



Periodic Review Report

Former Mimi Cleaners Site

NYSDEC VCP Site No. V00306-3

Scarsdale, New York

July 29, 2019



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1 Summary

1.1 Site, Nature and Extent of Contamination and Remedial History

This report is the Periodic Review Report (PRR) for the Former Mimi Cleaners site (the “site”) at 58 Christie Place in Scarsdale, Westchester County, New York (the CPB) and documents site management during the period June 28, 2016 to June 28, 2019 (see Figure 1). The CPB was reportedly constructed in the early 1950s; a dry cleaner had reportedly operated in the building at 58 Christie Place since approximately 1955. Mimi Cleaners, which sub-leased the space from Hausman Realty Co., Inc. (Remedial Party) until 1999, used PCE as its cleaning fluid (at least in the last years of its operation). The Remedial Party applied to NYSDEC to enter the Voluntary Cleanup Program (VCP) on 17 September 1999, and signed the agreement (VCA) on 26 June 2000. In July 2000, contaminated soil and concrete were removed from beneath the CPB; a soil vapor extraction (SVE) system was installed and operated for several years. After completion of the remedial work, some contamination was left in the subsurface, which is hereafter referred to as “remaining contamination.”

Potential subsurface vapor intrusion into the site building is controlled with a sub-slab depressurization system (SSDS), which has been in operation since 2007. Additional SSDSs were constructed and operated in nearby buildings and have since been shut down and removed due to decreasing sub-slab vapors and/or acceptable indoor vapors as approved by NYSDEC and NYSDOH.

Groundwater at the site is contaminated with volatile organic compounds (VOCs), primarily tetrachloroethene (PCE), trichloroethene (TCE), and cis 1,2-dichloroethene (c12-DCE). Two monitoring wells were installed in 2003. Groundwater concentrations of the chlorinated solvents of concern have been slowly decreasing since groundwater sampling was initiated in May 2003. The most recent groundwater sampling event was conducted in August 2018.

1.2 Effectiveness of the Remedial Program

The program has prevented unacceptable exposure to the site contaminants and is meeting the remedial goals which are: (1) prevention of exposure to remaining contamination in the soils below the slab by maintaining a competent concrete cover system (building slab), (2) prevention of intrusion of sub-slab vapors through the continued operation of the SSDS, and (3) prevention of exposure to contaminated groundwater.

1.3 Compliance

The monitoring, sampling and operations & maintenance activities have been implemented in accordance with the site management plan (SMP). On two occasions, there was an unexpected shut down of the SSDS due to a blower malfunction. Each

time, the issue was resolved, repairs were made as needed, and the SSDS resumed operation.

1.4 Recommendations

1. Requirements for discontinuing the operation of the SSDS at the CPB have not been met and the site management requirements for this building will not change.
2. The SMP was recently revised to reflect the NYSDEC and NYSDOH approved changes in the monitoring program. The SSDSs in five of the nearby buildings have been shut down and removed. Annual inspections are no longer required in these buildings since the SSDS equipment has been permanently removed and the extraction points removed and the slab penetrations sealed (some sections of the SSDS lateral piping was capped and left in place instead of being removed as approved by the building owners).

2 Site Overview

2.1 Description

The site is located in the Village of Scarsdale, Westchester County, New York and is identified in the VCA as the northeast corner of the Christie Place Building (CPB). The CPB is designated as Section 2, Block 5, Lots 11 and 12 on the Tax Map, covering approximately 0.3098 acres, of which the site comprises approximately 0.06 acres. CPB is bounded by Christie Place to the north, Spencer Place to the south, the Scarsdale Post Office to the east, and a parking lot and the Spencer Place Building to the west (see Figure 2). The boundaries of the CPB site are more fully described in Appendix A of the Site Management Plan (SMP).

The site is located in an area of mixed retail businesses and residential buildings and/or residents on the floors above the business tenants. The CPB is a slab-on-grade structure with a center hallway. The southern portion of the building floor slab is about 4 ft. lower than the northern portion with the center hallway at the same grade as the northern portion of the building. It appears that the two sections of the building may have been constructed at different times. The two sections of the building are each divided into tenant spaces; currently there are five tenant spaces in the southern portion and five tenant spaces in the northern portion of the building. There are no residences in the CPB. Figure 3 shows location of the monitoring wells in relation to the CPB and the location of the former Mimi Cleaners tenant space in the building as well as a summary of the data collected from the monitoring wells.

Groundwater is contaminated with PCE, TCE, and environmental degradation products of TCE and PCE (primarily c12-DCE). Groundwater flows southwest towards the Bronx River in the shallow underlying bedrock comprised of metamorphic mica schist of the Manhattan Formation, which tends to slope southwest from the site. Contaminant concentrations in the groundwater monitoring wells have been slowly decreasing since the wells were installed in 2003. During the most recent sampling event conducted in August 2108, MW-2 contained PCE at a concentration of 1.1 mcg/l and c12-DCE at a concentration of 1.8 mcg/l; TCE was not detected at the analytical detection limit of 1.0 mcg/l. MW-1 contained PCE at a concentration of 5.4 mcg/l; TCE and c12-DCE were not detected at their analytical detection limit of 1.0 mcg/l in MW-1. Table 1 provides a summary of the groundwater results since 2003. In accordance with the SMP, the next groundwater sampling event is scheduled for the summer of 2022.

The source of the remaining sub-slab vapor contamination under the CPB is believed to be NAPL in shallow bedrock above the groundwater table. A pilot test of in-situ chemical oxidation (ISCO) was performed at the CPB site in March 2012; however, it appears that it had little success in reaching and degrading residual contamination remaining under the building. Based on the active tenants in the building, the available locations for delivery of the ISCO chemical was rather limited for the pilot test. In addition, the duration available for delivery of the ISCO chemical was limited to the overnight interval after businesses were closed; it was determined that a full-scale delivery of the ISCO chemical to the sub-slab area was not feasible.

2.2 Remedial Program

Soil Excavation and SVE System Installation & Operation

In 2000, Lawler, Matusky and Skelly Engineers (which was subsequently acquired by HDR) developed an excavation work plan which was approved by NYSDEC; HDR inspected the soil excavation and removal activities were conducted by the contractor within the CPB in the area of the dry cleaning equipment in July 2000. The work was performed after business hours to minimize disruption of business, and nuisance odor complaints. The excavation removed all contaminated soil and concrete that was accessible. Figure 4 shows the area excavated within the building. A total of 73.5 tons of PCE-contaminated soil and concrete were removed and disposed of at a licensed disposal facility in Quebec, Canada. The removal extended to the top of bedrock (2-4 feet deep), which sloped to the southwest beneath the building. Laterally, the excavation extended northeastward toward Christie Place to near a utility vault; to the southwest at the excavation perimeter very low contaminant levels were evident; in other directions the building foundations and partitions limited excavation (depicted on Figure 4). The excavation was backfilled with clean gravel and the concrete slab was restored.

Because contamination was present at the top of the shallow bedrock and beneath building foundations, HDR with a subcontractor, INTEX Environmental Group (formally MEI Environmental), designed a soil vapor extraction (SVE) system to remove additional contamination and to maintain a partial vacuum under the floor slab to prevent vapor intrusion into the occupied areas of the building. The firms inspected its installation and startup, and HDR conducted the operations, maintenance, and monitoring activities for the SVE system onward from its startup in May of 2001. Figure 4 provides the layout of the SVE system. The SVE system removed volatile contaminants and operated until the source contaminants in the soils within the area of influence of the SVE were substantially depleted in 2004-2005. Diminishing recovery of contaminants by the SVE system led NYSDEC and NYSDOH to agree that a sub-slab depressurization system (SSDS) would better mitigate the potential for vapor intrusion of remaining sub-slab vapors.

Sub-Slab Depressurization System Installation & Operation

Soil vapor testing has been performed under the CPB and later under surrounding and down-gradient buildings. Sub-slab vapor testing conducted between 2011 and 2016 revealed concentrations of PCE under the CPB above 1,000 mcg/m³, the level at that time at which NYSDOH guidance recommended mitigation to minimize potential indoor air exposure, and above 250 mcg/m³ for TCE, the level at that time at which NYSDOH guidance recommended mitigation. In May 2017 NYSDOH reduced the TCE sub-slab vapor guidance concentration recommendation for mitigation to minimize potential indoor air exposure to 60 mcg/m³ (the PCE sub-slab vapor guidance concentration recommendation for mitigation to minimize potential indoor air exposure was not revised by NYSDOH). Indoor air concentrations did not exceed concentrations deemed acceptable under NYSDOH guidance in any of the buildings investigated.

Sub-slab testing beneath nearby buildings and indoor air testing, down-gradient of the CPB progressed from 2004 through 2010. The buildings tested as part of the offsite investigation activities for the site are those included on Figure 5. The building at 2

Spencer Place is currently occupied by an active dry cleaner and other tenants with residential housing above the first floor. The owner is reportedly investigating conditions at that location after initial sampling by HDR in July 2010 in this building revealed indoor air PCE concentration of 290 mcg/m³, well above the current NYSDOH guidance value of 10 mcg/m³ for indoor air. No additional investigations at this location were conducted by HDR on behalf of Hausman Realty in accordance with correspondence from NYSDEC indicating the building owner at 2 Spencer Place was planning to install a SSDS for that building to mitigate their indoor air concentrations of PCE.

During 2005, a SSDS for the CPB was designed and approved by NYSDEC and NYSDOH. Extraction points were installed through the floor slab of CPB throughout the building and were piped to a blower mounted on the building roof. The SVE piping under the slab in the northeastern portion of the building was used as part of the SSDS to depressurize the area under the slab in this portion of the building. The discharge stack from the SVE system was plumbed into the SSDS blower on the roof. Additional details of the system are provided in Appendix E of the SMP. The SSDS at the CPB has a current certificate to operate a Source of Air Contamination permit issued by Westchester County Department of Health (Permit No. 52-7227). Figure 6 contains the layout of the SSDS system as well as the sample ports used to measure the differential pressure on a quarterly basis. The results of the most recent sub-slab vapor and indoor air sampling event in the CPB (January 2016) are discussed in Section 5.2 of this report.

Five offsite buildings where sub-slab PCE concentrations exceeded 1,000 mcg/m³, and at which NYSDEC/NYSDOH requested that sub-slab depressurization systems be installed, are shown on Figure 7. They are the Scarsdale Post Office Building (SPOB), Spencer Place Building (SPB), DeCicco Building (DCB), Harwood Building (HWB), and the southern portion of the East Parkway Building (EPB). Although TCE is a degradation product of PCE, it was not found in these buildings at concentrations above any NYSDOH guidance concentration with the exception of the HWB. At HWB, it was determined that the source of elevated concentrations of TCE in the indoor samples was a tenant using a shoe polish containing TCE; the use of this polish was terminated and the tenant has since left the building.

Contaminant concentrations have decreased beneath these offsite buildings and/or indoor air sampling documented that there was not a vapor intrusion pathway into these buildings; therefore, NYSDEC and NYSDOH have approved shut-down of the five offsite SSDSs. Three of the systems were shut down in 2011; the other two offsite SSDS were shut down in 2012.

In June 2014, NYSDEC and NYSDOH approved the permanent shut down and removal of the SSDS equipment in the DCB, SPB, and SPOB based on the results of sub-slab vapor sampling and indoor air sampling conducted in December 2013 after the SSDSs in these buildings had been shut down for more than two years.

As part of the acceptance of the recommendations in the 2016 PRR, NYSDEC and NYSDOH agreed with the recommendation to the permanent shut down and removal of the SSDS equipment in the HWB and EPB based on the results of sub-slab vapor sampling and indoor air sampling conducted in January 2016 after the SSDSs in these buildings had been shut down for more than three years.

3 Remedy Performance, Effectiveness and Protectiveness

There is a Declaration of Covenants and Restrictions recorded with the land records in the Westchester County clerk's office that included the following restrictions:

1. "where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils"
2. "the owner of the Property shall not disturb or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which is described in the SMP, unless in each case the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency."
3. "the owner of the Property shall prohibit the Property from ever being used for purposes other than for **Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)** without the express written waiver of such prohibition from the Department or Relevant Agency."
4. "the use of groundwater underlying the property is prohibited without necessary water quality treatment, as determined by the Westchester County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department."

The owner of the building (Christie Place Owners LLC) and the building management team maintain a copy of the SMP and have instructed their tenants that there can be no improvements involving floor penetrations or disturbances without prior notification of the building management team such that any activities that compromise the floor in the building can be conducted in accordance with the Excavation Plan as described in the SMP.

The building tenants have been notified that they must not disturb any of the SSDS equipment including the extraction points, lateral piping, and the blower package. The tenants are notified by the building management team when HDR is required to be on site to conduct inspections, monitoring, or routine maintenance.

The area is served by municipal water and use of groundwater is prohibited by Westchester County regulations.

Reports previously provided to the NYSDEC demonstrate that the system adequately depressurizes the sub-slab environment. These reports are included in Attachment H of the Final Engineering Report (FER) prepared for this site. .

4 IC/EC Plan Compliance

4.1 IC/EC Requirements and Compliance

SSDS

Description. The SSDS is an engineering control that consists of one 5 horsepower regenerative blower on the roof of the building connected to eighteen individual sub-slab vapor extraction points as well as the discharge piping from the SVE system in the northeast corner of the building. The performance of the system to meet its goal of sub-slab depressurization has been demonstrated in the reports submitted since the system was started up. (See Attachment H of the FER to review these reports.) Ongoing performance is evaluated by routine quarterly monitoring of system pressures and vacuums and operating conditions (see additional details in Chapter 6).

Goal Status. The SSDS is fully in place and meeting its remediation goals; the system runs continuously (sub-slab depressurization).

In January 2016, SSDS at this location was shut down for six days to allow the sub-slab vapors and indoor air concentrations to equilibrate without the sub-slab area being depressurized prior to the collection of sub-slab vapor and indoor air samples. The system was turned back on after the samples were collected. The results of the indoor air samples collected at this time met the NYSDOH guidance values for PCE, TCE, and c12-DCE in indoor air.

In November 2016, the CPB SSDS had an unexpected shut down. HDR received a text message that there was no vacuum in the lateral legs. It was determined that there was a power outage in the area and power was restored to the SSDS the following day and the system was restarted.

In September 2017, there was another unexpected shut down of the SSDS due to a blower malfunction. HDR received a text notification that there was no vacuum in any of the lateral legs of the system. HDR conducted several troubleshooting visits and determined the sealed bearings on the blower were worn out and the blower needed to be replaced. The blower had been in operation 24/7 since it was put into operation in 2005. The blower was replaced and the SSDS resumed operation. The system was down for approximately four weeks during this outage.

Corrective Measures. The alert system notification for low vacuum has been working well. HDR staff involved with the project receive prompt notification via email and text message if the vacuum in the SSDS piping is reduced to near zero inches of water which would be an indication of a malfunction in the SSDS system (or possibly a power outage) causing a reduction in depressurization under the slab. As part of the quarterly inspections, the blower package on the roof of the building is inspected for any loose connections or indications of a failing component. In addition, the vacuum data from the seven main legs of the SSDS that are transmitted to a secure website for viewing and storage are now being reviewed on a monthly basis.

Conclusions and Recommendations. Now that the blower has been replaced, no changes to the system are needed.

Building Slab (Concrete Cover System)

Description. The building slab is considered an engineering control that consists of a permanent concrete slab throughout the building. The performance of the system to meet its goal of preventing exposure to residual contamination in the soil/fill below the building has been demonstrated in the reports submitted since the system was started up and also the quarterly inspections and observations conducted at the building. Performance of the cover system is evaluated by the quarterly inspections of the building as well as correspondence with the building management team to verify that the building tenants are not compromising or opening up the floor slab without proper inspection and monitoring. In accordance with the building management team and the quarterly inspections conducted at the site, the slab was not compromised during the interval between June 2016 and June 2019 except for two instances noted below due to renovation activities.

During this 3-year reporting interval, as part of tenant space renovation activities, the floor slab had to be cut open to facilitate the installation of sanitary drain lines for a sink and/or a bathroom in two tenant spaces. In September 2016 the floor slab was cut open to facilitate the installation of bathrooms and sinks as part of the renovation of Tenant Space # 01 (TS-01) for a new restaurant. In April 2017 the floor was opened in another space being renovated for the installation of a sink of Tenant Space # 03 (TS-03). NYSDEC was notified of these renovation activities. HDR conducted air monitoring of the tenant spaces when the slab was cut and removed. A portable photoionization detector (PID) was used to monitor for vapors in the tenant spaces and over the open slab areas. HDR did not measure any PID readings above background in the tenant spaces or over the open floor areas when they were opened. It should be noted that these tenant spaces were not open to the public or other tenants during renovation activities. The SSDS remained in operation during these renovation activities that required cuts in the floor slab. Typically these renovations require the floor to be opened for several days to a week. After the drain lines were installed, soils removed from the cuts were placed back in the trenched areas and the floor slab was repaired with concrete and a flooring system (tile) was installed in both locations.

Goal Status. The concrete cover system is fully in place and meeting its remediation goals; PID monitoring was conducted during renovations when floor slabs were required to be cut open. There were renovation activities at two additional tenant spaces, however, the floors at these locations did not need to be opened

Corrective Measures. There are no deficiencies in the system and corrective measures are not needed. HDR routinely remains in contact with the building management team to determine if there are any tenant space renovation activities that require the floor slab to be opened or compromised or any other activities that would potentially compromise the effectiveness of the SSDS.

Conclusions and Recommendations. No changes to the system are needed.

Water Use Restrictions

Description. The restriction is an institutional control included in the Declaration of Covenants and Restrictions that prohibits use of the site's groundwater unless NYSDEC approves otherwise. The site is served by municipal water and use of groundwater is prohibited by Westchester County regulations.

Goal Status. The restriction is fully in place and there are no on-site wells, other than the two monitoring wells used to assess ground water quality in the area of the site. In accordance with the SMP, the monitoring wells were sampled in August 2018 and they are scheduled to be sampled again in the summer of 2022.

Corrective Measures. There are no deficiencies and corrective measures are not needed.

Conclusions and Recommendations. No changes are needed.

Excavation Restrictions

Description. The restriction is an institutional control included in the Declaration of Covenants and Restrictions that prohibits the building slab from being opened or compromised which threatens the integrity of the slab as an engineering control unless the work is conducted in accordance with the Excavation Plan as described in the SMP. In accordance with correspondence with the building management team and the quarterly inspections conducted at the site, the slab was not opened or compromised during the interval between June 2016 and June 2019 except as described in the previous section. NYSDEC was notified prior to these renovation activities requiring the floor slab to be opened. HDR conducted air monitoring of the tenant spaces and the floor openings with a PID when the slabs were opened up; there were no PID measurements above background in the tenant spaces or over the open floor slab areas.

Goal Status. The restriction is fully in place and being complied with. Notification was provided to NYSDEC prior to the floor openings and HDR conducted monitoring with a PID when the floors were opened in accordance with the SMP and email correspondence with NYSDEC.

Corrective Measures. There are no deficiencies and corrective measures are not needed.

Conclusions and Recommendations. No changes are needed.

4.2 IC/EC Certification

A copy of the requisite certification is presented in Appendix A of this document. The Qualified Environmental Professional (QEP) section of the certification has been signed by Thomas E. Pease, P.E., the engineer for remedial operations at the site. The original signed document has been separately submitted to the NYSDEC.

In accordance with Appendix B of the SMP (Responsibilities of Owner and Remedial Party), the responsibilities for implementing the SMP are divided between Hausman Realty Co., Inc. (Remedial Party) and Christie Place Owners LLC (Owner). Attached at the back of Appendix A of this PRR, is a letter from Christie Place Owners LLC, dated 29 July 2019, certifying they are in compliance with Questions 2, 3, and 5 in Box 1, Question 6 and that the ICs are in place in Box 2, and all of the information in Box 3 of the PRR Enclosure 2 (Institutional and Engineering Controls Certification Form), including the correction to indicate that the site owner is Christie Place Owners LLC.

5 Monitoring Plan Compliance

5.1 Components of the Monitoring Plan

In accordance with the SMP, the CPB is inspected on a quarterly basis to determine if the slab and/or the SSDS piping in areas that the inspector has access is in good condition and is not compromised in any areas of the building. During the inspection, the blower package is inspected for signs of wear and/or required maintenance. In addition, during the quarterly inspection events, differential pressure data are collected from various sample ports in the floor slab throughout the CPB that are accessible to document the system is generally maintaining a negative pressure under the slab and the data is consistent with previous measurements from the sample ports. Vacuum data from the main lateral legs of the SSDS are recorded during the inspection events as well. The vacuum data from the main legs of the SSDS are transmitted to a secure website via a cellular modem every four hours for viewing and documentation that the system is operating as designed.

In accordance with the SMP, groundwater samples are collected from the two monitoring wells installed at the site every four years. The monitoring wells were last sampled in August 2018.

As part of an annual inspection event, the offsite buildings where SSDSs were installed but have been shut down, the building slabs and SSDS equipment were inspected when the shutdown SSDS equipment was still in place. The inspections at these locations were to document that there was no damage to the floor slab or the SSDS blower package, extraction points, or lateral piping that could compromise the seal and allow for a vapor intrusion pathway into the buildings since the previous inspection event. In addition, the building owners or their representatives were interviewed, if available, to determine if the building floors may have been compromised or opened up during the previous year.

It should be noted that the SSDS system components in the five offsite buildings were removed in September 2017. The blowers and associated components were removed, the sub-slab extraction points were removed and the slab penetrations were sealed. In some locations, the lateral piping was capped and left in place as approved by the building owners. Annual inspections at these five locations are no longer required; the final annual inspection event conducted at these five locations was in January 2017.

An annual inspection event continues to be conducted at the CPB at the same time as one of the quarterly sampling events (typically in January). The annual inspection logs from the January 2017 inspection event at the offsite buildings and the inspection logs from the inspection events conducted at the CPB during January in 2017, 2018, and 2019 are included in Appendix B of this document. Appendix B also includes graphs depicting the differential pressure measurements in seven of the lateral legs of the SSDS from July 2016 through June 2019 documenting the system has been running consistently 24/7 with a few minor shutdowns. The letter reports documenting and summarizing the SSDS equipment removal activities from the five offsite buildings were

submitted to the building owners and NYSDEC; these letter reports are included in Appendix C of this PRR.

As mentioned, previously, the CPB has a current certificate to operate a source of air contamination permit (Permit No. 52-7227) issued by Westchester County Department of Health (WCDOH). This permit was renewed during this reporting period for a three-year term from January 2019 through December 2021. WCDOH inspected the system in December 2018 to document nothing had changed, prior to issuing the permit renewal. The permit for CPB is included in Appendix D. As instructed by the WCDOH, the shut down SSDSs in the five offsite buildings required a current certificate to operate a source of air contamination permit until the system was dismantled and the discharge point and blower removed. After the five systems were removed, WCDOH conducted an inspection with HDR to verify the SSDS equipment, including the extraction points, discharge stack, and blower were removed at each location. Now that the SSDS components have been removed, WCDOH air discharge permits are no longer required for these five nearby buildings.

In accordance with the original SMP, sub-slab vapor samples and indoor air samples were to be collected from the HWB and EPB every two years. Samples were last collected from these two locations in January 2016. Based on the results of the 2016 sampling event and the previous sampling events, NYSDEC and NYSDOH approved the permanent shutdown of these two SSDSs as part of the approval of the recommendations in the previous PRR submitted to NYSDEC in July 2016. The SMP was revised to reflect this change.

In accordance with the original SMP, indoor air samples were to be collected from the HSBC Bank Building (HBB) every two years. The HBB was monitored for indoor air contaminants in February 2011, February 2012, and April 2015. At this location the building owner did not allow HDR to drill through the floor so sub-slab vapor samples were not collected. In addition, the building owner was not able to provide a date for HDR to collect the samples on several occasions. Based on the results of the samples collected from the HBB, indoor air concentrations of PCE were acceptable in accordance with NYSDOH guidelines (PCE was the only CVOC detected in the indoor air samples collected from the HBB). In a summary report submitted to NYSDEC in May 2015 for the HBB sampling event, HDR made a recommendation to NYSDEC and NYSDOH to discontinue the requirement for additional sampling at this location. In February 2016, NYSDEC sent a letter to the building owner indicating the indoor air sampling program at that location was going to be discontinued unless the owner allowed the collection of sub-slab vapor samples along with the indoor air samples. NYSDEC did not get a response back from the building owner. No additional monitoring is required at this building location, the SMP was revised to reflect this change.

5.2 Summary of the Monitoring Completed

Quadrennial Groundwater Monitoring

On 23 August 2018, HDR purged and sampled monitoring wells MW-1 (located in the parking lot of the DCB between the trash compactor and the CPB) and MW-2 (located on the north side of Spencer Place adjacent to the sidewalk). It should be noted that the curb box enclosure for MW-2 was paved over by the Village of Scarsdale approximately

two years ago when Spencer Place was resurfaced. HDR was given permission from the Village to remove the asphalt covering the monitoring well curb box to provide access to the well. There was a 1 to 2 inch layer of asphalt on top of the curb box. The well was in good condition when it was exposed; asphalt patch was used to patch the hole after the well was sampled and the curb box was closed up so it would not be a potential trip hazard for the public.

The wells were purged and sampled with dedicated polyethylene bailers. The yield and recharge rate in these monitoring wells is rather low; both wells purged dry. Approximately eight (8) gallons of groundwater were purged from MW-1 and six (6) gallons were purged from MW-2 before they were purged dry. A set of field chemistries, including temperature, pH, and specific conductivity, were measured during the purging process and also during the sample collection interval. The water purged from the wells was initially rather clear; it became slightly cloudy and turbid as the purging with the bailer proceeded. After allowing the monitoring wells to recover prior to sampling, the groundwater collected for analysis from the two wells was rather clear. There was no visible sheen or noticeable odor noted from the groundwater removed from either well during purging and sampling.

After the wells were purged dry they were allowed to recover prior to sampling. MW-2 is usually slow to recover; it recovered 25% in 45 minutes prior to collecting the sample and MW-1 recovered 92% in 50 minutes before it was sampled. The samples were collected with dedicated polyethylene bailers from the top of the water column. During sample collection, the bailer was gently lowered and raised in the water column to minimize sample turbidity. Samples were collected for Target Compound List (TCL) VOCs using EPA Method 8260B and submitted to Hampton-Clarke, Inc. of Fairfield, NJ for analysis.

Groundwater results from the August 2018 sampling event are summarized in Table 1 and on Figure 3. PCE was detected in MW-1 at a concentration of 5.4 mcg/l; no additional VOCs were detected in MW-1. In July 2014, MW-1 contained PCE at a concentration of 6.4 mcg/l. During the August 2018 sampling event, PCE and c12-DCE were detected in MW-2 at concentrations of 1.1 and 1.8 mcg/l, respectively. In July 2014, MW-1 contained no detectable PCE and c12-DCE was detected at a concentration of 1.1 mcg/l. TCE was not detected in either of the monitoring wells during this sampling event and has not been detected in either monitoring well since July 2012. A trip blank that accompanies the sample containers during the sampling event contained no detectable VOCs. Figure 8 provides a graphical representation of the CVOC concentrations detected in both monitoring wells since they were initially sampled in May 2003.

The concentration of PCE in MW-1 was just above its NYSDEC Class GA standard of 5 mcg/l; PCE and the c12-DCE were below their respective NYSDEC Class GA standards (5 mcg/l) in MW-2. No other VOCs were detected in either of the monitoring wells. As shown on Table 1, Figure 3, and Figure 8, the CVOCs concentrations in the groundwater continue to show a decreasing trend in both wells based on a comparison of the historical data. MW-2 has not exceeded any NYS VOC drinking water standards or guidance values since the June 2011 sampling event when PCE was detected at a concentration of 11 mcg/l. MW-1 contained the lowest concentration of PCE since the monitoring wells were installed in 2003.

Overall the CVOC concentrations in these two monitoring wells have shown a significant decrease since the wells were installed in 2003. As outlined in the SMP for the site, the two monitoring wells will be sampled again in 2022. After the next sampling event, an assessment will be made as to whether continued groundwater monitoring is warranted at this location for one or both monitoring wells. The groundwater sampling logs and the analytical data report are included in Appendix E of this PRR.

Quarterly SSDS Inspection & Monitoring Events at CBE

As discussed above, the SSDS at the CPB was inspected on a quarterly basis during this reporting period (June 29, 2016 to June 28, 2019). Differential pressure readings were collected from the sample ports in the floor slab and vacuum readings were collected from the main legs of the SSDS. In addition, the accessible slab areas and SSDS piping were inspected for damage that could compromise the seal and allow for a vapor intrusion pathway into the buildings.

In the previous 36 months (July 2016 through June 2019), the inspections at the CPB were conducted on the following dates:

- July 27, 2016
- October 28, 2016
- January 20, 2017
- April 11, 2017
- July 11, 2017
- October 20, 2017
- January 24, 2018
- April 24, 2018
- June 18, 2018
- October 31, 2018
- January 4, 2019
- April 22, 2019

Note: We have also included the results of the July 03, 2019 inspection event since it was conducted prior to the completion of this PRR.

Table 2 includes the vacuum readings in the main legs of the SSDS from July 2016 through June 2019 and Table 3 includes the differential pressure measurements taken from the sample ports in the floor slab from July 2016 through July 2019. When the blower was replaced in October 2017, the particulate filter on the blower was replaced.

As shown on Table 3, the SSDS is providing sufficient negative pressure under the building slab area. As has been observed in the past, there are a couple of locations in the center hallway, where on occasion, there has been little or no negative pressure under the slab at the sample port. It appears there may be some voids under the floor slab in this area or possibly some short-circuiting with outdoor air in this area such that a negative pressure is not maintained in this area occasionally. As depicted in Figure 6, there are three SSDS extraction points in the center hallway. In addition, historically, on occasion, there has been little or no negative pressure under the slab at sample port CP-DP-9 in Tenant Space # 04 (TS-04); this location is near the outside edge of the building slab as well as the below grade vault in front of the store; it appears there is occasional

short-circuiting with the outside air at this location such that a negative pressure is not always maintained at this localized area. Based on the results of the differential pressure measurements from locations surrounding these areas, an assessment has been made that overall the SSDS is providing sufficient vacuum to prevent vapor intrusion into the building. After the CPB SSDS became operational in 2009, the differential pressure results were discussed with the NYSDEC and NYSDOH and they concurred that the SSDS was providing sufficient overall vacuum under the slab to prevent vapor intrusion into the building.

Sub-Slab Vapor & Indoor Air Sampling Event

During this reporting period, no additional sub-slab vapor and indoor air samples were collected from the CPB or the offsite locations as per the SMP sample collection/monitoring schedule. The previous sub-slab vapor and indoor air sampling event at the CPB was conducted in January 2016 and was summarized in the previous PRR submitted in July 2016.

Christie Place Building – Previous Sampling Results Summary

Although not required as part of the SMP monitoring/sample schedule, two sub-slab samples and two co-located indoor air samples were collected from the CPB to provide an assessment of the condition of the sub-slab vapors and indoor air at this location during a sampling event conducted during the 2015-2016 heating season. In May 2017 NYSDOH revised their Vapor Intrusion Guidance Document Matrix Tables guidance values and included several additional CVOCs in the tables. Table 4 provides the revised NYSDOH matrix table guidance values.

The results of the previous sub-slab vapor and indoor air sampling at the CPB are detailed in the 2016 PRR. It should be noted that the concentrations of PCE, TCE, and c12-DCE in the sub-slab samples in the CPB (CPB SS-02 and CPB-SS-03) have been decreasing since April 2012 when samples were collected after the ISCO pilot test was conducted. Figure 9 and Table 5 provide a summary of the sub-slab vapor and indoor air data collected from the CPB and the sample locations in the building.

5.3 Comparisons with Remedial Objectives

Christie Place Building

Groundwater Sampling Results - 2018

In the August 2018 sampling event, the concentration of PCE in MW-1 was just above its NYSDEC Class GA standard of 5 mcg/l at a concentration of 5.4 mcg/l. PCE and c12-DCE were below their respective NYSDEC Class GA standards (5 mcg/l) in MW-2. No other VOCs were detected in either of the monitoring wells. As shown on Table 1, Figure 3, and Figure 8, the CVOCs concentrations in the groundwater continue to show a decreasing trend in both wells based on a comparison of the historical data. MW-2 has not exceeded any NYS VOC drinking water standards or guidance values since the June 2011 sampling event when PCE was detected at a concentration of 11 mcg/l. MW-1 contained the lowest concentration of PCE since the monitoring wells were installed in 2003.

Overall the CVOC concentrations in these two monitoring wells have shown a significant decrease since the wells were installed in 2003. The two monitoring wells are scheduled to be sampled again in 2022.

Sub-Slab & Indoor Air Sampling

Figure 9 and Table 5 provide a summary of the data collected from the CPB. As shown in the figure and the table, the sub-slab concentrations of CVOCs have decreased since the April 2012 and November 2012 sampling events. The table and the figure also include the data collected from the building since November 2011, prior to the pilot ISCO treatment below the slab conducted in March 2012.

Elevated concentrations of PCE were still present in both of the sub-slab vapor samples during the January 2016 sampling event; however, concentrations have been decreasing significantly since the April and November 2012 sampling events. The sub-slab sample locations are in the TS-05 tenant space in the northeast corner of the building where dry cleaning machines of the former Mimi Cleaners were located (CPB-SS-02) and in the TS-02 tenant space (CPB-SS-03). CPB-SS-02 and CPB-SS-03 contained PCE concentrations of 16,000 and 36,000 mcg/m³, respectively, in January 2016. During the April 2012 and December 2013 sampling events, the CPB-SS-02 sub-slab sample contained PCE at concentrations of 83,000 and 37,000 mcg/m³, respectively. During the April 2012, November 2012 sampling events, and December 2013 sampling event, the CPB-SS-03 sub-slab sample contained PCE at concentrations of 280,000, 460,000 and 46,000 mcg/m³, respectively.

The indoor air samples collected during the January 2016 sampling event (CPB-IA-02 and CPB-IA-03) contained PCE concentrations of 23 and 4.1 mcg/m³, respectively. During the November 2012 sampling event, these two indoor samples contained PCE at concentrations of 19 and 5.2 mcg/m³, respectively.

TCE was detected in the two sub-slab samples from CPB-SS-02 and CPB-SS-03 at concentrations of 160 and 2,000 mcg/m³, respectively during the January 2016 sampling event. During the April 2012, November 2012, and December 2013 sampling events, CPB-SS-03 contained TCE concentrations of 13,000, 7,600, and 2,900 mcg/m³. There were no detectable concentrations of TCE in the samples collected from CPB-SS-02 in April 2012; however, the TCE detection limit for this sample was 540 mcg/m³, due to the elevated PCE concentration in the sample. CPB-SS-02 was not sampled in November 2012. In December 2013, TCE was detected at a concentration of 290 mcg/m³ in the CPB-SS-03 sample.

The indoor air samples collected in January 2016 contained TCE concentrations of 0.40 mcg/m³ and below the detection limit of 0.21 mcg/m³ in CPB-IA-02 and CPB-IA-03, respectively.

During the January 2016 sampling event, c12-DCE was detected in the CPB-SS-02 and CPB-SS-03 sub-slab samples at concentrations of 74 and 7,800 mcg/m³, respectively. The indoor air samples collected in January 2016 contained c12-DCE concentrations of 0.69 mcg/m³ and below the detection limit of 0.16 mcg/m³ in CPB-IA-02 and CPB-IA-03, respectively.

In accordance with the NYSDOH vapor intrusion guidance document, the concentrations of PCE in the sub-slab samples places it in the “mitigate” category with respect to PCE under the original (October 2006) and revised (May 2017) guidance matrices. The concentrations of TCE in the sub-slab samples place it in the “mitigate” category for both samples based on the revised NYSDOH matrix table for TCE. Concentrations of c12-DCE in the sub-slab samples places it in the “mitigate” category for both samples based on the revised NYSDOH matrix table for c12-DCE. The results of the January 2016 sampling event at the CPB indicate there is not a significant vapor intrusion pathway into the building and the CVOC concentrations continue to show a reduction; however, the sampling results still warrant the continued operation of the SSDS in the CPB. See the previous PRR (July 2016) for additional details of the January 2016 sampling event.

5.4 Monitoring Deficiencies

The monitoring fully complied with the Monitoring Plan.

5.5 Conclusions and Recommendations

The monitoring being conducted continues to achieve its goals. HDR is recommending the continued operation of the SSDS at the CPB. In addition, HDR recommends the collection of sub-slab and indoor samples from the same sample locations as the January 2016 sampling event during the 2019-2020 heating season to provide an updated assessment of the sub-slab vapor concentrations under the CPB.

6 Operation and Maintenance Plan Compliance

6.1 Components

The Operation and Maintenance (O&M) Plan requires inspection of the CPB building slab and SSDS on a quarterly basis.

Concrete Slab Inspections

As part of the quarterly inspections at the CPB, the building slab is inspected to determine if there has been any damage to the floor slab (cracks, holes, or penetrations/openings, that could compromise the cover system, allowing for a potential vapor intrusion pathway into the buildings. In addition, the building owners or their representative are interviewed on an annual basis, if available, to determine if the building floors may have been compromised or opened up during the previous year.

As approved by NYSDEC and NYSDOH, the offsite buildings no longer require annual inspections since the SSDS components were removed or capped in September 2017; all of the extraction points were removed and the floor penetrations were sealed with concrete.

SSDS

The quarterly inspections at the CPB include recording the vacuums on the seven main extraction legs of the system, vacuums on the moisture accumulator and dilution (bypass) bleed, pressure on the blower exhaust. As stated previously, the SSDS at the CPB runs on a continuous basis. The measurements are entered onto the field data sheets that are then transferred to a spreadsheet (see Table 2). Differential pressure readings are collected from the sample ports in the floor to document that the sub-slab maintains a negative pressure to remove a potential vapor intrusion pathway into the building. Inspection-to-inspection measurements are compared to identify possible degradation in system vacuum or the sub-slab vacuums.

As mentioned previously, there were there were two unexpected CPB SSDS system shut downs during this 3-year reporting period. In November 2016, the CPB SSDS had an unexpected shut down due to a power outage in the area; power was restored to the SSDS the following day and the system was restarted. HDR received a text notification that there was no vacuum in any of the lateral legs of the system when the power outage occurred. In September 2017, there was another unexpected shut down of the SSDS due to a blower malfunction. HDR received a text notification that there was no vacuum in any of the lateral legs of the system. HDR conducted several troubleshooting visits and determined the sealed bearings on the blower were worn out and the blower needed to be replaced. The blower had been in operation 24/7 since it was put into operation in 2005. The blower was replaced and the SSDS resumed operation. The system was down for approximately four weeks during this outage.

During the renovation activities of the TS-01 tenant space, the building contractor conducting the renovations indicated that it would be helpful if one of the SSDS extraction points could be moved a short distance to facilitate the installation of a walk-in freezer according to the drawings. In November 2016, HDR removed the existing extraction point in question and filled the slab penetration with concrete. A new hole was cored through the floor to facilitate installation of a new extraction point approximately four feet away from the previous location. This new location was inside a wall that was to be installed as part of the renovation activities so the extraction piping would be concealed. The new extraction point was plumbed into the existing lateral piping that runs out into the center hallway and eventually up to the blower on the roof.

During the renovation activities of Tenant Space # 07 (TS-07) in June 2018, the flooring system was being replaced as part of the renovation activities. After renovation activities had started HDR was contacted by the architect for the renovation who indicated one of the extraction points was loose in the floor after they removed the old flooring system. HDR re-secured the extraction points in the space and the piping was reconnected to the lateral leg that exits into the common hallway.

The email/test alert system has been working well to notify HDR quickly if there is a significant loss of vacuum in one of the lateral piping legs that would indicate the blower has malfunctioned or possibly lateral leg piping has been damaged. Staff involved with the project receive a prompt notification via email and/or text message if the vacuum in the SSDS piping is reduced to near zero inches of water indication a possible of a malfunction of the SSDS system that could cause a reduction in depressurization under the slab.

The offsite buildings that had SSDSs are no longer inspected on an annual basis since the equipment and piping has been removed or capped.

6.2 Summary of O&M Completed

Concrete Slab Inspections

The requisite inspection frequency was achieved, without exception, during the reporting period. Additional operator visits were completed as required to address system repairs at the CPB. The CPB SSDS ran continuously for this period, except as noted below:

1. In September 2016, the floor slab was opened up in TS-01 to facilitate the installation of waste lines for bathrooms and a couple of sinks. HDR conducted air monitoring with a PID when the floor was opened.
2. In November 2016, the SSDS shut down unexpectedly due to a power outage in the area; the SSDS was started up the following day.
3. In April 2017, the floor slab was opened up in TS-03 to facilitate the installation of waste lines for a sink. HDR conducted air monitoring with a PID when the floor was opened.
4. In September 2017, the CPB SSDS shut down unexpectedly. It was determined that the sealed blower bearings were worn out and the blower needed to be

replaced. A new blower was installed and the SSDS was started back up in October 2017.

6.3 Evaluation

During the reporting period, there were two short-term shutdowns of the SSDS. Nevertheless, the system operated as designed and continued to achieve its remedial goal of preventing vapor intrusion into the building.

During the reporting period, the concrete cover system (building slab) functioned as designed. As noted previously, the floor was opened up in two tenant spaces for short durations to facilitate the installation of waste water lines.

6.4 Deficiencies

There were no deficiencies in complying with the O&M Plan during this reporting period.

6.5 Conclusions and Recommendations

Continued operation of the SSDS is required. No changes to the O&M Plan are needed.

