From:	Robert Zimmer
To:	Spellman, John (DEC)
Cc:	David Gussack
Subject:	Re: Former Grant Hardware Site, indoor air report
Date:	Thursday, December 3, 2020 4:10:35 PM
Attachments:	Final Former Grant Hardwarer 344031 March 2020 Indoor Air Sampling Report 12-3-20- no lab package.pdf Former Grant Hardware 344031 March 2020 Indoor Air Sampling Lab Data Package.pdf

Hello John,

The revised indoor air sampling report which includes the modifications you requested is attached. Following up on the recommendations in this report, the three SSDS blower fans scheduled to be replaced were changed out in October. The joint and crack sealing is still pending due to the storage tenant's continued and heavy use of the space.

Bob

On 9/25/2020 8:37 AM, Spellman, John (DEC) wrote:

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Geovation Engineering, P.C.

03 December 2020

John Spellman, P.E.
Division of Environmental Remediation
New York State Department of Environmental Conservation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, NY 12233-7014
Phone (518) 402-9662

Re: March 2020 Indoor Air Sampling Report
44 High Street
Former Grant Hardware Site - West Nyack, NY
Site Number 344031.

Dear Mr. Spellman:

Pursuant to the NYSDEC's request, Geovation and Gussack Realty conducted follow-up testing of the indoor air quality in March 2020 to evaluate changes in site conditions since previous testing. The results of the February 2019 indoor air sampling were reported in Geovation's *May 2019 Follow-Up Indoor Air Sampling Report.* In February 2019, the indoor air quality did not meet the NYSDOH recommended values for TCE at several sampling locations. The 2019 report identified floor expansion joints as a possible pathway of indoor air intrusion and recommended that the floor joints and cracks be inspected and repaired. In a conference call with the NYSDEC and NYSDOH, on 23 October 2019, Gussack Realty agreed to undertake the project of sealing the floor cracks and expansion joints in the building.

Use of the building is currently divided, primarily by two separate tenants (The General Bearing Corporation and Clancy-Cullens Storage Company, Inc.), and a portion of the building is unoccupied. Access was arranged in the General Bearing Company portion of the building and a contractor was identified who started work on January 6, 2020 grinding out and cleaning the expansion joints before repairing and sealing the joints and cracks. The extensive system of expansion joints in the floor totaling several thousand feet was completed in the General Bearing portion of the building on March 6, 2020. Subsequently the small room, ground level bay door access area, labeled as Area 7 in the Clancy-Cullens portion of the building was also completed. Clancy-Cullen's uses their leased space for storage/warehousing. Around mid-March, at the time when access was being sought to continue the inspection and repair of floor expansion joints, Clancy-Cullen had most of their leased space in use for client storage prohibiting access to continuous lengths of expansion joints. Discussions with Clancy-Cullen's management indicated that the space was scheduled to be vacated, within the following few weeks and continuation of the expansion joint sealing was postponed until the space was cleared. Clearing of the space and continuation of the joint and crack sealing had not been restarted as the end of the heating season approached and on March 28, 2020 the indoor air sampling was conducted, with the expansion joint sealing completed in the General Bearing portion of the building and not

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conducted in the Clancy-Cullen's portion of the building, with the exception of the small room Area 7.

As may be expected, the results of the 2020 indoor air sampling show distinct results in the two portions of the building where joint sealing was conducted and where it was not conducted. In general there was continued overall improvement to indoor air quality; however, the majority of the sampling locations still exhibit trichloroethene concentrations above the New York State Department of Health, air quality guidelines. This report includes a description of (i) the updated building walk-through, (ii) the results of measuring the vacuum within the eleven Sub-Slab Depressurization Systems (SSDS) and the vacuum created by these system beneath the building at numerous locations, (iii) the weather data for the day samples were collected and the preceding day, (iv) verification of the operation of the sub-slab depressurization system, (v) a description of the collection of a set of ten indoor air samples and two outdoor control air samples, and (vi) a discussion of the results of the data collected.

1.0) Background. The facility is owned by the Gussack Realty Company. Formerly this entire site and building was occupied by the Grant Hardware Company (Grant Hardware) who operated it from approximately 1957 to 1990. The site is located at 44 High Street in West Nyack, NY on the south side of NYS Route 59 (Figure 1). Investigations conducted at this site have indicated the presence of petroleum hydrocarbons and chlorinated compounds in site soil and groundwater. Geovation's *July 2008 Vapor Intrusion Survey Report* described the initial VIS testing conducted at the facility and the installation of a sub-slab depressurization (SSD) system in a limited portion of the building. Geovation's 2013 *Vapor Intrusion Retesting and Mitigation Report* includes additional indoor air testing results and a description of the expansion of the SSD system to include all portions of the facility where vapor intrusion testing indicated that mitigation is required. The *January 2017 Follow-up Indoor Air Sampling* report included a description of the indoor air sampling and results of samples collected in January 2017, the *Revised March 2018 Follow-Up Indoor Air Sampling Report* contains the results of sampling conducted in March 2018, and the *May 2019 Follow-Up Indoor Air Sampling Report,* contains the results of sampling conducted in February 2019.

As discussed briefly above, the building has been divided and currently there are two tenants leasing the majority of the space within this building, and some remaining unoccupied space. The division of space is shown on Figure 2 using different color shading for the two principle tenants. The General Bearing Corporation (General Bearing), occupies most of the front office space and the front portion of the warehouse space. General Bearing conducts testing, shipping and warehousing of ball bearings. On Figure 2, General Bearing occupies the spaces labeled “Front Office Space”,1,2,3, and 6. The second tenant is the Clancy-Cullen Storage Company (Clancy-Cullen), a moving and storage company, who utilize the rear portion of the building for warehousing and storage of various materials, typically office equipment. On Figure 2, the space occupied by Clancy-Cullen is labeled 5, 7 and 8. Area number 4, as well as a portion of the front office space are unoccupied. None of the contaminants of interest of indoor air intrusion

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(tetrachloroethene, trichloroethene, or dichloroethene) are documented as being used in their daily operation by either General Bearing or Clancy-Cullen since their occupation of the facility.

2.0) Building Walk Through. Geovation conducted a modified building walk through on March 13th 2020 to update the existing building walk-through field notes, review potential background sources of volatile organic compounds, confirm that all the SSD system fans were operational, and measure the sub-slab vacuum in the General Bearing portion of the building where the crack and joint sealing program had been completed. A copy of the updated walk-through filed notes is included as Attachment A to this report.

During the walk through, Geovation compared the list of chemicals and materials compiled in 2018 and 2019 with products observed during the 2020 walk-through, and no significant changes were noted. A copy of the list of chemicals used at General Bearing is included in Appendix A. Clancy-Cullen stated that they do not store any hazardous or liquid materials at this location for either themselves or for their clients.

As Shown on Figure 2, most of the interior of this facility is unobstructed open space. Some of the rooms created by partitioned space for offices, labs, and storage, have small localized HVAC systems installed, but the HVAC units obtain their air supplies from the larger area that they are constructed within (Figure 2). In addition, the approximate locations of the individual natural gas, ceiling mounted, space heater units are noted on Figure 3. The locations of the eleven SSD systems installed at the facility are shown on Figure 4. A comparison of the vacuum measured in each of the SSD systems in March 2020 to the vacuum readings at the time of system instillation in March 2012 is provided on Table 1. As shown on this table, the SSD system vacuum was greatly increased at several locations where joint and crack sealing was completed. However, a small drop in system vacuum was noted in some of the SSD systems, on the order of 0.1 inches of water, and a drop in vacuum on 0.4 inches of water was observed in System 3, which is installed in the small basement area.

The eleven SSD Systems combine to create a negative pressure below the building slab, collect contaminants that may be present in the sub-slab air, and vent that air above the building roof line. To evaluate the effectiveness of this system, in addition to measuring the vacuum present in each of the SSD systems, Geovation also measured the vacuum created in the sub-slab air space below the building slab. In coordination with the NYSDEC, 22 locations were selected to measure the sub-slab vacuum and these locations are provided on Figure 4. Sub-slab vacuum readings were collected in all areas where the joint and crack sealing had been completed, which accounts for 16 of the 22 locations. The results of these vacuum measurements are shown on Table 2 along with nearby sub-slab vacuum reading collected at the time of system installation in 2012. As shown on Table 2, sub-slab vacuum readings in March 2020 were greater or equal to the 2012 initial measurements in all but two locations; (i) sampling location 14, in the unoccupied office space (Area 4), and (ii) sampling location 18 in General Bearing area 6, also know as the “Reject Room”.

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Crack and joint sealing had not been completed in the unoccupied office area, Area 4, as the office space has an adhesive fastened carpet which prevents inspection of the underlying floor. This area is unoccupied and has been for many years. Accordingly, NYSDEC permitted this room to be excluded from the indoor air surveys conducted prior to 2019. It has been included in the 2019 and 2020 indoor air sampling events in order to evaluate the indoor air quality and the performance of the SSD system, in preparation for the eventual reoccupation of area 4.

The "Reject Room", Area 6, is a large storage room, sectioned off from General Bearing's main floor area by three walls and thick plastic curtains. The curtains were installed to save energy as this room has limited access, is unoccupied and unheated.

3.0) Weather Data. Atmospheric pressure and temperature measurement during the sampling period, 28 March 2020, and the preceding 24 hours, 27 March 2020 were acquired from the nearest reporting station to the site from Weather Underground at http://www.wunderground.com/. The weather data for these two days is provided in Attachment B.

The weather on 27 March 2020 was seasonally warm (average temperature 54°F) with no precipitation that day. The barometric pressure was recorded to be steady in the morning and slowly rising during the remainder of the day. On the day of sampling, 28 March 2020, the weather was cooler (average temperature 45°F), with no precipitation. The barometric pressure on the day of sampling was fairly steady over the day, slowly increasing then decreasing. Indoor air temperatures ranged from approximately 64°F to 68°F at all indoor air sampling locations during the sampling activities.

4.0) Indoor Air Sampling. Indoor air samples were collected at each of the ten locations shown on Figure 2, typically at a height of approximately three feet above the building slab. Indoor air samples were collected into laboratory prepared 1-liter Suma-Canisters over an approximately eight hour time period. After the air samples were collected, each was identified on and shipped under chain of custody documentation to Centek Laboratories, LLC. of Syracuse, NY (NYSDOH Cert.# 11830) for VOC analysis via EPA Method TO-15. Prior to initiating sample collection, a hand-held PID instrument was used to screen the ambient indoor air quality and the readings were collected in a log. A copy of the indoor air sampling log and copies of photographs of each sampling location are included as Attachment C to this report.

5.0) Outdoor Air Sampling. Two outdoor air samples were collected. The first was collected at the intake location of one of the roof-top HVAC units located above the front office area (Figure 2), and the second was collected approximately three feet above ground level on the up wind side of the building, which, on the day of sampling, was to the east of the building. As with the indoor samples, outdoor air samples were collected into laboratory prepared 1-liter Suma-Canisters over an eight hour time period. After the outdoor air samples were collected, each of

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these samples was also labeled and shipped along with the other samples under chain of custody documentation to Centek Laboratories, LLC. of Syracuse, NY (NYSDOH Cert.# 11830) for VOC analysis via EPA Method TO-15. The outdoor air samples are also included in the photos and logs included in Attachment C to this report.

6.0) Results. The results of the follow-up indoor air testing performed on 28 March 2020 are summarized on Table 3. Historical sampling at this site has documented that the contaminant of concern in indoor air is trichloroethene (TCE), and the results of the analyses of TCE in the indoor air are summarized in graphical format and shown along side previous indoor air sampling data on Figure 2. A copy of the original laboratory data is provided in Attachment D.

As shown on Table 3, relatively low levels (less than 32 ug/m^3) of several volatile organic compounds (VOCs) were reported in the indoor air. Contaminants reported in the indoor air at a concentration greater than 2 ug/m^3 included: acetone, 2-Butanone, chloroform, ethyl acetate, freon 11, freon 12, isopropyl alcohol, toluene, and trichloroethene (TCE),. The only chloroethene compound reported at concentrations greater than 2 ug/m^3 is TCE which was reported at a maximum concentration of 12 ug/m^3 at location 614 (Area 7).

In the General Bearing controlled portion of the facility, The concentration of TCE was below the NYSDOH recommended guidelines of 2 ug/m^3 in the office area, and basement (Area 3)(Figure 2). The greatest concentration of TCE was measured in the “Reject Room”, Area 6, at 6 ug/m^3, and the concentration TCE in the majority of the General Bearing space was 3.2 ug/m^3.

In the Clancy-Cullen controlled portion of the facility, the greatest concentration of TCE was measured in the small overhead-door room (Area 7) at 12 ug/m^3, and the TCE concentration in the main portions of this space were measured at 3.6 ug/m^3 and 4.2 ug/m^3 respectively, Figure 2.

In the unoccupied portion of the facility Area 4, the TCE concentration was measured at 4.1 ug/$m^{3,}$,representing a significant decrease relative to the TCE concentration measured in 2019 at 28 ug/m^3.

7.0) Quality Assurance / Quality Control. Geovation reviewed the Centek sampling data and prepared a Data User Summary Report (DUSR), a copy of which is provided as Attachment E. The DUSR indicates that all ambient air samples were analyzed following EPA method TO-15 protocols. The laboratory maintained appropriate minimum detection levels for all samples, and all holding times were met by the laboratory. The correct data qualifiers were applied in the report and the data on Geovation's summary tables matched the raw data results. Overall, the data as reported is acceptable for use.

There were only two small anomalies with this indoor air data set. The first was that the canister at sampling location 607 was misidentified on the chain of custody as canister 607, when in fact,

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the canister was number 207. This problem was corrected on the chain of custody and the correction was applied throughout the data report. The second was that the final vacuum in the sampling canisters was above the recommended vacuum of 5 inches of water vacuum. The laboratory indicated that adequate sample volume had been collected at each sampling location to analyze the data at the required detection levels and that the higher than ideal vacuum levels had no negative impacts on sample analysis. In previous years sampling, Geovation had had problems with the vacuum in sampling canisters dropping to zero inches of water over the sampling interval. To insure that this problem was not encountered again, Geovation requested that the laboratory set the sampling canister regulators to collect the air samples over a longer interval than the actual eight hour sample collection interval. The sampling canister regulators were provided by the laboratory set to collect samples over a ten hour interval. Samples were then collected over an eight hour time period, which resulted in the greater than recommended vacuum readings at the completion of the eight hour sampling interval.

8.0) Operation of the SSD Systems. Prior to the sampling collection date, Geovation inspected the eleven SSD systems on March 13th ,2020 and confirmed that all SSD system were operational. The vacuum reading at each SSD System was observed again on the day of sampling and those readings are presented Table 1. The signed inspection logs from 28 March 2020, indicating that all the components of the SSD systems were operational prior to the sampling event, are included in Attachment C.

Table 1 includes the March 2020 SSD System vacuum gauge readings and the vacuum gauge readings for the prior 6 months. This table also includes the vacuum gauge reading from March 2012, when the SSD system was originally installed and certified.

9.0) Discussion. The results of the 2020 indoor air sampling show continued improvement relative to the historical sampling results. The joint and crack sealing effort completed in the General Bearing portion of the facility resulted in direct improvements in the SSD System vacuum readings and the sub-slab vacuum measurements. These improvements in the performance of the SSD System translated into improvements in the overall indoor air quality. Where joint and crack sealing has been completed the majority of the facility is now very close to attaining the recommended TCE guidance value of 2 ug/m^3.

In the Clancy-Cullen's portion of the building where joint and crack sealing has not been completed, indoor air TCE concentrations were similar to historical values, and some showed slight increases in the TCE concentration relative to historical values. Gussack Realty and Geovation intend to complete the joint and crack sealing in the Clancy-Cullen's portion of the building prior to the start of the 2020/2021 heating season on October 15, 2020.

The joint and crack sealing process was initiated on 6 January 2020 in the General Bearing controlled portion of the facility, where it was completed in mid-March. The joint and crack sealing was subsequently temporarily suspended in March due to the presence of Clancy-

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Cullen's inventory of stored items blocking access to significant lengths of the joint and crack features. While waiting for Clancy-Cullen to clear adequate floor space, corona-virus restrictions were implemented at the facility which prohibited the presence of non-employees within the building, and therefore the immediate resumption of the work. More recently, as lifting these restrictions is being considered, scheduling for the continuation of the joint and crack sealing will be resumed. It is anticipated that when the joint and crack sealing process is completed throughout the facility, significant improvements to indoor air quality will also be observed in the Clancy-Cullen's portion of the building.

To assess the performance of the Sub-Slab Depressurization Systems, measurements were collected of the vacuum present in each of the eleven SSD Systems and compared to the vacuum measured in these systems when the they were installed and certified in 2012. Table 1 which includes the 2012 initial measurements and a comparison to the 2020 data indicates that a drop in SSD system vacuum measurements was observed in systems 3, 6, 7, 8, and 10.

In addition to measuring the vacuum present in the SSD Systems, Geovation also measured the vacuum that these systems create in the sub-slab air. As briefly discussed above, Geovation collected sub-slab vacuum measurements in the General Bearing portion of the building where joint and crack sealing has been completed. These measurements are provided on Table 2 and sampling locations on Figure 4. As shown on this table, the vacuum created by the SSD Systems in 2020 exceeded the initial vacuum measurements in all but one location, which was one of two sampling points in Area 6, the “Reject Room”.

The greatest concentration of TCE in the General Bearing controlled portion of the building was measured in Area 6 at 6.0 ug/m^3. In this area, the SSD System vacuum was observed to have decreased approximately 16% relative to the initial vacuum reported, and one of two sub-slab vacuum measurements was below the initial reported value. Based on these observations the system fan for SSDS Area 6 will be replaced and the system and sub-slab vacuum measurements repeated. A drop in the SSD System vacuum and sub-slab vacuum was also observed in the basement area (Area 3); however, in this space the TCE concentration has always been less than 2 ug/m^3. A drop in SSD System vacuum was observed in system 10 relative to the initial 2012 value; however, the sub-slab vacuum measurements show large improvements relative to the 2012 installation values. As the joint and crack sealing improvements in this area create additional sub-slab vacuum relative to the installation values, even at a slightly decreased SSD System vacuum, no modifications, beyond the joint and crack sealing already completed, are proposed for this system.

The primary purpose of the sub-slab vacuum measurements is to assist in the evaluation of the SSD System performance and help ascertain if additional system improvements, beyond the joint and crack sealing program, could further improve the indoor air quality. As joint and crack sealing was not completed in the Clancy-Cullen portion of the building, sub-slab vacuum measurements have also not been collected. These measurements will be made after the joint and crack sealing is completed, however, Geovation proposes to proactively replace the fans in SSD Systems 7, and 8, where SSD System vacuums showed slight decreases in system

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vacuum relative to the 2012 installation values (Table 1). It is anticipated that replacing these system fans will result in increased sub-slab vacuum and improvements to the indoor air quality.

In the unoccupied office area, Area 4, a significant decrease in the TCE concentration was observed in 2020 relative to 2019 (Figure 2). The indoor air TCE concentration remains above the NYSDOH recommended guidelines, and one of the two sub-slab vacuum measurements collected in this area was below the initial 2012 value. The SSD System vacuum remained at a similar value to the initial 2012 value and it is not clear if fan replacement will resolve the sub-slab vacuum deficiency. As this area is unoccupied and there are no immediate plans for the area to be occupied, no addition activities are currently proposed in Area 4.

Further discussion is also warranted regarding the use of the different areas within the building. In the General Bearing controlled portion of the building, the indoor air TCE concentration in the office area and basement area are below the NYSDOH recommended guidelines and the majority of the facility has an indoor air TCE concentration of 3.2 ug/m^3, slightly above the NYSDOH recommended value of 2 ug/m^3. The exception to these observations is Area 6, the "Reject Room" where the TCE concentration was measured at 6 ug/m^3. The "Reject Room" however, is basically unoccupied storage space. This space is walled on three sides and the fourth side is separated from the main floor area with thick plastic sheeting. The space is unoccupied and unheated, the plastic sheeting is used to save energy costs. This area is used for long term storage of equipment, chemical storage, and storage for the floor cleaning machine, water recycling system. The area also has a metal scissor gate in front of the plastic screening, to further restrict access.

The Clancy-Cullen portion of the facility is also regularly unoccupied. Clancy-Cullen estimates that they have one or two employees at the facility from one to four days per week; but typically on the order of one day per week. Occasionally, when stored items either arrive at or are removed from their storage space, they also have crews of up to nine employees at the facility for the time period required to load or unload their trucks. The Clancy-Cullen's space is not occupied 8 hours a day, five days per week, but is variable and much less. As an aside, the infrequent occupancy of the space by Clancy-Cullen employees contributes to the complications arranging access to this space by a joint and crack sealing crew.

To continue to monitor the effects of the planed updates and improvements to the subslab depressurization system, it is recommended that indoor air sampling be repeated during the next heating season. To be consistent with the historical indoor air sampling, the air sampling should be conducted between January and March. In addition, measurement of the subslab vacuum in the Clancy-Cullen's portion of the building should be completed to assess the impact of the proposed system improvements in this portion of the building.

In summary, improvements to the indoor air quality were observed in the General Bearing portion of the facility where joint and crack sealing has been completed. Joint and crack sealing has not been conducted in the majority of the Clancy-Cullen space, and this effort has been delayed by several factors including access restrictions imposed in response to corona virus. As

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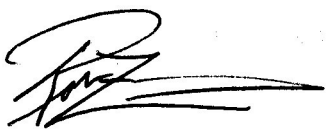
restrictions are lifted, joint and crack sealing will be continued and sub-slab measurements will be collected. Based on the data collected on indoor air quality, SSD System vacuum measurements, and sub-slab system measurements, the fan in Area 6, the "Reject Room" will be replaced in the General Bearing portion of the facility. Although a similar data set is not yet available for the Clancy-Cullen portion of the building, based on data collected to date, two fans will also be replaced in that portion of the facility at locations 7 and 8. An additional round of indoor air sampling is proposed to be conducted in the winter of 2021 to further evaluate the updates and system improvements described in this document.

Geovation appreciates the cooperation and assistance that has been provided by the NYSDEC on this project. If you need any additional information, please do not hesitate to contact me by phone at (845)-820-2344 or by e-mail at rzimmer@geovation.com.

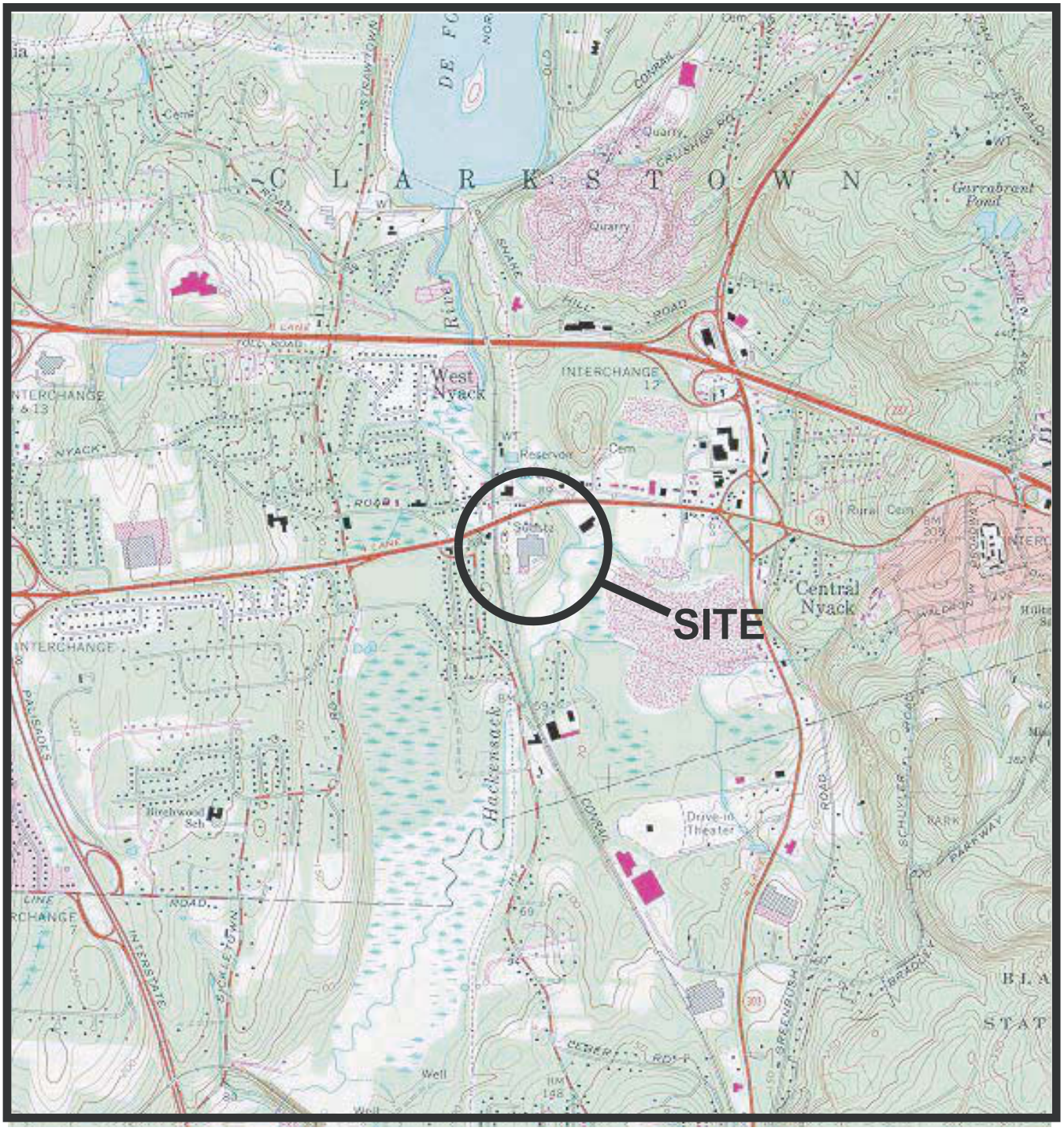
Sincerely,



Robert Zimmer, P.G., P.E.
Vice-President

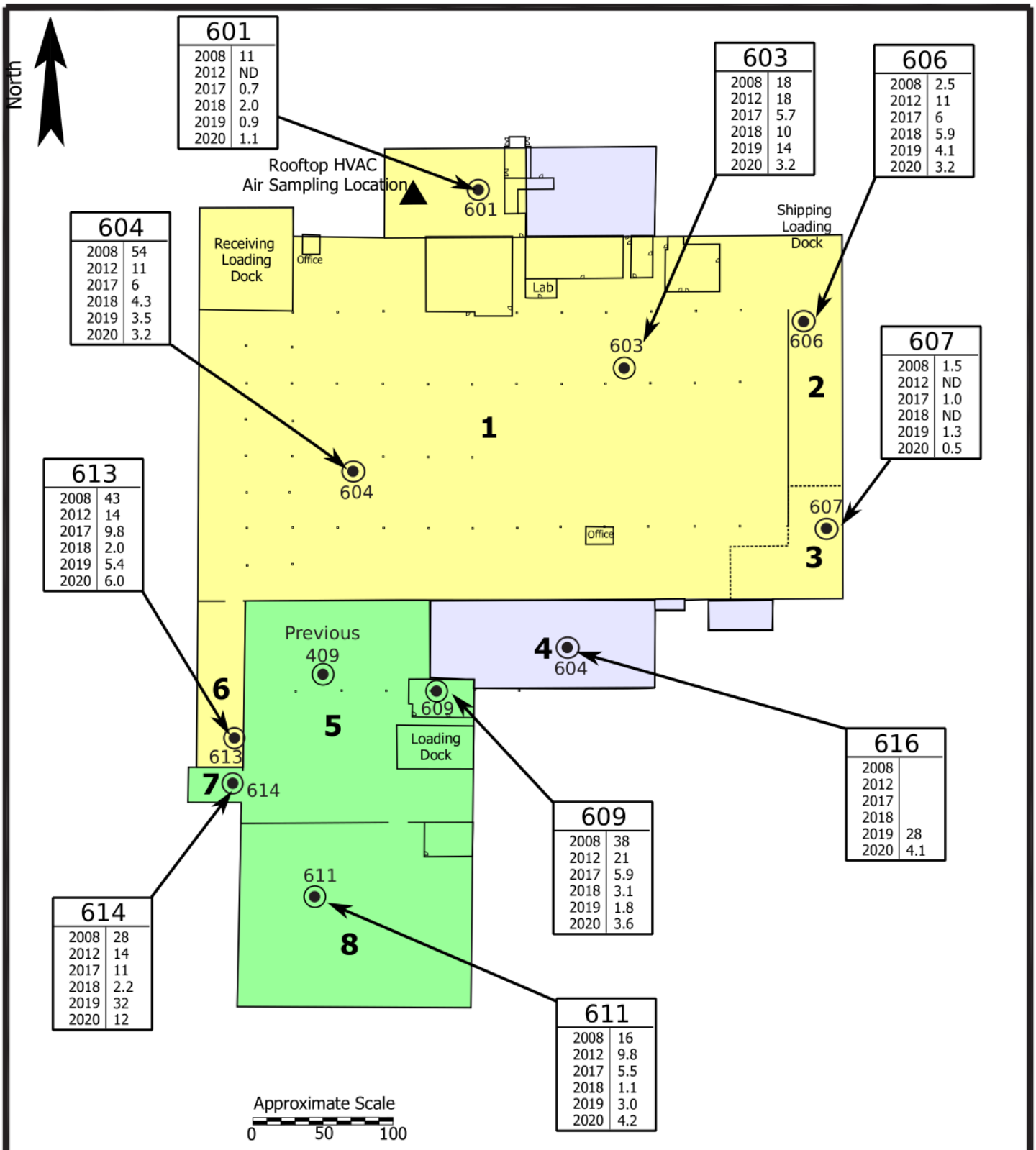
Cc: David Gussack, Gussack Realty

Figures



Source: USGS 7.5 Minute Series Topographic Map West Nyack, NY 1979

Geovation Engineering, P.C. 468 Route 17A - Florida, NY 10921	**SITE MAP** **Remedial Investigation** **Former Grant Hardware Facility** **West Nyack, New York**	Figure 1



LEGEND

- General Bearing Tenant
- Clancy-Cullens Tenant
- Unoccupied

All Units ug/m³

Former Grant Hardware
Facility West Nyack, New York

Locations and Results of March 2020
Indoor Air Sampling

Date: 07-01-2020

Figure 2

GEOVATION
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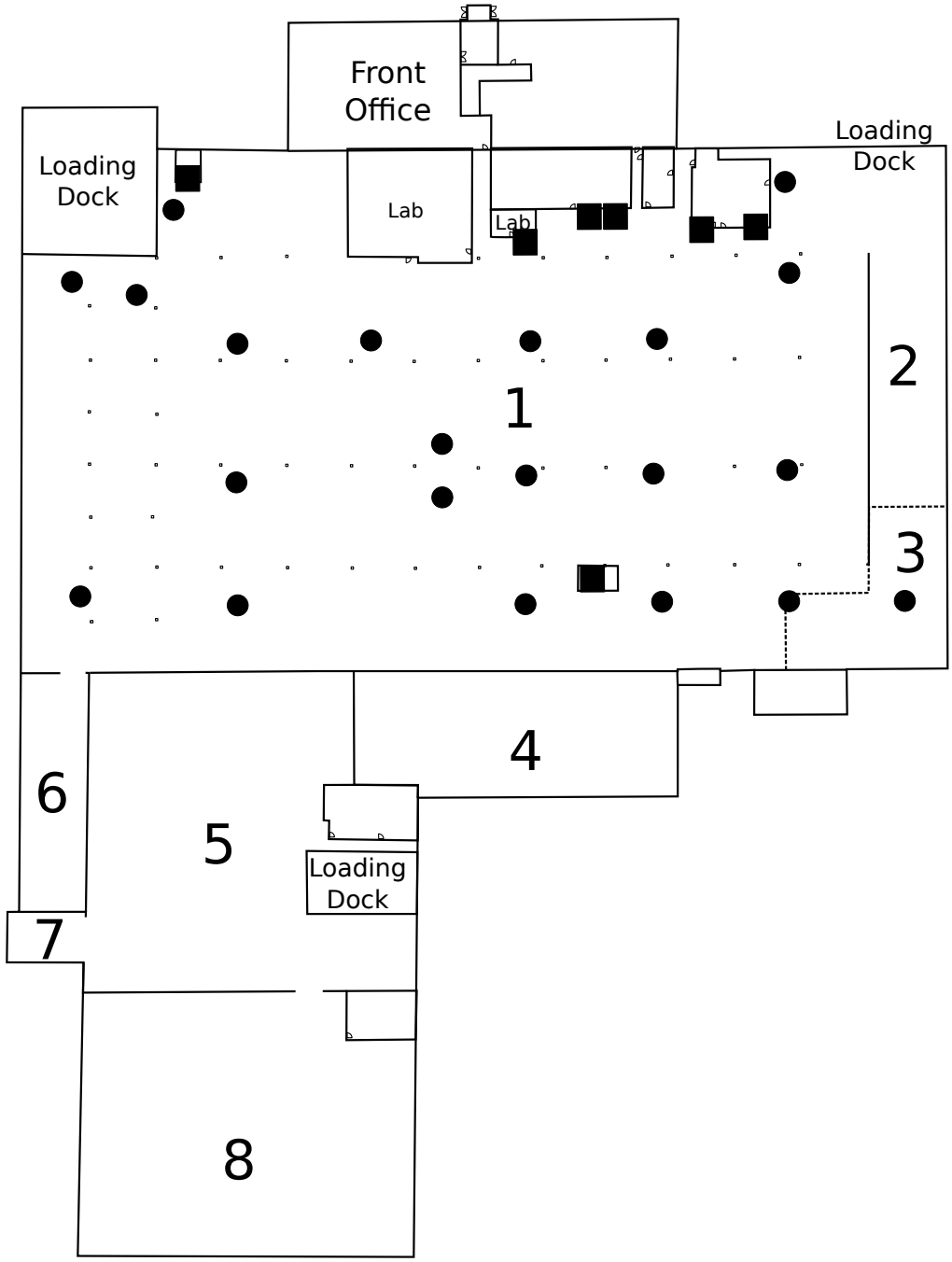

LEGEND

1 — Area Defined by Footing Walls and Designation

● Natural Gas Ceiling Mounted Space Heater

■ Window Unit or Split System HVAC Units with Air intakes within Area 1

Former Grant Hardware
Facility West Nyack, New York

Locations of Space Heaters and Interior HVAC Units

Date: 07-28-2020

Figure 3

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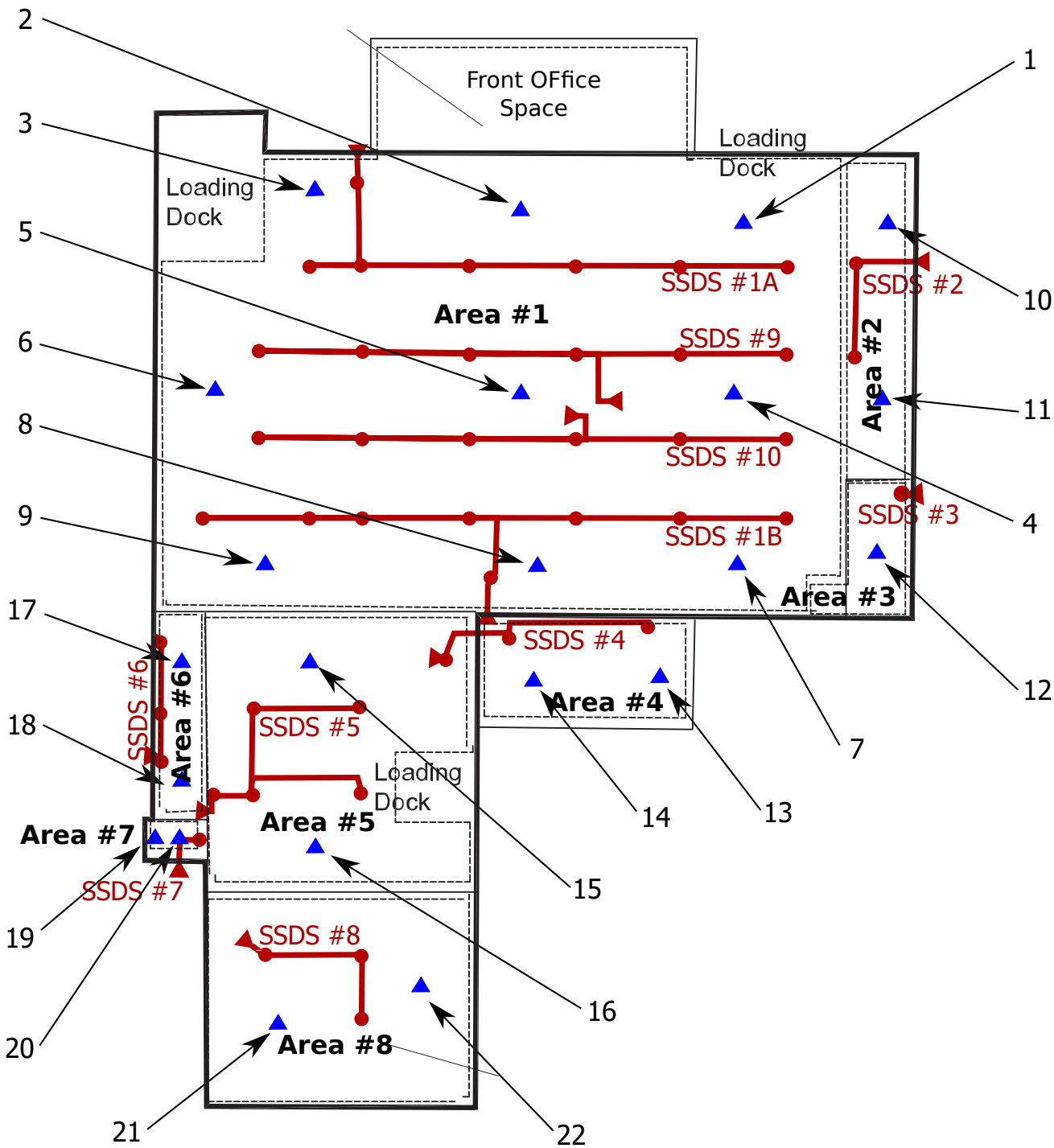

LEGEND

1 — Area Defined by Footing Walls and Designation

21 — Proposed Sub-slab Measurement Location

SSDS System and SUction Pits

Former Grant Hardware
Facility West Nyack, New York

SSD System Locations and
Sub-Slab Vacuum Measurement Locations

Date: 07-28-2020

Figure 4

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Tables

Table 1 – Comparison of 3/28/20 SSD System Vacuum Measurements to Original 3/28/2012 SSD System Measurements

Former Grant Hardware Facility – 44 High Street, West Nyack, NYSDEC# - 344031
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SSD System No. (See Figure 4)	03/28/12 (inches H2O)	09/11/19 (inches H2O)	10/29/19 (inches H2O)	12/10/19 (inches H2O)	01/24/20 (inches H2O)	02/20/20 (inches H2O)	03/28/20 (inches H2O)	Notes:
General Bearing Controlled Areas								
1A	7.8	5.0	5.0	5.0	10.0	10.4	11.0	
1B	8.9	8.0	7.4	6.4	7.4	9.6	10.0	
2	1.8	2.1	2.1	2.1	2.1	2.1	2.1	
3	2.0	1.7	1.6	1.3	1.3	1.3	1.3	Basement - **
6	1.3	1.2	1.1	1.2	1.0	1.0	1.1	Reject Room - **
9	6.4	7.8	5.0	5.6	10.4	11.0	12.0	
10	19.0	13.0	13.0	13.0	17.0	17.0	17.0	
Unoccupied								
4	2.3	2.4	2.8	*	2.4	2.4	2.4	
Clancy-Cullens Controlled Areas								
5	7.0	7.4	5.6	***5.0***	***8.6***	***8.8***	9.2	
7	1.8	1.2	1.2	1.2	1.1	1.4	1.4	Small Room - **
8	1.4	1.1	1.0	1.2	1.1	1.1	1.1	**

Notes:

* System Gauge not accessible to be Read

** System Being Evaluated for blower replacement

Table 2 – Comparison of 3/13/20 Sub-Slab Vacuum Measurements to Most Proximate Original 3/28/2012 Measurement

Former Grant Hardware Facility – 44 High Street, West Nyack, NYSDEC# - 344031

Geovation Engineering, P.C.

March 2020 Sampling Location (See Figure 1)	March 2020 Sub-Slab Vacuum Measurement (inches H2O)		March 2012 Nearest Sampling Location	March 2012 Sub-Slab Vacuum Measurement (inches H2O)
1	1.376		29	0.012
2	2.333		27	0.084
3	1.502		22	0.097
4	1.849		19	0.061
5	3.966		21	0.124
6	0.360		22	0.097
7	0.083		19	0.061
8	3.083		16	0.019
9	0.054		17	0.013
10	0.231		24	0.042
11	8.570		20	0.048
12	0.593		NA	NA
13	0.083		10	0.024
14	**0.012**		10	**0.024**
15	NS		13.0	0.008
16	NS		8	0.157
17	0.148		14	0.025
18	**0.104**		6	**0.160**
19	NS		NA	NA
20	NS		NA	NA
21	NS		4	0.119
22	NS		2	0.012

Notes:

NS	Not Sampled – Area Expansion Joint/Crack Sealing Not Yet Completed
NA	Not Applicable – Area Not Previously Sampled

TABLE 3 – Vapor Intrusion Sampling Results – Indoor Air
44 High Street, West Nyack, NY
03/28/2020
Former Grant Hardware Site, West Nyack, NY - Site # 344031
Geovation Engineering, P.C.

Parameter Detected	IA-601 (ug/m^3)	IA-603 (ug/m^3)	IA-604 (ug/m3)	IA-606 (ug/m^3)	IA-607 (ug/m^3)	IA-609 (ug/m^3)	IA-611 (ug/m^3)	IA-613 (ug/m^3)	IA-614 (ug/m^3)	IA-616 (ug/m^3)	Roof-top HVAC 2020 (ug/m^3)	Outdoor Upwind 2020 (ug/m^3)	NYSDOH 1997 Home Database Indoor Air Mean	EPA 1988 National Indoor Air Mean	Detection Limit (ug/m^3)
Acetone	12	17.0	21	17	9.5	32.0	31.0	20	27	9	15	12	---	19	7.10
Allyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.47
Benzene	0.57	0.73	0.73	0.80	0.48	0.73	0.67	0.67	0.73	0.57	0.48	0.45	4.6	16	0.48
Benzyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.86
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	0.1	1.00
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	ND	1.60
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	---	0.58
2-Butanone (methyl ethyl keytone)	1.00	1.5	1.6	1.8	0.83 J	4.2	1.70	1.20	1.4	1.1	0.9	0.74 J	---	27	0.88
1,3-butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.33
Carbon Disulfide	0.34 J	0.56	0.47	0.53	ND	0.44 J	ND	ND	ND	ND	ND	ND	---	---	0.47
Carbon Tetrachloride**	0.63	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.63	0.57	0.57	2.2	2.5	0.19
Chlorobezene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	0.2	0.69
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	---	0.40
Chloroform	ND	0.63 J	1.1	0.59 J	ND	ND	ND	7.8	ND	ND	ND	ND	---	4.1	0.73
Chloromethane (methyl chloride)	0.81	0.83	0.85	0.72	0.8	0.8	0.76	0.78	0.83	0.8	0.81	0.83	1.1	---	0.31
Cyclohexane	1.2	ND	ND	1.0	0.7	ND	1.0	0.9	0.9	0.9	1.0	0.48 J	---	---	0.52
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	ND	1.30
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	0.01	1.20
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	0.4	0.90
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	---	0.61
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	0.4	0.61
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	79	0.16
trans 1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.5	---	0.59
cis 1,2-Dichloroethene	ND	0.24	0.20	0.20	ND	0.16	0.40	0.59	1.10	ND	ND	ND	2.0	---	0.16
1,3-Dicholobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	24	0.90
1,4-Dicholobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.2	24	0.90
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	---	0.69
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	---	0.68
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	---	0.68
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	1.10
Ethylbenzene	ND	ND	ND	0.48 J	ND	ND	ND	ND	ND	ND	ND	ND	3.2	13	0.65
Ethyl Acetate	1.10	2.2	2.5	2.9	ND	0.47 J	0.8	0.7	1.1	ND	0.5	ND	---	---	0.54
4-Ethyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.74
Freon 11	1.50	1.5	1.5	1.5	1.2	4.2	1.4	1.4	1.5	16.0	1.3	1.2	2.1	---	0.84
Freon 113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	---	1.10
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	1.00
Freon 12	2.40	2.4	2.3	2.2	2.3	2.5	2.3	2.4	2.3	2.9	2.3	2.4	0.8	---	0.74
Heptane	0.57 J	1.3	1.1	1.3	ND	0.9	1.5	1.2	ND	ND	0.49 J	ND	---	5.2	0.81
Hexachloro-1,3-butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	---	1.60
Hexane	0.49 J	0.9	0.92	0.99	ND	0.6	0.9	0.7	1.0	ND	ND	ND	---	2.0	0.53
Isopropyl alcohol	7.1	4.2	3.7	3.6	1.7	20.0	4.1	3.4	ND	2.6	6.4	1.3	---	---	0.37
Methyl Butyl Ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	1.20
Methyl Isobutyl Ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	1.20
Methylene Chloride	0.69	0.69	0.7	0.7	0.63	0.69	0.6	0.7	0.59	0.6	0.6	0.6	13	---	0.52
MTBE (Methyl-tert-butyl-ether)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.54
Propylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.26
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	6.0	0.64
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	0.1	1.00
Tetrachloroethene (PCE)**	1.0	0.75 J	0.75 J	0.75 J	ND	1.4	0.75 J	1.1	2.0	1.8	ND	ND	5	21	1.00
Tetrahydrofuran (THF)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.44
Toluene	1.10	2.3	1.8	2.1	0.57	1.50	1.3	1.5	1.5	0.6	1.10	0.45 J	19	ND	0.57
1,1,1-Trichloroethane**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.2	270	0.82
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	---	0.82
Trichloroethene (TCE)**	1.10	***3.2***	***3.2***	***3.2***	0.54	***3.6***	***4.2***	***6.0***	***12.0***	***4.1***	0.81	ND	2.2	7.2	0.16
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.3	---	1.10
1,2,4-Trimethylbenzene	0.7	1.3	1.3	1.3	ND	0.54 J	ND	0.9	0.69 J	ND	ND	ND	6.3	2.8	0.74
1,3,5-Trimethylbenzene	ND	0.54 J	0.64 J	0.64 J	ND	0.54 J	ND	ND	ND	ND	ND	ND	3.0	4.5	0.74
2,2,4-trimethylpentane	ND	0.61 J	0.56 J	0.65 J	ND	ND	0.51 J	0.51 J	0.61 J	ND	ND	ND	---	---	0.70
m,p-Xylene	0.74 J	1.7	1.6	1.8	ND	0.87 J	1.2 J	1.2 J	0.96 J	ND	ND	ND	7.4	39	1.30
O-Xylene	ND	0.9	0.8	0.91	ND	ND	0.52 J	0.48 J	ND	ND	ND	ND	3.7	12	0.65
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.53
Vinyl Bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	0.66
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	---	0.10
Total VOCs	35	47	50	48	20	77	56	55	57	41	32	20	138	579	
Total of PCE+TCE+DCE+VC	2.10	4.19	4.15	4.15	0.54	5.16	5.35	7.69	15.10	5.90	0.81	ND	37	80	

Notes:
ND Not detected above the method detection limits.
--- Parameter not included in comparative background concentration databases.
** Parameter specified in NYSDOH Decision Matrices

Attachment A

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 Robert Zimmer Date/Time Prepared 3/13/2020

Preparer's Affiliation Consultant Phone No. (845) 697-5100

Purpose of Investigation Indoor Air Instrusion Survey

1. OCCUPANT:

Interviewed: Y / N

Last Name: Azevedo First Name: Richard

Address: General Bearing, 44 High Street West Nyack, NY 10994

County: Rockland

Home Phone: _____ Office Phone: (845) 535-8418

Number of Occupants/persons at this location 90 Age of Occupants 45

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	School	Commercial/Multi-use
(Industrial)	Church	Other: _____

NEW YORK STATE DEPARTMENT OF HEALTH
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This form must be completed for each residence involved in indoor air testing.

Preparer's Name Robert Zimmer Date/Time Prepared 3/13/2020

Preparer's Affiliation Consultant Phone No. (845) 697-5100

Purpose of Investigation Indoor Air Instrusion Survey

1. OCCUPANT:

Interviewed: Y / N

Last Name: Rutenburg First Name: Tyler

Address: Clancy-Cullen, 44-A High Street West Nyack, NY 10994

County: Rockland

Home Phone: _____ Office Phone: (607) 437-0788

Number of Occupants/persons at this location 2 Age of Occupants 35

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	School	Commercial/Multi-use
(Industrial)	Church	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:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) General Bearing - Warehousing, Inspection, Shipping, Receiving of Ball Bearings
Clancy-Cullen - Storage of Office, Library, and Electronics

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

Other characteristics:

Number of floors 1 Building age Approx. 60 years

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 Partial (5%
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
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: 10' (feet)

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

Existing sump is sealed and basement area has a sub-slab depressurization system installed as part of the vapor mitigation measures installed at this facility

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)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other Steam

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Roof mounted units for office area, warehouse area units use interior air

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	Unoccupied Storage
1st Floor	Offices, warehousing, storage
2nd Floor	Offices
3rd Floor	None
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? (Y) / N Loading Docks

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? 2016 Office electrical fire

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? _____

Clancy Cullen painted office in February 2020

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N 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? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type?_____

Are there odors in the building? Y / N Hydrocarbon odor
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(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) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: March 2012
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

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Mini Ray-3000

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** Y / N
	See attached Table					

* 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.

Attachment 1 - MSDS LIST

PRODUST NAME	MANUFACTURER	PID Reading (PPM)	USE
LMX (LX41) Grease	Castrol	<4.5	Mobil Grease Table
Keldri – Area 6	Ashland (NE Products Co.)	30-80	Bearing Inspection Machines
Isopar M – Area 6	Exxon USA	31-42	Bearing Inspection Machines
Ferracote 5856 – Area 6	Quaker Chemical	10-12	Bearing Inspection Machines
Emgard EPS Transmission Fluid	Emgard	<4.5	Maintenance of Engineering Machines
Valvoline AT4 Transmission Fluid	Valvoline	<4.5	Maintenance of Engineering Machines
Dextron VI Synthetic	Valvoline	<4.5	Maintenance of Engineering Machines
Krytox GPL 240 & GPL 20 Grease	Dupont	<4.5	Maintenance of Engineering Machines
Mobil DTE 21 Hydraulic Oil	Mobil	<4.5	Maintenance of Engineering Machines
Mobil DTE 24 Hydraulic Oil	Mobil	<4.5	Maintenance of Engineering Machines
5% Hydrogen Peroxide	FMC Corporation	<4.5	3D Printer
ATF-94-A	Phillips 66 Lubricants	<4.5	Maintenance of Engineering Machines
Heavy Duty Cleaner & Degreaser	Safety-Kleen	<4.5	General Cleaning
Astro-Clean HD	Monroe Fluid Technology	<4.5	General Cleaning
Tec464S Superb Purple	ECP Incorporated	<4.5	Floor Cleaning Machines
Polyurethane	Andrews	<4.5	Maintenance of Engineering Machines
CFX-2	Lectroetch	<4.5	Maintenance of Engineering Machines
Triadine 10	Arch	<4.5	Maintenance of Engineering Machines
Armakleen M-GC	Armakleen	<4.5	Maintenance of Engineering Machines
Shellsol (Naphtha)	Shell	<4.5	Maintenance of Engineering Machines

PRODUST NAME	MANUFACTURER	PID Reading (PPM)	USE
Gadus S2 High Speed Coupling Grease	Shell	<4.5	Maintenance of Engineering Machines
R-100 Coolant	Hangsterfers	<4.5	Maintenance of Engineering Machines
Waste Hydraulic Fluid		<4.5	Maintenance of Engineering Machines
Brakleen - Non-Chlorinated	CRC	<4.5	Not Used
Heavy Duty Silicon Lubricant	CRC	<4.5	Not Used
Power Lubricant	CRC	<4.5	Not Used
BOT 248 Plus	Castrol	<4.5	Maintenance of Engineering Machines
BOT 252BL	Castrol	<4.5	Maintenance of Engineering Machines
Zep - TKO	ZepInc	<4.5	Maintenance of Engineering Machines
Kleen-Strip Acetone	W.M. Barr	<4.5	Maintenance of Engineering Machines
Acetone (2-propanone)	W.M. Barr	<4.5	Maintenance of Engineering Machines
Kleen-Strip Brush Cleaner	W.M. Barr	<4.5	Maintenance
AW 46 Hydraulic Oil	Gulf	<4.5	Maintenance of Engineering Machines
General Purpose Cleaner	Safety-Kleen	<4.5	Maintenance of Engineering Machines
Magnaflux Mineral Oil	Magnaflux	<4.5	Maintenance of Engineering Machines

Notes: Background PID readings in Chemical Storage Area and most of the warehouse space = 4.5 ppm,
PID readings collected from immediate proximity to containers as they were stored, either open or closed.
Bulk packaged bearings in exhibited PID readings of 60-to-175 ppm inside their packaging.

Attachment B

Search Locations Log in (Log…

Recent Cities
West Nyack, NY (weather/us/ny/west-nyack/41.10,-73.97)

41.04 °N, **73.76** °W

Harrison, NY Weather History

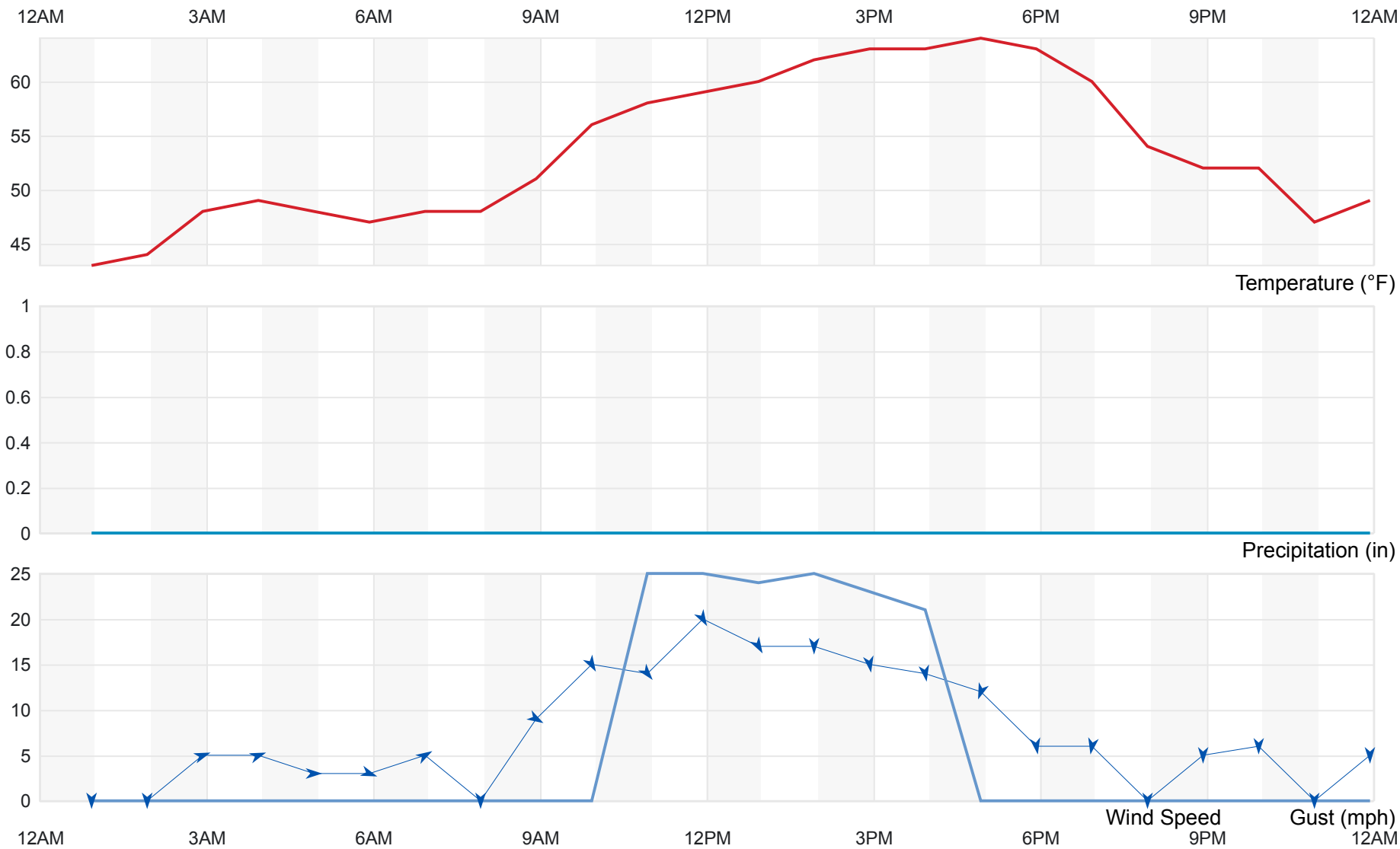
45° WESTCHESTER COUNTY AIRPORT STATION (/WEATHER/US/NY/HARRISON/KHPN?CM_VEN=LOCALWX_PWSDASH) | CHANGE

HISTORY (/HISTORY/DAILY/US/NY/HARRISON/KHPN)

- TODAY (/WEATHER/US/NY/HARRISON/KHPN)
- HOURLY (/HOURLY/US/NY/HARRISON/KHPN)
- 10-DAY (/FORECAST/US/NY/HARRISON/KHPN)
- CALENDAR (/CALENDAR/US/NY/HARRISON/KHPN)
- HISTORY (/HISTORY/DAILY/US/NY/HARRISON/KHPN)
- WUNDERMAP (/WUNDERMAP?LAT=41.04&LON=-73.76)

Daily (/history/daily/us/ny/harrison/KHPN/date/2020-3-27)	Weekly (/history/weekly/us/ny/harrison/KHPN/date/2020-3-27)	Monthly (/history/monthly/us/ny/harrison/KHPN/date/2020-3)

March 27 2020 View



Summary

Temperature (° F)	Actual	Historic Avg.	Record
High Temp	64	51	81
Low Temp	43	33	19
Day Average Temp	53.67	42	-
Precipitation (Inches)	Actual	Historic Avg.	Record
Precipitation (past 24 hours from 04:56:00)	0.00	0.17	-
Dew Point (° F)	Actual	Historic Avg.	Record
Dew Point	30.96	-	-
High	42	-	-
Low	19	-	-
Average	30.96	-	-
Wind (MPH)	Actual	Historic Avg.	Record
Max Wind Speed	20	-	-
Visibility	10	-	-
Sea Level Pressure (Hg)	Actual	Historic Avg.	Record
Sea Level Pressure	29.59	-	-
Astronomy	Day Length	Rise	Set

Temperature (° F)	Actual	Historic Avg.	Record
Actual Time	12h 28m	6:47 AM	7:15 PM
Civil Twilight		6:19 AM	7:43 PM
Nautical Twilight		5:47 AM	8:15 PM
Astronomical Twilight		5:13 AM	8:49 PM
Moon: waxing crescent		8:34 AM	10:28 PM

Daily Observations

Time	Temperature	Dew Point	Humidity	Wind	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:56 AM	43 °F	39 °F	86 %	CALM	0 mph	0 mph	29.32 in	0.0 in	Fair
1:56 AM	44 °F	40 °F	85 %	CALM	0 mph	0 mph	29.31 in	0.0 in	Fair
2:56 AM	48 °F	40 °F	74 %	WSW	5 mph	0 mph	29.30 in	0.0 in	Cloudy
3:56 AM	49 °F	40 °F	71 %	WSW	5 mph	0 mph	29.28 in	0.0 in	Mostly Cloudy
4:56 AM	48 °F	40 °F	74 %	W	3 mph	0 mph	29.28 in	0.0 in	Fair
5:56 AM	47 °F	40 °F	77 %	WNW	3 mph	0 mph	29.27 in	0.0 in	Cloudy
6:56 AM	48 °F	41 °F	77 %	WSW	5 mph	0 mph	29.29 in	0.0 in	Mostly Cloudy
7:56 AM	48 °F	42 °F	80 %	CALM	0 mph	0 mph	29.29 in	0.0 in	Mostly Cloudy
8:56 AM	51 °F	41 °F	68 %	WNW	9 mph	0 mph	29.32 in	0.0 in	Partly Cloudy
9:56 AM	56 °F	41 °F	57 %	NNW	15 mph	0 mph	29.33 in	0.0 in	Fair
10:56 AM	58 °F	38 °F	47 %	NW	14 mph	25 mph	29.36 in	0.0 in	Fair
11:56 AM	59 °F	29 °F	32 %	NNW	20 mph	25 mph	29.37 in	0.0 in	Fair

Time	Temperature	Dew Point	Humidity	Wind	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:56 PM	60 °F	27 °F	28 %	NNW	17 mph	24 mph	29.37 in	0.0 in	Fair
1:56 PM	62 °F	23 °F	22 %	N	17 mph	25 mph	29.38 in	0.0 in	Fair
2:56 PM	63 °F	26 °F	25 %	N	15 mph	23 mph	29.37 in	0.0 in	Fair
3:56 PM	63 °F	23 °F	22 %	N	14 mph	21 mph	29.38 in	0.0 in	Fair
4:56 PM	64 °F	22 °F	20 %	NNE	12 mph	0 mph	29.38 in	0.0 in	Fair
5:56 PM	63 °F	22 °F	21 %	N	6 mph	0 mph	29.40 in	0.0 in	Fair
6:56 PM	60 °F	19 °F	20 %	N	6 mph	0 mph	29.45 in	0.0 in	Fair
7:56 PM	54 °F	23 °F	30 %	CALM	0 mph	0 mph	29.47 in	0.0 in	Fair
8:56 PM	52 °F	23 °F	32 %	N	5 mph	0 mph	29.52 in	0.0 in	Fair
9:56 PM	52 °F	20 °F	28 %	N	6 mph	0 mph	29.55 in	0.0 in	Fair
10:56 PM	47 °F	23 °F	39 %	CALM	0 mph	0 mph	29.57 in	0.0 in	Fair
11:56 PM	49 °F	21 °F	33 %	N	5 mph	0 mph	29.59 in	0.0 in	Fair

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Harrison, NY Weather History

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HISTORY (/HISTORY/DAILY/US/NY/HARRISON/KHPN)

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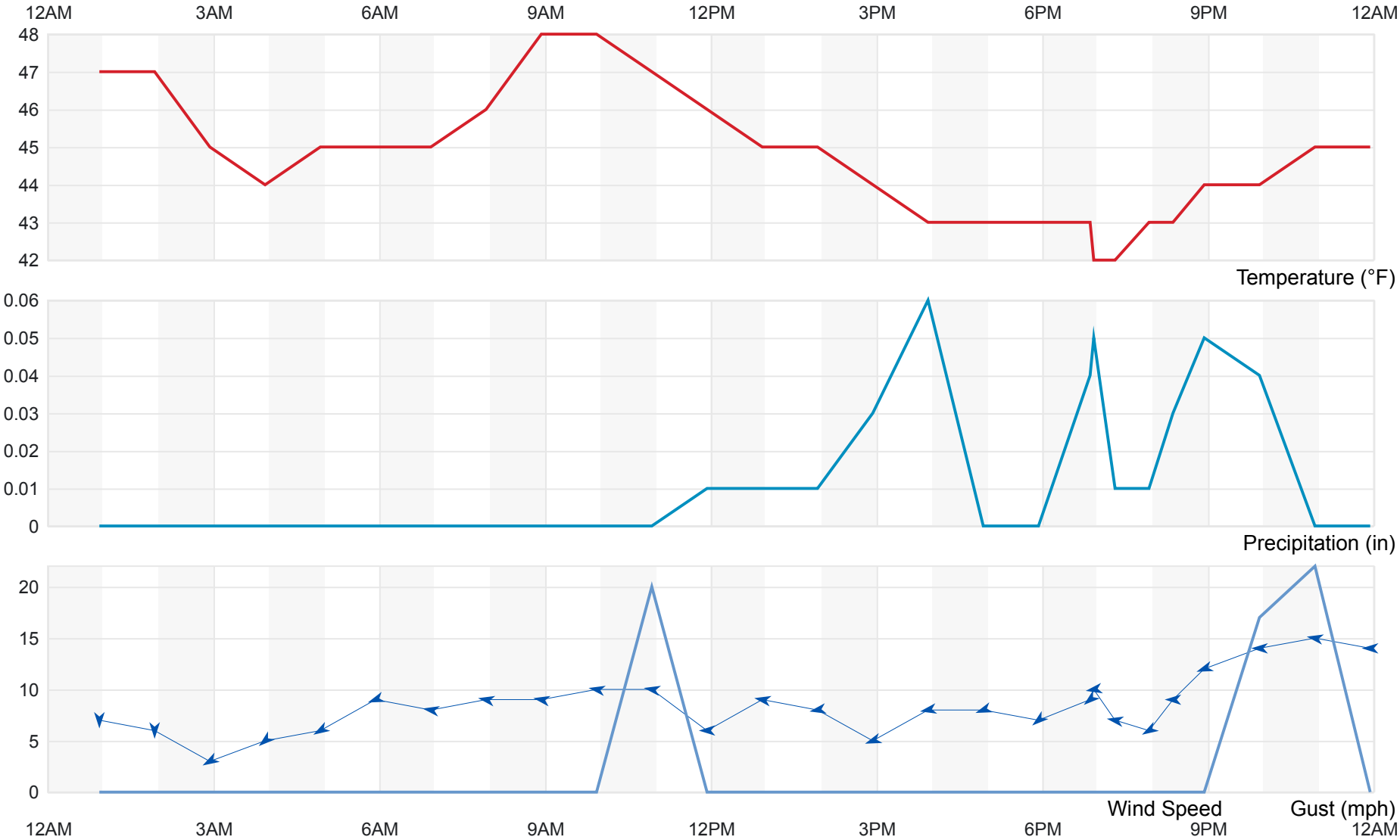
		Monthly
Daily (/history /daily/us/ny /harrison /KHPN/date /2020-3-28)	Weekly (/history /weekly/us/ny /harrison /KHPN/date /2020-3-28)	(/history /monthly/us/ny /harrison /KHPN/date /2020-3)

March 28 2020 View



Summary

Temperature (° F)	Actual	Historic Avg.	Record
High Temp	48	51	80
Low Temp	42	33	19
Day Average Temp	44.7	42	-
Precipitation (Inches)	Actual	Historic Avg.	Record
Precipitation (past 24 hours from 04:56:00)	0.00	0.16	-
Dew Point (° F)	Actual	Historic Avg.	Record
Dew Point	32.41	-	-
High	43	-	-
Low	21	-	-
Average	32.41	-	-
Wind (MPH)	Actual	Historic Avg.	Record
Max Wind Speed	15	-	-
Visibility	10	-	-
Sea Level Pressure (Hg)	Actual	Historic Avg.	Record
Sea Level Pressure	29.67	-	-
Astronomy	Day Length	Rise	Set

Temperature (° F)	Actual	Historic Avg.	Record
Actual Time	12h 31m	6:45 AM	7:16 PM
Civil Twilight		6:17 AM	7:44 PM
Nautical Twilight		5:45 AM	8:17 PM
Astronomical Twilight		5:11 AM	8:50 PM
Moon: waxing crescent		9:02 AM	11:29 PM

Daily Observations

Time	Temperature	Dew Point	Humidity	Wind	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:56 AM	47 °F	21 °F	36 %	N	7 mph	0 mph	29.59 in	0.0 in	Fair
1:56 AM	47 °F	22 °F	37 %	N	6 mph	0 mph	29.60 in	0.0 in	Fair
2:56 AM	45 °F	22 °F	40 %	ENE	3 mph	0 mph	29.61 in	0.0 in	Fair
3:56 AM	44 °F	21 °F	40 %	NE	5 mph	0 mph	29.59 in	0.0 in	Fair
4:56 AM	45 °F	23 °F	42 %	ENE	6 mph	0 mph	29.59 in	0.0 in	Fair
5:56 AM	45 °F	23 °F	42 %	ENE	9 mph	0 mph	29.62 in	0.0 in	Fair
6:56 AM	45 °F	24 °F	44 %	E	8 mph	0 mph	29.61 in	0.0 in	Mostly Cloudy
7:56 AM	46 °F	24 °F	42 %	E	9 mph	0 mph	29.62 in	0.0 in	Fair
8:56 AM	48 °F	24 °F	39 %	E	9 mph	0 mph	29.65 in	0.0 in	Fair
9:56 AM	48 °F	23 °F	37 %	E	10 mph	0 mph	29.65 in	0.0 in	Cloudy
10:56 AM	47 °F	24 °F	41 %	E	10 mph	20 mph	29.64 in	0.0 in	Cloudy
11:56 AM	46 °F	32 °F	58 %	E	6 mph	0 mph	29.67 in	0.0 in	Light Rain

Time	Temperature	Dew Point	Humidity	Wind	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:56 PM	45 °F	35 °F	68 %	E	9 mph	0 mph	29.64 in	0.0 in	Light Rain
1:56 PM	45 °F	35 °F	68 %	E	8 mph	0 mph	29.64 in	0.0 in	Light Rain
2:56 PM	44 °F	37 °F	76 %	ENE	5 mph	0 mph	29.63 in	0.0 in	Light Rain
3:56 PM	43 °F	38 °F	82 %	E	8 mph	0 mph	29.59 in	0.1 in	Mostly Cloudy
4:56 PM	43 °F	38 °F	82 %	ENE	8 mph	0 mph	29.57 in	0.0 in	Cloudy
5:56 PM	43 °F	37 °F	80 %	NE	7 mph	0 mph	29.59 in	0.0 in	Mostly Cloudy
6:52 PM	43 °F	39 °F	87 %	NE	9 mph	0 mph	29.59 in	0.0 in	Rain
6:56 PM	42 °F	39 °F	89 %	E	10 mph	0 mph	29.59 in	0.1 in	Rain
7:19 PM	42 °F	40 °F	92 %	E	7 mph	0 mph	29.59 in	0.0 in	Light Rain
7:56 PM	43 °F	41 °F	93 %	ENE	6 mph	0 mph	29.59 in	0.0 in	Light Rain
8:22 PM	43 °F	42 °F	97 %	E	9 mph	0 mph	29.59 in	0.0 in	Light Rain
8:56 PM	44 °F	43 °F	96 %	ENE	12 mph	0 mph	29.59 in	0.1 in	Light Rain
9:56 PM	44 °F	42 °F	93 %	E	14 mph	17 mph	29.58 in	0.0 in	Light Rain
10:56 PM	45 °F	43 °F	93 %	E	15 mph	22 mph	29.55 in	0.0 in	Light Rain
11:56 PM	45 °F	43 °F	93 %	E	14 mph	0 mph	29.55 in	0.0 in	Light Rain

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Attachment C

Sub-Slab Depressurization System
Inspection Form

Site: Former Grant Hardware Site
Site ID# 344031

Date: 3/28/20
Time: 08:00 → 09:15

Reason for Inspection: (e.g. Annual , system repair, etc.): Annual

Sub-Slab Depressurization System (SSDS) **1A**: Operational: ✓ Vac: 11
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **1B**: Operational: ✓ Vac: 10
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **2**: Operational: ✓ Vac: 2.1
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **3**: Operational: ✓ Vac: 1.3
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **4**: Operational: ✓ Vac: 2.4
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **5**: Operational: ✓ Vac: 9.2
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **6**: Operational: ✓ Vac: 1.1
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **7**: Operational: ✓ Vac: 1.4
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **8**: Operational: ✓ Vac: 1.1
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **9**: Operational: ✓ Vac: 12
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓
Sub-Slab Depressurization System (SSDS) **10**: Operational: ✓ Vac: 17
Leaks noted in piping: No *SSDS labels In-place*: ✓
No air intakes installed within 10 feet of SSDS exhaust: ✓

I hereby certify that the above SSDSs installed at this site are operational and that required system repairs have been completed.

Name: Robert Zimmer
Date: 3/28/20
Signature: [signature]
Title: Project Manager

Sub-Slab Soil Gas Sampling and Indoor Air Sampling Log

Date: 3/28/20 Location: 609
Time of Start of Test: 08:00 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 15:54 Summa Canister Vac Reading: 8

Date: 3/28/20 Location: 614
Time of Start of Test: 08:03 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 15:57 Summa Canister Vac Reading: 11

Date: 3/28/20 Location: 611
Time of Start of Test: 08:08 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 15:58 Summa Canister Vac Reading: 10

Date: 3/28/20 Location: 607
Time of Start of Test: 08:15 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 16:11 Summa Canister Vac Reading: 12

Date: 3/28/20 Location: 616
Time of Start of Test: 08:23 Summa Canister Vac Reading: 30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 16:18 Summa Canister Vac Reading: 8

Date: 3/28/20 Location: 606
Time of Start of Test: 08:27 Summa Canister Vac Reading: 30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 1.9
Time Test Stopped: 16:25 Summa Canister Vac Reading: 7

Date: 3/28/20 Location: 603
Time of Start of Test: 08:35 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 2.5
Time Test Stopped: 16:29 Summa Canister Vac Reading: 10

Date: 3/28/20 Location: Rooftop HVAC 2020
Time of Start of Test: 08:39 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.3
Time Test Stopped: 16:37 Summa Canister Vac Reading: 10

Date: 3/28/20 Location: 601
Time of Start of Test: 08:47 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.7
Time Test Stopped: 16:40 Summa Canister Vac Reading: 9

Sub-Slab Soil Gas Sampling and Indoor Air Sampling Log

Date: 3/28/20 Location: 604
Time of Start of Test: 08:57 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 1.8
Time Test Stopped: 16:54 Summa Canister Vac Reading: 11

Date: 3/28/20 Location: 613
Time of Start of Test: 08:59 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.6
Time Test Stopped: 16:55 Summa Canister Vac Reading: 10

Date: 3/28/20 Location: Outdoor Upwind
Time of Start of Test: 09:11 Summa Canister Vac Reading: >30
Tracer Gas Testing (Pass/Fail): — Background PID Reading: 0.2
Time Test Stopped: 17:08 Summa Canister Vac Reading: 5

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

Date:_______ Location:_______
Time of Start of Test:_______ Summa Canister Vac Reading:_______
Tracer Gas Testing (Pass/Fail):_______ Background PID Reading:_______
Time Test Stopped:_______ Summa Canister Vac Reading:_______

601

603

604

606

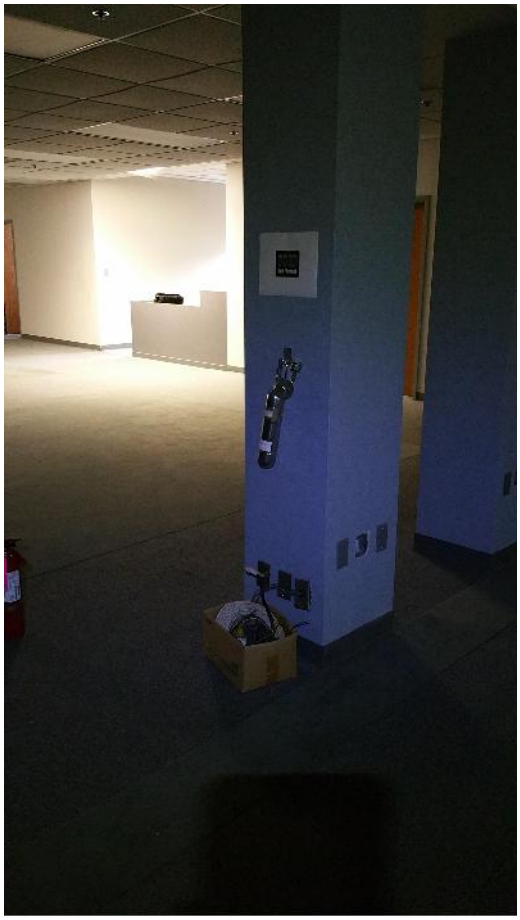
607

609

611

613

614



616

Roof Top HVAC

Outdoor Upwind

Attachment D

Attachment E

Laboratory Data Validation Form

Laboratory Case Number: C2004002

Date Sampled: 3/28/20

Date Sample(s) Received by Laboratory: 4/1/20

Media Sampled: Air, Indoor

Field Sampling Method: 1 liter Summa Canisters

Oversight Agency: NYSDEC/DOH

Laboratory Utilized and Certification Number: Caltek - 11830

Reporting Package Required: B

Was chain of custody included in data package & completed correctly: Yes

Were requested methods and QA/QC performed by lab: Yes

Were holding times exceeded: No

Were all data values within instrument calibration ranges: Yes

Are all data reporting forms complete for all samples submitted including sample dilution data and sample cleanup procedures? Yes

Were any problems encountered during the analytical process reported by the laboratory? No

I have reviewed the above referenced laboratory data package and by my signature below, state that Geovation's Data Validation procedures have been followed and the data complies with Geovation's Data Validation Criteria.

Signed: _____ Date: 4/28/20

Notes (detailed information regarding responses above, as necessary):

Canister 602 mislabled as 607 on chain of custody - corrected by lab.

Project No:	Grnl 2120	Screener:		Date:	9/28/20
Project Name:		Reviewer:	RL2	Date:	4/26/21
SDG/Package:	Canek	C2009082			

MODULE A: COMPLETENESS AND HOLDING TIME CHECKLIST

1.0 Chain-of-Custody

	Y	N	N/A
1.1 Are all Chain-of-Custody (COC) forms included in data package?	X		
1.2 Were COC forms properly signed and dated?	X		
1.3 Was sample container temperature recorded on COC form (or other) by laboratory?			X
1.4 Is the recorded temperature within control limits (4°C ±2°C) Temperature ____			X

Comments:

2.0 Completeness Check

	Y	N	N/A
2.1 Is a case narrative present and does it describe analytical problems, discrepancies and corrective actions ?	X		
2.2 Are all required summary forms present (see attached list) ?	X		
2.3 Are data present for all samples listed on COC form ?	X		
2.4 Are all required raw data sections present (see attached list) ? (Preliminary Check Only; detailed review of data will be conducted in Module B Checklist)	X		

Comments:

3.0 Holding Times/Preservation (Technical Criteria _CRF40; _QUAPP; Other _____)

	Y	N	N/A
3.1 Were all samples properly preserved?			X
3.2 Complete the Holding Times Table?	X		

Comments:

Holding Times Table

Table	Parameter	Complete	Location
Sample Index			
Holding Times Table (list):			
Volatiles	X	Yes	
Semivolatiles			
Pest/PCBs			
Metals			
Dioxins/Furans			
Conventionals			
PAH-8270SIM			
Herbicides			
TBT/Krone			
Phthalates-525.2			
Fuels			
Phenols			

Parameter/Method: | Data Validation Criteria Table:

Project No:		Screener:		Date:	
Project Name:	Grnwl 2020	Reviewer:	RL2	Date:	4/20/20
SDG/Package:	Centek ~~460202~~		2004002		

MODULE B: TECHNICAL EVALUATION CHECKLIST - ORGANICS

Module B-1 (Summaries of sample results; accuracy; precision; blanks)

Module B-2 (Summaries of calibration; instrumentation performance & compound ID)

1.0 Technical Holding times and Sample Handling

	Y	N	N/A
1.1 Is Module A Checklist Complete?	✓		
1.2 Are all holding times within the technical criteria from: __CRF40; __QAPP; __other_____? ____No Outliers; _____see attached Holding Times Worksheet or data package; __see below	✓		
1.3 Are all cooler temperatures within the control limits? ____No Outliers; _____see attached Holding Times Worksheet or data package: __see below			✓

Comments: _____ Data judged as not significantly affected by outliers; no qualifiers assigned.

2.0 Surrogates/Labeled Compounds

	Y	N	N/A
2.1 Are all recovered values within the control limits? ____No Outliers; _____see attached Surrogate Summary Form or data package; __see below	✓		

Comments: ✓ No positive results; no qualifiers as all outliers were >UCL (high bias)

_____No qualifiers assigned: one outlier per fraction/column acceptable (if>10%)

Project No:		Screener:		Date:	
Project Name:	Grout 2020	Reviewer:	RLZ	Date:	4/25/20
SDG/Package:	Cantek 200400a				

3.0 Method/Field Blank

	Y	N	N/A
3.1 Are Method Banks from contamination? X No Outliers; ___ see attached Blank Summary Form or data package: __ see below		X	
3.2 Are there any trip/equipment/filed blanks included in the data package ?		X	
3.3 Are the trip/equipment/filed blanks free from contamination? ___ No Outliers; ___ see attached Blank Summary Form or data package: __ see below			X

Comments: X No positive results in associated samples: no action required for method / trip / equip / other

___ 10X action level established for common lab cont.; 5X action levels for others

4.0 Laboratory Control Samples

	Y	N	N/A
4.1 Are all %R-values within the control limits? X No Outliers; ___ see attached Summary Form or data package: __ see below	X		
4.2 Are all RPD values within control limits ? ___ No Outliers; ___ see attached Summary Form or data package; __ see below			X

Comments for LCS: X No positive results associated samples; no qualifiers as all outliers wree >UCL (high bias)

5.0 Performance Evaluation

	Y	N	N/A
5.1 Was PE/SRM sample(s) analyzed?		X	
5.2 Are all values within control limits ? ___ No Outliers; ___ see below			X

Comments: ___ No qualifiers assigned based on PE/SRM outliers.

Project No:		Screener:		Date:	
Project Name:	Grant 2000	Reviewer:	RLZ	Date:	4/28/20
SDG/Package:	Centek 200402				

6.0 Matrix Spike/Matrix Spike Duplicate or Sample and Lab Duplicates

	Y	N	N/A
6.1 Are all %R-values within control limits? ____No Outliers; _____see attached MS/MSD Summary Form or data package; __see below			X
6.2 Are all RPD values within control limits ? ____No Outliers; _____see attached MS/MSD Summary Form or data package; __see below			X

Comments: _____No positive results in parent sample; no qualifiers as all outliers were >UCL (high bias)

7.0 Field Duplicate Field Duplicate Sample ID(s)

	Y	N	N/A
7.1 Were field duplicates collected and analyzed ?		X	
7.2 Are all RPD values within control limits ? ____No Outliers; _____see attached Field Duplicate Summary Form or data package; __see below			X

Comments: _____No qualifiers assigned based on field duplicate outliers

8.0 Sample Results

	Y	N	N/A
8.1 Are there results for all analytes on the client requested target compound list(s) ? **See QAP for list**	X		
8.2a Were TICs requested for this project ?		X	
8.2b If "yes" were TICs reported as required ?			
8.3 Are reporting limits and sample results adjusted for sample size, %moisture (solid sample), etc. ?			X
8.4 Are concentrations reported on the appropriate basis ? _____Dry weight; _____ Wet weight	X		
8.5 Do the detection limits meet project specific or method specific limits ?	X		

Comments: _____Qualify TIC "NJ" unless already qualified "U" due to blank contamination

General Notes and Information:

Centek Laboratories TO-15 Package Review CheckList

Client: Geovation Engineering **Project:** Grant Hardware SDG: C2004002

		YES	NO	NA
Analytical Results	Present and Complete	✓		
TIC's Present	Present and Complete			✓
	Holdin Times Met	✓		

Comments:

Chain of Custody	Present and Complete	✓		
Surrogate	Present and Complete	✓		
	Recoveries within Limits	✓		
	Sample(s) reanalyzed			✓
Internal Standards	Present and Complete	✓		
Recovery	Recoveries within Limits	✓		
	Sample(s) reanalyzed			✓

Comments:

Lab Control Sample	Present and Complete	✓		
(LCS)	Recoveries within Limits	✓		
Lab Control Sample Dupe	Present and Complete	✓		
(LCSD)	Recoveries within Limits	✓		
MS/MSD	Present and Complete			✓
	Recoveries within Limits			✓

Comments: No MS/MSD

Sample Raw Data	Present and Complete	✓		
	Spectra present	✓		

Comments:

Centek Laboratories TO-15 Package Review CheckList

Client: Geovation Engineering **Project:** Grant Hardware **SDG:** C2004002

		YES	NO	NA
Standards Data				
Intial Calibration	Present and Complete	✓		
	Calibration meets criteria	✓		
Continuing Calibration	Present and Complete	✓		
	Calibration meets criteria	✓		
Standards Raw Data	Present and Complete	✓		

Comments:

Raw Quality Control Data

Tune Criteria Report	Present and Complete	✓		
Method Blank Data	MB Results <PQL	✓		
	Associated results flagged "B"			✓
LCS Sample Data	Present and Complete	✓		
LCSD Sample Data	Present and Complete	✓		
MS/MSD Sample Data	Present and Complete			✓

Comments: NO MS/MSD

Logbooks

Injection Log	✓		
Standards Log	✓		
Can Cleaning Log	✓		
Calculation Sheet	✓		
IDL's	✓		
Canister Order Form	✓		
Sample Tracking Form	✓		

Additional Comments:

Section Supervisor: Will Doffi Date: 4/15/20

QC Supervisor: [signature] Date: 4/15/20

ASP CAT B DELIVERABLE PACKAGE
Table of Contents

CENTEK LABORATORIES, LLC
143 Midler Park Drive * Syracuse, NY 13206
Phone (315) 431-9730 * Emergency 24/7 (315) 416-2752
NYSDOH ELAP Certificate No. 11830

Analytical Report

Bob Zimmer
Geovation Engineering, Inc.
2016 Route 284, PO BOX 513
Slate Hill, NY 10973

TEL: (845) 697-5100
FAX
RE: Grant Hardware

Tuesday, April 07, 2020
Order No.: C2004002

Dear Bob Zimmer:

Centek Laboratories, LLC received 12 sample(s) on 4/1/2020 for the analyses presented in the following report.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness. Release of the data contained in this hardcopy data package and/or in the computer readable data submitted has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Centek Laboratories performs all analyses according to EPA, NIOSH or OSHA-approved analytical methods. Centek Laboratories is dedicated to providing quality analyses and exceptional customer service. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the case narrative. All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

We do our best to make our reporting format clear and understandable and hope you are thoroughly satisfied with our services. Please contact your client service representative at (315) 431-9730 or myself, if you would like any additional information regarding this report.

Thank you for using Centek Laboratories. This report can not be reproduced except in its entirety, without prior written authorization.

Sincerely,

William Dobbin
Lead Technical Director

Disclaimer: The test results and procedures utilized, and laboratory interpretations of the data obtained by Centek as contained in this report are believed by Centek to be accurate and reliable

for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of Centek for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages. ELAP does not offer certification for the following parameters by this method at present time, they are: 4-ethyltoluene, ethyl acetate, propylene, Tetrahydrofuran, 4-PCH, sulfur derived and silcon series compounds.

Centek Laboratories, LLC Terms and Conditions

Sample Submission

All samples sent to Centek Laboratories should be accompanied by our Request for Analysis Form or Chain of Custody Form. A Chain of Custody will be provided with each order shipped for all sampling events, or if needed, one is available at our website www.CentekLabs.com. Samples received after 3:00pm are considered to be a part of the next day's business.

Sample Media

Samples can be collected in an canister or a Tedlar bag. Depending on your analytical needs, Centek Laboratories may receive a bulk, liquid, soil or other matrix sample for headspace analysis.

Blanks

Every sample is run with a surrogate or tracer compound at a pre-established concentration. The surrogate compound run with each sample is used as a standard to measure the performance of each run of the instrument. If required, a Minican can be provided containing nitrogen to be run as a trip blank with your samples.

Sampling Equipment

Centek Laboratories will be happy to provide the canisters to carry-out your sampling event at no charge. The necessary accessories, such as regulators, tubing or personal sampling belts, are also provided to meet your sampling needs. The customer is responsible for all shipping charges to the client's destination and return shipping to the laboratory. Client assumes all responsibility for lost, stolen and any damages of equipment.

Turn Around time (TAT)

Centek Laboratories will provide results to its clients in one business-week by 6:00pm EST after receipt of samples. For example, if samples are received on a Monday they are due on the following Monday by 6:00pm EST. Results are faxed or emailed to the requested location indicated on the Chain of Custody. Non-routine analysis may require more than the one business-week turnaround time. Please confirm non-routine sample turnaround times.

Reporting

Results are emailed or faxed at no additional charge. A hard copy of the result report is mailed within 24 hours of the faxing or emailing of your results. Cat "B" like packages are within 3-4 weeks from time of analysis. Standard Electronic Disk Deliverables (EDD) is also available at no additional charge.

Payment Terms

Payment for all purchases shall be due within 30 days from date of invoice. The client agrees to pay a finance charge of 1.5% per month on the overdue balance and cost of collection, including attorney fees, if collection proceedings are necessary. You must have a completed credit

application on file to extend credit. Purchase orders or checks information must be submitted for us to release results

Rush Turnaround Samples

Expedited turn around times is available. Please confirm rush turnaround times with Client Services before submitting samples.

Applicable Surcharges for Rush Turnaround Samples:
Same day TAT = 200%
Next business day TAT by Noon = 150%
Next business day TAT by 6:00pm = 100%
Second business day TAT by 6:00pm = 75%
Third business day TAT by 6:00pm = 50%
Fourth business day TAT by 6:00pm = 35%
Fifth business day = Standard

Statement of Confidentiality

Centek Laboratories, LLC is aware of the importance of the confidentiality of results to many of our clients. Your name and data will be held in the strictest of confidence. We will not accept business that may constitute a conflict of interest. We commonly sign Confidential Nondisclosure Agreements with clients prior to beginning work. All research, results and reports will be kept strictly confidential. Secrecy Agreements and Disclosure Statements will be signed for the client if so specified. Results will be provided only to the addressee specified on the Chain of Custody Form submitted with the samples unless law requires release. Written permission is required from the addressee to release results to any other party.

Limitation on Liability

Centek Laboratories, LLC warrants the test results to be accurate to the methodology and sample type for each sample submitted to Centek Laboratories, LLC. In no event shall Centek Laboratories, LLC be liable for direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages whatsoever, even if Centek Laboratories, LLC has been previously advised of the possibility of such damages whether in an action under contract, negligence, or any other theory, arising out of or in connection with the use, inability to use or performance of the information, services, products and materials available from the laboratory or this site. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages, loss of data, income or profit and or loss of or damage to property and claims of third parties.

CENTEK LABORATORIES, LLC

Date: *13-Apr-20*

CLIENT: Geovation Engineering, Inc.

Project: Grant Hardware

Lab Order: C2004002

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Centek Laboratories, LLC SOP TS-80
Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

NYSDEC ASP samples:
Canisters should be evacuated to a reading of less than or equal to 50 millitorr prior to shipment to sampling personnel. The vacuum in the canister will be field checked prior to sampling, and must read 28" of Hg (±2", vacuum, absolute) before a sample can be collected. After the sample has been collected, the pressure of the canister will be read and recorded again, and must be 5" of Hg (±1", vacuum, absolute) for the sample to be valid. Once received at the laboratory, the canister vacuum should be confirmed to be 5" of Hg,±1". Please record and report the pressure/vacuum of received canisters on the sample receipt paperwork. A pressure/vacuum reading should also be taken just prior to the withdrawal of sample from the canister, and recorded on the sample preparation log sheet. All regulators are calibrated to meet these requirements before they leave the laboratory. However, due to environmental conditions and use of the equipment Centek can not guarantee that this criteria can always be achieved.

Centek Labs - Chain of Custody

Centek Laboratories

143 Midler Park Drive
Syracuse, NY 13206
315-431-9730
www.CentekLabs.com

Vapor Intrusion & IAQ

Site Name: Grant Hardware
Project:
PO#:
Quote # Q-SP
Canister Order #: 8294

Detection Limit	Report Level
☐ 5ppbv	☐ Level I
☐ 1ug/M3	☐ Level II
☑ 1ug/M3 + 0.2 NYS	☒ Cat "B" Like The Best
☐	

TAT Turnaround Time:	Check One	Rush TAT Surcharge %	Due Date:
5 Business Days	☒	0%	
4 Business Days	☐	25%	
3 Business Days	☐	50%	
2 Business Days	☐	75%	
*Next Day by 5pm	☐	100%	
*Next Day by Noon	☐	150%	
*Same Day	☐	200%	

*For Same and Next Day TAT Please Notify Lab

Company: Bob Zimmer

Report to:
Address: Geovation
City, State, Zip 2016 Rte 284 Slate Hill, NY. 10973
Email: rzimmer@geovation.com
Phone: 845-820-2344 (cell)

Company:
Check Here If Same: ☐

Invoice to:
Address: SAME
City, State, Zip
Email:
Phone:

Sample ID	Date Sampled	Canister Number	Regulator Number	Analysis Request	Field Vacuum Start / Stop	Labs Vacuum** RecV/Analysis	Comments
601	3/28/20	351	447	TO-15	>30 / 9	-7 /	
603		360	380		>30 / 10	-6 /	
604		544	372		>30 / 11	-8 /	
606		352	435		30 / 7	-7 /	
607	2nd	602	388		>30 / 12	-9 /	
609		157	374	TO-15	730 / 8	-7 /	
611		130	375		730 / 10	-8 /	
613		354	440		730 / 10	-8 /	
614		539	387		730 / 11	-6 /	
616		200	436		30 / 8	-6 /	
Rooftop HVAC 2020		8294	386		730 / 10	-6 /	Also Can 1180
Outdoor Upwind 2020		239	381		730 / 5	-3 /	
					/	/	
					/	/	
					/	/	
					/	/	
					/	/	
					/	/	

Chain of Custody	Print Name	Signature	Date/Time	Courier: CIRCLE ONE
Sampled by:	Bob Zimmer		3/30/20 @ 11:30	FedEx UPS Pickup/Dropoff
Relinquished by:	Bob Zimmer		3/30/20 @ 11:30	**For LAB USE ONLY
Received at Lab by:	Denise / J. Hunt		4/1/2020	Work Order # C20004002

***Chain of Custody must be completed in full. Lack of any missing information will affect your Turn Around Times (TAT)*

*** By signing Centek Labs Chain of Custody, you are accepting Centek Labs Terms and Conditions listed on the reverse side.

CENTEK LABORATORIES, LLC

Sample Receipt Checklist

Client Name GEOVATION | Date and Time Receive 4/1/2020

Work Order Numbe C2004002 | Received by DH

Checklist completed by [signature] 4/1/2020 (Signature / Date) | Reviewed by WD 4/1/20 (Initials / Date)

Matrix: | Carrier name FedEx Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
COC signed when relinquished and received?	Yes ☑	No ☐	
COC agrees with sample labels?	Yes ☐	No ☑	
COC completely filled out?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Wrong Canister number for sample 2.5. 607 is really Canister number 207.

Corrective Action Changed Coc

QC'd By: WD DATE: 4/15/20

CENTEK LABORATORIES, LLC

Date: *13-Apr-20*

CLIENT: Geovation Engineering, Inc.
Project: Grant Hardware
Lab Order: C2004002

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C2004002-001A	601	351,447	3/28/2020	4/1/2020
C2004002-002A	603	360,380	3/28/2020	4/1/2020
C2004002-003A	604	544,372	3/28/2020	4/1/2020
C2004002-004A	606	352,435	3/28/2020	4/1/2020
C2004002-005A	607	207,388	3/28/2020	4/1/2020
C2004002-006A	609	157,374	3/28/2020	4/1/2020
C2004002-007A	611	130,375	3/28/2020	4/1/2020

CLIENT: Geovation Engineering, Inc.
Project: Grant Hardware
Lab Order: C2004002

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C2004002-008A	613	354,440	3/28/2020	4/1/2020
C2004002-009A	614	539,387	3/28/2020	4/1/2020
C2004002-010A	616	200,436	3/28/2020	4/1/2020
C2004002-011A	Roof Top HVAC 2020	1180,386	3/28/2020	4/1/2020
C2004002-012A	Outdoor Upwind 2020	239,381	3/28/2020	4/1/2020

Lab Order: C2004002
Client: Geovation Engineering, Inc.
Project: Grant Hardware

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C2004002-001A	601	3/28/2020	Air	1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
C2004002-002A	603			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-003A	604			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-004A	606			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-005A	607			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-006A	609			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
C2004002-007A	611			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
C2004002-008A	613			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-009A	614			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-010A	616			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020

Lab Order: C2004002
Client: Geovation Engineering, Inc.
Project: Grant Hardware

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C2004002-011A	Roof Top HVAC 2020	3/28/2020	Air	1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
C2004002-012A	Outdoor Upwind 2020			1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/2/2020
				1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DCE-1,1DCE			4/1/2020

CANISTER ORDER

CENTEK LABORATORIES, LLC
Air Quality Testing...It's a Gas
143 Midler Park Drive * Syracuse, NY 13206
TEL: 315-431-9730 * FAX: 315-431-9731

8294

13-Apr-20

SHIPPED TO:

Company: Geovation Engineering, Inc.
Contact: Bob Zimmer
Address: 2016 Route 284, PO BOX 513
Slate Hill, NY 10973
Phone: 845 697-5100
Quote ID: 0
Project:
PO:

Submitted By:
MadeBy: DH
Ship Date: 3/16/2020
VIA: UPS - Ground
Due Date: 3/19/2020

Bottle Code	Bottle Type	TEST(s)	QTY
MC1000CC	1L Mini-Can	1ug/m3 w/ 0.2ug/M3 CT-TCE-VC-DC	16

Can / Reg ID	Description
93	1L Mini-Can - 1109 VI
130	1L Mini-Can - 1078 VI
157	1L Mini-Can - 1127 VI
200	1L Mini-Can - 1155 VI
207	1L Mini-Can - 1162 VI
239	1L Mini-Can - 1171 VI
351	1L Mini-Can - 1300 VI
352	1L Mini-Can - 1301 VI
353	1L Mini-Can - 1302 VI
354	1L Mini-Can - 1303 VI
360	1L Mini-Can - 1309 VI
372	Time-Set Reg - 746 VI
374	Time-Set Reg - 748 VI
375	Time-Set Reg - 749 VI
380	Time-Set Reg - 754 VI
381	Time-Set Reg - 755 VI
382	Time-Set Reg - 756 VI
386	Time-Set Reg - 760 VI
387	Time-Set Reg - 761 VI
388	Time-Set Reg - 762 VI
394	Time-Set Reg - 773 VI
397	Time-Set Reg - 776 VI
435	Time-Set Reg - 814 VI
436	Time-Set Reg - 815 VI
439	Time-Set Reg - 818 VI
440	Time-Set Reg - 819 VI
447	Time-Set Reg - 826 VI
539	1L Mini-Can - 107 VI
544	1L Mini-Can - 112 VI
1180	1L Mini-Can - 1244 VI
1184	1L Mini-Can - 1248 VI
1191	1L Mini-Can - 1259 VI

SHIPPED TO:

Company:	Geovation Engineering, Inc.
Contact:	Bob Zimmer
Address:	2016 Route 284, PO BOX 513
	Slate Hill, NY 10973
Phone:	845 697-5100
Quote ID:	0
Project:	
PO:	

Submitted By:

MadeBy:	DH
Ship Date:	3/16/2020
VIA:	UPS - Ground
Due Date:	3/19/2020

Bottle Code	Bottle Type	TEST(s)	QTY

Comments: (16) 1L @ 11 Hours. WAC 030920 A-G

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

ANALYTICAL RESULTS

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2,4-Trimethylbenzene	0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Acetone	5.2	3.0		ppbV	10	4/1/2020 11:57:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Benzene	0.18	0.15		ppbV	1	4/1/2020 1:45:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Carbon disulfide	0.11	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Carbon tetrachloride	0.10	0.030		ppbV	1	4/1/2020 1:45:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloromethane	0.39	0.15		ppbV	1	4/1/2020 1:45:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Cyclohexane	0.34	0.15		ppbV	1	4/1/2020 1:45:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Ethyl acetate	0.30	0.15		ppbV	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 12	0.49	0.15		ppbV	1	4/1/2020 1:45:00 PM
Heptane	0.14	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Hexane	0.14	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Isopropyl alcohol	2.9	1.5		ppbV	10	4/1/2020 11:57:00 PM
m&p-Xylene	0.17	0.30	J	ppbV	1	4/1/2020 1:45:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl Ethyl Ketone	0.35	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 1:45:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Tetrachloroethylene	0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Toluene	0.28	0.15		ppbV	1	4/1/2020 1:45:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Trichloroethene	0.20	0.030		ppbV	1	4/1/2020 1:45:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
Surr: Bromofluorobenzene	94.0	70-130		%REC	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 1:45:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 1:45:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 1:45:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 1:45:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
1,2,4-Trimethylbenzene	0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 1:45:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 1:45:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 1:45:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
Acetone	12	7.1		ug/m3	10	4/1/2020 11:57:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 1:45:00 PM
Benzene	0.57	0.48		ug/m3	1	4/1/2020 1:45:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 1:45:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 1:45:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 1:45:00 PM
Carbon disulfide	0.34	0.47	J	ug/m3	1	4/1/2020 1:45:00 PM
Carbon tetrachloride	0.63	0.19		ug/m3	1	4/1/2020 1:45:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 1:45:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 1:45:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 1:45:00 PM
Chloromethane	0.81	0.31		ug/m3	1	4/1/2020 1:45:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 1:45:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 1:45:00 PM
Cyclohexane	1.2	0.52		ug/m3	1	4/1/2020 1:45:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 1:45:00 PM
Ethyl acetate	1.1	0.54		ug/m3	1	4/1/2020 1:45:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 1:45:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 1:45:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 1:45:00 PM
Heptane	0.57	0.61	J	ug/m3	1	4/1/2020 1:45:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 1:45:00 PM
Hexane	0.49	0.53	J	ug/m3	1	4/1/2020 1:45:00 PM
Isopropyl alcohol	7.1	3.7		ug/m3	10	4/1/2020 11:57:00 PM
m&p-Xylene	0.74	1.3	J	ug/m3	1	4/1/2020 1:45:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
Methyl Ethyl Ketone	1.0	0.88		ug/m3	1	4/1/2020 1:45:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 1:45:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 1:45:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 1:45:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 1:45:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 1:45:00 PM
Tetrachloroethylene	1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 1:45:00 PM
Toluene	1.1	0.57		ug/m3	1	4/1/2020 1:45:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 1:45:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 1:45:00 PM
Trichloroethene	1.1	0.16		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 2:32:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2,4-Trimethylbenzene	0.27	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,3,5-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
2,2,4-trimethylpentane	0.13	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Acetone	7.0	3.0		ppbV	10	4/2/2020 12:43:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 2:32:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Carbon disulfide	0.18	0.15		ppbV	1	4/1/2020 2:32:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 2:32:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Chloroform	0.13	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 2:32:00 PM
cis-1,2-Dichloroethene	0.060	0.040		ppbV	1	4/1/2020 2:32:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Ethyl acetate	0.61	0.15		ppbV	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 2:32:00 PM
Heptane	0.32	0.15		ppbV	1	4/1/2020 2:32:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Hexane	0.25	0.15		ppbV	1	4/1/2020 2:32:00 PM
Isopropyl alcohol	1.7	0.15		ppbV	1	4/1/2020 2:32:00 PM
m&p-Xylene	0.39	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Ethyl Ketone	0.51	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 2:32:00 PM
o-Xylene	0.20	0.15		ppbV	1	4/1/2020 2:32:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Toluene	0.62	0.15		ppbV	1	4/1/2020 2:32:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Trichloroethene	0.60	0.030		ppbV	1	4/1/2020 2:32:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 2:32:00 PM
Surr: Bromofluorobenzene	108	70-130		%REC	1	4/1/2020 2:32:00 PM

Qualifiers:	SC	Sub-Contracted	.	Results reported are not blank corrected	
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection	
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit	

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 2:32:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 2:32:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 2:32:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 2:32:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 2:32:00 PM
1,3,5-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 2:32:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 2:32:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
2,2,4-trimethylpentane	0.61	0.70	J	ug/m3	1	4/1/2020 2:32:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 2:32:00 PM
Acetone	17	7.1		ug/m3	10	4/2/2020 12:43:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 2:32:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 2:32:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 2:32:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 2:32:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 2:32:00 PM
Carbon disulfide	0.56	0.47		ug/m3	1	4/1/2020 2:32:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 2:32:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 2:32:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 2:32:00 PM
Chloroform	0.63	0.73	J	ug/m3	1	4/1/2020 2:32:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 2:32:00 PM
cis-1,2-Dichloroethene	0.24	0.16		ug/m3	1	4/1/2020 2:32:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 2:32:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 2:32:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 2:32:00 PM
Ethyl acetate	2.2	0.54		ug/m3	1	4/1/2020 2:32:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 2:32:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 2:32:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 2:32:00 PM
Heptane	1.3	0.61		ug/m3	1	4/1/2020 2:32:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 2:32:00 PM
Hexane	0.88	0.53		ug/m3	1	4/1/2020 2:32:00 PM
Isopropyl alcohol	4.2	0.37		ug/m3	1	4/1/2020 2:32:00 PM
m&p-Xylene	1.7	1.3		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Ethyl Ketone	1.5	0.88		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 2:32:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 2:32:00 PM
o-Xylene	0.87	0.65		ug/m3	1	4/1/2020 2:32:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 2:32:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 2:32:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 2:32:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 2:32:00 PM
Toluene	2.3	0.57		ug/m3	1	4/1/2020 2:32:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 2:32:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 2:32:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 3:20:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2,4-Trimethylbenzene	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,3,5-Trimethylbenzene	0.13	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
2,2,4-trimethylpentane	0.12	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Acetone	8.9	3.0		ppbV	10	4/2/2020 1:29:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 3:20:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Carbon disulfide	0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 3:20:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloroform	0.23	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloromethane	0.41	0.15		ppbV	1	4/1/2020 3:20:00 PM
cis-1,2-Dichloroethene	0.050	0.040		ppbV	1	4/1/2020 3:20:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Ethyl acetate	0.69	0.15		ppbV	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 11	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 3:20:00 PM
Heptane	0.28	0.15		ppbV	1	4/1/2020 3:20:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Hexane	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
Isopropyl alcohol	1.5	0.15		ppbV	1	4/1/2020 3:20:00 PM
m&p-Xylene	0.38	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Ethyl Ketone	0.53	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 3:20:00 PM
o-Xylene	0.18	0.15		ppbV	1	4/1/2020 3:20:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Toluene	0.48	0.15		ppbV	1	4/1/2020 3:20:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Trichloroethene	0.59	0.030		ppbV	1	4/1/2020 3:20:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 3:20:00 PM
Surr: Bromofluorobenzene	100	70-130		%REC	1	4/1/2020 3:20:00 PM

Qualifiers:	SC	Sub-Contracted	.	Results reported are not blank corrected	
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection	
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit	

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 3:20:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 3:20:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 3:20:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 3:20:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 3:20:00 PM
1,3,5-Trimethylbenzene	0.64	0.74	J	ug/m3	1	4/1/2020 3:20:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 3:20:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
2,2,4-trimethylpentane	0.56	0.70	J	ug/m3	1	4/1/2020 3:20:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 3:20:00 PM
Acetone	21	7.1		ug/m3	10	4/2/2020 1:29:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 3:20:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 3:20:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 3:20:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 3:20:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 3:20:00 PM
Carbon disulfide	0.47	0.47		ug/m3	1	4/1/2020 3:20:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 3:20:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 3:20:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 3:20:00 PM
Chloroform	1.1	0.73		ug/m3	1	4/1/2020 3:20:00 PM
Chloromethane	0.85	0.31		ug/m3	1	4/1/2020 3:20:00 PM
cis-1,2-Dichloroethene	0.20	0.16		ug/m3	1	4/1/2020 3:20:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 3:20:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 3:20:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 3:20:00 PM
Ethyl acetate	2.5	0.54		ug/m3	1	4/1/2020 3:20:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 3:20:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 3:20:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 3:20:00 PM
Heptane	1.1	0.61		ug/m3	1	4/1/2020 3:20:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 3:20:00 PM
Hexane	0.92	0.53		ug/m3	1	4/1/2020 3:20:00 PM
Isopropyl alcohol	3.7	0.37		ug/m3	1	4/1/2020 3:20:00 PM
m&p-Xylene	1.6	1.3		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Ethyl Ketone	1.6	0.88		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 3:20:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 3:20:00 PM
o-Xylene	0.78	0.65		ug/m3	1	4/1/2020 3:20:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 3:20:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 3:20:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 3:20:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 3:20:00 PM
Toluene	1.8	0.57		ug/m3	1	4/1/2020 3:20:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 3:20:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 3:20:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:07:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2,4-Trimethylbenzene	0.27	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,3,5-Trimethylbenzene	0.13	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
2,2,4-trimethylpentane	0.14	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Acetone	7.2	3.0		ppbV	10	4/2/2020 2:15:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Benzene	0.25	0.15		ppbV	1	4/1/2020 4:07:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Carbon disulfide	0.17	0.15		ppbV	1	4/1/2020 4:07:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 4:07:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Chloroform	0.12	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Chloromethane	0.35	0.15		ppbV	1	4/1/2020 4:07:00 PM
cis-1,2-Dichloroethene	0.050	0.040		ppbV	1	4/1/2020 4:07:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Cyclohexane	0.30	0.15		ppbV	1	4/1/2020 4:07:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Ethyl acetate	0.80	0.15		ppbV	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Freon 11	0.26	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 12	0.44	0.15		ppbV	1	4/1/2020 4:07:00 PM
Heptane	0.31	0.15		ppbV	1	4/1/2020 4:07:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Hexane	0.28	0.15		ppbV	1	4/1/2020 4:07:00 PM
Isopropyl alcohol	1.5	0.15		ppbV	1	4/1/2020 4:07:00 PM
m&p-Xylene	0.42	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Ethyl Ketone	0.60	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Methylene chloride	0.19	0.15		ppbV	1	4/1/2020 4:07:00 PM
o-Xylene	0.21	0.15		ppbV	1	4/1/2020 4:07:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Toluene	0.56	0.15		ppbV	1	4/1/2020 4:07:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Trichloroethene	0.59	0.030		ppbV	1	4/1/2020 4:07:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 4:07:00 PM
Surr: Bromofluorobenzene	103	70-130		%REC	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:07:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:07:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:07:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:07:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 4:07:00 PM
1,3,5-Trimethylbenzene	0.64	0.74	J	ug/m3	1	4/1/2020 4:07:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 4:07:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
2,2,4-trimethylpentane	0.65	0.70	J	ug/m3	1	4/1/2020 4:07:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 4:07:00 PM
Acetone	17	7.1		ug/m3	10	4/2/2020 2:15:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 4:07:00 PM
Benzene	0.80	0.48		ug/m3	1	4/1/2020 4:07:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 4:07:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 4:07:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 4:07:00 PM
Carbon disulfide	0.53	0.47		ug/m3	1	4/1/2020 4:07:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 4:07:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 4:07:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 4:07:00 PM
Chloroform	0.59	0.73	J	ug/m3	1	4/1/2020 4:07:00 PM
Chloromethane	0.72	0.31		ug/m3	1	4/1/2020 4:07:00 PM
cis-1,2-Dichloroethene	0.20	0.16		ug/m3	1	4/1/2020 4:07:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:07:00 PM
Cyclohexane	1.0	0.52		ug/m3	1	4/1/2020 4:07:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 4:07:00 PM
Ethyl acetate	2.9	0.54		ug/m3	1	4/1/2020 4:07:00 PM
Ethylbenzene	0.48	0.65	J	ug/m3	1	4/1/2020 4:07:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 4:07:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.2	0.74		ug/m3	1	4/1/2020 4:07:00 PM
Heptane	1.3	0.61		ug/m3	1	4/1/2020 4:07:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 4:07:00 PM
Hexane	0.99	0.53		ug/m3	1	4/1/2020 4:07:00 PM
Isopropyl alcohol	3.6	0.37		ug/m3	1	4/1/2020 4:07:00 PM
m&p-Xylene	1.8	1.3		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Ethyl Ketone	1.8	0.88		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 4:07:00 PM
Methylene chloride	0.66	0.52		ug/m3	1	4/1/2020 4:07:00 PM
o-Xylene	0.91	0.65		ug/m3	1	4/1/2020 4:07:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 4:07:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 4:07:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 4:07:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 4:07:00 PM
Toluene	2.1	0.57		ug/m3	1	4/1/2020 4:07:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 4:07:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:07:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-9			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Acetone	4.0	3.0		ppbV	10	4/2/2020 3:00:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Benzene	0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 4:55:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloromethane	0.38	0.15		ppbV	1	4/1/2020 4:55:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Cyclohexane	0.20	0.15		ppbV	1	4/1/2020 4:55:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 11	0.21	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 4:55:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Isopropyl alcohol	0.68	0.15		ppbV	1	4/1/2020 4:55:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl Ethyl Ketone	0.28	0.30	J	ppbV	1	4/1/2020 4:55:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Methylene chloride	0.18	0.15		ppbV	1	4/1/2020 4:55:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Toluene	0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Trichloroethene	0.10	0.030		ppbV	1	4/1/2020 4:55:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
Surr: Bromofluorobenzene	83.0	70-130		%REC	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:55:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:55:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:55:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 4:55:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 4:55:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 4:55:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
Acetone	9.5	7.1		ug/m3	10	4/2/2020 3:00:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 4:55:00 PM
Benzene	0.48	0.48		ug/m3	1	4/1/2020 4:55:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 4:55:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 4:55:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 4:55:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 4:55:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 4:55:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 4:55:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 4:55:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 4:55:00 PM
Chloromethane	0.78	0.31		ug/m3	1	4/1/2020 4:55:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:55:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:55:00 PM
Cyclohexane	0.69	0.52		ug/m3	1	4/1/2020 4:55:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 4:55:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 4:55:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 4:55:00 PM
Freon 11	1.2	0.84		ug/m3	1	4/1/2020 4:55:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 4:55:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 4:55:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 4:55:00 PM
Isopropyl alcohol	1.7	0.37		ug/m3	1	4/1/2020 4:55:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 4:55:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
Methyl Ethyl Ketone	0.83	0.88	J	ug/m3	1	4/1/2020 4:55:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 4:55:00 PM
Methylene chloride	0.63	0.52		ug/m3	1	4/1/2020 4:55:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 4:55:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 4:55:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 4:55:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 4:55:00 PM
Toluene	0.57	0.57		ug/m3	1	4/1/2020 4:55:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 4:55:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:55:00 PM
Trichloroethene	0.54	0.16		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 4:55:00 PM

Qualifiers:	SC	Sub-Contracted	.	Results reported are not blank corrected	
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection	
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit	

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2,4-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,3,5-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Acetone	13	3.0		ppbV	10	4/2/2020 3:46:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 5:42:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Carbon disulfide	0.14	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 5:42:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 5:42:00 PM
cis-1,2-Dichloroethene	0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Ethyl acetate	0.13	0.15	J	ppbV	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 11	0.74	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 12	0.50	0.15		ppbV	1	4/1/2020 5:42:00 PM
Heptane	0.21	0.15		ppbV	1	4/1/2020 5:42:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Hexane	0.16	0.15		ppbV	1	4/1/2020 5:42:00 PM
Isopropyl alcohol	8.1	1.5		ppbV	10	4/2/2020 3:46:00 AM
m&p-Xylene	0.20	0.30	J	ppbV	1	4/1/2020 5:42:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl Ethyl Ketone	1.4	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 5:42:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Tetrachloroethylene	0.20	0.15		ppbV	1	4/1/2020 5:42:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Toluene	0.39	0.15		ppbV	1	4/1/2020 5:42:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Trichloroethene	0.67	0.030		ppbV	1	4/1/2020 5:42:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
Surr: Bromofluorobenzene	92.0	70-130		%REC	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 5:42:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 5:42:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 5:42:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 5:42:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
1,2,4-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 5:42:00 PM
1,3,5-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 5:42:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 5:42:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 5:42:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 5:42:00 PM
Acetone	32	7.1		ug/m3	10	4/2/2020 3:46:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 5:42:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 5:42:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 5:42:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 5:42:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 5:42:00 PM
Carbon disulfide	0.44	0.47	J	ug/m3	1	4/1/2020 5:42:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 5:42:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 5:42:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 5:42:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 5:42:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 5:42:00 PM
cis-1,2-Dichloroethene	0.16	0.16		ug/m3	1	4/1/2020 5:42:00 PM
cis-1,3-Dichloropropene	< 0.66	0.68		ug/m3	1	4/1/2020 5:42:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 5:42:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 5:42:00 PM
Ethyl acetate	0.47	0.54	J	ug/m3	1	4/1/2020 5:42:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 5:42:00 PM
Freon 11	4.2	0.84		ug/m3	1	4/1/2020 5:42:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.5	0.74		ug/m3	1	4/1/2020 5:42:00 PM
Heptane	0.86	0.61		ug/m3	1	4/1/2020 5:42:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 5:42:00 PM
Hexane	0.56	0.53		ug/m3	1	4/1/2020 5:42:00 PM
Isopropyl alcohol	20	3.7		ug/m3	10	4/2/2020 3:46:00 AM
m&p-Xylene	0.87	1.3	J	ug/m3	1	4/1/2020 5:42:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
Methyl Ethyl Ketone	4.2	0.88		ug/m3	1	4/1/2020 5:42:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 5:42:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 5:42:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 5:42:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 5:42:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 5:42:00 PM
Tetrachloroethylene	1.4	1.0		ug/m3	1	4/1/2020 5:42:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 5:42:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 5:42:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 5:42:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 5:42:00 PM
Trichloroethene	3.6	0.16		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
JN	Non-routine analyte. Quantitation estimated.
S	Spike Recovery outside accepted recovery limits
.	Results reported are not blank corrected
E	Estimated Value above quantitation range
J	Analyte detected below quantitation limit
ND	Not Detected at the Limit of Detection
DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 6:29:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
2,2,4-trimethylpentane	0.11	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Acetone	13	3.0		ppbV	10	4/2/2020 4:32:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Benzene	0.21	0.15		ppbV	1	4/1/2020 6:29:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 6:29:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloromethane	0.37	0.15		ppbV	1	4/1/2020 6:29:00 PM
cis-1,2-Dichloroethene	0.10	0.040		ppbV	1	4/1/2020 6:29:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Cyclohexane	0.29	0.15		ppbV	1	4/1/2020 6:29:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Ethyl acetate	0.22	0.15		ppbV	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 11	0.25	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 6:29:00 PM
Heptane	0.37	0.15		ppbV	1	4/1/2020 6:29:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Hexane	0.25	0.15		ppbV	1	4/1/2020 6:29:00 PM
Isopropyl alcohol	1.7	0.15		ppbV	1	4/1/2020 6:29:00 PM
m&p-Xylene	0.28	0.30	J	ppbV	1	4/1/2020 6:29:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl Ethyl Ketone	0.58	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Methylene chloride	0.16	0.15		ppbV	1	4/1/2020 6:29:00 PM
o-Xylene	0.12	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Toluene	0.34	0.15		ppbV	1	4/1/2020 6:29:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Trichloroethene	0.79	0.030		ppbV	1	4/1/2020 6:29:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 6:29:00 PM
Surr: Bromofluorobenzene	84.0	70-130		%REC	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 6:29:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 6:29:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 6:29:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 6:29:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
2,2,4-trimethylpentane	0.51	0.70	J	ug/m3	1	4/1/2020 6:29:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
Acetone	31	7.1		ug/m3	10	4/2/2020 4:32:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 6:29:00 PM
Benzene	0.67	0.48		ug/m3	1	4/1/2020 6:29:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 6:29:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 6:29:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 6:29:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 6:29:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 6:29:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 6:29:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 6:29:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 6:29:00 PM
Chloromethane	0.76	0.31		ug/m3	1	4/1/2020 6:29:00 PM
cis-1,2-Dichloroethene	0.40	0.16		ug/m3	1	4/1/2020 6:29:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 6:29:00 PM
Cyclohexane	1.0	0.52		ug/m3	1	4/1/2020 6:29:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 6:29:00 PM
Ethyl acetate	0.79	0.54		ug/m3	1	4/1/2020 6:29:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 6:29:00 PM
Freon 11	1.4	0.84		ug/m3	1	4/1/2020 6:29:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 6:29:00 PM
Heptane	1.5	0.61		ug/m3	1	4/1/2020 6:29:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 6:29:00 PM
Hexane	0.88	0.53		ug/m3	1	4/1/2020 6:29:00 PM
Isopropyl alcohol	4.1	0.37		ug/m3	1	4/1/2020 6:29:00 PM
m&p-Xylene	1.2	1.3	J	ug/m3	1	4/1/2020 6:29:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
Methyl Ethyl Ketone	1.7	0.88		ug/m3	1	4/1/2020 6:29:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 6:29:00 PM
Methylene chloride	0.56	0.52		ug/m3	1	4/1/2020 6:29:00 PM
o-Xylene	0.52	0.65	J	ug/m3	1	4/1/2020 6:29:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 6:29:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 6:29:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 6:29:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 6:29:00 PM
Toluene	1.3	0.57		ug/m3	1	4/1/2020 6:29:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 6:29:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 6:29:00 PM
Trichloroethene	4.2	0.16		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 7:17:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2,4-Trimethylbenzene	0.18	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
2,2,4-trimethylpentane	0.11	0.15	J	ppbV	1	4/1/2020 7:17:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Acetone	8.6	3.0		ppbV	10	4/2/2020 5:18:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Benzene	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 7:17:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloroform	1.6	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloromethane	0.38	0.15		ppbV	1	4/1/2020 7:17:00 PM
cis-1,2-Dichloroethene	0.15	0.040		ppbV	1	4/1/2020 7:17:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Cyclohexane	0.26	0.15		ppbV	1	4/1/2020 7:17:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Ethyl acetate	0.19	0.15		ppbV	1	4/1/2020 7:17:00 PM

Qualifiers:	SC	Sub-Contracted	,	Results reported are not blank corrected	
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection	
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit	

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 11	0.25	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 7:17:00 PM
Heptane	0.30	0.15		ppbV	1	4/1/2020 7:17:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Hexane	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
Isopropyl alcohol	1.4	0.15		ppbV	1	4/1/2020 7:17:00 PM
m&p-Xylene	0.27	0.30	J	ppbV	1	4/1/2020 7:17:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl Ethyl Ketone	0.41	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Methylene chloride	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
o-Xylene	0.11	0.15	J	ppbV	1	4/1/2020 7:17:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Tetrachloroethylene	0.16	0.15		ppbV	1	4/1/2020 7:17:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Toluene	0.41	0.15		ppbV	1	4/1/2020 7:17:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Trichloroethene	1.1	0.030		ppbV	1	4/1/2020 7:17:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 7:17:00 PM
Surr: Bromofluorobenzene	89.0	70-130		%REC	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 7:17:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 7:17:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 7:17:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 7:17:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
1,2,4-Trimethylbenzene	0.88	0.74		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 7:17:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 7:17:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 7:17:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
2,2,4-trimethylpentane	0.51	0.70	J	ug/m3	1	4/1/2020 7:17:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 7:17:00 PM
Acetone	20	7.1		ug/m3	10	4/2/2020 5:18:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 7:17:00 PM
Benzene	0.67	0.48		ug/m3	1	4/1/2020 7:17:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 7:17:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 7:17:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 7:17:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 7:17:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 7:17:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 7:17:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 7:17:00 PM
Chloroform	7.8	0.73		ug/m3	1	4/1/2020 7:17:00 PM
Chloromethane	0.78	0.31		ug/m3	1	4/1/2020 7:17:00 PM
cis-1,2-Dichloroethene	0.59	0.16		ug/m3	1	4/1/2020 7:17:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 7:17:00 PM
Cyclohexane	0.89	0.52		ug/m3	1	4/1/2020 7:17:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 7:17:00 PM
Ethyl acetate	0.68	0.54		ug/m3	1	4/1/2020 7:17:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 7:17:00 PM
Freon 11	1.4	0.84		ug/m3	1	4/1/2020 7:17:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 7:17:00 PM
Heptane	1.2	0.61		ug/m3	1	4/1/2020 7:17:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 7:17:00 PM
Hexane	0.74	0.53		ug/m3	1	4/1/2020 7:17:00 PM
Isopropyl alcohol	3.4	0.37		ug/m3	1	4/1/2020 7:17:00 PM
m&p-Xylene	1.2	1.3	J	ug/m3	1	4/1/2020 7:17:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
Methyl Ethyl Ketone	1.2	0.88		ug/m3	1	4/1/2020 7:17:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 7:17:00 PM
Methylene chloride	0.73	0.52		ug/m3	1	4/1/2020 7:17:00 PM
o-Xylene	0.48	0.65	J	ug/m3	1	4/1/2020 7:17:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 7:17:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 7:17:00 PM
Tetrachloroethylene	1.1	1.0		ug/m3	1	4/1/2020 7:17:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 7:17:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 7:17:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 7:17:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 7:17:00 PM
Trichloroethene	6.0	0.16		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:04:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2,4-Trimethylbenzene	0.14	0.15	J	ppbV	1	4/1/2020 8:04:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
2,2,4-trimethylpentane	0.13	0.15	J	ppbV	1	4/1/2020 8:04:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Acetone	11	3.0		ppbV	10	4/2/2020 6:04:00 AM
Acetone	11	0.30		ppbV	1	4/1/2020 8:04:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 8:04:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 8:04:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 8:04:00 PM
cis-1,2-Dichloroethene	0.29	0.040		ppbV	1	4/1/2020 8:04:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Cyclohexane	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethyl acetate	0.30	0.15		ppbV	1	4/1/2020 8:04:00 PM
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 12	0.47	0.15		ppbV	1	4/1/2020 8:04:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Hexane	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Isopropyl alcohol	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
m&p-Xylene	0.22	0.30	J	ppbV	1	4/1/2020 8:04:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl Ethyl Ketone	0.48	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 8:04:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Tetrachloroethylene	0.29	0.15		ppbV	1	4/1/2020 8:04:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Toluene	0.39	0.15		ppbV	1	4/1/2020 8:04:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Trichloroethene	2.3	0.30		ppbV	10	4/2/2020 6:04:00 AM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 8:04:00 PM
Surr: Bromofluorobenzene	92.0	70-130		%REC	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:04:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:04:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:04:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM
1,2,4-Trimethylbenzene	0.69	0.74	J	ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 8:04:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:04:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 8:04:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM
2,2,4-trimethylpentane	0.61	0.70	J	ug/m3	1	4/1/2020 8:04:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 8:04:00 PM
Acetone	27	7.1		ug/m3	10	4/2/2020 6:04:00 AM
Acetone	27	0.71		ug/m3	1	4/1/2020 8:04:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 8:04:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 8:04:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 8:04:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 8:04:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 8:04:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 8:04:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 8:04:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 8:04:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 8:04:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 8:04:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 8:04:00 PM
cis-1,2-Dichloroethene	1.1	0.16		ug/m3	1	4/1/2020 8:04:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:04:00 PM
Cyclohexane	0.93	0.52		ug/m3	1	4/1/2020 8:04:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 8:04:00 PM
Ethyl acetate	1.1	0.54		ug/m3	1	4/1/2020 8:04:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 8:04:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 8:04:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 8:04:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 8:04:00 PM
Hexane	0.95	0.53		ug/m3	1	4/1/2020 8:04:00 PM
Isopropyl alcohol	< 0.37	0.37		ug/m3	1	4/1/2020 8:04:00 PM
m&p-Xylene	0.96	1.3	J	ug/m3	1	4/1/2020 8:04:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
Methyl Ethyl Ketone	1.4	0.88		ug/m3	1	4/1/2020 8:04:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 8:04:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 8:04:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 8:04:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 8:04:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 8:04:00 PM
Tetrachloroethylene	2.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 8:04:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 8:04:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 8:04:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:04:00 PM
Trichloroethene	12	1.6		ug/m3	10	4/2/2020 6:04:00 AM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 8:04:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 8:04:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Acetone	3.7	3.0		ppbV	10	4/2/2020 6:49:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Benzene	0.18	0.15		ppbV	1	4/1/2020 8:51:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Carbon tetrachloride	0.10	0.030		ppbV	1	4/1/2020 8:51:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloromethane	0.37	0.15		ppbV	1	4/1/2020 8:51:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Cyclohexane	0.25	0.15		ppbV	1	4/1/2020 8:51:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 11	2.9	1.5		ppbV	10	4/2/2020 6:49:00 AM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 12	0.58	0.15		ppbV	1	4/1/2020 8:51:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Isopropyl alcohol	1.1	0.15		ppbV	1	4/1/2020 8:51:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Ethyl Ketone	0.38	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Methylene chloride	0.16	0.15		ppbV	1	4/1/2020 8:51:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Tetrachloroethylene	0.27	0.15		ppbV	1	4/1/2020 8:51:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Toluene	0.16	0.15		ppbV	1	4/1/2020 8:51:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Trichloroethene	0.76	0.030		ppbV	1	4/1/2020 8:51:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
Surr: Bromofluorobenzene	89.0	70-130		%REC	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:51:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:51:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:51:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 8:51:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 8:51:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 8:51:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
Acetone	8.8	7.1		ug/m3	10	4/2/2020 6:49:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 8:51:00 PM
Benzene	0.57	0.48		ug/m3	1	4/1/2020 8:51:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 8:51:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 8:51:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 8:51:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 8:51:00 PM
Carbon tetrachloride	0.63	0.19		ug/m3	1	4/1/2020 8:51:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 8:51:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 8:51:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 8:51:00 PM
Chloromethane	0.76	0.31		ug/m3	1	4/1/2020 8:51:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:51:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:51:00 PM
Cyclohexane	0.86	0.52		ug/m3	1	4/1/2020 8:51:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 8:51:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 8:51:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 8:51:00 PM
Freon 11	16	8.4		ug/m3	10	4/2/2020 6:49:00 AM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.9	0.74		ug/m3	1	4/1/2020 8:51:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 8:51:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 8:51:00 PM
Isopropyl alcohol	2.6	0.37		ug/m3	1	4/1/2020 8:51:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Ethyl Ketone	1.1	0.88		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 8:51:00 PM
Methylene chloride	0.56	0.52		ug/m3	1	4/1/2020 8:51:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 8:51:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 8:51:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 8:51:00 PM
Tetrachloroethylene	1.8	1.0		ug/m3	1	4/1/2020 8:51:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 8:51:00 PM
Toluene	0.60	0.57		ug/m3	1	4/1/2020 8:51:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 8:51:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:51:00 PM
Trichloroethene	4.1	0.16		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Acetone	6.2	3.0		ppbV	10	4/2/2020 7:35:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Benzene	0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 9:38:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloromethane	0.39	0.15		ppbV	1	4/1/2020 9:38:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Cyclohexane	0.28	0.15		ppbV	1	4/1/2020 9:38:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Ethyl acetate	0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 11	0.24	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 12	0.47	0.15		ppbV	1	4/1/2020 9:38:00 PM
Heptane	0.12	0.15	J	ppbV	1	4/1/2020 9:38:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Isopropyl alcohol	2.6	1.5		ppbV	10	4/2/2020 7:35:00 AM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Ethyl Ketone	0.32	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 9:38:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Toluene	0.28	0.15		ppbV	1	4/1/2020 9:38:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Trichloroethene	0.15	0.030		ppbV	1	4/1/2020 9:38:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
Surr: Bromofluorobenzene	90.0	70-130		%REC	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 9:38:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 9:38:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 9:38:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 9:38:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 9:38:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 9:38:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 9:38:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
Acetone	15	7.1		ug/m3	10	4/2/2020 7:35:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 9:38:00 PM
Benzene	0.48	0.48		ug/m3	1	4/1/2020 9:38:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 9:38:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 9:38:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 9:38:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 9:38:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 9:38:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 9:38:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 9:38:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 9:38:00 PM
Chloromethane	0.81	0.31		ug/m3	1	4/1/2020 9:38:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 9:38:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 9:38:00 PM
Cyclohexane	0.96	0.52		ug/m3	1	4/1/2020 9:38:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 9:38:00 PM
Ethyl acetate	0.54	0.54		ug/m3	1	4/1/2020 9:38:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 9:38:00 PM
Freon 11	1.3	0.84		ug/m3	1	4/1/2020 9:38:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 9:38:00 PM
Heptane	0.49	0.61	J	ug/m3	1	4/1/2020 9:38:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 9:38:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 9:38:00 PM
Isopropyl alcohol	6.4	3.7		ug/m3	10	4/2/2020 7:35:00 AM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Ethyl Ketone	0.94	0.88		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 9:38:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 9:38:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 9:38:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 9:38:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 9:38:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 9:38:00 PM
Toluene	1.1	0.57		ug/m3	1	4/1/2020 9:38:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 9:38:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 9:38:00 PM
Trichloroethene	0.81	0.16		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-3			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Acetone	5.1	3.0		ppbV	10	4/2/2020 8:21:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Benzene	0.14	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 10:25:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 10:25:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Cyclohexane	0.14	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 11	0.22	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 10:25:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Isopropyl alcohol	0.54	0.15		ppbV	1	4/1/2020 10:25:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl Ethyl Ketone	0.25	0.30	J	ppbV	1	4/1/2020 10:25:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 10:25:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Toluene	0.12	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Trichloroethene	< 0.030	0.030		ppbV	1	4/1/2020 10:25:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
Surr: Bromofluorobenzene	82.0	70-130		%REC	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 10:25:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 10:25:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 10:25:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 10:25:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 10:25:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
Acetone	12	7.1		ug/m3	10	4/2/2020 8:21:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 10:25:00 PM
Benzene	0.45	0.48	J	ug/m3	1	4/1/2020 10:25:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 10:25:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 10:25:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 10:25:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 10:25:00 PM
Carbon tetrachloride	0.67	0.19		ug/m3	1	4/1/2020 10:25:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 10:25:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 10:25:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 10:25:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 10:25:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 10:25:00 PM
Cyclohexane	0.48	0.52	J	ug/m3	1	4/1/2020 10:25:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 10:25:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 10:25:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 10:25:00 PM
Freon 11	1.2	0.84		ug/m3	1	4/1/2020 10:25:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 10:25:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 10:25:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 10:25:00 PM
Isopropyl alcohol	1.3	0.37		ug/m3	1	4/1/2020 10:25:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 10:25:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
Methyl Ethyl Ketone	0.74	0.88	J	ug/m3	1	4/1/2020 10:25:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 10:25:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 10:25:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 10:25:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 10:25:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 10:25:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 10:25:00 PM
Toluene	0.45	0.57	J	ug/m3	1	4/1/2020 10:25:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 10:25:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 10:25:00 PM
Trichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

QUALITY CONTROL SUMMARY

Date: 10-Apr-20

CENTEK LABORATORIES, LLC

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware
Test No: TO-15 **Matrix:** A

Sample ID	BR4FBZ							
ALCS1UG-040120	115							
ALCS1UGD-040120	112							
AMB1UG-040120	71.0							
C2004002-001A	94.0							
C2004002-002A	108							
C2004002-003A	100							
C2004002-004A	103							
C2004002-005A	83.0							
C2004002-006A	92.0							
C2004002-007A	84.0							
C2004002-008A	89.0							
C2004002-009A	92.0							
C2004002-010A	89.0							
C2004002-011A	90.0							
C2004002-012A	82.0							

Acronym		Surrogate	QC Limits
BR4FBZ	=	Bromofluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

1

Centek Laboratories, LLC
GC/MS QA-QC Check Report

Tune File : C:\HPCHEM\1\DATA\AR040102.D
Tune Time : 1 Apr 2020 11:10 am

Daily Calibration File : C:\HPCHEM\1\DATA\AR040102.D

			(BFB)	(IS1)	(IS2)	(IS3)
				30959	103928	97313
File	Sample	DL	Surrogate Recovery %	Internal Standard Responses		
AR040103.D	ALCS1UG-040120		115	33185	112058	104676
AR040104.D	AMB1UG-040120		71	31973	102072	91076
AR040105.D	C2004002-001A		94	31936	109268	106245
AR040106.D	C2004002-002A		108	37738	131174	130331
AR040107.D	C2004002-003A		100	41144	146752	144661
AR040108.D	C2004002-004A		103	42676	152521	143799
AR040109.D	C2004002-005A		83	41051	145793	134806
AR040110.D	C2004002-006A		92	39234	146232	138843
AR040111.D	C2004002-007A		84	38484	144558	138867
AR040112.D	C2004002-008A		89	37401	139961	133248
AR040113.D	C2004002-009A		92	37819	141390	126752
AR040114.D	C2004002-010A		89	36639	130319	124873
AR040115.D	C2004002-011A		90	36110	127600	122253
AR040116.D	C2004002-012A		82	37055	132179	123125
AR040117.D	ALCS1UGD-040120		112	36538	131460	117792
AR040118.D	C2004002-001A	10X	74	34373	114911	97735
AR040119.D	C2004002-002A	10X	75	32514	109031	94988
AR040120.D	C2004002-003A	10X	72	35204	113787	98911
AR040121.D	C2004002-004A	10X	79	33876	112931	100598
AR040122.D	C2004002-005A	10X	75	33995	113472	100214
AR040123.D	C2004002-006A	10X	74	32288	106685	94853
AR040124.D	C2004002-007A	10X	71	31309	101126	92772
AR040125.D	C2004002-008A	10X	73	29759	93880	86755
AR040126.D	C2004002-009A	10X	72	30583	97357	86110
AR040127.D	C2004002-010A	10X	71	29646	91051	82246
AR040128.D	C2004002-011A	10X	76	28948	93375	84269
AR040129.D	C2004002-012A	10X	74	29303	90621	80597

t - fails 24hr time check * - fails criteria

Created: Fri Apr 10 08:43:33 2020 MSD #1/

CENTEK LABORATORIES, LLC

Date: *10-Apr-20*

ANALYTICAL QC SUMMARY REPORT

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **AMB1UG-040120** SampType: **MBLK** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	< 0.15	0.15									
1,1,2,2-Tetrachloroethane	< 0.15	0.15									
1,1,2-Trichloroethane	< 0.15	0.15									
1,1-Dichloroethane	< 0.15	0.15									
1,1-Dichloroethene	< 0.040	0.040									
1,2,4-Trichlorobenzene	< 0.15	0.15									
1,2,4-Trimethylbenzene	< 0.15	0.15									
1,2-Dibromoethane	< 0.15	0.15									
1,2-Dichlorobenzene	< 0.15	0.15									
1,2-Dichloroethane	< 0.15	0.15									
1,2-Dichloropropane	< 0.15	0.15									
1,3,5-Trimethylbenzene	< 0.15	0.15									
1,3-butadiene	< 0.15	0.15									
1,3-Dichlorobenzene	< 0.15	0.15									
1,4-Dichlorobenzene	< 0.15	0.15									
1,4-Dioxane	< 0.30	0.30									
2,2,4-trimethylpentane	< 0.15	0.15									
4-ethyltoluene	< 0.15	0.15									
Acetone	< 0.30	0.30									
Allyl chloride	< 0.15	0.15									
Benzene	< 0.15	0.15									
Benzyl chloride	< 0.15	0.15									
Bromodichloromethane	< 0.15	0.15									
Bromoform	< 0.15	0.15									
Bromomethane	< 0.15	0.15									

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **AMB1UG-040120** SampType: **MBLK** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	< 0.15	0.15									
Carbon tetrachloride	< 0.030	0.030									
Chlorobenzene	< 0.15	0.15									
Chloroethane	< 0.15	0.15									
Chloroform	< 0.15	0.15									
Chloromethane	< 0.15	0.15									
cis-1,2-Dichloroethene	< 0.040	0.040									
cis-1,3-Dichloropropene	< 0.15	0.15									
Cyclohexane	< 0.15	0.15									
Dibromochloromethane	< 0.15	0.15									
Ethyl acetate	< 0.15	0.15									
Ethylbenzene	< 0.15	0.15									
Freon 11	< 0.15	0.15									
Freon 113	< 0.15	0.15									
Freon 114	< 0.15	0.15									
Freon 12	< 0.15	0.15									
Heptane	< 0.15	0.15									
Hexachloro-1,3-butadiene	< 0.15	0.15									
Hexane	< 0.15	0.15									
Isopropyl alcohol	< 0.15	0.15									
m&p-Xylene	< 0.30	0.30									
Methyl Butyl Ketone	< 0.30	0.30									
Methyl Ethyl Ketone	< 0.30	0.30									
Methyl Isobutyl Ketone	< 0.30	0.30									
Methyl tert-butyl ether	< 0.15	0.15									
Methylene chloride	< 0.15	0.15									
o-Xylene	< 0.15	0.15									
Propylene	< 0.15	0.15									
Styrene	< 0.15	0.15									
Tetrachloroethylene	< 0.15	0.15									
Tetrahydrofuran	< 0.15	0.15									

Qualifiers:
. Results reported are not blank corrected
J Analyte detected below quantitation limit
S Spike Recovery outside accepted recovery limits
E Estimated Value above quantitation range
ND Not Detected at the Limit of Detection
DL Detection Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: AMB1UG-040120	SampType: MBLK	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184714

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	< 0.15	0.15									
trans-1,2-Dichloroethene	< 0.15	0.15									
trans-1,3-Dichloropropene	< 0.15	0.15									
Trichloroethene	< 0.030	0.030									
Vinyl acetate	< 0.15	0.15									
Vinyl Bromide	< 0.15	0.15									
Vinyl chloride	< 0.040	0.040									

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CENTEK LABORATORIES, LLC

Date: *10-Apr-20*

ANALYTICAL QC SUMMARY REPORT

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **ALCS1UG-040120** SampType: **LCS** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	1.170	0.15	1	0	117	70	130				
1,1,2,2-Tetrachloroethane	1.230	0.15	1	0	123	70	130				
1,1,2-Trichloroethane	1.240	0.15	1	0	124	70	130				
1,1-Dichloroethane	1.130	0.15	1	0	113	70	130				
1,1-Dichloroethene	1.070	0.040	1	0	107	70	130				
1,2,4-Trichlorobenzene	1.090	0.15	1	0	109	70	130				
1,2,4-Trimethylbenzene	1.080	0.15	1	0	108	70	130				
1,2-Dibromoethane	1.180	0.15	1	0	118	70	130				
1,2-Dichlorobenzene	1.270	0.15	1	0	127	70	130				
1,2-Dichloroethane	1.070	0.15	1	0	107	70	130				
1,2-Dichloropropane	1.240	0.15	1	0	124	70	130				
1,3,5-Trimethylbenzene	1.250	0.15	1	0	125	70	130				
1,3-butadiene	0.9900	0.15	1	0	99.0	70	130				
1,3-Dichlorobenzene	1.280	0.15	1	0	128	70	130				
1,4-Dichlorobenzene	1.280	0.15	1	0	128	70	130				
1,4-Dioxane	1.230	0.30	1	0	123	70	130				
2,2,4-trimethylpentane	1.200	0.15	1	0	120	70	130				
4-ethyltoluene	1.200	0.15	1	0	120	70	130				
Acetone	1.210	0.30	1	0	121	70	130				
Allyl chloride	1.060	0.15	1	0	106	70	130				
Benzene	1.200	0.15	1	0	120	70	130				
Benzyl chloride	1.180	0.15	1	0	118	70	130				
Bromodichloromethane	1.180	0.15	1	0	118	70	130				
Bromoform	1.040	0.15	1	0	104	70	130				
Bromomethane	1.050	0.15	1	0	105	70	130				

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **ALCS1UG-040120** SampType: **LCS** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	1.100	0.15	1	0	110	70	130				
Carbon tetrachloride	1.210	0.030	1	0	121	70	130				
Chlorobenzene	1.140	0.15	1	0	114	70	130				
Chloroethane	1.150	0.15	1	0	115	70	130				
Chloroform	1.110	0.15	1	0	111	70	130				
Chloromethane	1.050	0.15	1	0	105	70	130				
cis-1,2-Dichloroethene	1.070	0.040	1	0	107	70	130				
cis-1,3-Dichloropropene	1.210	0.15	1	0	121	70	130				
Cyclohexane	1.180	0.15	1	0	118	70	130				
Dibromochloromethane	1.100	0.15	1	0	110	70	130				
Ethyl acetate	1.050	0.15	1	0	105	70	130				
Ethylbenzene	1.110	0.15	1	0	111	70	130				
Freon 11	1.090	0.15	1	0	109	70	130				
Freon 113	1.160	0.15	1	0	116	70	130				
Freon 114	1.070	0.15	1	0	107	70	130				
Freon 12	1.080	0.15	1	0	108	70	130				
Heptane	1.220	0.15	1	0	122	70	130				
Hexachloro-1,3-butadiene	1.180	0.15	1	0	118	70	130				
Hexane	1.130	0.15	1	0	113	70	130				
Isopropyl alcohol	1.110	0.15	1	0	111	70	130				
m&p-Xylene	2.420	0.30	2	0	121	70	130				
Methyl Butyl Ketone	1.150	0.30	1	0	115	70	130				
Methyl Ethyl Ketone	0.9900	0.30	1	0	99.0	70	130				
Methyl Isobutyl Ketone	1.060	0.30	1	0	106	70	130				
Methyl tert-butyl ether	1.020	0.15	1	0	102	70	130				
Methylene chloride	1.090	0.15	1	0	109	70	130				
o-Xylene	1.240	0.15	1	0	124	70	130				
Propylene	1.140	0.15	1	0	114	70	130				
Styrene	1.250	0.15	1	0	125	70	130				
Tetrachloroethylene	1.180	0.15	1	0	118	70	130				
Tetrahydrofuran	1.080	0.15	1	0	108	70	130				

Qualifiers:
. Results reported are not blank corrected
J Analyte detected below quantitation limit
S Spike Recovery outside accepted recovery limits
E Estimated Value above quantitation range
ND Not Detected at the Limit of Detection
DL Detection Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: ALCS1UG-040120	SampType: LCS	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184715

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	1.140	0.15	1	0	114	70	130				
trans-1,2-Dichloroethene	1.090	0.15	1	0	109	70	130				
trans-1,3-Dichloropropene	1.110	0.15	1	0	111	70	130				
Trichloroethene	1.290	0.030	1	0	129	70	130				
Vinyl acetate	0.9700	0.15	1	0	97.0	70	130				
Vinyl Bromide	1.100	0.15	1	0	110	70	130				
Vinyl chloride	1.100	0.040	1	0	110	70	130				

Sample ID: ALCS1UGD-040120	SampType: LCSD	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184716

