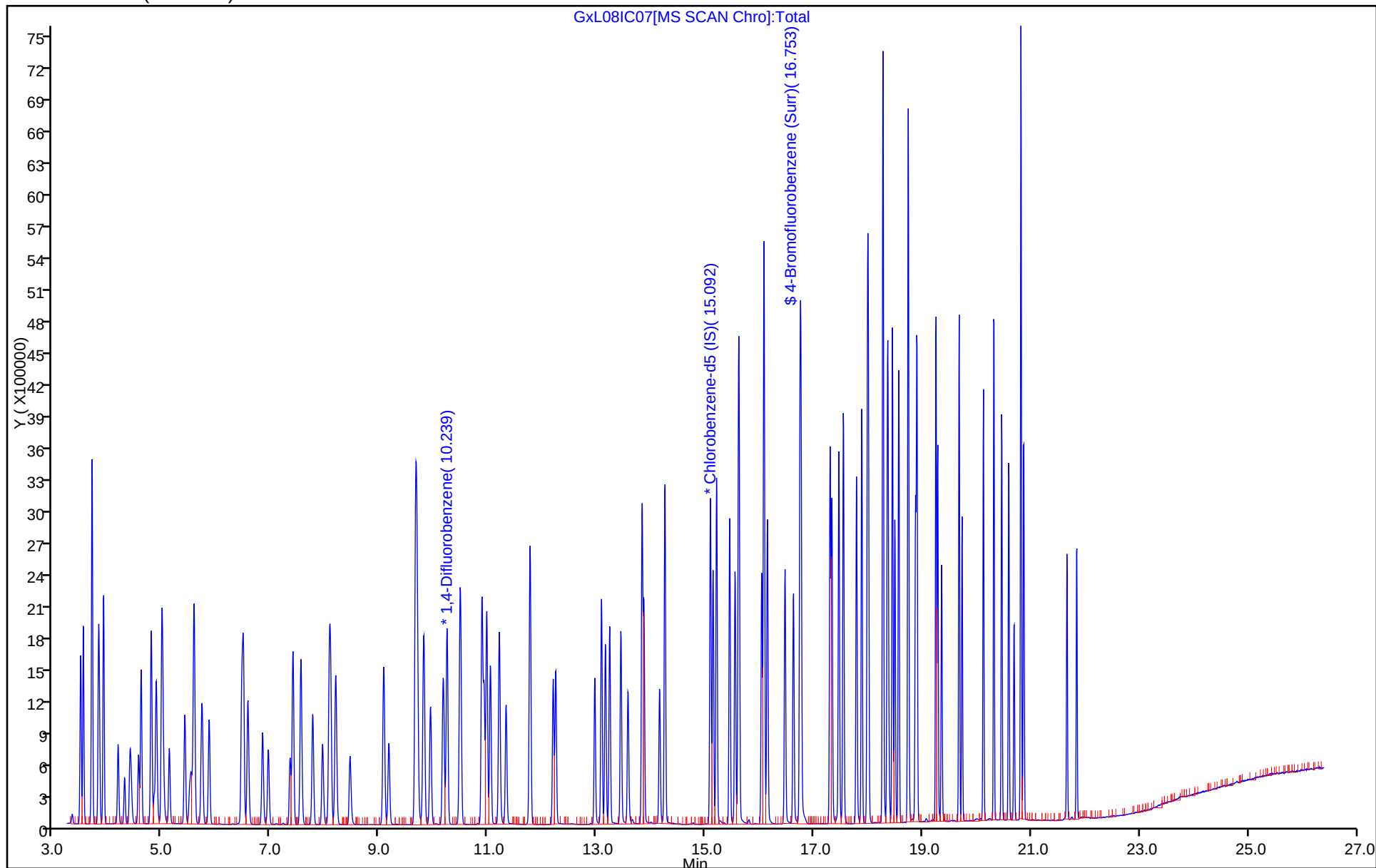
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

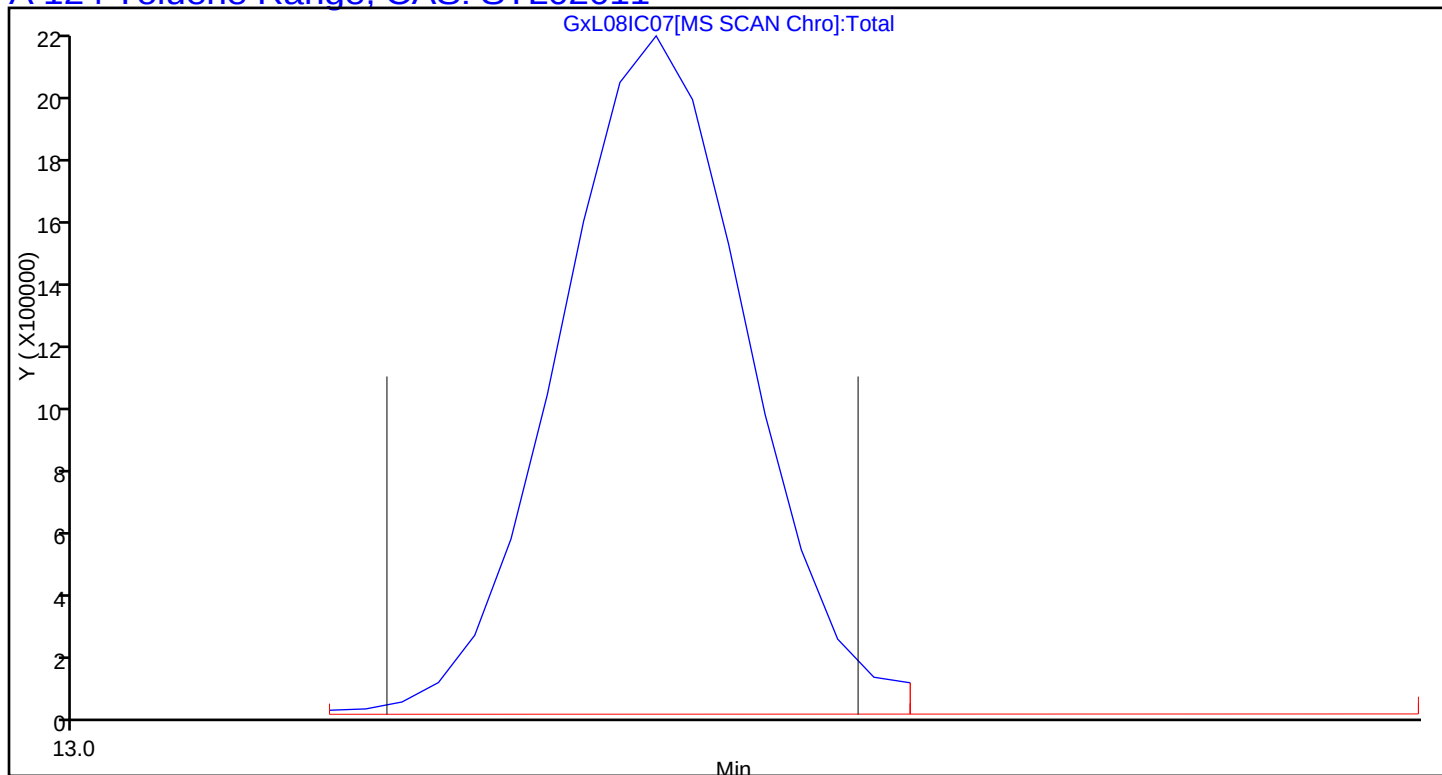
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC07.D

Injection Date: 09-Dec-2016 00:14:30

Instrument ID: MG

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

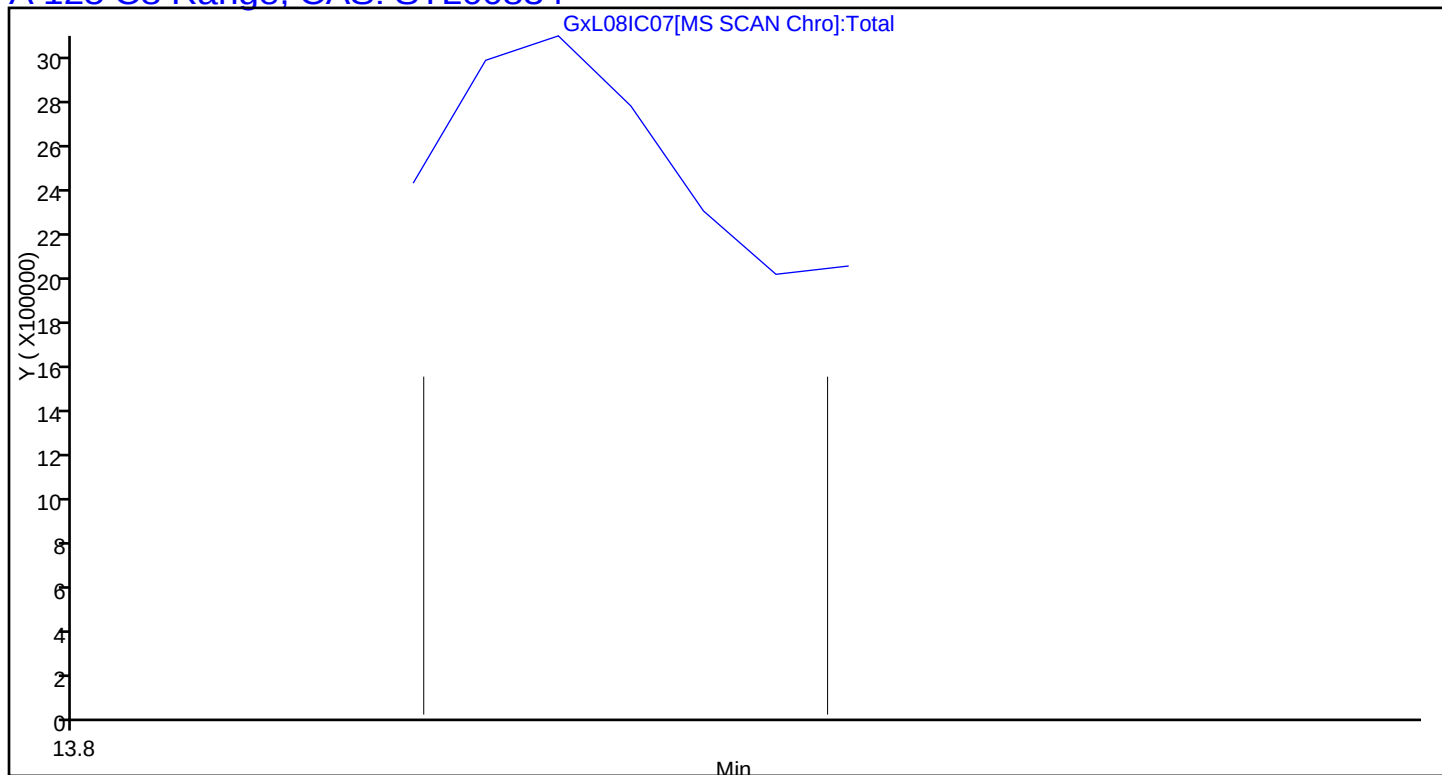
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D
 Lims ID: IC L8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 09-Dec-2016 00:56:30 ALS Bottle#: 7 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-010
 Misc. Info.: 067935
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:22 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:40:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.072	8.063	0.009	94	446541	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.239	10.234	0.005	95	2019784	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.092	15.090	0.002	86	2030113	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.764	16.758	0.006	96	1365365	4.00	4.07	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	292311	8.00	7.98	
7 Propene	41	3.488	3.489	-0.001	99	939449	8.00	7.69	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	3034352	8.00	7.94	
9 Chloromethane	52	3.682	3.685	-0.003	99	287150	8.00	7.00	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.696	-0.003	91	1962149	8.00	7.75	
11 Acetaldehyde	44	3.812	3.816	-0.004	99	1572354	40.0	34.7	
12 Vinyl chloride	62	3.828	3.830	-0.002	99	1037365	8.00	7.70	
13 Butadiene	54	3.903	3.906	-0.003	68	802516	8.00	7.38	
14 Butane	43	3.903	3.907	-0.004	85	1552213	8.00	7.31	
15 Bromomethane	94	4.173	4.174	-0.001	99	993397	8.00	7.72	
16 Chloroethane	64	4.291	4.292	-0.001	100	552656	8.00	7.72	
17 Ethanol	31	4.399	4.393	0.006	96	1562780	40.0	35.0	
18 Vinyl bromide	106	4.550	4.550	0.000	99	955316	8.00	7.87	
19 2-Methylbutane	43	4.599	4.598	0.001	90	1125727	8.00	7.26	
21 Acrolein	56	4.782	4.783	-0.001	95	214693	8.00	6.17	
20 Trichlorofluoromethane	101	4.782	4.785	-0.003	99	2914069	8.00	7.87	
22 Acetonitrile	40	4.836	4.838	-0.002	99	309105	8.00	7.50	
23 Acetone	58	4.874	4.882	-0.008	98	976001	24.0	20.7	
24 Pentane	72	4.976	4.978	-0.002	96	167888	8.00	7.39	
25 Isopropyl alcohol	45	4.998	4.987	0.011	94	3326202	24.0	20.9	
26 Ethyl ether	31	5.116	5.124	-0.008	95	693477	8.00	7.39	
27 1,1-Dichloroethene	96	5.402	5.400	0.002	97	849769	8.00	7.78	
28 Acrylonitrile	53	5.489	5.487	0.002	94	439702	8.00	7.45	
29 2-Methyl-2-propanol	59	5.526	5.526	0.000	91	1314289	8.00	7.85	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.572	0.003	95	1814621	8.00	7.75	
31 Methylene Chloride	84	5.710	5.708	0.002	94	655205	8.00	6.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.725	0.001	99	676808	8.00	7.20	
33 Carbon disulfide	76	5.850	5.849	0.001	99	2787285	8.00	7.81	
34 trans-1,2-Dichloroethene	96	6.454	6.448	0.006	97	1006280	8.00	7.84	
35 2-Methylpentane	43	6.481	6.481	0.000	95	2203279	8.00	7.97	
36 Methyl tert-butyl ether	73	6.562	6.575	-0.013	96	2475436	8.00	8.12	
37 1,1-Dichloroethane	63	6.837	6.832	0.005	100	1957037	8.00	8.12	
38 Vinyl acetate	43	6.945	6.942	0.002	100	2546899	8.00	8.50	
39 2-Butanone (MEK)	72	7.344	7.349	-0.005	99	413943	8.00	7.83	
40 Hexane	56	7.397	7.397	0.000	89	821099	8.00	7.74	
41 Isopropyl ether	45	7.543	7.547	-0.004	97	3119866	8.00	8.19	
42 cis-1,2-Dichloroethene	96	7.764	7.759	0.005	96	1041594	8.00	8.00	
43 Ethyl acetate	43	7.942	7.946	-0.004	99	1961789	8.00	8.31	
44 Chloroform	83	8.093	8.085	0.008	97	2180906	8.00	7.79	
45 Tert-butyl ethyl ether	59	8.185	8.191	-0.006	95	2723491	8.00	8.22	
46 Tetrahydrofuran	42	8.449	8.460	-0.011	94	1002984	8.00	8.23	
47 1,1,1-Trichloroethane	97	9.069	9.068	0.001	95	2429887	8.00	7.95	
48 1,2-Dichloroethane	62	9.166	9.160	0.006	99	1498236	8.00	7.96	
49 Benzene	78	9.657	9.654	0.003	97	2604625	8.00	7.17	
50 Cyclohexane	69	9.662	9.659	0.003	93	449383	8.00	6.71	
52 Carbon tetrachloride	117	9.689	9.684	0.005	99	1719063	8.00	5.30	
51 n-Butanol	31	9.662	9.685	-0.023	63	297985	8.00	6.75	
53 2,3-Dimethylpentane	71	9.808	9.808	0.000	91	701048	8.00	7.47	
54 Thiophene	84	9.937	9.930	0.007	97	1674022	8.00	7.70	
55 Tert-amyl methyl ether	73	10.169	10.181	-0.012	98	2525168	8.00	7.77	
56 Isooctane	57	10.482	10.479	0.003	99	4780993	8.00	7.26	
57 n-Heptane	71	10.886	10.881	0.005	90	1048692	8.00	7.19	
58 1,2-Dichloropropane	63	10.924	10.916	0.008	89	1037078	8.00	7.53	
59 Trichloroethene	130	10.973	10.966	0.007	98	1527011	8.00	7.22	
60 Dibromomethane	93	11.037	11.033	0.004	91	1228541	8.00	7.34	
61 Dichlorobromomethane	83	11.199	11.194	0.005	99	2272827	8.00	7.81	
62 1,4-Dioxane	88	11.215	11.222	-0.007	88	365186	8.00	7.49	
63 Methyl methacrylate	41	11.329	11.327	0.001	92	1196974	8.00	8.05	
64 Methylcyclohexane	83	11.771	11.766	0.005	95	2131544	8.00	7.09	
65 4-Methyl-2-pentanone (MIBK)	43	12.197	12.198	-0.001	97	1920348	8.00	7.77	
66 cis-1,3-Dichloropropene	75	12.245	12.240	0.005	94	1738337	8.00	7.99	
67 trans-1,3-Dichloropropene	75	12.962	12.958	0.004	97	1632235	8.00	8.33	
68 Toluene	91	13.086	13.083	0.003	94	3151028	8.00	7.76	
69 1,1,2-Trichloroethane	83	13.157	13.154	0.003	99	931501	8.00	7.78	
70 2-Methylthiophene	97	13.237	13.233	0.004	97	2684721	8.00	7.84	
71 3-Methylthiophene	97	13.442	13.439	0.003	99	2624633	8.00	7.87	
72 2-Hexanone	58	13.572	13.578	-0.006	93	949384	8.00	7.97	
73 n-Octane	85	13.836	13.833	0.003	90	1150679	8.00	7.21	
74 Chlorodibromomethane	129	13.868	13.862	0.006	97	2327802	8.00	8.45	
75 Ethylene Dibromide	107	14.160	14.152	0.008	98	1924671	8.00	8.17	
76 Tetrachloroethene	129	14.257	14.251	0.006	96	1357814	8.00	7.62	
77 Chlorobenzene	112	15.141	15.138	0.003	94	2641230	8.00	7.84	
78 2,3-Dimethylheptane	43	15.206	15.203	0.003	92	2777262	8.00	6.90	
79 Ethylbenzene	91	15.448	15.445	0.003	98	4150248	8.00	7.80	
80 2-Ethylthiophene	97	15.545	15.544	0.001	97	3203327	8.00	8.05	
81 m-Xylene & p-Xylene	91	15.615	15.612	0.003	98	6184279	16.0	15.1	
83 Bromoform	173	16.036	16.034	0.002	99	2629265	8.00	10.4	
82 n-Nonane	57	16.079	16.076	0.003	89	1763559	8.00	6.63	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.085	16.079	0.006	97	2378609	8.00	8.16	
85 o-Xylene	91	16.144	16.140	0.004	98	3322495	8.00	7.68	
86 1,1,2,2-Tetrachloroethane	83	16.467	16.462	0.005	99	2286622	8.00	8.01	
87 1,2,3-Trichloropropane	110	16.624	16.619	0.005	97	745283	8.00	7.92	
88 Isopropylbenzene	105	16.742	16.740	0.002	96	4568570	8.00	7.51	
89 N-Propylbenzene	120	17.298	17.295	0.003	99	1292302	8.00	7.80	
90 2-Chlorotoluene	126	17.330	17.327	0.003	97	1192871	8.00	7.80	
91 4-Ethyltoluene	105	17.460	17.457	0.003	99	4602017	8.00	7.84	
92 1,3,5-Trimethylbenzene	120	17.546	17.539	0.007	93	2166860	8.00	7.68	
93 Alpha Methyl Styrene	118	17.783	17.781	0.002	90	2029631	8.00	8.72	
94 n-Decane	57	17.880	17.878	0.002	92	2230034	8.00	7.10	
95 tert-Butylbenzene	119	17.988	17.985	0.003	94	4192051	8.00	7.67	
96 1,2,4-Trimethylbenzene	105	18.004	18.000	0.004	95	3807592	8.00	7.74	
98 1,3-Dichlorobenzene	146	18.274	18.270	0.004	70	2988285	8.00	8.41	
97 sec-Butylbenzene	105	18.274	18.270	0.004	98	5445613	8.00	7.65	
99 Benzyl chloride	91	18.355	18.349	0.006	99	3454376	8.00	8.80	
100 1,4-Dichlorobenzene	146	18.366	18.363	0.003	97	2887306	8.00	8.31	
101 4-Isopropyltoluene	119	18.446	18.444	0.002	97	4764104	8.00	7.86	
102 1,2,3-Trimethylbenzene	105	18.495	18.488	0.007	98	2947828	8.00	7.80	
103 Butylcyclohexane	83	18.565	18.561	0.004	96	2743371	8.00	7.21	
104 1,2-Dichlorobenzene	146	18.738	18.735	0.003	97	2786845	8.00	8.21	
105 2,3-Dihydroindene	117	18.743	18.736	0.007	94	3606458	8.00	7.88	
106 Indene	116	18.872	18.869	0.003	94	2791759	8.00	7.05	
107 n-Butylbenzene	91	18.899	18.896	0.003	98	4058346	8.00	7.70	
108 Undecane	57	19.250	19.247	0.003	93	2329972	8.00	7.03	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.282	19.279	0.003	98	3428964	8.00	7.80	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.352	0.000	99	1274571	8.00	8.94	
111 1,2,4,5-Tetramethylbenzene	119	19.676	19.673	0.003	97	4158725	8.00	8.05	
112 1,2,3,5-Tetramethylbenzene	119	19.730	19.727	0.003	96	2514994	8.00	7.97	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.121	0.002	97	3418581	8.00	8.01	
114 Dodecane	57	20.318	20.313	0.005	97	2172344	8.00	7.41	
115 1,2,4-Trichlorobenzene	180	20.458	20.458	0.000	94	2330633	8.00	9.88	
116 Naphthalene	128	20.587	20.588	-0.001	99	4535967	8.00	9.06	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	99	2531375	8.00	9.22	
118 Hexachlorobutadiene	225	20.814	20.814	0.000	91	3240488	8.00	8.94	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	2115119	8.00	9.19	
120 2-Methylnaphthalene	142	21.660	21.661	-0.001	99	2197530	25.0	30.1	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	99	2081286	25.0	28.0	
A 124 Toluene Range	1	13.081	(13.046-13.116)		0	7723720	8.00	7.53	
A 125 C8 Range	1	13.841	(13.826-13.856)		0	11244888	8.00	7.07	
S 126 Xylenes, Total	100				0		24.0	22.8	
S 127 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L8DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L8

Worklist Smp#: 10

Client ID:

Purge Vol: 500.000 mL

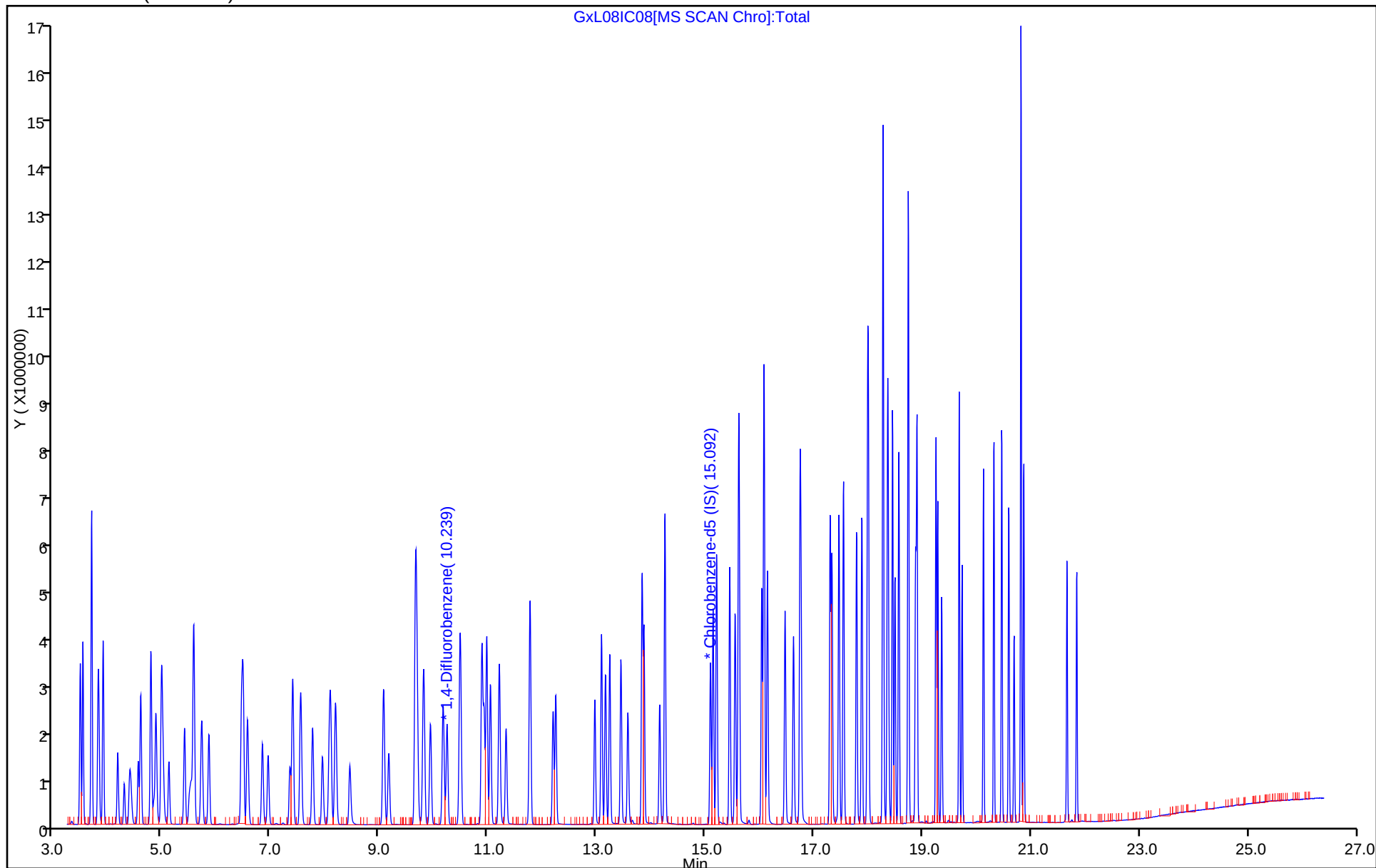
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Lims ID: IC L8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