7 Overall PRR Conclusions and Recommendations

7.1 Compliance with Site Management Plan

1. For each component of the Site Management Plan (IC/EC, Monitoring Plan, O&M Plan), all requirements were met during this reporting period.
2. The additional operations and maintenance procedures to provide prompt notification to HDR when the SSDS shuts down unexpectedly due to an equipment malfunction/failure or power outage that were instituted after the 2016 PRR are working well and will remain in place.

7.2 Performance and Effectiveness of the Remedy

The Site Management Plan is achieving the remedial objectives for the site:

1. The sub-slab of the Christie Place Building is depressurized on a continuous basis.
2. Excavation through the building slab and elsewhere at the site is controlled. There were short-term excavation activities at two locations that were monitored by HDR with a PID when the floor slabs were opened.
3. Groundwater at the site is not being used.

7.3 Recommendations

HDR recommends the continued operation of the SSDS at the CPB and the continued groundwater quadrennial monitoring schedule.

7.4 Future PRR Submittals

The remedial systems at the CPB have been operating reliably for many years and monitoring results show no adverse trends. Therefore, the frequency for submittal of PRRs should continue on a triennial basis (once every three years); the next report being due on July 30, 2019.

8 References

Documents Submitted to NYSDEC during the Reporting Period

Letter. John Guzewich (HDR) to Robert Filkins. (October 11, 2017).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – Scarsdale Post Office Building (SPOB); 29 Chase Road

Letter. John Guzewich (HDR) to Robert Filkins. (October 11, 2017).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – Spencer Place Building (SPB); 23-27 Spencer Place

Letter. John Guzewich (HDR) to Robert Filkins. (October 11, 2017).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – DeCicco Building (DCB); 58 East Parkway

Letter. John Guzewich (HDR) to Robert Filkins. (October 11, 2017).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – Harwood Building (HWP); 14 Harwood Court

Letter. John Guzewich (HDR) to Robert Filkins. (October 11, 2017).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – East Parkway Building (EPB); 8-16 East Parkway

Letter. John Guzewich (HDR) to Robert Filkins. (October 4, 2018).
Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
VCP Site No. V00306-3
Groundwater Sampling Results - 2018

Documents Received from NYSDEC during the Reporting Period

Letter. Robert Filkins (NYSDEC) to Hausman Realty Corporation. (August 29, 2016).
Site Management (SM) Periodic Review Report (PRR) Response Letter
Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Letter. Robert Filkins (NYSDEC) to Mr. Jerome Lawton. (February 4, 2016).
Site Management (SM) Periodic Review Report (PRR) Response Letter
Former Mimi Cleaners Site (NYSDEC site # V00306
Notification of the discontinuation of the sampling program at the HBB

Figures

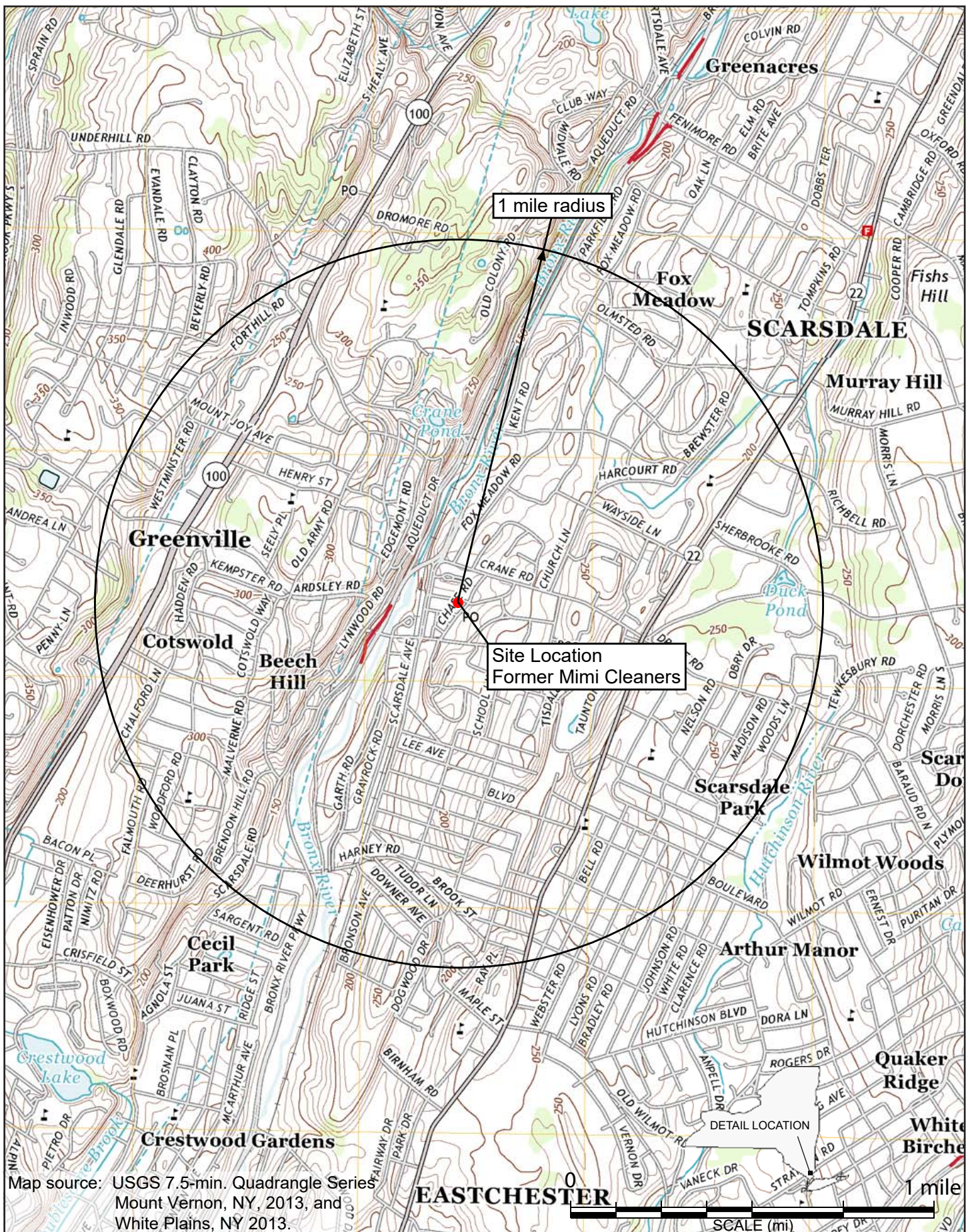


Figure 1

Site Location Map

Former Mimi Dry Cleaners
Scarsdale, NY



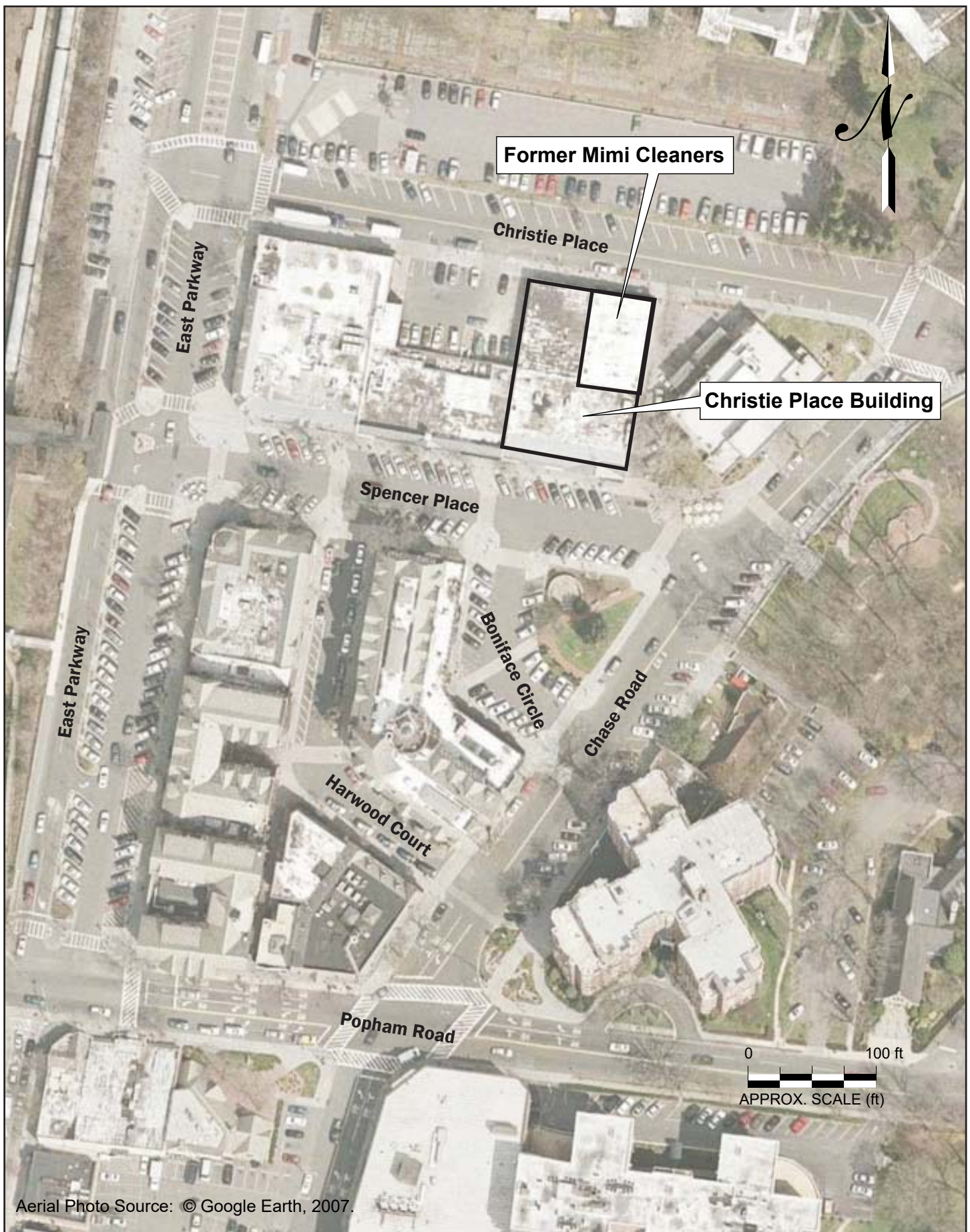


Figure 2
Location of Former Mimi Cleaners
Former Mimi Dry Cleaners
Scarsdale, NY

HDR Sample ID	MW-1									NYSDEC Drinking Water Standards (a)
Date Sampled	5/30/03	9/17/03	7/11/06	6/21/07	4/7/08	6/23/11	7/24/12	7/15/14	8/22/18	
VOCs (ug/L)										
Acetone	NR	2.0 j	ND	ND	ND	ND	ND	ND	ND	50
Total 1,2-Dichloroethene ¹	6.6	13	19 j	17	2.1	ND	ND	ND	ND	5
Chloroform	0.52 j	ND	ND	ND	ND	ND	ND	ND	ND	7
Trichloroethene	12	42	27 j	20	2.2	ND	1.7	ND	ND	5
Tetrachloroethene	180 d	1300 d	1000 d	480	25	14	28	6.4	5.4	5

CONDOMINIUMS

FORMER
MIMI DRY CLEANERS

CHRISTIE PLACE

DECICCO'S

PARKING

MW-1

POST
OFFICE

CHASE ROAD

Legend



Monitoring well location, former Mimi Cleaners

MW-2

NOTE: Locations are approximate

SPENCER PLACE

(a) - Division of Water Technical and Operational Guidance Series (1.1.1), June 1998.

d - Indicates all compounds identified in an analysis at a secondary dilution factor.

j - Indicates an estimated value. This compound meets the identification criteria, but the result is less than the specified detection limit.

NR - Not analyzed

Note - Numbers in **bold** exceed the Class GA Standard.

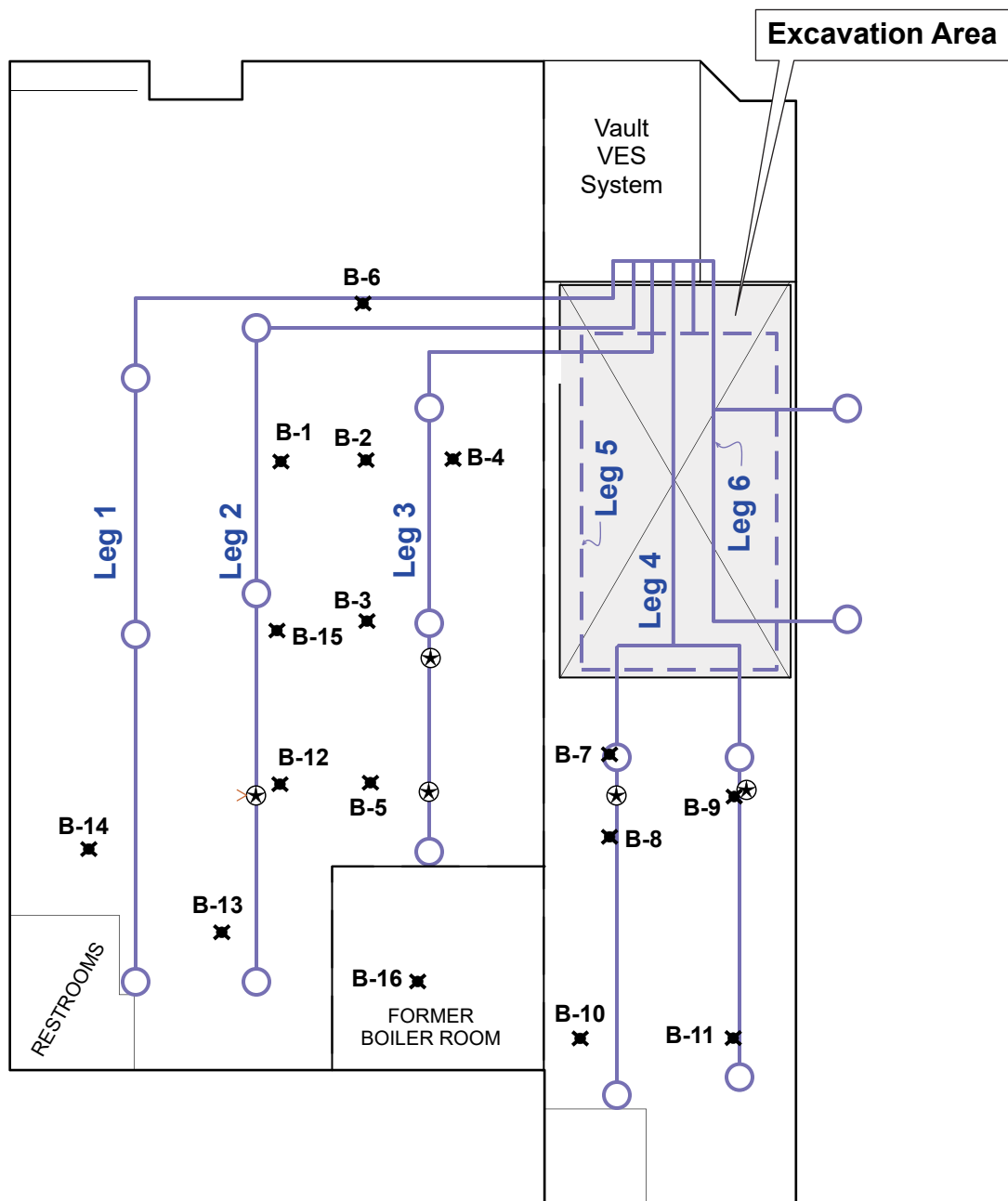
Map source: Developed from field sketch and notes.

HDR Sample ID	MW-2									NYSDEC Drinking Water Standards (a)
Date Sampled	5/30/03	9/17/03	7/11/06	6/21/07	4/7/08	6/23/12	7/24/12	7/15/14	8/23/18	
VOCs (ug/L)										
Acetone	ND	6.0 j	ND	ND	ND	ND	ND	ND	ND	50
Total 1,2-Dichloroethene ¹	2.0	2.0 j	ND	7.5	2.2	ND	ND	1.1	1.8	5
Chloroform	1.1	1.0 j	1.4	ND	ND	ND	ND	ND	ND	7
Trichloroethene	3.1	3.0 j	3.0 j	3.1 j	6.4	1.7	1.3	ND	ND	5
Tetrachloroethene	50	53	54	48	37	11	4.8	ND	1.1	5

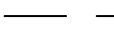
0 80 ft
APPROX. SCALE
1 in. = 80 ft



Figure 3
Groundwater Monitoring Well Locations and Sampling Results Summary
(2003 through 2018)
Former Mimi Dry Cleaners
Scarsdale, NY



LEGEND

-  End point sample location and vacuum monitoring points
-  Boring location
-  Boring location
-  Vapor extraction point
-  Perforated extraction lateral (Leg 5)

0 10 ft
APPROX. SCALE
1"=10'

Figure 4

Christie Place Building Soil Excavation Area and SVE Layout

Former Mimi Dry Cleaners
Scarsdale, NY



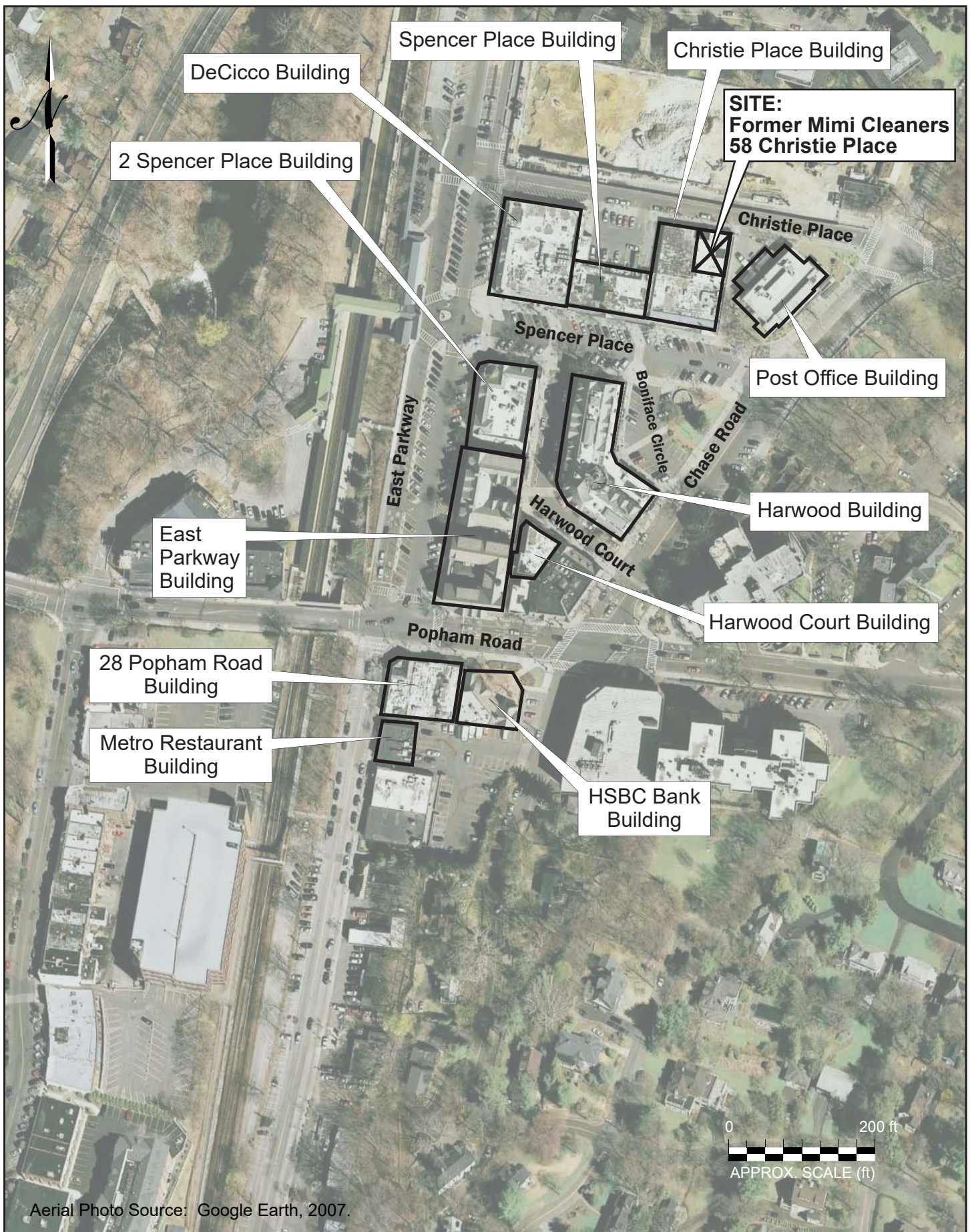


Figure 5
Buildings Included in the Onsite and Offsite Investigations

**Former Mimi Dry Cleaners
 Scarsdale, NY**



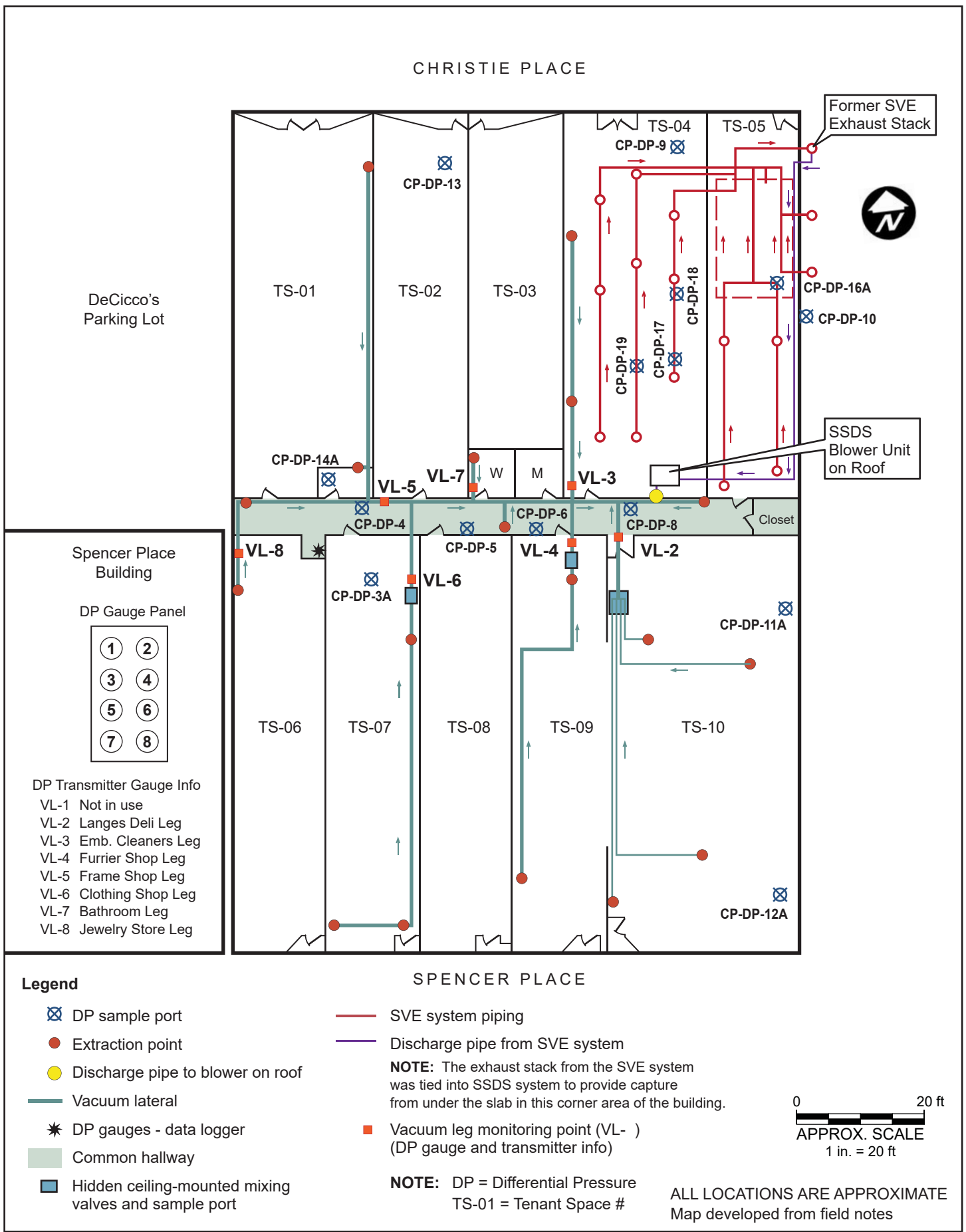


Figure 6

Christie Place Building Sub Slab Depressurization System

Former Mimi Dry Cleaners
Scarsdale, NY



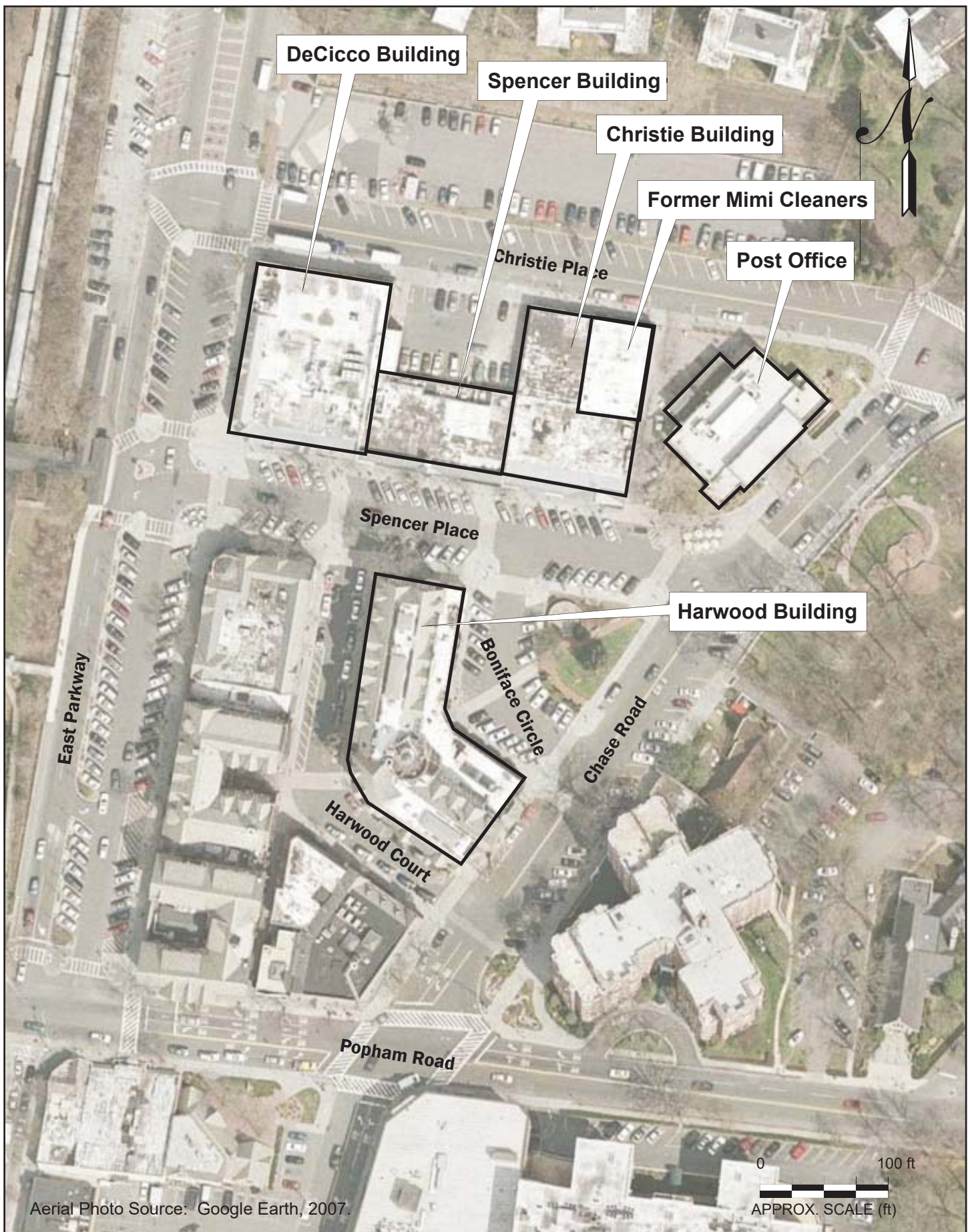


Figure 7
Buildings Where SSDs Were Installed
 Former Mimi Dry Cleaners
 Scarsdale, NY



Figure 8

Former Mimi Cleaners
(VP Site No. V00306-3)
Groundwater CVOC Concentration Trends
(2003-2018)

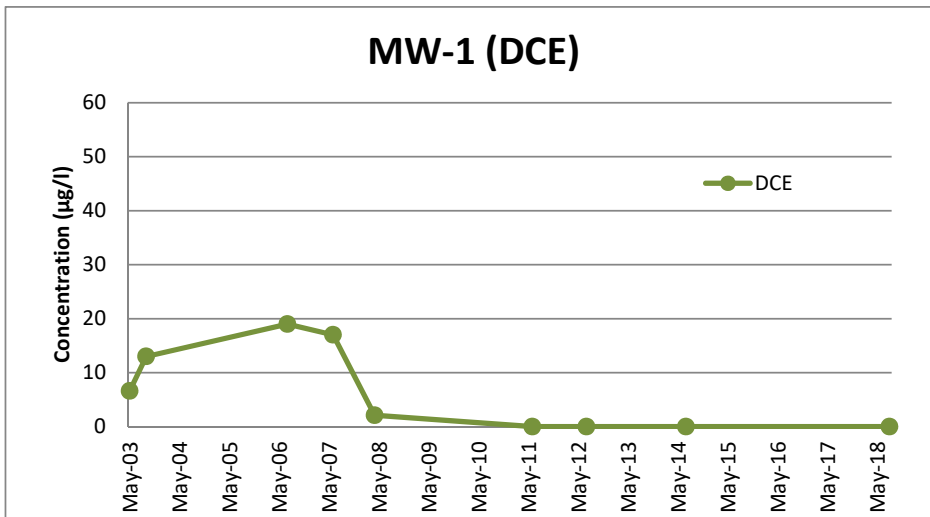
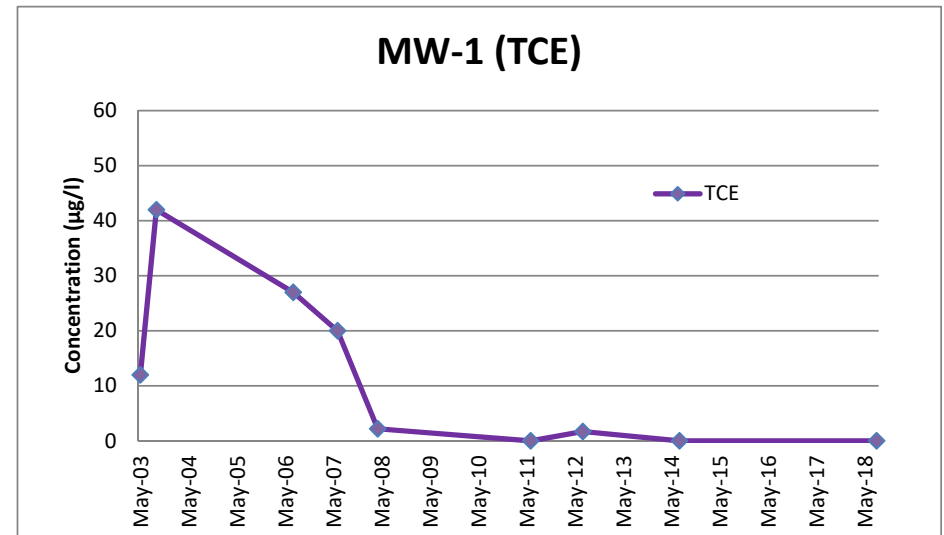
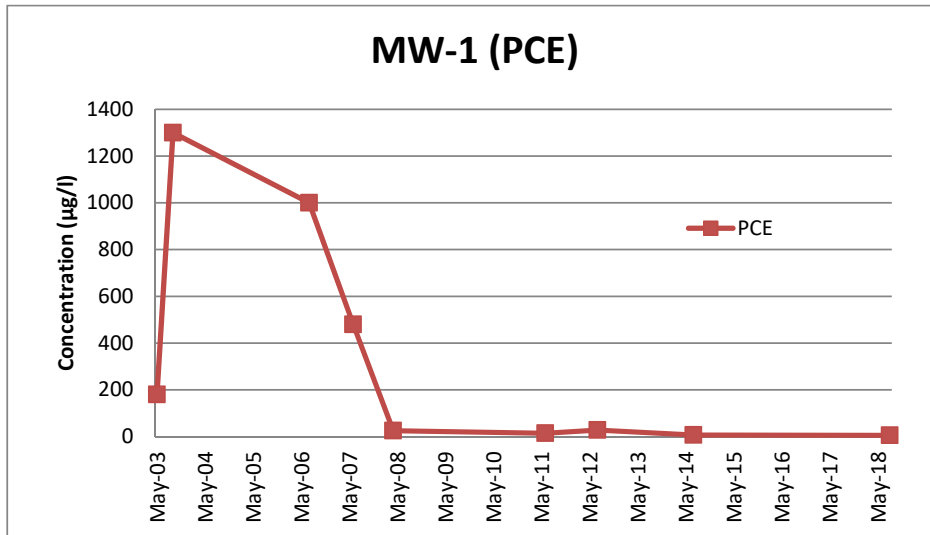
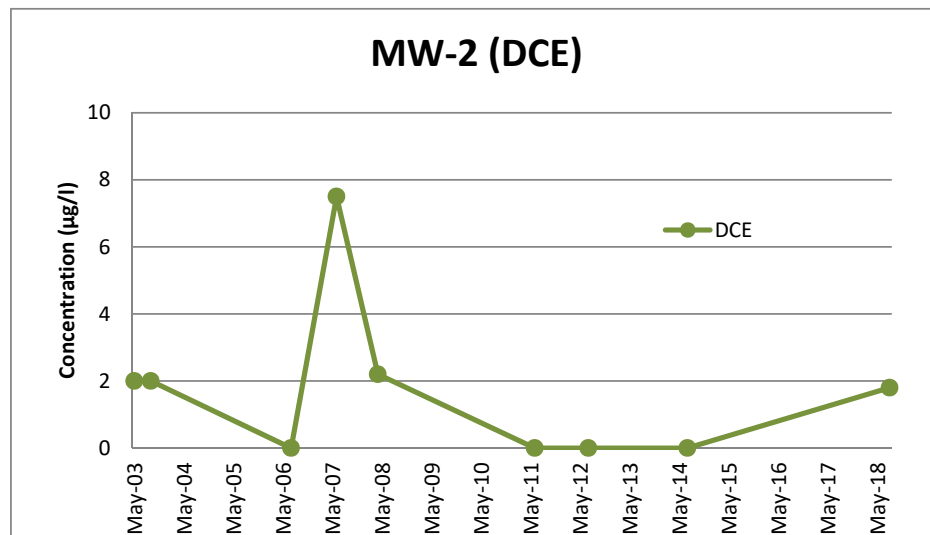
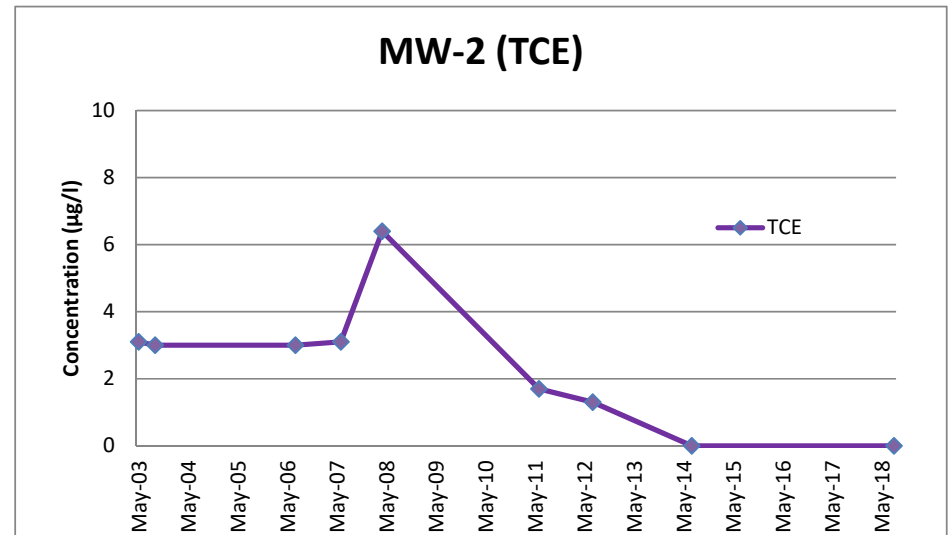
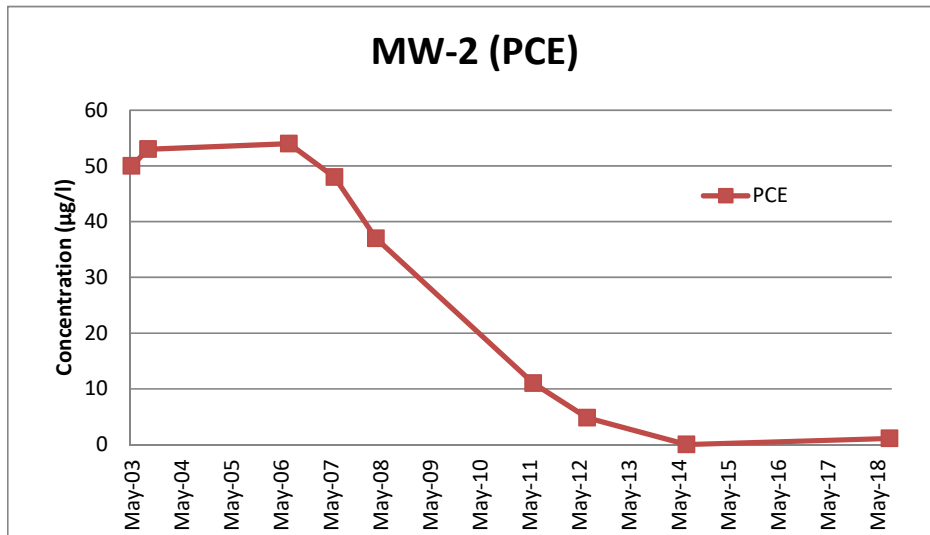




Figure 8

Former Mimi Cleaners
(VP Site No. V00306-3)
Groundwater CVOC Concentration Trends
(2003-2018)



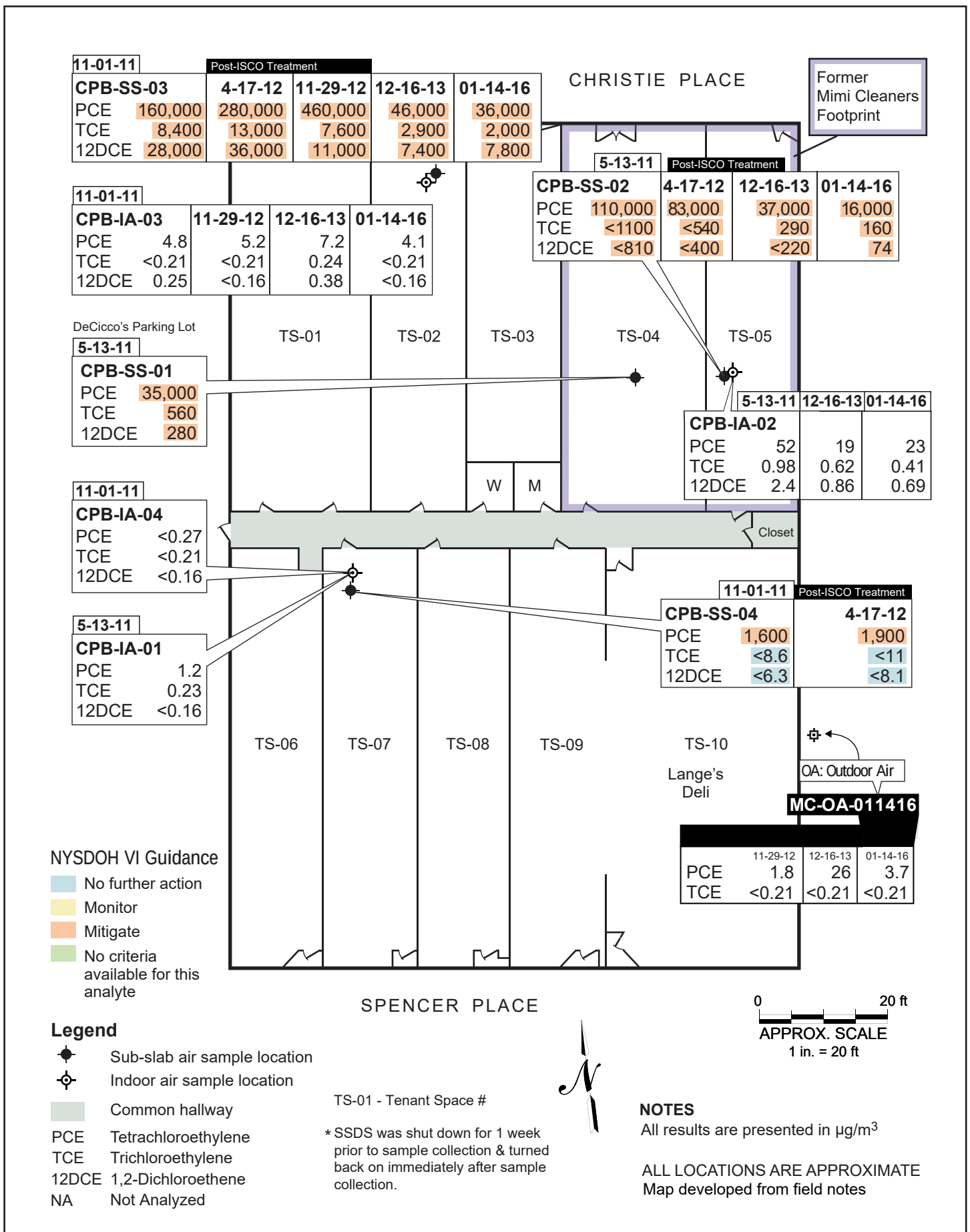


Figure 9
Sub-Slab and Indoor Air Sample Results Summary (CVOCs)
Christie Place Building
Former Mimi Dry Cleaners
Scarsdale, NY

Tables



Table 1

FORMER MIMI CLEANERS
Scarsdale, New York
GROUNDWATER ANALYTICAL DATA
(2003 - 2018)

HDR Sample ID Date Sampled	NYSDEC Stds (a)	MW-1																										
		5/30/03			9/17/03			7/11/06			6/21/07			4/7/08			6/23/11			7/27/12			7/15/14			8/23/18		
		Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL
VOCs (ug/L)																												
Total 1,2-Dichloroethene ¹	5	6.6		1.0	13		10	19	j	50	17		5.0	2.1		1.0	ND		1.0	ND		1.0	ND		1.0	ND		1.0
Chloroform	7	0.52	j	1.0	ND		10	ND		50	ND		5.0	ND		1.0	ND		1.0	ND		1.0	ND		1.0	ND		1.0
Trichloroethene	5	12		1.0	42		10	27	j	50	20		5.0	2.2		1.0	ND		1.0	1.7		1.0	ND		1.0	ND		1.0
Tetrachloroethene	5	180	d	10	1300	d	100	1000	d	50	480		5.0	25		1.0	14		1.0	28	0.73	6.4		1.0	5.4		1.0	
Acetone	50 GV	NR		-	2.0	j	10	ND		250	ND		25	ND		25	ND		5.9	ND		10	ND		10	ND		10
Total CVOCs:		199			1355			1046			517			29			14			29.7			6.4			5.4		

HDR Sample ID Date Sampled	NYSDEC Stds (a)	MW-2																										
		5/30/03			9/17/03			7/11/06			6/21/07			4/7/08			6/23/11			7/24/12			7/15/14			8/23/18		
		Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL	Rslts	Q	RL
VOCs (ug/L)																												
Total 1,2-Dichloroethene ¹	5	2.0		1.0	2.0	j	10	ND		5.0	7.5		5.0	2.2		1.0	ND		1.0	ND		1.0	1.1		1.0	1.8		1.0
Chloroform	7	1.1		1.0	1.0	j	10	1.4	j	5.0	ND		5.0	ND		1.0	ND		1.0	ND		1.0	ND		1.0	ND		1.0
Trichloroethene	5	3.1		1.0	3.0	j	10	3.0	j	5.0	3.1	j	5.0	6.4		1.0	1.7		1.0	1.3		1.0	ND		1.0	ND		1.0
Tetrachloroethene	5	50		1.0	53		10	54		5.0	48		5.0	37		1.0	11		1.0	4.8		1.0	ND		1.0	1.1		1.0
Acetone	50 GV	NR		-	6.0	j	10	ND		25	ND		25	ND		25	ND		5.9	ND		10	ND		10	ND		10
Total CVOCs:		56.2			59.0			58.4			58.6			45.6			12.7			6.1			1.1			2.9		

(a) - Division of Water Technical and Operational Guidance Series (1.1.1), June 1998.

d - Indicates all compounds identified in an analysis at a secondary dilution factor.

j - Indicates an estimated value. This compound meets the identification criteria, but the result is less than the specified detection limit.