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	1.110	0.15	1	0	111	70	130	1.17	5.26	30	
1,1,2,2-Tetrachloroethane	1.170	0.15	1	0	117	70	130	1.23	5.00	30	
1,1,2-Trichloroethane	1.140	0.15	1	0	114	70	130	1.24	8.40	30	
1,1-Dichloroethane	1.140	0.15	1	0	114	70	130	1.13	0.881	30	
1,1-Dichloroethene	1.160	0.040	1	0	116	70	130	1.07	8.07	30	
1,2,4-Trichlorobenzene	1.090	0.15	1	0	109	70	130	1.09	0	30	
1,2,4-Trimethylbenzene	1.110	0.15	1	0	111	70	130	1.08	2.74	30	
1,2-Dibromoethane	1.170	0.15	1	0	117	70	130	1.18	0.851	30	
1,2-Dichlorobenzene	1.200	0.15	1	0	120	70	130	1.27	5.67	30	
1,2-Dichloroethane	1.040	0.15	1	0	104	70	130	1.07	2.84	30	
1,2-Dichloropropane	1.190	0.15	1	0	119	70	130	1.24	4.12	30	
1,3,5-Trimethylbenzene	1.220	0.15	1	0	122	70	130	1.25	2.43	30	
1,3-butadiene	0.9400	0.15	1	0	94.0	70	130	0.99	5.18	30	
1,3-Dichlorobenzene	1.240	0.15	1	0	124	70	130	1.28	3.17	30	
1,4-Dichlorobenzene	1.280	0.15	1	0	128	70	130	1.28	0	30	
1,4-Dioxane	1.190	0.30	1	0	119	70	130	1.23	3.31	30	
2,2,4-trimethylpentane	1.160	0.15	1	0	116	70	130	1.2	3.39	30	
4-ethyltoluene	1.190	0.15	1	0	119	70	130	1.2	0.837	30	

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **ALCS1UGD-040120** SampType: **LCSD** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184716**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	1.170	0.30	1	0	117	70	130	1.21	3.36	30	
Allyl chloride	1.120	0.15	1	0	112	70	130	1.06	5.50	30	
Benzene	1.160	0.15	1	0	116	70	130	1.2	3.39	30	
Benzyl chloride	1.100	0.15	1	0	110	70	130	1.18	7.02	30	
Bromodichloromethane	1.090	0.15	1	0	109	70	130	1.18	7.93	30	
Bromoform	1.000	0.15	1	0	100	70	130	1.04	3.92	30	
Bromomethane	0.9700	0.15	1	0	97.0	70	130	1.05	7.92	30	
Carbon disulfide	1.080	0.15	1	0	108	70	130	1.1	1.83	30	
Carbon tetrachloride	1.110	0.030	1	0	111	70	130	1.21	8.62	30	
Chlorobenzene	1.150	0.15	1	0	115	70	130	1.14	0.873	30	
Chloroethane	1.150	0.15	1	0	115	70	130	1.15	0	30	
Chloroform	1.080	0.15	1	0	108	70	130	1.11	2.74	30	
Chloromethane	0.9600	0.15	1	0	96.0	70	130	1.05	8.96	30	
cis-1,2-Dichloroethene	1.090	0.040	1	0	109	70	130	1.07	1.85	30	
cis-1,3-Dichloropropene	1.160	0.15	1	0	116	70	130	1.21	4.22	30	
Cyclohexane	1.180	0.15	1	0	118	70	130	1.18	0	30	
Dibromochloromethane	1.060	0.15	1	0	106	70	130	1.1	3.70	30	
Ethyl acetate	1.110	0.15	1	0	111	70	130	1.05	5.56	30	
Ethylbenzene	1.150	0.15	1	0	115	70	130	1.11	3.54	30	
Freon 11	1.070	0.15	1	0	107	70	130	1.09	1.85	30	
Freon 113	1.140	0.15	1	0	114	70	130	1.16	1.74	30	
Freon 114	1.010	0.15	1	0	101	70	130	1.07	5.77	30	
Freon 12	1.040	0.15	1	0	104	70	130	1.08	3.77	30	
Heptane	1.190	0.15	1	0	119	70	130	1.22	2.49	30	
Hexachloro-1,3-butadiene	1.130	0.15	1	0	113	70	130	1.18	4.33	30	
Hexane	1.190	0.15	1	0	119	70	130	1.13	5.17	30	
Isopropyl alcohol	1.130	0.15	1	0	113	70	130	1.11	1.79	30	
m&p-Xylene	2.430	0.30	2	0	122	70	130	2.42	0.412	30	
Methyl Butyl Ketone	1.160	0.30	1	0	116	70	130	1.15	0.866	30	
Methyl Ethyl Ketone	1.070	0.30	1	0	107	70	130	0.99	7.77	30	
Methyl Isobutyl Ketone	1.090	0.30	1	0	109	70	130	1.06	2.79	30	

Qualifiers:
. Results reported are not blank corrected
J Analyte detected below quantitation limit
S Spike Recovery outside accepted recovery limits
E Estimated Value above quantitation range
ND Not Detected at the Limit of Detection
DL Detection Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **ALCS1UGD-040120** SampType: **LCSD** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184716**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether	1.140	0.15	1	0	114	70	130	1.02	11.1	30	
Methylene chloride	1.080	0.15	1	0	108	70	130	1.09	0.922	30	
o-Xylene	1.190	0.15	1	0	119	70	130	1.24	4.12	30	
Propylene	1.110	0.15	1	0	111	70	130	1.14	2.67	30	
Styrene	1.250	0.15	1	0	125	70	130	1.25	0	30	
Tetrachloroethylene	1.170	0.15	1	0	117	70	130	1.18	0.851	30	
Tetrahydrofuran	1.120	0.15	1	0	112	70	130	1.08	3.64	30	
Toluene	1.180	0.15	1	0	118	70	130	1.14	3.45	30	
trans-1,2-Dichloroethene	1.120	0.15	1	0	112	70	130	1.09	2.71	30	
trans-1,3-Dichloropropene	1.120	0.15	1	0	112	70	130	1.11	0.897	30	
Trichloroethene	1.240	0.030	1	0	124	70	130	1.29	3.95	30	
Vinyl acetate	1.060	0.15	1	0	106	70	130	0.97	8.87	30	
Vinyl Bromide	1.160	0.15	1	0	116	70	130	1.1	5.31	30	
Vinyl chloride	1.050	0.040	1	0	105	70	130	1.1	4.65	30	

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

Compound	Amt	IDL #1	IDL #2	IDL #3	IDL #4	IDL #5	IDL #6	IDL #7	AVG	StdDev	%Rec	IDL
Propylene	0.30	0.34	0.34	0.33	0.36	0.37	0.34	0.28	0.34	0.03	112.4%	0.090
Freon 12	0.30	0.34	0.34	0.33	0.37	0.37	0.37	0.28	0.34	0.03	114.3%	0.102
Chloromethane	0.30	0.36	0.36	0.36	0.35	0.37	0.37	0.30	0.35	0.02	117.6%	0.076
Freon 114	0.30	0.34	0.33	0.35	0.39	0.38	0.38	0.28	0.35	0.04	116.7%	0.120
Vinyl Chloride	0.30	0.36	0.34	0.33	0.38	0.37	0.37	0.28	0.35	0.03	115.7%	0.108
Butane	0.30	0.38	0.33	0.37	0.39	0.38	0.39	0.27	0.36	0.04	119.5%	0.139
1,3-butadiene	0.30	0.33	0.33	0.36	0.38	0.40	0.38	0.34	0.36	0.03	120.0%	0.087
Bromomethane	0.30	0.34	0.38	0.35	0.40	0.41	0.39	0.34	0.37	0.03	124.3%	0.092
Chloroethane	0.30	0.36	0.38	0.37	0.42	0.37	0.41	0.31	0.37	0.04	124.8%	0.113
Ethanol	0.30	0.34	0.34	0.32	0.33	0.32	0.30	0.34	0.33	0.01	109.0%	0.047
Acrolein	0.30	0.31	0.32	0.30	0.35	0.34	0.36	0.26	0.32	0.03	106.7%	0.107
Vinyl Bromide	0.30	0.35	0.32	0.33	0.40	0.33	0.37	0.29	0.34	0.04	113.8%	0.112
Freon 11	0.30	0.38	0.30	0.33	0.35	0.33	0.35	0.32	0.34	0.03	112.4%	0.081
Acetone	0.30	0.38	0.35	0.32	0.30	0.36	0.35	0.26	0.33	0.04	110.5%	0.129
Pentane	0.30	0.34	0.31	0.33	0.36	0.34	0.35	0.27	0.33	0.03	109.5%	0.095
Isopropyl alcohol	0.30	0.38	0.34	0.36	0.35	0.34	0.35	0.33	0.35	0.02	116.7%	0.051
1,1-dichloroethene	0.30	0.30	0.30	0.32	0.35	0.33	0.32	0.25	0.31	0.03	103.3%	0.099
Freon 113	0.30	0.32	0.32	0.32	0.36	0.34	0.36	0.27	0.33	0.03	109.0%	0.097
t-Butyl alcohol	0.30	0.31	0.28	0.30	0.34	0.31	0.31	0.23	0.30	0.03	99.0%	0.108
Methylene chloride	0.30	0.33	0.32	0.32	0.34	0.35	0.35	0.25	0.32	0.03	107.6%	0.108
Allyl chloride	0.30	0.31	0.31	0.30	0.36	0.34	0.33	0.26	0.32	0.03	105.2%	0.101
Carbon disulfide	0.30	0.34	0.32	0.32	0.35	0.34	0.35	0.26	0.33	0.03	108.6%	0.099
trans-1,2-dichloroethene	0.30	0.32	0.31	0.30	0.33	0.34	0.32	0.24	0.31	0.03	102.9%	0.103
methyl tert-butyl ether	0.30	0.28	0.29	0.28	0.31	0.30	0.31	0.23	0.29	0.03	95.2%	0.087
1,1-dichloroethane	0.30	0.31	0.31	0.32	0.35	0.35	0.33	0.25	0.32	0.03	105.7%	0.107
Vinyl acetate	0.30	0.28	0.30	0.28	0.30	0.29	0.30	0.20	0.28	0.04	92.9%	0.112
Methyl Ethyl Ketone	0.30	0.31	0.31	0.30	0.31	0.30	0.31	0.21	0.29	0.04	97.6%	0.116
cis-1,2-dichloroethene	0.30	0.30	0.30	0.30	0.32	0.30	0.30	0.22	0.29	0.03	97.1%	0.102
Hexane	0.30	0.30	0.29	0.29	0.29	0.30	0.30	0.20	0.28	0.04	93.8%	0.114
Ethyl acetate	0.30	0.29	0.30	0.29	0.29	0.28	0.28	0.20	0.28	0.03	91.9%	0.107
Chloroform	0.30	0.33	0.32	0.32	0.35	0.34	0.34	0.25	0.32	0.03	107.1%	0.105
Tetrahydrofuran	0.30	0.30	0.29	0.31	0.31	0.31	0.32	0.25	0.30	0.02	99.5%	0.074
1,2-dichloroethane	0.30	0.31	0.33	0.31	0.36	0.35	0.35	0.25	0.32	0.04	107.6%	0.119
1,1,1-trichloroethane	0.30	0.33	0.33	0.32	0.39	0.39	0.38	0.28	0.35	0.04	115.2%	0.132
Cyclohexane	0.30	0.30	0.30	0.29	0.31	0.32	0.31	0.23	0.29	0.03	98.1%	0.094
Carbon tetrachloride	0.30	0.29	0.30	0.30	0.35	0.35	0.35	0.26	0.31	0.04	104.8%	0.113
Benzene	0.30	0.31	0.32	0.33	0.36	0.35	0.34	0.26	0.32	0.03	108.1%	0.104
Methyl methacrylate	0.30	0.29	0.30	0.30	0.32	0.30	0.31	0.23	0.29	0.03	97.6%	0.092

Centek Laboratories
IDL Study

1ug/m3 Detection Limit
July 2019

Method TO-15
Units=ppb

Compound	Amt	IDL #1	IDL #2	IDL #3	IDL #4	IDL #5	IDL #6	IDL #7	AVG	StdDev	%Rec	IDL
1,4-dioxane	0.30	0.31	0.30	0.30	0.34	0.32	0.33	0.22	0.30	0.04	101.0%	0.124
2,2,4-trimethylpentane	0.30	0.30	0.30	0.31	0.34	0.33	0.34	0.24	0.31	0.03	102.9%	0.110
Heptane	0.30	0.30	0.29	0.30	0.31	0.31	0.33	0.22	0.29	0.04	98.1%	0.110
Trichloroethene	0.30	0.30	0.29	0.29	0.32	0.34	0.33	0.24	0.30	0.03	100.5%	0.105
1,2-dichloropropane	0.30	0.33	0.33	0.32	0.38	0.39	0.37	0.28	0.34	0.04	114.3%	0.123
Bromodichloromethane	0.30	0.34	0.33	0.34	0.38	0.40	0.38	0.28	0.35	0.04	116.7%	0.127
cis-1,3-dichloropropene	0.30	0.32	0.33	0.33	0.34	0.35	0.34	0.25	0.32	0.03	107.6%	0.105
trans-1,3-dichloropropene	0.30	0.33	0.33	0.33	0.34	0.34	0.32	0.24	0.32	0.04	106.2%	0.111
1,1,2-trichloroethane	0.30	0.35	0.33	0.33	0.38	0.38	0.38	0.27	0.35	0.04	115.2%	0.127
Toluene	0.30	0.29	0.35	0.29	0.29	0.29	0.28	0.20	0.28	0.04	94.8%	0.138
Methyl Isobutyl Ketone	0.30	0.29	0.36	0.29	0.30	0.29	0.28	0.20	0.29	0.05	95.7%	0.147
Dibromochloromethane	0.30	0.30	0.36	0.31	0.35	0.34	0.35	0.26	0.32	0.04	108.1%	0.113
Methyl Butyl Ketone	0.30	0.28	0.31	0.27	0.27	0.28	0.26	0.23	0.27	0.02	90.5%	0.076
1,2-dibromoethane	0.30	0.30	0.35	0.30	0.34	0.33	0.34	0.24	0.31	0.04	104.8%	0.120
Tetrachloroethylene	0.30	0.30	0.36	0.29	0.33	0.31	0.32	0.26	0.31	0.03	103.3%	0.099
Chlorobenzene	0.30	0.31	0.31	0.31	0.34	0.33	0.34	0.24	0.31	0.03	103.8%	0.108
Ethylbenzene	0.30	0.31	0.28	0.31	0.32	0.30	0.30	0.20	0.29	0.04	96.2%	0.129
m&p-xylene	0.60	0.60	0.55	0.58	0.62	0.61	0.60	0.40	0.57	0.08	94.3%	0.241
Nonane	0.30	0.30	0.27	0.22	0.31	0.30	0.31	0.21	0.27	0.04	91.4%	0.134
Styrene	0.30	0.29	0.30	0.25	0.32	0.30	0.32	0.21	0.28	0.04	94.8%	0.127
Bromoform	0.30	0.31	0.33	0.28	0.34	0.34	0.34	0.23	0.31	0.04	103.3%	0.131
o-xylene	0.30	0.30	0.31	0.25	0.33	0.34	0.33	0.22	0.30	0.05	99.0%	0.143
Cumene	0.30	0.23	0.27	0.22	0.31	0.30	0.30	0.20	0.26	0.04	87.1%	0.140
Bromofluorobenzene	1.00	0.88	1.03	0.89	1.08	1.06	1.09	1.08	1.02	0.09	101.6%	0.287
1,1,2,2-tetrachloroethane	0.30	0.30	0.35	0.30	0.37	0.35	0.36	0.25	0.33	0.04	108.6%	0.137
Propylbenzene	0.30	0.24	0.27	0.22	0.31	0.28	0.29	0.24	0.26	0.03	88.1%	0.101
2-Chlorotoluene	0.30	0.26	0.32	0.25	0.33	0.29	0.34	0.24	0.29	0.04	96.7%	0.128
4-ethyltoluene	0.30	0.23	0.28	0.22	0.31	0.28	0.30	0.21	0.26	0.04	87.1%	0.128
1,3,5-trimethylbenzene	0.30	0.24	0.28	0.24	0.32	0.32	0.31	0.20	0.27	0.05	91.0%	0.148
1,2,4-trimethylbenzene	0.30	0.22	0.26	0.22	0.29	0.28	0.29	0.19	0.25	0.04	83.3%	0.126
1,3-dichlorobenzene	0.30	0.27	0.31	0.26	0.34	0.25	0.33	0.21	0.28	0.05	93.6%	0.148
benzyl chloride	0.30	0.26	0.31	0.26	0.32	0.28	0.31	0.24	0.28	0.03	94.3%	0.097
1,4-dichlorobenzene	0.30	0.25	0.30	0.26	0.33	0.22	0.33	0.19	0.27	0.05	89.5%	0.170
1,2,3-trimethylbenzene	0.30	0.24	0.26	0.23	0.29	0.28	0.29	0.18	0.25	0.04	84.3%	0.125
1,2-dichlorobenzene	0.30	0.27	0.32	0.26	0.34	0.29	0.32	0.21	0.29	0.04	95.7%	0.140
1,2,4-trichlorobenzene	0.30	0.20	0.22	0.20	0.24	0.25	0.24	0.15	0.21	0.03	71.4%	0.109
Naphthalene	0.30	0.20	0.23	0.19	0.24	0.26	0.25	0.13	0.21	0.05	71.4%	0.142
Hexachloro-1,3-butadiene	0.30	0.28	0.35	0.27	0.35	0.33	0.34	0.22	0.31	0.05	101.9%	0.157

GC/MS-Whole Air Calculations

Relative Response Factor (RRF)

$$RRF = \frac{Ax * Cis}{Ais * Cx}$$

where: Ax = area of the characteristic ion for the compound being measured
Ais = area of the characteristic ion for the specific internal standard of the compound being measured
Cx = concentration of the compound being measured (ppbv)
Cis = concentration of the internal standard (ppbv)

Percent Relative Standard Deviation (%RSD)

$$\% RSD = \frac{\text{Standard deviation of RRF values} * 100}{\text{mean RRF}}$$

Percent Difference (%D)

$$\% D = \frac{(RRFc - \text{mean RRFi}) * 100}{\text{mean RRFi}}$$

where: RRFc = relative response factor from the continuing calibration
mean RRFi = mean relative response factor from the initial calibration

Sample Calculations

$$ppbv = \frac{Ax * Is * Df}{Ais * RRF}$$

where: Ax = area of the characteristic ion for the compound being measured
Ais = area of the characteristic ion for the specific internal standard of the compound being measured
Is = Concentration of the internal standard injected (ppbv)
RRF= relative response factor for the compound being measured
Df = Dilution factor

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

SAMPLE DATA

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2,4-Trimethylbenzene	0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Acetone	5.2	3.0		ppbV	10	4/1/2020 11:57:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Benzene	0.18	0.15		ppbV	1	4/1/2020 1:45:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Carbon disulfide	0.11	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Carbon tetrachloride	0.10	0.030		ppbV	1	4/1/2020 1:45:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Chloromethane	0.39	0.15		ppbV	1	4/1/2020 1:45:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Cyclohexane	0.34	0.15		ppbV	1	4/1/2020 1:45:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Ethyl acetate	0.30	0.15		ppbV	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	,	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Freon 12	0.49	0.15		ppbV	1	4/1/2020 1:45:00 PM
Heptane	0.14	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Hexane	0.14	0.15	J	ppbV	1	4/1/2020 1:45:00 PM
Isopropyl alcohol	2.9	1.5		ppbV	10	4/1/2020 11:57:00 PM
m&p-Xylene	0.17	0.30	J	ppbV	1	4/1/2020 1:45:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl Ethyl Ketone	0.35	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 1:45:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 1:45:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Tetrachloroethylene	0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Toluene	0.28	0.15		ppbV	1	4/1/2020 1:45:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Trichloroethene	0.20	0.030		ppbV	1	4/1/2020 1:45:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 1:45:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 1:45:00 PM
Surr: Bromofluorobenzene	94.0	70-130		%REC	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 1:45:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 1:45:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 1:45:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 1:45:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
1,2,4-Trimethylbenzene	0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 1:45:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 1:45:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 1:45:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 1:45:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 1:45:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 1:45:00 PM
Acetone	12	7.1		ug/m3	10	4/1/2020 11:57:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 1:45:00 PM
Benzene	0.57	0.48		ug/m3	1	4/1/2020 1:45:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 1:45:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 1:45:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 1:45:00 PM
Carbon disulfide	0.34	0.47	J	ug/m3	1	4/1/2020 1:45:00 PM
Carbon tetrachloride	0.63	0.19		ug/m3	1	4/1/2020 1:45:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 1:45:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 1:45:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 1:45:00 PM
Chloromethane	0.81	0.31		ug/m3	1	4/1/2020 1:45:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 1:45:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 1:45:00 PM
Cyclohexane	1.2	0.52		ug/m3	1	4/1/2020 1:45:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 1:45:00 PM
Ethyl acetate	1.1	0.54		ug/m3	1	4/1/2020 1:45:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 1:45:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 1:45:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 1:45:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	601
Lab Order:	C2004002	**Tag Number:**	351,447
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-001A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 1:45:00 PM
Heptane	0.57	0.61	J	ug/m3	1	4/1/2020 1:45:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 1:45:00 PM
Hexane	0.49	0.53	J	ug/m3	1	4/1/2020 1:45:00 PM
Isopropyl alcohol	7.1	3.7		ug/m3	10	4/1/2020 11:57:00 PM
m&p-Xylene	0.74	1.3	J	ug/m3	1	4/1/2020 1:45:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
Methyl Ethyl Ketone	1.0	0.88		ug/m3	1	4/1/2020 1:45:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 1:45:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 1:45:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 1:45:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 1:45:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 1:45:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 1:45:00 PM
Tetrachloroethylene	1.0	1.0		ug/m3	1	4/1/2020 1:45:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 1:45:00 PM
Toluene	1.1	0.57		ug/m3	1	4/1/2020 1:45:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 1:45:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 1:45:00 PM
Trichloroethene	1.1	0.16		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 1:45:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 1:45:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040105.D Vial: 1
Acq On : 1 Apr 2020 1:45 pm Operator: RJP
Sample : C2004002-001A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:11 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

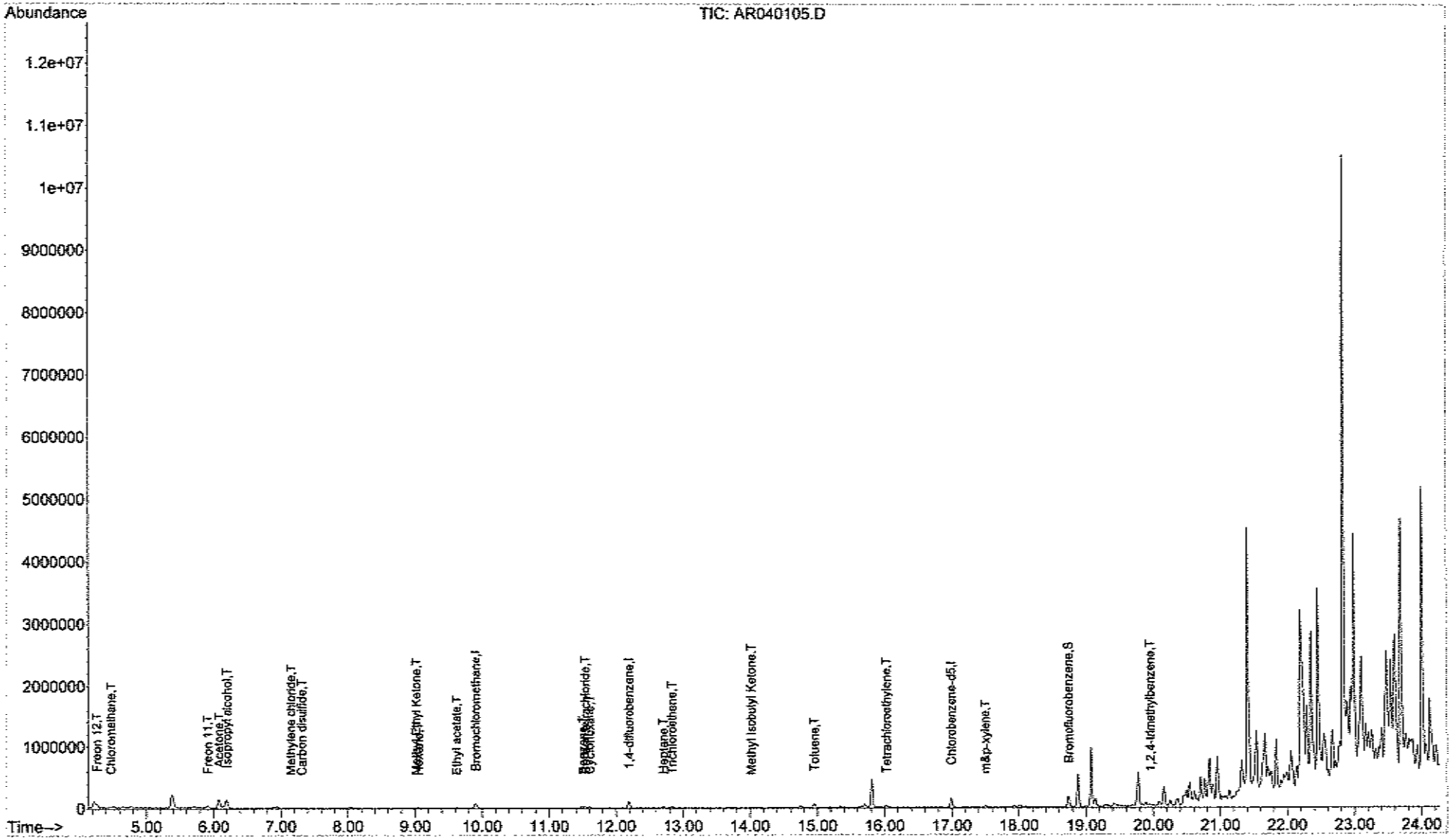
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	31936	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	109268	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	106245	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	71326	0.94	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 94.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	69250	0.49	ppb		98
4) Chloromethane	4.47	50	12068	0.39	ppb		79
14) Freon 11	5.92	101	40782	0.27	ppb		98
15) Acetone	6.08	58	87706	5.04	ppb	#	100
17) Isopropyl alcohol	6.19	45	118588	2.90	ppb	#	1
21) Methylene chloride	7.15	84	7160	0.20	ppb		95
23) Carbon disulfide	7.31	76	12771	0.11	ppb		93
28) Methyl Ethyl Ketone	9.01	72	5128	0.35	ppb	#	100
30) Hexane	9.05	57	5694	0.14	ppb		86
31) Ethyl acetate	9.61	43	19547	0.30	ppb		99
37) Cyclohexane	11.60	56	11591m RJP	0.34	ppb		
38) Carbon tetrachloride	11.54	117	10876	0.10	ppb		98
39) Benzene	11.51	78	16364	0.18	ppb		98
43) Heptane	12.71	43	5108	0.14	ppb	#	68
44) Trichloroethene	12.84	130	9359	0.20	ppb		98
51) Toluene	14.95	92	17595	0.28	ppb		99
52) Methyl Isobutyl Ketone	14.02	43	5684	0.10	ppb		88
56) Tetrachloroethylene	16.02	164	7764	0.15	ppb		98
59) m&p-xylene	17.50	91	20186	0.17	ppb		97
71) 1,2,4-trimethylbenzene	19.94	105	18474	0.15	ppb		97

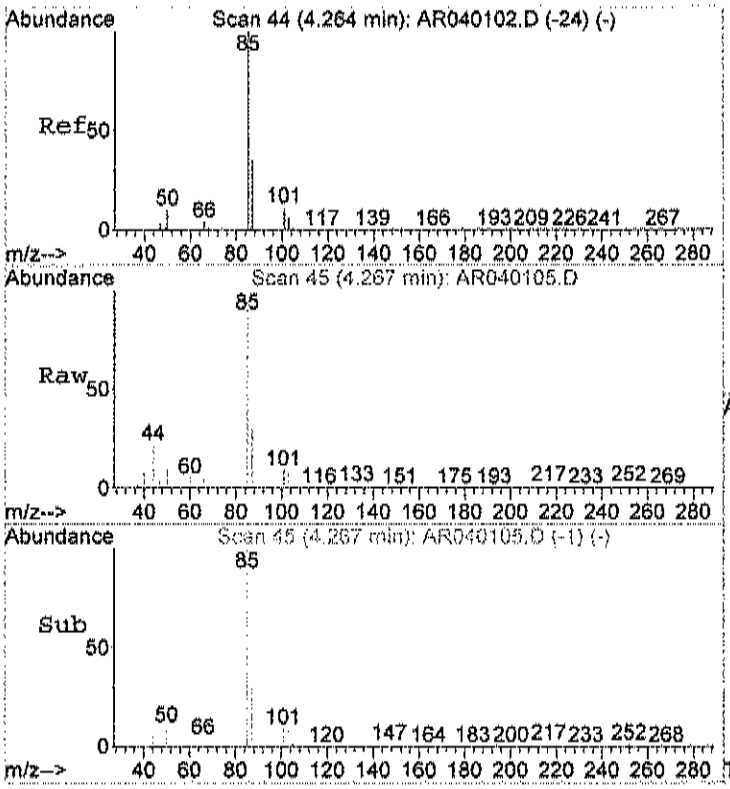
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040105.D Vial: 1
Acq On : 1 Apr 2020 1:45 pm Operator: RJP
Sample : C2004002-001A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:51 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

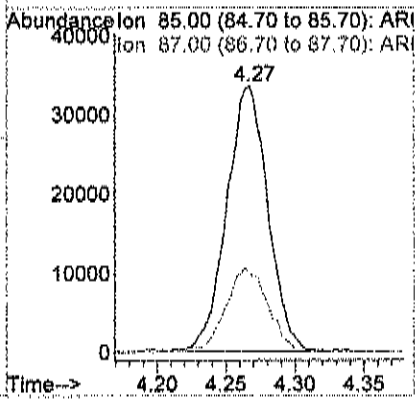


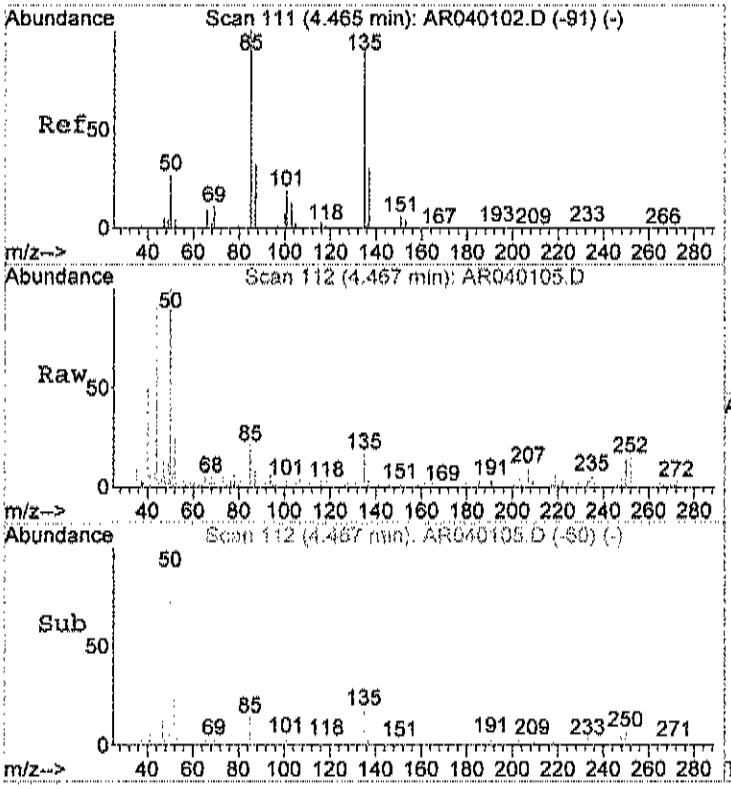


#3
Freon 12
Concen: 0.49 ppb
RT: 4.27 min Scan# 45
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 85 Resp: 69250

Ion	Ratio	Lower	Upper
85	100		
87	32.8	11.9	51.9

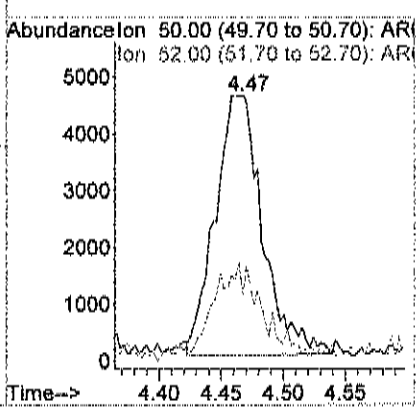


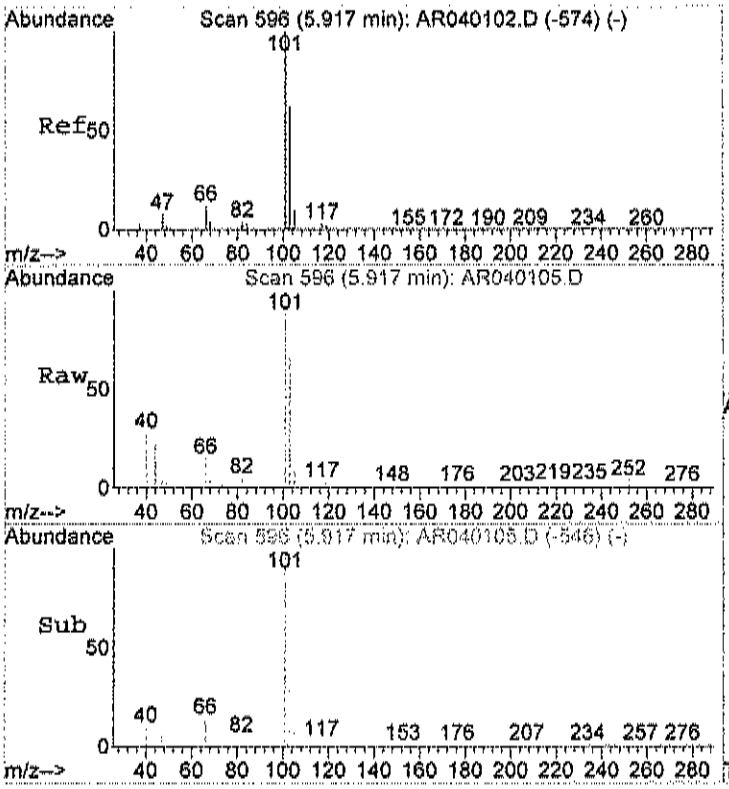


#4
Chloromethane
Concen: 0.39 ppb
RT: 4.47 min Scan# 112
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 50 Resp: 12068

Ion	Ratio	Lower	Upper
50	100		
52	37.0	6.1	46.1

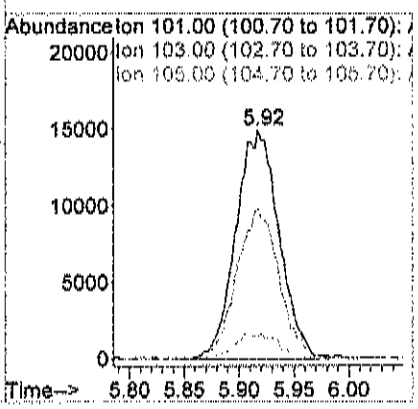


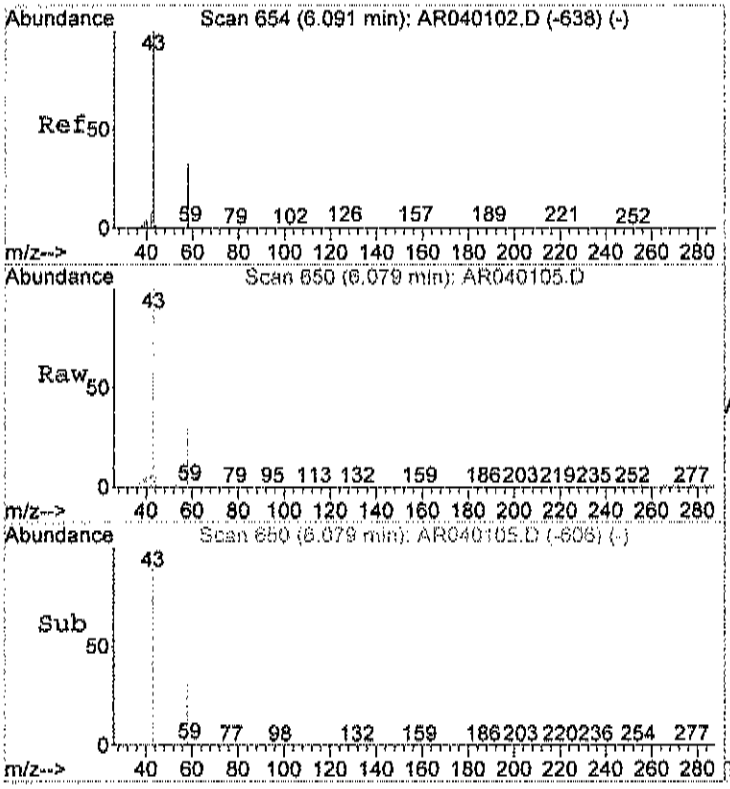


#14
Freon 11
Concen: 0.27 ppb
RT: 5.92 min Scan# 596
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion:101 Resp: 40782

Ion	Ratio	Lower	Upper
101	100		
103	65.3	44.2	84.2
105	11.1	0.0	30.3

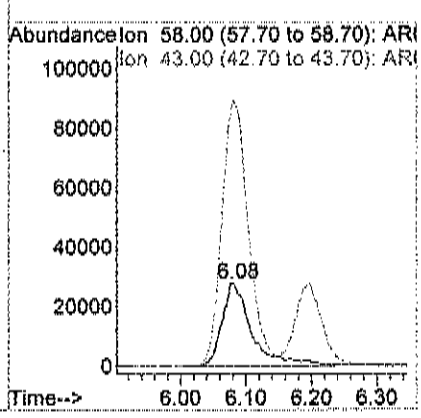


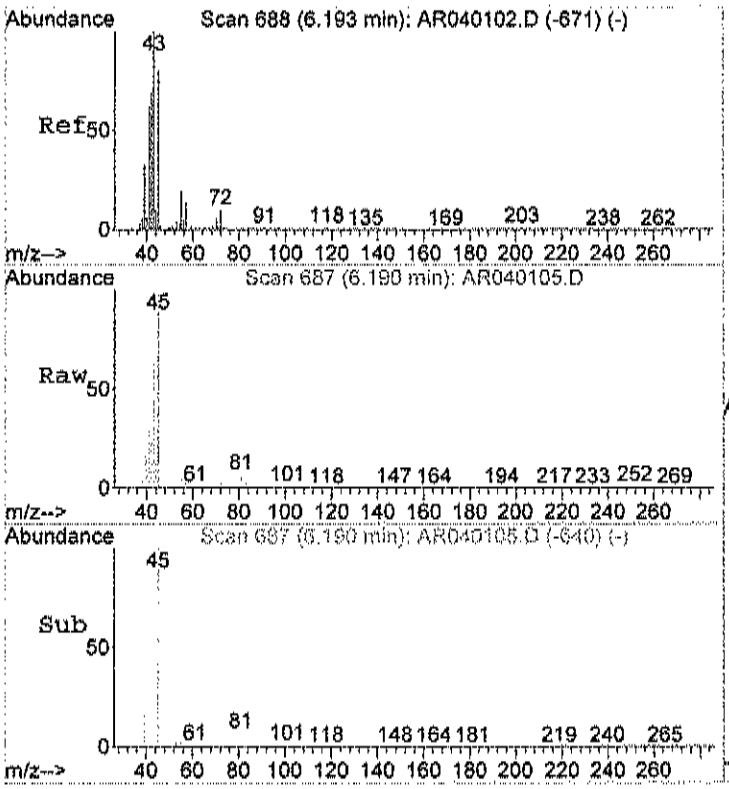


#15
Acetone
Concen: 5.04 ppb
RT: 6.08 min Scan# 650
Delta R.T. -0.02 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 58 Resp: 87706

Ion	Ratio	Lower	Upper
58	100		
43	371.3	0.0	30.0#

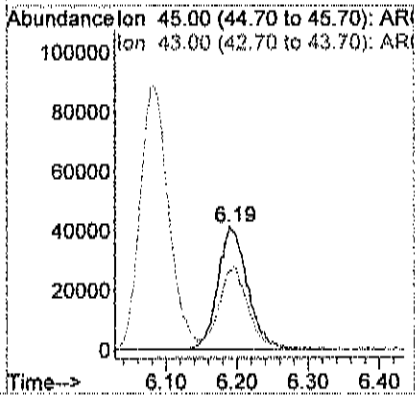


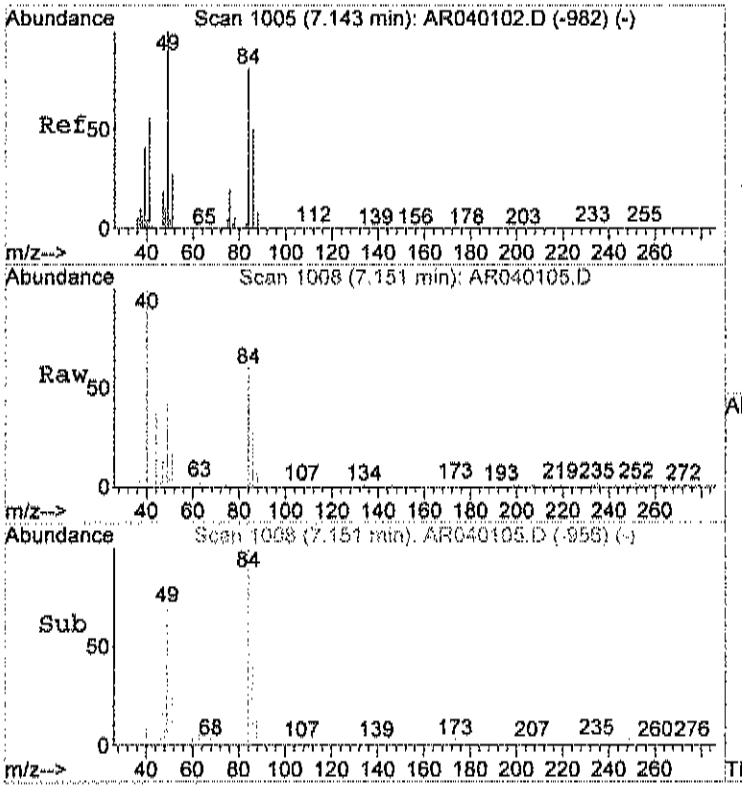


#17
Isopropyl alcohol
Concen: 2.90 ppb
RT: 6.19 min Scan# 687
Delta R.T. -0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 45 Resp: 118588

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

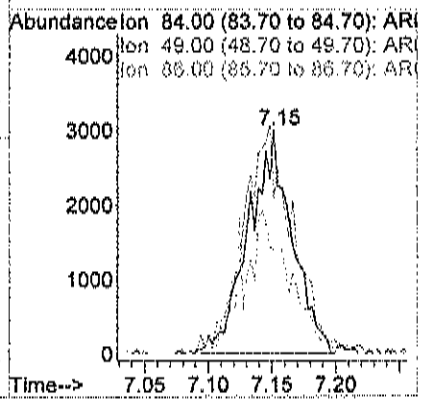


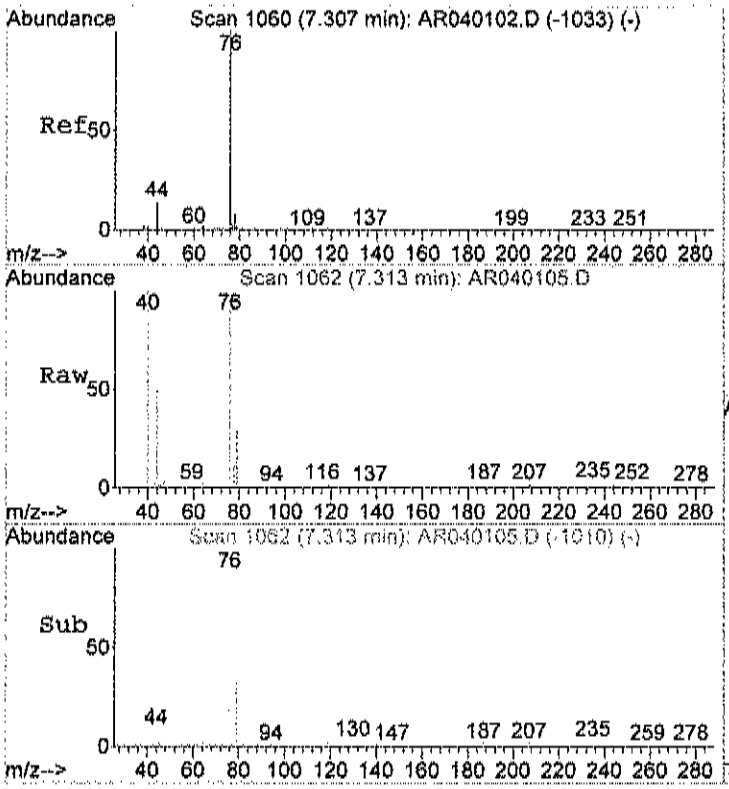


#21
Methylene chloride
Concen: 0.20 ppb
RT: 7.15 min Scan# 1008
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 84 Resp: 7160

Ion	Ratio	Lower	Upper
84	100		
49	114.0	101.4	141.4
86	67.7	45.4	85.4

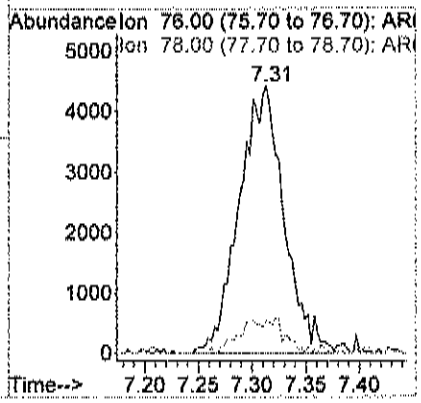


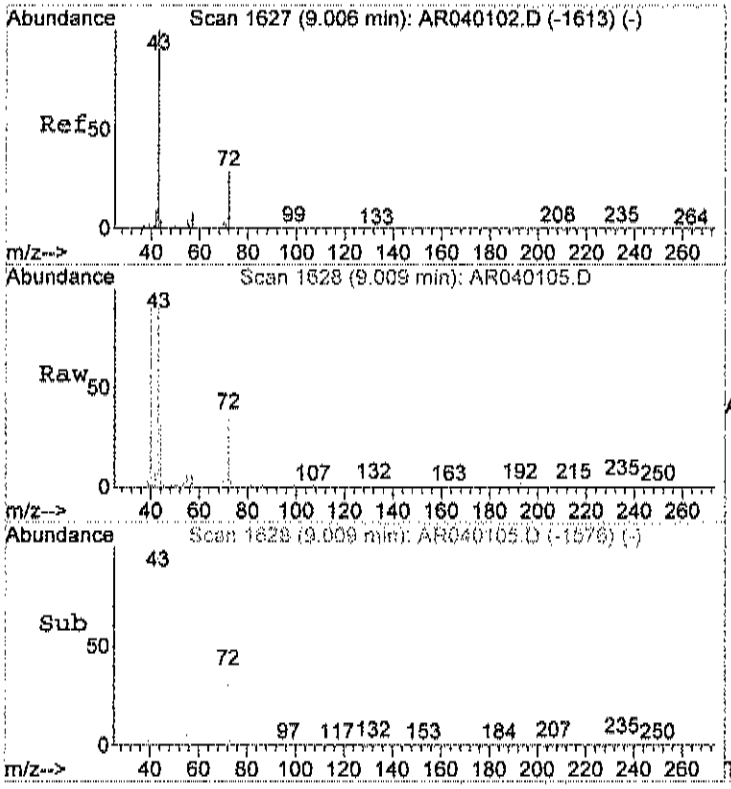


#23
Carbon disulfide
Concen: 0.11 ppb
RT: 7.31 min Scan# 1062
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 76 Resp: 12771

Ion	Ratio	Lower	Upper
76	100		
78	12.2	0.0	29.7

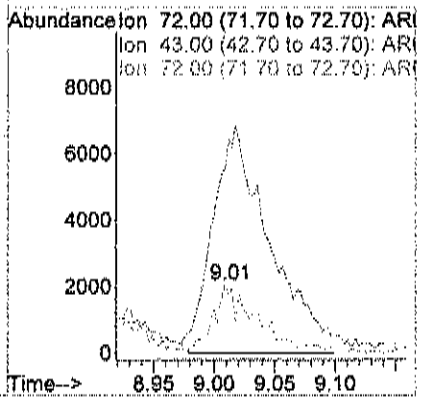


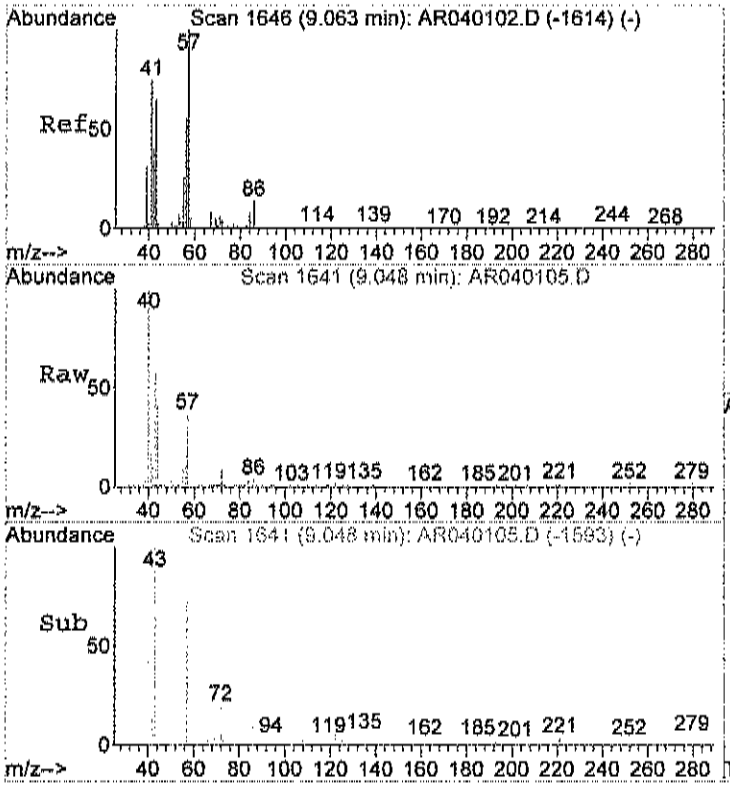


#28
Methyl Ethyl Ketone
Concen: 0.35 ppb
RT: 9.01 min Scan# 1628
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 72 Resp: 5128

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

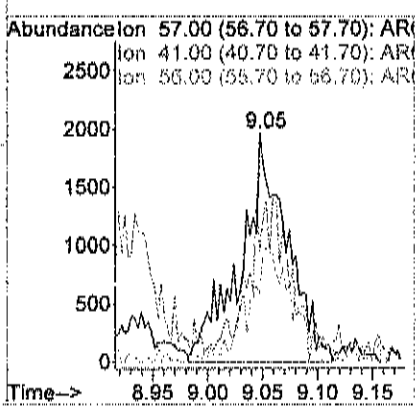


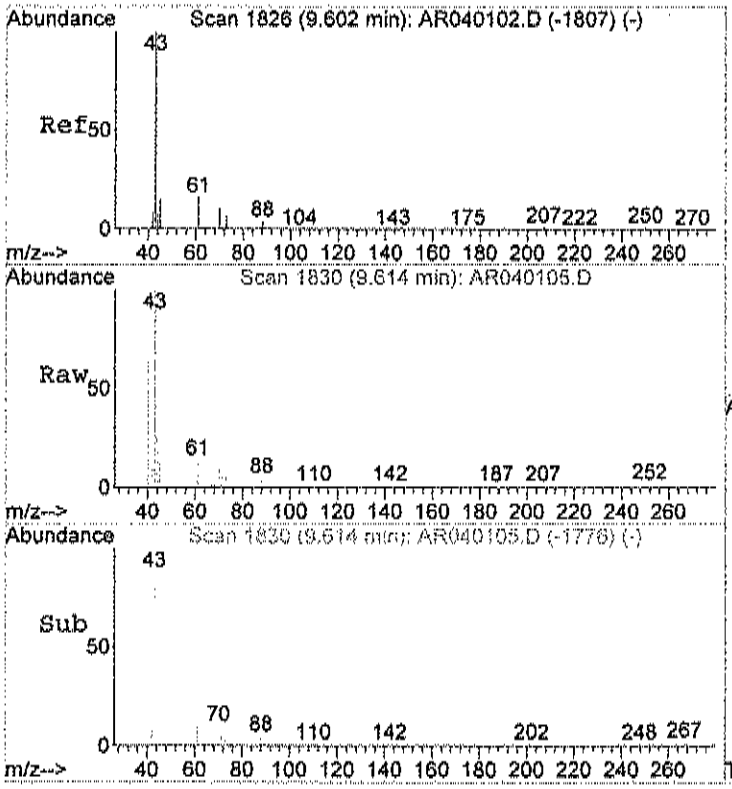


#30
Hexane
Concen: 0.14 ppb
RT: 9.05 min Scan# 1641
Delta R.T. -0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 57 Resp: 5694

Ion	Ratio	Lower	Upper
57	100		
41	57.9	55.7	95.7
56	48.8	32.4	72.4

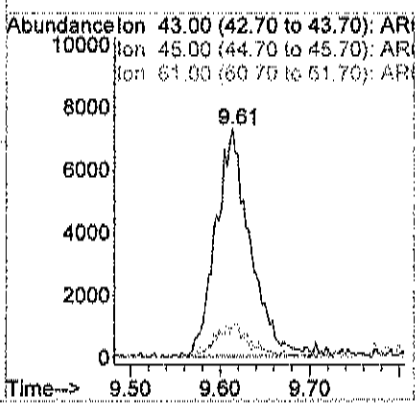


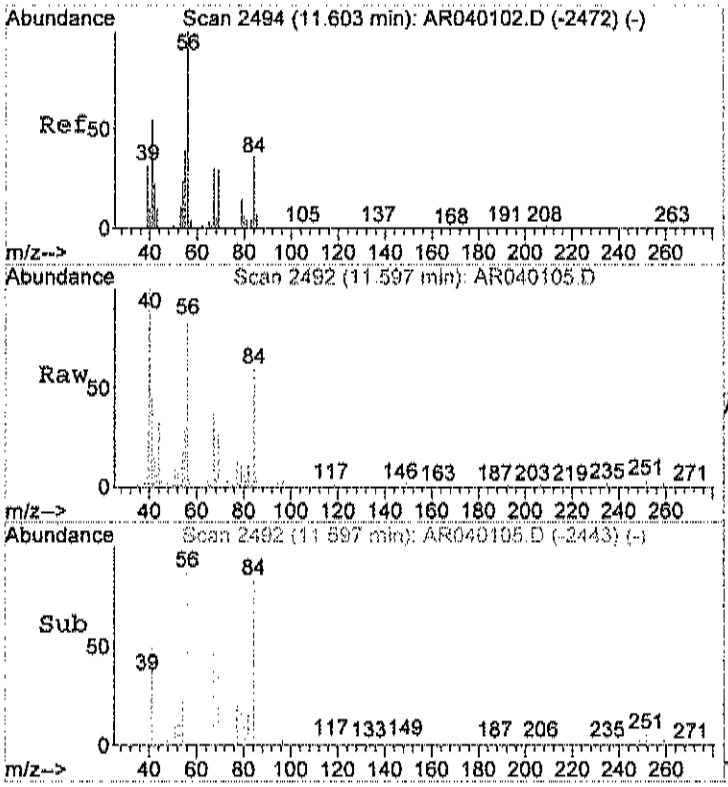


#31
Ethyl acetate
Concen: 0.30 ppb
RT: 9.61 min Scan# 1830
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 43 Resp: 19547

Ion	Ratio	Lower	Upper
43	100		
45	15.6	0.0	34.5
61	15.8	0.0	35.8

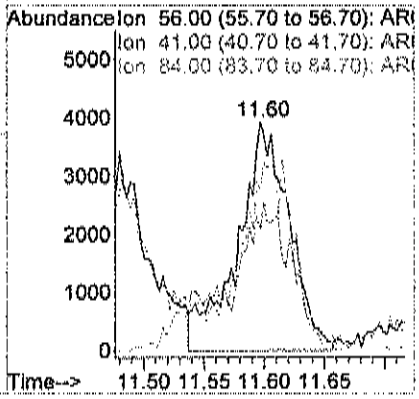


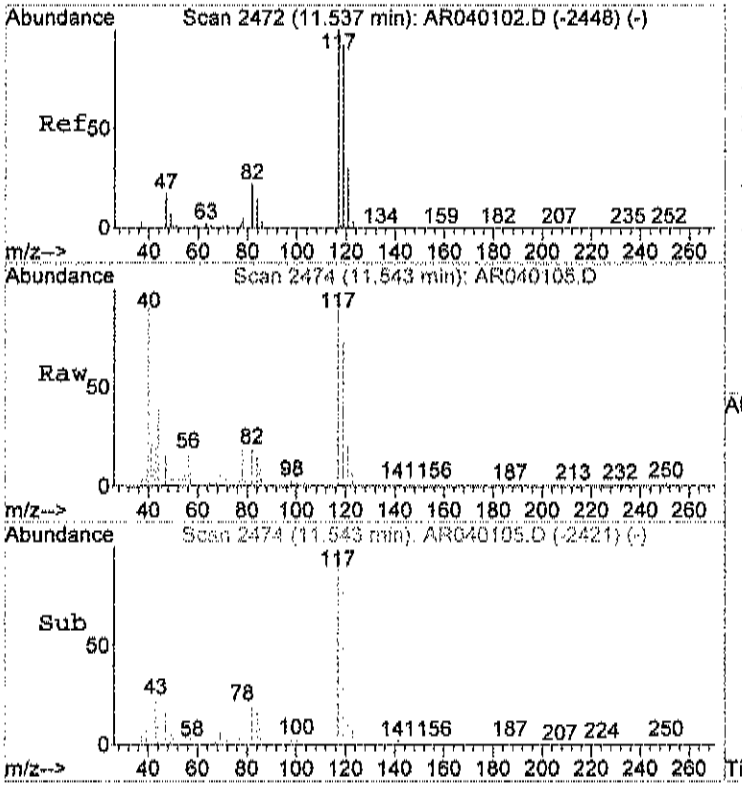


#37
Cyclohexane
Concen: 0.34 ppb m
RT: 11.60 min Scan# 2492
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 56 Resp: 11591

Ion	Ratio	Lower	Upper
56	100		
41	55.7	42.3	82.3
84	96.2	107.7	147.7#

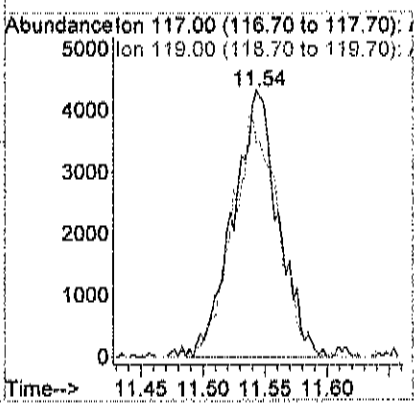


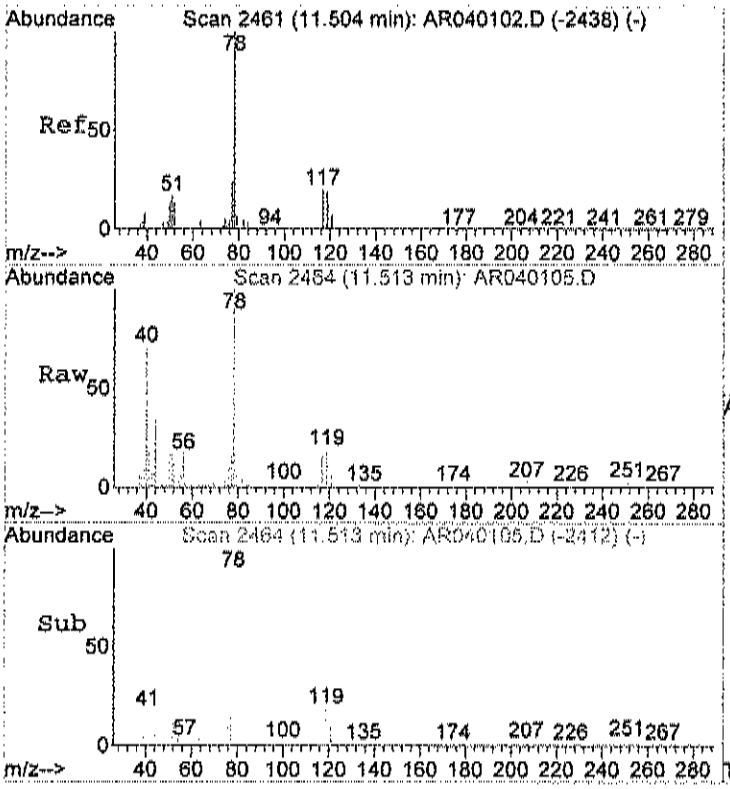


#38
Carbon tetrachloride
Concen: 0.10 ppb
RT: 11.54 min Scan# 2474
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion:117 Resp: 10876

Ion	Ratio	Lower	Upper
117	100		
119	93.5	75.6	115.6

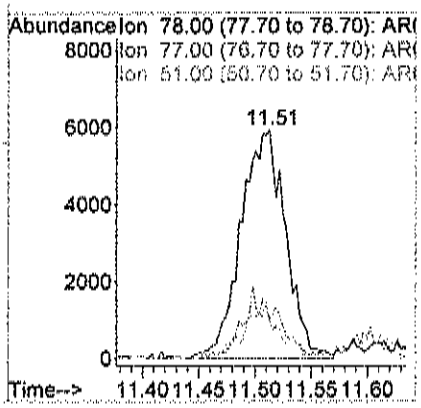


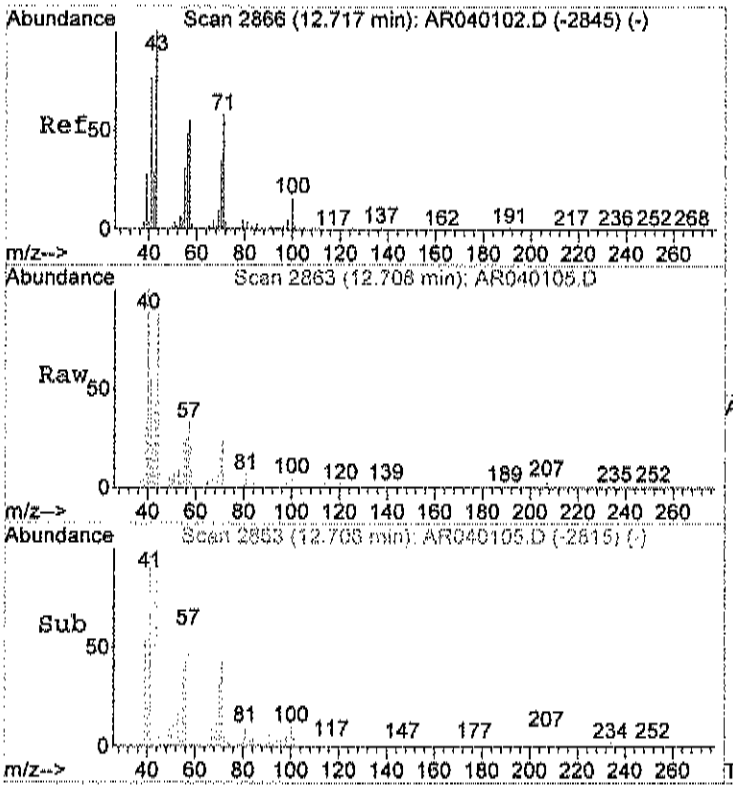


#39
Benzene
Concen: 0.18 ppb
RT: 11.51 min Scan# 2464
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 78 Resp: 16364

Ion	Ratio	Lower	Upper
78	100		
77	23.6	4.1	44.1
51	18.7	0.0	36.8

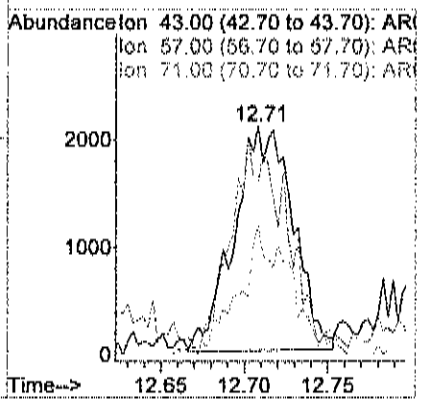


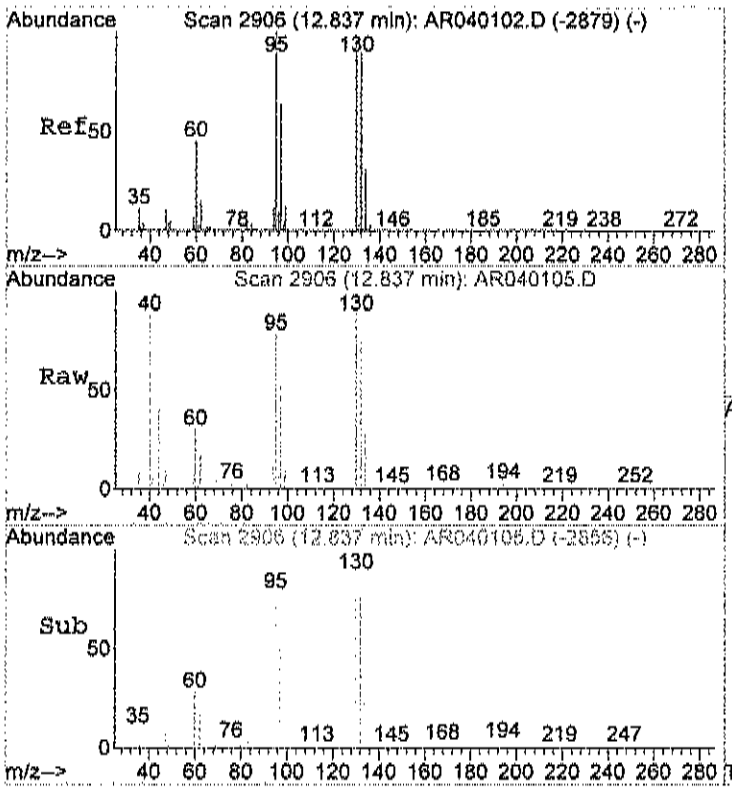


#43
Heptane
Concen: 0.14 ppb
RT: 12.71 min Scan# 2863
Delta R.T. -0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 43 Resp: 5108

Ion	Ratio	Lower	Upper
43	100		
57	93.3	36.0	76.0#
71	51.4	42.5	82.5

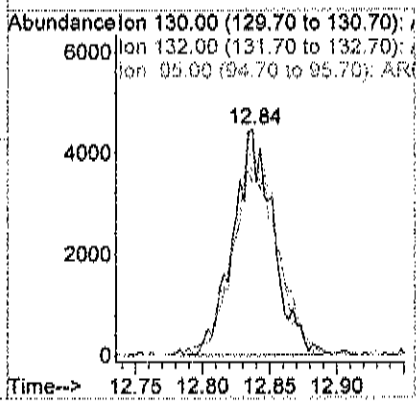


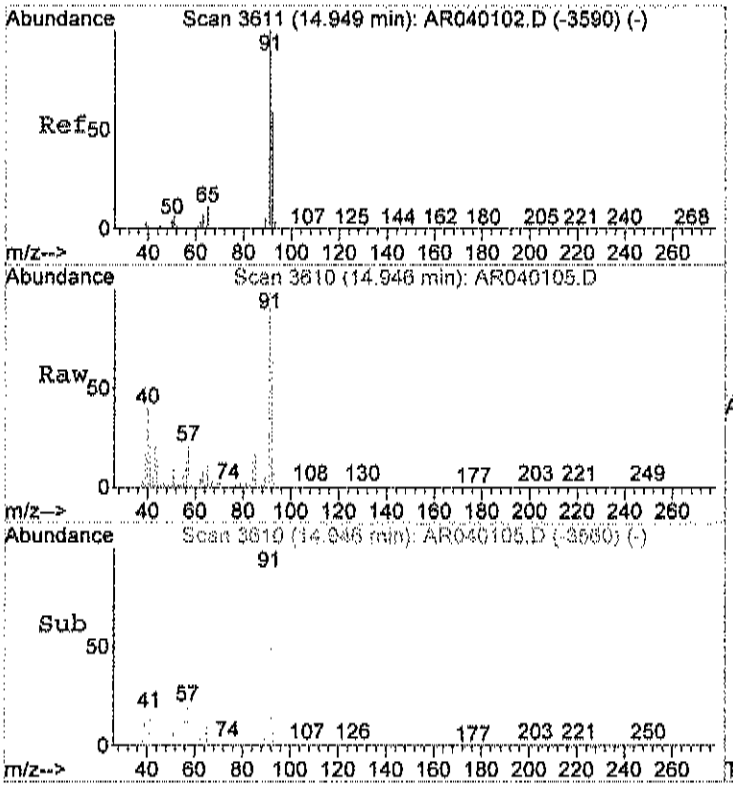


#44
Trichloroethene
Concen: 0.20 ppb
RT: 12.84 min Scan# 2906
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion:130 Resp: 9359

Ion	Ratio	Lower	Upper
130	100		
132	95.7	76.9	116.9
95	101.3	78.6	118.6

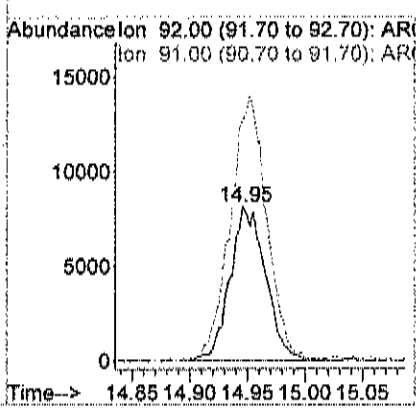


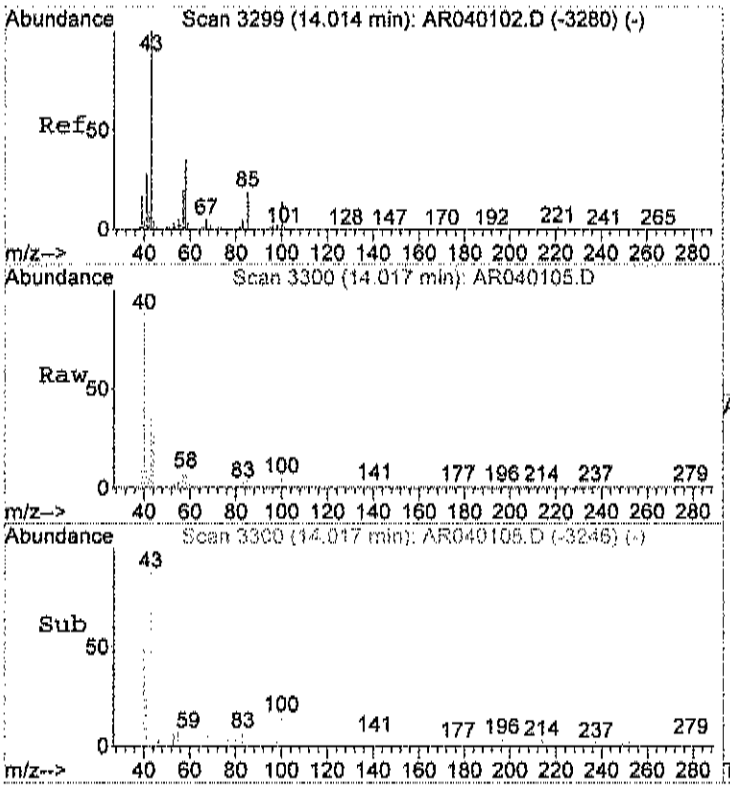


#51
Toluene
Concen: 0.28 ppb
RT: 14.95 min Scan# 3610
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 92 Resp: 17595

Ion	Ratio	Lower	Upper
92	100		
91	175.9	154.5	194.5

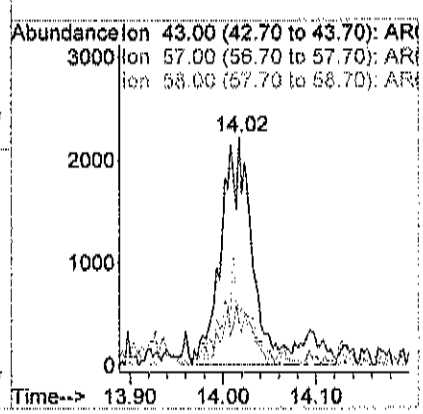


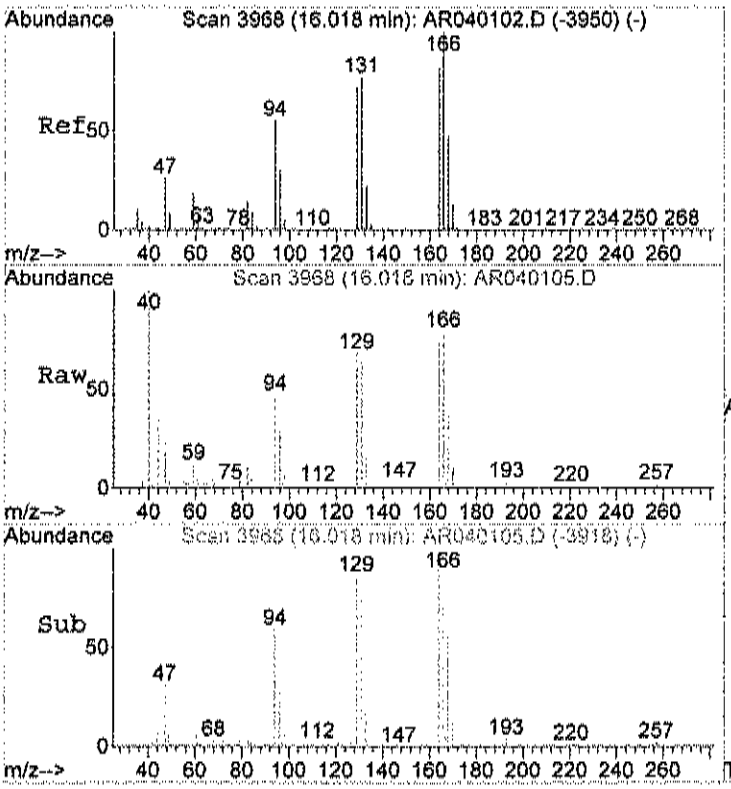


#52
Methyl Isobutyl Ketone
Concen: 0.10 ppb
RT: 14.02 min Scan# 3300
Delta R.T. 0.01 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 43 Resp: 5684

Ion	Ratio	Lower	Upper
43	100		
57	23.8	4.9	44.9
58	26.5	17.9	57.9

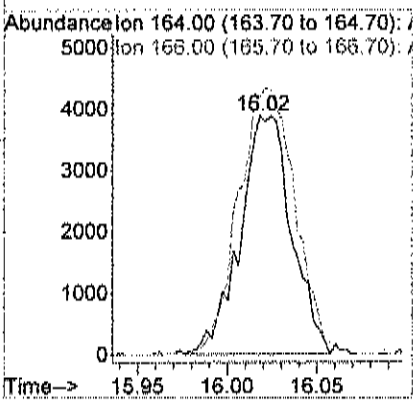


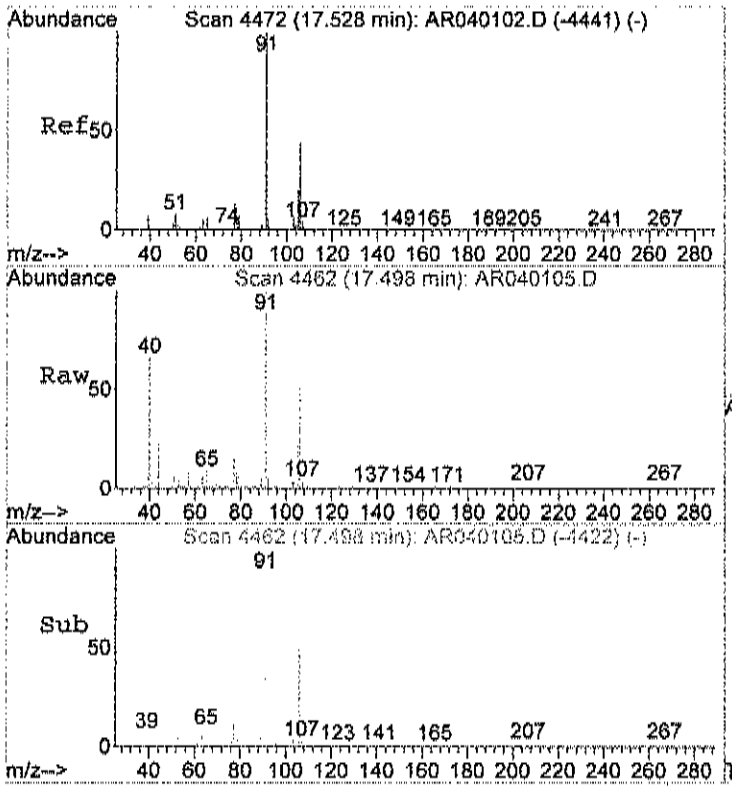


#56
Tetrachloroethylene
Concen: 0.15 ppb
RT: 16.02 min Scan# 3968
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion:164 Resp: 7764

Ion	Ratio	Lower	Upper
164	100		
166	123.7	106.4	146.4

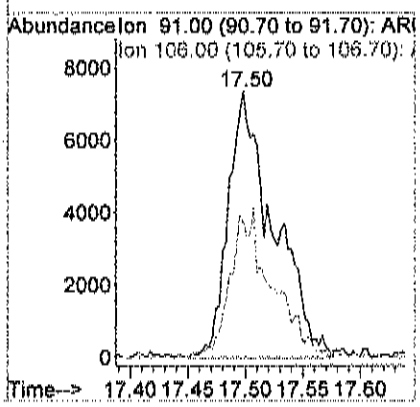


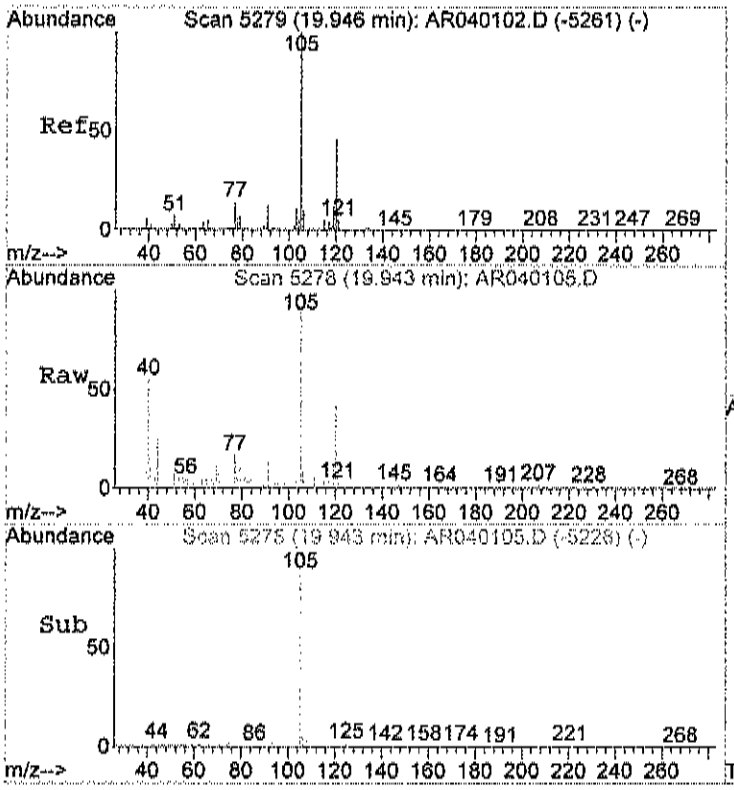


#59
m&p-xylene
Concen: 0.17 ppb
RT: 17.50 min Scan# 4462
Delta R.T. -0.03 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion: 91 Resp: 20186

Ion	Ratio	Lower	Upper
91	100		
106	50.8	29.0	69.0

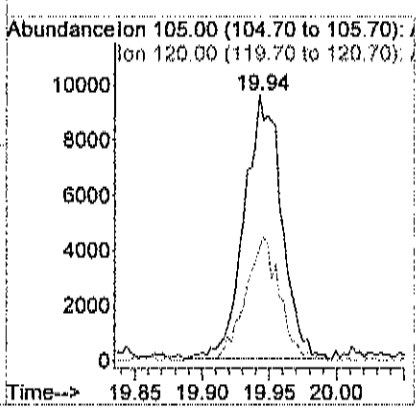




#71
1,2,4-trimethylbenzene
Concen: 0.15 ppb
RT: 19.94 min Scan# 5278
Delta R.T. -0.00 min
Lab File: AR040105.D
Acq: 1 Apr 2020 1:45 pm

Tgt Ion:105 Resp: 18474

Ion	Ratio	Lower	Upper
105	100		
120	43.2	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040118.D Vial: 1
Acq On : 1 Apr 2020 11:57 pm Operator: RJP
Sample : C2004002-001A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:24 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

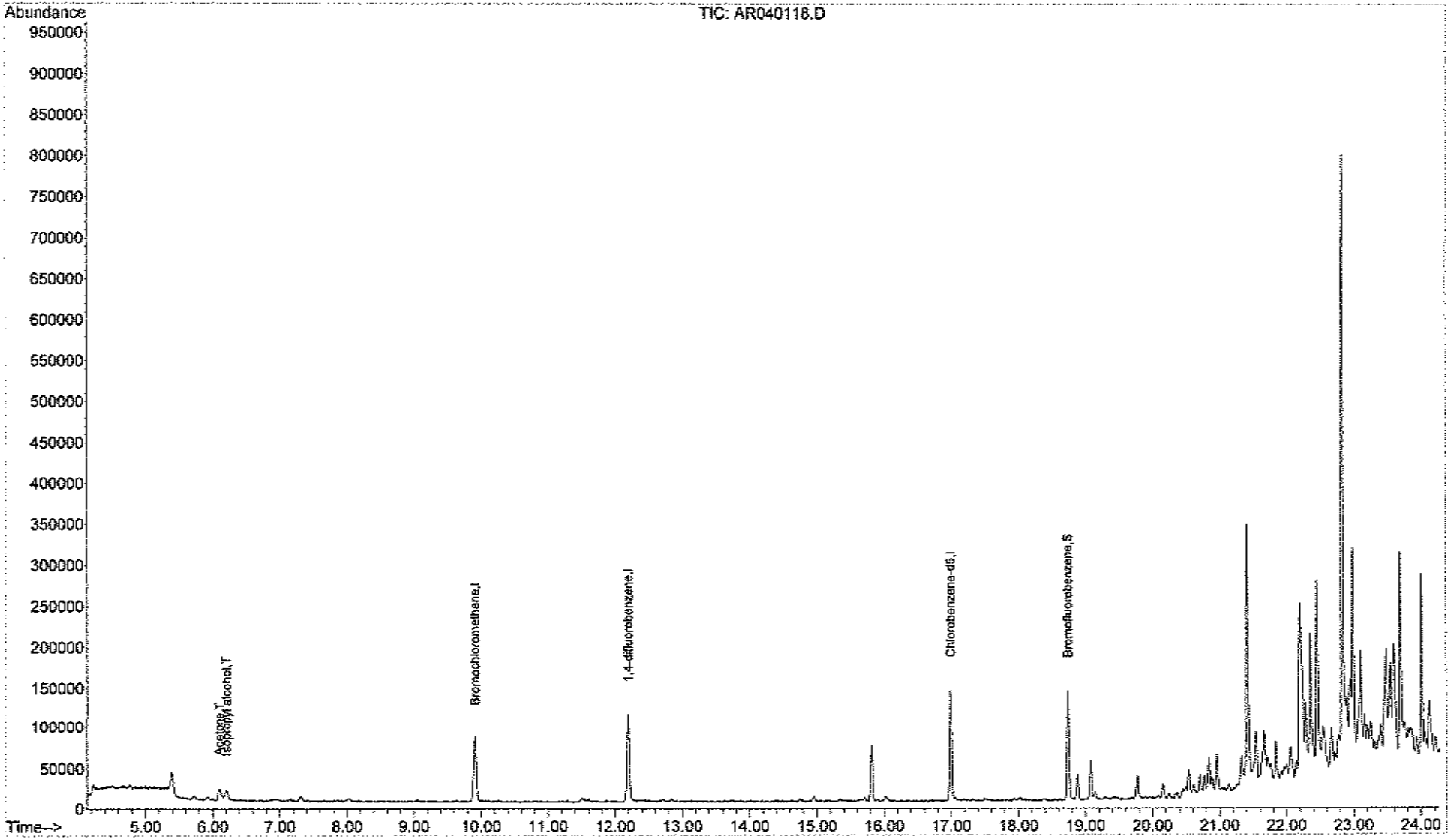
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	34373	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	114911	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	97735	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	51798	0.74	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 74.00%			
Target Compounds						Qvalue
15) Acetone	6.09	58	9725	0.52	ppb	# 100
17) Isopropyl alcohol	6.21	45	12568	0.29	ppb	# 1

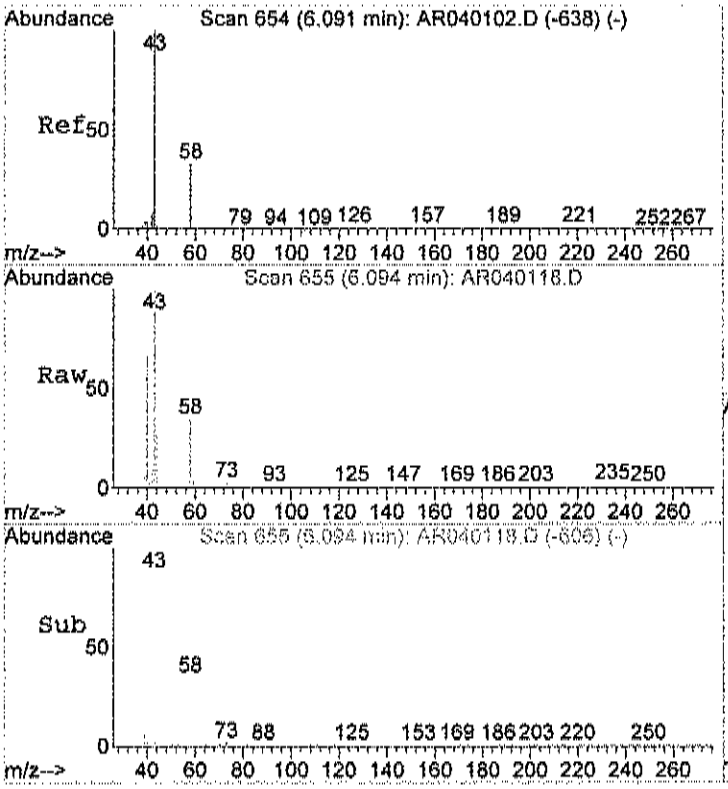
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040118.D Vial: 1
Acq On : 1 Apr 2020 11:57 pm Operator: RJP
Sample : C2004002-001A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:16 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

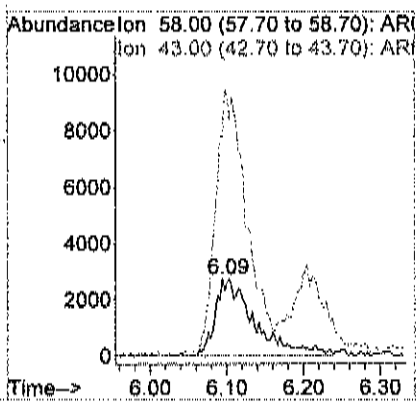


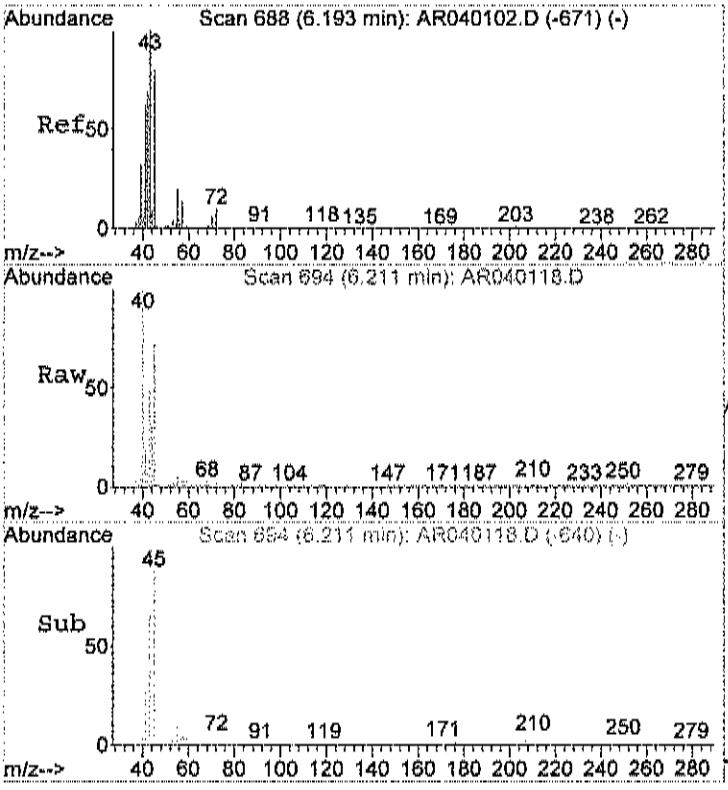


#15
Acetone
Concen: 0.52 ppb
RT: 6.09 min Scan# 655
Delta R.T. -0.00 min
Lab File: AR040118.D
Acq: 1 Apr 2020 11:57 pm

Tgt Ion: 58 Resp: 9725

Ion	Ratio	Lower	Upper
58	100		
43	368.7	0.0	30.0#

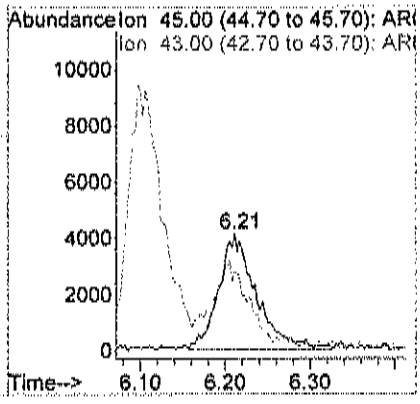




#17
Isopropyl alcohol
Concen: 0.29 ppb
RT: 6.21 min Scan# 694
Delta R.T. 0.01 min
Lab File: AR040118.D
Acq: 1 Apr 2020 11:57 pm

Tgt Ion: 45 Resp: 12568

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 2:32:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2,4-Trimethylbenzene	0.27	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,3,5-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
2,2,4-trimethylpentane	0.13	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Acetone	7.0	3.0		ppbV	10	4/2/2020 12:43:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 2:32:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Carbon disulfide	0.18	0.15		ppbV	1	4/1/2020 2:32:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 2:32:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Chloroform	0.13	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 2:32:00 PM
cis-1,2-Dichloroethene	0.060	0.040		ppbV	1	4/1/2020 2:32:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Ethyl acetate	0.61	0.15		ppbV	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 2:32:00 PM
Heptane	0.32	0.15		ppbV	1	4/1/2020 2:32:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Hexane	0.25	0.15		ppbV	1	4/1/2020 2:32:00 PM
Isopropyl alcohol	1.7	0.15		ppbV	1	4/1/2020 2:32:00 PM
m&p-Xylene	0.39	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Ethyl Ketone	0.51	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 2:32:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 2:32:00 PM
o-Xylene	0.20	0.15		ppbV	1	4/1/2020 2:32:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 2:32:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Toluene	0.62	0.15		ppbV	1	4/1/2020 2:32:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Trichloroethene	0.60	0.030		ppbV	1	4/1/2020 2:32:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 2:32:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 2:32:00 PM
Surr: Bromofluorobenzene	108	70-130		%REC	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 2:32:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 2:32:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 2:32:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 2:32:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 2:32:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 2:32:00 PM
1,3,5-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 2:32:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 2:32:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 2:32:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
2,2,4-trimethylpentane	0.61	0.70	J	ug/m3	1	4/1/2020 2:32:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 2:32:00 PM
Acetone	17	7.1		ug/m3	10	4/2/2020 12:43:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 2:32:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 2:32:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 2:32:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 2:32:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 2:32:00 PM
Carbon disulfide	0.56	0.47		ug/m3	1	4/1/2020 2:32:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 2:32:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 2:32:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 2:32:00 PM
Chloroform	0.63	0.73	J	ug/m3	1	4/1/2020 2:32:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 2:32:00 PM
cis-1,2-Dichloroethene	0.24	0.16		ug/m3	1	4/1/2020 2:32:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 2:32:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 2:32:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 2:32:00 PM
Ethyl acetate	2.2	0.54		ug/m3	1	4/1/2020 2:32:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 2:32:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 2:32:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 2:32:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	603
Lab Order:	C2004002	**Tag Number:**	360,380
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-002A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 2:32:00 PM
Heptane	1.3	0.61		ug/m3	1	4/1/2020 2:32:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 2:32:00 PM
Hexane	0.88	0.53		ug/m3	1	4/1/2020 2:32:00 PM
Isopropyl alcohol	4.2	0.37		ug/m3	1	4/1/2020 2:32:00 PM
m&p-Xylene	1.7	1.3		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Ethyl Ketone	1.5	0.88		ug/m3	1	4/1/2020 2:32:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 2:32:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 2:32:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 2:32:00 PM
o-Xylene	0.87	0.65		ug/m3	1	4/1/2020 2:32:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 2:32:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 2:32:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 2:32:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 2:32:00 PM
Toluene	2.3	0.57		ug/m3	1	4/1/2020 2:32:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 2:32:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 2:32:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 2:32:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 2:32:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040106.D Vial: 2
Acq On : 1 Apr 2020 2:32 pm Operator: RJP
Sample : C2004002-002A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:12 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

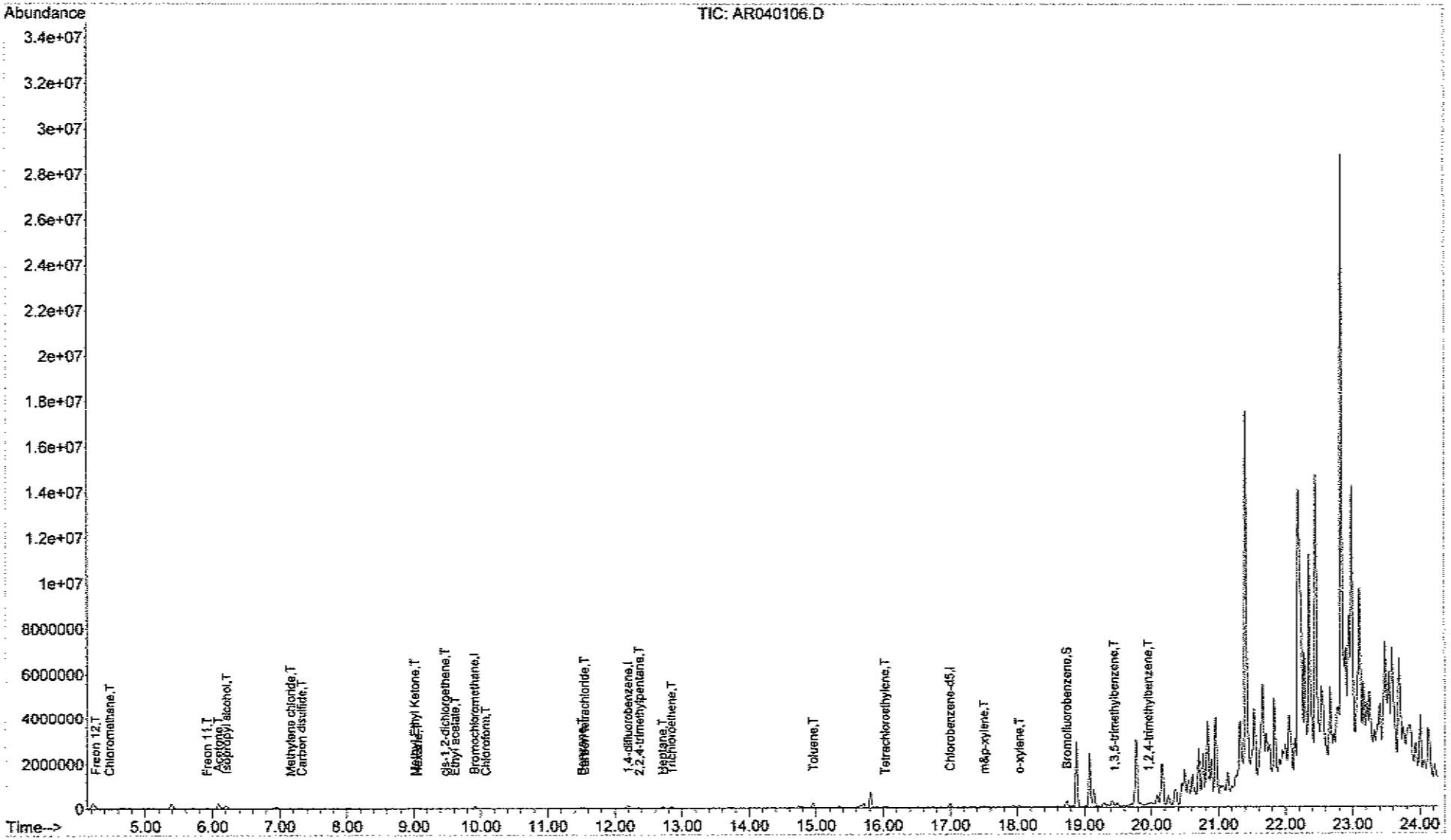
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	37738	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	131174	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	130331	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	100810	1.08	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 108.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	80538	0.48	ppb		98
4) Chloromethane	4.46	50	14513	0.40	ppb		77
14) Freon 11	5.92	101	48427	0.27	ppb		99
15) Acetone	6.08	58	138477	6.73	ppb	#	100
17) Isopropyl alcohol	6.20	45	82659	1.71	ppb	#	1
21) Methylene chloride	7.15	84	8656	0.20	ppb		93
23) Carbon disulfide	7.32	76	23834	0.18	ppb		100
28) Methyl Ethyl Ketone	9.00	72	8809	0.51	ppb	#	100
29) cis-1,2-dichloroethene	9.47	61	2873m	0.06	ppb		
30) Hexane	9.06	57	12312	0.25	ppb		95
31) Ethyl acetate	9.61	43	47985	0.61	ppb		98
32) Chloroform	10.07	83	14889	0.13	ppb		97
38) Carbon tetrachloride	11.55	117	11985	0.09	ppb		96
39) Benzene	11.51	78	25254	0.23	ppb		87
42) 2,2,4-trimethylpentane	12.36	57	17550	0.13	ppb	#	70
43) Heptane	12.72	43	14418	0.32	ppb	#	72
44) Trichloroethene	12.84	130	33308	0.60	ppb		98
51) Toluene	14.95	92	47220	0.62	ppb		98
56) Tetrachloroethylene	16.02	164	7090	0.11	ppb		100
59) m&p-xylene	17.50	91	55488	0.39	ppb		99
63) o-xylene	18.03	91	33535	0.20	ppb		98
70) 1,3,5-trimethylbenzene	19.45	105	20646	0.11	ppb		83
71) 1,2,4-trimethylbenzene	19.94	105	40437	0.27	ppb		99

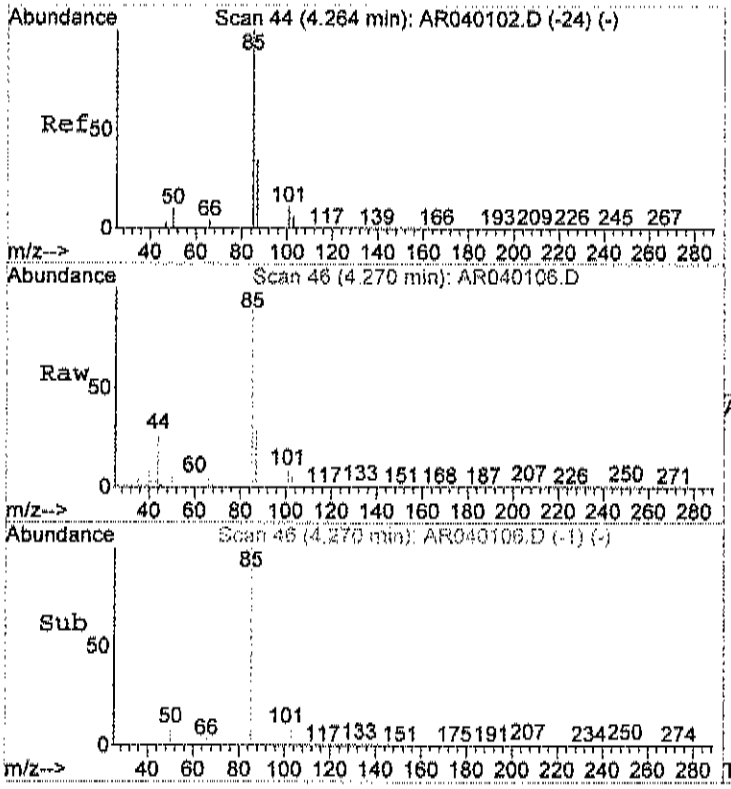
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040106.D Vial: 2
Acq On : 1 Apr 2020 2:32 pm Operator: RJP
Sample : C2004002-002A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:53 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

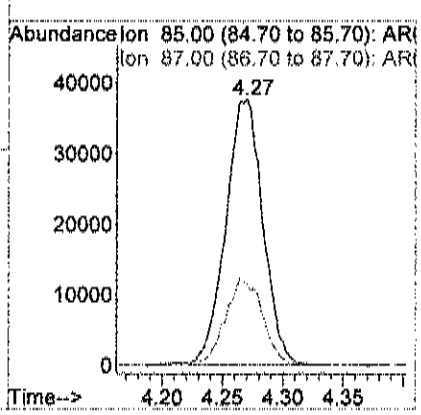


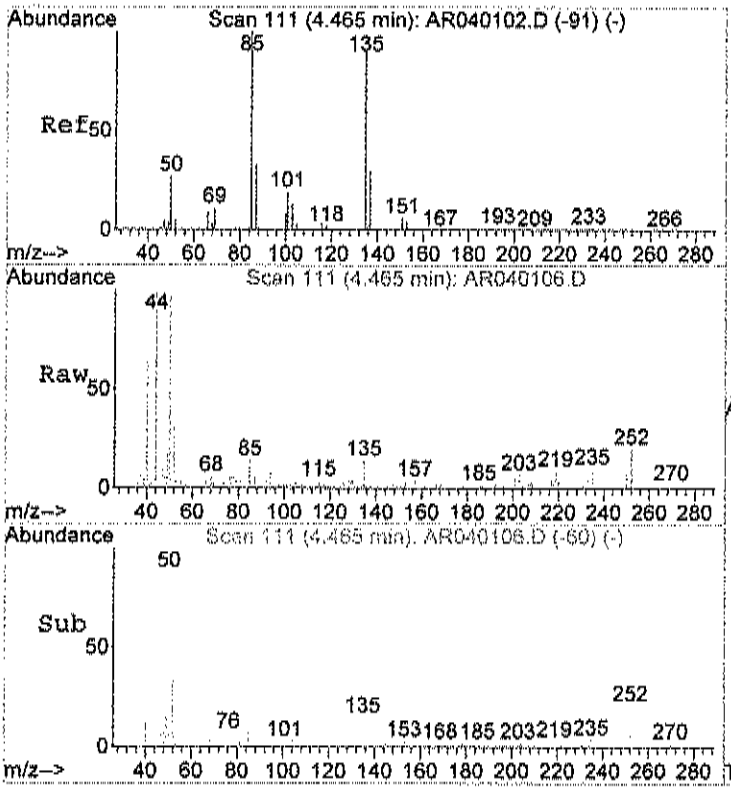


#3
Freon 12
Concen: 0.48 ppb
RT: 4.27 min Scan# 46
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 85 Resp: 80538

Ion	Ratio	Lower	Upper
85	100		
87	32.8	11.9	51.9

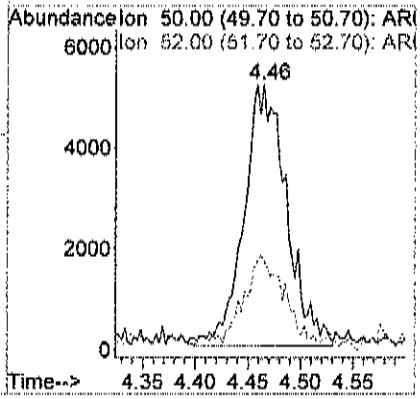


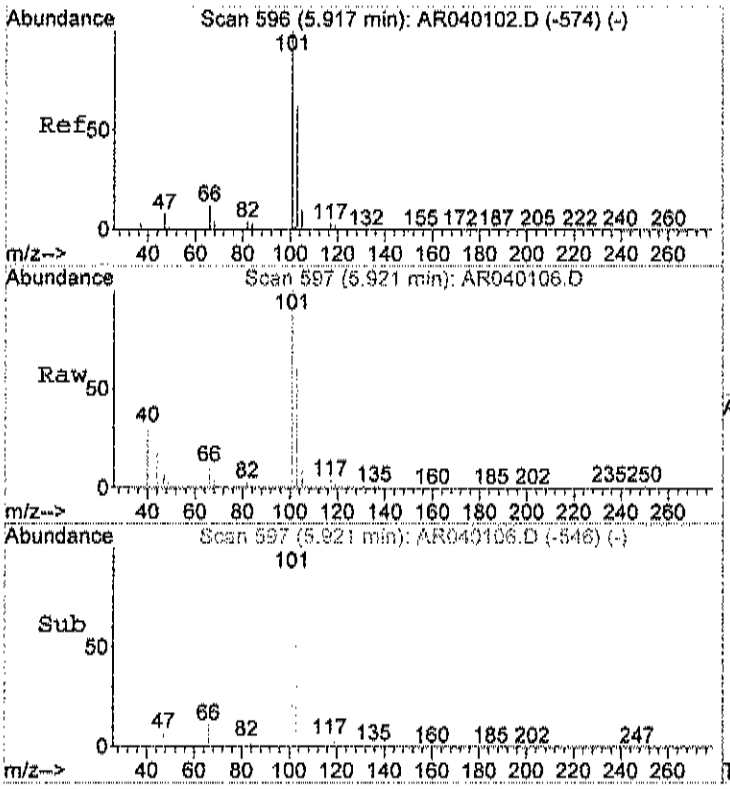


#4
Chloromethane
Concen: 0.40 ppb
RT: 4.46 min Scan# 111
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 50 Resp: 14513

Ion	Ratio	Lower	Upper
50	100		
52	37.8	6.1	46.1

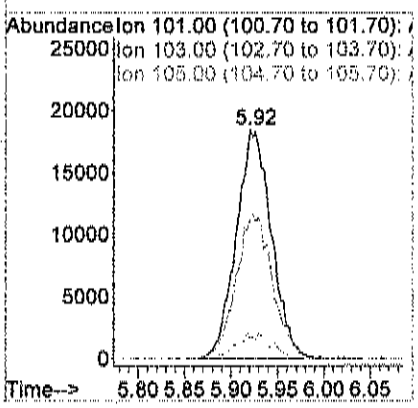


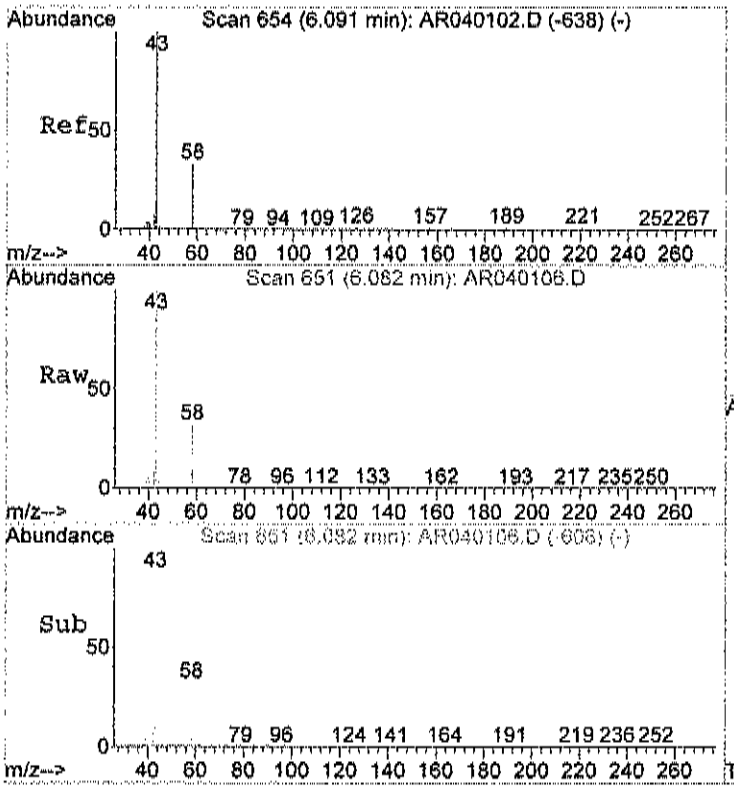


#14
Freon 11
Concen: 0.27 ppb
RT: 5.92 min Scan# 597
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:101 Resp: 48427

Ion	Ratio	Lower	Upper
101	100		
103	65.2	44.2	84.2
105	10.9	0.0	30.3

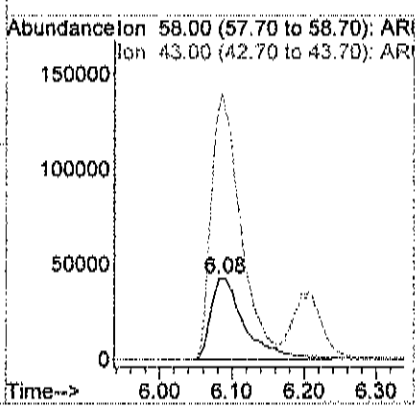


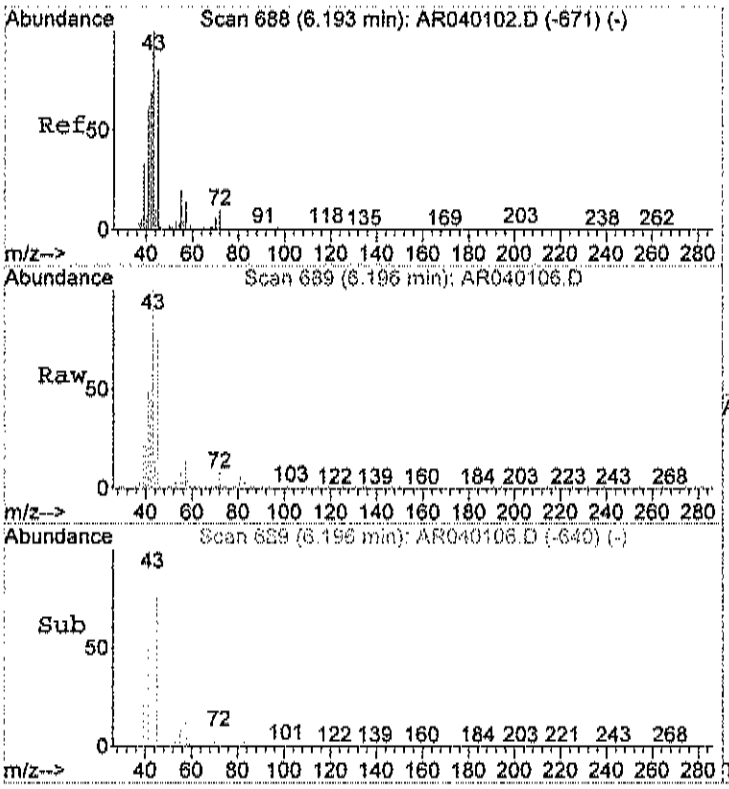


#15
Acetone
Concen: 6.73 ppb
RT: 6.08 min Scan# 651
Delta R.T. -0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 58 Resp: 138477

Ion	Ratio	Lower	Upper
58	100		
43	352.9	0.0	30.0#

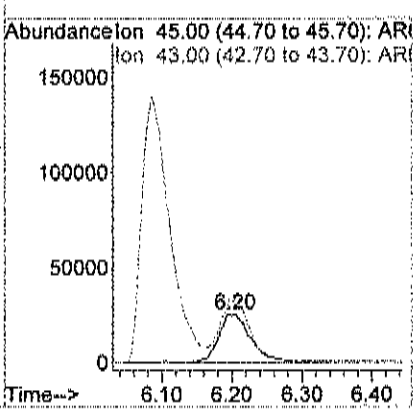


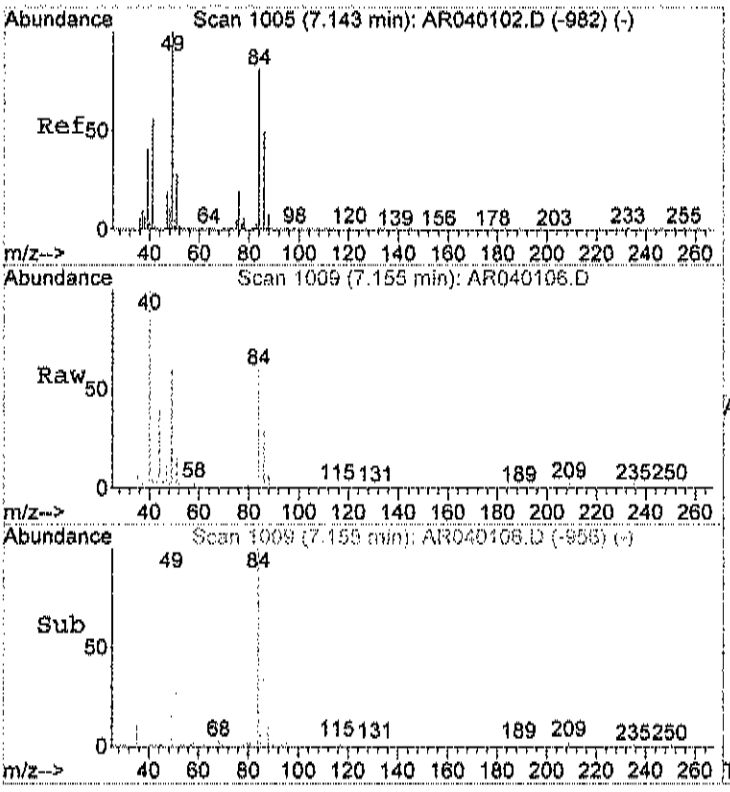


#17
Isopropyl alcohol
Concen: 1.71 ppb
RT: 6.20 min Scan# 689
Delta R.T. -0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 45 Resp: 82659

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

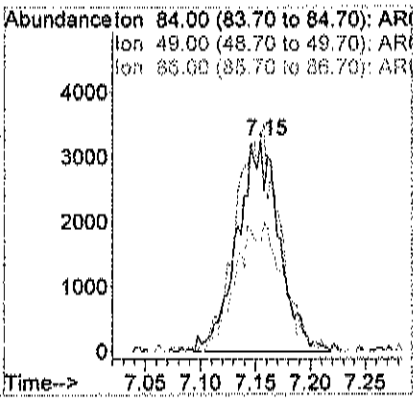


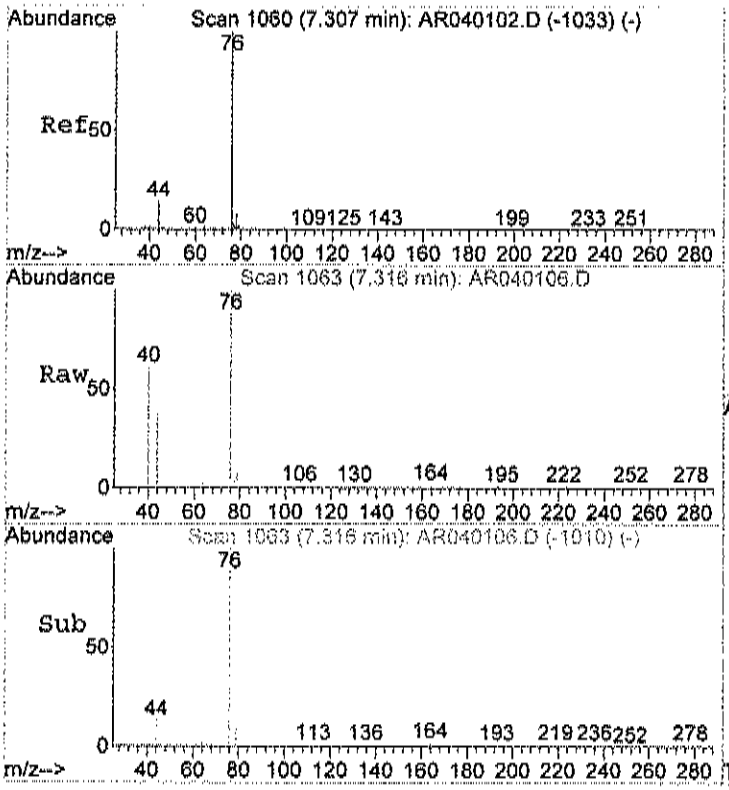


#21
Methylene chloride
Concen: 0.20 ppb
RT: 7.15 min Scan# 1009
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 84 Resp: 8656

Ion	Ratio	Lower	Upper
84	100		
49	110.3	101.4	141.4
86	67.4	45.4	85.4

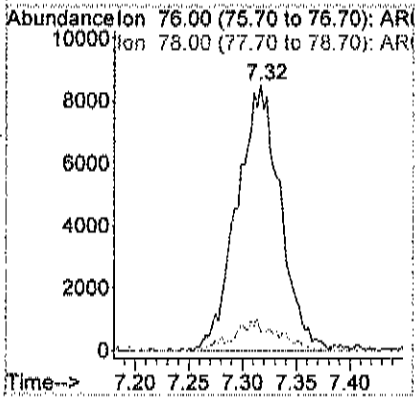


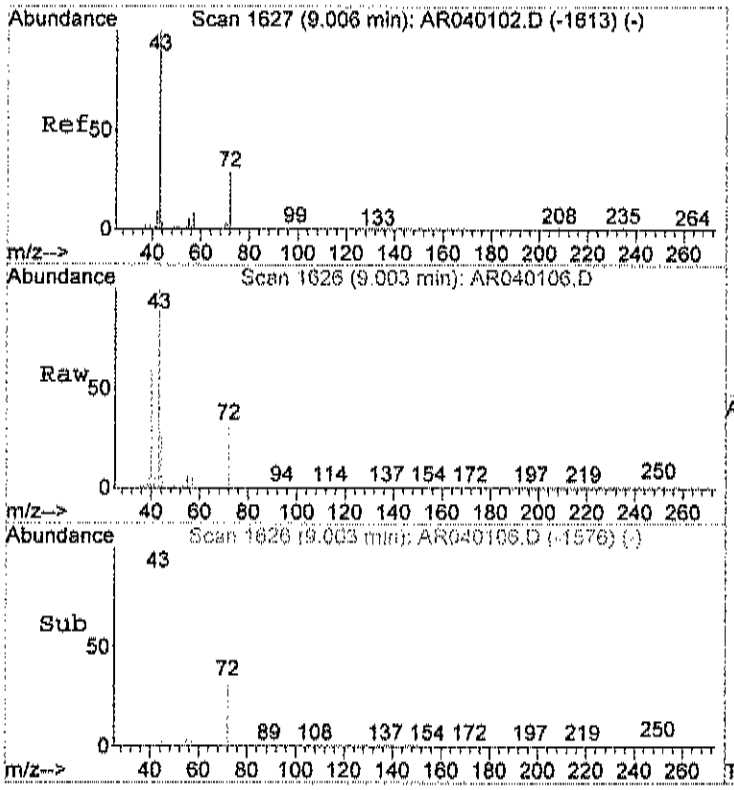


#23
Carbon disulfide
Concen: 0.18 ppb
RT: 7.32 min Scan# 1063
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 76 Resp: 23834

Ion	Ratio	Lower	Upper
76	100		
78	9.7	0.0	29.7

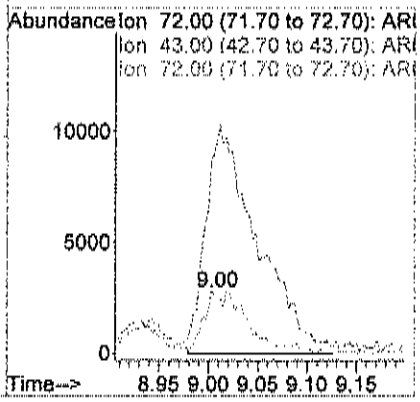


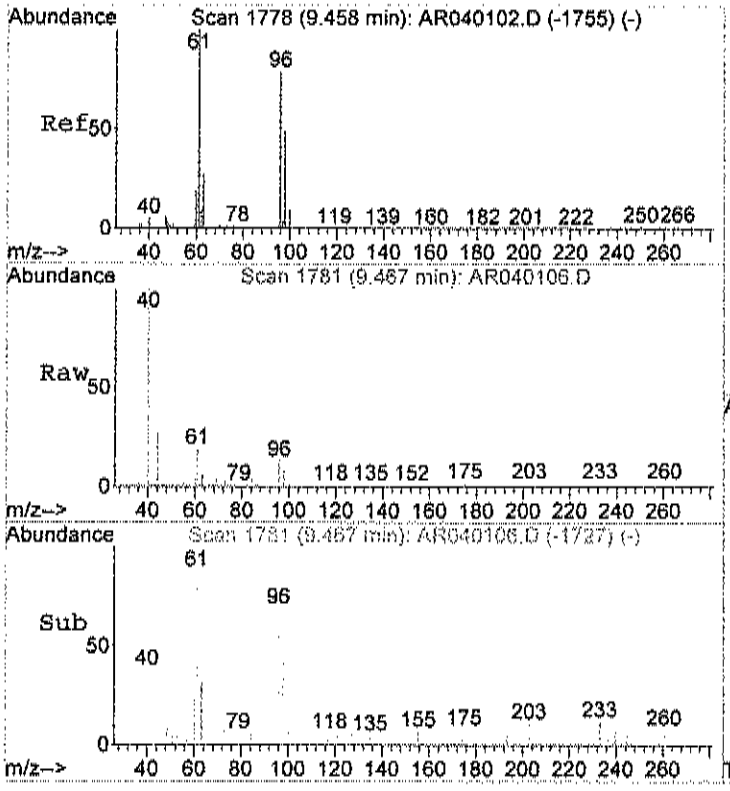


#28
Methyl Ethyl Ketone
Concen: 0.51 ppb
RT: 9.00 min Scan# 1626
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 72 Resp: 8809

Ion	Ratio	Lower	Upper
72	100		
43	403.0	0.0	20.0#
72	100.0	80.0	120.0

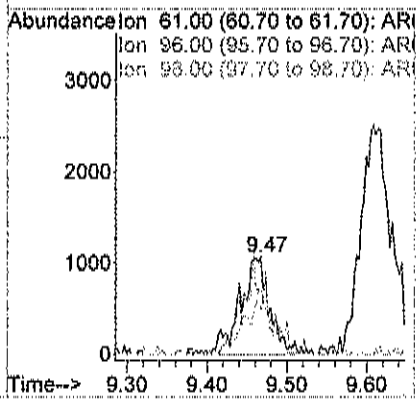


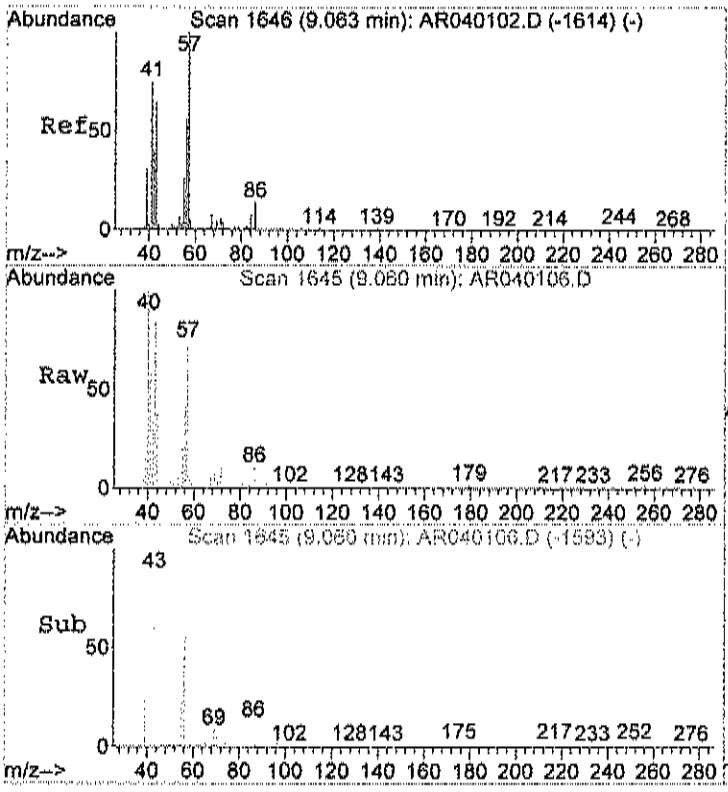


#29
cis-1,2-dichloroethene
Concen: 0.06 ppb m
RT: 9.47 min Scan# 1781
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 61 Resp: 2873

Ion	Ratio	Lower	Upper
61	100		
96	80.5	57.9	97.9
98	49.4	28.8	68.8

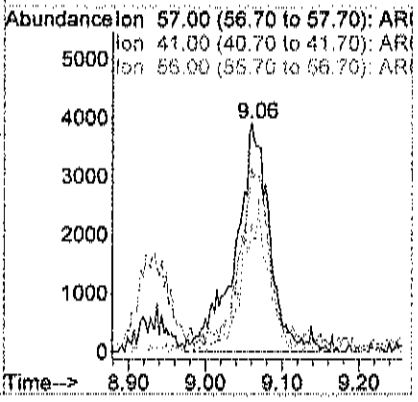


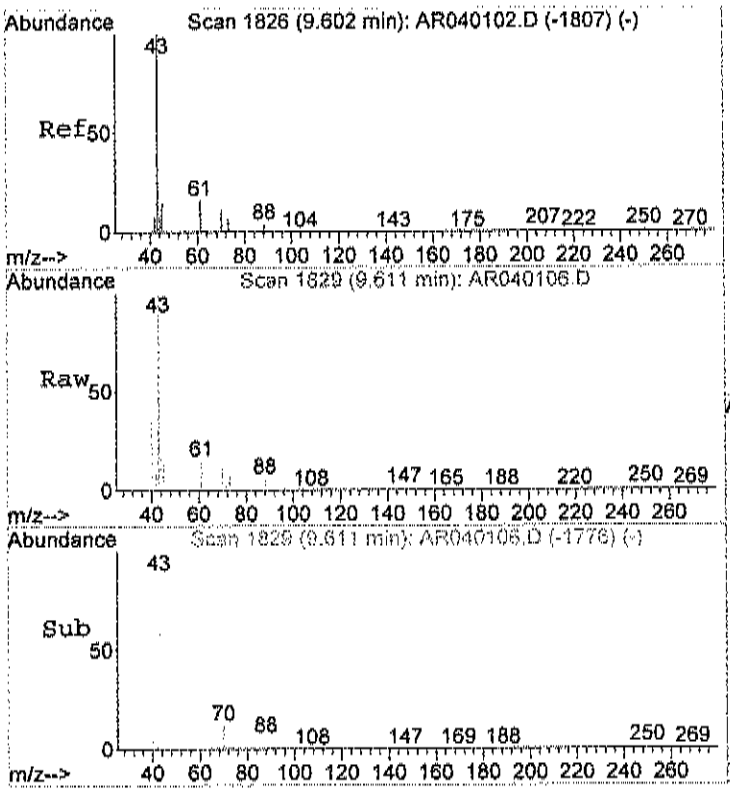


#30
Hexane
Concen: 0.25 ppb
RT: 9.06 min Scan# 1645
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 57 Resp: 12312

Ion	Ratio	Lower	Upper
57	100		
41	72.8	55.7	95.7
56	46.6	32.4	72.4

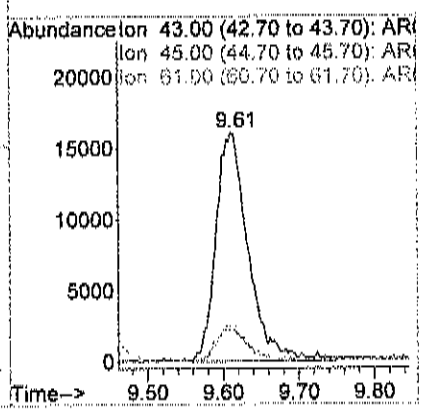


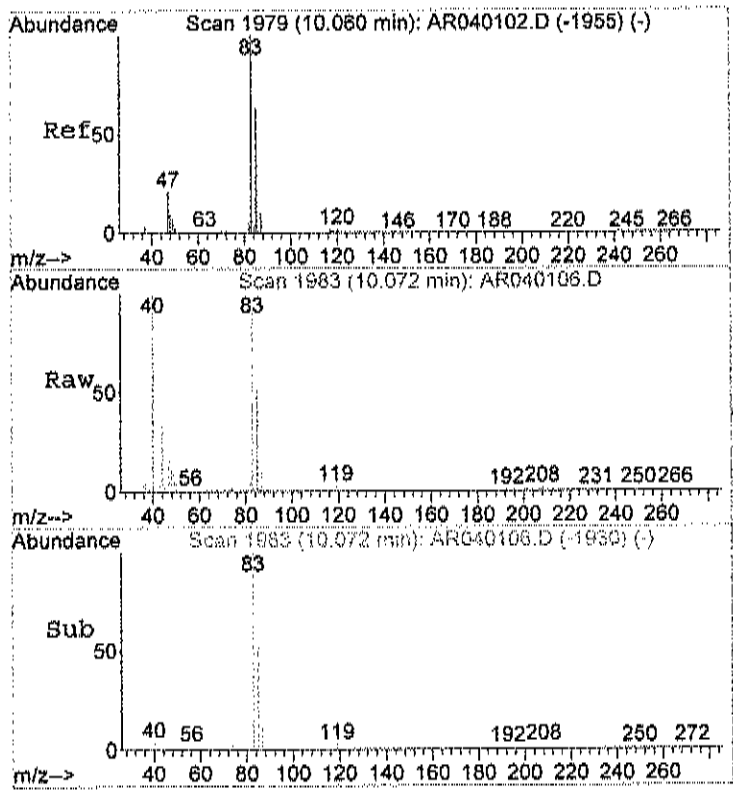


#31
Ethyl acetate
Concen: 0.61 ppb
RT: 9.61 min Scan# 1829
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 43 Resp: 47985

Ion	Ratio	Lower	Upper
43	100		
45	15.0	0.0	34.5
61	14.7	0.0	35.8

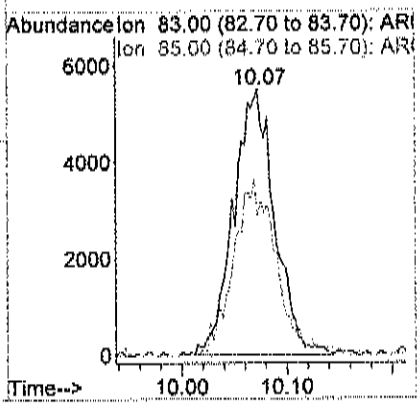


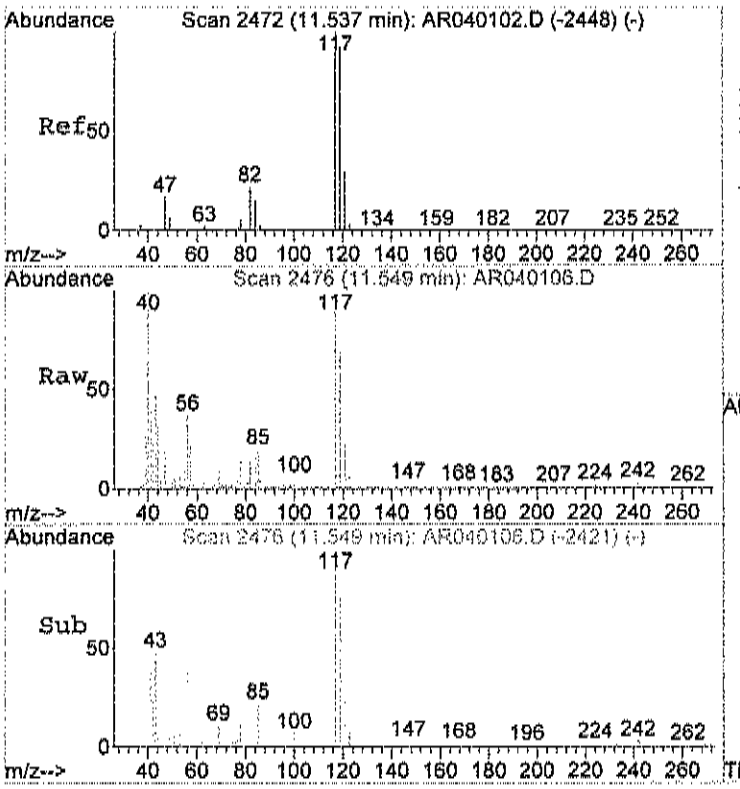


#32
Chloroform
Concen: 0.13 ppb
RT: 10.07 min Scan# 1983
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 83 Resp: 14889

Ion	Ratio	Lower	Upper
83	100		
85	68.9	46.5	86.5

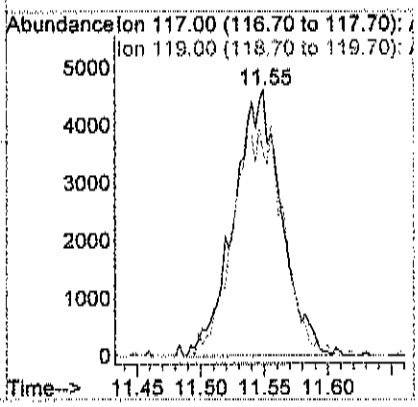


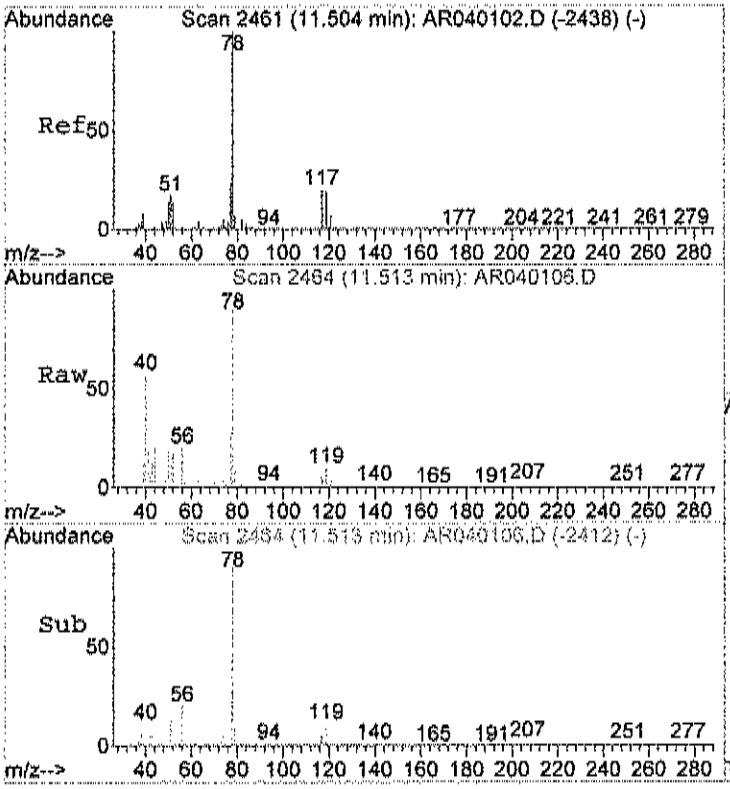


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2476
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:117 Resp: 11985

Ion	Ratio	Lower	Upper
117	100		
119	91.4	75.6	115.6

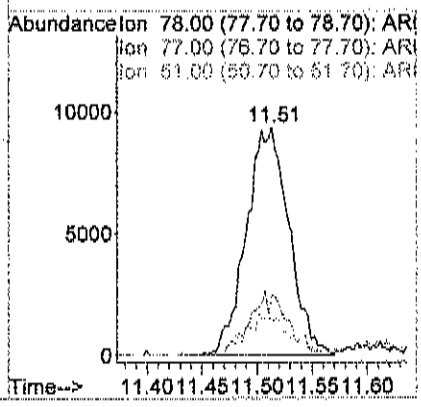


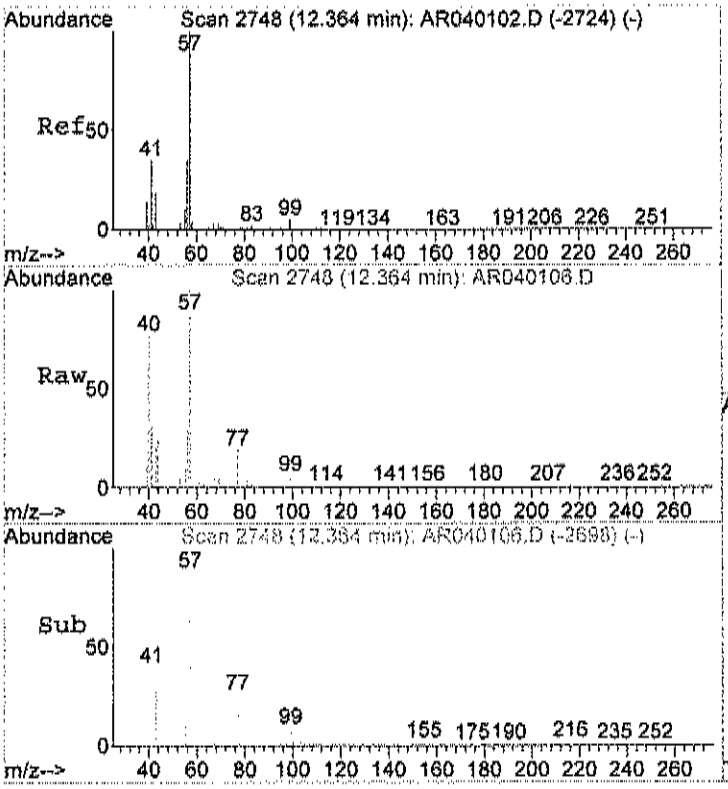


#39
Benzene
Concen: 0.23 ppb
RT: 11.51 min Scan# 2464
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 78 Resp: 25254

Ion	Ratio	Lower	Upper
78	100		
77	31.0	4.1	44.1
51	21.7	0.0	36.8

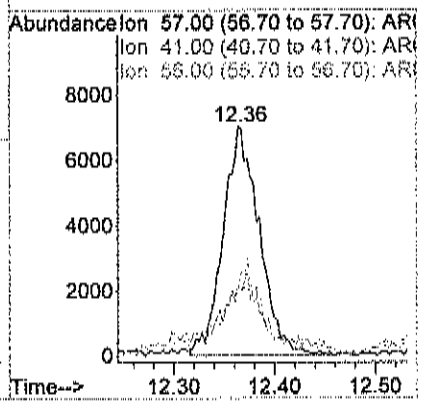


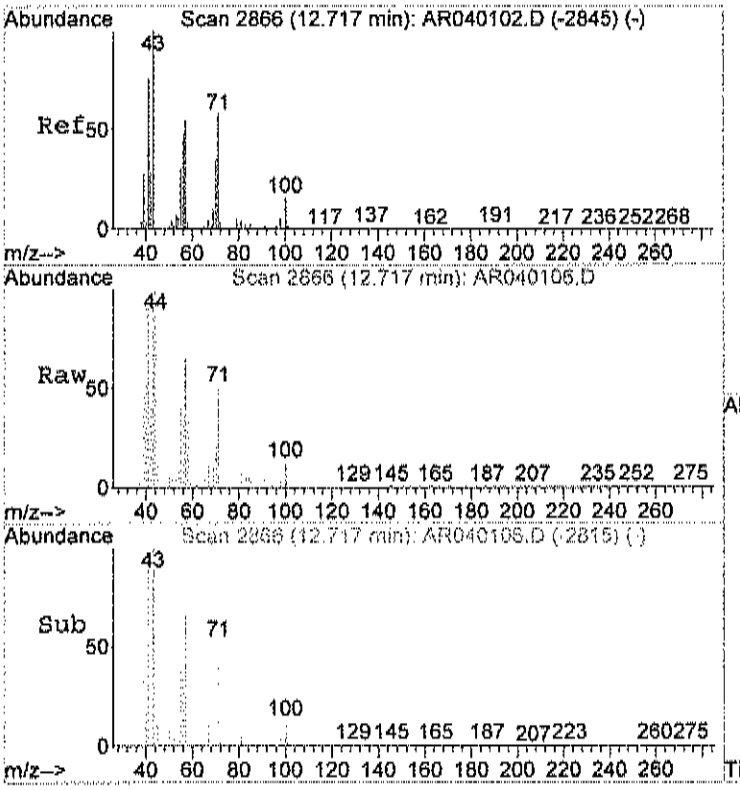


#42
2,2,4-trimethylpentane
Concen: 0.13 ppb
RT: 12.36 min Scan# 2748
Delta R.T. -0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 57 Resp: 17550

Ion	Ratio	Lower	Upper
57	100		
41	53.2	12.1	52.1#
56	45.4	12.7	52.7

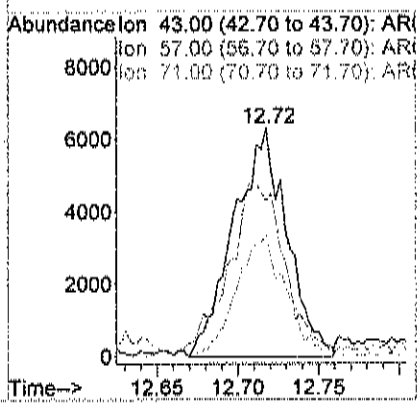


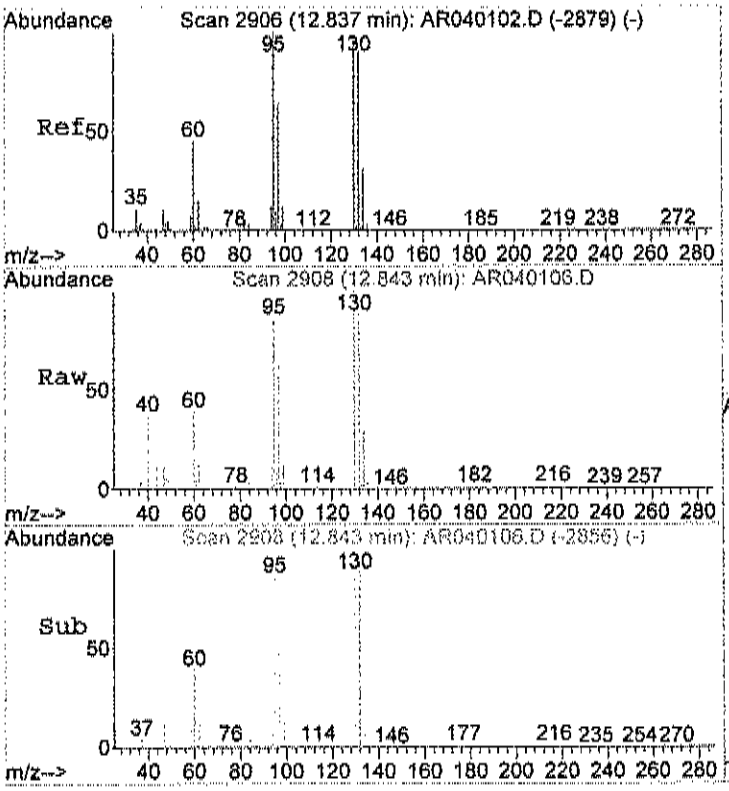


#43
Heptane
Concen: 0.32 ppb
RT: 12.72 min Scan# 2866
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 43 Resp: 14418

Ion	Ratio	Lower	Upper
43	100		
57	85.0	36.0	76.0#
71	49.1	42.5	82.5

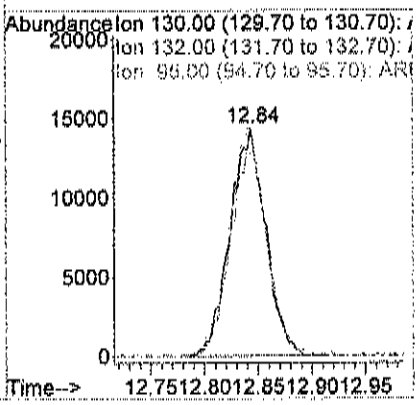


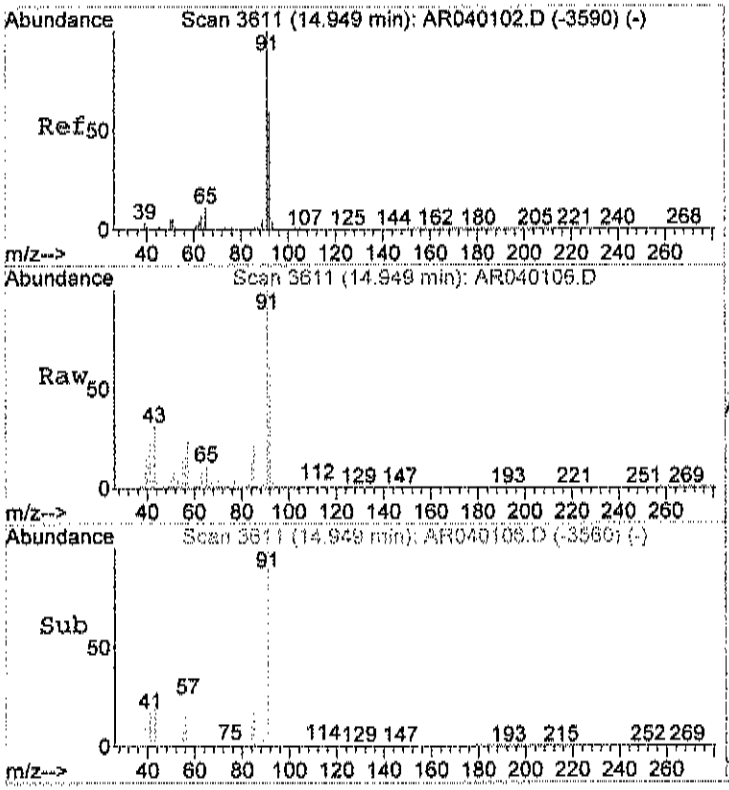


#44
Trichloroethene
Concen: 0.60 ppb
RT: 12.84 min Scan# 2908
Delta R.T. 0.01 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:130 Resp: 33308