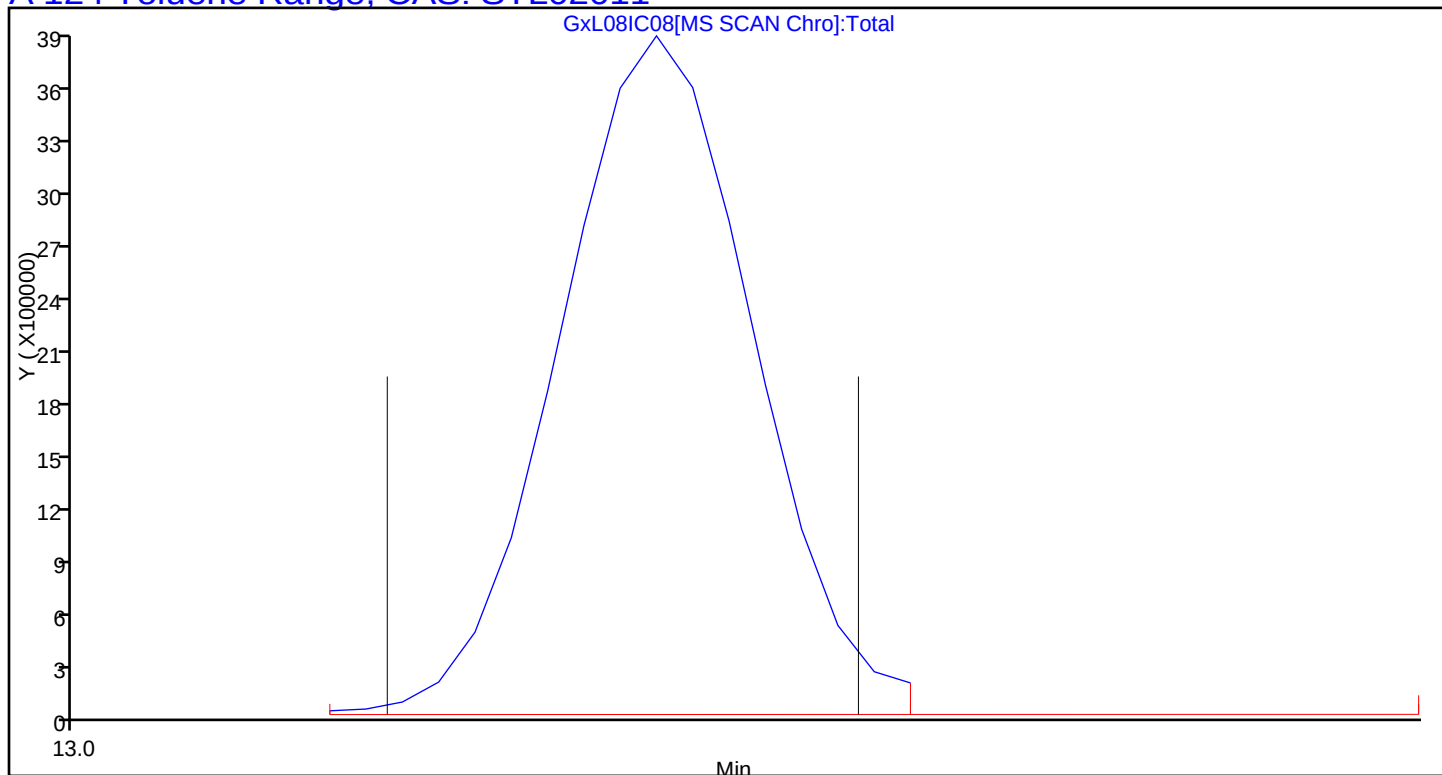
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC08.D

Injection Date: 09-Dec-2016 00:56:30

Instrument ID: MG

Lims ID: IC L8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

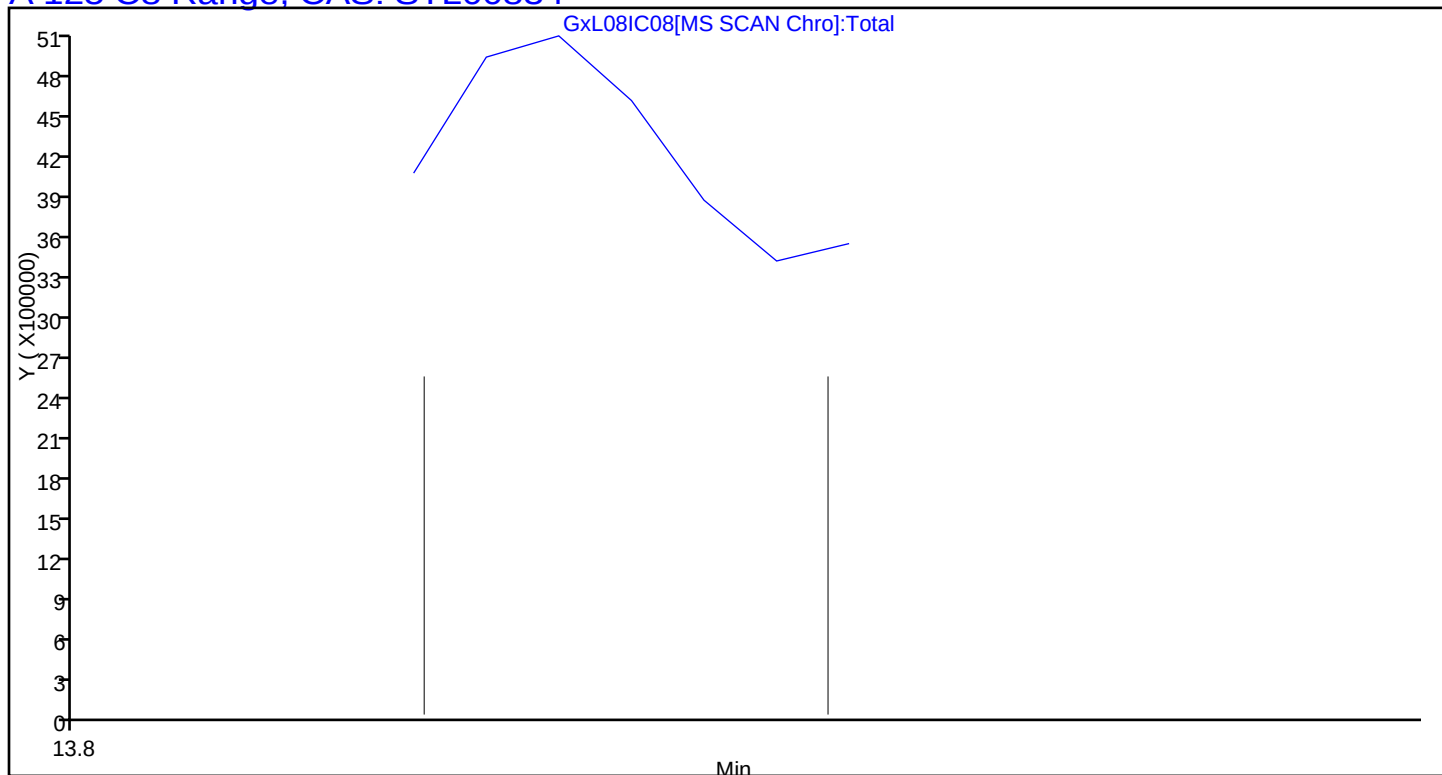
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D
 Lims ID: IC L9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 09-Dec-2016 01:38:30 ALS Bottle#: 8 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-011
 Misc. Info.: 067934
 Operator ID: 403648 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:28:26 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 10:32:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.082	8.063	0.019	93	431521	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.255	10.234	0.021	95	1821448	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.103	15.090	0.013	85	1900751	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.775	16.758	0.017	96	1261386	4.00	4.01	
6 Chlorodifluoromethane	67	3.477	3.481	-0.004	96	570750	16.0	16.1	
7 Propene	41	3.488	3.489	-0.001	99	1680175	16.0	14.2	
8 Dichlorodifluoromethane	85	3.531	3.533	-0.002	100	5818805	16.0	15.8	
9 Chloromethane	52	3.682	3.685	-0.003	99	486023	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.698	3.696	0.002	93	3960934	16.0	16.2	
11 Acetaldehyde	44	3.817	3.816	0.001	99	2713131	80.0	61.9	
12 Vinyl chloride	62	3.833	3.830	0.003	99	1800793	16.0	13.8	
13 Butadiene	54	3.909	3.906	0.003	69	1388093	16.0	13.2	
14 Butane	43	3.909	3.907	0.002	84	2596919	16.0	12.7	
15 Bromomethane	94	4.178	4.174	0.004	99	1885484	16.0	15.2	
16 Chloroethane	64	4.297	4.292	0.005	100	1053045	16.0	15.2	
17 Ethanol	31	4.426	4.393	0.033	95	3054812	80.0	70.9	
18 Vinyl bromide	106	4.556	4.550	0.006	99	1860265	16.0	15.9	
19 2-Methylbutane	43	4.599	4.598	0.001	89	1993361	16.0	13.3	
21 Acrolein	56	4.788	4.783	0.005	94	461450	16.0	13.7	
20 Trichlorofluoromethane	101	4.788	4.785	0.003	99	5901125	16.0	16.5	
22 Acetonitrile	40	4.852	4.838	0.014	99	663618	16.0	16.7	
23 Acetone	58	4.885	4.882	0.003	98	2019556	48.0	44.4	
24 Pentane	72	4.982	4.978	0.004	99	343931	16.0	15.7	
25 Isopropyl alcohol	45	5.046	4.987	0.059	98	6932486	48.0	45.1	
26 Ethyl ether	31	5.122	5.124	-0.002	91	1444630	16.0	15.9	
27 1,1-Dichloroethene	96	5.408	5.400	0.008	98	1718361	16.0	16.3	
28 Acrylonitrile	53	5.505	5.487	0.018	94	996643	16.0	17.5	
29 2-Methyl-2-propanol	59	5.575	5.526	0.049	94	2583882	16.0	16.0	
30 1,1,2-Trichloro-1,2,2-trif	101	5.580	5.572	0.008	93	3778238	16.0	16.7	
31 Methylene Chloride	84	5.720	5.708	0.012	93	1319618	16.0	14.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.737	5.725	0.012	97	1354242	16.0	14.9	
33 Carbon disulfide	76	5.855	5.849	0.006	99	5474536	16.0	15.9	
34 trans-1,2-Dichloroethene	96	6.459	6.448	0.011	99	1930221	16.0	15.6	
35 2-Methylpentane	43	6.492	6.481	0.011	96	3810096	16.0	14.3	
36 Methyl tert-butyl ether	73	6.572	6.575	-0.003	96	5364390	16.0	18.2	
37 1,1-Dichloroethane	63	6.848	6.832	0.016	100	3876835	16.0	16.6	
38 Vinyl acetate	43	6.955	6.942	0.013	100	5589948	16.0	19.3	
39 2-Butanone (MEK)	72	7.365	7.349	0.016	99	878803	16.0	17.2	
40 Hexane	56	7.403	7.397	0.006	90	1493982	16.0	14.6	
41 Isopropyl ether	45	7.554	7.547	0.007	97	6292986	16.0	17.1	
42 cis-1,2-Dichloroethene	96	7.775	7.759	0.016	95	2078366	16.0	16.5	
43 Ethyl acetate	43	7.964	7.946	0.018	99	4364408	16.0	19.1	
44 Chloroform	83	8.109	8.085	0.024	97	4367350	16.0	16.1	
45 Tert-butyl ethyl ether	59	8.196	8.191	0.005	94	5753046	16.0	18.0	
46 Tetrahydrofuran	42	8.460	8.460	0.000	94	2180844	16.0	18.5	
47 1,1,1-Trichloroethane	97	9.080	9.068	0.012	94	4921388	16.0	16.7	
48 1,2-Dichloroethane	62	9.182	9.160	0.022	98	3034051	16.0	17.9	
49 Benzene	78	9.673	9.654	0.019	96	4859184	16.0	14.8	
50 Cyclohexane	69	9.668	9.659	0.009	86	818029	16.0	13.5	
52 Carbon tetrachloride	117	9.695	9.684	0.011	97	5495740	16.0	18.8	
51 n-Butanol	31	9.727	9.685	0.042	73	573494	16.0	14.4	
53 2,3-Dimethylpentane	71	9.819	9.808	0.011	90	1327614	16.0	15.7	
54 Thiophene	84	9.948	9.930	0.018	96	3303884	16.0	16.8	
55 Tert-amyl methyl ether	73	10.180	10.181	-0.001	98	5343717	16.0	18.2	
56 Isooctane	57	10.493	10.479	0.014	98	8835628	16.0	14.9	
57 n-Heptane	71	10.892	10.881	0.011	87	1970974	16.0	15.0	
58 1,2-Dichloropropane	63	10.935	10.916	0.019	89	1969395	16.0	15.9	
59 Trichloroethene	130	10.983	10.966	0.017	96	3024239	16.0	15.9	
60 Dibromomethane	93	11.054	11.033	0.021	88	2458883	16.0	16.3	
61 Dichlorobromomethane	83	11.215	11.194	0.021	99	4592413	16.0	17.5	
62 1,4-Dioxane	88	11.237	11.222	0.015	87	753201	16.0	17.1	
63 Methyl methacrylate	41	11.345	11.327	0.018	89	2492814	16.0	18.6	
64 Methylcyclohexane	83	11.776	11.766	0.010	95	4088614	16.0	15.1	
65 4-Methyl-2-pentanone (MIBK)	43	12.213	12.198	0.015	96	3849816	16.0	17.3	
66 cis-1,3-Dichloropropene	75	12.256	12.240	0.016	92	3417073	16.0	17.4	
67 trans-1,3-Dichloropropene	75	12.979	12.958	0.021	97	3420157	16.0	18.6	
68 Toluene	91	13.097	13.083	0.014	94	6535309	16.0	17.2	
69 1,1,2-Trichloroethane	83	13.173	13.154	0.019	98	1894431	16.0	16.9	
70 2-Methylthiophene	97	13.248	13.233	0.015	97	5504671	16.0	17.2	
71 3-Methylthiophene	97	13.459	13.439	0.020	98	5425286	16.0	17.4	
72 2-Hexanone	58	13.588	13.578	0.010	94	2000620	16.0	17.9	
73 n-Octane	85	13.841	13.833	0.008	86	2222803	16.0	14.9	
74 Chlorodibromomethane	129	13.879	13.862	0.017	97	5133377	16.0	19.9	
75 Ethylene Dibromide	107	14.170	14.152	0.018	98	4020392	16.0	18.2	
76 Tetrachloroethene	129	14.262	14.251	0.011	96	2885902	16.0	17.3	
77 Chlorobenzene	112	15.152	15.138	0.014	96	5597166	16.0	17.7	
78 2,3-Dimethylheptane	43	15.216	15.203	0.013	86	4679067	16.0	12.4	
79 Ethylbenzene	91	15.459	15.445	0.014	98	8758179	16.0	17.6	
80 2-Ethylthiophene	97	15.556	15.544	0.012	97	6841807	16.0	18.4	
81 m-Xylene & p-Xylene	91	15.626	15.612	0.014	97	13248413	32.0	34.5	
83 Bromoform	173	16.052	16.034	0.018	99	6594138	16.0	27.8	
82 n-Nonane	57	16.085	16.076	0.009	85	2961409	16.0	11.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.095	16.079	0.016	95	5251876	16.0	19.2	
85 o-Xylene	91	16.155	16.140	0.015	98	7069465	16.0	17.5	
86 1,1,2,2-Tetrachloroethane	83	16.478	16.462	0.016	99	4738085	16.0	17.7	
87 1,2,3-Trichloropropane	110	16.635	16.619	0.016	97	1650297	16.0	18.7	
88 Isopropylbenzene	105	16.753	16.740	0.013	95	10000909	16.0	17.6	
89 N-Propylbenzene	120	17.309	17.295	0.014	100	2882014	16.0	18.6	
90 2-Chlorotoluene	126	17.341	17.327	0.014	96	2611501	16.0	18.2	
91 4-Ethyltoluene	105	17.470	17.457	0.013	98	10162010	16.0	18.5	
92 1,3,5-Trimethylbenzene	120	17.557	17.539	0.018	93	4929710	16.0	18.7	
93 Alpha Methyl Styrene	118	17.794	17.781	0.013	91	4555512	16.0	20.9	
94 n-Decane	57	17.891	17.878	0.013	93	4031286	16.0	13.7	
95 tert-Butylbenzene	119	17.999	17.985	0.014	94	9554102	16.0	18.7	
96 1,2,4-Trimethylbenzene	105	18.015	18.000	0.015	95	8518690	16.0	18.5	
98 1,3-Dichlorobenzene	146	18.279	18.270	0.009	92	6970912	16.0	21.0	
97 sec-Butylbenzene	105	18.285	18.270	0.015	97	11727632	16.0	17.6	
99 Benzyl chloride	91	18.360	18.349	0.011	99	7456385	16.0	20.3	
100 1,4-Dichlorobenzene	146	18.376	18.363	0.013	98	6739732	16.0	20.7	
101 4-Isopropyltoluene	119	18.457	18.444	0.013	97	10734531	16.0	18.9	
102 1,2,3-Trimethylbenzene	105	18.500	18.488	0.012	97	6454183	16.0	18.2	
103 Butylcyclohexane	83	18.571	18.561	0.009	96	5332453	16.0	15.0	
104 1,2-Dichlorobenzene	146	18.743	18.735	0.008	99	6549763	16.0	20.6	
105 2,3-Dihydroindene	117	18.748	18.736	0.012	94	8122275	16.0	18.9	
106 Indene	116	18.878	18.869	0.009	94	6308476	16.0	16.9	
107 n-Butylbenzene	91	18.905	18.896	0.009	97	8621259	16.0	17.5	
108 Undecane	57	19.255	19.247	0.008	89	4080761	16.0	13.1	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.288	19.279	0.009	98	7688453	16.0	18.7	
110 1,2-Dibromo-3-Chloropropan	157	19.358	19.352	0.006	90	3083243	16.0	23.1	
111 1,2,4,5-Tetramethylbenzene	119	19.681	19.673	0.008	98	9287987	16.0	19.2	
112 1,2,3,5-Tetramethylbenzene	119	19.735	19.727	0.008	96	5594149	16.0	18.9	
113 1,2,3,4-Tetramethylbenzene	119	20.129	20.121	0.008	97	7579036	16.0	19.0	
114 Dodecane	57	20.318	20.313	0.005	96	3802595	16.0	13.8	
115 1,2,4-Trichlorobenzene	180	20.463	20.458	0.005	93	5651953	16.0	25.6	
116 Naphthalene	128	20.593	20.588	0.005	99	10025298	16.0	21.4	
117 Benzo(b)thiophene	134	20.690	20.688	0.002	100	5741539	16.0	22.3	
118 Hexachlorobutadiene	225	20.819	20.814	0.005	92	7094731	16.0	20.9	
119 1,2,3-Trichlorobenzene	180	20.868	20.865	0.003	94	4817115	16.0	22.4	
120 2-Methylnaphthalene	142	21.666	21.661	0.005	99	2595825	50.0	38.0	
121 1-Methylnaphthalene	142	21.844	21.841	0.003	100	2006398	50.0	28.8	
A 124 Toluene Range	1	13.092	(13.057-13.127)		0	15781323	16.0	17.1	
A 125 C8 Range	1	13.839	(13.831-13.861)		0	16425810	16.0	11.4	
S 126 Xylenes, Total	100				0		48.0	51.9	
S 127 1,2-Dichloroethene, Total	1				0		32.0	32.1	

Reagents:

40L9DNP_00011

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Operator ID: 403648

Lims ID: IC L9

Worklist Smp#: 11

Client ID:

Purge Vol: 500.000 mL

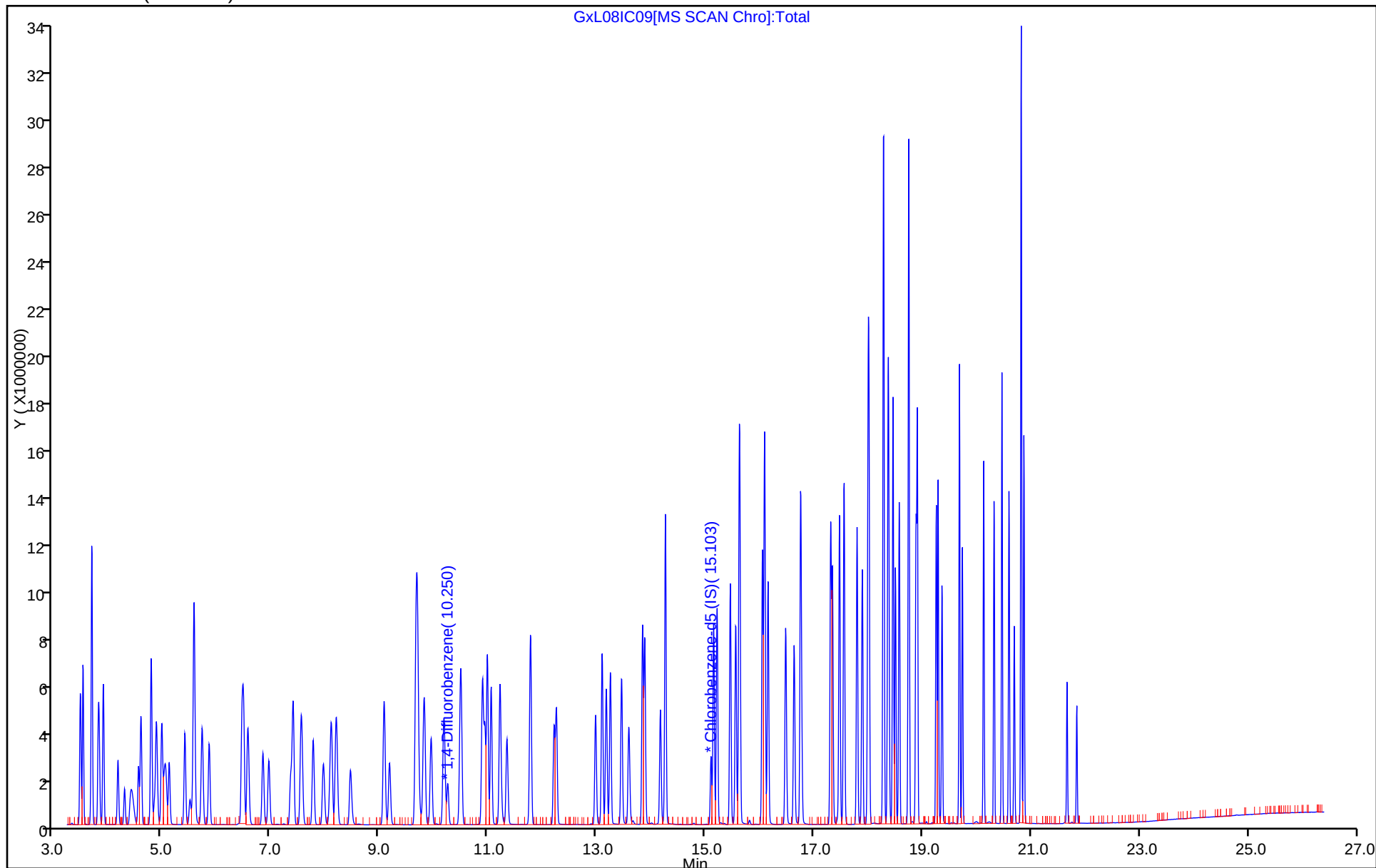
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

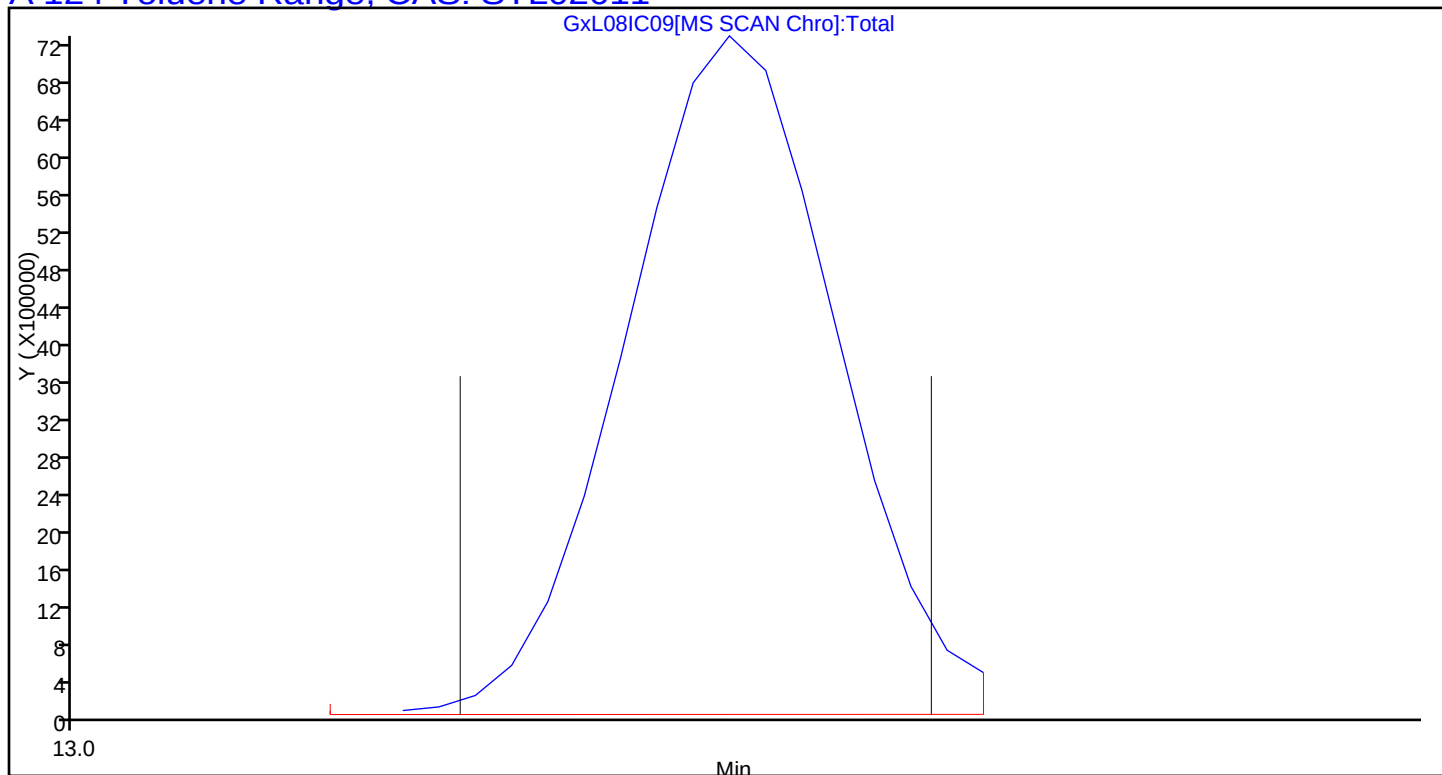
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08\IC09.D