¹ cis- & trans-1,2-Dichloroethene

1.6 - **Bold** indicates parameter detected above analytical method detection limit.

12 - **Bold & color** indicates exceedance of applicable standard or guidance value.

Rslts - Analytical Results

Q - Qualifier

RL - Reporting Limit

NR - Not Analyzed

GV - Guidance Value

Note - The results represent detected parameters only.



Table 2

**Former Mimi Cleaners Site - Christie Place Building
Quarterly SSDS Observation Data Summary**

Date	Inspect. Name	Minihelic Gauges				Photohelic Pressure Gauge Reading	Running Time Meter (hours)	Alarm Lights Illum. (Y / N)	Data Down- loaded (Y / N)	Blower Running Properly (Y / N)	Floor: New Cracks / Holes (Y / N)	DP Gauge Panel 1 2 3 4 5 6 7 8	Comments
		VL-1	VL-3	VL-5	VL-7								
		VL-2	VL-4	VL-6	VL-8								
		Differential Pressure Readings (in. of H ₂ O)											
7/27/16	MTP	-	2.00	1.00	0.75	14.5	58283.7	N	N/A	Y	N		
		2.00	2.00	0.25	0.75								
10/28/16	MTP	-	2.25	1.00	0.75	16	60515.6	N	N/A	Y	N		
		2.25	2.50	0.50	1.00								
1/20/17	MTP	-	2.00	1.00	0.75	16	62512.3	N	N/A	Y	N		
		2.00	2.25	0.50	1.00								
4/11/17	MTP	-	2.00	1.00	0.50	14	64455.7	N	N/A	Y	Y	Crews are cutting through concrete to lay pipe in 54 Christie place.	
		2.00	2.00	1.00	0.75								
7/11/17	MTP	-	2.00	1.00	0.75	15	66636.8	N	N/A	Y	Y	Trench for 54 Christie Place Salon's new drainage is still open.	
		2.00	2.00	1.25	0.75								
10/20/17	MTP	-	1.50	0.75	0.50	-	-	-	-	-	-	Closed the blower bypass valve some because some DPSPs were reading lower than usual.	
		1.50	1.75	1.00	0.50								
10/20/17	MTP	-	2.50	1.25	1.00	20	68373.0	N	N/A	Y	N	Readings after sutting bypass a little bit	
		2.50	2.50	1.50	1.00								
1/24/18	MTP	-	2.00	1.00	0.50	14	70677.7	N	N/A	Y	N		
		1.50	1.50	0.50	0.50								
4/24/18	MTP	-	2.00	1.00	0.75	13	72833.0	N	N/A	Y	N		
		1.50	1.75	0.50	0.50								
6/18/18	MTP	-	1.75	0.75	0.50	14	74160.9	N	N/A	Y	Y	Extraction leg in newly renovated bookstore was pulled out of the floor during renovations and had to be re-sealed in place.	
		1.50	1.50	0.50	0.50								
10/31/18	MTP	-	2.00	1.25	0.75	16	77394.7	N	N/A	Y	N		
		2.00	2.00	1.00	0.50								
1/4/19	MTP/DJE	-	2.00	1.00	0.75	15	78958.6	N	N/A	Y	N	Installed 3 new DPPs in the renovated tenant spaces	
		1.50	1.75	0.50	0.50								
4/22/19	MTP	-	2.00	1.00	0.75	18	81547.3	N	N/A	Y	N		
		1.50	1.75	0.75	0.50								
7/3/19	MTP	-	2.00	1.00	0.75	17	83275.3	N	N/A	Y	N		
		1.50	1.75	0.50	0.50								

Note: If there are any visible problems with the system or if the gauge readings are significantly below normal please contact HDR immediately.

(John Guzewich [Office201-335-9371; Cell 845-548-5493])

Lateral Suction Leg IDs

VL-1 - Not in use
VL-2 - TS-10
VL-3 - TS-04

VL-4 - TS-09
VL-5 - TS-01
VL-6 - TS-07

VL-7 - TS-03
VL-8 - TS-06



Table 3

**Former Mimi Cleaners Site - Christie Place Building
SSDS - Slab Differential Pressure Readings**

Sample Point ID	Tenant Space ID	Sample Port Location Description	Differential Pressure Readings (in. H ₂ O)												
			7/27/16	10/28/16	1/20/17	4/11/17	7/11/17	10/20/17	1/24/18	4/24/18	6/18/18	10/31/18	1/4/19	4/22/19	7/3/19
		Christie Place Bld													
CP-DP-1a	TS-01	NW corner of Art store under window display platform	NC	0.003	VNA	VNA	VNA	VNA	TSBR	TSBR	TSBR	SPRDR	SPRDR	SPRDR	SPRDR
CP-DP-3	TS-07	Clothing Store (back room on west side)	0.022	0.024	0.023	0.010	0.015	0.009	0.003	VNA	TSBR	SPRDR	SPRDR	SPRDR	SPRDR
CP-DP-3a	TS-07	Bookstore (back room on west side)										NSPI	0.023	0.024	0.016
CP-DP-4	-	Center Hallway (~ 20 ft from door; north side)	0.021	0.028	0.013	0.006	0.036	0.004	0.005	0.018	0.023	-0.007	-0.016	0.015	0.008
CP-DP-5	-	Center Hallway (~ 36 ft from door; south side)	0.027	0.038	0.038	0.007	0.033	0.002	-0.008	0.027	0.039	0.011	-0.012	0.008	0.007
CP-DP-6	-	Center Hallway (~ 60 ft from door; south side)	0.036	0.045	0.043	0.004	0.051	0.014	0.033	0.030	0.026	0.003	0.007	0.007	0.006
CP-DP-8	-	Center Hallway (~ 80 ft from door; south side)	0.017	0.030	0.029	0.009	0.006	0.016	0.002	0.022	0.023	0.001	0.011	0.023	0.011
CP-DP-9	TS-04	Emb. Cleaners (near sewing machine -NE corner)	0.008	0.004	0.010	0.003	0.016	0.001	0.007	0.003	0.006	-0.003	-0.017	0.001	0.007
CP-DP-10	TS-05	Outside wall (~110 ft north of SE corner of bld)	0.010	0.018	0.011	0.004	0.008	0.014	0.038	0.011	0.063	0.037	0.102	0.042	0.017
CP-DP-11a	TS-10	In kitchen of Lange's near E wall under sink.	0.009	0.022	0.006	0.007	0.018	0.012	0.005	0.007	0.006	0.007	0.000	0.018	0.016
CP-DP-12a	TS-10	SE corner of Lange's behind counter.	0.859	0.267	0.054	0.078	0.305	0.179	0.052	0.014	0.223	0.309	0.332	0.066	0.210
CP-DP-13	TS-02	Sushi Restaurant (behind front display counter)	0.035	0.049	0.029	0.014	0.032	0.038	0.043	NC	0.051	NC	0.044	0.048	0.038
CP-DP-14	TS-01	Art Store (back SE corner)	NC	NC	VNA	VNA	VNA	VNA	TSBR	TSBR	TSBR	SPRDR	SPRDR	SPRDR	SPRDR
CP-DP-14a	TS-01	Scarsdale Improvement Hallway Closet										NSPI	0.017	0.003	0.006
CP-DP-16	TS-05	New Furrier Location (back area)	0.056	0.067	0.055	0.051	0.055	NC	NC	VNA	VNA	SPRDR	SPRDR	SPRDR	SPRDR
CP-DP-16a	TS-05	Nordic Edge (Dressing room on east side)										NSPI	0.007	0.006	0.032
CP-DP-17	TS-04	Emb. Cleaners (back area-SE area)	0.876	0.856	0.923	0.858	0.827	0.818	0.860	0.816	0.711	1.014	0.896	0.823	0.809
CP-DP-18	TS-04	Emb. Cleaners (back area-near counter)	0.581	0.488	0.586	0.597	0.626	0.568	0.522	0.508	0.545	0.686	0.538	0.508	0.631
CP-DP-19	TS-04	Emb. Cleaners (back area-SW area)	0.144	0.147	0.167	0.159	0.161	0.129	0.148	0.146	0.131	0.176	0.138	0.154	0.156
		Technician's initials:	MTP	MTP	MTP	MTP	MTP	MTP	MTP	MTP	MTP	MTP	MTP/DJE	MTP	MTP

Note: - Positive reading indicates a lower pressure under the slab.

NC = Not Collected (access to tenant space not available)

VNA - Tenant space vacant; no access

TSBR - Tenant space vacant; space being renovated

SPRDR - Sample port removed during renovation activities

NSPI - New sample port installed after renovation activities



Table 4

**NYSDOH Vapor Intrusion Guidance Document Matrix Tables
(Revised May 2017)****NYSDOH Soil Vapor/Indoor Air Matrix A (May 2017)**

Analytes Assigned: TCE, c12-DCE, 11-DCE, Carbon Tetrachloride

Sub-Slab Vapor Concentration (mcg/m ³)	Indoor Air Concentration (mcg/m ³)		
	< 0.2	0.2 to < 1	1 and above
< 6	No Further Action	No Further Action	Identify Source(s) & Resample or Mitigate
6 to < 60	No Further Action	Monitor	Mitigate
60 and above	Mitigate	Mitigate	Mitigate

NYSDOH Soil Vapor/Indoor Air Matrix B (May 2017)

Analytes Assigned: PCE, 111-TCA, Methylene Chloride

Sub-Slab Vapor Concentration (mcg/m ³)	Indoor Air Concentration (mcg/m ³)		
	< 3	3 to < 10	10 and above
< 100	No Further Action	No Further Action	Identify Source(s) & Resample or Mitigate
100 to < 1,000	No Further Action	Monitor	Mitigate
1,000 and above	Mitigate	Mitigate	Mitigate

NYSDOH Soil Vapor/Indoor Air Matrix C (May 2017)

Analytes Assigned: Vinyl Chloride

Sub-Slab Vapor Concentration (mcg/m ³)	Indoor Air Concentration (mcg/m ³)	
	< 0.2	0.2 and above
< 6	No Further Action	Identify Source(s) & Resample or Mitigate
6 to < 60	Monitor	Mitigate
60 and above	Mitigate	Mitigate



Table 5

Former Mimi Cleaners Site - Christie Place Building
Sub-Slab Vapor & Indoor Air Sampling Data Summary

HDR Sample ID	CPB-SS-02 Christie Pl. Bld. Tenant Space #05 ^Δ				CPB-IA-02 Christie Pl. Bld. Tenant Space #05 ^Δ			SPOB-OA-01 Post Office Prop. (off SW Corner of Bld.)			MC-OA-121613 East P'kway Bld (Along East side of Bld.)	MC-OA-011416 DeCicco Park. Lot (Along West side of CPB)
Sample Location												
Lab Sample ID	200-5198-19	200-10413-1	200-20183-16	200-31589-8	200-5198-20	200-20183-17	200-31589-9	200-13989-3	200-20183-18	200-31589-5		
Sample Type	Sub-Slab	Sub-Slab	Sub-Slab	Sub-Slab	Indoor Air	Indoor Air	Indoor Air	Outdoor Air	Outdoor Air	Outdoor Air		
Sample Date	5/13/11	4/17/12	12/16/13	1/14/16	5/13/11	12/16/13	1/14/16	11/29/12	12/16/13	1/14/16		
	(Pre-ISCO Treatment)	(Post-ISCO Treatment)			(Pre-ISCO Treatment)							
TO-15 (µg/m ³)	Results DF [1020:1]	Results DF [501:1]	Results DF [277:1]	Results DF [74.5:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]		
cis 1,2-Dichloroethene	<810	<400	<220	74	2.4	0.86	0.69	<0.16	<0.16	<0.16		
1,2-Dichloroethene, Total	<810	<400	<220	<120	2.4	0.86	0.69	<0.16	<0.16	<0.16		
1,1,1-Trichloroethane	<1100	<550	<300	<81	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22		
1,2-Dichloroethane	<830	<410	<220	<60	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32		
Trichloroethene	<1100 **	<540 **	290	160	0.98	0.62	0.40	<0.21	<0.21	<0.21		
Tetrachloroethene	110,000	83,000	37,000	16,000	52	19	23	1.8	26	3.7		

HDR Sample ID	CPB-SS-03 Christie Pl. Bld. Tenant Space #02 (Front Area)					CPB-IA-03 Christie Pl. Bld. Tenant Space #02 (Front Area)			
Sample Location									
Lab Sample ID	200-7920-1	200-10413-3	200-13990-5	200-20183-14	200-31589-6	200-7920-2	200-13990-6	200-20183-15	200-31589-7
Sample Type	Sub-Slab	Sub-Slab	Sub-Slab	Sub-Slab	Sub-Slab	Indoor Air	Indoor Air	Indoor Air	Indoor Air
Sample Date	11/1/11	4/17/12	11/29/12	12/16/13	1/14/16	11/1/11	11/29/12	12/16/13	1/14/16
	(Pre-ISCO Treatment)	(Post-ISCO Treatment)				(Pre-ISCO Treatment)			
TO-15 (µg/m ³)	Results DF [1560:1]	Results DF [1450:1]	Results DF [2070:1]	Results DF [353:1]	Results DF [300:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]	Results DF [4:1]
cis 1,2-Dichloroethene	27,000	34,000	11,000	7,100	7,800	0.25	<0.16	0.38	<0.16
1,2-Dichloroethene, Total	28,000	36,000	11,000	7,400	7,900	0.25 nj	<0.16	0.38	<0.16
1,1,1-Trichloroethane	<1700	<1600	<2300	<390	<330	<0.22	<0.22	<0.22	<0.22
1,2-Dichloroethane	<1300	<1200	<1700	<290	<240	<0.32	<0.32	<0.32	<0.32
Trichloroethene	8,400	13,000	7,600	2,900	2,000	<0.21	<0.21	0.24	<0.21
Tetrachloroethene	160,000	280,000	460,000	46,000	36,000	4.8	5.2	7.2	4.1

RDL - Reported Detection Limit
DF [] - Dilution Factor (e.g. [4:1])
ND - Not Detected

- Sample results from January 2016 sampling event (SSDS shut down a week prior to sampling).

Data Validation Notes

Note: - No changes to the data results based on the validation report for the April & November 2012 sampling events.
Note: - Validation report has qualified the results from the SPB-SS-02 and DCB-IA-01 samples collected in May 2011 as estimated values because the air canisters were at ambient pressure when they were received.
Note: - Validation report has qualified the results from the SPOB-SS-02 sample collected in Dec 2011 as estimated values because there was more negative pressure in the air canister than allowed when it was received.
uj - Analyte was not detected. Result should be considered as estimated (see notes above).
j - Analyte was positively identified. Result should be considered as estimated (see notes above).
nj - Analyte is tentative in identification and estimated in value (see validation report).

**

Δ

Note:

Δ

- Sample had to be diluted due to elevated PCE concentration in sample, TCE may be present at concentration below elevated RDL that is above NYSDOH criteria.

- Table only includes CVOCs that were detected in the samples.
See analytical laboratory report for the full analytical parameter list.
- this tenant space was the area where the Mimi Cleaners dry cleaning machines were located.

NYSDOH Vapor Intrusion Guidance matrix decision for this analyte

- No Further Action
- Monitor
- No criteria for this analyte
- Mitigate



Appendix A. IC/EC Certification



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



Site Details		Box 1	
Site No.	V00306		
Site Name Mimi Cleaners			
Site Address: 58 Christie Place Zip Code: 10583			
City/Town: Scarsdale			
County: Westchester			
Site Acreage: 0.060			
Reporting Period: June 28, 2016 to June 28, 2019			
		YES	NO
1. Is the information above correct?		☒	☐
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		☒	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?		☐	☒
		Box 2	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial		☒	☐
7. Are all ICs/ECs in place and functioning as designed?		☒	☐
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

SITE NO. V00306

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

2-5-12

~~Hausman Realty Company, Inc.~~

Christie Place Owners LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan

Declaration of Covenant and Restrictions including commercial land use, groundwater use restriction, farming/vegetable garden restriction, evaluation of the potential for vapor intrusion in and future site buildings.

Box 4

Description of Engineering Controls

Parcel

Engineering Control

2-5-12

Vapor Mitigation

Cover System

~~Air Sparging/Soil Vapor Extraction~~

Periodic Review Report (PRR) Certification Statements

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

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
- b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

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

- (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
- (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
- (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
- (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
- (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

X

IC CERTIFICATIONS
SITE NO. V00306

Box 6

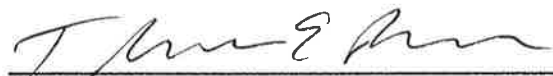
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Thomas E. Pease at HDR - 1 International Blvd., 10th Fl, Mahwah, NJ 07495
print name print business address

am certifying as Remedial Party's Designated Representative (Owner or Remedial Party)

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



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

7/25/19
Date

IC/EC CERTIFICATIONS

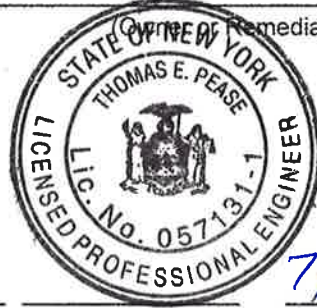
Box 7

Professional Engineer Signature

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

I Thomas E. Pease at HDR - 1 International Blvd., 10th Fl, Mahwah, NJ 07495
print name print business address

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



Thomas E. Pease

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

Stamp
(Required for PE)

Date

7/25/19

CHRISTIE PLACE OWNERS LLC
14 HARWOOD COURT, SUITE 304 • SCARSDALE, NEW YORK 10583-4186
TELEPHONE (914) 723-0348
FACSIMILE (914) 723-1562

July 29, 2019

Peter Blumenthal
Housman Realty Corporation
c/o WestEx Associates, Inc.
119 E. Hartsdale Avenue
Hartsdale, New York 10530

Re: Site No. V00306, Mimi Cleaners, 58 Christie Place, Scarsdale, New York 10583

Dear Mr. Blumenthal:

We are writing pursuant to Appendix B of the Site Management Plan ("SMP") for the above-referenced site (the "Site") to certify to Housman Realty Corporation (the "Remedial Party") that to the best of our knowledge and belief:

1. No portion of the Site property (the "Property") has been sold, subdivided, merged, or undergone a tax map amendment during the period from June 29, 2016 to June 28, 2019 (the "Reporting Period").
2. There has been no change of use at the Site within the meaning of 6 N.Y.C.R.R. 375-1.11 (d) during the Reporting Period.
3. No federal, state, and/or local permits have been issued for or at the Property during the Reporting Period, except for any permit that may have been issued to the Remedial Party's consultant HDR ("HDR") to authorize the continued operation of the Sub-Slab Depressurization System at the Property.
4. The Site use is consistent with "Commercial and Industrial" uses as those terms are defined in 6 N.Y.C.R.R. Part 375.
5. The Declaration of Covenants and Restrictions executed on July 24, 2014 (the "Declaration") remains in effect.
6. As required by the Declaration, the groundwater restriction, soil management plan, land use restriction, farming/vegetable garden restriction and requirement to evaluate the potential for vapor intrusion into future Site building all remain

Peter Blumenthal

July 29, 2019

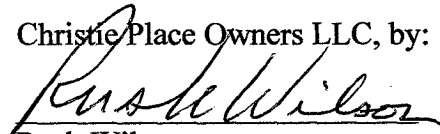
Page 2

in effect in accordance with the SMP; and based upon the facts presented in Periodic Review Report prepared by HDR for the Reporting Period, the monitoring plan, site management plan and O&M plan also remain in effect in accordance with the SMP.

7. Christie Place Owners LLC is the owner of the Property.

Very truly yours,

Christie Place Owners LLC, by:

A handwritten signature in cursive script, appearing to read "Rush Wilson", is written over a horizontal line.

Rush Wilson

President

Appendix B. SSDS Inspection Forms

Off-Site Buildings
Annual Inspection Forms
(January 2017)

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Spencer Plaza Building

Inspecting Company:

- HDR

Inspector:

- MJP

Date & Time:

- 10-Jun-2017, 1050 - 1100

Floor condition (report any cracks or penetrations).

- Good

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- NO

Any complaints from contact person?

- NO

Comments:

-

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Deccio's Building

Inspecting Company:

- HIDR

Inspector:

- MP

Date & Time:

- 20-Jan-2017, 10:30-1050

Floor condition (report any cracks or penetrations).

- Good

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- NO

Any complaints from contact person?

- NO

Comments:

- NO

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Harwood Building

Inspecting Company:

- MDR

Inspector:

- MTP

Date & Time:

20 Jun. 2017, 1100-1110

Floor condition (report any cracks or penetrations).

- Good

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- No

Any complaints from contact person?

- No

Comments:

- —

F-7 INSPECTION FORM

Former Mimi Cleaners Site - <u>East Parkway</u> <u>Georgia</u> Building	
Inspecting Company:	<u>MDN</u>
Inspector:	<u>MDN</u>
Date & Time:	<u>20-Jun-2017, 1110 - 1120</u>
Floor condition (report any cracks or penetrations).	<u>Good</u>
Wall condition (report any cracks or penetrations).	<u>Good</u>
Piping condition (report any damage).	<u>Good</u>
Are system extraction (suction) points sealed?	<u>Yes</u>
Any noted odors or liquids?	<u>NO</u>
Any complaints from contact person?	<u>NO</u>
Comments:	<u>—</u>

F-7 INSPECTION FORM

Former Mimi Cleaners Site - <u>Scarsdale P.O.</u> Building	
Inspecting Company:	- HDE
Inspector:	- MP
Date & Time:	- 20-Jan-2017 / 1120 - 1130
Floor condition (report any cracks or penetrations).	- Good
Wall condition (report any cracks or penetrations).	- Good
Piping condition (report any damage).	- Good
Are system extraction (suction) points sealed?	- Yes
Any noted odors or liquids?	- No
Any complaints from contact person?	- No
Comments:	-

Christie Place Building
Quarterly Inspection Forms
(July 2016 through July 2019)

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- HDR

Inspector:

- MTP

Date & Time:

- 7/27/2016 / 1200

Floor condition (report any cracks or penetrations).

- Good

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- None

Any complaints from contact person?

- None

Comments:

- Could not get access to Former Artstore location CP-DP-1a and CP-DP-14
not collected

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- HDR

Inspector:

- MTP

Date & Time:

- 10/28/2016 / 1130

Floor condition (report any cracks or penetrations).

- Good / Mexican Restaurant Buildout progressing, no more Trenches in Floor

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good / HDR still need to reposition Extraction Point in new Mexican Restaurant

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- NONE

Any complaints from contact person?

- NONE

Comments:

- Could not collect CP-DP-14. Point has been sealed over.

Former Mimi Cleaners Site - Christie Place Building **SSDS Inspection/Observation Documentation Sheet**

Former Mimi Cleaners Site - Christie Place Building (CPB)

Inspecting Company:

HDR

Inspector:

hwp

Date & Time:

20 Jun 2017 1140 - 1200

Floor condition (report any cracks or penetrations).

Old Frame Shop Ben worked on

Wall condition (report any cracks or penetrations).

See Above

Piping condition (report any damage).

None

Are system extraction (suction) points sealed?

See Above, Extraction point in Mexican Restaurant has been repositioned

Any noted odors or liquids?

no 2.5 gallons drained from outside Drain Pipe

Any complaints from contact person?

NO

Comments:

CP-PP-14 is sealed over, CP-PP-19 not collected because no access to space

Sub Slab Depressurization System

Blower/fan operational (Y/N): Y

Circuit breakers on (Y/N): Y

Alarm light(s) illuminated (Y/N): N

Running time meter (hours): 62512.3

Moisture separator tank: Empty

In-line gate valve open on extraction point(s) (Y/N): Y

Photohelic pressure gauge reading (in. H₂O): 16.6

Magnahelic gauge #

in. H₂O

2	3	4	5	6	7	8
Lange's Deli	Embassy Cleaners	Furrier Shop	Frame Shop	Clothing Store	Women's Room	Jewelry Store
7.0	2.0	7.25	1.0	0.5	0.75	1.0

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- MDR

Inspector:

- MTP

Date & Time:

- 4/11/17 / 1310

Floor condition (report any cracks or penetrations).

- 54 Christie place Buildout require Drainage Trench. MDR monitored the opening of Trench

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- ~1.0 gallon from outside Down pipe, ~0.5 gal from Hallway Drain, ~0.5 gal from Vault

Any complaints from contact person?

- None

Comments:

CP-DP-14 is sealed over, CP-DP-1a could not be collected due to access issues. Noise Complaint from Buildout at 54 Christie, work had to be completed later that evening.

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- MDR

Inspector:

- MTP

Date & Time:

- 7/11/2017 / 1210

Floor condition (report any cracks or penetrations).

- 54 Christie Drainage Trenches were still open

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- None

Any complaints from contact person?

- None

Comments:

- CP-DP-14 and CP-DP-15 were sealed over,

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- HDR

Inspector:

- MTP

Date & Time:

- 10/20/2017 / 1215

Floor condition (report any cracks or penetrations).

- Good / Floor at 54 Christie has been finished

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- None

Any complaints from contact person?

- None

Comments:

CP-DP-14 and CP-DP-19 are sealed over. CP-DP-16 at Former Premier location has been rented and HDR did not gain access this time.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

HD12

Inspector:

MTP

Date & Time:

1/24/2018 / 1150

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Good

Are system extraction (suction) points sealed?

Yes

Any noted odors or liquids?

~ 1.0 gallon from outside Drain pipe, 21.0 gallon from Vault Drain

Any complaints from contact person?

None

Comments:

CP-DP-14 and CP-DP-16 sealed once, CP-DP-16 is under Build out materials and could not get access.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

MDR

Inspector:

MTP

Date & Time:

4/24/2018 / 1000

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Good

Are system extraction (suction) points sealed?

Yes

Any noted odors or liquids?

~ 1.5 gal from outside Drain. 20.5 gallons from Hault

Any complaints from contact person?

NONE

Comments:

CP-PP-14, CP-PP-19, and CP-PP-16 are all sealed over. CP-PP-13 was not collected because sushi restaurant was not opened yet. CP-PP-3 was not collected due to new tenant in clothing store space.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

MDR

Inspector:

MTP

Date & Time:

6/18/18 / 1310

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Extraction leg was removed in Bookstore Buildout, crew says they will replace leg.

Are system extraction (suction) points sealed?

Extraction Points in Bookstore Buildout need to be resealed. it was done on this visit.

Any noted odors or liquids?

None

Any complaints from contact person?

None

Comments:

CP-PP-14 RP-PP-1a, and CP-PP-16 are all sealed over. CP-PP-3 was sealed over in Bookstore Buildout.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

HDR

Inspector:

MTF

Date & Time:

10/31/2018 / 1130

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Good

Are system extraction (suction) points sealed?

Yes

Any noted odors or liquids?

None

Any complaints from contact person?

None

Comments:

CP-BP-14, CP-DP-1a, CP-DP-1b, and CP-DP-3 are all sealed over, CP-DP-13 was not collected due to store being closed.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

HDR

Inspector:

MTP DJE

Date & Time:

1/4/2019

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Good

Are system extraction (suction) points sealed?

Yes

Any noted odors or liquids?

~1.0 gallons from outside Drain Pipe, ~1.0 gallon from Vault.

Any complaints from contact person?

NONE

Comments:

Replaced CP-PP-14 with CP-PP-14a inside Corridor Improvements Hallway north. Replaced CP-PP-3 with CP-PP-3a in Bookstore Bathroom. Replaced CP-PP-16 with CP-PP-16a north Nordic Edge Dressing Room. CP-PP-1a was Abandoned and NOT replaced.

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

MDR

Inspector:

MTP

Date & Time:

4/22/19 11200

Floor condition (report any cracks or penetrations).

Good

Wall condition (report any cracks or penetrations).

Good

Piping condition (report any damage).

Good

Are system extraction (suction) points sealed?

Yes

Any noted odors or liquids?

~20 gallons from outside Drain

Any complaints from contact person?

NONE

Comments:

NONE

F-7 INSPECTION FORM

Former Mimi Cleaners Site - Christie Building

Inspecting Company:

- HDR

Inspector:

- MTP

Date & Time:

- 7/3/2019 / 1300

Floor condition (report any cracks or penetrations).

- Good

Wall condition (report any cracks or penetrations).

- Good

Piping condition (report any damage).

- Good

Are system extraction (suction) points sealed?

- Yes

Any noted odors or liquids?

- None

Any complaints from contact person?

- None

Comments:

- Spaces TS-09 and TS-10 are now Vacant (Former Lounge Deli and Pizzeria)

Appendix C. SSDS Equipment Removal Documentation Summary Reports

- Spencer Place Building
- DeCicco Building
- Scarsdale Post Office Building
- Harwood Building
- East Parkway Building
- Village of Scarsdale Building
Department Submittal

Spencer Place Building
(October 2017)



11 October 2017
File: 10017039-111388-001

Mr. Robert Filkins
Senior Engineering Geologist, Remedial Bureau B
Division of Environmental Remediation, NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7016

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – Spencer Place Building (DCB); 23-27 Spencer Place**

Dear Mr. Filkins:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR) in September 2017.

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from several building locations. The SSDS installed in the Christie Place Building, where Mimi Cleaners was located, remains in operation. Attachment A includes the documentation from NYSDEC approving the removal of five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the Spencer Place Building where the SSDS was approved to be removed to discuss the equipment removal requirements and procedures as required by the building owner and/or an authorized representative. Attachment B contains photographs documenting the SSDS equipment removal activities and Attachment C contains the Certificate of Occupancy from the Village of Scarsdale after the SSDS equipment was removed.

As part of the removal activities, the following removal activities were conducted at this location:

- Blower package including the blower motor, control panel, the moisture knock-out pot, and the blower equipment cabinet were removed from the roof of the building
- Discharge stack at the top of the blower housing was removed
- Electrical hookup was de-energized and removed
- Extraction pipes that were installed through the basement concrete floor slabs were removed and filled with concrete.
- Horizontal lateral piping remaining in place was capped and labeled. These pipes were

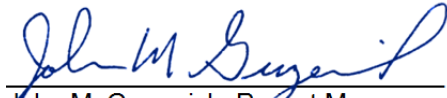
permanently capped with PVC caps and PVC glue.

HDR inspected the SSDS equipment removal activities on 12 and 18 September and 3 October 2017. All of the SSDS equipment has been removed as approved by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as the building owners, and as required by Westchester County Department of Health (WCDOH) to close the air discharge permit that is in place for this building.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment A NYSDEC SSDS Equipment Removal Approval Documentation
Attachment B SSDS Equipment Removal Photo Documentation
Attachment C Building CO – SSDS Equipment Removal

Cc: A. Perretta, NYSDOH
B. Groden, West-Ex Associates
P. Blumenthal

Attachment A
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Spencer Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Harwood Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Post Office Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – East Pkwy. Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – 28 Popham Rd. Bldg.

Dear John,

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

28 Popham Road – NYSDEC and NYSDOH agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

DeCicco Building - NYSDEC and NYSDOH agree with the conclusion that NFA is required and that they SSDS may be permanently shutdown with no further sampling.

East Parkway Building and Harwood Building – NYSDEC and NYSDOH agree with the conclusion that the frequency of sampling may be modified to biannual, based on the concentrations from the 2015-2016 heating season NFA may be appropriate given the history of sampling performed at these locations and the overall declining trend in environmental contamination at the Site.

Spencer Place Building and the Post Office – NYSDEC and NYSDOH agree that the SSDSs can remain shut down permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– NYSDEC and NYSDOH agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Robert Filkins". The signature is written in a cursive, flowing style.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

Bob,

I have reviewed the following Reports for the Mimi Cleaners Voluntary Cleanup Program site: 28 Popham Road SVI: DeCicco Building SSDS Shutdown Evaluation; East Parkway Building SSDS Shutdown Evaluation; Harwood Building SSDS Shutdown Evaluation; Spencer Place SSDS Shutdown Evaluation; Post Office SSDS Shutdown Evaluation; and the Christie Place SVI Sampling Report and offer the following comments and recommendations.

28 Popham Road – I agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

DeCicco Building - I agree with the conclusion that NFA is required and that they SSDS may be permanently shutdown with no further sampling.

East Parkway Building and Harwood Building – I agree with the conclusion that the frequency of sampling may be modified to biannual, based on the concentrations from the 2015-2016 heating season NFA may be appropriate given the history of sampling performed at these locations and the overall declining trend in environmental contamination at the Site.

Spencer Place Building and the Post Office – I agree that the SSDSs can remain shutdown permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– I agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, New York 12237
Phone: (518)-402-7860
Fax: (518)-402-7859
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]

Sent: Wednesday, May 28, 2014 4:35 PM

To: Robert Filkins; Walz, Nathan M (HEALTH)

Subject: Mimi Cleaners VCA Close-out Documents

Bob, Nate,
Hope all is well.

We have received final comments back from the lawyers for the building owners and have a final draft version of the Mimi Cleaners SMP for your review and comment. The final draft FER has been completed as well. I will send the documents in two separate email correspondences since each one has a few attachments and will be less likely to get mixed up. I will send Word versions of the reports and associated appendices/attachments so you can make comments right in the documents if needed.

Have you had a chance to review the summary reports that were prepared based on the results of the December 2013 sampling event? I sent them out via our Slingshot system on 17 April (SPOB, SPB, DCB, HWB, EPB, and 28PRB) and 21 April (CPB).

If you have any questions or require additional information let me know.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

From: walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Tuesday, July 08, 2014 3:29 PM
To: Guzewich, John M.; Robert Filkins
Cc: Schuck, Maureen (HEALTH)
Subject: RE: Mimi Cleaners - Shutdown Systems

I'll leave it up to Bob on whether he wants a letter for the removal, my feeling is that we both already concurred that they don't need to operate implies that the systems can be removed.

I'm not sure if a new PM has been assigned to Mimi Cleaners yet or not, the Region Chief is Maureen Schuck. I will go ahead and copy her on this email for her knowledge, but she is on vacation...not sure exactly when she is returning.

Is it a money issue that they want the systems removed or aesthetics? Because you could leave the piping in place and remove the blowers and it could be a passive system that remains in place?

Nathan M. Walz

Public Health Specialist III
Bureau of Toxic Substance Assessment
Exposure Characterization and Response Section
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1743
Albany, New York 12237
Phone: (518)-402-7810
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]
Sent: Tuesday, July 08, 2014 3:21 PM
To: Robert Filkins; walz, Nathan M (HEALTH)
Subject: Mimi Cleaners - Shutdown Systems

Bob, Nate,

The Blumenthal's would like to remove the SSD systems in the buildings where we have the systems in place and it has been determined that no further monitoring or mitigation is required and the systems can be permanently shut down (Post Office Bld, Spencer Pl Bld, and the DeCicco Bld).

The data collected at these locations indicate there are no CVOC concentrations that warrant additional sampling or mitigation. We have spoken with the Westchester County Health Department and they have indicated we will need to keep the air discharge permits in place and renewed as necessary (\$825/every 3 years for the renewal) as long as the blower remains in place (even if it is not running). We would like to remove the blower packages, piping, and the extraction points (after which the openings in the floor for the extraction points would be sealed).

Let me know if you require a formal letter request for the removal of the SSDs at these locations.

Nate,
Please forward this on to your replacement for this project ...I was not sure if Charlotte Bethoney is going to be working on this project.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

New York State Department of Environmental Conservation

Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9706

Fax: 518-402-9773

Website: www.dec.ny.gov



Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Dear Peter Blumenthal (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 06/11/2015 to 06/28/2016.

The Department hereby accepts the PRR and associated Certification. As requested the frequency of Periodic Reviews for this site is now 3 years. Also, the permanent shutdown of the SSDSs at the HWB and EPB locations is approved. Your next PRR is due on July 29, 2019. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewish – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

Attachment B
SSDS Equipment Removal Photo Documentation

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Spencer Place Building**



PHOTO 1: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)



PHOTO 2: CAPPED LATERAL PIPING

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Spencer Place Building**



PHOTO 3: PATCHED FLOOR PENETRATION (SEALED EXTRACTION POINT)



PHOTO 4: CAPPED LATERAL PIPING

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Spencer Place Building**



**PHOTO 5 & 6: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)
& CAPPED LATERAL PIPING**



Frame where blower
housing was sitting

PHOTO 7: REMOVED BLOWER & HOUSING

Attachment C
Building CO - SSDS Equipment Removal

Village of Scarsdale, N.Y.

BUILDING DEPARTMENT CERTIFICATE OF OCCUPANCY

Certificate Number: 32827 **Date of Issue:** 10/4/2017
Location of Property **Property Number:** 02.05.7
Street Address: 1-17 SPENCER PL
Current Owner: CHRISTIE SPENCER CORP

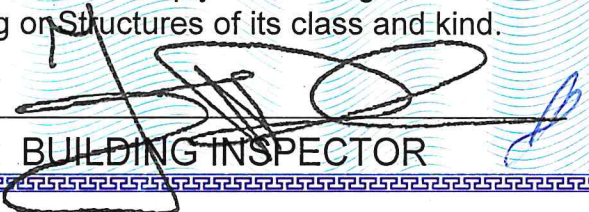
Inspection of the building at the above location erected under the terms of

BUILDING PERMIT NO: 145113

Issued On: 8/29/2017

REMOVE REMEDIAL ENVIRONMENTAL SYSTEM (DICECCO)

has been made by the undersigned, a duly authorized representative of the Board; and that said building of structure is hereby certified for occupancy or use as to comply with all regulations and requirements of the Village ordinances applying to Building on Structures of its class and kind.


BUILDING INSPECTOR

DeCicc0s Building
(October 2017)



11 October 2017
File: 10017039-111388-001

Mr. Robert Filkins
Senior Engineering Geologist, Remedial Bureau B
Division of Environmental Remediation, NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7016

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – DeCicco Building (DCB); 58 East Parkway**

Dear Mr. Filkins:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR) in September 2017.

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from several building locations. The SSDS installed in the Christie Place Building, where Mimi Cleaners was located, remains in operation. Attachment A includes the documentation from NYSDEC approving the removal of these five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the DeCicco Building where the SSDS was approved to be removed to discuss the equipment removal requirements and procedures as required by the building owner and/or an authorized representative. Attachment B contains photographs documenting the SSDS equipment removal activities and Attachment C contains the Certificate of Occupancy from the Village of Scarsdale after the SSDS equipment was removed.