Ion	Ratio	Lower	Upper
130	100		
132	94.6	76.9	116.9
95	101.2	78.6	118.6

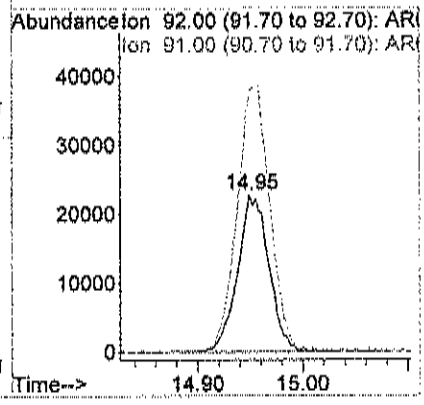


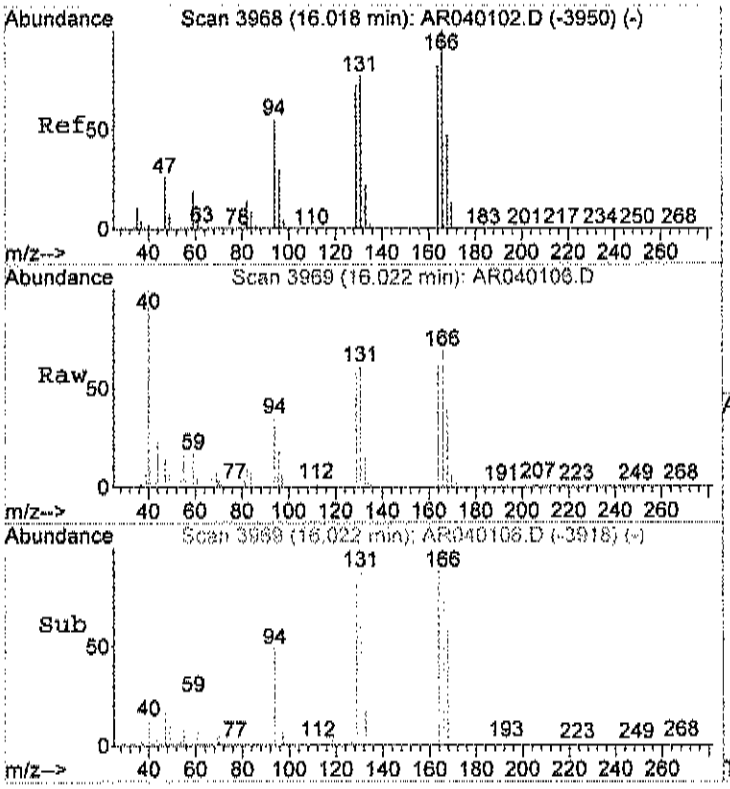


#51
Toluene
Concen: 0.62 ppb
RT: 14.95 min Scan# 3611
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 92 Resp: 47220

Ion	Ratio	Lower	Upper
92	100		
91	176.7	154.5	194.5

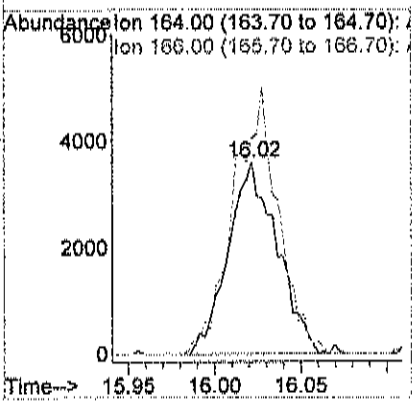


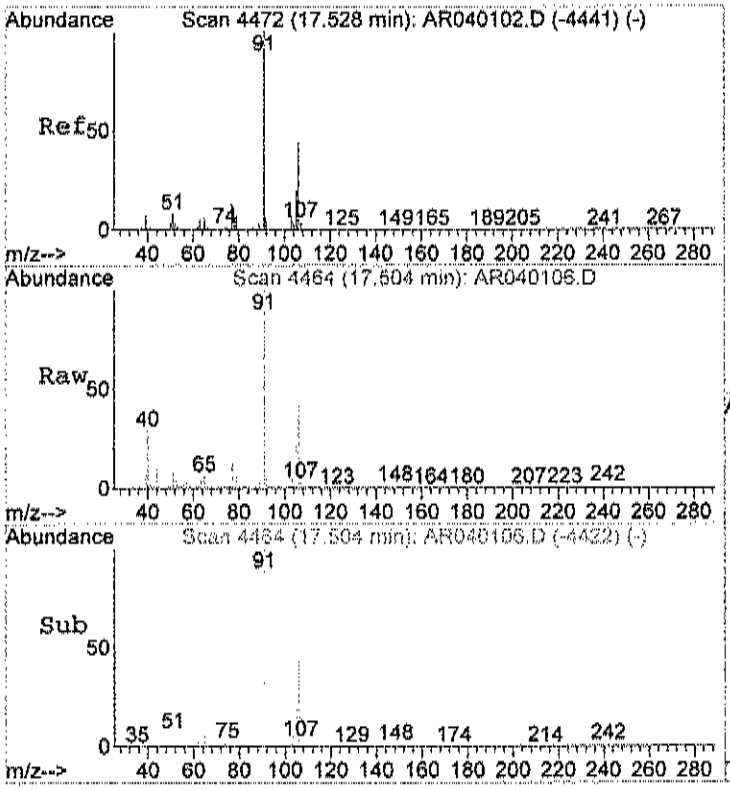


#56
Tetrachloroethylene
Concen: 0.11 ppb
RT: 16.02 min Scan# 3969
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:164 Resp: 7090

Ion	Ratio	Lower	Upper
164	100		
166	126.6	106.4	146.4

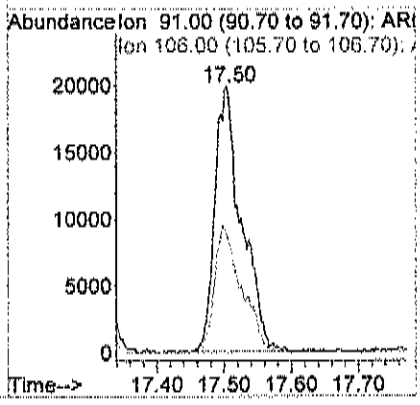


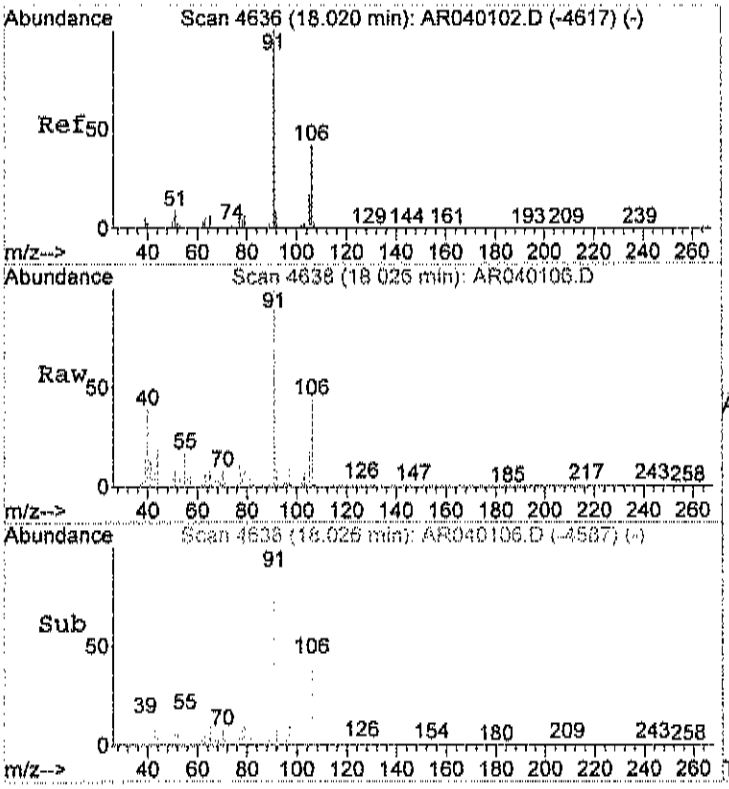


#59
m&p-xylene
Concen: 0.39 ppb
RT: 17.50 min Scan# 4464
Delta R.T. -0.02 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 91 Resp: 55488

Ion	Ratio	Lower	Upper
91	100		
106	48.1	29.0	69.0

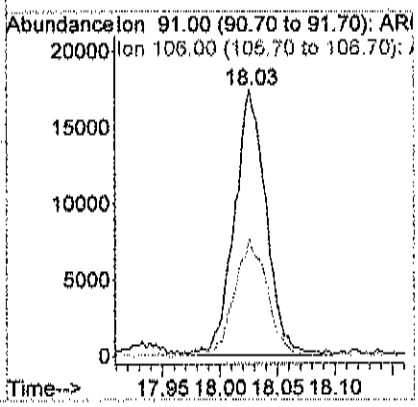


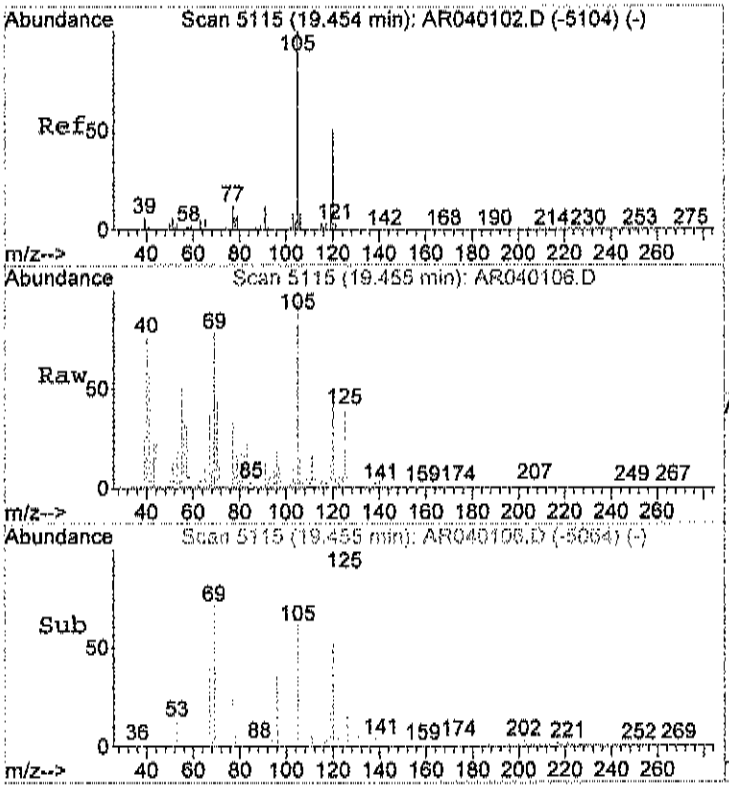


#63
o-xylene
Concen: 0.20 ppb
RT: 18.03 min Scan# 4638
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion: 91 Resp: 33535

Ion	Ratio	Lower	Upper
91	100		
106	45.0	26.2	66.2

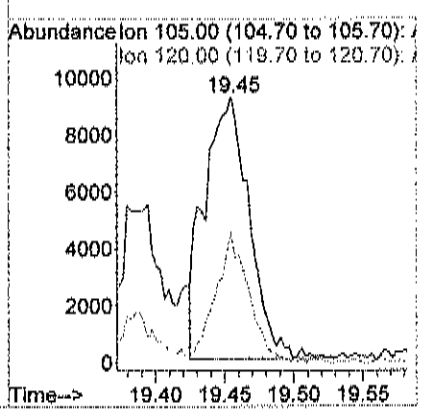


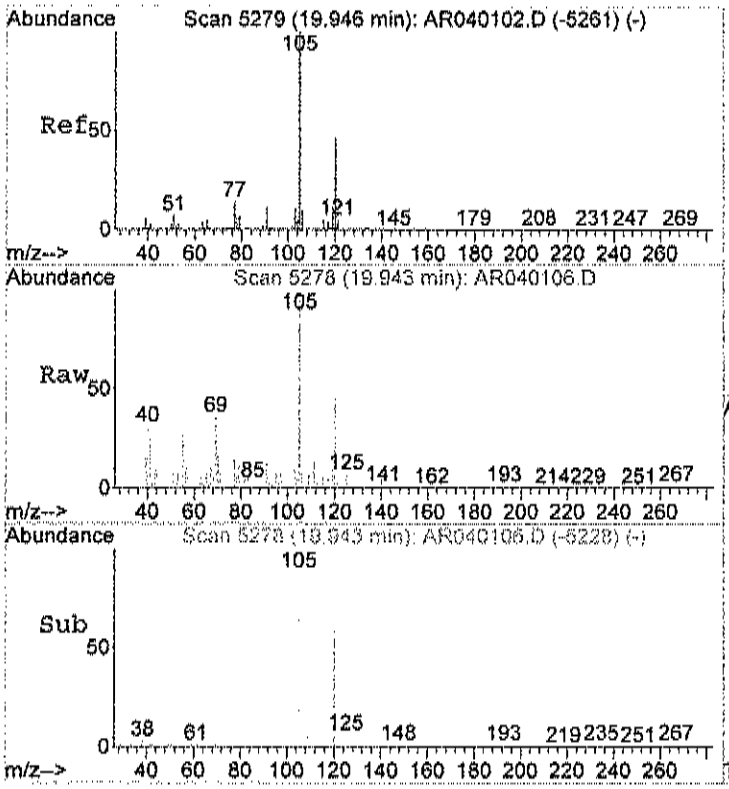


#70
1,3,5-trimethylbenzene
Concen: 0.11 ppb
RT: 19.45 min Scan# 5115
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:105 Resp: 20646

Ion	Ratio	Lower	Upper
105	100		
120	36.6	28.2	68.2

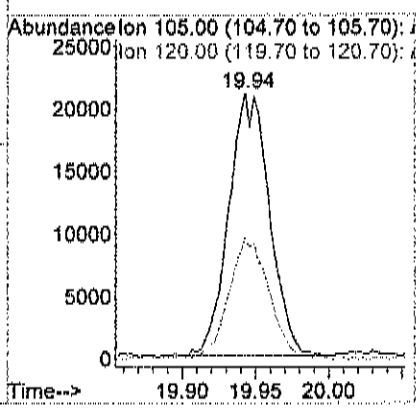




#71
1,2,4-trimethylbenzene
Concen: 0.27 ppb
RT: 19.94 min Scan# 5278
Delta R.T. 0.00 min
Lab File: AR040106.D
Acq: 1 Apr 2020 2:32 pm

Tgt Ion:105 Resp: 40437

Ion	Ratio	Lower	Upper
105	100		
120	45.8	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040119.D Vial: 2
Acq On : 2 Apr 2020 12:43 am Operator: RJP
Sample : C2004002-002A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:25 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

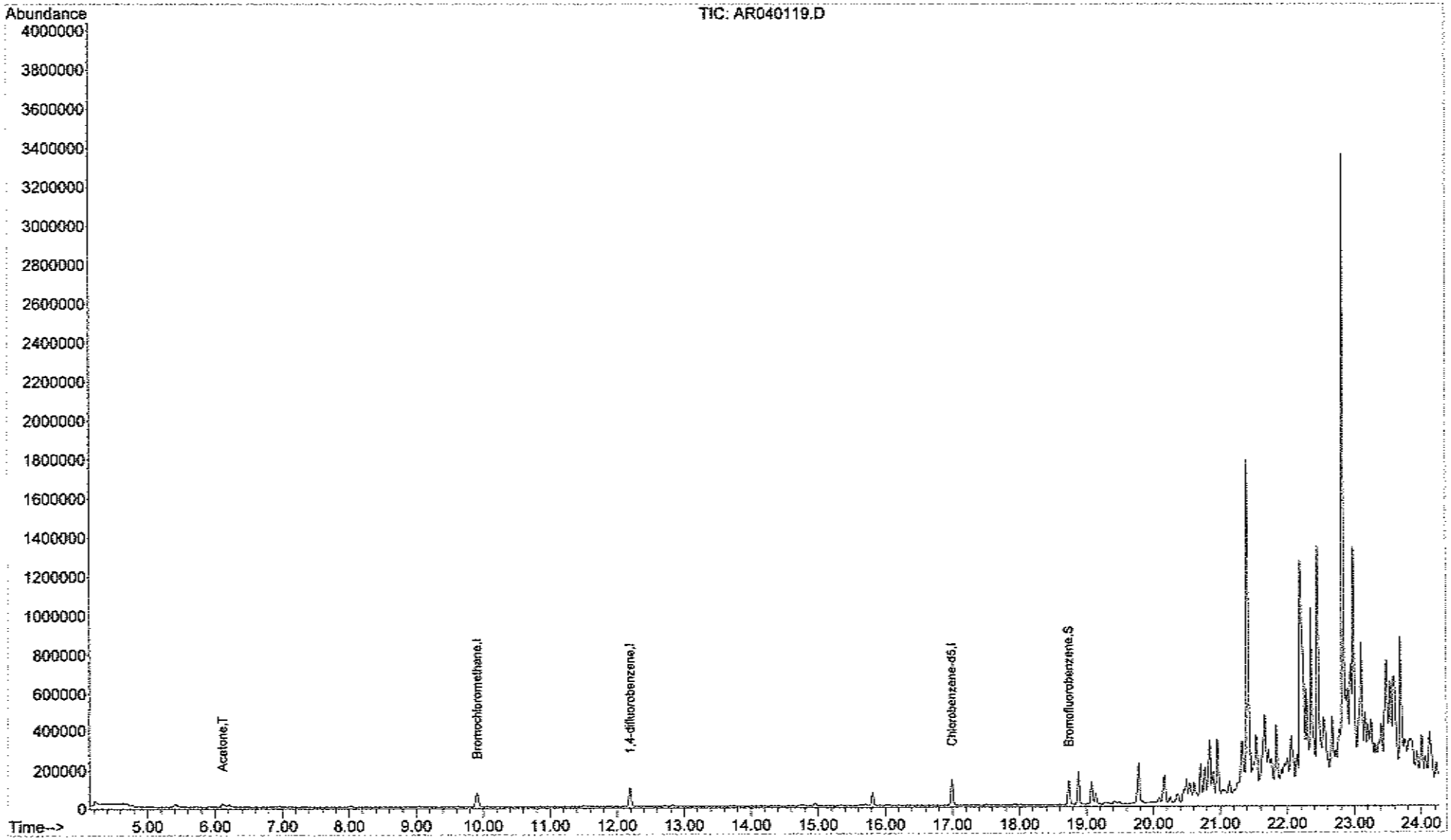
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	32514	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	109031	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	94988	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	51131	0.75	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 75.00%			
Target Compounds						Qvalue
15) Acetone	6.11	58	12480	0.70	ppb	# 100

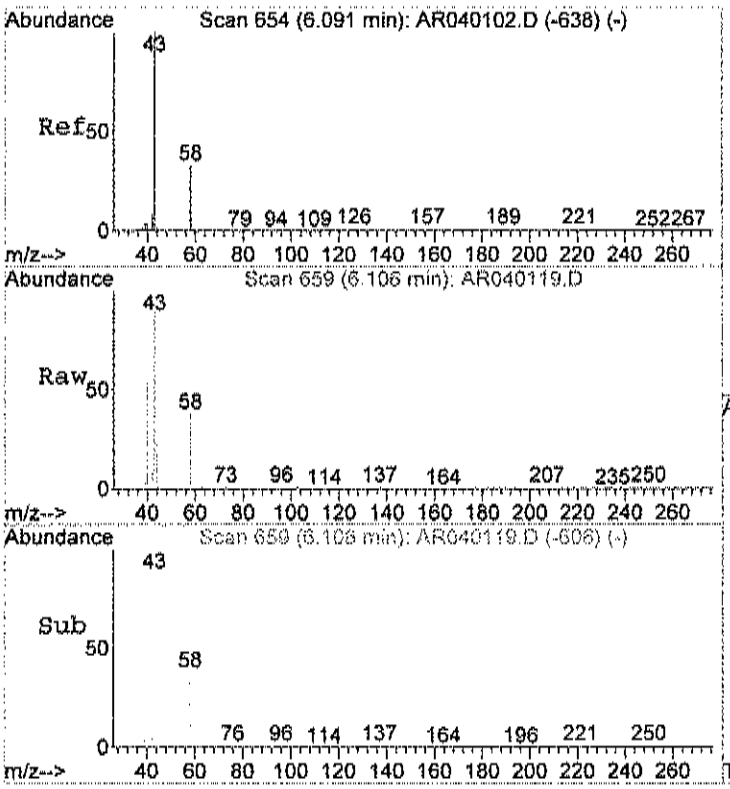
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040119.D Vial: 2
Acq On : 2 Apr 2020 12:43 am Operator: RJP
Sample : C2004002-002A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:17 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

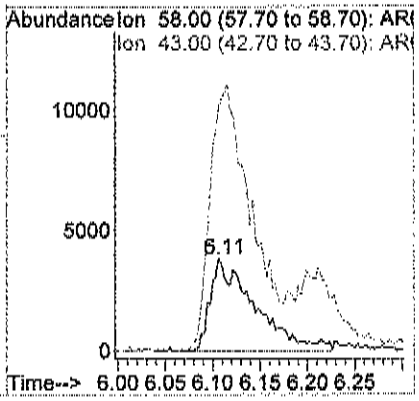




#15
Acetone
Concen: 0.70 ppb
RT: 6.11 min Scan# 659
Delta R.T. 0.01 min
Lab File: AR040119.D
Acq: 2 Apr 2020 12:43 am

Tgt Ion: 58 Resp: 12480

Ion	Ratio	Lower	Upper
58	100		
43	341.8	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 3:20:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2,4-Trimethylbenzene	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,3,5-Trimethylbenzene	0.13	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
2,2,4-trimethylpentane	0.12	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Acetone	8.9	3.0		ppbV	10	4/2/2020 1:29:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 3:20:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Carbon disulfide	0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 3:20:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloroform	0.23	0.15		ppbV	1	4/1/2020 3:20:00 PM
Chloromethane	0.41	0.15		ppbV	1	4/1/2020 3:20:00 PM
cis-1,2-Dichloroethene	0.050	0.040		ppbV	1	4/1/2020 3:20:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Ethyl acetate	0.69	0.15		ppbV	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 11	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 3:20:00 PM
Heptane	0.28	0.15		ppbV	1	4/1/2020 3:20:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Hexane	0.26	0.15		ppbV	1	4/1/2020 3:20:00 PM
Isopropyl alcohol	1.5	0.15		ppbV	1	4/1/2020 3:20:00 PM
m&p-Xylene	0.38	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Ethyl Ketone	0.53	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 3:20:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 3:20:00 PM
o-Xylene	0.18	0.15		ppbV	1	4/1/2020 3:20:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 3:20:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Toluene	0.48	0.15		ppbV	1	4/1/2020 3:20:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Trichloroethene	0.59	0.030		ppbV	1	4/1/2020 3:20:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 3:20:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 3:20:00 PM
Surr: Bromofluorobenzene	100	70-130		%REC	1	4/1/2020 3:20:00 PM

Qualifiers:	SC	Sub-Contracted	.	Results reported are not blank corrected	
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection	
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit	

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 3:20:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 3:20:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 3:20:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 3:20:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 3:20:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 3:20:00 PM
1,3,5-Trimethylbenzene	0.64	0.74	J	ug/m3	1	4/1/2020 3:20:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 3:20:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 3:20:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
2,2,4-trimethylpentane	0.56	0.70	J	ug/m3	1	4/1/2020 3:20:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 3:20:00 PM
Acetone	21	7.1		ug/m3	10	4/2/2020 1:29:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 3:20:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 3:20:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 3:20:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 3:20:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 3:20:00 PM
Carbon disulfide	0.47	0.47		ug/m3	1	4/1/2020 3:20:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 3:20:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 3:20:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 3:20:00 PM
Chloroform	1.1	0.73		ug/m3	1	4/1/2020 3:20:00 PM
Chloromethane	0.85	0.31		ug/m3	1	4/1/2020 3:20:00 PM
cis-1,2-Dichloroethene	0.20	0.16		ug/m3	1	4/1/2020 3:20:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 3:20:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 3:20:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 3:20:00 PM
Ethyl acetate	2.5	0.54		ug/m3	1	4/1/2020 3:20:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 3:20:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 3:20:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 3:20:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	604
Lab Order:	C2004002	**Tag Number:**	544,372
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-003A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 3:20:00 PM
Heptane	1.1	0.61		ug/m3	1	4/1/2020 3:20:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 3:20:00 PM
Hexane	0.92	0.53		ug/m3	1	4/1/2020 3:20:00 PM
Isopropyl alcohol	3.7	0.37		ug/m3	1	4/1/2020 3:20:00 PM
m&p-Xylene	1.6	1.3		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Ethyl Ketone	1.6	0.88		ug/m3	1	4/1/2020 3:20:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 3:20:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 3:20:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 3:20:00 PM
o-Xylene	0.78	0.65		ug/m3	1	4/1/2020 3:20:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 3:20:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 3:20:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 3:20:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 3:20:00 PM
Toluene	1.8	0.57		ug/m3	1	4/1/2020 3:20:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 3:20:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 3:20:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 3:20:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 3:20:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040107.D Vial: 3
Acq On : 1 Apr 2020 3:20 pm Operator: RJP
Sample : C2004002-003A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:13 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

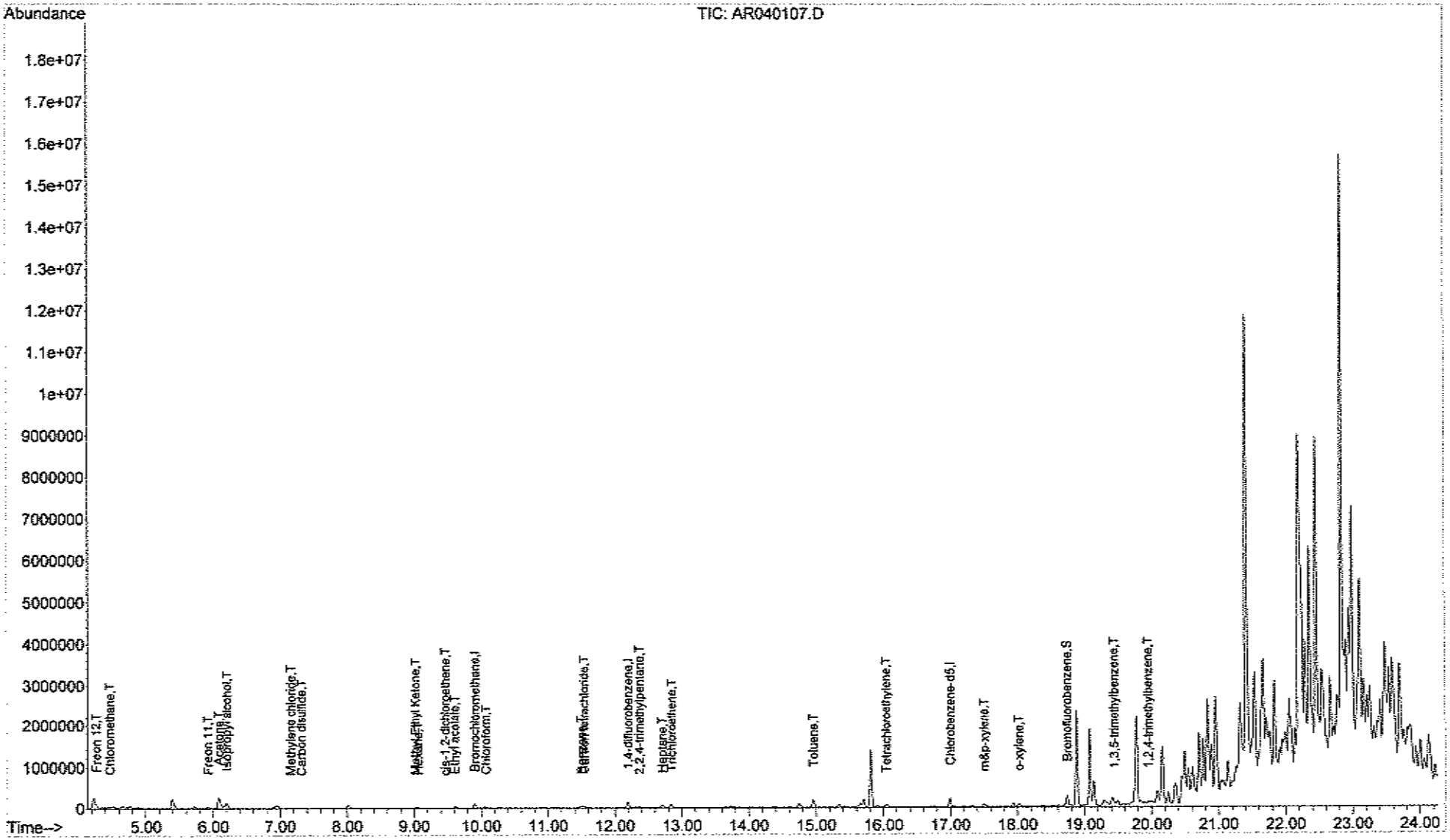
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	41144	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	146752	1.00	ppb		0.01
50) Chlorobenzene-d5	17.00	117	144661	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	104194	1.00	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery =	100.00%			
Target Compounds							Qvalue
3) Freon 12	4.27	85	84448	0.46	ppb		96
4) Chloromethane	4.46	50	16197	0.41	ppb		90
14) Freon 11	5.92	101	50172	0.26	ppb		99
15) Acetone	6.09	58	162572	7.25	ppb	#	100
17) Isopropyl alcohol	6.20	45	78670	1.49	ppb	#	1
21) Methylene chloride	7.15	84	9591	0.20	ppb		91
23) Carbon disulfide	7.31	76	21322	0.15	ppb		97
28) Methyl Ethyl Ketone	9.01	72	9921	0.53	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	2972	0.05	ppb		92
30) Hexane	9.06	57	13784	0.26	ppb	#	78
31) Ethyl acetate	9.60	43	59165	0.69	ppb		99
32) Chloroform	10.07	83	27373	0.23	ppb		99
38) Carbon tetrachloride	11.54	117	12466	0.09	ppb		100
39) Benzene	11.51	78	27926	0.23	ppb		97
42) 2,2,4-trimethylpentane	12.37	57	19293	0.12	ppb		74
43) Heptane	12.71	43	14082	0.28	ppb	#	72
44) Trichloroethene	12.84	130	36710	0.59	ppb		99
51) Toluene	14.95	92	40840	0.48	ppb		99
56) Tetrachloroethylene	16.03	164	8080	0.11	ppb		99
59) m&p-xylene	17.50	91	59508	0.38	ppb		99
63) o-xylene	18.03	91	34974	0.18	ppb		100
70) 1,3,5-trimethylbenzene	19.45	105	25368m	0.13	ppb		
71) 1,2,4-trimethylbenzene	19.95	105	43244	0.26	ppb		100

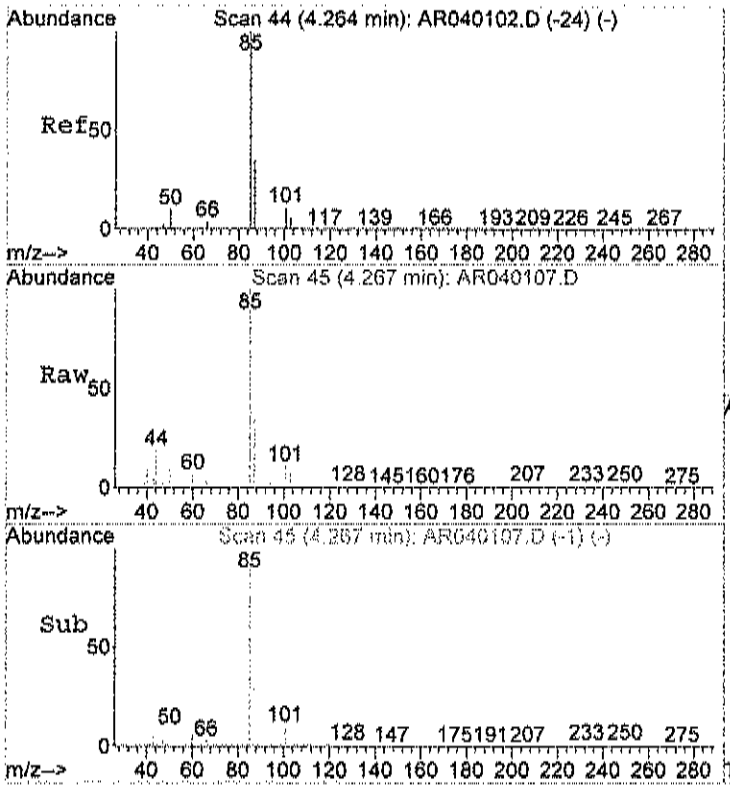
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040107.D Vial: 3
Acq On : 1 Apr 2020 3:20 pm Operator: RJP
Sample : C2004002-003A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:54 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

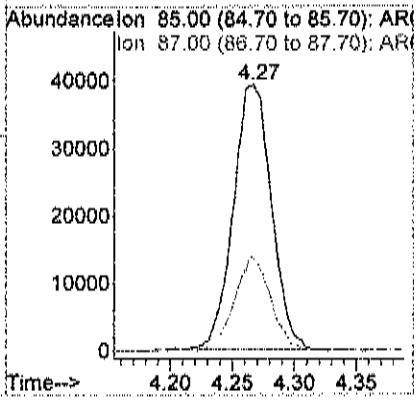


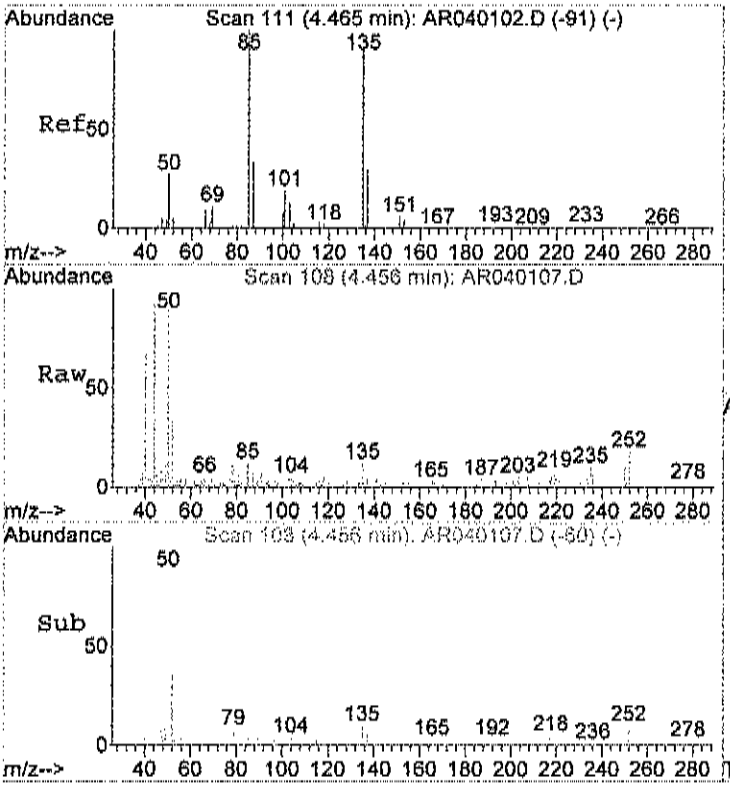


#3
Freon 12
Concen: 0.46 ppb
RT: 4.27 min Scan# 45
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 85 Resp: 84448

Ion	Ratio	Lower	Upper
85	100		
87	33.9	11.9	51.9

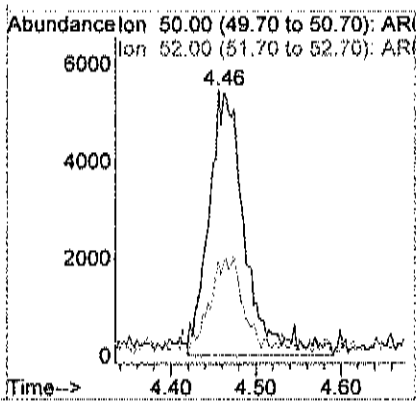


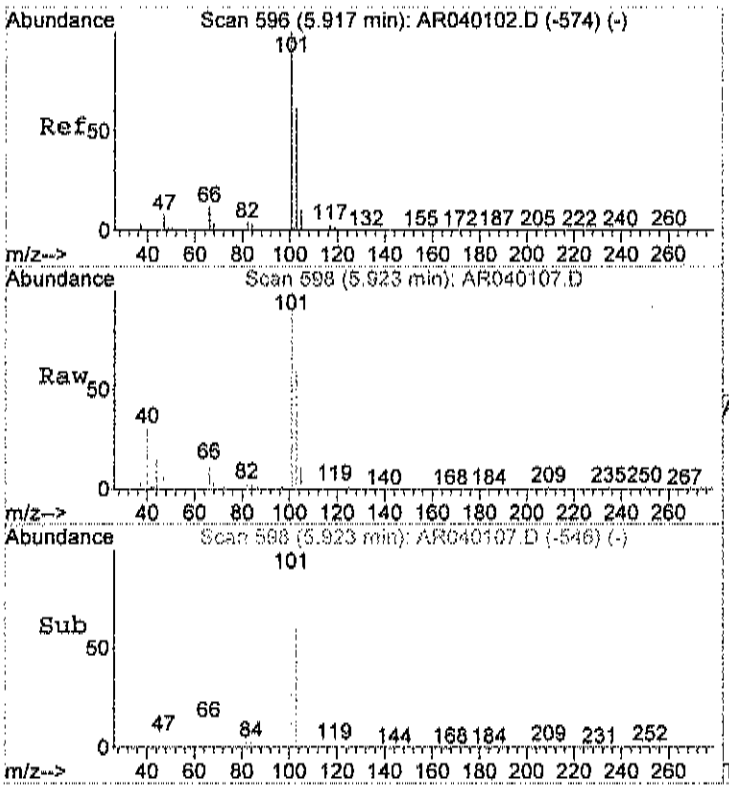


#4
Chloromethane
Concen: 0.41 ppb
RT: 4.46 min Scan# 108
Delta R.T. -0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 50 Resp: 16197

Ion	Ratio	Lower	Upper
50	100		
52	31.4	6.1	46.1

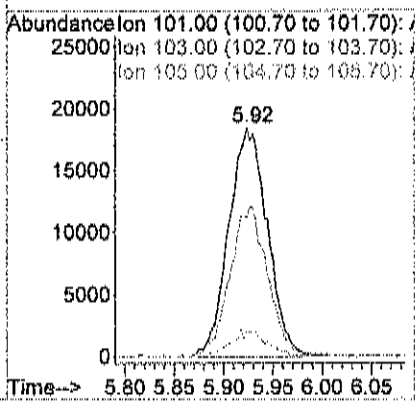


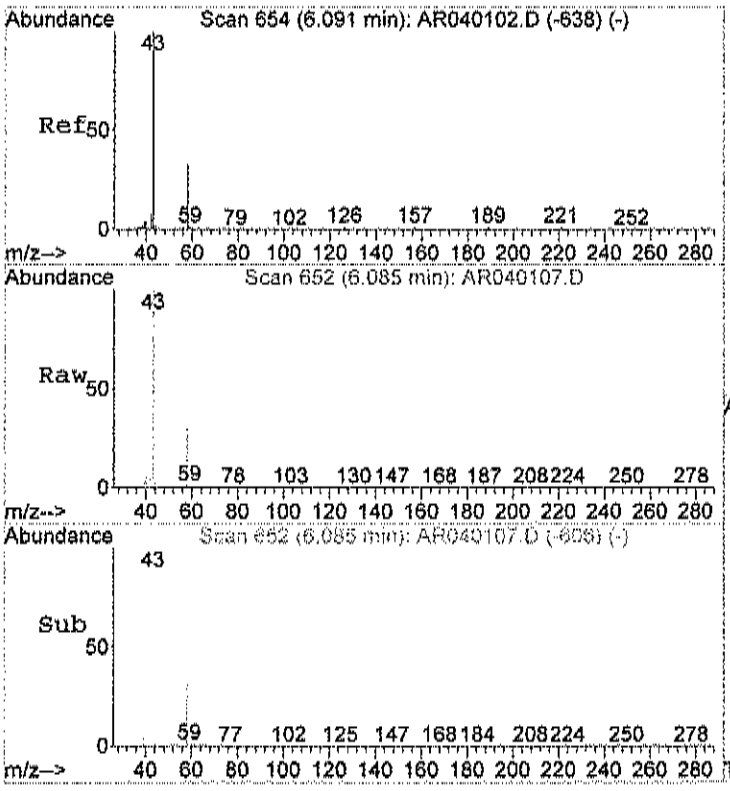


#14
Freon 11
Concen: 0.26 ppb
RT: 5.92 min Scan# 598
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:101 Resp: 50172

Ion	Ratio	Lower	Upper
101	100		
103	63.7	44.2	84.2
105	10.8	0.0	30.3

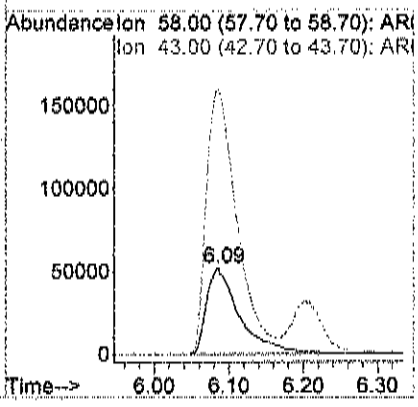


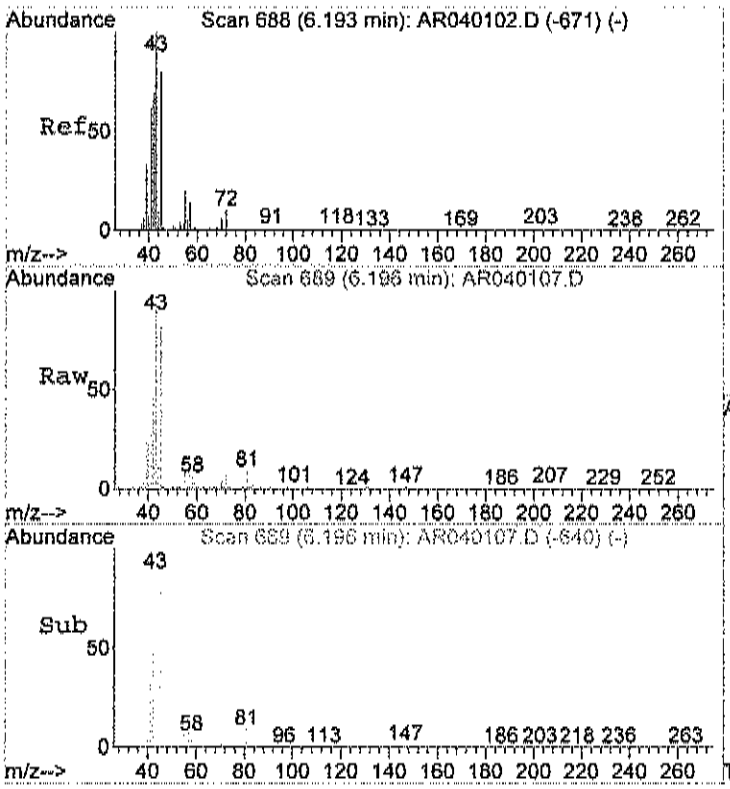


#15
Acetone
Concen: 7.25 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 58 Resp: 162572

Ion	Ratio	Lower	Upper
58	100		
43	335.0	0.0	30.0#

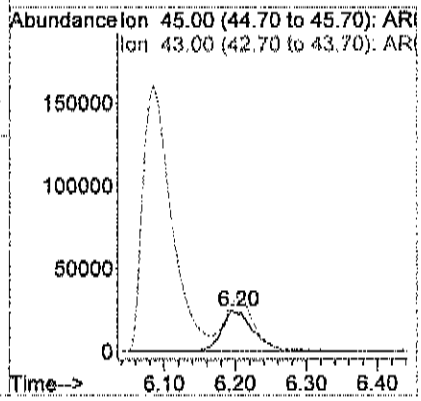


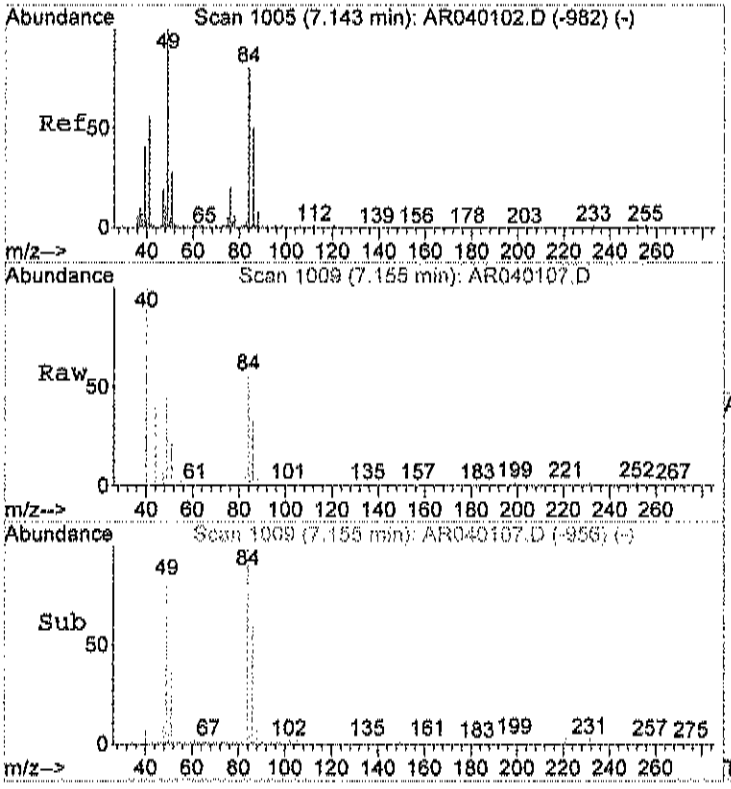


#17
Isopropyl alcohol
Concen: 1.49 ppb
RT: 6.20 min Scan# 689
Delta R.T. -0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 45 Resp: 78670

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

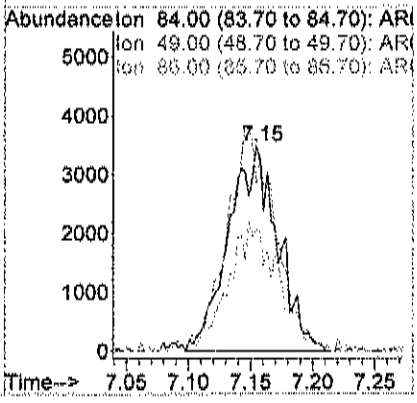


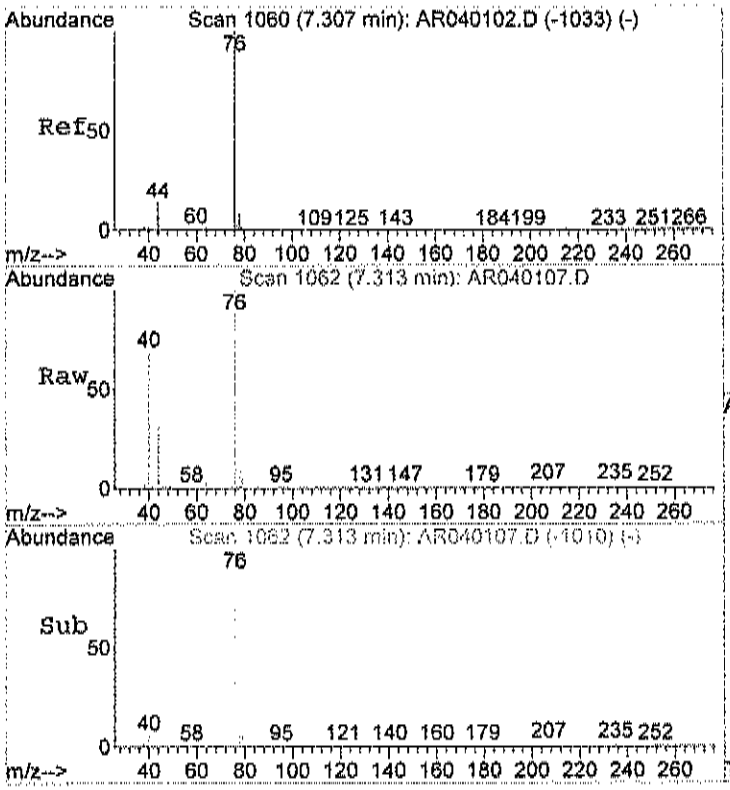


#21
Methylene chloride
Concen: 0.20 ppb
RT: 7.15 min Scan# 1009
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 84 Resp: 9591

Ion	Ratio	Lower	Upper
84	100		
49	107.3	101.4	141.4
86	63.8	45.4	85.4

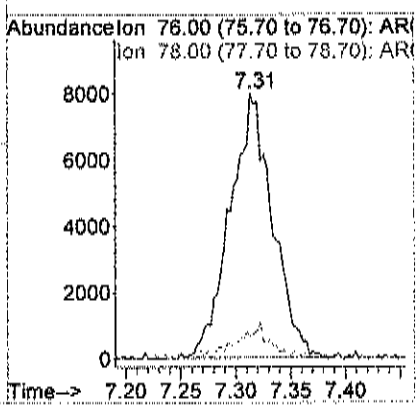


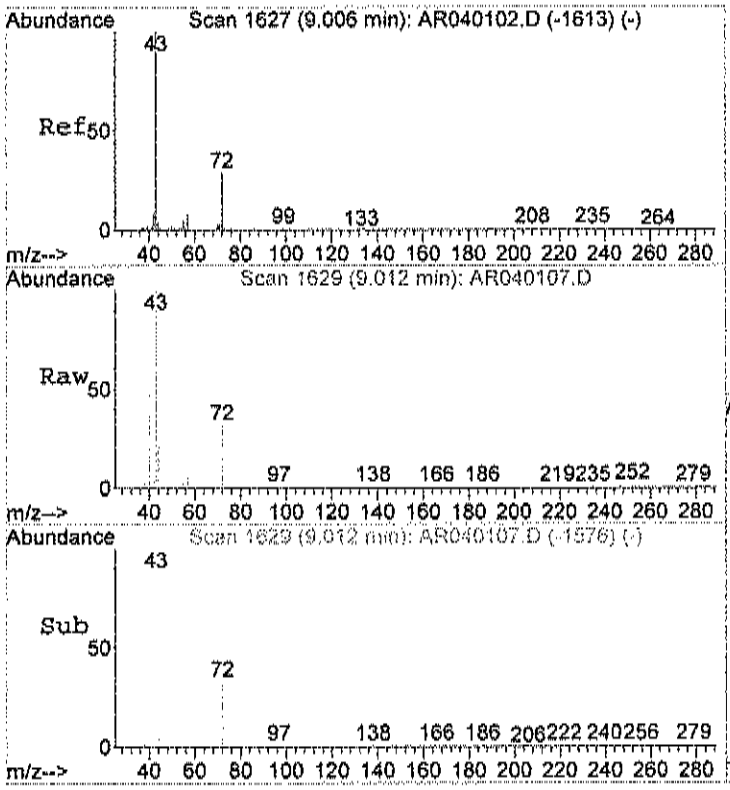


#23
Carbon disulfide
Concen: 0.15 ppb
RT: 7.31 min Scan# 1062
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 76 Resp: 21322

Ion	Ratio	Lower	Upper
76	100		
78	10.7	0.0	29.7

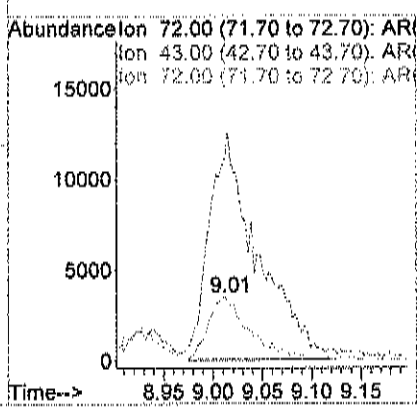


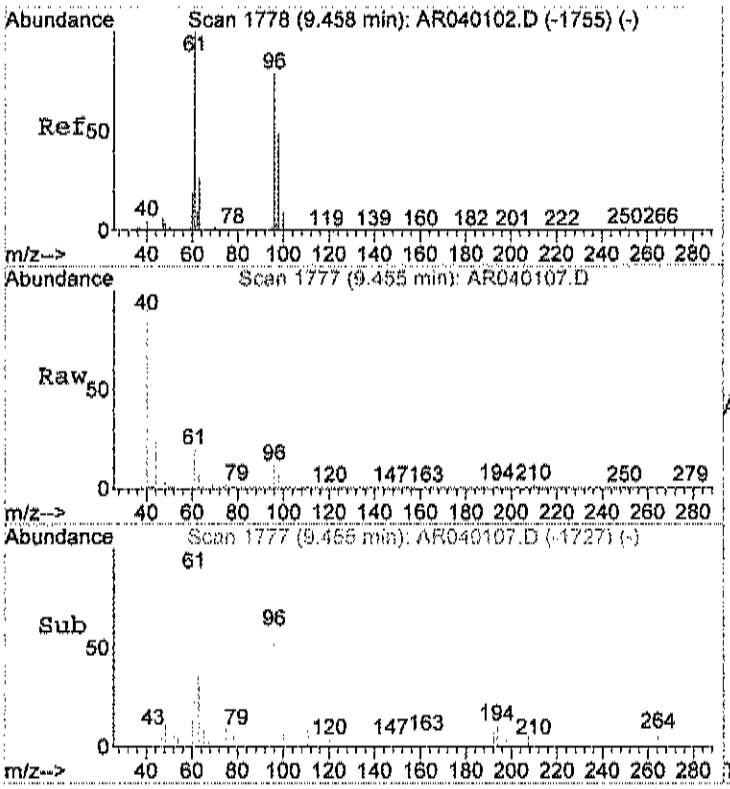


#28
Methyl Ethyl Ketone
Concen: 0.53 ppb
RT: 9.01 min Scan# 1629
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 72 Resp: 9921

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

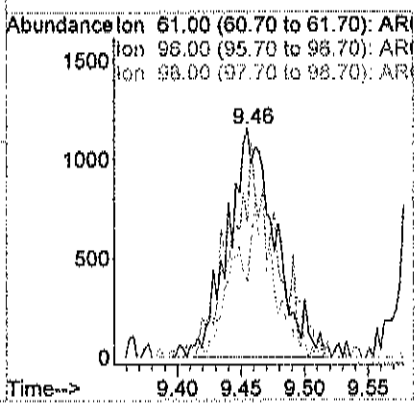


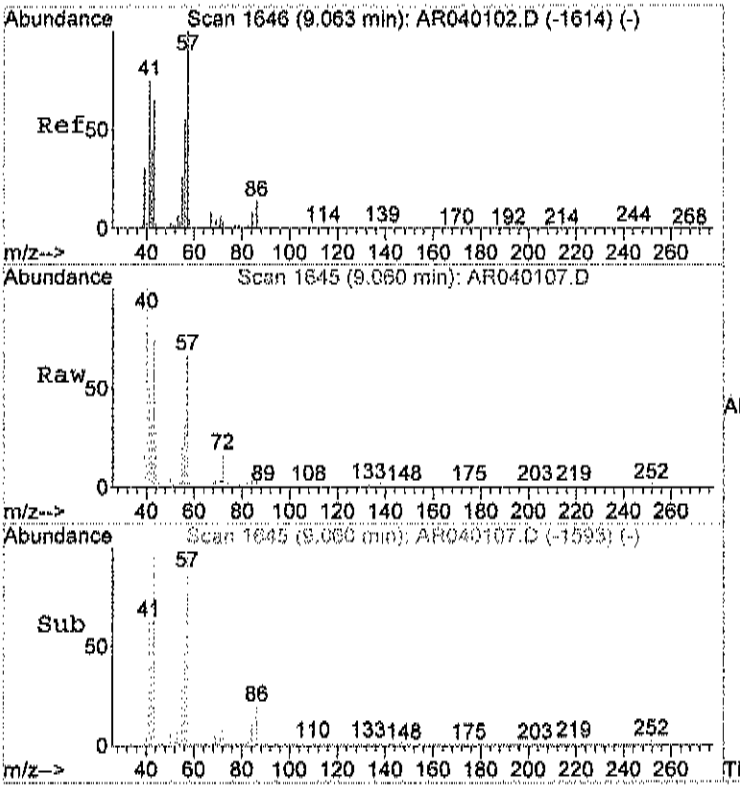


#29
cis-1,2-dichloroethene
Concen: 0.05 ppb
RT: 9.46 min Scan# 1777
Delta R.T. -0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 61 Resp: 2972

Ion	Ratio	Lower	Upper
61	100		
96	82.4	57.9	97.9
98	56.8	28.8	68.8

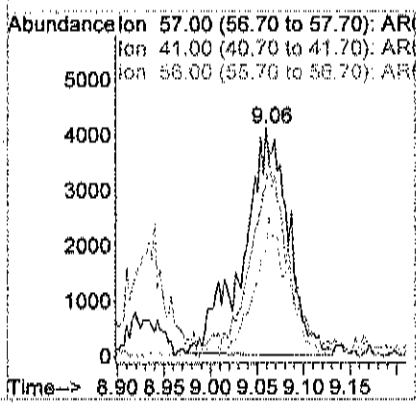


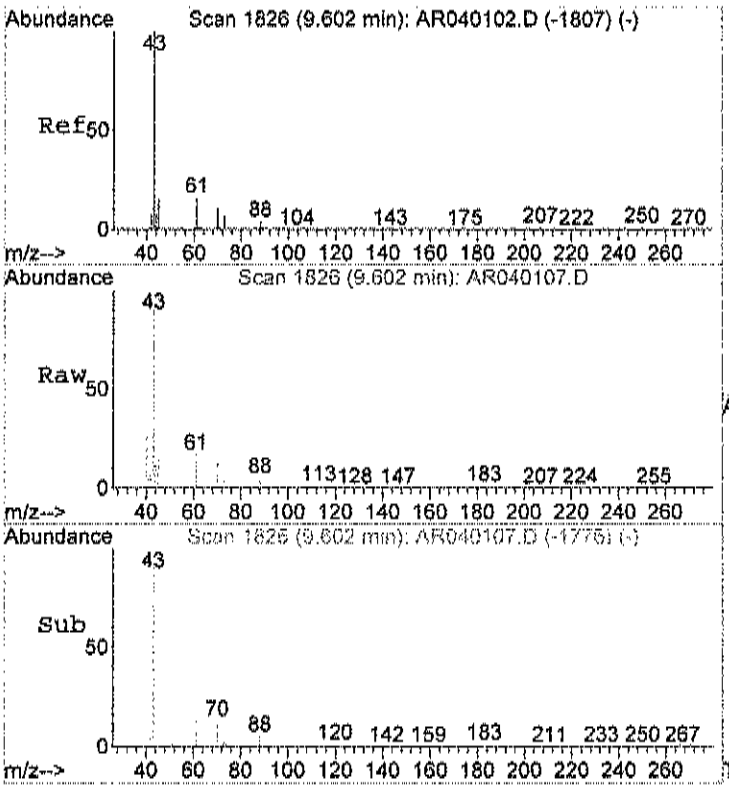


#30
Hexane
Concen: 0.26 ppb
RT: 9.06 min Scan# 1645
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 57 Resp: 13784

Ion	Ratio	Lower	Upper
57	100		
41	100.5	55.7	95.7#
56	44.9	32.4	72.4

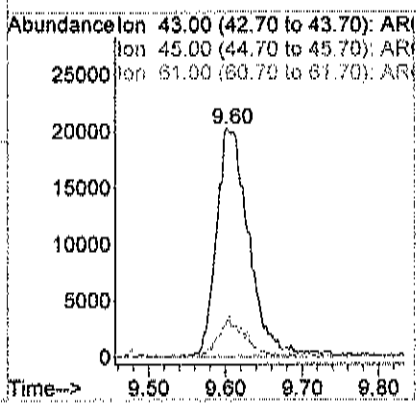


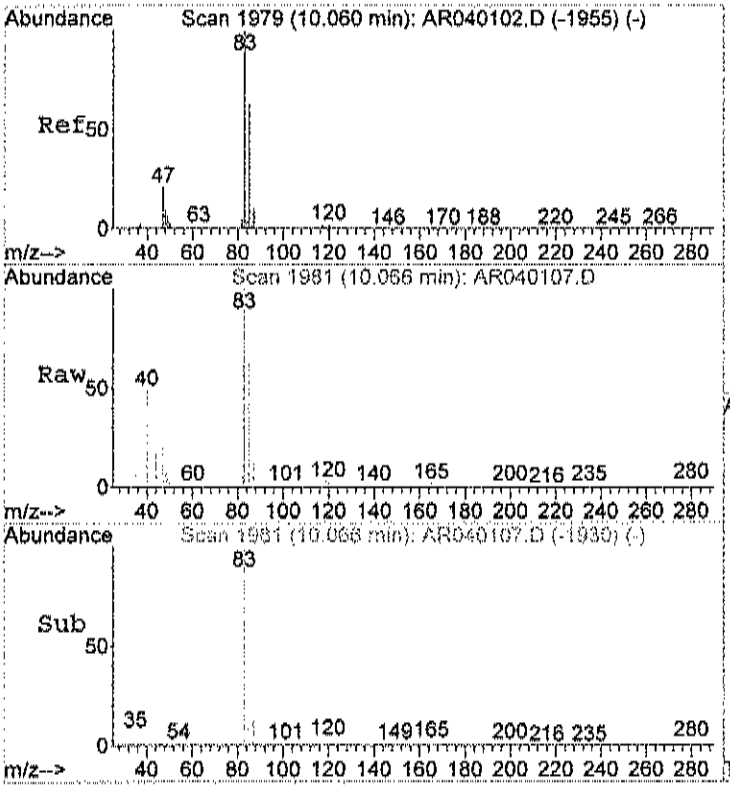


#31
Ethyl acetate
Concen: 0.69 ppb
RT: 9.60 min Scan# 1826
Delta R.T. -0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 43 Resp: 59165

Ion	Ratio	Lower	Upper
43	100		
45	14.7	0.0	34.5
61	15.5	0.0	35.8

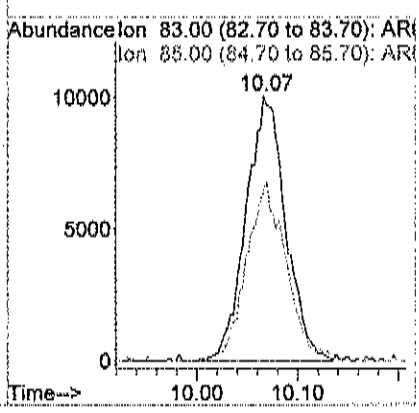


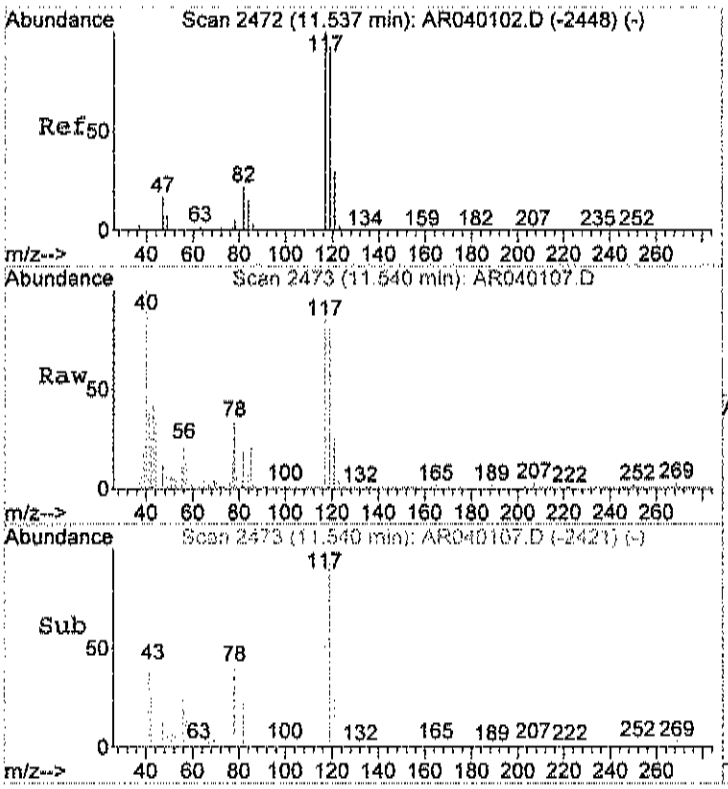


#32
Chloroform
Concen: 0.23 ppb
RT: 10.07 min Scan# 1981
Delta R.T. 0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 83 Resp: 27373

Ion	Ratio	Lower	Upper
83	100		
85	67.7	46.5	86.5

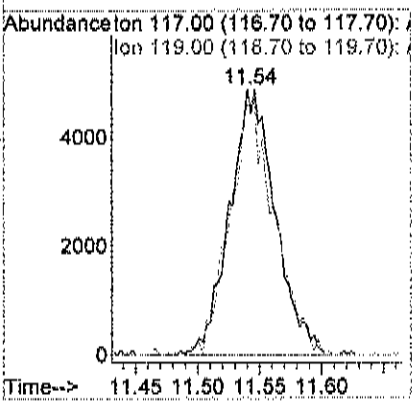


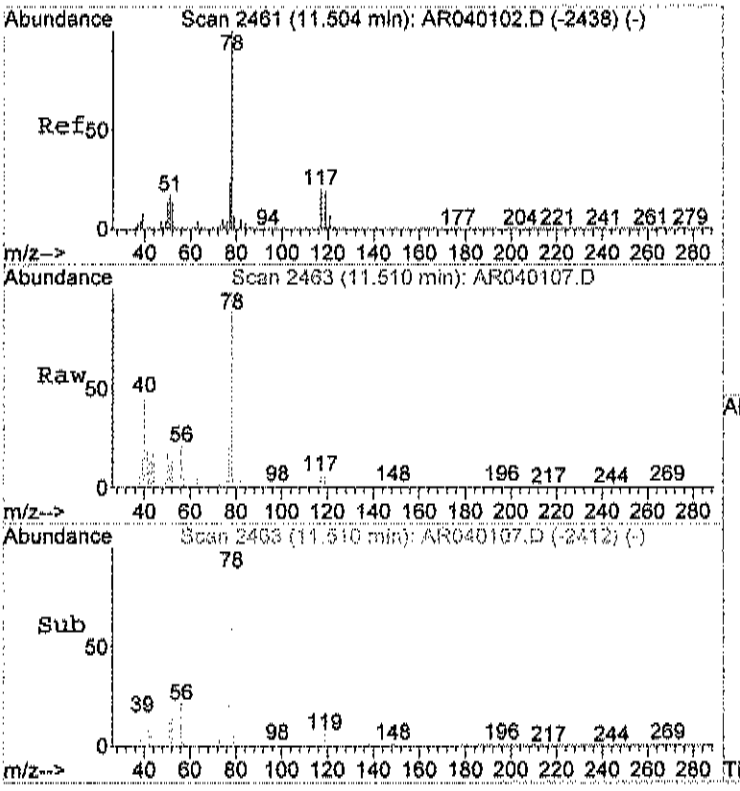


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.54 min Scan# 2473
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:117 Resp: 12466

Ion	Ratio	Lower	Upper
117	100		
119	95.4	75.6	115.6

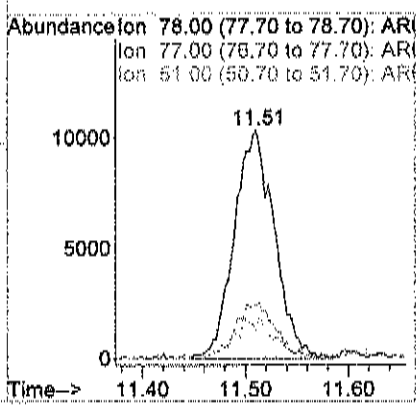


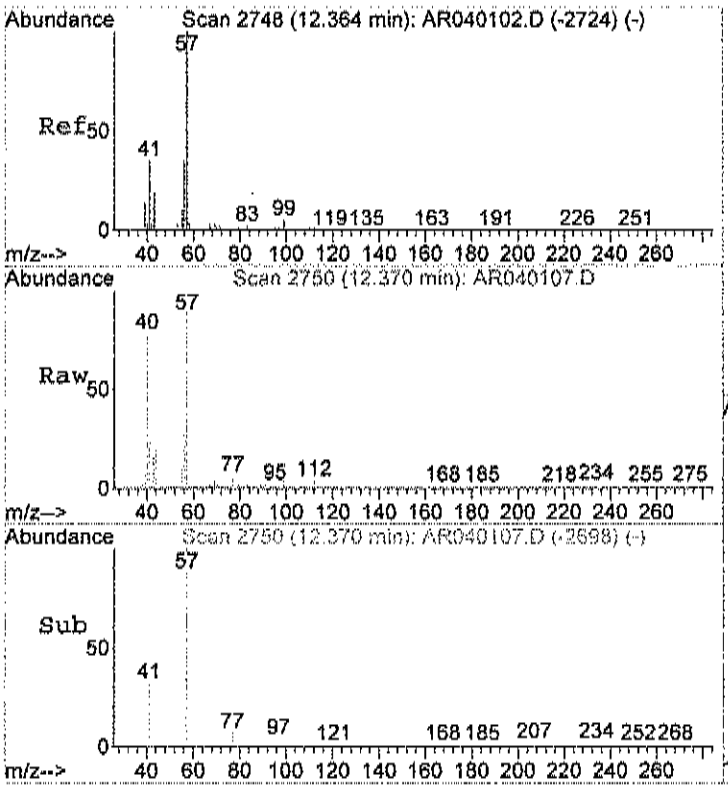


#39
Benzene
Concen: 0.23 ppb
RT: 11.51 min Scan# 2463
Delta R.T. 0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 78 Resp: 27926

Ion	Ratio	Lower	Upper
78	100		
77	24.5	4.1	44.1
51	19.3	0.0	36.8

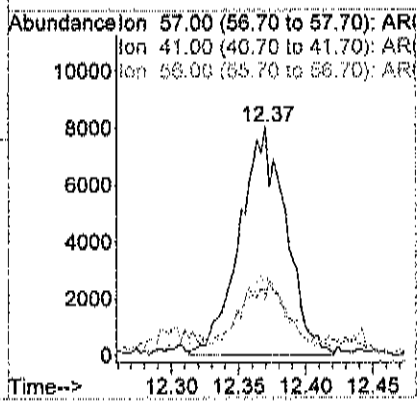


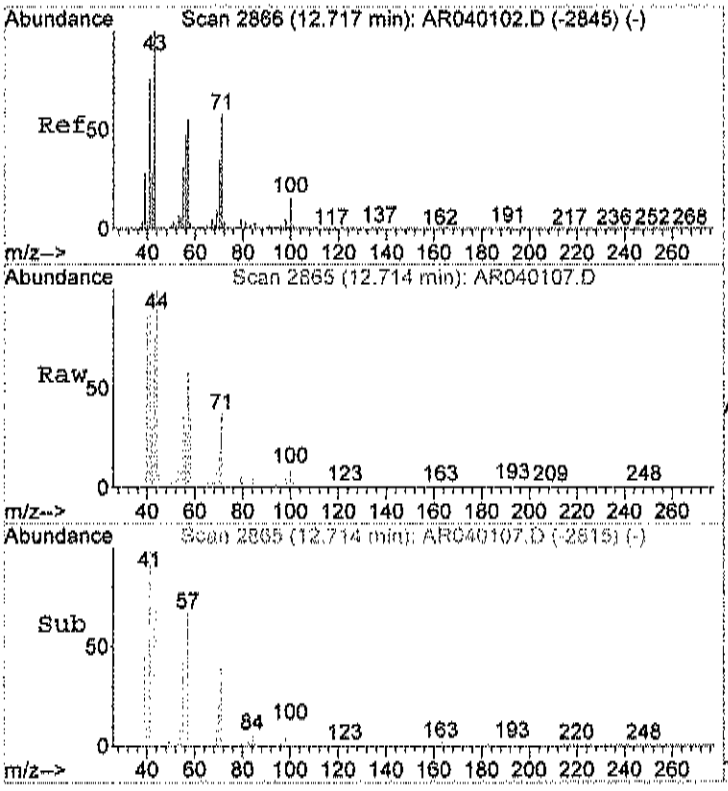


#42
2,2,4-trimethylpentane
Concen: 0.12 ppb
RT: 12.37 min Scan# 2750
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 57 Resp: 19293

Ion	Ratio	Lower	Upper
57	100		
41	45.3	12.1	52.1
56	48.3	12.7	52.7

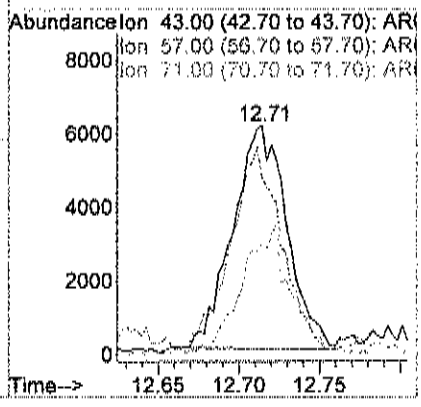


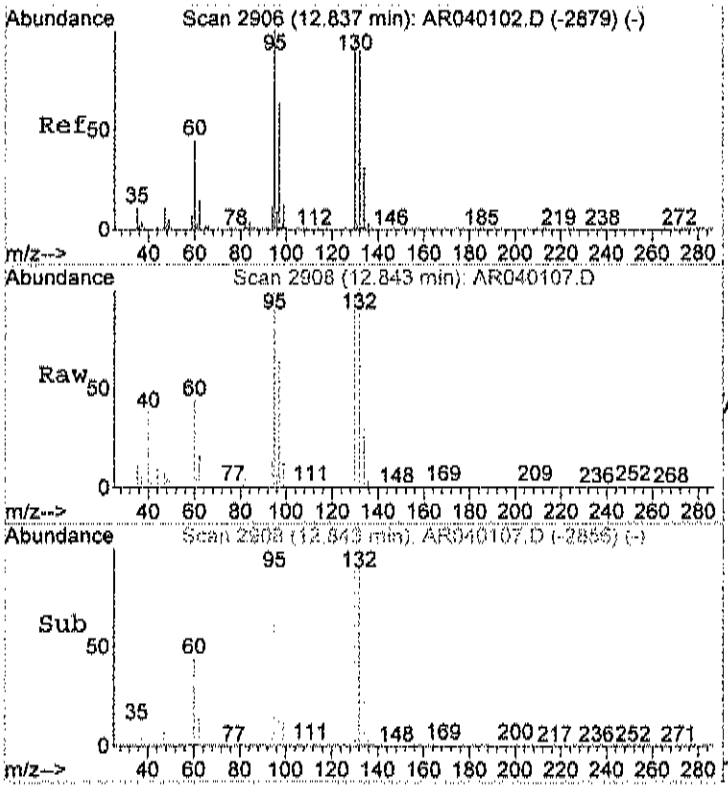


#43
Heptane
Concen: 0.28 ppb
RT: 12.71 min Scan# 2865
Delta R.T. -0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 43 Resp: 14082

Ion	Ratio	Lower	Upper
43	100		
57	88.6	36.0	76.0#
71	52.5	42.5	82.5

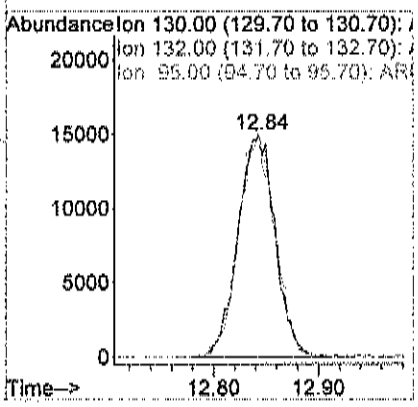


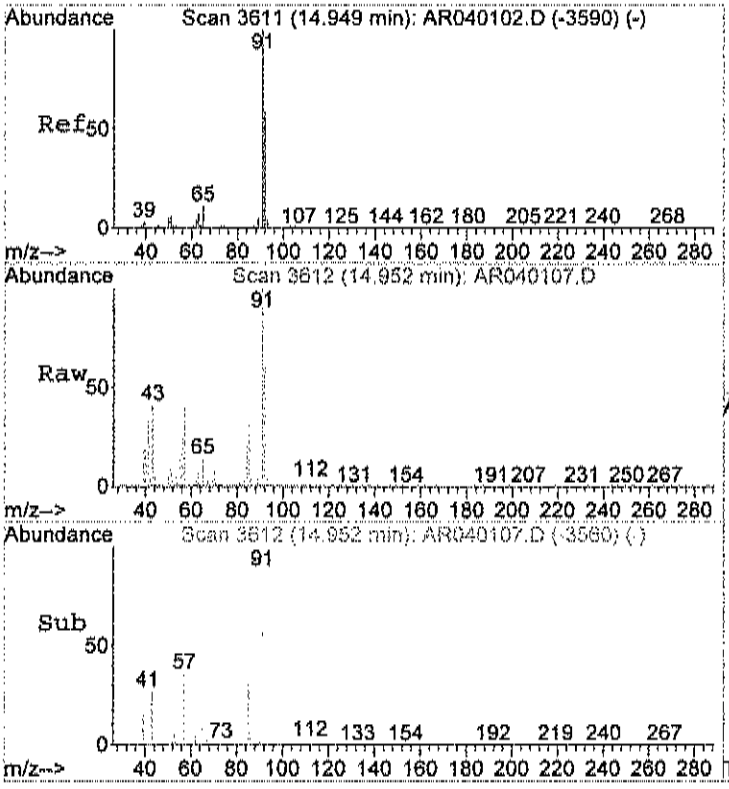


#44
Trichloroethene
Concen: 0.59 ppb
RT: 12.84 min Scan# 2908
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:130 Resp: 36710

Ion	Ratio	Lower	Upper
130	100		
132	97.8	76.9	116.9
95	100.0	78.6	118.6

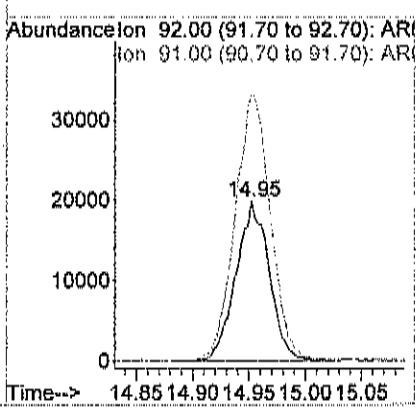


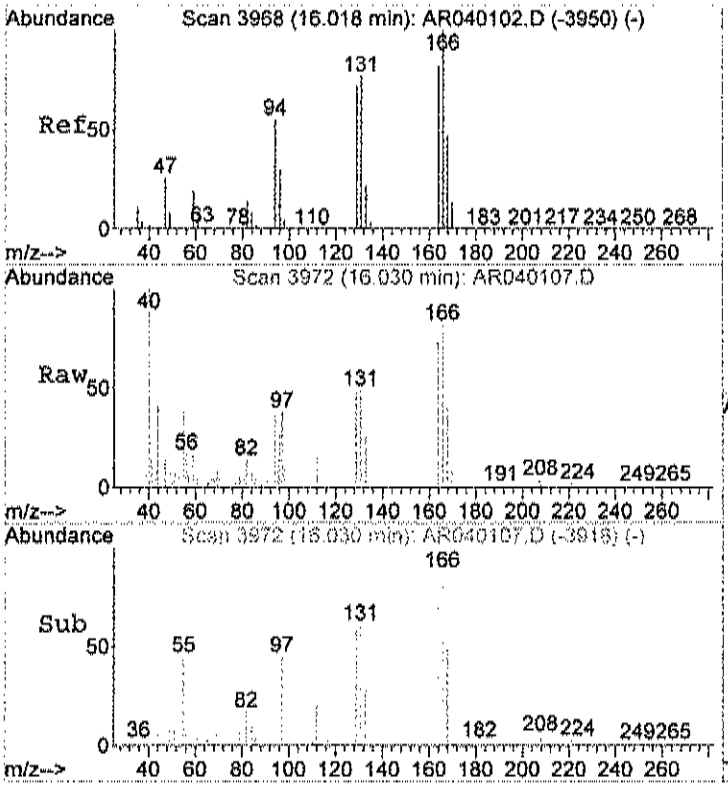


#51
Toluene
Concen: 0.48 ppb
RT: 14.95 min Scan# 3612
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 92 Resp: 40840

Ion	Ratio	Lower	Upper
92	100		
91	175.4	154.5	194.5

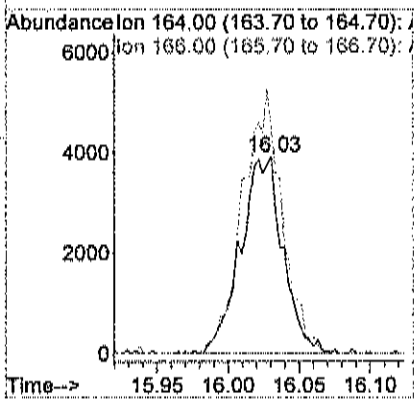


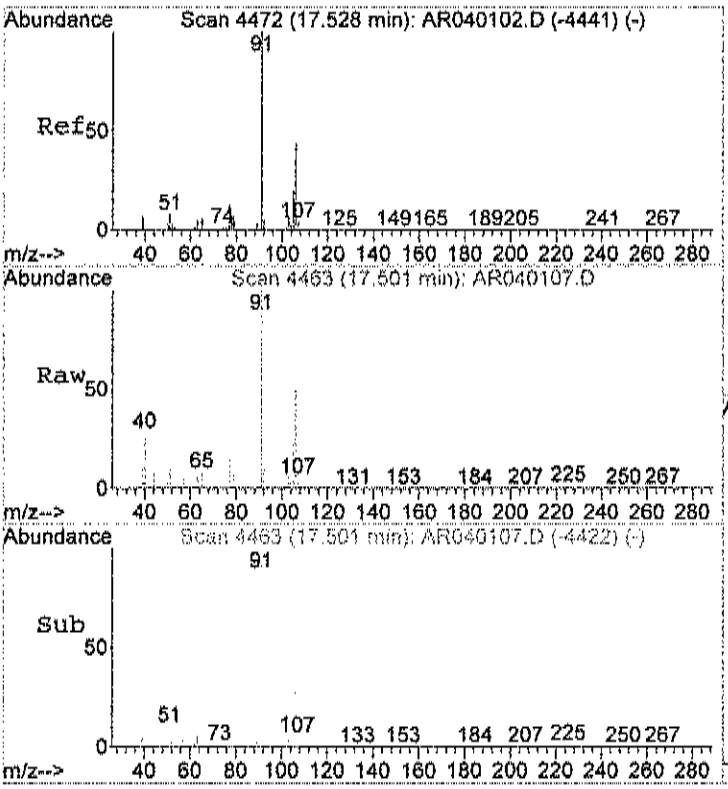


#56
Tetrachloroethylene
Concen: 0.11 ppb
RT: 16.03 min Scan# 3972
Delta R.T. 0.01 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:164 Resp: 8080

Ion	Ratio	Lower	Upper
164	100		
166	124.8	106.4	146.4

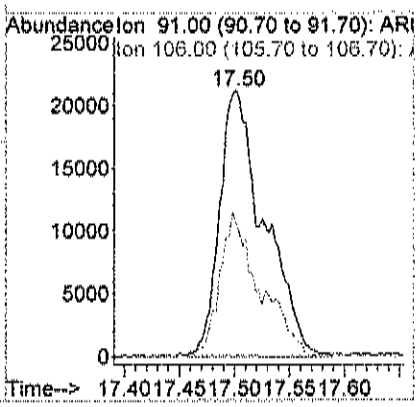


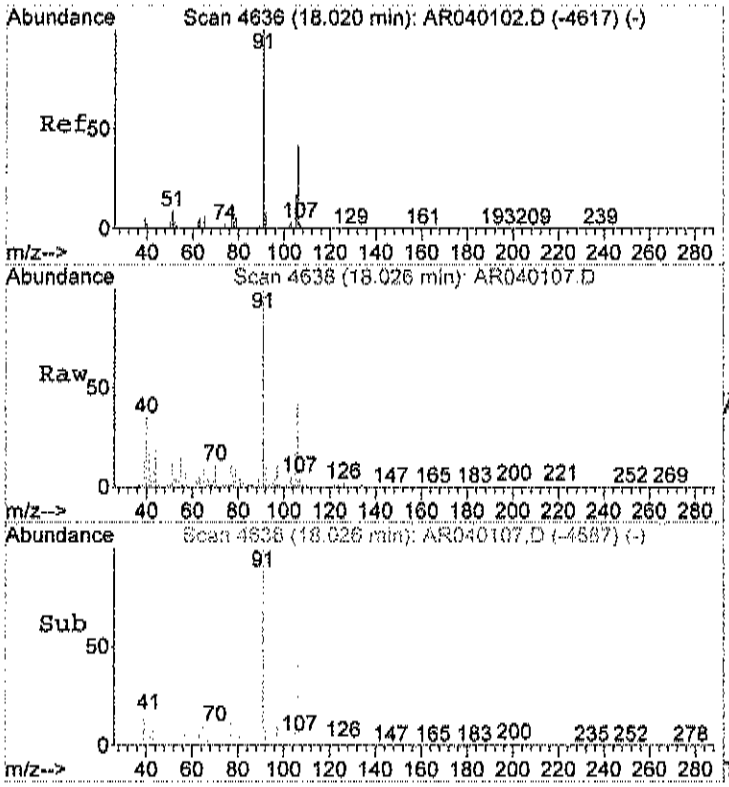


#59
m&p-xylene
Concen: 0.38 ppb
RT: 17.50 min Scan# 4463
Delta R.T. -0.03 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 91 Resp: 59508

Ion	Ratio	Lower	Upper
91	100		
106	49.6	29.0	69.0

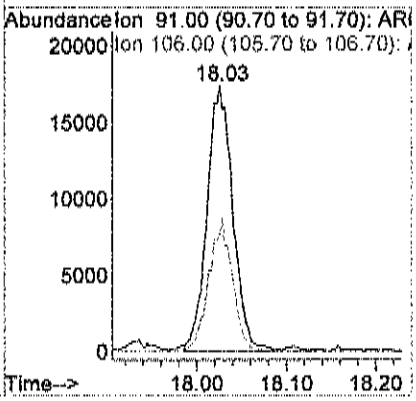


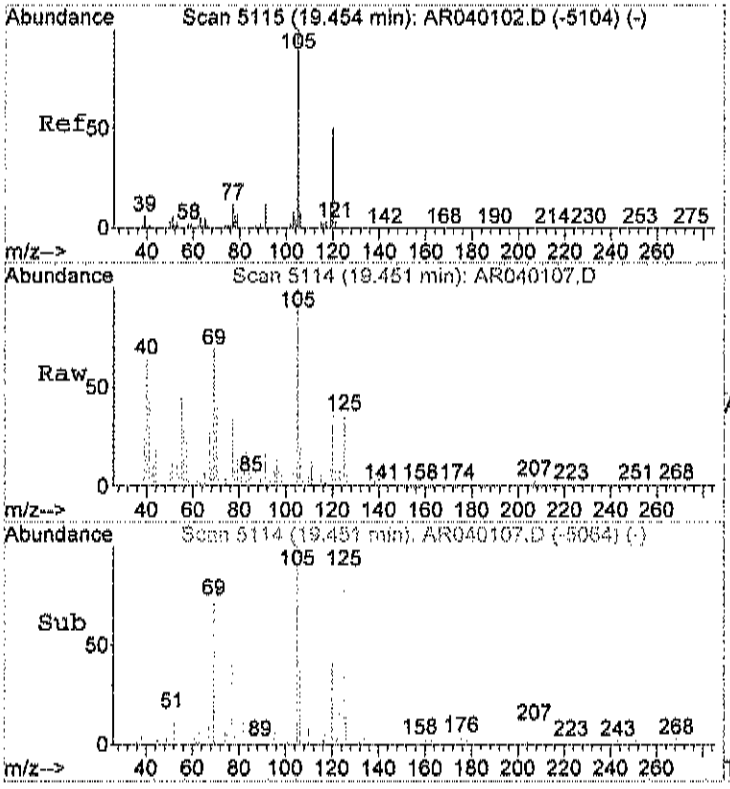


#63
o-xylene
Concen: 0.18 ppb
RT: 18.03 min Scan# 4638
Delta R.T. 0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion: 91 Resp: 34974

Ion	Ratio	Lower	Upper
91	100		
106	45.9	26.2	66.2

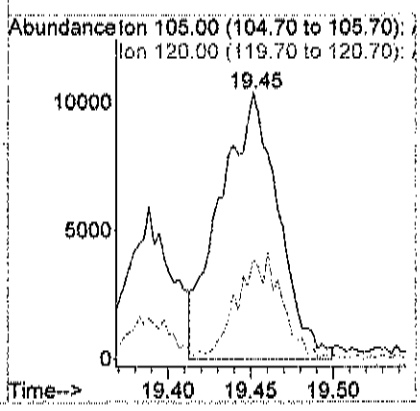


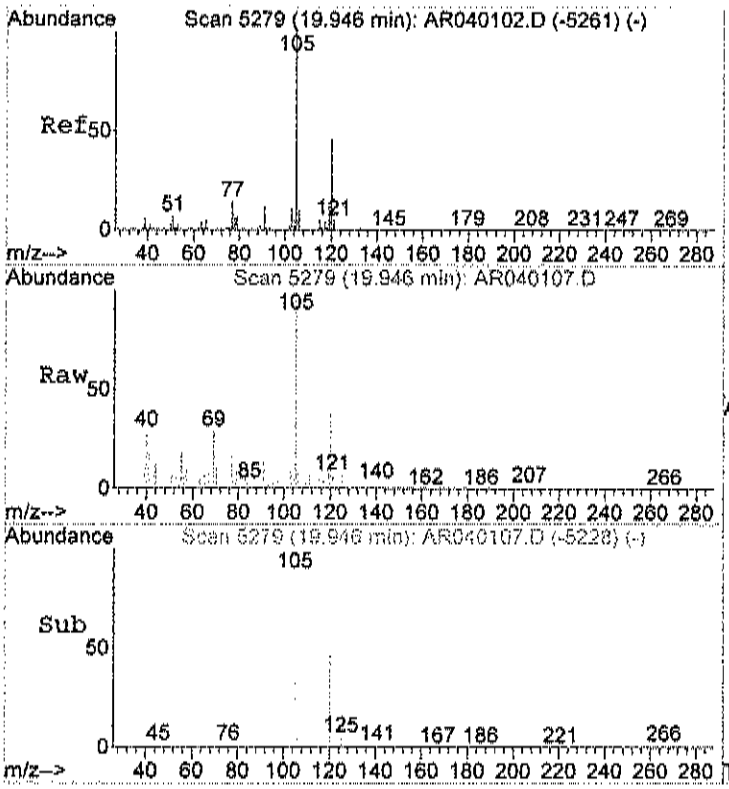


#70
1,3,5-trimethylbenzene
Concen: 0.13 ppb m
RT: 19.45 min Scan# 5114
Delta R.T. -0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:105 Resp: 25368

Ion	Ratio	Lower	Upper
105	100		
120	29.9	28.2	68.2

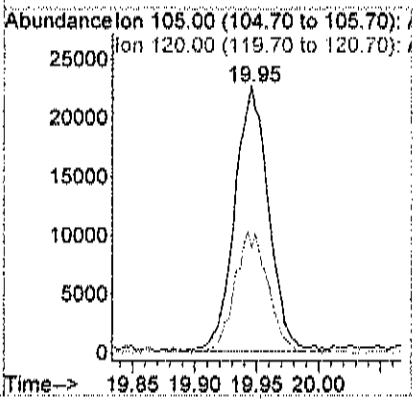




#71
1,2,4-trimethylbenzene
Concen: 0.26 ppb
RT: 19.95 min Scan# 5279
Delta R.T. 0.00 min
Lab File: AR040107.D
Acq: 1 Apr 2020 3:20 pm

Tgt Ion:105 Resp: 43244

Ion	Ratio	Lower	Upper
105	100		
120	44.9	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040120.D Vial: 3
Acq On : 2 Apr 2020 1:29 am Operator: RJP
Sample : C2004002-003A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:26 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

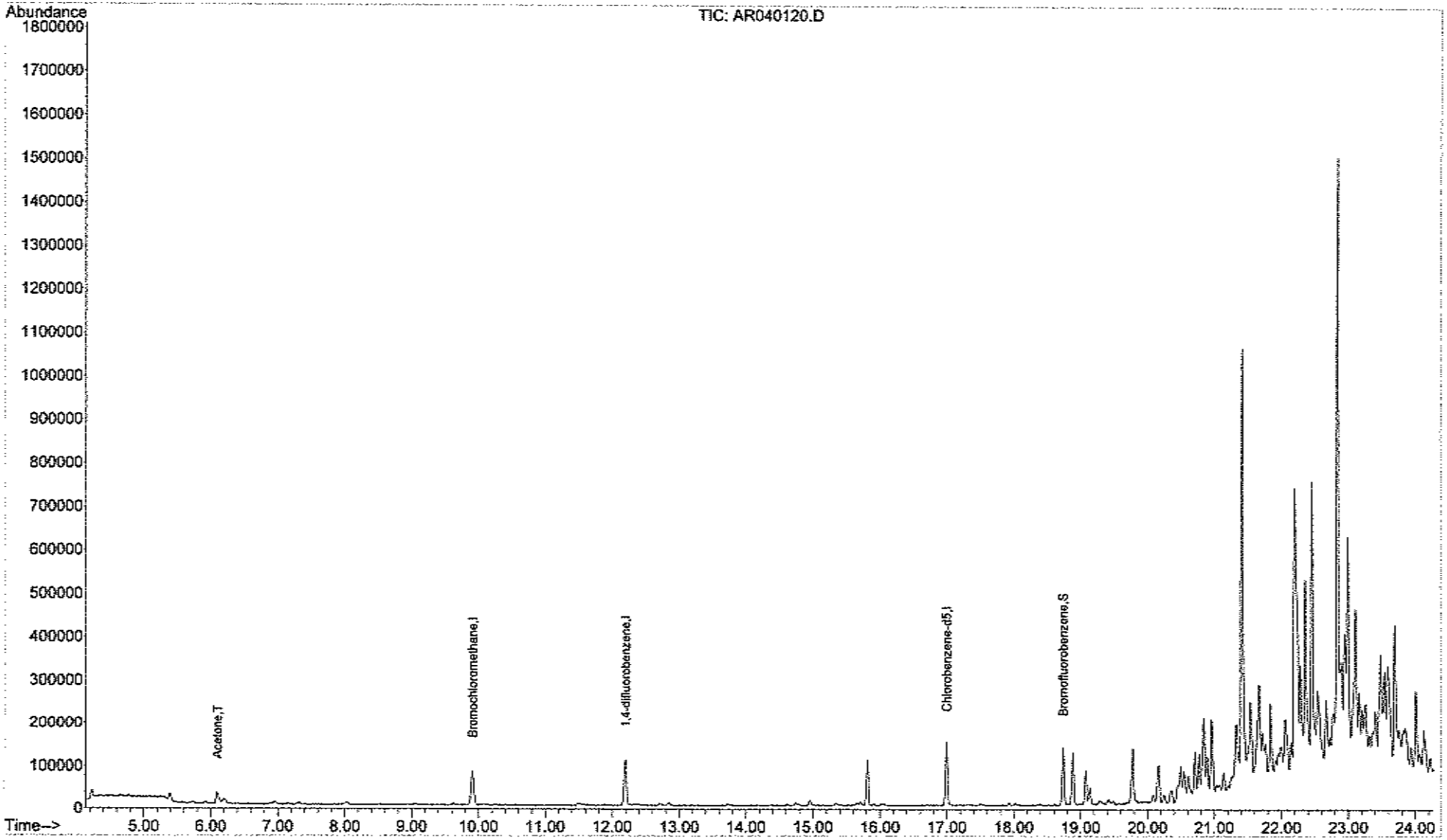
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	35204	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	113787	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	98911	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	51387	0.72	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 72.00%			
Target Compounds						Qvalue
15) Acetone	6.10	58	17048	0.89	ppb	# 100

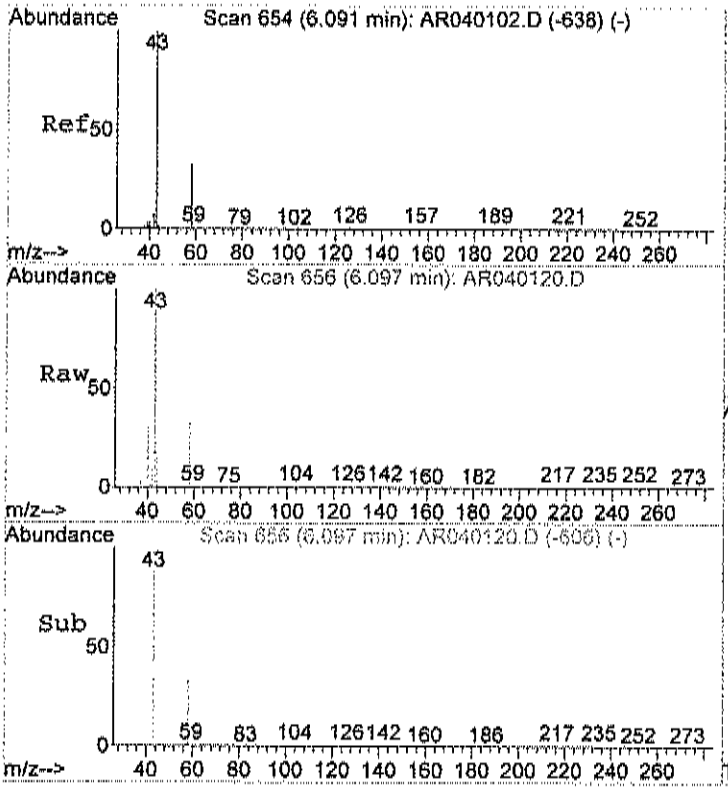
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040120.D Vial: 3
Acq On : 2 Apr 2020 1:29 am Operator: RJP
Sample : C2004002-003A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:18 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

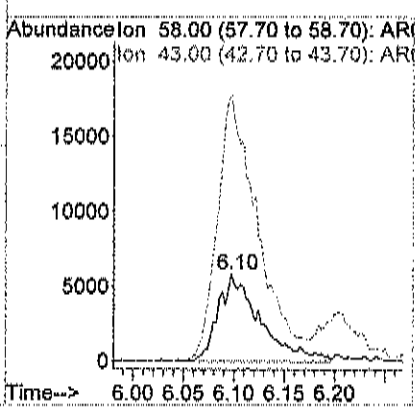




#15
Acetone
Concen: 0.89 ppb
RT: 6.10 min Scan# 656
Delta R.T. 0.00 min
Lab File: AR040120.D
Acq: 2 Apr 2020 1:29 am

Tgt Ion: 58 Resp: 17048

Ion	Ratio	Lower	Upper
58	100		
43	333.3	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:07:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2,4-Trimethylbenzene	0.27	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,3,5-Trimethylbenzene	0.13	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
2,2,4-trimethylpentane	0.14	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Acetone	7.2	3.0		ppbV	10	4/2/2020 2:15:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Benzene	0.25	0.15		ppbV	1	4/1/2020 4:07:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Carbon disulfide	0.17	0.15		ppbV	1	4/1/2020 4:07:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 4:07:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Chloroform	0.12	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Chloromethane	0.35	0.15		ppbV	1	4/1/2020 4:07:00 PM
cis-1,2-Dichloroethene	0.050	0.040		ppbV	1	4/1/2020 4:07:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Cyclohexane	0.30	0.15		ppbV	1	4/1/2020 4:07:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Ethyl acetate	0.80	0.15		ppbV	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Freon 11	0.26	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Freon 12	0.44	0.15		ppbV	1	4/1/2020 4:07:00 PM
Heptane	0.31	0.15		ppbV	1	4/1/2020 4:07:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Hexane	0.28	0.15		ppbV	1	4/1/2020 4:07:00 PM
Isopropyl alcohol	1.5	0.15		ppbV	1	4/1/2020 4:07:00 PM
m&p-Xylene	0.42	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Ethyl Ketone	0.60	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:07:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Methylene chloride	0.19	0.15		ppbV	1	4/1/2020 4:07:00 PM
o-Xylene	0.21	0.15		ppbV	1	4/1/2020 4:07:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 4:07:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Toluene	0.56	0.15		ppbV	1	4/1/2020 4:07:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Trichloroethene	0.59	0.030		ppbV	1	4/1/2020 4:07:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 4:07:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 4:07:00 PM
Surr: Bromofluorobenzene	103	70-130		%REC	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:07:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:07:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:07:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:07:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
1,2,4-Trimethylbenzene	1.3	0.74		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:07:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 4:07:00 PM
1,3,5-Trimethylbenzene	0.64	0.74	J	ug/m3	1	4/1/2020 4:07:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 4:07:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:07:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
2,2,4-trimethylpentane	0.65	0.70	J	ug/m3	1	4/1/2020 4:07:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 4:07:00 PM
Acetone	17	7.1		ug/m3	10	4/2/2020 2:15:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 4:07:00 PM
Benzene	0.80	0.48		ug/m3	1	4/1/2020 4:07:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 4:07:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 4:07:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 4:07:00 PM
Carbon disulfide	0.53	0.47		ug/m3	1	4/1/2020 4:07:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 4:07:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 4:07:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 4:07:00 PM
Chloroform	0.59	0.73	J	ug/m3	1	4/1/2020 4:07:00 PM
Chloromethane	0.72	0.31		ug/m3	1	4/1/2020 4:07:00 PM
cis-1,2-Dichloroethene	0.20	0.16		ug/m3	1	4/1/2020 4:07:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:07:00 PM
Cyclohexane	1.0	0.52		ug/m3	1	4/1/2020 4:07:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 4:07:00 PM
Ethyl acetate	2.9	0.54		ug/m3	1	4/1/2020 4:07:00 PM
Ethylbenzene	0.48	0.65	J	ug/m3	1	4/1/2020 4:07:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 4:07:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 4:07:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	606
Lab Order:	C2004002	**Tag Number:**	352,435
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-004A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.2	0.74		ug/m3	1	4/1/2020 4:07:00 PM
Heptane	1.3	0.61		ug/m3	1	4/1/2020 4:07:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 4:07:00 PM
Hexane	0.99	0.53		ug/m3	1	4/1/2020 4:07:00 PM
Isopropyl alcohol	3.6	0.37		ug/m3	1	4/1/2020 4:07:00 PM
m&p-Xylene	1.8	1.3		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Ethyl Ketone	1.8	0.88		ug/m3	1	4/1/2020 4:07:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:07:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 4:07:00 PM
Methylene chloride	0.66	0.52		ug/m3	1	4/1/2020 4:07:00 PM
o-Xylene	0.91	0.65		ug/m3	1	4/1/2020 4:07:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 4:07:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 4:07:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 4:07:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 4:07:00 PM
Toluene	2.1	0.57		ug/m3	1	4/1/2020 4:07:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 4:07:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:07:00 PM
Trichloroethene	3.2	0.16		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 4:07:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 4:07:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040108.D
Acq On : 1 Apr 2020 4:07 pm
Sample : C2004002-004A
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:14 2020

Vial: 4
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

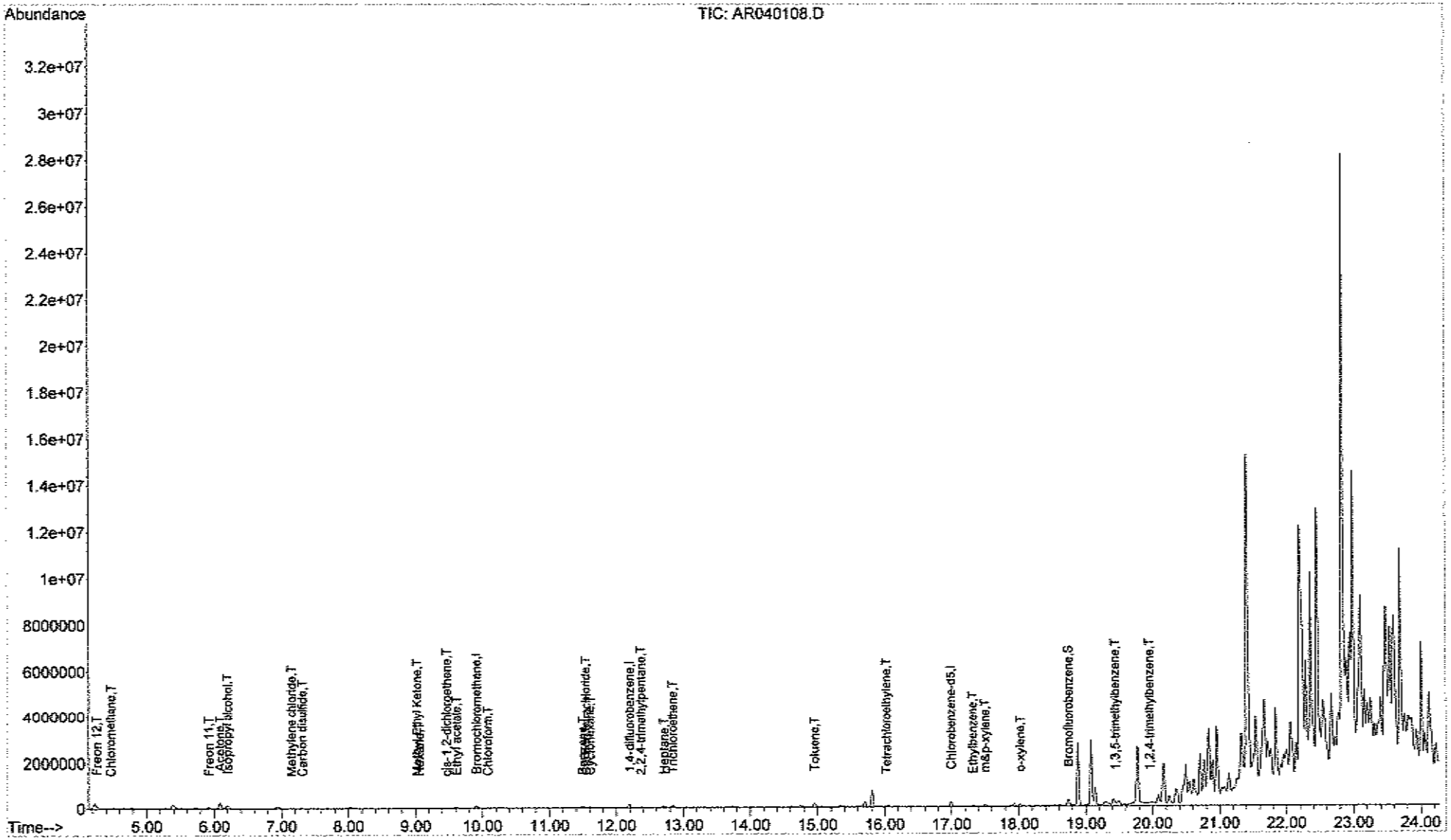
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	42676	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	152521	1.00	ppb		0.01
50) Chlorobenzene-d5	16.99	117	143799	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	106435	1.03	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 103.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	83108	0.44	ppb		97
4) Chloromethane	4.46	50	14461	0.35	ppb		81
14) Freon 11	5.92	101	52957	0.26	ppb		99
15) Acetone	6.09	58	158036	6.79	ppb	#	100
17) Isopropyl alcohol	6.20	45	81010	1.48	ppb	#	1
21) Methylene chloride	7.15	84	9444	0.19	ppb		93
23) Carbon disulfide	7.31	76	24930	0.17	ppb		100
28) Methyl Ethyl Ketone	9.02	72	11645	0.60	ppb	#	100
29) cis-1,2-dichloroethene	9.47	61	2919	0.05	ppb		83
30) Hexane	9.06	57	15620	0.28	ppb		91
31) Ethyl acetate	9.60	43	71166	0.80	ppb		99
32) Chloroform	10.08	83	15253	0.12	ppb		95
37) Cyclohexane	11.61	56	14442	0.30	ppb	#	58
38) Carbon tetrachloride	11.55	117	12616	0.09	ppb		100
39) Benzene	11.50	78	32064	0.25	ppb		96
42) 2,2,4-trimethylpentane	12.37	57	22808	0.14	ppb		80
43) Heptane	12.71	43	16142	0.31	ppb	#	65
44) Trichloroethene	12.84	130	37667	0.59	ppb		99
51) Toluene	14.95	92	47086	0.56	ppb		98
56) Tetrachloroethylene	16.02	164	7933	0.11	ppb		97
58) Ethylbenzene	17.32	91	20482	0.11	ppb		96
59) m&p-xylene	17.50	91	65576	0.42	ppb		97
63) o-xylene	18.03	91	39695	0.21	ppb		98
70) 1,3,5-trimethylbenzene	19.45	105	27018m	0.13	ppb		
71) 1,2,4-trimethylbenzene	19.94	105	45122	0.27	ppb		99

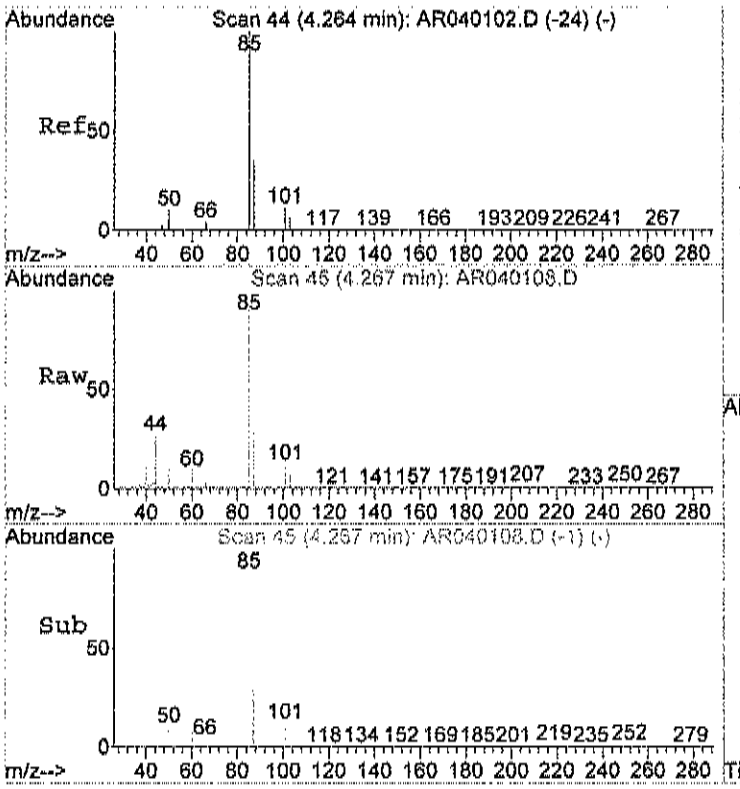
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040108.D Vial: 4
Acq On : 1 Apr 2020 4:07 pm Operator: RJP
Sample : C2004002-004A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:56 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

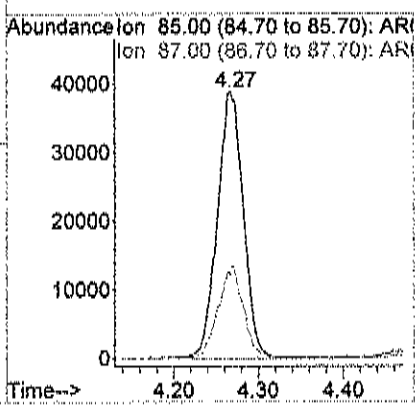


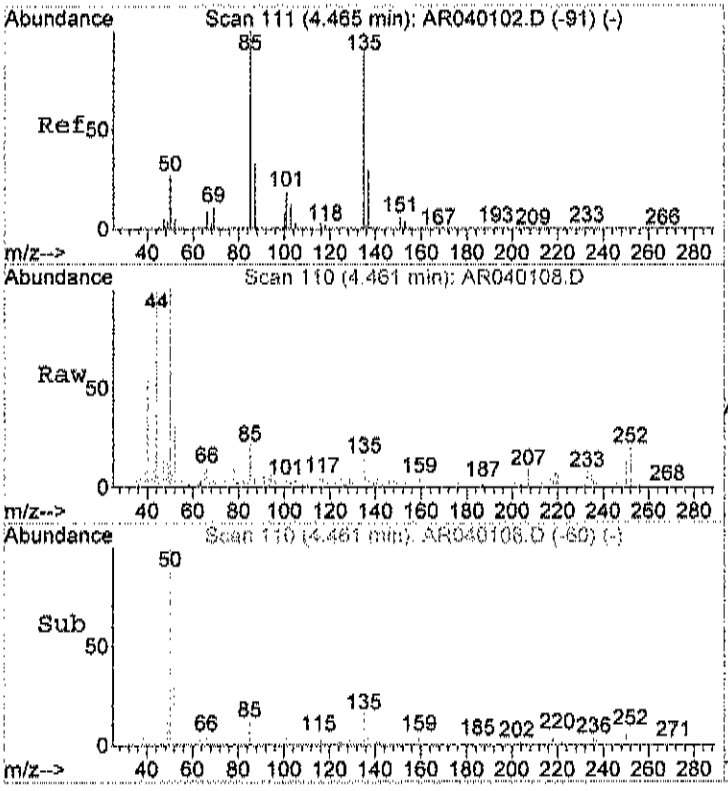


#3
Freon 12
Concen: 0.44 ppb
RT: 4.27 min Scan# 45
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 85 Resp: 83108

Ion	Ratio	Lower	Upper
85	100		
87	33.6	11.9	51.9

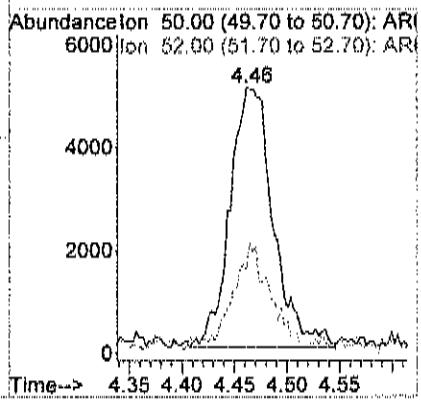


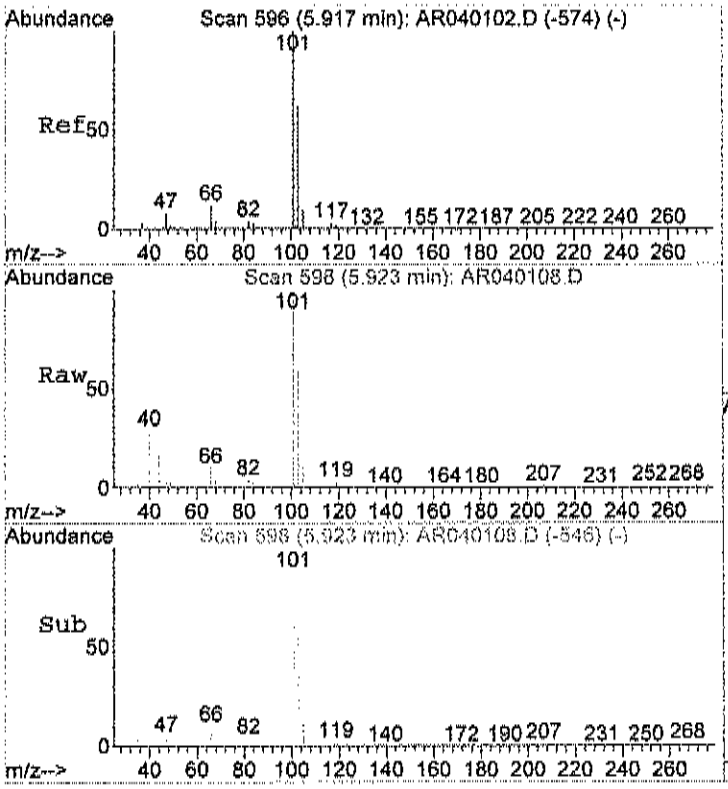


#4
Chloromethane
Concen: 0.35 ppb
RT: 4.46 min Scan# 110
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 50 Resp: 14461

Ion	Ratio	Lower	Upper
50	100		
52	35.6	6.1	46.1

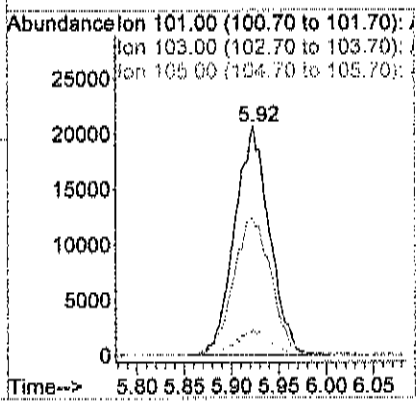


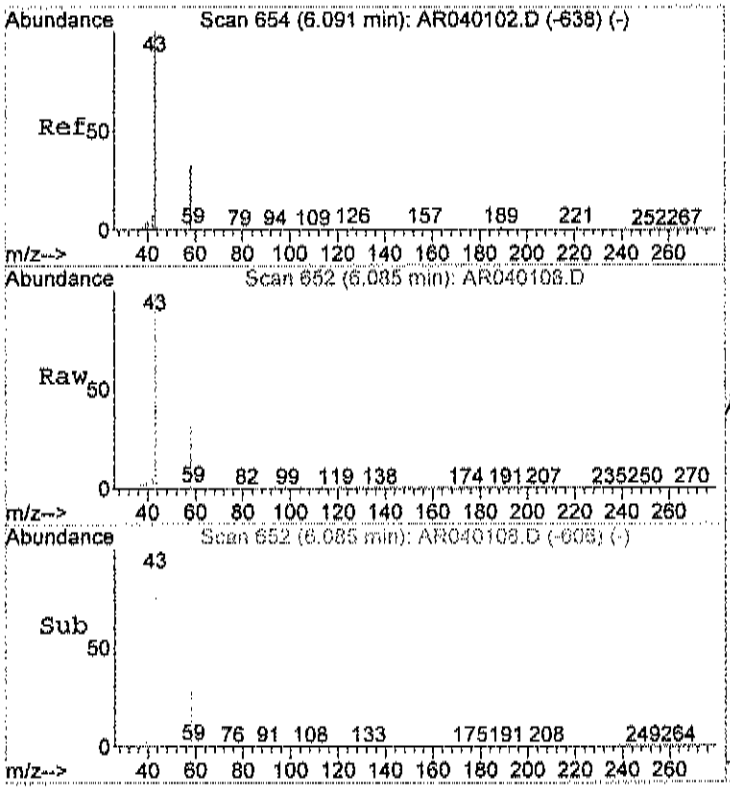


#14
Freon 11
Concen: 0.26 ppb
RT: 5.92 min Scan# 598
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:101 Resp: 52957

Ion	Ratio	Lower	Upper
101	100		
103	64.7	44.2	84.2
105	10.8	0.0	30.3

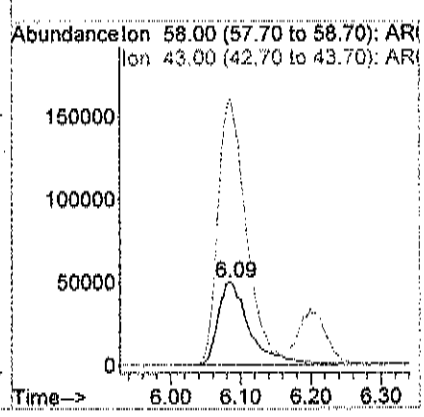


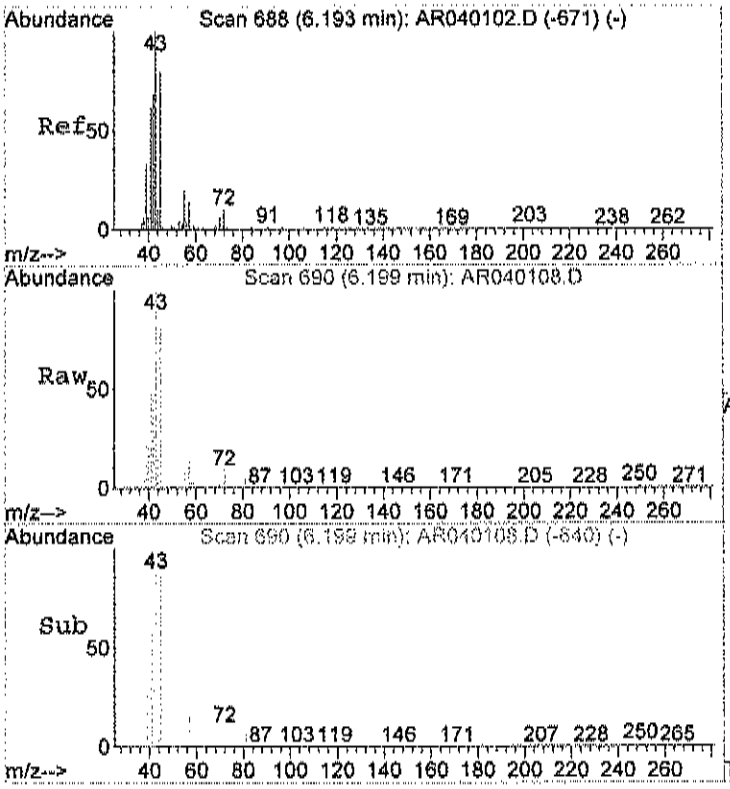


#15
Acetone
Concen: 6.79 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 58 Resp: 158036

Ion	Ratio	Lower	Upper
58	100		
43	341.6	0.0	30.0#

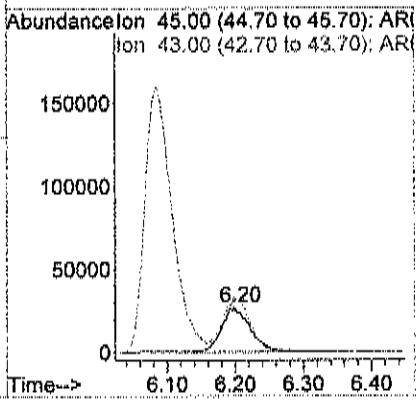


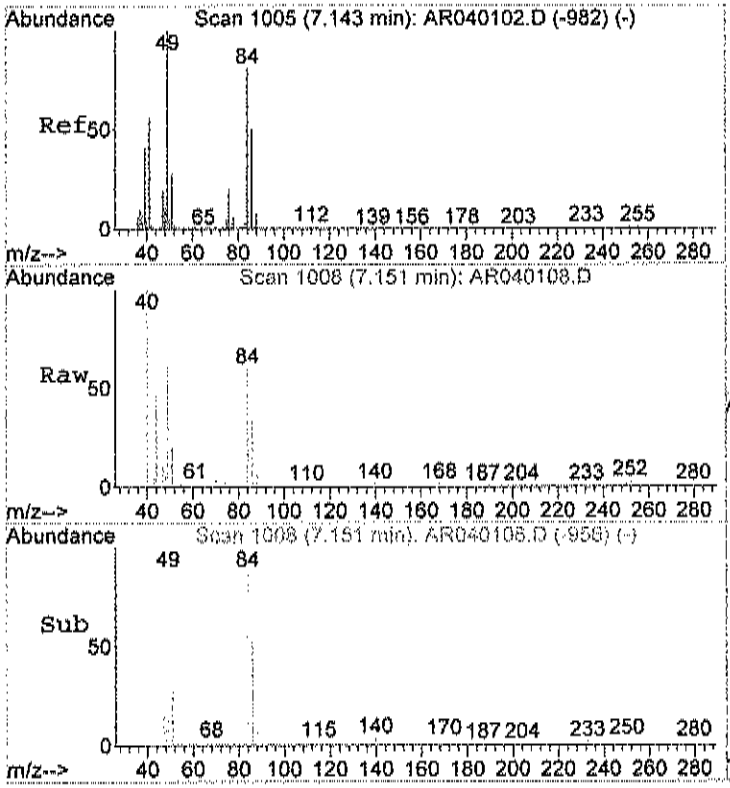


#17
Isopropyl alcohol
Concen: 1.48 ppb
RT: 6.20 min Scan# 690
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 45 Resp: 81010

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

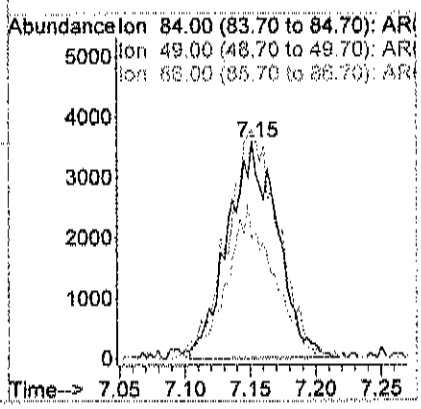


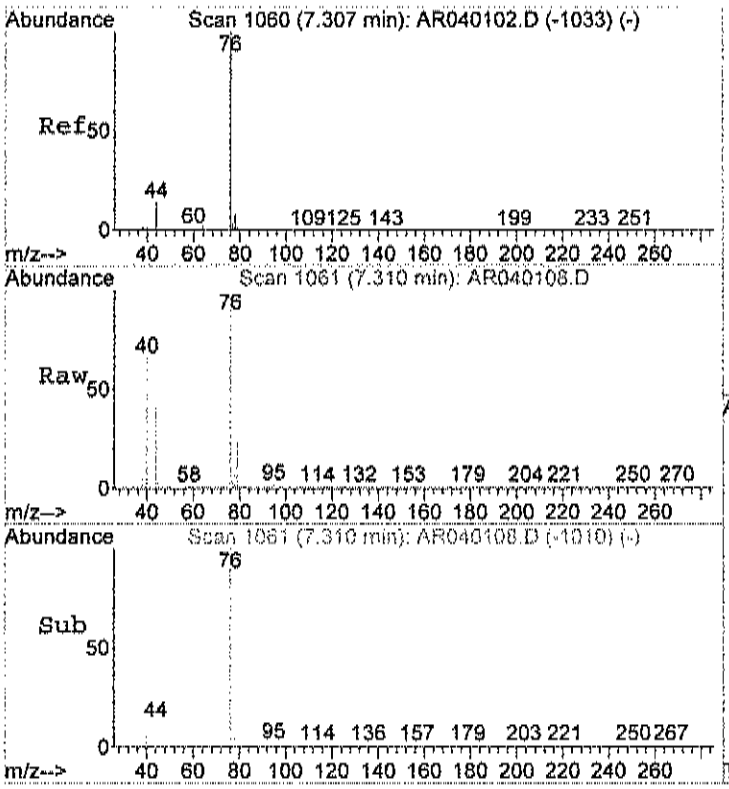


#21
Methylene chloride
Concen: 0.19 ppb
RT: 7.15 min Scan# 1008
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 84 Resp: 9444

Ion	Ratio	Lower	Upper
84	100		
49	109.0	101.4	141.4
86	65.9	45.4	85.4

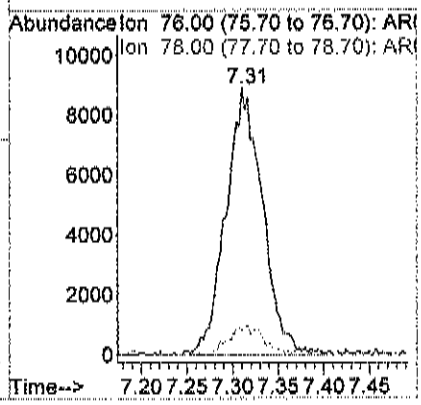


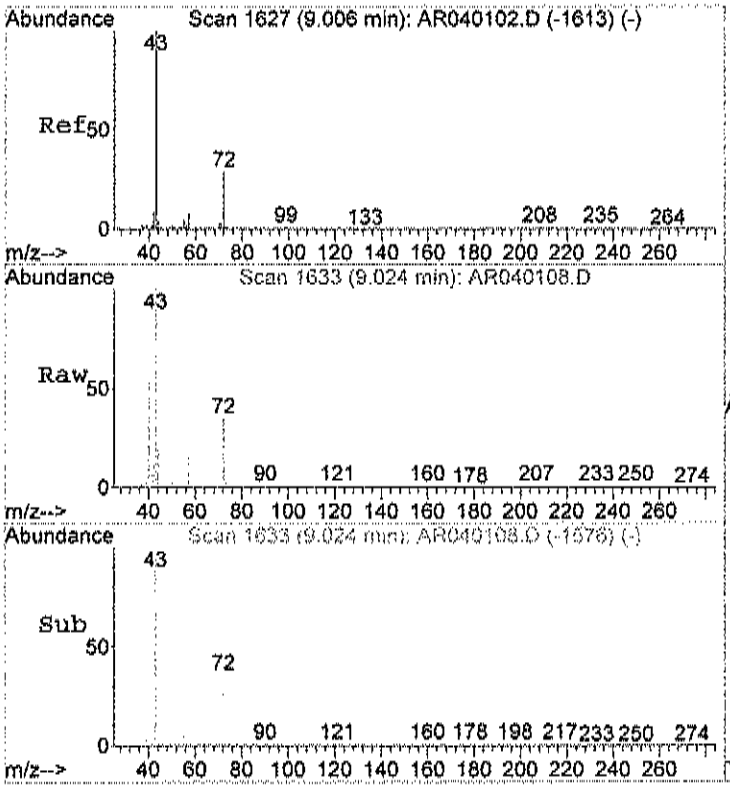


#23
Carbon disulfide
Concen: 0.17 ppb
RT: 7.31 min Scan# 1061
Delta R.T. 0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 76 Resp: 24930

Ion	Ratio	Lower	Upper
76	100		
78	9.8	0.0	29.7

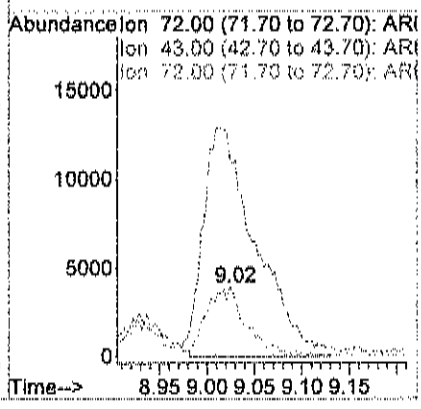


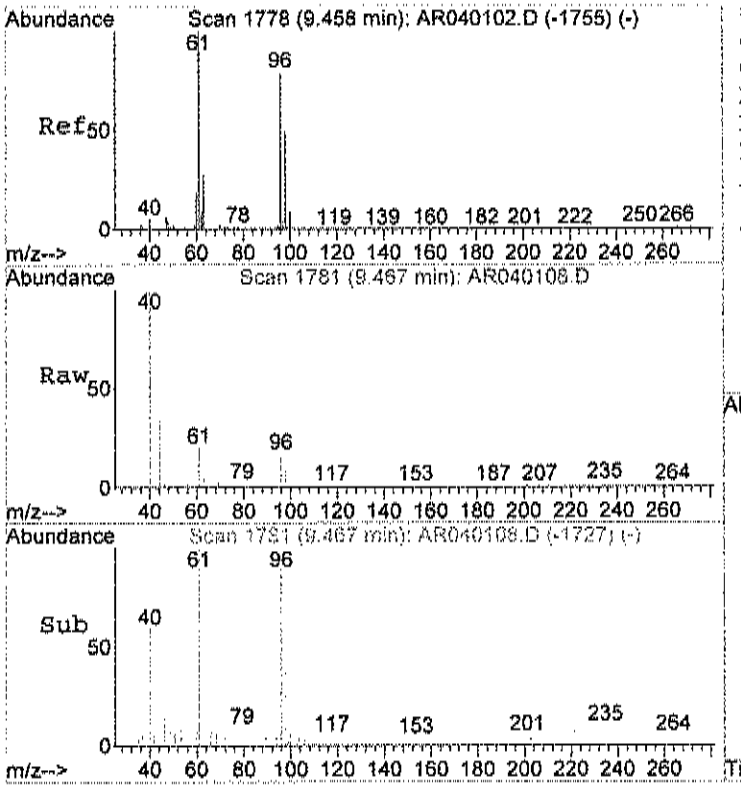


#28
Methyl Ethyl Ketone
Concen: 0.60 ppb
RT: 9.02 min Scan# 1633
Delta R.T. 0.02 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 72 Resp: 11645

Ion	Ratio	Lower	Upper
72	100		
43	408.0	0.0	20.0#
72	100.0	80.0	120.0

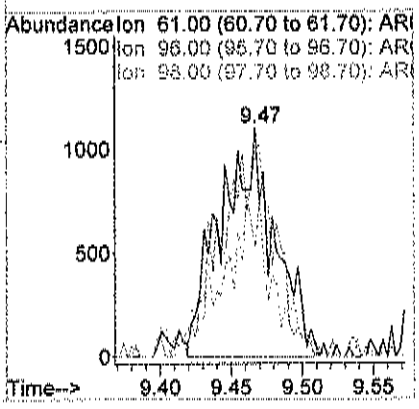


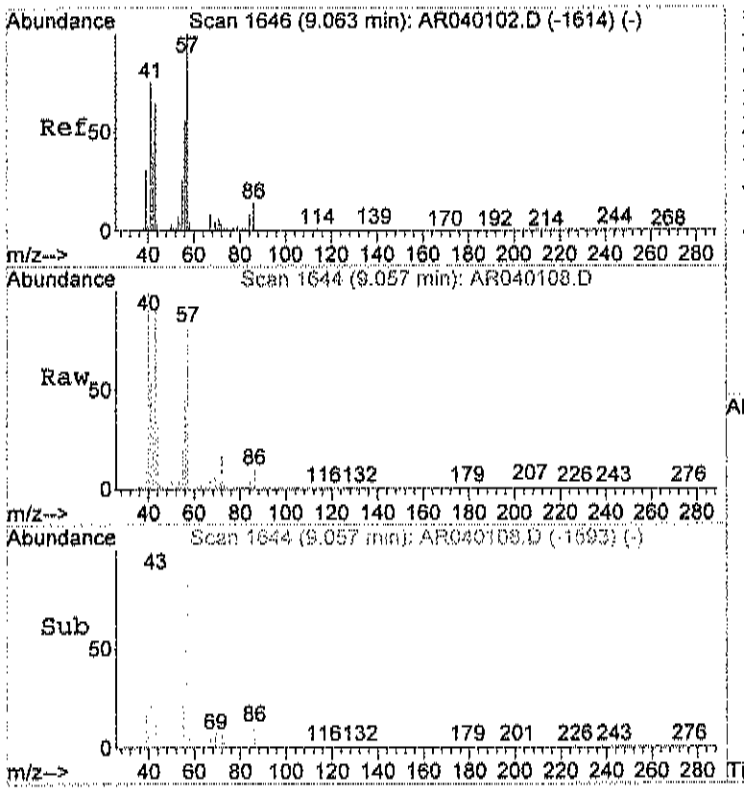


#29
cis-1,2-dichloroethene
Concen: 0.05 ppb
RT: 9.47 min Scan# 1781
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 61 Resp: 2919

Ion	Ratio	Lower	Upper
61	100		
96	92.7	57.9	97.9
98	60.9	28.8	68.8

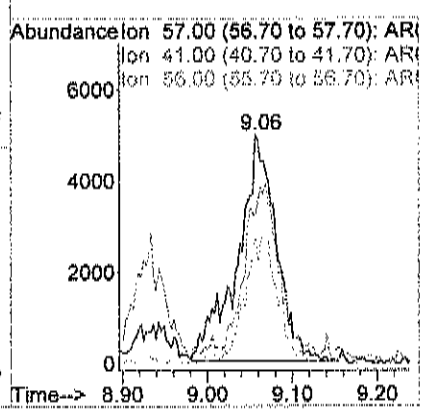


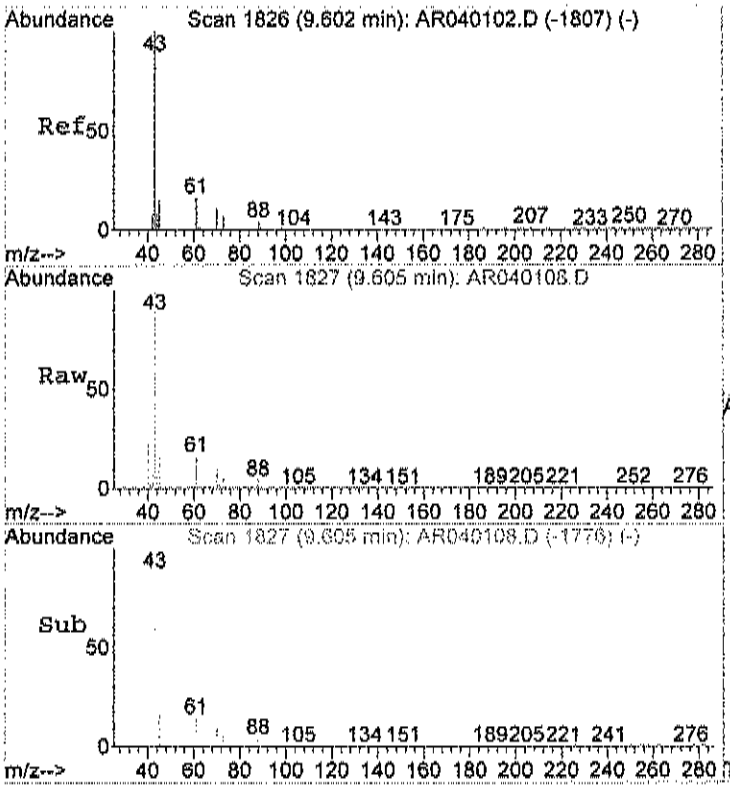


#30
Hexane
Concen: 0.28 ppb
RT: 9.06 min Scan# 1644
Delta R.T. 0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 57 Resp: 15620

Ion	Ratio	Lower	Upper
57	100		
41	66.8	55.7	95.7
56	48.2	32.4	72.4

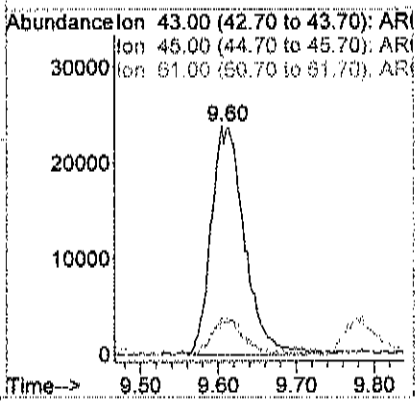


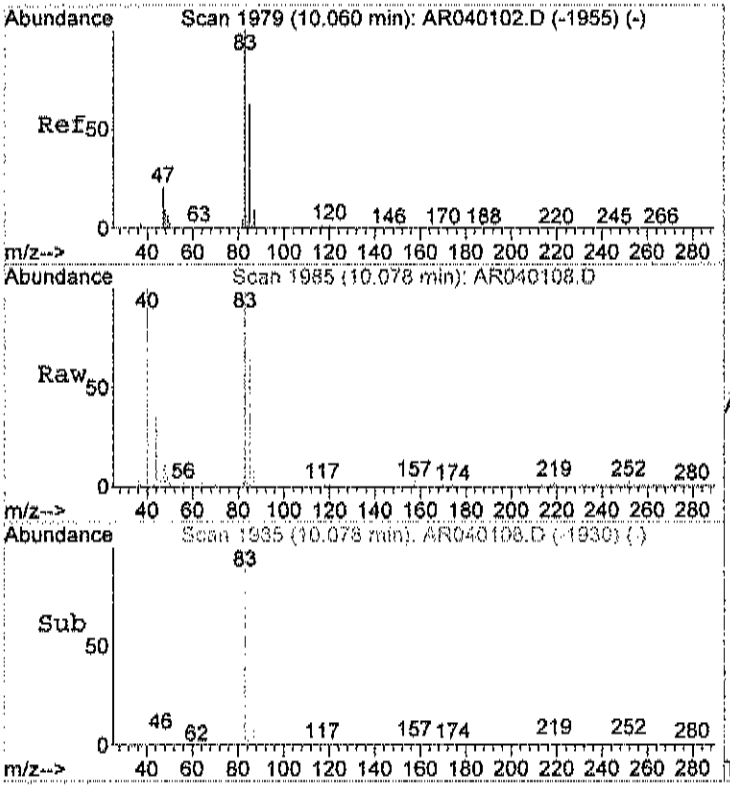


#31
Ethyl acetate
Concen: 0.80 ppb
RT: 9.60 min Scan# 1827
Delta R.T. 0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 43 Resp: 71166

Ion	Ratio	Lower	Upper
43	100		
45	15.1	0.0	34.5
61	15.4	0.0	35.8

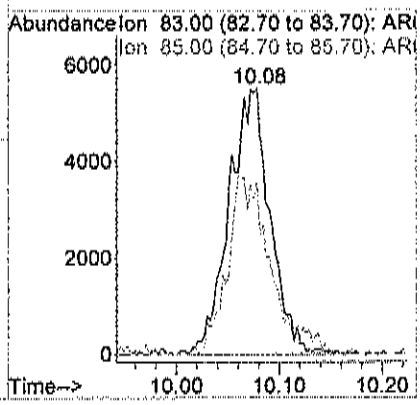


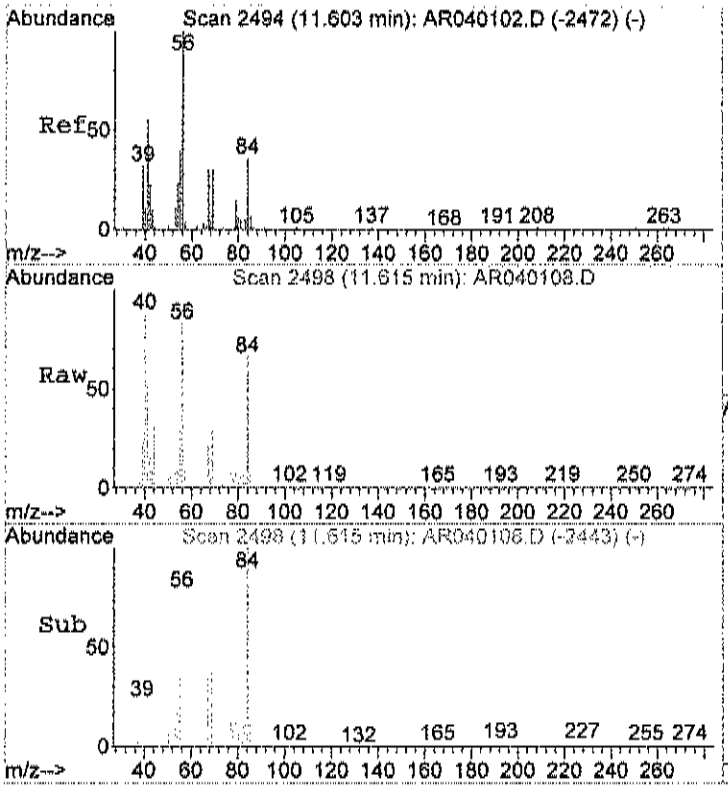


#32
Chloroform
Concen: 0.12 ppb
RT: 10.08 min Scan# 1985
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 83 Resp: 15253

Ion	Ratio	Lower	Upper
83	100		
85	70.7	46.5	86.5

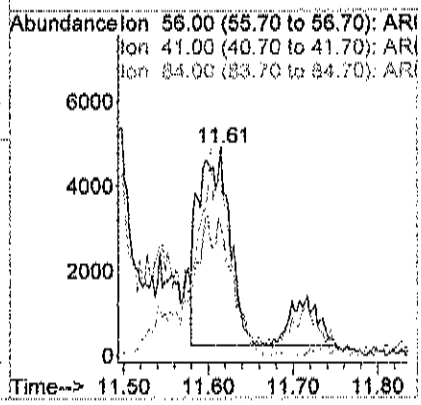


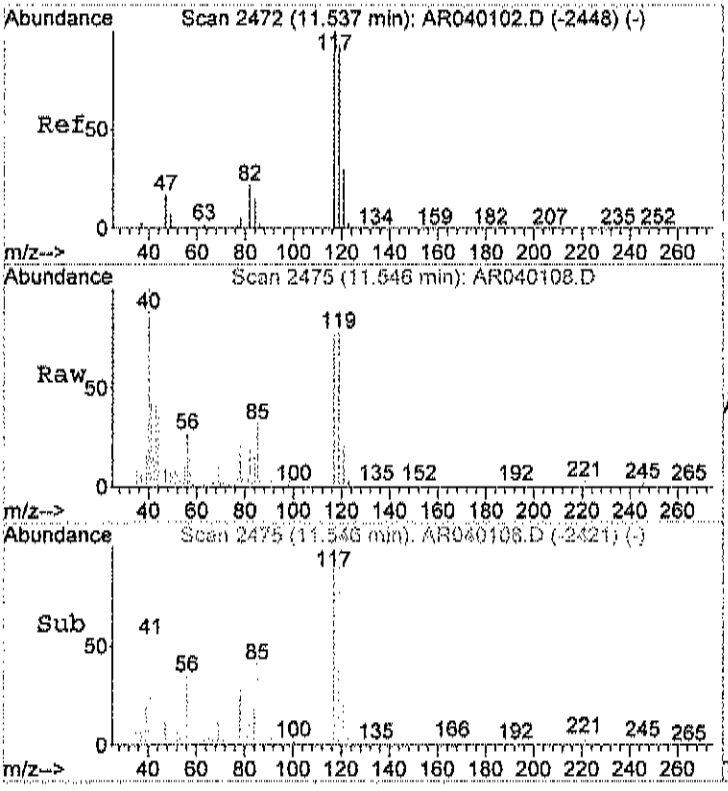


#37
Cyclohexane
Concen: 0.30 ppb
RT: 11.61 min Scan# 2498
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 56 Resp: 14442