Injection Date: 09-Dec-2016 01:38:30

Instrument ID: MG

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

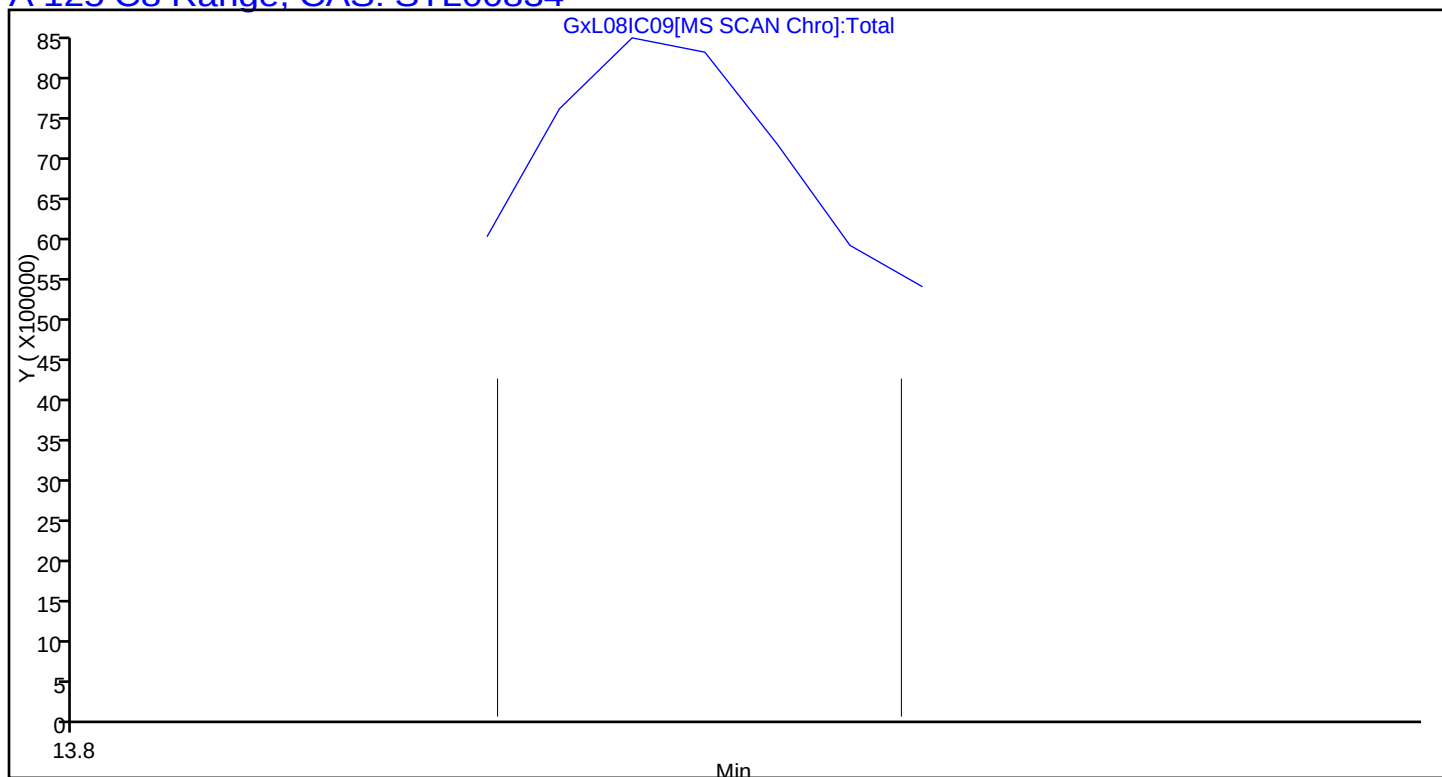
Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.3236		1.97	2.00	-1.4	35.0
Propene	Ave	1.094	0.9705		1.78	2.00	-11.3	35.0
Dichlorodifluoromethane	Ave	3.423	3.406		1.99	2.00	-0.5	35.0
Chloromethane	Ave	0.3677	0.3523		1.92	2.00	-4.2	35.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.334		2.06	2.00	2.9	35.0
Acetaldehyde	Ave	0.4060	0.3719		9.25	10.1	-8.4	35.0
Vinyl chloride	Ave	1.207	1.290		2.14	2.00	6.9	35.0
1,3-Butadiene	Ave	0.9739	0.9802		2.01	2.00	0.6	35.0
Butane	Ave	1.902	1.981		2.08	2.00	4.2	35.0
Bromomethane	Ave	1.152	1.136		1.97	2.00	-1.3	35.0
Chloroethane	Ave	0.6412	0.6501		2.03	2.00	1.4	35.0
Ethanol	Ave	0.3997	0.3651		9.22	10.1	-8.7	35.0
Vinyl bromide	Ave	1.088	1.131		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.389	1.300		1.87	2.00	-6.4	35.0
Acrolein	Ave	0.3114	0.3670		2.36	2.00	17.8	35.0
Trichlorofluoromethane	Ave	3.318	3.275		1.98	2.00	-1.3	35.0
Acetonitrile	Ave	0.3691	0.3926		2.13	2.00	6.4	35.0
Acetone	Ave	0.4215	0.3992		5.69	6.00	-5.3	35.0
Isopropyl alcohol	Ave	1.426	1.281		5.39	6.00	-10.2	35.0
Pentane	Ave	0.2036	0.2061		2.03	2.00	1.2	35.0
Ethyl ether	Ave	0.8402	0.9143		2.18	2.00	8.8	35.0
1,1-Dichloroethene	Ave	0.9780	1.007		2.06	2.00	3.0	35.0
Acrylonitrile	Ave	0.5284	0.5968		2.26	2.00	12.9	35.0
t-Butyl alcohol	Ave	1.499	1.552		2.07	2.00	3.6	35.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.166		2.07	2.00	3.3	35.0
Methylene Chloride	Ave	0.8508	0.8027		1.89	2.00	-5.7	35.0
3-Chloropropene	Ave	0.8422	0.8616		2.05	2.00	2.3	35.0
Carbon disulfide	Ave	3.196	3.222		2.02	2.00	0.8	35.0
trans-1,2-Dichloroethene	Ave	1.149	1.187		2.07	2.00	3.3	35.0
2-Methylpentane	Ave	2.476	2.725		2.22	2.02	10.0	35.0
Methyl tert-butyl ether	Ave	2.730	2.998		2.20	2.00	9.8	35.0
1,1-Dichloroethane	Ave	2.159	2.201		2.04	2.00	2.0	35.0
Vinyl acetate	Ave	2.684	2.988		2.23	2.00	11.3	35.0
2-Butanone	Ave	0.4737	0.4890		2.07	2.00	3.2	35.0
Hexane	Ave	0.9508	0.9358		1.97	2.00	-1.6	35.0
Isopropyl ether	Ave	3.411	3.300		1.94	2.00	-3.3	35.0
cis-1,2-Dichloroethene	Ave	1.166	1.266		2.17	2.00	8.6	35.0
Ethyl acetate	Ave	2.116	2.203		2.08	2.00	4.1	35.0
Chloroform	Ave	2.509	2.652		2.12	2.00	5.7	35.0
Tert-butyl ethyl ether	Ave	2.966	3.191		2.15	2.00	7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.159		2.12	2.00	6.1	35.0
1,1,1-Trichloroethane	Ave	2.737	2.877		2.10	2.00	5.1	35.0
1,2-Dichloroethane	Ave	0.3729	0.3726		2.00	2.00	-0.0	35.0
1-Butanol	Ave	0.0875	0.0829		1.90	2.00	-5.3	35.0
Benzene	Ave	0.7195	0.7701		2.14	2.00	7.0	35.0
Cyclohexane	Ave	0.1326	0.1303		1.97	2.00	-1.7	35.0
Carbon tetrachloride	Ave	0.6424	0.6881		2.14	2.00	7.1	35.0
2,3-Dimethylpentane	Ave	0.1859	0.1743		1.89	2.02	-6.3	35.0
Thiophene	Ave	0.4306	0.4580		2.15	2.02	6.4	35.0
Tert-amyl methyl ether	Ave	0.6436	0.6299		1.96	2.00	-2.1	35.0
2,2,4-Trimethylpentane	Ave	1.305	1.349		2.07	2.00	3.4	35.0
Heptane	Ave	0.2889	0.2957		2.05	2.00	2.4	35.0
1,2-Dichloropropane	Ave	0.2726	0.2948		2.16	2.00	8.2	35.0
Trichloroethene	Ave	0.4186	0.4089		1.95	2.00	-2.3	35.0
Dibromomethane	Ave	0.3316	0.3406		2.06	2.00	2.7	35.0
Bromodichloromethane	Ave	0.5762	0.6095		2.12	2.00	5.8	35.0
1,4-Dioxane	Ave	0.0965	0.0942		1.95	2.00	-2.4	35.0
Methyl methacrylate	Ave	0.2946	0.3180		2.16	2.00	7.9	35.0
Methylcyclohexane	Ave	0.5953	0.4923		1.67	2.02	-17.3	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.5064		2.07	2.00	3.4	35.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4736		2.20	2.00	10.0	35.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4267		2.21	2.00	10.6	35.0
Toluene	Ave	0.7999	0.9016		2.26	2.00	12.7	35.0
1,1,2-Trichloroethane	Ave	0.2359	0.2509		2.13	2.00	6.4	35.0
2-Methylthiophene	Ave	0.6747	0.7635		2.29	2.02	13.2	35.0
3-Methylthiophene	Ave	0.6573	0.7766		2.39	2.02	18.1	35.0
2-Hexanone	Ave	0.2348	0.2349		2.00	2.00	0.0	35.0
Octane	Ave	0.3146	0.3321		2.11	2.00	5.6	35.0
Dibromochloromethane	Ave	0.5428	0.5993		2.21	2.00	10.4	35.0
1,2-Dibromoethane	Ave	0.4640	0.5103		2.20	2.00	10.0	35.0
Tetrachloroethene	Ave	0.3510	0.3558		2.03	2.00	1.4	35.0
Chlorobenzene	Ave	0.6640	0.7299		2.20	2.00	9.9	35.0
2,3-Dimethylheptane	Ave	0.7928	0.8543		2.18	2.02	7.8	35.0
Ethylbenzene	Ave	1.049	1.170		2.23	2.00	11.6	35.0
2-Ethylthiophene	Ave	0.7845	0.8673		2.23	2.02	10.6	35.0
m-Xylene & p-Xylene	Ave	0.8084	0.9051		4.48	4.00	12.0	35.0
Bromoform	Ave	0.4996	0.6071		2.43	2.00	21.5	35.0
Nonane	Ave	0.5241	0.5669		2.16	2.00	8.2	35.0
Styrene	Ave	0.5743	0.6733		2.35	2.00	17.2	35.0
o-Xylene	Ave	0.8521	0.9247		2.17	2.00	8.5	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.6210		2.21	2.00	10.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab Sample ID: ICV 140-7384/13 Calibration Date: 12/09/2016 03:01
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GxL08ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.2006		2.17	2.00	8.3	35.0
Isopropylbenzene	Ave	1.199	1.311		2.19	2.00	9.4	35.0
Propylbenzene	Ave	0.3264	0.3686		2.26	2.00	12.9	35.0
2-Chlorotoluene	Ave	0.3015	0.3368		2.24	2.00	11.7	35.0
4-Ethyltoluene	Ave	1.156	1.213		2.10	2.00	4.9	35.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.6152		2.21	2.00	10.6	35.0
Alpha Methyl Styrene	Ave	0.4587	0.5349		2.33	2.00	16.6	35.0
Decane	Ave	0.6186	0.6732		2.18	2.00	8.8	35.0
tert-Butylbenzene	Ave	1.078	1.171		2.18	2.00	8.7	35.0
1,2,4-Trimethylbenzene	Ave	0.9689	1.060		2.19	2.00	9.4	35.0
1,3-Dichlorobenzene	Ave	0.7000	0.7298		2.09	2.00	4.3	35.0
sec-Butylbenzene	Ave	1.402	1.517		2.16	2.00	8.2	35.0
Benzyl chloride	Ave	0.7737	0.8985		2.32	2.00	16.1	35.0
1,4-Dichlorobenzene	Ave	0.6842	0.7278		2.13	2.00	6.4	35.0
4-Isopropyltoluene	Ave	1.194	1.279		2.14	2.00	7.2	35.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.8540		2.32	2.02	14.6	35.0
Butylcyclohexane	Ave	0.7496	0.7541		2.03	2.02	0.6	35.0
1,2-Dichlorobenzene	Ave	0.6689	0.6954		2.08	2.00	4.0	35.0
Indane	Ave	0.9021	0.9132		2.04	2.02	1.2	35.0
Indene	Lin1		0.9290		2.46	2.02	21.6	35.0
Butylbenzene	Ave	1.038	1.127		2.17	2.00	8.6	35.0
Undecane	Ave	0.6532	0.6961		2.13	2.00	6.6	35.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	1.121		2.62	2.02	29.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2588		1.84	2.00	-7.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	1.156		2.29	2.02	13.6	35.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.7154		2.32	2.02	15.0	35.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.9200		2.21	2.02	9.4	35.0
Dodecane	Ave	0.5779	0.5706		1.98	2.00	-1.3	35.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.5108		2.20	2.00	9.9	35.0
Naphthalene	Ave	0.9864	1.076		2.18	2.00	9.1	35.0
Benzo (b) thiophene	Ave	0.5407	0.5926		2.21	2.02	9.6	35.0
Hexachlorobutadiene	Ave	0.7142	0.6829		1.91	2.00	-4.4	35.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.4825		2.13	2.00	6.4	35.0
2-Methylnaphthalene	Ave	0.1438	0.1444		6.28	6.25	0.4	50.0
1-Methylnaphthalene	Ave	0.1465	0.1599		6.83	6.25	9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.6635		4.01	4.00	0.3	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08ICV.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 09-Dec-2016 03:01:30 ALS Bottle#: 9 Worklist Smp#: 13
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003696-013
 Misc. Info.: 069464/S28
 Operator ID: 403648 Instrument ID: MG
 Sublist:
 Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 13-Dec-2016 14:47:06 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK009

First Level Reviewer: tajh

Date: 13-Dec-2016 14:47:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.066	8.063	0.003	93	455645	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.234	10.234	0.000	95	2097795	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.087	15.090	-0.003	86	2138644	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.759	16.755	0.001	96	1418993	4.00	4.01	
6 Chlorodifluoromethane	67	3.483	3.483	0.002	96	73764	2.00	1.97	
7 Propene	41	3.488	3.490	-0.001	99	221216	2.00	1.78	
8 Dichlorodifluoromethane	85	3.531	3.534	-0.002	100	776329	2.00	1.99	
9 Chloromethane	52	3.682	3.686	-0.003	99	80300	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.697	-0.003	92	531914	2.00	2.06	
11 Acetaldehyde	44	3.817	3.817	0.001	99	427719	10.1	9.25	
12 Vinyl chloride	62	3.833	3.832	0.003	99	294073	2.00	2.14	
13 Butadiene	54	3.903	3.907	-0.003	94	223428	2.00	2.01	
14 Butane	43	3.909	3.908	0.002	93	451643	2.00	2.08	
15 Bromomethane	94	4.173	4.176	-0.001	99	259037	2.00	1.97	
16 Chloroethane	64	4.291	4.294	-0.001	100	148192	2.00	2.03	
17 Ethanol	31	4.388	4.395	-0.005	95	419908	10.1	9.22	
18 Vinyl bromide	106	4.550	4.551	0.000	99	257715	2.00	2.08	
19 2-Methylbutane	43	4.599	4.600	0.001	91	296393	2.00	1.87	
21 Acrolein	56	4.782	4.785	-0.001	94	83657	2.00	2.36	
20 Trichlorofluoromethane	101	4.782	4.786	-0.003	99	746453	2.00	1.98	
22 Acetonitrile	40	4.836	4.840	-0.002	100	89496	2.00	2.13	
23 Acetone	58	4.874	4.884	-0.008	98	273013	6.00	5.69	
24 Pentane	72	4.976	4.980	-0.002	96	46978	2.00	2.03	
25 Isopropyl alcohol	45	4.976	4.989	-0.011	94	875906	6.00	5.39	
26 Ethyl ether	31	5.116	5.126	-0.008	95	208404	2.00	2.18	
27 1,1-Dichloroethene	96	5.402	5.402	0.002	97	229563	2.00	2.06	
28 Acrylonitrile	53	5.483	5.489	-0.004	95	136037	2.00	2.26	
29 2-Methyl-2-propanol	59	5.505	5.528	-0.021	93	353853	2.00	2.07	
30 1,1,2-Trichloro-1,2,2-trif	101	5.575	5.574	0.003	96	493702	2.00	2.07	
31 Methylene Chloride	84	5.710	5.711	0.002	95	182976	2.00	1.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.726	5.727	0.001	99	196390	2.00	2.05	
33 Carbon disulfide	76	5.850	5.851	0.001	99	734444	2.00	2.02	
34 trans-1,2-Dichloroethene	96	6.448	6.451	0.000	98	270488	2.00	2.07	
35 2-Methylpentane	43	6.481	6.484	0.000	94	626773	2.02	2.22	
36 Methyl tert-butyl ether	73	6.567	6.577	-0.008	96	683319	2.00	2.20	
37 1,1-Dichloroethane	63	6.837	6.835	0.005	100	501806	2.00	2.04	
38 Vinyl acetate	43	6.939	6.945	-0.003	100	681191	2.00	2.23	
39 2-Butanone (MEK)	72	7.343	7.352	-0.006	99	111467	2.00	2.07	
40 Hexane	56	7.397	7.400	0.000	86	213309	2.00	1.97	
41 Isopropyl ether	45	7.543	7.550	-0.004	97	752403	2.00	1.94	
42 cis-1,2-Dichloroethene	96	7.759	7.762	0.000	94	288670	2.00	2.17	
43 Ethyl acetate	43	7.937	7.949	-0.009	99	502092	2.00	2.08	
44 Chloroform	83	8.088	8.088	0.003	97	604584	2.00	2.12	
45 Tert-butyl ethyl ether	59	8.185	8.194	-0.006	94	727385	2.00	2.15	
46 Tetrahydrofuran	42	8.449	8.463	-0.011	94	264214	2.00	2.12	
47 1,1,1-Trichloroethane	97	9.069	9.071	0.001	95	655693	2.00	2.10	
48 1,2-Dichloroethane	62	9.161	9.160	0.001	98	391063	2.00	2.00	
49 Benzene	78	9.657	9.653	0.003	97	808204	2.00	2.14	
50 Cyclohexane	69	9.657	9.658	-0.002	94	136764	2.00	1.97	
52 Carbon tetrachloride	117	9.684	9.683	0.000	99	722109	2.00	2.14	
51 n-Butanol	31	9.657	9.684	-0.028	66	86948	2.00	1.90	
53 2,3-Dimethylpentane	71	9.808	9.807	0.000	91	184564	2.02	1.89	
54 Thiophene	84	9.926	9.929	-0.004	96	485117	2.02	2.15	
55 Tert-amyl methyl ether	73	10.164	10.180	-0.017	98	661085	2.00	1.96	
56 Isooctane	57	10.482	10.478	0.003	99	1415446	2.00	2.07	
57 n-Heptane	71	10.881	10.880	0.000	91	310368	2.00	2.05	
58 1,2-Dichloropropane	63	10.913	10.916	-0.003	91	309406	2.00	2.16	
59 Trichloroethene	130	10.967	10.965	0.001	97	429100	2.00	1.95	
60 Dibromomethane	93	11.032	11.032	-0.001	93	357390	2.00	2.06	
61 Dichlorobromomethane	83	11.194	11.193	0.000	99	639678	2.00	2.12	
62 1,4-Dioxane	88	11.210	11.221	-0.012	88	98880	2.00	1.95	
63 Methyl methacrylate	41	11.323	11.326	-0.004	92	333725	2.00	2.16	
64 Methylcyclohexane	83	11.765	11.765	-0.001	95	521357	2.02	1.67	
65 4-Methyl-2-pentanone (MIBK)	43	12.191	12.197	-0.007	96	531479	2.00	2.07	
66 cis-1,3-Dichloropropene	75	12.240	12.239	0.000	94	497067	2.00	2.20	
67 trans-1,3-Dichloropropene	75	12.957	12.955	-0.001	98	456545	2.00	2.21	
68 Toluene	91	13.081	13.081	-0.002	94	964585	2.00	2.26	
69 1,1,2-Trichloroethane	83	13.151	13.158	-0.003	99	268415	2.00	2.13	
70 2-Methylthiophene	97	13.232	13.231	-0.001	97	824414	2.02	2.29	
71 3-Methylthiophene	97	13.437	13.437	-0.002	99	838500	2.02	2.39	
72 2-Hexanone	58	13.566	13.575	-0.012	94	251264	2.00	2.00	
73 n-Octane	85	13.831	13.830	-0.003	93	355304	2.00	2.11	
74 Chlorodibromomethane	129	13.863	13.860	0.001	98	641200	2.00	2.21	
75 Ethylene Dibromide	107	14.149	14.149	-0.003	99	545908	2.00	2.20	
76 Tetrachloroethene	129	14.251	14.248	0.000	96	380622	2.00	2.03	
77 Chlorobenzene	112	15.135	15.135	-0.003	94	780861	2.00	2.20	
78 2,3-Dimethylheptane	43	15.200	15.200	-0.003	96	922396	2.02	2.18	
79 Ethylbenzene	91	15.443	15.442	-0.002	98	1251681	2.00	2.23	
80 2-Ethylthiophene	97	15.545	15.540	0.001	98	936467	2.02	2.23	
81 m-Xylene & p-Xylene	91	15.610	15.609	-0.002	99	1936648	4.00	4.48	
83 Bromoform	173	16.031	16.030	-0.003	98	649507	2.00	2.43	
82 n-Nonane	57	16.074	16.073	-0.002	93	606554	2.00	2.16	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.079	16.075	0.000	97	720373	2.00	2.35	
85 o-Xylene	91	16.138	16.136	-0.002	99	989344	2.00	2.17	
86 1,1,2,2-Tetrachloroethane	83	16.462	16.459	0.000	99	664451	2.00	2.21	
87 1,2,3-Trichloropropane	110	16.618	16.616	-0.001	98	214617	2.00	2.17	
88 Isopropylbenzene	105	16.737	16.737	-0.003	96	1402660	2.00	2.19	
89 N-Propylbenzene	120	17.292	17.292	-0.003	99	394328	2.00	2.26	
90 2-Chlorotoluene	126	17.325	17.323	-0.002	97	360349	2.00	2.24	
91 4-Ethyltoluene	105	17.454	17.454	-0.003	99	1297483	2.00	2.10	
92 1,3,5-Trimethylbenzene	120	17.540	17.536	0.001	93	658225	2.00	2.21	
93 Alpha Methyl Styrene	118	17.783	17.777	0.002	90	572326	2.00	2.33	
94 n-Decane	57	17.880	17.875	0.002	91	720270	2.00	2.18	
95 tert-Butylbenzene	119	17.983	17.981	-0.002	94	1253144	2.00	2.18	
96 1,2,4-Trimethylbenzene	105	17.999	17.996	-0.001	96	1134339	2.00	2.19	
98 1,3-Dichlorobenzene	146	18.268	18.266	-0.002	66	780831	2.00	2.09	
97 sec-Butylbenzene	105	18.268	18.267	-0.002	98	1622625	2.00	2.16	
99 Benzyl chloride	91	18.349	18.346	0.000	98	961343	2.00	2.32	
100 1,4-Dichlorobenzene	146	18.360	18.359	-0.003	96	778649	2.00	2.13	
101 4-Isopropyltoluene	119	18.446	18.440	0.002	97	1368466	2.00	2.14	
102 1,2,3-Trimethylbenzene	105	18.490	18.485	0.002	97	922084	2.02	2.32	
103 Butylcyclohexane	83	18.560	18.557	-0.001	94	814182	2.02	2.03	
104 1,2-Dichlorobenzene	146	18.732	18.731	-0.003	95	744005	2.00	2.08	
105 2,3-Dihydroindene	117	18.738	18.733	0.002	94	986039	2.02	2.04	
106 Indene	116	18.867	18.866	-0.002	94	1003097	2.02	2.46	
107 n-Butylbenzene	91	18.894	18.893	-0.002	98	1205992	2.00	2.17	
108 Undecane	57	19.244	19.243	-0.003	96	744777	2.00	2.13	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.277	19.275	-0.002	98	1210567	2.02	2.62	
110 1,2-Dibromo-3-Chloropropan	157	19.352	19.348	0.000	95	276949	2.00	1.84	
111 1,2,4,5-Tetramethylbenzene	119	19.670	19.669	-0.003	97	1248695	2.02	2.29	
112 1,2,3,5-Tetramethylbenzene	119	19.724	19.723	-0.003	96	772406	2.02	2.32	
113 1,2,3,4-Tetramethylbenzene	119	20.123	20.117	0.002	97	993390	2.02	2.21	
114 Dodecane	57	20.312	20.309	-0.001	96	610489	2.00	1.98	
115 1,2,4-Trichlorobenzene	180	20.458	20.454	0.000	94	546506	2.00	2.20	
116 Naphthalene	128	20.587	20.584	-0.001	99	1150964	2.00	2.18	
117 Benzo(b)thiophene	134	20.684	20.684	-0.004	99	639879	2.02	2.21	
118 Hexachlorobutadiene	225	20.814	20.810	0.000	94	730666	2.00	1.91	
119 1,2,3-Trichlorobenzene	180	20.862	20.861	-0.003	94	516240	2.00	2.13	
120 2-Methylnaphthalene	142	21.660	21.656	-0.001	100	482725	6.25	6.28	
121 1-Methylnaphthalene	142	21.838	21.837	-0.003	100	534706	6.25	6.83	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	2336088	2.00	2.19	
A 125 C8 Range	1	13.836	(13.821-13.851)		0	3958974	2.00	2.40	M
S 126 Xylenes, Total	100				0		6.00	6.65	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.24	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08ICV.D

Injection Date: 09-Dec-2016 03:01:30

Instrument ID: MG

Operator ID: 403648

Lims ID: ICV

Worklist Smp#: 13

Client ID:

Purge Vol: 500.000 mL

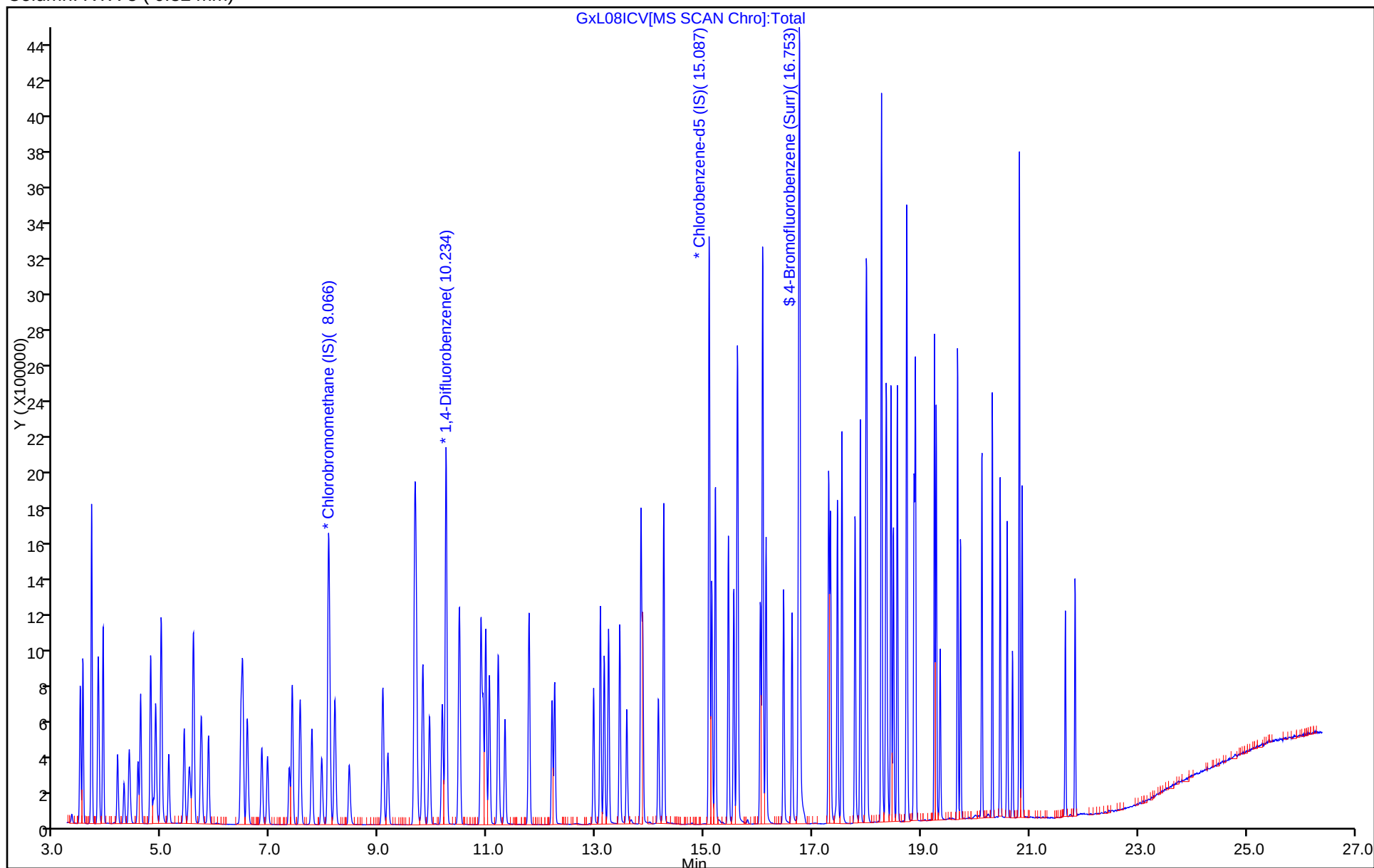
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7444/2 Calibration Date: 12/20/2016 10:44

Instrument ID: MG Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.4308		2.63	2.00	31.3*	30.0
Propene	Ave	1.094	1.368		2.50	2.00	25.1	30.0
Dichlorodifluoromethane	Ave	3.423	4.416		2.58	2.00	29.0	30.0
Chloromethane	Ave	0.3677	0.4453		2.42	2.00	21.1	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.657		2.34	2.00	17.1	30.0
Acetaldehyde	Ave	0.4060	0.4935		12.3	10.1	21.6	30.0
Vinyl chloride	Ave	1.207	1.507		2.50	2.00	24.9	30.0
1,3-Butadiene	Ave	0.9739	1.201		2.47	2.00	23.3	30.0
Butane	Ave	1.902	2.513		2.64	2.00	32.1*	30.0
Bromomethane	Ave	1.152	1.284		2.23	2.00	11.5	30.0
Chloroethane	Ave	0.6412	0.7281		2.27	2.00	13.6	30.0
Ethanol	Ave	0.3997	0.4822		12.2	10.1	20.6	30.0
Vinyl bromide	Ave	1.088	1.206		2.22	2.00	10.8	30.0
2-Methylbutane	Ave	1.389	1.682		2.42	2.00	21.1	30.0
Acrolein	Ave	0.3114	0.3342		2.15	2.00	7.3	30.0
Trichlorofluoromethane	Ave	3.318	4.068		2.45	2.00	22.6	30.0
Acetonitrile	Ave	0.3691	0.4712		2.55	2.00	27.6	30.0
Acetone	Ave	0.4215	0.4525		6.45	6.00	7.4	30.0
Isopropyl alcohol	Ave	1.426	1.726		7.27	6.00	21.0	30.0
Pentane	Ave	0.2036	0.2268		2.23	2.00	11.4	30.0
Ethyl ether	Ave	0.8402	1.146		2.73	2.00	36.4*	30.0
1,1-Dichloroethene	Ave	0.9780	1.090		2.23	2.00	11.5	30.0
Acrylonitrile	Ave	0.5284	0.6146		2.33	2.00	16.3	30.0
t-Butyl alcohol	Ave	1.499	1.769		2.36	2.00	18.0	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.405		2.29	2.00	14.7	30.0
Methylene Chloride	Ave	0.8508	0.8803		2.07	2.00	3.5	30.0
3-Chloropropene	Ave	0.8422	1.045		2.48	2.00	24.1	30.0
Carbon disulfide	Ave	3.196	3.484		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.149	1.280		2.23	2.00	11.3	30.0
2-Methylpentane	Ave	2.476	3.243		2.64	2.02	31.0*	30.0
Methyl tert-butyl ether	Ave	2.730	3.195		2.34	2.00	17.0	30.0
1,1-Dichloroethane	Ave	2.159	2.578		2.39	2.00	19.4	30.0
Vinyl acetate	Ave	2.684	3.466		2.58	2.00	29.2	30.0
2-Butanone	Ave	0.4737	0.5071		2.14	2.00	7.1	30.0
Hexane	Ave	0.9508	1.145		2.41	2.00	20.4	30.0
Isopropyl ether	Ave	3.411	4.438		2.60	2.00	30.1*	30.0
cis-1,2-Dichloroethene	Ave	1.166	1.307		2.24	2.00	12.0	30.0
Ethyl acetate	Ave	2.116	2.803		2.65	2.00	32.5*	30.0
Chloroform	Ave	2.509	2.944		2.35	2.00	17.3	30.0
Tert-butyl ethyl ether	Ave	2.966	3.676		2.48	2.00	23.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7444/2 Calibration Date: 12/20/2016 10:44
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.442		2.64	2.00	32.0*	30.0
1,1,1-Trichloroethane	Ave	2.737	3.267		2.39	2.00	19.4	30.0
1,2-Dichloroethane	Ave	0.3729	0.4282		2.30	2.00	14.8	30.0
Benzene	Ave	0.7195	0.7598		2.11	2.00	5.6	30.0
1-Butanol	Ave	0.0875	0.0957		2.19	2.00	9.4	30.0
Cyclohexane	Ave	0.1326	0.1326		2.00	2.00	-0.0	30.0
Carbon tetrachloride	Ave	0.6424	0.6778		2.11	2.00	5.5	30.0
2,3-Dimethylpentane	Ave	0.1859	0.1836		1.99	2.02	-1.2	30.0
Thiophene	Ave	0.4306	0.4229		1.98	2.02	-1.8	30.0
Tert-amyl methyl ether	Ave	0.6436	0.6684		2.08	2.00	3.8	30.0
2,2,4-Trimethylpentane	Ave	1.305	1.374		2.11	2.00	5.3	30.0
Heptane	Ave	0.2889	0.2878		1.99	2.00	-0.4	30.0
1,2-Dichloropropane	Ave	0.2726	0.2925		2.15	2.00	7.3	30.0
Trichloroethene	Ave	0.4186	0.3824		1.83	2.00	-8.7	30.0
Dibromomethane	Ave	0.3316	0.3214		1.94	2.00	-3.1	30.0
Bromodichloromethane	Ave	0.5762	0.6117		2.12	2.00	6.2	30.0
1,4-Dioxane	Ave	0.0965	0.0935		1.94	2.00	-3.2	30.0
Methyl methacrylate	Ave	0.2946	0.3357		2.28	2.00	14.0	30.0
Methylcyclohexane	Ave	0.5953	0.5766		1.96	2.02	-3.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.4966		2.03	2.00	1.4	30.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4673		2.17	2.00	8.5	30.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4220		2.19	2.00	9.4	30.0
Toluene	Ave	0.7999	0.8298		2.08	2.00	3.7	30.0
1,1,2-Trichloroethane	Ave	0.2359	0.2506		2.13	2.00	6.2	30.0
2-Methylthiophene	Ave	0.6747	0.6785		2.03	2.02	0.6	30.0
3-Methylthiophene	Ave	0.6573	0.6791		2.09	2.02	3.3	30.0
2-Hexanone	Ave	0.2348	0.2114		1.80	2.00	-10.0	30.0
Octane	Ave	0.3146	0.3177		2.02	2.00	1.0	30.0
Dibromochloromethane	Ave	0.5428	0.5859		2.16	2.00	7.9	30.0
1,2-Dibromoethane	Ave	0.4640	0.4941		2.13	2.00	6.5	30.0
Tetrachloroethene	Ave	0.3510	0.3353		1.91	2.00	-4.5	30.0
Chlorobenzene	Ave	0.6640	0.6734		2.03	2.00	1.4	30.0
2,3-Dimethylheptane	Ave	0.7928	0.9566		2.44	2.02	20.7	30.0
Ethylbenzene	Ave	1.049	1.093		2.09	2.00	4.2	30.0
2-Ethylthiophene	Ave	0.7845	0.8233		2.12	2.02	5.0	30.0
m-Xylene & p-Xylene	Ave	0.8084	0.8460		4.19	4.00	4.6	30.0
Bromoform	Ave	0.4996	0.5628		2.25	2.00	12.7	30.0
Nonane	Ave	0.5241	0.6108		2.33	2.00	16.5	30.0
Styrene	Ave	0.5743	0.6038		2.10	2.00	5.1	30.0
o-Xylene	Ave	0.8521	0.8822		2.07	2.00	3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.5979		2.13	2.00	6.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7444/2 Calibration Date: 12/20/2016 10:44
 Instrument ID: MG Calib Start Date: 12/08/2016 19:58
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 12/09/2016 01:38
 Lab File ID: GCCVL20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.1885		2.04	2.00	1.7	30.0
Isopropylbenzene	Ave	1.199	1.186		1.98	2.00	-1.1	30.0
Propylbenzene	Ave	0.3264	0.3194		1.96	2.00	-2.1	30.0
2-Chlorotoluene	Ave	0.3015	0.2969		1.97	2.00	-1.5	30.0
4-Ethyltoluene	Ave	1.156	1.110		1.92	2.00	-4.0	30.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.5383		1.94	2.00	-3.2	30.0
Alpha Methyl Styrene	Ave	0.4587	0.4559		1.99	2.00	-0.6	30.0
Decane	Ave	0.6186	0.6972		2.26	2.00	12.7	30.0
tert-Butylbenzene	Ave	1.078	1.056		1.96	2.00	-2.0	30.0
1,2,4-Trimethylbenzene	Ave	0.9689	0.9803		2.02	2.00	1.2	30.0
1,3-Dichlorobenzene	Ave	0.7000	0.6716		1.92	2.00	-4.1	30.0
sec-Butylbenzene	Ave	1.402	1.398		2.00	2.00	-0.3	30.0
Benzyl chloride	Ave	0.7737	0.8207		2.12	2.00	6.1	30.0
1,4-Dichlorobenzene	Ave	0.6842	0.6635		1.94	2.00	-3.0	30.0
4-Isopropyltoluene	Ave	1.194	1.174		1.97	2.00	-1.6	30.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.7431		2.01	2.02	-0.2	30.0
Butylcyclohexane	Ave	0.7496	0.7732		2.08	2.02	3.2	30.0
1,2-Dichlorobenzene	Ave	0.6689	0.6345		1.90	2.00	-5.2	30.0
Indane	Ave	0.9021	0.8697		1.95	2.02	-3.6	30.0
Indene	Lin1		0.6393		1.72	2.02	-15.1	30.0
Butylbenzene	Ave	1.038	1.087		2.10	2.00	4.7	30.0
Undecane	Ave	0.6532	0.6985		2.14	2.00	6.9	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	0.8116		1.89	2.02	-6.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2498		1.78	2.00	-11.1	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	0.9528		1.89	2.02	-6.4	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.5830		1.89	2.02	-6.3	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.7666		1.84	2.02	-8.8	30.0
Dodecane	Ave	0.5779	0.5180		1.79	2.00	-10.4	30.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.4245		1.83	2.00	-8.7	30.0
Naphthalene	Ave	0.9864	0.9360		1.90	2.00	-5.1	30.0
Benzo (b) thiophene	Ave	0.5407	0.4610		1.72	2.02	-14.7	30.0
Hexachlorobutadiene	Ave	0.7142	0.6019		1.69	2.00	-15.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.3939		1.74	2.00	-13.1	30.0
2-Methylnaphthalene	Ave	0.1438	0.1167		5.08	6.25	-18.8	50.0
1-Methylnaphthalene	Ave	0.1465	0.1245		5.32	6.25	-15.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.7198		4.35	4.00	8.8	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GCCVL20.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 20-Dec-2016 10:44:30 ALS Bottle#: 15 Worklist Smp#: 2
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Sublist: chrom-MG_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 14:13:44 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:13:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	338706	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.228	0.000	96	1718986	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1729180	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	94	1244644	4.00	4.35	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	72989	2.00	2.63	
7 Propene	41	3.488	3.488	0.000	98	231794	2.00	2.50	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	748317	2.00	2.58	
9 Chloromethane	52	3.682	3.682	0.000	98	75447	2.00	2.42	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	94	450155	2.00	2.34	
11 Acetaldehyde	44	3.812	3.812	0.000	100	421952	10.1	12.3	
12 Vinyl chloride	62	3.828	3.828	0.000	99	255424	2.00	2.50	
13 Butadiene	54	3.903	3.903	0.000	87	203454	2.00	2.47	
14 Butane	43	3.903	3.903	0.000	92	425885	2.00	2.64	
15 Bromomethane	94	4.167	4.167	0.000	98	217580	2.00	2.23	
16 Chloroethane	64	4.286	4.286	0.000	95	123376	2.00	2.27	
17 Ethanol	31	4.383	4.383	0.000	97	412250	10.1	12.2	
18 Vinyl bromide	106	4.545	4.545	0.000	98	204265	2.00	2.22	
19 2-Methylbutane	43	4.593	4.593	0.000	91	285066	2.00	2.42	
21 Acrolein	56	4.777	4.777	0.000	94	56620	2.00	2.15	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	689353	2.00	2.45	
22 Acetonitrile	40	4.831	4.831	0.000	98	79836	2.00	2.55	
23 Acetone	58	4.874	4.874	0.000	99	230052	6.00	6.45	
25 Isopropyl alcohol	45	4.971	4.971	0.000	92	877310	6.00	7.27	
24 Pentane	72	4.971	4.971	0.000	95	38429	2.00	2.23	
26 Ethyl ether	31	5.111	5.111	0.000	94	194158	2.00	2.73	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	184747	2.00	2.23	
28 Acrylonitrile	53	5.478	5.478	0.000	94	104133	2.00	2.33	
29 2-Methyl-2-propanol	59	5.499	5.499	0.000	95	299718	2.00	2.36	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	97	407534	2.00	2.29	
31 Methylene Chloride	84	5.704	5.704	0.000	98	149161	2.00	2.07	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.720	5.720	0.000	97	177109	2.00	2.48	
33 Carbon disulfide	76	5.844	5.844	0.000	100	590335	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	95	216819	2.00	2.23	
35 2-Methylpentane	43	6.475	6.475	0.000	96	554526	2.02	2.64	
36 Methyl tert-butyl ether	73	6.562	6.562	0.000	97	541316	2.00	2.34	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	436833	2.00	2.39	
38 Vinyl acetate	43	6.934	6.934	0.000	100	587369	2.00	2.58	
39 2-Butanone (MEK)	72	7.338	7.338	0.000	97	85929	2.00	2.14	
40 Hexane	56	7.387	7.387	0.000	87	194031	2.00	2.41	
41 Isopropyl ether	45	7.532	7.532	0.000	97	752033	2.00	2.60	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	98	221416	2.00	2.24	
43 Ethyl acetate	43	7.931	7.931	0.000	98	474874	2.00	2.65	
44 Chloroform	83	8.077	8.077	0.000	98	498777	2.00	2.35	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	622894	2.00	2.48	
46 Tetrahydrofuran	42	8.444	8.444	0.000	94	244359	2.00	2.64	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	96	553602	2.00	2.39	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	368208	2.00	2.30	
49 Benzene	78	9.646	9.646	0.000	98	653418	2.00	2.11	
51 n-Butanol	31	9.651	9.651	0.000	67	82304	2.00	2.19	
50 Cyclohexane	69	9.651	9.651	0.000	90	114044	2.00	2.00	
52 Carbon tetrachloride	117	9.678	9.678	0.000	98	582906	2.00	2.11	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	159359	2.02	1.99	
54 Thiophene	84	9.921	9.921	0.000	97	367026	2.02	1.98	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	574871	2.00	2.08	
56 Isooctane	57	10.471	10.471	0.000	98	1181879	2.00	2.11	
57 n-Heptane	71	10.870	10.870	0.000	94	247473	2.00	1.99	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	87	251502	2.00	2.15	
59 Trichloroethene	130	10.956	10.956	0.000	95	328808	2.00	1.83	
60 Dibromomethane	93	11.021	11.021	0.000	96	276374	2.00	1.94	
61 Dichlorobromomethane	83	11.188	11.188	0.000	100	526020	2.00	2.12	
62 1,4-Dioxane	88	11.204	11.204	0.000	96	80371	2.00	1.94	
63 Methyl methacrylate	41	11.318	11.318	0.000	94	288722	2.00	2.28	
64 Methylcyclohexane	83	11.760	11.760	0.000	92	500430	2.02	1.96	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.186	0.000	98	427020	2.00	2.03	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	97	401881	2.00	2.17	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	97	365084	2.00	2.19	
68 Toluene	91	13.076	13.076	0.000	94	717785	2.00	2.08	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	99	216789	2.00	2.13	
70 2-Methylthiophene	97	13.227	13.227	0.000	98	592356	2.02	2.03	
71 3-Methylthiophene	97	13.432	13.432	0.000	99	592836	2.02	2.09	
72 2-Hexanone	58	13.566	13.566	0.000	91	182839	2.00	1.80	
73 n-Octane	85	13.825	13.825	0.000	95	274863	2.00	2.02	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	506797	2.00	2.16	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	427406	2.00	2.13	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	290049	2.00	1.91	
77 Chlorobenzene	112	15.130	15.130	0.000	91	582485	2.00	2.03	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	96	835138	2.02	2.44	
79 Ethylbenzene	91	15.438	15.438	0.000	99	945539	2.00	2.09	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	718785	2.02	2.12	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1463668	4.00	4.19	
83 Bromoform	173	16.025	16.025	0.000	96	486850	2.00	2.25	
82 n-Nonane	57	16.068	16.068	0.000	94	528373	2.00	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	16.074	16.074	0.000	99	522307	2.00	2.10	
85 o-Xylene	91	16.133	16.133	0.000	98	763158	2.00	2.07	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	517248	2.00	2.13	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	97	163094	2.00	2.04	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1025646	2.00	1.98	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	276309	2.00	1.96	
90 2-Chlorotoluene	126	17.319	17.319	0.000	97	256866	2.00	1.97	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	960207	2.00	1.92	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	465677	2.00	1.94	
93 Alpha Methyl Styrene	118	17.772	17.772	0.000	88	394399	2.00	1.99	
94 n-Decane	57	17.875	17.875	0.000	90	603089	2.00	2.26	
95 tert-Butylbenzene	119	17.977	17.977	0.000	93	913479	2.00	1.96	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	96	848045	2.00	2.02	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	97	580956	2.00	1.92	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1209225	2.00	2.00	
99 Benzyl chloride	91	18.344	18.344	0.000	97	709907	2.00	2.12	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	573965	2.00	1.94	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1015959	2.00	1.97	
102 1,2,3-Trimethylbenzene	105	18.484	18.484	0.000	98	648758	2.02	2.01	
103 Butylcyclohexane	83	18.554	18.554	0.000	91	675007	2.02	2.08	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	93	548828	2.00	1.90	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	759226	2.02	1.95	
106 Indene	116	18.862	18.862	0.000	93	558080	2.02	1.72	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	940458	2.00	2.10	
108 Undecane	57	19.239	19.239	0.000	96	604275	2.00	2.14	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.271	19.271	0.000	97	708527	2.02	1.89	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	216077	2.00	1.78	
111 1,2,4,5-Tetramethylbenzene	119	19.665	19.665	0.000	97	831828	2.02	1.89	
112 1,2,3,5-Tetramethylbenzene	119	19.719	19.719	0.000	95	508995	2.02	1.89	
113 1,2,3,4-Tetramethylbenzene	119	20.113	20.113	0.000	97	669223	2.02	1.84	
114 Dodecane	57	20.307	20.307	0.000	95	448087	2.00	1.79	
115 1,2,4-Trichlorobenzene	180	20.452	20.452	0.000	94	367178	2.00	1.83	
116 Naphthalene	128	20.582	20.582	0.000	99	809704	2.00	1.90	
117 Benzo(b)thiophene	134	20.679	20.679	0.000	99	402477	2.02	1.72	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	520684	2.00	1.69	
119 1,2,3-Trichlorobenzene	180	20.857	20.857	0.000	94	340754	2.00	1.74	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	315544	6.25	5.08	
121 1-Methylnaphthalene	142	21.833	21.833	0.000	100	336685	6.25	5.32	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1839861	2.00	2.11	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3099640	2.00	2.29	M
S 126 Xylenes, Total	100				0		6.00	6.26	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GCCVL20.D

Injection Date: 20-Dec-2016 10:44:30

Instrument ID: MG

Operator ID: 7126

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 500.000 mL

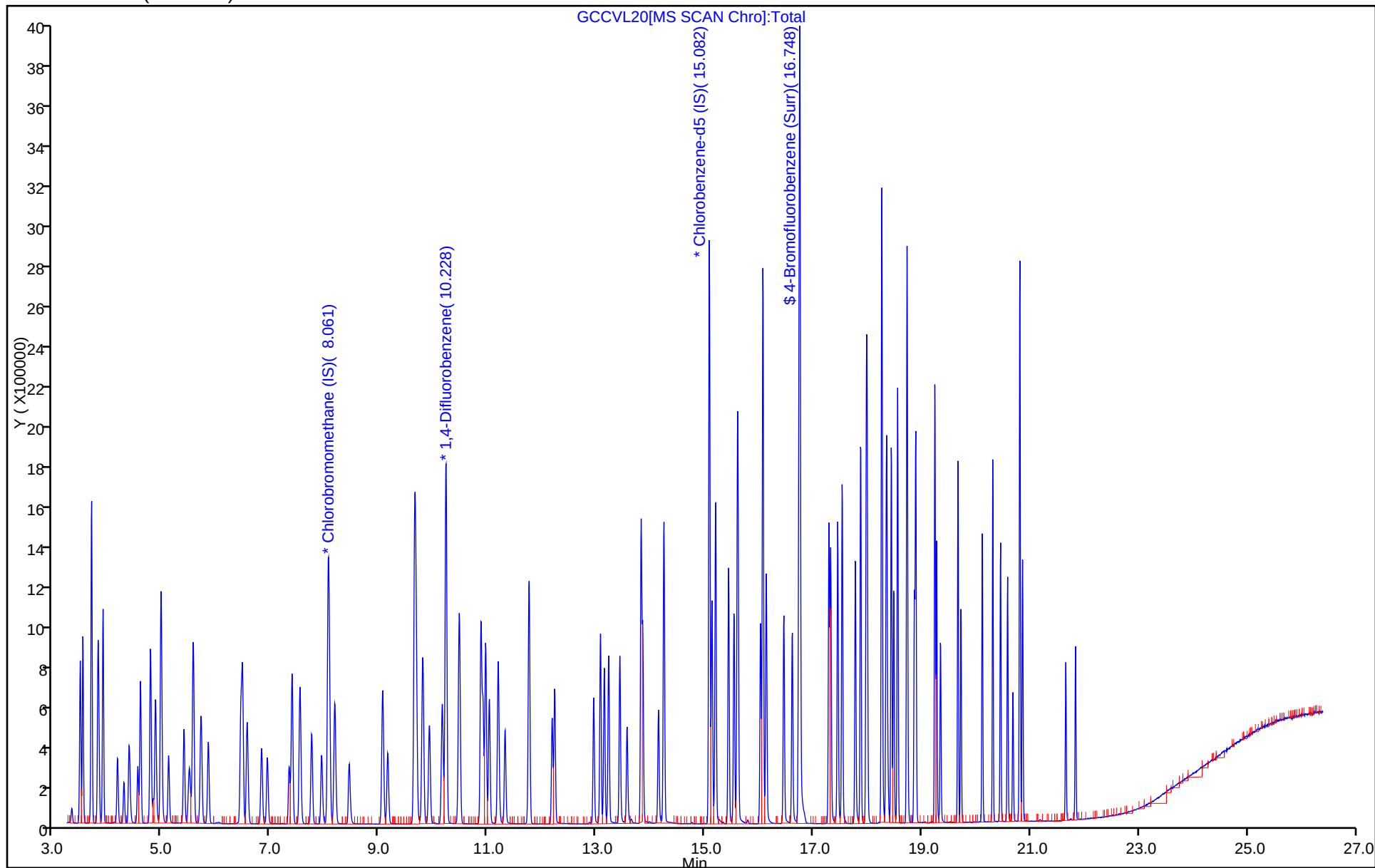
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 08-Dec-2016 19:26:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003696-001
Misc. Info.: BFB
Operator ID: 403648 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Dec-2016 15:01:18 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: barlozhetskayaa

Date: 09-Dec-2016 15:01:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB	95	4.755	4.755	0.000	0	657457	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D

Injection Date: 08-Dec-2016 19:26:30

Instrument ID: MG

Lims ID: BFB

Client ID:

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 1

Injection Vol: 500.0 mL

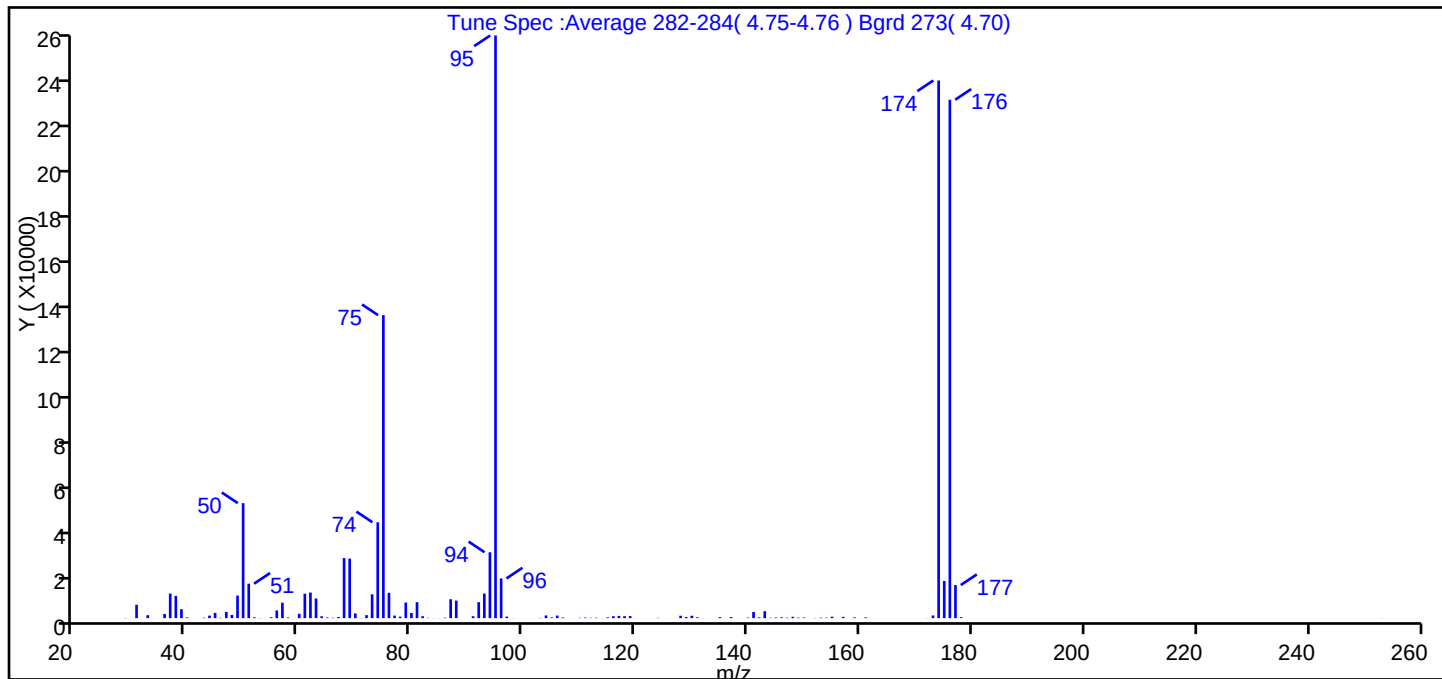
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.7
75	30 to 60% of m/z 95	52.0
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	92.3
175	5 to 9% of m/z 174	6.4 (6.9)
176	Greater than 95% but less than 101% of m/z 174	89.0 (96.4)
177	5 to 9% of m/z 176	5.7 (6.4)

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D\MG_TO15.rslt\spectra.d
Injection Date: 08-Dec-2016 19:26:30
Spectrum: Tune Spec :Average 282-284(4.75-4.76) Bgrd 273(4.70)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	83	65.00	282	95.00	251840	141.00	2671
31.00	5761	66.00	160	96.00	17160	142.00	334
33.00	1289	67.00	511	97.00	675	143.00	2997
36.00	1796	68.00	25960	98.00	57	144.00	155
37.00	10602	69.00	25744	103.00	107	145.00	281
38.00	9616	70.00	2052	104.00	1170	146.00	353
39.00	3881	71.00	65	105.00	312	147.00	197
40.00	333	72.00	1291	106.00	1120	148.00	598
43.00	193	73.00	10294	107.00	315	149.00	219
44.00	1093	74.00	41440	110.00	136	150.00	274
45.00	2271	75.00	130976	111.00	247	152.00	103
46.00	169	76.00	10957	112.00	177	153.00	221
47.00	2665	77.00	1097	113.00	185	154.00	216
48.00	1366	78.00	647	114.00	35	155.00	638
49.00	9770	79.00	6762	115.00	334	157.00	549
50.00	49704	80.00	2228	116.00	842	159.00	334
51.00	14891	81.00	6906	117.00	972	161.00	350
52.00	372	82.00	844	118.00	863	172.00	54
53.00	86	83.00	133	119.00	908	173.00	1154
55.00	388	84.00	48	124.00	128	174.00	232384
56.00	3315	85.00	53	128.00	1035	175.00	16065
57.00	6681	86.00	218	129.00	493	176.00	224064
58.00	304	87.00	8165	130.00	1038	177.00	14304
60.00	1885	88.00	7564	131.00	370	178.00	441
61.00	10569	91.00	815	132.00	55	253.00	57
62.00	11068	92.00	6899	135.00	438		
63.00	8492	93.00	10617	137.00	467		
64.00	798	94.00	28472	140.00	229		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxBFBL08.D

Injection Date: 08-Dec-2016 19:26:30

Instrument ID: MG

Operator ID: 403648

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

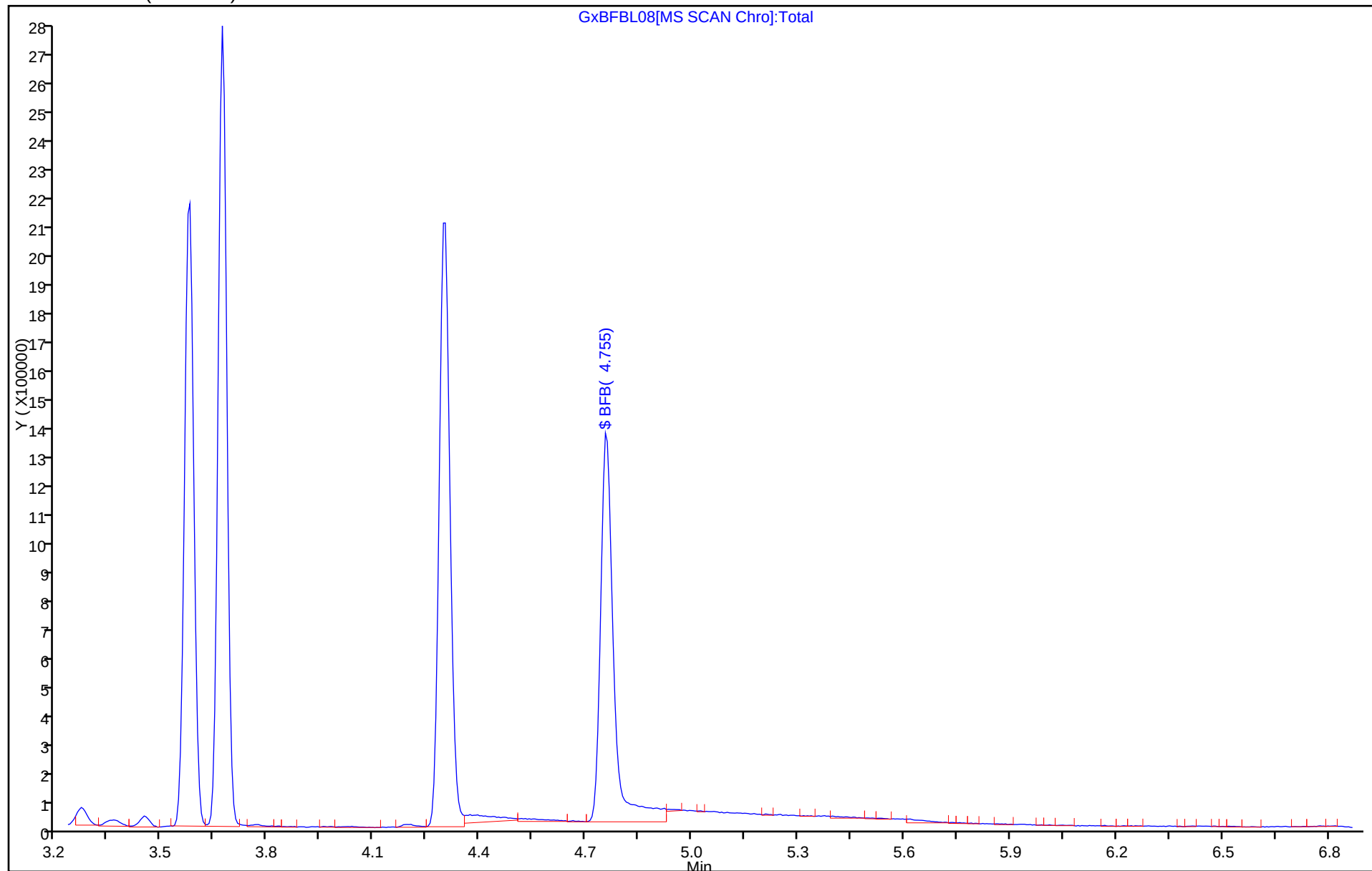
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GBFBL20.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-Dec-2016 10:09:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-001
Misc. Info.: BFB
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 14:11:06 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:11:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB	95	4.761	4.761	0.000	0	934895	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GBFBL20.D

Injection Date: 20-Dec-2016 10:09:30

Instrument ID: MG

Lims ID: BFB

Client ID:

Operator ID: 7126

ALS Bottle#: 16

Worklist Smp#: 1

Injection Vol: 500.0 mL

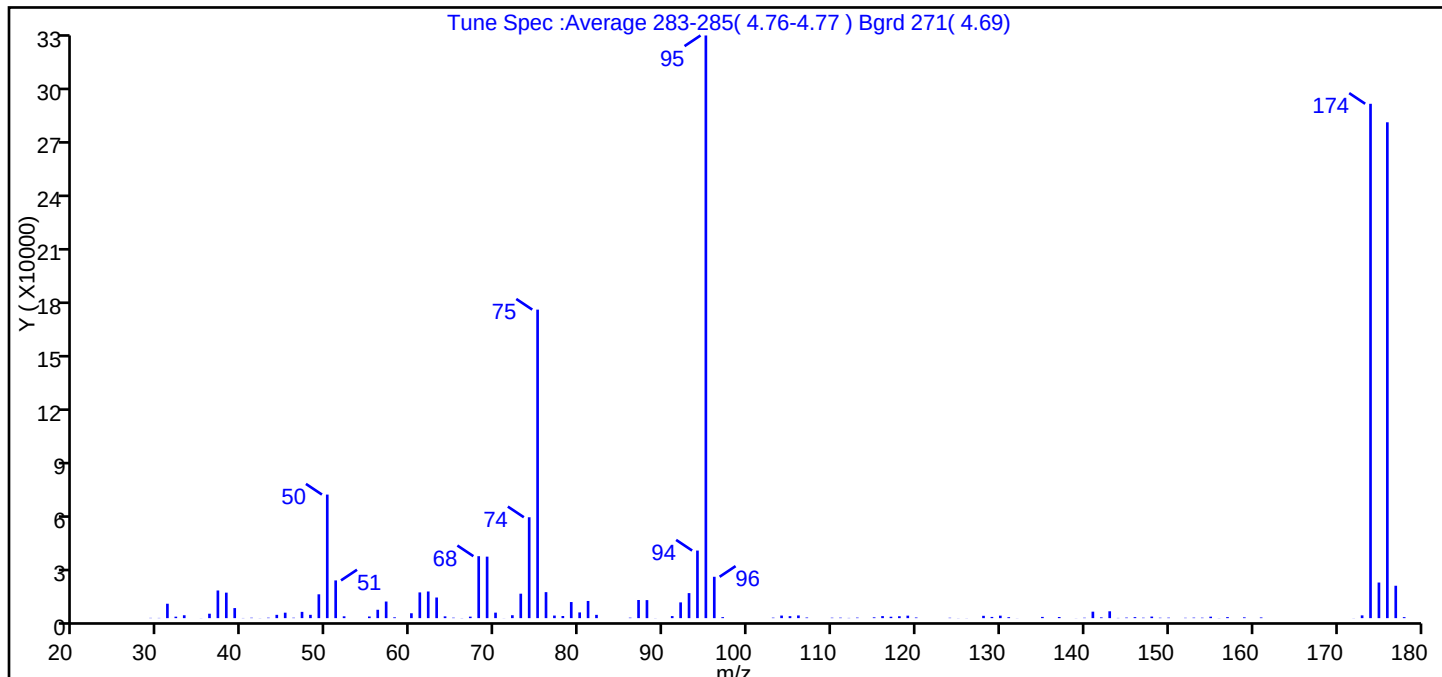
Dil. Factor: 1.0000

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.2
75	30 to 60% of m/z 95	53.0
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	88.3
175	5 to 9% of m/z 174	6.1 (6.9)
176	Greater than 95% but less than 101% of m/z 174	85.1 (96.4)
177	5 to 9% of m/z 176	5.6 (6.5)

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GBFBL20.D\MG_TO15.rslt\spectra.d
Injection Date: 20-Dec-2016 10:09:30
Spectrum: Tune Spec :Average 283-285(4.76-4.77) Bgrd 271(4.69)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	146	62.00	15039	95.00	328640	140.00	235
30.00	123	63.00	11634	96.00	23328	141.00	3654
31.00	8129	64.00	1005	97.00	569	142.00	429
32.00	827	65.00	256	103.00	275	143.00	3866
33.00	1633	66.00	83	104.00	1455	144.00	130
35.00	53	67.00	840	105.00	1124	145.00	309
36.00	2497	68.00	34944	106.00	1523	146.00	570
37.00	15606	69.00	34688	107.00	357	147.00	246
38.00	14381	70.00	3104	110.00	247	148.00	889
39.00	5676	71.00	50	111.00	277	149.00	234
40.00	96	72.00	1645	112.00	129	150.00	274
41.00	234	73.00	13794	113.00	299	152.00	194
42.00	65	74.00	56904	115.00	454	153.00	287
43.00	255	75.00	174016	116.00	1151	154.00	257
44.00	1866	76.00	14669	117.00	793	155.00	819
45.00	3082	77.00	1463	118.00	1067	156.00	72
46.00	237	78.00	1205	119.00	1402	157.00	575
47.00	3541	79.00	9081	120.00	364	159.00	452
48.00	1875	80.00	3233	124.00	216	161.00	392
49.00	13442	81.00	9690	125.00	60	172.00	59
50.00	69696	82.00	1859	126.00	59	173.00	1563
51.00	21280	86.00	264	128.00	1314	174.00	290112
52.00	1033	87.00	10235	129.00	687	175.00	20088
55.00	931	88.00	10171	130.00	1407	176.00	279680
56.00	4725	89.00	58	131.00	538	177.00	18272
57.00	9373	91.00	1162	132.00	52	178.00	571
58.00	465	92.00	8887	135.00	696		
60.00	2754	93.00	14117	137.00	637		
61.00	14515	94.00	38120	139.00	55		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GBFBL20.D

Injection Date: 20-Dec-2016 10:09:30

Instrument ID: MG

Operator ID: 7126

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

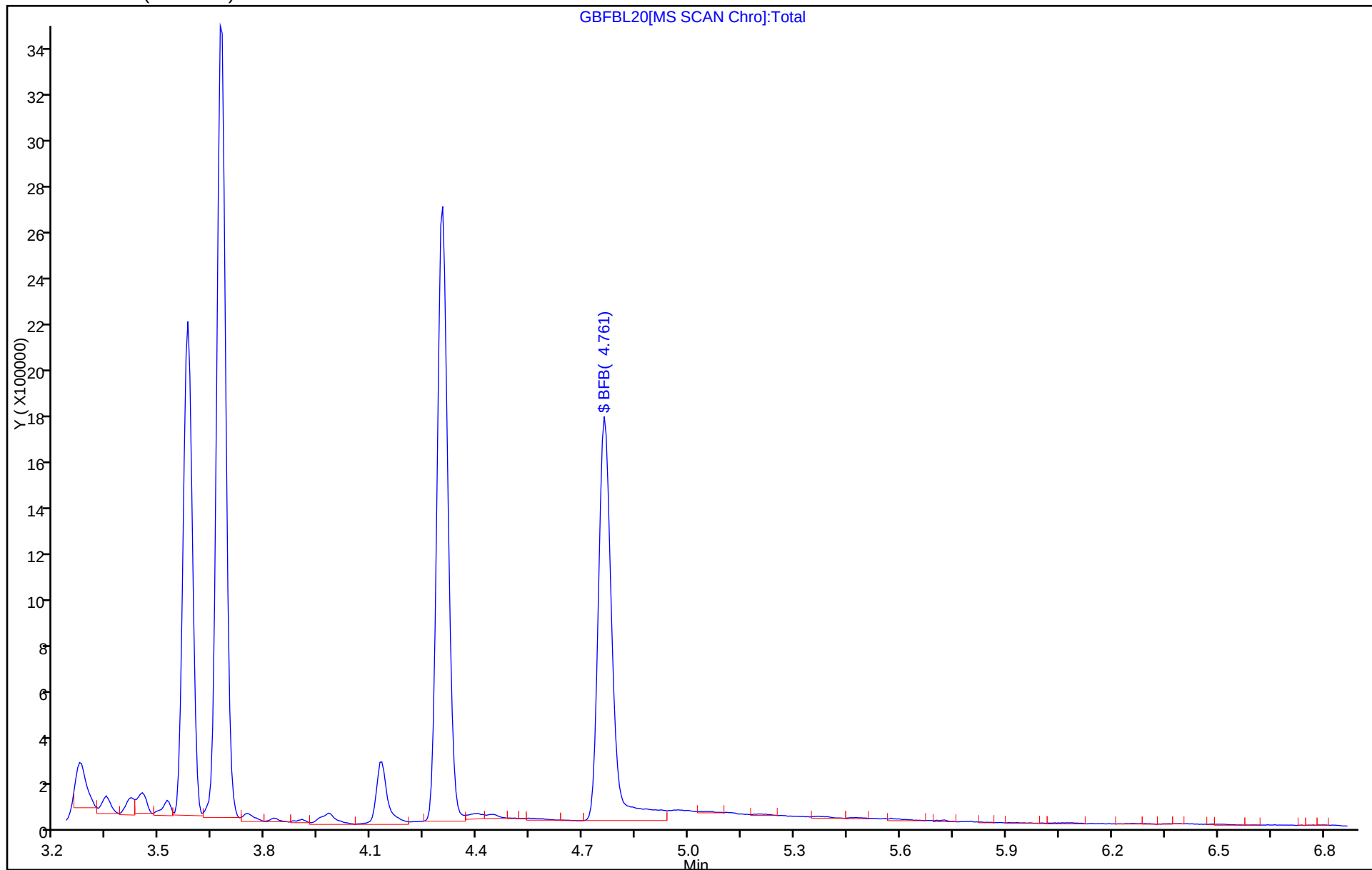
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7444/4
 Matrix: Air Lab File ID: GMB500L20.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	ND		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	ND		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7444/4
 Matrix: Air Lab File ID: GMB500L20.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	ND		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.080	
95-47-6	o-Xylene	106.17	ND		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	ND		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7444/4
 Matrix: Air Lab File ID: GMB500L20.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	ND		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	ND		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7444/4
 Matrix: Air Lab File ID: GMB500L20.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	ND		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	ND		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.35	
95-47-6	o-Xylene	106.17	ND		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	ND		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	ND		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GMB500L20.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 20-Dec-2016 12:39:30 ALS Bottle#: 16 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-004
 Misc. Info.: 500ML BLK
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 14:13:44 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 13:33:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.044	8.055	-0.011	98	336335	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.218	10.228	-0.010	96	1607490	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.076	15.082	-0.006	88	1657150	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.748	16.753	-0.005	96	1151014	4.00	4.20	
31 Methylene Chloride	84	5.699	5.704	-0.005	97	5686		0.0795	
65 4-Methyl-2-pentanone (MIBK	43	12.207	12.186	0.021	98	12457		0.0633	
76 Tetrachloroethene	129	14.240	14.246	-0.006	94	2836		0.0195	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GMB500L20.D

Injection Date: 20-Dec-2016 12:39:30

Instrument ID: MG

Operator ID: 7126

Lims ID: mb

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

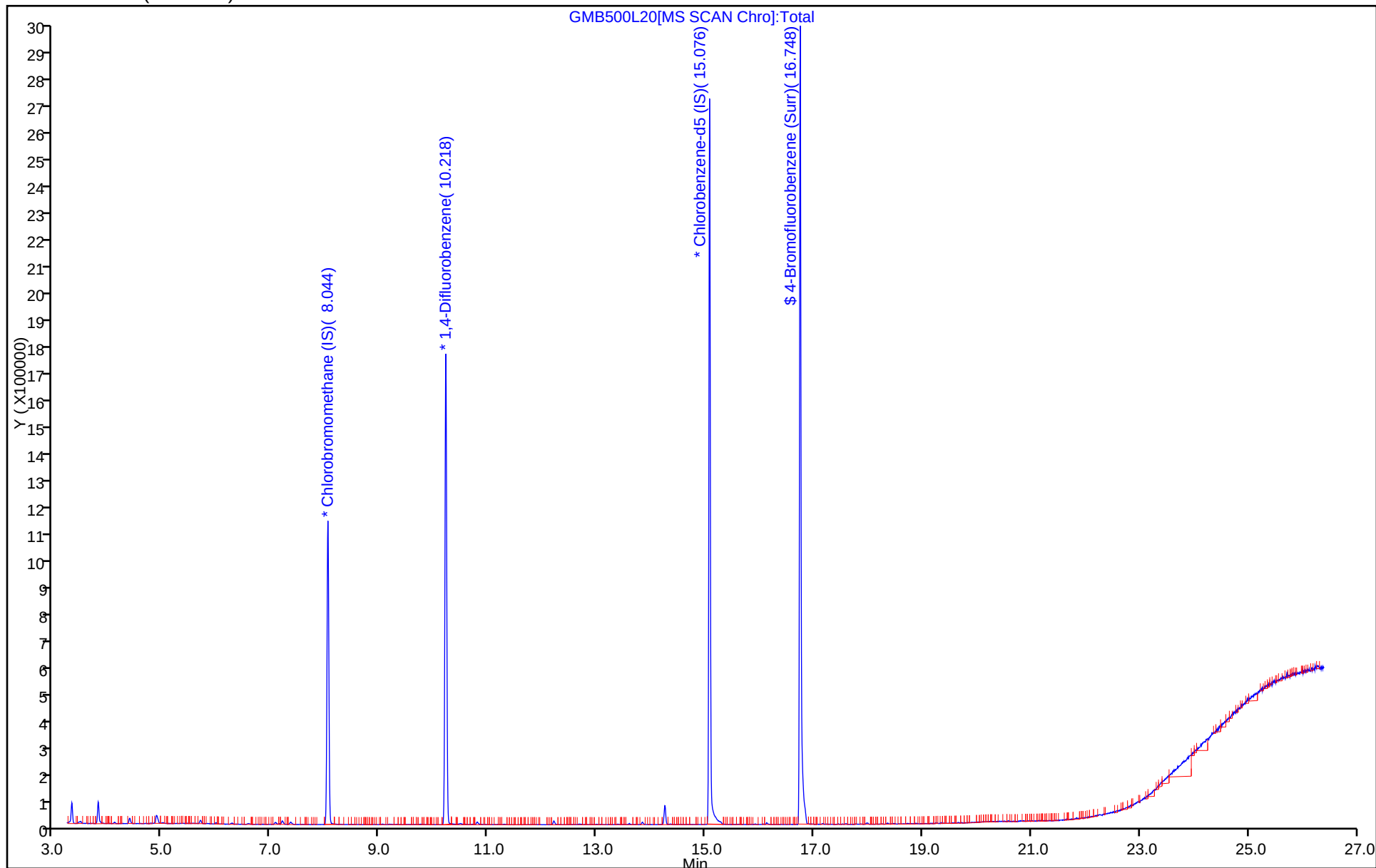
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GMB500L20.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-Dec-2016 12:39:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 14:13:44 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 13:33:19