As part of the removal activities the following removal activities were conducted at this location:

- Blower package including the blower motor, control panel, the moisture knock-out pot, and the blower equipment cabinet were removed from the roof of the Spencer Place Building
- Discharge stack at the top of the blower housing was removed
- Electrical hookup was de-energized and removed
- Extraction pipes that were installed through the concrete floor slabs in the basement area were removed and filled with concrete.
- The horizontal extraction legs that extended under the store portion of the building were

capped and labeled.

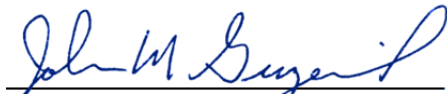
- Horizontal lateral piping remaining in place was capped and labeled. These pipes were permanently capped with PVC caps and PVC glue.

HDR inspected the SSDS equipment removal activities on 12 and 18 September and 3 October 2017. All of the SSDS equipment has been removed as approved by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as the building owners, and as required by Westchester County Department of Health (WCDOH) to close the air discharge permit that is in place for this building.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment A NYSDEC SSDS Equipment Removal Approval Documentation
Attachment B SSDS Equipment Removal Photo Documentation
Attachment C Building CO – SSDS Equipment Removal

Cc: A. Perretta, NYSDOH
B. Groden, West-Ex Associates
P. Blumenthal

Attachment A
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Spencer Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Harwood Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Post Office Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – East Pkwy. Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – 28 Popham Rd. Bldg.

Dear John,

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

28 Popham Road – NYSDEC and NYSDOH agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

DeCicco Building - NYSDEC and NYSDOH agree with the conclusion that NFA is required and that they SSDS may be permanently shutdown with no further sampling.

East Parkway Building and Harwood Building – NYSDEC and NYSDOH agree with the conclusion that the frequency of sampling may be modified to biannual, based on the concentrations from the 2015-2016 heating season NFA may be appropriate given the history of sampling performed at these locations and the overall declining trend in environmental contamination at the Site.

Spencer Place Building and the Post Office – NYSDEC and NYSDOH agree that the SSDSs can remain shut down permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– NYSDEC and NYSDOH agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Filkins". The signature is fluid and cursive, with the first name "Robert" and last name "Filkins" clearly distinguishable.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

Bob,

I have reviewed the following Reports for the Mimi Cleaners Voluntary Cleanup Program site: 28 Popham Road SVI: DeCicco Building SSDS Shutdown Evaluation; East Parkway Building SSDS Shutdown Evaluation; Harwood Building SSDS Shutdown Evaluation; Spencer Place SSDS Shutdown Evaluation; Post Office SSDS Shutdown Evaluation; and the Christie Place SVI Sampling Report and offer the following comments and recommendations.

28 Popham Road – I agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

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Christie Place Building (former Mimi Cleaners location)– I agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, New York 12237
Phone: (518)-402-7860
Fax: (518)-402-7859
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]

Sent: Wednesday, May 28, 2014 4:35 PM

To: Robert Filkins; Walz, Nathan M (HEALTH)

Subject: Mimi Cleaners VCA Close-out Documents

Bob, Nate,
Hope all is well.

We have received final comments back from the lawyers for the building owners and have a final draft version of the Mimi Cleaners SMP for your review and comment. The final draft FER has been completed as well. I will send the documents in two separate email correspondences since each one has a few attachments and will be less likely to get mixed up. I will send Word versions of the reports and associated appendices/attachments so you can make comments right in the documents if needed.

Have you had a chance to review the summary reports that were prepared based on the results of the December 2013 sampling event? I sent them out via our Slingshot system on 17 April (SPOB, SPB, DCB, HWB, EPB, and 28PRB) and 21 April (CPB).

If you have any questions or require additional information let me know.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

From: walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Tuesday, July 08, 2014 3:29 PM
To: Guzewich, John M.; Robert Filkins
Cc: Schuck, Maureen (HEALTH)
Subject: RE: Mimi Cleaners - Shutdown Systems

I'll leave it up to Bob on whether he wants a letter for the removal, my feeling is that we both already concurred that they don't need to operate implies that the systems can be removed.

I'm not sure if a new PM has been assigned to Mimi Cleaners yet or not, the Region Chief is Maureen Schuck. I will go ahead and copy her on this email for her knowledge, but she is on vacation...not sure exactly when she is returning.

Is it a money issue that they want the systems removed or aesthetics? Because you could leave the piping in place and remove the blowers and it could be a passive system that remains in place?

Nathan M. Walz

Public Health Specialist III
Bureau of Toxic Substance Assessment
Exposure Characterization and Response Section
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1743
Albany, New York 12237
Phone: (518)-402-7810
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]
Sent: Tuesday, July 08, 2014 3:21 PM
To: Robert Filkins; walz, Nathan M (HEALTH)
Subject: Mimi Cleaners - Shutdown Systems

Bob, Nate,

The Blumenthal's would like to remove the SSD systems in the buildings where we have the systems in place and it has been determined that no further monitoring or mitigation is required and the systems can be permanently shut down (Post Office Bld, Spencer Pl Bld, and the DeCicco Bld).

The data collected at these locations indicate there are no CVOC concentrations that warrant additional sampling or mitigation. We have spoken with the Westchester County Health Department and they have indicated we will need to keep the air discharge permits in place and renewed as necessary (\$825/every 3 years for the renewal) as long as the blower remains in place (even if it is not running). We would like to remove the blower packages, piping, and the extraction points (after which the openings in the floor for the extraction points would be sealed).

Let me know if you require a formal letter request for the removal of the SSDs at these locations.

Nate,
Please forward this on to your replacement for this project ...I was not sure if Charlotte Bethoney is going to be working on this project.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

New York State Department of Environmental Conservation

Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9706

Fax: 518-402-9773

Website: www.dec.ny.gov



Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Dear Peter Blumenthal (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 06/11/2015 to 06/28/2016.

The Department hereby accepts the PRR and associated Certification. As requested the frequency of Periodic Reviews for this site is now 3 years. Also, the permanent shutdown of the SSDSs at the HWB and EPB locations is approved. Your next PRR is due on July 29, 2019. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewich – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

Attachment B
SSDS Equipment Removal Photo Documentation

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
DeCicco Building**

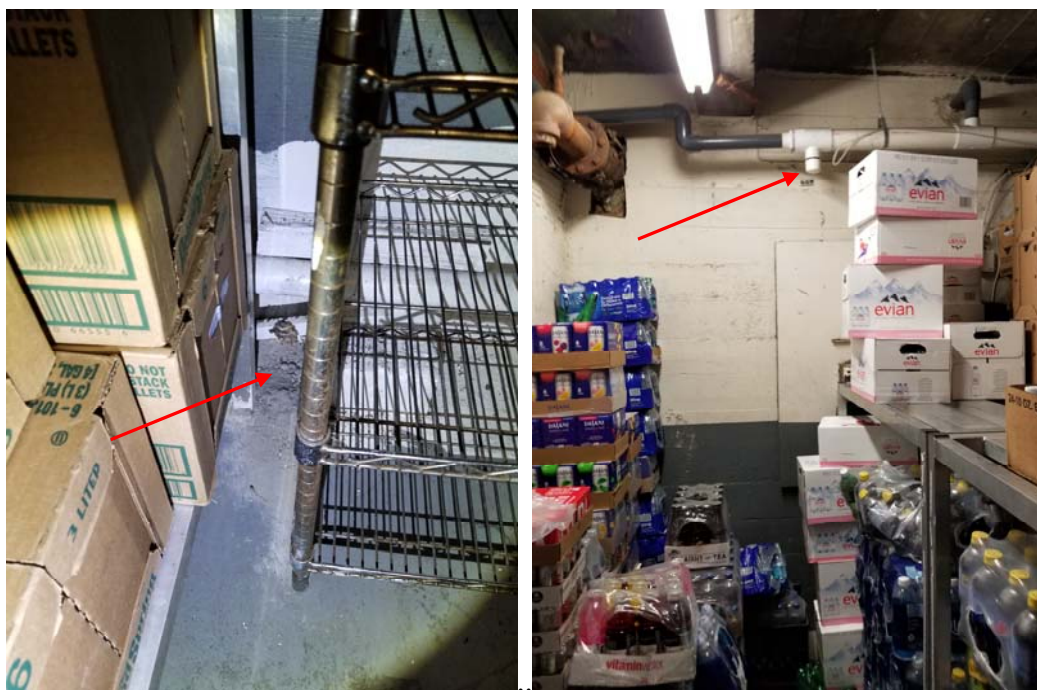


PHOTO 1 & 2: PATCHED FLOOR PENETRATION AND CUT & CAPPED EXTRACTION POINT



PHOTO 3: EXTRACTION PIPE REMOVED AND CUT & CAPPED

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
DeCicco Building**

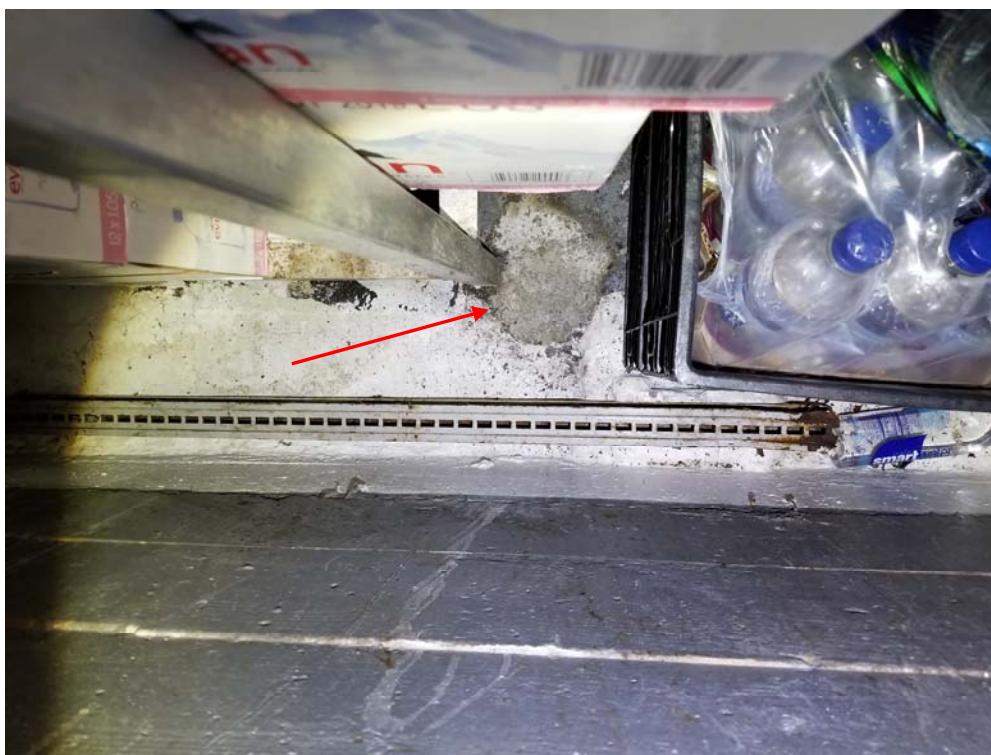


PHOTO 4: PATCHED FLOOR PENETRATION (SEALED EXTRACTION POINT)



PHOTO 5: LABELED CAPPED LATERAL PIPING REMAINING IN PLACE

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
DeCicco Building**



**PHOTO 6: ROOF PENETRATION PIPING CUT & CAPPED
(ROOFER WILL CUT PIPES & RESEAL PENETRATION)**



PHOTO 7: REMOVED BLOWER & HOUSING

Attachment C
Building CO - SSDS Equipment Removal

Village of Scarsdale, N.Y.

BUILDING DEPARTMENT CERTIFICATE OF OCCUPANCY

Certificate Number: 32827 **Date of Issue:** 10/4/2017
Location of Property **Property Number:** 02.05.7
Street Address: 1-17 SPENCER PL
Current Owner: CHRISTIE SPENCER CORP

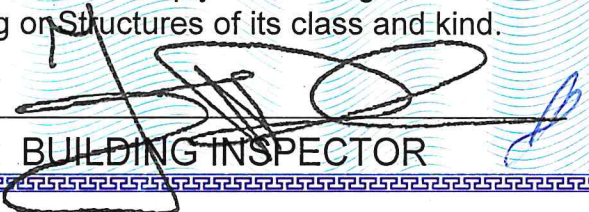
Inspection of the building at the above location erected under the terms of

BUILDING PERMIT NO: 145113

Issued On: 8/29/2017

REMOVE REMEDIAL ENVIRONMENTAL SYSTEM (DICECCO)

has been made by the undersigned, a duly authorized representative of the Board; and that said building of structure is hereby certified for occupancy or use as to comply with all regulations and requirements of the Village ordinances applying to Building on Structures of its class and kind.


BUILDING INSPECTOR

Scarsdale Post Office Building
(October 2017)



11 October 2017
File: 10017039-111388-001

Mr. Robert Filkins
Senior Engineering Geologist, Remedial Bureau B
Division of Environmental Remediation, NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7016

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning Documentation
Scarsdale Post Office Building (SPOB); 29 Chase Road**

Dear Mr. Filkins:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR) in September 2017.

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from several building locations. The SSDS installed in the Christie Place Building, where Mimi Cleaners was located, remains in operation. Attachment A includes the documentation from NYSDEC approving the removal of these five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the Scarsdale Post Office Building where the SSDS was approved to be removed to discuss the equipment removal requirements and procedures as required by the building owner and/or an authorized representative. Attachment B contains photographs documenting the SSDS equipment removal activities and Attachment C contains the Certificate of Occupancy from the Village of Scarsdale after the SSDS equipment was removed.

As part of the removal activities the following removal activities were conducted at this location:

- Blower package including the blower motor, control panel, the moisture knock-out pot, and the blower equipment cabinet were removed from the roof of the building
- The pipe running from the basement and up the outside wall to the blower on the roof was removed
- Electrical hookup was de-energized and removed
- Extraction pipes that were installed through the concrete floor portion of the basement were removed and filled with concrete.
- The eastern half of the basement in the SPOB was originally a dirt floor area. As part of the

SSDS installation activities in this building, a geo-membrane was installed in this section of the basement so the SSDS could maintain a negative pressure in this portion of the building. At the request of the representatives for the SPOB, the geo-membrane was not removed and the extraction points through the membrane were cut, filled with concrete, and capped.

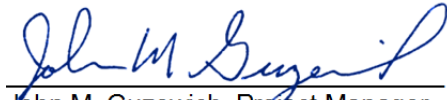
- As requested by SPOB, all of the horizontal lateral piping was removed from this building and all through wall penetrations were patched.

HDR inspected the SSDS equipment removal activities on 12 and 18 September and 3 October 2017. All of the SSDS equipment has been removed as approved by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as the building owners, and as required by Westchester County Department of Health (WCDOH) to close the air discharge permit that is in place for this building.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment A NYSDEC SSDS Equipment Removal Approval Documentation
Attachment B SSDS Equipment Removal Photo Documentation
Attachment C Building CO – SSDS Equipment Removal

Cc: A. Perretta, NYSDOH
B. Groden, West-Ex Associates
P. Blumenthal

Attachment A
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
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2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
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The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

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Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Robert Filkins". The signature is written in a cursive, flowing style.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

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If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, New York 12237
Phone: (518)-402-7860
Fax: (518)-402-7859
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]

Sent: Wednesday, May 28, 2014 4:35 PM

To: Robert Filkins; Walz, Nathan M (HEALTH)

Subject: Mimi Cleaners VCA Close-out Documents

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If you have any questions or require additional information let me know.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

Guzewich, John M.

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Sent: Tuesday, July 08, 2014 3:29 PM
To: Guzewich, John M.; Robert Filkins
Cc: Schuck, Maureen (HEALTH)
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Is it a money issue that they want the systems removed or aesthetics? Because you could leave the piping in place and remove the blowers and it could be a passive system that remains in place?

Nathan M. Walz

Public Health Specialist III
Bureau of Toxic Substance Assessment
Exposure Characterization and Response Section
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Empire State Plaza, Corning Tower, Room 1743
Albany, New York 12237
Phone: (518)-402-7810
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]
Sent: Tuesday, July 08, 2014 3:21 PM
To: Robert Filkins; walz, Nathan M (HEALTH)
Subject: Mimi Cleaners - Shutdown Systems

Bob, Nate,

The Blumenthal's would like to remove the SSD systems in the buildings where we have the systems in place and it has been determined that no further monitoring or mitigation is required and the systems can be permanently shut down (Post Office Bld, Spencer Pl Bld, and the DeCicco Bld).

The data collected at these locations indicate there are no CVOC concentrations that warrant additional sampling or mitigation. We have spoken with the Westchester County Health Department and they have indicated we will need to keep the air discharge permits in place and renewed as necessary (\$825/every 3 years for the renewal) as long as the blower remains in place (even if it is not running). We would like to remove the blower packages, piping, and the extraction points (after which the openings in the floor for the extraction points would be sealed).

Let me know if you require a formal letter request for the removal of the SSDs at these locations.

Nate,
Please forward this on to your replacement for this project ...I was not sure if Charlotte Bethoney is going to be working on this project.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

New York State Department of Environmental Conservation

Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9706

Fax: 518-402-9773

Website: www.dec.ny.gov



Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Dear Peter Blumenthal (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 06/11/2015 to 06/28/2016.

The Department hereby accepts the PRR and associated Certification. As requested the frequency of Periodic Reviews for this site is now 3 years. Also, the permanent shutdown of the SSDSs at the HWB and EPB locations is approved. Your next PRR is due on July 29, 2019. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewich – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

Attachment B
SSDS Equipment Removal Photo Documentation

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Scarsdale Post Office Building**

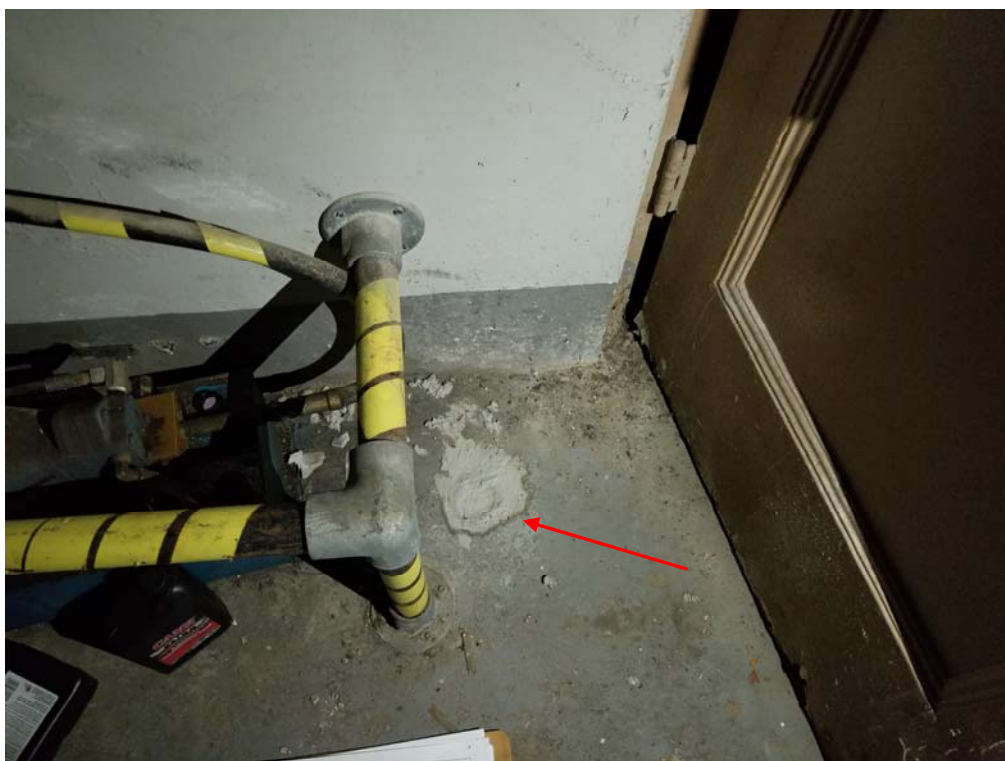


PHOTO 1: PATCHED FLOOR PENETRATION GROUTED WHERE EXTRACTION POINT REMOVED.



PHOTO 2: EXTRACTION PIPE CUT, GROUTED & CAPPED.



PHOTO 3: LATERAL PIPING REMOVED & THROUGH WALL PENETRATIONS PATCHED.

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Scarsdale Post Office Building**



PHOTO 4: CUT, GROUTED & CAPPED EXTRACTION POINT IN AREA OF RAISED FLOOR.



PHOTO 5: LATERAL PIPING REMOVED & THROUGH WALL PENETRATIONS PATCHED.

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Scarsdale Post Office Building**



PHOTO 6 & 7: GEO-MEMBRANE LEFT IN PLACE IN EASTERN PORTION OF BASEMENT.
EXTRACTION POINTS IN THIS AREA WERE CUT, GROUTED & CAPPED.



PHOTO 8: CLOSE-UP OF CUT, GROUTED & CAPPED EXTRACTION POINT
IN EASTERN PORTION OF BASEMENT.

Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Scarsdale Post Office Building



PHOTO 9 & 10: DISCHARGE PIPE RUNNING UP TO BLOWER ON ROOF REMOVED.
THROUGH WALL PENETRATION PATCHED.



PHOTO 11: BLOWER & BLOWER HOUSING ON ROOF REMOVED.

Attachment C
Building CO - SSDS Equipment Removal

Village of Scarsdale, N.Y.

BUILDING DEPARTMENT CERTIFICATE OF OCCUPANCY

Certificate Number: 32826 **Date of Issue:** 10/4/2017
Location of Property **Property Number:** 02.05.8
Street Address: 29 CHASE RD
Current Owner: UNITED STATES OF AMERICA

Inspection of the building at the above location erected under the terms of

BUILDING PERMIT NO: 145112

Issued On: 8/29/2017

REMOVE REMEDIAL ENVIRONMENTAL SYSTEM

has been made by the undersigned, a duly authorized representative of the Board; and that said building of structure is hereby certified for occupancy or use as to comply with all regulations and requirements of the Village ordinances applying to Building or Structures of its class and kind.


BUILDING INSPECTOR

Harwood Building
(October 2017)



11 October 2017
File: 10017039-111388-001

Mr. Robert Filkins
Senior Engineering Geologist, Remedial Bureau B
Division of Environmental Remediation, NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7016

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – Harwood Building (HWB); 14 Harwood Court**

Dear Mr. Filkins:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR) in September 2017.

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from several building locations. The SSDS installed in the Christie Place Building, where Mimi Cleaners was located, remains in operation. Attachment A includes the documentation from NYSDEC approving the removal of five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the Harwood Building where the SSDS was approved to be removed to discuss the equipment removal requirements and procedures as required by the building owner and/or an authorized representative. Attachment B contains photographs documenting the SSDS equipment removal activities and Attachment C contains the Certificate of Occupancy from the Village of Scarsdale after the SSDS equipment was removed.

As part of the removal activities the following removal activities were conducted at this location:

- Blower package including the blower motor and cabinet on the roof were removed
- Discharge stack on the roof was removed
- Electrical hookup was de-energized and removed
- Extraction pipes that were installed through the concrete floor slabs were removed and filled with concrete. There was one extraction point in the HWB that was inside a wall. This pipe was cut where it was accessible and capped.
- Horizontal lateral piping remaining in place was capped and labeled. These pipes were

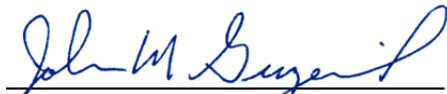
- permanently capped with PVC caps and PVC glue.
- The steel discharge pipe that ran up through the building and up through the roof to the blower was capped at both ends.

HDR inspected the SSDS equipment removal activities on 12 and 18 September and 3 October 2017. All of the SSDS equipment has been removed as approved by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as the building owners, and as required by Westchester County Department of Health (WCDOH) to close the air discharge permit that is in place for this building.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment A NYSDEC SSDS Equipment Removal Approval Documentation
 Attachment B SSDS Equipment Removal Photo Documentation
 Attachment C Building CO – SSDS Equipment Removal

Cc: A. Perretta, NYSDOH
 B. Groden, West-Ex Associates
 P. Blumenthal

Attachment A
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Spencer Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Harwood Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Post Office Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – East Pkwy. Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – 28 Popham Rd. Bldg.

Dear John,

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

28 Popham Road – NYSDEC and NYSDOH agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

DeCicco Building - NYSDEC and NYSDOH agree with the conclusion that NFA is required and that they SSDS may be permanently shutdown with no further sampling.

East Parkway Building and Harwood Building – NYSDEC and NYSDOH agree with the conclusion that the frequency of sampling may be modified to biannual, based on the concentrations from the 2015-2016 heating season NFA may be appropriate given the history of sampling performed at these locations and the overall declining trend in environmental contamination at the Site.

Spencer Place Building and the Post Office – NYSDEC and NYSDOH agree that the SSDSs can remain shut down permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– NYSDEC and NYSDOH agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Robert Filkins". The signature is written in a cursive, flowing style.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

Bob,

I have reviewed the following Reports for the Mimi Cleaners Voluntary Cleanup Program site: 28 Popham Road SVI: DeCicco Building SSDS Shutdown Evaluation; East Parkway Building SSDS Shutdown Evaluation; Harwood Building SSDS Shutdown Evaluation; Spencer Place SSDS Shutdown Evaluation; Post Office SSDS Shutdown Evaluation; and the Christie Place SVI Sampling Report and offer the following comments and recommendations.

28 Popham Road – I agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

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If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, New York 12237
Phone: (518)-402-7860
Fax: (518)-402-7859
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]

Sent: Wednesday, May 28, 2014 4:35 PM

To: Robert Filkins; Walz, Nathan M (HEALTH)

Subject: Mimi Cleaners VCA Close-out Documents

Bob, Nate,
Hope all is well.

We have received final comments back from the lawyers for the building owners and have a final draft version of the Mimi Cleaners SMP for your review and comment. The final draft FER has been completed as well. I will send the documents in two separate email correspondences since each one has a few attachments and will be less likely to get mixed up. I will send Word versions of the reports and associated appendices/attachments so you can make comments right in the documents if needed.

Have you had a chance to review the summary reports that were prepared based on the results of the December 2013 sampling event? I sent them out via our Slingshot system on 17 April (SPOB, SPB, DCB, HWB, EPB, and 28PRB) and 21 April (CPB).

If you have any questions or require additional information let me know.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

From: walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Tuesday, July 08, 2014 3:29 PM
To: Guzewich, John M.; Robert Filkins
Cc: Schuck, Maureen (HEALTH)
Subject: RE: Mimi Cleaners - Shutdown Systems

I'll leave it up to Bob on whether he wants a letter for the removal, my feeling is that we both already concurred that they don't need to operate implies that the systems can be removed.

I'm not sure if a new PM has been assigned to Mimi Cleaners yet or not, the Region Chief is Maureen Schuck. I will go ahead and copy her on this email for her knowledge, but she is on vacation...not sure exactly when she is returning.

Is it a money issue that they want the systems removed or aesthetics? Because you could leave the piping in place and remove the blowers and it could be a passive system that remains in place?

Nathan M. Walz

Public Health Specialist III
Bureau of Toxic Substance Assessment
Exposure Characterization and Response Section
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1743
Albany, New York 12237
Phone: (518)-402-7810
nathan.walz@health.ny.gov

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Sent: Tuesday, July 08, 2014 3:21 PM
To: Robert Filkins; walz, Nathan M (HEALTH)
Subject: Mimi Cleaners - Shutdown Systems

Bob, Nate,

The Blumenthal's would like to remove the SSD systems in the buildings where we have the systems in place and it has been determined that no further monitoring or mitigation is required and the systems can be permanently shut down (Post Office Bld, Spencer Pl Bld, and the DeCicco Bld).

The data collected at these locations indicate there are no CVOC concentrations that warrant additional sampling or mitigation. We have spoken with the Westchester County Health Department and they have indicated we will need to keep the air discharge permits in place and renewed as necessary (\$825/every 3 years for the renewal) as long as the blower remains in place (even if it is not running). We would like to remove the blower packages, piping, and the extraction points (after which the openings in the floor for the extraction points would be sealed).

Let me know if you require a formal letter request for the removal of the SSDs at these locations.

Nate,
Please forward this on to your replacement for this project ...I was not sure if Charlotte Bethoney is going to be working on this project.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

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New York State Department of Environmental Conservation

Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9706

Fax: 518-402-9773

Website: www.dec.ny.gov



Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Dear Peter Blumenthal (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 06/11/2015 to 06/28/2016.

The Department hereby accepts the PRR and associated Certification. As requested the frequency of Periodic Reviews for this site is now 3 years. Also, the permanent shutdown of the SSDSs at the HWB and EPB locations is approved. Your next PRR is due on July 29, 2019. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewich – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

Attachment B
SSDS Equipment Removal Photo Documentation

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Harwood Building**



PHOTO 1: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)



PHOTO 2 & 3: PATCHED FLOOR & WALL PENETRATION (REMOVED EXTRACTION POINT)

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Harwood Building**



PHOTO 4: CAPPED LATERAL PIPING



**PHOTO 5 & 6: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINTS)
& CAPPED LATERAL PIPING**

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
Harwood Building**

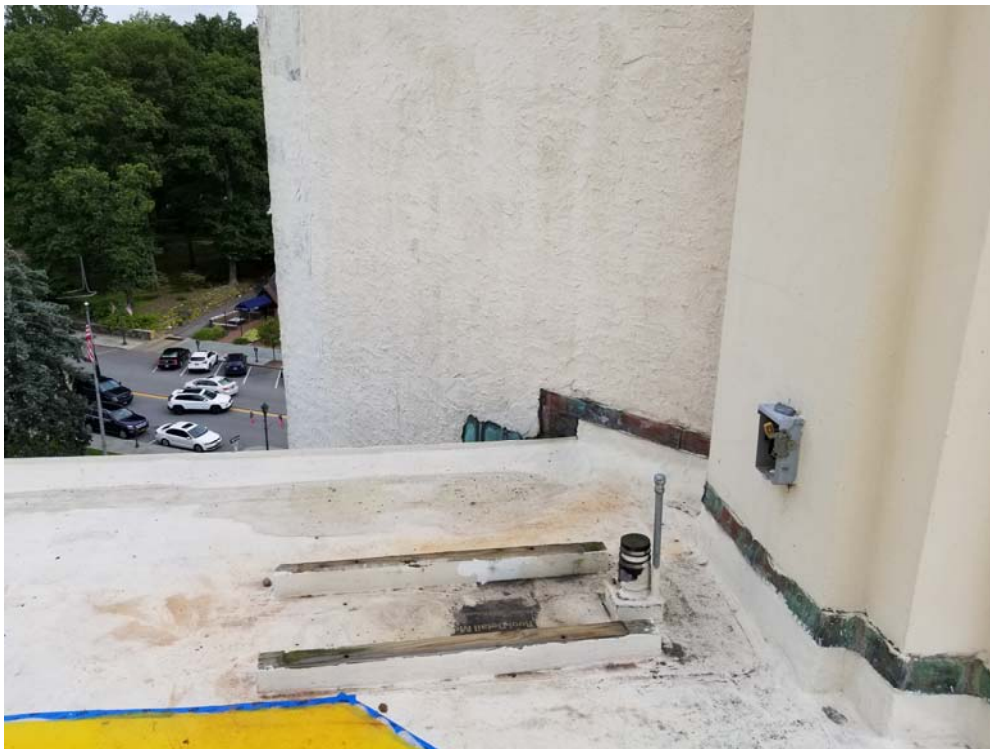


PHOTO 7: REMOVED BLOWER & HOUSING



PHOTO 8 & 9: REMOVED BLOWER & HOUSING & DISCHARGE PIPE

Attachment C
Building CO - SSDS Equipment Removal

Village of Scarsdale, N.Y.

BUILDING DEPARTMENT CERTIFICATE OF OCCUPANCY

Certificate Number: 32824 **Date of Issue:** 10/4/2017
Location of Property **Property Number:** 02.05.5
Street Address: 14 HARWOOD CT
Current Owner: SCARSDALE IMPROVEMENT CO

Inspection of the building at the above location erected under the terms of

BUILDING PERMIT NO: 145110

Issued On: 8/29/2017

REMOVE REMEDIAL ENVIRONMENTAL SYSTEM

has been made by the undersigned, a duly authorized representative of the Board; and that said building of structure is hereby certified for occupancy or use as to comply with all regulations and requirements of the Village ordinances applying to Building or Structures of its class and kind.


BUILDING INSPECTOR

East Parkway Building
(October 2017)



11 October 2017
File: 10017039-111388-001

Mr. Robert Filkins
Senior Engineering Geologist, Remedial Bureau B
Division of Environmental Remediation, NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7016

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation – East Parkway Building (EPB); 8-16 East Parkway**

Dear Mr. Filkins:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR) in September 2017.

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from several building locations. The SSDS installed in the Christie Place Building, where Mimi Cleaners was located, remains in operation. Attachment A includes the documentation from NYSDEC approving the removal of five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the East Parkway Building (southern half of the building) where the SSDS was approved to be removed to discuss the equipment removal requirements and procedures as required by the building owner and/or an authorized representative. Attachment B contains photographs documenting the SSDS equipment removal activities and Attachment C contains the Certificate of Occupancy from the Village of Scarsdale after the SSDS equipment was removed.

As part of the removal activities the following removal activities were conducted at this location:

- Blower package including the blower motor, control panel,, monitoring panel, and the moisture knock-out pot were removed
- Discharge stack going up along the outside wall of the building to the roof level was removed
- Electrical hookup was de-energized and removed
- Extraction pipes that were installed through the concrete floor slabs were removed and filled with concrete.

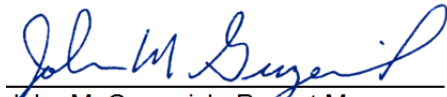
- Horizontal lateral piping remaining in place was capped and labeled. These pipes were permanently capped with PVC caps and PVC glue.

HDR inspected the SSDS equipment removal activities on 12 and 18 September and 3 October 2017. All of the SSDS equipment has been removed as approved by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as the building owners, and as required by Westchester County Department of Health (WCDOH) to close the air discharge permit that is in place for this building.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment A NYSDEC SSDS Equipment Removal Approval Documentation
Attachment B SSDS Equipment Removal Photo Documentation
Attachment C Building CO – SSDS Equipment Removal

Cc: A. Perretta, NYSDOH
B. Groden, West-Ex Associates
P. Blumenthal

Attachment A
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Spencer Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Harwood Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Post Office Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – East Pkwy. Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – 28 Popham Rd. Bldg.

Dear John,

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

28 Popham Road – NYSDEC and NYSDOH agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

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Spencer Place Building and the Post Office – NYSDEC and NYSDOH agree that the SSDSs can remain shut down permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– NYSDEC and NYSDOH agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Robert Filkins". The signature is fluid and cursive, with the first name "Robert" and last name "Filkins" clearly distinguishable.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

Bob,

I have reviewed the following Reports for the Mimi Cleaners Voluntary Cleanup Program site: 28 Popham Road SVI: DeCicco Building SSDS Shutdown Evaluation; East Parkway Building SSDS Shutdown Evaluation; Harwood Building SSDS Shutdown Evaluation; Spencer Place SSDS Shutdown Evaluation; Post Office SSDS Shutdown Evaluation; and the Christie Place SVI Sampling Report and offer the following comments and recommendations.

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If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, New York 12237
Phone: (518)-402-7860
Fax: (518)-402-7859
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]

Sent: Wednesday, May 28, 2014 4:35 PM

To: Robert Filkins; Walz, Nathan M (HEALTH)

Subject: Mimi Cleaners VCA Close-out Documents

Bob, Nate,
Hope all is well.

We have received final comments back from the lawyers for the building owners and have a final draft version of the Mimi Cleaners SMP for your review and comment. The final draft FER has been completed as well. I will send the documents in two separate email correspondences since each one has a few attachments and will be less likely to get mixed up. I will send Word versions of the reports and associated appendices/attachments so you can make comments right in the documents if needed.

Have you had a chance to review the summary reports that were prepared based on the results of the December 2013 sampling event? I sent them out via our Slingshot system on 17 April (SPOB, SPB, DCB, HWB, EPB, and 28PRB) and 21 April (CPB).

If you have any questions or require additional information let me know.

Regards,
John

John M. Guzewich
Project Manager

HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 M 845.548.5493
john.guzewich@hdrinc.com

hdrinc.com/follow-us

From: walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Tuesday, July 08, 2014 3:29 PM
To: Guzewich, John M.; Robert Filkins
Cc: Schuck, Maureen (HEALTH)
Subject: RE: Mimi Cleaners - Shutdown Systems

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Nathan M. Walz

Public Health Specialist III
Bureau of Toxic Substance Assessment
Exposure Characterization and Response Section
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1743
Albany, New York 12237
Phone: (518)-402-7810
nathan.walz@health.ny.gov

From: Guzewich, John M. [<mailto:John.Guzewich@hdrinc.com>]
Sent: Tuesday, July 08, 2014 3:21 PM
To: Robert Filkins; walz, Nathan M (HEALTH)
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Please forward this on to your replacement for this project ...I was not sure if Charlotte Bethoney is going to be working on this project.

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New York State Department of Environmental Conservation

Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9706

Fax: 518-402-9773

Website: www.dec.ny.gov



Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

Dear Peter Blumenthal (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 06/11/2015 to 06/28/2016.

The Department hereby accepts the PRR and associated Certification. As requested the frequency of Periodic Reviews for this site is now 3 years. Also, the permanent shutdown of the SSDSs at the HWB and EPB locations is approved. Your next PRR is due on July 29, 2019. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewich – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

Attachment B
SSDS Equipment Removal Photo Documentation

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
East Parkway Building**

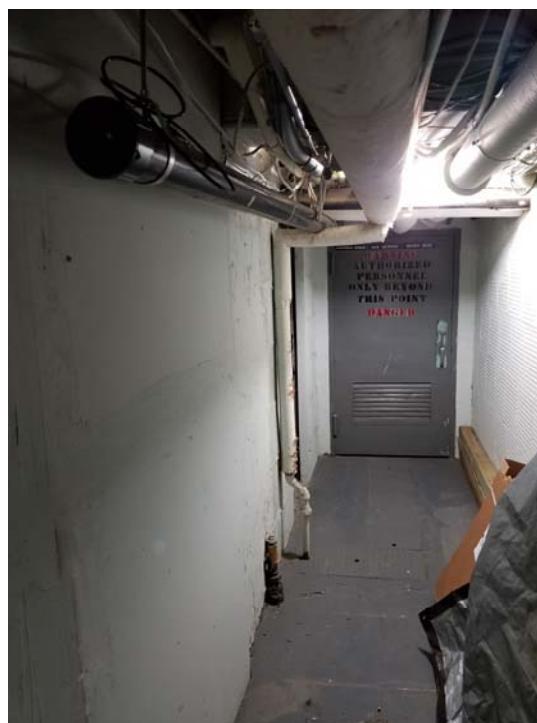


**PHOTO 1 & 2: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)
& CAPPED LATERAL PIPING (NORTH END AREA)**



**PHOTO 3 & 4: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)
& CAPPED LATERAL PIPING**

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
East Parkway Building**



**PHOTO 5 & 6: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)
& CAPPED LATERAL PIPING**



**PHOTO 7 & 8: PATCHED FLOOR PENETRATION (REMOVED EXTRACTION POINT)
& CAPPED LATERAL PIPING**

**Former Mimi Cleaners – SSDS Equipment Removal Documentation Photolog.
East Parkway Building**



PHOTO 9 & 10: DISCHARGE PIPE REMOVED FROM WALL
& HOLE WHERE DISCHARGE PIPE WHEN THROUGH LANDING



PHOTO 11: DISCHARGE PIPE REMOVED FROM OUTSIDE WALL

Attachment C
Building CO - SSDS Equipment Removal

Village of Scarsdale, N.Y.

BUILDING DEPARTMENT CERTIFICATE OF OCCUPANCY

Certificate Number: 32827 **Date of Issue:** 10/4/2017
Location of Property **Property Number:** 02.05.7
Street Address: 1-17 SPENCER PL
Current Owner: CHRISTIE SPENCER CORP

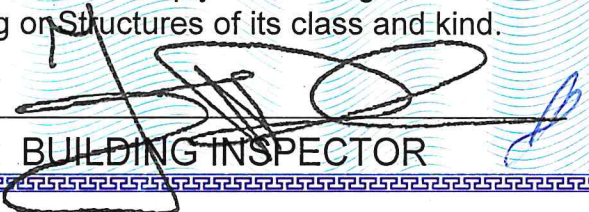
Inspection of the building at the above location erected under the terms of

BUILDING PERMIT NO: 145113

Issued On: 8/29/2017

REMOVE REMEDIAL ENVIRONMENTAL SYSTEM (DICECCO)

has been made by the undersigned, a duly authorized representative of the Board; and that said building of structure is hereby certified for occupancy or use as to comply with all regulations and requirements of the Village ordinances applying to Building on Structures of its class and kind.


BUILDING INSPECTOR

Village of Scarsdale Building Department Submittal
(October 2017)



29 September 2017
File: 147-234973-003

Mr. Frank Diodati
Building Inspector
Village of Scarsdale Building Department
1001 Post Road
Scarsdale NY 10583

**Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
Voluntary Cleanup Program Site No. V00306-3
Sub-Slab Depressurization System Decommissioning
Documentation**

Dear Mr. Diodati:

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) on behalf of Hausman Realty Company, Inc. (Hausman) provides this letter to document the Sub-Slab Depressurization Systems (SSDSs) removal activities conducted by VJM Home Renovations Inc. (VJMHR).