Ion	Ratio	Lower	Upper
56	100		
41	0.0	42.3	82.3#
84	100.9	107.7	147.7#

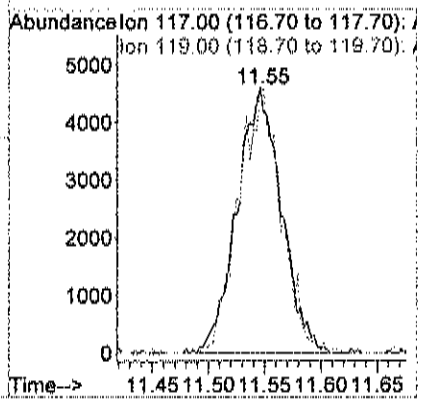


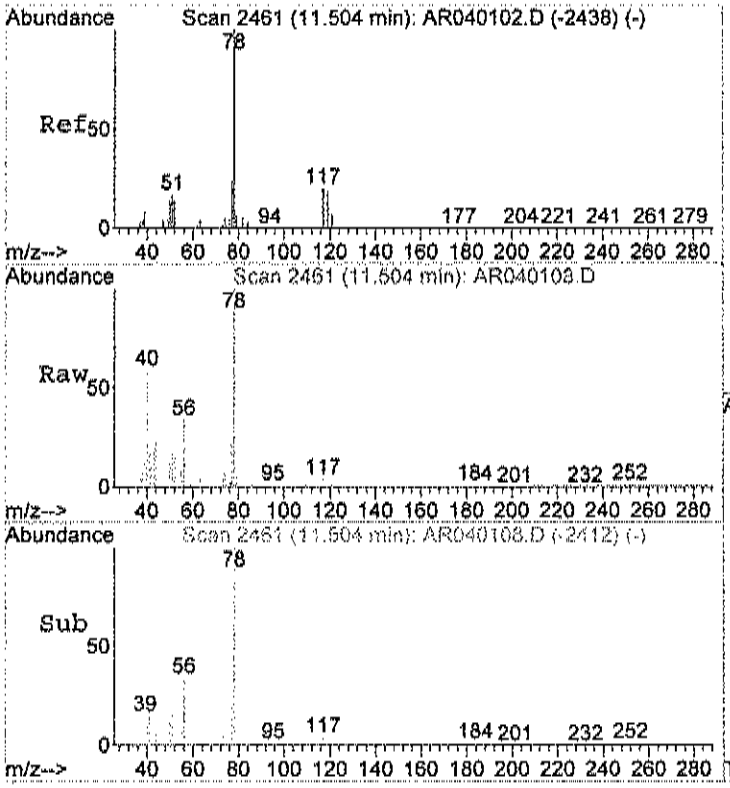


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2475
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:117 Resp: 12616

Ion	Ratio	Lower	Upper
117	100		
119	96.1	75.6	115.6

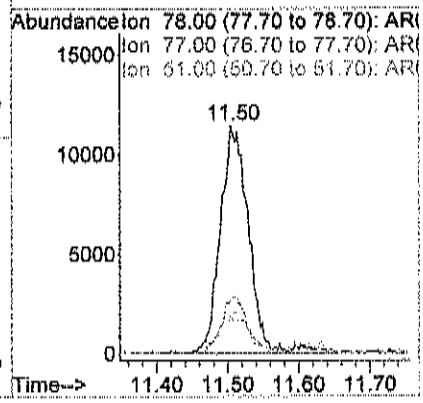


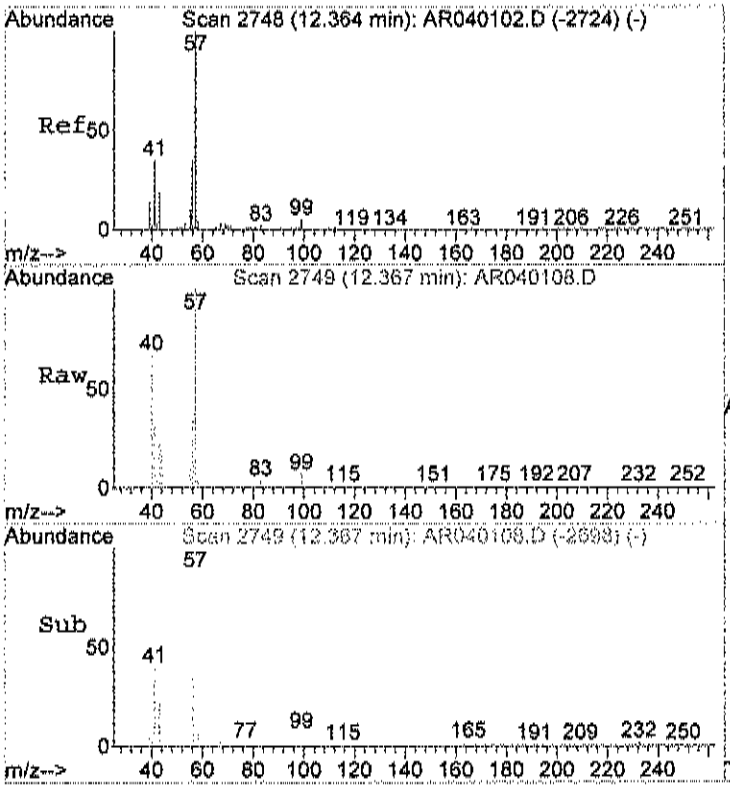


#39
Benzene
Concen: 0.25 ppb
RT: 11.50 min Scan# 2461
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 78 Resp: 32064

Ion	Ratio	Lower	Upper
78	100		
77	23.1	4.1	44.1
51	19.6	0.0	36.8

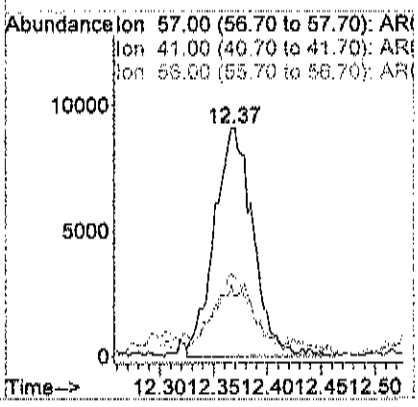


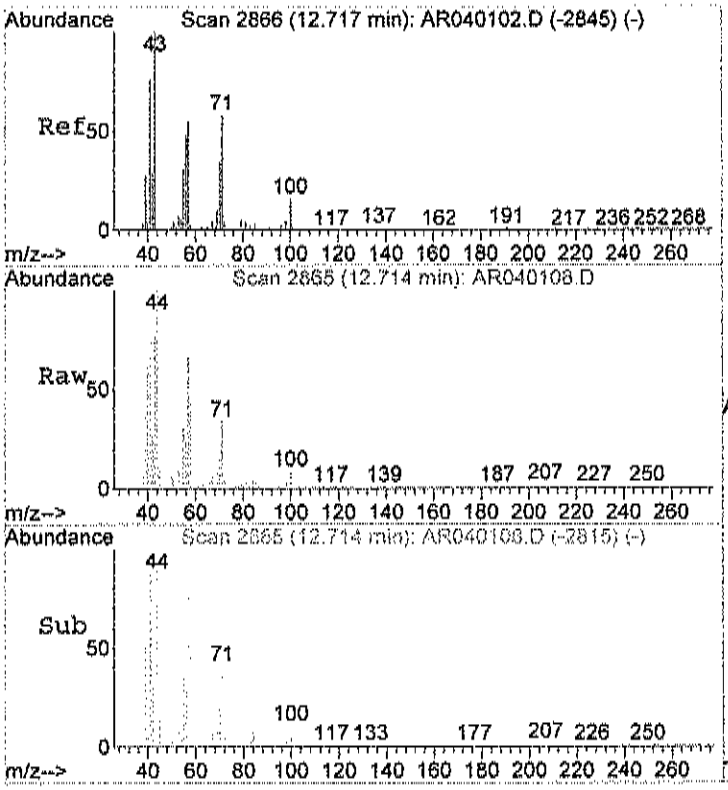


#42
2,2,4-trimethylpentane
Concen: 0.14 ppb
RT: 12.37 min Scan# 2749
Delta R.T. 0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 57 Resp: 22808

Ion	Ratio	Lower	Upper
57	100		
41	45.5	12.1	52.1
56	42.1	12.7	52.7

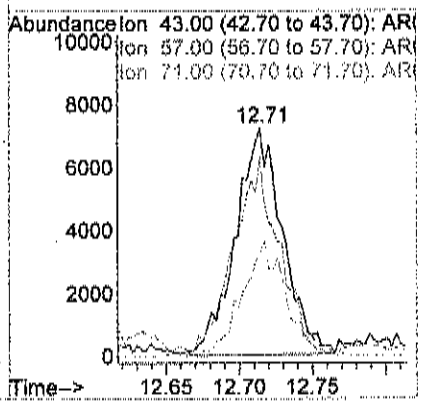


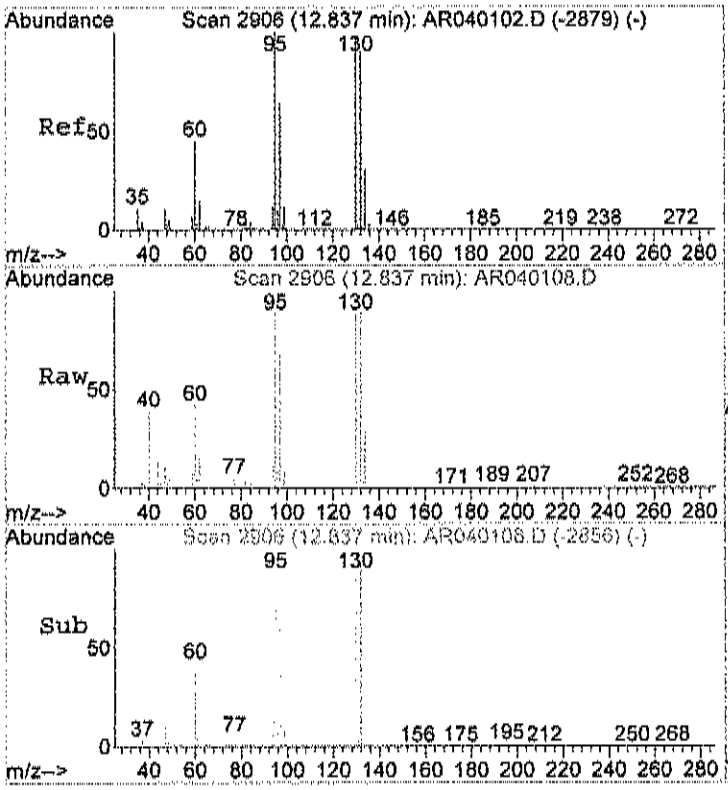


#43
Heptane
Concen: 0.31 ppb
RT: 12.71 min Scan# 2865
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 43 Resp: 16142

Ion	Ratio	Lower	Upper
43	100		
57	92.2	36.0	76.0#
71	46.3	42.5	82.5

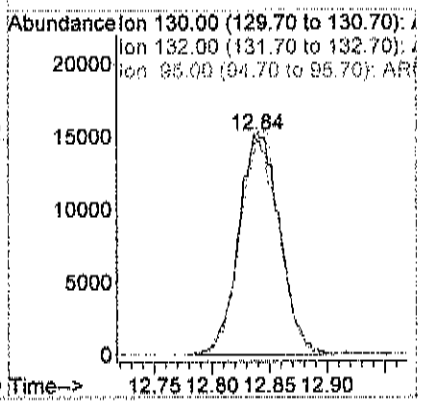


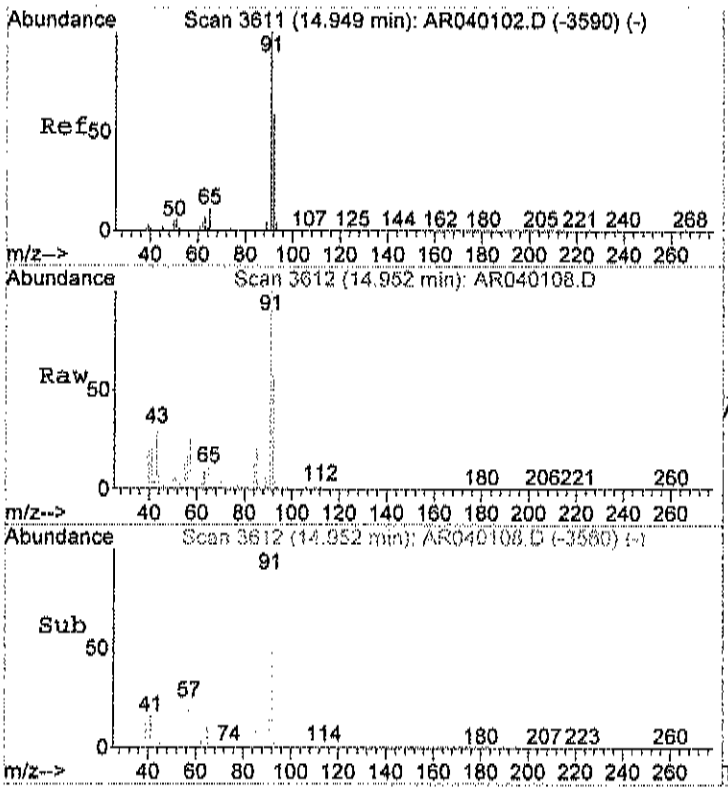


#44
Trichloroethene
Concen: 0.59 ppb
RT: 12.84 min Scan# 2906
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:130 Resp: 37667

Ion	Ratio	Lower	Upper
130	100		
132	95.7	76.9	116.9
95	98.2	78.6	118.6

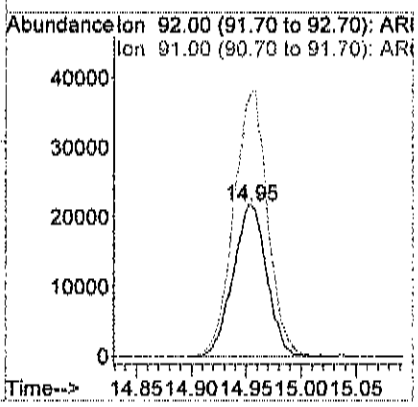


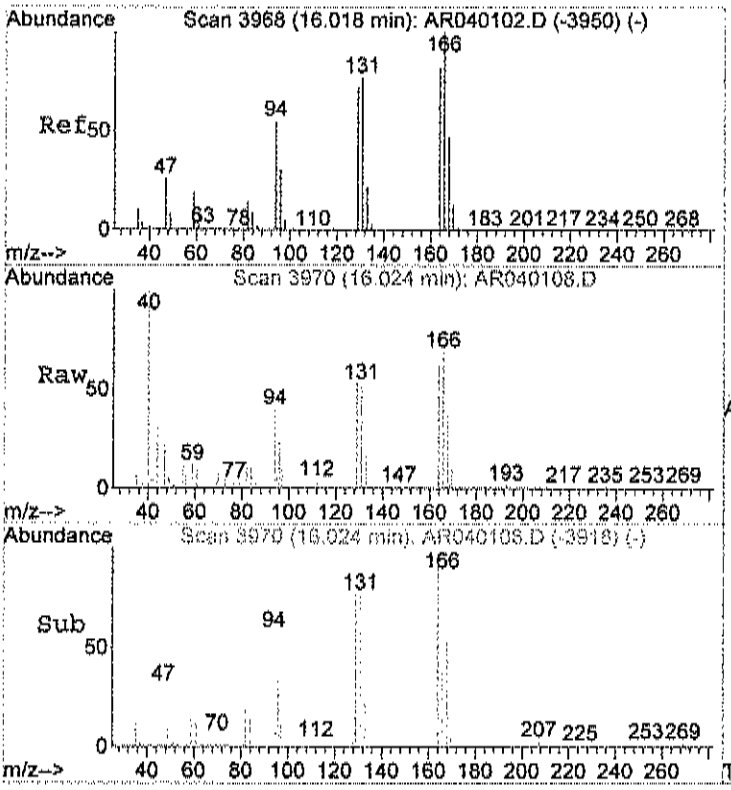


#51
Toluene
Concen: 0.56 ppb
RT: 14.95 min Scan# 3612
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 92 Resp: 47086

Ion	Ratio	Lower	Upper
92	100		
91	177.1	154.5	194.5

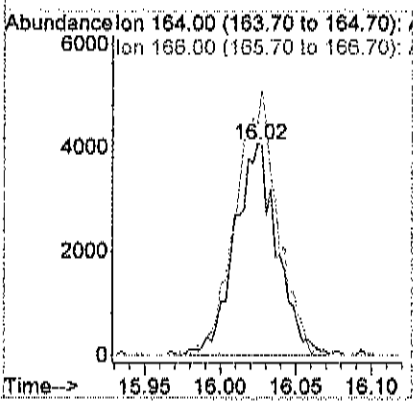


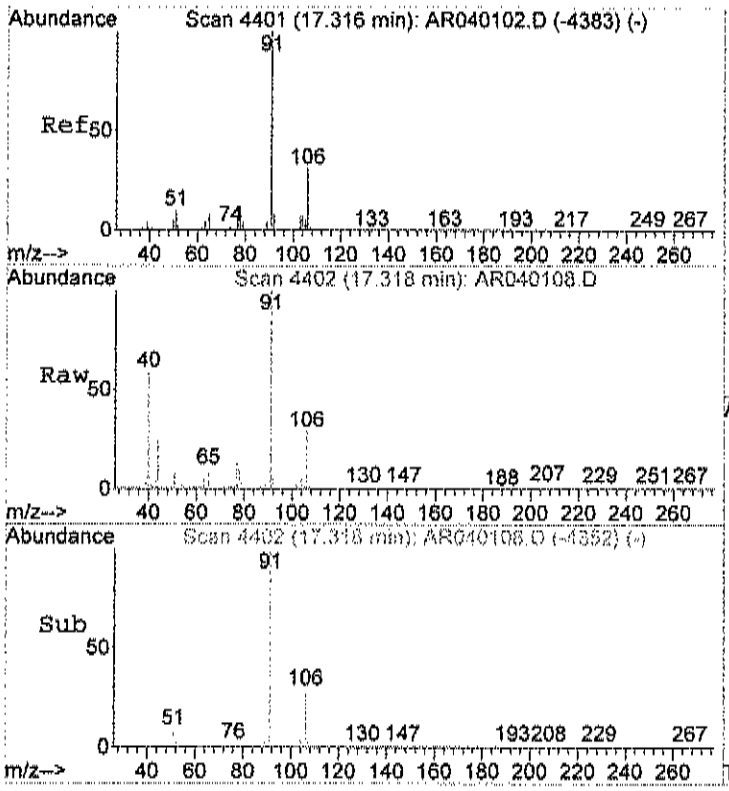


#56
Tetrachloroethylene
Concen: 0.11 ppb
RT: 16.02 min Scan# 3970
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:164 Resp: 7933

Ion	Ratio	Lower	Upper
164	100		
166	123.0	106.4	146.4

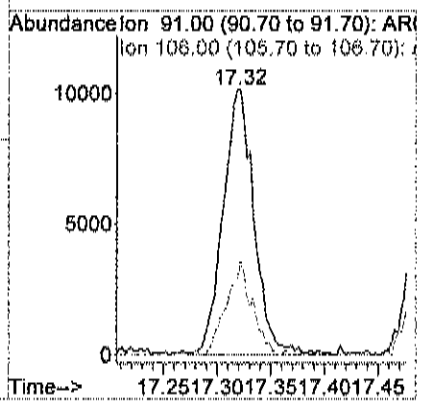


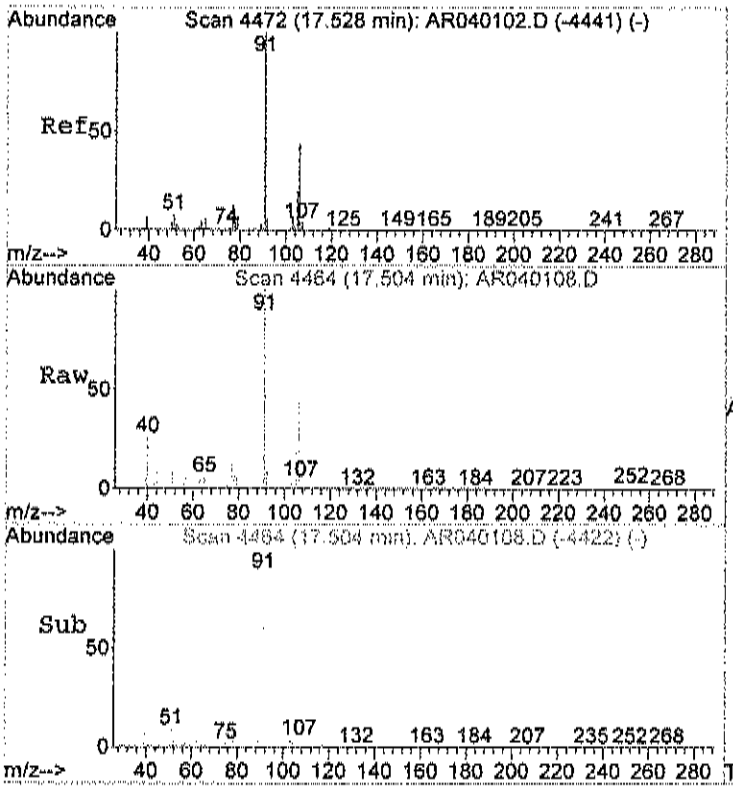


#58
Ethylbenzene
Concen: 0.11 ppb
RT: 17.32 min Scan# 4402
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 91 Resp: 20482

Ion	Ratio	Lower	Upper
91	100		
106	29.3	11.7	51.7

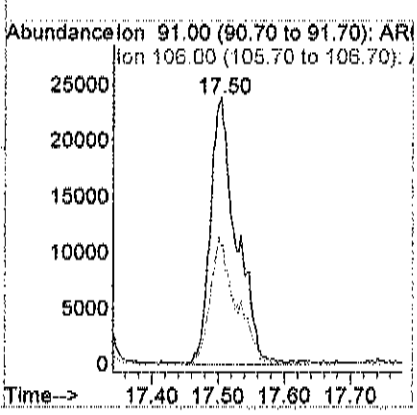


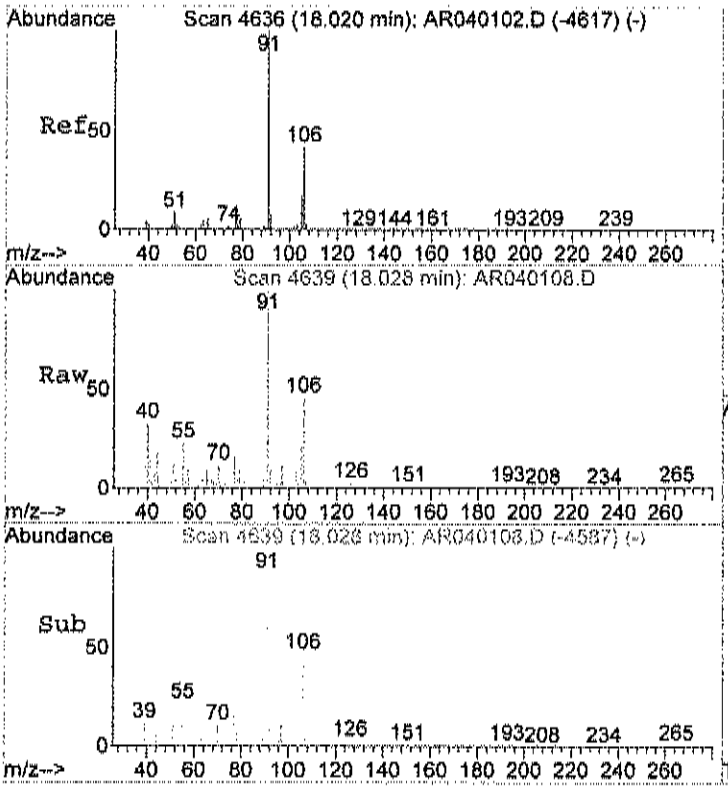


#59
m&p-xylene
Concen: 0.42 ppb
RT: 17.50 min Scan# 4464
Delta R.T. -0.02 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 91 Resp: 65576

Ion	Ratio	Lower	Upper
91	100		
106	46.8	29.0	69.0

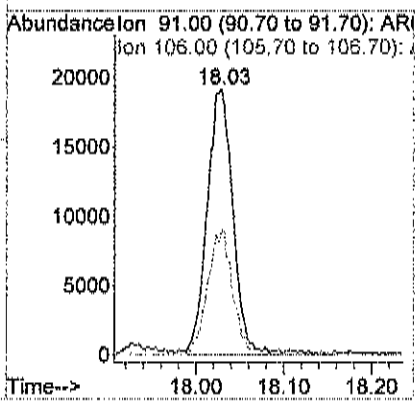


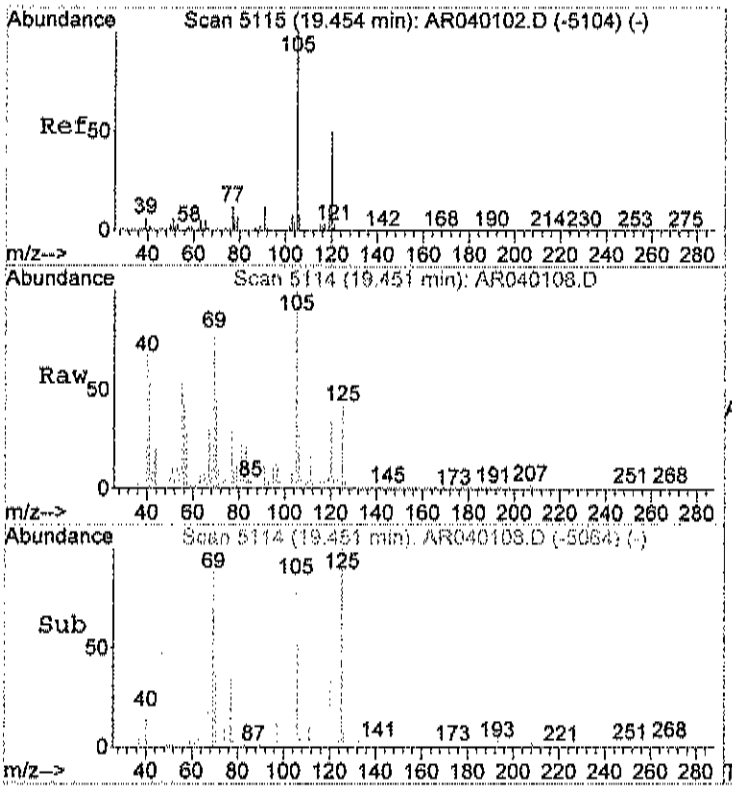


#63
o-xylene
Concen: 0.21 ppb
RT: 18.03 min Scan# 4639
Delta R.T. 0.01 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion: 91 Resp: 39695

Ion	Ratio	Lower	Upper
91	100		
106	45.0	26.2	66.2

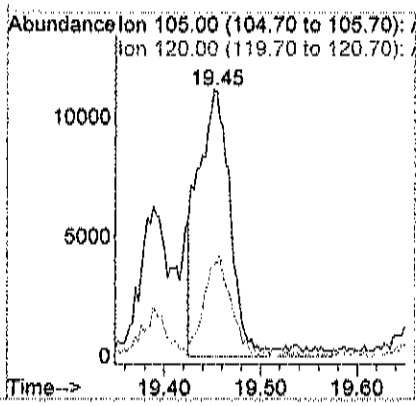


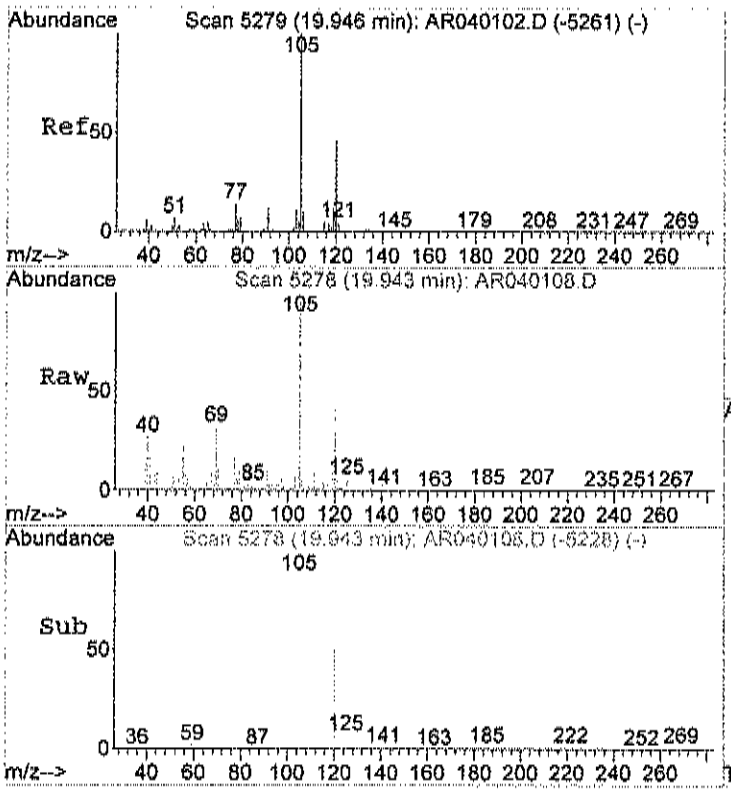


#70
1,3,5-trimethylbenzene
Concen: 0.13 ppb m
RT: 19.45 min Scan# 5114
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:105 Resp: 27018

Ion	Ratio	Lower	Upper
105	100		
120	29.5	28.2	68.2

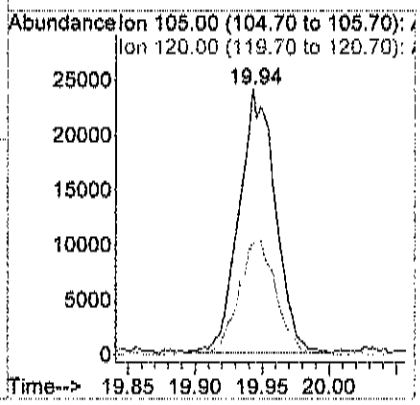




#71
1,2,4-trimethylbenzene
Concen: 0.27 ppb
RT: 19.94 min Scan# 5278
Delta R.T. -0.00 min
Lab File: AR040108.D
Acq: 1 Apr 2020 4:07 pm

Tgt Ion:105 Resp: 45122

Ion	Ratio	Lower	Upper
105	100		
120	45.5	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040121.D Vial: 4
Acq On : 2 Apr 2020 2:15 am Operator: RJP
Sample : C2004002-004A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:27 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

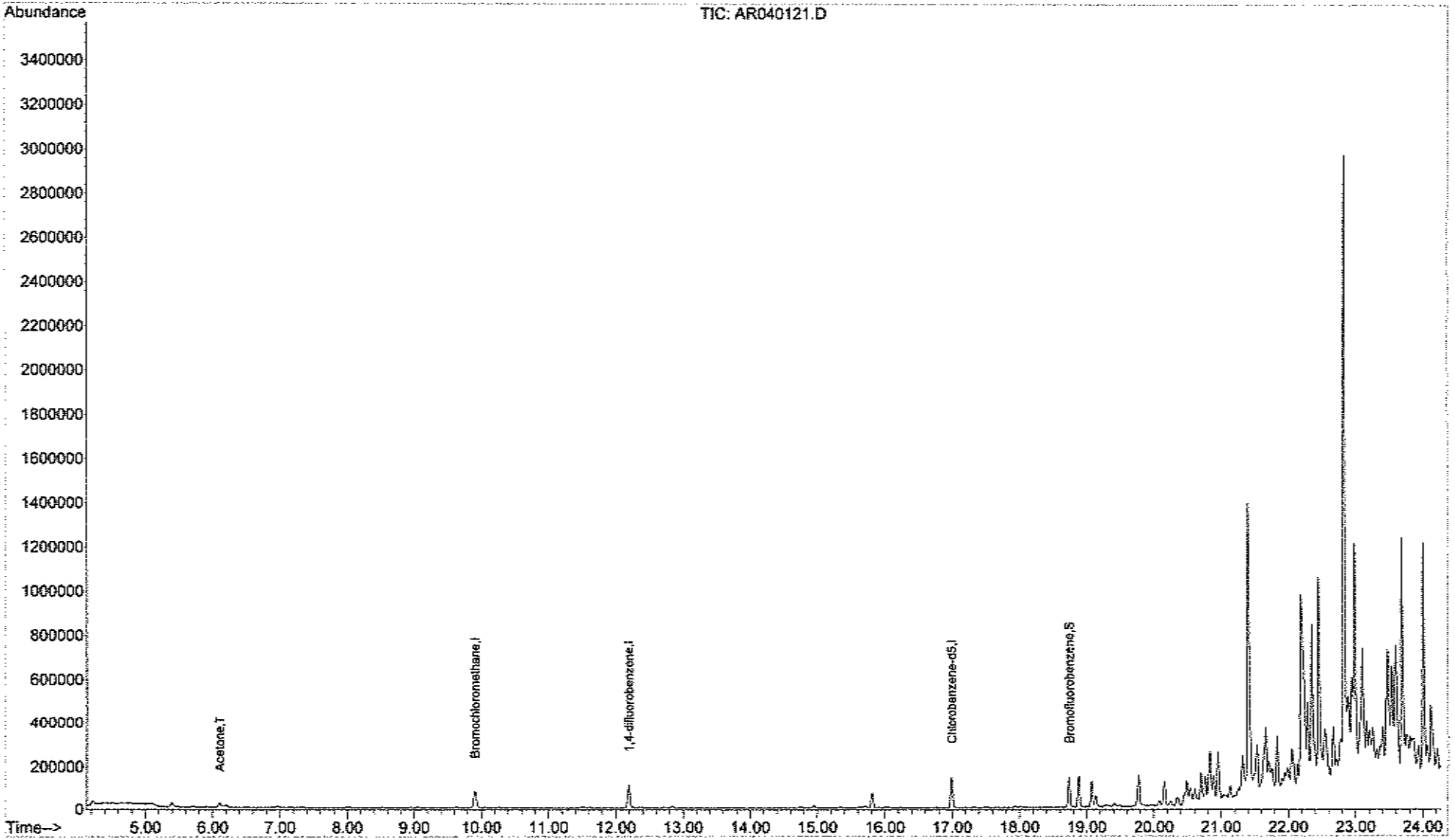
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	33876	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	112931	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	100598	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	57057	0.79	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 79.00%			
Target Compounds						Qvalue
15) Acetone	6.10	58	13316	0.72	ppb	# 100

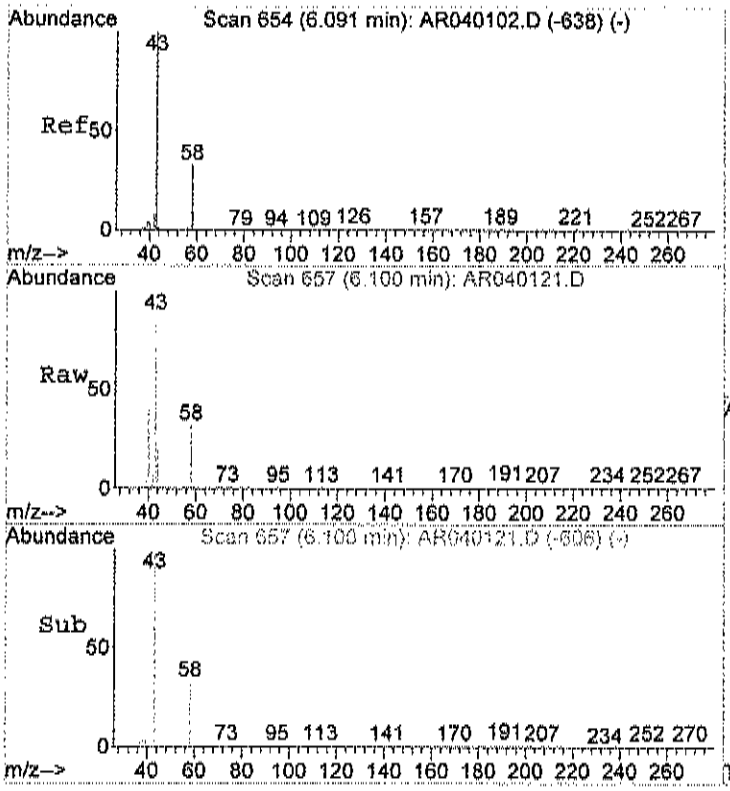
(#) = qualifier out of range (m) = manual integration (+) = signals summed
AR040121.D A320_1UG.M Fri Apr 10 08:40:05 2020 MSD1 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040121.D Vial: 4
Acq On : 2 Apr 2020 2:15 am Operator: RJP
Sample : C2004002-004A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:18 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

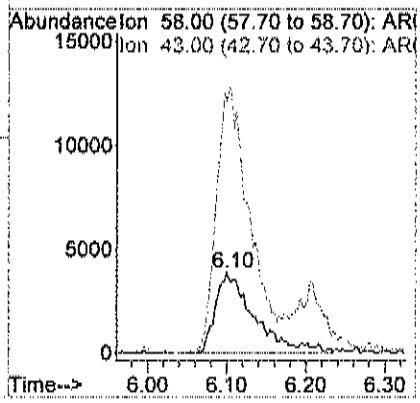




#15
Acetone
Concen: 0.72 ppb
RT: 6.10 min Scan# 657
Delta R.T. 0.00 min
Lab File: AR040121.D
Acq: 2 Apr 2020 2:15 am

Tgt Ion: 58 Resp: 13316

Ion	Ratio	Lower	Upper
58	100		
43	344.3	0.0	30.0#



Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-9			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Acetone	4.0	3.0		ppbV	10	4/2/2020 3:00:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Benzene	0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 4:55:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Chloromethane	0.38	0.15		ppbV	1	4/1/2020 4:55:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Cyclohexane	0.20	0.15		ppbV	1	4/1/2020 4:55:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 11	0.21	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 4:55:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Isopropyl alcohol	0.68	0.15		ppbV	1	4/1/2020 4:55:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl Ethyl Ketone	0.28	0.30	J	ppbV	1	4/1/2020 4:55:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 4:55:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Methylene chloride	0.18	0.15		ppbV	1	4/1/2020 4:55:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Toluene	0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Trichloroethene	0.10	0.030		ppbV	1	4/1/2020 4:55:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 4:55:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 4:55:00 PM
Surr: Bromofluorobenzene	83.0	70-130		%REC	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:55:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 4:55:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:55:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 4:55:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 4:55:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 4:55:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 4:55:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 4:55:00 PM
Acetone	9.5	7.1		ug/m3	10	4/2/2020 3:00:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 4:55:00 PM
Benzene	0.48	0.48		ug/m3	1	4/1/2020 4:55:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 4:55:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 4:55:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 4:55:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 4:55:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 4:55:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 4:55:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 4:55:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 4:55:00 PM
Chloromethane	0.78	0.31		ug/m3	1	4/1/2020 4:55:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 4:55:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:55:00 PM
Cyclohexane	0.69	0.52		ug/m3	1	4/1/2020 4:55:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 4:55:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 4:55:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 4:55:00 PM
Freon 11	1.2	0.84		ug/m3	1	4/1/2020 4:55:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 4:55:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM

Qualifiers:

SC	Sub-Contracted
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
JN	Non-routine analyte. Quantitation estimated.
S	Spike Recovery outside accepted recovery limits
.	Results reported are not blank corrected
E	Estimated Value above quantitation range
J	Analyte detected below quantitation limit
ND	Not Detected at the Limit of Detection
DL	Detection Limit

Centek Laboratories, LLC

Date: *13-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	607
Lab Order:	C2004002	**Tag Number:**	207,388
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-005A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 4:55:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 4:55:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 4:55:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 4:55:00 PM
Isopropyl alcohol	1.7	0.37		ug/m3	1	4/1/2020 4:55:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 4:55:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
Methyl Ethyl Ketone	0.83	0.88	J	ug/m3	1	4/1/2020 4:55:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 4:55:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 4:55:00 PM
Methylene chloride	0.63	0.52		ug/m3	1	4/1/2020 4:55:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 4:55:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 4:55:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 4:55:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 4:55:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 4:55:00 PM
Toluene	0.57	0.57		ug/m3	1	4/1/2020 4:55:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 4:55:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 4:55:00 PM
Trichloroethene	0.54	0.16		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 4:55:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 4:55:00 PM

Qualifiers:				
	SC	Sub-Contracted	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040109.D Vial: 5
Acq On : 1 Apr 2020 4:55 pm Operator: RJP
Sample : C2004002-005A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:15 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	41051	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	145793	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	134806	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	80506	0.83	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 83.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	84066	0.46	ppb		98
4) Chloromethane	4.47	50	15200	0.38	ppb		91
14) Freon 11	5.93	101	41257	0.21	ppb		96
15) Acetone	6.09	58	78610	3.51	ppb	#	100
17) Isopropyl alcohol	6.21	45	35632	0.68	ppb	#	1
21) Methylene chloride	7.14	84	8266	0.18	ppb		90
28) Methyl Ethyl Ketone	9.02	72	5239	0.28	ppb	#	100
37) Cyclohexane	11.61	56	9341	0.20	ppb		89
38) Carbon tetrachloride	11.54	117	12999	0.09	ppb		99
39) Benzene	11.52	78	18097	0.15	ppb		90
44) Trichloroethene	12.84	130	6197	0.10	ppb		93
51) Toluene	14.95	92	11511	0.15	ppb		92

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

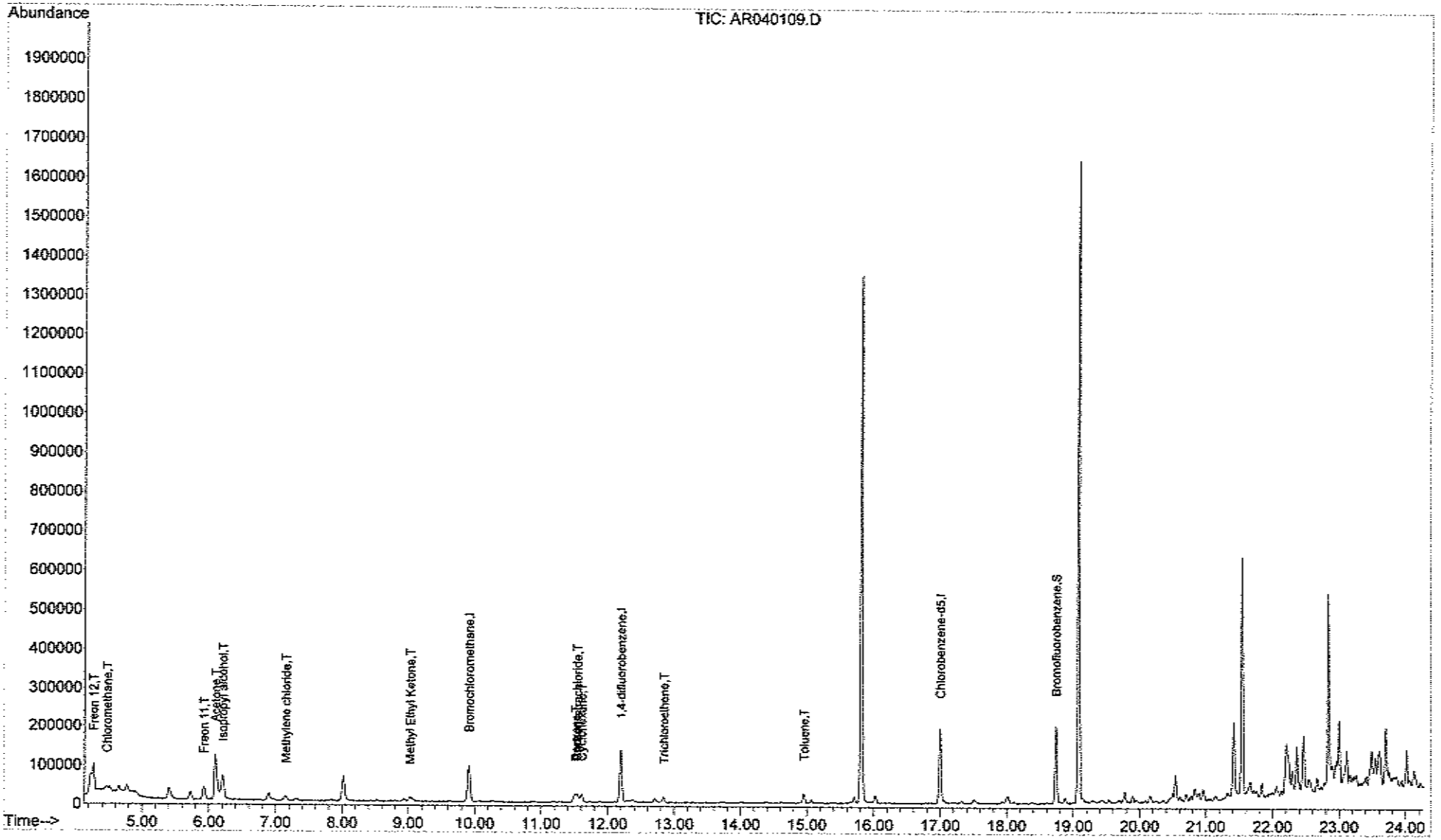
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040109.D
Acq On : 1 Apr 2020 4:55 pm
Sample : C2004002-005A
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:57 2020

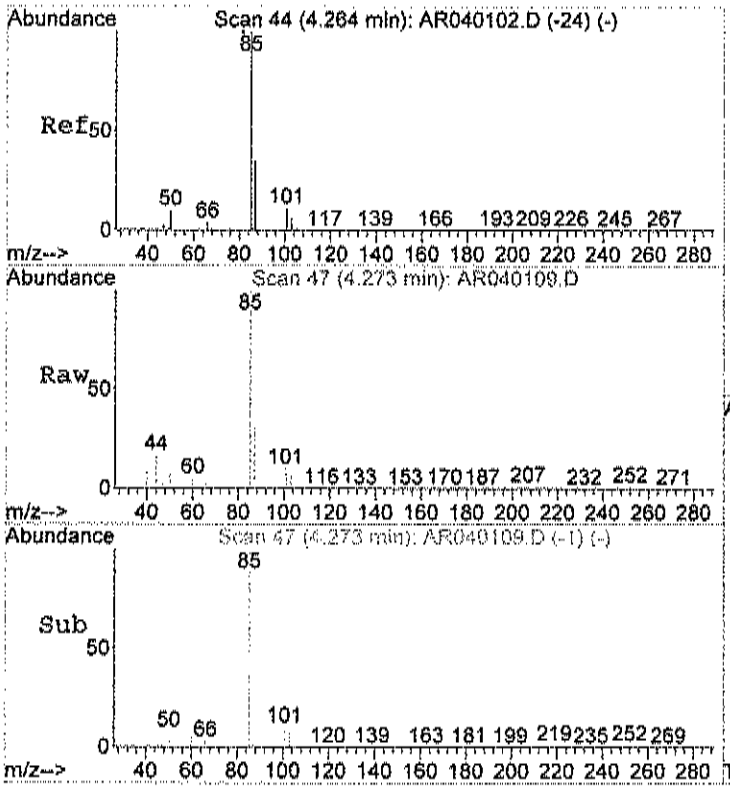
Vial: 5
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



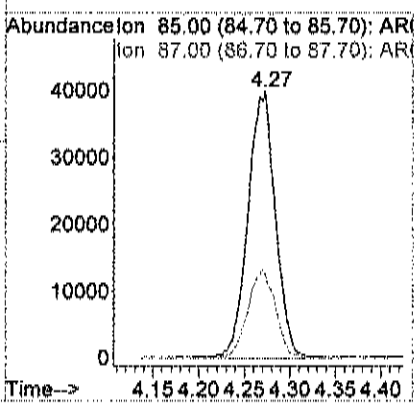
AR040109.D A320_1UG.M Fri Apr 10 08:38:15 2020 MSD1

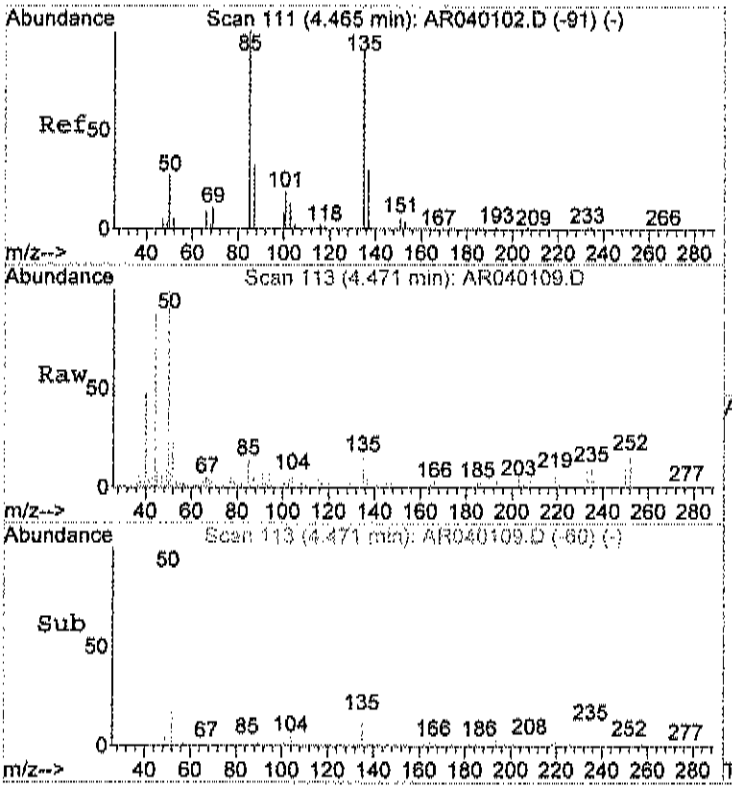


#3
Freon 12
Concen: 0.46 ppb
RT: 4.27 min Scan# 47
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 85 Resp: 84066

Ion	Ratio	Lower	Upper
85	100		
87	33.3	11.9	51.9

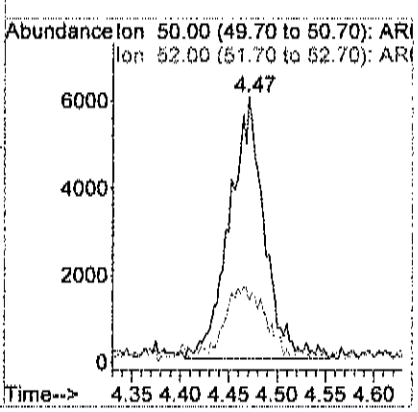


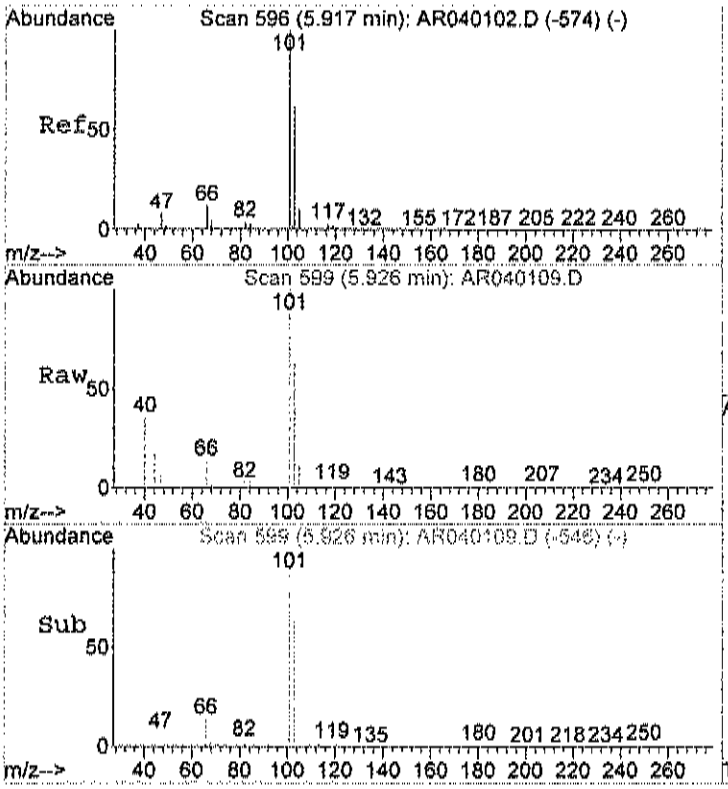


#4
Chloromethane
Concen: 0.38 ppb
RT: 4.47 min Scan# 113
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 50 Resp: 15200

Ion	Ratio	Lower	Upper
50	100		
52	30.7	6.1	46.1

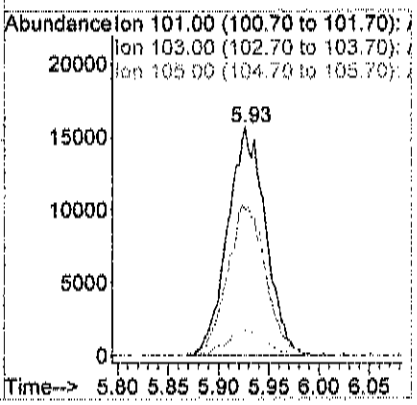


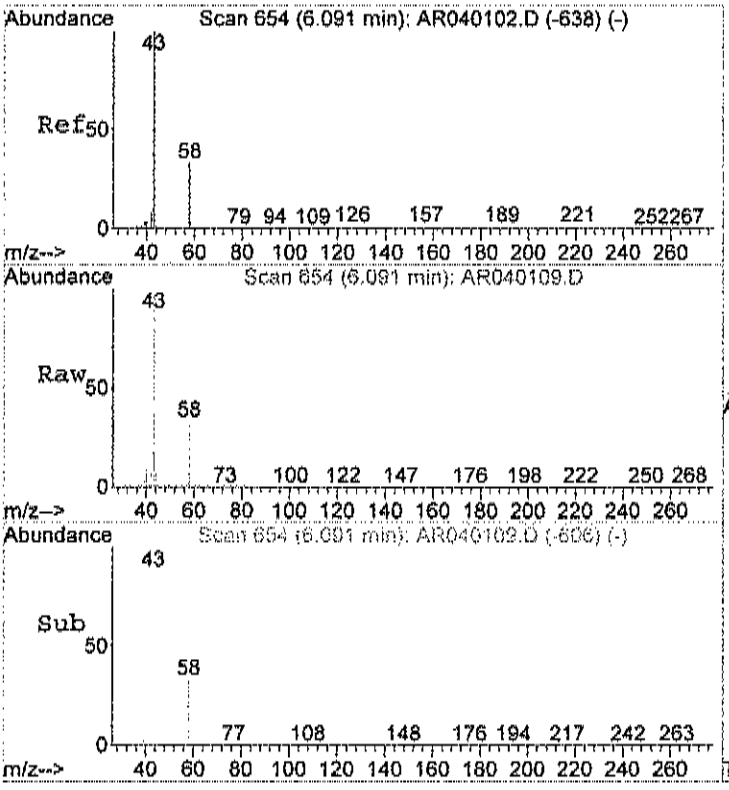


#14
Freon 11
Concen: 0.21 ppb
RT: 5.93 min Scan# 599
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion:101 Resp: 41257

Ion	Ratio	Lower	Upper
101	100		
103	67.0	44.2	84.2
105	11.7	0.0	30.3

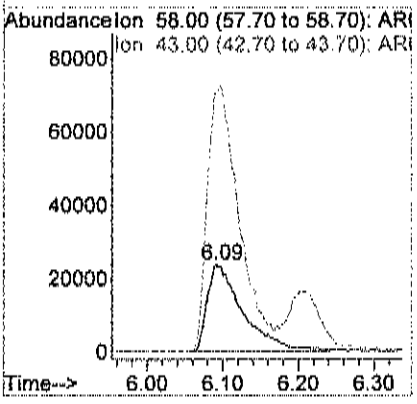


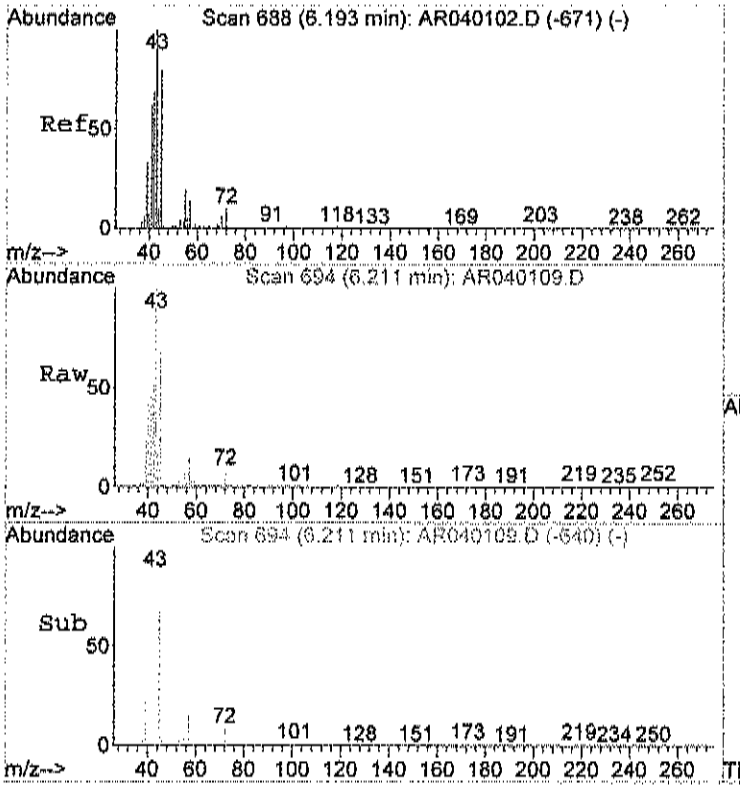


#15
Acetone
Concen: 3.51 ppb
RT: 6.09 min Scan# 654
Delta R.T. -0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 58 Resp: 78610

Ion	Ratio	Lower	Upper
58	100		
43	330.9	0.0	30.0#

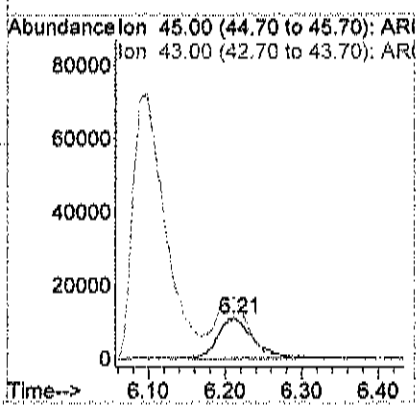


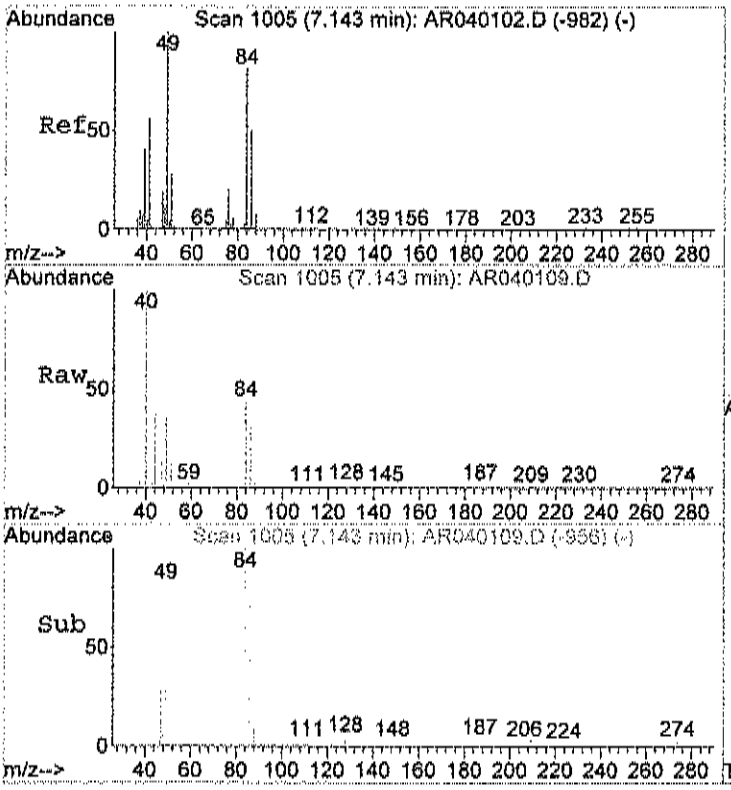


#17
Isopropyl alcohol
Concen: 0.68 ppb
RT: 6.21 min Scan# 694
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 45 Resp: 35632

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

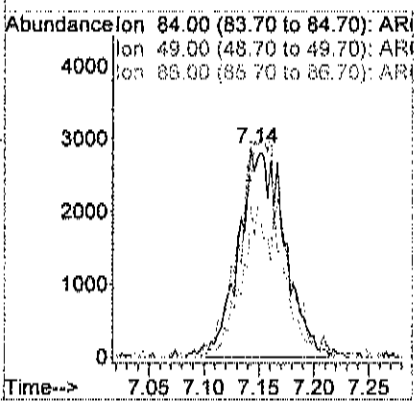


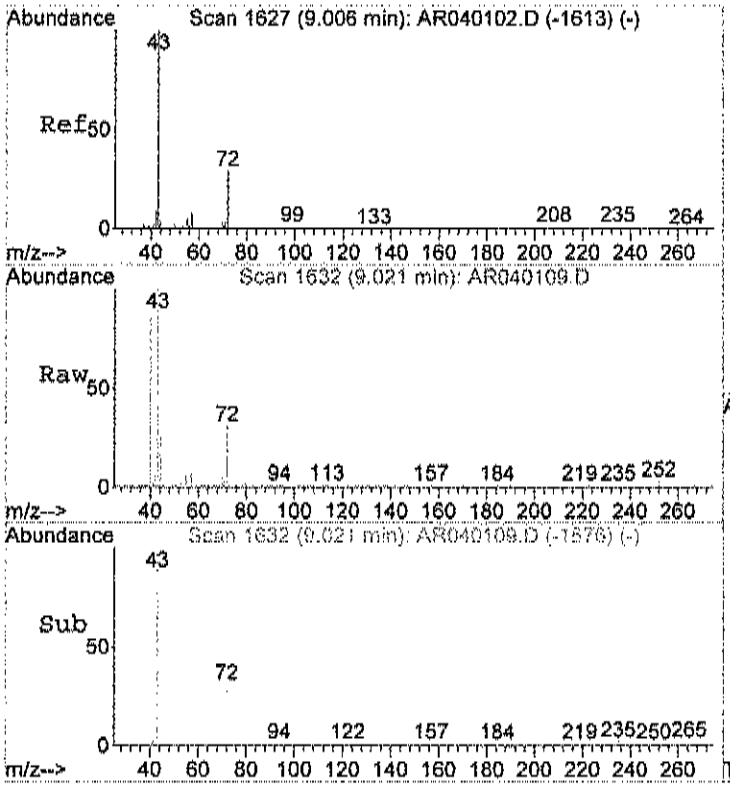


#21
Methylene chloride
Concen: 0.18 ppb
RT: 7.14 min Scan# 1005
Delta R.T. -0.00 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 84 Resp: 8266

Ion	Ratio	Lower	Upper
84	100		
49	104.2	101.4	141.4
86	65.3	45.4	85.4

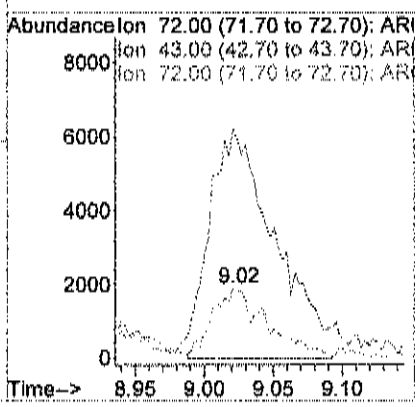


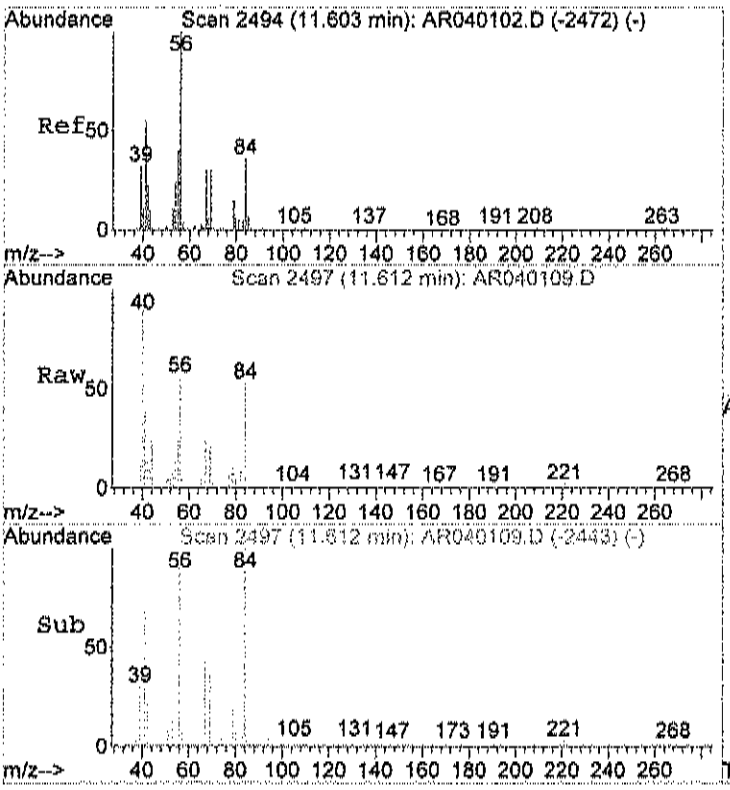


#28
Methyl Ethyl Ketone
Concen: 0.28 ppb
RT: 9.02 min Scan# 1632
Delta R.T. 0.02 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 72 Resp: 5239

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

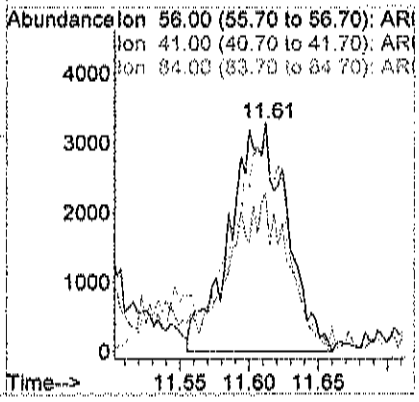


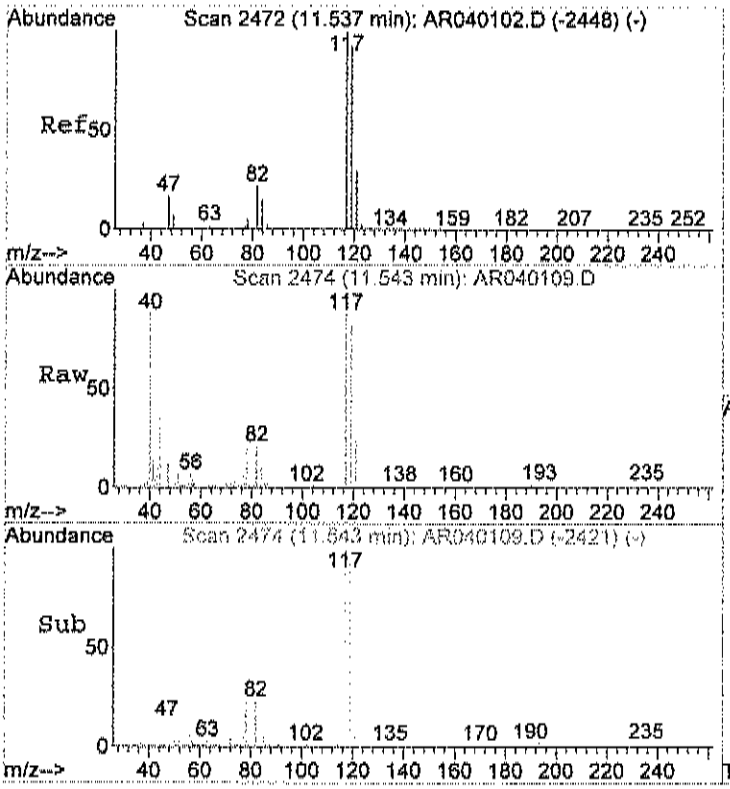


#37
Cyclohexane
Concen: 0.20 ppb
RT: 11.61 min Scan# 2497
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 56 Resp: 9341

Ion	Ratio	Lower	Upper
56	100		
41	63.9	42.3	82.3
84	109.3	107.7	147.7

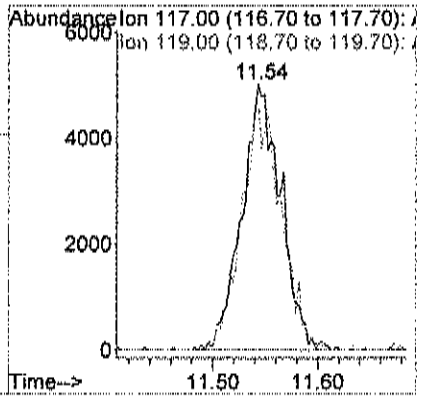


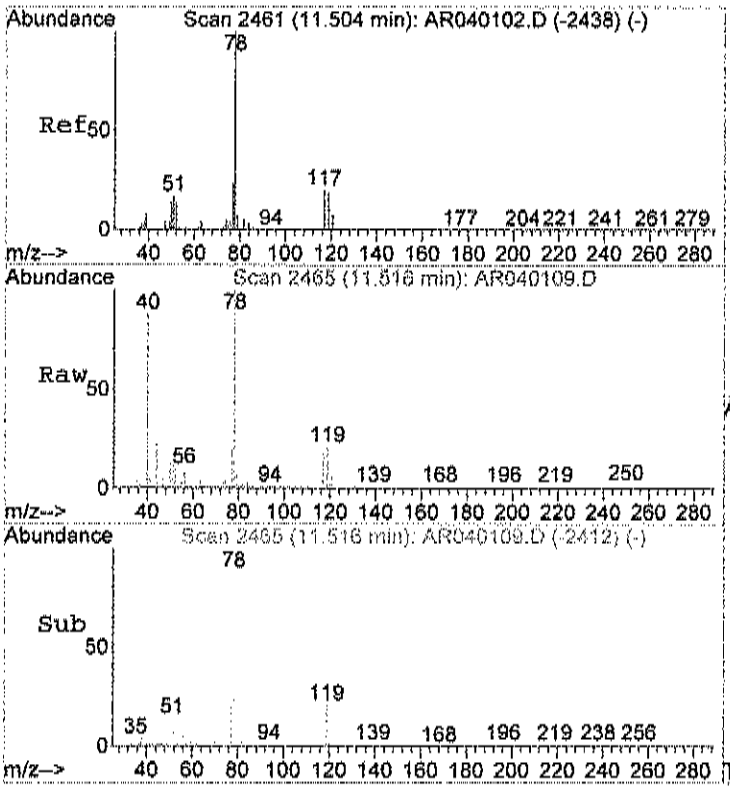


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.54 min Scan# 2474
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion:117 Resp: 12999

Ion	Ratio	Lower	Upper
117	100		
119	94.4	75.6	115.6

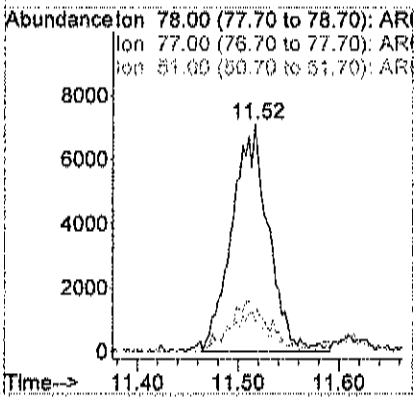


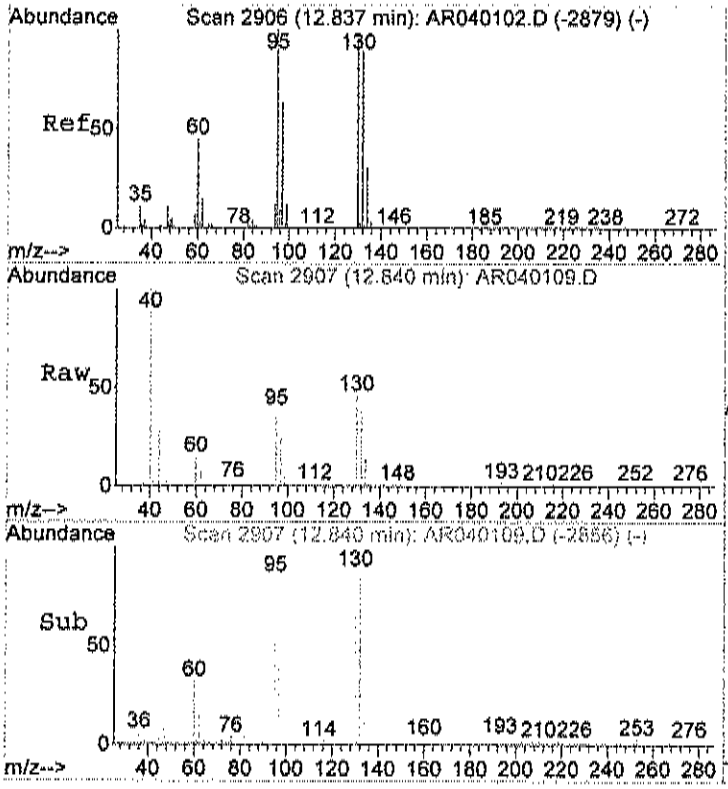


#39
Benzene
Concen: 0.15 ppb
RT: 11.52 min Scan# 2465
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 78 Resp: 18097

Ion	Ratio	Lower	Upper
78	100		
77	21.9	4.1	44.1
51	24.5	0.0	36.8

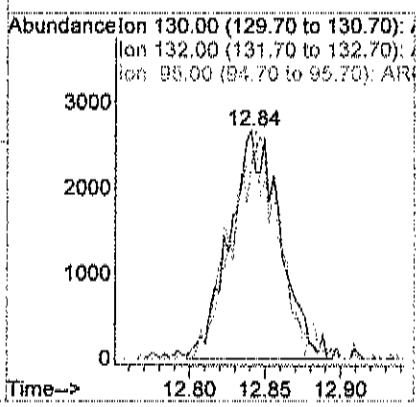


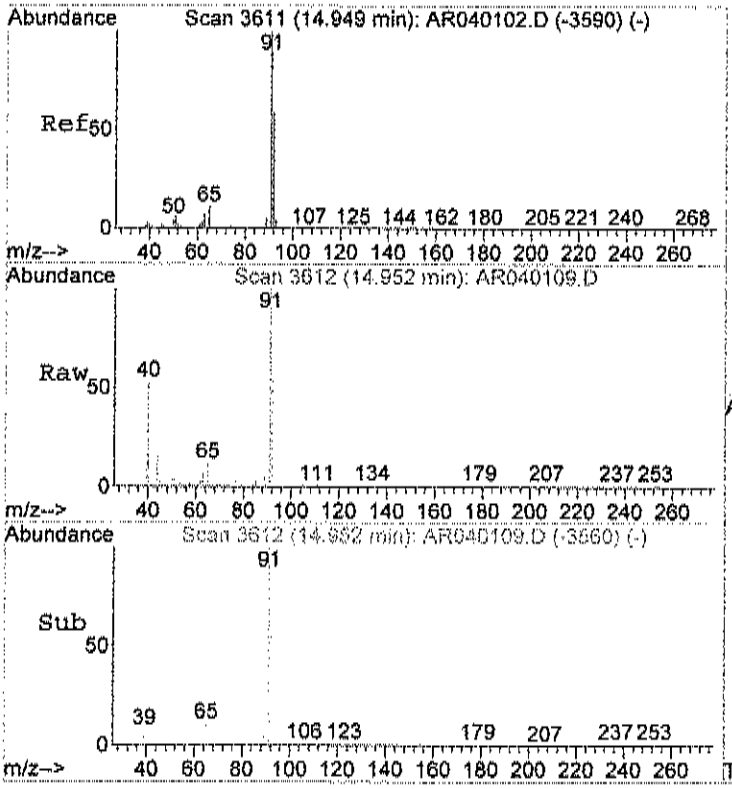


#44
Trichloroethene
Concen: 0.10 ppb
RT: 12.84 min Scan# 2907
Delta R.T. 0.00 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion:130 Resp: 6197

Ion	Ratio	Lower	Upper
130	100		
132	93.6	76.9	116.9
95	89.0	78.6	118.6

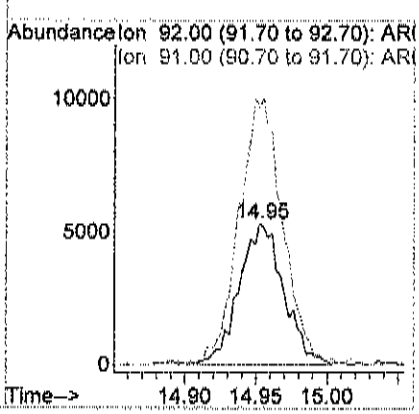




#51
Toluene
Concen: 0.15 ppb
RT: 14.95 min Scan# 3612
Delta R.T. 0.01 min
Lab File: AR040109.D
Acq: 1 Apr 2020 4:55 pm

Tgt Ion: 92 Resp: 11511

Ion	Ratio	Lower	Upper
92	100		
91	185.5	154.5	194.5



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040122.D Vial: 5
Acq On : 2 Apr 2020 3:00 am Operator: RJP
Sample : C2004002-005A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:28 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	33995	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	113472	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	100214	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	53883	0.75	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 75.00%			
Target Compounds						Qvalue
15) Acetone	6.10	58	7455	0.40	ppb	# 100

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

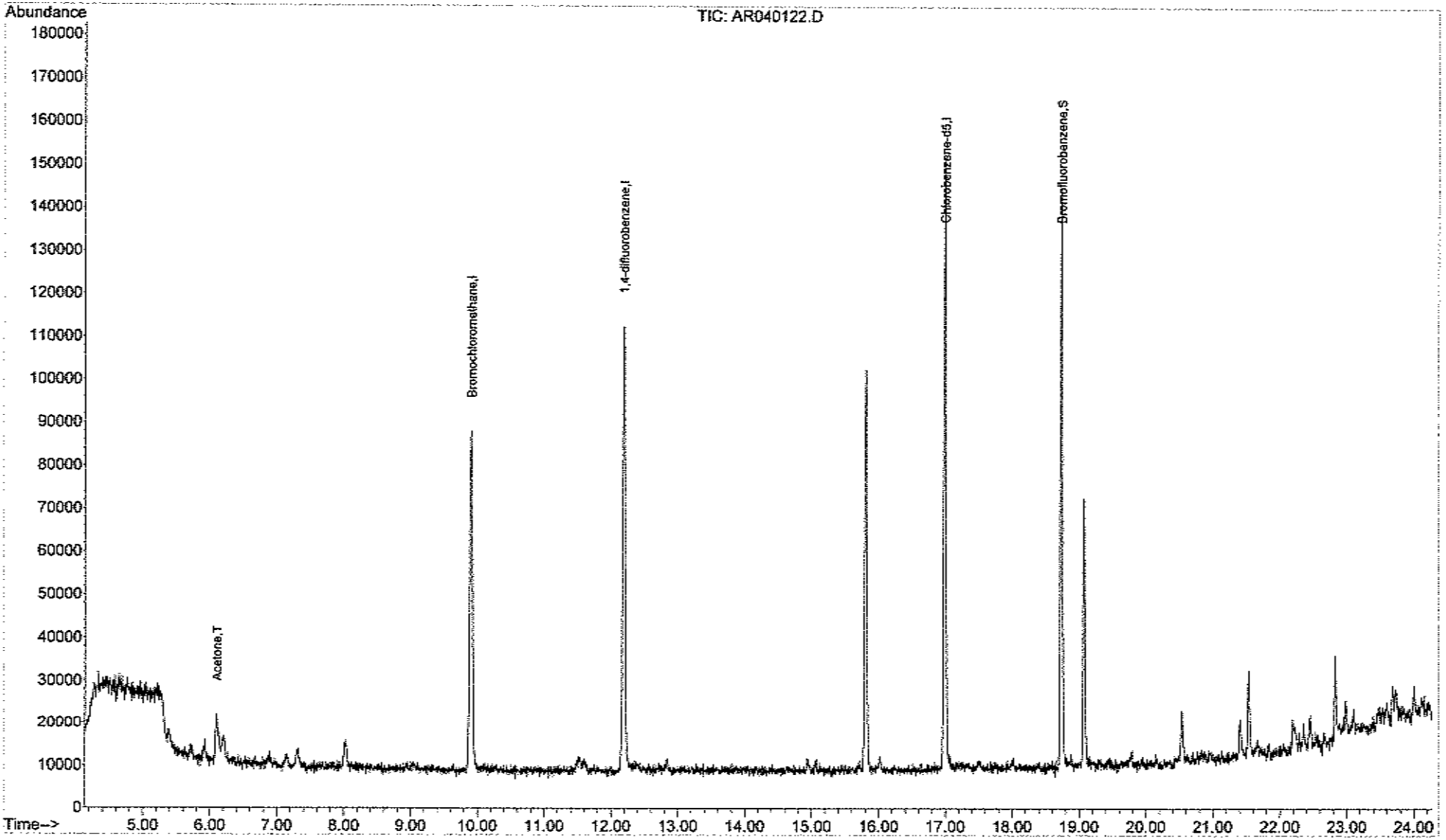
Quantitation Report (QT Reviewed)

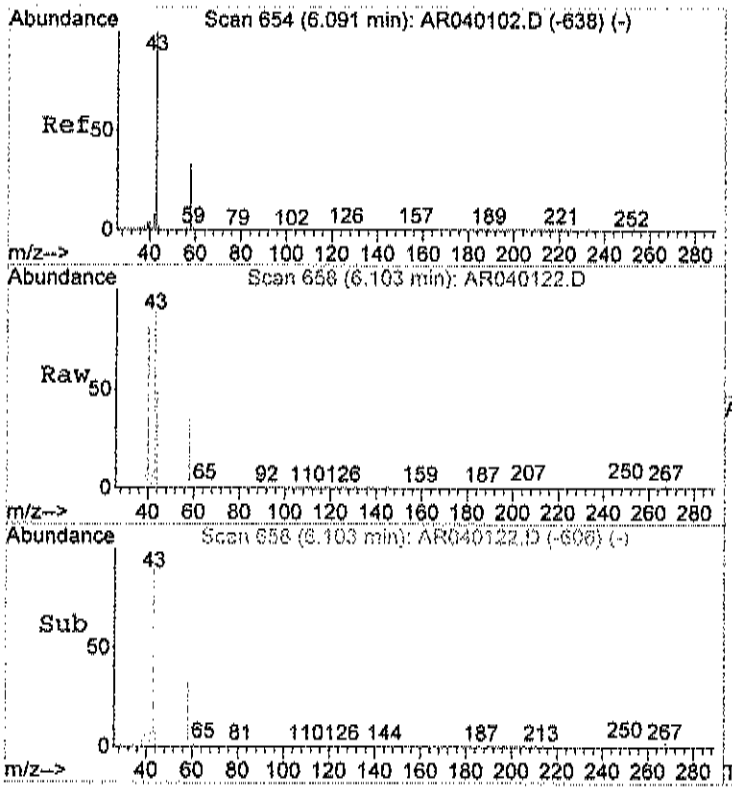
Data File : C:\HPCHEM\1\DATA\AR040122.D
Acq On : 2 Apr 2020 3:00 am
Sample : C2004002-005A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:20 2020

Vial: 5
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

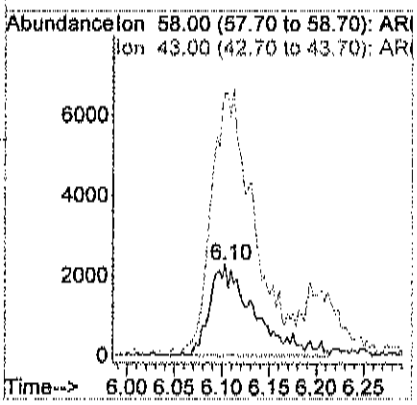




#15
Acetone
Concen: 0.40 ppb
RT: 6.10 min Scan# 658
Delta R.T. 0.01 min
Lab File: AR040122.D
Acq: 2 Apr 2020 3:00 am

Tgt Ion: 58 Resp: 7455

Ion	Ratio	Lower	Upper
58	100		
43	316.1	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-7			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2,4-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,3,5-Trimethylbenzene	0.11	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Acetone	13	3.0		ppbV	10	4/2/2020 3:46:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 5:42:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Carbon disulfide	0.14	0.15	J	ppbV	1	4/1/2020 5:42:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 5:42:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 5:42:00 PM
cis-1,2-Dichloroethene	0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Ethyl acetate	0.13	0.15	J	ppbV	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 11	0.74	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Freon 12	0.50	0.15		ppbV	1	4/1/2020 5:42:00 PM
Heptane	0.21	0.15		ppbV	1	4/1/2020 5:42:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Hexane	0.16	0.15		ppbV	1	4/1/2020 5:42:00 PM
Isopropyl alcohol	8.1	1.5		ppbV	10	4/2/2020 3:46:00 AM
m&p-Xylene	0.20	0.30	J	ppbV	1	4/1/2020 5:42:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl Ethyl Ketone	1.4	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 5:42:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Methylene chloride	0.20	0.15		ppbV	1	4/1/2020 5:42:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Tetrachloroethylene	0.20	0.15		ppbV	1	4/1/2020 5:42:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Toluene	0.39	0.15		ppbV	1	4/1/2020 5:42:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Trichloroethene	0.67	0.030		ppbV	1	4/1/2020 5:42:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 5:42:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 5:42:00 PM
Surr: Bromofluorobenzene	92.0	70-130		%REC	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 5:42:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 5:42:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 5:42:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 5:42:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
1,2,4-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 5:42:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 5:42:00 PM
1,3,5-Trimethylbenzene	0.54	0.74	J	ug/m3	1	4/1/2020 5:42:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 5:42:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 5:42:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 5:42:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 5:42:00 PM
Acetone	32	7.1		ug/m3	10	4/2/2020 3:46:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 5:42:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 5:42:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 5:42:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 5:42:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 5:42:00 PM
Carbon disulfide	0.44	0.47	J	ug/m3	1	4/1/2020 5:42:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 5:42:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 5:42:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 5:42:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 5:42:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 5:42:00 PM
cis-1,2-Dichloroethene	0.16	0.16		ug/m3	1	4/1/2020 5:42:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 5:42:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/1/2020 5:42:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 5:42:00 PM
Ethyl acetate	0.47	0.54	J	ug/m3	1	4/1/2020 5:42:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 5:42:00 PM
Freon 11	4.2	0.84		ug/m3	1	4/1/2020 5:42:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 5:42:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 5:42:00 PM

Qualifiers:

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B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	609
Lab Order:	C2004002	**Tag Number:**	157,374
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-006A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.5	0.74		ug/m3	1	4/1/2020 5:42:00 PM
Heptane	0.86	0.61		ug/m3	1	4/1/2020 5:42:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 5:42:00 PM
Hexane	0.56	0.53		ug/m3	1	4/1/2020 5:42:00 PM
Isopropyl alcohol	20	3.7		ug/m3	10	4/2/2020 3:46:00 AM
m&p-Xylene	0.87	1.3	J	ug/m3	1	4/1/2020 5:42:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
Methyl Ethyl Ketone	4.2	0.88		ug/m3	1	4/1/2020 5:42:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 5:42:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 5:42:00 PM
Methylene chloride	0.69	0.52		ug/m3	1	4/1/2020 5:42:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 5:42:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 5:42:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 5:42:00 PM
Tetrachloroethylene	1.4	1.0		ug/m3	1	4/1/2020 5:42:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 5:42:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 5:42:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 5:42:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 5:42:00 PM
Trichloroethene	3.6	0.16		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 5:42:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 5:42:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040110.D Vial: 6
Acq On : 1 Apr 2020 5:42 pm Operator: RJP
Sample : C2004002-006A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:16 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

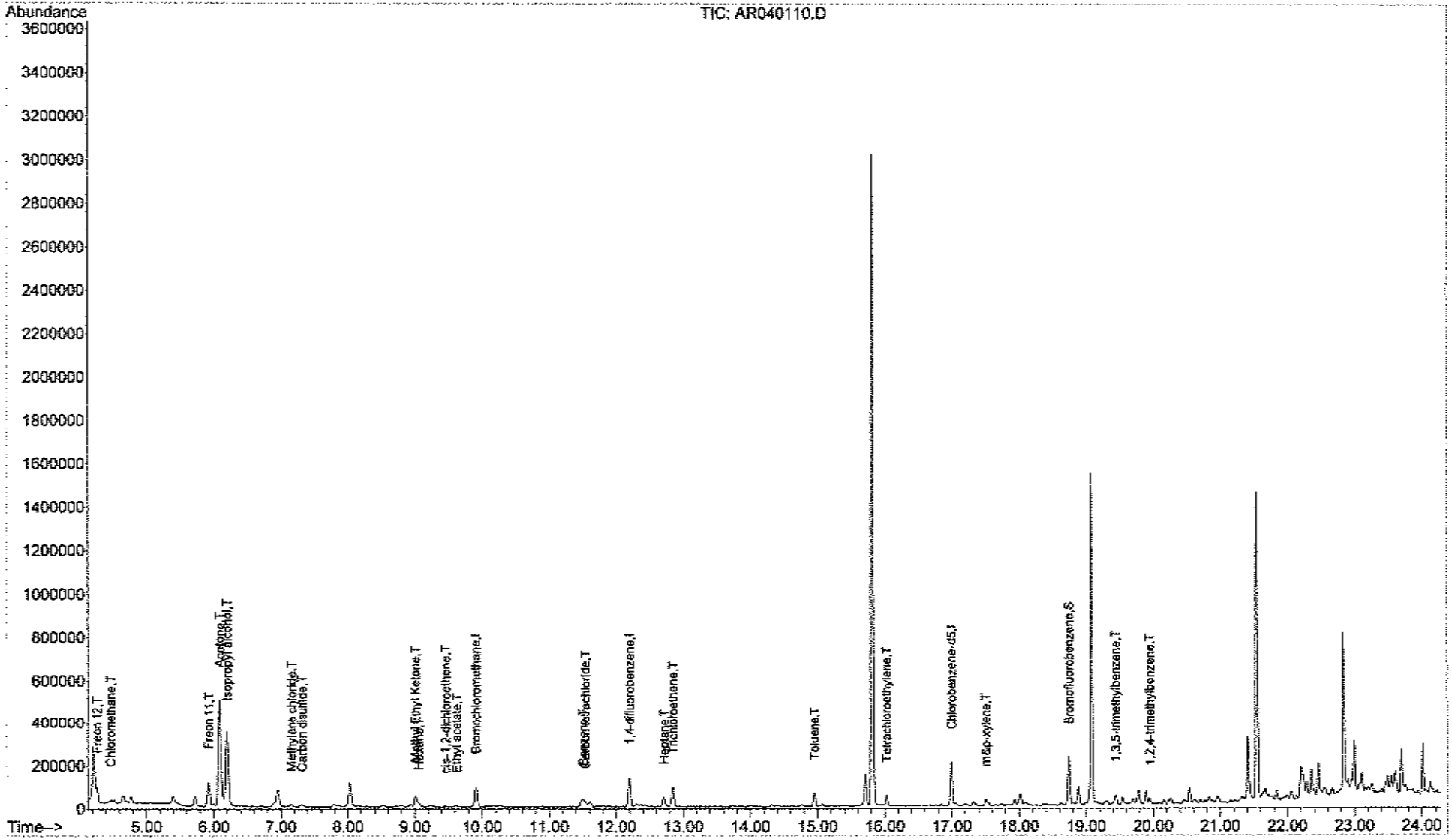
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	39234	1.00	ppb		0.01
35) 1,4-difluorobenzene	12.19	114	146232	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	138843	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	91464	0.92	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 92.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	87505	0.50	ppb		99
4) Chloromethane	4.47	50	15334	0.40	ppb		80
14) Freon 11	5.93	101	135574	0.74	ppb		98
15) Acetone	6.09	58	301279	14.08	ppb	#	100
17) Isopropyl alcohol	6.19	45	476206	9.48	ppb	#	1
21) Methylene chloride	7.15	84	8868	0.20	ppb		90
23) Carbon disulfide	7.31	76	18852	0.14	ppb		98
28) Methyl Ethyl Ketone	9.00	72	25700	1.43	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	2326	0.04	ppb		91
30) Hexane	9.06	57	7889m RJP	0.16	ppb		
31) Ethyl acetate	9.62	43	10509	0.13	ppb		95
38) Carbon tetrachloride	11.55	117	12234	0.09	ppb		98
39) Benzene	11.51	78	28324	0.23	ppb		98
43) Heptane	12.71	43	10350	0.21	ppb	#	52
44) Trichloroethene	12.85	130	41058	0.67	ppb		99
51) Toluene	14.96	92	32037	0.39	ppb		99
56) Tetrachloroethylene	16.02	164	13990	0.20	ppb		98
59) m&p-xylene	17.50	91	29805	0.20	ppb		97
70) 1,3,5-trimethylbenzene	19.43	105	21467m RJP	0.11	ppb		
71) 1,2,4-trimethylbenzene	19.95	105	17719	0.11	ppb		96

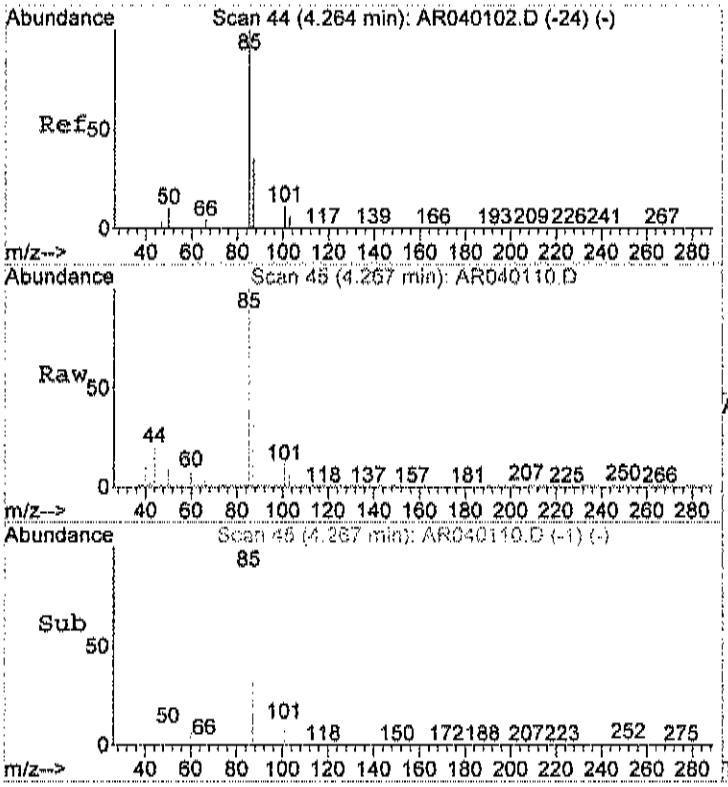
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040110.D Vial: 6
Acq On : 1 Apr 2020 5:42 pm Operator: RJP
Sample : C2004002-006A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:58 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

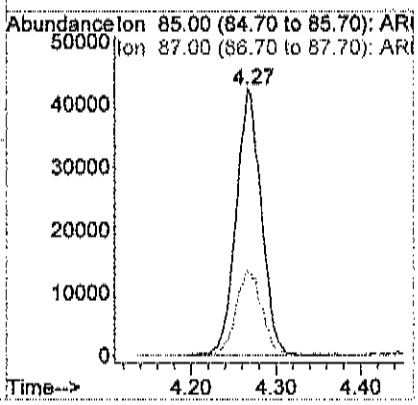


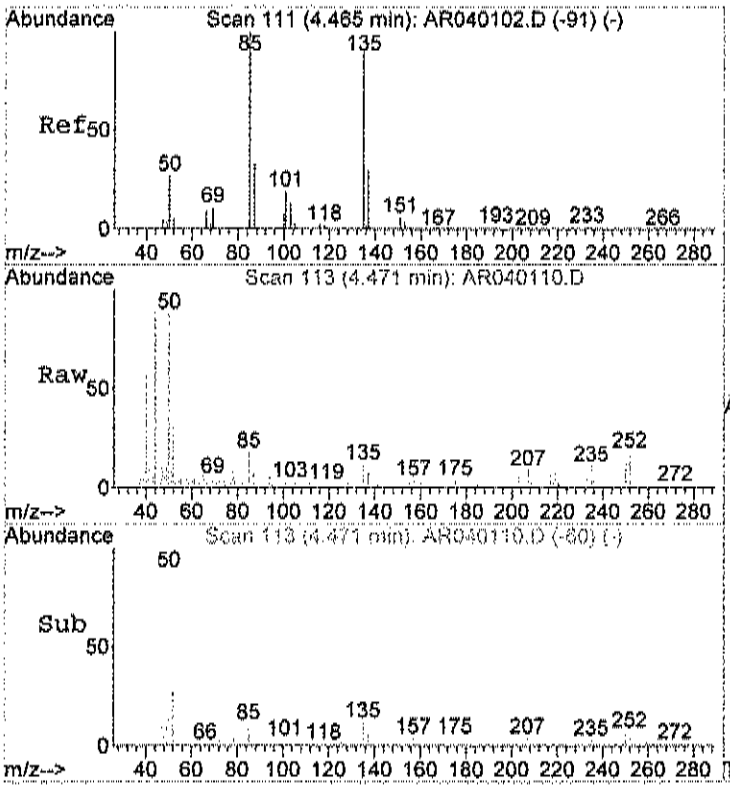


#3
Freon 12
Concen: 0.50 ppb
RT: 4.27 min Scan# 45
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 85 Resp: 87505

Ion	Ratio	Lower	Upper
85	100		
87	32.6	11.9	51.9

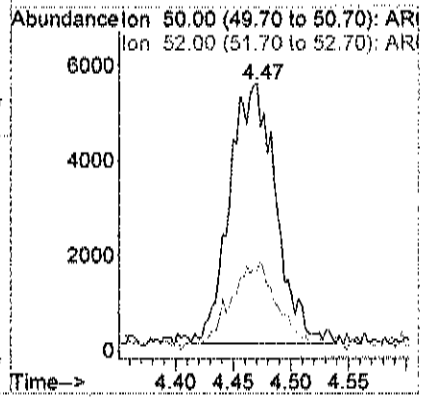


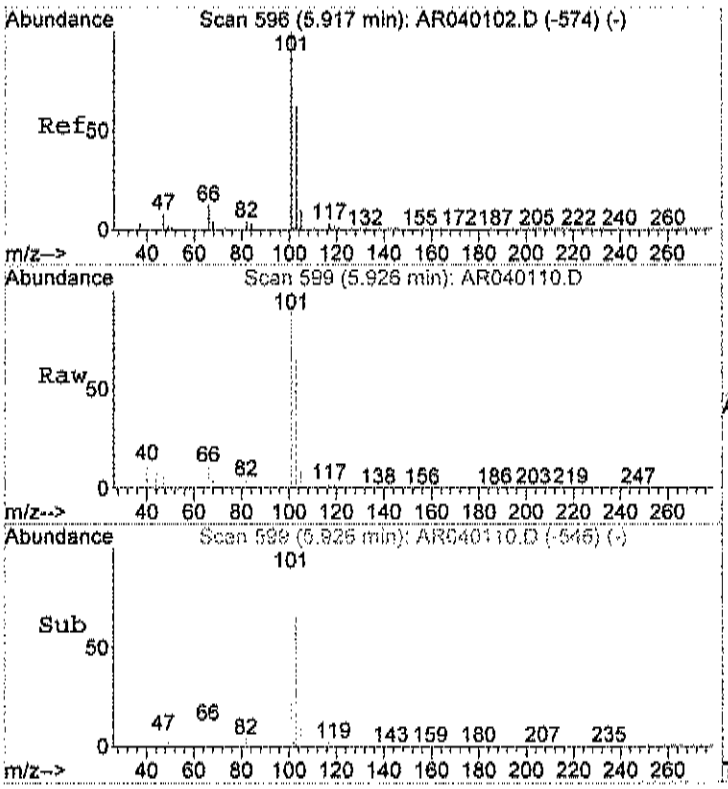


#4
Chloromethane
Concen: 0.40 ppb
RT: 4.47 min Scan# 113
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 50 Resp: 15334

Ion	Ratio	Lower	Upper
50	100		
52	36.4	6.1	46.1

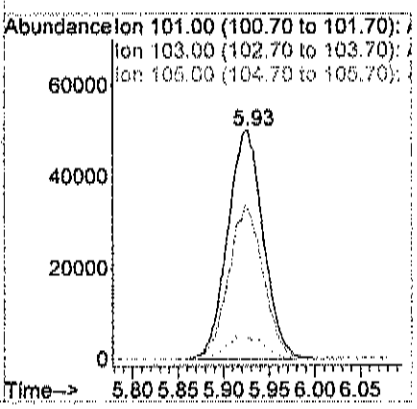


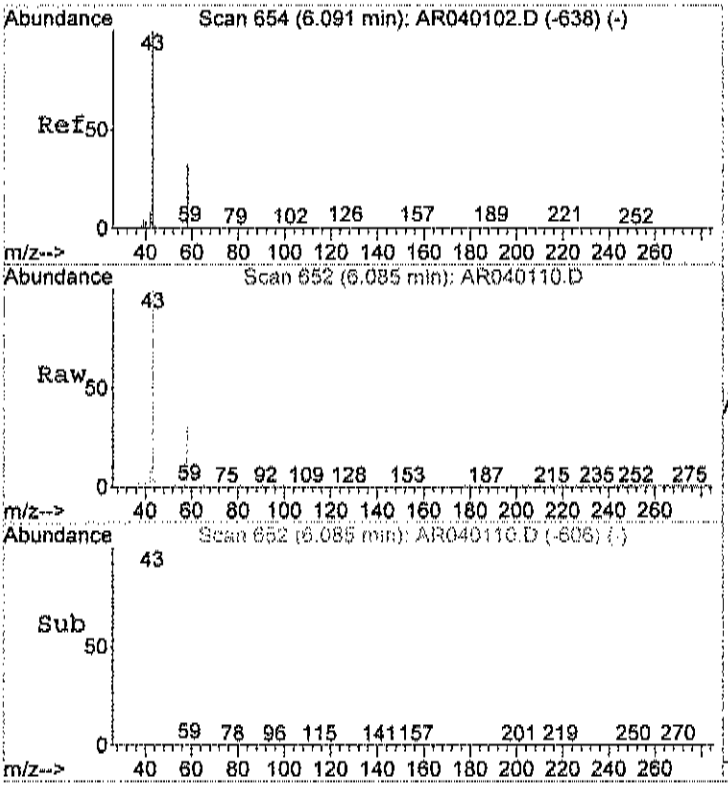


#14
Freon 11
Concen: 0.74 ppb
RT: 5.93 min Scan# 599
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion:101 Resp: 135574

Ion	Ratio	Lower	Upper
101	100		
103	65.7	44.2	84.2
105	11.0	0.0	30.3

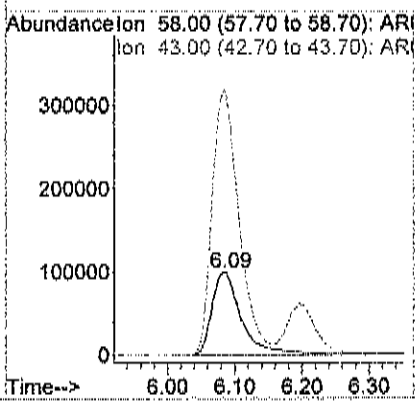


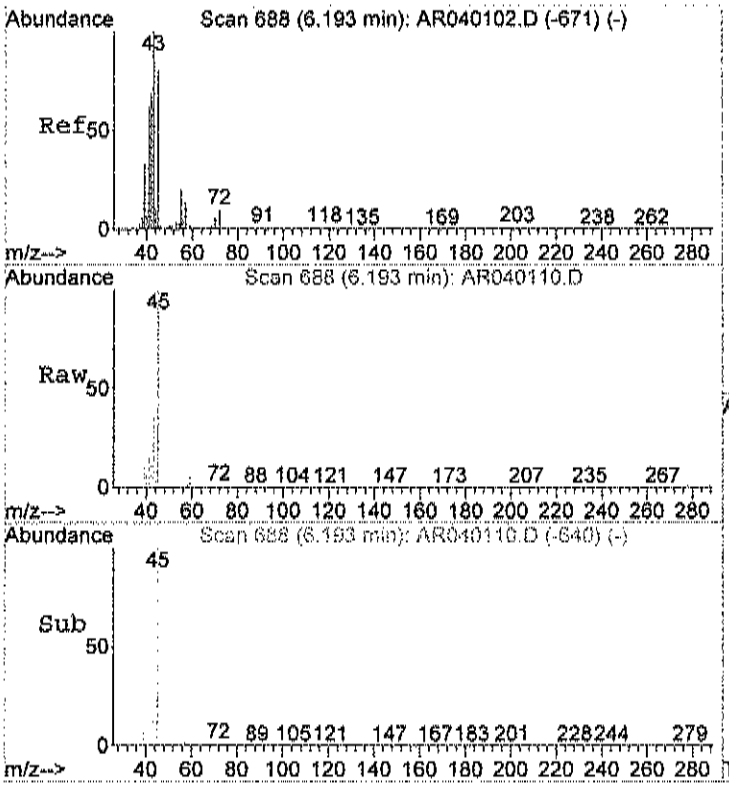


#15
Acetone
Concen: 14.08 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 58 Resp: 301279

Ion	Ratio	Lower	Upper
58	100		
43	353.3	0.0	30.0#

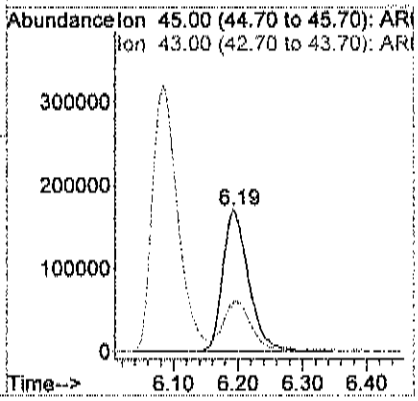


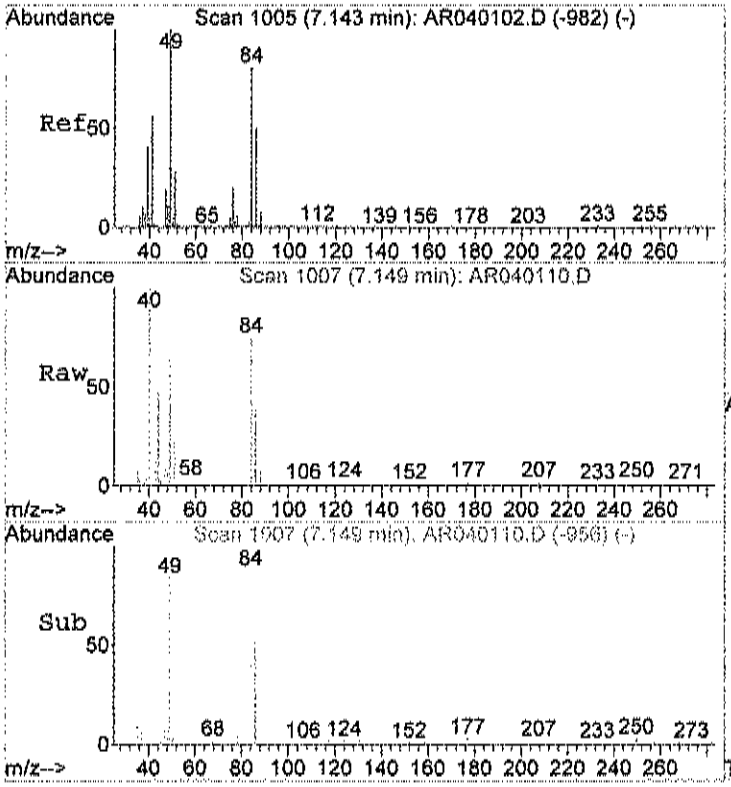


#17
Isopropyl alcohol
Concen: 9.48 ppb
RT: 6.19 min Scan# 688
Delta R.T. -0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 45 Resp: 476206

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

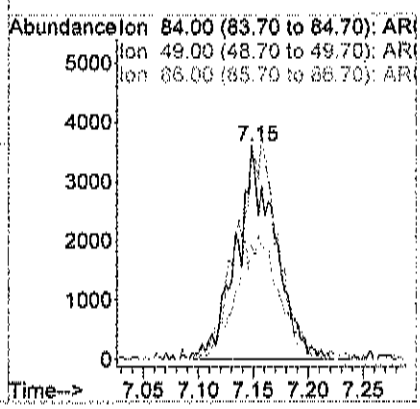


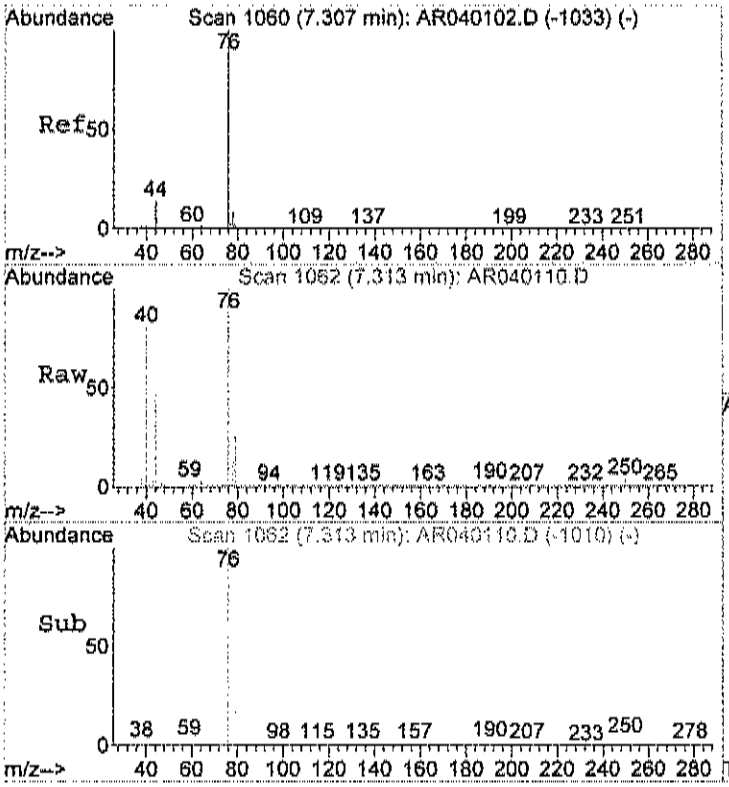


#21
Methylene chloride
Concen: 0.20 ppb
RT: 7.15 min Scan# 1007
Delta R.T. 0.00 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 84 Resp: 8868

Ion	Ratio	Lower	Upper
84	100		
49	105.7	101.4	141.4
86	62.9	45.4	85.4

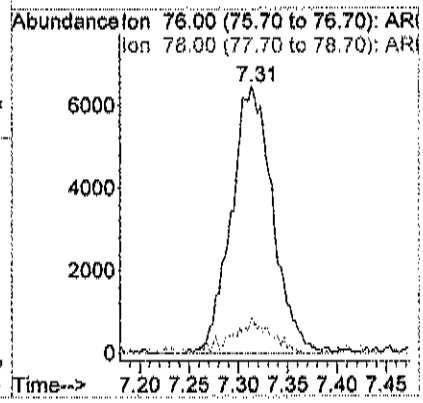


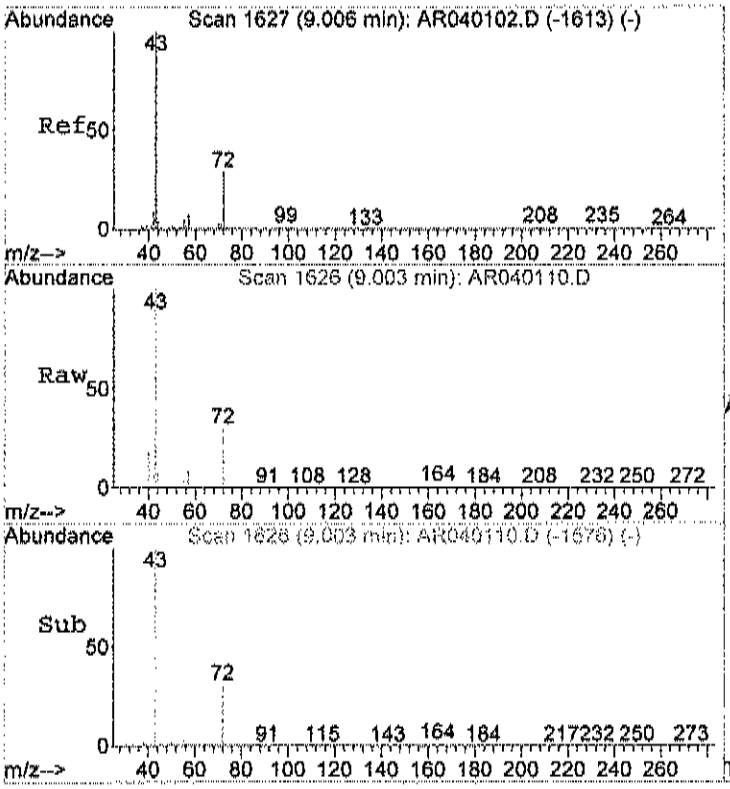


#23
Carbon disulfide
Concen: 0.14 ppb
RT: 7.31 min Scan# 1062
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 76 Resp: 18852

Ion	Ratio	Lower	Upper
76	100		
78	10.3	0.0	29.7

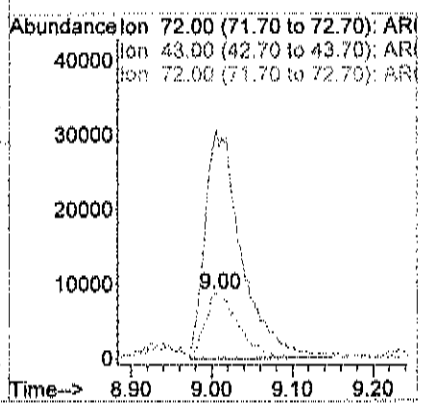


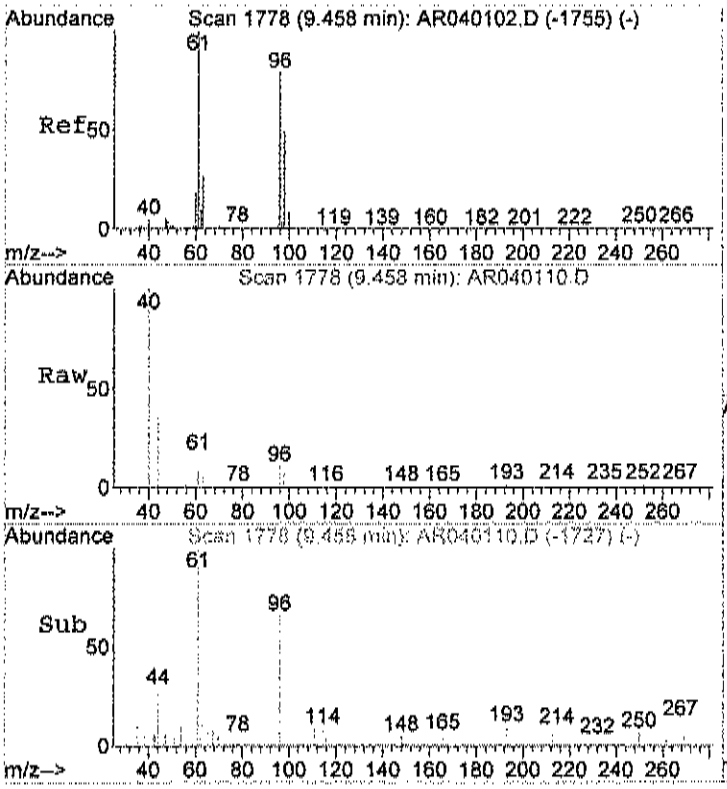


#28
Methyl Ethyl Ketone
Concen: 1.43 ppb
RT: 9.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 72 Resp: 25700

Ion	Ratio	Lower	Upper
72	100		
43	360.4	0.0	20.0#
72	100.0	80.0	120.0

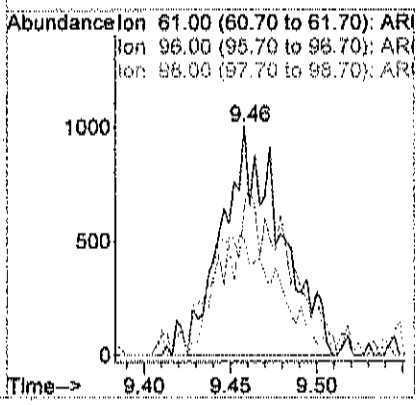


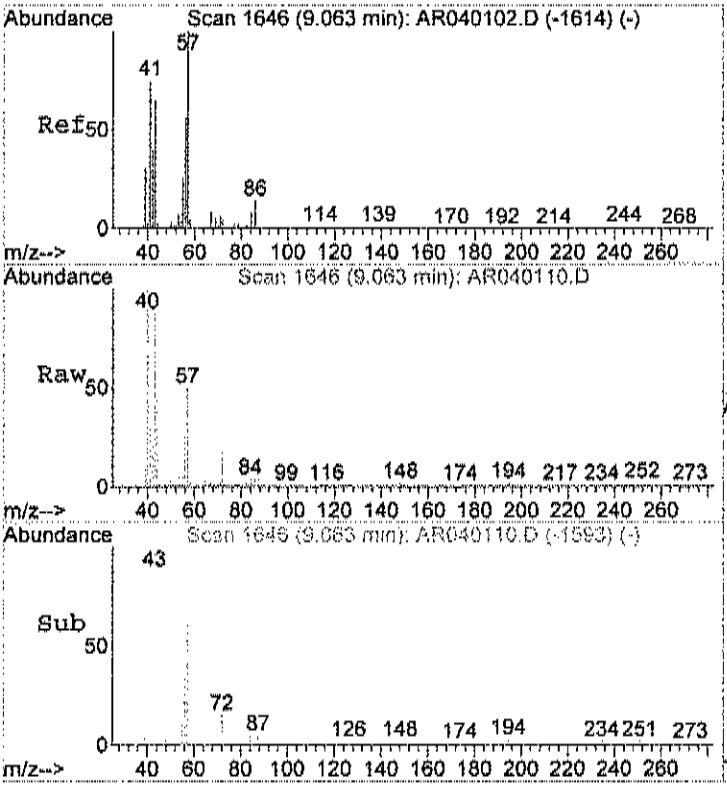


#29
cis-1,2-dichloroethene
Concen: 0.04 ppb
RT: 9.46 min Scan# 1778
Delta R.T. 0.00 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 61 Resp: 2326

Ion	Ratio	Lower	Upper
61	100		
96	83.2	57.9	97.9
98	58.0	28.8	68.8

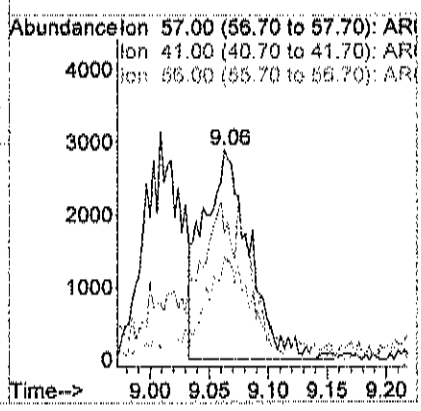


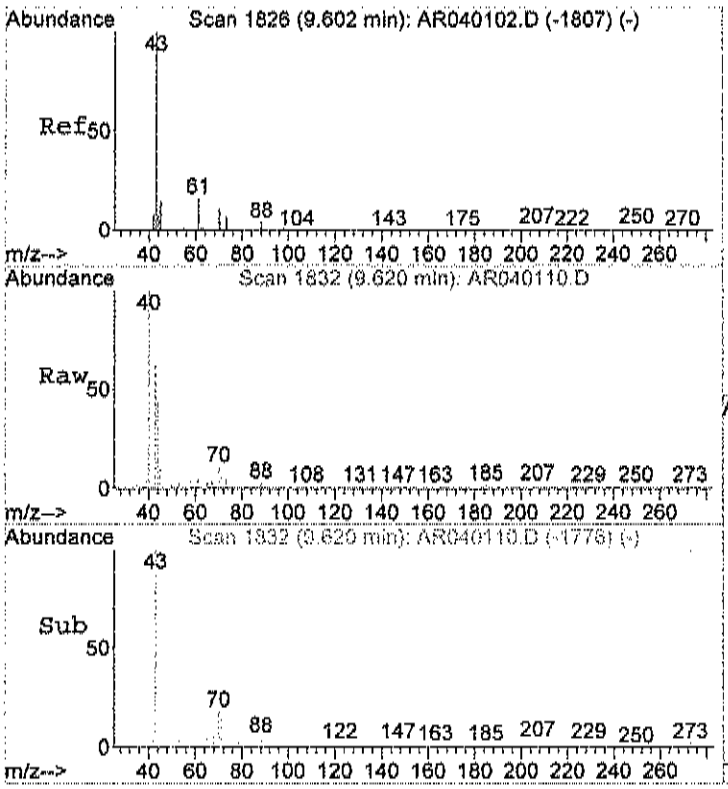


#30
Hexane
Concen: 0.16 ppb m
RT: 9.06 min Scan# 1646
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 57 Resp: 7889

Ion	Ratio	Lower	Upper
57	100		
41	0.0	55.7	95.7#
56	0.0	32.4	72.4#

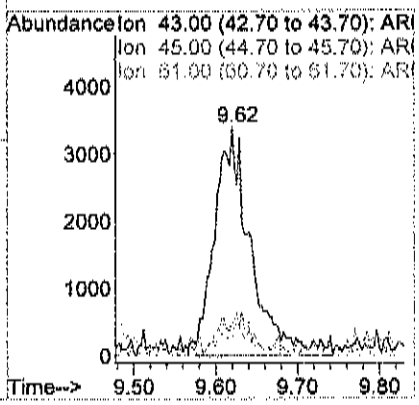


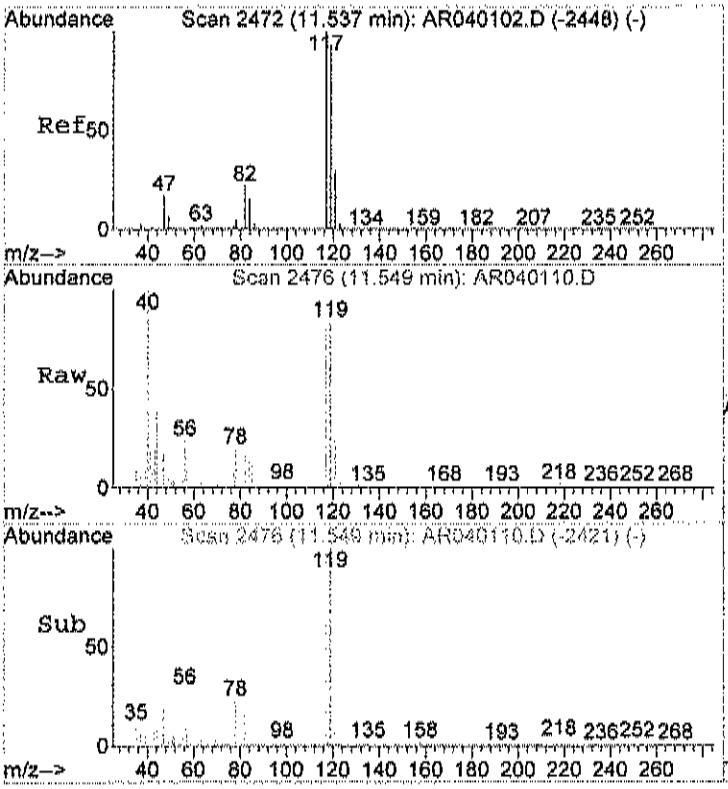


#31
Ethyl acetate
Concen: 0.13 ppb
RT: 9.62 min Scan# 1832
Delta R.T. 0.02 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 43 Resp: 10509

Ion	Ratio	Lower	Upper
43	100		
45	13.2	0.0	34.5
61	13.3	0.0	35.8

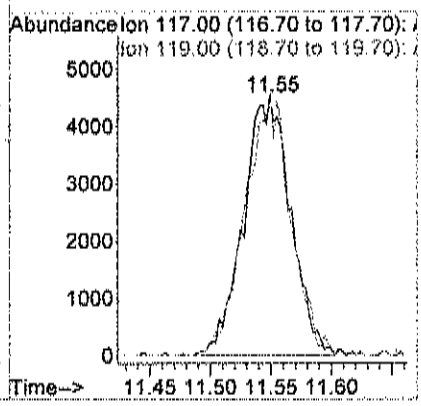


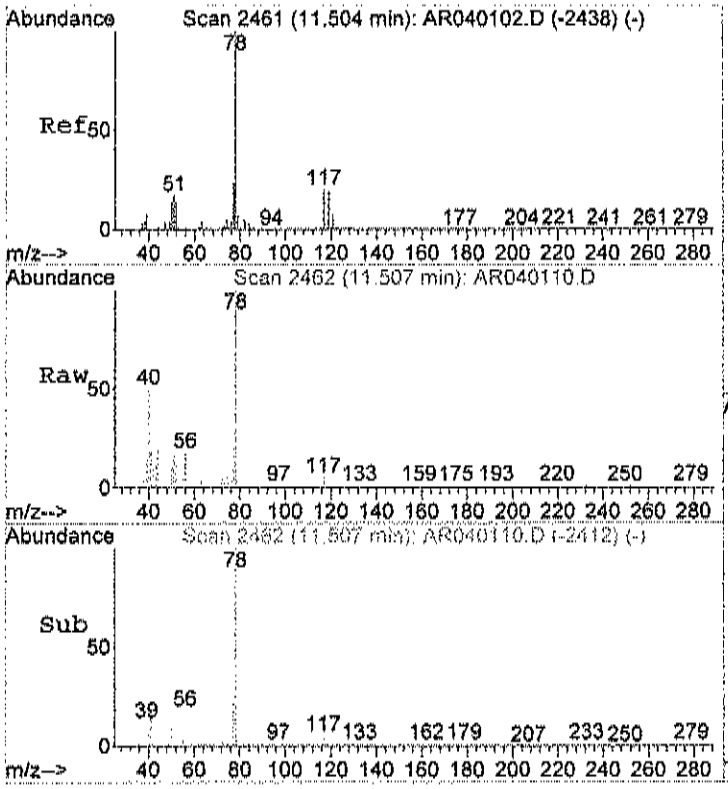


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2476
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion:117 Resp: 12234

Ion	Ratio	Lower	Upper
117	100		
119	97.9	75.6	115.6

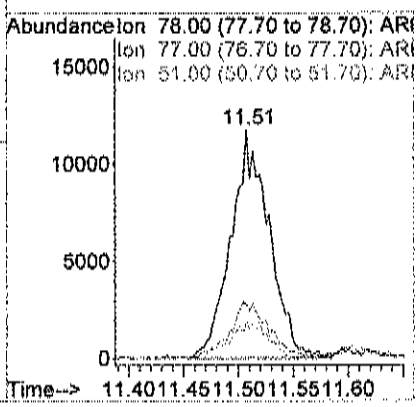


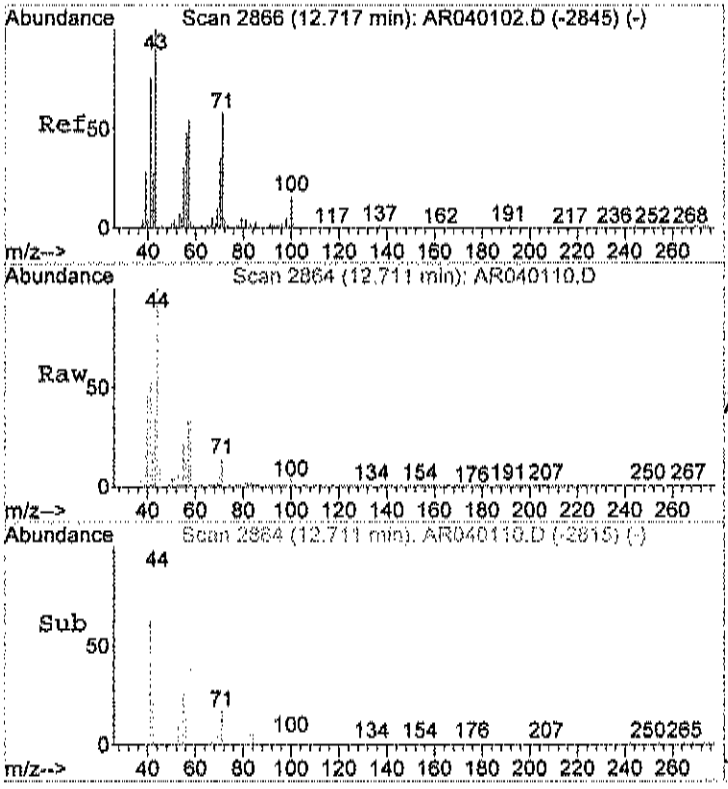


#39
Benzene
Concen: 0.23 ppb
RT: 11.51 min Scan# 2462
Delta R.T. -0.00 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 78 Resp: 28324

Ion	Ratio	Lower	Upper
78	100		
77	25.2	4.1	44.1
51	17.7	0.0	36.8

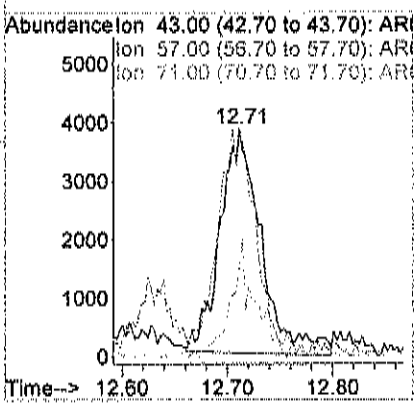


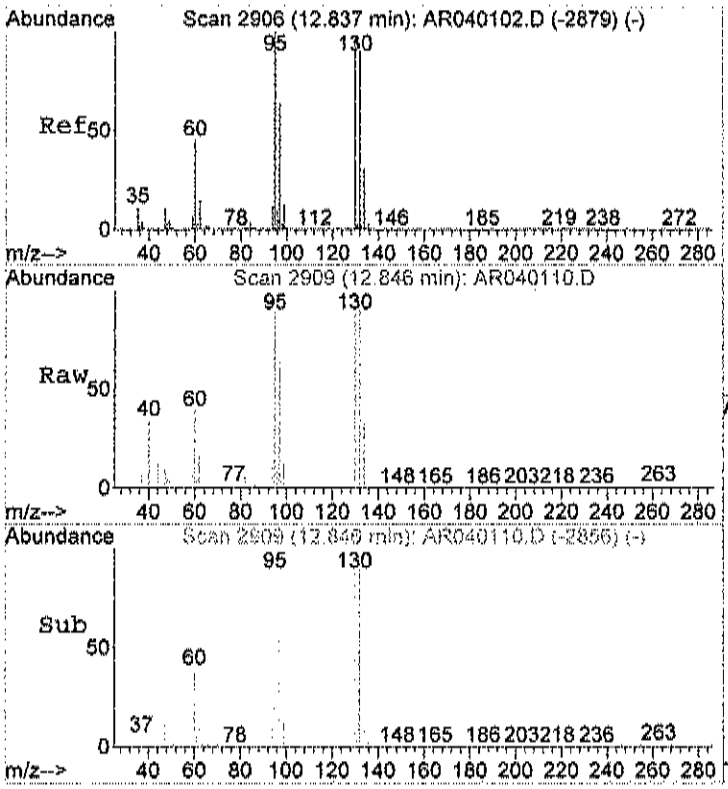


#43
Heptane
Concen: 0.21 ppb
RT: 12.71 min Scan# 2864
Delta R.T. -0.00 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 43 Resp: 10350

Ion	Ratio	Lower	Upper
43	100		
57	96.8	36.0	76.0#
71	30.6	42.5	82.5#

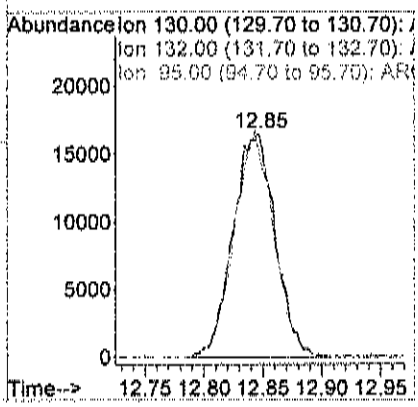


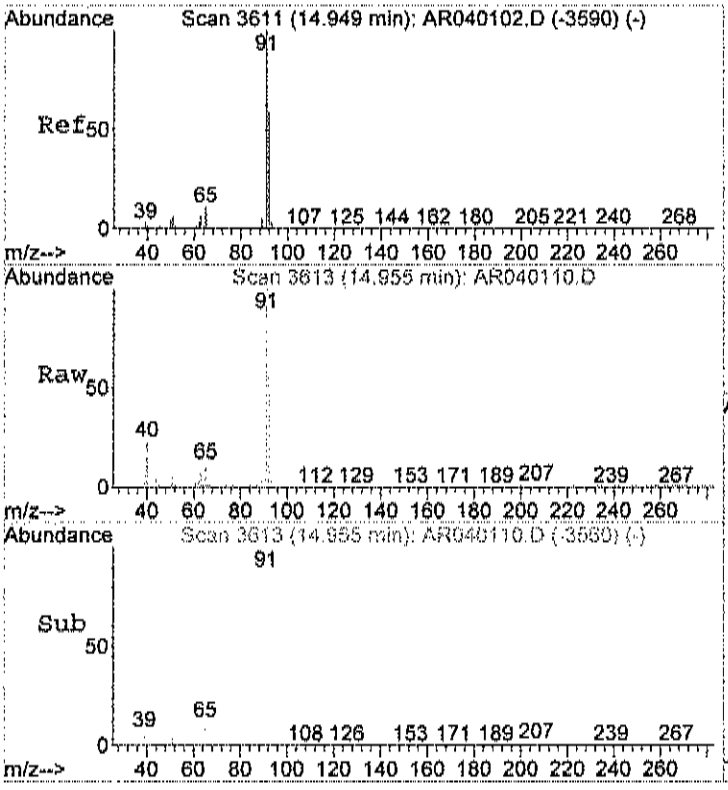


#44
Trichloroethene
Concen: 0.67 ppb
RT: 12.85 min Scan# 2909
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion:130 Resp: 41058

Ion	Ratio	Lower	Upper
130	100		
132	96.1	76.9	116.9
95	97.9	78.6	118.6

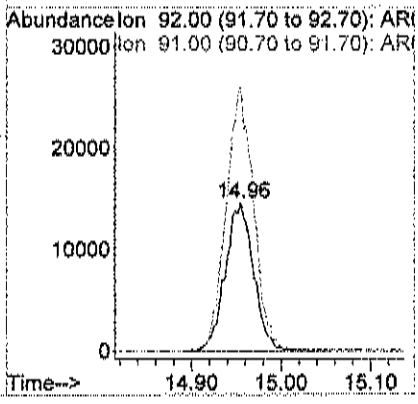


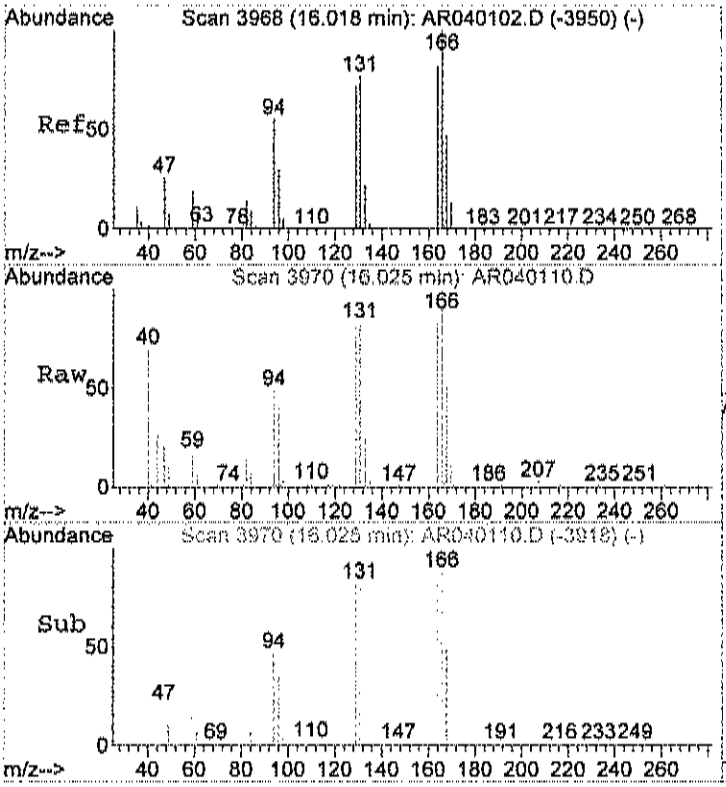


#51
Toluene
Concen: 0.39 ppb
RT: 14.96 min Scan# 3613
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 92 Resp: 32037

Ion	Ratio	Lower	Upper
92	100		
91	173.3	154.5	194.5

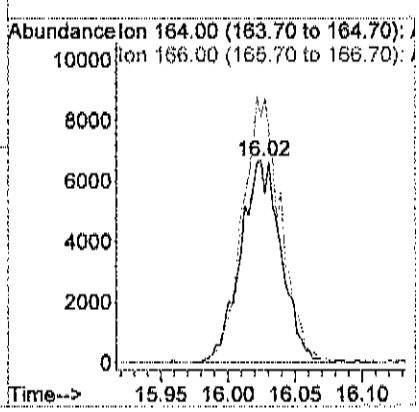


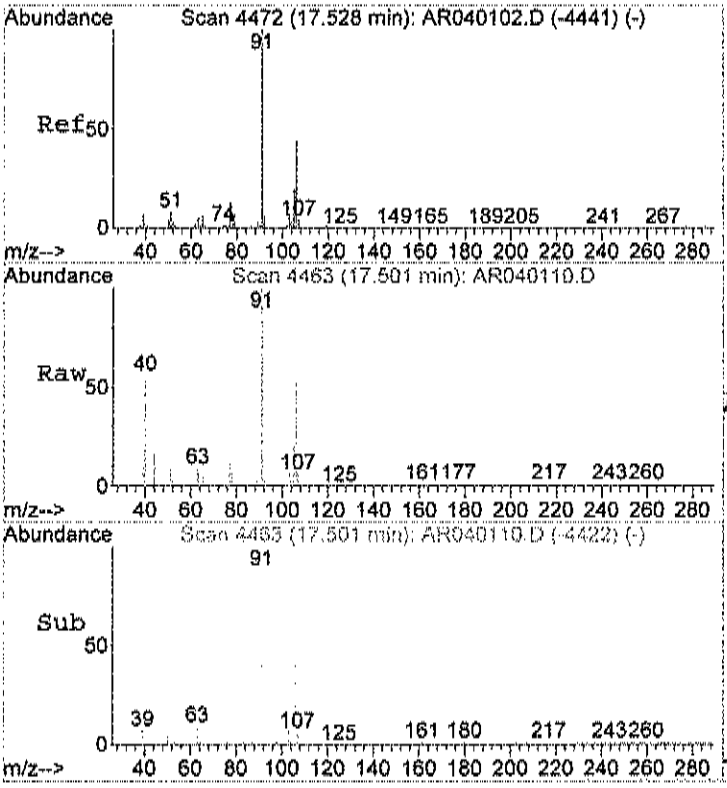


#56
Tetrachloroethylene
Concen: 0.20 ppb
RT: 16.02 min Scan# 3970
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion:164 Resp: 13990

Ion	Ratio	Lower	Upper
164	100		
166	123.6	106.4	146.4

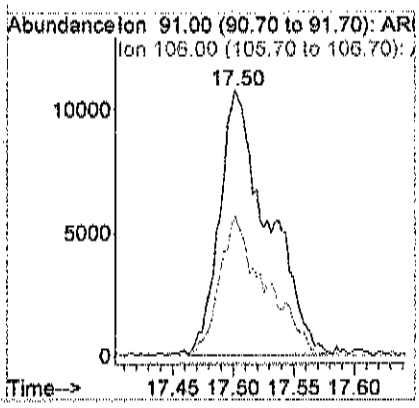


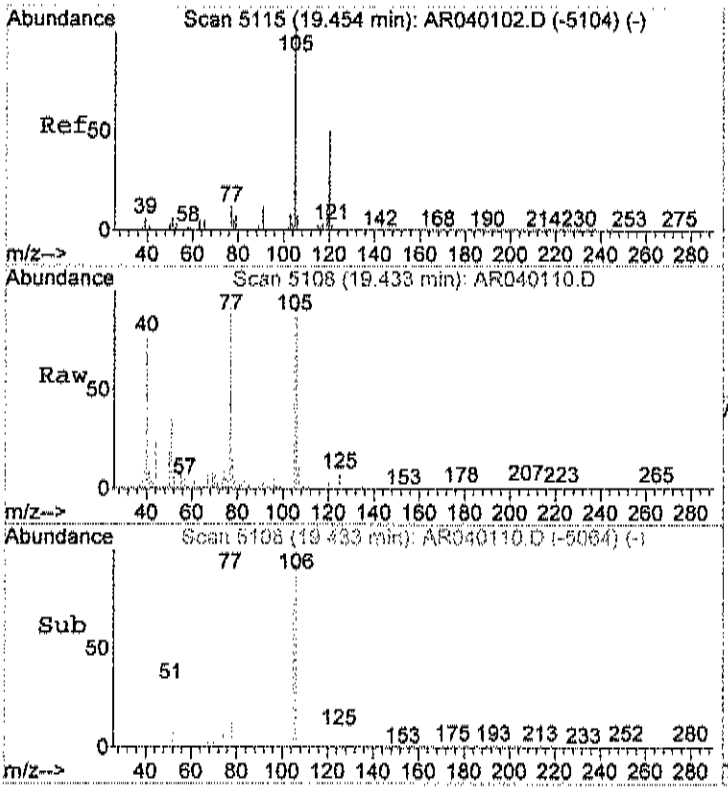


#59
m&p-xylene
Concen: 0.20 ppb
RT: 17.50 min Scan# 4463
Delta R.T. -0.03 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion: 91 Resp: 29805

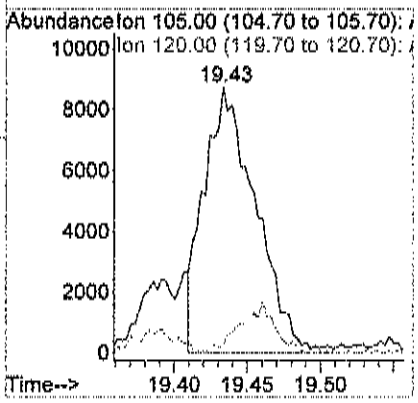
Ion	Ratio	Lower	Upper
91	100		
106	50.9	29.0	69.0

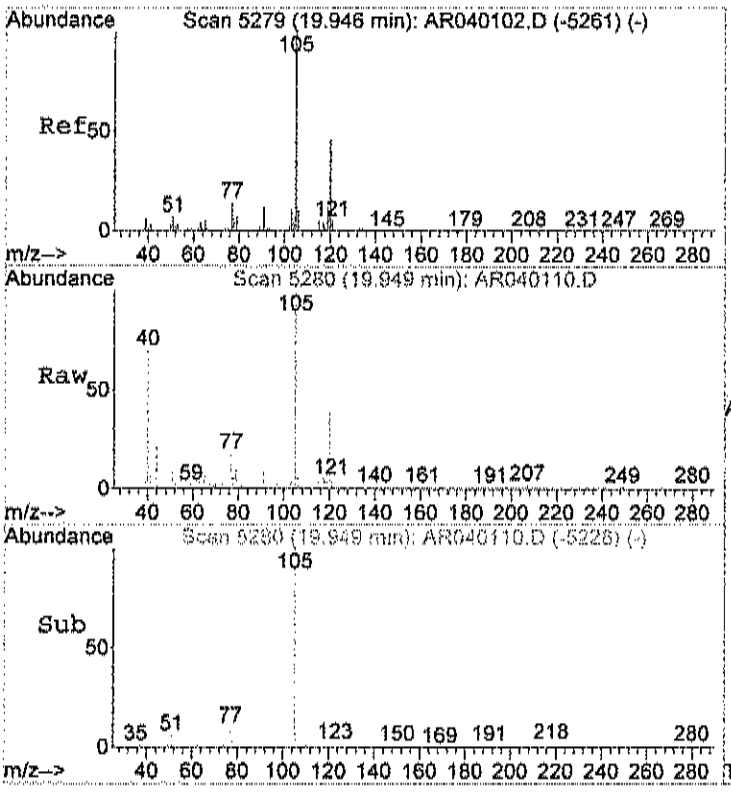




#70
1,3,5-trimethylbenzene
Concen: 0.11 ppb m
RT: 19.43 min Scan# 5108
Delta R.T. -0.02 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

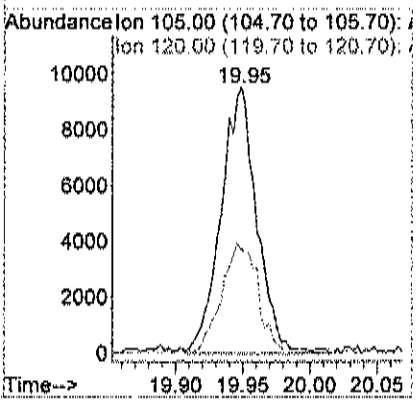
Tgt Ion:105	Resp:	21467
Ion	Ratio	Lower	Upper
105	100		
120	12.5	28.2	68.2#