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.20	105.00

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7444/1002
 Matrix: Air Lab File ID: GCCVL20-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 10:44
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	2.39		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.13		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	2.29		0.080	
75-34-3	1,1-Dichloroethane	98.96	2.39		0.080	
75-35-4	1,1-Dichloroethene	96.94	2.23		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	1.83		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.02		0.080	
106-93-4	1,2-Dibromoethane	187.87	2.13		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	1.90		0.080	
107-06-2	1,2-Dichloroethane	98.96	2.30		0.080	
78-87-5	1,2-Dichloropropane	112.99	2.15		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.34		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.94		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	1.92		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	1.94		0.080	
123-91-1	1,4-Dioxane	88.11	1.94		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	2.11		0.20	
78-93-3	2-Butanone	72.11	2.14		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.03		0.20	
71-43-2	Benzene	78.11	2.11		0.080	
100-44-7	Benzyl chloride	126.58	2.12		0.16	
75-27-4	Bromodichloromethane	163.83	2.12		0.080	
75-25-2	Bromoform	252.75	2.25		0.080	
74-83-9	Bromomethane	94.94	2.23		0.080	
56-23-5	Carbon tetrachloride	153.81	2.11		0.040	
108-90-7	Chlorobenzene	112.56	2.03		0.080	
75-00-3	Chloroethane	64.52	2.27		0.080	
67-66-3	Chloroform	119.38	2.35		0.080	
74-87-3	Chloromethane	50.49	2.42		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	2.24		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.17		0.080	
110-82-7	Cyclohexane	84.16	2.00		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7444/1002
 Matrix: Air Lab File ID: GCCVL20-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 12/20/2016 10:44
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7444 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	2.16		0.080	
75-71-8	Dichlorodifluoromethane	120.91	2.58		0.080	
64-17-5	Ethanol	46.07	12.2		2.0	
100-41-4	Ethylbenzene	106.17	2.09		0.080	
87-68-3	Hexachlorobutadiene	260.76	1.69		0.080	
110-54-3	Hexane	86.17	2.41		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	2.34		0.16	
75-09-2	Methylene Chloride	84.93	2.07		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	4.19		0.080	
95-47-6	o-Xylene	106.17	2.07		0.080	
100-42-5	Styrene	104.15	2.10		0.080	
75-65-0	t-Butyl alcohol	74.12	2.36		0.32	
127-18-4	Tetrachloroethene	165.83	1.91		0.080	
108-88-3	Toluene	92.14	2.08		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	2.23		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.19		0.080	
79-01-6	Trichloroethene	131.39	1.83		0.040	
75-69-4	Trichlorofluoromethane	137.37	2.45		0.080	
75-01-4	Vinyl chloride	62.50	2.50		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GCCVL20-LCS.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 20-Dec-2016 10:44:30 ALS Bottle#: 15 Worklist Smp#: 1002
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003728-002
 Misc. Info.: P28
 Operator ID: 7126 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Dec-2016 14:13:44 Calib Date: 09-Dec-2016 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:13:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.055	8.055	0.000	97	338706	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.228	10.228	0.000	96	1718986	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.082	15.082	0.000	88	1729180	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.753	16.753	0.000	94	1244644	4.00	4.35	
6 Chlorodifluoromethane	67	3.477	3.477	0.000	97	72989	2.00	2.63	
7 Propene	41	3.488	3.488	0.000	98	231794	2.00	2.50	
8 Dichlorodifluoromethane	85	3.531	3.531	0.000	100	748317	2.00	2.58	
9 Chloromethane	52	3.682	3.682	0.000	98	75447	2.00	2.42	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.693	3.693	0.000	94	450155	2.00	2.34	
11 Acetaldehyde	44	3.812	3.812	0.000	100	421952	10.1	12.3	
12 Vinyl chloride	62	3.828	3.828	0.000	99	255424	2.00	2.50	
13 Butadiene	54	3.903	3.903	0.000	87	203454	2.00	2.47	
14 Butane	43	3.903	3.903	0.000	92	425885	2.00	2.64	
15 Bromomethane	94	4.167	4.167	0.000	98	217580	2.00	2.23	
16 Chloroethane	64	4.286	4.286	0.000	95	123376	2.00	2.27	
17 Ethanol	31	4.383	4.383	0.000	97	412250	10.1	12.2	
18 Vinyl bromide	106	4.545	4.545	0.000	98	204265	2.00	2.22	
19 2-Methylbutane	43	4.593	4.593	0.000	91	285066	2.00	2.42	
21 Acrolein	56	4.777	4.777	0.000	94	56620	2.00	2.15	
20 Trichlorofluoromethane	101	4.777	4.777	0.000	99	689353	2.00	2.45	
22 Acetonitrile	40	4.831	4.831	0.000	98	79836	2.00	2.55	
23 Acetone	58	4.874	4.874	0.000	99	230052	6.00	6.45	
25 Isopropyl alcohol	45	4.971	4.971	0.000	92	877310	6.00	7.27	
24 Pentane	72	4.971	4.971	0.000	95	38429	2.00	2.23	
26 Ethyl ether	31	5.111	5.111	0.000	94	194158	2.00	2.73	
27 1,1-Dichloroethene	96	5.397	5.397	0.000	95	184747	2.00	2.23	
28 Acrylonitrile	53	5.478	5.478	0.000	94	104133	2.00	2.33	
29 2-Methyl-2-propanol	59	5.499	5.499	0.000	95	299718	2.00	2.36	
30 1,1,2-Trichloro-1,2,2-trif	101	5.564	5.564	0.000	97	407534	2.00	2.29	
31 Methylene Chloride	84	5.704	5.704	0.000	98	149161	2.00	2.07	
32 3-Chloro-1-propene	39	5.720	5.720	0.000	97	177109	2.00	2.48	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	5.844	5.844	0.000	100	590335	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.443	6.443	0.000	95	216819	2.00	2.23	
35 2-Methylpentane	43	6.475	6.475	0.000	96	554526	2.02	2.64	
36 Methyl tert-butyl ether	73	6.562	6.562	0.000	97	541316	2.00	2.34	
37 1,1-Dichloroethane	63	6.826	6.826	0.000	100	436833	2.00	2.39	
38 Vinyl acetate	43	6.934	6.934	0.000	100	587369	2.00	2.58	
39 2-Butanone (MEK)	72	7.338	7.338	0.000	97	85929	2.00	2.14	
40 Hexane	56	7.387	7.387	0.000	87	194031	2.00	2.41	
41 Isopropyl ether	45	7.532	7.532	0.000	97	752033	2.00	2.60	
42 cis-1,2-Dichloroethene	96	7.748	7.748	0.000	98	221416	2.00	2.24	
43 Ethyl acetate	43	7.931	7.931	0.000	98	474874	2.00	2.65	
44 Chloroform	83	8.077	8.077	0.000	98	498777	2.00	2.35	
45 Tert-butyl ethyl ether	59	8.174	8.174	0.000	96	622894	2.00	2.48	
46 Tetrahydrofuran	42	8.444	8.444	0.000	94	244359	2.00	2.64	
47 1,1,1-Trichloroethane	97	9.058	9.058	0.000	96	553602	2.00	2.39	
48 1,2-Dichloroethane	62	9.150	9.150	0.000	98	368208	2.00	2.30	
49 Benzene	78	9.646	9.646	0.000	98	653418	2.00	2.11	
50 Cyclohexane	69	9.651	9.651	0.000	90	114044	2.00	2.00	
51 n-Butanol	31	9.651	9.651	0.000	67	82304	2.00	2.19	
52 Carbon tetrachloride	117	9.678	9.678	0.000	98	582906	2.00	2.11	
53 2,3-Dimethylpentane	71	9.797	9.797	0.000	91	159359	2.02	1.99	
54 Thiophene	84	9.921	9.921	0.000	97	367026	2.02	1.98	
55 Tert-amyl methyl ether	73	10.158	10.158	0.000	97	574871	2.00	2.08	
56 Isooctane	57	10.471	10.471	0.000	98	1181879	2.00	2.11	
57 n-Heptane	71	10.870	10.870	0.000	94	247473	2.00	1.99	
58 1,2-Dichloropropane	63	10.908	10.908	0.000	87	251502	2.00	2.15	
59 Trichloroethene	130	10.956	10.956	0.000	95	328808	2.00	1.83	
60 Dibromomethane	93	11.021	11.021	0.000	96	276374	2.00	1.94	
61 Dichlorobromomethane	83	11.188	11.188	0.000	100	526020	2.00	2.12	
62 1,4-Dioxane	88	11.204	11.204	0.000	96	80371	2.00	1.94	
63 Methyl methacrylate	41	11.318	11.318	0.000	94	288722	2.00	2.28	
64 Methylcyclohexane	83	11.760	11.760	0.000	92	500430	2.02	1.96	
65 4-Methyl-2-pentanone (MIBK)	43	12.186	12.186	0.000	98	427020	2.00	2.03	
66 cis-1,3-Dichloropropene	75	12.229	12.229	0.000	97	401881	2.00	2.17	
67 trans-1,3-Dichloropropene	75	12.952	12.952	0.000	97	365084	2.00	2.19	
68 Toluene	91	13.076	13.076	0.000	94	717785	2.00	2.08	
69 1,1,2-Trichloroethane	83	13.146	13.146	0.000	99	216789	2.00	2.13	
70 2-Methylthiophene	97	13.227	13.227	0.000	98	592356	2.02	2.03	
71 3-Methylthiophene	97	13.432	13.432	0.000	99	592836	2.02	2.09	
72 2-Hexanone	58	13.566	13.566	0.000	91	182839	2.00	1.80	
73 n-Octane	85	13.825	13.825	0.000	95	274863	2.00	2.02	
74 Chlorodibromomethane	129	13.852	13.852	0.000	98	506797	2.00	2.16	
75 Ethylene Dibromide	107	14.143	14.143	0.000	98	427406	2.00	2.13	
76 Tetrachloroethene	129	14.246	14.246	0.000	95	290049	2.00	1.91	
77 Chlorobenzene	112	15.130	15.130	0.000	91	582485	2.00	2.03	
78 2,3-Dimethylheptane	43	15.195	15.195	0.000	96	835138	2.02	2.44	
79 Ethylbenzene	91	15.438	15.438	0.000	99	945539	2.00	2.09	
80 2-Ethylthiophene	97	15.535	15.535	0.000	98	718785	2.02	2.12	
81 m-Xylene & p-Xylene	91	15.605	15.605	0.000	99	1463668	4.00	4.19	
83 Bromoform	173	16.025	16.025	0.000	96	486850	2.00	2.25	
82 n-Nonane	57	16.068	16.068	0.000	94	528373	2.00	2.33	
84 Styrene	104	16.074	16.074	0.000	99	522307	2.00	2.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	16.133	16.133	0.000	98	763158	2.00	2.07	
86 1,1,2,2-Tetrachloroethane	83	16.457	16.457	0.000	99	517248	2.00	2.13	
87 1,2,3-Trichloropropane	110	16.613	16.613	0.000	97	163094	2.00	2.04	
88 Isopropylbenzene	105	16.732	16.732	0.000	97	1025646	2.00	1.98	
89 N-Propylbenzene	120	17.287	17.287	0.000	99	276309	2.00	1.96	
90 2-Chlorotoluene	126	17.319	17.319	0.000	97	256866	2.00	1.97	
91 4-Ethyltoluene	105	17.449	17.449	0.000	99	960207	2.00	1.92	
92 1,3,5-Trimethylbenzene	120	17.530	17.530	0.000	92	465677	2.00	1.94	
93 Alpha Methyl Styrene	118	17.772	17.772	0.000	88	394399	2.00	1.99	
94 n-Decane	57	17.875	17.875	0.000	90	603089	2.00	2.26	
95 tert-Butylbenzene	119	17.977	17.977	0.000	93	913479	2.00	1.96	
96 1,2,4-Trimethylbenzene	105	17.993	17.993	0.000	96	848045	2.00	2.02	
98 1,3-Dichlorobenzene	146	18.263	18.263	0.000	97	580956	2.00	1.92	
97 sec-Butylbenzene	105	18.263	18.263	0.000	98	1209225	2.00	2.00	
99 Benzyl chloride	91	18.344	18.344	0.000	97	709907	2.00	2.12	
100 1,4-Dichlorobenzene	146	18.355	18.355	0.000	95	573965	2.00	1.94	
101 4-Isopropyltoluene	119	18.436	18.436	0.000	97	1015959	2.00	1.97	
102 1,2,3-Trimethylbenzene	105	18.484	18.484	0.000	98	648758	2.02	2.01	
103 Butylcyclohexane	83	18.554	18.554	0.000	91	675007	2.02	2.08	
104 1,2-Dichlorobenzene	146	18.727	18.727	0.000	93	548828	2.00	1.90	
105 2,3-Dihydroindene	117	18.732	18.732	0.000	94	759226	2.02	1.95	
106 Indene	116	18.862	18.862	0.000	93	558080	2.02	1.72	
107 n-Butylbenzene	91	18.889	18.889	0.000	98	940458	2.00	2.10	
108 Undecane	57	19.239	19.239	0.000	96	604275	2.00	2.14	
109 1,2-Dimethyl-4-Ethylbenzen	119	19.271	19.271	0.000	97	708527	2.02	1.89	
110 1,2-Dibromo-3-Chloropropan	157	19.347	19.347	0.000	97	216077	2.00	1.78	
111 1,2,4,5-Tetramethylbenzene	119	19.665	19.665	0.000	97	831828	2.02	1.89	
112 1,2,3,5-Tetramethylbenzene	119	19.719	19.719	0.000	95	508995	2.02	1.89	
113 1,2,3,4-Tetramethylbenzene	119	20.113	20.113	0.000	97	669223	2.02	1.84	
114 Dodecane	57	20.307	20.307	0.000	95	448087	2.00	1.79	
115 1,2,4-Trichlorobenzene	180	20.452	20.452	0.000	94	367178	2.00	1.83	
116 Naphthalene	128	20.582	20.582	0.000	99	809704	2.00	1.90	
117 Benzo(b)thiophene	134	20.679	20.679	0.000	99	402477	2.02	1.72	
118 Hexachlorobutadiene	225	20.808	20.808	0.000	95	520684	2.00	1.69	
119 1,2,3-Trichlorobenzene	180	20.857	20.857	0.000	94	340754	2.00	1.74	
120 2-Methylnaphthalene	142	21.655	21.655	0.000	100	315544	6.25	5.08	
121 1-Methylnaphthalene	142	21.833	21.833	0.000	100	336685	6.25	5.32	
A 124 Toluene Range	1	13.071	(13.036-13.106)		0	1839861	2.00	2.11	
A 125 C8 Range	1	13.830	(13.815-13.845)		0	3099640	2.00	2.29	M
S 126 Xylenes, Total	100				0		6.00	6.26	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40CV101S_00028

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Laboratories

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GCCVL20-LCS.d

Injection Date: 20-Dec-2016 10:44:30

Instrument ID: MG

Operator ID: 7126

Lims ID: LCS

Worklist Smp#: 1002

Client ID:

Purge Vol: 500.000 mL

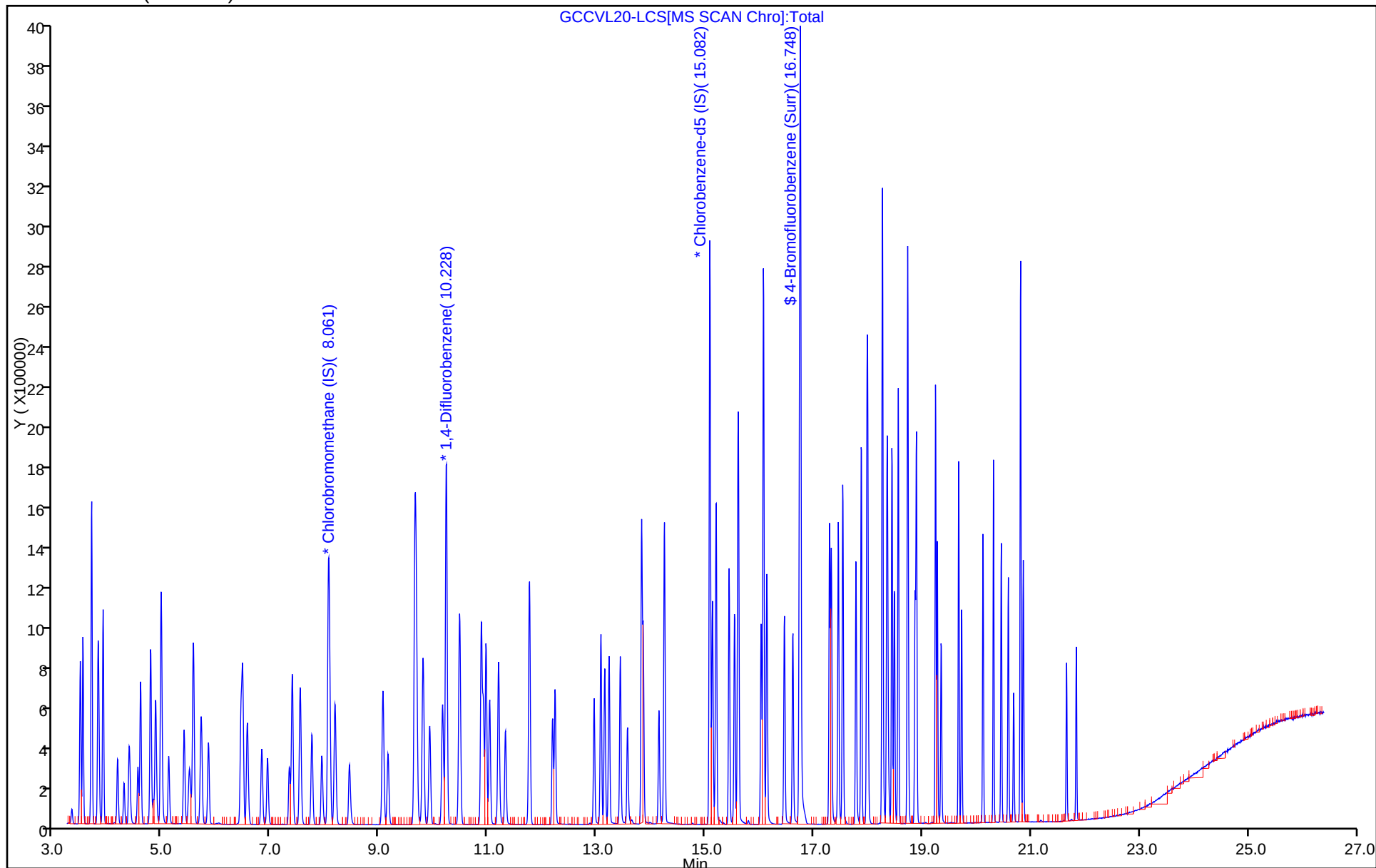
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\GCCVL20-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Dec-2016 10:44:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003728-002
Misc. Info.: P28
Operator ID: 7126 Instrument ID: MG
Method: \\ChromNA\Knoxville\ChromData\MG\20161216-3728.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Dec-2016 14:13:44 Calib Date: 09-Dec-2016 12:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20161205-3696.b\GxL08EthOxICL05.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: tajh

Date: 20-Dec-2016 14:13:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.35	108.81

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6565-1

SDG No.: _____

Instrument ID: MGStart Date: 12/08/2016 19:26Analysis Batch Number: 7384End Date: 12/09/2016 12:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7384/1		12/08/2016 19:26	1	GxBFBL08.D	RTX-5 0.32 (mm)
IC 140-7384/3		12/08/2016 19:58	1	GxL08IC01.D	RTX-5 0.32 (mm)
140-6463-A-1 MDLV		12/08/2016 19:58	1		RTX-5 0.32 (mm)
IC 140-7384/4		12/08/2016 20:42	1	GxL08IC02.D	RTX-5 0.32 (mm)
140-6463-A-2 MDLV		12/08/2016 20:42	1		RTX-5 0.32 (mm)
IC 140-7384/5		12/08/2016 21:25	1	GxL08IC03.D	RTX-5 0.32 (mm)
140-6463-A-3 MDLV		12/08/2016 21:25	1		RTX-5 0.32 (mm)
IC 140-7384/6		12/08/2016 22:07	1	GxL08IC04.D	RTX-5 0.32 (mm)
140-6463-A-4 MDLV		12/08/2016 22:07	1		RTX-5 0.32 (mm)
IC 140-7384/7		12/08/2016 22:50	1	GxL08IC05.D	RTX-5 0.32 (mm)
140-6463-A-5 MDLV		12/08/2016 22:50	1		RTX-5 0.32 (mm)
ICIS 140-7384/8		12/08/2016 23:31	1	GxL08IC06.D	RTX-5 0.32 (mm)
IC 140-7384/9		12/09/2016 00:14	1	GxL08IC07.D	RTX-5 0.32 (mm)
IC 140-7384/10		12/09/2016 00:56	1	GxL08IC08.D	RTX-5 0.32 (mm)
IC 140-7384/11		12/09/2016 01:38	1	GxL08IC09.D	RTX-5 0.32 (mm)
ICV 140-7384/13		12/09/2016 03:01	1	GxL08ICV.D	RTX-5 0.32 (mm)
ZZZZZ		12/09/2016 04:19	1		RTX-5 0.32 (mm)
ZZZZZ		12/09/2016 06:27	1		RTX-5 0.32 (mm)
IC 140-7384/28		12/09/2016 10:00	1		RTX-5 0.32 (mm)
IC 140-7384/29		12/09/2016 10:42	1		RTX-5 0.32 (mm)
IC 140-7384/30		12/09/2016 11:26	1		RTX-5 0.32 (mm)
IC 140-7384/31		12/09/2016 12:09	1		RTX-5 0.32 (mm)
IC 140-7384/32		12/09/2016 12:54	1		RTX-5 0.32 (mm)

161208.zzz

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
CLEAN	16 - 201 mL	32.4	12/8/2016	6:55:40 PM
BFB	16 - 101 mL	32.5	12/8/2016	7:26:24 PM
ICAL01	1 - 101 mL	28.1	12/8/2016	7:58:57 PM
ICAL02	1 - 201 mL	27.1	12/8/2016	8:42:09 PM
ICAL03	2 - 201 mL	26.3	12/8/2016	9:25:29 PM
ICAL04	3 - 201 mL	22.4	12/8/2016	10:07:57 PM
ICAL05	4 - 201 mL	30.5	12/8/2016	10:50:34 PM
ICAL06	5 - 201 mL	30.4	12/8/2016	11:31:52 PM
ICAL07	6 - 201 mL	29.5	12/9/2016	12:14:55 AM
ICAL08	7 - 201 mL	23.8	12/9/2016	12:56:50 AM
ICAL09	8 - 201 mL	27.5	12/9/2016	1:38:42 AM
DNUPRIME	9 - 22 mL	36.2	12/9/2016	2:19:54 AM
ICV	9 - 102 mL	35.7	12/9/2016	3:01:43 AM
DNUCLEAN	16 - 100 mL	32.3	12/9/2016	3:43:27 AM
BLANK	16 - 500 mL	31.2	12/9/2016	4:19:41 AM
MDL	1 - 51 mL	27.8	12/9/2016	5:01:33 AM
TEST	10 - 101 mL	24.7	12/9/2016	5:43:19 AM
TPH	11 - 201 mL	34.9	12/9/2016	6:27:11 AM
LCS	12 - 101 mL	35.6	12/9/2016	7:08:57 AM
EXPSTD13	13 - 51 mL	25.6	12/9/2016	7:50:17 AM
EXPSTD14	14 - 51 mL	22.7	12/9/2016	8:31:56 AM
BLANK	16 - 501 mL	30	12/9/2016	9:19:16 AM
EOICL04	15 - 21 mL	23.1	12/9/2016	10:00:40 AM
EOICL05	15 - 51 mL	22.8	12/9/2016	10:42:41 AM
EOICL06	15 - 101 mL	22.2	12/9/2016	11:26:20 AM
EOICL07	15 - 201 mL	21.3	12/9/2016	12:09:10 PM
EOICL08	15 - 501 mL	18.4	12/9/2016	12:54:24 PM
BLANK	16 - 500 mL	30.3	12/9/2016	1:40:43 PM

MG WL 3696

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

802 ethoxide

Analysis Date:	12/9/16	Instrument:	UG	Chrom WL #:	3696	TALS Batch & Event #	TO14/15: 7384/798	AFCCE: 7387/801
							DOD: 7386/800	OHIO: 7385/799

Chrom/Worklist Review	1 st	Comments	2 nd
1. Re-read each Limit Group [method editor-limit groups]	✓		
2. Verify LODV in Chrom [method editor → edit → MCL]	✓		
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓	#55 1W 2,3 C8 1W 4,5,6 split peak	✓
9. RT for each IS ±20 sec avg. RT? [F6 IsdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IsdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓		✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration? DMU TPH as Hexane	✓	C8 (M) # 4.5.6, 10V.	✓

MLG Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓				124 TBA 35%	✓	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓					✓	✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓					✓	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? Note: Ohio does not allow quad [F6]	✓				Indene (TO15)	✓	✓	✓	✓
18. If curves were used, is correlation coefficient ≥ 0.990? [F6]	✓	NA				✓	✓	✓	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	NA				✓	✓	✓	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	NA				NA			
21. Is the second source analysis within limits? [F8 - icy]	✓					✓	✓	✓	✓
22. Analyst/Date: <i>AKS 12/9/16</i>					2nd Level Reviewer/Date: <i>AKS 12/9/16</i>				

TALS Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
23. Upload ICAL <i>AKS 12/9/16</i>	✓	✓	✓	✓		✓	✓	✓	✓
24. Graphics uploaded? [Sample List Tab]	✓	✓	✓	✓		✓	✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events - "Fix ICAL linkage" if needed]	✓	✓	✓	✓		✓	✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓	✓		✓	✓	✓	✓
27. If criteria not met, was a NCM generated? <i>NA</i>	✓	✓	✓	✓		✓	✓	✓	✓
28. After review in TALS, approve the method in TALS.	✓	✓	✓	✓		✓	✓	✓	✓
29. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	✓	✓	✓	✓		✓	✓	✓	✓
30. Checklist & Entech report scanned, attached & assigned properly?	✓	✓	✓	✓		✓	✓	✓	✓

Analyst: <i>AKS</i>	Date: <i>12/9/16</i>	2nd Level Reviewer: <i>AKS</i>	Date: <i>12/9/16</i>
Comments: <i>AKS Brown form 2</i>		Comments:	

MS017r41, 5/23/2016

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6565-1

SDG No.: _____

Instrument ID: MGStart Date: 12/20/2016 10:09Analysis Batch Number: 7444End Date: 12/21/2016 09:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7444/1		12/20/2016 10:09	1	GBFBL20.D	RTX-5 0.32 (mm)
CCVIS 140-7444/2		12/20/2016 10:44	1	GCCVL20.D	RTX-5 0.32 (mm)
LCS 140-7444/1002		12/20/2016 10:44	1	GCCVL20-LCS.d	RTX-5 0.32 (mm)
MB 140-7444/4		12/20/2016 12:39	1	GMB500L20.D	RTX-5 0.32 (mm)
140-6565-1		12/20/2016 13:27	1.46	GL20P101.D	RTX-5 0.32 (mm)
140-6565-2		12/20/2016 14:13	1.44	GL20P102.D	RTX-5 0.32 (mm)
140-6565-3		12/20/2016 14:55	1	GL20P103.D	RTX-5 0.32 (mm)
140-6565-4		12/20/2016 15:38	1	GL20P104.D	RTX-5 0.32 (mm)
140-6565-6		12/20/2016 17:02	1.6	GL20P106.D	RTX-5 0.32 (mm)
140-6565-7		12/20/2016 17:49	1	GL20P107.D	RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 18:31	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 19:14	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 19:56	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 20:40	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 21:25	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 22:11	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 22:56	1		RTX-5 0.32 (mm)
ZZZZZ		12/20/2016 23:41	1		RTX-5 0.32 (mm)
ZZZZZ		12/21/2016 00:25	1		RTX-5 0.32 (mm)
ZZZZZ		12/21/2016 01:09	1		RTX-5 0.32 (mm)
140-6565-1 DL		12/21/2016 01:52	1.46	GL20P101DL.D	RTX-5 0.32 (mm)
140-6565-2 DL		12/21/2016 02:35	1.44	GL20P102DL.D	RTX-5 0.32 (mm)
140-6565-3 DL		12/21/2016 03:16	1	GL20P103DL.D	RTX-5 0.32 (mm)
ZZZZZ		12/21/2016 03:59	1		RTX-5 0.32 (mm)
ZZZZZ		12/21/2016 04:44	1		RTX-5 0.32 (mm)
140-6565-5		12/21/2016 09:47	1	GL20P105R.D	RTX-5 0.32 (mm)