As part of investigation activities conducted in conjunction with the Voluntary Clean-up Program (VCP) for the Former Mimi Cleaners site (V00306-3), SSDSs were installed in adjacent and nearby buildings. Based on subsequent indoor air and sub-slab sampling events conducted after the SSDSs were installed, NYSDEC and NYSDOH approved the permanent shutdown and removal of the SSDSs from five building locations. Attachment A includes the documentation from NYSDEC approving the removal of these five systems. Prior to the equipment removal activities, HDR and VJMHR representatives met with representatives for the buildings where the systems were to be removed to discuss the equipment removal requirements and procedures.

The SSDSs were removed from the following locations:

- Spencer Place Building (SPB) / 23-27 Spencer Place
- Harwood Building (HWB) / 14 Harwood Court
- DeCicco Building (DCB) / 58 East Parkway
- East Parkway Building (EPB) / 8-16 East Parkway
- Scarsdale Post Office Building (SPOB) / 29 Chase Road

As part of the removal activities the following removal activities were conducted at the five locations:

- Blower packages including the blower motors, monitoring panels, and cabinets were removed
- Discharge stacks were removed
- Electrical hookups were de-energized and removed

- Extraction pipes that were installed through the concrete floor slabs were removed and filled with concrete. There was one extraction point in the HWB that was inside a wall. This pipe was cut where it was accessible and capped.
- Horizontal lateral piping was capped and labeled or the piping was removed. These pipes were permanently capped with PVC caps and PVC glue.

HDR inspected the SSDS equipment removal activities on 12 and 18 September 2017. All of the SSDS equipment has been removed as required by New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) as well as Westchester County Department of Health (WCDOH) and the building owners.

If you have any questions, please feel free to contact me at (201) 335-9371; john.guzewich@hdrinc.com.

Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich, Project Manager
Environmental Restoration Group

Enclosures: Attachment 1 NYSDEC SSDS Equipment Removal Approval Documentation

Cc: B. Groden, West-Ex Associates
P. Blumenthal
A. Steinthal, VJMHR

Attachment 1
NYSDEC SSDS Equipment Removal Approval Documentation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau B, 12th Floor

625 Broadway, Albany, New York 12233-7016

Phone: (518) 402-9768 • Fax: (518) 402-9773

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 2, 2014

John Guzewich
HDR Engineering
One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965

Re: Mimi Cleaners Site (#V00306) Reports: April 2014
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Christie Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Spencer Place Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Harwood Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – Post Office Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – East Pkwy. Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – DeCicco Bldg.
2013-14 Sub-Slab Vapor and Indoor Air Sampling Report – 28 Popham Rd. Bldg.

Dear John,

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the above referenced reports and have the following comments:

28 Popham Road – NYSDEC and NYSDOH agree with the conclusion in the report that recommends No Further Action (NFA), since sampling that has been conducted at this building over the last several years has established a trend that proves while PCE remains in the sub-slab vapor at concentrations above matrix values, the indoor air has not be impacted to a degree which would require further action.

DeCicco Building - NYSDEC and NYSDOH agree with the conclusion that NFA is required and that they SSDS may be permanently shutdown with no further sampling.

East Parkway Building and Harwood Building – NYSDEC and NYSDOH agree with the conclusion that the frequency of sampling may be modified to biannual, based on the concentrations from the 2015-2016 heating season NFA may be appropriate given the history of sampling performed at these locations and the overall declining trend in environmental contamination at the Site.

Spencer Place Building and the Post Office – NYSDEC and NYSDOH agree that the SSDSs can remain shut down permanently with no further sampling.

Christie Place Building (former Mimi Cleaners location)– NYSDEC and NYSDOH agree that the SSDS should remain operational in this building, the need for further SVI sampling can be postponed until a time when the Volunteer petitions the State to evaluate the shutdown of the system.

Therefore, the above referenced reports are acceptable as written.

If you have any questions you may contact me at (518) 402-9768 or via e-mail at rhfilkin@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Robert Filkins". The signature is written in a cursive, flowing style.

Robert Filkins
Project Manager
Remedial Bureau B
Division of Environmental Remediation

ec: N. Walz NYSDOH
M. Komoroske

From: Walz, Nathan M (HEALTH) <nathan.walz@health.ny.gov>
Sent: Monday, June 02, 2014 9:58 AM
To: Robert Filkins
Cc: Guzewich, John M.; mer10@health.state.ny.us
Subject: RE: Mimi Cleaners VCA SVI / SSDS Reports

Bob,

I have reviewed the following Reports for the Mimi Cleaners Voluntary Cleanup Program site: 28 Popham Road SVI: DeCicco Building SSDS Shutdown Evaluation; East Parkway Building SSDS Shutdown Evaluation; Harwood Building SSDS Shutdown Evaluation; Spencer Place SSDS Shutdown Evaluation; Post Office SSDS Shutdown Evaluation; and the Christie Place SVI Sampling Report and offer the following comments and recommendations.

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If you want to discuss please give me a call.

Thanks
Nate

Please note new email address

Nathan M. Walz

Public Health Specialist II
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Basil Seggos
Commissioner

August 29, 2016

Hausman Realty Corporation
Peter Blumenthal
c/o WestEx Associates, Inc.
119 E Hartsdale Ave.
Hartsdale, NY 10530

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Mimi Cleaners, Scarsdale
Westchester County, Site No.: V00306

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If you have any questions, or need additional forms, please contact me at 518-402-9612 or e-mail: rhfilkin@gw.dec.state.ny.us

Sincerely,

Robert Filkins
Project Manager

cc: Anthony Perretta, DOH Project Manager
John Guzewich – HDR
Westex Mngmt.

bec: Edward Moore, RHWRE

FIELD ACTIVITY REPORT

Site: East Parkway Bldg, Hardwood Bldg, Scarsdale
Address: Post Office Bldg, Spencer Bldg, and DeCicco
Town: Bldg. Municipality: Scarsdale
Person Interviewed: John Guzewich
Title: _____ Email: _____
Phone (Office): _____ (Cell): _____
Person(s) present: John Guzewich

NYSDEC Spill# _____
PBS# _____
Facility type: Remediation SDS
Inspection type:
Complaint ☐ Routine ☐ Re-inspection ☐
Other: Equipment removal
Date of Inspection: 10/25/2017
Time Arrived: 9:30 am
Time Departed: 10:05 am

Findings: EPB: Blower package, motor, control panel, outside stack and
extraction pipes were removed.
HWB: Blower package, discharge stack, extraction pipes were
removed. Horizontal lateral piping remained in place capped.
SPB: Blower package, motor, panel, extraction pipes were
removed. Geomembrane was left in place located at the
eastern half of the basement.
SPB: Blower package, motor, panel, discharge stack,
extraction pipes were removed. Some horizontal lateral
pipe was capped and left in place.
DCB: Blower package, motor, panel, discharge stack,
extraction pipes were removed. A horizontal extraction log
was capped and left in place.

Further Action Required: None

I acknowledge receipt of this field activity report.

Signature of Person Interviewed:

John Guzewich

Inspector Name (Printed):

Reuben Benin

Date:

10/25/17

Inspector Name (Signature):

Assist. Eng

Phone:

813-5143

Appendix D. WCDOH SSDS Air Discharge Permit Renewal

- Christie Place Building



George Latimer
County Executive

Sherlita Amler, MD
Commissioner of Health

December 14, 2018

Hausman Realty Co., Inc.
c/o West-Ex Associates, Inc.
119 East Hartsdale Avenue
Hartsdale, NY 10530
Attention: Nancy Blumenthal

**RE: Renewal Certificate to Operate
Industrial Facility
Number of Emission Points: 1**

Dear Ms. Blumenthal:

Receipt of your fees for the above-referenced facility is hereby acknowledged. Please be advised that our records reveal that your facility is being operated in compliance with applicable County Laws and Regulations.

Enclosed please find your renewal Certificate to Operate, which is valid until December 31, 2021.

Respectfully,

Natasha Court, P.E.
Associate Engineer
Bureau of Environmental Quality

NC:RB:mez
Enclosure

cc: File





George Latimer
County Executive
Department of Health
Sherlita Amler, M.D.
Commissioner of Health

Westchester County
Department of Health
Bureau of Environmental Quality
CERTIFICATE TO OPERATE SOURCES
OF AIR CONTAMINATION

Facility Information:

Emission Point Number: 00001

Facility Name: Hausman Realty Co., Inc.

Facility Telephone: (914) 948-5800

Street Address: 58 Christie Place Scarsdale, NY 10583

Municipality:

Facility Owner Information:

Owner's Name: Hausman Realty Co., Inc.

Owner Telephone: (914) 948-5800

Mailing Address: Nancy Blumenthal c/o West-Ex Associates, Inc. 119 E. Hartsdale Ave. Hartsdale, NY 10530

Description Process:

To operate sub-slab depressurization system installed to mitigate potential perchloroethylene vapor intrusion into the building. The system consist of 18 shallow extraction points, 8 differential pressure gages (Dwyer Minihelic II) and the existing extraction piping from the former SVE system. One 4.5 HP regenerative blower (Fuji Electric Model VFC600A-7WS) producing 206 cfm maximum discharge mounted on the roof, 20 gal. moisture separation tank, discharge stock is located 9 ft above the structure; and the system includes various controls and appurtenances.

The Certificate supersedes any earlier Certificate to Operate issued for this source by the Department pursuant to Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County.

That the operation of this source is in accordance with the source description, approved plans, and emission limits for this source on file with the Department.

The source of air contamination shall be operated in compliance with the provisions of Chapter 873, Article XIII of the Laws of Westchester County and 6NYCRRR.

This certificate shall be suspended or revoked as provided by the laws of Westchester County, if this source of air contamination is maintained or operated other than in compliance with the above.

Air contaminants collected by air cleaning devices shall be handled and disposed of in an approved manner.

FOR THE COMMISSIONER

BY:

Sherlita Amler, M.D.

Commissioner of Health

SHERLITA AMLER, M.D.

BY:

Delroy Taylor, P.E., Acting Assistant Commissioner
Bureau of Environmental Quality

Certificate Issued: 12/14/2018

Certificate Expires: 12/31/2021

145 Huguenot Street • 7th Floor New Rochelle, N.Y. 10801

THIS PERMIT MUST BE POSTED CONSPICUOUSLY

FIELD ACTIVITY REPORT

Site: Hausman Realty Co (Christie Bldg)
Address: 58 Christie Place
Town: Scarsdale Municipality: NY 10583
Person Interviewed: John Guzewich
Title: _____ Email: _____
Phone (Office): 201-335-9371 (Cell): _____
Person(s) present: John Guzewich

NYSDEC Spill# _____
PBS# _____
Facility type: Ind
Inspection type:
Complaint ☐ Routine ☒ Re-inspection ☐
Other: _____
Date of Inspection: 12/14/18
Time Arrived: 11:02am
Time Departed: 11:35am

Findings: ① SSDS System
② Wireless modem to collect info/date
③ Moisture separator
④ $\Delta P = 21$ in H_2O (low = 10 high = 40)
⑤ Exhaust approx - 2" ϕ pipe
⑥ Operating 24/7
⑦ NO unusual odors / no visible emissions
⑧ SSDS schematic attached to this report
⑨ Extraction points (see diagram)

Further Action Required: _____

I acknowledge receipt of this field activity report.

Signature of Person Interviewed: _____
John Guzewich

Inspector Name (Printed): Ruben Bernos Date: _____

Inspector Name (Signature): _____

Title: Assistant Eng Phone: 914 8135143

Appendix E. Groundwater Monitoring Event Documentation

- Field Sampling Logs
- Analytical Data Report

Groundwater Sampling Logs

(August 2018)



Well Sampling Log

Date: 8/23/2018
Crew: MTP
Job No: 10017039-23473-003
Project: Former Mimi Cleaners
Project Site: Scarsdale, NY

Well ID No.: MW-1
Well Condition: Good
Well Depth/Diameter: 31.46'2"
Well Casing Type: PVC
Screened Interval: Bottom 20 feet
Casing Ht./Lock No.: flush mount/NA
Reference Pt.: Top of PVC
Depth to Water (DTW): 15.74
Water Column Ht./Vol.: 15.72 / 5 gal
Purge Est.: 15 gal
Purge Method(s): Bailer
Purge Date/Time(s): 23-aug-2018 / 1150-1215

Depth(s): Surface to bottom
Rates (gpm): N/A
Purged Volume: 8 Gal
DTW After Purging: Dry
Yield Rate: L - M - H L
Purge Observations:
Clear at first, then cloudy, milky gray color, no noticeable odor

METERS USED
Temp.: PVSC-05
pH: 04-15
Cond.: PVSC-05
Turb.: N/A

DTW Before Sampling: 17.04
Sample Date/Time: 23- Aug-2018 / 1305
Sampling Method: Bailer
Sampling Depth(s): 17.04
DTW After Sampling: 17.56
Chain-of-Custody No.(s): -
Analytical Lab(s): Hampton Clarke
Sampling Observations: Sample ID MW-1-20180823
Clear, no odors

SAMPLE CHEMISTRIES				
	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	(mS/cm)			
End	21.3	7.1	10.901	-

SAMPLE ANALYSES			
Parameters	Inv. No.	Pres. Meth.	Filter
8260B	NA	4°C	N

PURGE CHEMISTRIES				
Vol.	Temp. (°C)	pH	Sp. Cond.	Turb.
0	20.8	7.2	7.948	-
5	19.4	7.2	11.865	-
8	18.6	7.4	12.003	-
			(mS/cm)	

Comments:

Air Temp: 81 °F
Weather Conditions: Calm, Clear, Humid.

Well is in DeCicco's parking lot between the trash compactor and the side entrance to the center hallway of the Christie Pl. Bld

Crew Chief Signature MTP Date: 8/23/2018

HDR Well Sampling Log

Date: 8/23/2018
Crew: MTP
Job No: 10017039-23473-003
Project: Former Mimi Cleaners
Project Site: Scarsdale, NY

METERS USED
Temp.: PVSC-05
pH: 04-15
Cond.: PVSC-05
Turb.: N/A

Well ID No.: MW-2
Well Condition: Under 1.5 - 2" of Asphalt
Well Depth/Diameter: 29.95/2"
Well Casing Type: PVC
Screened Interval: Bottom 20 feet
Casing Ht./Lock No.: flush mount/NA
Reference Pt.: Top of PVC
Depth to Water (DTW): 11.74
Water Column Ht./Vol.: 18.21/ 6 gal
Purge Est.: 18 Gal
Purge Method(s): Hand Bailer
Purge Date/Time(s): 8/23/18 / 0955 - 1015

DTW Before Sampling: 26.98
Sample Date/Time: 23-aug-2018 / 1100
Sampling Method: Bailer
Sampling Depth(s): 26.98
DTW After Sampling: 27.58
Chain-of-Custody No.(s): N/A
Analytical Lab(s): Hampton Clarke
Sampling Observations: Sample ID MW-2-20180823
clear, no odors

Depth(s): Surface to bottom
Rates (gpm): N/A
Purged Volume: 6 gal
DTW After Purging: Dry
Yield Rate: L - M - H
Purge Observations:

Clear at first, then cloudy, milky gray color, no noticeable odor
(purged to dryness)

SAMPLE CHEMISTRIES				
	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	(mS/cm)			
End	19.2	7.5	6.943	-

SAMPLE ANALYSES			
Parameters	Inv. No.	Pres. Meth.	Filter
8260B	NA	4°C	N

PURGE CHEMISTRIES

Vol.	Temp. (°C)	pH	Sp. Cond.	Turb.
0	20.4	7.3	2.599	-
3	18.6	7.6	3.696	-
6	18.9	7.5	3.789	-

(mS/cm)

Comments:

Air Temp: 75 °F

Weather Conditions: Calm, Clear, Humid.

Well was under 1.5 - 2" of asphalt. The well is located about 12" off the white line between space two and three in the third space from the fire hydrant. it is located about 5' (60") down the white line from the sidewalk.

Crew Chief Signature MTP Date: 8/23/2018

Groundwater Analytical Data Summary Report

Project: Mimi Cleaners

Client PO: 10017039

Report To: HDR
1 International Blvd.
10th Floor, Suite 1000
Mahwah, NJ 07495

Attn: John Guzewich

Received Date: 8/24/2018

Report Date: 9/17/2018

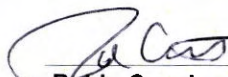
Deliverables: NYDOH-CatB

Lab ID: AD06149

Lab Project No: 8082413

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.



Robin Cousineau - Quality Assurance Director

OR

Jean Revolus - Laboratory Director

NJ (07071)
PA (68-00463)

NY (ELAP11408)
KY (90124)

CT (PH-0671)



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SDG Narrative

HC Case Narrative

Client: HDR
Project: Mimi Cleaners

HC Project: 8082413

Hampton-Clarke (HC) received the following samples on 8/24/18.

<u>Client ID</u>	<u>HC Sample ID</u>	<u>Matrix</u>	<u>Analysis</u>
MW-2-20180823	AD06149-001	Aqueous	Volatile Organics (EPA 8260C)
MW-1-20180823	AD06149-002	Aqueous	Volatile Organics (EPA 8260C)
TB01-20180823	AD06149-003	Aqueous	Volatile Organics (EPA 8260C)

This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.

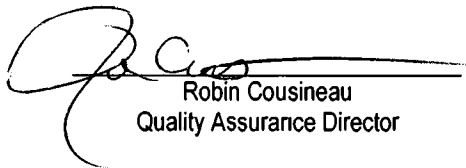
Volatile Organic Analysis:

The Method Blank Spike for batch 72636 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike, MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batch 72643 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike, Matrix Spike and/or Matrix Spike Duplicate for batch 72659 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

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



Robin Cousineau
Quality Assurance Director

Or

Jean Revolus
Laboratory Director

9/17/2018
Date

Reporting Limit Definitions

HC Reporting Limit Definitions/Data Qualifiers

REPORTING DEFINITIONS

DF = Dilution Factor

MDL = Method Detection Limit

RL* = Reporting Limit

ND = Not Detected

RT = Retention Time

NA = Not Applicable

**Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

DATA QUALIFIERS

- A-** Indicates that the Tentatively Identified Compound (TIC) is suspected to be an aldol-condensation product. These compounds are by-products of acetone and methylene chloride used in the extraction process.
- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.
- R-** Retention Time is out.
- Y-** Indicates a contaminant found in the blank at less than 10% of the concentration of a contaminant found in the sample.

Data Package Summary Forms

HC Report of Analysis

Client: HDR
Project: Mimi Cleaners

HC Project #: 8082413

Sample ID: MW-2-20180823

Lab#: AD06149-001

Matrix: Aqueous

Collection Date: 8/23/2018

Receipt Date: 8/24/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	1.8
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.1
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND

NOTE: Soil Results are reported to Dry Weight

Project #: 8082413

Page 1 of 4

Sample ID: MW-2-20180823**Lab#: AD06149-001****Matrix: Aqueous****Collection Date: 8/23/2018****Receipt Date: 8/24/2018**

trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: MW-1-20180823

Collection Date: 8/23/2018

Lab#: AD06149-002

Receipt Date: 8/24/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	5.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: TB01-20180823

Collection Date: 8/23/2018

Lab#: AD06149-003

Receipt Date: 8/24/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-001

Client Id: MW-2-20180823

Data File: 3M135456.D

Analysis Date: 08/31/18 23:25

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.8
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.1
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 2.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-002

Client Id: MW-1-20180823

Data File: 3M135390.D

Analysis Date: 08/31/18 04:46

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	5.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 5.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-003

Client Id: TB01-20180823

Data File: 3M135273.D

Analysis Date: 08/29/18 19:59

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Chain of Custody Forms

CONDITION UPON RECEIPT

Batch Number AD06149

Entered By: maxwell

Date Entered 8/24/2018 11:33:00 AM

- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 NA Are the COC seals intact?
- 4 T0054 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).
2.4
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 Yes Other comments ...Specify
TRIP BLANK DATE 8/20/18
- 14 NA Corrective actions (Specify item number and corrective action taken).

PRESERVATION DOCUMENT

Batch Number AD06149

Entered By: maxwell

Date Entered 8/24/2018 11:35:00 AM

Lab#	Container Size	Container/Vial Check	Parameter	Preservative	Preservative Lot#	PH	pH Lot#
AD06149-001	40ML	G	VO	HCL	189699	1	HC727135
AD06149-002	40ML	G	VO	HCL	189699	1	HC727135
AD06149-003	40ML	G	VO	HCL	189699	1	HC727135

Internal Chain of Custody

8082413 0017

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AD06149-001	08/24/18 11:30	MAXW	0	M	Received
AD06149-001	08/24/18 11:33	MAXW	0	M	Login
AD06149-001	08/24/18 13:15	R31	1	A	NONE
AD06149-001	08/31/18 22:56	WP	1	A	VOA
AD06149-001	08/24/18 13:15	R31	2	A	NONE
AD06149-001	08/30/18 22:57	WP	2	A	VOA
AD06149-001	08/24/18 13:15	R31	3	A	NONE
AD06149-002	08/24/18 11:30	MAXW	0	M	Received
AD06149-002	08/24/18 11:33	MAXW	0	M	Login
AD06149-002	08/24/18 13:15	R31	1	A	NONE
AD06149-002	08/24/18 13:15	R31	2	A	NONE
AD06149-002	08/30/18 22:57	WP	2	A	VOA
AD06149-002	08/24/18 13:15	R31	3	A	NONE
AD06149-003	08/24/18 11:30	MAXW	0	M	Received
AD06149-003	08/24/18 11:33	MAXW	0	M	Login
AD06149-003	08/24/18 13:15	R31	1	A	NONE
AD06149-003	08/24/18 13:15	R31	2	A	NONE
AD06149-003	08/29/18 17:18	WP	2	A	VOA
AD06149-003	08/24/18 13:15	R31	3	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

GC/MS Volatile Data

**GC/MS Volatile Data
QC Summary**

FORM2

Surrogate Recovery

Method: EPA 8260C

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
3M135082.D	DAILY BLANK	A	08/27/18 10:39	1		113	107	86	90		
3M135258.D	DAILY BLANK	A	08/29/18 15:58	1		99	98	96	96		
3M135368.D	DAILY BLANK	A	08/30/18 22:19	1		100	106	96	103		
3M135455.D	DAILY BLANK	A	08/31/18 23:03	1		103	105	95	93		
3M135459.D	AD06149-001(MS)	A	09/01/18 00:18	1		103	102	96	94		
3M135460.D	AD06149-001(MSD)	A	09/01/18 00:35	1		109	104	94	99		
3M135456.D	AD06149-001	A	08/31/18 23:25	1		107	105	90	93		
3M135390.D	AD06149-002	A	08/31/18 04:46	1		106	107	97	98		
3M135273.D	AD06149-003	A	08/29/18 19:59	1		105	97	94	96		
3M135267.D	MBS72636	A	08/29/18 18:16	1		104	104	94	98		
3M135369.D	AD06207-001(T)	A	08/30/18 22:37	1		106	103	96	99		
3M135370.D	MBS72643	A	08/30/18 22:53	1		103	110	94	99		
3M135372.D	AD06207-001(T:MS)	A	08/30/18 23:37	1		106	101	95	99		
3M135373.D	AD06207-001(T:MSD)	A	08/30/18 23:55	1		100	97	98	94		
3M135458.D	MBS72659	A	09/01/18 00:01	1		102	93	97	93		

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8260C

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=Dibromofluoromethane	30	73-131
S2=1,2-Dichloroethane-d4	30	78-128
S3=Toluene-d8	30	79-111
S4=Bromofluorobenzene	30	82-112

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72636

8082413 0021

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135267.D		MBS72636		8/29/2018 6:16:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	18.3092	0	20	92	50	150
Dichlorodifluoromethane	1	28.9006	0	20	145	50	150
Chloromethane	1	21.4477	0	20	107	50	150
Bromomethane	1	15.739	0	20	79	50	150
Vinyl Chloride	1	26.7047	0	20	134	50	150
Chloroethane	1	26.2349	0	20	131	50	150
Trichlorofluoromethane	1	23.9741	0	20	120	50	150
Ethyl ether	1	19.1734	0	20	96	50	150
Furan	1	21.038	0	20	105	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	27.2739	0	20	136	50	150
Methylene Chloride	1	21.2684	0	20	106	70	130
Acrolein	1	60.9139	0	100	61	50	150
Acrylonitrile	1	22.4996	0	20	112	50	150
Iodomethane	1	25.1056	0	20	126	50	150
Acetone	1	101.4382	0	100	101	50	150
Carbon Disulfide	1	23.3309	0	20	117	50	150
t-Butyl Alcohol	1	86.6265	0	100	87	50	150
n-Hexane	1	20.4591	0	20	102	70	130
Di-isopropyl-ether	1	22.7494	0	20	114	70	130
1,1-Dichloroethene	1	21.4132	0	20	107	70	130
Methyl Acetate	1	17.4728	0	20	87	50	150
Methyl-t-butyl ether	1	25.4583	0	20	127	70	130
1,1-Dichloroethane	1	20.2266	0	20	101	70	130
trans-1,2-Dichloroethene	1	23.5119	0	20	118	70	130
Ethyl-t-butyl ether	1	22.7358	0	20	114	70	130
cis-1,2-Dichloroethene	1	20.5131	0	20	103	70	130
Bromochloromethane	1	17.5893	0	20	88	70	130
2,2-Dichloropropane	1	7.7602	0	20	39*	70	130
Ethyl acetate	1	20.2866	0	20	101	50	150
1,4-Dioxane	1	805.5407	0	1000	81	50	150
1,1-Dichloropropene	1	22.5926	0	20	113	70	130
Chloroform	1	23.5007	0	20	118	70	130
Cyclohexane	1	22.4581	0	20	112	70	130
1,2-Dichloroethane	1	22.976	0	20	115	70	130
2-Butanone	1	19.8707	0	20	99	50	150
1,1,1-Trichloroethane	1	22.8007	0	20	114	70	130
Carbon Tetrachloride	1	22.9643	0	20	115	50	150
Vinyl Acetate	1	14.7517	0	20	74	50	150
Bromodichloromethane	1	21.9085	0	20	110	70	130
Methylcyclohexane	1	20.3504	0	20	102	70	130
Dibromomethane	1	23.6274	0	20	118	70	130
1,2-Dichloropropane	1	22.0092	0	20	110	70	130
Trichloroethene	1	31.124	0	20	156*	70	130
Benzene	1	23.6633	0	20	118	70	130
tert-Amyl methyl ether	1	20.5396	0	20	103	70	130
Iso-propylacetate	1	18.6876	0	20	93	70	130
Methyl methacrylate	1	15.4216	0	20	77	70	130
Dibromochloromethane	1	20.0998	0	20	100	70	130
2-Chloroethylvinylether	1	18.6085	0	20	93	70	130
cis-1,3-Dichloropropene	1	17.8531	0	20	89	70	130
trans-1,3-Dichloropropene	1	16.8093	0	20	84	70	130
Ethyl methacrylate	1	17.6706	0	20	88	70	130
1,1,2-Trichloroethane	1	20.5843	0	20	103	70	130
1,2-Dibromoethane	1	20.6489	0	20	103	70	130
1,3-Dichloropropane	1	21.6191	0	20	108	70	130
4-Methyl-2-Pentanone	1	18.9195	0	20	95	50	150
2-Hexanone	1	17.1429	0	20	86	50	150
Tetrachloroethene	1	25.0421	0	20	125	50	150
Toluene	1	21.8431	0	20	109	70	130
1,1,1,2-Tetrachloroethane	1	23.4198	0	20	117	70	130
Chlorobenzene	1	21.2563	0	20	106	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0022

QC Batch: MBS72636

n-Butyl acrylate	1	13.9546	0	20	70	70	130
n-Amyl acetate	1	16.6718	0	20	83	70	130
Bromoform	1	20.5286	0	20	103	70	130
Ethylbenzene	1	23.8	0	20	119	70	130
1,1,2,2-Tetrachloroethane	1	11.6769	0	20	58 *	70	130
Styrene	1	22.9923	0	20	115	70	130
m&p-Xylenes	1	45.8979	0	40	115	70	130
o-Xylene	1	22.4773	0	20	112	70	130
trans-1,4-Dichloro-2-butene	1	11.5516	0	20	58	50	150
1,3-Dichlorobenzene	1	21.8356	0	20	109	70	130
1,4-Dichlorobenzene	1	20.4624	0	20	102	70	130
1,2-Dichlorobenzene	1	19.7245	0	20	99	70	130
Isopropylbenzene	1	21.7336	0	20	109	70	130
Cyclohexanone	1	79.5961	0	100	80	50	150
Camphene	1	19.4677	0	20	97	70	130
1,2,3-Trichloropropane	1	19.0067	0	20	95	70	130
2-Chlorotoluene	1	21.8292	0	20	109	70	130
p-Ethyltoluene	1	21.0048	0	20	105	70	130
4-Chlorotoluene	1	21.184	0	20	106	70	130
n-Propylbenzene	1	20.3748	0	20	102	70	130
Bromobenzene	1	20.2465	0	20	101	70	130
1,3,5-Trimethylbenzene	1	23.8559	0	20	119	70	130
Butyl methacrylate	1	20.1432	0	20	101	70	130
t-Butylbenzene	1	22.2009	0	20	111	70	130
1,2,4-Trimethylbenzene	1	20.9701	0	20	105	70	130
sec-Butylbenzene	1	20.4037	0	20	102	70	130
4-Isopropyltoluene	1	20.429	0	20	102	70	130
n-Butylbenzene	1	19.3431	0	20	97	70	130
p-Diethylbenzene	1	19.1645	0	20	96	70	130
1,2,4,5-Tetramethylbenzene	1	19.453	0	20	97	70	130
1,2-Dibromo-3-Chloropropane	1	19.3272	0	20	97	50	150
Camphor	1	145.9147	0	200	73	20	150
Hexachlorobutadiene	1	16.9502	0	20	85	50	150
1,2,4-Trichlorobenzene	1	18.4225	0	20	92	70	130
1,2,3-Trichlorobenzene	1	18.086	0	20	90	70	130
Naphthalene	1	17.9182	0	20	90	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72643

8082413 0023

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135370.D		MBS72643		8/30/2018 10:53:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.2891	0	20	81	50	150
Dichlorodifluoromethane	1	21.731	0	20	109	50	150
Chloromethane	1	19.8606	0	20	99	50	150
Bromomethane	1	22.4493	0	20	112	50	150
Vinyl Chloride	1	22.0122	0	20	110	50	150
Chloroethane	1	24.6427	0	20	123	50	150
Trichlorofluoromethane	1	22.704	0	20	114	50	150
Ethyl ether	1	18.5466	0	20	93	50	150
Furan	1	19.9847	0	20	100	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	25.4397	0	20	127	50	150
Methylene Chloride	1	19.8645	0	20	99	70	130
Acrolein	1	107.1988	0	100	107	50	150
Acrylonitrile	1	19.414	0	20	97	50	150
Iodomethane	1	23.0757	0	20	115	50	150
Acetone	1	100.1238	0	100	100	50	150
Carbon Disulfide	1	21.257	0	20	106	50	150
t-Butyl Alcohol	1	87.3015	0	100	87	50	150
n-Hexane	1	28.184	0	20	141 *	70	130
Di-isopropyl-ether	1	21.1031	0	20	106	70	130
1,1-Dichloroethene	1	19.7253	0	20	99	70	130
Methyl Acetate	1	19.454	0	20	97	50	150
Methyl-t-butyl ether	1	24.1333	0	20	121	70	130
1,1-Dichloroethane	1	18.768	0	20	94	70	130
trans-1,2-Dichloroethene	1	20.8842	0	20	104	70	130
Ethyl-t-butyl ether	1	21.3788	0	20	107	70	130
cis-1,2-Dichloroethene	1	21.3734	0	20	107	70	130
Bromochloromethane	1	21.0527	0	20	105	70	130
2,2-Dichloropropane	1	27.1187	0	20	136 *	70	130
Ethyl acetate	1	22.013	0	20	110	50	150
1,4-Dioxane	1	1014.247	0	1000	101	50	150
1,1-Dichloropropene	1	21.4552	0	20	107	70	130
Chloroform	1	21.1959	0	20	106	70	130
Cyclohexane	1	21.1813	0	20	106	70	130
1,2-Dichloroethane	1	21.3283	0	20	107	70	130
2-Butanone	1	19.3291	0	20	97	50	150
1,1,1-Trichloroethane	1	21.3249	0	20	107	70	130
Carbon Tetrachloride	1	22.2804	0	20	111	50	150
Vinyl Acetate	1	20.3151	0	20	102	50	150
Bromodichloromethane	1	20.8026	0	20	104	70	130
Methylcyclohexane	1	21.4577	0	20	107	70	130
Dibromomethane	1	22.0458	0	20	110	70	130
1,2-Dichloropropane	1	18.6286	0	20	93	70	130
Trichloroethene	1	22.9323	0	20	115	70	130
Benzene	1	22.9893	0	20	115	70	130
tert-Amyl methyl ether	1	21.6371	0	20	108	70	130
Iso-propylacetate	1	19.7438	0	20	99	70	130
Methyl methacrylate	1	17.9535	0	20	90	70	130
Dibromochloromethane	1	19.5349	0	20	98	70	130
2-Chloroethylvinylether	1	17.707	0	20	89	70	130
cis-1,3-Dichloropropene	1	19.8713	0	20	99	70	130
trans-1,3-Dichloropropene	1	19.0546	0	20	95	70	130
Ethyl methacrylate	1	16.3071	0	20	82	70	130
1,1,2-Trichloroethane	1	18.5602	0	20	93	70	130
1,2-Dibromoethane	1	18.7498	0	20	94	70	130
1,3-Dichloropropane	1	19.4105	0	20	97	70	130
4-Methyl-2-Pentanone	1	15.868	0	20	79	50	150
2-Hexanone	1	16.0015	0	20	80	50	150
Tetrachloroethene	1	23.178	0	20	116	50	150
Toluene	1	20.7388	0	20	104	70	130
1,1,1,2-Tetrachloroethane	1	20.685	0	20	103	70	130
Chlorobenzene	1	20.3294	0	20	102	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0024

QC Batch: MBS72643

n-Butyl acrylate	1	12.3053	0	20	62 *	70	130
n-Amyl acetate	1	17.7087	0	20	89	70	130
Bromoform	1	18.4596	0	20	92	70	130
Ethylbenzene	1	22.5858	0	20	113	70	130
1,1,2,2-Tetrachloroethane	1	16.7484	0	20	84	70	130
Styrene	1	21.1297	0	20	106	70	130
m&p-Xylenes	1	41.6258	0	40	104	70	130
o-Xylene	1	20.0626	0	20	100	70	130
trans-1,4-Dichloro-2-butene	1	17.2007	0	20	86	50	150
1,3-Dichlorobenzene	1	20.263	0	20	101	70	130
1,4-Dichlorobenzene	1	20.3497	0	20	102	70	130
1,2-Dichlorobenzene	1	19.6706	0	20	98	70	130
Isopropylbenzene	1	20.1742	0	20	101	70	130
Cyclohexanone	1	76.4585	0	100	76	50	150
Camphene	1	18.3086	0	20	92	70	130
1,2,3-Trichloropropane	1	18.3389	0	20	92	70	130
2-Chlorotoluene	1	20.0208	0	20	100	70	130
p-Ethyltoluene	1	18.892	0	20	94	70	130
4-Chlorotoluene	1	20.4584	0	20	102	70	130
n-Propylbenzene	1	20.3368	0	20	102	70	130
Bromobenzene	1	18.6559	0	20	93	70	130
1,3,5-Trimethylbenzene	1	24.9878	0	20	125	70	130
Butyl methacrylate	1	19.0288	0	20	95	70	130
t-Butylbenzene	1	21.1915	0	20	106	70	130
1,2,4-Trimethylbenzene	1	20.4494	0	20	102	70	130
sec-Butylbenzene	1	18.9589	0	20	95	70	130
4-Isopropyltoluene	1	20.5187	0	20	103	70	130
n-Butylbenzene	1	20.3908	0	20	102	70	130
p-Diethylbenzene	1	20.8147	0	20	104	70	130
1,2,4,5-Tetramethylbenzene	1	18.2283	0	20	91	70	130
1,2-Dibromo-3-Chloropropane	1	18.8495	0	20	94	50	150
Camphor	1	135.3244	0	200	68	20	150
Hexachlorobutadiene	1	17.1933	0	20	86	50	150
1,2,4-Trichlorobenzene	1	19.0198	0	20	95	70	130
1,2,3-Trichlorobenzene	1	17.1551	0	20	86	70	130
Naphthalene	1	14.9618	0	20	75	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0025

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135458.D		MBS72659		9/1/2018 12:01:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	13.5522	0	20	68	50	150
Dichlorodifluoromethane	1	15.7229	0	20	79	50	150
Chloromethane	1	16.5808	0	20	83	50	150
Bromomethane	1	21.3812	0	20	107	50	150
Vinyl Chloride	1	17.8246	0	20	89	50	150
Chloroethane	1	19.0299	0	20	95	50	150
Trichlorofluoromethane	1	14.8251	0	20	74	50	150
Ethyl ether	1	14.4018	0	20	72	50	150
Furan	1	15.6938	0	20	78	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.321	0	20	102	50	150
Methylene Chloride	1	16.4439	0	20	82	70	130
Acrolein	1	82.9241	0	100	83	50	150
Acrylonitrile	1	17.4037	0	20	87	50	150
Iodomethane	1	15.8213	0	20	79	50	150
Acetone	1	79.1022	0	100	79	50	150
Carbon Disulfide	1	18.083	0	20	90	50	150
t-Butyl Alcohol	1	71.3527	0	100	71	50	150
n-Hexane	1	22.4098	0	20	112	70	130
Di-isopropyl-ether	1	17.2812	0	20	86	70	130
1,1-Dichloroethene	1	16.9479	0	20	85	70	130
Methyl Acetate	1	15.1928	0	20	76	50	150
Methyl-t-butyl ether	1	18.8047	0	20	94	70	130
1,1-Dichloroethane	1	16.0836	0	20	80	70	130
trans-1,2-Dichloroethene	1	17.7826	0	20	89	70	130
Ethyl-t-butyl ether	1	17.1442	0	20	86	70	130
cis-1,2-Dichloroethene	1	17.7965	0	20	89	70	130
Bromochloromethane	1	14.664	0	20	73	70	130
2,2-Dichloropropane	1	21.031	0	20	105	70	130
Ethyl acetate	1	16.6722	0	20	83	50	150
1,4-Dioxane	1	726.1182	0	1000	73	50	150
1,1-Dichloropropene	1	17.0688	0	20	85	70	130
Chloroform	1	17.741	0	20	89	70	130
Cyclohexane	1	15.5628	0	20	78	70	130
1,2-Dichloroethane	1	17.0683	0	20	85	70	130
2-Butanone	1	38.3828	0	20	192 *	50	150
1,1,1-Trichloroethane	1	16.7075	0	20	84	70	130
Carbon Tetrachloride	1	17.4833	0	20	87	50	150
Vinyl Acetate	1	16.5135	0	20	83	50	150
Bromodichloromethane	1	16.8028	0	20	84	70	130
Methylcyclohexane	1	17.7416	0	20	89	70	130
Dibromomethane	1	18.3867	0	20	92	70	130
1,2-Dichloropropane	1	16.89	0	20	84	70	130
Trichloroethene	1	19.3501	0	20	97	70	130
Benzene	1	17.6849	0	20	88	70	130
tert-Amyl methyl ether	1	16.6789	0	20	83	70	130
Iso-propylacetate	1	13.7571	0	20	69 *	70	130
Methyl methacrylate	1	14.4779	0	20	72	70	130
Dibromochloromethane	1	16.1792	0	20	81	70	130
2-Chloroethylvinylether	1	14.0243	0	20	70	70	130
cis-1,3-Dichloropropene	1	16.5676	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.4153	0	20	82	70	130
Ethyl methacrylate	1	15.0673	0	20	75	70	130
1,1,2-Trichloroethane	1	15.2181	0	20	76	70	130
1,2-Dibromoethane	1	16.6184	0	20	83	70	130
1,3-Dichloropropane	1	15.7669	0	20	79	70	130
4-Methyl-2-Pentanone	1	13.8061	0	20	69	50	150
2-Hexanone	1	14.0364	0	20	70	50	150
Tetrachloroethene	1	19.2248	0	20	96	50	150
Toluene	1	16.7201	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	17.0267	0	20	85	70	130
Chlorobenzene	1	16.858	0	20	84	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0026

QC Batch: MBS72659

n-Butyl acrylate	1	10.7308	0	20	54 *	70	130
n-Amyl acetate	1	14.1228	0	20	71	70	130
Bromoform	1	12.5739	0	20	63 *	70	130
Ethylbenzene	1	17.192	0	20	86	70	130
1,1,2,2-Tetrachloroethane	1	13.396	0	20	67 *	70	130
Styrene	1	17.3045	0	20	87	70	130
m&p-Xylenes	1	36.524	0	40	91	70	130
o-Xylene	1	17.3349	0	20	87	70	130
trans-1,4-Dichloro-2-butene	1	10.5561	0	20	53	50	150
1,3-Dichlorobenzene	1	16.6394	0	20	83	70	130
1,4-Dichlorobenzene	1	16.9343	0	20	85	70	130
1,2-Dichlorobenzene	1	15.4668	0	20	77	70	130
Isopropylbenzene	1	17.7117	0	20	89	70	130
Cyclohexanone	1	74.9592	0	100	75	50	150
Camphene	1	14.6832	0	20	73	70	130
1,2,3-Trichloropropane	1	13.4392	0	20	67 *	70	130
2-Chlorotoluene	1	16.8867	0	20	84	70	130
p-Ethyltoluene	1	16.6847	0	20	83	70	130
4-Chlorotoluene	1	16.963	0	20	85	70	130
n-Propylbenzene	1	16.4247	0	20	82	70	130
Bromobenzene	1	15.2878	0	20	76	70	130
1,3,5-Trimethylbenzene	1	19.0106	0	20	95	70	130
Butyl methacrylate	1	15.2759	0	20	76	70	130
t-Butylbenzene	1	17.7429	0	20	89	70	130
1,2,4-Trimethylbenzene	1	17.7331	0	20	89	70	130
sec-Butylbenzene	1	16.9616	0	20	85	70	130
4-Isopropyltoluene	1	17.2215	0	20	86	70	130
n-Butylbenzene	1	17.2489	0	20	86	70	130
p-Diethylbenzene	1	17.49	0	20	87	70	130
1,2,4,5-Tetramethylbenzene	1	19.9282	0	20	100	70	130
1,2-Dibromo-3-Chloropropane	1	13.8936	0	20	69	50	150
Camphor	1	99.5647	0	200	50	20	150
Hexachlorobutadiene	1	14.2084	0	20	71	50	150
1,2,4-Trichlorobenzene	1	15.3714	0	20	77	70	130
1,2,3-Trichlorobenzene	1	13.9124	0	20	70	70	130
Naphthalene	1	14.8858	0	20	74	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72643