#71
1,2,4-trimethylbenzene
Concen: 0.11 ppb
RT: 19.95 min Scan# 5280
Delta R.T. 0.01 min
Lab File: AR040110.D
Acq: 1 Apr 2020 5:42 pm

Tgt Ion:105	Resp:	17719
Ion	Ratio	Lower	Upper
105	100		
120	42.5	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040123.D Vial: 6
Acq On : 2 Apr 2020 3:46 am Operator: RJP
Sample : C2004002-006A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:29 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	32288	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	106685	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	94853	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	50097	0.74	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 74.00%			
Target Compounds						Qvalue
15) Acetone	6.09	58	23424m	1.33	ppb	
17) Isopropyl alcohol	6.20	45	33586	0.81	ppb	# 1

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

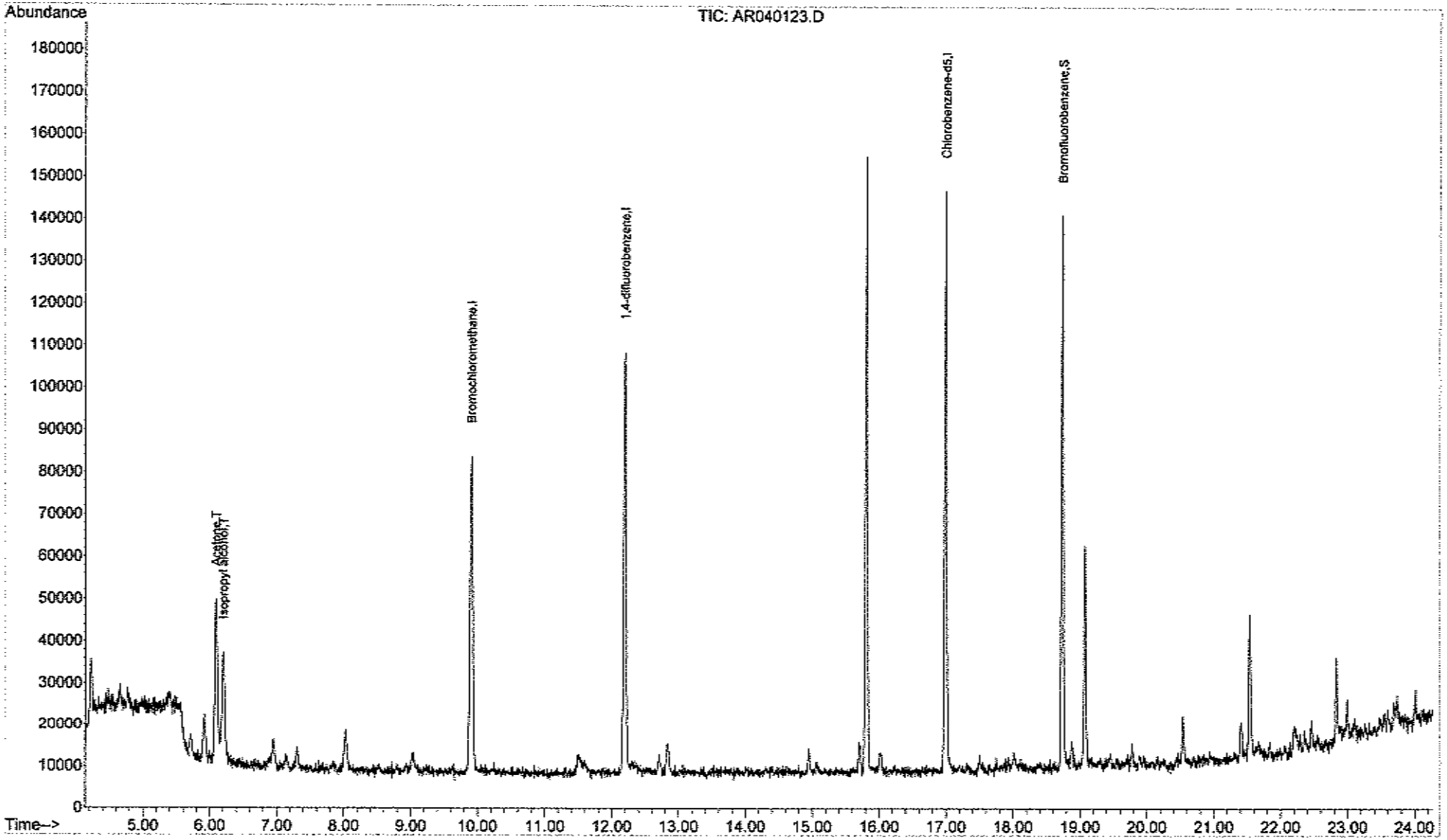
Quantitation Report (QT Reviewed)

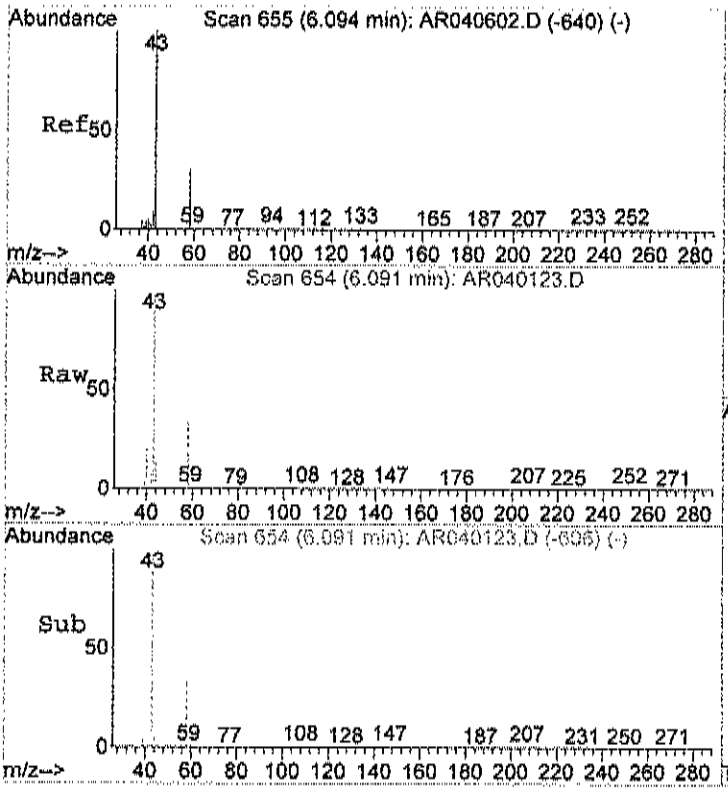
Data File : C:\HPCHEM\1\DATA\AR040123.D
Acq On : 2 Apr 2020 3:46 am
Sample : C2004002-006A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:20 2020

Vial: 6
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:51:17 2020
Response via : Initial Calibration

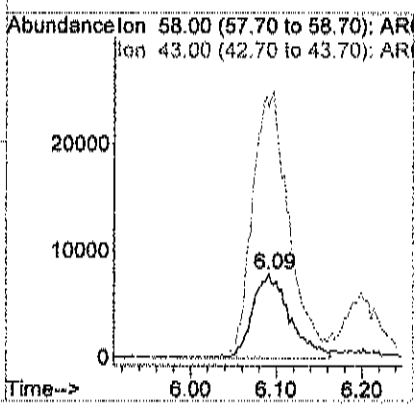


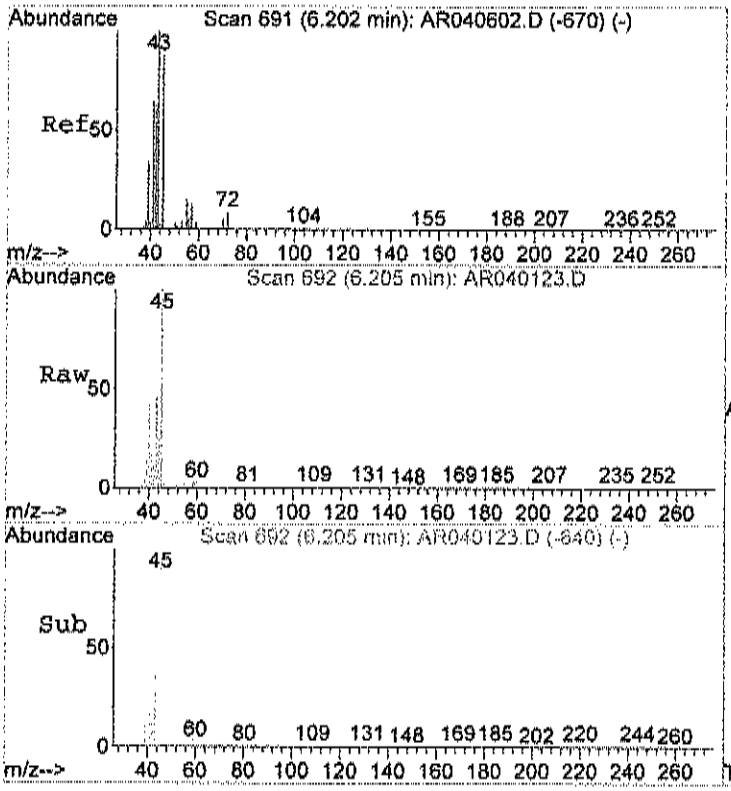


#15
Acetone
Concen: 1.33 ppb m
RT: 6.09 min Scan# 654
Delta R.T. -0.01 min
Lab File: AR040123.D
Acq: 2 Apr 2020 3:46 am

Tgt Ion: 58 Resp: 23424

Ion	Ratio	Lower	Upper
58	100		
43	380.9	0.0	30.0#

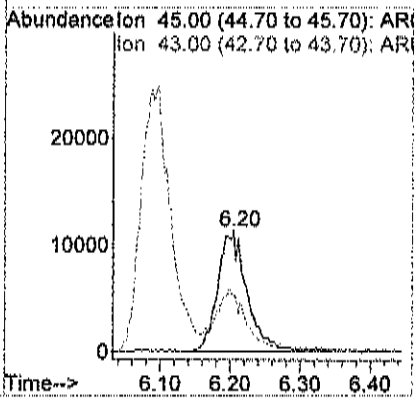




#17
Isopropyl alcohol
Concen: 0.81 ppb
RT: 6.20 min Scan# 692
Delta R.T. 0.01 min
Lab File: AR040123.D
Acq: 2 Apr 2020 3:46 am

Tgt Ion: 45 Resp: 33586

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 6:29:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
2,2,4-trimethylpentane	0.11	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Acetone	13	3.0		ppbV	10	4/2/2020 4:32:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Benzene	0.21	0.15		ppbV	1	4/1/2020 6:29:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 6:29:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Chloromethane	0.37	0.15		ppbV	1	4/1/2020 6:29:00 PM
cis-1,2-Dichloroethene	0.10	0.040		ppbV	1	4/1/2020 6:29:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Cyclohexane	0.29	0.15		ppbV	1	4/1/2020 6:29:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Ethyl acetate	0.22	0.15		ppbV	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 11	0.25	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Freon 12	0.46	0.15		ppbV	1	4/1/2020 6:29:00 PM
Heptane	0.37	0.15		ppbV	1	4/1/2020 6:29:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Hexane	0.25	0.15		ppbV	1	4/1/2020 6:29:00 PM
Isopropyl alcohol	1.7	0.15		ppbV	1	4/1/2020 6:29:00 PM
m&p-Xylene	0.28	0.30	J	ppbV	1	4/1/2020 6:29:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl Ethyl Ketone	0.58	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 6:29:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Methylene chloride	0.16	0.15		ppbV	1	4/1/2020 6:29:00 PM
o-Xylene	0.12	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Tetrachloroethylene	0.11	0.15	J	ppbV	1	4/1/2020 6:29:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Toluene	0.34	0.15		ppbV	1	4/1/2020 6:29:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Trichloroethene	0.79	0.030		ppbV	1	4/1/2020 6:29:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 6:29:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 6:29:00 PM
Surr: Bromofluorobenzene	84.0	70-130		%REC	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	,	Results reported are not blank corrected
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JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 6:29:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 6:29:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 6:29:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 6:29:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 6:29:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 6:29:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
2,2,4-trimethylpentane	0.51	0.70	J	ug/m3	1	4/1/2020 6:29:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 6:29:00 PM
Acetone	31	7.1		ug/m3	10	4/2/2020 4:32:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 6:29:00 PM
Benzene	0.67	0.48		ug/m3	1	4/1/2020 6:29:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 6:29:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 6:29:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 6:29:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 6:29:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 6:29:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 6:29:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 6:29:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 6:29:00 PM
Chloromethane	0.76	0.31		ug/m3	1	4/1/2020 6:29:00 PM
cis-1,2-Dichloroethene	0.40	0.16		ug/m3	1	4/1/2020 6:29:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 6:29:00 PM
Cyclohexane	1.0	0.52		ug/m3	1	4/1/2020 6:29:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 6:29:00 PM
Ethyl acetate	0.79	0.54		ug/m3	1	4/1/2020 6:29:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 6:29:00 PM
Freon 11	1.4	0.84		ug/m3	1	4/1/2020 6:29:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 6:29:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 6:29:00 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	611
Lab Order:	C2004002	**Tag Number:**	130,375
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-007A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 6:29:00 PM
Heptane	1.5	0.61		ug/m3	1	4/1/2020 6:29:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 6:29:00 PM
Hexane	0.88	0.53		ug/m3	1	4/1/2020 6:29:00 PM
Isopropyl alcohol	4.1	0.37		ug/m3	1	4/1/2020 6:29:00 PM
m&p-Xylene	1.2	1.3	J	ug/m3	1	4/1/2020 6:29:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
Methyl Ethyl Ketone	1.7	0.88		ug/m3	1	4/1/2020 6:29:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 6:29:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 6:29:00 PM
Methylene chloride	0.56	0.52		ug/m3	1	4/1/2020 6:29:00 PM
o-Xylene	0.52	0.65	J	ug/m3	1	4/1/2020 6:29:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 6:29:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 6:29:00 PM
Tetrachloroethylene	0.75	1.0	J	ug/m3	1	4/1/2020 6:29:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 6:29:00 PM
Toluene	1.3	0.57		ug/m3	1	4/1/2020 6:29:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 6:29:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 6:29:00 PM
Trichloroethene	4.2	0.16		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 6:29:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 6:29:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040111.D Vial: 7
Acq On : 1 Apr 2020 6:29 pm Operator: RJP
Sample : C2004002-007A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:17 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

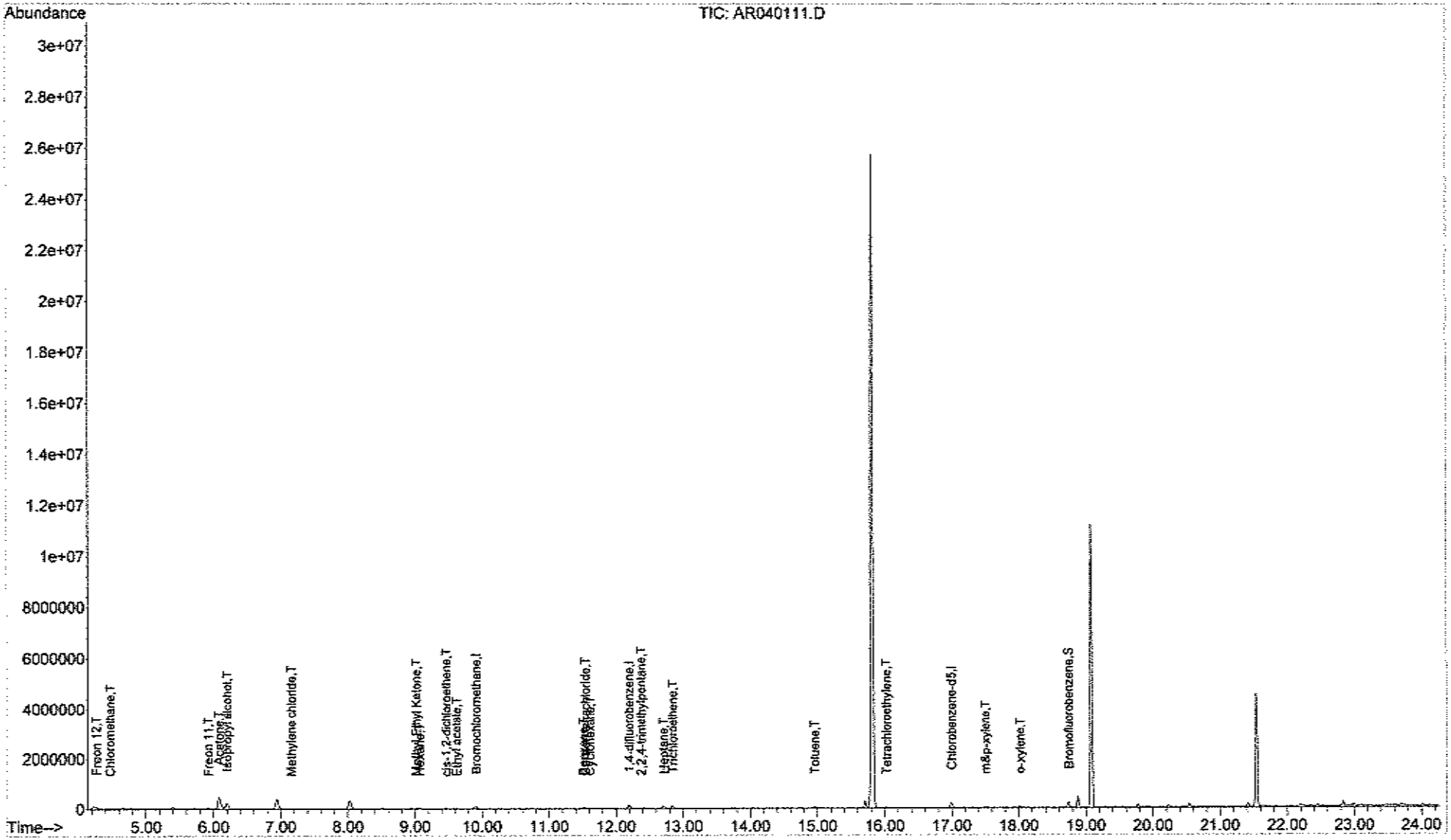
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	38484	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	144558	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	138867	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	83980	0.84	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 84.00%				
Target Compounds							Qvalue
3) Freon 12	4.26	85	78633	0.46	ppb		96
4) Chloromethane	4.46	50	13864	0.37	ppb		87
14) Freon 11	5.92	101	44734	0.25	ppb		98
15) Acetone	6.09	58	281766	13.43	ppb	#	100
17) Isopropyl alcohol	6.20	45	81989	1.66	ppb	#	1
21) Methylene chloride	7.16	84	7181	0.16	ppb		92
28) Methyl Ethyl Ketone	9.01	72	10117	0.58	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	5027	0.10	ppb		94
30) Hexane	9.07	57	12316	0.25	ppb	#	79
31) Ethyl acetate	9.61	43	17574	0.22	ppb		93
37) Cyclohexane	11.61	56	13440m	0.29	ppb		
38) Carbon tetrachloride	11.55	117	11991	0.09	ppb		99
39) Benzene	11.51	78	24970	0.21	ppb		96
42) 2,2,4-trimethylpentane	12.38	57	16862	0.11	ppb		72
43) Heptane	12.71	43	18217	0.37	ppb	#	47
44) Trichloroethene	12.84	130	48208	0.79	ppb		97
51) Toluene	14.96	92	27949	0.34	ppb		100
56) Tetrachloroethylene	16.03	164	7332	0.11	ppb		99
59) m&p-xylene	17.50	91	42882	0.28	ppb		99
63) o-xylene	18.03	91	21506	0.12	ppb		95

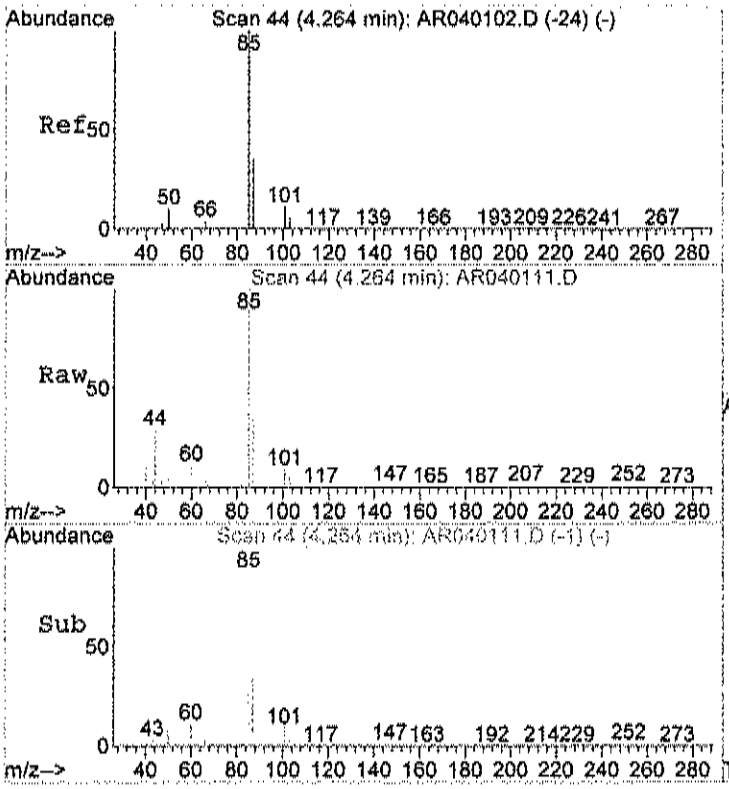
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040111.D Vial: 7
Acq On : 1 Apr 2020 6:29 pm Operator: RJP
Sample : C2004002-007A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:00 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

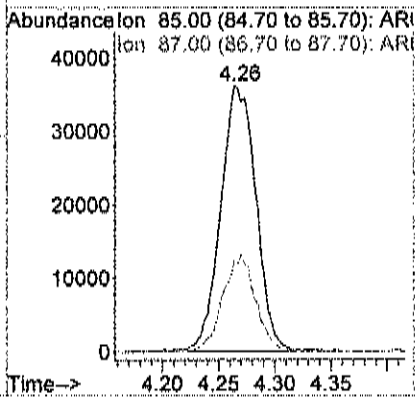


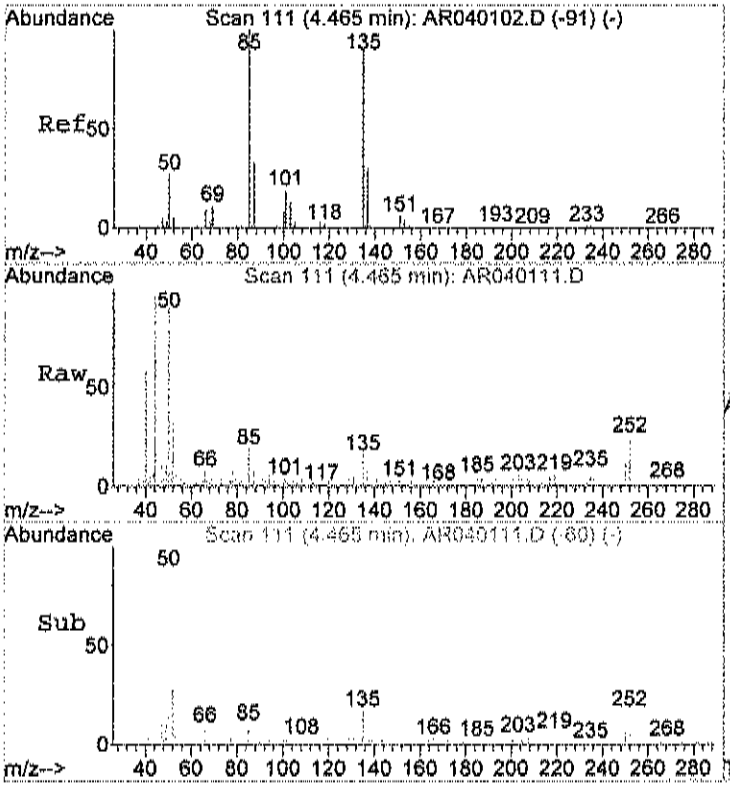


#3
Freon 12
Concen: 0.46 ppb
RT: 4.26 min Scan# 44
Delta R.T. 0.00 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 85 Resp: 78633

Ion	Ratio	Lower	Upper
85	100		
87	34.1	11.9	51.9

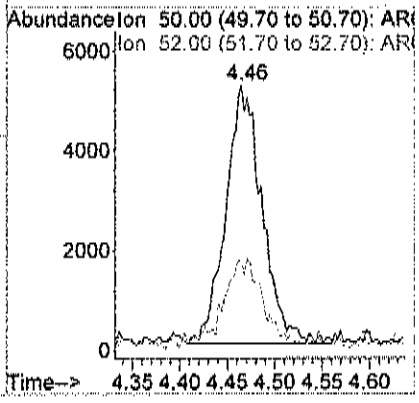


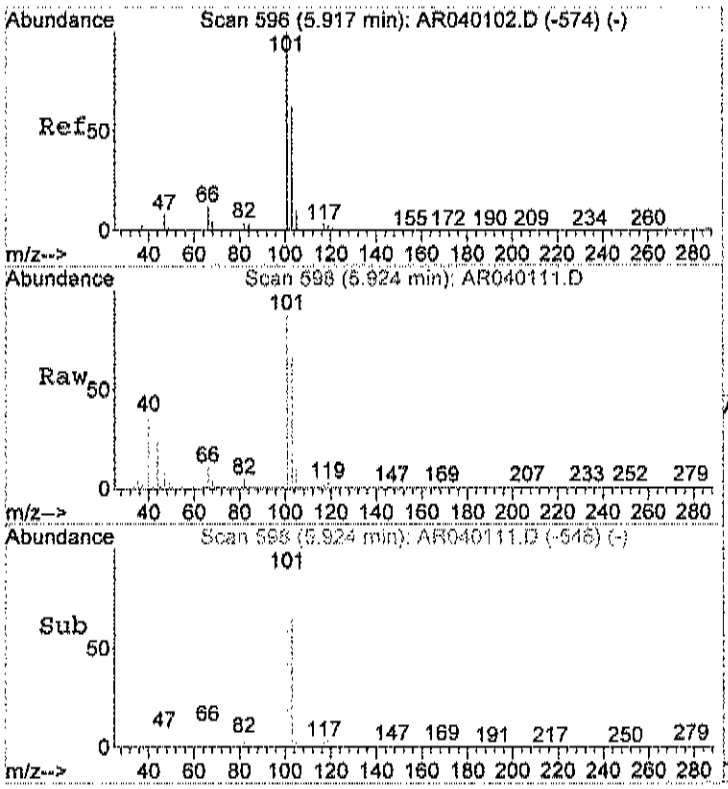


#4
Chloromethane
Concen: 0.37 ppb
RT: 4.46 min Scan# 111
Delta R.T. 0.00 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 50 Resp: 13864

Ion	Ratio	Lower	Upper
50	100		
52	33.0	6.1	46.1

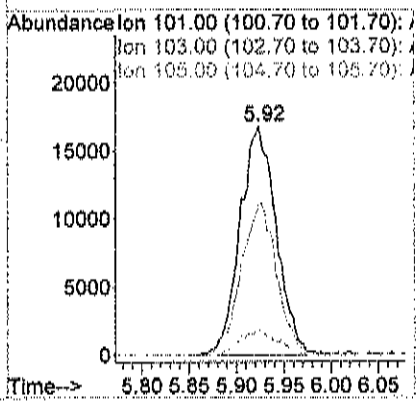


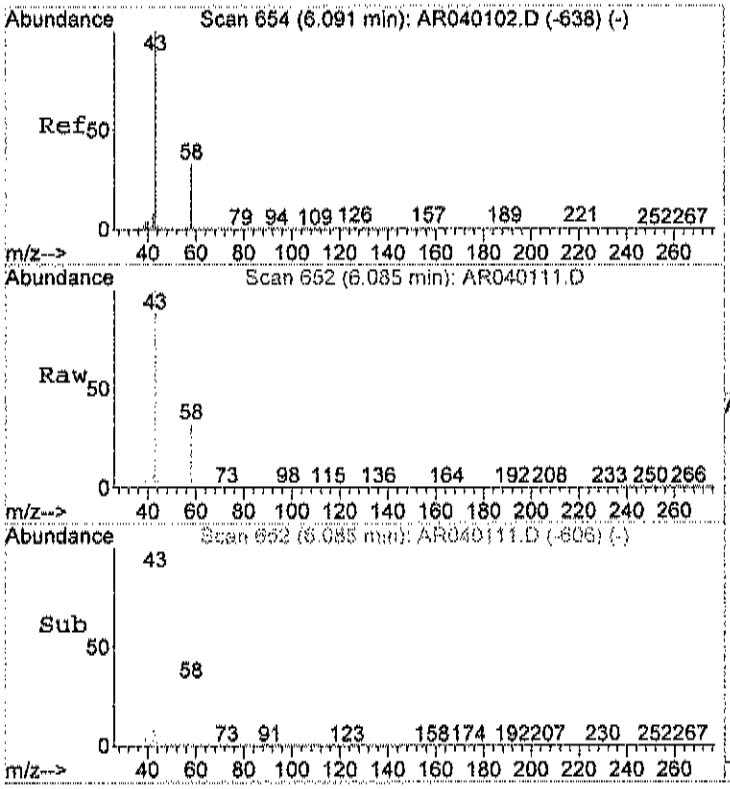


#14
Freon 11
Concen: 0.25 ppb
RT: 5.92 min Scan# 598
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion:101 Resp: 44734

Ion	Ratio	Lower	Upper
101	100		
103	65.3	44.2	84.2
105	11.2	0.0	30.3

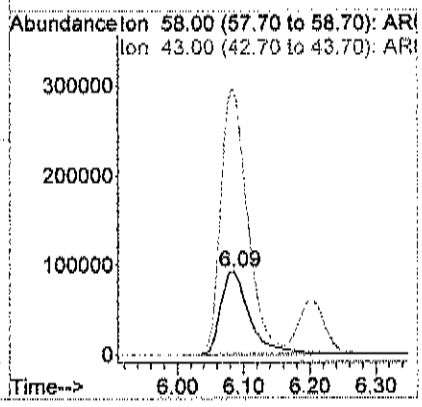


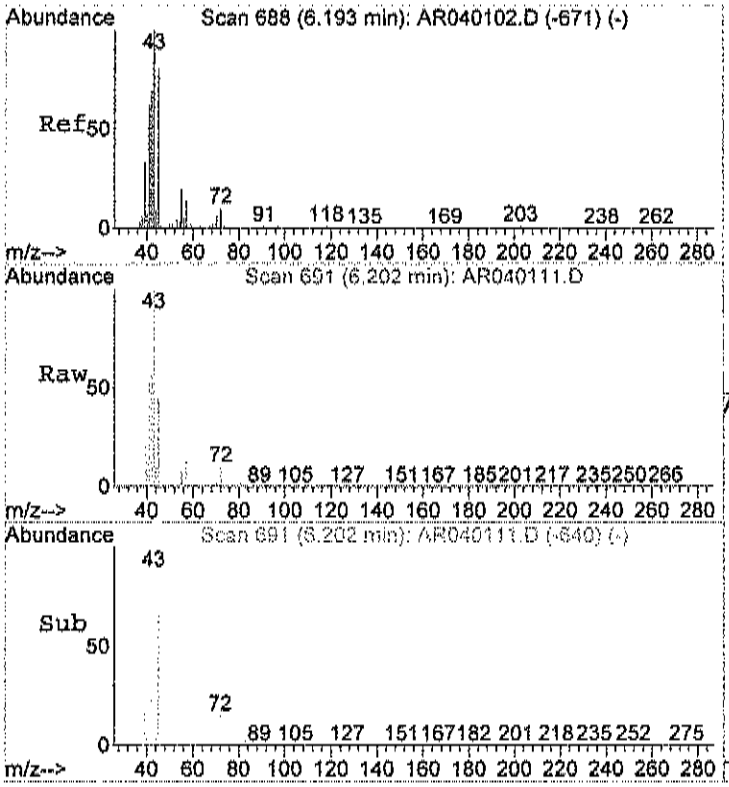


#15
Acetone
Concen: 13.43 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 58 Resp: 281766

Ion	Ratio	Lower	Upper
58	100		
43	353.6	0.0	30.0#

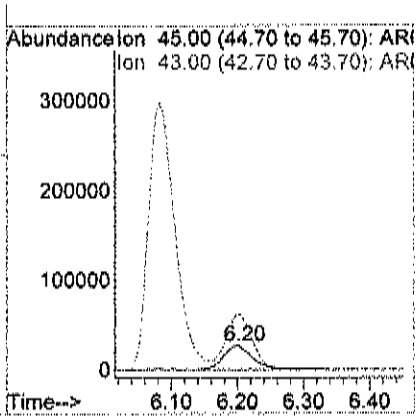


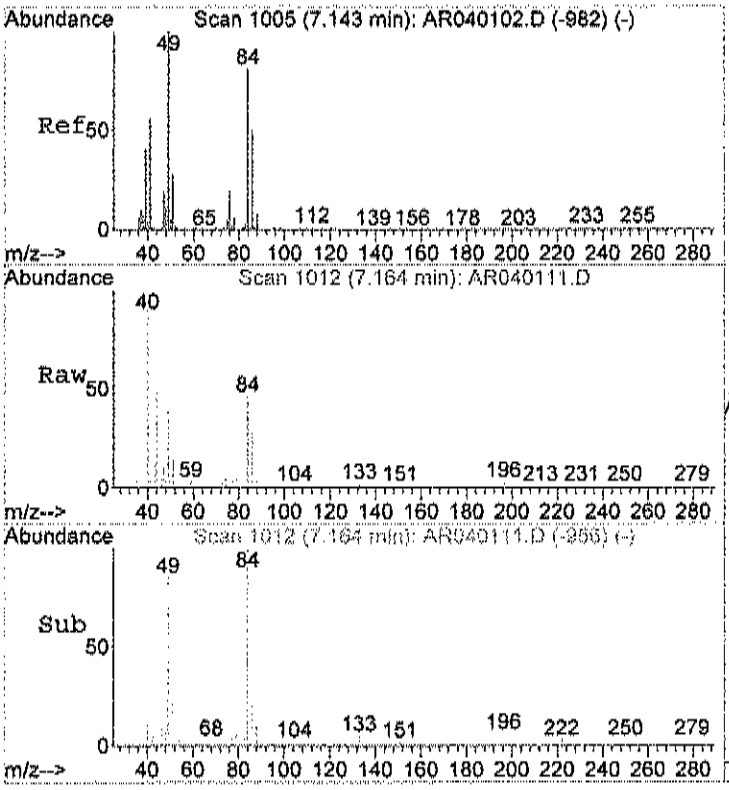


#17
Isopropyl alcohol
Concen: 1.66 ppb
RT: 6.20 min Scan# 691
Delta R.T. 0.00 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 45 Resp: 81989

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

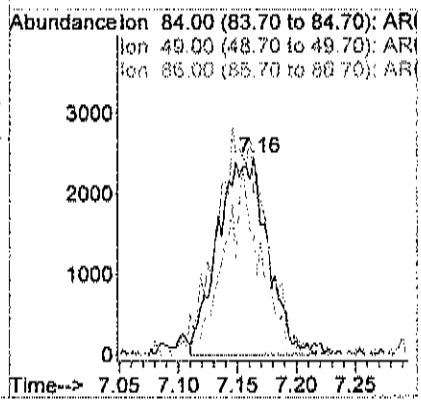


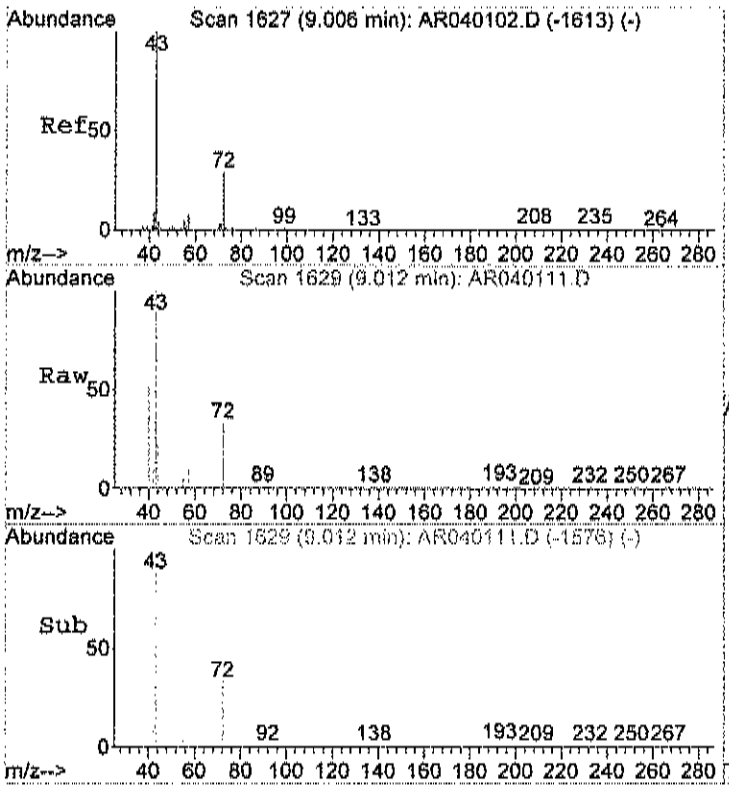


#21
Methylene chloride
Concen: 0.16 ppb
RT: 7.16 min Scan# 1012
Delta R.T. 0.02 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 84 Resp: 7181

Ion	Ratio	Lower	Upper
84	100		
49	111.5	101.4	141.4
86	69.4	45.4	85.4

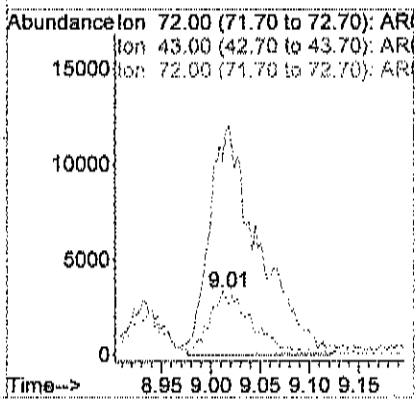


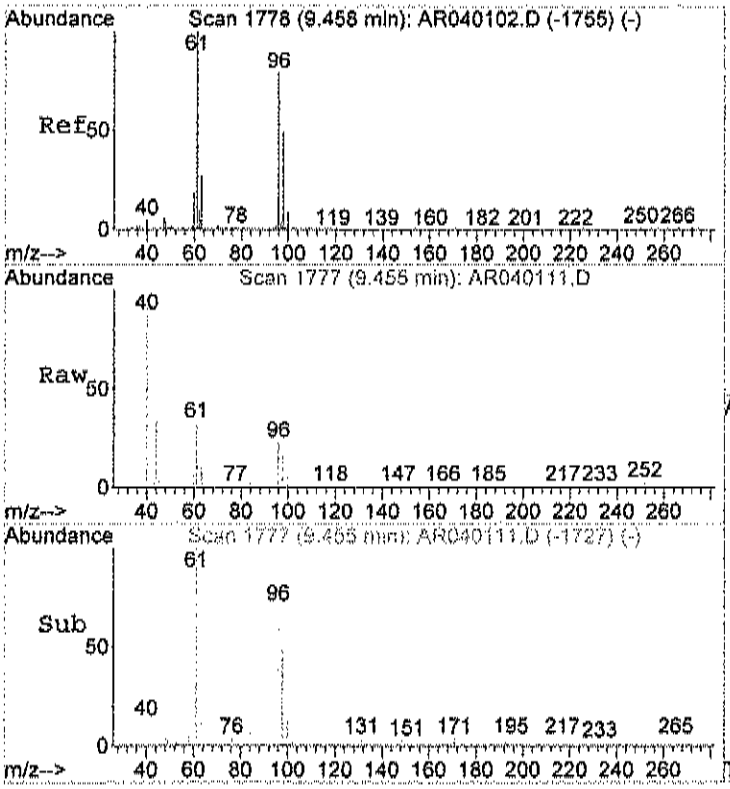


#28
Methyl Ethyl Ketone
Concen: 0.58 ppb
RT: 9.01 min Scan# 1629
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 72 Resp: 10117

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

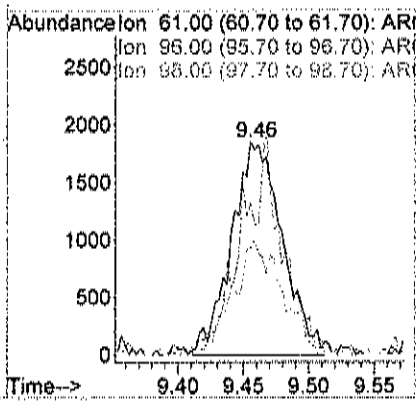


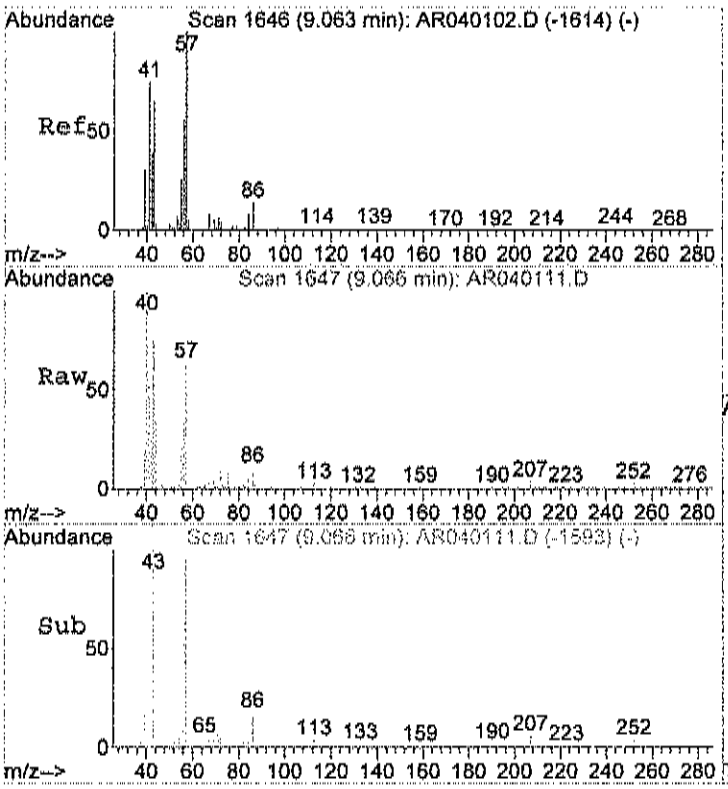


#29
cis-1,2-dichloroethene
Concen: 0.10 ppb
RT: 9.46 min Scan# 1777
Delta R.T. 0.00 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 61 Resp: 5027

Ion	Ratio	Lower	Upper
61	100		
96	83.7	57.9	97.9
98	52.7	28.8	68.8

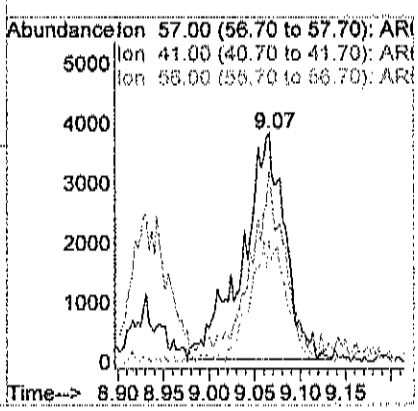


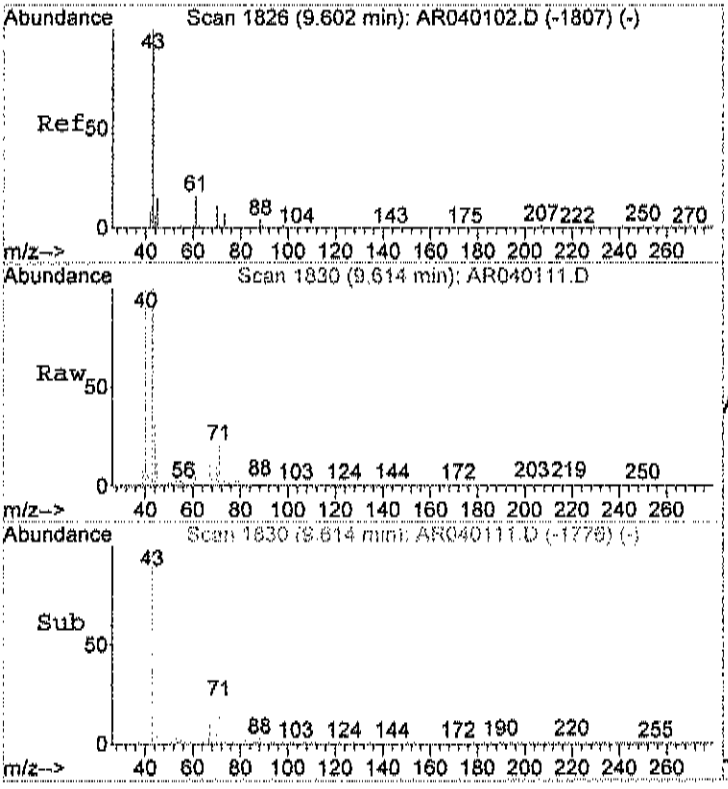


#30
Hexane
Concen: 0.25 ppb
RT: 9.07 min Scan# 1647
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 57 Resp: 12316

Ion	Ratio	Lower	Upper
57	100		
41	100.0	55.7	95.7#
56	44.2	32.4	72.4

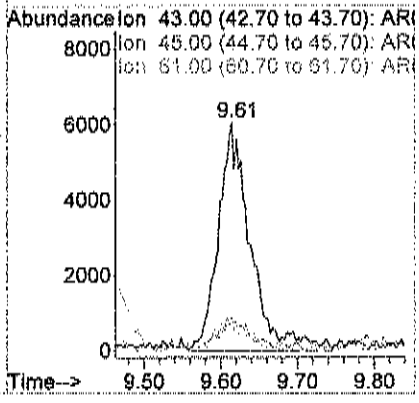


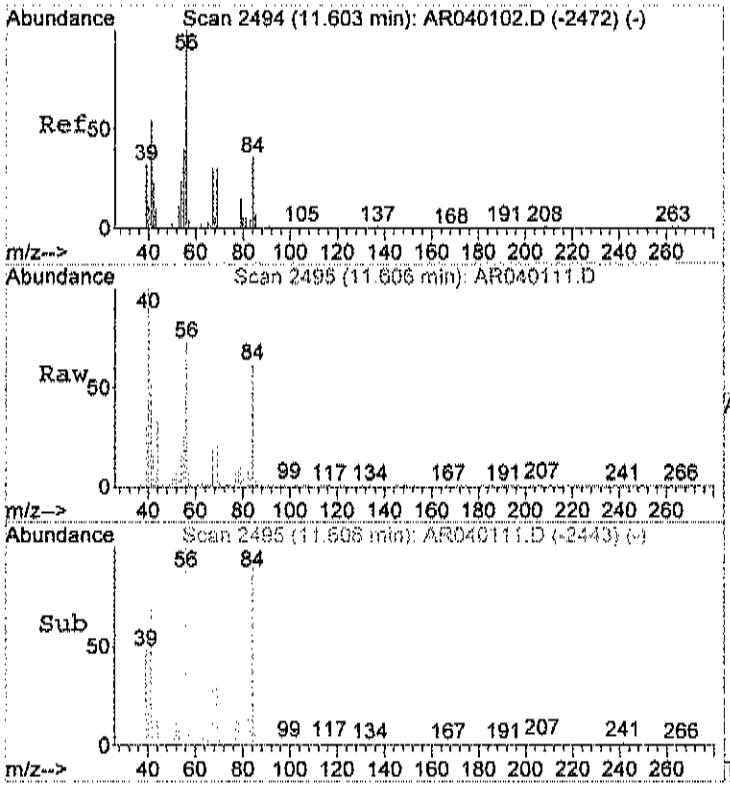


#31
Ethyl acetate
Concen: 0.22 ppb
RT: 9.61 min Scan# 1830
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 43 Resp: 17574

Ion	Ratio	Lower	Upper
43	100		
45	12.2	0.0	34.5
61	12.5	0.0	35.8

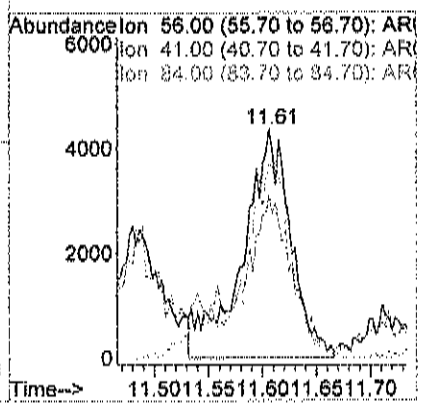


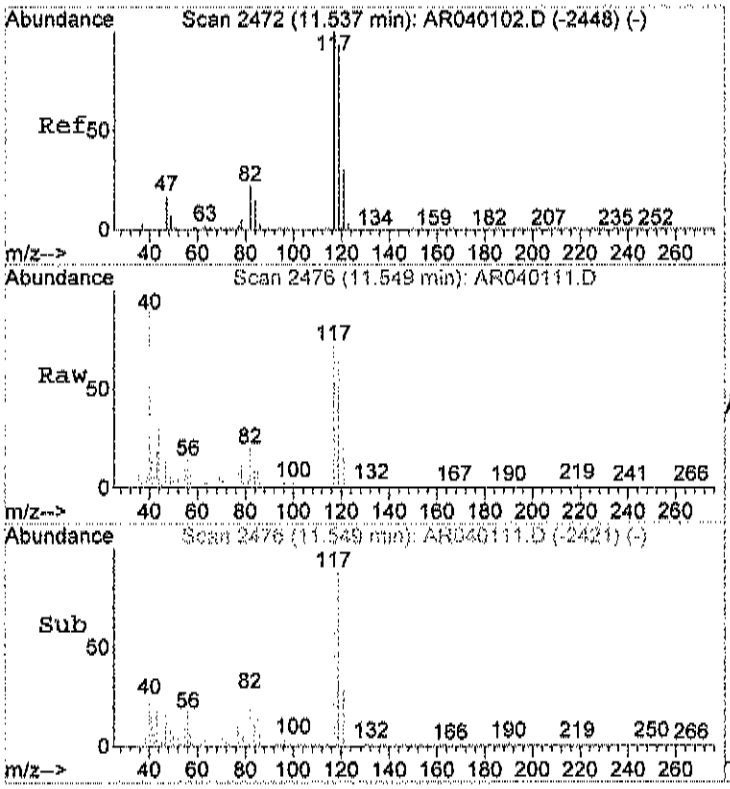


#37
Cyclohexane
Concen: 0.29 ppb m
RT: 11.61 min Scan# 2495
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 56 Resp: 13440

Ion	Ratio	Lower	Upper
56	100		
41	115.6	42.3	82.3#
84	68.8	107.7	147.7#

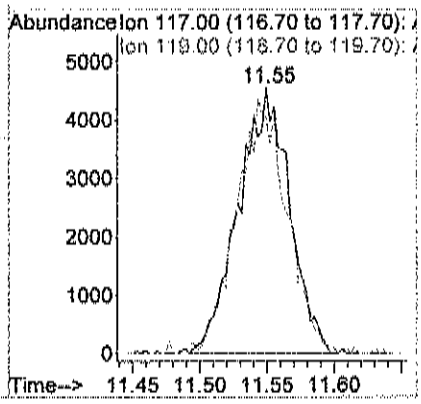


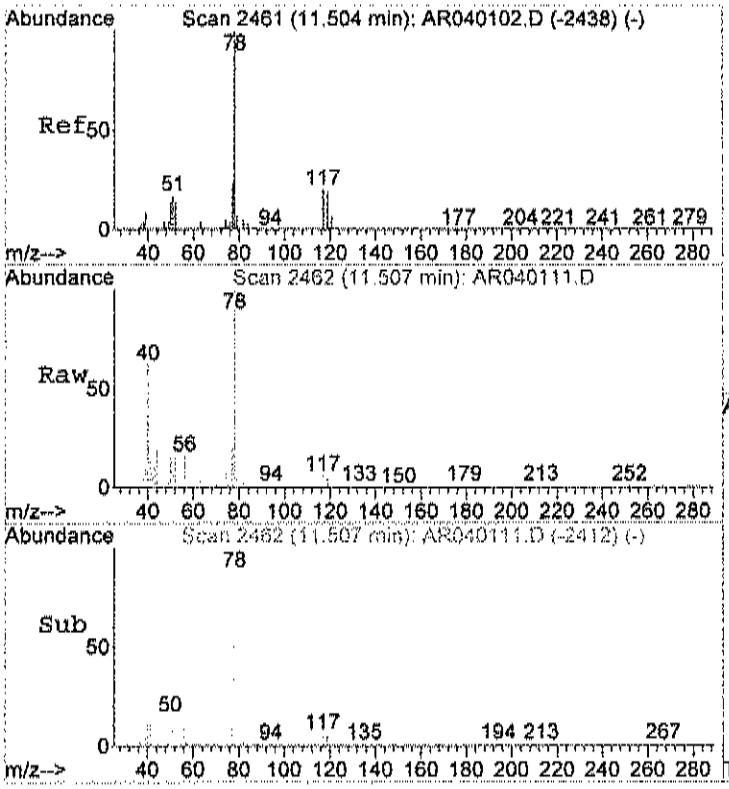


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2476
Delta R.T. 0.02 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion:117 Resp: 11991

Ion	Ratio	Lower	Upper
117	100		
119	94.3	75.6	115.6

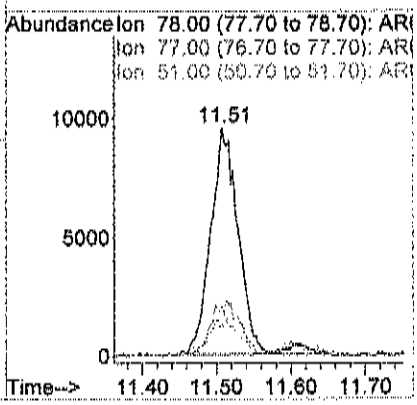


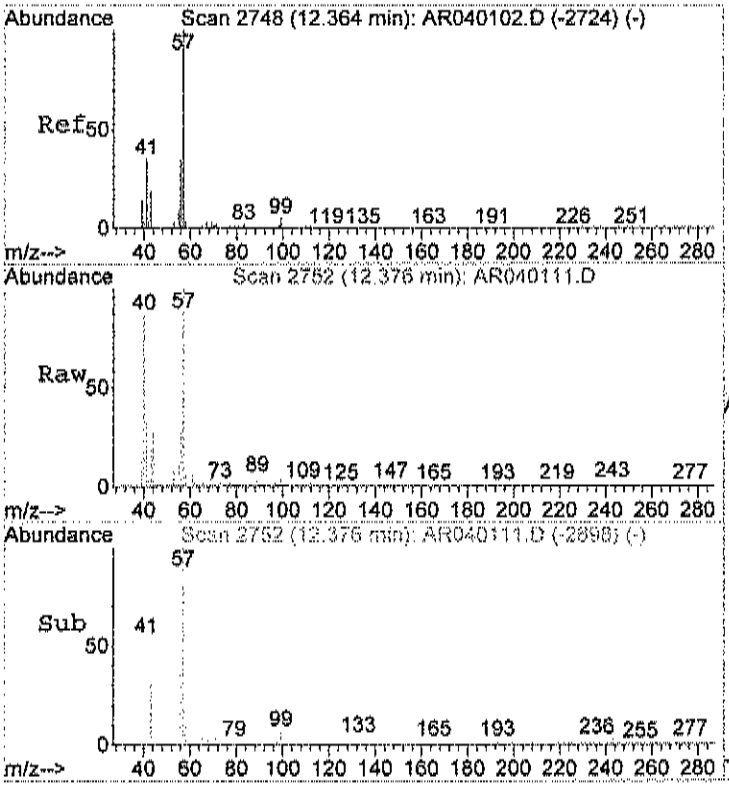


#39
Benzene
Concen: 0.21 ppb
RT: 11.51 min Scan# 2462
Delta R.T. 0.00 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 78 Resp: 24970

Ion	Ratio	Lower	Upper
78	100		
77	26.1	4.1	44.1
51	15.6	0.0	36.8

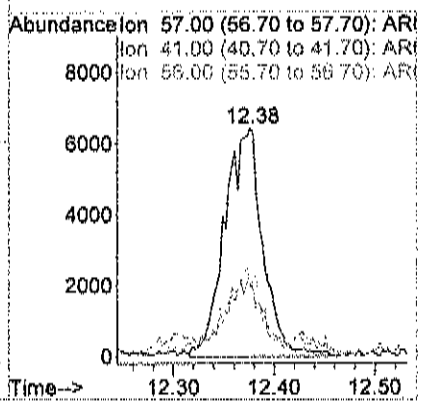


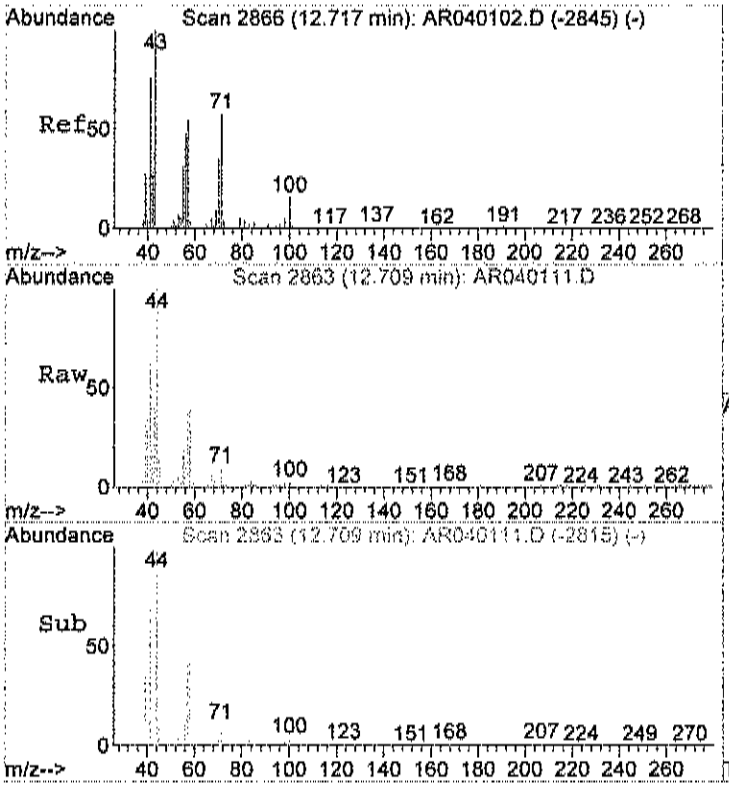


#42
2,2,4-trimethylpentane
Concen: 0.11 ppb
RT: 12.38 min Scan# 2752
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 57 Resp: 16862

Ion	Ratio	Lower	Upper
57	100		
41	48.9	12.1	52.1
56	47.1	12.7	52.7

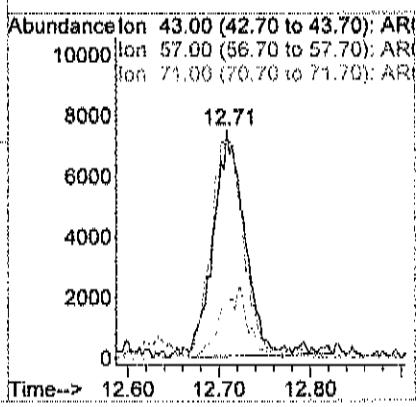


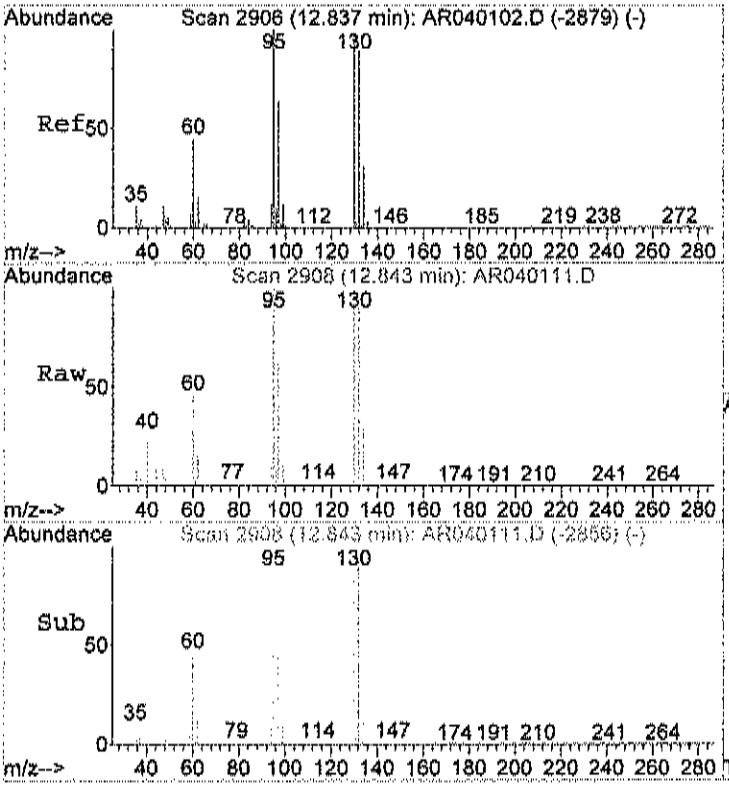


#43
Heptane
Concen: 0.37 ppb
RT: 12.71 min Scan# 2863
Delta R.T. -0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 43 Resp: 18217

Ion	Ratio	Lower	Upper
43	100		
57	100.6	36.0	76.0#
71	27.1	42.5	82.5#

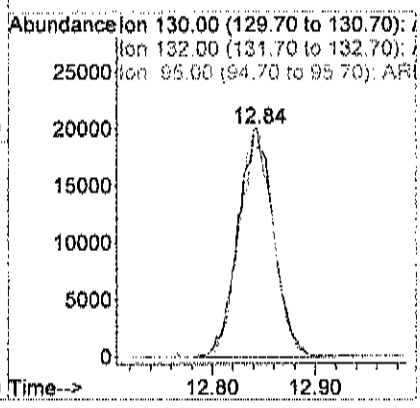


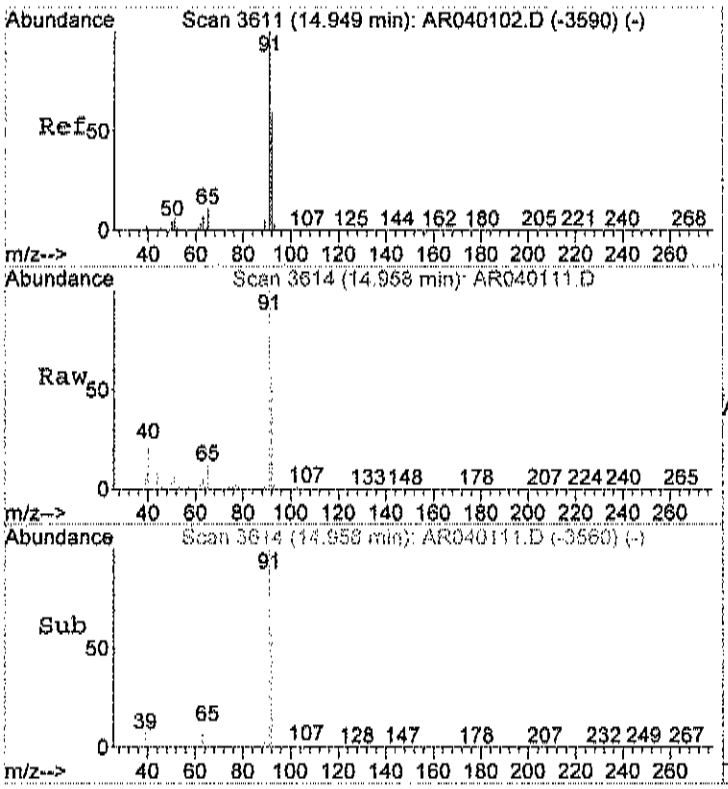


#44
Trichloroethene
Concen: 0.79 ppb
RT: 12.84 min Scan# 2908
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion:130 Resp: 48208

Ion	Ratio	Lower	Upper
130	100		
132	93.7	76.9	116.9
95	100.4	78.6	118.6

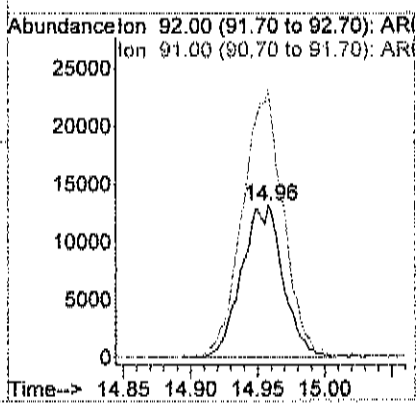


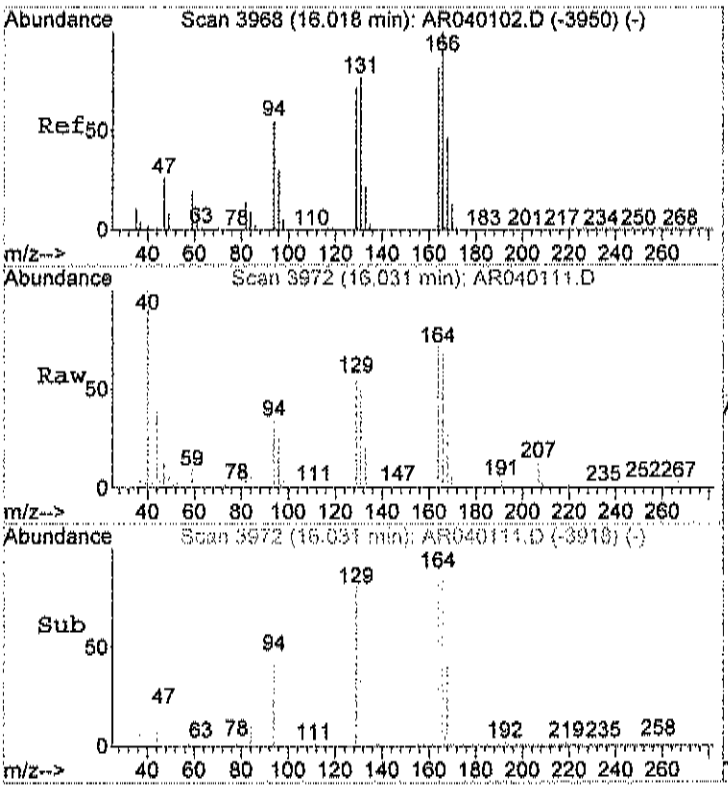


#51
Toluene
Concen: 0.34 ppb
RT: 14.96 min Scan# 3614
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 92 Resp: 27949

Ion	Ratio	Lower	Upper
92	100		
91	174.0	154.5	194.5

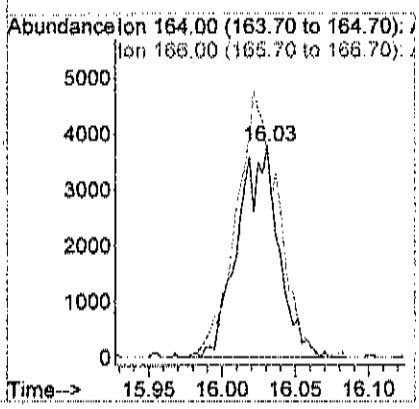


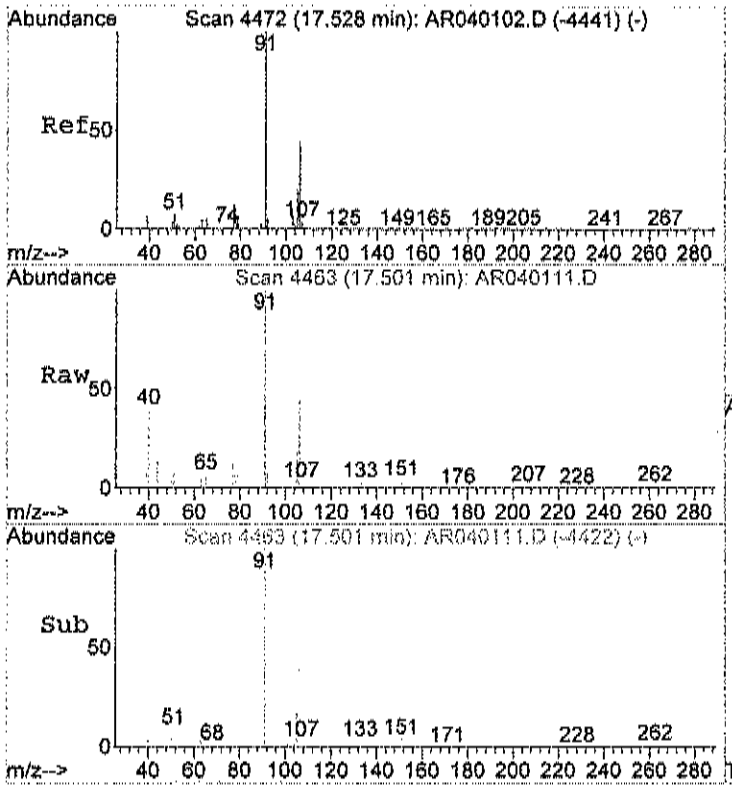


#56
Tetrachloroethylene
Concen: 0.11 ppb
RT: 16.03 min Scan# 3972
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion:164 Resp: 7332

Ion	Ratio	Lower	Upper
164	100		
166	127.1	106.4	146.4

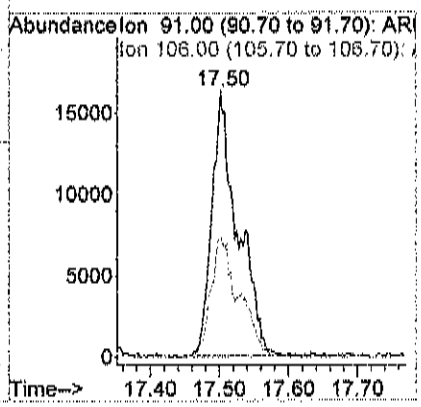


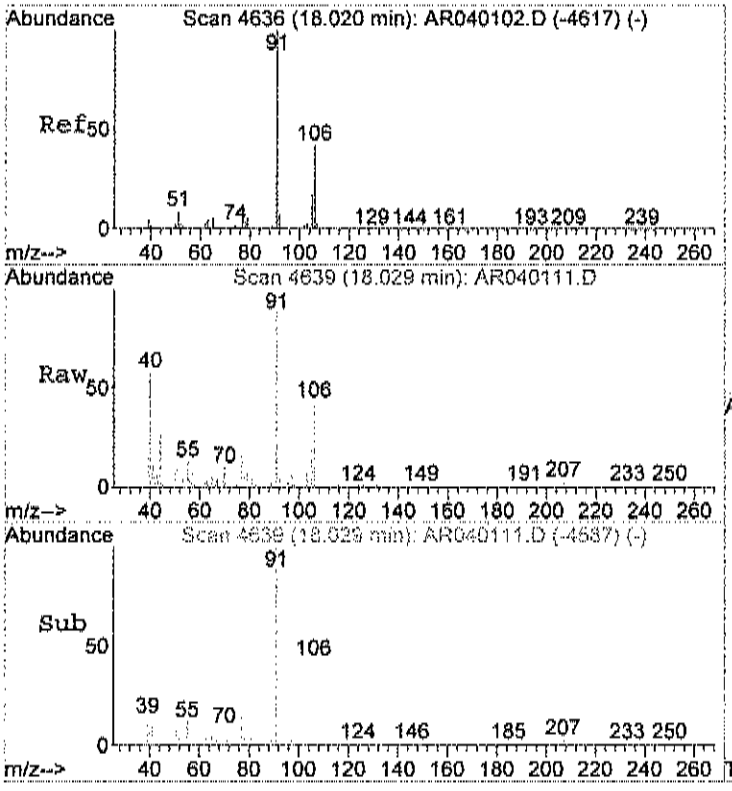


#59
m&p-xylene
Concen: 0.28 ppb
RT: 17.50 min Scan# 4463
Delta R.T. -0.03 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 91 Resp: 42882

Ion	Ratio	Lower	Upper
91	100		
106	48.4	29.0	69.0

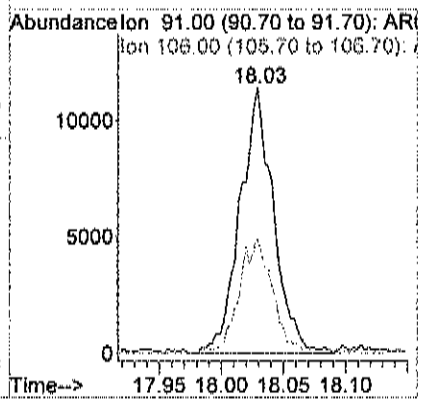




#63
o-xylene
Concen: 0.12 ppb
RT: 18.03 min Scan# 4639
Delta R.T. 0.01 min
Lab File: AR040111.D
Acq: 1 Apr 2020 6:29 pm

Tgt Ion: 91 Resp: 21506

Ion	Ratio	Lower	Upper
91	100		
106	43.1	26.2	66.2



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040124.D Vial: 7
Acq On : 2 Apr 2020 4:32 am Operator: RJP
Sample : C2004002-007A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:30 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	31309	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	101126	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	92772	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	47464	0.71	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 71.00%			
Target Compounds						Qvalue
15) Acetone	6.09	58	22524	1.32	ppb	# 100

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

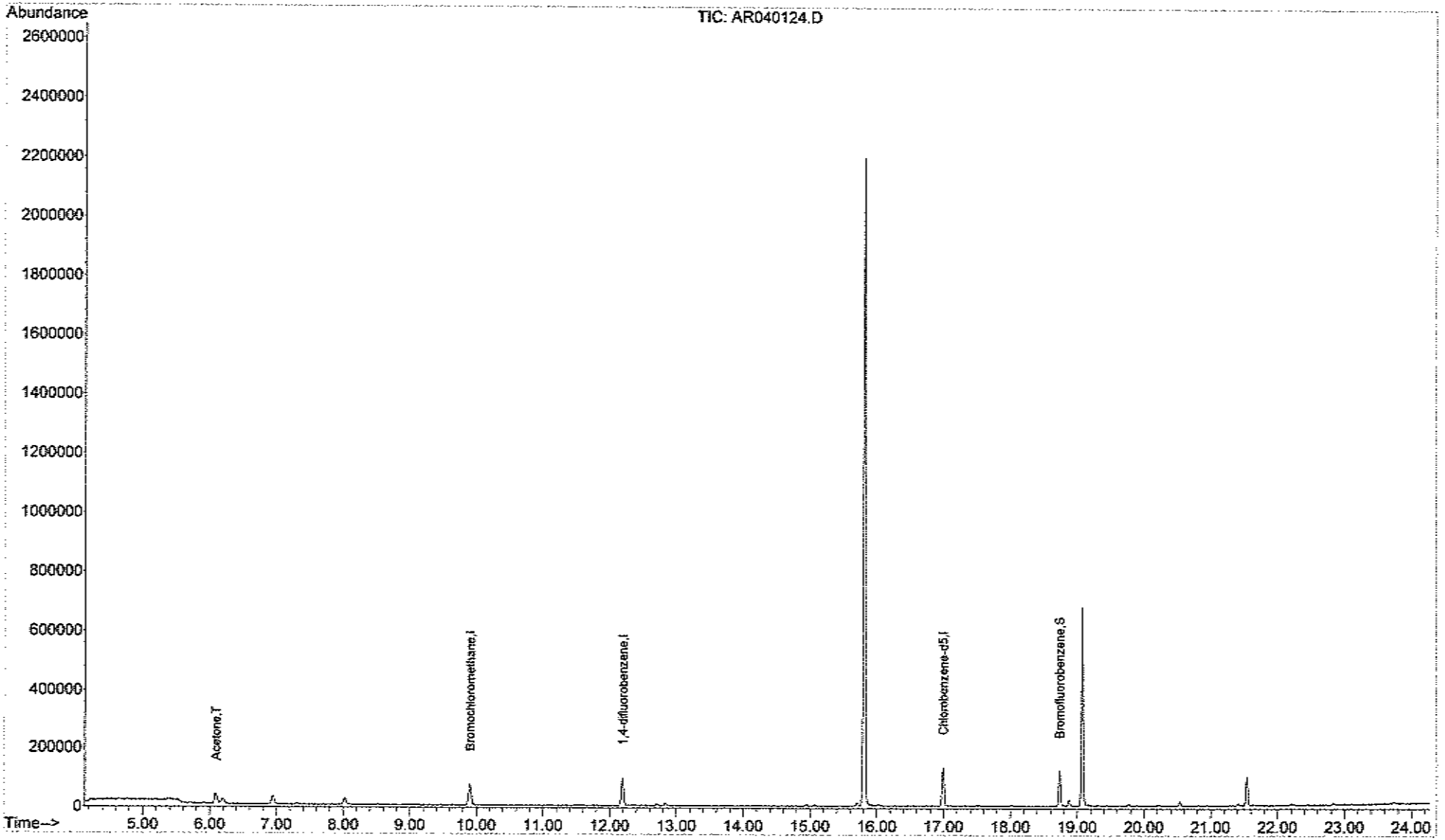
Quantitation Report (QT Reviewed)

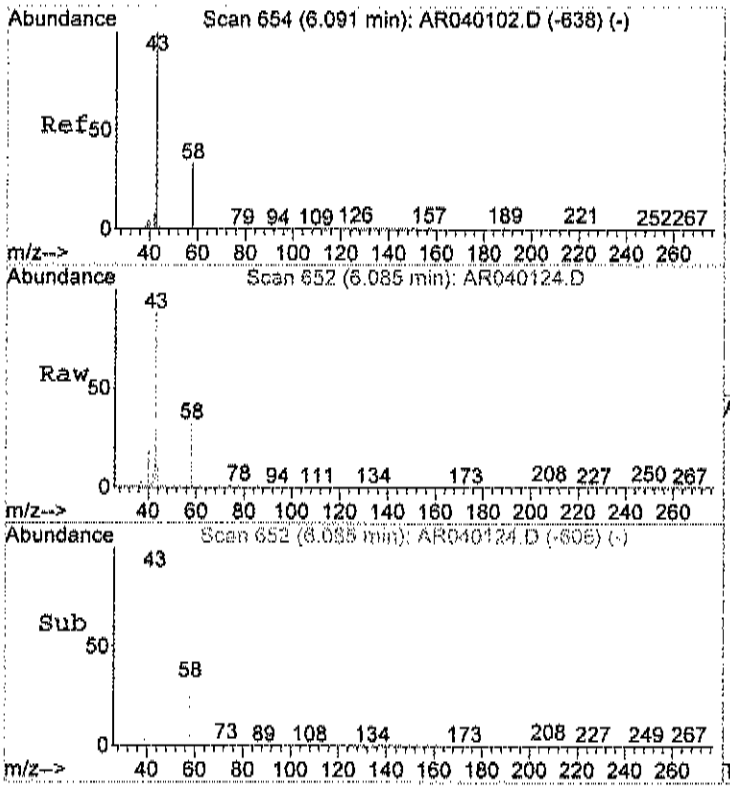
Data File : C:\HPCHEM\1\DATA\AR040124.D
Acq On : 2 Apr 2020 4:32 am
Sample : C2004002-007A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:21 2020

Vial: 7
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

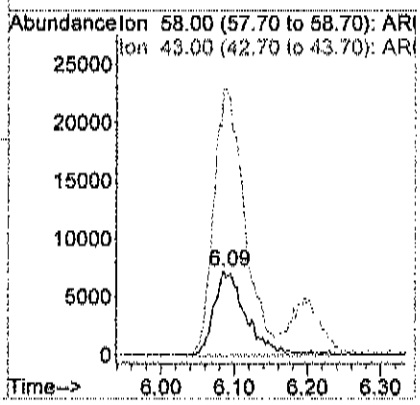




#15
Acetone
Concen: 1.32 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040124.D
Acq: 2 Apr 2020 4:32 am

Tgt Ion: 58 Resp: 22524

Ion	Ratio	Lower	Upper
58	100		
43	355.7	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-8			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 7:17:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2,4-Trimethylbenzene	0.18	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
2,2,4-trimethylpentane	0.11	0.15	J	ppbV	1	4/1/2020 7:17:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Acetone	8.6	3.0		ppbV	10	4/2/2020 5:18:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Benzene	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 7:17:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloroform	1.6	0.15		ppbV	1	4/1/2020 7:17:00 PM
Chloromethane	0.38	0.15		ppbV	1	4/1/2020 7:17:00 PM
cis-1,2-Dichloroethene	0.15	0.040		ppbV	1	4/1/2020 7:17:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Cyclohexane	0.26	0.15		ppbV	1	4/1/2020 7:17:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Ethyl acetate	0.19	0.15		ppbV	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	,	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: RJP
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 11	0.25	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 7:17:00 PM
Heptane	0.30	0.15		ppbV	1	4/1/2020 7:17:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Hexane	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
Isopropyl alcohol	1.4	0.15		ppbV	1	4/1/2020 7:17:00 PM
m&p-Xylene	0.27	0.30	J	ppbV	1	4/1/2020 7:17:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl Ethyl Ketone	0.41	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 7:17:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Methylene chloride	0.21	0.15		ppbV	1	4/1/2020 7:17:00 PM
o-Xylene	0.11	0.15	J	ppbV	1	4/1/2020 7:17:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Tetrachloroethylene	0.16	0.15		ppbV	1	4/1/2020 7:17:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Toluene	0.41	0.15		ppbV	1	4/1/2020 7:17:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Trichloroethene	1.1	0.030		ppbV	1	4/1/2020 7:17:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 7:17:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 7:17:00 PM
Surr: Bromofluorobenzene	89.0	70-130		%REC	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
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S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 7:17:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 7:17:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 7:17:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 7:17:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
1,2,4-Trimethylbenzene	0.88	0.74		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 7:17:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 7:17:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 7:17:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 7:17:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 7:17:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
2,2,4-trimethylpentane	0.51	0.70	J	ug/m3	1	4/1/2020 7:17:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 7:17:00 PM
Acetone	20	7.1		ug/m3	10	4/2/2020 5:18:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 7:17:00 PM
Benzene	0.67	0.48		ug/m3	1	4/1/2020 7:17:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 7:17:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 7:17:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 7:17:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 7:17:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 7:17:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 7:17:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 7:17:00 PM
Chloroform	7.8	0.73		ug/m3	1	4/1/2020 7:17:00 PM
Chloromethane	0.78	0.31		ug/m3	1	4/1/2020 7:17:00 PM
cis-1,2-Dichloroethene	0.59	0.16		ug/m3	1	4/1/2020 7:17:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 7:17:00 PM
Cyclohexane	0.89	0.52		ug/m3	1	4/1/2020 7:17:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 7:17:00 PM
Ethyl acetate	0.68	0.54		ug/m3	1	4/1/2020 7:17:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 7:17:00 PM
Freon 11	1.4	0.84		ug/m3	1	4/1/2020 7:17:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 7:17:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 7:17:00 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	613
Lab Order:	C2004002	**Tag Number:**	354,440
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-008A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 7:17:00 PM
Heptane	1.2	0.61		ug/m3	1	4/1/2020 7:17:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 7:17:00 PM
Hexane	0.74	0.53		ug/m3	1	4/1/2020 7:17:00 PM
Isopropyl alcohol	3.4	0.37		ug/m3	1	4/1/2020 7:17:00 PM
m&p-Xylene	1.2	1.3	J	ug/m3	1	4/1/2020 7:17:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
Methyl Ethyl Ketone	1.2	0.88		ug/m3	1	4/1/2020 7:17:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 7:17:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 7:17:00 PM
Methylene chloride	0.73	0.52		ug/m3	1	4/1/2020 7:17:00 PM
o-Xylene	0.48	0.65	J	ug/m3	1	4/1/2020 7:17:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 7:17:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 7:17:00 PM
Tetrachloroethylene	1.1	1.0		ug/m3	1	4/1/2020 7:17:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 7:17:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 7:17:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 7:17:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 7:17:00 PM
Trichloroethene	6.0	0.16		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 7:17:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 7:17:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040112.D Vial: 8
Acq On : 1 Apr 2020 7:17 pm Operator: RJP
Sample : C2004002-008A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:18 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

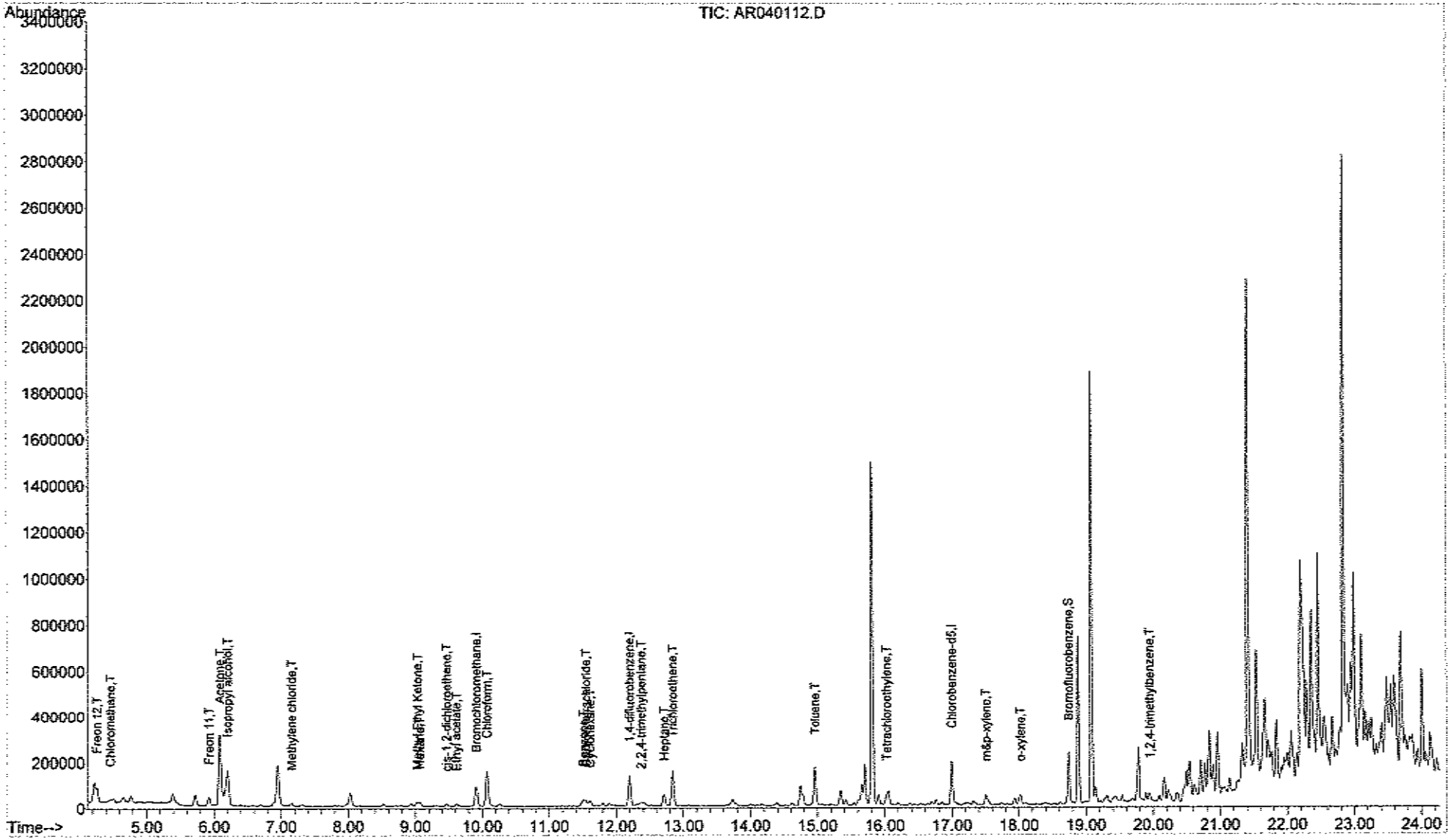
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	37401	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	139961	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	133248	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	84883	0.89	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 89.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	79601	0.48	ppb		98
4) Chloromethane	4.46	50	13610	0.38	ppb		77
14) Freon 11	5.93	101	44050	0.25	ppb		97
15) Acetone	6.09	58	186393	9.14	ppb	#	100
17) Isopropyl alcohol	6.20	45	67072	1.40	ppb	#	1
21) Methylene chloride	7.15	84	9161	0.21	ppb		92
28) Methyl Ethyl Ketone	9.03	72	7032	0.41	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	7497m RJP	0.15	ppb		
30) Hexane	9.07	57	10041	0.21	ppb		96
31) Ethyl acetate	9.62	43	14454	0.19	ppb		95
32) Chloroform	10.07	83	175418	1.59	ppb		99
37) Cyclohexane	11.61	56	11444m RJP	0.26	ppb		
38) Carbon tetrachloride	11.55	117	11849	0.09	ppb		96
39) Benzene	11.51	78	24741	0.21	ppb		100
42) 2,2,4-trimethylpentane	12.37	57	16243	0.11	ppb		74
43) Heptane	12.71	43	14077	0.30	ppb	#	67
44) Trichloroethene	12.84	130	65401	1.11	ppb		97
51) Toluene	14.96	92	31651	0.41	ppb		98
56) Tetrachloroethylene	16.02	164	10738	0.16	ppb		98
59) m&p-xylene	17.50	91	39465	0.27	ppb		98
63) o-xylene	18.03	91	18658	0.11	ppb		98
71) 1,2,4-trimethylbenzene	19.95	105	28037	0.18	ppb		99

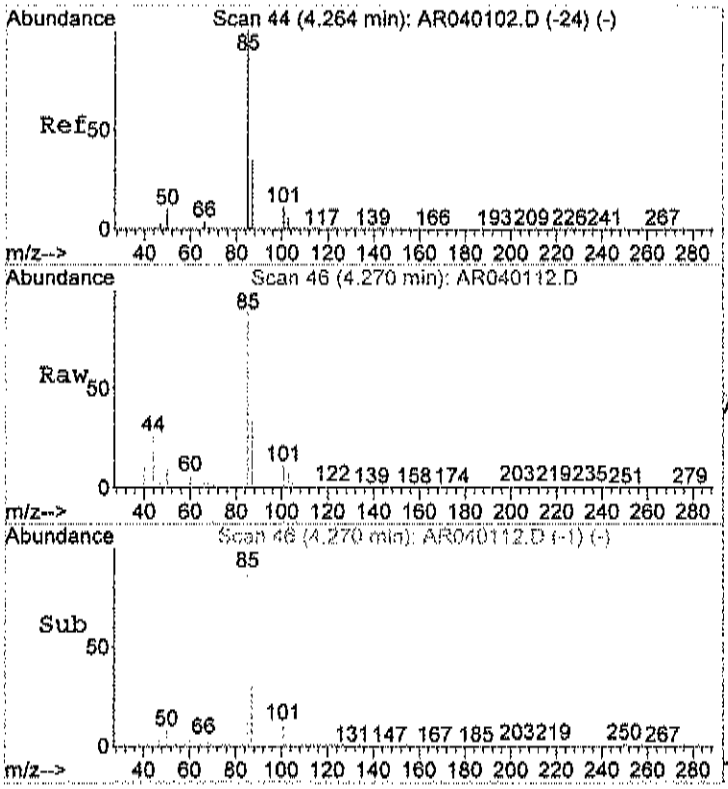
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040112.D Vial: 8
Acq On : 1 Apr 2020 7:17 pm Operator: RJP
Sample : C2004002-008A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:02 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

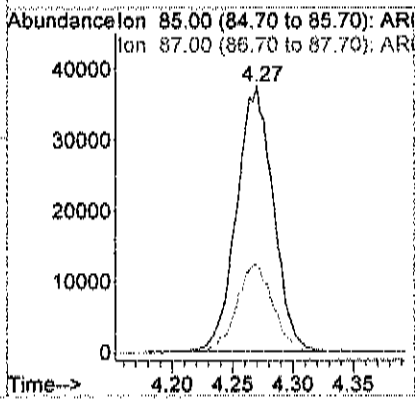


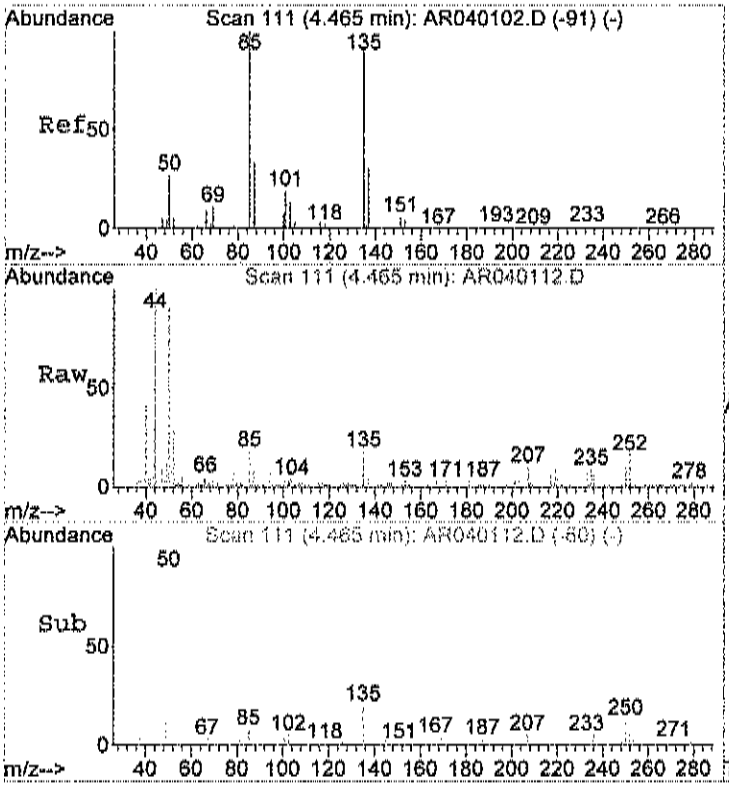


#3
Freon 12
Concen: 0.48 ppb
RT: 4.27 min Scan# 46
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 85 Resp: 79601

Ion	Ratio	Lower	Upper
85	100		
87	33.0	11.9	51.9

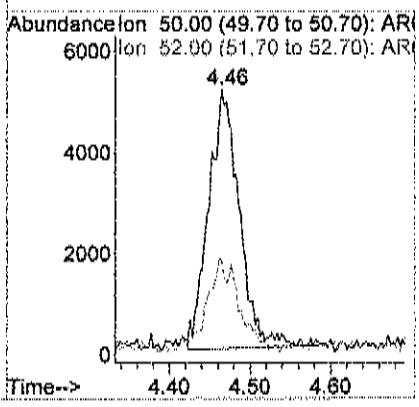


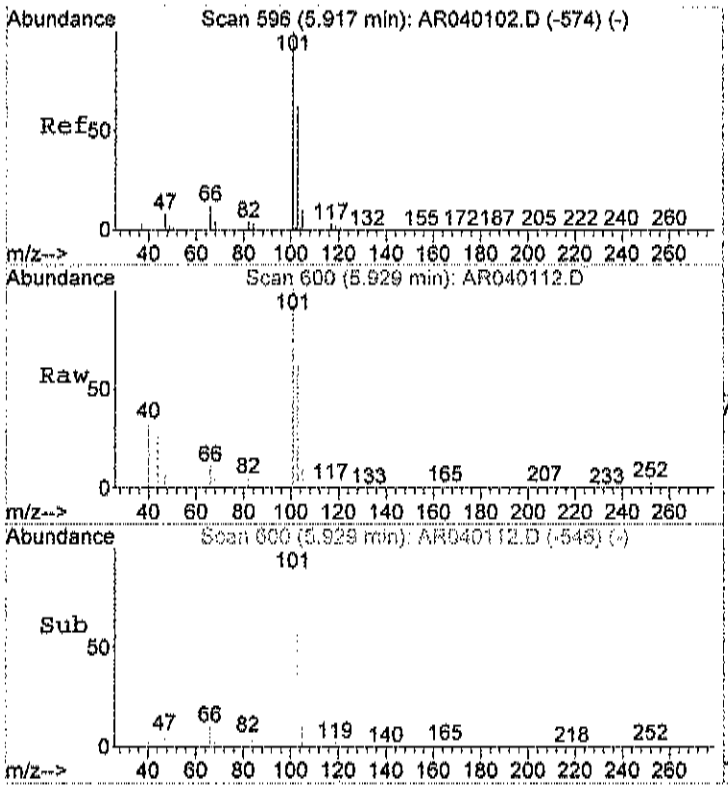


#4
Chloromethane
Concen: 0.38 ppb
RT: 4.46 min Scan# 111
Delta R.T. 0.00 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 50 Resp: 13610

Ion	Ratio	Lower	Upper
50	100		
52	38.1	6.1	46.1

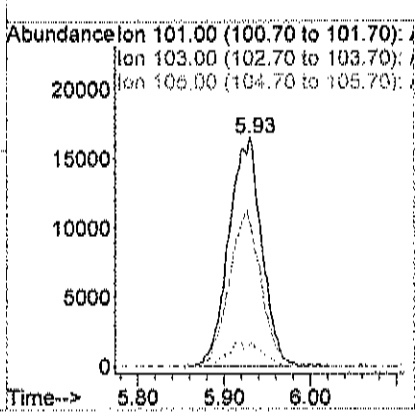


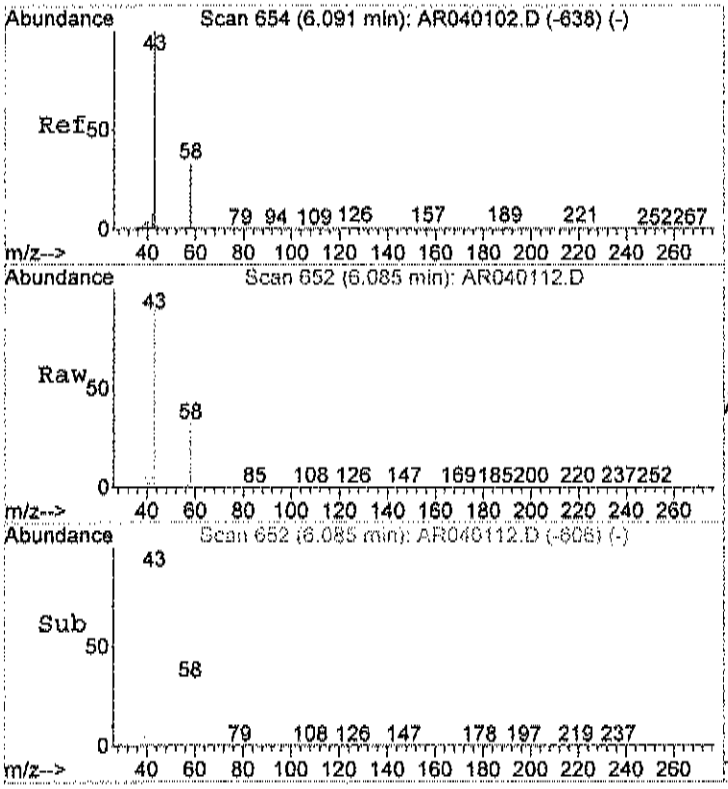


#14
Freon 11
Concen: 0.25 ppb
RT: 5.93 min Scan# 600
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion:101 Resp: 44050

Ion	Ratio	Lower	Upper
101	100		
103	66.5	44.2	84.2
105	11.5	0.0	30.3

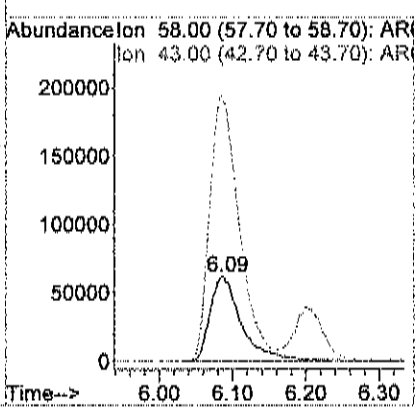


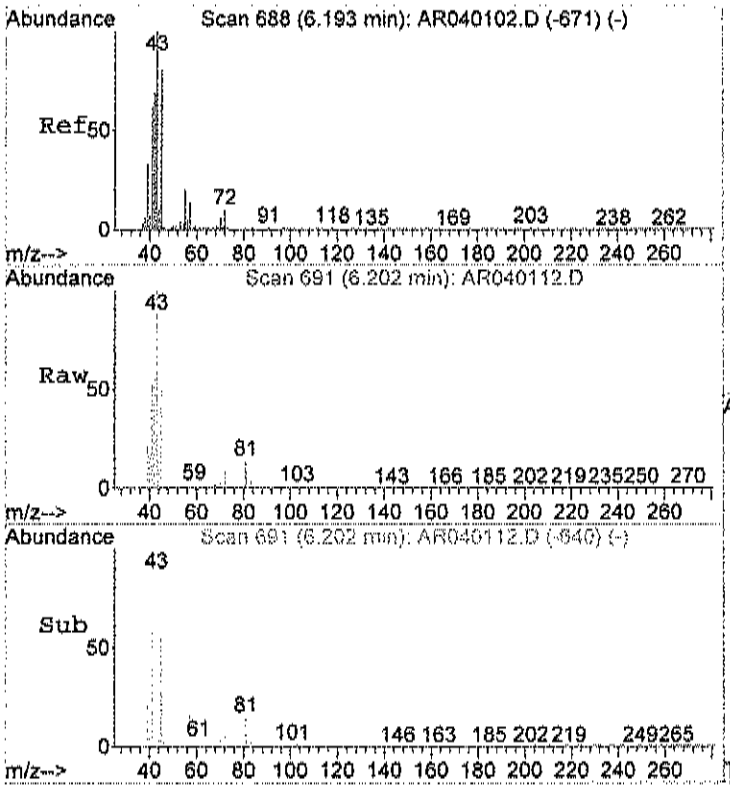


#15
Acetone
Concen: 9.14 ppb
RT: 6.09 min Scan# 652
Delta R.T. -0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 58 Resp: 186393

Ion	Ratio	Lower	Upper
58	100		
43	347.9	0.0	30.0#

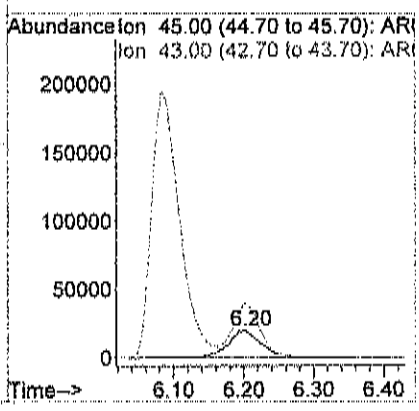


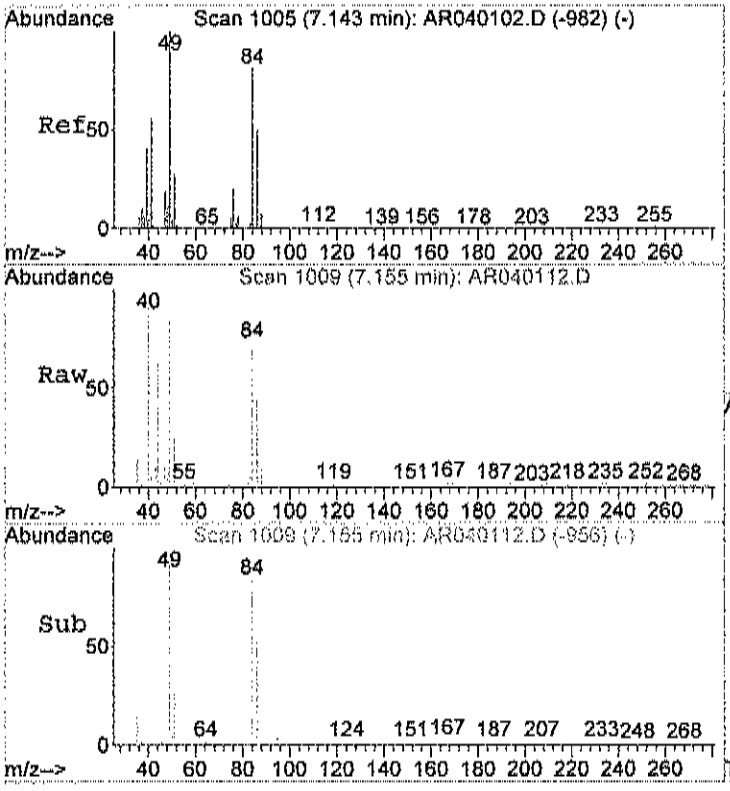


#17
Isopropyl alcohol
Concen: 1.40 ppb
RT: 6.20 min Scan# 691
Delta R.T. 0.00 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 45 Resp: 67072

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

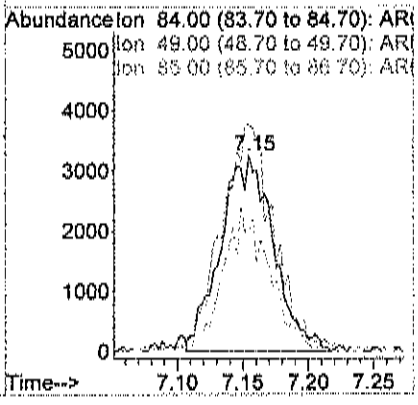


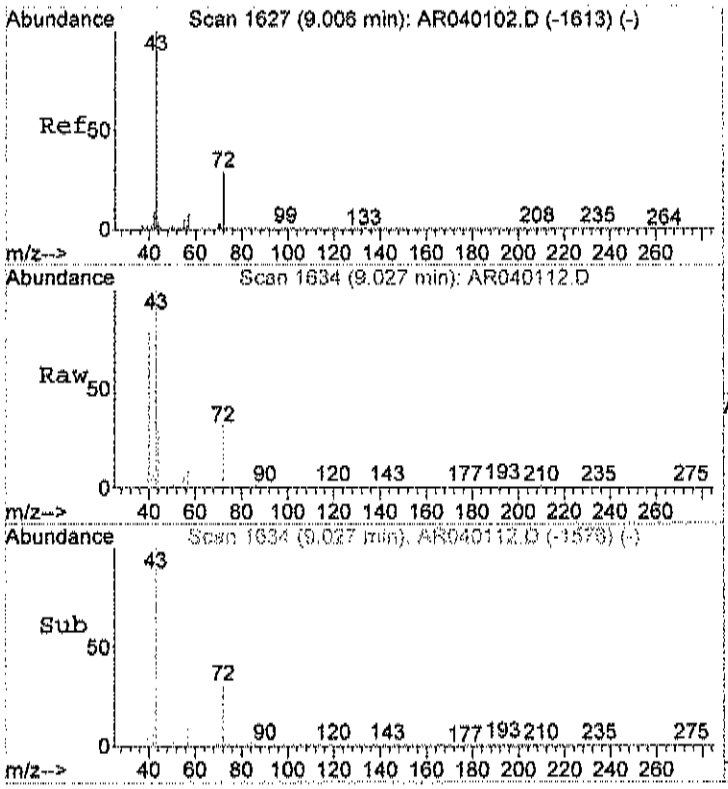


#21
Methylene chloride
Concen: 0.21 ppb
RT: 7.15 min Scan# 1009
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 84 Resp: 9161

Ion	Ratio	Lower	Upper
84	100		
49	109.4	101.4	141.4
86	63.6	45.4	85.4

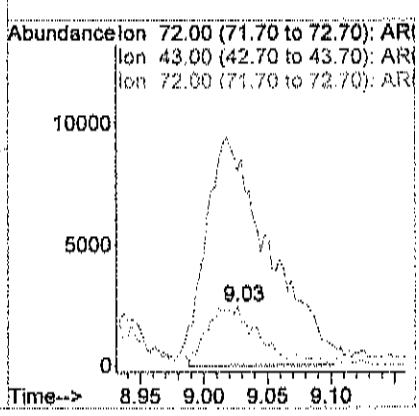


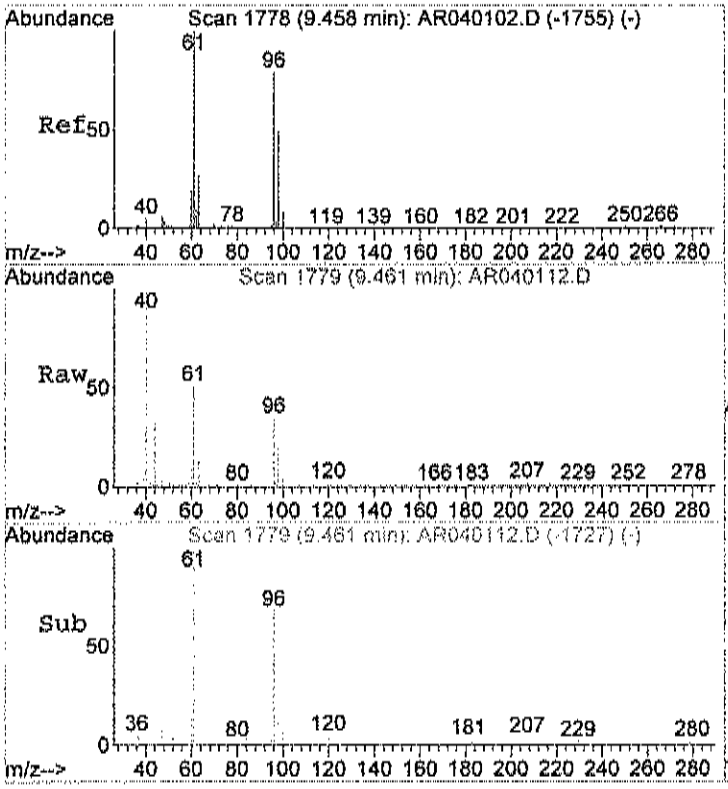


#28
Methyl Ethyl Ketone
Concen: 0.41 ppb
RT: 9.03 min Scan# 1634
Delta R.T. 0.02 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 72 Resp: 7032

Ion	Ratio	Lower	Upper
72	100		
43	447.2	0.0	20.0#
72	100.0	80.0	120.0

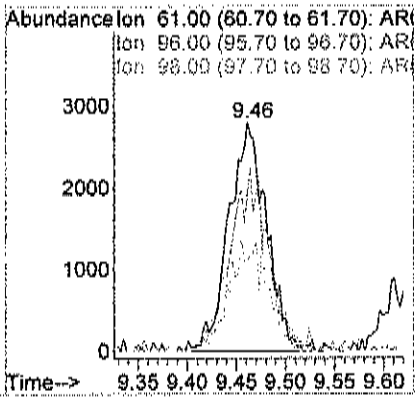


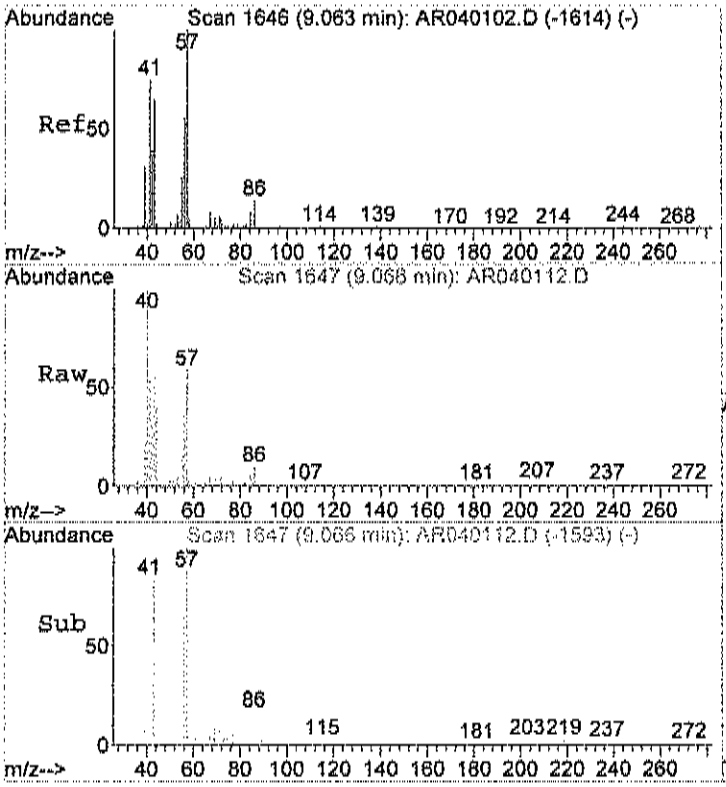


#29
cis-1,2-dichloroethene
Concen: 0.15 ppb m
RT: 9.46 min Scan# 1779
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 61 Resp: 7497

Ion	Ratio	Lower	Upper
61	100		
96	80.0	57.9	97.9
98	49.6	28.8	68.8

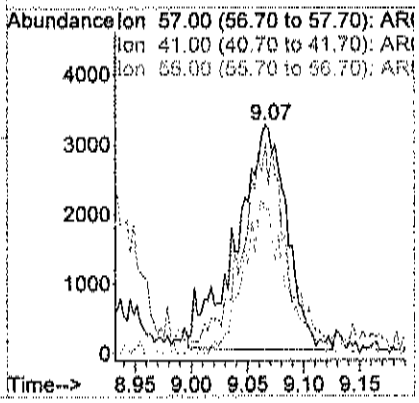


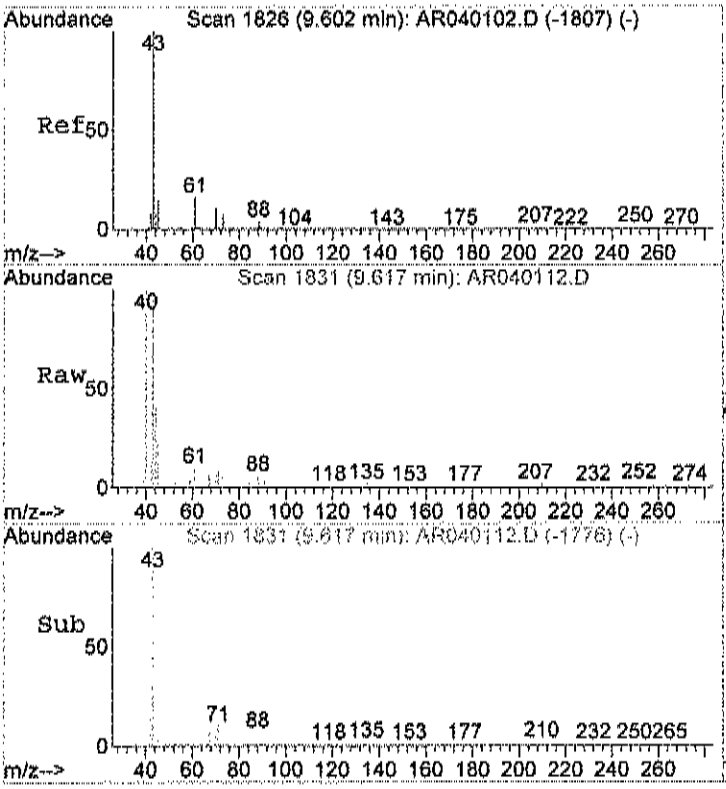


#30
Hexane
Concen: 0.21 ppb
RT: 9.07 min Scan# 1647
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 57 Resp: 10041

Ion	Ratio	Lower	Upper
57	100		
41	78.3	55.7	95.7
56	55.3	32.4	72.4

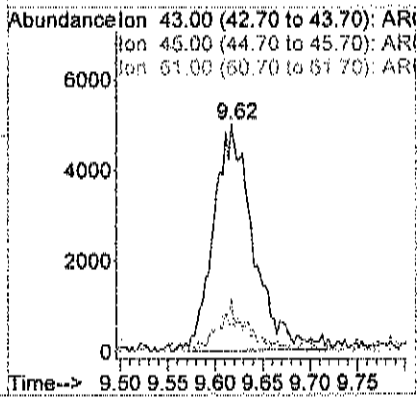


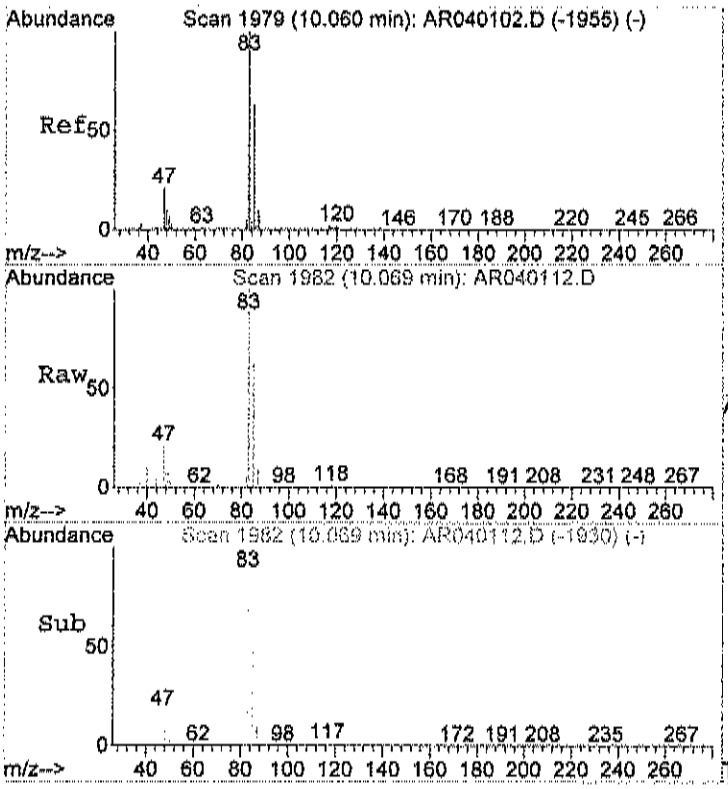


#31
Ethyl acetate
Concen: 0.19 ppb
RT: 9.62 min Scan# 1831
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 43 Resp: 14454

Ion	Ratio	Lower	Upper
43	100		
45	17.7	0.0	34.5
61	14.8	0.0	35.8

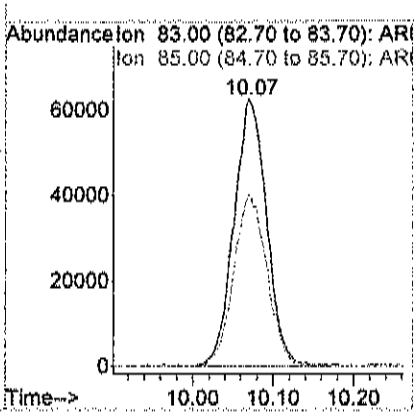


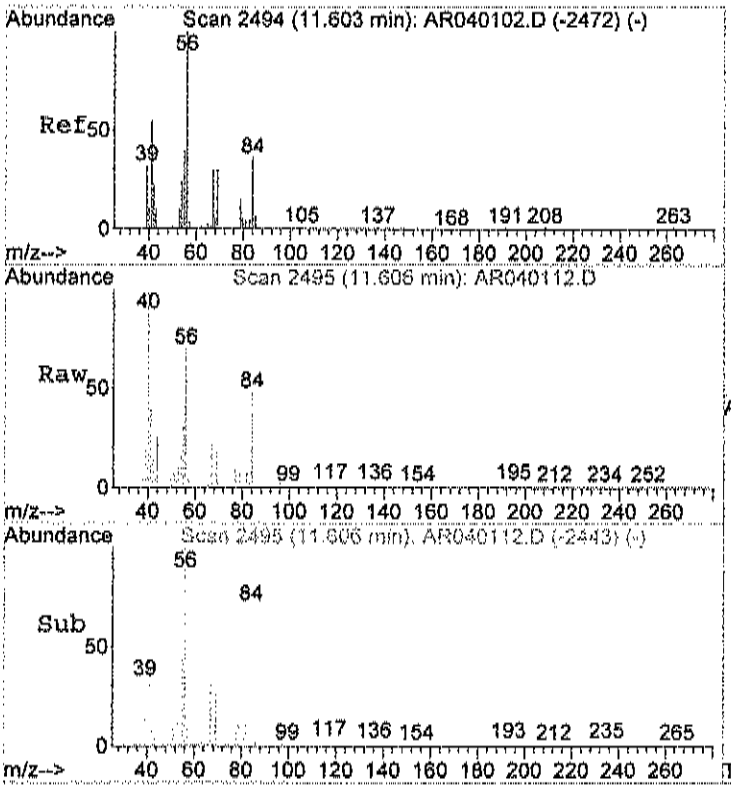


#32
Chloroform
Concen: 1.59 ppb
RT: 10.07 min Scan# 1982
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 83 Resp: 175418

Ion	Ratio	Lower	Upper
83	100		
85	65.6	46.5	86.5

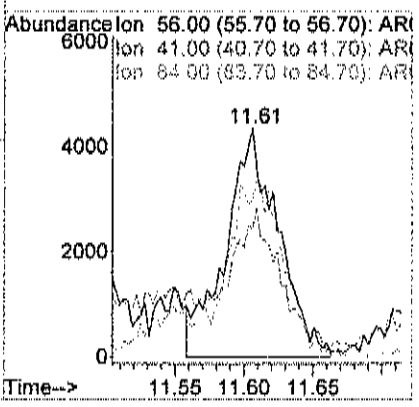


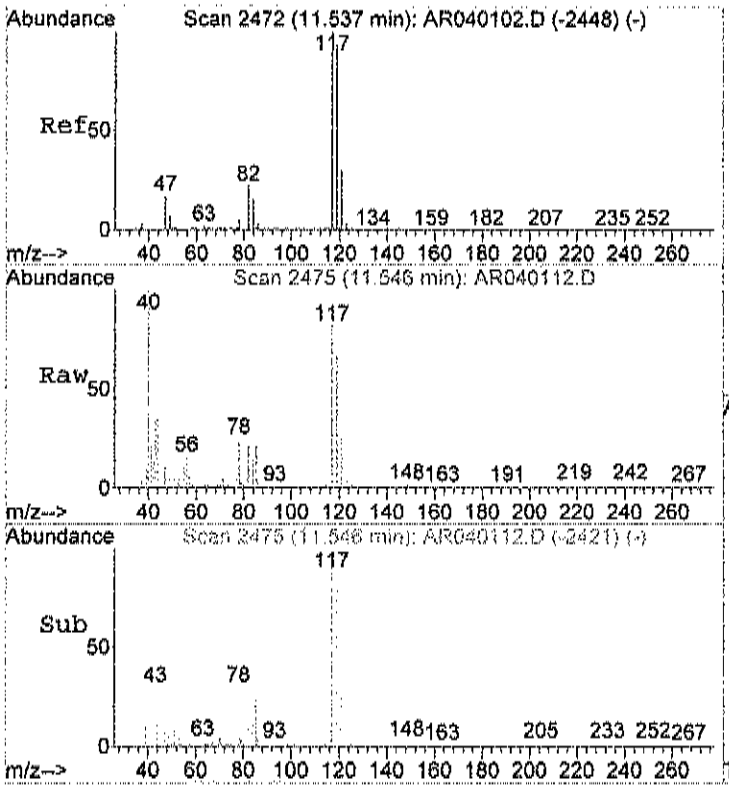


#37
Cyclohexane
Concen: 0.26 ppb m
RT: 11.61 min Scan# 2495
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 56 Resp: 11444

Ion	Ratio	Lower	Upper
56	100		
41	126.9	42.3	82.3#
84	98.8	107.7	147.7#

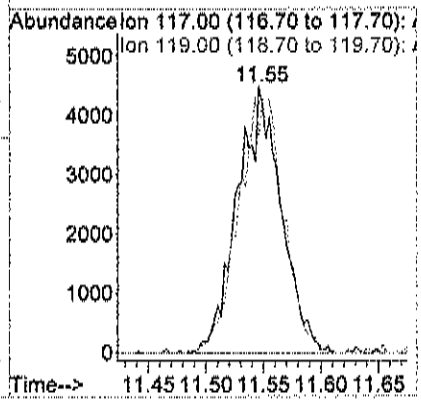


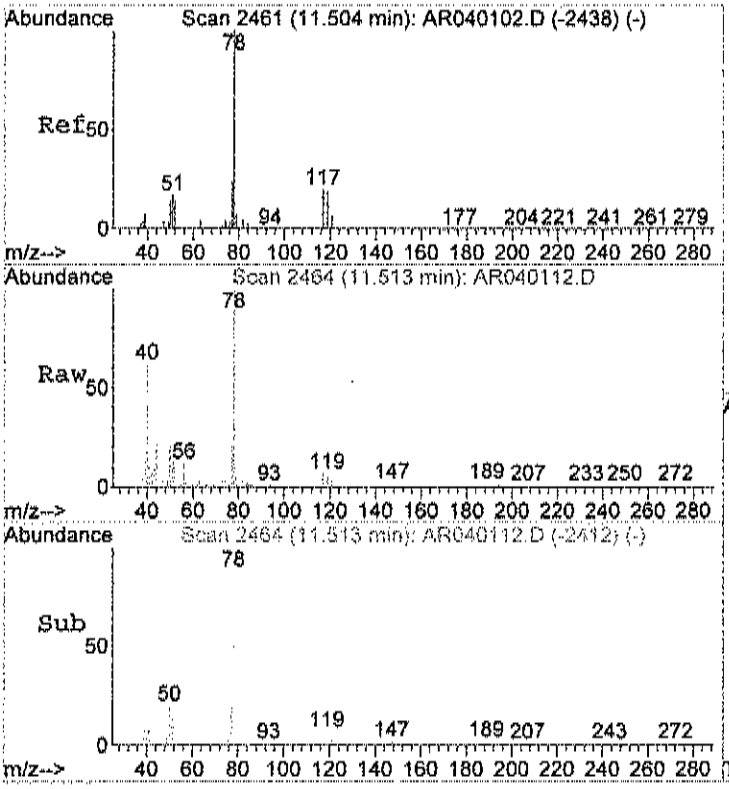


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2475
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion:117 Resp: 11849

Ion	Ratio	Lower	Upper
117	100		
119	99.3	75.6	115.6

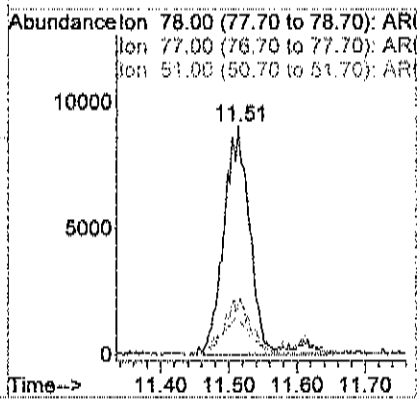


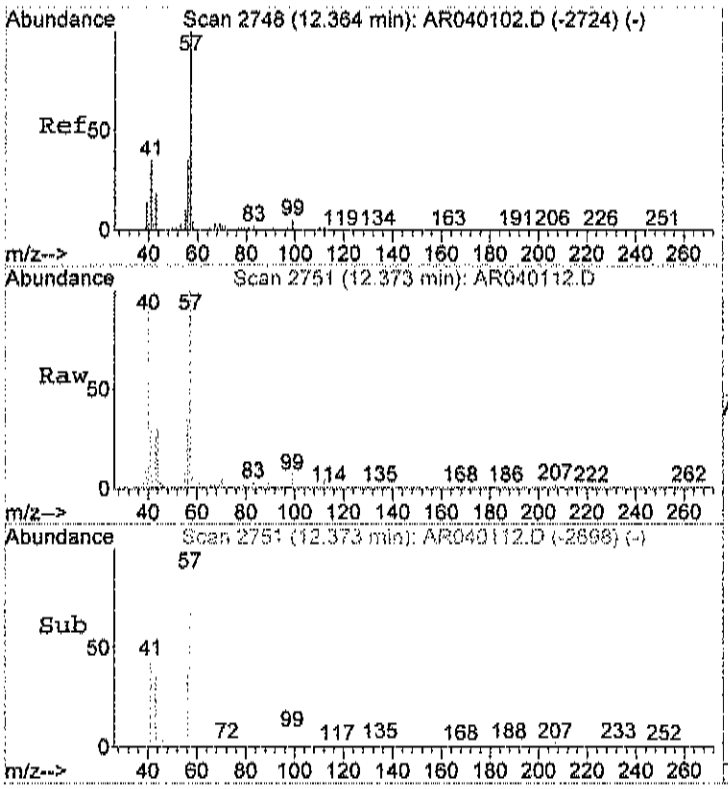


#39
Benzene
Concen: 0.21 ppb
RT: 11.51 min Scan# 2464
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 78 Resp: 24741

Ion	Ratio	Lower	Upper
78	100		
77	23.7	4.1	44.1
51	16.8	0.0	36.8

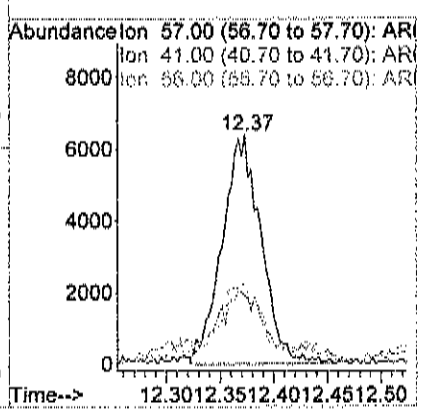


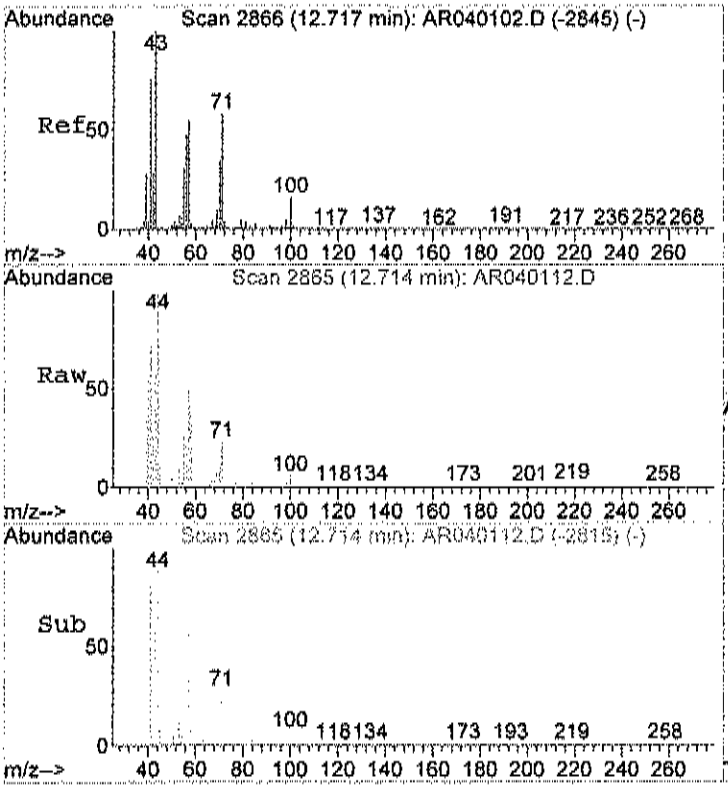


#42
2,2,4-trimethylpentane
Concen: 0.11 ppb
RT: 12.37 min Scan# 2751
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 57 Resp: 16243

Ion	Ratio	Lower	Upper
57	100		
41	51.3	12.1	52.1
56	42.6	12.7	52.7

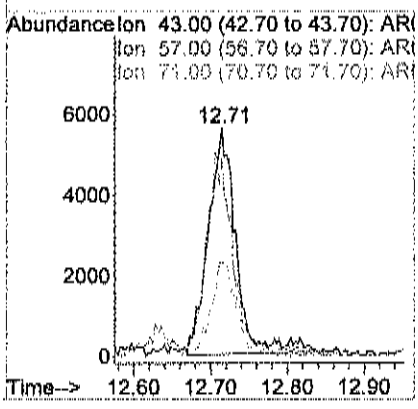


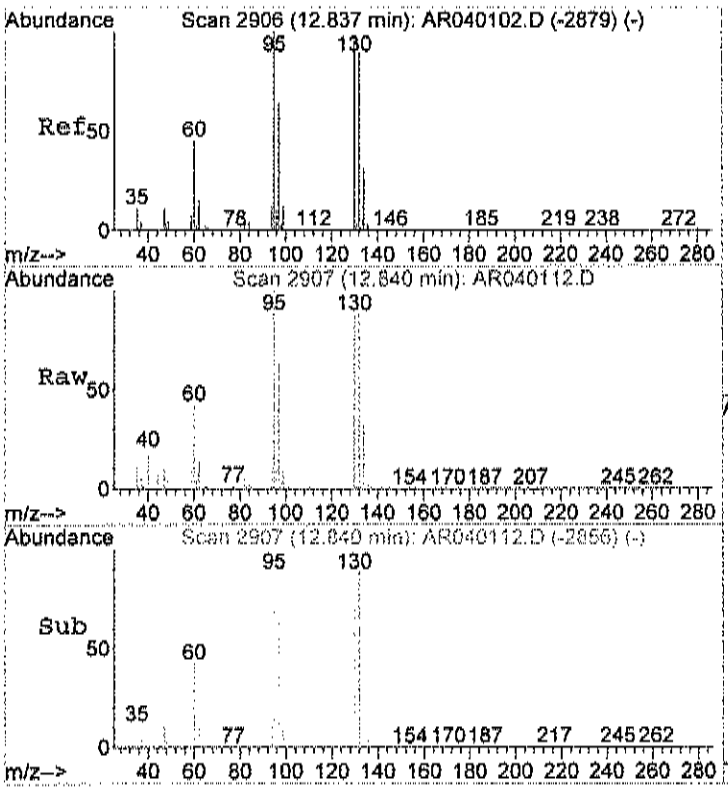


#43
Heptane
Concen: 0.30 ppb
RT: 12.71 min Scan# 2865
Delta R.T. -0.00 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 43 Resp: 14077

Ion	Ratio	Lower	Upper
43	100		
57	80.8	36.0	76.0#
71	38.0	42.5	82.5#

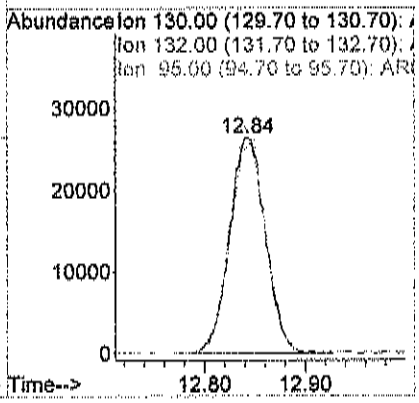


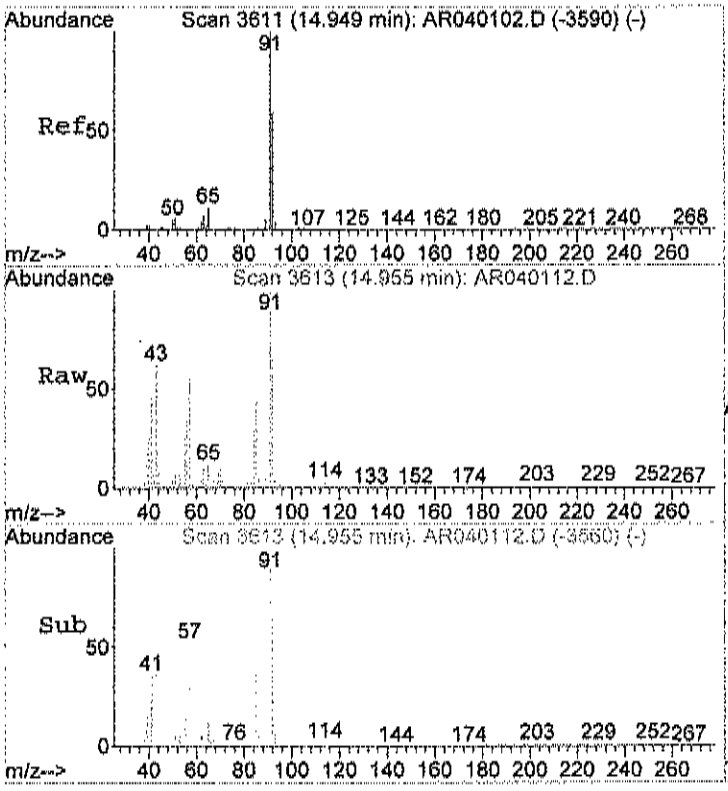


#44
Trichloroethene
Concen: 1.11 ppb
RT: 12.84 min Scan# 2907
Delta R.T. 0.00 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion:130 Resp: 65401

Ion	Ratio	Lower	Upper
130	100		
132	97.7	76.9	116.9
95	103.9	78.6	118.6

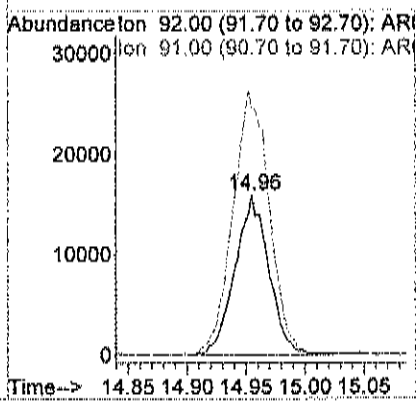


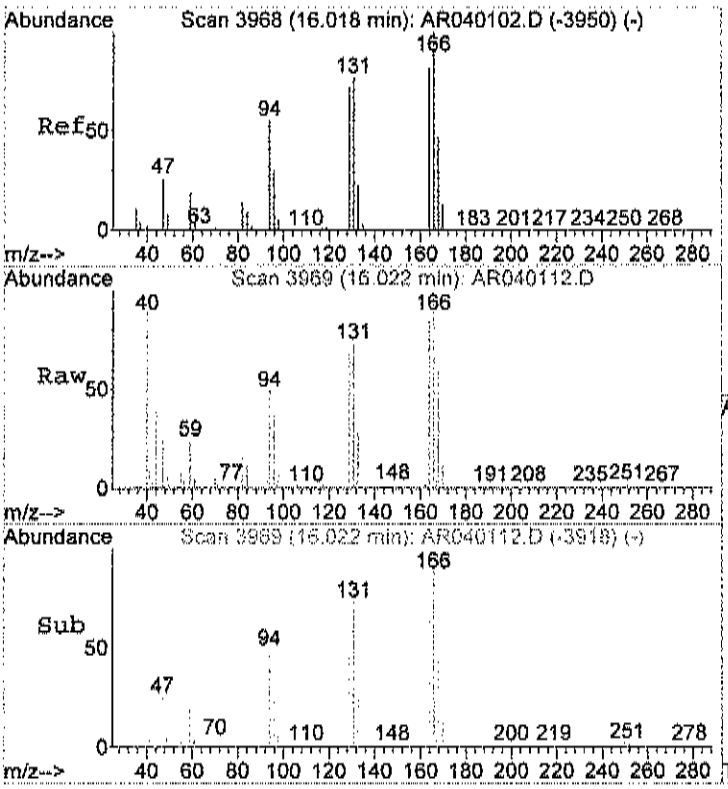


#51
Toluene
Concen: 0.41 ppb
RT: 14.96 min Scan# 3613
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 92 Resp: 31651

Ion	Ratio	Lower	Upper
92	100		
91	176.9	154.5	194.5

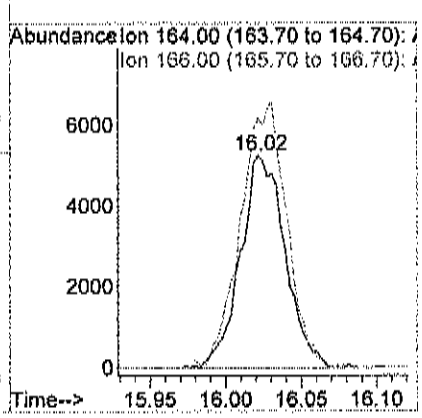


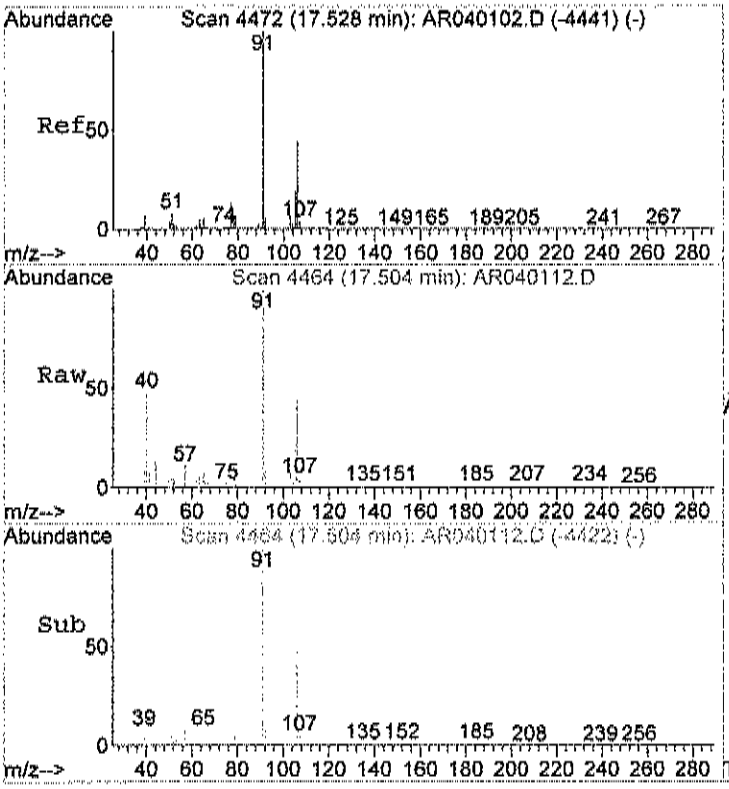


#56
Tetrachloroethylene
Concen: 0.16 ppb
RT: 16.02 min Scan# 3969
Delta R.T. 0.00 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion:164 Resp: 10738

Ion	Ratio	Lower	Upper
164	100		
166	128.3	106.4	146.4

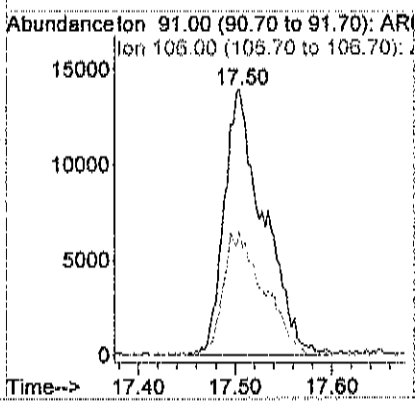


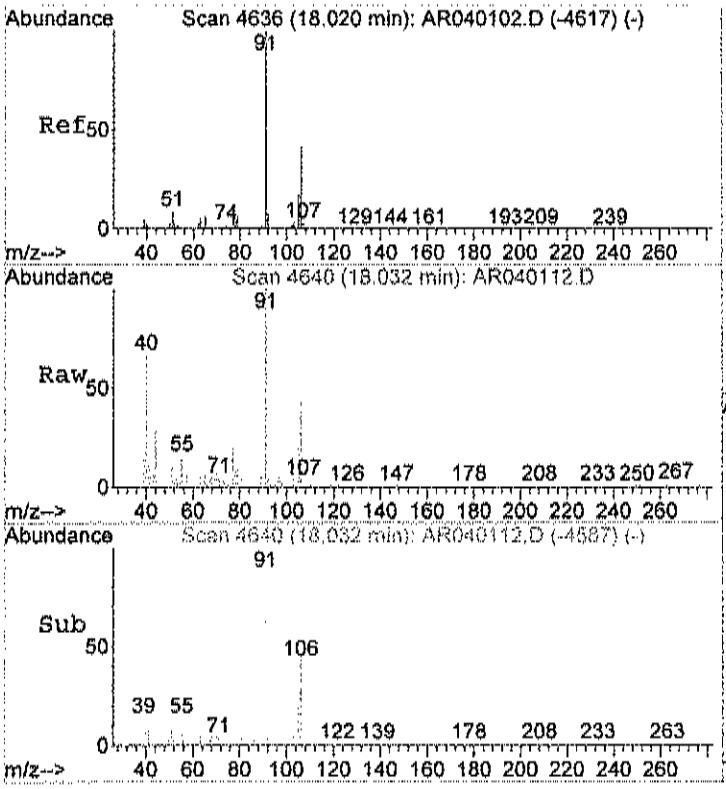


#59
m&p-xylene
Concen: 0.27 ppb
RT: 17.50 min Scan# 4464
Delta R.T. -0.02 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 91 Resp: 39465

Ion	Ratio	Lower	Upper
91	100		
106	47.7	29.0	69.0

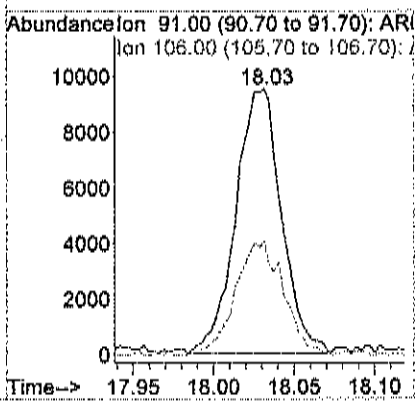


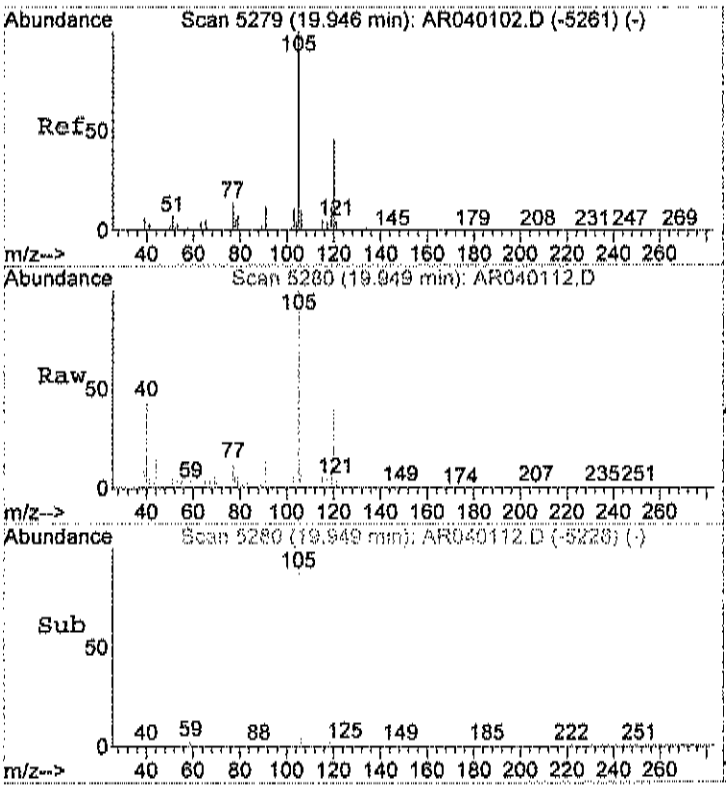


#63
o-xylene
Concen: 0.11 ppb
RT: 18.03 min Scan# 4640
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion: 91 Resp: 18658