161220.ZZZ

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	24.6	12/20/2016	10:09:30 AM
CCV	15 - 101 mL	20.6	12/20/2016	10:44:14 AM
DNULEAK	16 - 21 mL	24.6	12/20/2016	12:02:35 PM
BLANK	16 - 501 mL	22.6	12/20/2016	12:39:51 PM
6565-01	1 - 730 mL	10.4	12/20/2016	1:27:03 PM
6565-02	2 - 721 mL	5.6	12/20/2016	2:13:42 PM
6565-03	3 - 201 mL	4.9	12/20/2016	2:55:36 PM
6565-04	4 - 100 mL	9	12/20/2016	3:38:15 PM
6565-05	5 - 100 mL	9.5	12/20/2016	4:20:52 PM
6565-06	6 - 201 mL	14.1	12/20/2016	5:02:23 PM
6565-07	7 - 502 mL	6.1	12/20/2016	5:49:17 PM
6573-11	8 - 11 mL	10.4	12/20/2016	6:31:23 PM
6573-12	9 - 201 mL	5.4	12/20/2016	7:14:11 PM
6573-13	10 - 200 mL	7	12/20/2016	7:56:04 PM
6590-01	11 - 500 mL	8.5	12/20/2016	8:40:56 PM
6590-02	12 - 500 mL	7.8	12/20/2016	9:25:53 PM
6590-03	13 - 500 mL	9.5	12/20/2016	10:11:49 PM
6590-04	14 - 500 mL	7.2	12/20/2016	10:56:35 PM
6591-01	15 - 501 mL	1.4	12/20/2016	11:41:07 PM
6591-02	16 - 502 mL	5.4	12/21/2016	12:25:39 AM
6591-02	16 - 500 mL	2.1	12/21/2016	1:09:54 AM
6565-01	1 - 300 mL	9.8	12/21/2016	1:52:41 AM
6565-02	2 - 101 mL	11.2	12/21/2016	2:35:27 AM
6565-03	3 - 80 mL	8.8	12/21/2016	3:16:25 AM
6565-04	4 - 100 mL	8.6	12/21/2016	3:59:04 AM
LOT6595	STD- 500 mL	22.6	12/21/2016	4:44:49 AM
LOT6595	STD- 500 mL	20.8	12/21/2016	5:29:29 AM
6565-05	5 - 401 mL	6.2	12/21/2016	9:47:50 AM

MG WL 3728

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

Page 1 of 2

Instrument/Date	MC 12/20/16	Routine	AFCEE	DOD	OHIO
CCAL Chrom WL #	3728	CCAL Batch #	7444		
ICAL Chrom WL #	3696	ICAL Batch # / Event #	7389, 798		
Chrom Review	1 st	If No, why is data reportable?			2 nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/				/
2. Did BFB meet tune criteria? [F8]	/	☐ [Failed TO-14A, but passes TO-15] (NCM#)			/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICAL File batch #/start/end Cal date/time)? [F8]	/	12/8 19:58 - 12/9 12:54			/
4. Is the %D ≤ 30% for all target analytes? [≤ 40% for AFCEE non-table analytes] [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	#6 butane 2/2 impair 2/2 DHT	☐ CCV - %D - LCS criteria met (NCM#) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)			/
5. Elution order checked on isomeric pairs? [Chrom]					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/				/
• 2-methyl butane / acrolein	/				/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/				/
• vinyl acetate / hexane	/				/
• cis- and trans- isomers	/				/
• ethyl benzene / m/p-xylene / o-xylene	/				/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene	/				/
• tert-butylbenzene/4-isopropyltoluene	/				/
• 1,3-, 1,4-, and 1,2-dichlorobenzene	/				/
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	/				/
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/				/
• 2-, and 1-methylnaphthalene	/				/
6. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	/				/
7. Has the RT been updated to the method?	/				/
Analyst:	Date: 12/21/16	2nd Level Reviewer :	Date: 12/21/16		
Comments:					
8. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/				/
9. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/				/
10. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/				/
11. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). If no, list blank ID:	/	☐ Method Blank - Report, ND (NCM#) ☐ Method Blank - Report, 10X (NCM#)			/
12. All runs - peaks ID'd correctly and false positives removed?	/				/
13. If manual integrations performed, are they properly performed, correctly ID'd, baseline clearly identified, and reason given?	/				/
14. IS/Surr within limits? List samples and reason (e.g., 1 thru 5): [Batch Results IS & SUR Tab]		☐ (1) Surrogate - Matrix (NCM#) ☐ (2) Surrogate - High, ND (NCM#) ☐ (3) ISTD - RA/RA Concur (NCM#) ☐ (4) Surrogate -RX concur, Report both (NCM#) ☐ (5) ISTD - Matrix, DL required (NCM#)			/
Sample Reason Sample Reason					
15. Samples outside calibration range scheduled for dilution? Samples:	/	☐ ICAL - Range Exceeded; Minimum Dilution			/
Chrom Review	1 st	If No, why is data reportable?			2 nd
16. For first analysis that is at a dilution, is highest target analyte >20% cal range? List samples and reason:		☐ (1) Reporting Limit - Dilution, Matrix (NCM#) ☐ (2) Reporting Limit - Dilution, Non-Target (NCM#) ☐ (3) Issues with initial collection volume; see DRC.			/
Sample Reason Sample Reason					
17. RIC inspected for proper integration for TPH?	/				NA
18. Obvious non-TPH peaks excluded?	/				NA

Page 2 of 2

1st Level Reviewer :		2nd Level Reviewer :	
Analyst:	Date:		
Comments:			
Example Calculation: $\text{On-column ppbv} \times \text{Final Vol (mL)} / \text{Entech Initial Vol (mL)} \times \text{Canister Dilution Log DF}$ $5.183 \times 11 \text{ mL} \times \frac{7.8}{160} = 235.59$			

Summa Canister Dilution Worksheet

Client: CHA Inc

Job No.: 140-6565-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-6565-1	6	-7.5	0.75	4.50	1.4	1.10	6.57		1.46	1.46	12/19/16 7:20	Goss, Scot E
140-6565-2	6	-7.3	0.76	4.54	1.3	1.09	6.53		1.44	1.44	12/19/16 7:22	Goss, Scot E
140-6565-6	6	-7.5	0.75	4.50	2.9	1.20	7.18		1.60	1.60	12/19/16 7:27	Goss, Scot E
140-6565-7	6	0.0	1.00	6.00	0.0	1.00	6.00		1.00	1.00	12/19/16 7:25	Goss, Scot E

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-6399-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-6399-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT6399.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>11/21/2016 08:41</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>11/26/2016 02:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>7274</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo (b) thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND		0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6399-1
SDG No.: _____
Client Sample ID: 09936 Lab Sample ID: 140-6399-5
Matrix: Air Lab File ID: LOT6399.D
Analysis Method: TO 15 LL Date Collected: 11/21/2016 08:41
Sample wt/vol: 500 (mL) Date Analyzed: 11/26/2016 02:32
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 7274 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\LOT6399.D
 Lims ID: 140-6399-A-5
 Client ID: 09936
 Sample Type: Client
 Inject. Date: 26-Nov-2016 02:32:30 ALS Bottle#: 12 Worklist Smp#: 20
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003661-020
 Misc. Info.: 09936
 Operator ID: 007126 Instrument ID: ME
 Method: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\ME_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 02-Dec-2016 13:51:21 Calib Date: 25-Nov-2016 19:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\EK25IC09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: barlozhetskayaa

Date: 02-Dec-2016 13:56:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.551	7.557	-0.006	93	271538	4.00	
* 2 1,4-Difluorobenzene	114	9.773	9.777	-0.004	96	1213244	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.772	14.777	-0.005	94	1100734	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	16.454	16.455	-0.001	93	912194	3.95	
13 Butane	43	3.383	3.378	0.005	92	8244	0.0534	
31 Methylene Chloride	84	5.136	5.137	-0.001	96	6521	0.0654	
33 Carbon disulfide	76	5.276	5.279	-0.003	94	6761	0.0203	
65 4-Methyl-2-pentanone (MIBK	43	11.860	11.851	0.009	96	5863	0.0344	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\ME\20161123-3661.b\LOT6399.D

Injection Date: 26-Nov-2016 02:32:30

Instrument ID: ME

Operator ID: 007126

Lims ID: 140-6399-A-5

Lab Sample ID: 140-6399-5

Worklist Smp#: 20

Client ID: 09936

Purge Vol: 500.000 mL

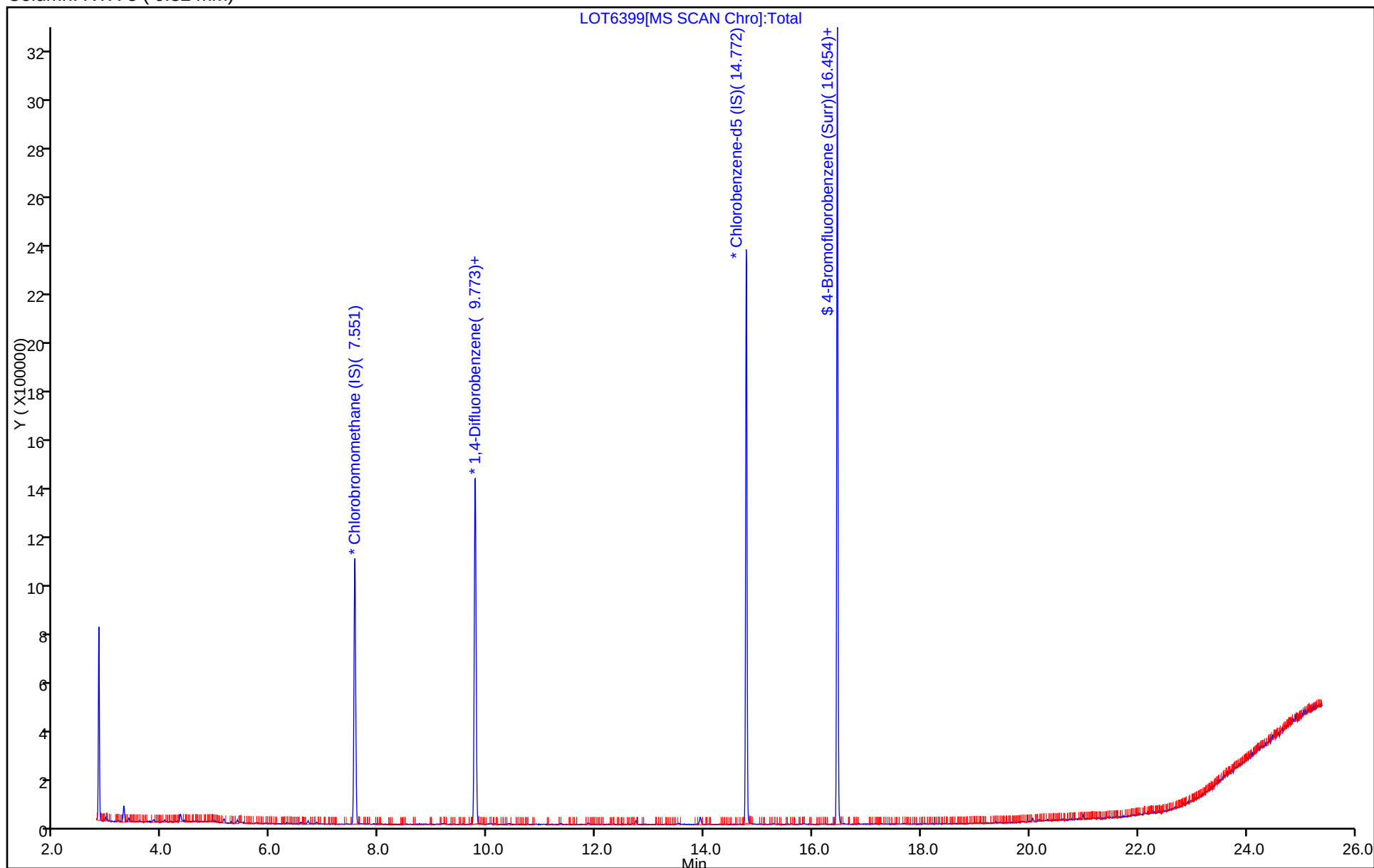
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: ME_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Client Contact Information Company: CHA Consulting, Inc. Address: 111 Wynnwood Circle City/State/Zip: Albany, NY 12205 Phone: 518-453-4550 FAX: 518-453-4113 Project Name: 144 STATE STREET Site/location: ALBANY, NY PO # 21045		Project Manager: Seth Fowler Phone: (518) 453-4547 Site Contact: TAL Contact:		Sampled By: Scott Rosecrans 1 of 2 COCs															
		140-8565 Chain of Custody																	
Analysis Turnaround Time Standard (Specify) ☒ Rush (Specify)																			
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 26C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SSV-1	12-13-16	8:45	13:25	29	6	1644	10576	✓											
IA-1		8:45	15:45	30+	6	11243	10634								✓				
SSV-2		8:43	16:15	30	6	09659	10503												
IA-2		8:43	16:25	30+	6	10053	10407								✓				
SSV-3		8:42	16:50	30+	7	09844	11158												
IA-3	↓	8:42	15:40	28	6	09844	11153	↓							✓				
Sampled by:																			
Temperature (Fahrenheit) Interior: 11513 Ambient: 10124 Start: Stop:																			
Pressure (Inches of Hg) Interior: Ambient:																			
Start: Stop:																			
Special Instructions/QC Requirements & Comments: Category B Deliverable Received @ ambient 2 boxes FedEx SO, 4-1-K#7164 7164 2314 " " 2325 No custody seal, KW 12/16/16																			
Canisters Shipped by:		Date/Time:		Canisters Received by:															
Samples Relinquished by:		Date/Time: 12-13-16 1900		Received by:															
Relinquished by:		Date/Time: 12/14/16 1800		Received by:															

7 canw
 7 flow
 7 cc

phone 865-291-3000 fax 865-584-4315

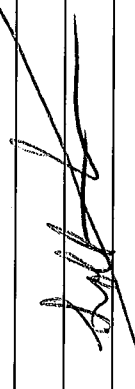
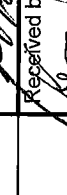
489501-Albany

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information						Project Manager: Seth Fowler Phone: (518) 453-4547 Site Contact: TAL Contact:						Sampled By: Seth Rosecrans 2 of 2 COCs												
Company: CHA Consulting Inc. Address: # Wiggins Circle City/State/Zip Albany, NY 12205 Phone: 518-453-4500 FAX: 518-452-4113						Analysis Turnaround Time Standard (Specify) ☒ Rush (Specify)																		
Project Name: 144 STATE STREET Site/location: ALBANY, NY PO # 21045																								
Sample Identification						Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
AM-1						12-13-16	848	1635	30+	6	1057	09677	☒						☒					
						Temperature (Fahrenheit)																		
						Interior			Ambient															
						Start																		
						Stop																		
						Pressure (inches of Hg)																		
						Interior			Ambient															
						Start																		
						Stop																		
Special Instructions/QC Requirements & Comments: Category B Deliverable																								
Canisters Shipped by:						Date/Time:						Canisters Received by:												
Samples Relinquished by: Seth Rosecrans						Date/Time: 12-13-16 / 1900						Received by: 												
Relinquished by: 						Date/Time: 12/14/16 1800						Received by:  12/15/16 1000												

Log In Number:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			☐ Containers, Broken	
2. Were ambient air containers received intact?			/	☒ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?			/	☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID: _____ Correction factor: _____			/	☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	
6. Were samples received in appropriate containers?	/			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	/			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?	/			☐ Sampler Not Listed on COC	
11. Is the client and project name# identified?	/			☐ COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	/			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust	
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info	
Project #: <u>1403094</u> PM Instructions: _____					

Box 16A: pH Preservation Box 18A: Residual Chlorine

Preservative: _____

Lot Number: _____

Exp Date: _____

Analyst: _____

Date: _____

Time: _____

Labeling Verified by: _____ Date: _____

pH test strip lot number: _____

QA026R30.doc, 080916

Date: 12/5/16

Sample Receiving Associate: [Signature]

140-6565

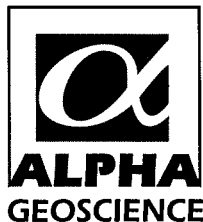
TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5

Date: 12/19/2016

[illegible]

APPENDIX C
DATA USABILITY SUMMARY REPORT



Geology

Hydrology

Remediation

Water Supply

January 11, 2017

Mr. John L. Favreau
Senior Scientist V
CHA
III Winners Circle
P.O. Box 5269
Albany, New York 12205

Re: Data Validation Report
144 State Street
December 2016 Air Sampling Event

Dear Mr. Favreau:

The data usability summary report (DUSR) and data validation summary are attached to this letter for the 144 State Street, December 2016 air sampling event. The data for TestAmerica Knoxville Job: 140-6565-1 are acceptable with minor issues identified in the validation summary. There are no data qualified as unusable (R) in the data pack.

A list of common data validation acronyms is attached to this letter to assist you in interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist CHA.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

- U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
- R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
- N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
- J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation



**Data Usability Summary Report for
TestAmerica Knoxville, Job No: 140-6565-1**

**6 Air/Vapor Samples and 1 Ambient Air Sample
Collected December 13, 2016**

Geology

Hydrology

Remediation

Water Supply

Prepared by: Donald Anné
January 11, 2017

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contained the results of TO15 volatile analyses for 6 air/vapor samples and 1 ambient air sample.

The overall performances of the analyses are acceptable. TestAmerica Knoxville did fulfill the requirements of the analytical method.

The data are acceptable with minor issues that are identified in the accompanying data validation review. The following data were flagged:

- There are volatile results for ethanol in samples SSV-1 and IA-1 that were quantitated using data that were extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. Results for ethanol marked “E” in the undiluted samples are qualified as estimated (J).
- There is a volatile result for trans-1,2-dichloroethene in sample SSV-2 that was quantitated using data that was extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. The result for trans-1,2-dichloroethene marked “E” in the undiluted sample is qualified as estimated (J).

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of TO15 Volatiles Data for
TestAmerica Knoxville, Job No: 140-6565-1**

**6 Air/Vapor Samples and 1 Ambient Air Sample
Collected December 13, 2016**

Prepared by: Donald Anné
January 11, 2017

Holding Times: Samples were analyzed within the EPA recommended holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.010), as required.

The %RSD for 1,2,4-trichlorobenzene was above the allowable maximum (30%) for instrument MG on 12-08-16. Positive results for 1,2,4-trichlorobenzene should be considered estimated (J) in associated samples.

Continuing Calibration: The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %Ds for chlorodifluoromethane, butane, ethyl ether, 2-methylpentane, isopropyl ether, ethyl acetate, and tetrahydrofuran were above the allowable maximum (30%) on 12-20-16 (GCCVL20.D). Positive results for these compounds should be considered estimated (J) in associated samples

Blanks: The analyses of the method blanks reported target compounds as not detected. The certification analyses of summa canisters reported target compounds as not detected.

Surrogate Recovery: The surrogate recoveries were within control limits for the soil vapor samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for sample LCS 140-7444/1002.

Compound ID: Checked compounds were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

There were volatile results for ethanol in sample SSV-1 and IA-1, and trans-1,2-dichloroethene in sample SSV-2 that were quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The samples were diluted by the laboratory and re-analyzed; therefore, the result for ethanol and trans-1,2-dichloroethene that are flagged as 'E' in the undiluted samples should be considered estimated (J), and the use of the diluted results for ethanol and trans-1,2-dichloroethene is recommended. It is recommended that the undiluted results be used for all other compounds.

Canister Pressure: The laboratory reported "received" pressures for soil gas samples were below zero (residual vacuum), as required.

AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

Analy Batch No.: 7384

SDG No.:

Instrument ID: MG

GC Column: RTX-5 ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58

Calibration End Date: 12/09/2016 01:38

Calibration ID: 798

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-7384/3	GxL08IC01.D
Level 2	IC 140-7384/4	GxL08IC02.D
Level 3	IC 140-7384/5	GxL08IC03.D
Level 4	IC 140-7384/6	GxL08IC04.D
Level 5	IC 140-7384/7	GxL08IC05.D
Level 6	ICIS 140-7384/8	GxL08IC06.D
Level 7	IC 140-7384/9	GxL08IC07.D
Level 8	IC 140-7384/10	GxL08IC08.D
Level 9	IC 140-7384/11	GxL08IC09.D

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5			B	M1	M2							
Chlorodifluoromethane	++++ 0.3338	0.3549 0.3328	0.3159 0.3273	0.3020 0.3307	0.3270	Ave			0.3281					30.0			
Propene	1.2860	1.1416	1.1371	1.0563	1.0793	Ave			1.0938					30.0			
Dichlorodifluoromethane	1.0804	1.0379	1.0519	0.9734										30.0			
	3.5519	3.2652	3.3991	3.1949	3.5614	Ave			3.4234					30.0			
	3.5420	3.5274	3.3976	3.3711										30.0			
Chloromethane	0.4642	0.3502	0.4124	0.3696	0.3627	Ave			0.3677					30.0			
	0.3785	0.3686	0.3215	0.2816										30.0			
1,2-Dichlorotetrafluoroethane	2.2681	2.1889	2.2548	2.0996	2.3833	Ave			2.2679					30.0			
	2.4009	2.3241	2.1971	2.2948										30.0			
Acetaldehyde	++++	++++	0.5646	0.4816	0.3640	Ave			0.4060					30.0			
	0.3575	0.4076	0.3521	0.3144										30.0			
Vinyl chloride	1.2352	1.1289	1.2170	1.1270	1.2922	Ave			1.2065					30.0			
	1.3504	1.3032	1.1616	1.0433										30.0			
1,3-Butadiene	1.0799	0.9526	0.9911	0.9061	1.0507	Ave			0.9739					30.0			
	1.0580	1.0238	0.8986	0.8042										30.0			
Butane	2.0162	1.8907	1.9252	1.7981	2.1121	Ave			1.9020					30.0			
	2.1057	2.0272	1.7380	1.5045										30.0			
Bromomethane	1.2300	1.1372	1.1764	1.0754	1.1843	Ave			1.1519					30.0			
	1.1902	1.1693	1.1123	1.0923										30.0			
Chloroethane	0.6827	0.6301	0.6426	0.6039	0.6608	Ave			0.6412					30.0			
	0.6648	0.6570	0.6188	0.6101										30.0			
Ethanol	0.4632	0.4508	0.4105	0.3911	0.3846	Ave			0.3997					30.0			
	0.3935	0.3994	0.3500	0.3540										30.0			
Vinyl bromide	1.1201	1.0611	1.0843	1.0215	1.1262	Ave			1.0877					30.0			
	1.1240	1.1048	1.0697	1.0777										30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1

Analy Batch No.: 7384

SDG No.:

Instrument ID: MG

GC Column: RTX-5

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58

ID: 0.32 (mm)

Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD #	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2							
2-Methylbutane	1.6287	1.3884	1.4670	1.3095	1.4767	Ave	1.3894				9.9	30.0			
Acrolein	1.4313	1.3874	1.2605	1.1548	0.2638	Ave	0.3114				29.0	30.0			
Trichlorofluoromethane	0.4901	0.4360	0.3176	0.2661	0.2673	Ave									
Acetonitrile	0.2366	0.2850	0.2404	0.2673	3.4342	Ave	3.3178				4.1	30.0			
Acetone	3.3655	3.1181	3.3067	3.0936	0.3624	Ave	0.3691				5.7	30.0			
Pentane	3.4720	3.3885	3.2629	3.4188	0.3461	Ave	0.4215				12.3	30.0			
Isopropyl alcohol	0.4106	0.4310	0.3643	0.3900	0.2119	Ave	0.2036				4.3	30.0			
Ethyl ether	0.2080	0.2016	0.1880	0.1993	1.4318	Ave	1.4259				6.3	30.0			
1,1-Dichloroethene	1.5310	1.4716	1.4150	1.4097	0.7717	Ave	0.8402				8.2	30.0			
Acrylonitrile	1.4991	1.4952	1.2414	1.3387	1.0043	Ave	0.9780				4.1	30.0			
t-Butyl alcohol	0.9311	0.9543	0.7717	0.8221	0.4676	Ave	0.5284				11.4	30.0			
1,1,2-Trichlorotrifluoroethane	0.7873	0.8900	0.7765	0.8369	1.5027	Ave	1.4989				5.8	30.0			
Methylene Chloride	2.2525	2.0113	2.0917	1.9628	2.0970	Ave	2.0974				4.3	30.0			
3-Chloropropene	2.1037	2.1372	2.0319	2.1889	0.8223	Ave	0.8508				17.7	30.0			
Carbon disulfide	0.8104	0.7861	0.7336	0.7645	0.8810	Ave	0.8422				6.6	30.0			
trans-1,2-Dichloroethene	0.4527	0.5522	0.4923	0.5774	3.3143	Ave	3.1964				4.2	30.0			
2-Methylpentane	1.3992	1.4977	1.4347	1.4123	1.1569	Ave	1.1493				4.1	30.0			
Methyl tert-butyl ether	1.6383	1.6364	1.4716	1.4970	2.5248	Ave	2.4760				6.0	30.0			
1,1-Dichloroethane	2.2525	2.0113	2.0917	1.9628	2.5023	Ave	2.7296				9.9	30.0			
Vinyl acetate	2.1037	2.1372	2.0319	2.1889	2.1042	Ave	2.1587				5.0	30.0			
	0.8104	0.7861	0.7336	0.7645	2.3517	Ave	2.6840				13.0	30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	B	COEFFICIENT		#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9			M1	M2								
2-Butanone	0.4922 0.4381	0.5130 0.5011	0.4615 0.4635	0.4677 0.5091	Ave		0.4737				6.9		30.0			
Hexane	++++	1.0515	1.0034	0.9087	Ave		0.9508				6.2		30.0			
Isopropyl ether	3.6385 3.2521	3.5918 3.8494	2.8822 3.4934	3.1928 3.6458	Ave		3.4114				9.0		30.0			
cis-1,2-Dichloroethene	1.1808 1.1866	1.1264 1.2421	1.1288 1.1663	1.1069 1.2041	Ave		1.1665				3.6		30.0			
Ethyl acetate	++++	2.3762	1.6829	1.9349	Ave		2.1156				13.9		30.0			
Chloroform	2.7445 2.4932	2.4677 2.6082	2.4462 2.4420	2.3597 2.5302	Ave		2.5092				4.4		30.0			
Tert-butyl ethyl ether	3.1089 2.8510	3.0927 3.3589	2.4522 3.0495	2.7295 3.3330	Ave		2.9562				10.2		30.0			
Tetrahydrofuran	++++	1.2244	0.9443	1.0049	Ave		1.0922				11.1		30.0			
1,1,1-Trichloroethane	2.8646 2.7270	2.6636 2.8877	2.6517 2.7208	2.5679 2.8512	Ave		2.7367				4.0		30.0			
1,2-Dichloroethane	0.3530 0.3840	0.3341 0.4140	0.3734 0.3709	0.3352 0.4164	Ave		0.3729				8.0		30.0			
Benzene	0.7199 0.7857	0.6720 0.7833	0.7520 0.6448	0.6879 0.6669	Ave		0.7195				7.5		30.0			
Cyclohexane	++++	0.1191	0.1518	0.1255	Ave		0.1326				13.8		30.0			
Carbon tetrachloride	0.5841 0.7981	0.5511 0.7296	0.6608 0.4256	0.5781 0.7543	Ave		0.6424				18.3		30.0			
1-Butanol	0.0816 0.1131	0.0817 0.0985	0.0943 0.0738	0.0738 0.0787	Ave		0.0875				14.9		30.0			
2,3-Dimethylpentane	0.1701 0.2181	0.1635 0.2048	0.1997 0.1735	0.1678 0.1822	Ave		0.1859				10.2		30.0			
Thiophene	0.4033 0.4904	0.3656 0.4775	0.4326 0.4144	0.3889 0.4535	Ave		0.4306				9.6		30.0			
Tert-amyl methyl ether	++++	0.5422	0.5885	0.5528	Ave		0.6436				13.4		30.0			
2,2,4-Trimethylpentane	1.2559 1.5774	1.1480 1.4297	1.3694 1.1835	1.1880 1.2127	Ave		1.3047				10.9		30.0			
Heptane	++++	0.2548	0.3019	0.2588	Ave		0.2889				11.5		30.0			
1,2-Dichloropropane	0.3469 0.2906	0.3154 0.2676	0.2596 0.2584	0.2705 0.2529	Ave		0.2726				6.7		30.0			
	0.2837	0.3088	0.2567	0.2703	Ave											