8082413 0027

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135372.D		AD06207-001(T:MS)		8/30/2018 11:37:00 PM			
Non Spike(If applicable): 3M135369.D		AD06207-001(T)		8/30/2018 10:37:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	17.8018	0	20	89	50	150
Dichlorodifluoromethane	1	16.7924	0	20	84	50	150
Chloromethane	1	17.1079	0	20	86	50	150
Bromomethane	1	20.4601	0	20	102	50	150
Vinyl Chloride	1	19.692	0	20	98	50	150
Chloroethane	1	22.6016	0	20	113	50	150
Trichlorofluoromethane	1	17.2613	0	20	86	50	150
Ethyl ether	1	20.9294	0	20	105	50	150
Furan	1	15.8147	0	20	79	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.4427	0	20	112	50	150
Methylene Chloride	1	99.9278	0	20	500*	70	130
Acrolein	1	87.3616	0	100	87	50	150
Acrylonitrile	1	15.4415	0	20	77	50	150
Iodomethane	1	20.4012	0	20	102	50	150
Acetone	1	98.1397	0	100	98	50	150
Carbon Disulfide	1	18.3542	0	20	92	50	150
t-Butyl Alcohol	1	73.6685	0	100	74	50	150
n-Hexane	1	22.9015	0	20	115	70	130
Di-isopropyl-ether	1	17.849	0	20	89	70	130
1,1-Dichloroethene	1	17.9556	0	20	90	70	130
Methyl Acetate	1	20.2968	0	20	101	50	150
Methyl-t-butyl ether	1	20.811	0	20	104	70	130
1,1-Dichloroethane	1	16.1402	0	20	81	70	130
trans-1,2-Dichloroethene	1	18.3972	0	20	92	70	130
Ethyl-t-butyl ether	1	17.877	0	20	89	70	130
cis-1,2-Dichloroethene	1	18.7747	0	20	94	70	130
Bromochloromethane	1	15.1076	0	20	76	70	130
2,2-Dichloropropane	1	23.9117	0	20	120	70	130
Ethyl acetate	1	17.3516	0	20	87	50	150
1,4-Dioxane	1	616.8495	0	1000	62	50	150
1,1-Dichloropropene	1	17.4523	0	20	87	70	130
Chloroform	1	18.6427	0	20	93	70	130
Cyclohexane	1	17.7778	0	20	89	70	130
1,2-Dichloroethane	1	19.2794	0	20	96	70	130
2-Butanone	1	24.3509	5.1178	20	96	50	150
1,1,1-Trichloroethane	1	18.7937	0	20	94	70	130
Carbon Tetrachloride	1	17.5079	0	20	88	50	150
Vinyl Acetate	1	17.7876	0	20	89	50	150
Bromodichloromethane	1	18.1825	0	20	91	70	130
Methylcyclohexane	1	19.1556	0	20	96	70	130
Dibromomethane	1	17.8723	0	20	89	70	130
1,2-Dichloropropane	1	16.9378	0	20	85	70	130
Trichloroethene	1	19.0685	0	20	95	70	130
Benzene	1	18.0197	0	20	90	70	130
tert-Amyl methyl ether	1	18.6353	0	20	93	70	130
Iso-propylacetate	1	160.8147	0	20	804*	70	130
Methyl methacrylate	1	13.6509	0	20	68*	70	130
Dibromochloromethane	1	15.8811	0	20	79	70	130
2-Chloroethylvinylether	1	15.0297	0	20	75	70	130
cis-1,3-Dichloropropene	1	19.3941	0	20	97	70	130
trans-1,3-Dichloropropene	1	16.3368	0	20	82	70	130
Ethyl methacrylate	1	14.897	0	20	74	70	130
1,1,2-Trichloroethane	1	16.471	0	20	82	70	130
1,2-Dibromoethane	1	15.8881	0	20	79	70	130
1,3-Dichloropropane	1	15.6822	0	20	78	70	130
4-Methyl-2-Pentanone	1	14.8667	0	20	74	50	150
2-Hexanone	1	16.7021	0	20	84	50	150
Tetrachloroethene	1	18.7583	0	20	94	50	150
Toluene	1	17.5585	0	20	88	70	130
1,1,1,2-Tetrachloroethane	1	18.0553	0	20	90	70	130
Chlorobenzene	1	17.9613	0	20	90	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0028

QC Batch: MBS72643

n-Butyl acrylate	1	12.0646	0	20	60 *	70	130
n-Amyl acetate	1	14.4172	0	20	72	70	130
Bromoform	1	15.1744	0	20	76	70	130
Ethylbenzene	1	20.5474	0	20	103	70	130
1,1,2,2-Tetrachloroethane	1	15.4439	0	20	77	70	130
Styrene	1	19.1952	0	20	96	70	130
m&p-Xylenes	1	39.8158	0	40	100	70	130
o-Xylene	1	18.8611	0	20	94	70	130
trans-1,4-Dichloro-2-butene	1	14.936	0	20	75	50	150
1,3-Dichlorobenzene	1	18.7052	0	20	94	70	130
1,4-Dichlorobenzene	1	17.2416	0	20	86	70	130
1,2-Dichlorobenzene	1	17.3424	0	20	87	70	130
Isopropylbenzene	1	18.46	0	20	92	70	130
Cyclohexanone	1	60.9115	0	100	61	50	150
Camphene	1	16.4746	0	20	82	70	130
1,2,3-Trichloropropane	1	15.9808	0	20	80	70	130
2-Chlorotoluene	1	18.0681	0	20	90	70	130
p-Ethyltoluene	1	19.0221	0	20	95	70	130
4-Chlorotoluene	1	18.9209	0	20	95	70	130
n-Propylbenzene	1	18.0914	0	20	90	70	130
Bromobenzene	1	16.3678	0	20	82	70	130
1,3,5-Trimethylbenzene	1	20.3856	0	20	102	70	130
Butyl methacrylate	1	16.7516	0	20	84	70	130
t-Butylbenzene	1	19.0475	0	20	95	70	130
1,2,4-Trimethylbenzene	1	18.8285	0	20	94	70	130
sec-Butylbenzene	1	18.2377	0	20	91	70	130
4-Isopropyltoluene	1	18.7772	0	20	94	70	130
n-Butylbenzene	1	19.2199	0	20	96	70	130
p-Diethylbenzene	1	18.3148	0	20	92	70	130
1,2,4,5-Tetramethylbenzene	1	17.6634	0	20	88	70	130
1,2-Dibromo-3-Chloropropane	1	14.6832	0	20	73	50	150
Camphor	1	108.03	0	200	54	20	150
Hexachlorobutadiene	1	17.017	0	20	85	50	150
1,2,4-Trichlorobenzene	1	16.5155	0	20	83	70	130
1,2,3-Trichlorobenzene	1	14.9709	0	20	75	70	130
Naphthalene	1	14.7769	0	20	74	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS72643

8082413 0029

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135373.D		AD06207-001(T:MSD)		8/30/2018 11:55:00 PM			
Non Spike(If applicable): 3M135369.D		AD06207-001(T)		8/30/2018 10:37:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.633	0	20	83	50	150
Dichlorodifluoromethane	1	18.1605	0	20	91	50	150
Chloromethane	1	17.4232	0	20	87	50	150
Bromomethane	1	20.274	0	20	101	50	150
Vinyl Chloride	1	20.4413	0	20	102	50	150
Chloroethane	1	22.083	0	20	110	50	150
Trichlorofluoromethane	1	15.3438	0	20	77	50	150
Ethyl ether	1	20.952	0	20	105	50	150
Furan	1	15.5705	0	20	78	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.1981	0	20	106	50	150
Methylene Chloride	1	95.3171	0	20	477 *	70	130
Acrolein	1	95.2617	0	100	95	50	150
Acrylonitrile	1	16.6954	0	20	83	50	150
Iodomethane	1	19.76	0	20	99	50	150
Acetone	1	107.3838	0	100	107	50	150
Carbon Disulfide	1	18.3139	0	20	92	50	150
t-Butyl Alcohol	1	70.9629	0	100	71	50	150
n-Hexane	1	23.9815	0	20	120	70	130
Di-isopropyl-ether	1	17.5523	0	20	88	70	130
1,1-Dichloroethene	1	16.6524	0	20	83	70	130
Methyl Acetate	1	22.5237	0	20	113	50	150
Methyl-t-butyl ether	1	20.139	0	20	101	70	130
1,1-Dichloroethane	1	16.2759	0	20	81	70	130
trans-1,2-Dichloroethene	1	18.9266	0	20	95	70	130
Ethyl-t-butyl ether	1	17.77	0	20	89	70	130
cis-1,2-Dichloroethene	1	18.7553	0	20	94	70	130
Bromochloromethane	1	17.7503	0	20	89	70	130
2,2-Dichloropropane	1	23.3374	0	20	117	70	130
Ethyl acetate	1	16.723	0	20	84	50	150
1,4-Dioxane	1	954.2368	0	1000	95	50	150
1,1-Dichloropropene	1	17.9946	0	20	90	70	130
Chloroform	1	17.6596	0	20	88	70	130
Cyclohexane	1	18.165	0	20	91	70	130
1,2-Dichloroethane	1	17.8981	0	20	89	70	130
2-Butanone	1	22.9965	5.1178	20	89	50	150
1,1,1-Trichloroethane	1	17.4751	0	20	87	70	130
Carbon Tetrachloride	1	18.8548	0	20	94	50	150
Vinyl Acetate	1	18.1238	0	20	91	50	150
Bromodichloromethane	1	18.2704	0	20	91	70	130
Methylcyclohexane	1	16.4502	0	20	82	70	130
Dibromomethane	1	18.6098	0	20	93	70	130
1,2-Dichloropropane	1	16.3485	0	20	82	70	130
Trichloroethene	1	20.3681	0	20	102	70	130
Benzene	1	18.353	0	20	92	70	130
tert-Amyl methyl ether	1	18.1774	0	20	91	70	130
Iso-propylacetate	1	174.1058	0	20	871 *	70	130
Methyl methacrylate	1	15.0871	0	20	75	70	130
Dibromochloromethane	1	17.8372	0	20	89	70	130
2-Chloroethylvinylether	1	17.1575	0	20	86	70	130
cis-1,3-Dichloropropene	1	21.2094	0	20	106	70	130
trans-1,3-Dichloropropene	1	17.3104	0	20	87	70	130
Ethyl methacrylate	1	15.397	0	20	77	70	130
1,1,2-Trichloroethane	1	17.46	0	20	87	70	130
1,2-Dibromoethane	1	17.8575	0	20	89	70	130
1,3-Dichloropropane	1	17.4927	0	20	87	70	130
4-Methyl-2-Pentanone	1	15.5976	0	20	78	50	150
2-Hexanone	1	17.8617	0	20	89	50	150
Tetrachloroethene	1	20.6828	0	20	103	50	150
Toluene	1	18.7606	0	20	94	70	130
1,1,1,2-Tetrachloroethane	1	19.0117	0	20	95	70	130
Chlorobenzene	1	18.4482	0	20	92	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0030

QC Batch: MBS72643

n-Butyl acrylate	1	12.1562	0	20	61 *	70	130
n-Amyl acetate	1	15.3054	0	20	77	70	130
Bromoform	1	15.5509	0	20	78	70	130
Ethylbenzene	1	18.438	0	20	92	70	130
1,1,2,2-Tetrachloroethane	1	15.2154	0	20	76	70	130
Styrene	1	18.5255	0	20	93	70	130
m&p-Xylenes	1	39.5469	0	40	99	70	130
o-Xylene	1	17.9448	0	20	90	70	130
trans-1,4-Dichloro-2-butene	1	14.3193	0	20	72	50	150
1,3-Dichlorobenzene	1	17.4535	0	20	87	70	130
1,4-Dichlorobenzene	1	17.2122	0	20	86	70	130
1,2-Dichlorobenzene	1	17.0975	0	20	85	70	130
Isopropylbenzene	1	16.825	0	20	84	70	130
Cyclohexanone	1	59.3524	0	100	59	50	150
Camphene	1	16.1278	0	20	81	70	130
1,2,3-Trichloropropane	1	16.2915	0	20	81	70	130
2-Chlorotoluene	1	17.9896	0	20	90	70	130
p-Ethyltoluene	1	17.0237	0	20	85	70	130
4-Chlorotoluene	1	17.5905	0	20	88	70	130
n-Propylbenzene	1	17.3249	0	20	87	70	130
Bromobenzene	1	15.6678	0	20	78	70	130
1,3,5-Trimethylbenzene	1	21.6983	0	20	108	70	130
Butyl methacrylate	1	16.6789	0	20	83	70	130
t-Butylbenzene	1	17.4297	0	20	87	70	130
1,2,4-Trimethylbenzene	1	18.309	0	20	92	70	130
sec-Butylbenzene	1	17.5086	0	20	88	70	130
4-Isopropyltoluene	1	18.6533	0	20	93	70	130
n-Butylbenzene	1	18.8731	0	20	94	70	130
p-Diethylbenzene	1	18.1293	0	20	91	70	130
1,2,4,5-Tetramethylbenzene	1	16.5757	0	20	83	70	130
1,2-Dibromo-3-Chloropropane	1	15.7667	0	20	79	50	150
Camphor	1	120.1715	0	200	60	20	150
Hexachlorobutadiene	1	16.542	0	20	83	50	150
1,2,4-Trichlorobenzene	1	18.4248	0	20	92	70	130
1,2,3-Trichlorobenzene	1	17.2442	0	20	86	70	130
Naphthalene	1	15.724	0	20	79	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

8082413 0031

QC Batch: MBS72643

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M135373.D	AD06207-001(T:MSD)	8/30/2018 11:55:00 PM
Duplicate(If applicable): 3M135372.D	AD06207-001(T:MS)	8/30/2018 11:37:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	16.633	17.8018	6.8	30
Dichlorodifluoromethane	1	18.1605	16.7924	7.8	30
Chloromethane	1	17.4232	17.1079	1.8	30
Bromomethane	1	20.274	20.4601	0.91	30
Vinyl Chloride	1	20.4413	19.692	3.7	40
Chloroethane	1	22.083	22.6016	2.3	30
Trichlorofluoromethane	1	15.3438	17.2613	12	30
Ethyl ether	1	20.952	20.9294	0.11	30
Furan	1	15.5705	15.8147	1.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.1981	22.4427	5.7	30
Methylene Chloride	1	95.3171	99.9278	4.7	30
Acrolein	1	95.2617	87.3616	8.7	30
Acrylonitrile	1	16.6954	15.4415	7.8	30
Iodomethane	1	19.76	20.4012	3.2	30
Acetone	1	107.3838	98.1397	9	30
Carbon Disulfide	1	18.3139	18.3542	0.22	30
t-Butyl Alcohol	1	70.9629	73.6685	3.7	30
n-Hexane	1	23.9815	22.9015	4.6	30
Di-isopropyl-ether	1	17.5523	17.849	1.7	30
1,1-Dichloroethene	1	16.6524	17.9556	7.5	40
Methyl Acetate	1	22.5237	20.2968	10	30
Methyl-t-butyl ether	1	20.139	20.811	3.3	30
1,1-Dichloroethane	1	16.2759	16.1402	0.84	40
trans-1,2-Dichloroethene	1	18.9266	18.3972	2.8	30
Ethyl-t-butyl ether	1	17.77	17.877	0.6	30
cis-1,2-Dichloroethene	1	18.7553	18.7747	0.1	30
Bromochloromethane	1	17.7503	15.1076	16	30
2,2-Dichloropropane	1	23.3374	23.9117	2.4	30
Ethyl acetate	1	16.723	17.3516	3.7	30
1,4-Dioxane	1	954.2368	616.8495	43*	30
1,1-Dichloropropene	1	17.9946	17.4523	3.1	30
Chloroform	1	17.6596	18.6427	5.4	40
Cyclohexane	1	18.165	17.7778	2.2	30
1,2-Dichloroethane	1	17.8981	19.2794	7.4	40
2-Butanone	1	22.9965	24.3509	5.7	40
1,1,1-Trichloroethane	1	17.4751	18.7937	7.3	30
Carbon Tetrachloride	1	18.8548	17.5079	7.4	40
Vinyl Acetate	1	18.1238	17.7876	1.9	30
Bromodichloromethane	1	18.2704	18.1825	0.48	30
Methylcyclohexane	1	16.4502	19.1556	15	30
Dibromomethane	1	18.6098	17.8723	4	30
1,2-Dichloropropane	1	16.3485	16.9378	3.5	30
Trichloroethene	1	20.3681	19.0685	6.6	40
Benzene	1	18.353	18.0197	1.8	40
tert-Amyl methyl ether	1	18.1774	18.6353	2.5	30
Iso-propylacetate	1	174.1058	160.8147	7.9	30
Methyl methacrylate	1	15.0871	13.6509	10	30
Dibromochloromethane	1	17.8372	15.8811	12	30
2-Chloroethylvinylether	1	17.1575	15.0297	13	30
cis-1,3-Dichloropropene	1	21.2094	19.3941	8.9	30
trans-1,3-Dichloropropene	1	17.3104	16.3368	5.8	30
Ethyl methacrylate	1	15.397	14.897	3.3	30
1,1,2-Trichloroethane	1	17.46	16.471	5.8	30
1,2-Dibromoethane	1	17.8575	15.8881	12	30
1,3-Dichloropropane	1	17.4927	15.6822	11	30
4-Methyl-2-Pentanone	1	15.5976	14.8667	4.8	30
2-Hexanone	1	17.8617	16.7021	6.7	30
Tetrachloroethene	1	20.6828	18.7583	9.8	40
Toluene	1	18.7606	17.5585	6.6	40
1,1,1,2-Tetrachloroethane	1	19.0117	18.0553	5.2	30
Chlorobenzene	1	18.4482	17.9613	2.7	40
n-Butyl acrylate	1	12.1562	12.0646	0.76	30
n-Amyl acetate	1	15.3054	14.4172	6	30

Form3
RPD Data Laboratory Limits

8082413 0032

QC Batch: MBS72643

Bromoform	1	15.5509	15.1744	2.5	30
Ethylbenzene	1	18.438	20.5474	11	30
1,1,2,2-Tetrachloroethane	1	15.2154	15.4439	1.5	30
Styrene	1	18.5255	19.1952	3.6	30
m&p-Xylenes	1	39.5469	39.8158	0.68	30
o-Xylene	1	17.9448	18.8611	5	30
trans-1,4-Dichloro-2-butene	1	14.3193	14.936	4.2	30
1,3-Dichlorobenzene	1	17.4535	18.7052	6.9	30
1,4-Dichlorobenzene	1	17.2122	17.2416	0.17	40
1,2-Dichlorobenzene	1	17.0975	17.3424	1.4	40
Isopropylbenzene	1	16.825	18.46	9.3	30
Cyclohexanone	1	59.3524	60.9115	2.6	30
Camphene	1	16.1278	16.4746	2.1	30
1,2,3-Trichloropropane	1	16.2915	15.9808	1.9	30
2-Chlorotoluene	1	17.9896	18.0681	0.44	30
p-Ethyltoluene	1	17.0237	19.0221	11	30
4-Chlorotoluene	1	17.5905	18.9209	7.3	30
n-Propylbenzene	1	17.3249	18.0914	4.3	40
Bromobenzene	1	15.6678	16.3678	4.4	30
1,3,5-Trimethylbenzene	1	21.6983	20.3856	6.2	30
Butyl methacrylate	1	16.6789	16.7516	0.43	30
t-Butylbenzene	1	17.4297	19.0475	8.9	30
1,2,4-Trimethylbenzene	1	18.309	18.8285	2.8	30
sec-Butylbenzene	1	17.5086	18.2377	4.1	40
4-Isopropyltoluene	1	18.6533	18.7772	0.66	30
n-Butylbenzene	1	18.8731	19.2199	1.8	30
p-Diethylbenzene	1	18.1293	18.3148	1	30
1,2,4,5-Tetramethylbenzene	1	16.5757	17.6634	6.4	30
1,2-Dibromo-3-Chloropropane	1	15.7667	14.6832	7.1	30
Camphor	1	120.1715	108.03	11	30
Hexachlorobutadiene	1	16.542	17.017	2.8	30
1,2,4-Trichlorobenzene	1	18.4248	16.5155	11	30
1,2,3-Trichlorobenzene	1	17.2442	14.9709	14	30
Naphthalene	1	15.724	14.7769	6.2	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72643

8082413 0033

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135372.D		AD06207-001(T:MS)		8/30/2018 11:37:00 PM			
Non Spike(If applicable): 3M135369.D		AD06207-001(T)		8/30/2018 10:37:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	17.8018	0	20	89	50	150
Dichlorodifluoromethane	1	16.7924	0	20	84	50	150
Chloromethane	1	17.1079	0	20	86	50	150
Bromomethane	1	20.4601	0	20	102	50	150
Vinyl Chloride	1	19.692	0	20	98	50	150
Chloroethane	1	22.6016	0	20	113	50	150
Trichlorofluoromethane	1	17.2613	0	20	86	50	150
Ethyl ether	1	20.9294	0	20	105	50	150
Furan	1	15.8147	0	20	79	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.4427	0	20	112	50	150
Methylene Chloride	1	99.9278	0	20	500 *	70	130
Acrolein	1	87.3616	0	100	87	50	150
Acrylonitrile	1	15.4415	0	20	77	50	150
Iodomethane	1	20.4012	0	20	102	50	150
Acetone	1	98.1397	0	100	98	50	150
Carbon Disulfide	1	18.3542	0	20	92	50	150
t-Butyl Alcohol	1	73.6685	0	100	74	50	150
n-Hexane	1	22.9015	0	20	115	70	130
Di-isopropyl-ether	1	17.849	0	20	89	70	130
1,1-Dichloroethene	1	17.9556	0	20	90	70	130
Methyl Acetate	1	20.2968	0	20	101	50	150
Methyl-t-butyl ether	1	20.811	0	20	104	70	130
1,1-Dichloroethane	1	16.1402	0	20	81	70	130
trans-1,2-Dichloroethene	1	18.3972	0	20	92	70	130
Ethyl-t-butyl ether	1	17.877	0	20	89	70	130
cis-1,2-Dichloroethene	1	18.7747	0	20	94	70	130
Bromochloromethane	1	15.1076	0	20	76	70	130
2,2-Dichloropropane	1	23.9117	0	20	120	70	130
Ethyl acetate	1	17.3516	0	20	87	50	150
1,4-Dioxane	1	616.8495	0	1000	62	50	150
1,1-Dichloropropene	1	17.4523	0	20	87	70	130
Chloroform	1	18.6427	0	20	93	70	130
Cyclohexane	1	17.7778	0	20	89	70	130
1,2-Dichloroethane	1	19.2794	0	20	96	70	130
2-Butanone	1	24.3509	5.1178	20	96	50	150
1,1,1-Trichloroethane	1	18.7937	0	20	94	70	130
Carbon Tetrachloride	1	17.5079	0	20	88	50	150
Vinyl Acetate	1	17.7876	0	20	89	50	150
Bromodichloromethane	1	18.1825	0	20	91	70	130
Methylcyclohexane	1	19.1556	0	20	96	70	130
Dibromomethane	1	17.8723	0	20	89	70	130
1,2-Dichloropropane	1	16.9378	0	20	85	70	130
Trichloroethene	1	19.0685	0	20	95	70	130
Benzene	1	18.0197	0	20	90	70	130
tert-Amyl methyl ether	1	18.6353	0	20	93	70	130
Iso-propylacetate	1	160.8147	0	20	804 *	70	130
Methyl methacrylate	1	13.6509	0	20	68 *	70	130
Dibromochloromethane	1	15.8811	0	20	79	70	130
2-Chloroethylvinylether	1	15.0297	0	20	75	70	130
cis-1,3-Dichloropropene	1	19.3941	0	20	97	70	130
trans-1,3-Dichloropropene	1	16.3368	0	20	82	70	130
Ethyl methacrylate	1	14.897	0	20	74	70	130
1,1,2-Trichloroethane	1	16.471	0	20	82	70	130
1,2-Dibromoethane	1	15.8881	0	20	79	70	130
1,3-Dichloropropane	1	15.6822	0	20	78	70	130
4-Methyl-2-Pentanone	1	14.8667	0	20	74	50	150
2-Hexanone	1	16.7021	0	20	84	50	150
Tetrachloroethene	1	18.7583	0	20	94	50	150
Toluene	1	17.5585	0	20	88	70	130
1,1,1,2-Tetrachloroethane	1	18.0553	0	20	90	70	130
Chlorobenzene	1	17.9613	0	20	90	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0034

QC Batch: MBS72643

n-Butyl acrylate	1	12.0646	0	20	60*	70	130
n-Amyl acetate	1	14.4172	0	20	72	70	130
Bromoform	1	15.1744	0	20	76	70	130
Ethylbenzene	1	20.5474	0	20	103	70	130
1,1,2,2-Tetrachloroethane	1	15.4439	0	20	77	70	130
Styrene	1	19.1952	0	20	96	70	130
m&p-Xylenes	1	39.8158	0	40	100	70	130
o-Xylene	1	18.8611	0	20	94	70	130
trans-1,4-Dichloro-2-butene	1	14.936	0	20	75	50	150
1,3-Dichlorobenzene	1	18.7052	0	20	94	70	130
1,4-Dichlorobenzene	1	17.2416	0	20	86	70	130
1,2-Dichlorobenzene	1	17.3424	0	20	87	70	130
Isopropylbenzene	1	18.46	0	20	92	70	130
Cyclohexanone	1	60.9115	0	100	61	50	150
Camphene	1	16.4746	0	20	82	70	130
1,2,3-Trichloropropane	1	15.9808	0	20	80	70	130
2-Chlorotoluene	1	18.0681	0	20	90	70	130
p-Ethyltoluene	1	19.0221	0	20	95	70	130
4-Chlorotoluene	1	18.9209	0	20	95	70	130
n-Propylbenzene	1	18.0914	0	20	90	70	130
Bromobenzene	1	16.3678	0	20	82	70	130
1,3,5-Trimethylbenzene	1	20.3856	0	20	102	70	130
Butyl methacrylate	1	16.7516	0	20	84	70	130
t-Butylbenzene	1	19.0475	0	20	95	70	130
1,2,4-Trimethylbenzene	1	18.8285	0	20	94	70	130
sec-Butylbenzene	1	18.2377	0	20	91	70	130
4-Isopropyltoluene	1	18.7772	0	20	94	70	130
n-Butylbenzene	1	19.2199	0	20	96	70	130
p-Diethylbenzene	1	18.3148	0	20	92	70	130
1,2,4,5-Tetramethylbenzene	1	17.6634	0	20	88	70	130
1,2-Dibromo-3-Chloropropane	1	14.6832	0	20	73	50	150
Camphor	1	108.03	0	200	54	20	150
Hexachlorobutadiene	1	17.017	0	20	85	50	150
1,2,4-Trichlorobenzene	1	16.5155	0	20	83	70	130
1,2,3-Trichlorobenzene	1	14.9709	0	20	75	70	130
Naphthalene	1	14.7769	0	20	74	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72643

8082413 0035

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135373.D		AD06207-001(T:MSD)		8/30/2018 11:55:00 PM			
Non Spike(If applicable): 3M135369.D		AD06207-001(T)		8/30/2018 10:37:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.633	0	20	83	50	150
Dichlorodifluoromethane	1	18.1605	0	20	91	50	150
Chloromethane	1	17.4232	0	20	87	50	150
Bromomethane	1	20.274	0	20	101	50	150
Vinyl Chloride	1	20.4413	0	20	102	50	150
Chloroethane	1	22.083	0	20	110	50	150
Trichlorofluoromethane	1	15.3438	0	20	77	50	150
Ethyl ether	1	20.952	0	20	105	50	150
Furan	1	15.5705	0	20	78	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.1981	0	20	106	50	150
Methylene Chloride	1	95.3171	0	20	477 *	70	130
Acrolein	1	95.2617	0	100	95	50	150
Acrylonitrile	1	16.6954	0	20	83	50	150
Iodomethane	1	19.76	0	20	99	50	150
Acetone	1	107.3838	0	100	107	50	150
Carbon Disulfide	1	18.3139	0	20	92	50	150
t-Butyl Alcohol	1	70.9629	0	100	71	50	150
n-Hexane	1	23.9815	0	20	120	70	130
Di-isopropyl-ether	1	17.5523	0	20	88	70	130
1,1-Dichloroethene	1	16.6524	0	20	83	70	130
Methyl Acetate	1	22.5237	0	20	113	50	150
Methyl-t-butyl ether	1	20.139	0	20	101	70	130
1,1-Dichloroethane	1	16.2759	0	20	81	70	130
trans-1,2-Dichloroethene	1	18.9266	0	20	95	70	130
Ethyl-t-butyl ether	1	17.77	0	20	89	70	130
cis-1,2-Dichloroethene	1	18.7553	0	20	94	70	130
Bromochloromethane	1	17.7503	0	20	89	70	130
2,2-Dichloropropane	1	23.3374	0	20	117	70	130
Ethyl acetate	1	16.723	0	20	84	50	150
1,4-Dioxane	1	954.2368	0	1000	95	50	150
1,1-Dichloropropene	1	17.9946	0	20	90	70	130
Chloroform	1	17.6596	0	20	88	70	130
Cyclohexane	1	18.165	0	20	91	70	130
1,2-Dichloroethane	1	17.8981	0	20	89	70	130
2-Butanone	1	22.9965	5.1178	20	89	50	150
1,1,1-Trichloroethane	1	17.4751	0	20	87	70	130
Carbon Tetrachloride	1	18.8548	0	20	94	50	150
Vinyl Acetate	1	18.1238	0	20	91	50	150
Bromodichloromethane	1	18.2704	0	20	91	70	130
Methylcyclohexane	1	16.4502	0	20	82	70	130
Dibromomethane	1	18.6098	0	20	93	70	130
1,2-Dichloropropane	1	16.3485	0	20	82	70	130
Trichloroethene	1	20.3681	0	20	102	70	130
Benzene	1	18.353	0	20	92	70	130
tert-Amyl methyl ether	1	18.1774	0	20	91	70	130
Iso-propylacetate	1	174.1058	0	20	871 *	70	130
Methyl methacrylate	1	15.0871	0	20	75	70	130
Dibromochloromethane	1	17.8372	0	20	89	70	130
2-Chloroethylvinylether	1	17.1575	0	20	86	70	130
cis-1,3-Dichloropropene	1	21.2094	0	20	106	70	130
trans-1,3-Dichloropropene	1	17.3104	0	20	87	70	130
Ethyl methacrylate	1	15.397	0	20	77	70	130
1,1,2-Trichloroethane	1	17.46	0	20	87	70	130
1,2-Dibromoethane	1	17.8575	0	20	89	70	130
1,3-Dichloropropane	1	17.4927	0	20	87	70	130
4-Methyl-2-Pentanone	1	15.5976	0	20	78	50	150
2-Hexanone	1	17.8617	0	20	89	50	150
Tetrachloroethene	1	20.6828	0	20	103	50	150
Toluene	1	18.7606	0	20	94	70	130
1,1,1,2-Tetrachloroethane	1	19.0117	0	20	95	70	130
Chlorobenzene	1	18.4482	0	20	92	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0036

QC Batch: MBS72643

n-Butyl acrylate	1	12.1562	0	20	61 *	70	130
n-Amyl acetate	1	15.3054	0	20	77	70	130
Bromoform	1	15.5509	0	20	78	70	130
Ethylbenzene	1	18.438	0	20	92	70	130
1,1,2,2-Tetrachloroethane	1	15.2154	0	20	76	70	130
Styrene	1	18.5255	0	20	93	70	130
m&p-Xylenes	1	39.5469	0	40	99	70	130
o-Xylene	1	17.9448	0	20	90	70	130
trans-1,4-Dichloro-2-butene	1	14.3193	0	20	72	50	150
1,3-Dichlorobenzene	1	17.4535	0	20	87	70	130
1,4-Dichlorobenzene	1	17.2122	0	20	86	70	130
1,2-Dichlorobenzene	1	17.0975	0	20	85	70	130
Isopropylbenzene	1	16.825	0	20	84	70	130
Cyclohexanone	1	59.3524	0	100	59	50	150
Camphene	1	16.1278	0	20	81	70	130
1,2,3-Trichloropropane	1	16.2915	0	20	81	70	130
2-Chlorotoluene	1	17.9896	0	20	90	70	130
p-Ethyltoluene	1	17.0237	0	20	85	70	130
4-Chlorotoluene	1	17.5905	0	20	88	70	130
n-Propylbenzene	1	17.3249	0	20	87	70	130
Bromobenzene	1	15.6678	0	20	78	70	130
1,3,5-Trimethylbenzene	1	21.6983	0	20	108	70	130
Butyl methacrylate	1	16.6789	0	20	83	70	130
t-Butylbenzene	1	17.4297	0	20	87	70	130
1,2,4-Trimethylbenzene	1	18.309	0	20	92	70	130
sec-Butylbenzene	1	17.5086	0	20	88	70	130
4-Isopropyltoluene	1	18.6533	0	20	93	70	130
n-Butylbenzene	1	18.8731	0	20	94	70	130
p-Diethylbenzene	1	18.1293	0	20	91	70	130
1,2,4,5-Tetramethylbenzene	1	16.5757	0	20	83	70	130
1,2-Dibromo-3-Chloropropane	1	15.7667	0	20	79	50	150
Camphor	1	120.1715	0	200	60	20	150
Hexachlorobutadiene	1	16.542	0	20	83	50	150
1,2,4-Trichlorobenzene	1	18.4248	0	20	92	70	130
1,2,3-Trichlorobenzene	1	17.2442	0	20	86	70	130
Naphthalene	1	15.724	0	20	79	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0037

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135459.D		AD06149-001(MS)		9/1/2018 12:18:00 AM			
Non Spike(If applicable): 3M135456.D		AD06149-001		8/31/2018 11:25:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	17.6574	0	20	88	50	150
Dichlorodifluoromethane	1	20.7916	0	20	104	50	150
Chloromethane	1	20.0329	0	20	100	50	150
Bromomethane	1	23.6975	0	20	118	50	150
Vinyl Chloride	1	19.259	0	20	96	50	150
Chloroethane	1	26.0784	0	20	130	50	150
Trichlorofluoromethane	1	20.1948	0	20	101	50	150
Ethyl ether	1	17.6991	0	20	88	50	150
Furan	1	19.2229	0	20	96	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	25.1594	0	20	126	50	150
Methylene Chloride	1	20.0953	0	20	100	70	130
Acrolein	1	99.5726	0	100	100	50	150
Acrylonitrile	1	19.0784	0	20	95	50	150
Iodomethane	1	22.6086	0	20	113	50	150
Acetone	1	89.5736	0	100	90	50	150
Carbon Disulfide	1	22.6511	0	20	113	50	150
t-Butyl Alcohol	1	90.1312	0	100	90	50	150
n-Hexane	1	29.2087	0	20	146*	70	130
Di-isopropyl-ether	1	21.0058	0	20	105	70	130
1,1-Dichloroethene	1	21.3572	0	20	107	70	130
Methyl Acetate	1	18.0109	0	20	90	50	150
Methyl-t-butyl ether	1	24.4497	0	20	122	70	130
1,1-Dichloroethane	1	19.7038	0	20	99	70	130
trans-1,2-Dichloroethene	1	21.7528	0	20	109	70	130
Ethyl-t-butyl ether	1	21.2589	0	20	106	70	130
cis-1,2-Dichloroethene	1	21.6381	1.7879	20	99	70	130
Bromochloromethane	1	22.1018	0	20	111	70	130
2,2-Dichloropropane	1	27.5347	0	20	138*	70	130
Ethyl acetate	1	20.8274	0	20	104	50	150
1,4-Dioxane	1	868.9053	0	1000	87	50	150
1,1-Dichloropropene	1	22.4561	0	20	112	70	130
Chloroform	1	20.3043	0	20	102	70	130
Cyclohexane	1	20.6712	0	20	103	70	130
1,2-Dichloroethane	1	22.0981	0	20	110	70	130
2-Butanone	1	17.2796	0	20	86	50	150
1,1,1-Trichloroethane	1	21.2019	0	20	106	70	130
Carbon Tetrachloride	1	20.8103	0	20	104	50	150
Vinyl Acetate	1	21.8952	0	20	109	50	150
Bromodichloromethane	1	21.0839	0	20	105	70	130
Methylcyclohexane	1	22.3194	0	20	112	70	130
Dibromomethane	1	21.2783	0	20	106	70	130
1,2-Dichloropropane	1	20.2728	0	20	101	70	130
Trichloroethene	1	23.0453	0	20	115	70	130
Benzene	1	21.9037	0	20	110	70	130
tert-Amyl methyl ether	1	20.2829	0	20	101	70	130
Iso-propylacetate	1	17.6467	0	20	88	70	130
Methyl methacrylate	1	18.2194	0	20	91	70	130
Dibromochloromethane	1	20.3007	0	20	102	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	20.4587	0	20	102	70	130
trans-1,3-Dichloropropene	1	19.2298	0	20	96	70	130
Ethyl methacrylate	1	17.7023	0	20	89	70	130
1,1,2-Trichloroethane	1	17.9407	0	20	90	70	130
1,2-Dibromoethane	1	19.6598	0	20	98	70	130
1,3-Dichloropropane	1	20.6013	0	20	103	70	130
4-Methyl-2-Pentanone	1	16.9757	0	20	85	50	150
2-Hexanone	1	14.9058	0	20	75	50	150
Tetrachloroethene	1	22.7206	1.0733	20	108	50	150
Toluene	1	20.2964	0	20	101	70	130
1,1,1,2-Tetrachloroethane	1	22.1455	0	20	111	70	130
Chlorobenzene	1	20.8237	0	20	104	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0038

QC Batch: MBS72659

n-Butyl acrylate	1	13.8059	0	20	69*	70	130
n-Amyl acetate	1	17.0757	0	20	85	70	130
Bromoform	1	16.5842	0	20	83	70	130
Ethylbenzene	1	19.374	0	20	97	70	130
1,1,2,2-Tetrachloroethane	1	17.1531	0	20	86	70	130
Styrene	1	21.9487	0	20	110	70	130
m&p-Xylenes	1	45.8788	0	40	115	70	130
o-Xylene	1	19.7284	0	20	99	70	130
trans-1,4-Dichloro-2-butene	1	11.8882	0	20	59	50	150
1,3-Dichlorobenzene	1	19.9134	0	20	100	70	130
1,4-Dichlorobenzene	1	19.9966	0	20	100	70	130
1,2-Dichlorobenzene	1	19.2116	0	20	96	70	130
Isopropylbenzene	1	20.4084	0	20	102	70	130
Cyclohexanone	1	67.3271	0	100	67	50	150
Camphene	1	13.8376	0	20	69*	70	130
1,2,3-Trichloropropane	1	17.2183	0	20	86	70	130
2-Chlorotoluene	1	20.9179	0	20	105	70	130
p-Ethyltoluene	1	19.2093	0	20	96	70	130
4-Chlorotoluene	1	20.8642	0	20	104	70	130
n-Propylbenzene	1	20.9767	0	20	105	70	130
Bromobenzene	1	17.8614	0	20	89	70	130
1,3,5-Trimethylbenzene	1	22.3824	0	20	112	70	130
Butyl methacrylate	1	18.6048	0	20	93	70	130
t-Butylbenzene	1	21.427	0	20	107	70	130
1,2,4-Trimethylbenzene	1	20.8081	0	20	104	70	130
sec-Butylbenzene	1	20.5568	0	20	103	70	130
4-Isopropyltoluene	1	20.7591	0	20	104	70	130
n-Butylbenzene	1	20.5329	0	20	103	70	130
p-Diethylbenzene	1	19.913	0	20	100	70	130
1,2,4,5-Tetramethylbenzene	1	22.3172	0	20	112	70	130
1,2-Dibromo-3-Chloropropane	1	18.5097	0	20	93	50	150
Camphor	1	145.0191	0	200	73	20	150
Hexachlorobutadiene	1	19.4223	0	20	97	50	150
1,2,4-Trichlorobenzene	1	21.915	0	20	110	70	130
1,2,3-Trichlorobenzene	1	18.9809	0	20	95	70	130
Naphthalene	1	19.8874	0	20	99	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0039