Ion	Ratio	Lower	Upper
91	100		
106	45.0	26.2	66.2

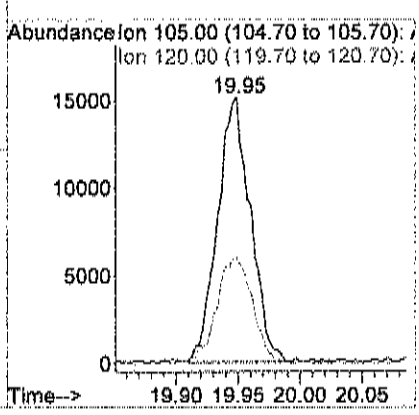




#71
1,2,4-trimethylbenzene
Concen: 0.18 ppb
RT: 19.95 min Scan# 5280
Delta R.T. 0.01 min
Lab File: AR040112.D
Acq: 1 Apr 2020 7:17 pm

Tgt Ion:105 Resp: 28037

Ion	Ratio	Lower	Upper
105	100		
120	44.0	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040125.D Vial: 8
Acq On : 2 Apr 2020 5:18 am Operator: RJP
Sample : C2004002-008A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:31 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

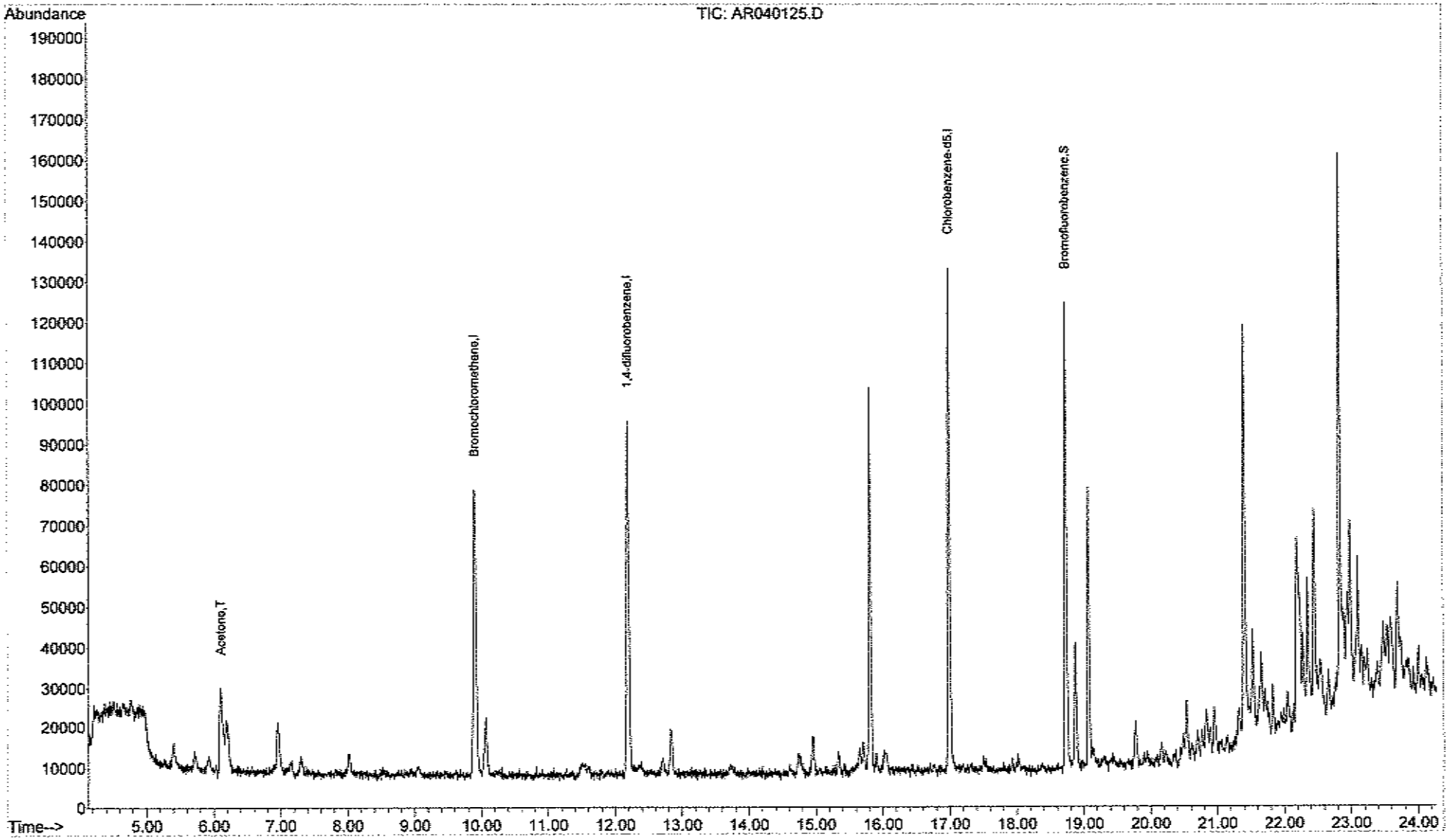
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	29759	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	93880	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	86755	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	45586m	0.73	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 73.00%			
Target Compounds						Qvalue
15) Acetone	6.10	58	14011	0.86	ppb	# 100

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

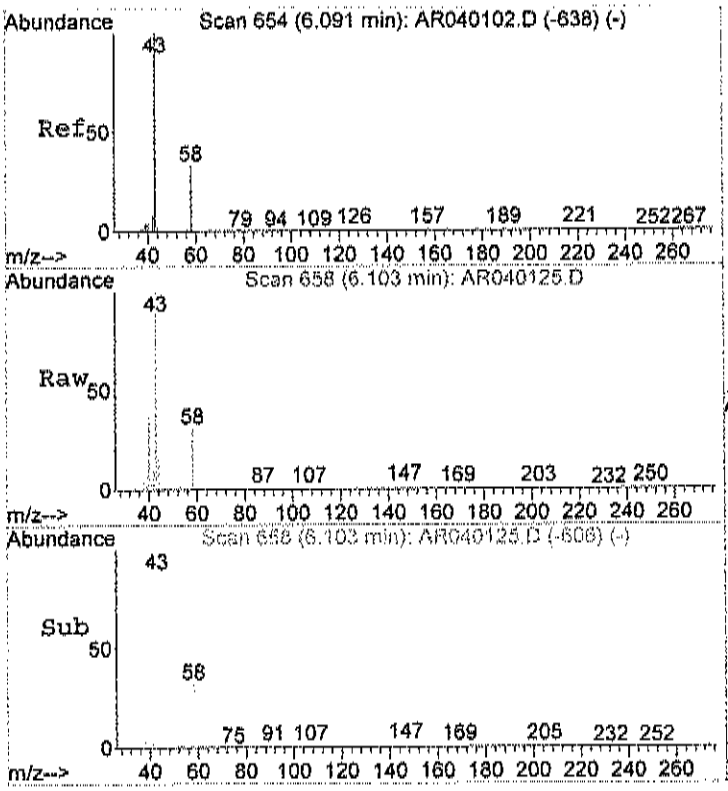
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040125.D Vial: 8
Acq On : 2 Apr 2020 5:18 am Operator: RJP
Sample : C2004002-008A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:21 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



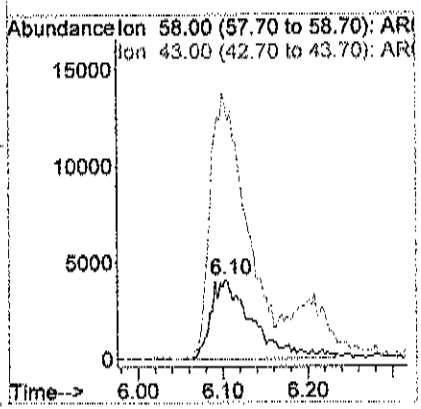
AR040125.D A320_1UG.M Fri Apr 10 08:40:23 2020 MSD1 Page 2



#15
Acetone
Concen: 0.86 ppb
RT: 6.10 min Scan# 658
Delta R.T. 0.01 min
Lab File: AR040125.D
Acq: 2 Apr 2020 5:18 am

Tgt Ion: 58 Resp: 14011

Ion	Ratio	Lower	Upper
58	100		
43	354.8	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:04:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2,4-Trimethylbenzene	0.14	0.15	J	ppbV	1	4/1/2020 8:04:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
2,2,4-trimethylpentane	0.13	0.15	J	ppbV	1	4/1/2020 8:04:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Acetone	11	3.0		ppbV	10	4/2/2020 6:04:00 AM
Acetone	11	0.30		ppbV	1	4/1/2020 8:04:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Benzene	0.23	0.15		ppbV	1	4/1/2020 8:04:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 8:04:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 8:04:00 PM
cis-1,2-Dichloroethene	0.29	0.040		ppbV	1	4/1/2020 8:04:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Cyclohexane	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethyl acetate	0.30	0.15		ppbV	1	4/1/2020 8:04:00 PM
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 11	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Freon 12	0.47	0.15		ppbV	1	4/1/2020 8:04:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Hexane	0.27	0.15		ppbV	1	4/1/2020 8:04:00 PM
Isopropyl alcohol	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
m&p-Xylene	0.22	0.30	J	ppbV	1	4/1/2020 8:04:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl Ethyl Ketone	0.48	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:04:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 8:04:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Tetrachloroethylene	0.29	0.15		ppbV	1	4/1/2020 8:04:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Toluene	0.39	0.15		ppbV	1	4/1/2020 8:04:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Trichloroethene	2.3	0.30		ppbV	10	4/2/2020 6:04:00 AM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 8:04:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 8:04:00 PM
Surr: Bromofluorobenzene	92.0	70-130		%REC	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:04:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:04:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:04:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM
1,2,4-Trimethylbenzene	0.69	0.74	J	ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 8:04:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:04:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 8:04:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:04:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM
2,2,4-trimethylpentane	0.61	0.70	J	ug/m3	1	4/1/2020 8:04:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 8:04:00 PM
Acetone	27	7.1		ug/m3	10	4/2/2020 6:04:00 AM
Acetone	27	0.71		ug/m3	1	4/1/2020 8:04:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 8:04:00 PM
Benzene	0.73	0.48		ug/m3	1	4/1/2020 8:04:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 8:04:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 8:04:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 8:04:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 8:04:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 8:04:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 8:04:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 8:04:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 8:04:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 8:04:00 PM
cis-1,2-Dichloroethene	1.1	0.16		ug/m3	1	4/1/2020 8:04:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:04:00 PM
Cyclohexane	0.93	0.52		ug/m3	1	4/1/2020 8:04:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 8:04:00 PM
Ethyl acetate	1.1	0.54		ug/m3	1	4/1/2020 8:04:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 8:04:00 PM
Freon 11	1.5	0.84		ug/m3	1	4/1/2020 8:04:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 8:04:00 PM

Qualifiers:

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B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	614
Lab Order:	C2004002	**Tag Number:**	539,387
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-009A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 8:04:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 8:04:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 8:04:00 PM
Hexane	0.95	0.53		ug/m3	1	4/1/2020 8:04:00 PM
Isopropyl alcohol	< 0.37	0.37		ug/m3	1	4/1/2020 8:04:00 PM
m&p-Xylene	0.96	1.3	J	ug/m3	1	4/1/2020 8:04:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
Methyl Ethyl Ketone	1.4	0.88		ug/m3	1	4/1/2020 8:04:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:04:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 8:04:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 8:04:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 8:04:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 8:04:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 8:04:00 PM
Tetrachloroethylene	2.0	1.0		ug/m3	1	4/1/2020 8:04:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 8:04:00 PM
Toluene	1.5	0.57		ug/m3	1	4/1/2020 8:04:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 8:04:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:04:00 PM
Trichloroethene	12	1.6		ug/m3	10	4/2/2020 6:04:00 AM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 8:04:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 8:04:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 8:04:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040113.D Vial: 9
Acq On : 1 Apr 2020 8:04 pm Operator: RJP
Sample : C2004002-009A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:19 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

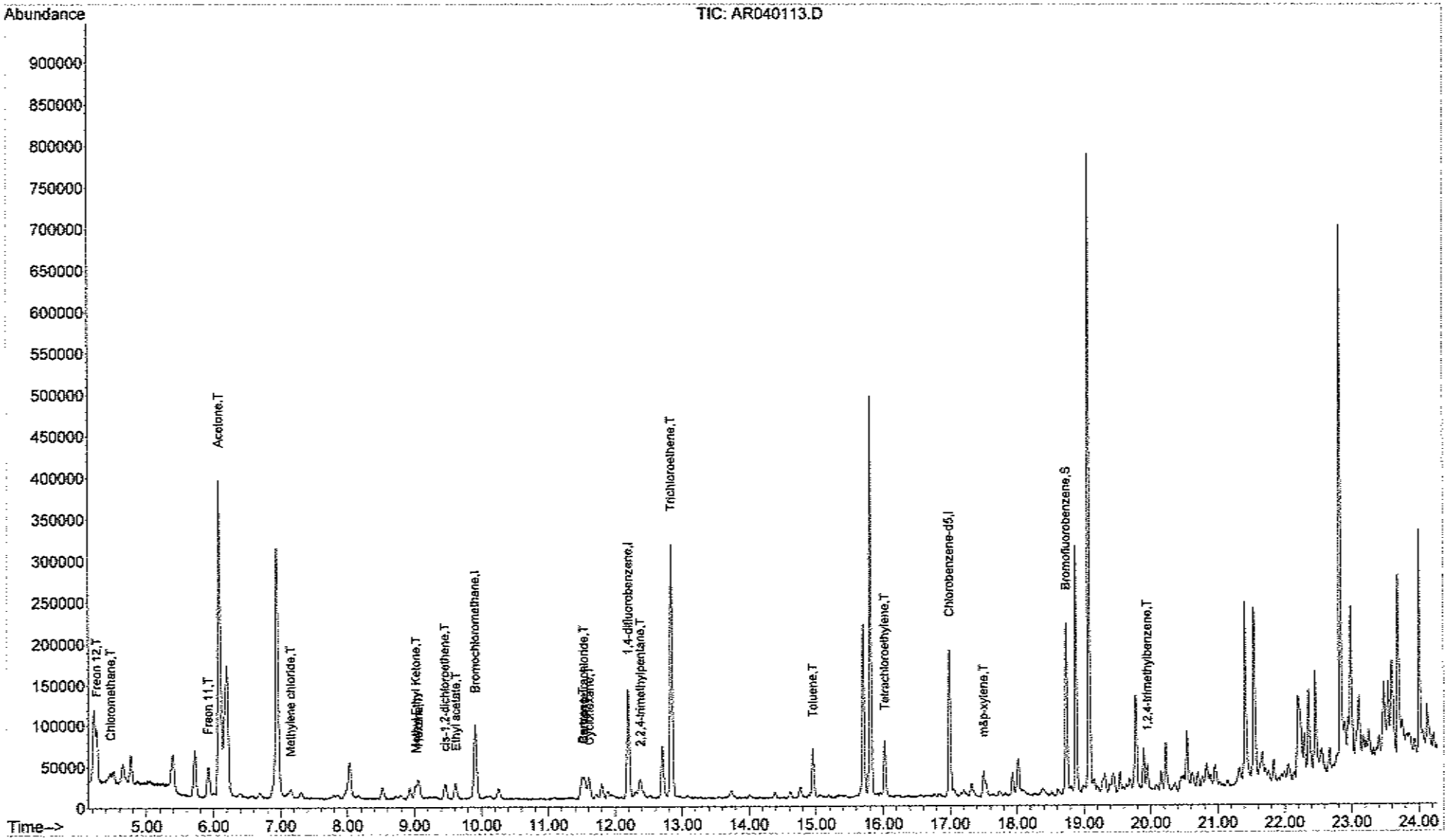
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	37819	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	141390	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	126752	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	83417	0.92	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 92.00%				
Target Compounds							Qvalue
3) Freon 12	4.26	85	79438	0.47	ppb		99
4) Chloromethane	4.46	50	14789	0.40	ppb		94
14) Freon 11	5.92	101	47169	0.27	ppb		99
15) Acetone	6.08	58	230935	11.20	ppb	#	100
21) Methylene chloride	7.15	84	7391	0.17	ppb		95
28) Methyl Ethyl Ketone	9.01	72	8294	0.48	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	15017	0.29	ppb		95
30) Hexane	9.06	57	13041	0.27	ppb	#	72
31) Ethyl acetate	9.62	43	23473	0.30	ppb		99
37) Cyclohexane	11.62	56	12003m esp	0.27	ppb		
38) Carbon tetrachloride	11.54	117	11853	0.09	ppb		98
39) Benzene	11.51	78	26685	0.23	ppb		98
42) 2,2,4-trimethylpentane	12.37	57	20180	0.13	ppb		85
44) Trichloroethene	12.84	130	133132	2.23	ppb		98
51) Toluene	14.96	92	29255	0.39	ppb		97
56) Tetrachloroethylene	16.02	164	18466	0.29	ppb		99
59) m&p-xylene	17.50	91	29891	0.22	ppb		98
71) 1,2,4-trimethylbenzene	19.95	105	19962	0.14	ppb		99

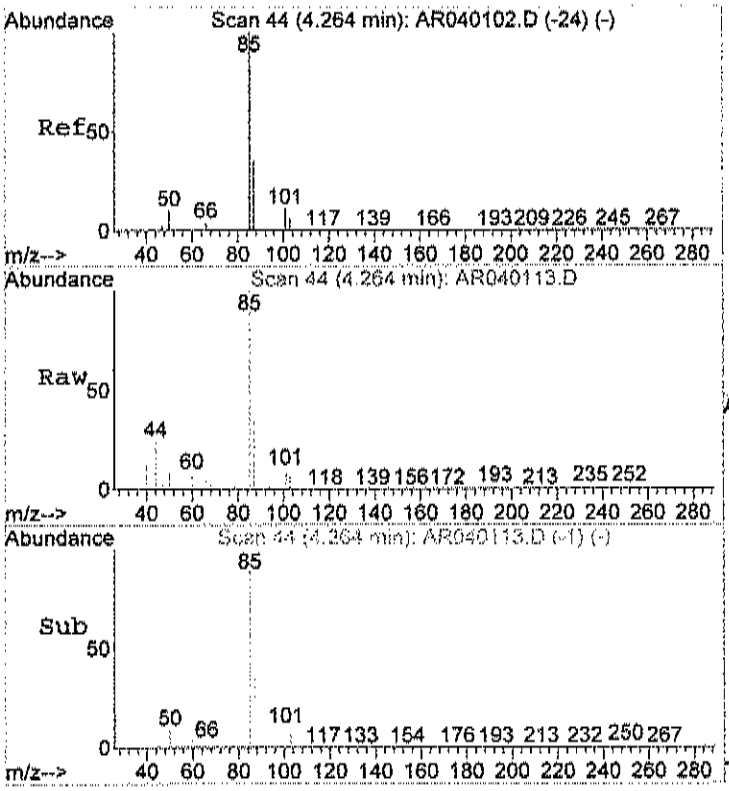
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040113.D Vial: 9
Acq On : 1 Apr 2020 8:04 pm Operator: RJP
Sample : C2004002-009A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:03 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

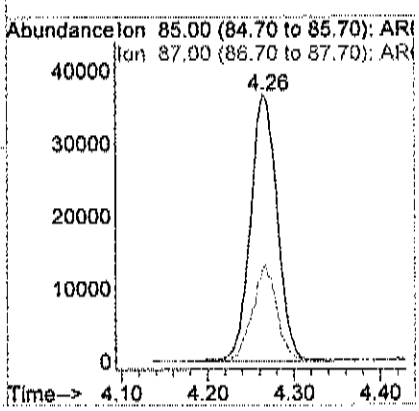


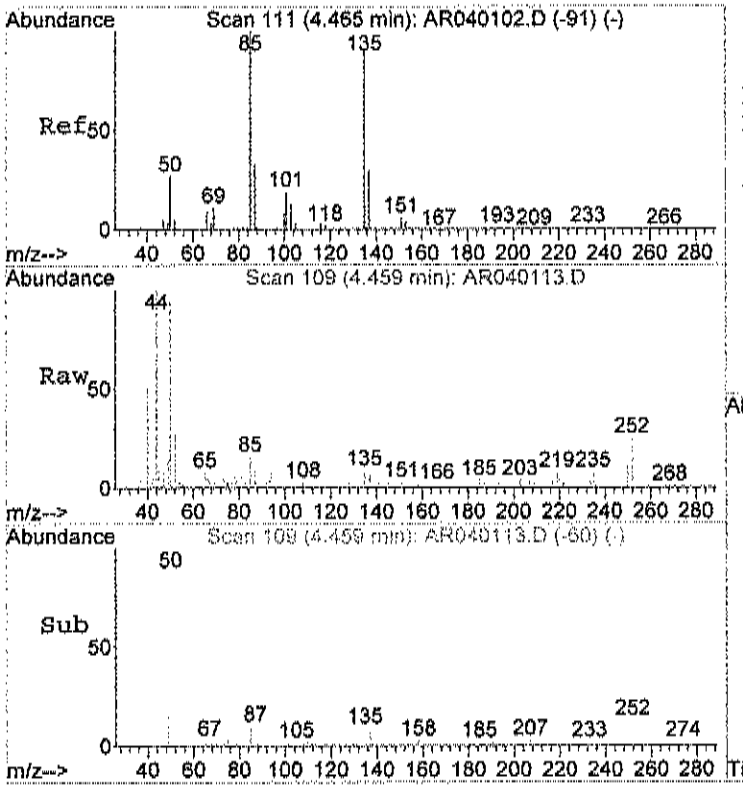


#3
Freon 12
Concen: 0.47 ppb
RT: 4.26 min Scan# 44
Delta R.T. 0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 85 Resp: 79438

Ion	Ratio	Lower	Upper
85	100		
87	32.7	11.9	51.9

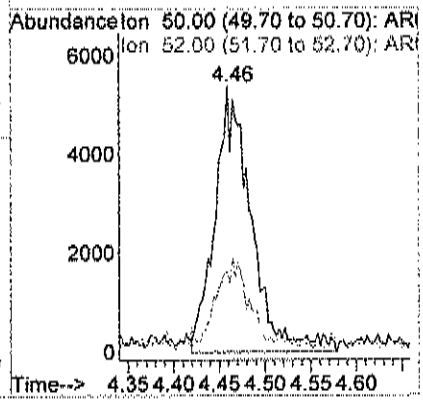


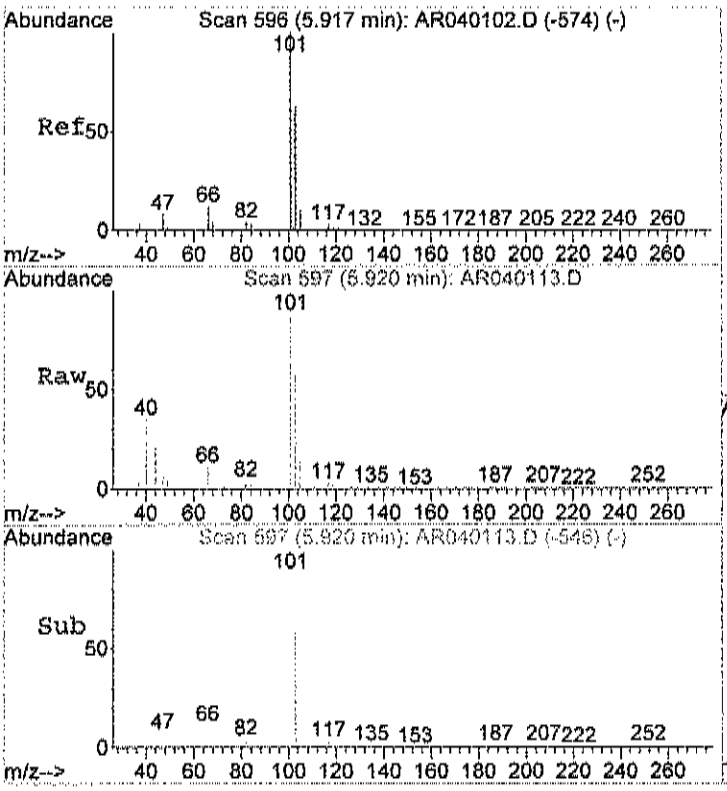


#4
Chloromethane
Concen: 0.40 ppb
RT: 4.46 min Scan# 109
Delta R.T. -0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 50 Resp: 14789

Ion	Ratio	Lower	Upper
50	100		
52	29.4	6.1	46.1

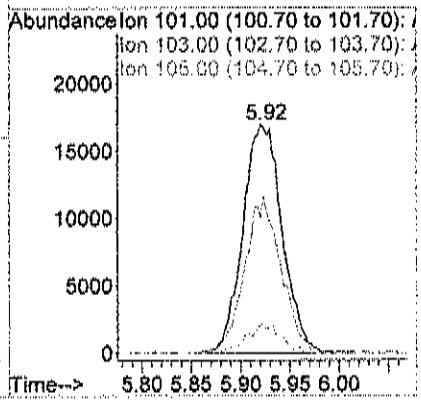


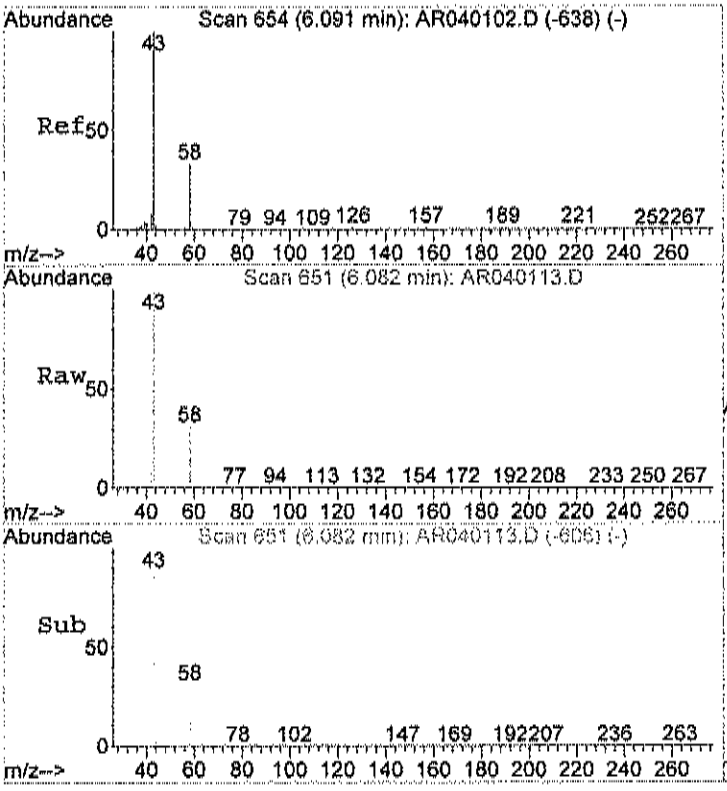


#14
Freon 11
Concen: 0.27 ppb
RT: 5.92 min Scan# 597
Delta R.T. 0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion:101 Resp: 47169

Ion	Ratio	Lower	Upper
101	100		
103	63.5	44.2	84.2
105	11.2	0.0	30.3

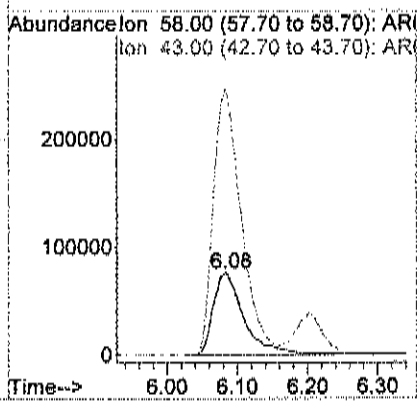


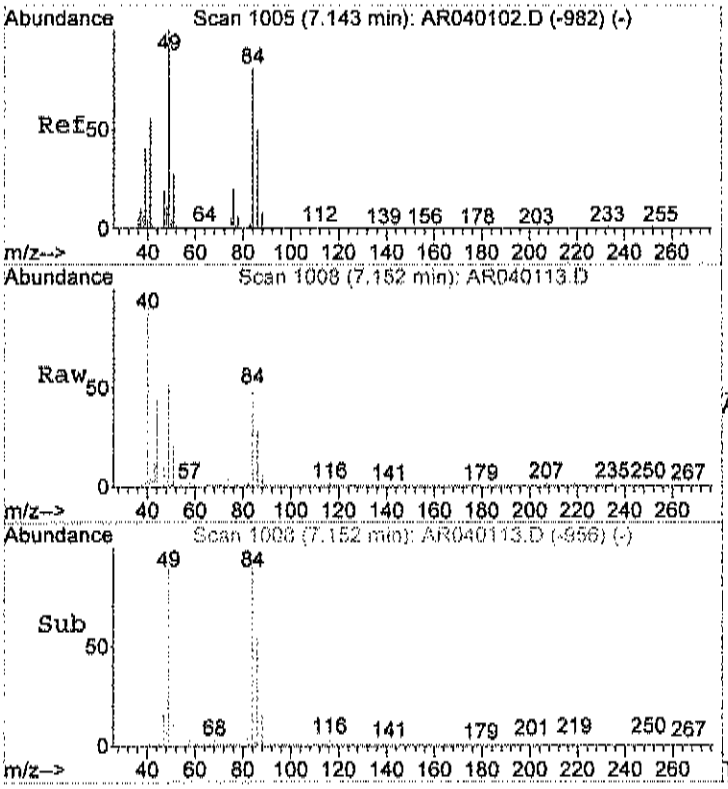


#15
Acetone
Concen: 11.20 ppb
RT: 6.08 min Scan# 651
Delta R.T. -0.02 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 58 Resp: 230935

Ion	Ratio	Lower	Upper
58	100		
43	340.1	0.0	30.0#

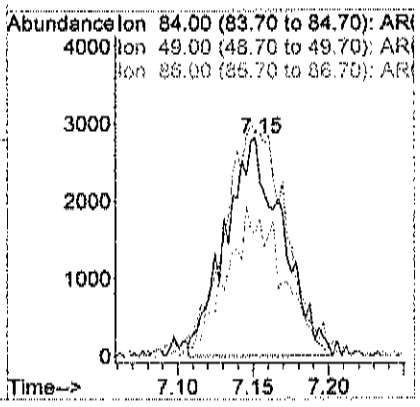


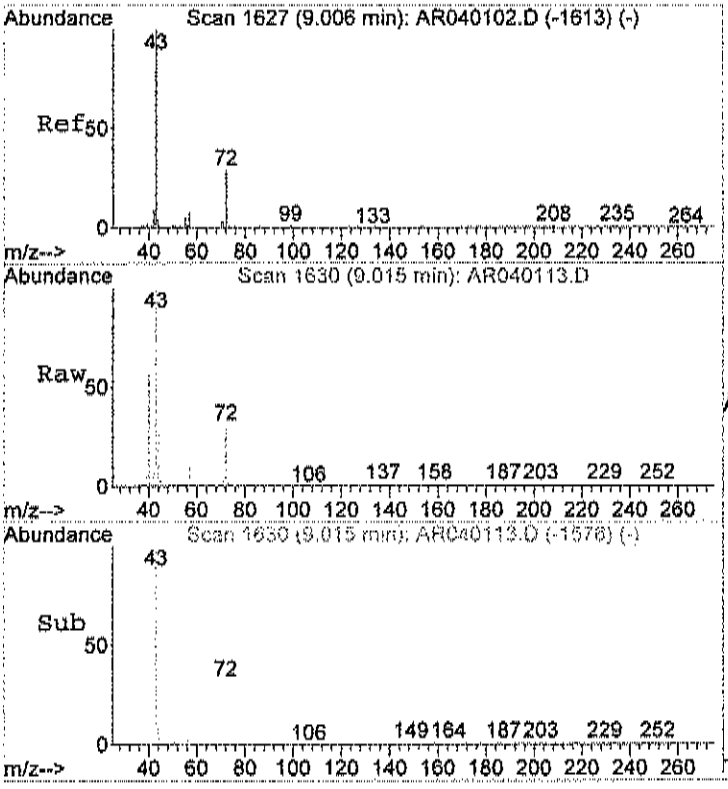


#21
Methylene chloride
Concen: 0.17 ppb
RT: 7.15 min Scan# 1008
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 84 Resp: 7391

Ion	Ratio	Lower	Upper
84	100		
49	115.3	101.4	141.4
86	68.3	45.4	85.4

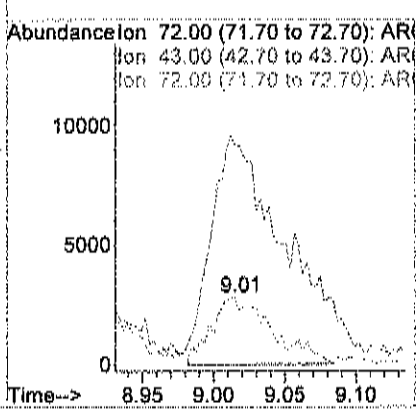


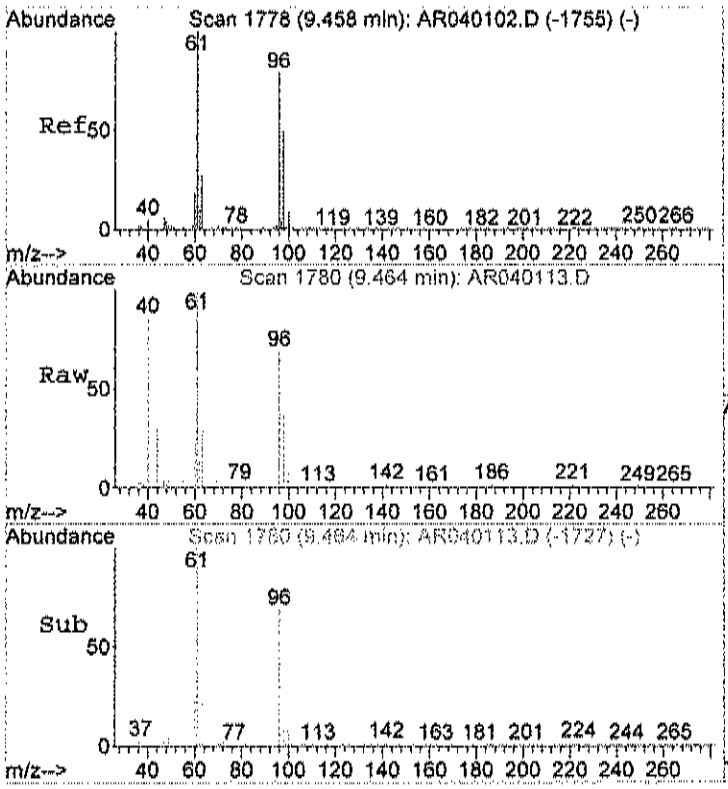


#28
Methyl Ethyl Ketone
Concen: 0.48 ppb
RT: 9.01 min Scan# 1630
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 72 Resp: 8294

Ion	Ratio	Lower	Upper
72	100		
43	414.5	0.0	20.0#
72	100.0	80.0	120.0

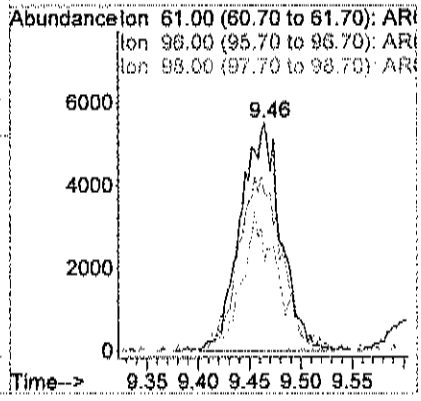


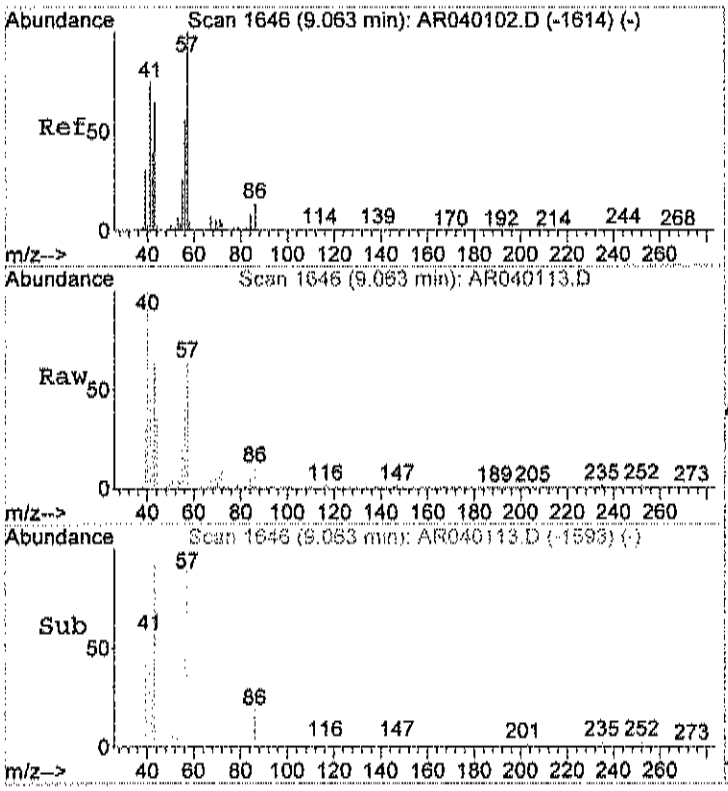


#29
cis-1,2-dichloroethene
Concen: 0.29 ppb
RT: 9.46 min Scan# 1780
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 61 Resp: 15017

Ion	Ratio	Lower	Upper
61	100		
96	82.0	57.9	97.9
98	52.4	28.8	68.8

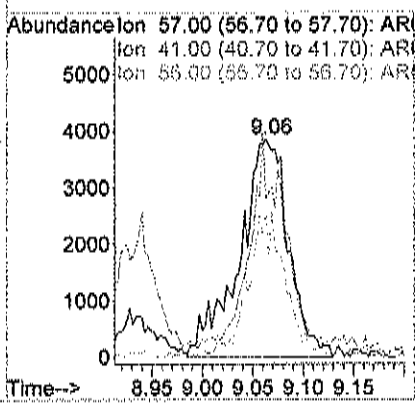


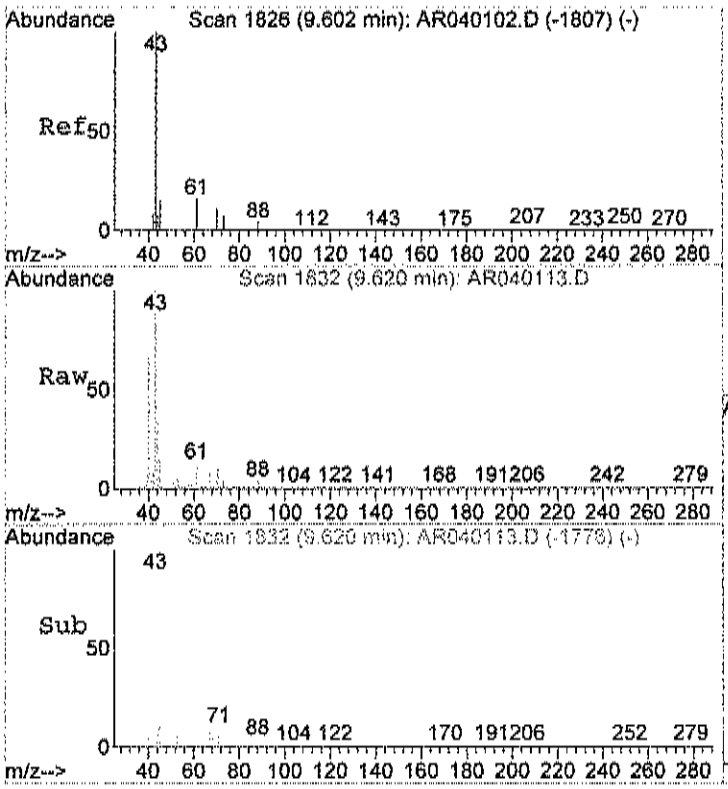


#30
Hexane
Concen: 0.27 ppb
RT: 9.06 min Scan# 1646
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 57 Resp: 13041

Ion	Ratio	Lower	Upper
57	100		
41	112.9	55.7	95.7#
56	49.1	32.4	72.4

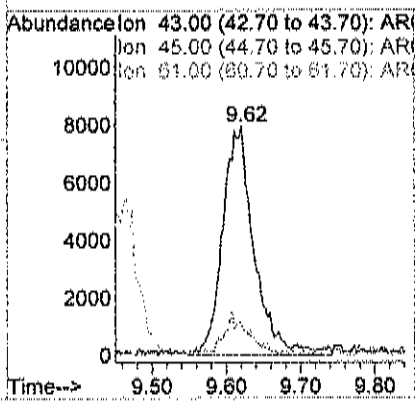


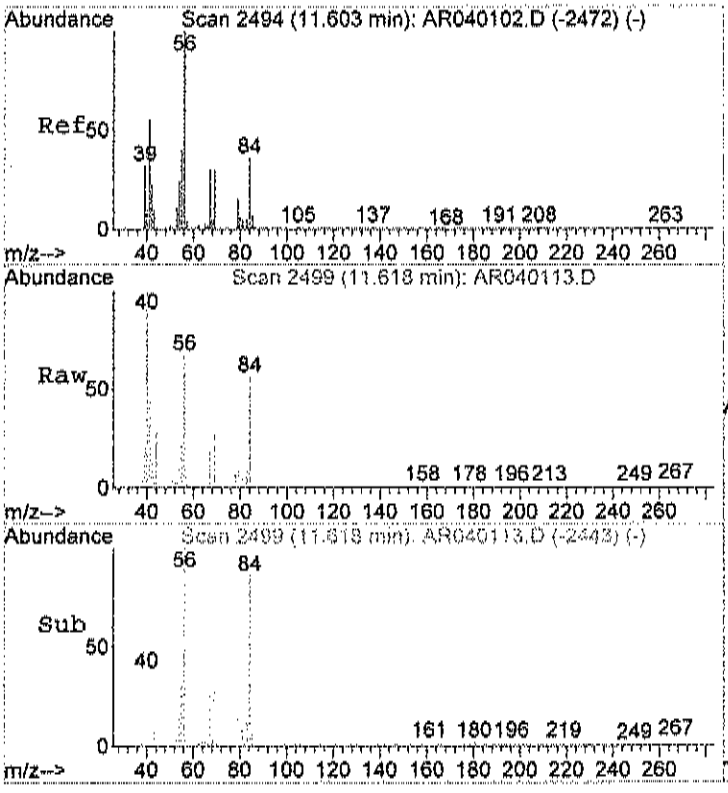


#31
Ethyl acetate
Concen: 0.30 ppb
RT: 9.62 min Scan# 1832
Delta R.T. 0.02 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 43 Resp: 23473

Ion	Ratio	Lower	Upper
43	100		
45	13.9	0.0	34.5
61	15.9	0.0	35.8

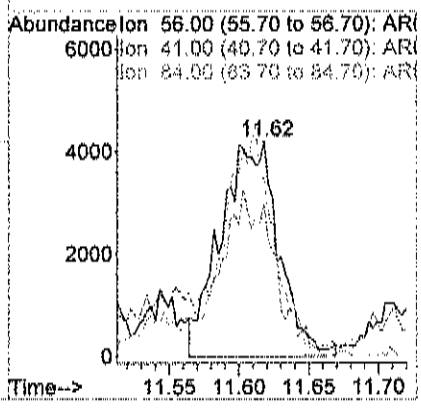


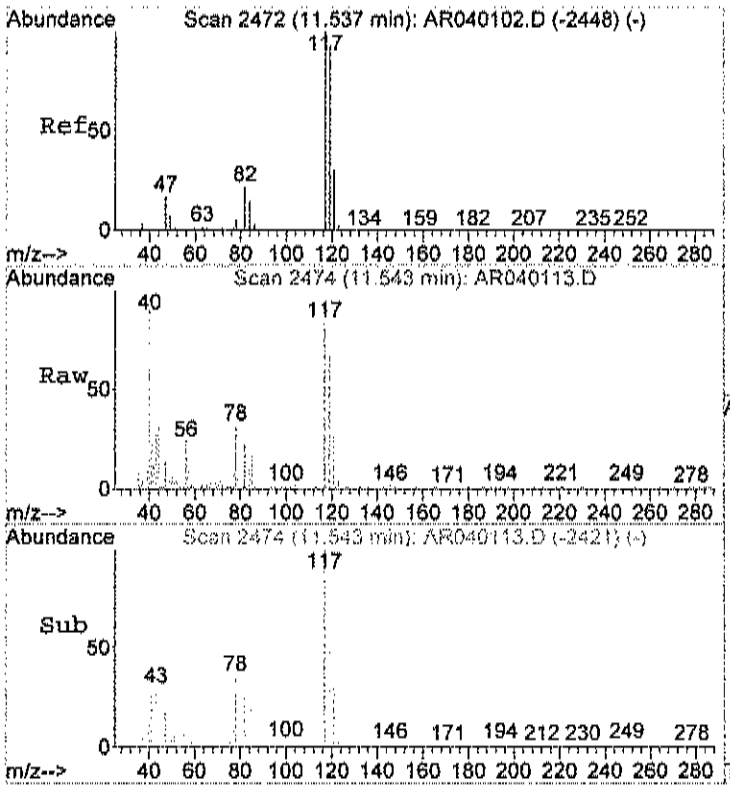


#37
Cyclohexane
Concen: 0.27 ppb m
RT: 11.62 min Scan# 2499
Delta R.T. 0.02 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 56 Resp: 12003

Ion	Ratio	Lower	Upper
56	100		
41	113.6	42.3	82.3#
84	105.9	107.7	147.7#

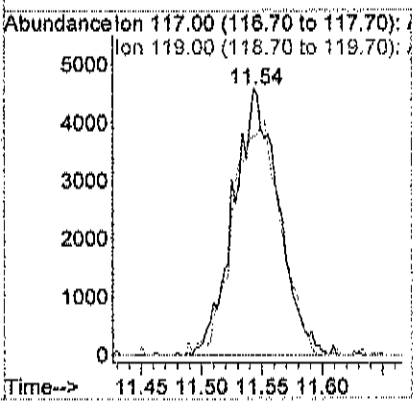


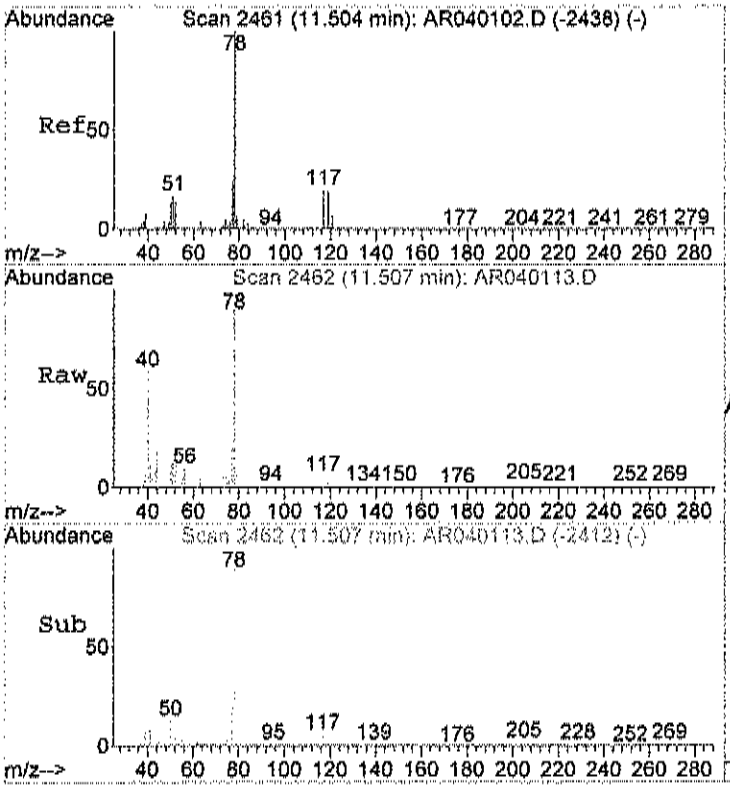


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.54 min Scan# 2474
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion:117 Resp: 11853

Ion	Ratio	Lower	Upper
117	100		
119	93.7	75.6	115.6

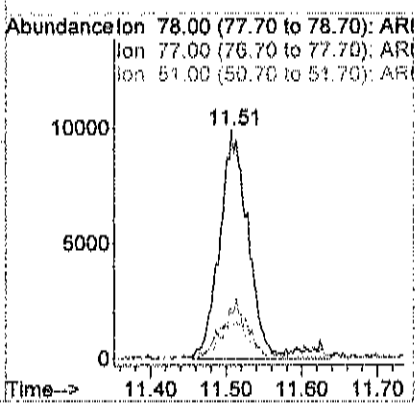


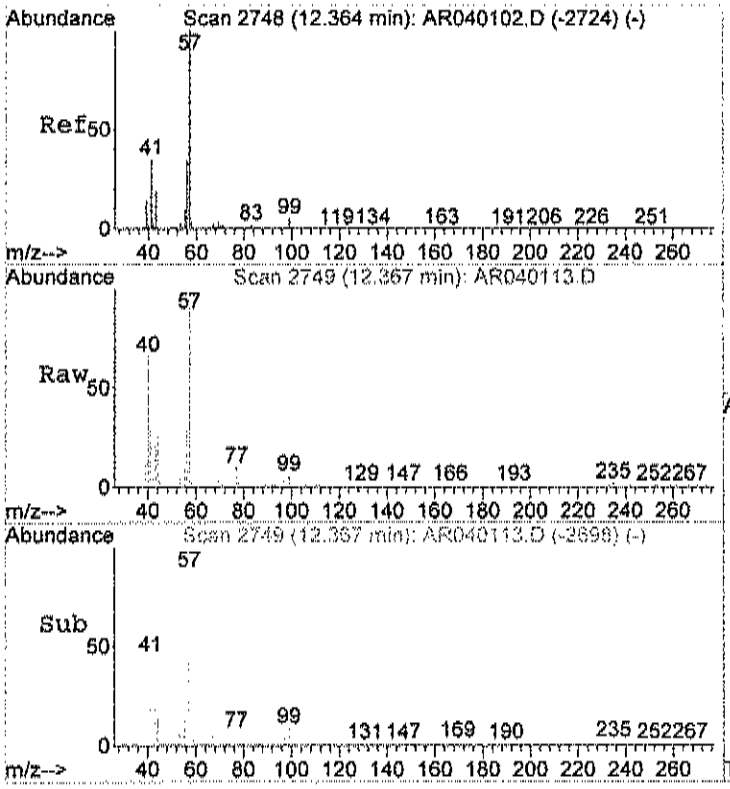


#39
Benzene
Concen: 0.23 ppb
RT: 11.51 min Scan# 2462
Delta R.T. -0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 78 Resp: 26685

Ion	Ratio	Lower	Upper
78	100		
77	22.8	4.1	44.1
51	16.6	0.0	36.8

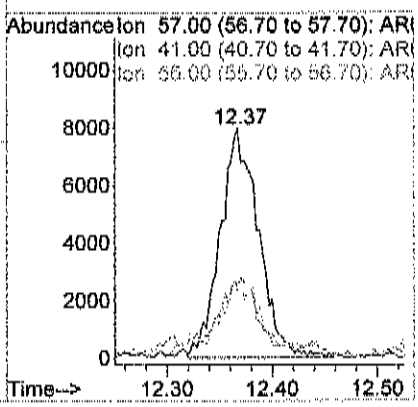


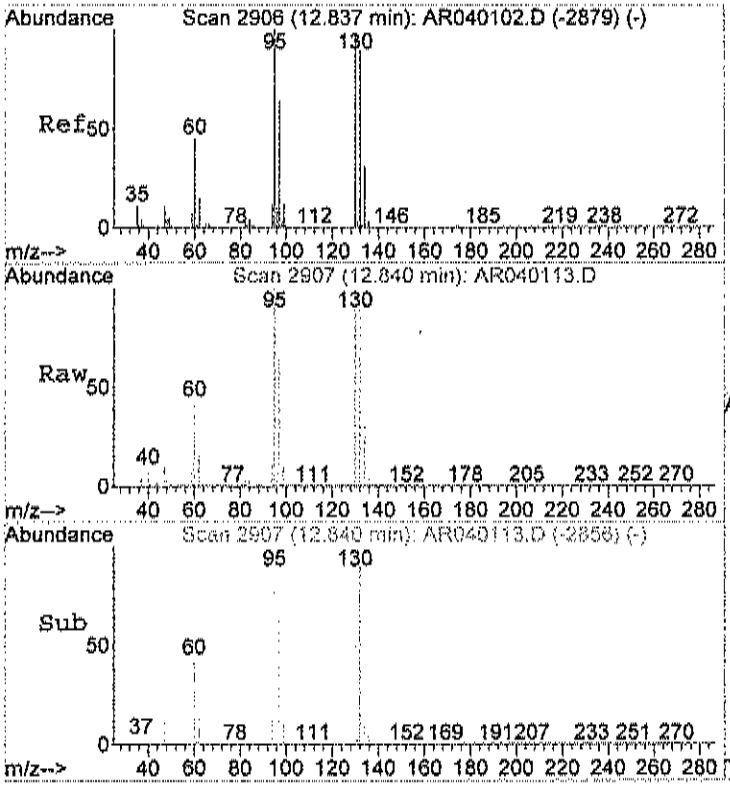


#42
2,2,4-trimethylpentane
Concen: 0.13 ppb
RT: 12.37 min Scan# 2749
Delta R.T. 0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 57 Resp: 20180

Ion	Ratio	Lower	Upper
57	100		
41	37.5	12.1	52.1
56	43.9	12.7	52.7

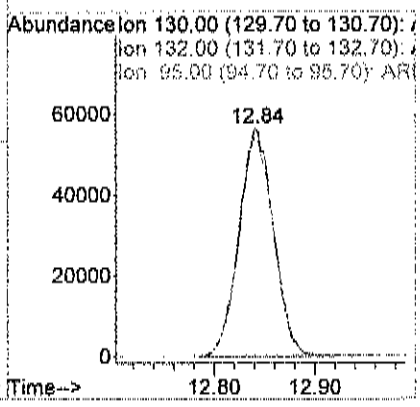


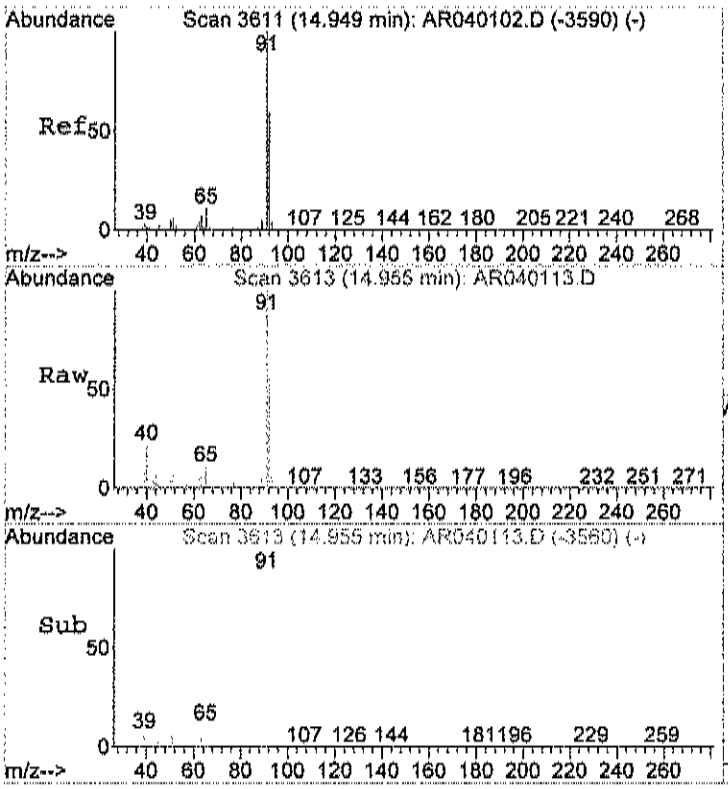


#44
Trichloroethene
Concen: 2.23 ppb
RT: 12.84 min Scan# 2907
Delta R.T. 0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion:130 Resp: 133132

Ion	Ratio	Lower	Upper
130	100		
132	98.2	76.9	116.9
95	101.5	78.6	118.6

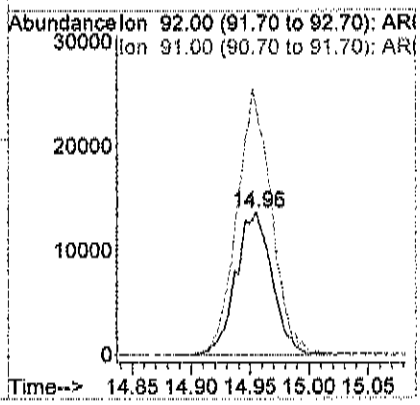


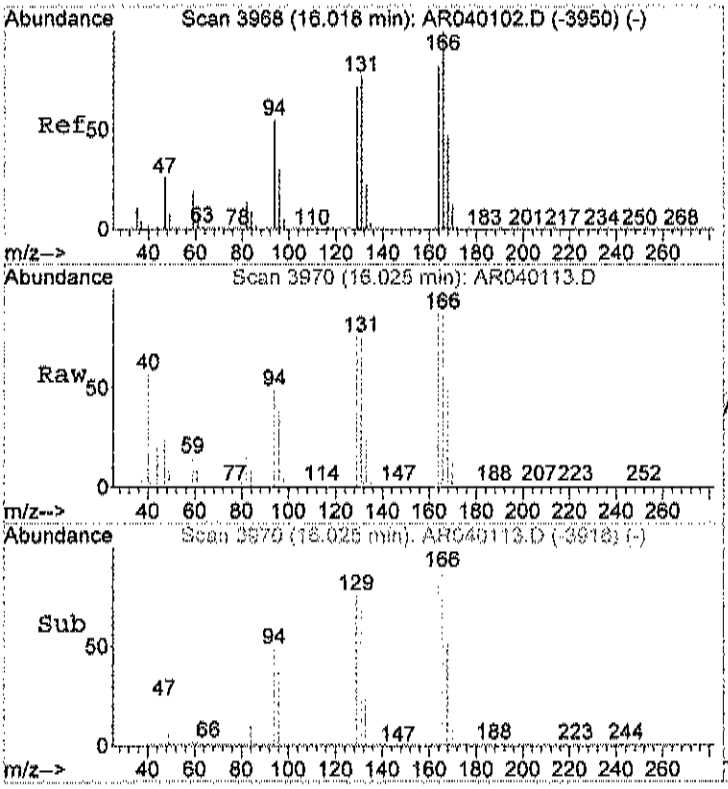


#51
Toluene
Concen: 0.39 ppb
RT: 14.96 min Scan# 3613
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 92 Resp: 29255

Ion	Ratio	Lower	Upper
92	100		
91	179.1	154.5	194.5

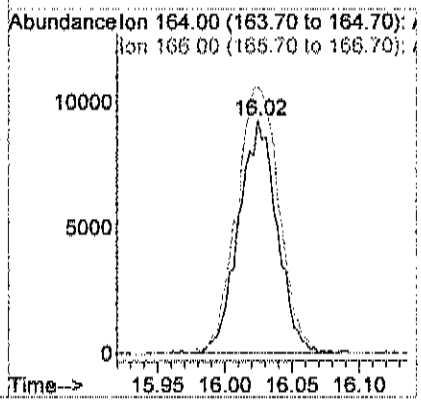


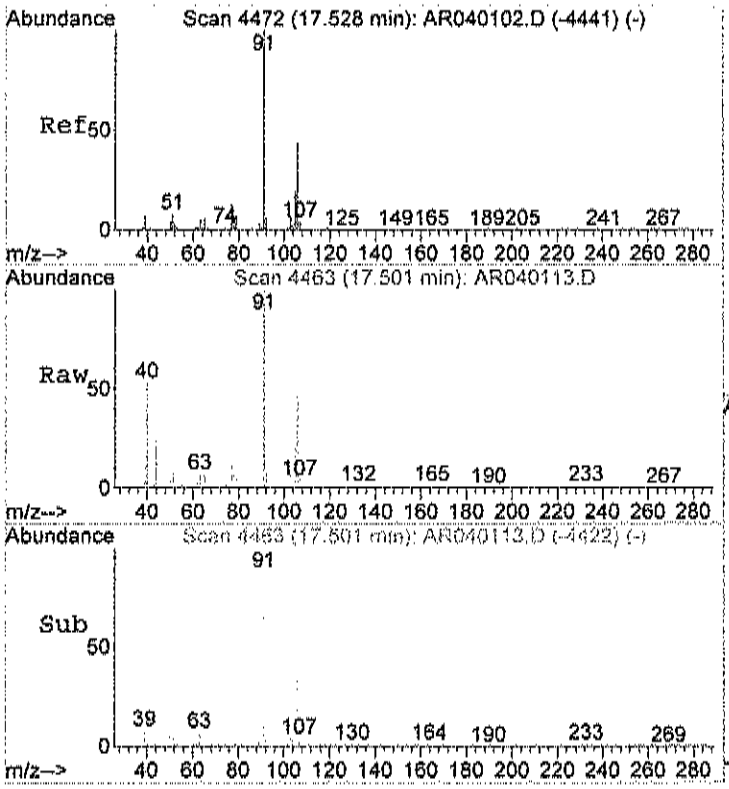


#56
Tetrachloroethylene
Concen: 0.29 ppb
RT: 16.02 min Scan# 3970
Delta R.T. 0.01 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion:164 Resp: 18466

Ion	Ratio	Lower	Upper
164	100		
166	125.8	106.4	146.4

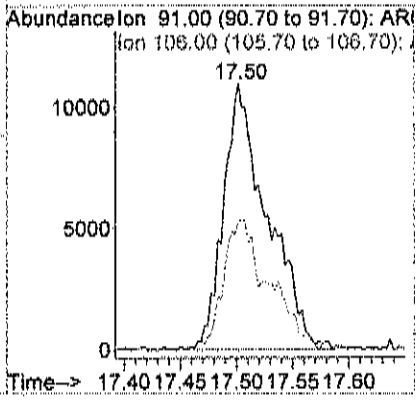


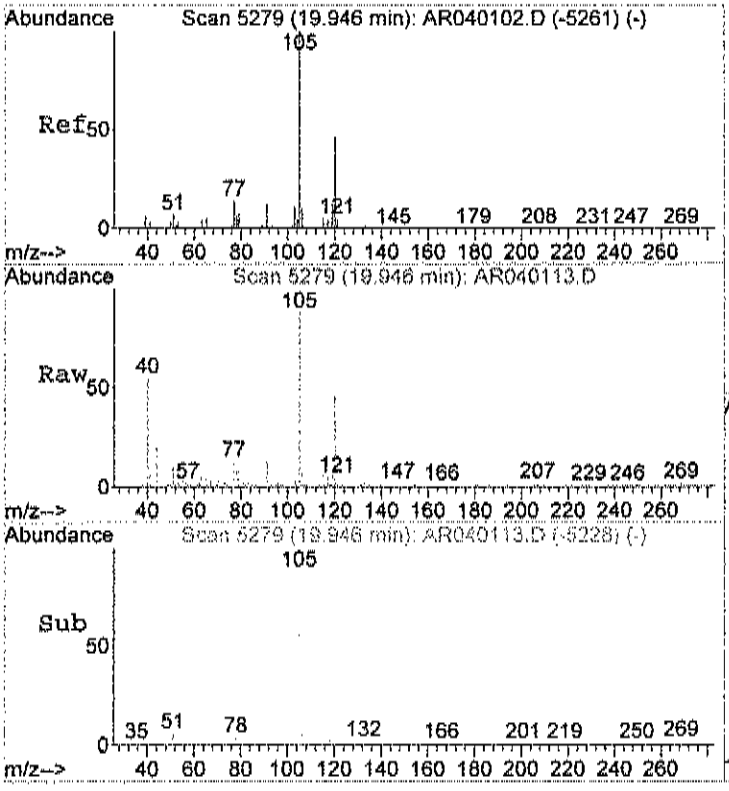


#59
m&p-xylene
Concen: 0.22 ppb
RT: 17.50 min Scan# 4463
Delta R.T. -0.03 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion: 91 Resp: 29891

Ion	Ratio	Lower	Upper
91	100		
106	50.6	29.0	69.0

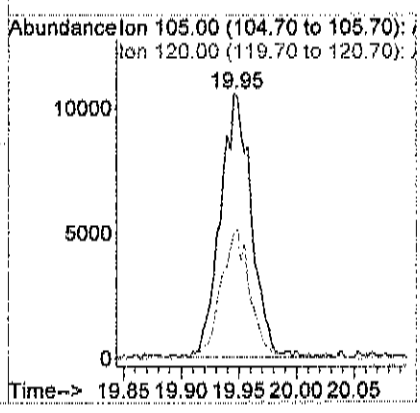




#71
1,2,4-trimethylbenzene
Concen: 0.14 ppb
RT: 19.95 min Scan# 5279
Delta R.T. 0.00 min
Lab File: AR040113.D
Acq: 1 Apr 2020 8:04 pm

Tgt Ion:105 Resp: 19962

Ion	Ratio	Lower	Upper
105	100		
120	45.6	24.9	64.9



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040126.D Vial: 9
Acq On : 2 Apr 2020 6:04 am Operator: RJP
Sample : C2004002-009A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:32 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

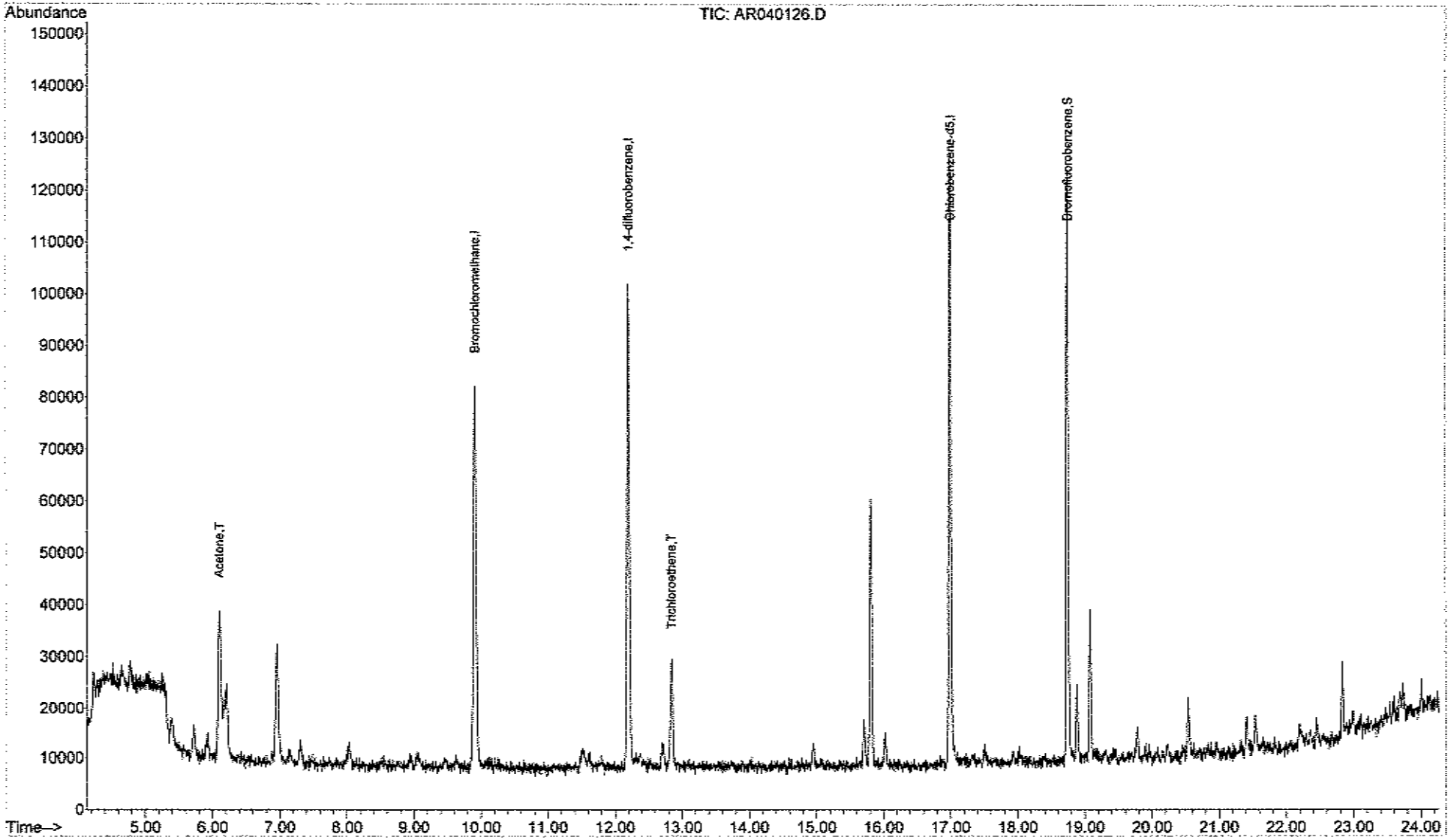
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	30583	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	97357	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	86110	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	44489	0.72	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 72.00%			
Target Compounds						Qvalue
15) Acetone	6.10	58	18664	1.12	ppb	# 100
44) Trichloroethene	12.83	130	9337m	0.23	ppb	

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

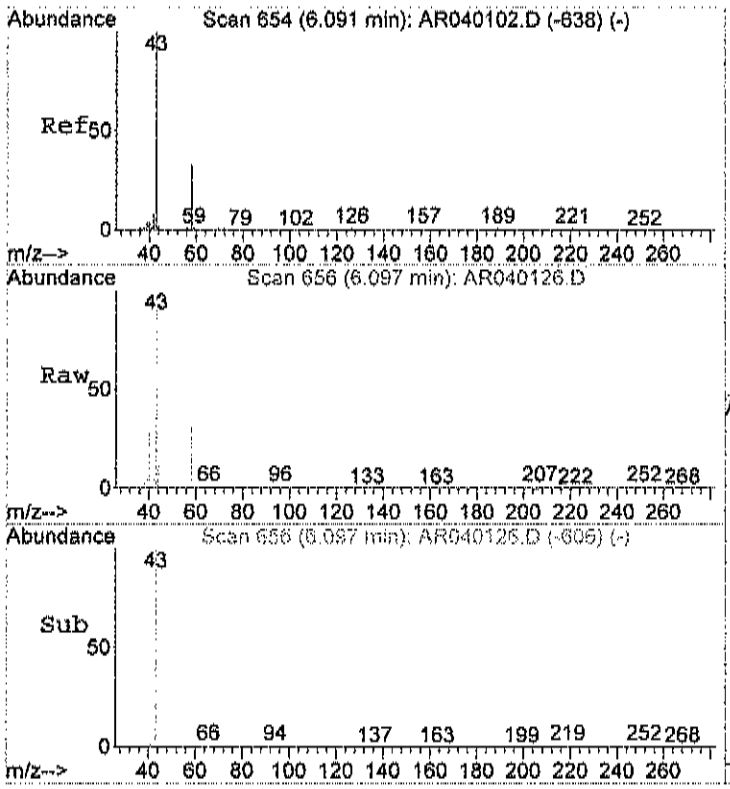
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040126.D Vial: 9
Acq On : 2 Apr 2020 6:04 am Operator: RJP
Sample : C2004002-009A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:22 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



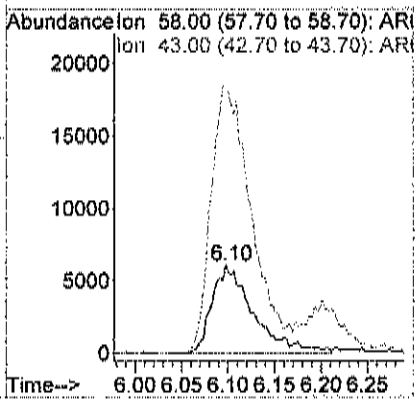
AR040126.D A320_1UG.M Fri Apr 10 08:40:27 2020 MSD1 Page 2

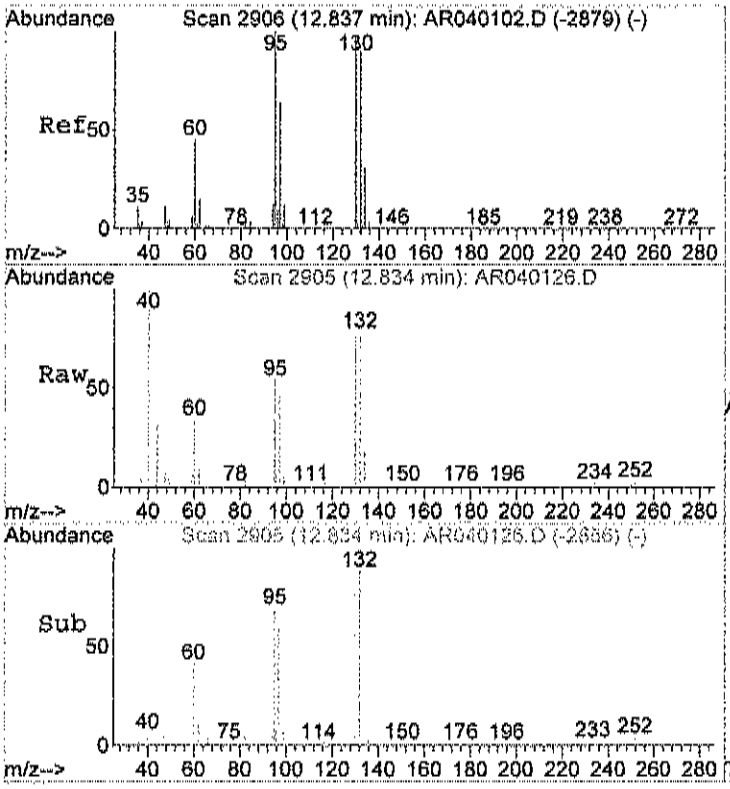


#15
Acetone
Concen: 1.12 ppb
RT: 6.10 min Scan# 656
Delta R.T. -0.00 min
Lab File: AR040126.D
Acq: 2 Apr 2020 6:04 am

Tgt Ion: 58 Resp: 18664

Ion	Ratio	Lower	Upper
58	100		
43	348.8	0.0	30.0#

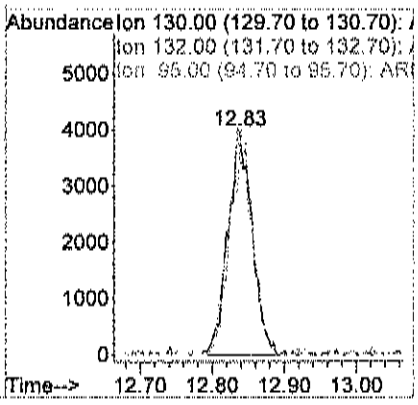




#44
Trichloroethene
Concen: 0.23 ppb m
RT: 12.83 min Scan# 2905
Delta R.T. -0.00 min
Lab File: AR040126.D
Acq: 2 Apr 2020 6:04 am

Tgt Ion:130 Resp: 9337

Ion	Ratio	Lower	Upper
130	100		
132	0.0	76.9	116.9#
95	0.0	78.6	118.6#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Acetone	3.7	3.0		ppbV	10	4/2/2020 6:49:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Benzene	0.18	0.15		ppbV	1	4/1/2020 8:51:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Carbon tetrachloride	0.10	0.030		ppbV	1	4/1/2020 8:51:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Chloromethane	0.37	0.15		ppbV	1	4/1/2020 8:51:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Cyclohexane	0.25	0.15		ppbV	1	4/1/2020 8:51:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 11	2.9	1.5		ppbV	10	4/2/2020 6:49:00 AM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Freon 12	0.58	0.15		ppbV	1	4/1/2020 8:51:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Isopropyl alcohol	1.1	0.15		ppbV	1	4/1/2020 8:51:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Ethyl Ketone	0.38	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 8:51:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Methylene chloride	0.16	0.15		ppbV	1	4/1/2020 8:51:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Tetrachloroethylene	0.27	0.15		ppbV	1	4/1/2020 8:51:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Toluene	0.16	0.15		ppbV	1	4/1/2020 8:51:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Trichloroethene	0.76	0.030		ppbV	1	4/1/2020 8:51:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 8:51:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 8:51:00 PM
Surr: Bromofluorobenzene	89.0	70-130		%REC	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:51:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 8:51:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:51:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 8:51:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 8:51:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 8:51:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 8:51:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 8:51:00 PM
Acetone	8.8	7.1		ug/m3	10	4/2/2020 6:49:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 8:51:00 PM
Benzene	0.57	0.48		ug/m3	1	4/1/2020 8:51:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 8:51:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 8:51:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 8:51:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 8:51:00 PM
Carbon tetrachloride	0.63	0.19		ug/m3	1	4/1/2020 8:51:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 8:51:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 8:51:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 8:51:00 PM
Chloromethane	0.76	0.31		ug/m3	1	4/1/2020 8:51:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 8:51:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:51:00 PM
Cyclohexane	0.86	0.52		ug/m3	1	4/1/2020 8:51:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 8:51:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 8:51:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 8:51:00 PM
Freon 11	16	8.4		ug/m3	10	4/2/2020 6:49:00 AM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 8:51:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	616
Lab Order:	C2004002	**Tag Number:**	200,436
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-010A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.9	0.74		ug/m3	1	4/1/2020 8:51:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 8:51:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 8:51:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 8:51:00 PM
Isopropyl alcohol	2.6	0.37		ug/m3	1	4/1/2020 8:51:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Ethyl Ketone	1.1	0.88		ug/m3	1	4/1/2020 8:51:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 8:51:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 8:51:00 PM
Methylene chloride	0.56	0.52		ug/m3	1	4/1/2020 8:51:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 8:51:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 8:51:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 8:51:00 PM
Tetrachloroethylene	1.8	1.0		ug/m3	1	4/1/2020 8:51:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 8:51:00 PM
Toluene	0.60	0.57		ug/m3	1	4/1/2020 8:51:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 8:51:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 8:51:00 PM
Trichloroethene	4.1	0.16		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 8:51:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 8:51:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040114.D
Acq On : 1 Apr 2020 8:51 pm
Sample : C2004002-010A
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:20 2020

Vial: 10
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

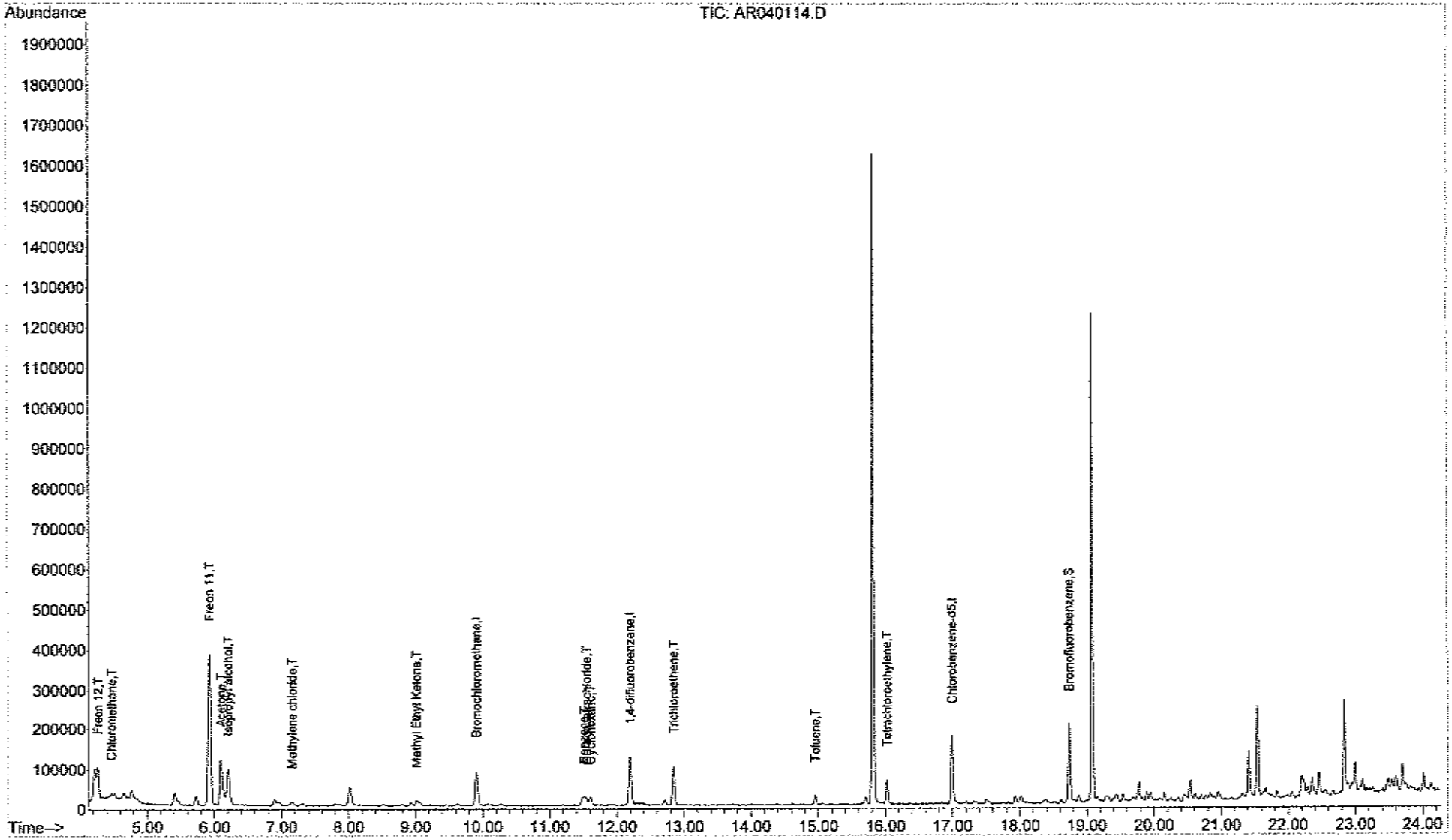
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	36639	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	130319	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	124873	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	79445	0.89	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 89.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	94577	0.58	ppb		98
4) Chloromethane	4.47	50	13226	0.37	ppb		75
14) Freon 11	5.93	101	475359	2.77	ppb		99
15) Acetone	6.10	58	73817	3.70	ppb	#	100
17) Isopropyl alcohol	6.21	45	49805	1.06	ppb	#	1
21) Methylene chloride	7.15	84	6755	0.16	ppb		93
28) Methyl Ethyl Ketone	9.02	72	6435	0.38	ppb	#	100
37) Cyclohexane	11.61	56	10435m	0.25	ppb		
38) Carbon tetrachloride	11.55	117	12128	0.10	ppb		100
39) Benzene	11.51	78	19417	0.18	ppb		96
44) Trichloroethene	12.85	130	41496	0.76	ppb		99
51) Toluene	14.95	92	11460	0.16	ppb		93
56) Tetrachloroethylene	16.02	164	16695	0.27	ppb		99

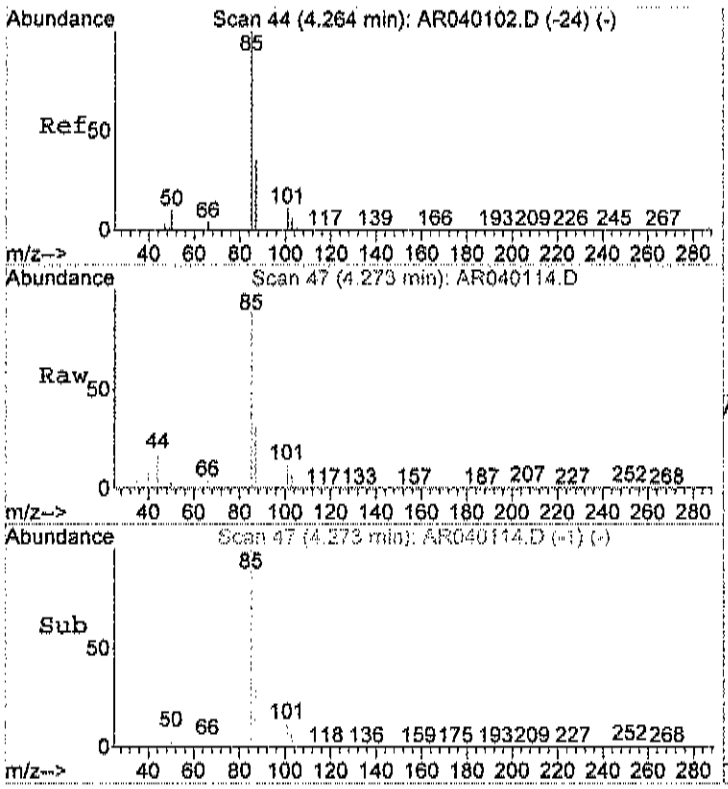
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040114.D Vial: 10
Acq On : 1 Apr 2020 8:51 pm Operator: RJP
Sample : C2004002-010A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:07 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

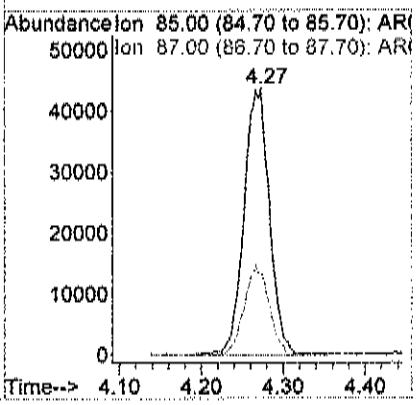


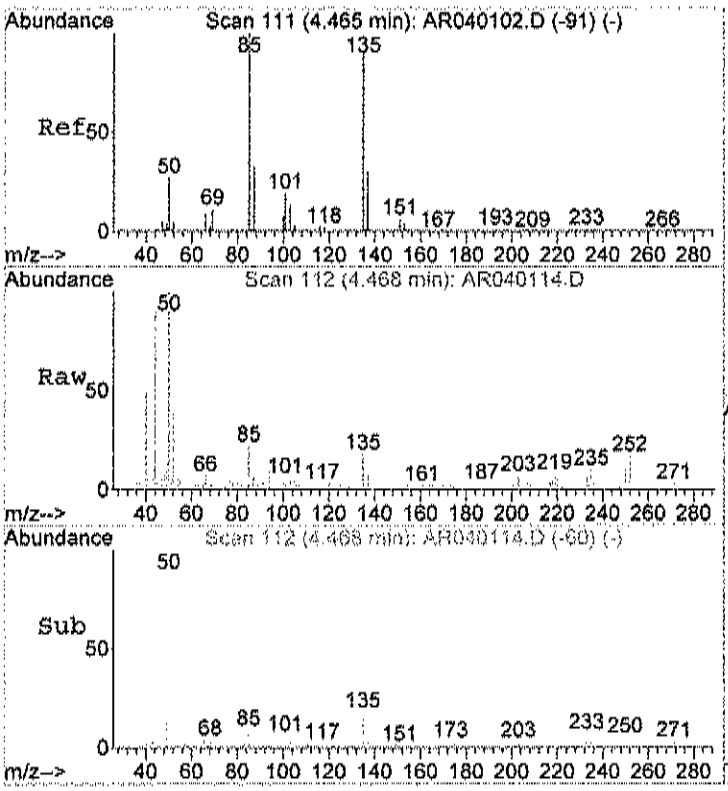


#3
Freon 12
Concen: 0.58 ppb
RT: 4.27 min Scan# 47
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 85 Resp: 94577

Ion	Ratio	Lower	Upper
85	100		
87	32.9	11.9	51.9

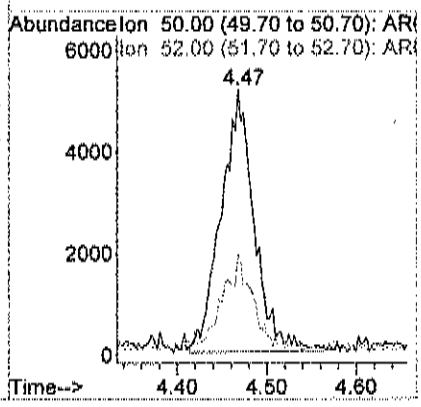


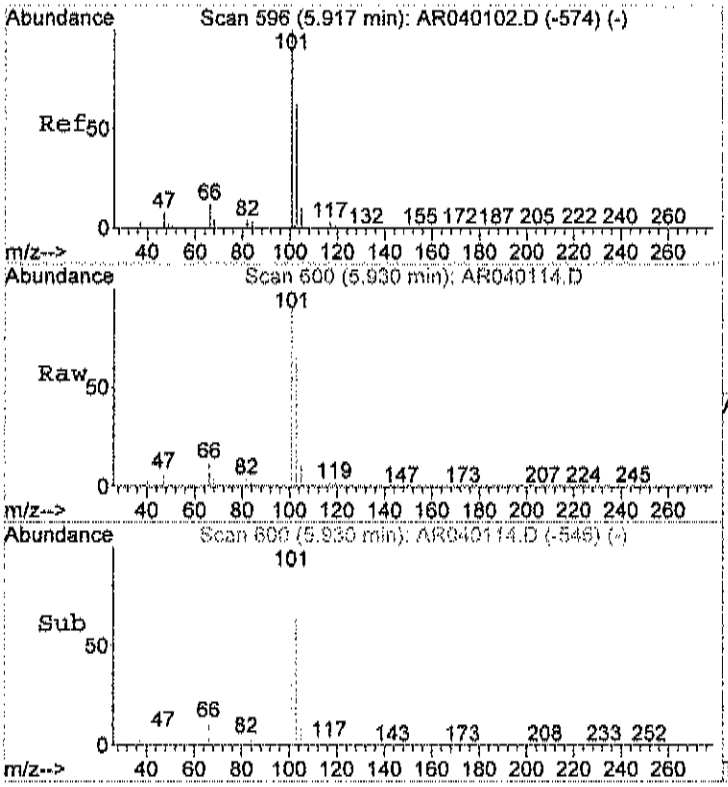


#4
Chloromethane
Concen: 0.37 ppb
RT: 4.47 min Scan# 112
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 50 Resp: 13226

Ion	Ratio	Lower	Upper
50	100		
52	38.7	6.1	46.1

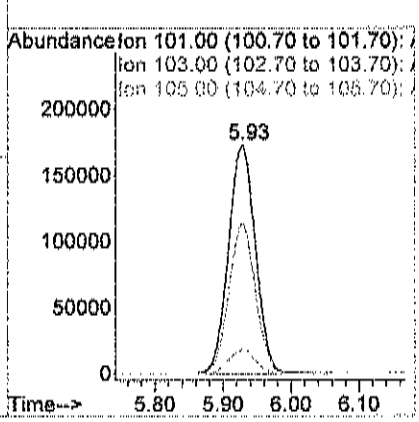


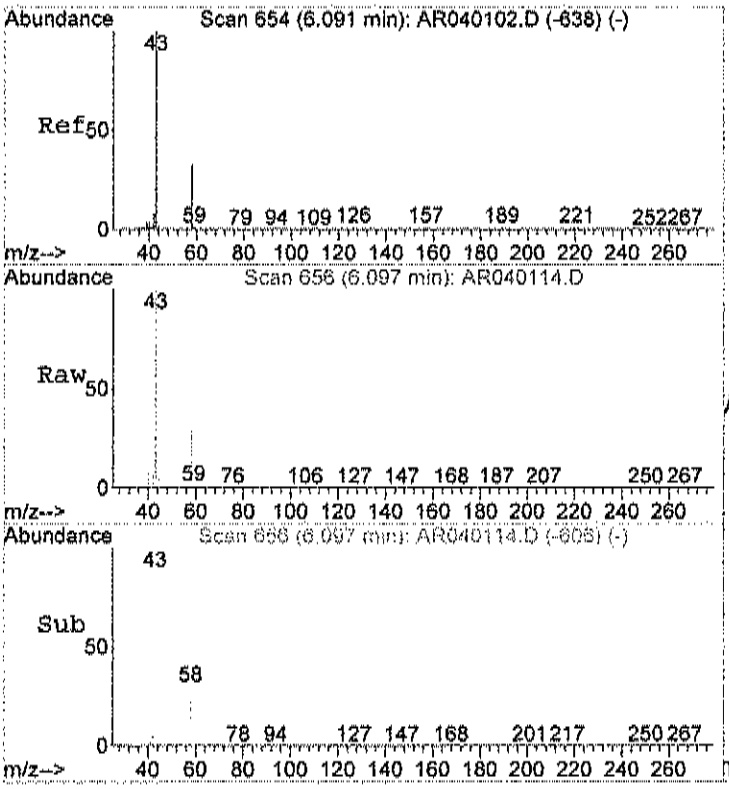


#14
Freon 11
Concen: 2.77 ppb
RT: 5.93 min Scan# 600
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion:101 Resp: 475359

Ion	Ratio	Lower	Upper
101	100		
103	64.9	44.2	84.2
105	10.3	0.0	30.3

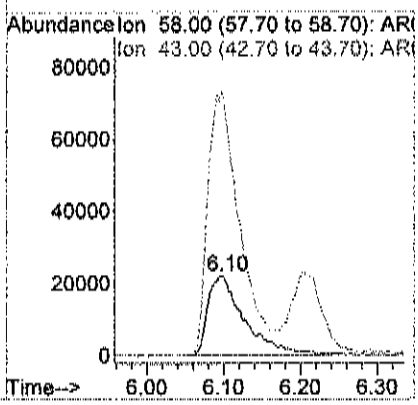


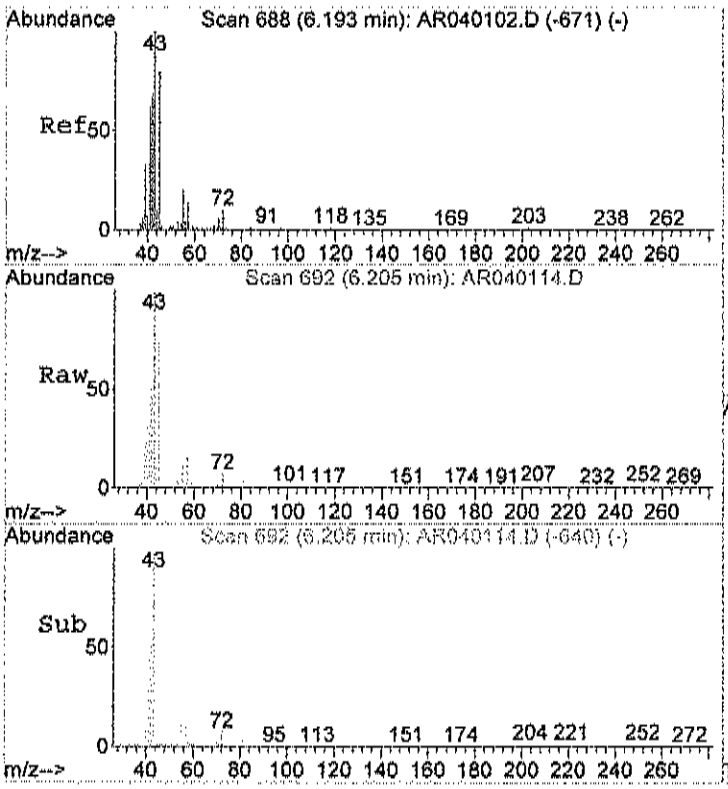


#15
Acetone
Concen: 3.70 ppb
RT: 6.10 min Scan# 656
Delta R.T. 0.00 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 58 Resp: 73817

Ion	Ratio	Lower	Upper
58	100		
43	368.7	0.0	30.0#

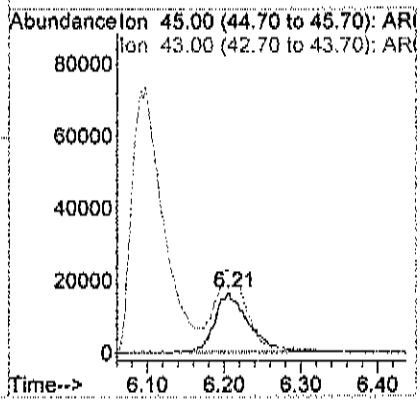


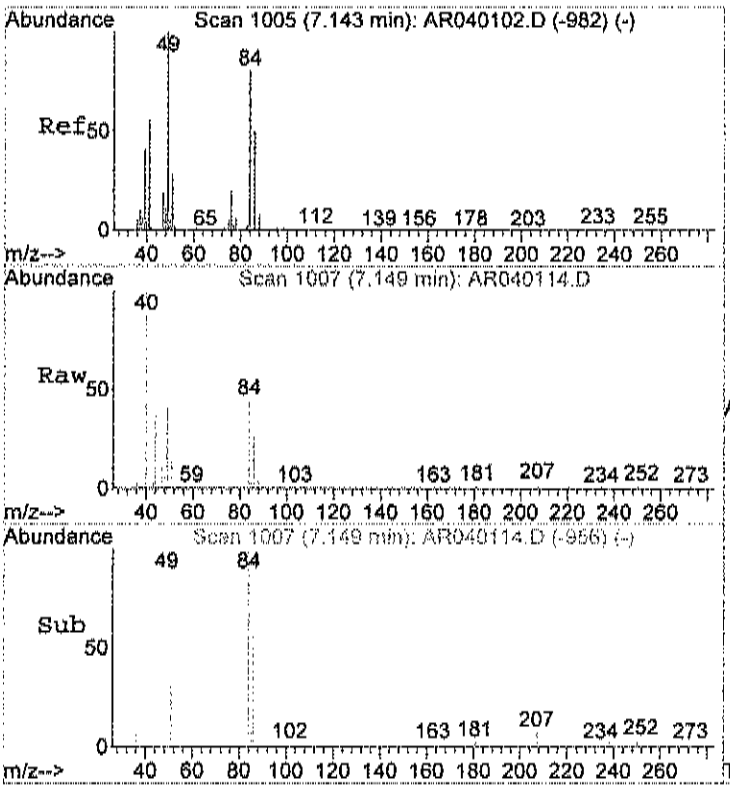


#17
Isopropyl alcohol
Concen: 1.06 ppb
RT: 6.21 min Scan# 692
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 45 Resp: 49805

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

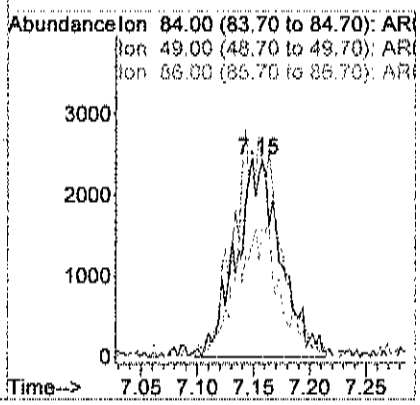


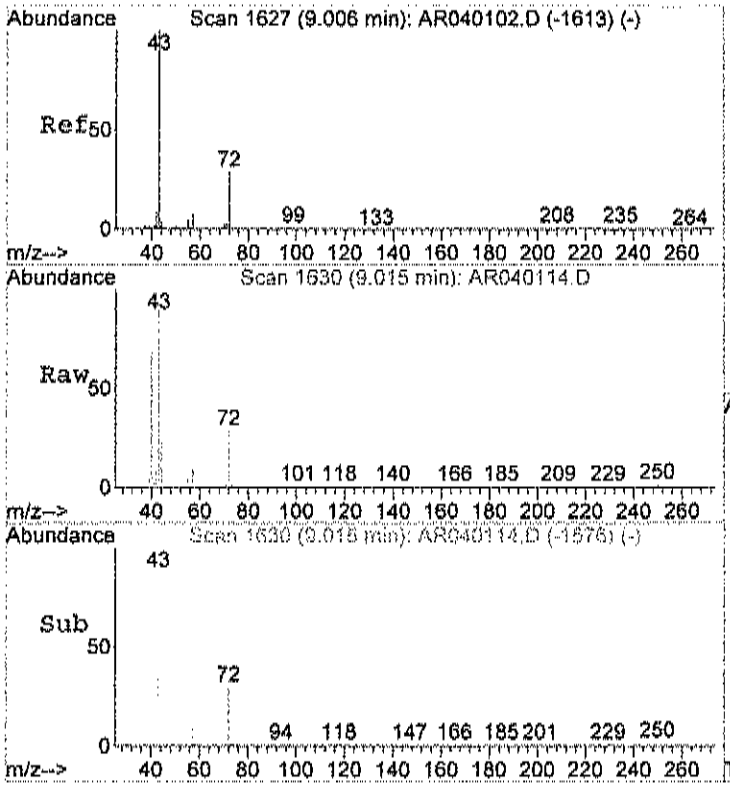


#21
Methylene chloride
Concen: 0.16 ppb
RT: 7.15 min Scan# 1007
Delta R.T. 0.00 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 84 Resp: 6755

Ion	Ratio	Lower	Upper
84	100		
49	111.4	101.4	141.4
86	67.3	45.4	85.4

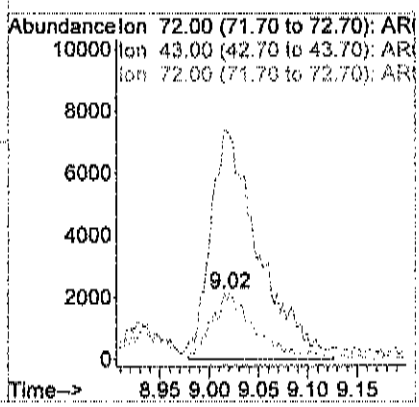


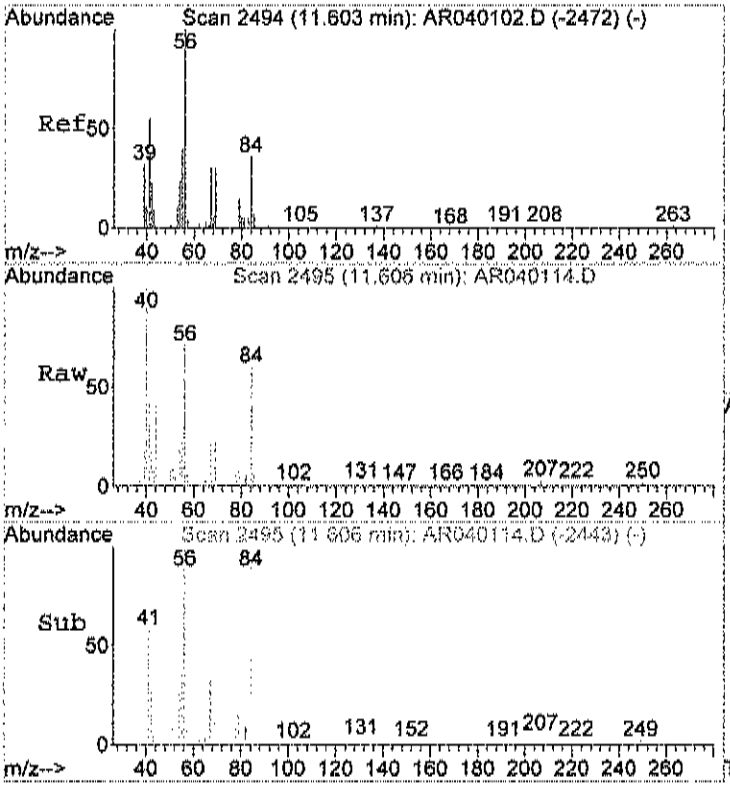


#28
Methyl Ethyl Ketone
Concen: 0.38 ppb
RT: 9.02 min Scan# 1630
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 72 Resp: 6435

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

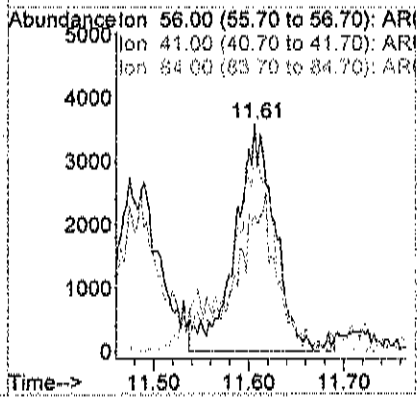


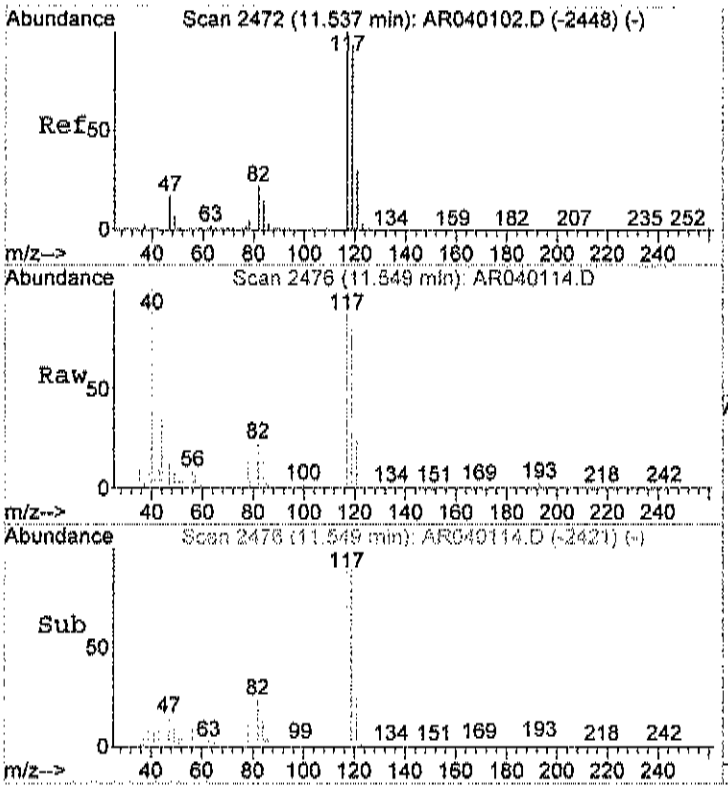


#37
Cyclohexane
Concen: 0.25 ppb m
RT: 11.61 min Scan# 2495
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 56 Resp: 10435

Ion	Ratio	Lower	Upper
56	100		
41	0.0	42.3	82.3#
84	97.9	107.7	147.7#

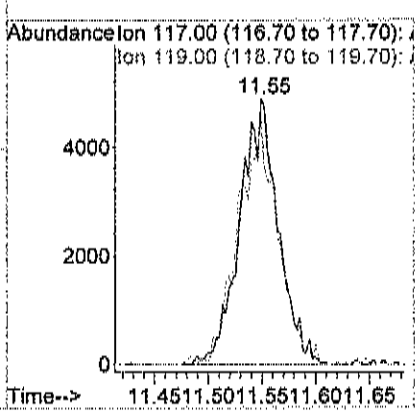


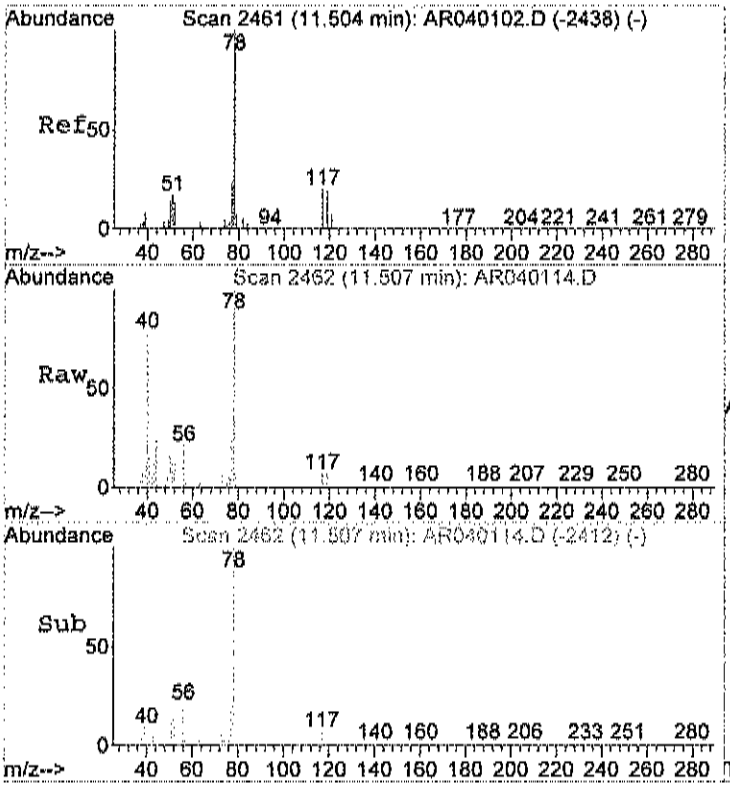


#38
Carbon tetrachloride
Concen: 0.10 ppb
RT: 11.55 min Scan# 2476
Delta R.T. 0.02 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion:117 Resp: 12128

Ion	Ratio	Lower	Upper
117	100		
119	95.4	75.6	115.6

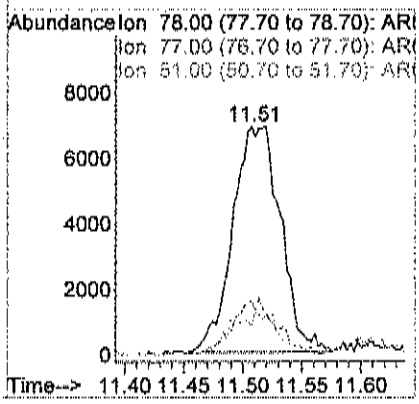


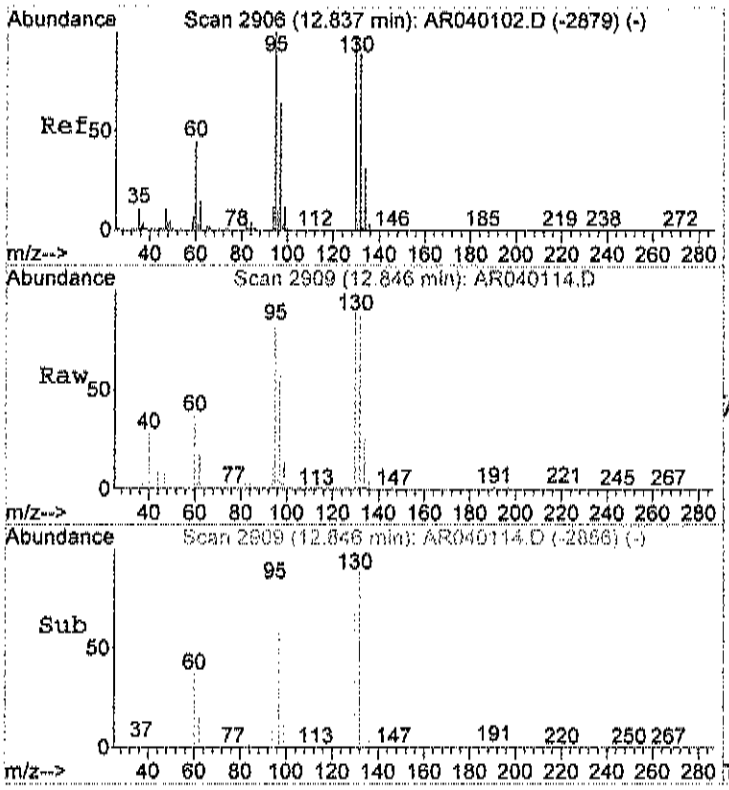


#39
Benzene
Concen: 0.18 ppb
RT: 11.51 min Scan# 2462
Delta R.T. 0.00 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 78 Resp: 19417

Ion	Ratio	Lower	Upper
78	100		
77	22.7	4.1	44.1
51	18.9	0.0	36.8

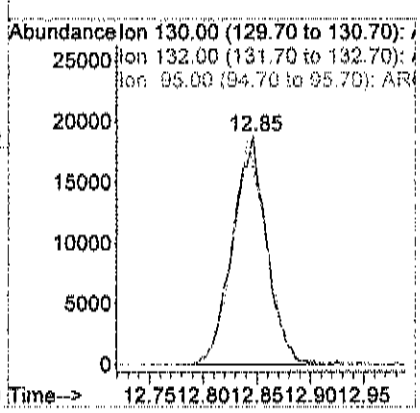


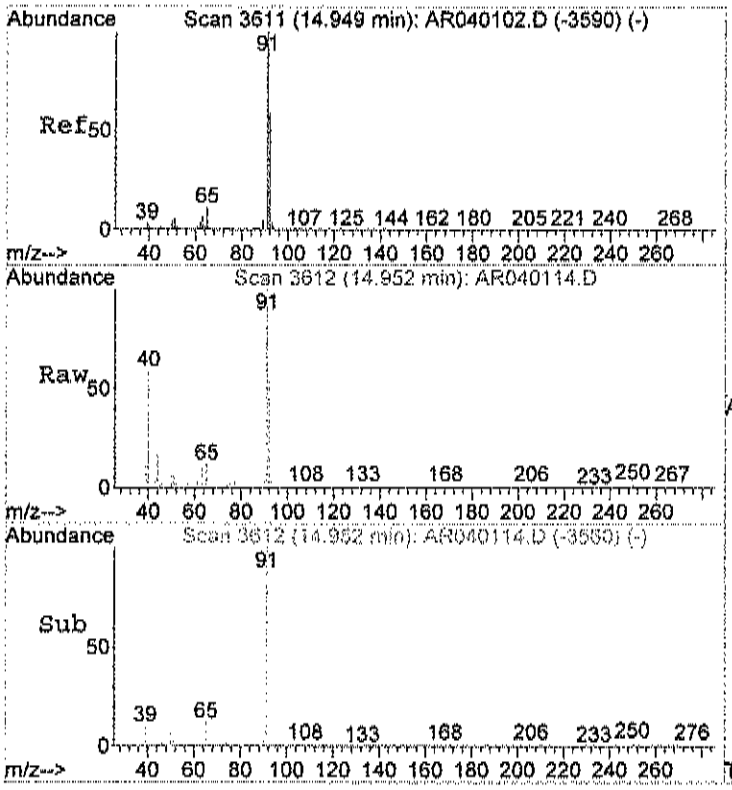


#44
Trichloroethene
Concen: 0.76 ppb
RT: 12.85 min Scan# 2909
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion:130 Resp: 41496

Ion	Ratio	Lower	Upper
130	100		
132	96.5	76.9	116.9
95	100.9	78.6	118.6

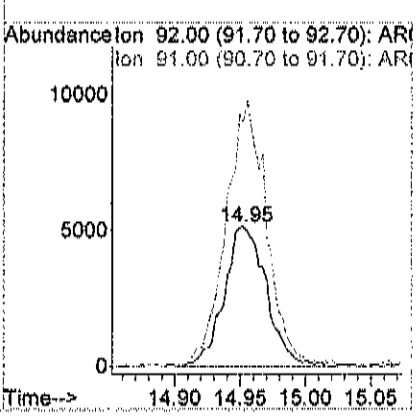


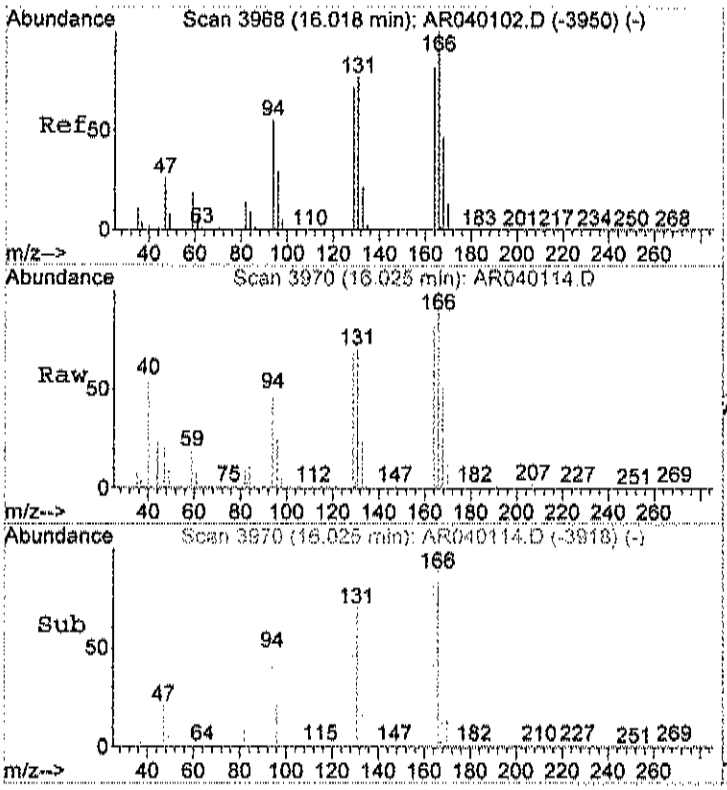


#51
Toluene
Concen: 0.16 ppb
RT: 14.95 min Scan# 3612
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion: 92 Resp: 11460

Ion	Ratio	Lower	Upper
92	100		
91	184.6	154.5	194.5

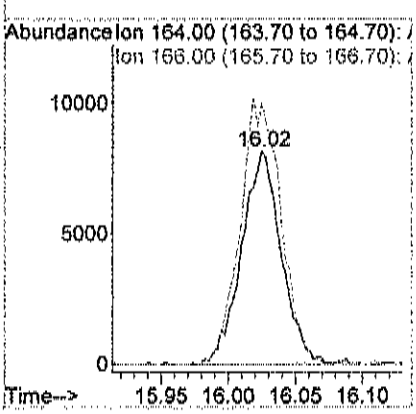




#56
Tetrachloroethylene
Concen: 0.27 ppb
RT: 16.02 min Scan# 3970
Delta R.T. 0.01 min
Lab File: AR040114.D
Acq: 1 Apr 2020 8:51 pm

Tgt Ion:164 Resp: 16695

Ion	Ratio	Lower	Upper
164	100		
166	128.0	106.4	146.4



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040127.D Vial: 10
Acq On : 2 Apr 2020 6:49 am Operator: RJP
Sample : C2004002-010A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:33 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	29646	1.00	ppb	0.01
35) 1,4-difluorobenzene	12.20	114	91051	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	82246	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	41762	0.71	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 71.00%			
Target Compounds						Qvalue
14) Freon 11	5.93	101	40380m RJP	0.29	ppb	
15) Acetone	6.12	58	6008	0.37	ppb	# 100

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

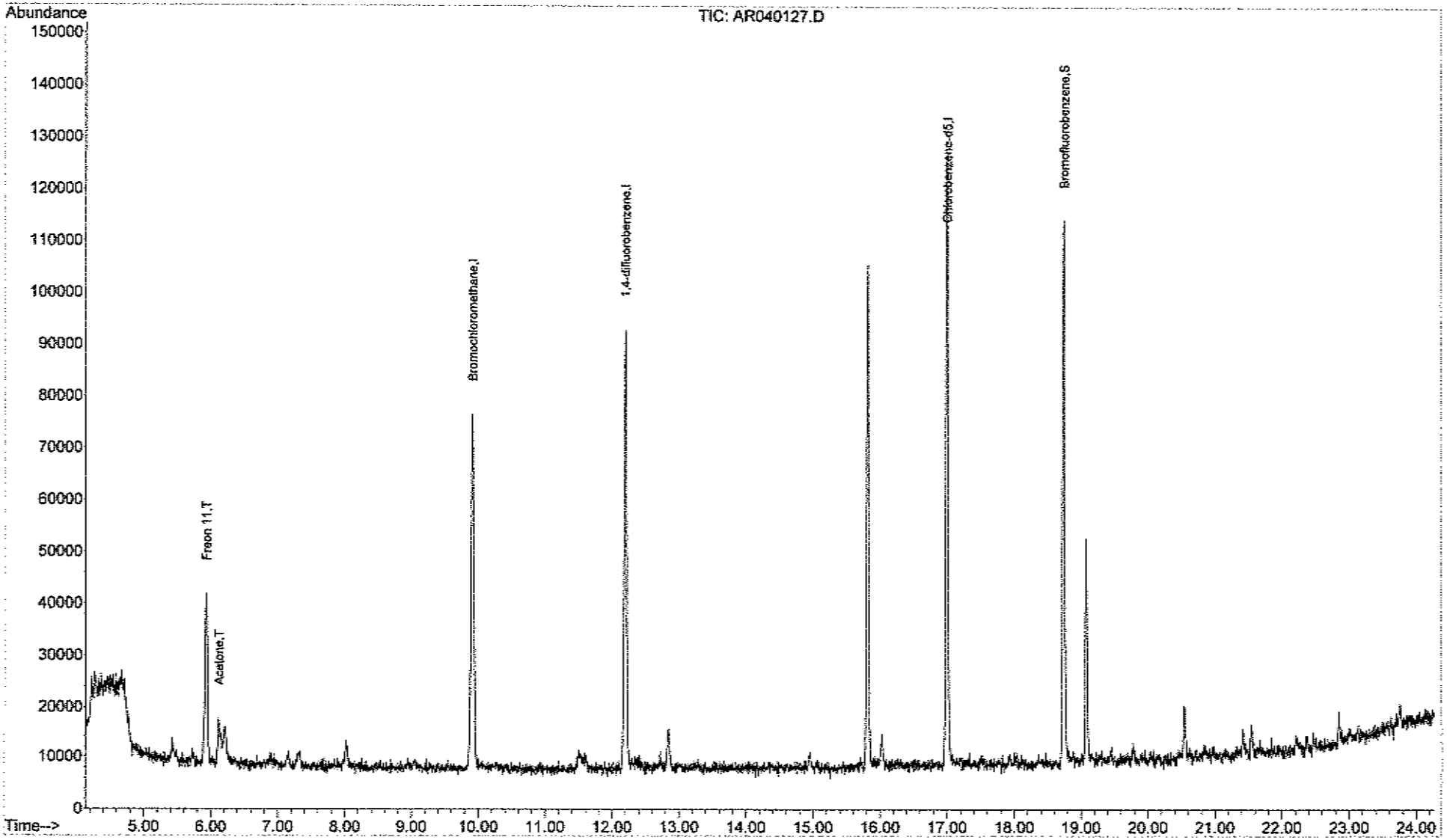
Quantitation Report (QT Reviewed)

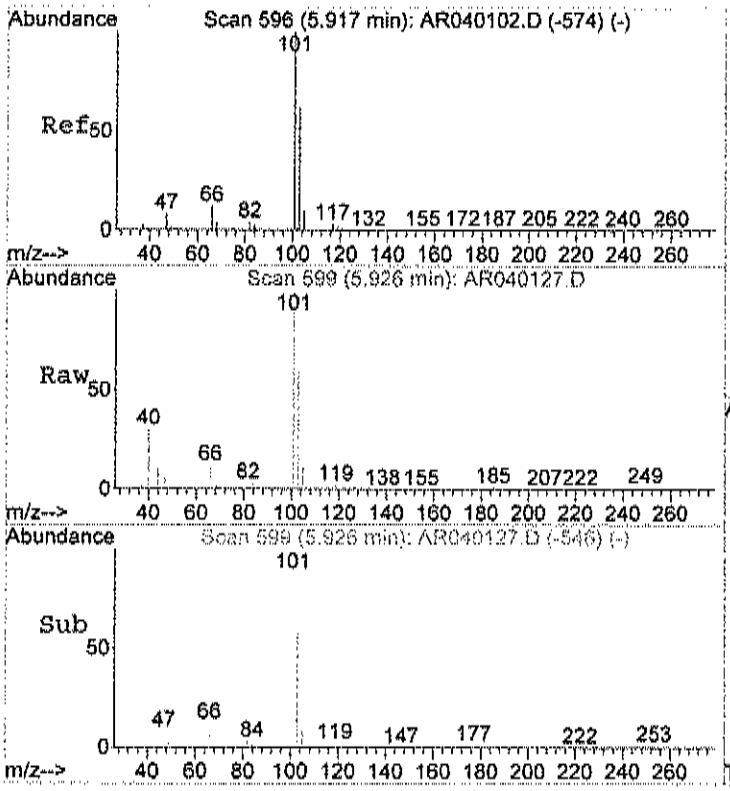
Data File : C:\HPCHEM\1\DATA\AR040127.D
Acq On : 2 Apr 2020 6:49 am
Sample : C2004002-010A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:23 2020

Vial: 10
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

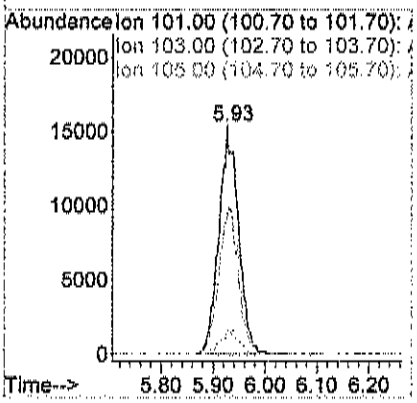


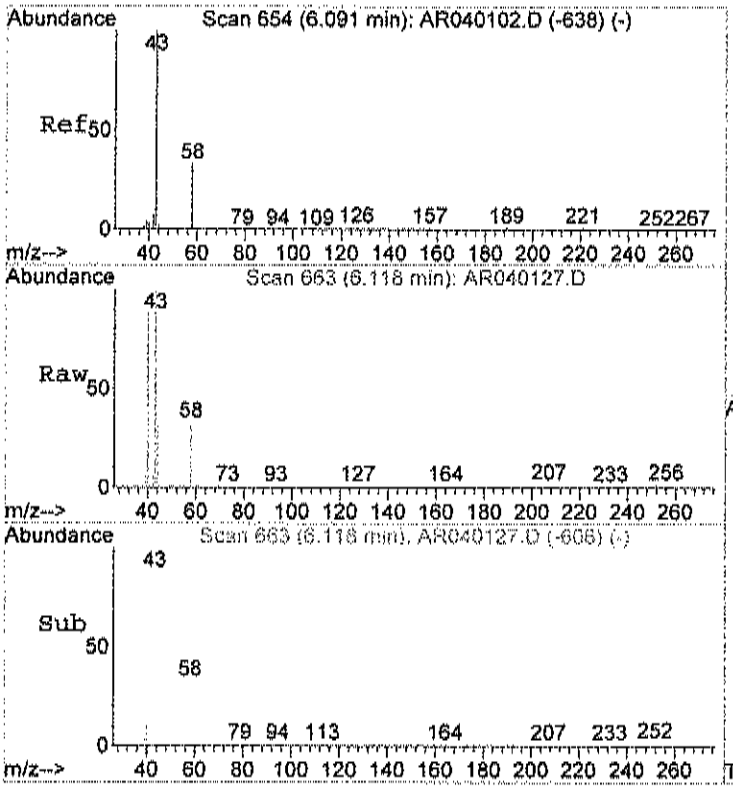


#14
Freon 11
Concen: 0.29 ppb m
RT: 5.93 min Scan# 599
Delta R.T. 0.01 min
Lab File: AR040127.D
Acq: 2 Apr 2020 6:49 am

Tgt Ion:101 Resp: 40380

Ion	Ratio	Lower	Upper
101	100		
103	0.0	44.2	84.2#
105	0.0	0.0	30.3

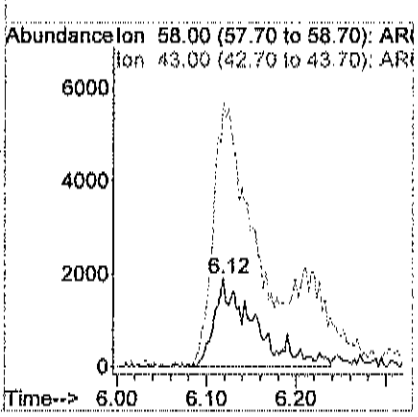




#15
Acetone
Concen: 0.37 ppb
RT: 6.12 min Scan# 663
Delta R.T. 0.02 min
Lab File: AR040127.D
Acq: 2 Apr 2020 6:49 am

Tgt Ion: 58 Resp: 6008

Ion	Ratio	Lower	Upper
58	100		
43	368.0	0.0	30.0#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-6			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Acetone	6.2	3.0		ppbV	10	4/2/2020 7:35:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Benzene	0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 9:38:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Chloromethane	0.39	0.15		ppbV	1	4/1/2020 9:38:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Cyclohexane	0.28	0.15		ppbV	1	4/1/2020 9:38:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Ethyl acetate	0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 11	0.24	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Freon 12	0.47	0.15		ppbV	1	4/1/2020 9:38:00 PM
Heptane	0.12	0.15	J	ppbV	1	4/1/2020 9:38:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Isopropyl alcohol	2.6	1.5		ppbV	10	4/2/2020 7:35:00 AM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Ethyl Ketone	0.32	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 9:38:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 9:38:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Toluene	0.28	0.15		ppbV	1	4/1/2020 9:38:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Trichloroethene	0.15	0.030		ppbV	1	4/1/2020 9:38:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 9:38:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 9:38:00 PM
Surr: Bromofluorobenzene	90.0	70-130		%REC	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 9:38:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 9:38:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 9:38:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 9:38:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 9:38:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 9:38:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 9:38:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 9:38:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 9:38:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 9:38:00 PM
Acetone	15	7.1		ug/m3	10	4/2/2020 7:35:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 9:38:00 PM
Benzene	0.48	0.48		ug/m3	1	4/1/2020 9:38:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 9:38:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 9:38:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 9:38:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 9:38:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 9:38:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 9:38:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 9:38:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 9:38:00 PM
Chloromethane	0.81	0.31		ug/m3	1	4/1/2020 9:38:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 9:38:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 9:38:00 PM
Cyclohexane	0.96	0.52		ug/m3	1	4/1/2020 9:38:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 9:38:00 PM
Ethyl acetate	0.54	0.54		ug/m3	1	4/1/2020 9:38:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 9:38:00 PM
Freon 11	1.3	0.84		ug/m3	1	4/1/2020 9:38:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 9:38:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
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Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Roof Top HVAC 2020
Lab Order:	C2004002	**Tag Number:**	1180,386
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-011A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.3	0.74		ug/m3	1	4/1/2020 9:38:00 PM
Heptane	0.49	0.61	J	ug/m3	1	4/1/2020 9:38:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 9:38:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 9:38:00 PM
Isopropyl alcohol	6.4	3.7		ug/m3	10	4/2/2020 7:35:00 AM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Ethyl Ketone	0.94	0.88		ug/m3	1	4/1/2020 9:38:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 9:38:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 9:38:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 9:38:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 9:38:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 9:38:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 9:38:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 9:38:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 9:38:00 PM
Toluene	1.1	0.57		ug/m3	1	4/1/2020 9:38:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 9:38:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 9:38:00 PM
Trichloroethene	0.81	0.16		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 9:38:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 9:38:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040115.D Vial: 11
Acq On : 1 Apr 2020 9:38 pm Operator: RJP
Sample : C2004002-011A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:21 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

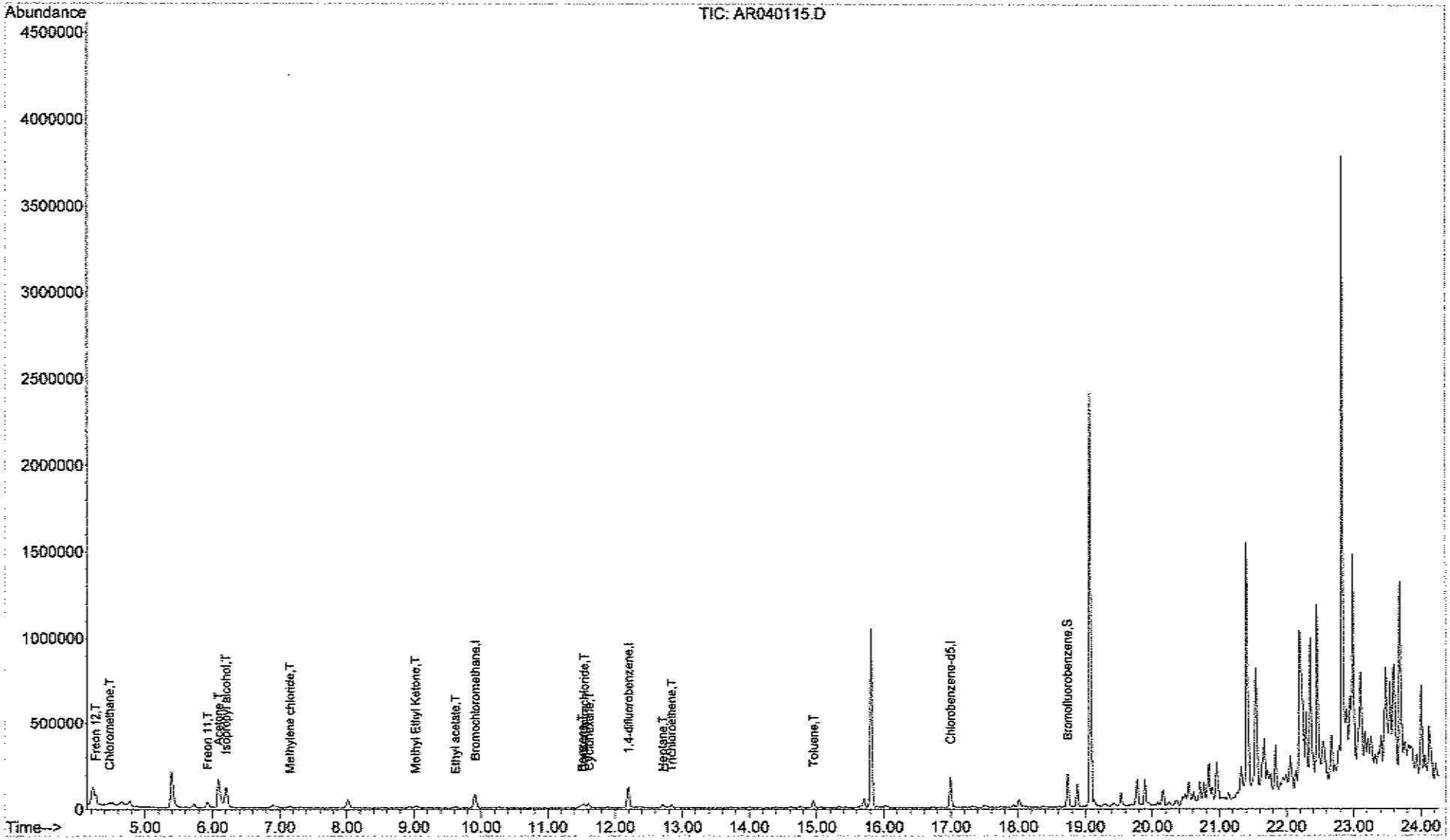
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	36110	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	127600	1.00	ppb		0.01
50) Chlorobenzene-d5	17.00	117	122253	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	78691	0.90	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 90.00%				
Target Compounds							Qvalue
3) Freon 12	4.26	85	75624	0.47	ppb		97
4) Chloromethane	4.47	50	13473	0.39	ppb		82
14) Freon 11	5.93	101	40125	0.24	ppb		98
15) Acetone	6.09	58	108797	5.53	ppb	#	100
17) Isopropyl alcohol	6.20	45	110790	2.40	ppb	#	1
21) Methylene chloride	7.16	84	7064	0.17	ppb		90
28) Methyl Ethyl Ketone	9.02	72	5286	0.32	ppb	#	100
31) Ethyl acetate	9.61	43	11467	0.15	ppb		96
37) Cyclohexane	11.60	56	11395m	0.28	ppb		
38) Carbon tetrachloride	11.54	117	11279	0.09	ppb		99
39) Benzene	11.51	78	15953	0.15	ppb		98
43) Heptane	12.71	43	5112	0.12	ppb	#	65
44) Trichloroethene	12.84	130	7805	0.15	ppb		96
51) Toluene	14.96	92	19735	0.28	ppb		93

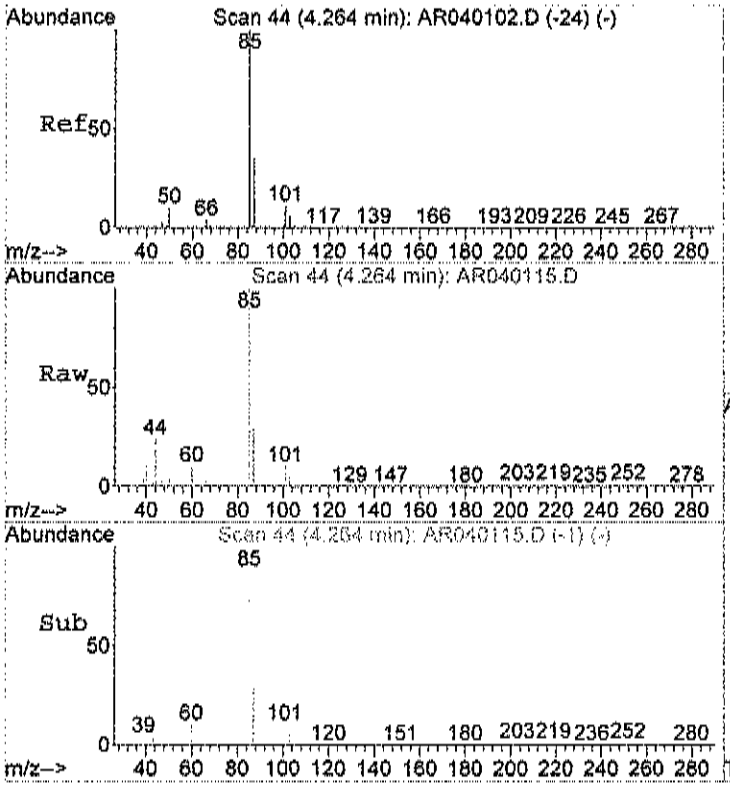
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040115.D Vial: 11
Acq On : 1 Apr 2020 9:38 pm Operator: RJP
Sample : C2004002-011A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:07 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

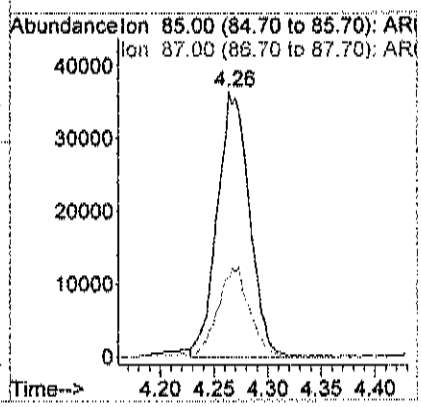


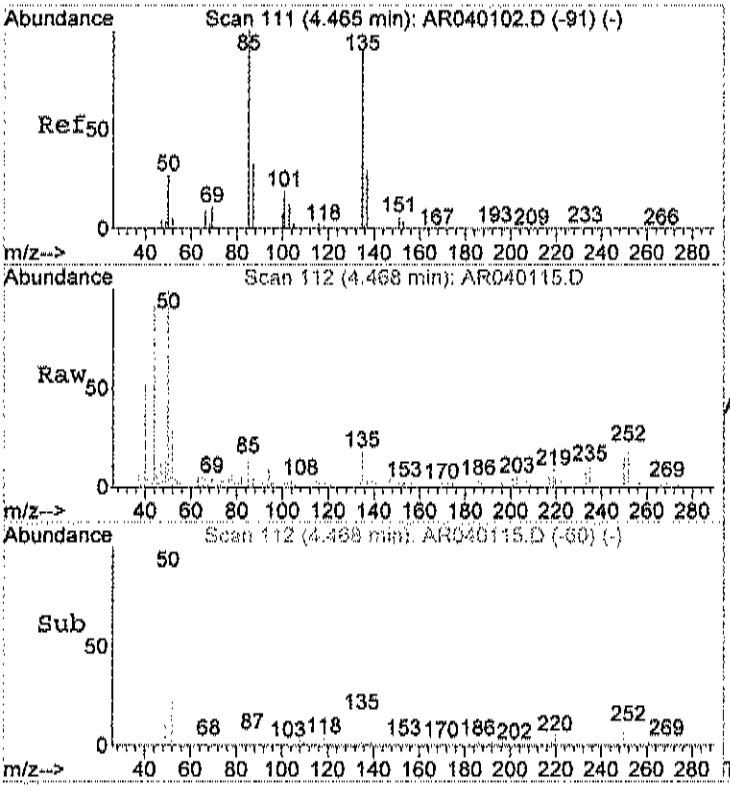


#3
Freon 12
Concen: 0.47 ppb
RT: 4.26 min Scan# 44
Delta R.T. 0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 85 Resp: 75624

Ion	Ratio	Lower	Upper
85	100		
87	33.4	11.9	51.9

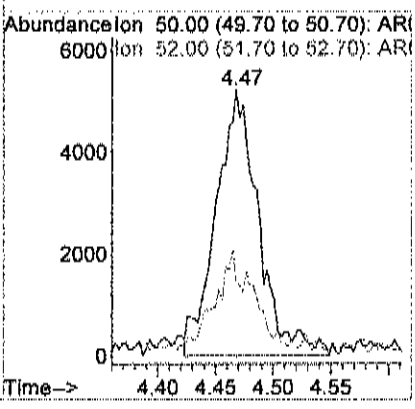


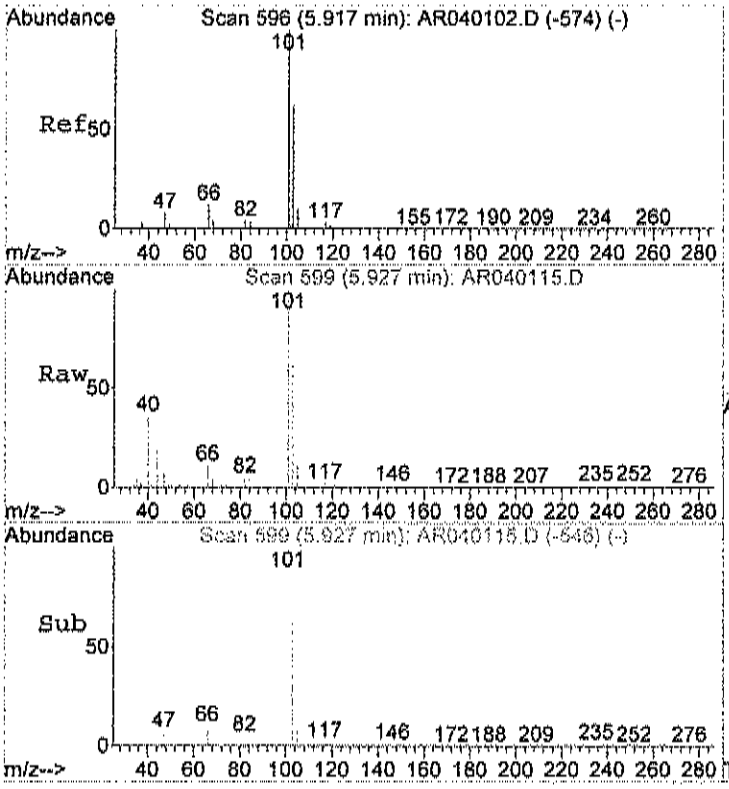


#4
Chloromethane
Concen: 0.39 ppb
RT: 4.47 min Scan# 112
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 50 Resp: 13473

Ion	Ratio	Lower	Upper
50	100		
52	35.4	6.1	46.1

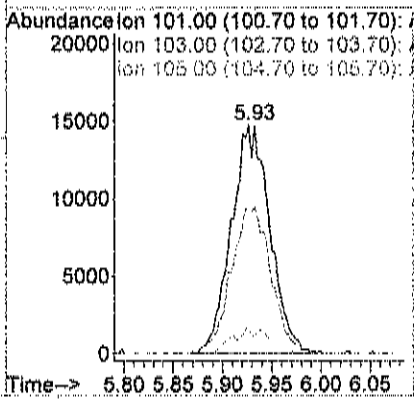


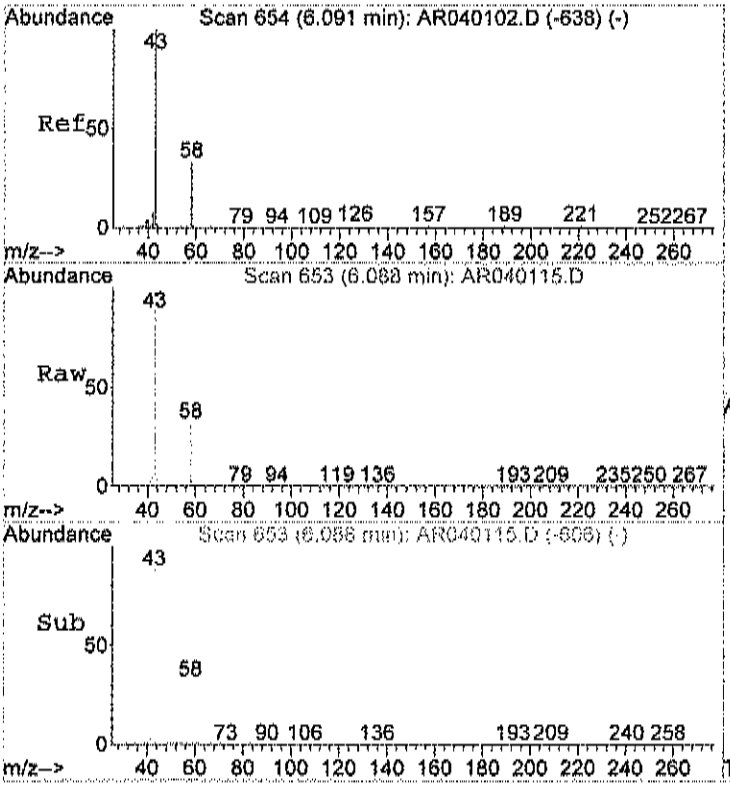


#14
Freon 11
Concen: 0.24 ppb
RT: 5.93 min Scan# 599
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion:101 Resp: 40125