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

Analy Batch No.: 7384

SDG No.:

Instrument ID: MG

GC Column: RTX-5

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58

Calibration End Date: 12/09/2016 01:38

Calibration ID: 798

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5			B	M1	M2								
Trichloroethene	0.3688 0.5033 ++++	0.3440 0.4316 0.2900	0.5123 0.3780 0.3299	0.3593 0.4151 0.2976	0.4551 Ave		Ave		0.4186				14.8		30.0			
Dibromomethane	0.3889 0.5174 0.6936	0.3594 0.5538 0.6569	0.3041 0.5007 0.5626	0.3375 0.6303 0.6037	0.3454 Ave		Ave		0.3316				10.1		30.0			
Bromodichloromethane	0.0817 0.1219 0.2938	0.0851 0.1140 0.2764	0.0928 0.0904 0.2381	0.0829 0.1034 0.2499	0.5963 Ave		Ave		0.5762				12.8		30.0			
1,4-Dioxane	0.0817 0.1219 0.2938	0.0851 0.1140 0.2764	0.0928 0.0904 0.2381	0.0829 0.1034 0.2499	0.5963 Ave		Ave		0.5762				12.8		30.0			
Methyl methacrylate	0.2938 0.3203 0.5798	0.2764 0.3675 0.5275	0.2381 0.2963 0.6323	0.2499 0.3421 0.5432	0.2672 Ave		Ave		0.2946				14.6		30.0			
Methylcyclohexane	0.3203 0.5798 0.7090	0.3675 0.5275 0.6371	0.2963 0.6323 0.4735	0.3421 0.5432 0.4187	0.2946 Ave		Ave		0.5953				14.5		30.0			
4-Methyl-2-pentanone (MIBK)	0.5929 0.4002 0.4569	0.5966 0.3982 0.4973	0.4754 0.4303 0.4303	0.5284 0.4690 0.3658	0.5089 Ave		Ave		0.4897				15.0		30.0			
cis-1,3-Dichloropropene	0.4023 0.5929 0.4002	0.4101 0.5966 0.3982	0.4735 0.4754 0.4303	0.4187 0.5284 0.4690	0.5089 Ave		Ave		0.4307				8.4		30.0			
trans-1,3-Dichloropropene	0.4569 0.4061 ++++	0.4973 0.4491 ++++	0.4303 0.4020 ++++	0.3658 0.4498 1.8759	0.3686 Ave		Ave		0.3859				11.2		30.0			
Toluene Range	0.4061 2.0836 0.8254	0.4491 2.2682 0.7743	0.4020 1.9120 0.7328	0.4498 2.1660 0.7273	0.3686 Ave		Ave		2.0306				8.2		30.0			
Toluene	0.8254 0.8322 0.2336	0.7743 0.8957 0.2227	0.7328 0.7761 0.2207	0.7273 0.8596 0.2124	0.7761 Ave		Ave		0.7999				7.1		30.0			
1,1,2-Trichloroethane	0.2336 0.2534 0.6613	0.2227 0.2680 0.6575	0.2207 0.2294 0.6376	0.2124 0.2492 0.6096	0.2336 Ave		Ave		0.2359				7.5		30.0			
2-Methylthiophene	0.2534 0.7027 0.6801	0.2680 0.7544 0.7378	0.2294 0.6612 0.6464	0.2492 0.7240 0.7136	0.2336 Ave		Ave		0.6747				6.6		30.0			
3-Methylthiophene	0.6613 0.6737 0.6801	0.6575 0.6274 0.7378	0.6376 0.6026 0.6464	0.6096 0.5887 0.7136	0.6640 Ave		Ave		0.6573				7.5		30.0			
2-Hexanone	0.2915 ++++	0.1900 0.2710	0.2213 0.2338	0.1764 0.2631	0.6452 Ave		Ave		0.2348				16.8		30.0			
Octane	0.2915 0.3727 ++++	0.2710 0.3343 ++++	0.2338 0.2834 ++++	0.2631 0.2924 2.8399	0.2313 Ave		Ave		0.3146				11.0		30.0			
C8 Range	0.3727 3.9288 0.4510	0.3343 2.7837 0.4328	0.2834 2.7837 0.4973	0.2924 2.545 0.6752	0.3462 Ave		Ave		3.1518				19.9		30.0			
Dibromochloromethane	0.4510 0.6078 0.4272	0.4328 0.5733 0.4148	0.4973 0.5733 0.4331	0.4548 0.6752 0.3963	0.5555 Ave		Ave		0.5428				16.2		30.0			
1,2-Dibromoethane	0.4272 0.5036 0.3393	0.4148 0.5296 0.3144	0.4331 0.4740 0.3519	0.3963 0.5288 0.3031	0.4689 Ave		Ave		0.4640				10.6		30.0			
Tetrachloroethene	0.3393 0.3979	0.3144 0.3644	0.3519 0.3344	0.3031 0.3796	0.3738 Ave		Ave		0.3510				8.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF				CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9		B	M1	M2								
Chlorobenzene	0.6294 0.7178	0.6279 0.7389	0.6200 0.6505	0.5900 0.7362	Ave		0.6640				8.2		30.0			
2,3-Dimethylheptane	0.8109 0.9418	0.7539 0.8768	0.8388 0.6840	0.7385 0.6154	Ave		0.7928				13.1		30.0			
Ethylbenzene	1.0036 1.1526	1.0133 1.1923	0.9508 1.0222	0.9310 1.1519	Ave		1.0486				8.9		30.0			
2-Ethylthiophene	0.7321 0.8577	0.7363 0.9084	0.6843 0.7890	0.6841 0.8999	Ave		0.7845				11.0		30.0			
m-Xylene & p-Xylene	0.7983 0.9029	0.7794 0.9012	0.7339 0.7616	0.8098 0.8713	Ave		0.8084				8.6		30.0			
Bromoform	++++ 0.5811	0.3397 0.6513	0.4073 0.6476	0.4101 ++++	Ave		0.4996				25.2		30.0			
Nonane	0.5140 0.6372	0.5365 0.5614	0.5472 0.4343	0.4988 0.3895	Ave		0.5241				14.7		30.0			
Styrene	0.5025 0.6687	0.5069 0.6733	0.4719 0.5858	0.4870 0.6908	Ave		0.5743				15.1		30.0			
o-Xylene	0.8448 0.9402	0.8143 0.9607	0.7706 0.8183	0.7503 0.9298	Ave		0.8521				8.8		30.0			
1,1,2,2-Tetrachloroethane	0.5467 0.6672	0.5314 0.6754	0.3873 0.5632	0.4923 0.6232	Ave		0.5626				16.0		30.0			
1,2,3-Trichloropropane	0.1698 0.2072	0.1776 0.2127	0.1592 0.1836	0.1595 0.2171	Ave		0.1853				11.9		30.0			
Isopropylbenzene	1.2213 1.3188	1.2143 1.3047	1.0675 1.1252	1.0400 1.3154	Ave		1.1987				8.8		30.0			
Propylbenzene	0.3083 0.3741	0.3035 0.3706	0.2942 0.3183	0.2692 0.3791	Ave		0.3264				12.0		30.0			
2-Chlorotoluene	0.2803 0.3401	0.2908 0.3361	0.2713 0.2938	0.2596 0.3435	Ave		0.3015				10.3		30.0			
4-Ethyltoluene	1.0725 1.3245	1.0762 1.3261	1.0167 1.3366	0.9755 1.3366	Ave		1.1563				12.1		30.0			
1,3,5-Trimethylbenzene	0.5114 0.6375	0.5316 0.6202	0.4943 0.5337	0.4675 0.6484	Ave		0.5561				11.7		30.0			
Alpha Methyl Styrene	0.3588 0.5521	0.3762 0.5659	0.3490 0.4999	0.3490 0.5992	Ave		0.4587				21.6		30.0			
Decane	0.5871 0.7749	0.5831 0.6868	0.6267 0.5492	0.5632 0.5302	Ave		0.6186				12.7		30.0			
tert-Butylbenzene	1.0198 1.2271	1.0123 1.1883	0.9710 1.0325	0.9055 1.2566	Ave		1.0776				11.2		30.0			
1,2,4-Trimethylbenzene	0.8612 1.1298	0.8911 1.0825	0.8780 0.9378	0.8224 1.1204	Ave		0.9689				12.2		30.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

Analy Batch No.: 7384

SDG No.:

Instrument ID: MG

GC Column: RTX-5

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2016 19:58

Calibration End Date: 12/09/2016 01:38

Calibration ID: 798

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5			B	M1	M2								
1,3-Dichlorobenzene	0.6141 0.7899	0.6013 0.7691	0.6150 0.7360	0.5662 0.9169	0.6918 Ave				0.7000				16.2		30.0			
sec-Butylbenzene	1.3032 1.6296	1.3128 1.5477	1.3058 1.3412	1.1931 1.5425	1.4403 Ave				1.4018				10.4		30.0			
Benzyl chloride	0.6148 0.9678	0.6350 0.9569	0.6408 0.8508	0.5951 0.9807	0.7219 Ave				0.7737				21.3		30.0			
1,4-Dichlorobenzene	0.6036 0.7841	0.5931 0.7519	0.6005 0.7111	0.5563 0.8865	0.6711 Ave				0.6842				15.9		30.0			
4-Isopropyltoluene	1.0603 1.3938	1.0612 1.3544	1.0692 1.1734	0.9923 1.4119	1.2263 Ave				1.1936				13.5		30.0			
1,2,3-Trimethylbenzene	0.6714 0.8522	0.6994 0.8473	0.6784 0.7260	0.6250 0.8489	0.7562 Ave				0.7450				11.6		30.0			
Butylcyclohexane	0.7330 0.8802	0.7198 0.7920	0.7649 0.6757	0.6877 0.7014	0.7915 Ave				0.7496				8.7		30.0			
1,2-Dichlorobenzene	0.5841 0.7718	0.5719 0.7333	0.5959 0.6864	0.5354 0.8615	0.6801 Ave				0.6689				16.0		30.0			
Indane	0.8027 1.0536	0.8227 1.0032	0.8131 0.8882	0.7463 1.0683	0.9208 Ave				0.9021				13.0		30.0			
Indene	++++ 0.7925	++++ 0.7841	0.5682 0.6876	0.5181 0.8297	Lin1			-0.062	0.7892						0.9930	0.9900		
Butylbenzene	0.8919 1.2730	0.9217 1.1984	0.9649 0.9995	0.8698 1.1339	Ave				1.0380				13.7		30.0			
Undecane	0.6021 0.8423	0.6055 0.7396	0.6714 0.5739	0.5764 0.5367	Ave				0.6532				15.3		30.0			
1,2-Dimethyl-4-Ethylbenzene	++++ 1.0231	0.7153 0.9883	0.7844 0.8445	0.6729 1.0112	Ave				0.8658				15.6		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.3428	0.1955 0.3390	0.2062 0.3139	0.1926 0.4055	Ave				0.2810				28.6		30.0			
1,2,4,5-Tetramethylbenzene	0.8105 1.2627	0.8397 1.1843	0.9470 1.0243	0.8035 1.2216	Ave				1.0178				17.6		30.0			
1,2,3,5-Tetramethylbenzene	0.5153 0.7560	0.5255 0.7179	0.5723 0.6194	0.4969 0.7358	Ave				0.6220				16.1		30.0			
1,2,3,4-Tetramethylbenzene	0.6713 1.0417	0.6881 0.9783	0.7946 0.8420	0.6480 0.9968	Ave				0.8407				17.8		30.0			
Dodecane	0.4776 0.7387	0.4838 0.6800	0.6528 0.5350	0.4608 0.5001	Ave				0.5779				18.5		30.0			
1,2,4-Trichlorobenzene	0.2836 0.5853	0.3012 0.5779	0.3547 0.5740	0.2992 0.7430	Ave				0.4650				35.3 *		30.0			
Naphthalene	0.6545 1.2900	0.6877 1.2421	0.8457 1.1172	0.6647 1.3186	Ave				0.9864				28.1		30.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6565-1 Analy Batch No.: 7384
SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 12/08/2016 19:58 Calibration End Date: 12/09/2016 01:38 Calibration ID: 798

ANALYTE	RRF						CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5			B	M1	M2								
Benzo(b)thiophene	++++ 0.6697	0.3568 0.6621	0.4044 0.6235	0.3280 0.7552	0.5262 Ave				0.5407				29.8		30.0			
Hexachlorobutadiene	0.6234 0.8147	0.5709 0.7703	0.6554 0.7981	0.5172 0.9331	0.7444 Ave				0.7142				18.5		30.0			
1,2,3-Trichlorobenzene	0.3108 0.5783	0.3138 0.5460	0.3999 0.5209	0.2901 0.6336	0.4883 Ave				0.4535				28.3		30.0			
2-Methylnaphthalene	++++ 0.2002	++++ 0.1790	0.1300 0.1732	0.0618 0.1093	0.1529 Ave				0.1438				33.0		50.0			
1-Methylnaphthalene	++++ 0.2051	++++ 0.1772	0.1609 0.1640	0.0678 0.0845	0.1661 Ave				0.1465				34.5		50.0			
4-Bromofluorobenzene (Surr)	0.6532 0.6804	0.6564 0.6665	0.6386 0.6726	0.6628 0.6636	0.6595 Ave				0.6615				1.8		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7444/2

Calibration Date: 12/20/2016 10:44

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL20.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.3281	0.4308		2.63	2.00	31.3*	30.0
Propene	Ave	1.094	1.368		2.50	2.00	25.1	30.0
Dichlorodifluoromethane	Ave	3.423	4.416		2.58	2.00	29.0	30.0
Chloromethane	Ave	0.3677	0.4453		2.42	2.00	21.1	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.268	2.657		2.34	2.00	17.1	30.0
Acetaldehyde	Ave	0.4060	0.4935		12.3	10.1	21.6	30.0
Vinyl chloride	Ave	1.207	1.507		2.50	2.00	24.9	30.0
1,3-Butadiene	Ave	0.9739	1.201		2.47	2.00	23.3	30.0
Butane	Ave	1.902	2.513		2.64	2.00	32.1*	30.0
Bromomethane	Ave	1.152	1.284		2.23	2.00	11.5	30.0
Chloroethane	Ave	0.6412	0.7281		2.27	2.00	13.6	30.0
Ethanol	Ave	0.3997	0.4822		12.2	10.1	20.6	30.0
Vinyl bromide	Ave	1.088	1.206		2.22	2.00	10.8	30.0
2-Methylbutane	Ave	1.389	1.682		2.42	2.00	21.1	30.0
Acrolein	Ave	0.3114	0.3342		2.15	2.00	7.3	30.0
Trichlorofluoromethane	Ave	3.318	4.068		2.45	2.00	22.6	30.0
Acetonitrile	Ave	0.3691	0.4712		2.55	2.00	27.6	30.0
Acetone	Ave	0.4215	0.4525		6.45	6.00	7.4	30.0
Isopropyl alcohol	Ave	1.426	1.726		7.27	6.00	21.0	30.0
Pentane	Ave	0.2036	0.2268		2.23	2.00	11.4	30.0
Ethyl ether	Ave	0.8402	1.146		2.73	2.00	36.4*	30.0
1,1-Dichloroethene	Ave	0.9780	1.090		2.23	2.00	11.5	30.0
Acrylonitrile	Ave	0.5284	0.6146		2.33	2.00	16.3	30.0
t-Butyl alcohol	Ave	1.499	1.769		2.36	2.00	18.0	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.097	2.405		2.29	2.00	14.7	30.0
Methylene Chloride	Ave	0.8508	0.8803		2.07	2.00	3.5	30.0
3-Chloropropene	Ave	0.8422	1.045		2.48	2.00	24.1	30.0
Carbon disulfide	Ave	3.196	3.484		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.149	1.280		2.23	2.00	11.3	30.0
2-Methylpentane	Ave	2.476	3.243		2.64	2.02	31.0*	30.0
Methyl tert-butyl ether	Ave	2.730	3.195		2.34	2.00	17.0	30.0
1,1-Dichloroethane	Ave	2.159	2.578		2.39	2.00	19.4	30.0
Vinyl acetate	Ave	2.684	3.466		2.58	2.00	29.2	30.0
2-Butanone	Ave	0.4737	0.5071		2.14	2.00	7.1	30.0
Hexane	Ave	0.9508	1.145		2.41	2.00	20.4	30.0
Isopropyl ether	Ave	3.411	4.438		2.60	2.00	30.1*	30.0
cis-1,2-Dichloroethene	Ave	1.166	1.307		2.24	2.00	12.0	30.0
Ethyl acetate	Ave	2.116	2.803		2.65	2.00	32.5*	30.0
Chloroform	Ave	2.509	2.944		2.35	2.00	17.3	30.0
Tert-butyl ethyl ether	Ave	2.966	3.676		2.48	2.00	23.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7444/2

Calibration Date: 12/20/2016 10:44

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL20.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.092	1.442		2.64	2.00	32.0*	30.0
1,1,1-Trichloroethane	Ave	2.737	3.267		2.39	2.00	19.4	30.0
1,2-Dichloroethane	Ave	0.3729	0.4282		2.30	2.00	14.8	30.0
Benzene	Ave	0.7195	0.7598		2.11	2.00	5.6	30.0
1-Butanol	Ave	0.0875	0.0957		2.19	2.00	9.4	30.0
Cyclohexane	Ave	0.1326	0.1326		2.00	2.00	-0.0	30.0
Carbon tetrachloride	Ave	0.6424	0.6778		2.11	2.00	5.5	30.0
2,3-Dimethylpentane	Ave	0.1859	0.1836		1.99	2.02	-1.2	30.0
Thiophene	Ave	0.4306	0.4229		1.98	2.02	-1.8	30.0
Tert-amyl methyl ether	Ave	0.6436	0.6684		2.08	2.00	3.8	30.0
2,2,4-Trimethylpentane	Ave	1.305	1.374		2.11	2.00	5.3	30.0
Heptane	Ave	0.2889	0.2878		1.99	2.00	-0.4	30.0
1,2-Dichloropropane	Ave	0.2726	0.2925		2.15	2.00	7.3	30.0
Trichloroethene	Ave	0.4186	0.3824		1.83	2.00	-8.7	30.0
Dibromomethane	Ave	0.3316	0.3214		1.94	2.00	-3.1	30.0
Bromodichloromethane	Ave	0.5762	0.6117		2.12	2.00	6.2	30.0
1,4-Dioxane	Ave	0.0965	0.0935		1.94	2.00	-3.2	30.0
Methyl methacrylate	Ave	0.2946	0.3357		2.28	2.00	14.0	30.0
Methylcyclohexane	Ave	0.5953	0.5766		1.96	2.02	-3.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4897	0.4966		2.03	2.00	1.4	30.0
cis-1,3-Dichloropropene	Ave	0.4307	0.4673		2.17	2.00	8.5	30.0
trans-1,3-Dichloropropene	Ave	0.3859	0.4220		2.19	2.00	9.4	30.0
Toluene	Ave	0.7999	0.8298		2.08	2.00	3.7	30.0
1,1,2-Trichloroethane	Ave	0.2359	0.2506		2.13	2.00	6.2	30.0
2-Methylthiophene	Ave	0.6747	0.6785		2.03	2.02	0.6	30.0
3-Methylthiophene	Ave	0.6573	0.6791		2.09	2.02	3.3	30.0
2-Hexanone	Ave	0.2348	0.2114		1.80	2.00	-10.0	30.0
Octane	Ave	0.3146	0.3177		2.02	2.00	1.0	30.0
Dibromochloromethane	Ave	0.5428	0.5859		2.16	2.00	7.9	30.0
1,2-Dibromoethane	Ave	0.4640	0.4941		2.13	2.00	6.5	30.0
Tetrachloroethene	Ave	0.3510	0.3353		1.91	2.00	-4.5	30.0
Chlorobenzene	Ave	0.6640	0.6734		2.03	2.00	1.4	30.0
2,3-Dimethylheptane	Ave	0.7928	0.9566		2.44	2.02	20.7	30.0
Ethylbenzene	Ave	1.049	1.093		2.09	2.00	4.2	30.0
2-Ethylthiophene	Ave	0.7845	0.8233		2.12	2.02	5.0	30.0
m-Xylene & p-Xylene	Ave	0.8084	0.8460		4.19	4.00	4.6	30.0
Bromoform	Ave	0.4996	0.5628		2.25	2.00	12.7	30.0
Nonane	Ave	0.5241	0.6108		2.33	2.00	16.5	30.0
Styrene	Ave	0.5743	0.6038		2.10	2.00	5.1	30.0
o-Xylene	Ave	0.8521	0.8822		2.07	2.00	3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5626	0.5979		2.13	2.00	6.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-6565-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7444/2

Calibration Date: 12/20/2016 10:44

Instrument ID: MG

Calib Start Date: 12/08/2016 19:58

GC Column: RTX-5 ID: 0.32 (mm)

Calib End Date: 12/09/2016 01:38

Lab File ID: GCCVL20.D

Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1853	0.1885		2.04	2.00	1.7	30.0
Isopropylbenzene	Ave	1.199	1.186		1.98	2.00	-1.1	30.0
Propylbenzene	Ave	0.3264	0.3194		1.96	2.00	-2.1	30.0
2-Chlorotoluene	Ave	0.3015	0.2969		1.97	2.00	-1.5	30.0
4-Ethyltoluene	Ave	1.156	1.110		1.92	2.00	-4.0	30.0
1,3,5-Trimethylbenzene	Ave	0.5561	0.5383		1.94	2.00	-3.2	30.0
Alpha Methyl Styrene	Ave	0.4587	0.4559		1.99	2.00	-0.6	30.0
Decane	Ave	0.6186	0.6972		2.26	2.00	12.7	30.0
tert-Butylbenzene	Ave	1.078	1.056		1.96	2.00	-2.0	30.0
1,2,4-Trimethylbenzene	Ave	0.9689	0.9803		2.02	2.00	1.2	30.0
1,3-Dichlorobenzene	Ave	0.7000	0.6716		1.92	2.00	-4.1	30.0
sec-Butylbenzene	Ave	1.402	1.398		2.00	2.00	-0.3	30.0
Benzyl chloride	Ave	0.7737	0.8207		2.12	2.00	6.1	30.0
1,4-Dichlorobenzene	Ave	0.6842	0.6635		1.94	2.00	-3.0	30.0
4-Isopropyltoluene	Ave	1.194	1.174		1.97	2.00	-1.6	30.0
1,2,3-Trimethylbenzene	Ave	0.7450	0.7431		2.01	2.02	-0.2	30.0
Butylcyclohexane	Ave	0.7496	0.7732		2.08	2.02	3.2	30.0
1,2-Dichlorobenzene	Ave	0.6689	0.6345		1.90	2.00	-5.2	30.0
Indane	Ave	0.9021	0.8697		1.95	2.02	-3.6	30.0
Indene	Lin1		0.6393		1.72	2.02	-15.1	30.0
Butylbenzene	Ave	1.038	1.087		2.10	2.00	4.7	30.0
Undecane	Ave	0.6532	0.6985		2.14	2.00	6.9	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.8658	0.8116		1.89	2.02	-6.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2810	0.2498		1.78	2.00	-11.1	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.018	0.9528		1.89	2.02	-6.4	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.6220	0.5830		1.89	2.02	-6.3	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.8407	0.7666		1.84	2.02	-8.8	30.0
Dodecane	Ave	0.5779	0.5180		1.79	2.00	-10.4	30.0
1,2,4-Trichlorobenzene	Ave	0.4650	0.4245		1.83	2.00	-8.7	30.0
Naphthalene	Ave	0.9864	0.9360		1.90	2.00	-5.1	30.0
Benzo(b) thiophene	Ave	0.5407	0.4610		1.72	2.02	-14.7	30.0
Hexachlorobutadiene	Ave	0.7142	0.6019		1.69	2.00	-15.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4535	0.3939		1.74	2.00	-13.1	30.0
2-Methylnaphthalene	Ave	0.1438	0.1167		5.08	6.25	-18.8	50.0
1-Methylnaphthalene	Ave	0.1465	0.1245		5.32	6.25	-15.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6615	0.7198		4.35	4.00	8.8	30.0

APPENDIX D

Institutional & 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. 401061

Site Name Former Albany Laboratories

Site Address: 67 Howard Street/140 State Street Zip Code: 12207

City/Town: Albany

County: Albany

Site Acreage: 0.226

Reporting Period: January 1, 2016 to December 31, 2016

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?

☒ ☐

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

Description of Institutional Controls

Parcel: 76.33-1-13, 76.33-1-15

Owner: Columbia Eagle

Imposition of an institutional control (in the form of environmental easements) for the controlled properties that:

Requires the remedial party or site owner to complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3).

Allows the use and development of the 67 Howard Street property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

Allows the use and development of the 140 State Street property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

Requires compliance with the NYSDEC-approved Site Management Plan (SMP).

Development and implementation of a Site Management Plan which includes the following:

Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the Site, and details the steps and media-specific requirements necessary to ensure that the following controls remain in place & effective: environmental easements; cover system; sub-slab depressurization systems. This plan includes the following:

- Excavation Plan which details the provisions for management of future excavations on the Site;
- Descriptions of the provisions of the environmental easements, including any land restrictions;
- A provision for the evaluation of the potential for soil vapor intrusion for any buildings developed on the Site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- Provisions for the management and inspection of the identified engineering controls;
- Provisions for maintaining site access controls and NYSDEC notification; and
- Provisions of the steps necessary for the periodic reviews and certification of the institutional and engineering controls

Monitoring Plan to assess the performance and effectiveness of the remedy. This plan includes provisions for monitoring for vapor intrusion in any buildings developed on the Site, as may be required by the Institutional and Engineering Control Plan.

Box 4**Description of Engineering Controls**

Parcel: 76.33-1-13, 76.33-1-15

Owner: Columbia Eagle

Engineering controls in place at the Site consist of a site cover system and a sub-slab depressurization system which is operating in the building at 140 State Street. In addition, there is a sub-slab depressurization system operating in the adjacent building at 144 State Street.

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 complete.

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.

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 Brandon Stabler at 302 Washington Ave Extension, Albany, NY 12203,
print name 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

5/30/17
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 Scott M. Smith at 441 South Salina Street, Syracuse, NY 13202,
print name print business address

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

Scott M. Smith

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



Stamp
(Required for PE)

05/31/17

Date