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135460.D		AD06149-001(MSD)		9/1/2018 12:35:00 AM			
Non Spike(If applicable): 3M135456.D		AD06149-001		8/31/2018 11:25:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.9531	0	20	85	50	150
Dichlorodifluoromethane	1	17.7481	0	20	89	50	150
Chloromethane	1	17.8867	0	20	89	50	150
Bromomethane	1	22.9145	0	20	115	50	150
Vinyl Chloride	1	20.8829	0	20	104	50	150
Chloroethane	1	23.7535	0	20	119	50	150
Trichlorofluoromethane	1	19.8447	0	20	99	50	150
Ethyl ether	1	16.4965	0	20	82	50	150
Furan	1	17.1282	0	20	86	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	23.9636	0	20	120	50	150
Methylene Chloride	1	19.1858	0	20	96	70	130
Acrolein	1	94.0037	0	100	94	50	150
Acrylonitrile	1	19.8859	0	20	99	50	150
Iodomethane	1	20.963	0	20	105	50	150
Acetone	1	85.825	0	100	86	50	150
Carbon Disulfide	1	21.0142	0	20	105	50	150
t-Butyl Alcohol	1	89.2852	0	100	89	50	150
n-Hexane	1	25.0608	0	20	125	70	130
Di-isopropyl-ether	1	20.6334	0	20	103	70	130
1,1-Dichloroethene	1	20.2234	0	20	101	70	130
Methyl Acetate	1	17.6084	0	20	88	50	150
Methyl-t-butyl ether	1	22.2078	0	20	111	70	130
1,1-Dichloroethane	1	17.86	0	20	89	70	130
trans-1,2-Dichloroethene	1	18.5821	0	20	93	70	130
Ethyl-t-butyl ether	1	20.4411	0	20	102	70	130
cis-1,2-Dichloroethene	1	20.5804	1.7879	20	94	70	130
Bromochloromethane	1	20.2389	0	20	101	70	130
2,2-Dichloropropane	1	24.7466	0	20	124	70	130
Ethyl acetate	1	19.5314	0	20	98	50	150
1,4-Dioxane	1	1105.152	0	1000	111	50	150
1,1-Dichloropropene	1	19.8804	0	20	99	70	130
Chloroform	1	19.6281	0	20	98	70	130
Cyclohexane	1	19.4515	0	20	97	70	130
1,2-Dichloroethane	1	21.0295	0	20	105	70	130
2-Butanone	1	21.6653	0	20	108	50	150
1,1,1-Trichloroethane	1	20.8741	0	20	104	70	130
Carbon Tetrachloride	1	20.0589	0	20	100	50	150
Vinyl Acetate	1	20.1648	0	20	101	50	150
Bromodichloromethane	1	20.0018	0	20	100	70	130
Methylcyclohexane	1	20.8224	0	20	104	70	130
Dibromomethane	1	19.089	0	20	95	70	130
1,2-Dichloropropane	1	18.9926	0	20	95	70	130
Trichloroethene	1	21.1498	0	20	106	70	130
Benzene	1	20.1899	0	20	101	70	130
tert-Amyl methyl ether	1	20.5816	0	20	103	70	130
Iso-propylacetate	1	16.4545	0	20	82	70	130
Methyl methacrylate	1	16.5497	0	20	83	70	130
Dibromochloromethane	1	18.4679	0	20	92	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	17.3921	0	20	87	70	130
trans-1,3-Dichloropropene	1	18.094	0	20	90	70	130
Ethyl methacrylate	1	16.5817	0	20	83	70	130
1,1,2-Trichloroethane	1	17.665	0	20	88	70	130
1,2-Dibromoethane	1	18.2435	0	20	91	70	130
1,3-Dichloropropane	1	17.9995	0	20	90	70	130
4-Methyl-2-Pentanone	1	15.6898	0	20	78	50	150
2-Hexanone	1	16.162	0	20	81	50	150
Tetrachloroethene	1	20.4749	1.0733	20	97	50	150
Toluene	1	18.2632	0	20	91	70	130
1,1,1,2-Tetrachloroethane	1	19.0055	0	20	95	70	130
Chlorobenzene	1	19.5306	0	20	98	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0040

QC Batch: MBS72659

n-Butyl acrylate	1	12.7453	0	20	64 *	70	130
n-Amyl acetate	1	16.3424	0	20	82	70	130
Bromoform	1	15.8911	0	20	79	70	130
Ethylbenzene	1	20.0281	0	20	100	70	130
1,1,2,2-Tetrachloroethane	1	16.506	0	20	83	70	130
Styrene	1	20.0596	0	20	100	70	130
m&p-Xylenes	1	44.4387	0	40	111	70	130
o-Xylene	1	20.8429	0	20	104	70	130
trans-1,4-Dichloro-2-butene	1	12.494	0	20	62	50	150
1,3-Dichlorobenzene	1	18.2641	0	20	91	70	130
1,4-Dichlorobenzene	1	19.1157	0	20	96	70	130
1,2-Dichlorobenzene	1	19.4657	0	20	97	70	130
Isopropylbenzene	1	20.4032	0	20	102	70	130
Cyclohexanone	1	56.1403	0	100	56	50	150
Camphene	1	12.1754	0	20	61 *	70	130
1,2,3-Trichloropropane	1	16.0383	0	20	80	70	130
2-Chlorotoluene	1	21.059	0	20	105	70	130
p-Ethyltoluene	1	18.6058	0	20	93	70	130
4-Chlorotoluene	1	19.141	0	20	96	70	130
n-Propylbenzene	1	18.9945	0	20	95	70	130
Bromobenzene	1	18.0707	0	20	90	70	130
1,3,5-Trimethylbenzene	1	21.2021	0	20	106	70	130
Butyl methacrylate	1	15.7648	0	20	79	70	130
t-Butylbenzene	1	20.1606	0	20	101	70	130
1,2,4-Trimethylbenzene	1	20.9881	0	20	105	70	130
sec-Butylbenzene	1	20.0146	0	20	100	70	130
4-Isopropyltoluene	1	20.6396	0	20	103	70	130
n-Butylbenzene	1	20.5696	0	20	103	70	130
p-Diethylbenzene	1	20.7978	0	20	104	70	130
1,2,4,5-Tetramethylbenzene	1	20.5983	0	20	103	70	130
1,2-Dibromo-3-Chloropropane	1	18.5079	0	20	93	50	150
Camphor	1	131.4294	0	200	66	20	150
Hexachlorobutadiene	1	19.4612	0	20	97	50	150
1,2,4-Trichlorobenzene	1	19.3165	0	20	97	70	130
1,2,3-Trichlorobenzene	1	18.4308	0	20	92	70	130
Naphthalene	1	20.2598	0	20	101	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

8082413 0041

QC Batch: MBS72659

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M135460.D	AD06149-001(MSD)	9/1/2018 12:35:00 AM
Duplicate(If applicable): 3M135459.D	AD06149-001(MS)	9/1/2018 12:18:00 AM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Chlorodifluoromethane	1	16.9531	17.6574	4.1	30
Dichlorodifluoromethane	1	17.7481	20.7916	16	30
Chloromethane	1	17.8867	20.0329	11	30
Bromomethane	1	22.9145	23.6975	3.4	30
Vinyl Chloride	1	20.8829	19.259	8.1	40
Chloroethane	1	23.7535	26.0784	9.3	30
Trichlorofluoromethane	1	19.8447	20.1948	1.7	30
Ethyl ether	1	16.4965	17.6991	7	30
Furan	1	17.1282	19.2229	12	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	23.9636	25.1594	4.9	30
Methylene Chloride	1	19.1858	20.0953	4.6	30
Acrolein	1	94.0037	99.5726	5.8	30
Acrylonitrile	1	19.8859	19.0784	4.1	30
Iodomethane	1	20.963	22.6086	7.6	30
Acetone	1	85.825	89.5736	4.3	30
Carbon Disulfide	1	21.0142	22.6511	7.5	30
t-Butyl Alcohol	1	89.2852	90.1312	0.94	30
n-Hexane	1	25.0608	29.2087	15	30
Di-isopropyl-ether	1	20.6334	21.0058	1.8	30
1,1-Dichloroethene	1	20.2234	21.3572	5.5	40
Methyl Acetate	1	17.6084	18.0109	2.3	30
Methyl-t-butyl ether	1	22.2078	24.4497	9.6	30
1,1-Dichloroethane	1	17.86	19.7038	9.8	40
trans-1,2-Dichloroethene	1	18.5821	21.7528	16	30
Ethyl-t-butyl ether	1	20.4411	21.2589	3.9	30
cis-1,2-Dichloroethene	1	20.5804	21.6381	5	30
Bromochloromethane	1	20.2389	22.1018	8.8	30
2,2-Dichloropropane	1	24.7466	27.5347	11	30
Ethyl acetate	1	19.5314	20.8274	6.4	30
1,4-Dioxane	1	1105.152	868.9053	24	30
1,1-Dichloropropene	1	19.8804	22.4561	12	30
Chloroform	1	19.6281	20.3043	3.4	40
Cyclohexane	1	19.4515	20.6712	6.1	30
1,2-Dichloroethane	1	21.0295	22.0981	5	40
2-Butanone	1	21.6653	17.2796	23	40
1,1,1-Trichloroethane	1	20.8741	21.2019	1.6	30
Carbon Tetrachloride	1	20.0589	20.8103	3.7	40
Vinyl Acetate	1	20.1648	21.8952	8.2	30
Bromodichloromethane	1	20.0018	21.0839	5.3	30
Methylcyclohexane	1	20.8224	22.3194	6.9	30
Dibromomethane	1	19.089	21.2783	11	30
1,2-Dichloropropane	1	18.9926	20.2728	6.5	30
Trichloroethene	1	21.1498	23.0453	8.6	40
Benzene	1	20.1899	21.9037	8.1	40
tert-Amyl methyl ether	1	20.5816	20.2829	1.5	30
Iso-propylacetate	1	16.4545	17.6467	7	30
Methyl methacrylate	1	16.5497	18.2194	9.6	30
Dibromochloromethane	1	18.4679	20.3007	9.5	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	17.3921	20.4587	16	30
trans-1,3-Dichloropropene	1	18.094	19.2298	6.1	30
Ethyl methacrylate	1	16.5817	17.7023	6.5	30
1,1,2-Trichloroethane	1	17.665	17.9407	1.5	30
1,2-Dibromoethane	1	18.2435	19.6598	7.5	30
1,3-Dichloropropane	1	17.9995	20.6013	13	30
4-Methyl-2-Pentanone	1	15.6898	16.9757	7.9	30
2-Hexanone	1	16.162	14.9058	8.1	30
Tetrachloroethene	1	20.4749	22.7206	10	40
Toluene	1	18.2632	20.2964	11	40
1,1,1,2-Tetrachloroethane	1	19.0055	22.1455	15	30
Chlorobenzene	1	19.5306	20.8237	6.4	40
n-Butyl acrylate	1	12.7453	13.8059	8	30
n-Amyl acetate	1	16.3424	17.0757	4.4	30

Form3
RPD Data Laboratory Limits

8082413 0042

QC Batch: MBS72659

Bromoform	1	15.8911	16.5842	4.3	30
Ethylbenzene	1	20.0281	19.374	3.3	30
1,1,2,2-Tetrachloroethane	1	16.506	17.1531	3.8	30
Styrene	1	20.0596	21.9487	9	30
m&p-Xylenes	1	44.4387	45.8788	3.2	30
o-Xylene	1	20.8429	19.7284	5.5	30
trans-1,4-Dichloro-2-butene	1	12.494	11.8882	5	30
1,3-Dichlorobenzene	1	18.2641	19.9134	8.6	30
1,4-Dichlorobenzene	1	19.1157	19.9966	4.5	40
1,2-Dichlorobenzene	1	19.4657	19.2116	1.3	40
Isopropylbenzene	1	20.4032	20.4084	0.03	30
Cyclohexanone	1	56.1403	67.3271	18	30
Camphene	1	12.1754	13.8376	13	30
1,2,3-Trichloropropane	1	16.0383	17.2183	7.1	30
2-Chlorotoluene	1	21.059	20.9179	0.67	30
p-Ethyltoluene	1	18.6058	19.2093	3.2	30
4-Chlorotoluene	1	19.141	20.8642	8.6	30
n-Propylbenzene	1	18.9945	20.9767	9.9	40
Bromobenzene	1	18.0707	17.8614	1.2	30
1,3,5-Trimethylbenzene	1	21.2021	22.3824	5.4	30
Butyl methacrylate	1	15.7648	18.6048	17	30
t-Butylbenzene	1	20.1606	21.427	6.1	30
1,2,4-Trimethylbenzene	1	20.9881	20.8081	0.86	30
sec-Butylbenzene	1	20.0146	20.5568	2.7	40
4-Isopropyltoluene	1	20.6396	20.7591	0.58	30
n-Butylbenzene	1	20.5696	20.5329	0.18	30
p-Diethylbenzene	1	20.7978	19.913	4.3	30
1,2,4,5-Tetramethylbenzene	1	20.5983	22.3172	8	30
1,2-Dibromo-3-Chloropropane	1	18.5079	18.5097	0.01	30
Camphor	1	131.4294	145.0191	9.8	30
Hexachlorobutadiene	1	19.4612	19.4223	0.2	30
1,2,4-Trichlorobenzene	1	19.3165	21.915	13	30
1,2,3-Trichlorobenzene	1	18.4308	18.9809	2.9	30
Naphthalene	1	20.2598	19.8874	1.9	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 3M135258.D
Matrix: Aqueous

Blank Analysis Date: 08/29/18 15:58
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD06149-003	3M135273.D	08/29/18 19:59
MBS72636	3M135267.D	08/29/18 18:16

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 3M135368.D
Matrix: Aqueous

Blank Analysis Date: 08/30/18 22:19
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD06149-002	3M135390.D	08/31/18 04:46
AD06207-001(T:M	3M135373.D	08/30/18 23:55
AD06207-001(T:M	3M135372.D	08/30/18 23:37
MBS72643	3M135370.D	08/30/18 22:53
AD06207-001(T)	3M135369.D	08/30/18 22:37

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 3M135455.D
Matrix: Aqueous

Blank Analysis Date: 08/31/18 23:03
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD06149-001	3M135456.D	08/31/18 23:25
AD06149-001(MSD)	3M135460.D	09/01/18 00:35
AD06149-001(MS)	3M135459.D	09/01/18 00:18
MBS72659	3M135458.D	09/01/18 00:01

Form 5

8082413 0046

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M132618.D
Analysis Date: 07/13/18 19:52
Method: EPA 8260C

Tune Scan/Time Range: Scan 34

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	18.7	11574	PASS
75	95	30	60	44.6	27616	PASS
95	95	100	100	100.0	61856	PASS
96	95	5	9	7.0	4317	PASS
173	174	0.00	2	1.1	563	PASS
174	95	50	100	84.0	51952	PASS
175	174	5	9	8.3	4335	PASS
176	174	95	101	96.7	50232	PASS
177	176	5	9	7.7	3883	PASS

Data File	Sample Number	Analysis Date:
3M132620.D	CAL @ 0.5 PPB	07/13/18 20:24
3M132621.D	CAL @ 1 PPB	07/13/18 20:41
3M132622.D	CAL @ 5 PPB	07/13/18 20:58
3M132623.D	CAL @ 10 PPB	07/13/18 21:14
3M132624.D	CAL @ 20 PPB	07/13/18 21:31
3M132625.D	CAL @ 500 PPB	07/13/18 21:48
3M132628.D	CAL @ 250 PPB	07/13/18 22:37
3M132631.D	CAL @ 100 PPB	07/13/18 23:28
3M132634.D	CAL @ 50 PPB	07/14/18 00:22
3M132637.D	ICV	07/14/18 01:13
3M132643.D	DAILY BLANK	07/14/18 02:55
3M132644.D	AD05312-001	07/14/18 03:12
3M132645.D	AD05377-001	07/14/18 03:29
3M132646.D	AD05357-003	07/14/18 03:45
3M132647.D	AD05357-005	07/14/18 04:03
3M132648.D	MBS70502	07/14/18 04:19
3M132649.D	AD05357-008(MS)	07/14/18 04:36
3M132650.D	AD05357-008(MSD)	07/14/18 04:53
3M132651.D	AD05357-008	07/14/18 05:10
3M132652.D	AD05357-002	07/14/18 05:27
3M132653.D	AD05357-001	07/14/18 05:44
3M132654.D	AD05357-006	07/14/18 06:01
3M132655.D	AD05357-004	07/14/18 06:18
3M132656.D	AD05357-007	07/14/18 06:35
3M132657.D	MBS70503	07/14/18 06:51

Form 5

8082413 0047

Tune Name: BFB TUNE

Data File: 3M135074.D

Instrument: GCMS 3

Analysis Date: 08/27/18 08:24

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.972 to 4.991 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	22.2	10794	PASS
75	95	30	60	48.4	23539	PASS
95	95	100	100	100.0	48656	PASS
96	95	5	9	6.8	3315	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.1	34571	PASS
175	174	5	9	7.6	2641	PASS
176	174	95	101	96.7	33424	PASS
177	176	5	9	8.5	2830	PASS

Data File	Sample Number	Analysis Date:
3M135076.D	CAL @ 20 PPB	08/27/18 08:51
3M135078.D	BLKHCL	08/27/18 09:25
3M135079.D	BLK	08/27/18 09:43
3M135081.D	DAILY BLANK	08/27/18 10:22
3M135082.D	DAILY BLANK	08/27/18 10:39
3M135083.D	BLK1585	08/27/18 10:56
3M135084.D	AD06125-003	08/27/18 11:16
3M135085.D	AD06125-004	08/27/18 11:33
3M135086.D	AD06136-002	08/27/18 11:50
3M135087.D	AD06125-011	08/27/18 12:07
3M135088.D	AD06125-002(20X)	08/27/18 12:25
3M135089.D	06125-008(20X)	08/27/18 12:42
3M135090.D	MBS71018	08/27/18 13:00
3M135091.D	AD06136-002	08/27/18 13:17
3M135092.D	AD06125-011	08/27/18 13:34
3M135093.D	06125-002(20X)	08/27/18 13:51
3M135094.D	AD06084-015	08/27/18 14:08
3M135095.D	AD06156-002	08/27/18 14:26
3M135096.D	AD06160-001	08/27/18 14:43
3M135097.D	AD06136-001	08/27/18 15:00
3M135098.D	AD06156-005(80uL	08/27/18 15:17
3M135099.D	AD06156-014(400u	08/27/18 15:34
3M135100.D	MBS71020	08/27/18 15:51
3M135101.D	AD06127-015(MS)	08/27/18 16:09
3M135102.D	AD06127-015(MSD	08/27/18 16:26
3M135103.D	AD06127-015	08/27/18 16:43
3M135104.D	06132-013	08/27/18 17:00
3M135105.D	AD06123-008(T)	08/27/18 17:17
3M135106.D	AD06123-010(T)	08/27/18 17:34
3M135107.D	AD06123-012(T)	08/27/18 17:51
3M135108.D	AD06123-008(T:M	08/27/18 18:09
3M135109.D	AD06123-008(T:M	08/27/18 18:26
3M135110.D	EF-1-V-286161082	08/27/18 18:43

Form 5

8082413 0048

Tune Name: BFB TUNE

Data File: 3M135190.D

Instrument: GCMS 3

Analysis Date: 08/28/18 20:11

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.907 to 4.976 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	20.0	4773	PASS
75	95	30	60	50.2	12000	PASS
95	95	100	100	100.0	23917	PASS
96	95	5	9	7.8	1854	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	94.8	22676	PASS
175	174	5	9	6.9	1562	PASS
176	174	95	101	99.2	22494	PASS
177	176	5	9	7.7	1736	PASS

Data File	Sample Number	Analysis Date:
3M135192.D	BLK	08/28/18 20:38
3M135193.D	CAL @ 0.5 PPB	08/28/18 20:56
3M135194.D	CAL @ 1 PPB	08/28/18 21:14
3M135195.D	CAL @ 5 PPB	08/28/18 21:31
3M135196.D	CAL @ 10 PPB	08/28/18 21:48
3M135197.D	CAL @ 20 PPB	08/28/18 22:06
3M135198.D	CAL @ 500 PPB	08/28/18 22:20
3M135201.D	CAL @ 250 PPB	08/28/18 23:13
3M135204.D	CAL @ 100 PPB	08/29/18 00:07
3M135207.D	CAL @ 50 PPB	08/29/18 00:59
3M135210.D	ICV	08/29/18 01:50

Form 5

8082413 0049

Tune Name: BFB TUNE

Data File: 3M135254.D

Instrument: GCMS 3

Analysis Date: 08/29/18 14:56

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.877 to 4.995 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.1	5990	PASS
75	95	30	60	42.6	13400	PASS
95	95	100	100	100.0	31423	PASS
96	95	5	9	8.0	2503	PASS
173	174	0.00	2	0.2	53	PASS
174	95	50	100	77.0	24180	PASS
175	174	5	9	7.6	1842	PASS
176	174	95	101	98.9	23925	PASS
177	176	5	9	7.0	1665	PASS

Data File	Sample Number	Analysis Date:
3M135255.D	CAL @ 20 PPB	08/29/18 15:06
3M135257.D	BLK	08/29/18 15:40
3M135258.D	DAILY BLANK	08/29/18 15:58
3M135259.D	DAILY BLANK	08/29/18 16:15
3M135260.D	AD06121-014	08/29/18 16:32
3M135261.D	06096-008	08/29/18 16:49
3M135262.D	06205-001	08/29/18 17:07
3M135263.D	AD06125-011	08/29/18 17:24
3M135264.D	AD06125-002(5X)	08/29/18 17:42
3M135265.D	AD06125-008(5X)	08/29/18 17:59
3M135267.D	MBS72636	08/29/18 18:16
3M135268.D	AD06186-001	08/29/18 18:33
3M135269.D	AD06146-001	08/29/18 18:50
3M135270.D	AD06125-003(MS)	08/29/18 19:08
3M135271.D	AD06125-003(MSD)	08/29/18 19:25
3M135272.D	06205-003	08/29/18 19:42
3M135273.D	AD06149-003	08/29/18 19:59
3M135274.D	AD06156-015	08/29/18 20:16
3M135275.D	AD06121-001	08/29/18 20:34
3M135276.D	AD06121-002	08/29/18 20:51
3M135277.D	AD06121-004	08/29/18 21:08
3M135278.D	AD06121-005	08/29/18 21:25
3M135279.D	AD06121-006	08/29/18 21:42
3M135280.D	AD06121-008	08/29/18 21:59
3M135281.D	AD06121-009	08/29/18 22:13
3M135282.D	AD06121-011	08/29/18 22:29
3M135283.D	AD06121-010	08/29/18 22:48
3M135284.D	AD06121-012	08/29/18 23:05
3M135285.D	AD06121-013	08/29/18 23:25
3M135286.D	AD06121-003	08/29/18 23:42
3M135287.D	MBS72638	08/29/18 23:59
3M135288.D	AD06204-002(MS)	08/30/18 00:16
3M135289.D	AD06204-002(MSD)	08/30/18 00:33
3M135290.D	AD06204-002	08/30/18 00:51
3M135291.D	AD06121-004	08/30/18 01:08
3M135292.D	AD06121-012	08/30/18 01:25
3M135293.D	AD06125-002(5X)	08/30/18 01:42
3M135294.D	AD06125-008(5X)	08/30/18 01:59
3M135295.D	AD06121-011(10X)	08/30/18 02:17
3M135296.D	AD06121-010(10X)	08/30/18 02:34
3M135297.D	AD06126-009	08/30/18 02:51
3M135298.D	AD06126-001	08/30/18 03:08
3M135299.D	BLK	08/30/18 03:24
3M135300.D	BLK	08/30/18 03:38
3M135301.D	BLK	08/30/18 03:58

Form 5

8082413 0050

Tune Name: BFB TUNE

Data File: 3M135363.D

Instrument: GCMS 3

Analysis Date: 08/30/18 21:04

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.906 to 4.955 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.9	5765	PASS
75	95	30	60	50.0	14523	PASS
95	95	100	100	100.0	29040	PASS
96	95	5	9	8.3	2406	PASS
173	174	0.00	2	0.5	129	PASS
174	95	50	100	91.4	26555	PASS
175	174	5	9	7.3	1930	PASS
176	174	95	101	96.2	25551	PASS
177	176	5	9	7.7	1957	PASS

Data File	Sample Number	Analysis Date:
3M135364.D	CAL @ 20 PPB	08/30/18 21:14
3M135367.D	BLK	08/30/18 22:05
3M135368.D	DAILY BLANK	08/30/18 22:19
3M135369.D	AD06207-001(T)	08/30/18 22:37
3M135370.D	MBS72643	08/30/18 22:53
3M135371.D	EF-1-V-286161/083	08/30/18 23:18
3M135372.D	AD06207-001(T:M	08/30/18 23:37
3M135373.D	AD06207-001(T:M	08/30/18 23:55
3M135374.D	BLK	08/31/18 00:11
3M135375.D	AD06161-001	08/31/18 00:29
3M135376.D	AD06128-001	08/31/18 00:46
3M135377.D	AD06128-002	08/31/18 01:02
3M135378.D	AD06129-002	08/31/18 01:20
3M135379.D	AD06202-001	08/31/18 01:37
3M135380.D	AD06161-002	08/31/18 01:55
3M135381.D	AD06231-008	08/31/18 02:12
3M135382.D	DAILY BLANK	08/31/18 02:30
3M135383.D	AD06202-003	08/31/18 02:47
3M135384.D	AD06202-004	08/31/18 03:04
3M135385.D	AD06202-005	08/31/18 03:21
3M135386.D	AD06202-006	08/31/18 03:39
3M135387.D	AD06202-007	08/31/18 03:56
3M135388.D	AD06202-002	08/31/18 04:13
3M135389.D	AD06149-001	08/31/18 04:29
3M135390.D	AD06149-002	08/31/18 04:46
3M135391.D	AD06217-007	08/31/18 05:04
3M135392.D	AD06151-002	08/31/18 05:21
3M135393.D	AD06151-003	08/31/18 05:38
3M135394.D	AD06151-001	08/31/18 05:56
3M135395.D	AD06161-003	08/31/18 06:13
3M135396.D	AD06156-001	08/31/18 06:31
3M135397.D	AD06195-009	08/31/18 06:48
3M135398.D	AD06165-002	08/31/18 07:05
3M135399.D	AD06165-008	08/31/18 07:22
3M135400.D	AD06165-010	08/31/18 07:40
3M135401.D	AD06165-004	08/31/18 07:57
3M135402.D	MBS72652	08/31/18 08:14
3M135403.D	AD06165-002(MS)	08/31/18 08:31
3M135404.D	AD06165-002(MSD	08/31/18 08:48

Tune Name: BFB TUNE

Data File: 3M135451.D

Instrument: GCMS 3

Analysis Date: 08/31/18 22:03

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.896 to 4.955 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.3	4142	PASS
75	95	30	60	45.5	9765	PASS
95	95	100	100	100.0	21476	PASS
96	95	5	9	7.5	1612	PASS
173	174	0.00	2	0.4	82	PASS
174	95	50	100	90.1	19357	PASS
175	174	5	9	8.1	1569	PASS
176	174	95	101	99.1	19182	PASS
177	176	5	9	6.4	1218	PASS

Data File	Sample Number	Analysis Date:
3M135452.D	CAL @ 20 PPB	08/31/18 22:13
3M135453.D	BLK	08/31/18 22:30
3M135454.D	DAILY BLANK	08/31/18 22:45
3M135455.D	DAILY BLANK	08/31/18 23:03
3M135456.D	AD06149-001	08/31/18 23:25
3M135457.D	AD06128-003	08/31/18 23:43
3M135458.D	MBS72659	09/01/18 00:01
3M135459.D	AD06149-001(MS)	09/01/18 00:18
3M135460.D	AD06149-001(MSD)	09/01/18 00:35
3M135461.D	BLK	09/01/18 00:53
3M135462.D	AD06169-013	09/01/18 01:10
3M135463.D	AD06169-008	09/01/18 01:27
3M135464.D	AD06222-008	09/01/18 01:44
3M135465.D	AD06222-001	09/01/18 02:01
3M135466.D	AD06216-008	09/01/18 02:18
3M135467.D	AD06216-007	09/01/18 02:36
3M135468.D	AD06216-006	09/01/18 02:53
3M135469.D	AD06216-005	09/01/18 03:10
3M135470.D	AD06216-004	09/01/18 03:27
3M135471.D	AD06216-003	09/01/18 03:44
3M135472.D	AD06216-002	09/01/18 04:02
3M135473.D	AD06169-009	09/01/18 04:19
3M135474.D	AD06169-010	09/01/18 04:36
3M135475.D	AD06169-011	09/01/18 04:53
3M135476.D	AD06169-006	09/01/18 05:10
3M135477.D	AD06169-005	09/01/18 05:27
3M135478.D	AD06169-007	09/01/18 05:45
3M135479.D	AD06169-001	09/01/18 06:02
3M135480.D	MBS72660	09/01/18 06:18
3M135481.D	AD06141-002(MS)	09/01/18 06:35
3M135482.D	AD06141-002(MSD)	09/01/18 06:53
3M135483.D	AD06141-002	09/01/18 07:09
3M135484.D	AD06165-002	09/01/18 07:26
3M135485.D	AD06204-016	09/01/18 07:43
3M135486.D	AD06204-002	09/01/18 08:00
3M135487.D	AD06204-012	09/01/18 08:18
3M135488.D	AD06227-018	09/01/18 08:35
3M135489.D	AD06227-066	09/01/18 08:52
3M135490.D	AD06227-014	09/01/18 09:09
3M135491.D	AD06126-001	09/01/18 09:26
3M135492.D	AD06126-006	09/01/18 09:44
3M135493.D	AD06126-008	09/01/18 10:01
3M135494.D	AD06165-005	09/01/18 10:18
3M135495.D	BLK	09/01/18 10:35
3M135496.D	BLK	09/01/18 10:53
3M135497.D	BLK	09/01/18 11:10

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M132624.D

Analysis Date/Time: 07/13/18 21:31

Method: EPA 8260C

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT	334343	4.94	251682	6.78	127867	8.23								
Eval File Area Limit	167172-668686		125841-503364		63934-255734									
Eval File RT Limit	4.44-5.44		6.28-7.28		7.73-8.73									

Data File	Sample													
3M132620.D	CAL @ 0.5 PPB	347928	4.95	273171	6.78	132705	8.23							
3M132621.D	CAL @ 1 PPB	322366	4.95	262629	6.78	125201	8.23							
3M132622.D	CAL @ 5 PPB	326196	4.95	261678	6.78	126198	8.23							
3M132623.D	CAL @ 10 PPB	314063	4.95	261884	6.78	127378	8.23							
3M132624.D	CAL @ 20 PPB	334343	4.94	251682	6.78	127867	8.23							
3M132625.D	CAL @ 500 PPB	319125	4.95	231944	6.78	107063	8.23							
3M132628.D	CAL @ 250 PPB	334590	4.95	242058	6.78	110343	8.23							
3M132631.D	CAL @ 100 PPB	321193	4.95	245256	6.78	120410	8.23							
3M132634.D	CAL @ 50 PPB	327811	4.95	257776	6.78	126573	8.23							
3M132637.D	ICV	324657	4.95	254995	6.78	125929	8.23							
3M132643.D	DAILY BLANK	322128	4.94	248010	6.78	127977	8.23							
3M132644.D	AD05312-001	321676	4.94	248795	6.78	126579	8.23							
3M132645.D	AD05377-001	319350	4.93	250133	6.78	127384	8.23							
3M132646.D	AD05357-003	330036	4.94	256205	6.78	128578	8.23							
3M132647.D	AD05357-005	326494	4.94	255272	6.78	132275	8.23							
3M132648.D	MBS70502	325965	4.94	247894	6.78	133417	8.23							
3M132649.D	AD05357-008(MS)	336666	4.95	263831	6.78	125326	8.23							
3M132650.D	AD05357-008(MSD)	321984	4.94	261215	6.78	125056	8.23							
3M132651.D	AD05357-008	323339	4.94	253278	6.78	130228	8.23							
3M132652.D	AD05357-002	329529	4.94	252921	6.78	126682	8.23							
3M132653.D	AD05357-001	323525	4.94	253114	6.78	128650	8.23							
3M132654.D	AD05357-006	327324	4.94	258881	6.78	131450	8.23							
3M132655.D	AD05357-004	327270	4.94	248709	6.78	134956	8.23							
3M132656.D	AD05357-007	323273	4.94	246588	6.78	157539	8.23							
3M132657.D	MBS70503	339995	4.95	264803	6.78	141847	8.23							

11 = Fluorobenzene
12 = Chlorobenzene-d5
13 = 1,4-Dichlorobenzene-d4

14 =
15 =
16 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)
624/8260 Internal Standard concentration = 30ug/L
524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Evaluation Std Data File: 3M135076.D

Method: EPA 8260C

Lab File ID: CAL @ 20 PPB

	I1	I2	I3	I4	I5	I6	I7
	Area	RT	Area	RT	Area	RT	Area
Eval File Area/RT:	199957	4.95	185506	6.80	85672	8.24	
Eval File Area Limit:	99978-399914		92753-371012		42836-171344		
Eval File RT Limit:	4.45-5.45		6.3-7.3		7.7-8.74		

Data File Sample

3M135078 D	BLKHCL	175976	4.93	171774	6.79	81513	8.23
3M135079 D	BLK	200465	4.93	191632	6.78	87573	8.23
3M135081 D	DAILY BLANK	173097	4.93	166570	6.78	78705	8.23
3M135082 D	DAILY BLANK	166982	4.93	170610	6.78	71496	8.23
3M135083 D	BLK1585	183260	4.93	185165	6.78	79825	8.23
3M135084 D	AD06125-003	218918	4.93	225067	6.78	99655	8.23
3M135085 D	AD06125-004	234540	4.93	230613	6.78	101147	8.23
3M135086 D	AD06136-002	58464 A	5.23	163685	6.90	90890	8.27
3M135087 D	AD06125-011	176668	4.97	187408	6.82	79302	8.27
3M135088 D	AD06125-002(20X)	238062	4.98	107249	6.84	52667	8.29
3M135089 D	06125-008(20X)	273913	4.99	194359	6.84	76887	8.30
3M135090 D	MBS71018	299026	4.99	227780	6.85	108661	8.30
3M135091 D	AD06136-002	1180 A	4.88	72 A	6.65	121 A	8.03
3M135092 D	AD06125-011	275199	5.00	189137	6.86	73315	8.31
3M135093 D	06125-002(20X)	277445	5.00	188920	6.86	83431	8.31
3M135094 D	AD06084-015	290152	4.99	219409	6.86	102630	8.32
3M135095 D	AD06156-002	298445	4.99	218218	6.86	94526	8.31
3M135096 D	AD06160-001	302895	5.00	219550	6.86	92116	8.32
3M135097 D	AD06136-001	281221	5.00	202550	6.86	88764	8.32
3M135098 D	AD06156-005(80UL)	202157	4.99	151006	6.85	64229	8.30
3M135099 D	AD06156-014(400UL)	276933	4.98	207650	6.84	102163	8.29
3M135100 D	MBS71020	305481	4.98	226282	6.84	98237	8.29
3M135101 D	AD06127-015(MS)	300907	4.97	218417	6.83	102353	8.29
3M135102 D	AD06127-015(MSD)	311425	4.96	230777	6.83	106625	8.27
3M135103 D	AD06127-015	308768	4.96	231209	6.82	98928	8.27
3M135104 D	06132-013	285725	4.96	214722	6.81	93222	8.27
3M135105 D	AD06123-008(T)	316289	4.96	234844	6.81	100045	8.27
3M135106 D	AD06123-010(T)	286067	4.95	216483	6.81	92224	8.26
3M135107 D	AD06123-012(T)	306544	4.95	237233	6.81	93914	8.26
3M135108 D	AD06123-008(T:MS)	289505	4.95	217943	6.80	103424	8.25
3M135109 D	AD06123-008(T:MSD)	295421	4.95	223927	6.80	96395	8.24
3M135110 D	EF-1-V-286161(08241	319821	4.95	233993	6.80	103077	8.24

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Retention Times:

Limit = within ± 0.5 min of internal standard retention time from the daily cal or mid pt

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135076.D

Method: EPA 8260C

Analysis Date/Time: 08/27/18 08:51

Lab File ID: CAL @ 20 PPB

	11	12	13	14	15	16	17
	Area	RT	Area	RT	Area	RT	Area
Eval File Area/RT:	199957	4.95	185506	6.80	85672	8.24	
Eval File Area Limit:	99978.399914	92753.371012	42836.171344				
Eval File RT Limit:	4.45-5.45	6.3-7.3	7.74-8.74				

Data File Sample

11 =	Fluorobenzene	14 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =	624/8260 Internal Standard concentration = 30mg/L
13 =	1,4-Dichlorobenzene-d4	16 =	524 Internal Standard concentration =5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135197.D

Method: EPA 8260C

Analysis Date/Time: 08/28/18 22:06

Lab File ID: CAL @ 20 PPB

11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
348836	4.93	271557	6.78	138891	8.23								
Eval File Area Limit:		174418-697672		135778-543114		69446-277782							
Eval File RT Limit:		4.43-5.43		6.28-7.28		7.73-8.73							

Data File	Sample												
3M135192.D	BLK	312441	4.92	237648	6.78	115541	8.23						
3M135193.D	CAL @ 0.5 PPB	330751	4.92	261228	6.78	125194	8.23						
3M135194.D	CAL @ 1 PPB	344461	4.93	264299	6.78	131479	8.23						
3M135195.D	CAL @ 5 PPB	319828	4.93	245445	6.78	132618	8.23						
3M135196.D	CAL @ 10 PPB	325044	4.92	260231	6.78	127392	8.23						
3M135197.D	CAL @ 20 PPB	348836	4.93	271557	6.78	138891	8.23						
3M135198.D	CAL @ 500 PPB	358738	4.92	270646	6.78	116121	8.23						
3M135201.D	CAL @ 250 PPB	364809	4.92	283230	6.78	122633	8.23						
3M135204.D	CAL @ 100 PPB	361835	4.93	279763	6.78	139195	8.23						
3M135207.D	CAL @ 50 PPB	364929	4.92	291020	6.78	140551	8.23						
3M135210.D	ICV	364655	4.93	285388	6.78	140278	8.23						

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORMB

Internal Standard Areas

Evaluation Std Data File: 3M135255.D

Method: EPA 8260C

Analysis Date/Time: 08/29/18 15:06

Lab File ID: CAL @ 20 PPB

Eval File Area/RT		11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
380214	4.93	291750	6.78	148545	8.23										
Eval File Area Limit:		190107-760428		145875-583500		74272-297090									
Eval File Rt Limit:		4.43-5.43		6.28-7.28		7.73-8.73									

Data File Sample		11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
3M135257.D BLK	317214	4.92	257319	6.78	127464	8.23									
3M135258.D DAILY BLANK	347053	4.93	263833	6.78	133537	8.23									
3M135259.D DAILY BLANK	321656	4.92	258725	6.78	117474	8.23									
3M135260.D AD06121-014	339250	4.93	266293	6.78	132911	8.24									
3M135261.D 06096-008	364844	4.93	295008	6.78	133186	8.23									
3M135262.D 06205-001	359903	4.93	272718	6.78	137837	8.23									
3M135263.D AD06125-011	331960	4.93	265138	6.78	125968	8.23									
3M135264.D AD06125-002(5X)	353503	4.93	269732	6.78	142490	8.23									
3M135265.D AD06125-008(5X)	330553	4.93	267400	6.78	124483	8.23									
3M135267.D MBS72636	300800	4.93	250358	6.78	121949	8.23									
3M135268.D AD06186-001	328532	4.93	262712	6.78	124381	8.23									
3M135269.D AD06146-001	340870	4.93	283980	6.78	137910	8.23									
3M135270.D AD06125-003(MS)	362926	4.93	292623	6.78	157800	8.23									
3M135271.D AD06125-003(MSD)	250568	4.93	206461	6.78	105722	8.23									
3M135272.D 06205-003	332271	4.92	270250	6.78	138594	8.23									
3M135273.D AD06149-003	358475	4.93	275605	6.78	139034	8.23									
3M135274.D AD06156-015	302870	4.93	236944	6.79	122856	8.24									
3M135275.D AD06121-001	341870	4.93	270845	6.78	139830	8.23									
3M135276.D AD06121-002	340523	4.93	272119	6.78	134363	8.23									
3M135277.D AD06121-004	332300	4.93	262460	6.78	123641	8.22									
3M135278.D AD06121-005	348379	4.93	274273	6.78	134265	8.23									
3M135279.D AD06121-006	293151	4.93	243706	6.78	120772	8.23									
3M135280.D AD06121-008	319463	4.93	271530	6.78	129651	8.23									
3M135281.D AD06121-009	337287	4.93	281647	6.78	132598	8.23									
3M135282.D AD06121-011	310287	4.93	265881	6.78	124970	8.23									
3M135283.D AD06121-010	326882	4.93	270140	6.78	123086	8.23									
3M135284.D AD06121-012	293785	4.93	241520	6.78	120010	8.23									
3M135285.D AD06121-013	340526	4.93	255850	6.78	139913	8.23									
3M135286.D AD06121-003	349954	4.93	274960	6.78	132584	8.23									
3M135287.D MBS72638	317421	4.92	263857	6.78	134328	8.23									
3M135288.D AD06204-002(MS)	335395	4.92	285168	6.78	148529	8.23									
3M135289.D AD06204-002(MSD)	324993	4.92	262738	6.78	134682	8.22									

11 = Fluorobenzene	14 =	17 =
12 = Chlorobenzene-d5	15 =	
13 = 1,4-Dichlorobenzene-d4	16 =	
		625/8270 Internal Standard concentration = 40 mg/L (in final extract)
		624/8260 Internal Standard concentration = 30mg/L
		524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Flags:

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

A - Indicates the compound failed the internal standard area criteria

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8**Internal Standard Areas**