Ion	Ratio	Lower	Upper
101	100		
103	65.8	44.2	84.2
105	11.2	0.0	30.3

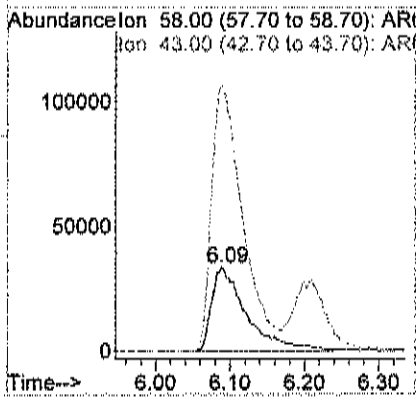


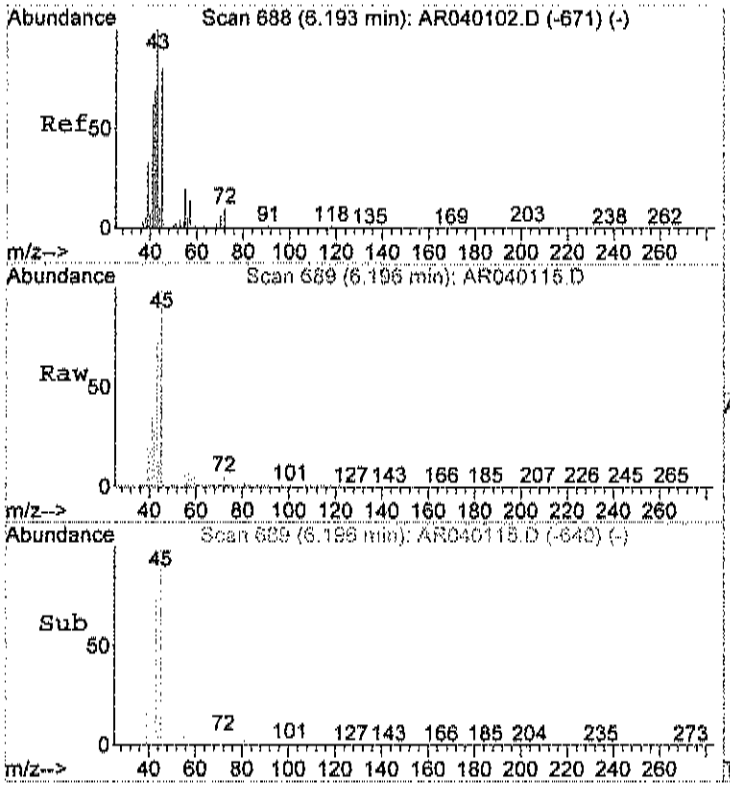


#15
Acetone
Concen: 5.53 ppb
RT: 6.09 min Scan# 653
Delta R.T. -0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 58 Resp: 108797

Ion	Ratio	Lower	Upper
58	100		
43	354.6	0.0	30.0#

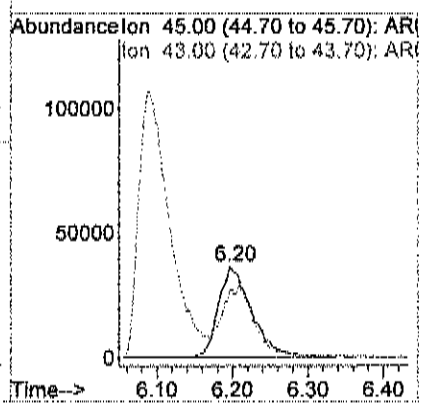


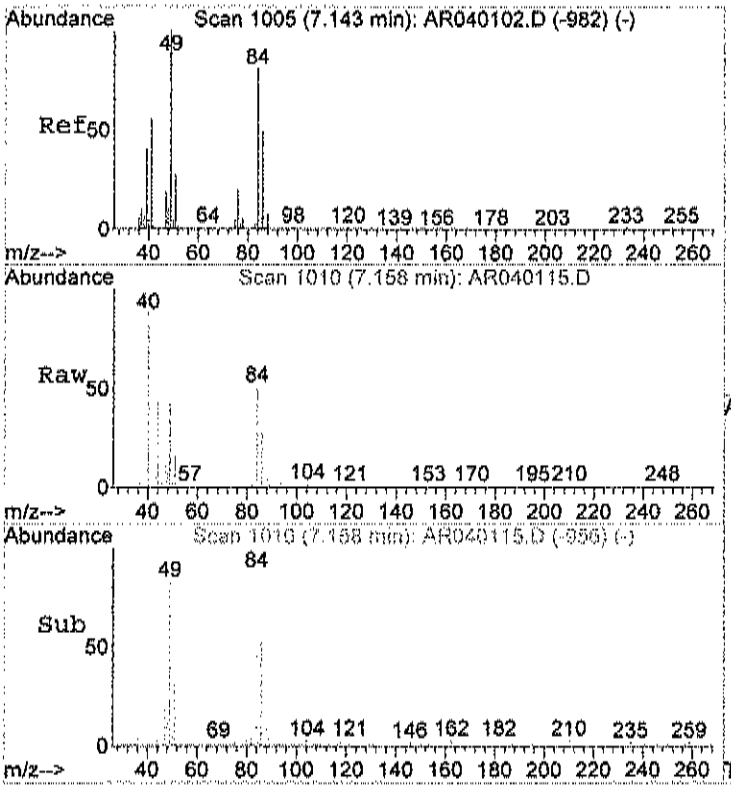


#17
Isopropyl alcohol
Concen: 2.40 ppb
RT: 6.20 min Scan# 689
Delta R.T. -0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 45 Resp: 110790

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

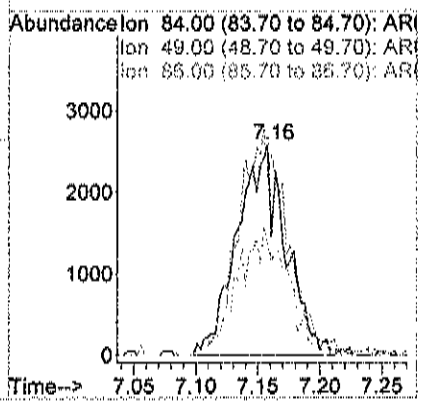


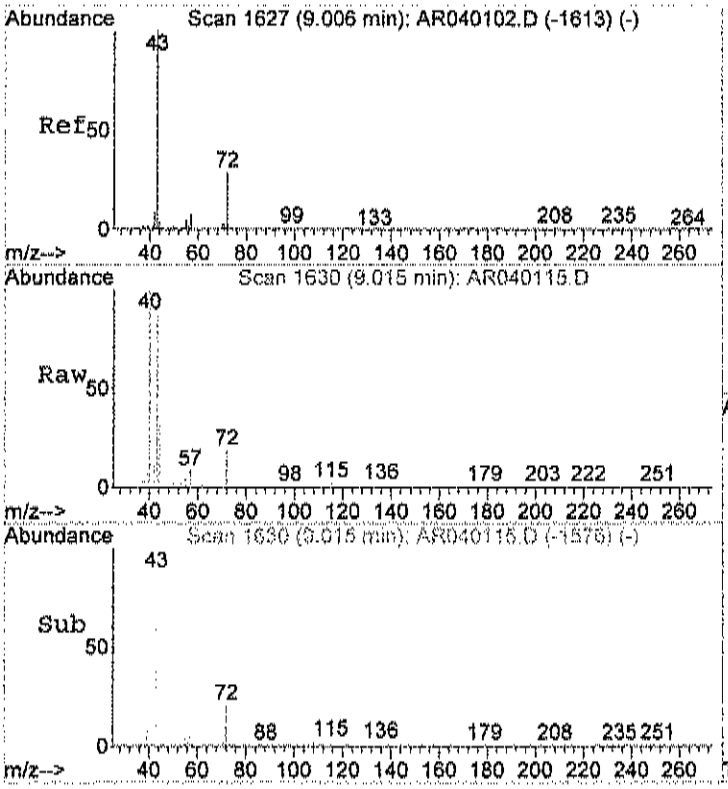


#21
Methylene chloride
Concen: 0.17 ppb
RT: 7.16 min Scan# 1010
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 84 Resp: 7064

Ion	Ratio	Lower	Upper
84	100		
49	106.7	101.4	141.4
86	61.5	45.4	85.4

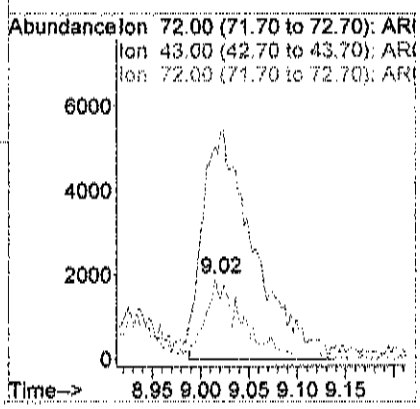


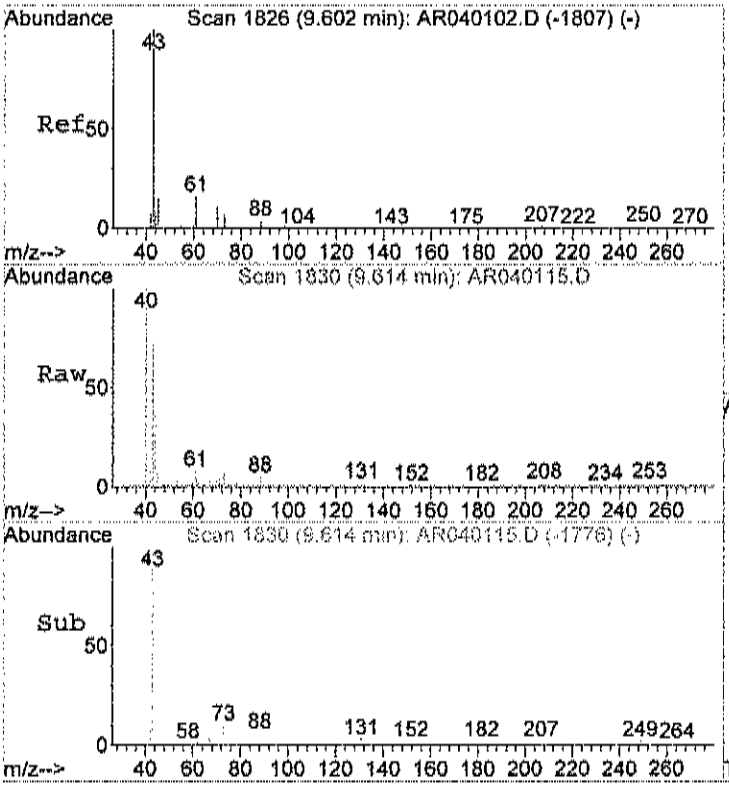


#28
Methyl Ethyl Ketone
Concen: 0.32 ppb
RT: 9.02 min Scan# 1630
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 72 Resp: 5286

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

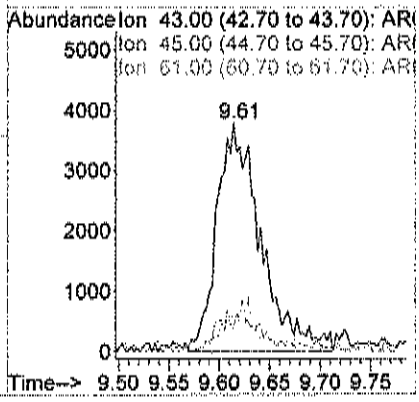


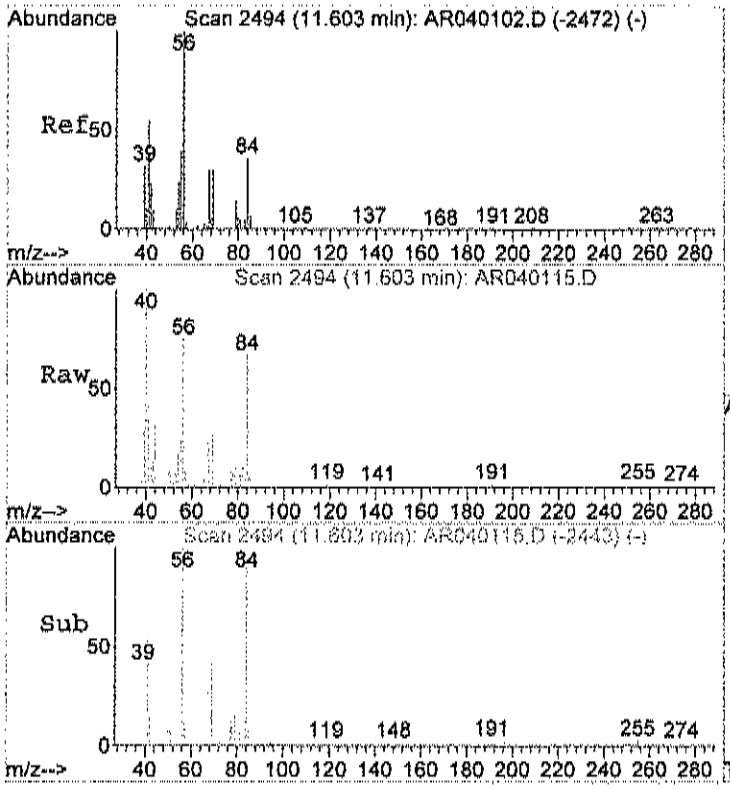


#31
Ethyl acetate
Concen: 0.15 ppb
RT: 9.61 min Scan# 1830
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 43 Resp: 11467

Ion	Ratio	Lower	Upper
43	100		
45	17.1	0.0	34.5
61	16.5	0.0	35.8

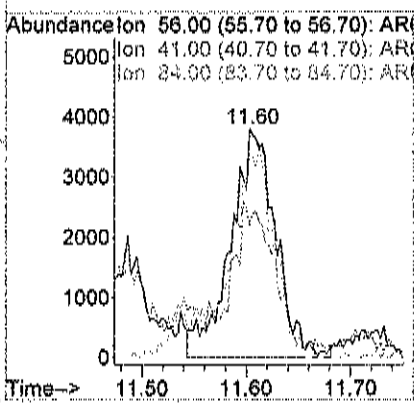


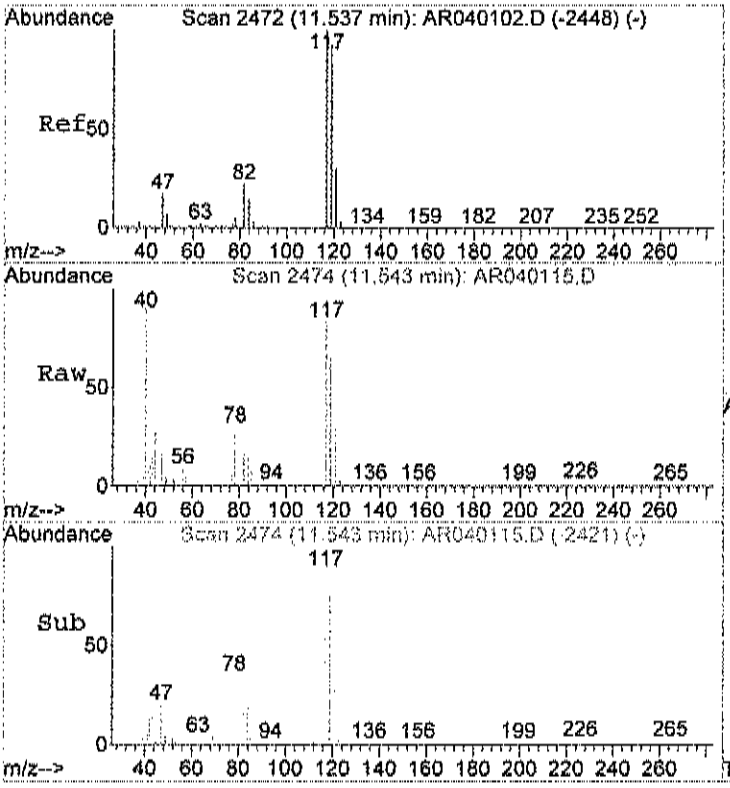


#37
Cyclohexane
Concen: 0.28 ppb m
RT: 11.60 min Scan# 2494
Delta R.T. 0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 56 Resp: 11395

Ion	Ratio	Lower	Upper
56	100		
41	60.4	42.3	82.3
84	98.8	107.7	147.7#

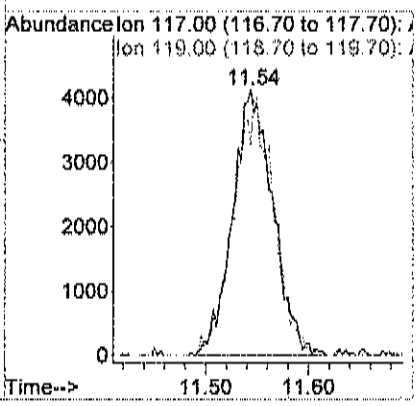


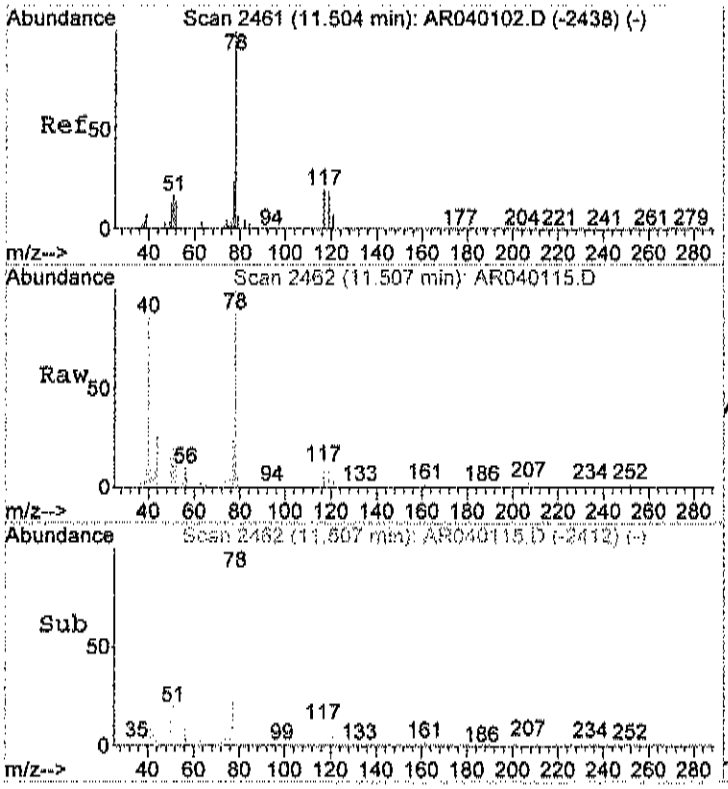


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.54 min Scan# 2474
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion:117 Resp: 11279

Ion	Ratio	Lower	Upper
117	100		
119	96.6	75.6	115.6

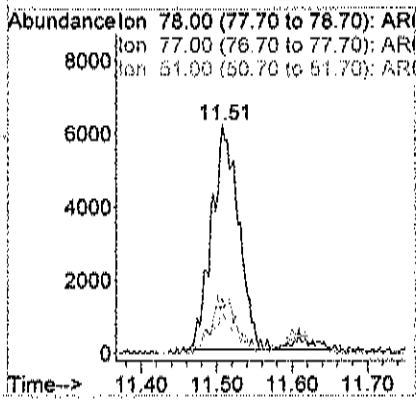


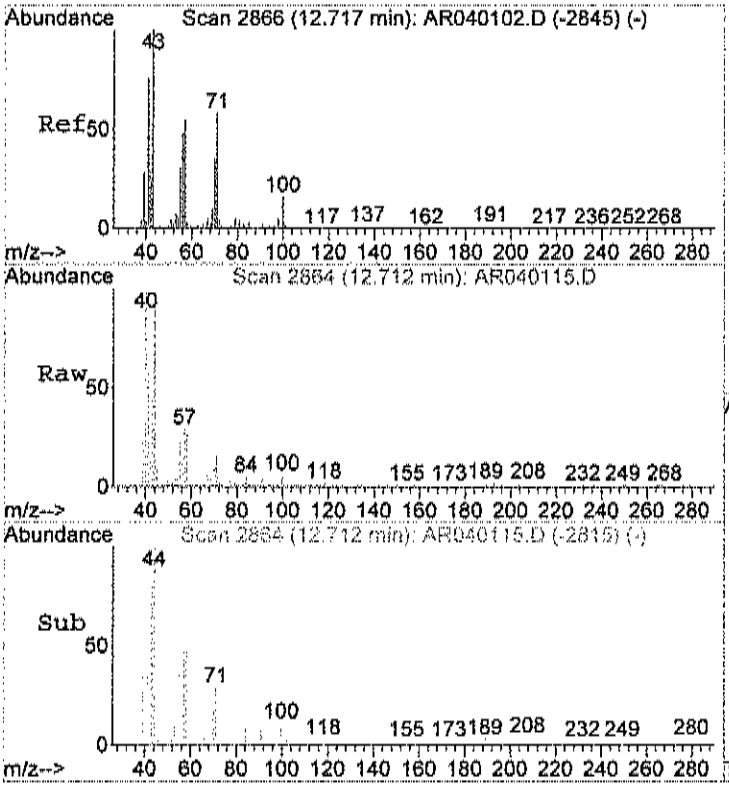


#39
Benzene
Concen: 0.15 ppb
RT: 11.51 min Scan# 2462
Delta R.T. 0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 78 Resp: 15953

Ion	Ratio	Lower	Upper
78	100		
77	24.2	4.1	44.1
51	18.6	0.0	36.8

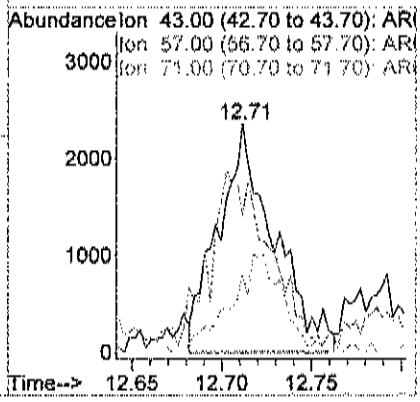


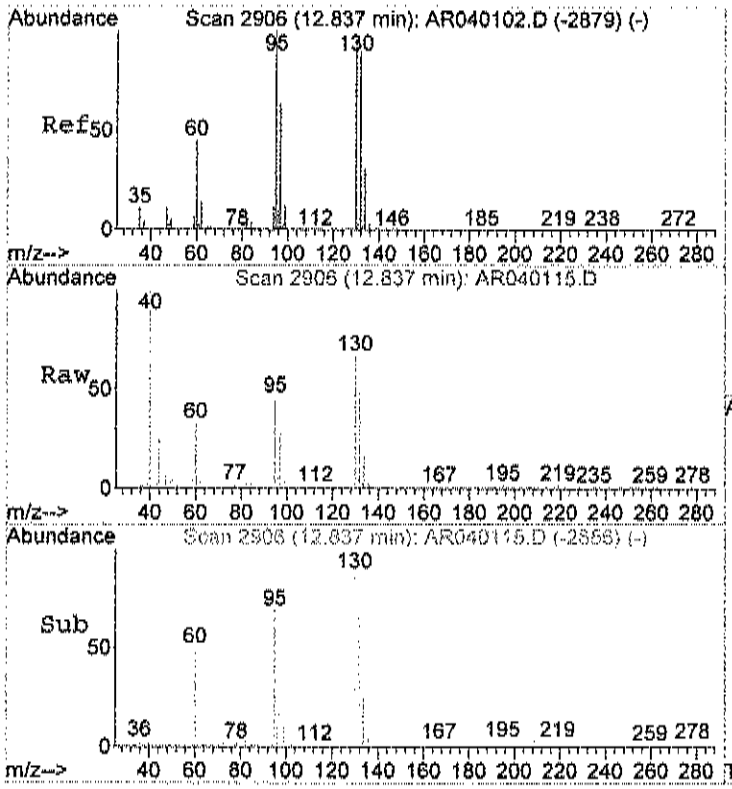


#43
Heptane
Concen: 0.12 ppb
RT: 12.71 min Scan# 2864
Delta R.T. -0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 43 Resp: 5112

Ion	Ratio	Lower	Upper
43	100		
57	87.0	36.0	76.0#
71	40.1	42.5	82.5#

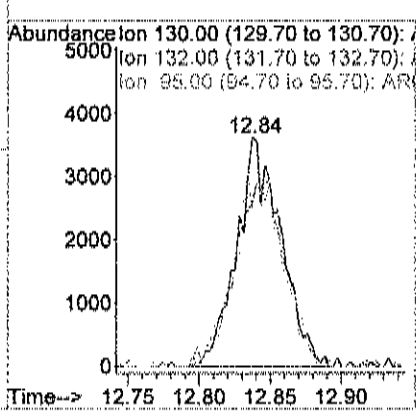


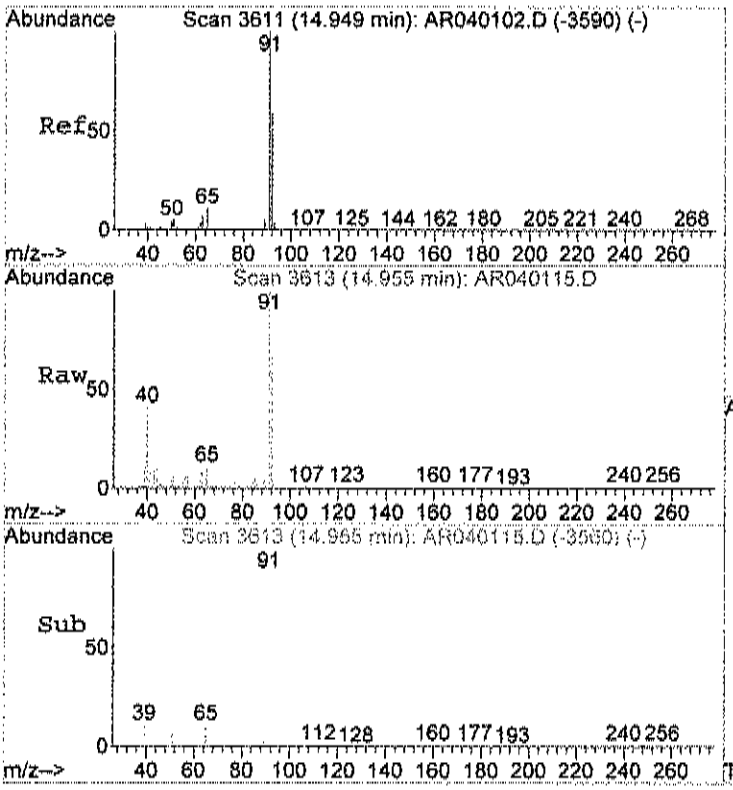


#44
Trichloroethene
Concen: 0.15 ppb
RT: 12.84 min Scan# 2906
Delta R.T. 0.00 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion:130 Resp: 7805

Ion	Ratio	Lower	Upper
130	100		
132	93.1	76.9	116.9
95	94.3	78.6	118.6

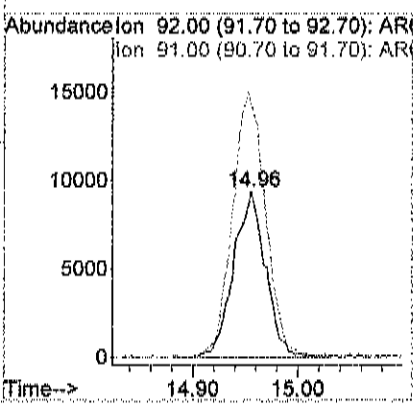




#51
Toluene
Concen: 0.28 ppb
RT: 14.96 min Scan# 3613
Delta R.T. 0.01 min
Lab File: AR040115.D
Acq: 1 Apr 2020 9:38 pm

Tgt Ion: 92 Resp: 19735

Ion	Ratio	Lower	Upper
92	100		
91	165.4	154.5	194.5



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040128.D
Acq On : 2 Apr 2020 7:35 am
Sample : C2004002-011A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:34 2020

Vial: 11
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

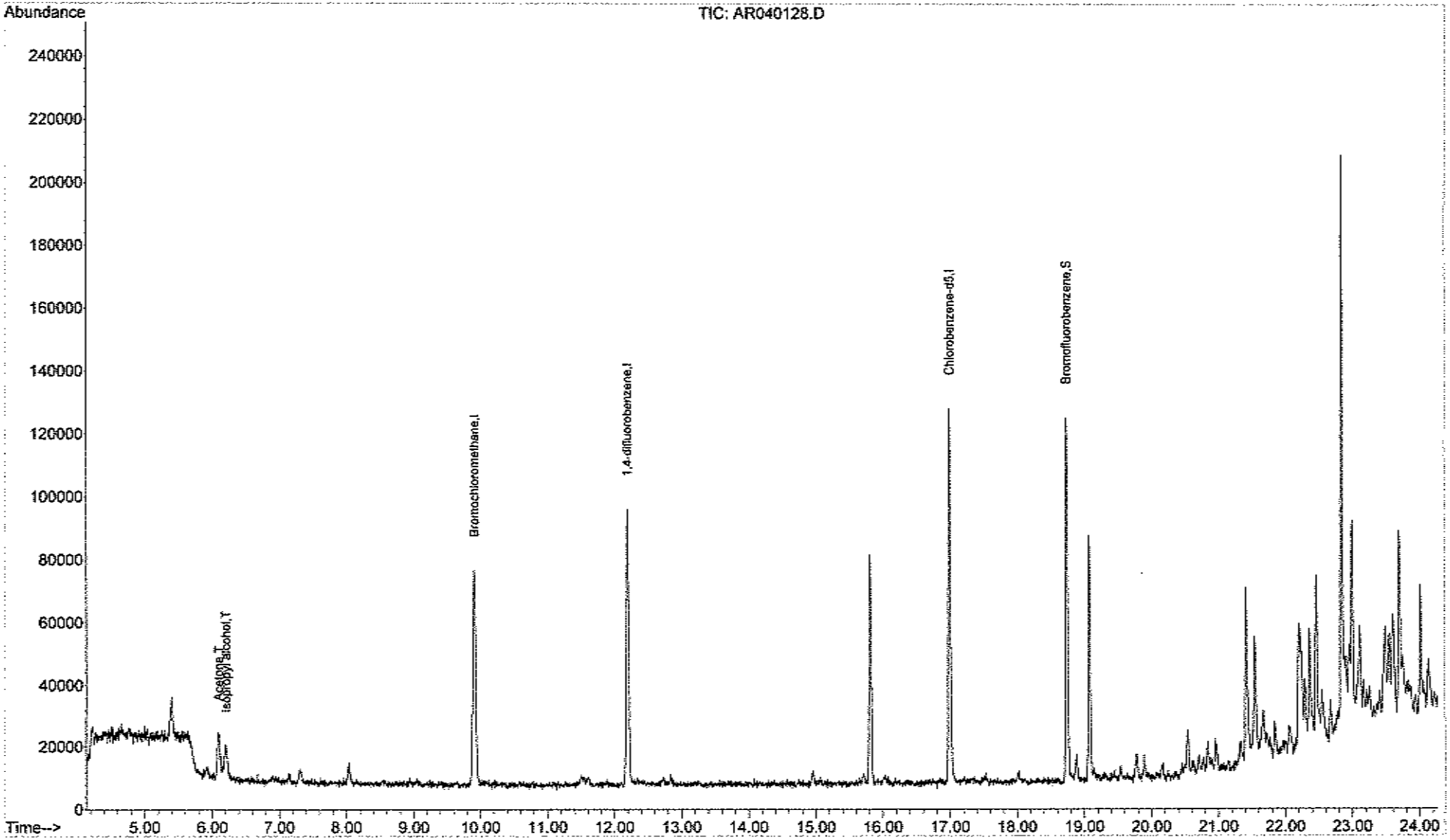
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	28948	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	93375	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	84269	1.00	ppb	0.01
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	45707	0.76	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 76.00%			
Target Compounds						Qvalue
15) Acetone	6.09	58	9719	0.62	ppb	# 100
17) Isopropyl alcohol	6.20	45	9569	0.26	ppb	# 1

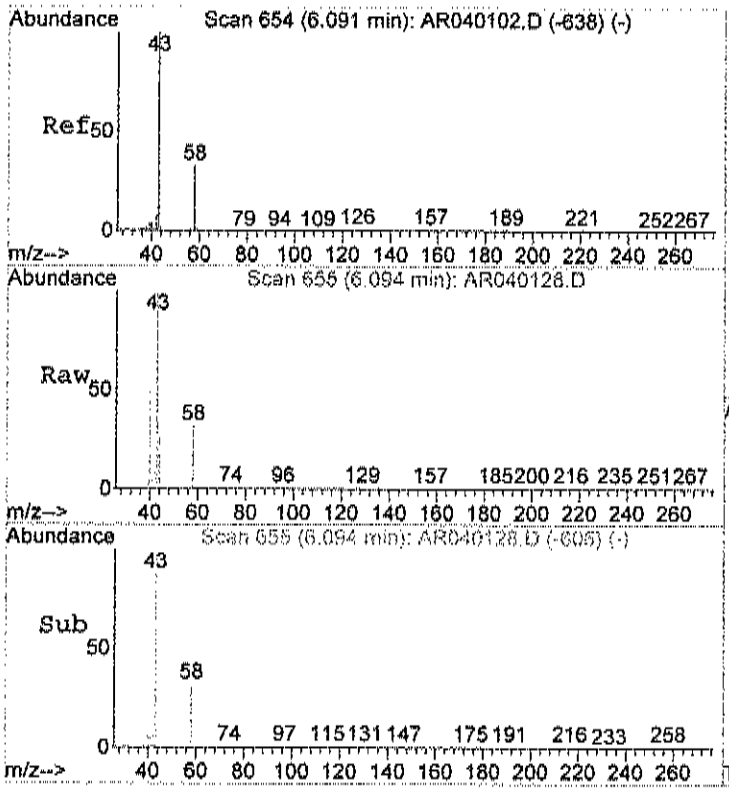
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040128.D Vial: 11
Acq On : 2 Apr 2020 7:35 am Operator: RJP
Sample : C2004002-011A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:23 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

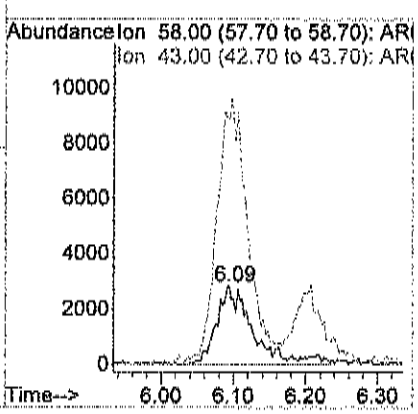


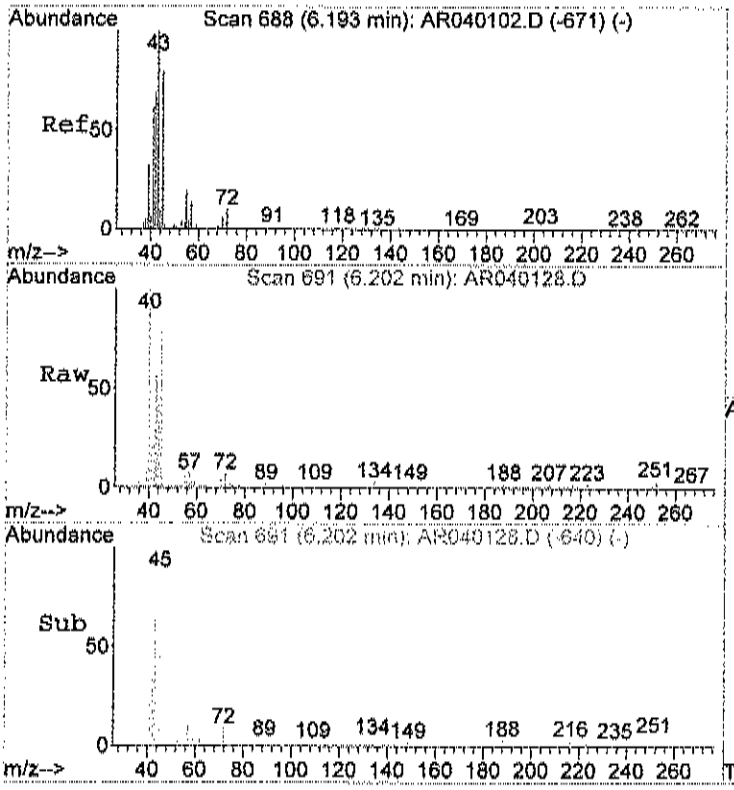


#15
Acetone
Concen: 0.62 ppb
RT: 6.09 min Scan# 655
Delta R.T. -0.00 min
Lab File: AR040128.D
Acq: 2 Apr 2020 7:35 am

Tgt Ion: 58 Resp: 9719

Ion	Ratio	Lower	Upper
58	100		
43	353.1	0.0	30.0#

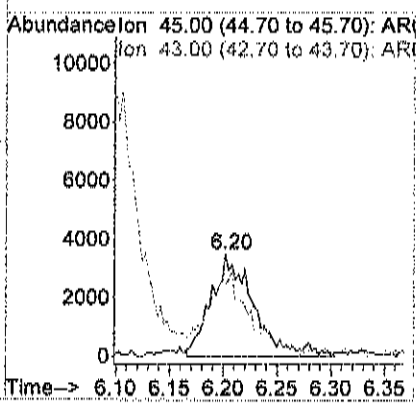




#17
Isopropyl alcohol
Concen: 0.26 ppb
RT: 6.20 min Scan# 691
Delta R.T. 0.00 min
Lab File: AR040128.D
Acq: 2 Apr 2020 7:35 am

Tgt Ion: 45 Resp: 9569

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#



Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD				Analyst:
Lab Vacuum In	-3			"Hg		4/1/2020
Lab Vacuum Out	-30			"Hg		4/1/2020
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,1-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Acetone	5.1	3.0		ppbV	10	4/2/2020 8:21:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Benzene	0.14	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromoform	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Carbon tetrachloride	0.090	0.030		ppbV	1	4/1/2020 10:25:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloroform	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Chloromethane	0.40	0.15		ppbV	1	4/1/2020 10:25:00 PM
cis-1,2-Dichloroethene	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Cyclohexane	0.14	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 11	0.22	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 113	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 114	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Freon 12	0.48	0.15		ppbV	1	4/1/2020 10:25:00 PM
Heptane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Hexane	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Isopropyl alcohol	0.54	0.15		ppbV	1	4/1/2020 10:25:00 PM
m&p-Xylene	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl Ethyl Ketone	0.25	0.30	J	ppbV	1	4/1/2020 10:25:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/1/2020 10:25:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Methylene chloride	0.17	0.15		ppbV	1	4/1/2020 10:25:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Propylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Styrene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Toluene	0.12	0.15	J	ppbV	1	4/1/2020 10:25:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Trichloroethene	< 0.030	0.030		ppbV	1	4/1/2020 10:25:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/1/2020 10:25:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	4/1/2020 10:25:00 PM
Surr: Bromofluorobenzene	82.0	70-130		%REC	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 10:25:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	4/1/2020 10:25:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
1,1-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	4/1/2020 10:25:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	4/1/2020 10:25:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	4/1/2020 10:25:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	4/1/2020 10:25:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	4/1/2020 10:25:00 PM
Acetone	12	7.1		ug/m3	10	4/2/2020 8:21:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	4/1/2020 10:25:00 PM
Benzene	0.45	0.48	J	ug/m3	1	4/1/2020 10:25:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	4/1/2020 10:25:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	4/1/2020 10:25:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	4/1/2020 10:25:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	4/1/2020 10:25:00 PM
Carbon tetrachloride	0.57	0.19		ug/m3	1	4/1/2020 10:25:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	4/1/2020 10:25:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	4/1/2020 10:25:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	4/1/2020 10:25:00 PM
Chloromethane	0.83	0.31		ug/m3	1	4/1/2020 10:25:00 PM
cis-1,2-Dichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 10:25:00 PM
Cyclohexane	0.48	0.52	J	ug/m3	1	4/1/2020 10:25:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/1/2020 10:25:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	4/1/2020 10:25:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	4/1/2020 10:25:00 PM
Freon 11	1.2	0.84		ug/m3	1	4/1/2020 10:25:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	4/1/2020 10:25:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Centek Laboratories, LLC

Date: *10-Apr-20*

CLIENT:	Geovation Engineering, Inc.	**Client Sample ID:**	Outdoor Upwind 2020
Lab Order:	C2004002	**Tag Number:**	239,381
Project:	Grant Hardware	**Collection Date:**	3/28/2020
Lab ID:	C2004002-012A	**Matrix:**	AIR

Analyses	Result	DL	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.2UG/M3 CT-TCE-VC-DCE-1,1DCE		**TO-15**				Analyst: **RJP**
Freon 12	2.4	0.74		ug/m3	1	4/1/2020 10:25:00 PM
Heptane	< 0.61	0.61		ug/m3	1	4/1/2020 10:25:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/1/2020 10:25:00 PM
Hexane	< 0.53	0.53		ug/m3	1	4/1/2020 10:25:00 PM
Isopropyl alcohol	1.3	0.37		ug/m3	1	4/1/2020 10:25:00 PM
m&p-Xylene	< 1.3	1.3		ug/m3	1	4/1/2020 10:25:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
Methyl Ethyl Ketone	0.74	0.88	J	ug/m3	1	4/1/2020 10:25:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/1/2020 10:25:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	4/1/2020 10:25:00 PM
Methylene chloride	0.59	0.52		ug/m3	1	4/1/2020 10:25:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	4/1/2020 10:25:00 PM
Propylene	< 0.26	0.26		ug/m3	1	4/1/2020 10:25:00 PM
Styrene	< 0.64	0.64		ug/m3	1	4/1/2020 10:25:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	4/1/2020 10:25:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	4/1/2020 10:25:00 PM
Toluene	0.45	0.57	J	ug/m3	1	4/1/2020 10:25:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	4/1/2020 10:25:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	4/1/2020 10:25:00 PM
Trichloroethene	< 0.16	0.16		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	4/1/2020 10:25:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	4/1/2020 10:25:00 PM

Qualifiers:

SC	Sub-Contracted	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040116.D Vial: 12
Acq On : 1 Apr 2020 10:25 pm Operator: RJP
Sample : C2004002-012A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:22 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

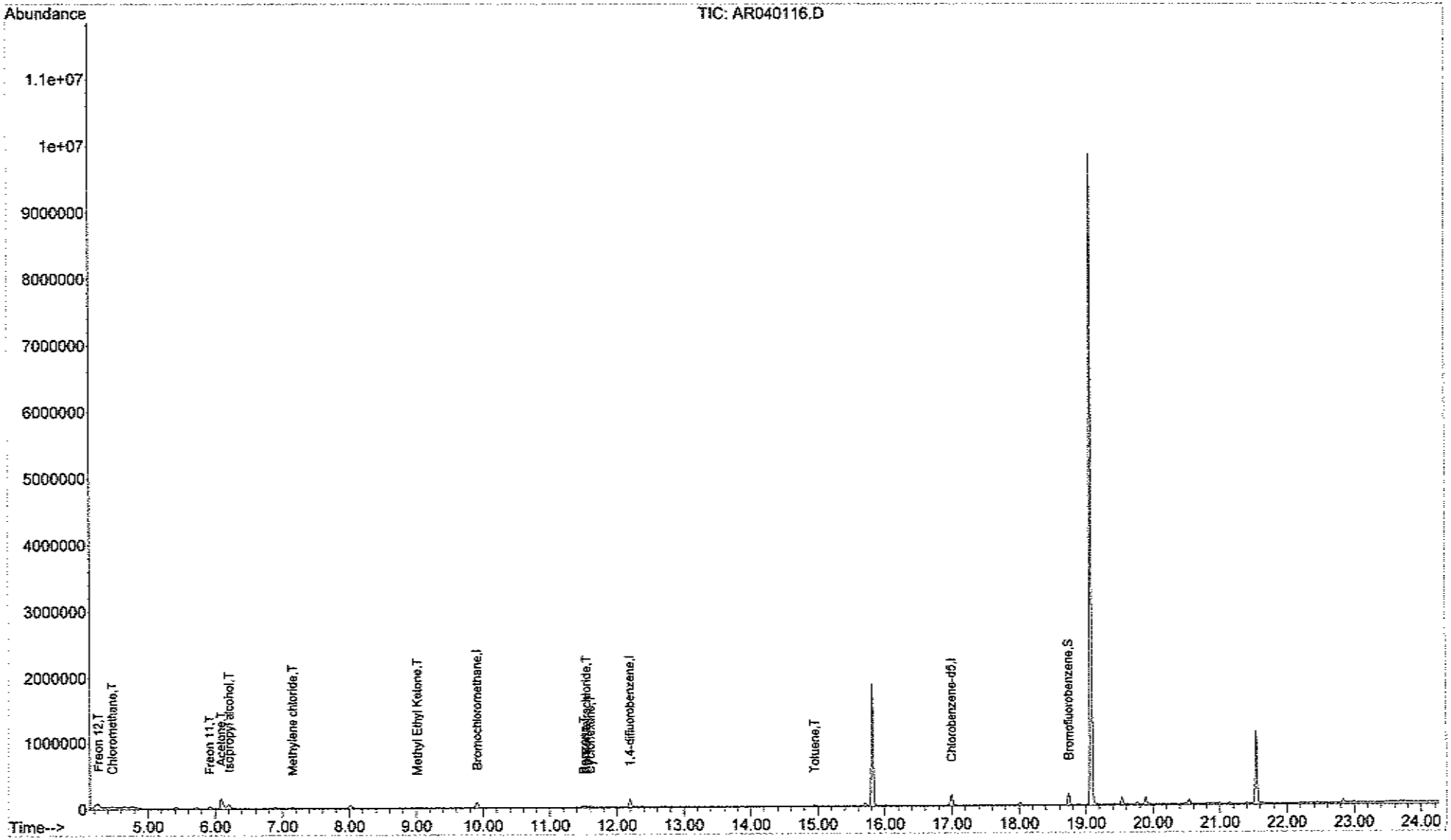
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	37055	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	132179	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	123125	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	72730	0.82	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 82.00%				
Target Compounds							Qvalue
3) Freon 12	4.27	85	79392	0.48	ppb		99
4) Chloromethane	4.46	50	14398	0.40	ppb		85
14) Freon 11	5.93	101	39101	0.22	ppb		97
15) Acetone	6.09	58	98821	4.89	ppb	#	100
17) Isopropyl alcohol	6.21	45	25400	0.54	ppb	#	1
21) Methylene chloride	7.16	84	7145	0.17	ppb		90
28) Methyl Ethyl Ketone	9.01	72	4244	0.25	ppb	#	100
37) Cyclohexane	11.60	56	5973	0.14	ppb	#	70
38) Carbon tetrachloride	11.55	117	11363	0.09	ppb		93
39) Benzene	11.51	78	15054	0.14	ppb		97
51) Toluene	14.95	92	8410	0.12	ppb		96

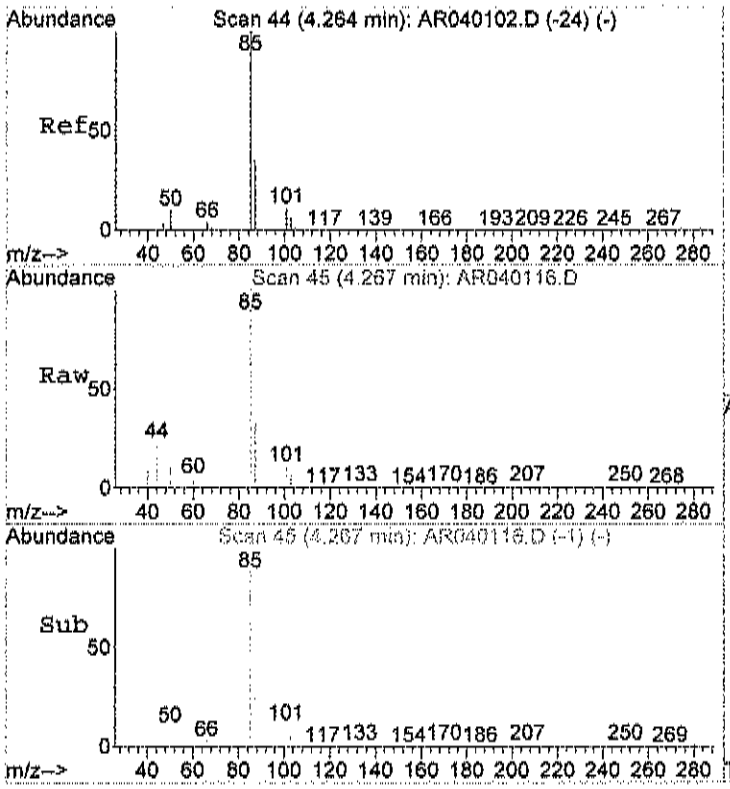
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040116.D Vial: 12
Acq On : 1 Apr 2020 10:25 pm Operator: RJP
Sample : C2004002-012A Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:08 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

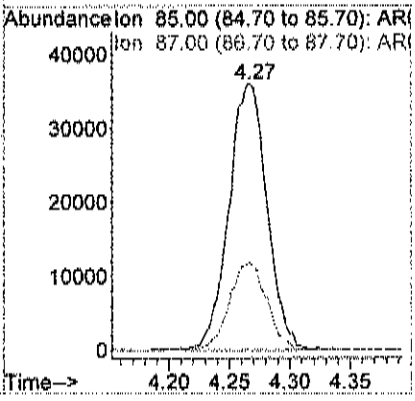


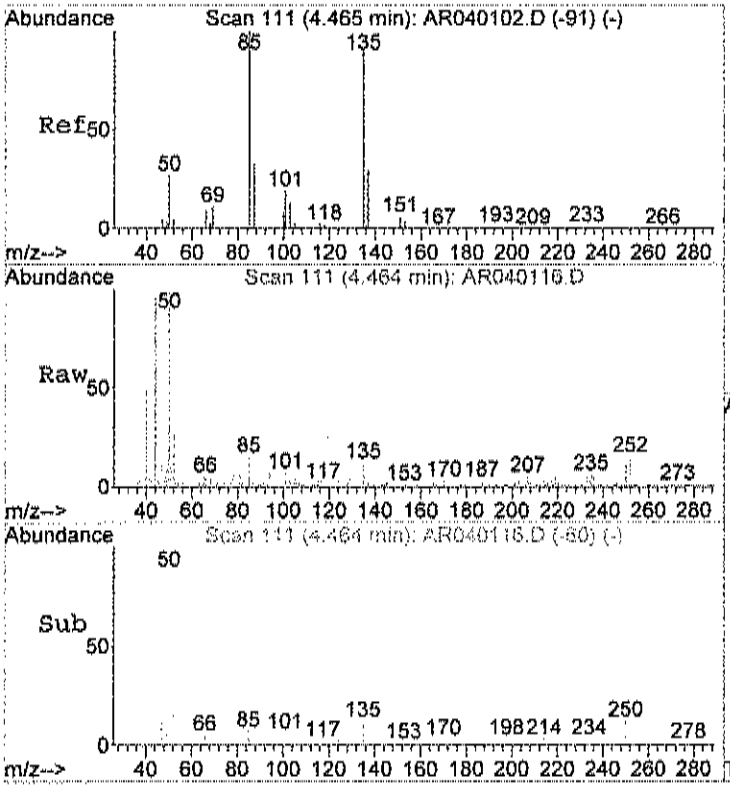


#3
Freon 12
Concen: 0.48 ppb
RT: 4.27 min Scan# 45
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 85 Resp: 79392

Ion	Ratio	Lower	Upper
85	100		
87	32.4	11.9	51.9

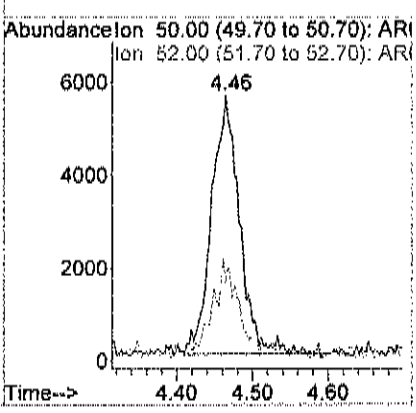


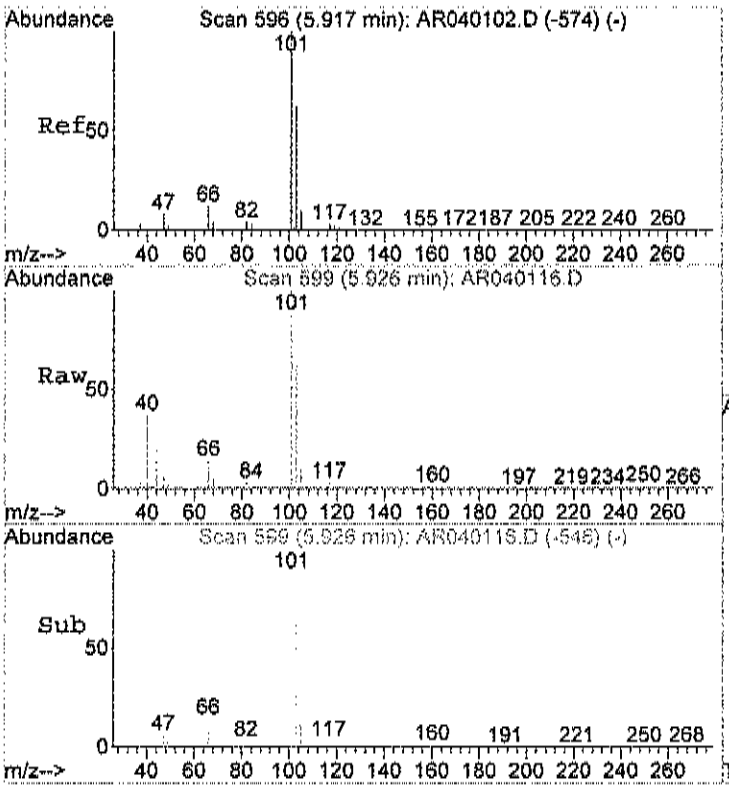


#4
Chloromethane
Concen: 0.40 ppb
RT: 4.46 min Scan# 111
Delta R.T. 0.00 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 50 Resp: 14398

Ion	Ratio	Lower	Upper
50	100		
52	33.8	6.1	46.1

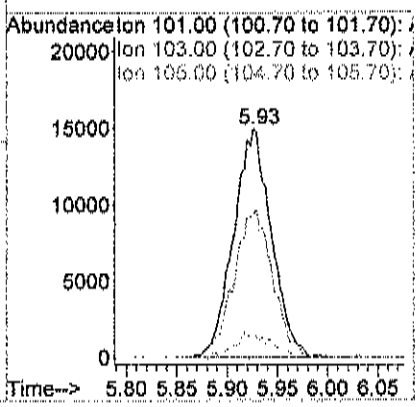


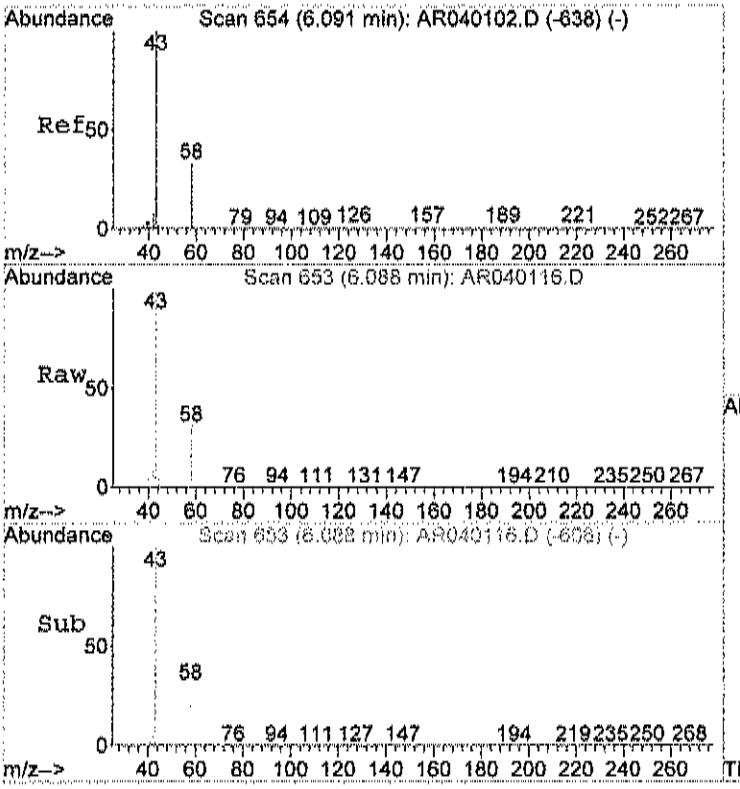


#14
Freon 11
Concen: 0.22 ppb
RT: 5.93 min Scan# 599
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion:101 Resp: 39101

Ion	Ratio	Lower	Upper
101	100		
103	66.6	44.2	84.2
105	10.4	0.0	30.3

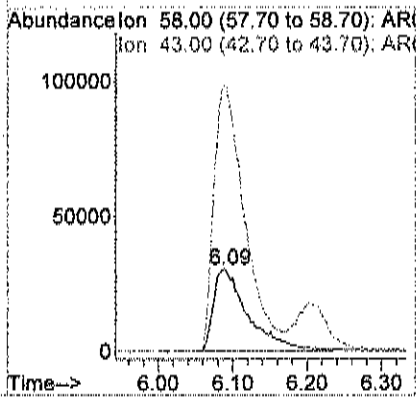


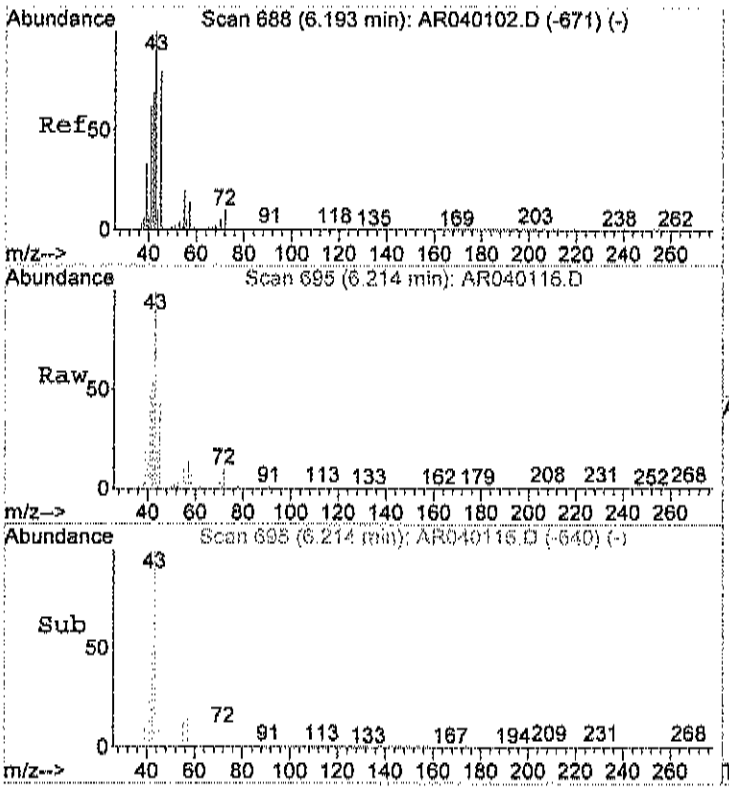


#15
Acetone
Concen: 4.89 ppb
RT: 6.09 min Scan# 653
Delta R.T. -0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 58 Resp: 98821

Ion	Ratio	Lower	Upper
58	100		
43	334.8	0.0	30.0#

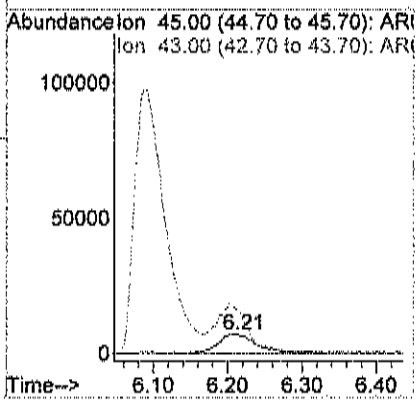


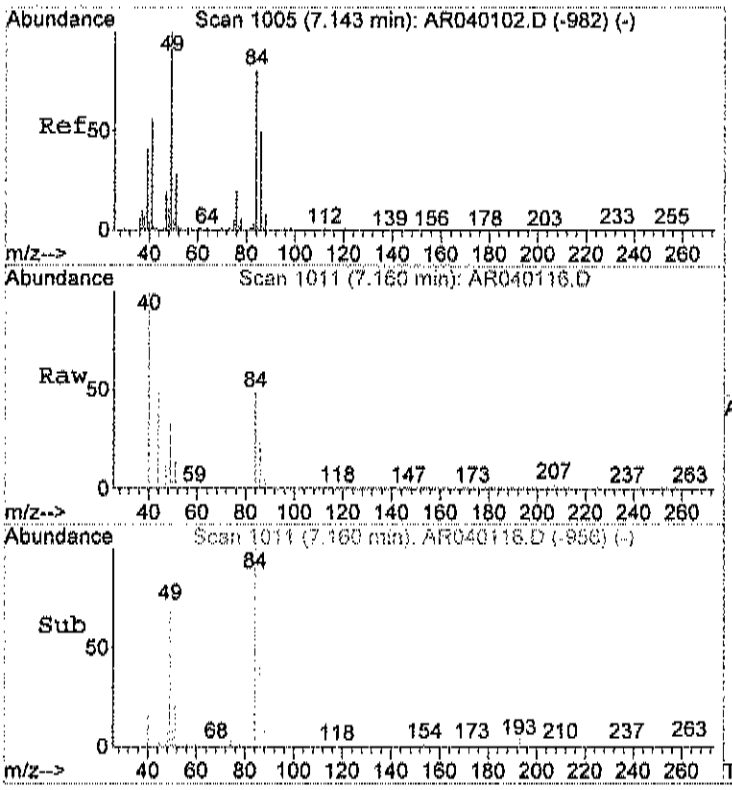


#17
Isopropyl alcohol
Concen: 0.54 ppb
RT: 6.21 min Scan# 695
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 45 Resp: 25400

Ion	Ratio	Lower	Upper
45	100		
43	0.0	196.5	236.5#

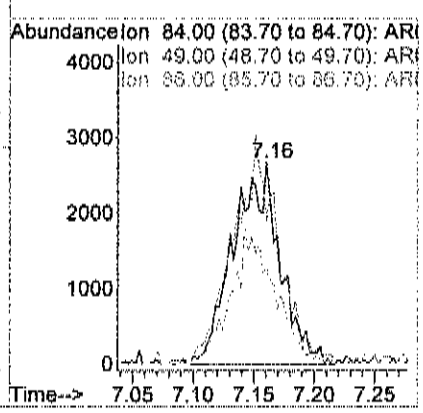


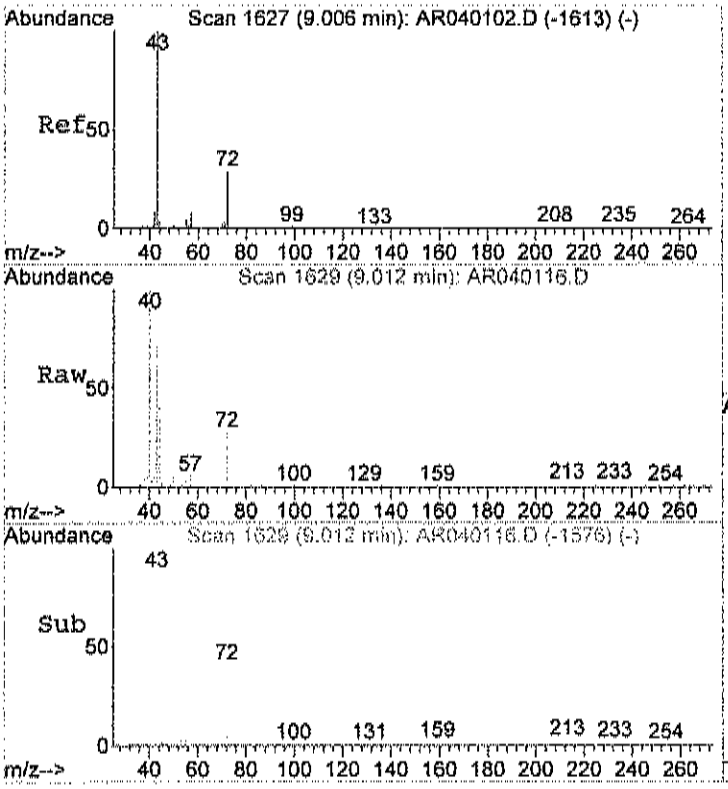


#21
Methylene chloride
Concen: 0.17 ppb
RT: 7.16 min Scan# 1011
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 84 Resp: 7145

Ion	Ratio	Lower	Upper
84	100		
49	107.3	101.4	141.4
86	62.2	45.4	85.4

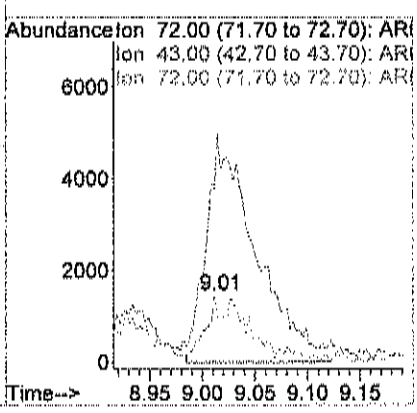


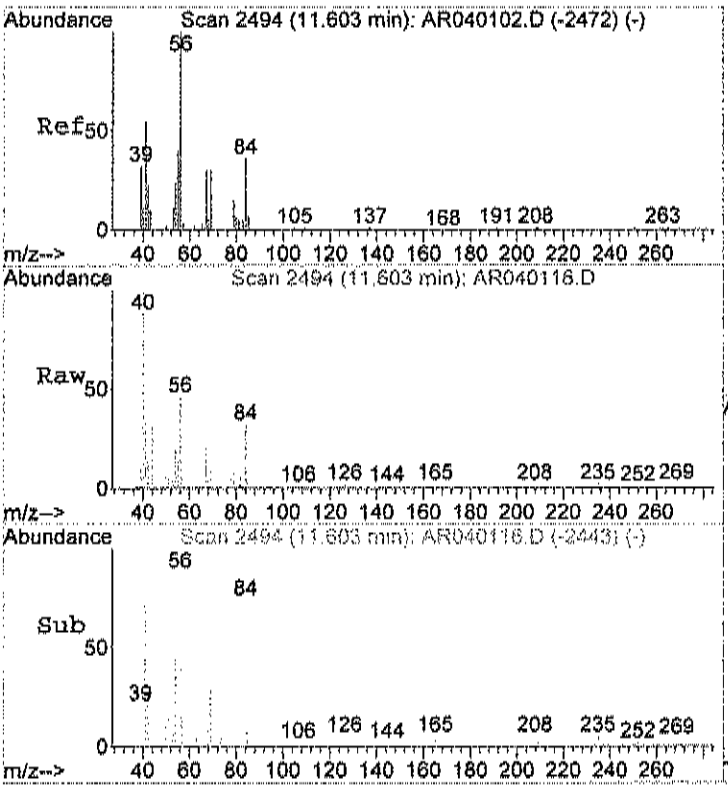


#28
Methyl Ethyl Ketone
Concen: 0.25 ppb
RT: 9.01 min Scan# 1629
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 72 Resp: 4244

Ion	Ratio	Lower	Upper
72	100		
43	0.0	0.0	20.0
72	100.0	80.0	120.0

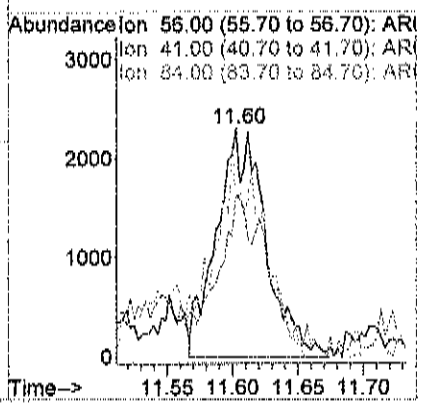


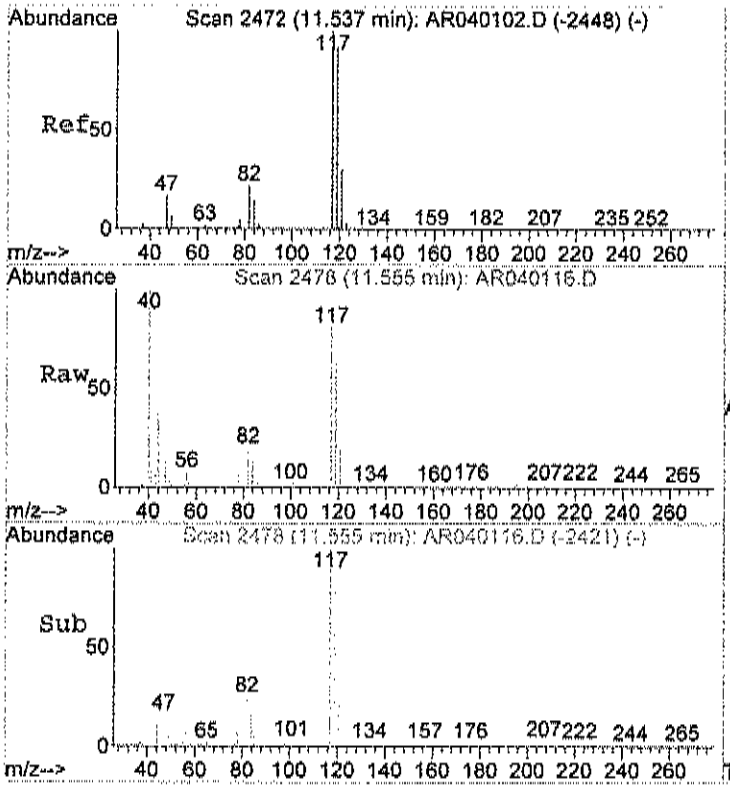


#37
Cyclohexane
Concen: 0.14 ppb
RT: 11.60 min Scan# 2494
Delta R.T. 0.00 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 56 Resp: 5973

Ion	Ratio	Lower	Upper
56	100		
41	114.2	42.3	82.3#
84	114.1	107.7	147.7

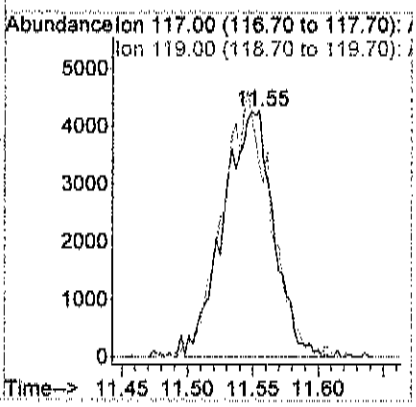


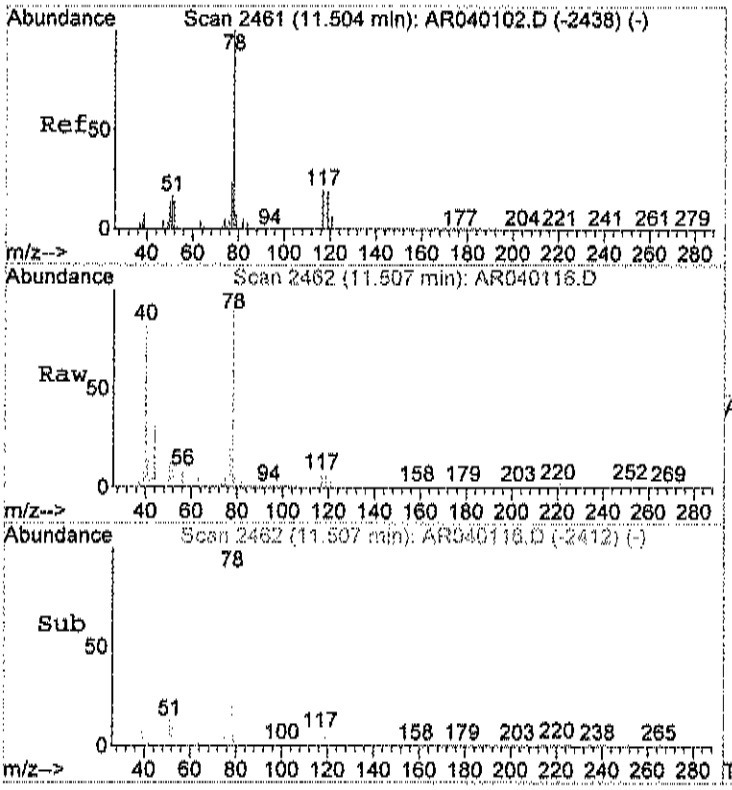


#38
Carbon tetrachloride
Concen: 0.09 ppb
RT: 11.55 min Scan# 2478
Delta R.T. 0.02 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion:117 Resp: 11363

Ion	Ratio	Lower	Upper
117	100		
119	102.7	75.6	115.6

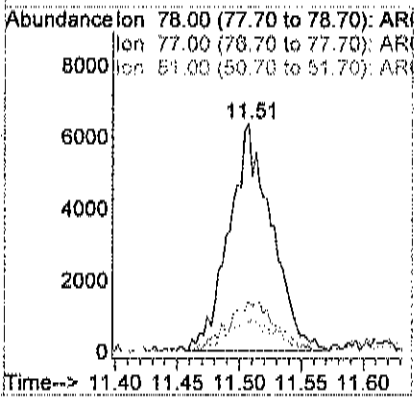


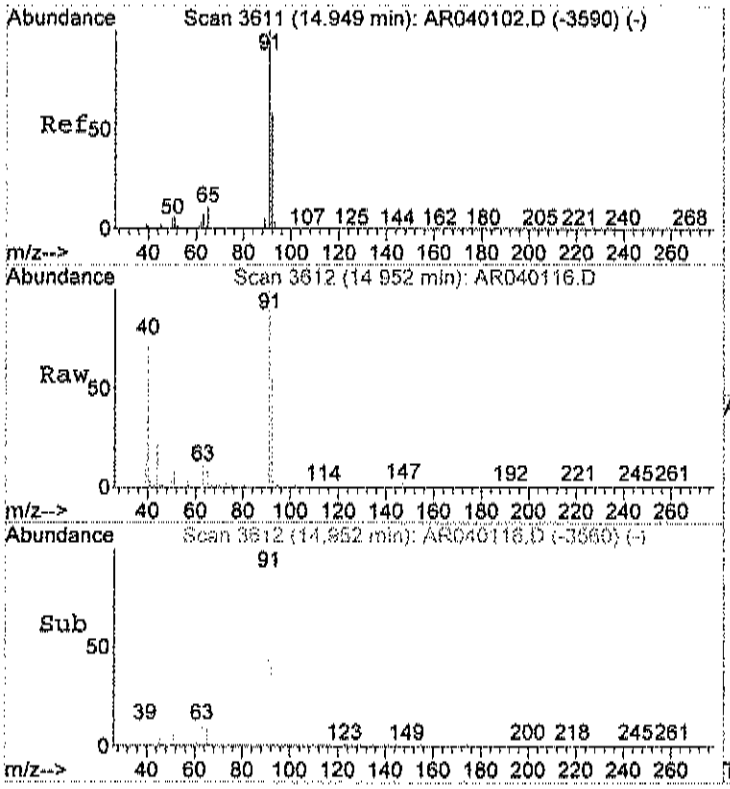


#39
Benzene
Concen: 0.14 ppb
RT: 11.51 min Scan# 2462
Delta R.T. -0.00 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 78 Resp: 15054

Ion	Ratio	Lower	Upper
78	100		
77	25.6	4.1	44.1
51	16.0	0.0	36.8

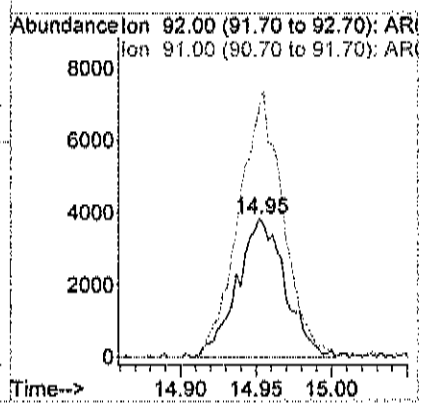




#51
Toluene
Concen: 0.12 ppb
RT: 14.95 min Scan# 3612
Delta R.T. 0.01 min
Lab File: AR040116.D
Acq: 1 Apr 2020 10:25 pm

Tgt Ion: 92 Resp: 8410

Ion	Ratio	Lower	Upper
92	100		
91	179.7	154.5	194.5



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040129.D Vial: 12
Acq On : 2 Apr 2020 8:21 am Operator: RJP
Sample : C2004002-012A 10X Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:35 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	29303	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	90621	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	80597	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	42859	0.74	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 74.00%			
Target Compounds						Qvalue
15) Acetone	6.12	58	8192	0.51	ppb	# 100

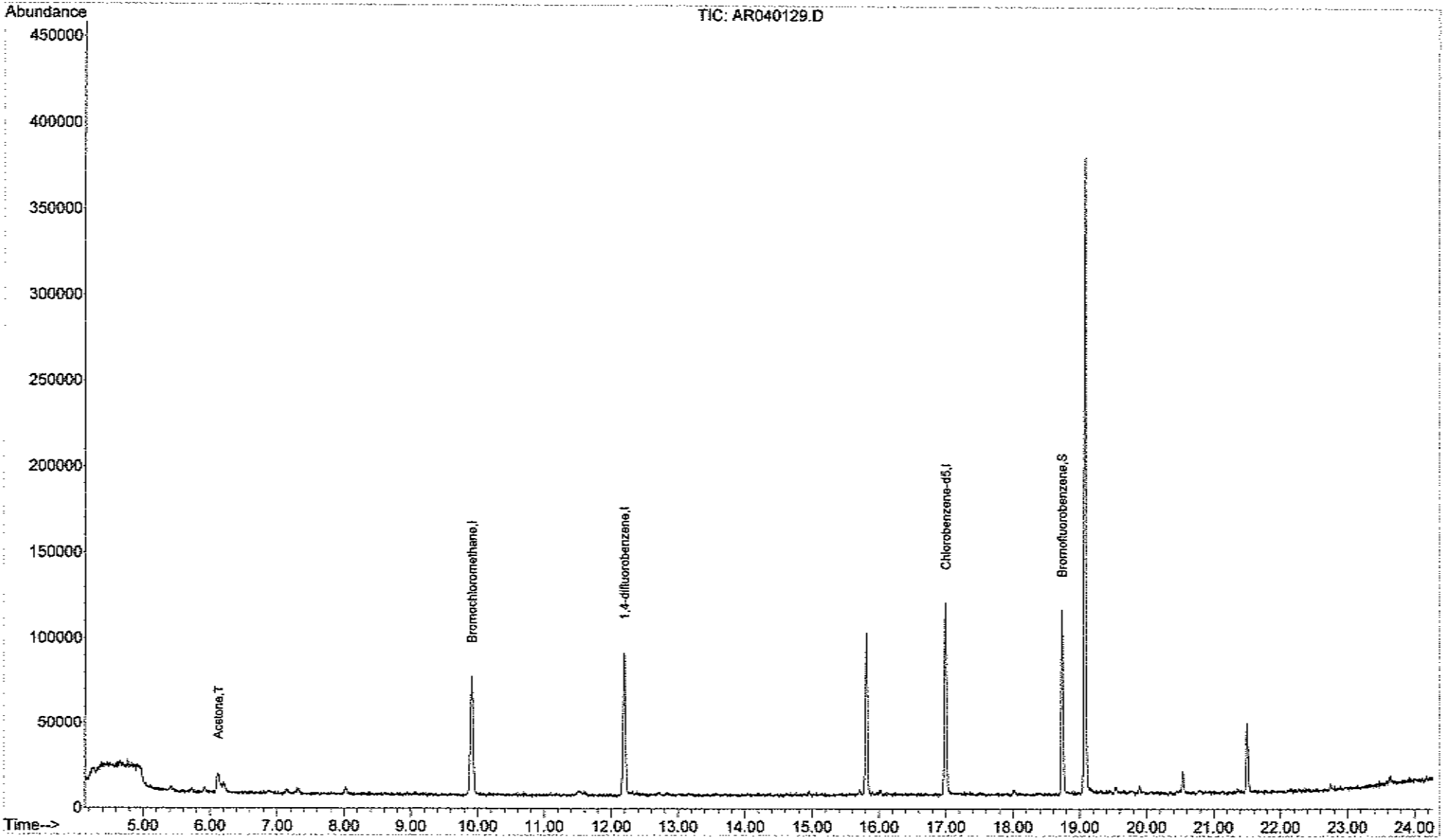
(#) = qualifier out of range (m) = manual integration (+) = signals summed

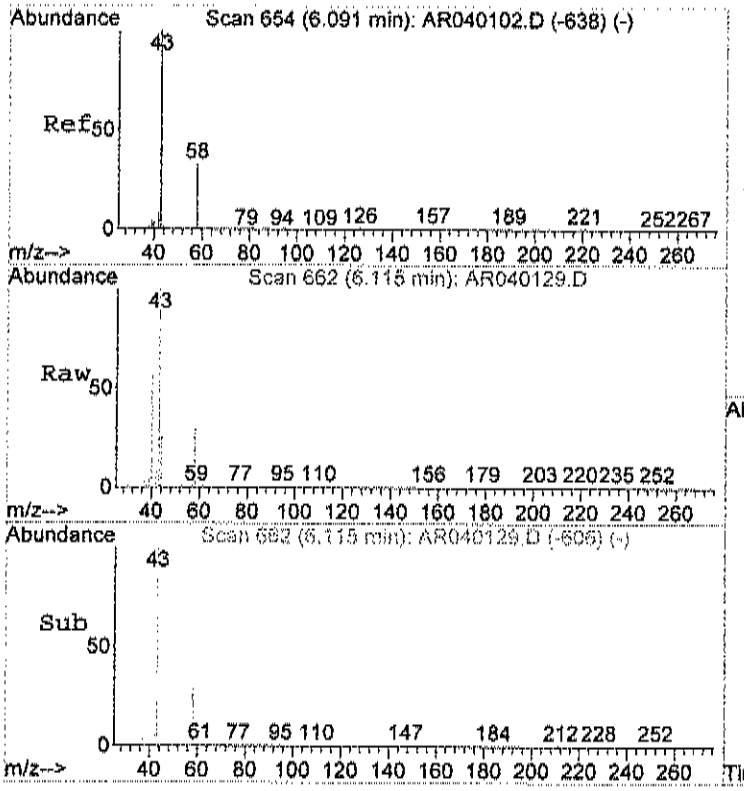
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040129.D
Acq On : 2 Apr 2020 8:21 am
Sample : C2004002-012A 10X
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Apr 7 10:23 2020

Vial: 12
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration

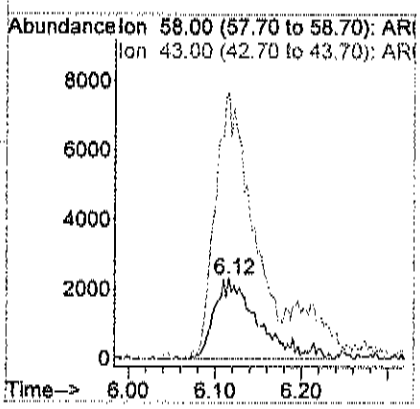




#15
Acetone
Concen: 0.51 ppb
RT: 6.12 min Scan# 662
Delta R.T. 0.02 min
Lab File: AR040129.D
Acq: 2 Apr 2020 8:21 am

Tgt Ion: 58 Resp: 8192

Ion	Ratio	Lower	Upper
58	100		
43	334.4	0.0	30.0#



GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

STANDARDS DATA

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

INITIAL CALIBRATION

Response Factor Report MSD #1

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Initial Calibration

Calibration Files
2.0 =AR032004.D 1.5 =AR032005.D 1.25 =AR032006.D
1.0 =AR032007.D 0.75 =AR032008.D 0.50 =AR032009.D

		Compound	2.0	1.5	1.25	1.0	0.75	0.50	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	0.673	0.704	0.732	0.711	0.712	0.678	0.720	5.99
3)	T	Freon 12	4.504	4.566	4.523	4.523	4.451	4.366	4.461	1.77
4)	T	Chloromethane	0.949	0.934	0.929	0.982	0.969	0.947	0.968	5.88
5)	T	Freon 114	3.497	3.502	3.471	3.528	3.429	3.385	3.454	1.54
6)	T	Vinyl Chloride	0.910	0.923	0.913	0.891	0.903	0.934	0.909	4.47
7)	T	Butane	0.905	0.929	0.933	1.001	0.960	0.922	0.961	4.81
8)	T	1,3-butadiene	0.723	0.777	0.766	0.778	0.730	0.784	0.798	9.93
9)	T	Bromomethane	1.257	1.380	1.354	1.386	1.366	1.291	1.340	3.50
10)	T	Chloroethane	0.471	0.583	0.563	0.587	0.580	0.585	0.545	9.66
11)	T	Ethanol	0.232	0.249	0.267	0.240	0.231	0.231	0.255	12.12
12)	T	Acrolein	0.290	0.287	0.288	0.297	0.293	0.285	0.285	3.53
13)	T	Vinyl Bromide	1.165	1.136	1.139	1.100	1.107	1.091	1.127	2.23
14)	T	Freon 11	4.810	4.767	4.758	4.738	4.693	4.629	4.692	2.30
15)	T	Acetone	0.551	0.555	0.555	0.544	0.550	0.538	0.545	2.46
16)	T	Pentane	0.976	1.004	1.015	0.957	0.982	0.926	0.982	3.72
17)	T	Isopropyl alcoh	1.347	1.343	1.333	1.221	1.153	1.205	1.280	6.95
18)	T	1,1-dichloroeth	1.025	1.054	1.061	1.035	1.035	1.023	1.033	2.97
19)	T	Freon 113	2.821	2.795	2.785	2.778	2.768	2.736	2.758	2.26
20)	t	t-Butyl alcohol	1.591	1.559	1.549	1.469	1.382	1.464	1.464	6.57
21)	T	Methylene chlor	1.087	1.115	1.114	1.113	1.146	1.083	1.141	5.97
22)	T	Allyl chloride	1.040	1.036	1.044	1.048	1.001	0.915	0.993	5.99
23)	T	Carbon disulfid	3.272	3.299	3.381	3.378	3.441	3.382	3.485	7.97
24)	T	trans-1,2-dichl	1.537	1.534	1.542	1.539	1.483	1.477	1.490	3.96
25)	T	methyl tert-but	2.442	2.360	2.345	2.294	2.168	2.052	2.216	7.54
26)	T	1,1-dichloroeth	2.068	2.088	2.121	2.098	2.048	2.092	2.058	2.76
27)	T	Vinyl acetate	1.455	1.489	1.485	1.422	1.410	1.313	1.405	5.19
28)	T	Methyl Ethyl Ke	0.462	0.456	0.465	0.454	0.429	0.406	0.457	9.00
29)	T	cis-1,2-dichlor	1.380	1.416	1.379	1.402	1.366	1.320	1.374	6.01
30)	T	Hexane	1.461	1.452	1.444	1.418	1.176	1.196	1.294	12.70
31)	T	Ethyl acetate	2.183	2.192	2.160	2.121	2.036	1.895	2.073	5.27
32)	T	Chloroform	2.985	2.989	2.998	2.988	2.971	2.858	2.941	2.30
33)	T	Tetrahydrofuran	0.779	0.746	0.757	0.760	0.689	0.707	0.725	6.26
34)	T	1,2-dichloroeth	1.922	1.886	1.920	1.924	1.896	1.844	1.889	1.88
35)	I	1,4-difluorobenzene	----------ISTD----------							
36)	T	1,1,1-trichloro	0.893	0.869	0.864	0.852	0.831	0.842	0.856	2.55
37)	T	Cyclohexane	0.363	0.345	0.343	0.322	0.310	0.290	0.316	10.57
38)	T	Carbon tetrachl	1.043	1.022	1.013	1.007	0.994	1.003	0.963	12.84
39)	T	Benzene	0.889	0.876	0.868	0.840	0.806	0.795	0.831	5.31
40)	T	Methyl methacry	0.337	0.316	0.307	0.288	0.281	0.266	0.292	9.84
41)	T	1,4-dioxane	0.220	0.216	0.205	0.194	0.184	0.171	0.188	13.28
42)	T	2,2,4-trimethyl	1.178	1.157	1.132	1.075	1.056	0.995	1.067	7.90
43)	T	Heptane	0.394	0.385	0.373	0.352	0.345	0.309	0.340	13.41
44)	T	Trichloroethene	0.465	0.464	0.462	0.440	0.441	0.440	0.422	13.02
45)	T	1,2-dichloropro	0.336	0.332	0.323	0.321	0.317	0.317	0.325	2.93
46)	T	Bromodichlorome	0.920	0.904	0.889	0.866	0.864	0.874	0.880	2.51
47)	T	cis-1,3-dichlor	0.591	0.571	0.547	0.537	0.510	0.490	0.519	10.41
48)	T	trans-1,3-dichl	0.454	0.452	0.430	0.429	0.409	0.380	0.413	8.20
49)	T	1,1,2-trichloro	0.445	0.441	0.437	0.428	0.426	0.415	0.425	4.55
50)	I	Chlorobenzene-d5	----------ISTD----------							
51)	T	Toluene	0.673	0.657	0.646	0.598	0.594	0.532	0.585	12.60

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report MSD #1

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Initial Calibration

Calibration Files
2.0 =AR032004.D 1.5 =AR032005.D 1.25 =AR032006.D
1.0 =AR032007.D 0.75 =AR032008.D 0.50 =AR032009.D

		Compound	2.0	1.5	1.25	1.0	0.75	0.50	Avg	%RSD
52)	T	Methyl Isobutyl	0.588	0.559	0.534	0.517	0.496	0.476	0.524	8.10
53)	T	Dibromochlorome	1.004	1.011	0.993	0.950	0.967	0.950	0.976	2.54
54)	T	Methyl Butyl Ke	0.519	0.473	0.456	0.450	0.436	0.387	0.447	11.03
55)	T	1,2-dibromoetha	0.741	0.728	0.732	0.698	0.697	0.687	0.706	3.66
56)	T	Tetrachloroethy	0.520	0.521	0.509	0.500	0.492	0.498	0.500	3.08
57)	T	Chlorobenzene	0.987	0.986	0.971	0.923	0.927	0.897	0.935	4.65
58)	T	Ethylbenzene	1.514	1.445	1.371	1.286	1.256	1.141	1.258	14.72
59)	T	m&p-xylene	1.334	1.280	1.246	1.158	1.100	0.953	1.089	18.86
60)	T	Nonane	0.670	0.641	0.619	0.571	0.550	0.468	0.558	14.61
61)	T	Styrene	1.021	0.986	0.966	0.911	0.854	0.746	0.853	16.61
62)	T	Bromoform	1.005	0.985	0.976	0.938	0.945	0.883	0.940	5.16
63)	T	o-xylene	1.502	1.448	1.428	1.376	1.315	1.206	1.313	11.64
64)	T	Cumene	1.743	1.634	1.580	1.460	1.357	1.200	1.402	17.19
65)	S	Bromofluorobenz	0.827	0.820	0.798	0.778	0.769	0.710	0.718	11.87
66)	T	1,1,2,2-tetrach	1.066	1.051	1.038	1.003	0.988	0.964	1.014	3.50
67)	T	Propylbenzene	0.477	0.450	0.436	0.393	0.368	0.318	0.377	19.90
68)	T	2-Chlorotoluene	0.503	0.475	0.470	0.453	0.432	0.380	0.424	15.19
69)	T	4-ethyltoluene	1.851	1.773	1.688	1.588	1.422	1.191	1.486	18.71
70)	T	1,3,5-trimethyl	1.707	1.632	1.578	1.478	1.402	1.227	1.399	17.70
71)	T	1,2,4-trimethyl	1.485	1.385	1.303	1.188	1.064	0.952	1.146	20.05
72)	T	1,3-dichloroben	1.089	1.040	1.018	0.940	0.822	0.711	0.893	16.86
73)	T	benzyl chloride	1.005	0.923	0.872	0.805	0.771	0.559	0.801	17.72
74)	T	1,4-dichloroben	1.130	1.052	1.027	0.964	0.751	0.663	0.875	21.69
75)	T	1,2,3-trimethyl	1.662	1.542	1.503	1.374	1.226	1.039	1.286	21.23
76)	T	1,2-dichloroben	1.103	1.038	1.015	0.958	0.841	0.790	0.909	15.46
77)	T	1,2,4-trichloro	0.537	0.434	0.420	0.375	0.314	0.306	0.373	22.90
78)	T	Naphthalene	1.175	0.986	0.900	0.800	0.661	0.571	0.792	27.05
79)	T	Hexachloro-1,3-	0.889	0.842	0.831	0.791	0.790	0.744	0.797	6.81

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032004.D
Acq On : 20 Mar 2020 6:04 pm
Sample : A1UG_2.0
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:02:53 2020

Vial: 4
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	40365	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	146150	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	137131	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.73	95	113450	1.06	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 106.00%				
Target Compounds							Qvalue
2) Propylene	4.21	41	54355	1.89	ppb		90
3) Freon 12	4.26	85	363605	1.99	ppb		99
4) Chloromethane	4.46	50	76615	1.93	ppb		95
5) Freon 114	4.46	85	282350	1.98	ppb		95
6) Vinyl Chloride	4.66	62	73492	2.04	ppb		98
7) Butane	4.77	43	73085	1.81	ppb		94
8) 1,3-butadiene	4.76	39	58386	1.86	ppb		98
9) Bromomethane	5.11	94	101472	1.81	ppb		99
10) Chloroethane	5.29	64	38001m	1.60	ppb		
11) Ethanol	5.38	45	18695m	1.93	ppb		
12) Acrolein	5.97	56	23385	1.95	ppb		95
13) Vinyl Bromide	5.64	106	94081	2.12	ppb		99
14) Freon 11	5.91	101	388291	2.03	ppb		99
15) Acetone	6.08	58	44444	2.03	ppb	#	100
16) Pentane	6.20	42	78809	2.04	ppb	#	43
17) Isopropyl alcohol	6.19	45	108761	2.21	ppb	#	46
18) 1,1-dichloroethene	6.68	96	82714	1.98	ppb		95
19) Freon 113	6.88	101	227722	2.03	ppb		96
20) t-Butyl alcohol	6.91	59	128414	2.16	ppb	#	89
21) Methylene chloride	7.14	84	87790	1.95	ppb		100
22) Allyl chloride	7.12	41	83941	1.98	ppb		94
23) Carbon disulfide	7.31	76	264145	1.94	ppb		100
24) trans-1,2-dichloroethene	8.08	61	124065	2.00	ppb		99
25) methyl tert-butyl ether	8.10	73	197125	2.13	ppb		95
26) 1,1-dichloroethane	8.51	63	166954	1.97	ppb		99
27) Vinyl acetate	8.50	43	117487	2.05	ppb		98
28) Methyl Ethyl Ketone	9.00	72	37334	2.04	ppb	#	100
29) cis-1,2-dichloroethene	9.45	61	111412	1.97	ppb		98
30) Hexane	9.05	57	117908	2.06	ppb		98
31) Ethyl acetate	9.60	43	176246	2.06	ppb		98
32) Chloroform	10.06	83	240965	2.00	ppb		99
33) Tetrahydrofuran	10.23	42	62873	2.05	ppb		94
34) 1,2-dichloroethane	11.17	62	155156	2.00	ppb		100
36) 1,1,1-trichloroethane	10.89	97	260991	2.10	ppb		97
37) Cyclohexane	11.60	56	106212	2.26	ppb		95
38) Carbon tetrachloride	11.54	117	304914	2.07	ppb		98
39) Benzene	11.50	78	259908	2.12	ppb		98
40) Methyl methacrylate	13.06	41	98562	2.34	ppb		97
41) 1,4-dioxane	13.08	88	64289	2.27	ppb		95
42) 2,2,4-trimethylpentane	12.36	57	344317	2.19	ppb		99
43) Heptane	12.71	43	115122	2.23	ppb		96
44) Trichloroethene	12.83	130	136029	2.11	ppb		97
45) 1,2-dichloropropane	12.94	63	98085	2.09	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032004.D Vial: 4
Acq On : 20 Mar 2020 6:04 pm Operator: RJP
Sample : A1UG_2.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:02:53 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

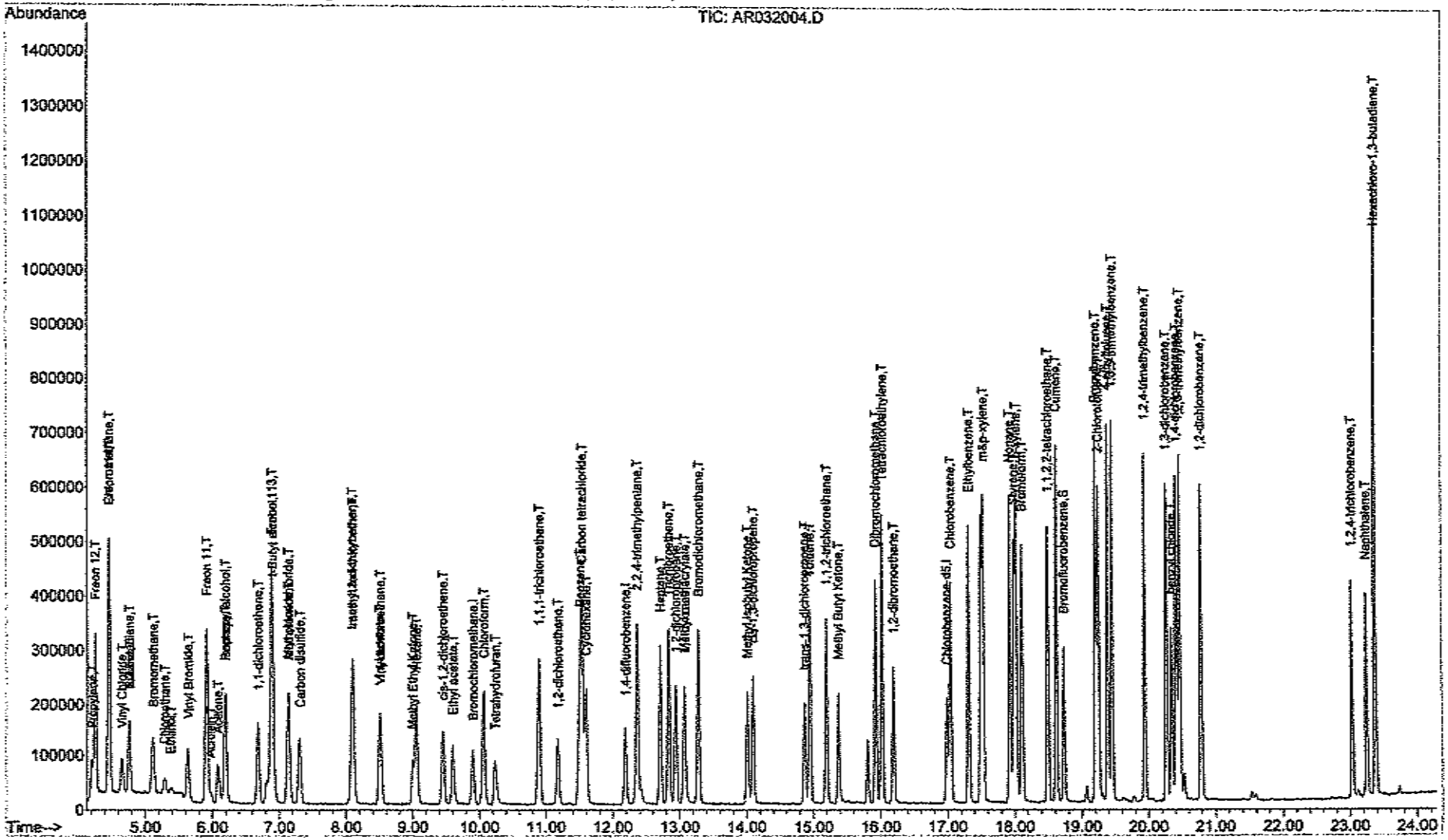
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Bromodichloromethane	13.28	83	268913	2.12	ppb		99
47)	cis-1,3-dichloropropene	14.10	75	172624	2.20	ppb		99
48)	trans-1,3-dichloropropene	14.87	75	132615	2.11	ppb		99
49)	1,1,2-trichloroethane	15.19	97	130013	2.08	ppb		99
51)	Toluene	14.94	92	184515	2.25	ppb		97
52)	Methyl Isobutyl Ketone	14.01	43	161401	2.28	ppb		99
53)	Dibromochloromethane	15.93	129	275423	2.12	ppb		100
54)	Methyl Butyl Ketone	15.37	43	142401m	2.33	ppb		
55)	1,2-dibromoethane	16.19	107	203215	2.12	ppb		98
56)	Tetrachloroethylene	16.02	164	142580	2.08	ppb		98
57)	Chlorobenzene	17.04	112	270703	2.14	ppb		99
58)	Ethylbenzene	17.31	91	415296	2.35	ppb		99
59)	m&p-xylene	17.53	91	731553	4.61	ppb		97
60)	Nonane	17.92	43	183652	2.34	ppb		98
61)	Styrene	17.98	104	280049	2.24	ppb		99
62)	Bromoform	18.11	173	275733	2.14	ppb		99
63)	o-xylene	18.02	91	411983	2.18	ppb		97
64)	Cumene	18.62	105	478077	2.39	ppb		99
66)	1,1,2,2-tetrachloroethane	18.49	83	292494	2.13	ppb		100
67)	Propylbenzene	19.20	120	130808	2.43	ppb		89
68)	2-Chlorotoluene	19.24	126	138059	2.23	ppb	#	86
69)	4-ethyltoluene	19.39	105	507598	2.33	ppb		98
70)	1,3,5-trimethylbenzene	19.45	105	468078	2.31	ppb		97
71)	1,2,4-trimethylbenzene	19.94	105	407396	2.50	ppb		99
72)	1,3-dichlorobenzene	20.27	146	298538	2.32	ppb		99
73)	benzyl chloride	20.34	91	275580	2.50	ppb		97
74)	1,4-dichlorobenzene	20.41	146	309922	2.35	ppb		99
75)	1,2,3-trimethylbenzene	20.46	105	455862	2.42	ppb		97
76)	1,2-dichlorobenzene	20.78	146	302526	2.30	ppb		99
77)	1,2,4-trichlorobenzene	23.03	180	147151	2.86	ppb		99
78)	Naphthalene	23.25	128	322288m	2.94	ppb		
79)	Hexachloro-1,3-butadiene	23.38	225	243943	2.25	ppb		90

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032004.D Vial: 4
Acq On : 20 Mar 2020 6:04 pm Operator: RJP
Sample : A1UG_2.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:16 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032005.D Vial: 5
Acq On : 20 Mar 2020 6:53 pm Operator: RJP
Sample : A1UG_1.50 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:02:15 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	40432	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	148606	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	136983	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	112341	1.05	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 105.00%				
Target Compounds							Qvalue
2) Propylene	4.20	41	42692	1.48	ppb		92
3) Freon 12	4.26	85	276922	1.51	ppb		98
4) Chloromethane	4.46	50	56664	1.43	ppb		97
5) Freon 114	4.46	85	212389	1.49	ppb		95
6) Vinyl Chloride	4.66	62	55962	1.55	ppb		99
7) Butane	4.76	43	56322m	1.39	ppb		
8) 1,3-butadiene	4.76	39	47146m	1.50	ppb		
9) Bromomethane	5.11	94	83721	1.49	ppb		99
10) Chloroethane	5.29	64	35347	1.49	ppb		98
11) Ethanol	5.40	45	15119	1.56	ppb		86
12) Acrolein	5.98	56	17423	1.45	ppb		97
13) Vinyl Bromide	5.64	106	68886	1.55	ppb		99
14) Freon 11	5.91	101	289112	1.51	ppb		99
15) Acetone	6.09	58	33666	1.53	ppb	#	100
16) Pentane	6.19	42	60873	1.57	ppb		97
17) Isopropyl alcohol	6.20	45	81456	1.65	ppb	#	82
18) 1,1-dichloroethene	6.69	96	63951	1.53	ppb		98
19) Freon 113	6.89	101	169509	1.51	ppb		96
20) t-Butyl alcohol	6.90	59	94558	1.59	ppb	#	88
21) Methylene chloride	7.14	84	67607	1.50	ppb		97
22) Allyl chloride	7.12	41	62816	1.48	ppb		92
23) Carbon disulfide	7.31	76	200058	1.46	ppb		99
24) trans-1,2-dichloroethene	8.09	61	93014	1.50	ppb		98
25) methyl tert-butyl ether	8.10	73	143137	1.54	ppb		94
26) 1,1-dichloroethane	8.51	63	126649	1.49	ppb		99
27) Vinyl acetate	8.50	43	90317	1.57	ppb		98
28) Methyl Ethyl Ketone	9.00	72	27647	1.51	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	85905	1.52	ppb		99
30) Hexane	9.06	57	88051	1.54	ppb		99
31) Ethyl acetate	9.60	43	132966	1.55	ppb		99
32) Chloroform	10.06	83	181271	1.50	ppb		97
33) Tetrahydrofuran	10.24	42	45257	1.48	ppb		91
34) 1,2-dichloroethane	11.18	62	114388	1.47	ppb		99
36) 1,1,1-trichloroethane	10.89	97	193702	1.53	ppb		98
37) Cyclohexane	11.60	56	76866	1.61	ppb		92
38) Carbon tetrachloride	11.54	117	227751	1.52	ppb		99
39) Benzene	11.50	78	195213	1.56	ppb		98
40) Methyl methacrylate	13.07	41	70373	1.64	ppb		95
41) 1,4-dioxane	13.09	88	48155	1.67	ppb		93
42) 2,2,4-trimethylpentane	12.37	57	257931	1.61	ppb		100
43) Heptane	12.71	43	85876	1.64	ppb		97
44) Trichloroethene	12.84	130	103337	1.58	ppb		97
45) 1,2-dichloropropane	12.94	63	74049	1.55	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032005.D Vial: 5
Acq On : 20 Mar 2020 6:53 pm Operator: RJP
Sample : A1UG_1.50 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:02:15 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Bromodichloromethane	13.28	83	201513	1.57	ppb		99
47)	cis-1,3-dichloropropene	14.10	75	127327	1.59	ppb		100
48)	trans-1,3-dichloropropene	14.87	75	100842	1.58	ppb		90
49)	1,1,2-trichloroethane	15.19	97	98341	1.55	ppb		100
51)	Toluene	14.95	92	134931	1.65	ppb		99
52)	Methyl Isobutyl Ketone	14.01	43	114830	1.62	ppb		100
53)	Dibromochloromethane	15.93	129	207659	1.60	ppb		99
54)	Methyl Butyl Ketone	15.38	43	97109m	1.59	ppb		
55)	1,2-dibromoethane	16.19	107	149507	1.56	ppb		99
56)	Tetrachloroethylene	16.02	164	107029	1.56	ppb		100
57)	Chlorobenzene	17.04	112	202635	1.60	ppb		100
58)	Ethylbenzene	17.31	91	296828	1.69	ppb		98
59)	m&p-xylene	17.53	91	526058	3.32	ppb		98
60)	Nonane	17.93	43	131690	1.68	ppb		98
61)	Styrene	17.99	104	202600	1.62	ppb		98
62)	Bromoform	18.11	173	202344	1.57	ppb		100
63)	o-xylene	18.02	91	297431	1.58	ppb		98
64)	Cumene	18.62	105	335767	1.68	ppb		99
66)	1,1,2,2-tetrachloroethane	18.49	83	215868	1.57	ppb		100
67)	Propylbenzene	19.20	120	92458	1.72	ppb		86
68)	2-Chlorotoluene	19.25	126	97561	1.57	ppb	#	83
69)	4-ethyltoluene	19.39	105	364286	1.68	ppb		98
70)	1,3,5-trimethylbenzene	19.45	105	335430	1.66	ppb		97
71)	1,2,4-trimethylbenzene	19.94	105	284662	1.75	ppb		98
72)	1,3-dichlorobenzene	20.27	146	213660	1.66	ppb		99
73)	benzyl chloride	20.35	91	189653	1.72	ppb		96
74)	1,4-dichlorobenzene	20.41	146	216219	1.64	ppb		98
75)	1,2,3-trimethylbenzene	20.47	105	316833	1.68	ppb		97
76)	1,2-dichlorobenzene	20.78	146	213279	1.63	ppb		100
77)	1,2,4-trichlorobenzene	23.03	180	89096	1.73	ppb		99
78)	Naphthalene	23.25	128	202549	1.85	ppb		98
79)	Hexachloro-1,3-butadiene	23.38	225	173103	1.60	ppb		90

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

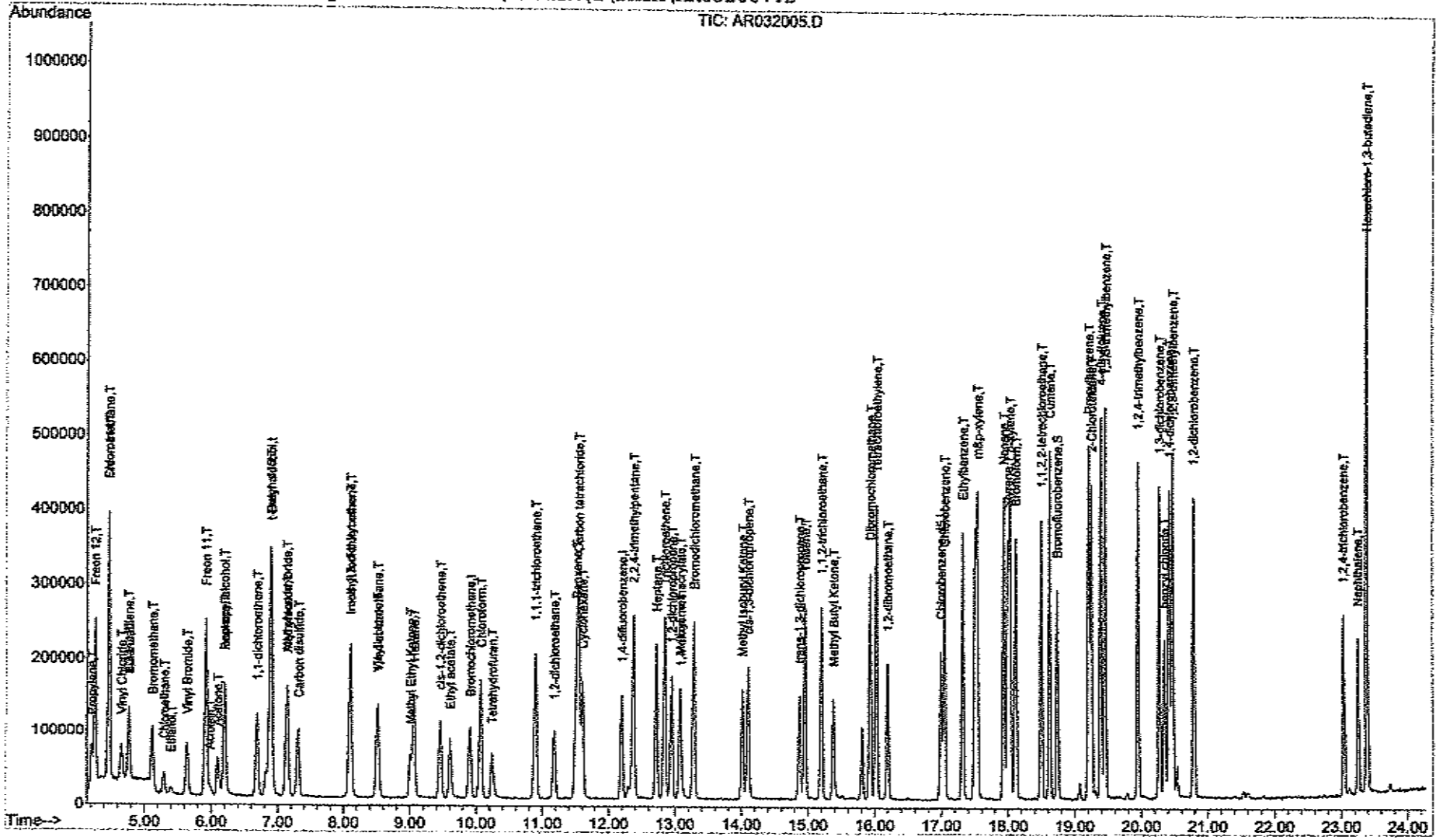
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032005.D
Acq On : 20 Mar 2020 6:53 pm
Sample : A1UG_1.50
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:17 2020

Vial: 5
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032006.D Vial: 6
Acq On : 20 Mar 2020 7:40 pm Operator: RJP
Sample : A1UG_1.25 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:01:38 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	40069	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	149361	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	136800	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.73	95	109138	1.03	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 103.00%				
Target Compounds							Qvalue
2) Propylene	4.22	41	36688	1.29	ppb		92
3) Freon 12	4.26	85	226564	1.25	ppb		99
4) Chloromethane	4.46	50	46548	1.18	ppb		100
5) Freon 114	4.46	85	173855	1.23	ppb		96
6) Vinyl Chloride	4.66	62	45738	1.28	ppb		99
7) Butane	4.77	43	46727	1.16	ppb		94
8) 1,3-butadiene	4.76	39	38390m	1.23	ppb		
9) Bromomethane	5.12	94	67792m	1.22	ppb		
10) Chloroethane	5.29	64	28195	1.20	ppb		97
11) Ethanol	5.40	45	13384	1.39	ppb		97
12) Acrolein	5.99	56	14402	1.21	ppb		99
13) Vinyl Bromide	5.63	106	57057	1.29	ppb		99
14) Freon 11	5.92	101	238301	1.26	ppb		99
15) Acetone	6.09	58	27792	1.28	ppb	#	100
16) Pentane	6.21	42	50815	1.33	ppb		98
17) Isopropyl alcohol	6.20	45	66789	1.37	ppb	#	79
18) 1,1-dichloroethene	6.69	96	53144	1.28	ppb		96
19) Freon 113	6.89	101	139512	1.25	ppb		96
20) t-Butyl alcohol	6.91	59	77572	1.32	ppb	#	86
21) Methylene chloride	7.15	84	55779	1.25	ppb		98
22) Allyl chloride	7.13	41	52302	1.25	ppb		93
23) Carbon disulfide	7.31	76	169342	1.25	ppb		100
24) trans-1,2-dichloroethene	8.09	61	77212	1.25	ppb		99
25) methyl tert-butyl ether	8.11	73	117428	1.28	ppb		93
26) 1,1-dichloroethane	8.52	63	106220	1.26	ppb		99
27) Vinyl acetate	8.51	43	74403	1.31	ppb		99
28) Methyl Ethyl Ketone	9.01	72	23296	1.28	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	69084	1.23	ppb		97
30) Hexane	9.06	57	72312	1.27	ppb		98
31) Ethyl acetate	9.61	43	108204	1.27	ppb		99
32) Chloroform	10.07	83	150181	1.25	ppb		98
33) Tetrahydrofuran	10.24	42	37916	1.25	ppb		94
34) 1,2-dichloroethane	11.18	62	96169	1.25	ppb		100
36) 1,1,1-trichloroethane	10.89	97	161347	1.27	ppb		97
37) Cyclohexane	11.60	56	63955	1.33	ppb		93
38) Carbon tetrachloride	11.54	117	189133	1.26	ppb		99
39) Benzene	11.51	78	162113	1.29	ppb		98
40) Methyl methacrylate	13.07	41	57275	1.33	ppb		97
41) 1,4-dioxane	13.08	88	38357	1.33	ppb		95
42) 2,2,4-trimethylpentane	12.36	57	211406	1.32	ppb		99
43) Heptane	12.71	43	69602	1.32	ppb		97
44) Trichloroethene	12.83	130	86225	1.31	ppb		98
45) 1,2-dichloropropane	12.94	63	60286	1.26	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032006.D Vial: 6
Acq On : 20 Mar 2020 7:40 pm Operator: RJP
Sample : A1UG_1.25 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:01:38 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Bromodichloromethane	13.28	83	165991	1.28	ppb		98
47)	cis-1,3-dichloropropene	14.10	75	102118	1.27	ppb		98
48)	trans-1,3-dichloropropene	14.87	75	80304	1.25	ppb		98
49)	1,1,2-trichloroethane	15.19	97	81635	1.28	ppb		99
51)	Toluene	14.95	92	110542	1.35	ppb		100
52)	Methyl Isobutyl Ketone	14.01	43	91325	1.29	ppb		97
53)	Dibromochloromethane	15.93	129	169862	1.31	ppb		100
54)	Methyl Butyl Ketone	15.38	43	77978m	1.28	ppb		
55)	1,2-dibromoethane	16.19	107	125123	1.31	ppb		99
56)	Tetrachloroethylene	16.02	164	87108	1.27	ppb		100
57)	Chlorobenzene	17.04	112	165983	1.31	ppb		100
58)	Ethylbenzene	17.32	91	234448	1.33	ppb		99
59)	m&p-xylene	17.53	91	426148	2.69	ppb		97
60)	Nonane	17.93	43	105790	1.35	ppb		98
61)	Styrene	17.99	104	165101	1.33	ppb		98
62)	Bromoform	18.11	173	166940	1.30	ppb		99
63)	o-xylene	18.02	91	244173	1.30	ppb		98
64)	Cumene	18.62	105	270109	1.35	ppb		98
66)	1,1,2,2-tetrachloroethane	18.49	83	177550	1.29	ppb		100
67)	Propylbenzene	19.21	120	74526	1.39	ppb		88
68)	2-Chlorotoluene	19.24	126	80374	1.30	ppb	#	90
69)	4-ethyltoluene	19.39	105	288577	1.33	ppb		99
70)	1,3,5-trimethylbenzene	19.45	105	269886	1.34	ppb		96
71)	1,2,4-trimethylbenzene	19.94	105	222847	1.37	ppb		98
72)	1,3-dichlorobenzene	20.27	146	174162	1.35	ppb		99
73)	benzyl chloride	20.34	91	149073	1.35	ppb		97
74)	1,4-dichlorobenzene	20.42	146	175618	1.33	ppb		100
75)	1,2,3-trimethylbenzene	20.46	105	256934	1.37	ppb		96
76)	1,2-dichlorobenzene	20.78	146	173606	1.33	ppb		100
77)	1,2,4-trichlorobenzene	23.03	180	71841	1.40	ppb		99
78)	Naphthalene	23.25	128	153952	1.41	ppb		98
79)	Hexachloro-1,3-butadiene	23.38	225	142144	1.31	ppb		90

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

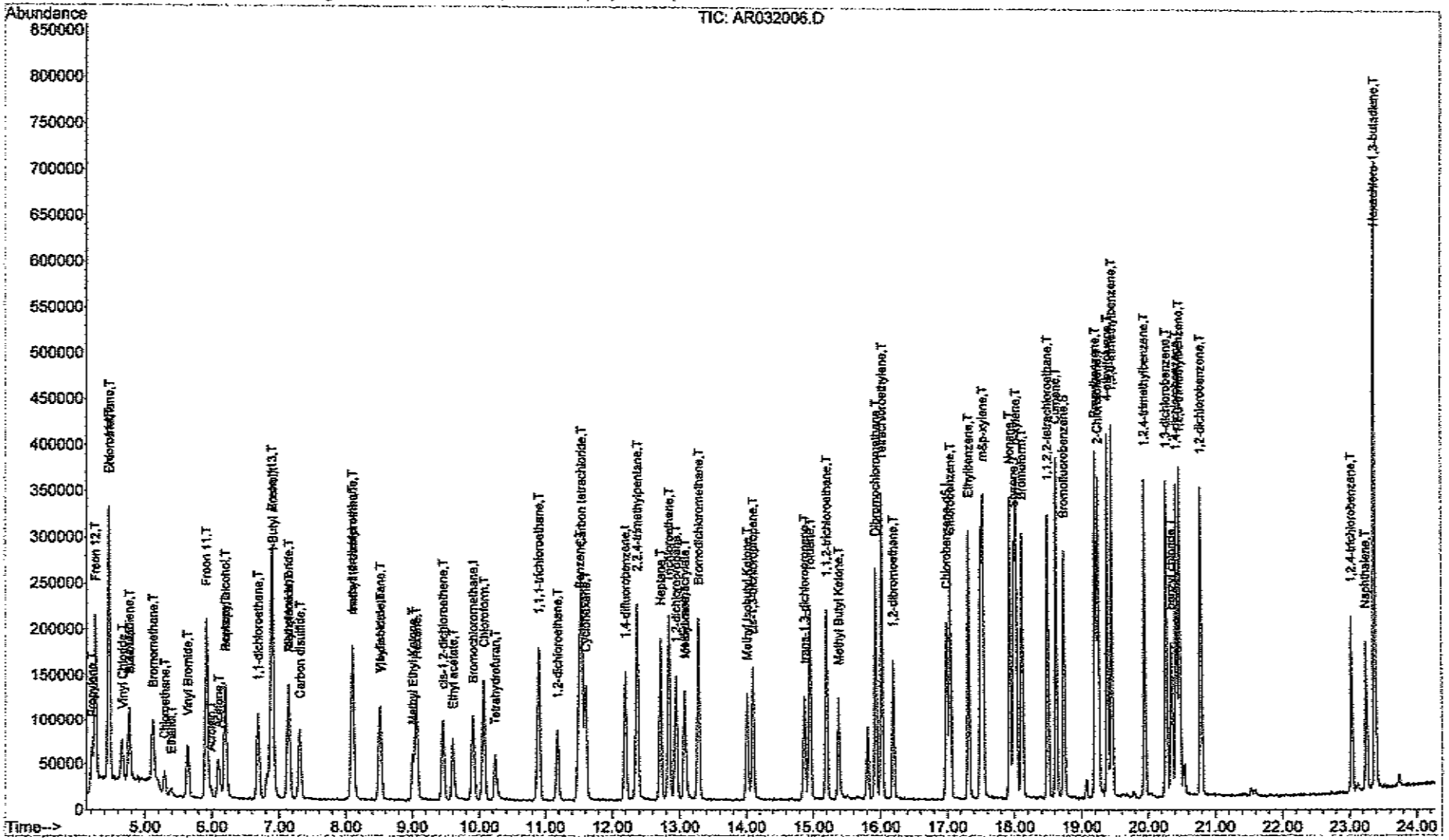
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032006.D
Acq On : 20 Mar 2020 7:40 pm
Sample : A1UG_1.25
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:18 2020

Vial: 6
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032007.D Vial: 7
Acq On : 20 Mar 2020 8:27 pm Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 23 08:18:51 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	39385	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	150208	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	139425	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	108476	1.00	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 100.00%				
Target Compounds							Qvalue
2) Propylene	4.20	41	28020	1.00	ppb		86
3) Freon 12	4.26	85	178133	1.00	ppb		97
4) Chloromethane	4.46	50	38689	1.00	ppb		95
5) Freon 114	4.46	85	138948	1.00	ppb		96
6) Vinyl Chloride	4.66	62	35085	1.00	ppb		96
7) Butane	4.76	43	39423	1.00	ppb		99
8) 1,3-butadiene	4.76	39	30645	1.00	ppb		99
9) Bromomethane	5.12	94	54570	1.00	ppb		99
10) Chloroethane	5.29	64	23130	1.00	ppb		99
11) Ethanol	5.41	45	9466	1.00	ppb		87
12) Acrolein	5.99	56	11702	1.00	ppb		91
13) Vinyl Bromide	5.64	106	43325	1.00	ppb		100
14) Freon 11	5.92	101	186619	1.00	ppb		98
15) Acetone	6.10	58	21406	1.00	ppb	#	100
16) Pentane	6.20	42	37679	1.00	ppb		92
17) Isopropyl alcohol	6.20	45	48078	1.00	ppb	#	62
18) 1,1-dichloroethene	6.69	96	40749	1.00	ppb		96
19) Freon 113	6.89	101	109404	1.00	ppb		95
20) t-Butyl alcohol	6.90	59	57875	1.00	ppb	#	84
21) Methylene chloride	7.15	84	43823	1.00	ppb		99
22) Allyl chloride	7.13	41	41261	1.00	ppb		94
23) Carbon disulfide	7.31	76	133056	1.00	ppb		98
24) trans-1,2-dichloroethene	8.09	61	60598	1.00	ppb		99
25) methyl tert-butyl ether	8.10	73	90331	1.00	ppb		91
26) 1,1-dichloroethane	8.51	63	82613	1.00	ppb		98
27) Vinyl acetate	8.50	43	56025	1.00	ppb		97
28) Methyl Ethyl Ketone	9.00	72	17886	1.00	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	55221	1.00	ppb		97
30) Hexane	9.05	57	55850	1.00	ppb		99
31) Ethyl acetate	9.60	43	83531	1.00	ppb		99
32) Chloroform	10.06	83	117697	1.00	ppb		99
33) Tetrahydrofuran	10.24	42	29935	1.00	ppb		96
34) 1,2-dichloroethane	11.17	62	75778	1.00	ppb		97
36) 1,1,1-trichloroethane	10.89	97	127932	1.00	ppb		98
37) Cyclohexane	11.60	56	48339	1.00	ppb		91
38) Carbon tetrachloride	11.53	117	151246	1.00	ppb		99
39) Benzene	11.51	78	126207	1.00	ppb		98
40) Methyl methacrylate	13.07	41	43312	1.00	ppb		96
41) 1,4-dioxane	13.09	88	29116	1.00	ppb		94
42) 2,2,4-trimethylpentane	12.36	57	161481	1.00	ppb		99
43) Heptane	12.71	43	52936	1.00	ppb		96
44) Trichloroethene	12.84	130	66157	1.00	ppb		96
45) 1,2-dichloropropane	12.95	63	48250	1.00	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032007.D
Acq On : 20 Mar 2020 8:27 pm
Sample : A1UG_1.0
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 08:18:51 2020

Vial: 7
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

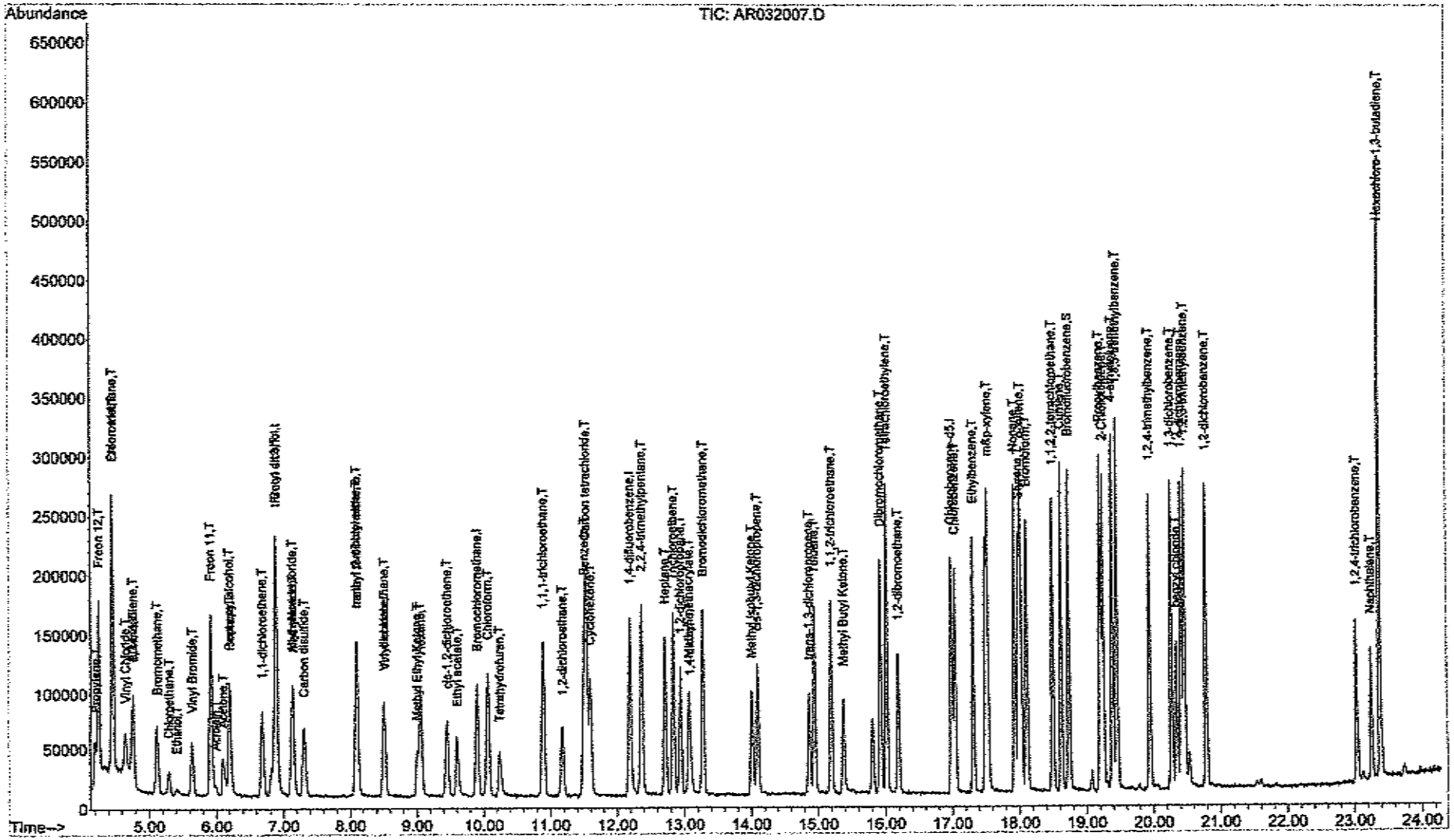
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Bromodichloromethane	13.28	83	130032	1.00	ppb	99
47)	cis-1,3-dichloropropene	14.09	75	80679	1.00	ppb	99
48)	trans-1,3-dichloropropene	14.87	75	64500	1.00	ppb	99
49)	1,1,2-trichloroethane	15.19	97	64260	1.00	ppb	100
51)	Toluene	14.95	92	83335	1.00	ppb	97
52)	Methyl Isobutyl Ketone	14.01	43	72126	1.00	ppb	99
53)	Dibromochloromethane	15.92	129	132406	1.00	ppb	100
54)	Methyl Butyl Ketone	15.37	43	62690m	1.01	ppb	
55)	1,2-dibromoethane	16.19	107	97298	1.00	ppb	98
56)	Tetrachloroethylene	16.02	164	69754	1.00	ppb	100
57)	Chlorobenzene	17.04	112	128754	1.00	ppb	100
58)	Ethylbenzene	17.32	91	179355	1.00	ppb	98
59)	m&p-xylene	17.53	91	323022	2.00	ppb	98
60)	Nonane	17.93	43	79661	1.00	ppb	98
61)	Styrene	17.99	104	126976	1.00	ppb	98
62)	Bromoform	18.11	173	130806	1.00	ppb	99
63)	o-xylene	18.02	91	191832	1.00	ppb	98
64)	Cumene	18.62	105	203504	1.00	ppb	98
66)	1,1,2,2-tetrachloroethane	18.49	83	139822	1.00	ppb	99
67)	Propylbenzene	19.20	120	54834	1.00	ppb	82
68)	2-Chlorotoluene	19.24	126	63097	1.00	ppb	97
69)	4-ethyltoluene	19.38	105	221398	1.00	ppb	98
70)	1,3,5-trimethylbenzene	19.45	105	206004	1.00	ppb	97
71)	1,2,4-trimethylbenzene	19.94	105	165671	1.00	ppb	100
72)	1,3-dichlorobenzene	20.27	146	131078	1.00	ppb	98
73)	benzyl chloride	20.34	91	112282	1.00	ppb	96
74)	1,4-dichlorobenzene	20.42	146	134355	1.00	ppb	99
75)	1,2,3-trimethylbenzene	20.47	105	191514	1.00	ppb	96
76)	1,2-dichlorobenzene	20.78	146	133535	1.00	ppb	99
77)	1,2,4-trichlorobenzene	23.03	180	52335	1.00	ppb	99
78)	Naphthalene	23.25	128	111570	1.00	ppb	98
79)	Hexachloro-1,3-butadiene	23.38	225	110260	1.00	ppb	89

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032007.D Vial: 7
Acq On : 20 Mar 2020 8:27 pm Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:19 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



AR032007.D A320_1UG.M Fri Apr 10 08:26:53 2020 MSD1 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032008.D
Acq On : 20 Mar 2020 9:12 pm
Sample : A1UG_0.75
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:03:30 2020

Vial: 8
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	39846	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	149207	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	135074	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.73	95	103881	0.99	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 99.00%				
Target Compounds							Qvalue
2) Propylene	4.22	41	21270	0.75	ppb		88
3) Freon 12	4.26	85	133030	0.74	ppb		99
4) Chloromethane	4.46	50	28949	0.74	ppb		99
5) Freon 114	4.47	85	102469	0.73	ppb		97
6) Vinyl Chloride	4.66	62	26993	0.76	ppb		100
7) Butane	4.77	43	28687m	0.72	ppb		
8) 1,3-butadiene	4.77	39	21824	0.70	ppb		92
9) Bromomethane	5.13	94	40827	0.74	ppb		99
10) Chloroethane	5.30	64	17340	0.74	ppb		99
11) Ethanol	5.43	45	6913	0.72	ppb		92
12) Acrolein	5.99	56	8768m	0.74	ppb		
13) Vinyl Bromide	5.64	106	33072	0.75	ppb		98
14) Freon 11	5.92	101	140246	0.74	ppb		98
15) Acetone	6.10	58	16422	0.76	ppb	#	100
16) Pentane	6.20	42	29353	0.77	ppb		99
17) Isopropyl alcohol	6.21	45	34469	0.71	ppb	#	57
18) 1,1-dichloroethene	6.69	96	30935	0.75	ppb		95
19) Freon 113	6.89	101	82713	0.75	ppb		95
20) t-Butyl alcohol	6.91	59	41313	0.71	ppb	#	84
21) Methylene chloride	7.15	84	34233	0.77	ppb		97
22) Allyl chloride	7.13	41	29921	0.72	ppb		94
23) Carbon disulfide	7.31	76	102843	0.76	ppb		99
24) trans-1,2-dichloroethene	8.09	61	44309	0.72	ppb		98
25) methyl tert-butyl ether	8.11	73	64798	0.71	ppb		89
26) 1,1-dichloroethane	8.52	63	61212	0.73	ppb		98
27) Vinyl acetate	8.50	43	42147	0.74	ppb		99
28) Methyl Ethyl Ketone	9.01	72	12813	0.71	ppb	#	100
29) cis-1,2-dichloroethene	9.45	61	40824	0.73	ppb		97
30) Hexane	9.06	57	35151	0.62	ppb		90
31) Ethyl acetate	9.60	43	60833	0.72	ppb		100
32) Chloroform	10.07	83	88797	0.75	ppb		97
33) Tetrahydrofuran	10.24	42	20581	0.68	ppb		92
34) 1,2-dichloroethane	11.18	62	56660	0.74	ppb		99
36) 1,1,1-trichloroethane	10.89	97	93006	0.73	ppb		99
37) Cyclohexane	11.60	56	34740	0.72	ppb		92
38) Carbon tetrachloride	11.54	117	111289	0.74	ppb		98
39) Benzene	11.51	78	90221	0.72	ppb		99
40) Methyl methacrylate	13.06	41	31418m	0.73	ppb		
41) 1,4-dioxane	13.09	88	20637	0.71	ppb		95
42) 2,2,4-trimethylpentane	12.36	57	118167	0.74	ppb		98
43) Heptane	12.71	43	38584	0.73	ppb		97
44) Trichloroethene	12.84	130	49299	0.75	ppb		97
45) 1,2-dichloropropane	12.94	63	35428	0.74	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032008.D
Acq On : 20 Mar 2020 9:12 pm
Sample : A1UG_0.75
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:03:30 2020

Vial: 8
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
46) Bromodichloromethane	13.28	83	96735	0.75 ppb	98
47) cis-1,3-dichloropropene	14.10	75	57127	0.71 ppb	99
48) trans-1,3-dichloropropene	14.87	75	45724	0.71 ppb	98
49) 1,1,2-trichloroethane	15.19	97	47702	0.75 ppb	99
51) Toluene	14.95	92	60216	0.75 ppb	99
52) Methyl Isobutyl Ketone	14.01	43	50280	0.72 ppb	100
53) Dibromochloromethane	15.93	129	97935	0.76 ppb	100
54) Methyl Butyl Ketone	15.38	43	44182	0.74 ppb	100
55) 1,2-dibromoethane	16.19	107	70639	0.75 ppb	97
56) Tetrachloroethylene	16.02	164	49857	0.74 ppb	96
57) Chlorobenzene	17.04	112	93885	0.75 ppb	100
58) Ethylbenzene	17.32	91	127253	0.73 ppb	97
59) m&p-xylene	17.53	91	222943	1.43 ppb	98
60) Nonane	17.93	43	55681	0.72 ppb	98
61) Styrene	17.99	104	86543	0.70 ppb	97
62) Bromoform	18.11	173	95734	0.76 ppb	99
63) o-xylene	18.02	91	133203	0.72 ppb	98
64) Cumene	18.62	105	137453	0.70 ppb	99
66) 1,1,2,2-tetrachloroethane	18.50	83	100137	0.74 ppb	99
67) Propylbenzene	19.20	120	37247	0.70 ppb	80
68) 2-Chlorotoluene	19.25	126	43807	0.72 ppb	99
69) 4-ethyltoluene	19.39	105	144090	0.67 ppb	98
70) 1,3,5-trimethylbenzene	19.45	105	142070	0.71 ppb	97
71) 1,2,4-trimethylbenzene	19.94	105	107830	0.67 ppb	99
72) 1,3-dichlorobenzene	20.26	146	83274	0.66 ppb	99
73) benzyl chloride	20.34	91	78082m	0.72 ppb	
74) 1,4-dichlorobenzene	20.42	146	76103	0.58 ppb	100
75) 1,2,3-trimethylbenzene	20.46	105	124155	0.67 ppb	98
76) 1,2-dichlorobenzene	20.79	146	85228	0.66 ppb	97
77) 1,2,4-trichlorobenzene	23.03	180	31802	0.63 ppb	95
78) Naphthalene	23.25	128	66931	0.62 ppb	98
79) Hexachloro-1,3-butadiene	23.38	225	80059	0.75 ppb	91

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

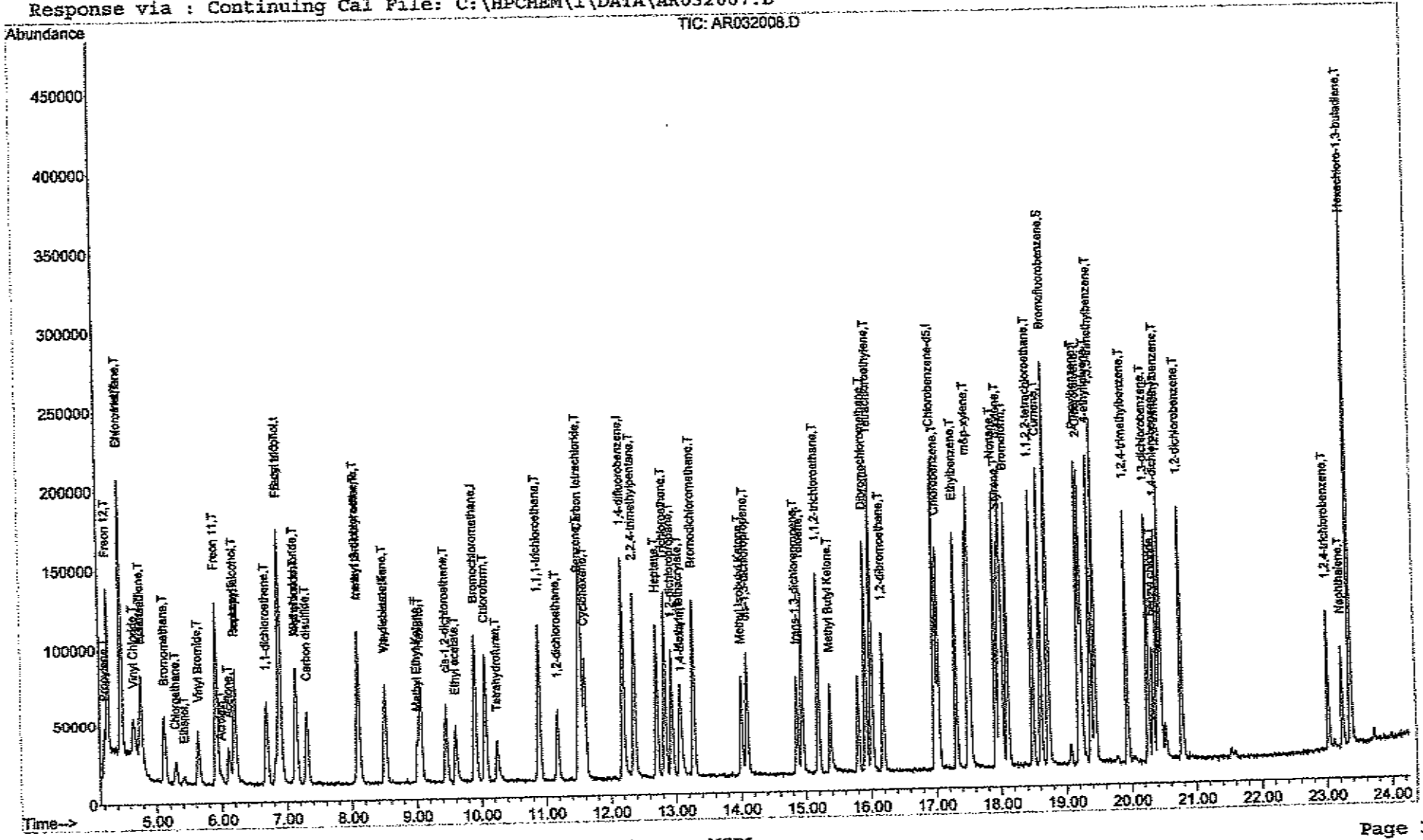
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032008.D
Acq On : 20 Mar 2020 9:12 pm
Sample : A1UG_0.75
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:20 2020

Vial: 8
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



AR032008.D A320_1UG.M Fri Apr 10 08:26:57 2020 MSD1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032009.D Vial: 9
Acq On : 20 Mar 2020 9:57 pm Operator: RJP
Sample : A1UG_0.50 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:04:31 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	40026	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	145805	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	132358	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	93983	0.91	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 91.00%				
Target Compounds							Qvalue
2) Propylene	4.22	41	13574	0.48	ppb		81
3) Freon 12	4.26	85	87384	0.48	ppb		98
4) Chloromethane	4.46	50	18957	0.48	ppb		94
5) Freon 114	4.46	85	67736	0.48	ppb		97
6) Vinyl Chloride	4.66	62	18699	0.52	ppb		98
7) Butane	4.77	43	18443	0.46	ppb		97
8) 1,3-butadiene	4.76	39	15683	0.50	ppb		90
9) Bromomethane	5.11	94	25830	0.47	ppb		99
10) Chloroethane	5.29	64	11710	0.50	ppb		99
11) Ethanol	5.41	45	4623	0.48	ppb		81
12) Acrolein	5.99	56	5706	0.48	ppb		95
13) Vinyl Bromide	5.64	106	21830	0.50	ppb		99
14) Freon 11	5.92	101	92642	0.49	ppb		99
15) Acetone	6.11	58	10774	0.50	ppb	#	100
16) Pentane	6.19	42	18527	0.48	ppb		95
17) Isopropyl alcohol	6.20	45	24125	0.49	ppb	#	71
18) 1,1-dichloroethene	6.70	96	20480	0.49	ppb		97
19) Freon 113	6.89	101	54757	0.49	ppb		96
20) t-Butyl alcohol	6.91	59	29303	0.50	ppb	#	85
21) Methylene chloride	7.15	84	21675	0.49	ppb		97
22) Allyl chloride	7.13	41	18321	0.44	ppb		91
23) Carbon disulfide	7.31	76	67675	0.50	ppb		99
24) trans-1,2-dichloroethene	8.09	61	29564	0.48	ppb		99
25) methyl tert-butyl ether	8.11	73	41072	0.45	ppb		88
26) 1,1-dichloroethane	8.51	63	41874	0.50	ppb		95
27) Vinyl acetate	8.50	43	26281	0.46	ppb		94
28) Methyl Ethyl Ketone	9.01	72	8125	0.45	ppb	#	100
29) cis-1,2-dichloroethene	9.45	61	26421	0.47	ppb		97
30) Hexane	9.06	57	23933	0.42	ppb		95
31) Ethyl acetate	9.60	43	37930	0.45	ppb		100
32) Chloroform	10.06	83	57191	0.48	ppb		99
33) Tetrahydrofuran	10.25	42	14155	0.47	ppb		94
34) 1,2-dichloroethane	11.18	62	36897	0.48	ppb		99
36) 1,1,1-trichloroethane	10.90	97	61413	0.49	ppb		100
37) Cyclohexane	11.60	56	21164	0.45	ppb	#	88
38) Carbon tetrachloride	11.54	117	73090	0.50	ppb		98
39) Benzene	11.51	78	57956	0.47	ppb		99
40) Methyl methacrylate	13.07	41	19376	0.46	ppb		99
41) 1,4-dioxane	13.10	88	12485	0.44	ppb		99
42) 2,2,4-trimethylpentane	12.37	57	72508	0.46	ppb		96
43) Heptane	12.71	43	22502	0.44	ppb		94
44) Trichloroethene	12.83	130	32106	0.50	ppb		97
45) 1,2-dichloropropane	12.94	63	23078	0.49	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032009.D
Acq On : 20 Mar 2020 9:57 pm
Sample : A1UG_0.50
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:04:31 2020

Vial: 9
Operator: RJP
Inst : MSD #1
Multiplr: 1.00
Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Bromodichloromethane	13.28	83	63720	0.50	ppb	100
47)	cis-1,3-dichloropropene	14.10	75	35706	0.46	ppb	98
48)	trans-1,3-dichloropropene	14.87	75	27684	0.44	ppb	98
49)	1,1,2-trichloroethane	15.19	97	30288	0.49	ppb	100
51)	Toluene	14.95	92	35222	0.45	ppb	97
52)	Methyl Isobutyl Ketone	14.01	43	31501	0.46	ppb	99
53)	Dibromochloromethane	15.93	129	62885	0.50	ppb	99
54)	Methyl Butyl Ketone	15.38	43	25588	0.43	ppb	97
55)	1,2-dibromoethane	16.19	107	45451	0.49	ppb	99
56)	Tetrachloroethylene	16.02	164	32947	0.50	ppb	100
57)	Chlorobenzene	17.04	112	59388	0.49	ppb	98
58)	Ethylbenzene	17.31	91	75509	0.44	ppb	97
59)	m&p-xylene	17.53	91	126099	0.82	ppb	98
60)	Nonane	17.93	43	30966	0.41	ppb	96
61)	Styrene	17.99	104	49364	0.41	ppb	98
62)	Bromoform	18.11	173	58465	0.47	ppb	99
63)	o-xylene	18.02	91	79820	0.44	ppb	99
64)	Cumene	18.62	105	79388	0.41	ppb	98
66)	1,1,2,2-tetrachloroethane	18.49	83	63824	0.48	ppb	100
67)	Propylbenzene	19.21	120	21037	0.40	ppb	78
68)	2-Chlorotoluene	19.25	126	25121	0.42	ppb	99
69)	4-ethyltoluene	19.39	105	78806	0.38	ppb	100
70)	1,3,5-trimethylbenzene	19.45	105	81192	0.42	ppb	98
71)	1,2,4-trimethylbenzene	19.94	105	63034	0.40	ppb	98
72)	1,3-dichlorobenzene	20.27	146	47045	0.38	ppb	96
73)	benzyl chloride	20.34	91	36997m	0.35	ppb	
74)	1,4-dichlorobenzene	20.42	146	43903	0.34	ppb	98
75)	1,2,3-trimethylbenzene	20.47	105	68793	0.38	ppb	97
76)	1,2-dichlorobenzene	20.78	146	52280	0.41	ppb	99
77)	1,2,4-trichlorobenzene	23.03	180	20263	0.41	ppb	99
78)	Naphthalene	23.24	128	37771	0.36	ppb	97
79)	Hexachloro-1,3-butadiene	23.38	225	49268	0.47	ppb	90

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

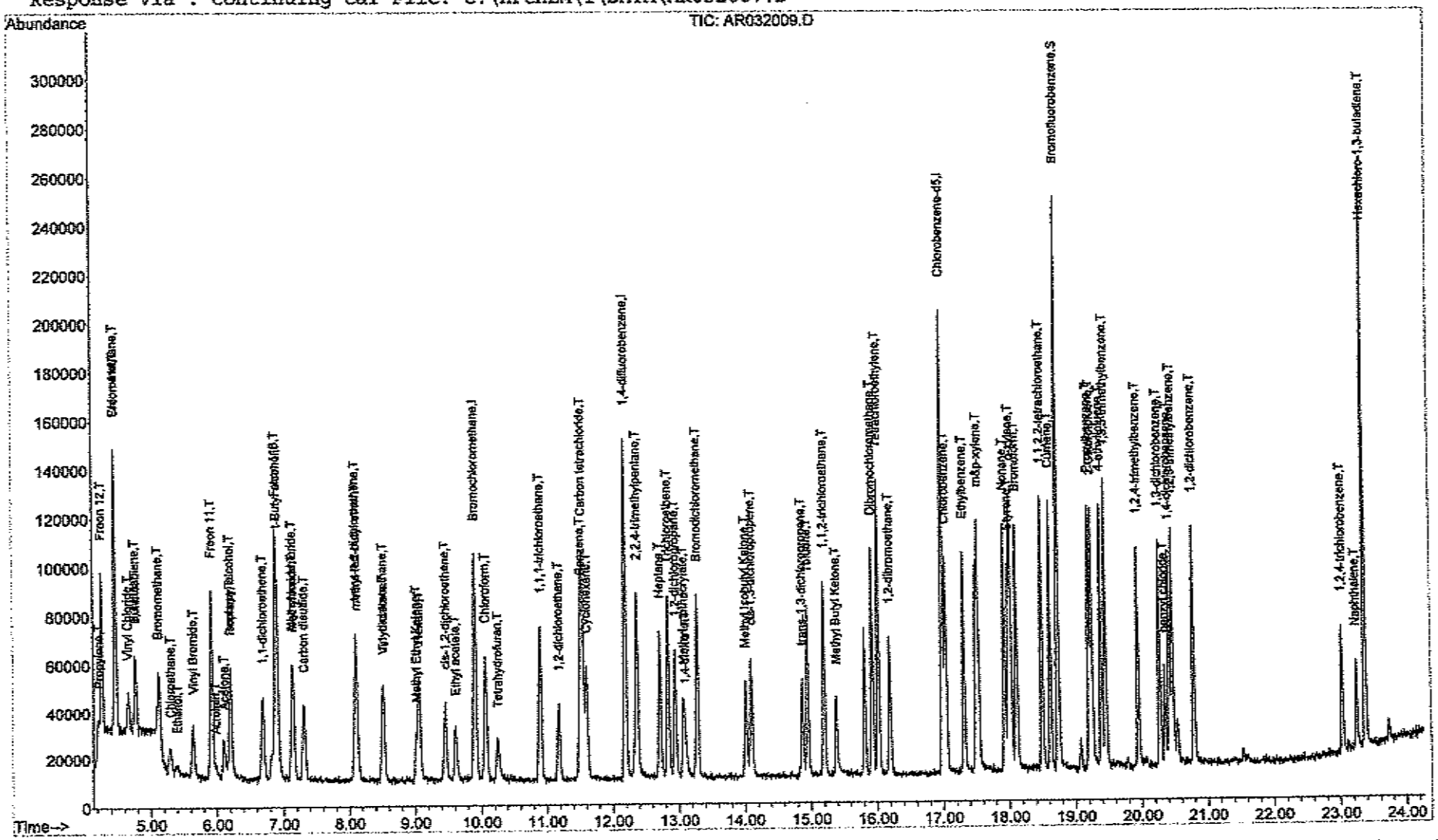
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032009.D
Acq On : 20 Mar 2020 9:57 pm
Sample : A1UG_0.50
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:21 2020

Vial: 9
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



AR032009.D A320_1UG.M Fri Apr 10 08:27:01 2020 MSD1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032010.D Vial: 10
Acq On : 20 Mar 2020 10:41 pm Operator: RJP
Sample : A1UG_0.30 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:05:03 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	39159	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	139239	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	126520	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.73	95	87825	0.89	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 89.00%				
Target Compounds							Qvalue
2) Propylene	4.21	41	8619	0.31	ppb		75
3) Freon 12	4.26	85	51536	0.29	ppb		100
4) Chloromethane	4.47	50	10933	0.28	ppb		99
5) Freon 114	4.46	85	40201	0.29	ppb		97
6) Vinyl Chloride	4.66	62	10889	0.31	ppb		94
7) Butane	4.76	43	11984	0.31	ppb	#	91
8) 1,3-butadiene	4.76	39	11354	0.37	ppb		80
9) Bromomethane	5.12	94	15478	0.29	ppb		98
10) Chloroethane	5.29	64	5390	0.23	ppb	#	82
11) Ethanol	5.38	45	3097m	0.33	ppb		
12) Acrolein	6.00	56	3209	0.28	ppb		93
13) Vinyl Bromide	5.63	106	13340	0.31	ppb		93
14) Freon 11	5.92	101	54899	0.30	ppb		100
15) Acetone	6.10	58	6055	0.28	ppb	#	100
16) Pentane	6.20	42	11255	0.30	ppb		98
17) Isopropyl alcohol	6.21	45	14441	0.30	ppb	#	71
18) 1,1-dichloroethene	6.69	96	12600	0.31	ppb		96
19) Freon 113	6.88	101	32478	0.30	ppb		94
20) t-Butyl alcohol	6.92	59	15775	0.27	ppb	#	78
21) Methylene chloride	7.14	84	13840	0.32	ppb		97
22) Allyl chloride	7.13	41	11124	0.27	ppb		92
23) Carbon disulfide	7.30	76	42260	0.32	ppb		100
24) trans-1,2-dichloroethene	8.09	61	16591	0.28	ppb		93
25) methyl tert-butyl ether	8.11	73	24616	0.27	ppb		90
26) 1,1-dichloroethane	8.52	63	23460	0.29	ppb		99
27) Vinyl acetate	8.51	43	15306	0.27	ppb		99
28) Methyl Ethyl Ketone	9.01	72	5109	0.29	ppb	#	100
29) cis-1,2-dichloroethene	9.45	61	15194	0.28	ppb		96
30) Hexane	9.06	57	13105	0.24	ppb		91
31) Ethyl acetate	9.61	43	23005	0.28	ppb		98
32) Chloroform	10.07	83	34286	0.29	ppb		97
33) Tetrahydrofuran	10.25	42	7524	0.25	ppb		88
34) 1,2-dichloroethane	11.18	62	22235	0.30	ppb		100
36) 1,1,1-trichloroethane	10.90	97	36236	0.31	ppb		99
37) Cyclohexane	11.60	56	12397	0.28	ppb	#	87
38) Carbon tetrachloride	11.54	117	42968	0.31	ppb		100
39) Benzene	11.51	78	33827	0.29	ppb		98
40) Methyl methacrylate	13.06	41	10279	0.26	ppb		94
41) 1,4-dioxane	13.10	88	6692	0.25	ppb		99
42) 2,2,4-trimethylpentane	12.36	57	41688	0.28	ppb		97
43) Heptane	12.71	43	12348	0.25	ppb		95
44) Trichloroethene	12.83	130	18467	0.30	ppb		98
45) 1,2-dichloropropane	12.94	63	14241	0.32	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032010.D
Acq On : 20 Mar 2020 10:41 pm
Sample : A1UG_0.30
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:05:03 2020

Vial: 10
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46) Bromodichloromethane	13.28	83	36172	0.30	ppb		98
47) cis-1,3-dichloropropene	14.10	75	20161	0.27	ppb		99
48) trans-1,3-dichloropropene	14.87	75	16069	0.27	ppb		91
49) 1,1,2-trichloroethane	15.20	97	17730	0.30	ppb		100
51) Toluene	14.95	92	19449	0.26	ppb		94
52) Methyl Isobutyl Ketone	14.01	43	17760	0.27	ppb		97
53) Dibromochloromethane	15.93	129	37215	0.31	ppb		99
54) Methyl Butyl Ketone	15.38	43	14109	0.25	ppb		99
55) 1,2-dibromoethane	16.19	107	26800	0.30	ppb		95
56) Tetrachloroethylene	16.02	164	18359	0.29	ppb		98
57) Chlorobenzene	17.04	112	34979	0.30	ppb		100
58) Ethylbenzene	17.31	91	40520	0.25	ppb		98
59) m&p-xylene	17.53	91	65980	0.45	ppb		95
60) Nonane	17.92	43	17135m	0.24	ppb		
61) Styrene	17.99	104	26611m	0.23	ppb		
62) Bromoform	18.11	173	34697	0.29	ppb		100
63) o-xylene	18.02	91	41036	0.24	ppb		98
64) Cumene	18.62	105	43867	0.24	ppb		98
66) 1,1,2,2-tetrachloroethane	18.49	83	38665	0.30	ppb		100
67) Propylbenzene	19.20	120	11801	0.24	ppb		86
68) 2-Chlorotoluene	19.24	126	13901	0.24	ppb	#	94
69) 4-ethyltoluene	19.39	105	47038m	0.23	ppb		
70) 1,3,5-trimethylbenzene	19.45	105	44211m	0.24	ppb		
71) 1,2,4-trimethylbenzene	19.94	105	33587	0.22	ppb		99
72) 1,3-dichlorobenzene	20.27	146	31234	0.26	ppb		98
73) benzyl chloride	20.34	91	25032	0.25	ppb		99
74) 1,4-dichlorobenzene	20.41	146	29035	0.24	ppb		97
75) 1,2,3-trimethylbenzene	20.46	105	36588	0.21	ppb		93
76) 1,2-dichlorobenzene	20.79	146	31292	0.26	ppb		97
77) 1,2,4-trichlorobenzene	23.04	180	11014	0.23	ppb		96
78) Naphthalene	23.25	128	22964m	0.23	ppb		
79) Hexachloro-1,3-butadiene	23.38	225	28231	0.28	ppb		90

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

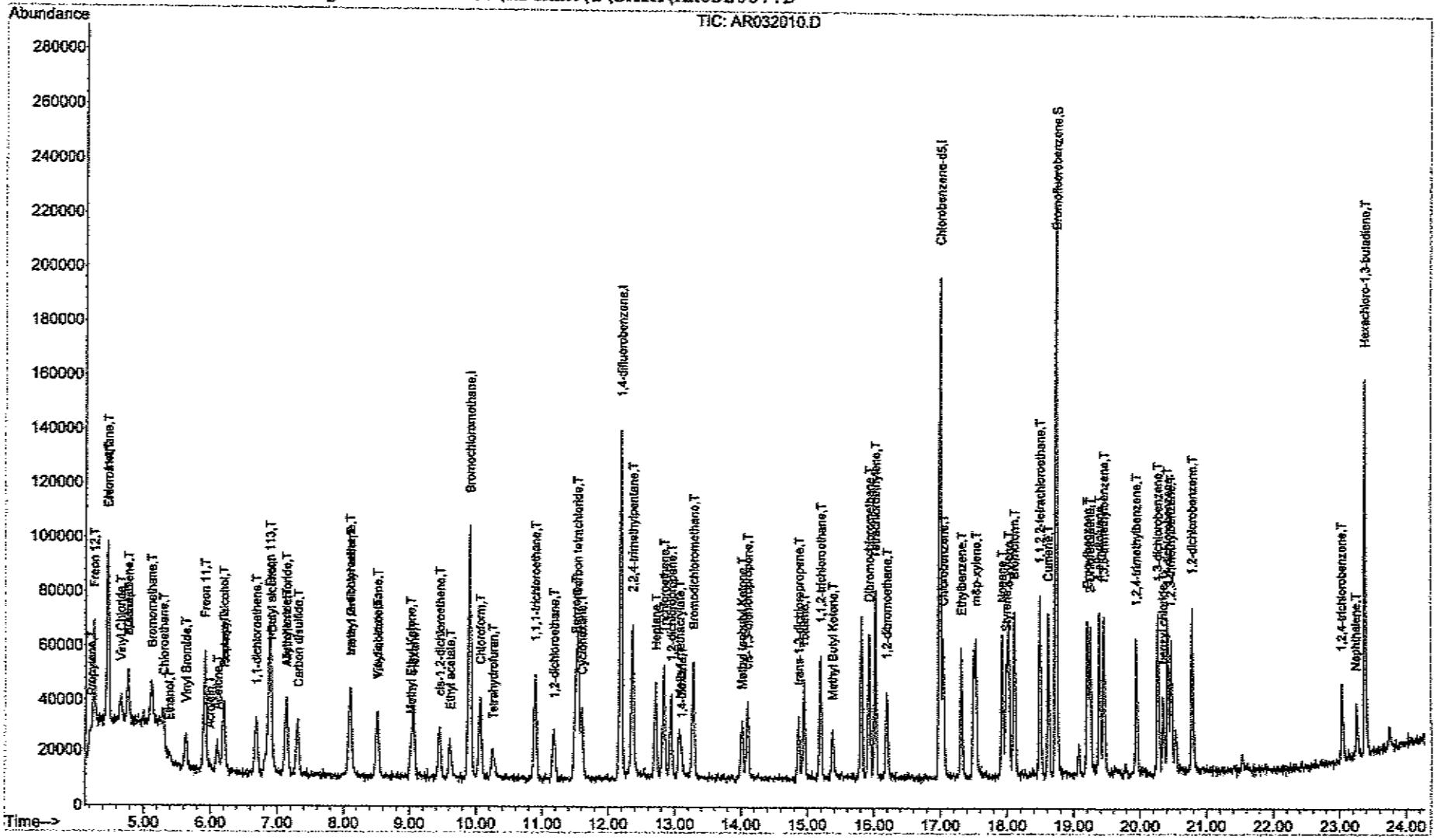
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032010.D
Acq On : 20 Mar 2020 10:41 pm
Sample : A1UG_0.30
Misc : A311_1UG
MS Integration Params: RTEINT.p
Quant Time: Mar 23 8:22 2020

Vial: 10
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032011.D Vial: 11
Acq On : 20 Mar 2020 11:26 pm Operator: RJP
Sample : A1UG_0.15 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:05:32 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	38653	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	134135	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	119607	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.73	95	79846	0.86	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 86.00%				
Target Compounds							Qvalue
2) Propylene	4.22	41	4704	0.17	ppb		89
3) Freon 12	4.26	85	25328	0.14	ppb		100
4) Chloromethane	4.47	50	6382	0.17	ppb		95
5) Freon 114	4.46	85	19691	0.14	ppb		92
6) Vinyl Chloride	4.67	62	5423	0.16	ppb		93
7) Butane	4.76	43	5908m	0.15	ppb		
8) 1,3-butadiene	4.77	39	4960	0.16	ppb		86
9) Bromomethane	5.13	94	7952	0.15	ppb		95
10) Chloroethane	5.29	64	3103	0.14	ppb	#	88
11) Ethanol	5.41	45	1868m	0.20	ppb		
12) Acrolein	5.98	56	1549	0.13	ppb		98
13) Vinyl Bromide	5.63	106	6614	0.16	ppb		96
14) Freon 11	5.92	101	25894	0.14	ppb		97
15) Acetone	6.11	58	3214	0.15	ppb	#	100
16) Pentane	6.19	42	6031	0.16	ppb		90
17) Isopropyl alcohol	6.21	45	8162	0.17	ppb	#	72
18) 1,1-dichloroethene	6.69	96	5688	0.14	ppb		93
19) Freon 113	6.89	101	15166	0.14	ppb		98
20) t-Butyl alcohol	6.93	59	7875	0.14	ppb	#	73
21) Methylene chloride	7.14	84	7487	0.17	ppb		98
22) Allyl chloride	7.13	41	5276	0.13	ppb		94
23) Carbon disulfide	7.30	76	23927	0.18	ppb		99
24) trans-1,2-dichloroethene	8.09	61	8090	0.14	ppb		95
25) methyl tert-butyl ether	8.12	73	11455	0.13	ppb		88
26) 1,1-dichloroethane	8.52	63	11324	0.14	ppb		98
27) Vinyl acetate	8.51	43	7892m	0.14	ppb		
28) Methyl Ethyl Ketone	9.02	72	3163m	0.18	ppb		
29) cis-1,2-dichloroethene	9.45	61	7278	0.13	ppb		96
30) Hexane	9.05	57	6298	0.11	ppb		94
31) Ethyl acetate	9.61	43	11823m	0.14	ppb		
32) Chloroform	10.06	83	16370	0.14	ppb		98
33) Tetrahydrofuran	10.26	42	4166	0.14	ppb		98
34) 1,2-dichloroethane	11.19	62	10614	0.14	ppb		98
36) 1,1,1-trichloroethane	10.89	97	16657	0.15	ppb		97
37) Cyclohexane	11.60	56	5264	0.12	ppb	#	80
38) Carbon tetrachloride	11.54	117	20421	0.15	ppb		99
39) Benzene	11.50	78	15385	0.14	ppb		97
40) Methyl methacrylate	13.07	41	5999m	0.16	ppb		
41) 1,4-dioxane	13.10	88	3098	0.12	ppb		94
42) 2,2,4-trimethylpentane	12.37	57	19021	0.13	ppb		95
43) Heptane	12.71	43	5364	0.11	ppb		89
44) Trichloroethene	12.83	130	8308	0.14	ppb		98
45) 1,2-dichloropropane	12.94	63	6383	0.15	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032011.D Vial: 11
Acq On : 20 Mar 2020 11:26 pm Operator: RJP
Sample : A1UG_0.15 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:05:32 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Bromodichloromethane	13.28	83	17263	0.15	ppb		99
47)	cis-1,3-dichloropropene	14.09	75	8509	0.12	ppb		94
48)	trans-1,3-dichloropropene	14.87	75	7339	0.13	ppb		96
49)	1,1,2-trichloroethane	15.20	97	7718	0.13	ppb		96
51)	Toluene	14.95	92	8438	0.12	ppb		97
52)	Methyl Isobutyl Ketone	14.01	43	9937m	0.16	ppb		
53)	Dibromochloromethane	15.93	129	17097	0.15	ppb		98
54)	Methyl Butyl Ketone	15.38	43	8752m	0.16	ppb		
55)	1,2-dibromoethane	16.19	107	11902	0.14	ppb		95
56)	Tetrachloroethylene	16.02	164	8608	0.14	ppb		100
57)	Chlorobenzene	17.04	112	15528	0.14	ppb		99
58)	Ethylbenzene	17.31	91	17625	0.11	ppb		100
59)	m&p-xylene	17.53	91	27606	0.20	ppb		97
60)	Nonane	17.92	43	8899m	0.13	ppb		
61)	Styrene	17.99	104	11530m	0.11	ppb		
62)	Bromoform	18.11	173	15598	0.14	ppb		100
63)	o-xylene	18.02	91	20589m	0.13	ppb		
64)	Cumene	18.62	105	19538m	0.11	ppb		
66)	1,1,2,2-tetrachloroethane	18.50	83	17666	0.15	ppb		99
67)	Propylbenzene	19.20	120	4761	0.10	ppb		75
68)	2-Chlorotoluene	19.25	126	5652	0.10	ppb	#	1
69)	4-ethyltoluene	19.38	105	20376m	0.11	ppb		
70)	1,3,5-trimethylbenzene	19.45	105	17990m	0.10	ppb		
71)	1,2,4-trimethylbenzene	19.94	105	16231m	0.11	ppb		
72)	1,3-dichlorobenzene	20.27	146	12537	0.11	ppb		96
73)	benzyl chloride	20.34	91	14661m	0.15	ppb		
74)	1,4-dichlorobenzene	20.41	146	11592	0.10	ppb		96
75)	1,2,3-trimethylbenzene	20.47	105	17613m	0.11	ppb		
76)	1,2-dichlorobenzene	20.78	146	12537	0.11	ppb		100
77)	1,2,4-trichlorobenzene	23.03	180	5593m	0.12	ppb		
78)	Naphthalene	23.25	128	11436m	0.12	ppb		
79)	Hexachloro-1,3-butadiene	23.38	225	13297	0.14	ppb		89

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

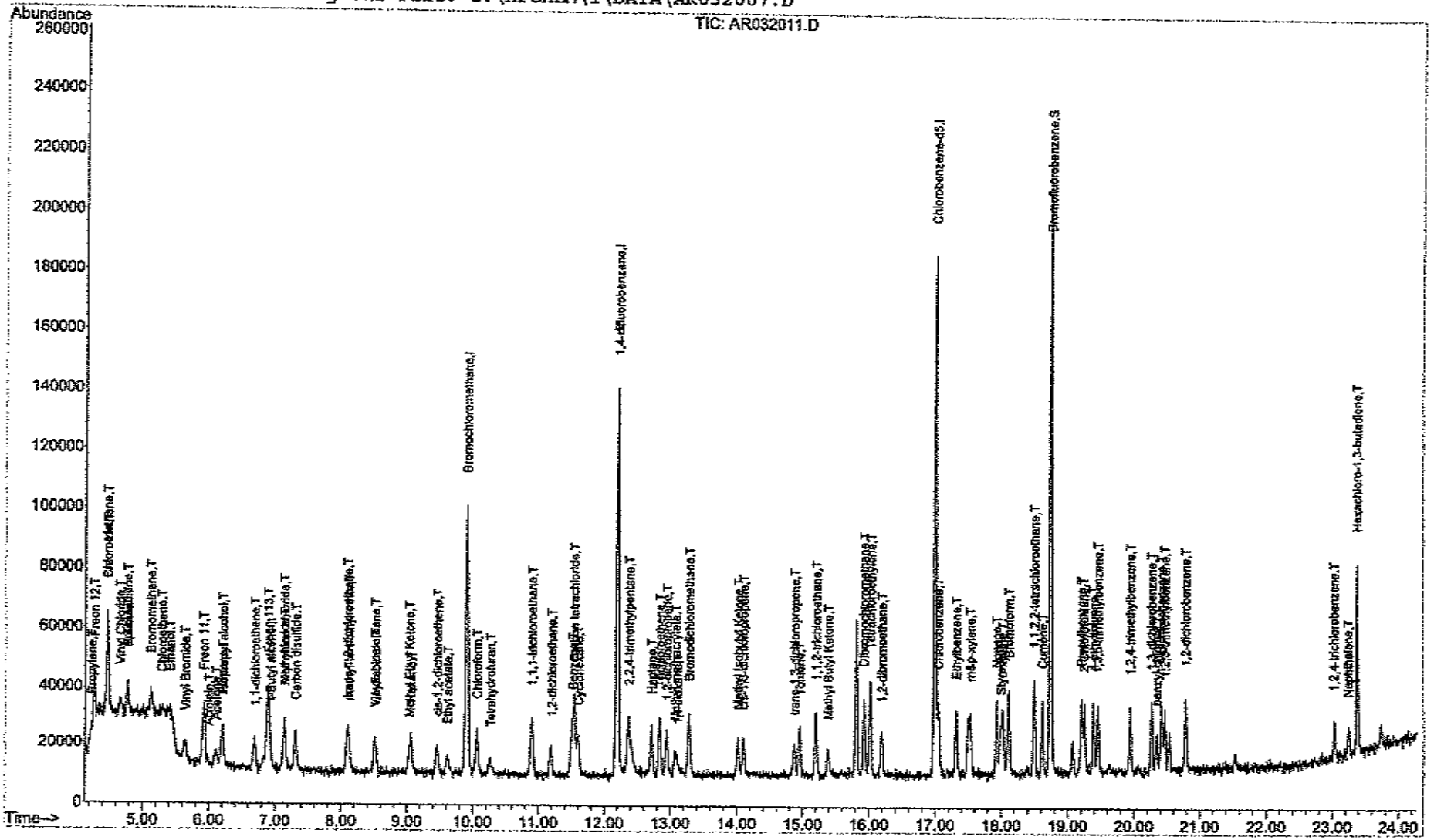
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032011.D
Acq On : 20 Mar 2020 11:26 pm
Sample : A1UG_0.15
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:25 2020

Vial: 11
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



AR032011.D A320_1UG.M Fri Apr 10 08:27:09 2020 MSD1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032012.D Vial: 12
Acq On : 21 Mar 2020 12:11 am Operator: RJP
Sample : A1UG_0.10 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:06:03 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	36328	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.18	114	124353	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	114644	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.73	95	71236m	0.80	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 80.00%			
Target Compounds						Qvalue
6) Vinyl Chloride	4.65	62	3437m	0.11	ppb	
18) 1,1-dichloroethene	6.68	96	3587m	0.10	ppb	
29) cis-1,2-dichloroethene	9.44	61	5673m	0.11	ppb	
38) Carbon tetrachloride	11.53	117	12902	0.10	ppb	100
44) Trichloroethene	12.84	130	5341	0.10	ppb	99

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

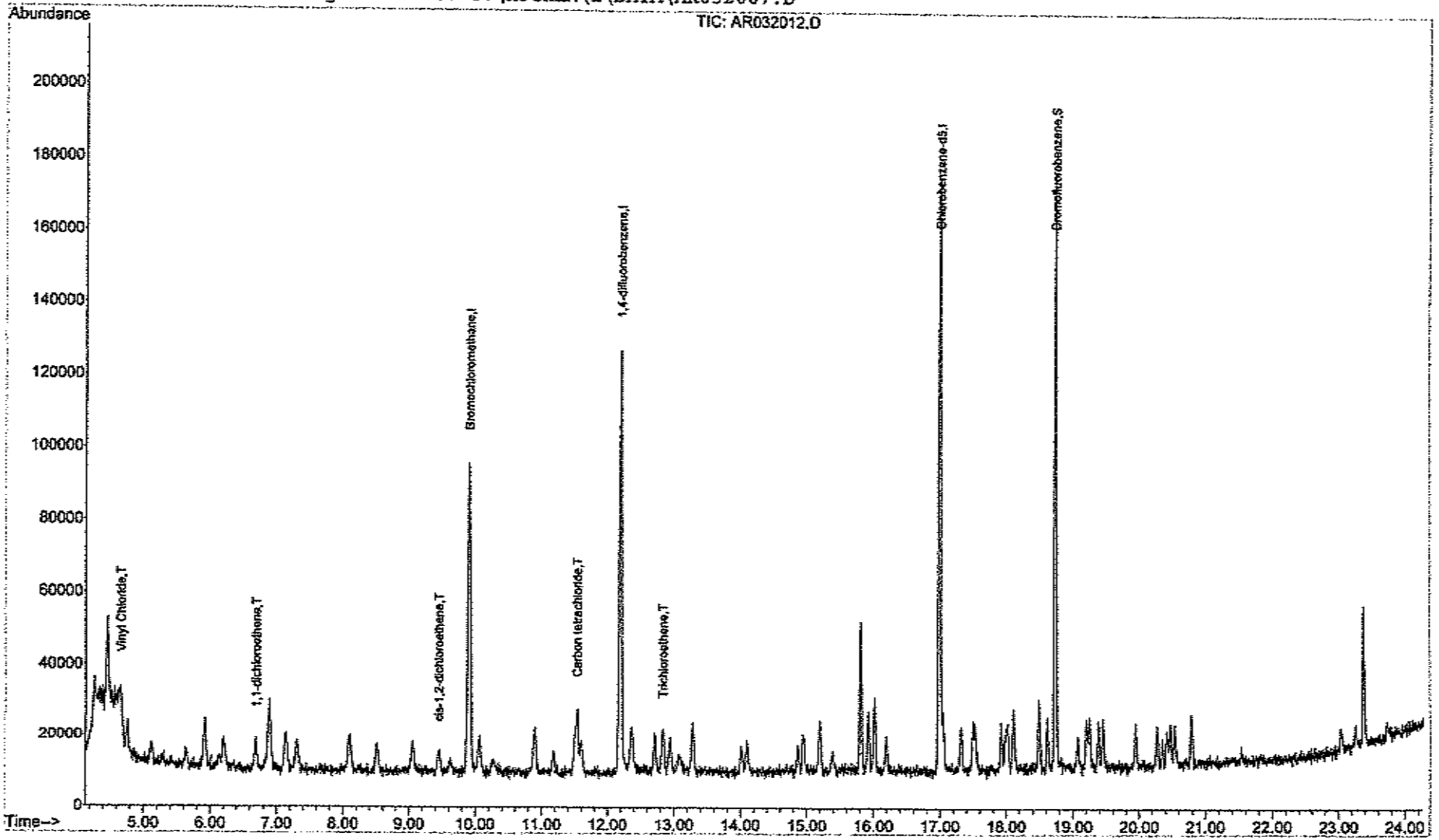
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032012.D
Acq On : 21 Mar 2020 12:11 am
Sample : A1UG_0.10
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:27 2020

Vial: 12
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032013.D
Acq On : 21 Mar 2020 12:55 am
Sample : A1UG_0.04
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:06:34 2020

Vial: 13
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	36459	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	125596	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	111181	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	67348m	0.78	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 78.00%			
Target Compounds						Qvalue
6) Vinyl Chloride	4.66	62	1171m	0.04	ppb	
18) 1,1-dichloroethene	6.70	96	1546m	0.04	ppb	
29) cis-1,2-dichloroethene	9.47	61	1992m	0.04	ppb	
38) Carbon tetrachloride	11.53	117	3402	0.03	ppb	87
44) Trichloroethene	12.84	130	1790m	0.03	ppb	
78) Naphthalene	23.25	128	1739m	0.02	ppb	

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

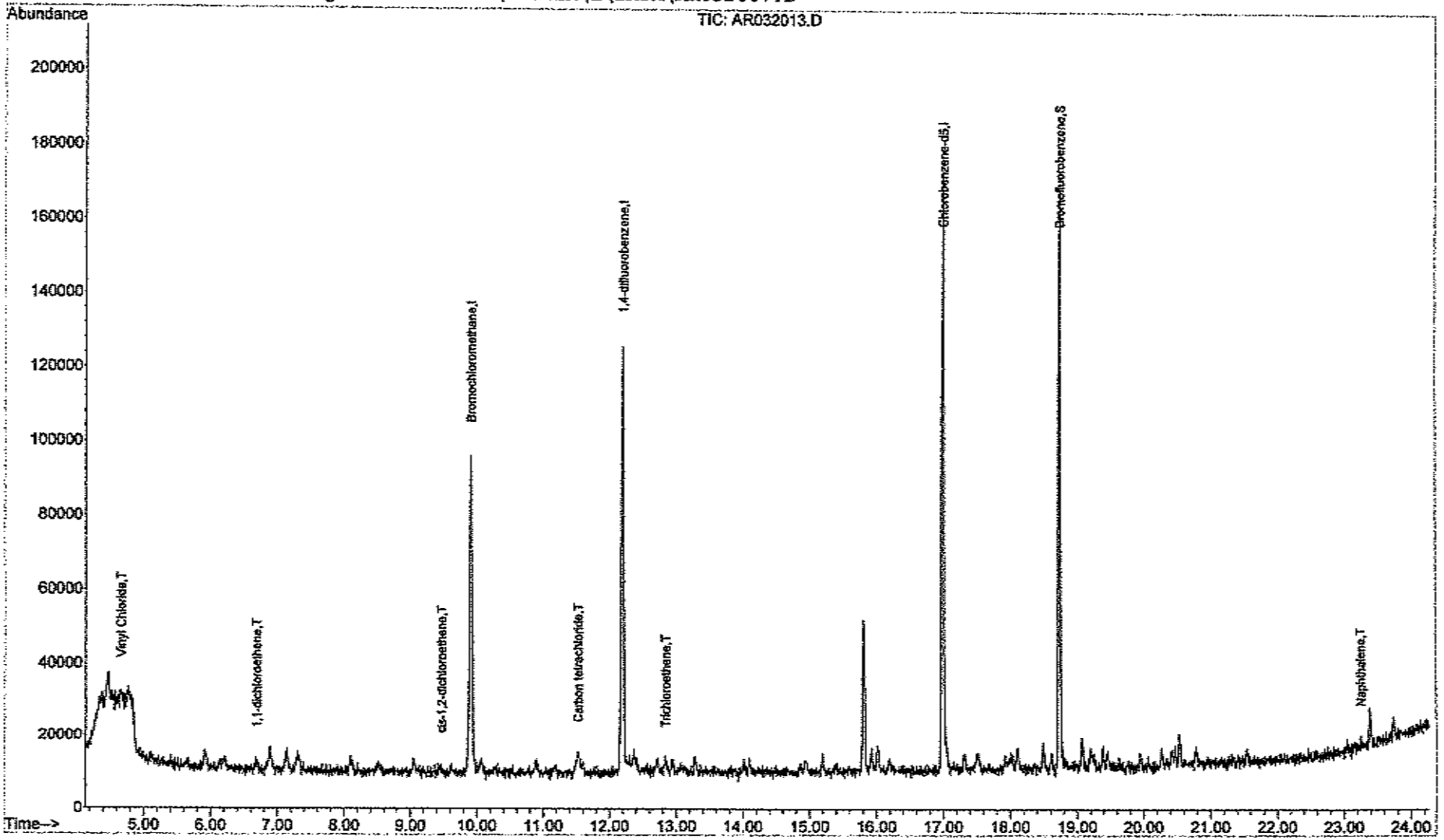
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032013.D
Acq On : 21 Mar 2020 12:55 am
Sample : A1UG_0.04
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:28 2020

Vial: 13
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



AR032013.D A320_1UG.M Fri Apr 10 08:27:15 2020 MSD1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032014.D Vial: 14
Acq On : 21 Mar 2020 1:39 am Operator: RJP
Sample : A1UG_0.03 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 21 09:07:03 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Sat Mar 21 09:01:02 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.90	128	35039	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.19	114	118330	1.00	ppb	0.00
50) Chlorobenzene-d5	16.99	117	109216	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.73	95	66173m	0.78	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 78.00%			
Target Compounds						Qvalue
38) Carbon tetrachloride	11.53	117	2692m	0.02	ppb	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
AR032014.D A320_1UG.M Fri Apr 10 08:27:17 2020 MSD1 Page 1

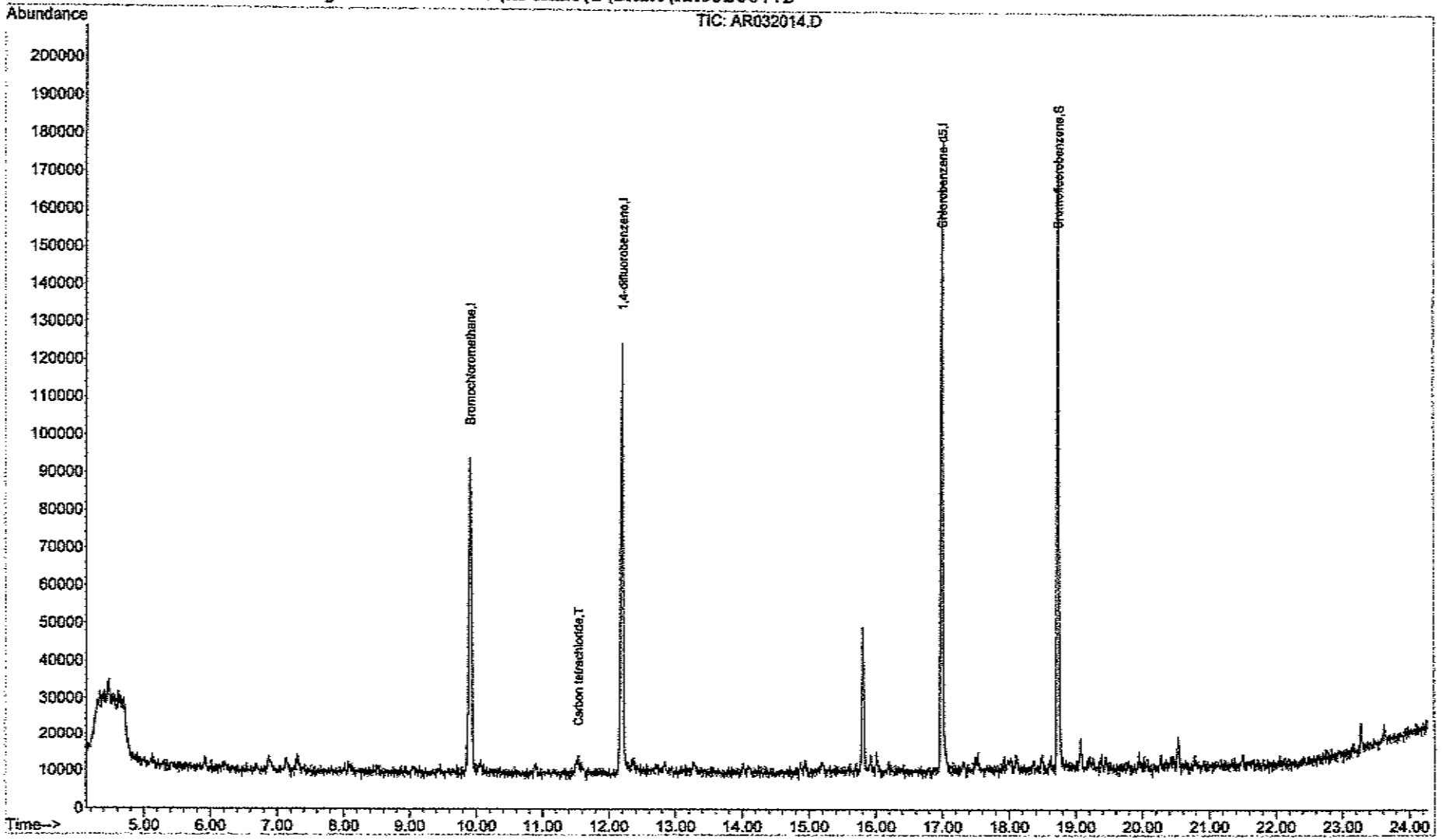
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR032014.D
Acq On : 21 Mar 2020 1:39 am
Sample : A1UG_0.03
Misc : A311_1UG
MS Integration Params: RTEINT.P
Quant Time: Mar 23 8:29 2020

Vial: 14
Operator: RJP
Inst : MSD #1
Multiplr: 1.00

Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:22:44 2020
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\AR032007.D



GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

CALIBRATION VERIFICATION

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\AR040102.D Vial: 2
Acq On : 1 Apr 2020 11:10 am Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	79	0.00
2	T	Propylene	0.720	0.733	-1.8	81	0.00
3	T	Freon 12	4.461	5.034	-12.8	87	0.00
4	T	Chloromethane	0.968	1.081	-11.7	87	0.00
5	T	Freon 114	3.454	3.834	-11.0	85	0.00
6	T	Vinyl Chloride	0.909	1.039	-14.3	92	0.00
7	T	Butane	0.961	0.992	-3.2	78	0.00
8	T	1,3-butadiene	0.798	0.758	5.0	77	0.00
9	T	Bromomethane	1.340	1.444	-7.8	82	0.00
10	T	Chloroethane	0.545	0.620	-13.8	83	0.00
11	T	Ethanol	0.255	0.282	-10.6	92	0.00
12	T	Acrolein	0.285	0.275	3.5	73	0.00
13	T	Vinyl Bromide	1.127	1.189	-5.5	85	0.00
14	T	Freon 11	4.692	5.337	-13.7	89	0.00
15	T	Acetone	0.545	0.656	-20.4	95	0.00
16	T	Pentane	0.982	1.094	-11.4	90	0.00
17	T	Isopropyl alcohol	1.280	1.391	-8.7	90	0.00
18	T	1,1-dichloroethene	1.033	1.089	-5.4	83	0.00
19	T	Freon 113	2.758	3.282	-19.0	93	0.00
20	t	t-Butyl alcohol	1.464	1.562	-6.7	84	0.00
21	T	Methylene chloride	1.141	1.278	-12.0	90	0.00
22	T	Allyl chloride	0.993	1.065	-7.3	80	0.00
23	T	Carbon disulfide	3.485	3.982	-14.3	93	0.00
24	T	trans-1,2-dichloroethene	1.490	1.631	-9.5	83	0.00
25	T	methyl tert-butyl ether	2.216	2.226	-0.5	76	0.00
26	T	1,1-dichloroethane	2.058	2.401	-16.7	90	0.00
27	T	Vinyl acetate	1.405	1.283	8.7	71	0.00
28	T	Methyl Ethyl Ketone	0.457	0.455	0.4	79	0.00
29	T	cis-1,2-dichloroethene	1.374	1.434	-4.4	80	0.00
30	T	Hexane	1.294	1.438	-11.1	80	0.00
31	T	Ethyl acetate	2.073	2.194	-5.8	81	0.00
32	T	Chloroform	2.941	3.403	-15.7	90	0.00
33	T	Tetrahydrofuran	0.725	0.751	-3.6	78	0.00
34	T	1,2-dichloroethane	1.889	2.056	-8.8	84	0.00
35	I	1,4-difluorobenzene	1.000	1.000	0.0	69	0.00
36	T	1,1,1-trichloroethane	0.856	1.043	-21.8	85	0.00
37	T	Cyclohexane	0.316	0.365	-15.5	78	0.00
38	T	Carbon tetrachloride	0.963	1.230	-27.7	85	0.00
39	T	Benzene	0.831	1.012	-21.8	83	0.00
40	T	Methyl methacrylate	0.292	0.322	-10.3	77	0.00
41	T	1,4-dioxane	0.188	0.230	-22.3	82	0.00
42	T	2,2,4-trimethylpentane	1.067	1.290	-20.9	83	0.00
43	T	Heptane	0.340	0.421	-23.8	83	0.00
44	T	Trichloroethene	0.422	0.542	-28.4	85	0.00
45	T	1,2-dichloropropane	0.325	0.415	-27.7	89	0.00
46	T	Bromodichloromethane	0.880	1.110	-26.1	89	0.00
47	T	cis-1,3-dichloropropene	0.519	0.657	-26.6	85	0.00
48	T	trans-1,3-dichloropropene	0.413	0.483	-16.9	78	0.00
49	T	1,1,2-trichloroethane	0.425	0.543	-27.8	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\AR040102.D Vial: 2
Acq On : 1 Apr 2020 11:10 am Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51	T	Toluene	0.585	0.689	-17.8	80	0.00
52	T	Methyl Isobutyl Ketone	0.524	0.548	-4.6	74	0.00
53	T	Dibromochloromethane	0.976	1.125	-15.3	83	0.00
54	T	Methyl Butyl Ketone	0.447	0.502	-12.3	78	0.00
55	T	1,2-dibromoethane	0.706	0.872	-23.5	87	0.00
56	T	Tetrachloroethylene	0.500	0.612	-22.4	85	0.00
57	T	Chlorobenzene	0.935	1.087	-16.3	82	0.00
58	T	Ethylbenzene	1.258	1.399	-11.2	76	0.00
59	T	m&p-xylene	1.089	1.348	-23.8	81	0.00
60	T	Nonane	0.558	0.702	-25.8	86	0.00
61	T	Styrene	0.853	1.094	-28.3	84	0.00
62	T	Bromoform	0.940	1.032	-9.8	77	0.00
63	T	o-xylene	1.313	1.647	-25.4	84	0.00
64	T	Cumene	1.402	1.617	-15.3	77	0.00
65	S	Bromofluorobenzene	0.718	0.858	-19.5	77	0.00
66	T	1,1,2,2-tetrachloroethane	1.014	1.286	-26.8	90	0.00
67	T	Propylbenzene	0.377	0.445	-18.0	79	0.00
68	T	2-Chlorotoluene	0.424	0.559	-31.8#	86	0.00
69	T	4-ethyltoluene	1.486	1.815	-22.1	80	0.00
70	T	1,3,5-trimethylbenzene	1.399	1.797	-28.4	85	0.00
71	T	1,2,4-trimethylbenzene	1.146	1.276	-11.3	75	0.00
72	T	1,3-dichlorobenzene	0.893	1.151	-28.9	85	0.00
73	T	benzyl chloride	0.801	0.921	-15.0	80	0.00
74	T	1,4-dichlorobenzene	0.875	1.094	-25.0	79	0.00
75	T	1,2,3-trimethylbenzene	1.286	1.604	-24.7	81	0.00
76	T	1,2-dichlorobenzene	0.909	1.159	-27.5	84	0.00
77	T	1,2,4-trichlorobenzene	0.373	0.405	-8.6	75	0.00
78	T	Naphthalene	0.792	0.766	3.3	67	0.00
79	T	Hexachloro-1,3-butadiene	0.797	0.990	-24.2	87	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040102.D Vial: 2
Acq On : 1 Apr 2020 11:10 am Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 11:38:54 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.90	128	30959	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	103928	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	97313	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	83520	1.20	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 120.00%				
Target Compounds							Qvalue
2) Propylene	4.21	41	22697	1.02	ppb		91
3) Freon 12	4.26	85	155856	1.13	ppb		97
4) Chloromethane	4.46	50	33469	1.12	ppb		95
5) Freon 114	4.47	85	118696	1.11	ppb		96
6) Vinyl Chloride	4.67	62	32162	1.14	ppb		94
7) Butane	4.77	43	30697	1.03	ppb		99
8) 1,3-butadiene	4.76	39	23477	0.95	ppb		97
9) Bromomethane	5.12	94	44699	1.08	ppb		99
10) Chloroethane	5.29	64	19201	1.14	ppb		93
11) Ethanol	5.39	45	8725	1.11	ppb		93
12) Acrolein	5.99	56	8526	0.97	ppb		97
13) Vinyl Bromide	5.64	106	36798	1.05	ppb		100
14) Freon 11	5.92	101	165229	1.14	ppb		99
15) Acetone	6.09	58	20307	1.20	ppb	#	100
16) Pentane	6.20	42	33864	1.11	ppb		99
17) Isopropyl alcohol	6.19	45	43062	1.09	ppb	#	71
18) 1,1-dichloroethene	6.69	96	33705	1.05	ppb		99
19) Freon 113	6.88	101	101614	1.19	ppb		96
20) t-Butyl alcohol	6.91	59	48366	1.07	ppb	#	81
21) Methylene chloride	7.14	84	39575	1.12	ppb		99
22) Allyl chloride	7.13	41	32963	1.07	ppb		93
23) Carbon disulfide	7.31	76	123265	1.14	ppb		99
24) trans-1,2-dichloroethene	8.09	61	50482	1.09	ppb		99
25) methyl tert-butyl ether	8.10	73	68927	1.00	ppb		87
26) 1,1-dichloroethane	8.52	63	74342	1.17	ppb		97
27) Vinyl acetate	8.50	43	39723	0.91	ppb		97
28) Methyl Ethyl Ketone	9.01	72	14086	1.00	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	44381	1.04	ppb		96
30) Hexane	9.06	57	44528	1.11	ppb		99
31) Ethyl acetate	9.60	43	67923	1.06	ppb		98
32) Chloroform	10.06	83	105343	1.16	ppb		98
33) Tetrahydrofuran	10.24	42	23249	1.04	ppb		96
34) 1,2-dichloroethane	11.18	62	63654	1.09	ppb		99
36) 1,1,1-trichloroethane	10.89	97	108381	1.22	ppb		100
37) Cyclohexane	11.60	56	37910	1.15	ppb		90
38) Carbon tetrachloride	11.54	117	127875	1.28	ppb		99
39) Benzene	11.50	78	105209	1.22	ppb		96
40) Methyl methacrylate	13.07	41	33503	1.10	ppb		94
41) 1,4-dioxane	13.08	88	23878	1.22	ppb		100
42) 2,2,4-trimethylpentane	12.36	57	134033	1.21	ppb		96
43) Heptane	12.72	43	43729	1.24	ppb		97
44) Trichloroethene	12.84	130	56379m	1.29	ppb		
45) 1,2-dichloropropane	12.95	63	43087m	1.27	ppb		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040102.D Vial: 2
Acq On : 1 Apr 2020 11:10 am Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 11:38:54 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

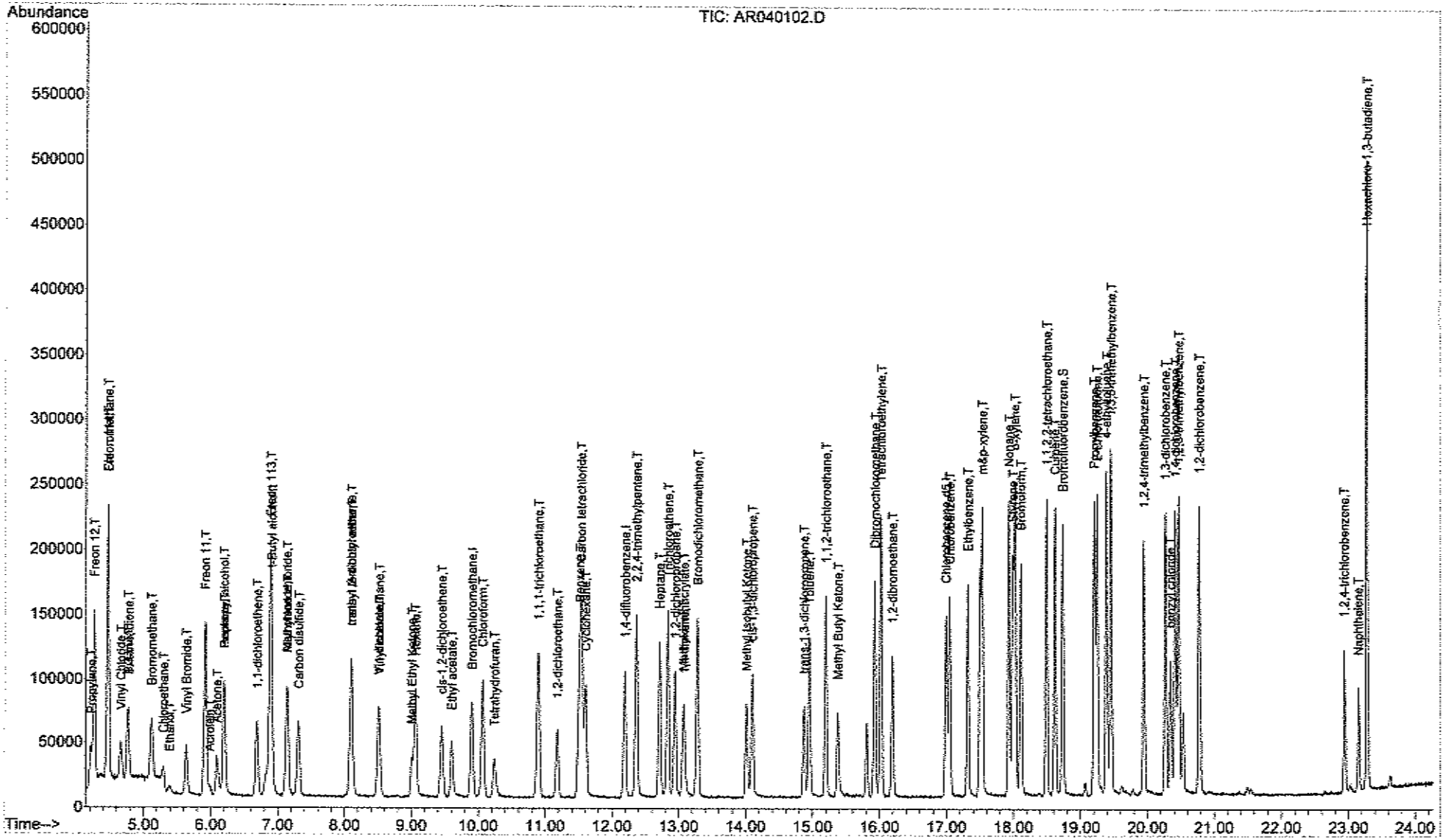
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Bromodichloromethane	13.28	83	115410	1.26	ppb	100
47)	cis-1,3-dichloropropene	14.10	75	68301	1.27	ppb	99
48)	trans-1,3-dichloropropene	14.87	75	50184	1.17	ppb	99
49)	1,1,2-trichloroethane	15.19	97	56381m	1.28	ppb	
51)	Toluene	14.95	92	67016	1.18	ppb	98
52)	Methyl Isobutyl Ketone	14.01	43	53359	1.05	ppb	98
53)	Dibromochloromethane	15.93	129	109505	1.15	ppb	100
54)	Methyl Butyl Ketone	15.38	43	48882	1.12	ppb	98
55)	1,2-dibromoethane	16.19	107	84825	1.23	ppb	100
56)	Tetrachloroethylene	16.02	164	59531	1.22	ppb	99
57)	Chlorobenzene	17.04	112	105738	1.16	ppb	99
58)	Ethylbenzene	17.32	91	136165	1.11	ppb	100
59)	m&p-xylene	17.53	91	262429	2.48	ppb	98
60)	Nonane	17.93	43	68360	1.26	ppb	98
61)	Styrene	17.99	104	106438m	1.28	ppb	
62)	Bromoform	18.11	173	100402	1.10	ppb	99
63)	o-xylene	18.02	91	160288m	1.25	ppb	
64)	Cumene	18.62	105	157359	1.15	ppb	99
66)	1,1,2,2-tetrachloroethane	18.50	83	125152m	1.27	ppb	
67)	Propylbenzene	19.21	120	43285	1.18	ppb	77
68)	2-Chlorotoluene	19.25	126	54373m	1.32	ppb	
69)	4-ethyltoluene	19.39	105	176638	1.22	ppb	98
70)	1,3,5-trimethylbenzene	19.45	105	174849	1.28	ppb	99
71)	1,2,4-trimethylbenzene	19.95	105	124165	1.11	ppb	100
72)	1,3-dichlorobenzene	20.27	146	111963	1.29	ppb	99
73)	benzyl chloride	20.35	91	89583	1.15	ppb	99
74)	1,4-dichlorobenzene	20.42	146	106469m	1.25	ppb	
75)	1,2,3-trimethylbenzene	20.47	105	156056	1.25	ppb	99
76)	1,2-dichlorobenzene	20.78	146	112798	1.28	ppb	99
77)	1,2,4-trichlorobenzene	22.94	180	39364	1.08	ppb	97
78)	Naphthalene	23.15	128	74575	0.97	ppb	97
79)	Hexachloro-1,3-butadiene	23.28	225	96354	1.24	ppb	90

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040102.D Vial: 2
Acq On : 1 Apr 2020 11:10 am Operator: RJP
Sample : A1UG_1.0 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:23 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:31 2020
Response via : Initial Calibration



GC/MS VOLATILES-WHOLE AIR

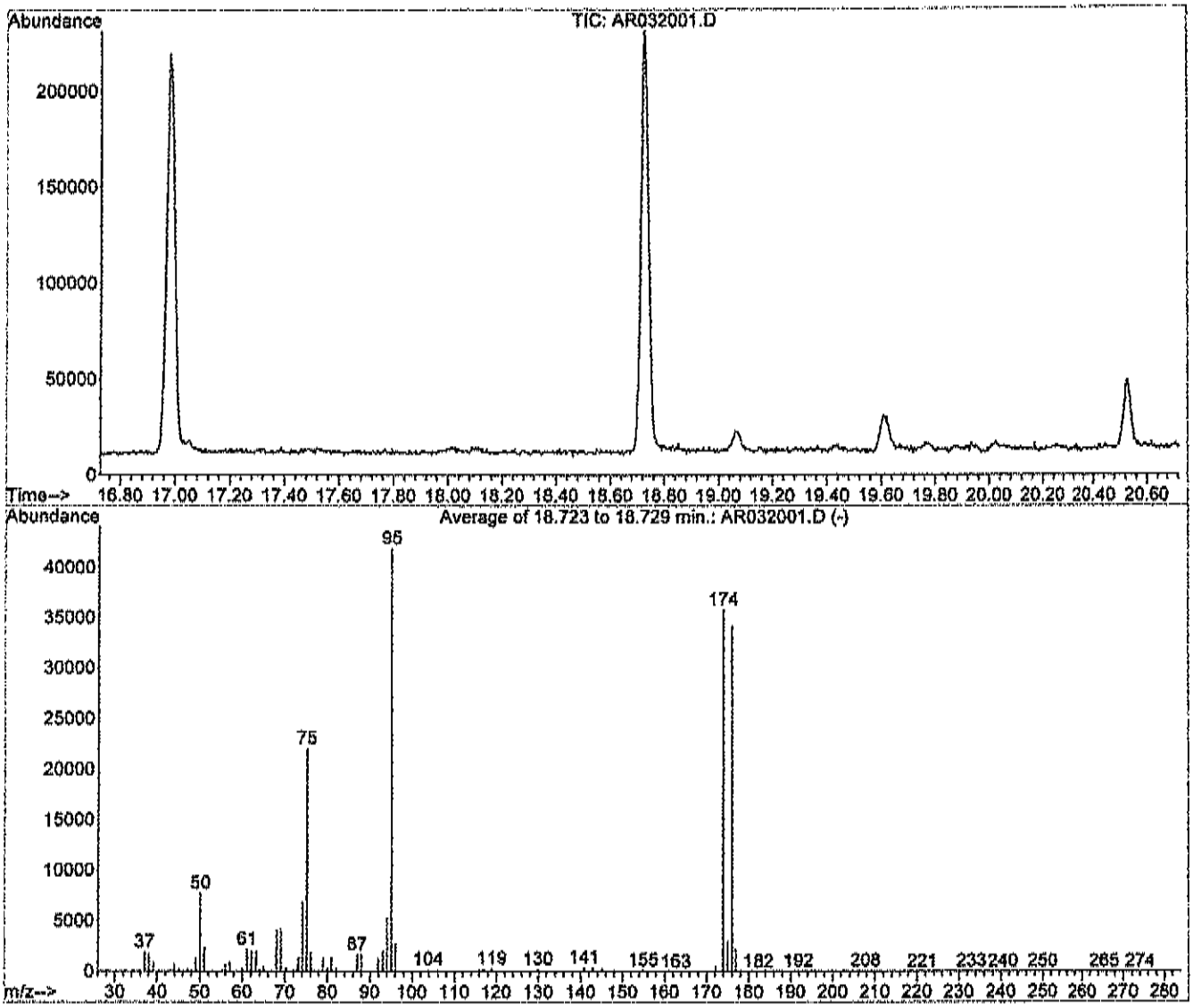
METHOD TO-15

RAW DATA

BFB

Data File : C:\HPCHEM\1\DATA\AR032001.D
Acq On : 20 Mar 2020 11:13 am
Sample : BFB1UG
Misc : A311_1UG
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration

Vial: 1
Operator: RJP
Inst : MSD #1
Multiplr: 1.00



Spectrum Information: Average of 18.723 to 18.729 min.

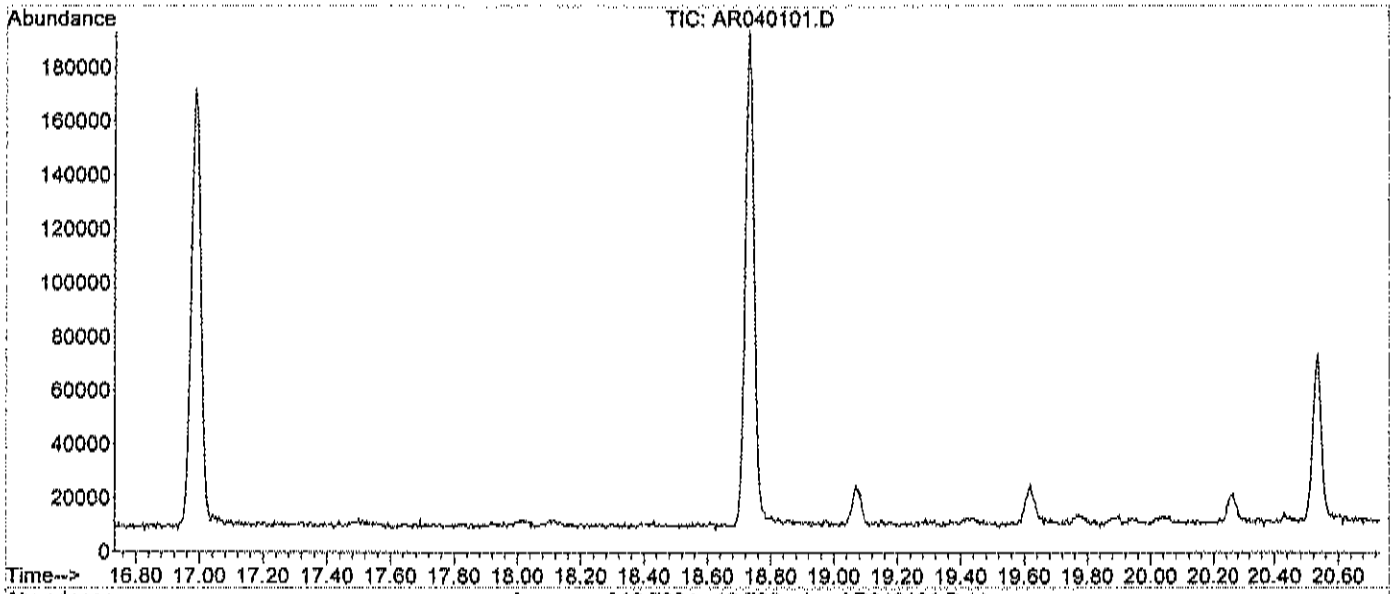
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.6	7790	PASS
75	95	30	66	52.7	22128	PASS
95	95	100	100	100.0	41964	PASS
96	95	5	9	6.7	2794	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	85.5	35877	PASS
175	174	4	9	8.4	3014	PASS
176	174	95	101	95.6	34290	PASS
177	176	5	9	6.5	2241	PASS

AR032001.D A320_1UG.M Fri Apr 10 08:26:10 2020 MSD1

BFB

Data File : C:\HPCHEM\1\DATA\AR040101.D
Acq On : 1 Apr 2020 10:18 am
Sample : BFB1UG
Misc : A311_1UG
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration

Vial: 1
Operator: RJP
Inst : MSD #1
Multiplr: 1.00



Spectrum Information: Average of 18.730 to 18.736 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.5	6444	PASS
75	95	30	66	51.3	17882	PASS
95	95	100	100	100.0	34834	PASS
96	95	5	9	6.5	2265	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	87.9	30624	PASS
175	174	4	9	7.7	2346	PASS
176	174	95	101	95.3	29184	PASS
177	176	5	9	6.6	1912	PASS

AR040101.D A320_1UG.M Fri Apr 10 08:42:27 2020 MSD1

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

RAW QC DATA

CENTEK LABORATORIES, LLC

Date: *10-Apr-20*

ANALYTICAL QC SUMMARY REPORT

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **AMB1UG-040120** SampType: **MBLK** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	< 0.15	0.15									
1,1,2,2-Tetrachloroethane	< 0.15	0.15									
1,1,2-Trichloroethane	< 0.15	0.15									
1,1-Dichloroethane	< 0.15	0.15									
1,1-Dichloroethene	< 0.040	0.040									
1,2,4-Trichlorobenzene	< 0.15	0.15									
1,2,4-Trimethylbenzene	< 0.15	0.15									
1,2-Dibromoethane	< 0.15	0.15									
1,2-Dichlorobenzene	< 0.15	0.15									
1,2-Dichloroethane	< 0.15	0.15									
1,2-Dichloropropane	< 0.15	0.15									
1,3,5-Trimethylbenzene	< 0.15	0.15									
1,3-butadiene	< 0.15	0.15									
1,3-Dichlorobenzene	< 0.15	0.15									
1,4-Dichlorobenzene	< 0.15	0.15									
1,4-Dioxane	< 0.30	0.30									
2,2,4-trimethylpentane	< 0.15	0.15									
4-ethyltoluene	< 0.15	0.15									
Acetone	< 0.30	0.30									
Allyl chloride	< 0.15	0.15									
Benzene	< 0.15	0.15									
Benzyl chloride	< 0.15	0.15									
Bromodichloromethane	< 0.15	0.15									
Bromoform	< 0.15	0.15									
Bromomethane	< 0.15	0.15									

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **AMB1UG-040120** SampType: **MBLK** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	< 0.15	0.15									
Carbon tetrachloride	< 0.030	0.030									
Chlorobenzene	< 0.15	0.15									
Chloroethane	< 0.15	0.15									
Chloroform	< 0.15	0.15									
Chloromethane	< 0.15	0.15									
cis-1,2-Dichloroethene	< 0.040	0.040									
cis-1,3-Dichloropropene	< 0.15	0.15									
Cyclohexane	< 0.15	0.15									
Dibromochloromethane	< 0.15	0.15									
Ethyl acetate	< 0.15	0.15									
Ethylbenzene	< 0.15	0.15									
Freon 11	< 0.15	0.15									
Freon 113	< 0.15	0.15									
Freon 114	< 0.15	0.15									
Freon 12	< 0.15	0.15									
Heptane	< 0.15	0.15									
Hexachloro-1,3-butadiene	< 0.15	0.15									
Hexane	< 0.15	0.15									
Isopropyl alcohol	< 0.15	0.15									
m&p-Xylene	< 0.30	0.30									
Methyl Butyl Ketone	< 0.30	0.30									
Methyl Ethyl Ketone	< 0.30	0.30									
Methyl Isobutyl Ketone	< 0.30	0.30									
Methyl tert-butyl ether	< 0.15	0.15									
Methylene chloride	< 0.15	0.15									
o-Xylene	< 0.15	0.15									
Propylene	< 0.15	0.15									
Styrene	< 0.15	0.15									
Tetrachloroethylene	< 0.15	0.15									
Tetrahydrofuran	< 0.15	0.15									

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **AMB1UG-040120** SampType: **MBLK** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	< 0.15	0.15									
trans-1,2-Dichloroethene	< 0.15	0.15									
trans-1,3-Dichloropropene	< 0.15	0.15									
Trichloroethene	< 0.030	0.030									
Vinyl acetate	< 0.15	0.15									
Vinyl Bromide	< 0.15	0.15									
Vinyl chloride	< 0.040	0.040									

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040104.D Vial: 4
Acq On : 1 Apr 2020 12:47 pm Operator: RJP
Sample : AMB1UG-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 13:18:49 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

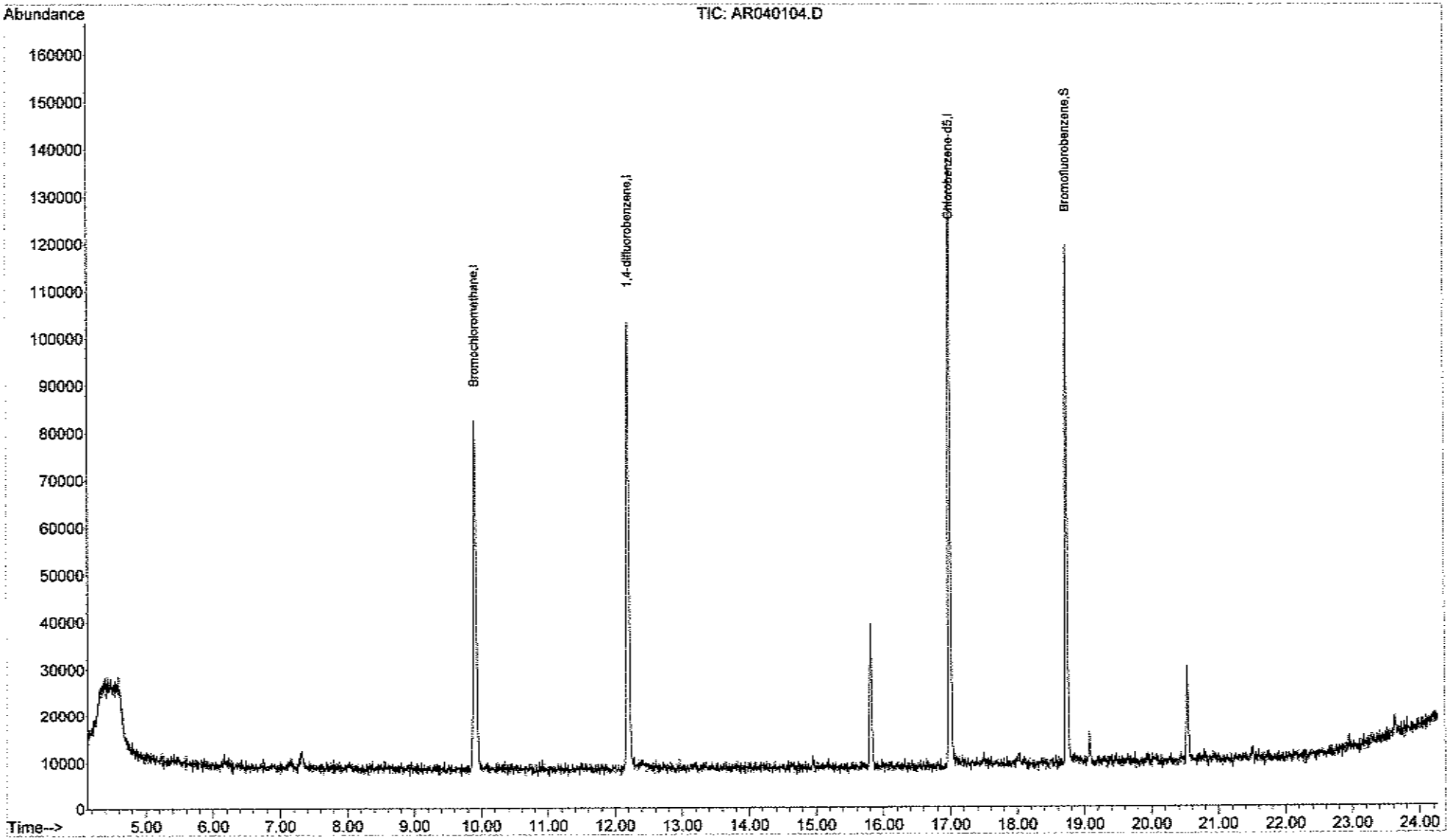
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.91	128	31973	1.00	ppb	0.00
35) 1,4-difluorobenzene	12.20	114	102072	1.00	ppb	0.00
50) Chlorobenzene-d5	17.00	117	91076	1.00	ppb	0.00
System Monitoring Compounds						
65) Bromofluorobenzene	18.74	95	46398m RJP	0.71	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 71.00%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040104.D Vial: 4
Acq On : 1 Apr 2020 12:47 pm Operator: RJP
Sample : AMB1UG-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:24 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



CENTEK LABORATORIES, LLC

Date: *10-Apr-20*

ANALYTICAL QC SUMMARY REPORT

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: **ALCS1UG-040120** SampType: **LCS** TestCode: **0.20_NYS** Units: **ppbV** Prep Date: RunNo: **16233**
Client ID: **ZZZZZ** Batch ID: **R16233** TestNo: **TO-15** Analysis Date: **4/1/2020** SeqNo: **184715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	1.170	0.15	1	0	117	70	130				
1,1,2,2-Tetrachloroethane	1.230	0.15	1	0	123	70	130				
1,1,2-Trichloroethane	1.240	0.15	1	0	124	70	130				
1,1-Dichloroethane	1.130	0.15	1	0	113	70	130				
1,1-Dichloroethene	1.070	0.040	1	0	107	70	130				
1,2,4-Trichlorobenzene	1.090	0.15	1	0	109	70	130				
1,2,4-Trimethylbenzene	1.080	0.15	1	0	108	70	130				
1,2-Dibromoethane	1.180	0.15	1	0	118	70	130				
1,2-Dichlorobenzene	1.270	0.15	1	0	127	70	130				
1,2-Dichloroethane	1.070	0.15	1	0	107	70	130				
1,2-Dichloropropane	1.240	0.15	1	0	124	70	130				
1,3,5-Trimethylbenzene	1.250	0.15	1	0	125	70	130				
1,3-butadiene	0.9900	0.15	1	0	99.0	70	130				
1,3-Dichlorobenzene	1.280	0.15	1	0	128	70	130				
1,4-Dichlorobenzene	1.280	0.15	1	0	128	70	130				
1,4-Dioxane	1.230	0.30	1	0	123	70	130				
2,2,4-trimethylpentane	1.200	0.15	1	0	120	70	130				
4-ethyltoluene	1.200	0.15	1	0	120	70	130				
Acetone	1.210	0.30	1	0	121	70	130				
Allyl chloride	1.060	0.15	1	0	106	70	130				
Benzene	1.200	0.15	1	0	120	70	130				
Benzyl chloride	1.180	0.15	1	0	118	70	130				
Bromodichloromethane	1.180	0.15	1	0	118	70	130				
Bromoform	1.040	0.15	1	0	104	70	130				
Bromomethane	1.050	0.15	1	0	105	70	130				

Qualifiers:
. Results reported are not blank corrected
J Analyte detected below quantitation limit
S Spike Recovery outside accepted recovery limits
E Estimated Value above quantitation range
ND Not Detected at the Limit of Detection
DL Detection Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: ALCS1UG-040120	SampType: LCS	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184715

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	1.100	0.15	1	0	110	70	130				
Carbon tetrachloride	1.210	0.030	1	0	121	70	130				
Chlorobenzene	1.140	0.15	1	0	114	70	130				
Chloroethane	1.150	0.15	1	0	115	70	130				
Chloroform	1.110	0.15	1	0	111	70	130				
Chloromethane	1.050	0.15	1	0	105	70	130				
cis-1,2-Dichloroethene	1.070	0.040	1	0	107	70	130				
cis-1,3-Dichloropropene	1.210	0.15	1	0	121	70	130				
Cyclohexane	1.180	0.15	1	0	118	70	130				
Dibromochloromethane	1.100	0.15	1	0	110	70	130				
Ethyl acetate	1.050	0.15	1	0	105	70	130				
Ethylbenzene	1.110	0.15	1	0	111	70	130				
Freon 11	1.090	0.15	1	0	109	70	130				
Freon 113	1.160	0.15	1	0	116	70	130				
Freon 114	1.070	0.15	1	0	107	70	130				
Freon 12	1.080	0.15	1	0	108	70	130				
Heptane	1.220	0.15	1	0	122	70	130				
Hexachloro-1,3-butadiene	1.180	0.15	1	0	118	70	130				
Hexane	1.130	0.15	1	0	113	70	130				
Isopropyl alcohol	1.110	0.15	1	0	111	70	130				
m&p-Xylene	2.420	0.30	2	0	121	70	130				
Methyl Butyl Ketone	1.150	0.30	1	0	115	70	130				
Methyl Ethyl Ketone	0.9900	0.30	1	0	99.0	70	130				
Methyl Isobutyl Ketone	1.060	0.30	1	0	106	70	130				
Methyl tert-butyl ether	1.020	0.15	1	0	102	70	130				
Methylene chloride	1.090	0.15	1	0	109	70	130				
o-Xylene	1.240	0.15	1	0	124	70	130				
Propylene	1.140	0.15	1	0	114	70	130				
Styrene	1.250	0.15	1	0	125	70	130				
Tetrachloroethylene	1.180	0.15	1	0	118	70	130				
Tetrahydrofuran	1.080	0.15	1	0	108	70	130				

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

Sample ID: ALCS1UG-040120	SampType: LCS	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184715

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	1.140	0.15	1	0	114	70	130				
trans-1,2-Dichloroethene	1.090	0.15	1	0	109	70	130				
trans-1,3-Dichloropropene	1.110	0.15	1	0	111	70	130				
Trichloroethene	1.290	0.030	1	0	129	70	130				
Vinyl acetate	0.9700	0.15	1	0	97.0	70	130				
Vinyl Bromide	1.100	0.15	1	0	110	70	130				
Vinyl chloride	1.100	0.040	1	0	110	70	130				

Sample ID: ALCS1UGD-040120	SampType: LCSD	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184716

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	1.110	0.15	1	0	111	70	130	1.17	5.26	30	
1,1,2,2-Tetrachloroethane	1.170	0.15	1	0	117	70	130	1.23	5.00	30	
1,1,2-Trichloroethane	1.140	0.15	1	0	114	70	130	1.24	8.40	30	
1,1-Dichloroethane	1.140	0.15	1	0	114	70	130	1.13	0.881	30	
1,1-Dichloroethene	1.160	0.040	1	0	116	70	130	1.07	8.07	30	
1,2,4-Trichlorobenzene	1.090	0.15	1	0	109	70	130	1.09	0	30	
1,2,4-Trimethylbenzene	1.110	0.15	1	0	111	70	130	1.08	2.74	30	
1,2-Dibromoethane	1.170	0.15	1	0	117	70	130	1.18	0.851	30	
1,2-Dichlorobenzene	1.200	0.15	1	0	120	70	130	1.27	5.67	30	
1,2-Dichloroethane	1.040	0.15	1	0	104	70	130	1.07	2.84	30	
1,2-Dichloropropane	1.190	0.15	1	0	119	70	130	1.24	4.12	30	
1,3,5-Trimethylbenzene	1.220	0.15	1	0	122	70	130	1.25	2.43	30	
1,3-butadiene	0.9400	0.15	1	0	94.0	70	130	0.99	5.18	30	
1,3-Dichlorobenzene	1.240	0.15	1	0	124	70	130	1.28	3.17	30	
1,4-Dichlorobenzene	1.280	0.15	1	0	128	70	130	1.28	0	30	
1,4-Dioxane	1.190	0.30	1	0	119	70	130	1.23	3.31	30	
2,2,4-trimethylpentane	1.160	0.15	1	0	116	70	130	1.2	3.39	30	
4-ethyltoluene	1.190	0.15	1	0	119	70	130	1.2	0.837	30	

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: ALCS1UGD-040120	SampType: LCSD	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184716

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	1.170	0.30	1	0	117	70	130	1.21	3.36	30	
Allyl chloride	1.120	0.15	1	0	112	70	130	1.06	5.50	30	
Benzene	1.160	0.15	1	0	116	70	130	1.2	3.39	30	
Benzyl chloride	1.100	0.15	1	0	110	70	130	1.18	7.02	30	
Bromodichloromethane	1.090	0.15	1	0	109	70	130	1.18	7.93	30	
Bromoform	1.000	0.15	1	0	100	70	130	1.04	3.92	30	
Bromomethane	0.9700	0.15	1	0	97.0	70	130	1.05	7.92	30	
Carbon disulfide	1.080	0.15	1	0	108	70	130	1.1	1.83	30	
Carbon tetrachloride	1.110	0.030	1	0	111	70	130	1.21	8.62	30	
Chlorobenzene	1.150	0.15	1	0	115	70	130	1.14	0.873	30	
Chloroethane	1.150	0.15	1	0	115	70	130	1.15	0	30	
Chloroform	1.080	0.15	1	0	108	70	130	1.11	2.74	30	
Chloromethane	0.9600	0.15	1	0	96.0	70	130	1.05	8.96	30	
cis-1,2-Dichloroethene	1.090	0.040	1	0	109	70	130	1.07	1.85	30	
cis-1,3-Dichloropropene	1.160	0.15	1	0	116	70	130	1.21	4.22	30	
Cyclohexane	1.180	0.15	1	0	118	70	130	1.18	0	30	
Dibromochloromethane	1.060	0.15	1	0	106	70	130	1.1	3.70	30	
Ethyl acetate	1.110	0.15	1	0	111	70	130	1.05	5.56	30	
Ethylbenzene	1.150	0.15	1	0	115	70	130	1.11	3.54	30	
Freon 11	1.070	0.15	1	0	107	70	130	1.09	1.85	30	
Freon 113	1.140	0.15	1	0	114	70	130	1.16	1.74	30	
Freon 114	1.010	0.15	1	0	101	70	130	1.07	5.77	30	
Freon 12	1.040	0.15	1	0	104	70	130	1.08	3.77	30	
Heptane	1.190	0.15	1	0	119	70	130	1.22	2.49	30	
Hexachloro-1,3-butadiene	1.130	0.15	1	0	113	70	130	1.18	4.33	30	
Hexane	1.190	0.15	1	0	119	70	130	1.13	5.17	30	
Isopropyl alcohol	1.130	0.15	1	0	113	70	130	1.11	1.79	30	
m&p-Xylene	2.430	0.30	2	0	122	70	130	2.42	0.412	30	
Methyl Butyl Ketone	1.160	0.30	1	0	116	70	130	1.15	0.866	30	
Methyl Ethyl Ketone	1.070	0.30	1	0	107	70	130	0.99	7.77	30	
Methyl Isobutyl Ketone	1.090	0.30	1	0	109	70	130	1.06	2.79	30	

Qualifiers:
. Results reported are not blank corrected
J Analyte detected below quantitation limit
S Spike Recovery outside accepted recovery limits
E Estimated Value above quantitation range
ND Not Detected at the Limit of Detection
DL Detection Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

CLIENT: Geovation Engineering, Inc.
Work Order: C2004002
Project: Grant Hardware

TestCode: 0.20_NYS

Sample ID: ALCS1UGD-040120	SampType: LCSD	TestCode: 0.20_NYS	Units: ppbV	Prep Date:	RunNo: 16233
Client ID: ZZZZZ	Batch ID: R16233	TestNo: TO-15		Analysis Date: 4/1/2020	SeqNo: 184716

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether	1.140	0.15	1	0	114	70	130	1.02	11.1	30	
Methylene chloride	1.080	0.15	1	0	108	70	130	1.09	0.922	30	
o-Xylene	1.190	0.15	1	0	119	70	130	1.24	4.12	30	
Propylene	1.110	0.15	1	0	111	70	130	1.14	2.67	30	
Styrene	1.250	0.15	1	0	125	70	130	1.25	0	30	
Tetrachloroethylene	1.170	0.15	1	0	117	70	130	1.18	0.851	30	
Tetrahydrofuran	1.120	0.15	1	0	112	70	130	1.08	3.64	30	
Toluene	1.180	0.15	1	0	118	70	130	1.14	3.45	30	
trans-1,2-Dichloroethene	1.120	0.15	1	0	112	70	130	1.09	2.71	30	
trans-1,3-Dichloropropene	1.120	0.15	1	0	112	70	130	1.11	0.897	30	
Trichloroethene	1.240	0.030	1	0	124	70	130	1.29	3.95	30	
Vinyl acetate	1.060	0.15	1	0	106	70	130	0.97	8.87	30	
Vinyl Bromide	1.160	0.15	1	0	116	70	130	1.1	5.31	30	
Vinyl chloride	1.050	0.040	1	0	105	70	130	1.1	4.65	30	

Qualifiers:

.	Results reported are not blank corrected	E	Estimated Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit	ND	Not Detected at the Limit of Detection	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	DL	Detection Limit		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040103.D Vial: 3
Acq On : 1 Apr 2020 12:05 pm Operator: RJP
Sample : ALCS1UG-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 13:18:34 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	33185	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.19	114	112058	1.00	ppb		0.00
50) Chlorobenzene-d5	16.99	117	104676	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	86171	1.15	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 115.00%				
Target Compounds							Qvalue
2) Propylene	4.21	41	27307	1.14	ppb		91
3) Freon 12	4.26	85	160317	1.08	ppb		97
4) Chloromethane	4.47	50	33630	1.05	ppb		96
5) Freon 114	4.46	85	123154	1.07	ppb		96
6) Vinyl Chloride	4.66	62	33302	1.10	ppb		98
7) Butane	4.76	43	32522	1.02	ppb		95
8) 1,3-butadiene	4.77	39	26230	0.99	ppb		98
9) Bromomethane	5.12	94	46673	1.05	ppb		97
10) Chloroethane	5.30	64	20861	1.15	ppb		99
11) Ethanol	5.40	45	10114	1.20	ppb		94
12) Acrolein	5.99	56	9579	1.01	ppb		99
13) Vinyl Bromide	5.64	106	41106	1.10	ppb		99
14) Freon 11	5.92	101	169668	1.09	ppb		99
15) Acetone	6.09	58	21960	1.21	ppb	#	100
16) Pentane	6.20	42	35976	1.10	ppb	#	40
17) Isopropyl alcohol	6.20	45	47285	1.11	ppb	#	46
18) 1,1-dichloroethene	6.69	96	36784	1.07	ppb		98
19) Freon 113	6.89	101	105817	1.16	ppb		96
20) t-Butyl alcohol	6.91	59	50860	1.05	ppb	#	80
21) Methylene chloride	7.15	84	41406	1.09	ppb		100
22) Allyl chloride	7.14	41	35017	1.06	ppb		91
23) Carbon disulfide	7.31	76	126638	1.10	ppb		100
24) trans-1,2-dichloroethene	8.09	61	54111	1.09	ppb		99
25) methyl tert-butyl ether	8.11	73	75032	1.02	ppb		86
26) 1,1-dichloroethane	8.52	63	77180	1.13	ppb		98
27) Vinyl acetate	8.50	43	45214	0.97	ppb		98
28) Methyl Ethyl Ketone	9.01	72	14945	0.99	ppb	#	100
29) cis-1,2-dichloroethene	9.46	61	48984	1.07	ppb		98
30) Hexane	9.06	57	48597	1.13	ppb		97
31) Ethyl acetate	9.60	43	72035	1.05	ppb		99
32) Chloroform	10.07	83	107980	1.11	ppb		99
33) Tetrahydrofuran	10.25	42	26046	1.08	ppb		97
34) 1,2-dichloroethane	11.18	62	67260	1.07	ppb		98
36) 1,1,1-trichloroethane	10.90	97	111944	1.17	ppb		99
37) Cyclohexane	11.61	56	41777	1.18	ppb		96
38) Carbon tetrachloride	11.54	117	130180	1.21	ppb		99
39) Benzene	11.51	78	111534	1.20	ppb		99
40) Methyl methacrylate	13.07	41	36532	1.12	ppb		96
41) 1,4-dioxane	13.09	88	25976	1.23	ppb		93
42) 2,2,4-trimethylpentane	12.37	57	143446	1.20	ppb		98
43) Heptane	12.72	43	46304	1.22	ppb		98
44) Trichloroethene	12.84	130	60917	1.29	ppb		97
45) 1,2-dichloropropane	12.95	63	45196	1.24	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040103.D Vial: 3
Acq On : 1 Apr 2020 12:05 pm Operator: RJP
Sample : ALCS1UG-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 13:18:34 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

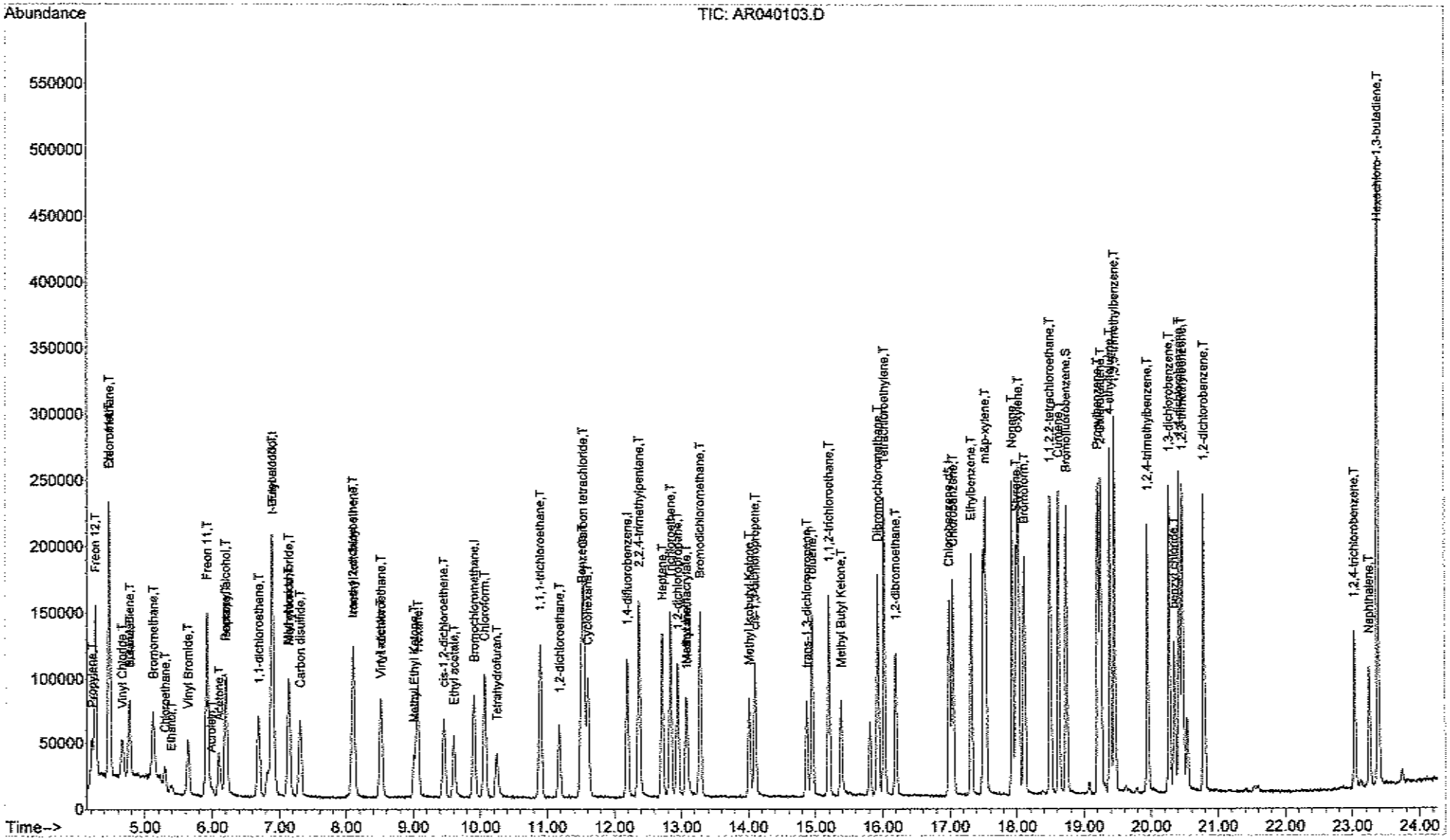
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Bromodichloromethane	13.28	83	116479	1.18	ppb	99
47)	cis-1,3-dichloropropene	14.10	75	70474	1.21	ppb	99
48)	trans-1,3-dichloropropene	14.87	75	51509	1.11	ppb	99
49)	1,1,2-trichloroethane	15.20	97	59298	1.24	ppb	99
51)	Toluene	14.95	92	70145	1.14	ppb	96
52)	Methyl Isobutyl Ketone	14.01	43	58034	1.06	ppb	99
53)	Dibromochloromethane	15.93	129	112644	1.10	ppb	100
54)	Methyl Butyl Ketone	15.38	43	53874	1.15	ppb	99
55)	1,2-dibromoethane	16.20	107	87416	1.18	ppb	99
56)	Tetrachloroethylene	16.02	164	61756	1.18	ppb	100
57)	Chlorobenzene	17.05	112	111396	1.14	ppb	99
58)	Ethylbenzene	17.32	91	146061	1.11	ppb	98
59)	m&p-xylene	17.53	91	276008	2.42	ppb	98
60)	Nonane	17.93	43	70763	1.21	ppb	99
61)	Styrene	17.99	104	112002	1.25	ppb	99
62)	Bromoform	18.11	173	102430	1.04	ppb	99
63)	o-xylene	18.03	91	170665	1.24	ppb	99
64)	Cumene	18.62	105	167607	1.14	ppb	98
66)	1,1,2,2-tetrachloroethane	18.50	83	130601	1.23	ppb	98
67)	Propylbenzene	19.21	120	45867	1.16	ppb	78
68)	2-Chlorotoluene	19.25	126	55267	1.24	ppb	96
69)	4-ethyltoluene	19.39	105	186866	1.20	ppb	100
70)	1,3,5-trimethylbenzene	19.45	105	183175	1.25	ppb	98
71)	1,2,4-trimethylbenzene	19.95	105	129858	1.08	ppb	100
72)	1,3-dichlorobenzene	20.27	146	119771	1.28	ppb	100
73)	benzyl chloride	20.35	91	99135	1.18	ppb	98
74)	1,4-dichlorobenzene	20.42	146	117390m	1.28	ppb	
75)	1,2,3-trimethylbenzene	20.47	105	162899	1.21	ppb	98
76)	1,2-dichlorobenzene	20.79	146	120530	1.27	ppb	100
77)	1,2,4-trichlorobenzene	23.03	180	42781	1.09	ppb	97
78)	Naphthalene	23.25	128	85081	1.03	ppb	98
79)	Hexachloro-1,3-butadiene	23.38	225	98166	1.18	ppb	91

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040103.D Vial: 3
Acq On : 1 Apr 2020 12:05 pm Operator: RJP
Sample : ALCS1UG-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:24 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040117.D Vial: 13
Acq On : 1 Apr 2020 11:12 pm Operator: RJP
Sample : ALCS1UGD-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:23 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	9.91	128	36538	1.00	ppb		0.00
35) 1,4-difluorobenzene	12.20	114	131460	1.00	ppb		0.00
50) Chlorobenzene-d5	17.00	117	117792	1.00	ppb		0.00
System Monitoring Compounds							
65) Bromofluorobenzene	18.74	95	94637	1.12	ppb		0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 112.00%				
Target Compounds							Qvalue
2) Propylene	4.22	41	29143	1.11	ppb		95
3) Freon 12	4.27	85	169422	1.04	ppb		99
4) Chloromethane	4.47	50	34059	0.96	ppb		97
5) Freon 114	4.47	85	127985	1.01	ppb		94
6) Vinyl Chloride	4.67	62	34737	1.05	ppb		97
7) Butane	4.77	43	33530	0.95	ppb		96
8) 1,3-butadiene	4.78	39	27440	0.94	ppb		97
9) Bromomethane	5.12	94	47485	0.97	ppb		98
10) Chloroethane	5.29	64	23011	1.15	ppb		98
11) Ethanol	5.40	45	9462	1.02	ppb		89
12) Acrolein	5.99	56	10906	1.05	ppb		94
13) Vinyl Bromide	5.64	106	47579	1.16	ppb		99
14) Freon 11	5.92	101	183420	1.07	ppb		99
15) Acetone	6.09	58	23370	1.17	ppb	#	100
16) Pentane	6.20	42	39676	1.11	ppb		98
17) Isopropyl alcohol	6.20	45	52972	1.13	ppb	#	77
18) 1,1-dichloroethene	6.69	96	43621	1.16	ppb		100
19) Freon 113	6.89	101	115208	1.14	ppb		96
20) t-Butyl alcohol	6.92	59	58667	1.10	ppb	#	86
21) Methylene chloride	7.15	84	44996	1.08	ppb		96
22) Allyl chloride	7.14	41	40677	1.12	ppb		92
23) Carbon disulfide	7.32	76	137951	1.08	ppb		100
24) trans-1,2-dichloroethene	8.09	61	61114	1.12	ppb		97
25) methyl tert-butyl ether	8.12	73	92279	1.14	ppb		93
26) 1,1-dichloroethane	8.52	63	85801	1.14	ppb		98
27) Vinyl acetate	8.51	43	54173	1.06	ppb		98
28) Methyl Ethyl Ketone	9.01	72	17888	1.07	ppb	#	100
29) cis-1,2-dichloroethene	9.45	61	54830	1.09	ppb		94
30) Hexane	9.07	57	56235	1.19	ppb		98
31) Ethyl acetate	9.61	43	84434	1.11	ppb		99
32) Chloroform	10.07	83	116482	1.08	ppb		98
33) Tetrahydrofuran	10.24	42	29584	1.12	ppb		92
34) 1,2-dichloroethane	11.19	62	71658	1.04	ppb		100
36) 1,1,1-trichloroethane	10.90	97	124322	1.11	ppb		98
37) Cyclohexane	11.61	56	49054	1.18	ppb		95
38) Carbon tetrachloride	11.55	117	140488	1.11	ppb		100
39) Benzene	11.51	78	127163	1.16	ppb		98
40) Methyl methacrylate	13.07	41	42690	1.11	ppb		95
41) 1,4-dioxane	13.09	88	29425	1.19	ppb		96
42) 2,2,4-trimethylpentane	12.37	57	162960	1.16	ppb		99
43) Heptane	12.71	43	53195	1.19	ppb		95
44) Trichloroethene	12.84	130	68687	1.24	ppb		97
45) 1,2-dichloropropane	12.95	63	50922	1.19	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040117.D Vial: 13
Acq On : 1 Apr 2020 11:12 pm Operator: RJP
Sample : ALCS1UGD-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 07 09:26:23 2020 Quant Results File: A320_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

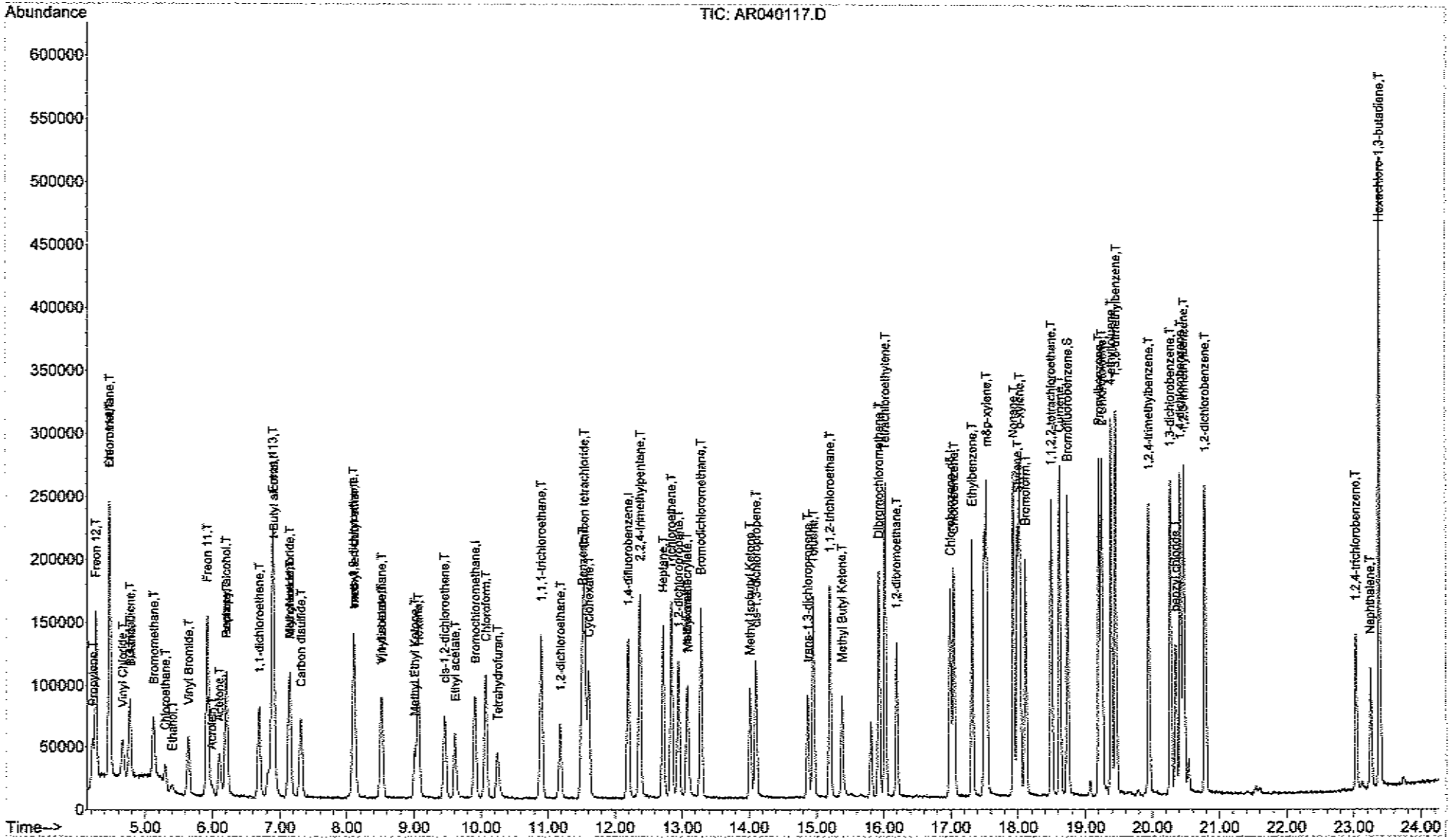
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Bromodichloromethane	13.28	83	126422	1.09	ppb		98
47)	cis-1,3-dichloropropene	14.10	75	78853	1.16	ppb		99
48)	trans-1,3-dichloropropene	14.87	75	60621	1.12	ppb		100
49)	1,1,2-trichloroethane	15.19	97	63759	1.14	ppb		98
51)	Toluene	14.95	92	81550	1.18	ppb		98
52)	Methyl Isobutyl Ketone	14.01	43	67415	1.09	ppb		98
53)	Dibromochloromethane	15.93	129	122360	1.06	ppb		99
54)	Methyl Butyl Ketone	15.38	43	61232	1.16	ppb		97
55)	1,2-dibromoethane	16.20	107	97528	1.17	ppb		99
56)	Tetrachloroethylene	16.02	164	69175	1.17	ppb		99
57)	Chlorobenzene	17.05	112	126577	1.15	ppb		98
58)	Ethylbenzene	17.32	91	170546	1.15	ppb		99
59)	m&p-xylene	17.53	91	311126	2.43	ppb		97
60)	Nonane	17.93	43	81054	1.23	ppb		99
61)	Styrene	18.00	104	125418	1.25	ppb		98
62)	Bromoform	18.11	173	110252	1.00	ppb		100
63)	o-xylene	18.03	91	184334	1.19	ppb		98
64)	Cumene	18.62	105	190364	1.15	ppb		99
66)	1,1,2,2-tetrachloroethane	18.50	83	139886	1.17	ppb		98
67)	Propylbenzene	19.21	120	52076	1.17	ppb		82
68)	2-Chlorotoluene	19.25	126	62852	1.26	ppb	#	93
69)	4-ethyltoluene	19.39	105	208676	1.19	ppb		100
70)	1,3,5-trimethylbenzene	19.46	105	201549	1.22	ppb		97
71)	1,2,4-trimethylbenzene	19.95	105	150211	1.11	ppb		100
72)	1,3-dichlorobenzene	20.27	146	129863	1.24	ppb		99
73)	benzyl chloride	20.35	91	104285	1.10	ppb		100
74)	1,4-dichlorobenzene	20.42	146	132377	1.28	ppb		99
75)	1,2,3-trimethylbenzene	20.47	105	181110	1.20	ppb		98
76)	1,2-dichlorobenzene	20.79	146	128475	1.20	ppb		100
77)	1,2,4-trichlorobenzene	23.04	180	48105	1.09	ppb		99
78)	Naphthalene	23.25	128	93621	1.00	ppb		98
79)	Hexachloro-1,3-butadiene	23.38	225	106394	1.13	ppb		92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\AR040117.D Vial: 13
Acq On : 1 Apr 2020 11:12 pm Operator: RJP
Sample : ALCS1UGD-040120 Inst : MSD #1
Misc : A311_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 7 9:26 2020 Quant Results File: A320_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Fri Apr 10 08:36:30 2020
Response via : Initial Calibration



GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

INJECTION LOG

Injection Log

Directory: C:\HPCHEM\1\DATA

Instrument #
Internal Standard Stock # A3705
Standard Stock # A3706
LCS Stock # A3707
MiscInfo: ref: EPA TO-15 / JanInjected

Line	Vial	FileName	Multiplier	SampleName	MiscInfo	Injected
221	1	Ar031901.d	1.	BFB1UG	A311_1UG	19 Mar 2020 09:40
222	2	Ar031902.d	1.	A1UG	A311_1UG	19 Mar 2020 10:31
223	3	Ar031903.d	1.	ALCS1UG-031920	A311_1UG	19 Mar 2020 11:19
224	4	Ar031904.d	1.	AMB1UG-031920	A311_1UG	19 Mar 2020 12:01
225	1	Ar031905.d	1.	WAC031920A	A311_1UG	19 Mar 2020 13:01
226	2	Ar031906.d	1.	WAC031920B	A311_1UG	19 Mar 2020 13:46
227	3	Ar031907.d	1.	WAC031920C	A311_1UG	19 Mar 2020 14:30
228	4	Ar031908.d	1.	WAC031920D	A311_1UG	19 Mar 2020 15:15
229	5	Ar031909.d	1.	WAC031920E	A311_1UG	19 Mar 2020 16:00
230	6	Ar031910.d	1.	WAC031920F	A311_1UG	19 Mar 2020 16:44
231	7	Ar031911.d	1.	WAC031920G	A311_1UG	19 Mar 2020 17:29
232	8	Ar031912.d	1.	WAC031920H	A311_1UG	19 Mar 2020 18:14
233	9	Ar031913.d	1.	WAC031920I	A311_1UG	19 Mar 2020 18:58
234		Ar031914.d	1.	No MS or GC data present		
235	1	Ar032001.d	1.	BFB1UG	A311_1UG	20 Mar 2020 11:13
236	2	Ar032002.d	1.	A1UG	A311_1UG	20 Mar 2020 12:42
237	3	Ar032003.d	1.	A1UG	A311_1UG	20 Mar 2020 17:14
238	4	Ar032004.d	1.	A1UG_2.0	A311_1UG	20 Mar 2020 18:04
239	5	Ar032005.d	1.	A1UG_1.50	A311_1UG	20 Mar 2020 18:53
240	6	Ar032006.d	1.	A1UG_1.25	A311_1UG	20 Mar 2020 19:40
241	7	Ar032007.d	1.	A1UG_1.0	A311_1UG	20 Mar 2020 20:27
242	8	Ar032008.d	1.	A1UG_0.75	A311_1UG	20 Mar 2020 21:12
243	9	Ar032009.d	1.	A1UG_0.50	A311_1UG	20 Mar 2020 21:57
244	10	Ar032010.d	1.	A1UG_0.30	A311_1UG	20 Mar 2020 22:41
245	11	Ar032011.d	1.	A1UG_0.15	A311_1UG	20 Mar 2020 23:26
246	12	Ar032012.d	1.	A1UG_0.10	A311_1UG	21 Mar 2020 00:11
247	13	Ar032013.d	1.	A1UG_0.04	A311_1UG	21 Mar 2020 00:55
248	14	Ar032014.d	1.	A1UG_0.03	A311_1UG	21 Mar 2020 01:39
249		Ar032015.d	1.	No MS or GC data present		
250	1	Ar032401.d	1.	BFB1UG	A311_1UG	24 Mar 2020 09:42
251	2	Ar032402.d	1.	A1UG	A311_1UG	24 Mar 2020 10:38
252	3	Ar032403.d	1.	ALCS1UG-032420	A311_1UG	24 Mar 2020 12:15
253	4	Ar032404.d	1.	AMB1UG-032420	A311_1UG	24 Mar 2020 12:57
254	1	Ar032405.d	1.	WAC032420A	A311_1UG	24 Mar 2020 14:09
255	2	Ar032406.d	1.	WAC032420B	A311_1UG	24 Mar 2020 14:54
256	3	Ar032407.d	1.	WAC032420C	A311_1UG	24 Mar 2020 15:38
257	4	Ar032408.d	1.	WAC032420D	A311_1UG	24 Mar 2020 16:23
258	5	Ar032409.d	1.	C2003058-002A	A311_1UG	24 Mar 2020 17:10
259	6	Ar032410.d	1.	C2003058-004A	A311_1UG	24 Mar 2020 17:57
260	7	Ar032411.d	1.	C2003058-006A	A311_1UG	24 Mar 2020 18:43
261	8	Ar032412.d	1.	C2003058-007A	A311_1UG	24 Mar 2020 19:30
262	9	Ar032413.d	1.	C2003058-001A	A311_1UG	24 Mar 2020 20:17
263	10	Ar032414.d	1.	C2003058-003A	A311_1UG	24 Mar 2020 21:04
264	11	Ar032415.d	1.	C2003058-005A	A311_1UG	24 Mar 2020 21:51
265	12	Ar032416.d	1.	C2003058-002A 10x	A311_1UG	24 Mar 2020 22:42
266	13	Ar032417.d	1.	C2003058-004A 10x	A311_1UG	24 Mar 2020 23:28
267	14	Ar032418.d	1.	C2003058-006A 10x	A311_1UG	25 Mar 2020 00:13
268	15	Ar032419.d	1.	C2003058-001A 10x	A311_1UG	25 Mar 2020 00:59
269	16	Ar032420.d	1.	C2003058-003A 10x	A311_1UG	25 Mar 2020 01:44
270	17	Ar032421.d	1.	C2003058-003A 40x	A311_1UG	25 Mar 2020 02:28
271	18	Ar032422.d	1.	C2003058-005A 10x	A311_1UG	25 Mar 2020 03:14
272	19	Ar032423.d	1.	ALCS1UGD-032420	A311_1UG	25 Mar 2020 04:00
273	20	Ar032424.d	1.	C2003058-002A 90x	A311_1UG	25 Mar 2020 08:06
274	21	Ar032425.d	1.	C2003058-003A 90x	A311_1UG	25 Mar 2020 08:51
275		Ar032426.d	1.	No MS or GC data present		

Centek Laboratories, LLC

Injection Log

Instrument # 1
Internal Standard Stock # A3717
Standard Stock # A3718
LCS Stock # A3719
Method Ref: EPA TO-15 / Jan. 1999

Directory: C:\HPCHEM\1\DATA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	Ar040101.d	1.	BFB1UG	A311_1UG	1 Apr 2020 10:18
:	2	Ar040102.d	1.	A1UG_1.0	A311_1UG	1 Apr 2020 11:10
	3	Ar040103.d	1.	ALCS1UG-040120	A311_1UG	1 Apr 2020 12:05
	4	Ar040104.d	1.	AMB1UG-040120	A311_1UG	1 Apr 2020 12:47
	1	Ar040105.d	1.	C2004002-001A	A311_1UG	1 Apr 2020 13:45
	2	Ar040106.d	1.	C2004002-002A	A311_1UG	1 Apr 2020 14:32
	3	Ar040107.d	1.	C2004002-003A	A311_1UG	1 Apr 2020 15:20
	4	Ar040108.d	1.	C2004002-004A	A311_1UG	1 Apr 2020 16:07
	5	Ar040109.d	1.	C2004002-005A	A311_1UG	1 Apr 2020 16:55
0	6	Ar040110.d	1.	C2004002-006A	A311_1UG	1 Apr 2020 17:42
1	7	Ar040111.d	1.	C2004002-007A	A311_1UG	1 Apr 2020 18:29
2	8	Ar040112.d	1.	C2004002-008A	A311_1UG	1 Apr 2020 19:17
3	9	Ar040113.d	1.	C2004002-009A	A311_1UG	1 Apr 2020 20:04
4	10	Ar040114.d	1.	C2004002-010A	A311_1UG	1 Apr 2020 20:51
5	11	Ar040115.d	1.	C2004002-011A	A311_1UG	1 Apr 2020 21:38
6	12	Ar040116.d	1.	C2004002-012A	A311_1UG	1 Apr 2020 22:25
7	13	Ar040117.d	1.	ALCS1UGD-040120	A311_1UG	1 Apr 2020 23:12
8	1	Ar040118.d	1.	C2004002-001A 10X	A311_1UG	1 Apr 2020 23:57
9	2	Ar040119.d	1.	C2004002-002A 10X	A311_1UG	2 Apr 2020 00:43
0	3	Ar040120.d	1.	C2004002-003A 10X	A311_1UG	2 Apr 2020 01:29
1	4	Ar040121.d	1.	C2004002-004A 10X	A311_1UG	2 Apr 2020 02:15
2	5	Ar040122.d	1.	C2004002-005A 10X	A311_1UG	2 Apr 2020 03:00
3	6	Ar040123.d	1.	C2004002-006A 10X	A311_1UG	2 Apr 2020 03:46
4	7	Ar040124.d	1.	C2004002-007A 10X	A311_1UG	2 Apr 2020 04:32
5	8	Ar040125.d	1.	C2004002-008A 10X	A311_1UG	2 Apr 2020 05:18
6	9	Ar040126.d	1.	C2004002-009A 10X	A311_1UG	2 Apr 2020 06:04
7	10	Ar040127.d	1.	C2004002-010A 10X	A311_1UG	2 Apr 2020 06:49
8	11	Ar040128.d	1.	C2004002-011A 10X	A311_1UG	2 Apr 2020 07:35
9	12	Ar040129.d	1.	C2004002-012A 10X	A311_1UG	2 Apr 2020 08:21
0		Ar040130.d	1.	No MS or GC data present		
1	1	Ar040301.d	1.	BFB1UG	A311_1UG	3 Apr 2020 11:41
2	2	Ar040302.d	1.	A1UG	A311_1UG	3 Apr 2020 12:35
3	3	Ar040303.d	1.	ALCS1UG-040320	A311_1UG	3 Apr 2020 13:40
4	4	Ar040304.d	1.	AMB1UG-040320	A311_1UG	3 Apr 2020 14:22
5	5	Ar040305.d	1.	C	A311_1UG	3 Apr 2020 15:07
6	6	Ar040306.d	1.	CAN	A311_1UG	3 Apr 2020 17:01
7	7	Ar040307.d	1.	CAN	A311_1UG	3 Apr 2020 17:44
8	8	Ar040308.d	1.	CAN	A311_1UG	3 Apr 2020 18:28
9	9	Ar040309.d	1.	CAN	A311_1UG	3 Apr 2020 19:12
0	10	Ar040310.d	1.	CAN	A311_1UG	3 Apr 2020 19:55
1	11	Ar040311.d	1.	CAN	A311_1UG	3 Apr 2020 20:39
2	12	Ar040312.d	1.	CAN	A311_1UG	3 Apr 2020 21:22
3	13	Ar040313.d	1.	CAN	A311_1UG	3 Apr 2020 22:06
4	14	Ar040314.d	1.	CAN	A311_1UG	3 Apr 2020 22:49
5	15	Ar040315.d	1.	CAN	A311_1UG	3 Apr 2020 23:33
6	16	Ar040316.d	1.	CAN	A311_1UG	4 Apr 2020 00:16
7	17	Ar040317.d	1.	CAN	A311_1UG	4 Apr 2020 01:00
8	18	Ar040318.d	1.	CAN	A311_1UG	4 Apr 2020 01:43
9	19	Ar040319.d	1.	CAN	A311_1UG	4 Apr 2020 02:27
0	20	Ar040320.d	1.	CAN	A311_1UG	4 Apr 2020 03:10
1	21	Ar040321.d	1.	CAN	A311_1UG	4 Apr 2020 03:54
2	22	Ar040322.d	1.	CAN	A311_1UG	4 Apr 2020 04:37
3	23	Ar040323.d	1.	CAN	A311_1UG	4 Apr 2020 05:21
4	24	Ar040324.d	1.	CAN	A311_1UG	4 Apr 2020 06:04
5	25	Ar040325.d	1.	CAN	A311_1UG	4 Apr 2020 06:48

GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

STANDARDS LOG

Centek Laboratories, LLC

GC/MS Calibration Standards Logbook

Std #	Date Prep	Date Exp	Description	Stock #	Stock Conc	Initial Vol (psig)	Finial Vol (psia)	Final Conc (ppb)	Prep by	Chkd by
A-3505	12/3/19	12/10/19	TO15 SUCF	A2573	1 ppm	1.5	30	50	EJ	
A-3506	↓	↓	↓ H2S	A2572	10.2 ppm	1.47	30	500	↓	
A-3507			TO15 1469 IS	A3498	50 ppb	0.9	45	1		
A-3508			STD	A3499	↓	↓	↓	↓		
A-3509	↓	↓	↓ LCS	A3500	↓	↓	↓	↓	↓	
A-3510	12/10/19	12/17/19	TO15 IS	A2927	1 ppm	1.5	30	50	EJ	
A-3511			STD	A2928	↓	↓	↓	↓		
A-3512			LCS	A2929	↓	↓	↓	↓		
A-3513			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3514			4PCHS	A3513	50 ppb	3.0	30	5		
A-3515			FORM	A2926	10.8 ppm	0.21	45	50		
A-3516			SILX	A2574 / A2633	449 ppb / 500 ppb	3.34 / 3.0	30	50		
A-3517			SUCF	A2573	1 ppm	1.5	30	50		
A-3518			H2S	A2572	10.2 ppm	1.47	30	500		
A-3519		↓	↓ H2S2S	A3518	500 ppb	1.5	30	25		
A-3520			TO15 1469 IS	A3510	50 ppb	0.9	45	1		
A-3521			STD	A3511	↓	↓	↓	↓		
A-3522	↓	↓	↓ LCS	A3512	↓	↓	↓	↓	↓	
A-3523	11/20/19	11/20/2020	TO15 IS	FF-50114		LINDE	2000 psig	1.0 ppm	LL	
A-3524	12/03/19	12/03/2020	TO15 STD	FF-11174		LINDE	2200 psig	1.0 ppm	LL	
A-3525	12/17/19	12/24/19	TO15 IS	A3523	1 ppm	1.5	30	50	EJ	

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Centek Laboratories, LLC

GC/MS Calibration Standards Logbook

Std #	Date Prep	Date Exp	Description	Stock #	Stock Conc	Initial Vol (psig)	Finial Vol (psia)	Final Conc (ppb)	Prep by	Chkd by
A-3610	2/4/20	2/11/20	TO15 STD	A2928	1 ppm	1.5	30	50	WD	
A-3611	↓	↓	LCS	A2929	↓	↓	↓	↓	↓	
A-3612			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3613			4PCH5	A3612	50 ppb	3.0	30	5		
A-3614			FORM	A2926	10.8 ppm	0.21	45	50		
A-3615			SILOX	A2574 / A2623	449 ppb / 500 ppb	3.34 / 3.0	30	50		
A-3616			SULF	A2573	1 ppm	1.5	30	50		
A-3617			H2S	A2572	10.2 ppm	1.47	30	500		
A-3618			TO15 IUG IS	A3609	50 ppb	0.9	45	1		
A-3619			STD	A3610	↓	↓	↓	↓		
A-3620	↓	↓	↓ LCS	A3611	↓	↓	↓	↓	↓	
A-3621	2/7/20	2/7/21	TO15 STD	FF529886	LINDE		2200 psig	1.0 ppm	WD	
A-3622	2/4/20	2/18/20	TO15 IS	A3523	1 ppm	1.5	30	50	WD	
A-3623			STD	A2928	↓	↓	↓	↓		
A-3624			LCS	A2929	↓	↓	↓	↓		
A-3625			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3626			4PCH5	A3625	50 ppb	3.0	30	5		
A-3627			FORM	A2926	10.8 ppm	0.21	45	50		
A-3628			SILOX	A2574 / A2623	449 ppb / 500 ppb	3.34 / 3.0	30	50		
A-3629			SULF	A2573	1 ppm	1.5	30	50		
A-3630	↓	↓	H2S	A2572	10.2 ppm	1.47	30	500	↓	

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Std #	Date Prep	Date Exp	Description	Stock #	Stock Conc	Initial Vol (psig)	Finial Vol (psia)	Final Conc (ppb)	Prep by	Chkd by
A-3652	2/25/20	3/3/20	TO15 SIXX	A2594 / A2623	499 ppb / 500 ppb	3.34 / 3.0	30	50	WJ	
A-3653	↓	↓	↓ SULF	A2573	1 ppm	1.5	30	50	↓	
A-3654			↓ H2S	A2572	10.2 ppm	1.47	30	500		
A-3655			TO15 146 IS	A3646	50 ppb	0.9	45	1		
A-3656			↓ STD	A3647	↓	↓	↓	↓		
A-3657	↓	↓	↓ LCS	A3648	↓	↓	↓	↓	↓	
A-3658	2/26/20	2/26/21	TO15 LCS	A2928	1 ppm	100 A20 / A2928	Is Now	LCS	WJ	
A-3659	3/3/20	3/10/20	TO15 IS	A3523	1 ppm	1.5	30	50	WJ	
A-3660	↓	↓	↓ STD	A3621	↓	↓	↓	↓	↓	
A-3661			↓ LCS	A3658	↓	↓	↓	↓		
A-3662			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3663			4PCH5	A3662	50 ppb	3.0	30	5		
A-3664			FORM	A2926	10.8 ppm	0.21	45	50		
A-3665			SIXX	A2574 / A2623	499 ppb / 500 ppb	3.34 / 3.0	30	50		
A-3666			SULF	A2573	1 ppm	1.5	30	50		
A-3667			↓ H2S	A2572	10.2 ppm	1.47	30	500		
A-3668			TO15 146 IS	A3659	50 ppb	0.9	45	1		
A-3669			↓ STD	A3660	↓	↓	↓	↓		
A-3670	↓	↓	↓ LCS	A3661	↓	↓	↓	↓	↓	
A-3671	3/10/20	3/17/20	TO15 IS	A3523	1 ppm	1.5	30	50	WJ	
A-3672	↓	↓	↓ STD	A3621	↓	↓	↓	↓	↓	

Std #	Date Prep	Date Exp	Description	Stock #	Stock Conc	Initial Vol (psig)	Finial Vol (psia)	Final Conc (ppb)	Prep by	Chkd by
A-3694	3/17/20	3/24/20	TO15 146 STD	A3685	50 ppb	0.9	45	1	WD	
A-3695	↓	↓	↓ LCS	A3686	↓	↓	↓	↓	↓	
A-3696	3/24/20	3/31/20	TO15 IS	A3523	1 ppm	1.5	30	50	WD	
A-3697			STD	A3621						
A-3698			LCS	A3658						
A-3699			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3700			4PCH5	A3699	50 ppb	3.0	30	5		
A-3701			FORM	A2926	10.8 ppm	0.21	45	50		
A-3702			SILOX	A2574 / A2623	499 ppb / 500 ppb	3.34 / 3.0	30	50		
A-3703			SULF	A2573	1 ppm	1.5	30	50		
A-3704			H2S	A2572	10.2 ppm	1.47	30	500		
A-3705			TO15 146 IS	A3696	50 ppb	0.9	45	1		
A-3706			STD	A3697						
A-3707			LCS	A3698						
A-3708	3/31/20	4/7/20	TO15 IS	A3523	1 ppm	1.5	30	50	WD	
A-3709			STD	A3621						
A-3710			LCS	A3658						
A-3711			4PCH	A3305	1.029 ppm	1.46	30	50		
A-3712			4PCH5	A3711	50 ppb	3.0	30	5		
A-3713			FORM	A2926	10.8 ppm	0.21	45	50		
A-3714			SILOX	A2574 / A2623	499 ppb / 500 ppb	3.34 / 3.0	30	50		

Centek Laboratories, LLC

GC/MS Calibration Standards Logbook

Std #	Date Prep	Date Exp	Description	Stock #	Stock Conc	Initial Vol (psig)	Finial Vol (psia)	Final Conc (ppb)	Prep by	Chkd
A-3715	3/31/20	4/7/20	TO15 SULF	A2573	1 ppm	1.5	30	50	WD	
A-3716	↓	↓	↓ H2S	A2572	10.2 ppm	1.47	30	500	↓	
A-3717			TO15 14G IS	A3708	50 ppb	0.9	45	1		
A-3718			↓ STD	A3709	↓	↓	↓	↓		
A-3719	↓	↓	↓ LCS	A3710	↓	↓	↓	↓	↓	
A-3720	4/7/20	4/14/20	TO15 IS	A3523	1 ppm	1.5	30	50	WD	
A-3721	↓	↓	↓ STD	A3621	↓	↓	↓	↓	↓	
A-3722			↓ LCS	A3658	↓	↓	↓	↓		
A-3723			↓ 4PCH	A3305	1.029 ppm	1.46	30	50		
A-3724			↓ 4PCHS	A3723	50 ppb	3.0	30	5		
A-3725			↓ FORM	A2926	10.8 ppm	0.21	45	50		
A-3726			↓ SILOX	A2574 / A2623	444 ppb / 500 ppb	3.39 / 3.0	30	50		
A-3727			↓ SULF	A2573	1 ppm	1.5	30	50		
A-3728			↓ H2S	A2572	10.2 ppm	1.47	30	500		
A-3729			TO15 14G IS	A3720	50 ppb	0.9	45	1		
A-3730			↓ STD	A3721	↓	↓	↓	↓		
A-3731	↓	↓	↓ LCS	A3722	↓	↓	↓	↓	↓	
A-										
A-										
A-										
A-										

FORM 153

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GC/MS VOLATILES-WHOLE AIR

METHOD TO-15

CANISTER CLEANING LOG

entek Laboratories, LLC

QC Canister Cleaning Logbook

strument: Entech 3100

anister Number	Canister Size	QC Can Number	# of Cycles	Int & Date Cleaned	QC Batch Number	Detection Limits	Leak Test 24hr Int & Date	
210	1L	360	20	3/6/20	WAC030920A	1/g ±0.20	+ 30	+ 30 3/10/20
1180							+ 30	+
93							+ 30	+
130							+ 30	+
360		↓					+ 30	+
1184		1191			B		+ 30	+
352							+ 30	+
3584							+ 30	+
544							+ 30	+
1191		↓					+ 30	+
353		351			C		+ 30	+
539							+ 30	+
239							+ 30	+
207							+ 30	+
351		↓					+ 30	+
281		141			D		+ 30	+
1174							+ 30	+
1177							+ 30	+
1190							+ 30	+
141		↓					+ 30	+
106		274			E		+ 30	+
541							+ 30	+
157							+ 30	+
243							+ 30	+
274	↓	↓	↓	↓	↓	↓	+ 30	+ ↓

Centek Laboratories, LLC QC Canister Cleaning Logbook

nstrument: Entech 3100

Canister Number	Canister Size	QC Can Number	# of Cycles	Int & Date Cleaned	QC Batch Number	Detection Limits	Leak Test 24hr Int & Date	
206	1L	1545	20	3/6/20	WAC030920G	1g ± 0.20	+ 30	+ 30 3/11/20
545							+ 30	+
164							+ 30	+
201							+ 30	+
1545							+ 30	+
96		333			H		+ 30	+
1195							+ 30	+
458							+ 30	+
327							+ 30	+
333							+ 30	+
284		107			I		+ 30	+
195							+ 30	+
562							+ 30	+
221							+ 30	+
107							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+
							+ 30	+

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Form C151

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030918.D Vial: 1
Acq On : 9 Mar 2020 11:36 pm Operator: RJP
Sample : WAC030920A Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 10 06:35:05 2020 Quant Results File: A218_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A218_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Tue Feb 18 17:28:19 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

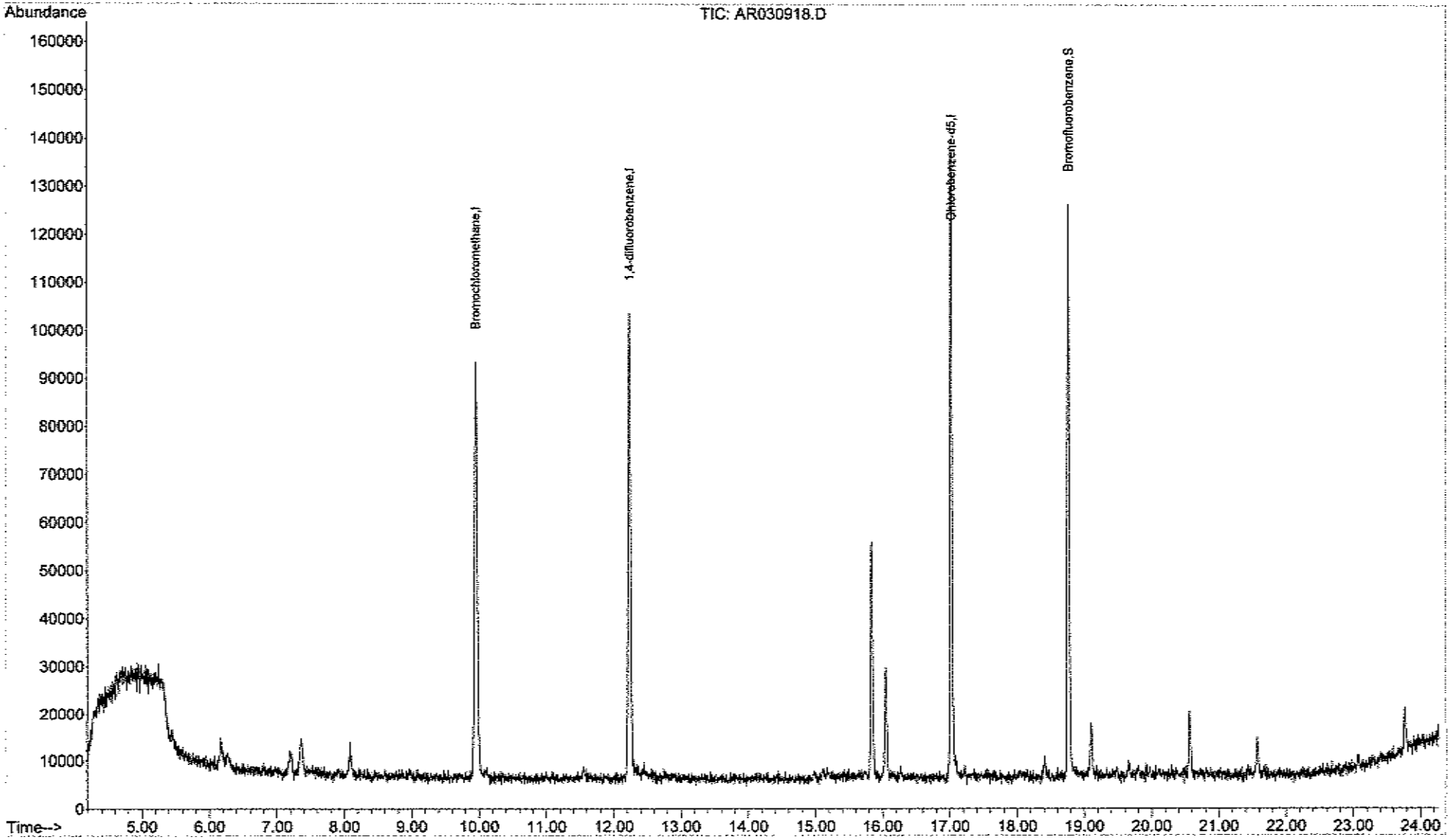
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.96	128	39339	1.00	ppb	0.03
35) 1,4-difluorobenzene	12.23	114	107653	1.00	ppb	0.02
50) Chlorobenzene-d5	17.02	117	97394	1.00	ppb	0.01
System Monitoring Compounds						
65) Bromofluorobenzene	18.77	95	47898m RJP	0.71	ppb	0.01
Spiked Amount 1.000	Range 70 - 130		Recovery = 71.00%			
Target Compounds						Qvalue

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

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030918.D Vial: 1
Acq On : 9 Mar 2020 11:36 pm Operator: RJP
Sample : WAC030920A Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 13:31 2020 Quant Results File: A218_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration



AR030918.D A320_1UG.M Mon Apr 13 11:21:33 2020 MSD1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030919.D Vial: 2
Acq On : 10 Mar 2020 12:20 am Operator: RJP
Sample : WAC030920B Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 10 06:35:06 2020 Quant Results File: A218_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A218_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Tue Feb 18 17:28:19 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

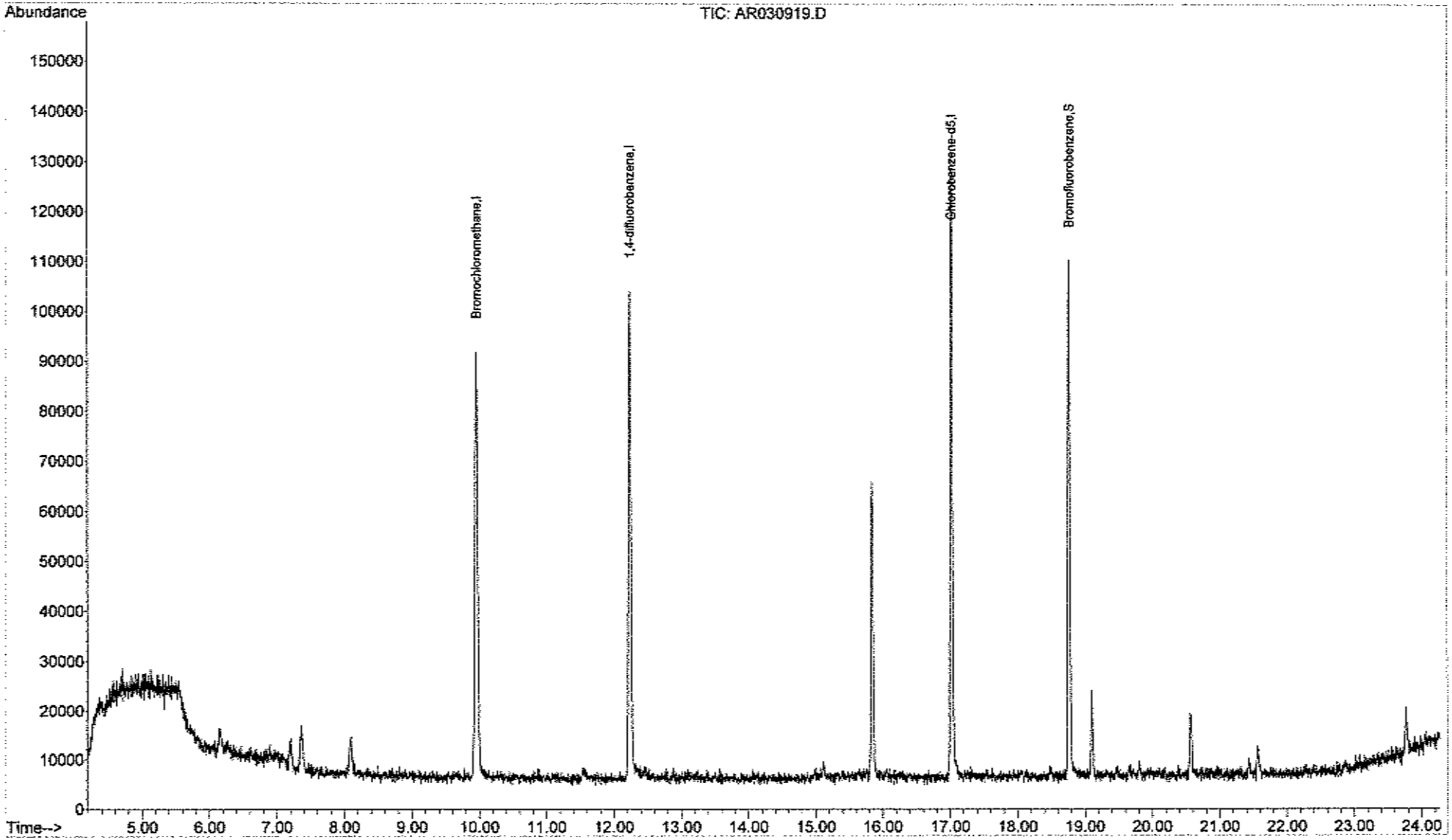
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.96	128	38858	1.00	ppb	0.03
35) 1,4-difluorobenzene	12.23	114	103995	1.00	ppb	0.02
50) Chlorobenzene-d5	17.02	117	85679m	1.00	ppb	0.01
System Monitoring Compounds						
65) Bromofluorobenzene	18.76	95	42008m	0.71	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 71.00%			
Target Compounds						Qvalue

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

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030919.D Vial: 2
Acq On : 10 Mar 2020 12:20 am Operator: RJP
Sample : WAC030920B Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 13:32 2020 Quant Results File: A218_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030920.D Vial: 3
Acq On : 10 Mar 2020 1:05 am Operator: RJP
Sample : WAC030920C Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 10 06:35:07 2020 Quant Results File: A218_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A218_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Tue Feb 18 17:28:19 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

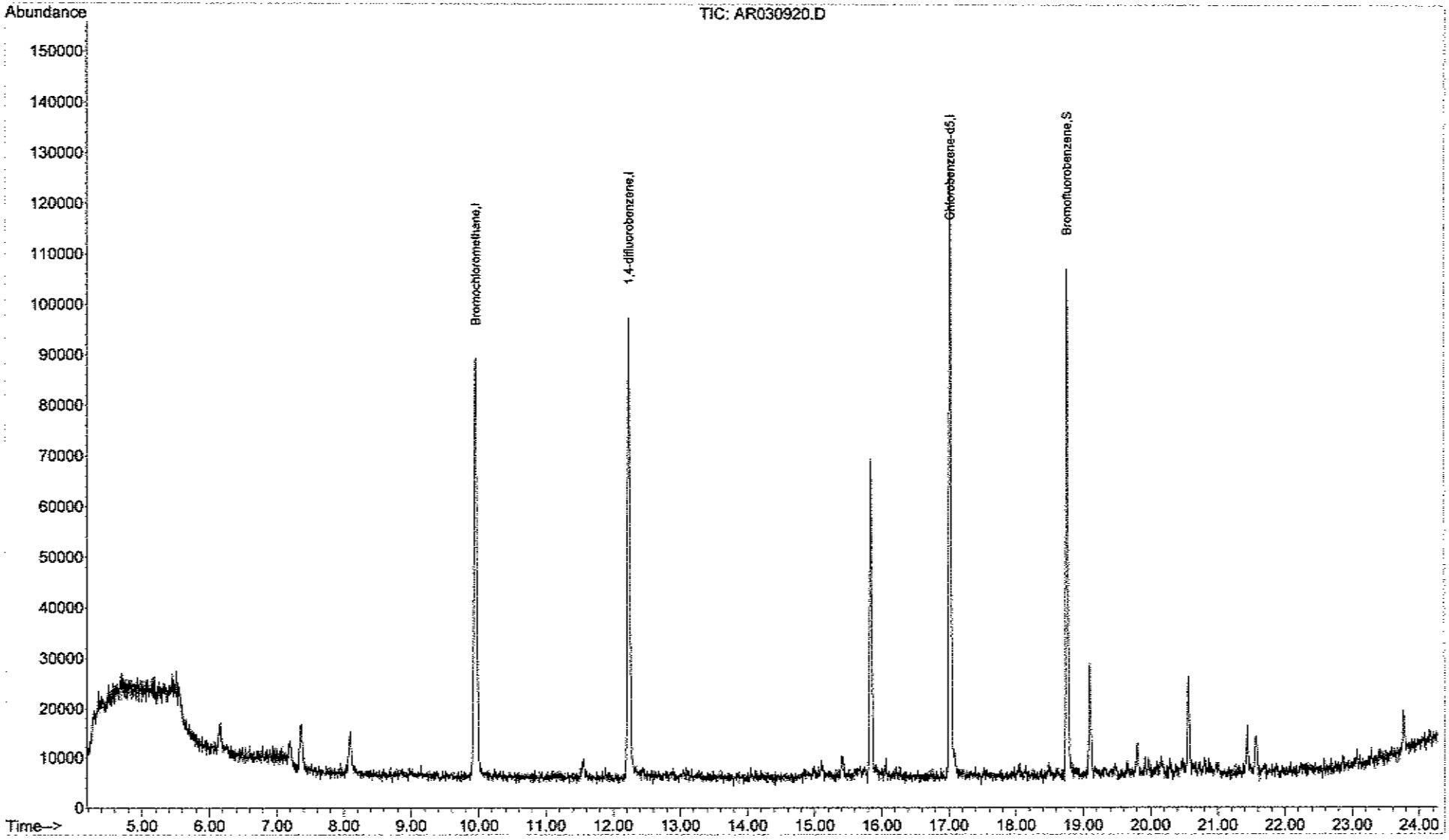
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.95	128	37257	1.00	ppb	0.02
35) 1,4-difluorobenzene	12.23	114	98094	1.00	ppb	0.02
50) Chlorobenzene-d5	17.02	117	79761m	1.00	ppb	0.01
System Monitoring Compounds						
65) Bromofluorobenzene	18.76	95	39830m	0.72	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 72.00%			
Target Compounds						Qvalue

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

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030920.D Vial: 3
Acq On : 10 Mar 2020 1:05 am Operator: RJP
Sample : WAC030920C Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 13:32 2020 Quant Results File: A218_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030923.D Vial: 6
Acq On : 10 Mar 2020 3:19 am Operator: RJP
Sample : WAC030920F Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 10 06:35:10 2020 Quant Results File: A218_1UG.RES

Quant Method : C:\HPCHEM\1\METHODS\A218_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Tue Feb 18 17:28:19 2020
Response via : Initial Calibration
DataAcq Meth : 1UG_ENT

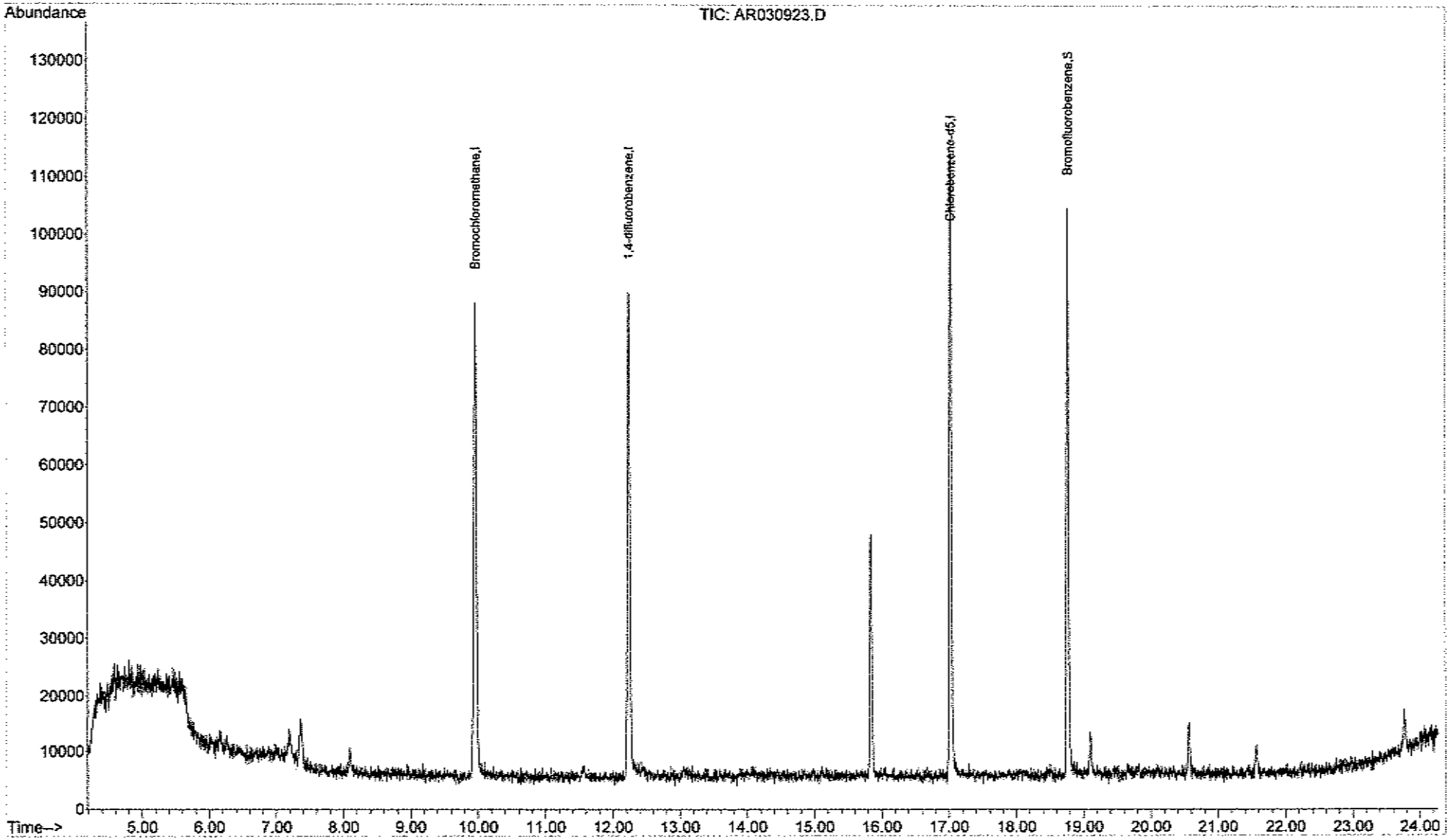
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	9.95	128	35906	1.00	ppb	0.03
35) 1,4-difluorobenzene	12.23	114	90268	1.00	ppb	0.02
50) Chlorobenzene-d5	17.02	117	73762m	1.00	ppb	0.01
System Monitoring Compounds						
65) Bromofluorobenzene	18.76	95	36750	0.72	ppb	0.00
Spiked Amount 1.000	Range 70 - 130		Recovery = 72.00%			
Target Compounds						Qvalue

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

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA2\AR030923.D Vial: 6
Acq On : 10 Mar 2020 3:19 am Operator: RJP
Sample : WAC030920F Inst : MSD #1
Misc : A218_1UG Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 13:33 2020 Quant Results File: A218_1UG.RES

Method : C:\HPCHEM\1\METHODS\A320_1UG.M (RTE Integrator)
Title : TO-15 VOA Standards for 5 point calibration
Last Update : Mon Mar 23 08:34:44 2020
Response via : Initial Calibration



AR030923.D A320_1UG.M Mon Apr 13 11:21:45 2020 MSD1 Page 2