Evaluation Std Data File: 3M135255.D

Method: EPA 8260C

Analysis Date/Time: 08/29/18 15:06

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT	380214	4.93	291750	6.78	148545	8.23								
Eval File Area Limit	190107-760428		145875-583500		74272-297090									
Eval File RT Limit	4.43-5.43		6.28-7.28		7.73-8.73									

Data File	Sample													
3M135290.D	AD06204-002	346443	4.92	270079	6.78	133326	8.23							
3M135291.D	AD06121-004	336709	4.93	265798	6.78	131543	8.23							
3M135292.D	AD06121-012	346234	4.93	270657	6.78	134042	8.23							
3M135293.D	AD06125-002(5X)	230617	4.93	196886	6.78	98640	8.23							
3M135294.D	AD06125-008(5X)	313912	4.93	247543	6.78	122712	8.23							
3M135295.D	AD06121-011(10X)	291894	4.93	248832	6.78	120367	8.23							
3M135296.D	AD06121-010(10X)	284102	4.93	229946	6.78	114998	8.23							
3M135297.D	AD06126-009	314570	4.93	281199	6.78	145350	8.23							
3M135298.D	AD06126-001	297789	4.92	254915	6.78	138512	8.23							
3M135299.D	BLK	340834	4.93	288120	6.78	145400	8.23							
3M135300.D	BLK	350958	4.93	286541	6.78	147550	8.23							
3M135301.D	BLK	261234	4.93	214630	6.78	111110	8.23							

11 = Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 = Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 = 1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

A - Indicates the compound failed the internal standard area criteria

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135364.D

Method: EPA 8260C

Analysis Date/Time: 08/30/18 21:14

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT	378561	4.92	285137	6.77	148488	8.22								
Eval File Area Limit:	189280-757122		142568-570274		74244-296976									
Eval File Rt Limit:	4.42-5.42		6.27-7.27		7.72-8.72									

Data File	Sample													
3M135367.D	BLK	318929	4.92	245724	6.78	125641	8.22							
3M135368.D	DAILY BLANK	305396	4.92	240115	6.77	112552	8.22							
3M135369.D	AD06207-001(T)	338948	4.93	274903	6.79	126915	8.24							
3M135370.D	MBST2643	300290	4.92	251746	6.77	126381	8.22							
3M135371.D	EF-1-V-286161(08301	343635	4.92	273943	6.78	134874	8.23							
3M135372.D	AD06207-001(T:MS)	324659	4.93	273588	6.78	130992	8.22							
3M135373.D	AD06207-001(T:MSD)	325532	4.92	253198	6.77	134542	8.22							
3M135374.D	BLK	329823	4.92	263598	6.77	126540	8.22							
3M135375.D	AD06161-001	345145	4.92	267476	6.77	129216	8.22							
3M135376.D	AD06128-001	293923	4.92	230258	6.77	108135	8.22							
3M135377.D	AD06128-002	315455	4.92	252324	6.77	115460	8.22							
3M135378.D	AD06129-002	336558	4.93	260588	6.79	124647	8.24							
3M135379.D	AD06202-001	331380	4.92	252136	6.77	123949	8.22							
3M135380.D	AD06161-002	336459	4.92	246474	6.77	130490	8.22							
3M135381.D	AD06231-008	325395	4.92	252590	6.78	127666	8.23							
3M135382.D	DAILY BLANK	319936	4.92	244672	6.77	118794	8.21							
3M135384.D	AD06202-004	328835	4.92	260542	6.77	130079	8.22							
3M135385.D	AD06202-005	285026	4.92	216508	6.77	106628	8.22							
3M135386.D	AD06202-006	299725	4.92	233052	6.77	113679	8.22							
3M135387.D	AD06202-007	309069	4.92	241124	6.77	109948	8.22							
3M135388.D	AD06202-002	329634	4.92	239279	6.77	122815	8.22							
3M135389.D	AD06149-001	331490	4.92	247960	6.77	120542	8.22							
3M135390.D	AD06149-002	341624	4.92	269827	6.77	128066	8.22							
3M135391.D	AD06217-007	293956	4.92	221337	6.77	110766	8.22							
3M135392.D	AD06151-002	323618	4.92	242492	6.77	118027	8.22							
3M135393.D	AD06151-003	332178	4.92	238380	6.77	129142	8.22							
3M135394.D	AD06151-001	322928	4.92	244234	6.77	121963	8.22							
3M135395.D	AD06161-003	319171	4.92	251811	6.77	124575	8.21							
3M135396.D	AD06156-001	333475	4.92	244357	6.77	135523	8.21							
3M135397.D	AD06195-009	306057	4.92	239132	6.77	129592	8.22							
3M135398.D	AD06165-002	327970	4.92	252880	6.77	142796	8.22							
3M135399.D	AD06165-008	314051	4.92	252957	6.77	133295	8.21							

11 =	Fluorobenzene	14 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =	624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =	524 Internal Standard concentration = 5ug/L
		17 =	

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135364.D

Method: EPA 8260C

Analysis Date/Time: 08/30/18 21:14

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT	378561	4.92	285137	6.77	148488	8.22								
Eval File Area Limit	189280-757122		142568-570274		74244-296976									
Eval File Rt Limit	4.42-5.42		6.27-7.27		7.72-8.72									

Data File	Sample													
3M135400.D	AD06165-010	339996	4.92	272832	6.77	153753	8.22							
3M135401.D	AD06165-004	359095	4.92	283513	6.77	147567	8.22							
3M135402.D	MBS72652	326439	4.91	267520	6.77	136835	8.21							
3M135403.D	AD06165-002(MS)	343044	4.92	278134	6.77	139118	8.22							
3M135404.D	AD06165-002(MSD)	347245	4.92	279441	6.77	145923	8.21							

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30mg/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135452.D

Method: EPA 8260C

Analysis Date/Time: 08/31/18 22:13

Lab File ID: CAL @ 20 PPB

		11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
348690	4.91	271568	6.77	140193	8.21										
Eval File Area Limit:		174345-697380		135784-543136		70096-280386									
Eval File RI Limit:		4.41-5.41		6.27-7.27		7.71-8.71									

Data File		Sample													
3M135453.D	BLK	312477	4.92	258189	6.77	125072	8.21								
3M135454.D	DAILY BLANK	325150	4.91	264265	6.77	132318	8.21								
3M135455.D	DAILY BLANK	288415	4.92	228611	6.77	110066	8.22								
3M135456.D	AD06149-001	317479	4.92	252386	6.77	127343	8.21								
3M135457.D	AD06128-003	303134	4.92	252213	6.77	127867	8.21								
3M135458.D	MBS72659	346060	4.92	282562	6.77	147208	8.21								
3M135459.D	AD06149-001(MS)	294257	4.92	238431	6.77	124257	8.21								
3M135460.D	AD06149-001(MSD)	317517	4.92	267823	6.77	133259	8.21								
3M135461.D	BLK	340385	4.92	259267	6.77	145931	8.21								
3M135462.D	AD06169-013	277078	4.92	223190	6.77	105304	8.21								
3M135463.D	AD06169-008	340357	4.92	281420	6.77	130636	8.21								
3M135464.D	AD06222-008	342183	4.92	280991	6.77	139874	8.21								
3M135465.D	AD06222-001	305954	4.92	250475	6.77	123372	8.21								
3M135466.D	AD06216-008	333969	4.92	267709	6.77	133435	8.21								
3M135467.D	AD06216-007	334241	4.92	259279	6.77	125744	8.21								
3M135468.D	AD06216-006	309981	4.92	251903	6.77	118823	8.21								
3M135469.D	AD06216-005	223199	4.92	174750	6.77	85842	8.22								
3M135470.D	AD06216-004	294159	4.91	232888	6.76	117439	8.21								
3M135471.D	AD06216-003	341716	4.92	267651	6.77	133796	8.22								
3M135472.D	AD06216-002	290895	4.92	234078	6.77	111050	8.21								
3M135473.D	AD06169-009	319954	4.92	257036	6.77	128068	8.21								
3M135474.D	AD06169-010	303778	4.92	253207	6.77	119649	8.21								
3M135475.D	AD06169-011	313379	4.91	256300	6.77	124665	8.21								
3M135476.D	AD06169-006	330917	4.92	260337	6.77	133882	8.21								
3M135477.D	AD06169-005	311152	4.92	262999	6.77	121603	8.21								
3M135478.D	AD06169-007	307852	4.92	248286	6.77	118277	8.21								
3M135479.D	AD06169-001	291146	4.92	231583	6.77	111764	8.21								
3M135480.D	MBS72660	305472	4.91	243886	6.77	128882	8.21								
3M135481.D	AD06141-002(MS)	316607	4.91	250699	6.77	139015	8.21								
3M135482.D	AD06141-002(MSD)	293685	4.92	240849	6.77	135603	8.21								
3M135483.D	AD06141-002	274440	4.91	208620	6.77	116407	8.21								
3M135484.D	AD06165-002	288445	4.91	249895	6.77	130484	8.21								

11 =	Fluorobenzene	14 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =	624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =	524 Internal Standard concentration = 5ug/L
		17 =	

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M135452.D

Method: EPA 8260C

Analysis Date/Time: 08/31/18 22:13

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	348690	4.91	271568	6.77	140193	8.21								
Eval File Area Limit:	174345-697380		135784-543136		70096-280386									
Eval File RT Limit:	4.41-5.41		6.27-7.27		7.71-8.71									

Data File	Sample	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
3M135485.D	AD06204-016	315479	4.91	256285	6.77	131970	8.21						
3M135486.D	AD06204-002	321608	4.91	261180	6.77	135235	8.22						
3M135487.D	AD06204-012	321335	4.91	264321	6.77	134866	8.21						
3M135488.D	AD06227-018	327554	4.91	257717	6.77	140507	8.21						
3M135489.D	AD06227-066	322079	4.91	257612	6.77	134340	8.21						
3M135490.D	AD06227-014	310277	4.91	261344	6.77	140744	8.21						
3M135491.D	AD06126-001	343924	4.91	283630	6.77	147877	8.21						
3M135492.D	AD06126-006	340224	4.91	287646	6.77	165278	8.21						
3M135493.D	AD06126-008	320866	4.91	261007	6.77	152657	8.21						
3M135494.D	AD06165-005	334726	4.91	278560	6.77	162274	8.21						
3M135495.D	BLK	366590	4.92	302166	6.77	160516	8.21						
3M135496.D	BLK	347042	4.92	267819	6.77	145582	8.21						
3M135497.D	BLK	342233	4.92	281996	6.77	140226	8.21						

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30mg/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration =5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

GC/MS Volatile Data
Sample Data

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-001

Client Id: MW-2-20180823

Data File: 3M135456.D

Analysis Date: 08/31/18 23:25

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.8
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.1
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 2.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD06149-001
Data File: 3M135456.D
Acq On : 08/31/18 23:25

Operator : WP
Sam Mult : 1 Vial# : 8
Misc : A,5ML:1

Qt Meth : 3M_A0828.M
Qt On : 08/31/18 23:46
Qt Upd On: 08/29/18 07:58

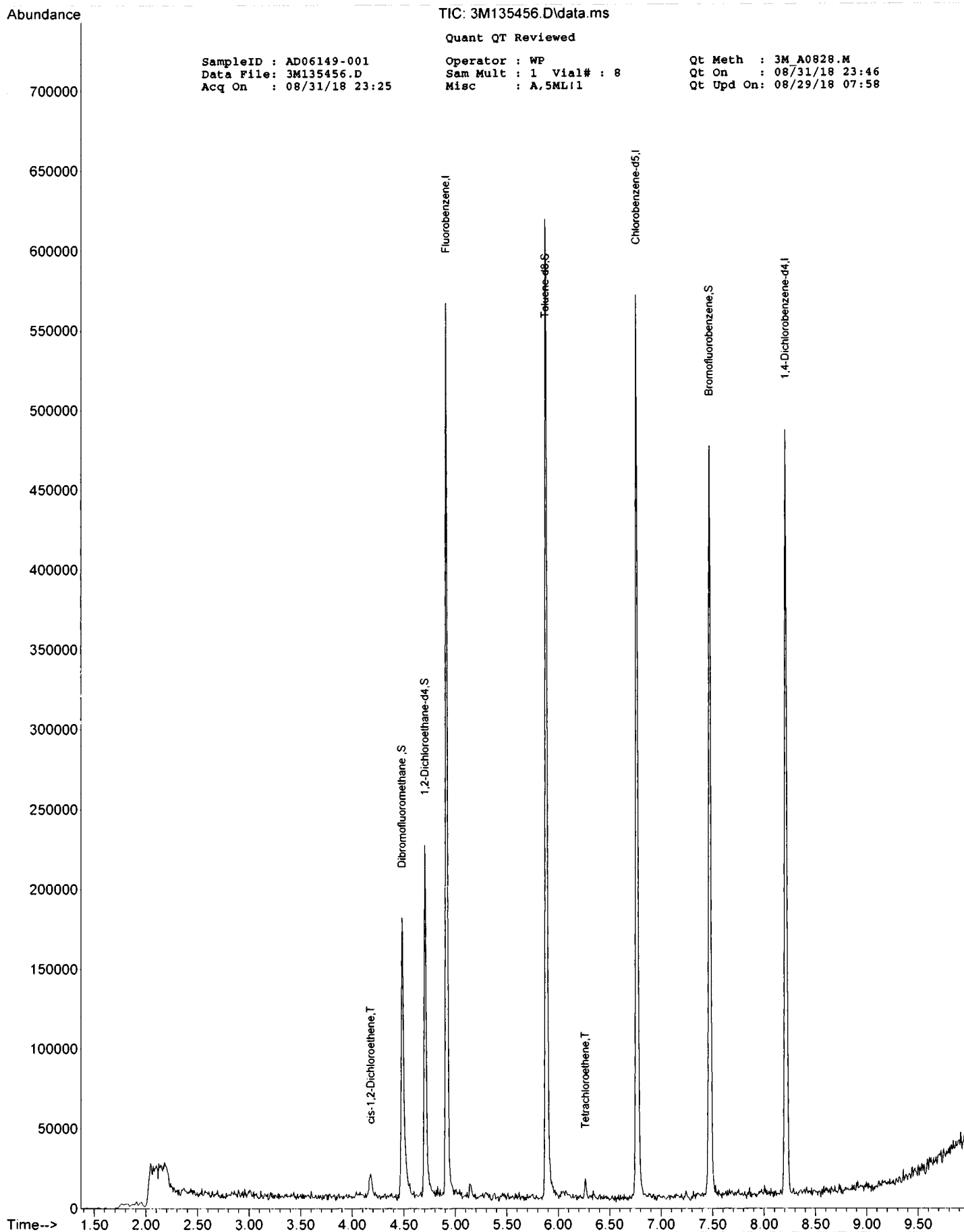
Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

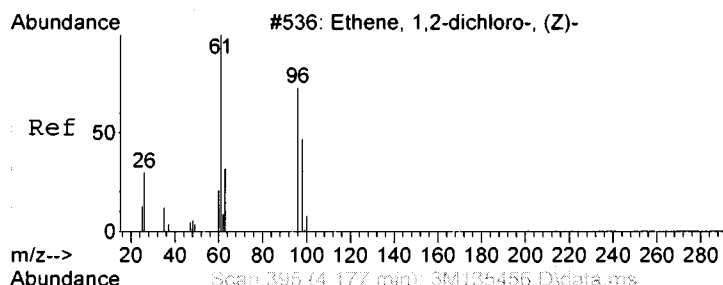
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.916	96	317479	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.766	117	252386	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.214	152	127343	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.484	111	88528	32.04	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	106.80%	
39) 1,2-Dichloroethane-d4	4.706	67	59543	31.50	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	105.00%	
66) Toluene-d8	5.883	98	288660	26.96	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	89.87%	
76) Bromofluorobenzene	7.475	174	127819	27.96	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	93.20%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.177	61	7813	1.7879	ug/l	66
65) Tetrachloroethene	6.262	164	1980	1.0733	ug/l	76

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

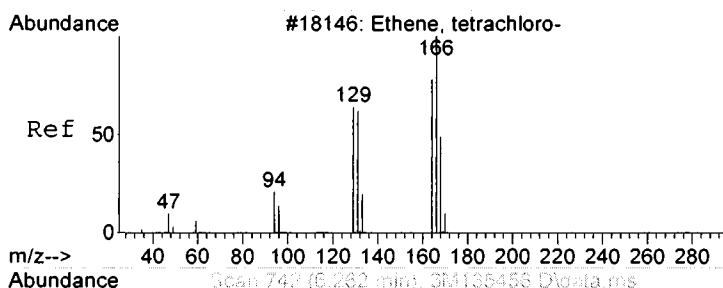
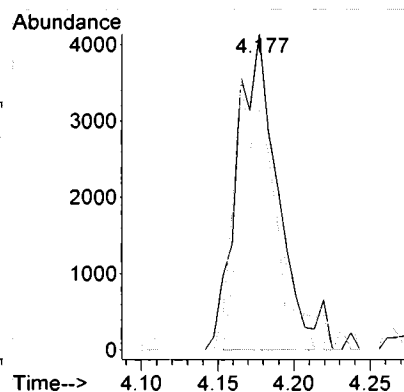
30





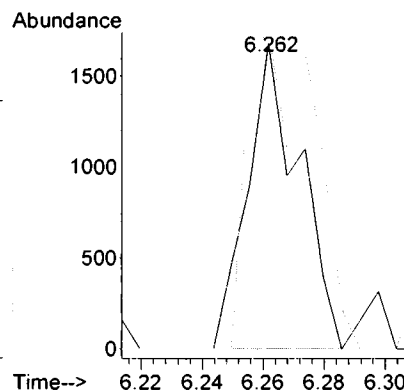
#30
cis-1,2-Dichloroethene
Concen: 1.79 ug/l
RT: 4.177 min Scan# 395
Delta R.T. -0.005 min
Lab File: 3M135456.D
Acq: 31 Aug 2018 23:25

Tgt Ion	Ratio	Lower	Upper
61	100		
96	76.1	8.8	88.8
98	46.4	0.0	72.8



#65
Tetrachloroethene
Concen: 1.07 ug/l
RT: 6.262 min Scan# 742
Delta R.T. -0.017 min
Lab File: 3M135456.D
Acq: 31 Aug 2018 23:25

Tgt Ion	Ratio	Lower	Upper
164	100		
166	103.4	61.8	201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-002

Client Id: MW-1-20180823

Data File: 3M135390.D

Analysis Date: 08/31/18 04:46

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	5.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 5.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD06149-002
Data File: 3M135390.D
Acq On : 08/31/18 04:46

Operator : WP
Sam Mult : 1 Vial# : 24
Misc : A,5ML!2

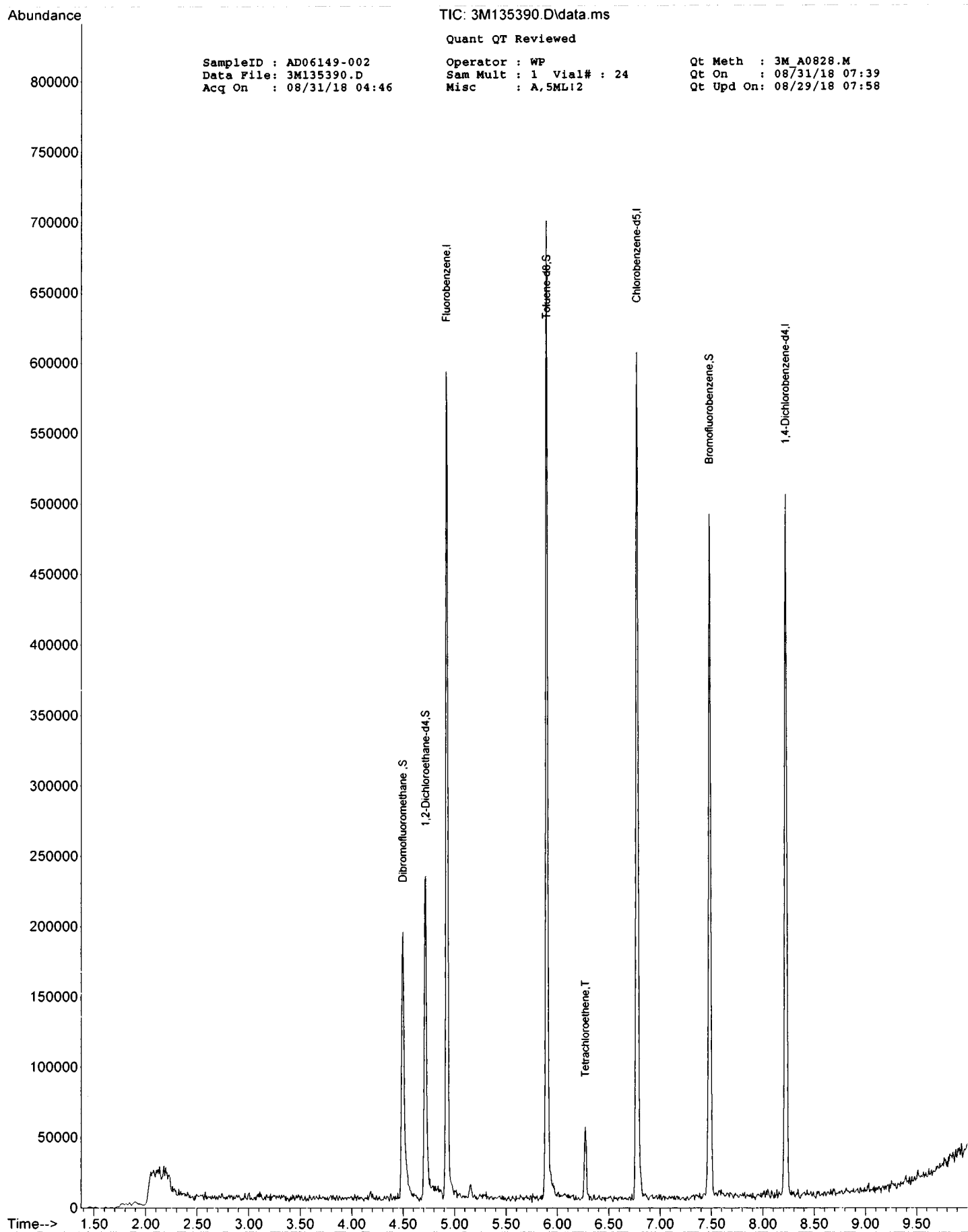
Qt Meth : 3M_A0828.M
Qt On : 08/31/18 07:39
Qt Upd On: 08/29/18 07:58

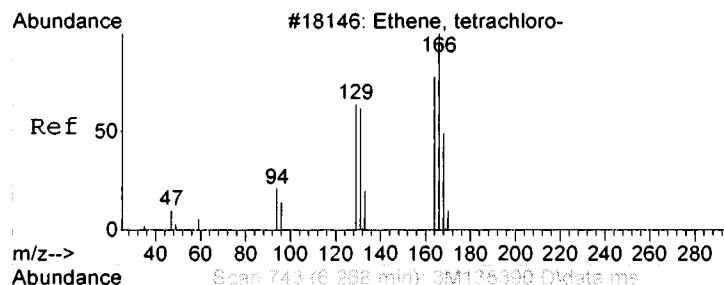
Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.923	96	341624	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.773	117	269827	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.220	152	128066	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	94270	31.71	ug/l	0.00
Spiked Amount 30.000			Recovery	=	105.70%	
39) 1,2-Dichloroethane-d4	4.718	67	65020	31.96	ug/l	0.00
Spiked Amount 30.000			Recovery	=	106.53%	
66) Toluene-d8	5.896	98	331886	29.00	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.67%	
76) Bromofluorobenzene	7.482	174	135298	29.43	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.10%	
Target Compounds						
65) Tetrachloroethene	6.268	164	10596	5.3725	ug/l	Qvalue 60

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





#65

Tetrachloroethene

Concen: 5.37 ug/l

RT: 6.268 min Scan# 743

Delta R.T. -0.011 min

Lab File: 3M135390.D

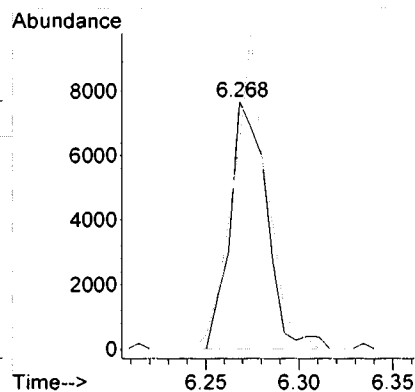
Acq: 31 Aug 2018 4:46

Tgt Ion:164 Resp: 10596

Ion Ratio Lower Upper

164 100

166 84.3 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD06149-003

Client Id: TB01-20180823

Data File: 3M135273.D

Analysis Date: 08/29/18 19:59

Date Rec/Extracted: 08/24/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 477955

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD06149-003
Data File: 3M135273.D
Acq On : 08/29/18 19:59

Operator : WP
Sam Mult : 1 Vial# : 18
Misc : A,5ML:2

Qt Meth : 3M_A0828.M
Qt On : 08/29/18 20:22
Qt Upd On: 08/29/18 07:58

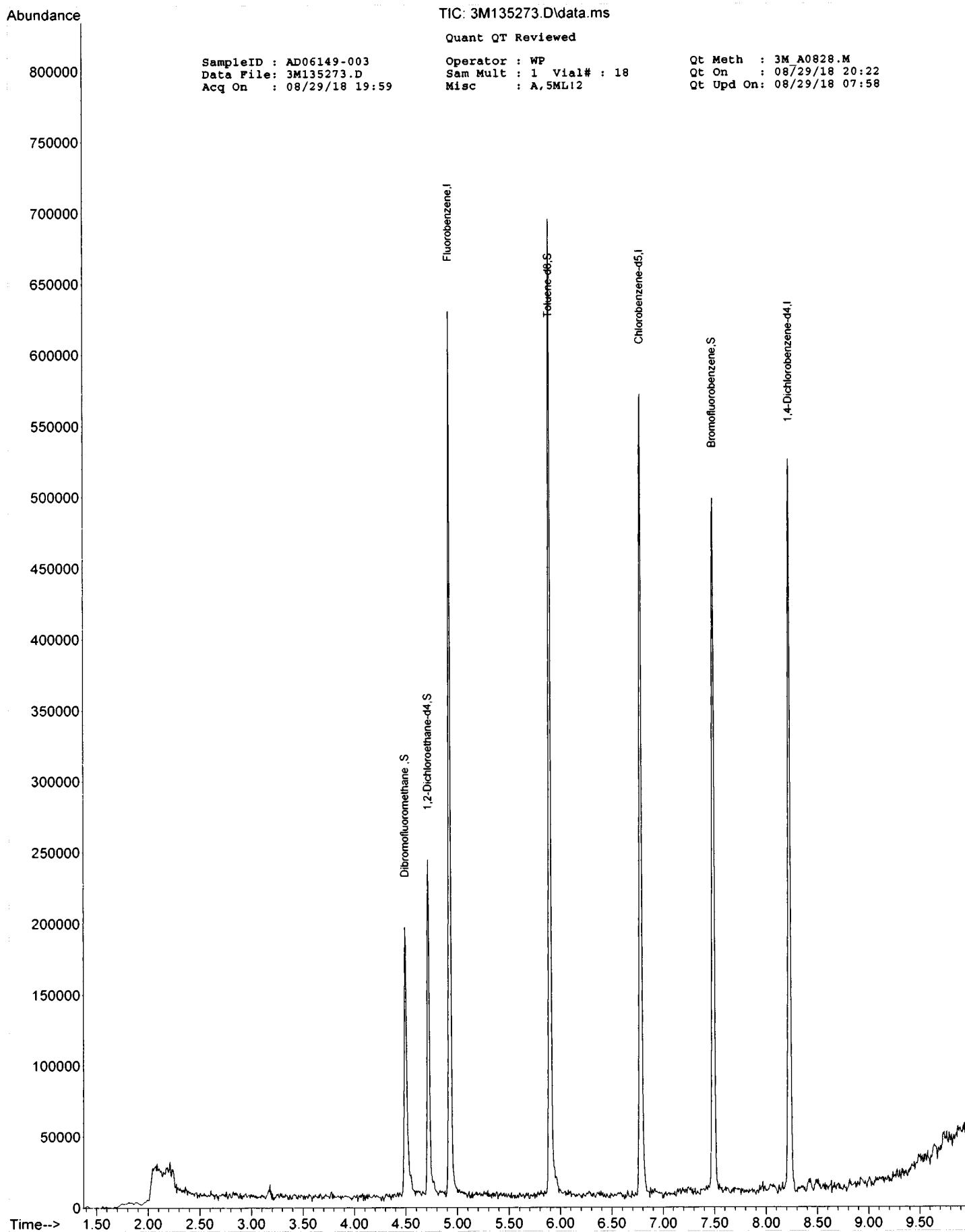
Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.928	96	358475	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.784	117	275605	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.232	152	139034	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	98691	31.63	ug/l	0.00
Spiked Amount 30.000			Recovery	=	105.43%	
39) 1,2-Dichloroethane-d4	4.718	67	62131	29.11	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.03%	
66) Toluene-d8	5.901	98	330646	28.28	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.27%	
76) Bromofluorobenzene	7.493	174	143780	28.81	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.03%	
Target Compounds						Qvalue

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





GC/MS Volatile Data
Standards Data

Level #				Data File				Cal Identifier				Analysis Date/Time				Level #				Data File				Cal Identifier				Analysis Date/Time			
1				3M132624.D				CAL @ 20 PPB				07/13/18 21:31				2				3M132622.D				CAL @ 5 PPB				07/13/18 20:58			
3				3M132623.D				CAL @ 10 PPB				07/13/18 21:14				4				3M132634.D				CAL @ 50 PPB				07/14/18 00:22			
5				3M132625.D				CAL @ 100 PPB				07/13/18 23:28				6				3M132628.D				CAL @ 250 PPB				07/13/18 22:37			
7				3M132626.D				CAL @ 500 PPB				07/13/18 21:48				8				3M132621.D				CAL @ 1 PPB				07/13/18 20:41			
9				3M132620.D				CAL @ 0.5 PPB				07/13/18 20:24																			
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9					
Chlorodifluoromethane	1	0	Qua	0.3510	0.4710	0.3974	0.3687	0.3853	0.3794	0.3749	0.6123	----	0.4181	1.68	1.00	1.00	21	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Dichlorodifluorometha	1	0	Avg	0.0833	0.0724	0.0948	0.0876	0.0857	0.0936	0.0944	0.0730	----	0.0856	1.61	1.00	1.00	11	0.10 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Chloromethane	1	0	Avg	0.1616	0.1690	0.1859	0.1475	0.1454	0.1510	0.1467	0.1020	----	0.1511	1.81	1.00	1.00	16	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Bromomethane	1	0	Avg	0.0662	0.0722	0.0730	0.0705	0.0703	0.0486	----	0.0586	----	0.0657	2.13	0.969	0.999	14	0.10 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Vinyl Chloride	1	0	Avg	0.1268	0.1443	0.1552	0.1331	0.1375	0.1347	0.1359	0.1592	----	0.1411	1.84	1.00	1.00	8.0	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Chloroethane	1	0	Qua	0.0807	0.0784	0.0824	0.0700	0.0757	0.0650	0.0490	0.1103	----	0.0765	2.21	0.974	1.00	23	0.10 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Trichlorofluoromethan	1	0	Avg	0.2515	0.3028	0.2649	0.2628	0.2560	0.2618	0.2501	0.2027	----	0.2572	2.42	1.00	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Ethyl ether	1	0	Avg	0.2444	0.2483	0.2577	0.2435	0.2468	0.2209	0.2123	0.2194	----	0.2372	2.65	0.999	1.00	7.0	0.50 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Furan	1	0	Avg	0.5621	0.6583	0.6615	0.6194	0.5994	0.5780	0.5351	0.6410	----	0.6072	2.69	0.998	1.00	7.6	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
1,1,2-Trichloro-1,2,2-tr	1	0	Avg	0.1340	0.1491	0.1327	0.1190	0.1236	0.1177	0.1035	0.1225	----	0.1252	2.84	0.996	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Methylene Chloride	1	0	Avg	0.2515	0.2964	0.2733	0.2461	0.2536	0.2312	0.2148	0.2073	----	0.2473	2.23	0.998	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Acrolein	1	0	Avg	0.0437	0.0480	0.0487	0.0435	0.0421	0.0427	0.0397	0.0470	----	0.0445	2.77	0.999	1.00	7.1		100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00					
Acrylonitrile	1	0	Avg	0.1001	0.1006	0.1129	0.1061	0.1056	0.0971	0.0939	0.0939	----	0.1013	3.44	0.999	1.00	6.5		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Iodomethane	1	0	Avg	0.2459	0.2288	0.2485	0.2491	0.2514	0.2433	0.2332	0.2522	----	0.2442	2.98	0.999	1.00	3.5		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Acetone	1	0	Avg	0.0966	0.1067	0.0997	0.0906	0.0956	0.0900	0.0845	0.1049	----	0.0961	2.92	0.999	1.00	7.9	0.10 a	100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00					
Carbon Disulfide	1	0	Avg	0.4774	0.4973	0.5048	0.4986	0.5018	0.4970	0.4663	0.5384	----	0.4983	3.05	0.999	1.00	4.2	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
n-Butyl Alcohol	1	0	Avg	0.0279	0.0270	0.0276	0.0265	0.0279	0.0290	0.0278	0.0309	----	0.0281	3.35	1.00	1.00	4.9		100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00					
n-Hexane	1	0	Avg	0.1049	0.1259	0.1056	0.0970	0.0998	0.1101	0.1005	0.1294	----	0.1093	3.68	0.998	0.999	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Di-isopropyl-ether	1	0	Avg	0.9419	0.9275	1.0613	0.9574	0.9188	0.8352	0.6926	1.0667	----	0.9253	3.84	0.989	1.00	13		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
1,1-Dichloroethene	1	0	Avg	0.3164	0.3471	0.3433	0.3347	0.3396	0.3238	0.3034	0.3052	----	0.3272	2.85	0.999	1.00	5.2	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Methyl Acetate	1	0	Avg	0.3600	0.4007	0.3868	0.3613	0.3608	0.3567	0.3327	0.4831	----	0.3803	3.14	0.999	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Methyl-t-butyl ether	1	0	Avg	0.6184	0.7110	0.7012	0.6563	0.6349	0.5624	0.4782	0.5921	0.6349	----	0.6213	3.46	0.991	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00				
1,1-Dichloroethane	1	0	Avg	0.4187	0.4633	0.4572	0.4390	0.4211	0.4068	0.3718	0.4846	----	0.4333	3.80	0.998	1.00	8.3	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
trans-1,2-Dichloroethane	1	0	Avg	0.2064	0.2435	0.2484	0.2105	0.2132	0.1938	0.1713	0.2697	----	0.2203	3.46	0.995	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Ethyl-t-butyl ether	1	0	Avg	0.8065	0.8333	0.9293	0.8213	0.8275	0.7471	0.6292	0.8974	----	0.8124	4.10	0.991	1.00	11	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
cis-1,2-Dichloroethene	1	0	Avg	0.4883	0.4951	0.5440	0.4818	0.4640	0.4191	0.3667	0.4760	----	0.4674	4.22	0.994	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Bromochloromethane	1	0	Avg	0.3104	0.3320	0.3406	0.3068	0.2973	0.2897	0.2678	0.3177	----	0.3084	4.39	0.998	1.00	7.6		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
2,2-Dichloropropene	1	0	Avg	0.3301	0.3565	0.3863	0.3033	0.3066	0.2866	0.2383	0.3482	----	0.3204	4.22	0.991	1.00	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Ethyl acetate	1	0	Avg	0.3592	0.3077	0.4324	0.3746	0.3525	0.3306	0.3071	0.3861	----	0.3564	4.25	0.998	1.00	12		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
1,4-Dioxane	1	0	Avg	0.0026	0.0027	0.0031	0.0026	0.0027	0.0026	0.0023	0.0022	----	0.00265	5.41	0.997	1.00	11		100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	50.00					
1,1-Dichloropropene	1	0	Avg	0.3008	0.3564	0.3224	0.3015	0.2894	0.2648	0.2164	0.3176	----	0.2964	4.66	0.988	1.00	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Chloroform	1	0	Avg	0.4571	0.4824	0.5004	0.4719	0.4457	0.4329	0.3949	0.4677	----	0.4574	4.42	0.998	1.00	7.1	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
Dibromofluoromethan	1	0	Avg	0.2591	0.2618	0.2853	0.2683	0.2535	0.2553	0.2507	0.2634	0.2590	----	0.2624	4.53	-1	3.9		30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00					
Cyclohexane	1	0	Avg	0.2326	0.2337	0.2444	0.2322	0.2269	0.2281	0.2088	0.2381	----	0.2324	4.60	0.996	0.999	4.6	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00					
1,2-Dichloroethane-d4	1	0	Avg	0.1821	0.2006	0.1967	0.1884	0.1915	0.1801	0.1672	0.1860	0.1893	----	0.1874	4.75	-1	5.3		30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00					
1,2-Dichloroethane	1	0	Avg	0.4325	0.4818	0.4866	0.4252	0.4012	0.3432	0.2891	0.5478	0.4692	----	0.4314	4.80	0.990	1.00	18	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00				
2-Butanone	1	0	Avg	0.1488	0.1776	0.1303	0.1347</																								

Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria (if applicable)

Avg Rsd: 10.4

Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Level #		Data File	Cal Identifier	Analysis Date/Time					Level #	Data File	Cal Identifier	Analysis Date/Time													
1		3M132624.D	CAL @ 20 PPB	07/13/18 21:31					2	3M132622.D	CAL @ 5 PPB	07/13/18 20:58													
3		3M132623.D	CAL @ 10 PPB	07/13/18 21:14					4	3M132634.D	CAL @ 50 PPB	07/14/18 00:22													
5		3M132631.D	CAL @ 100 PPB	07/13/18 23:28					6	3M132628.D	CAL @ 250 PPB	07/13/18 22:37													
7		3M132625.D	CAL @ 500 PPB	07/13/18 21:48					8	3M132621.D	CAL @ 1 PPB	07/13/18 20:41													
9		3M132620.D	CAL @ 0.5 PPB	07/13/18 20:24																					
Compound	Col	Mt. Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9
Methylcyclohexane	1	0	Avg	0.1405	0.1686	0.1619	0.1394	0.1460	0.1441	0.1226	0.1670	0.149	5.31	0.993	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromomethane	1	0	Avg	0.2497	0.2594	0.2847	0.2376	0.2292	0.2006	0.1667	0.2560	0.236	5.40	0.989	1.00	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dichloropropane	1	0	Avg	0.2744	0.2846	0.3327	0.2754	0.2721	0.2536	0.2087	0.2420	0.268	5.32	0.989	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Trichloroethene	1	0	Avg	0.2489	0.2676	0.2864	0.2628	0.2469	0.2272	0.1883	0.2876	0.252	5.18	0.990	1.00	13	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Benzene	1	0	Avg	0.9238	1.0203	0.9729	0.8748	0.8092	0.6635	0.5136	0.9419	0.856	4.79	0.976	1.00	20	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	0.50
tert-Amyl methyl ether	1	0	Avg	0.7756	0.7899	0.7973	0.7409	0.7312	0.6321	0.5403	0.7816	0.724	4.84	0.991	1.00	13		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Iso-propylacetate	1	0	Avg	0.9434	0.8422	0.8851	0.8920	0.8879	0.7961	0.6198	1.0295	0.862	4.79	0.981	1.00	14	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Methyl methacrylate	1	0	Avg	0.5071	0.4615	0.5363	0.4954	0.5462	0.5435	0.4864	0.6384	0.527	5.35	0.997	1.00	10	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromochloromethan	1	0	Avg	0.3755	0.3320	0.3444	0.3742	0.3912	0.3816	0.3311	0.3249	0.357	6.44	0.995	1.00	7.4	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Chloroethylvinylthe	1	0	Avg	0.2399	0.1928	0.2342	0.2398	0.2484	0.2538	0.2298	0.2186	0.232	5.64	0.998	1.00	8.3		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
cis-1,3-Dichloropropen	1	0	Avg	0.6062	0.5512	0.5705	0.5609	0.6023	0.5918	0.5076	0.5869	0.572	5.74	0.994	1.00	5.7	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,3-Dichloroprop	1	0	Avg	0.5467	0.6006	0.5334	0.5247	0.5643	0.5554	0.4709	0.4712	0.533	6.07	0.993	1.00	8.4	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethyl methacrylate	1	0	Avg	0.5039	0.4951	0.4942	0.5145	0.5117	0.5071	0.4381	0.4704	0.492	6.09	0.994	1.00	5.2	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2-Trichloroethane	1	0	Avg	0.3197	0.3242	0.3372	0.3108	0.3111	0.3026	0.2652	0.4143	0.323	6.19	0.996	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dibromopropane	1	0	Avg	0.3362	0.3015	0.3112	0.3184	0.3328	0.3287	0.2852	0.2782	0.312	6.53	0.995	1.00	7.0	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichloropropane	1	0	Avg	0.5672	0.5776	0.5692	0.5384	0.5209	0.4812	0.3859	0.6342	0.534	6.29	0.986	1.00	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
4-Methyl-2-Pentanone	1	0	Avg	0.4417	0.4221	0.4530	0.4476	0.4664	0.4778	0.4437	0.4237	0.447	5.82	0.999	1.00	4.3	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Hexanone	1	0	Avg	0.3193	0.2945	0.3137	0.3186	0.3212	0.3227	0.2882	0.3302	0.314	6.31	0.997	1.00	4.6	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Tetrachloroethene	1	0	Qua	0.2539	0.2896	0.2652	0.2256	0.2170	0.1827	0.1351	0.2558	0.228	6.30	0.970	1.00	22	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Toluene-d8	1	0	Avg	1.2609	1.2387	1.3042	1.2837	1.3223	1.3874	1.4031	1.2554	1.305	5.92	-1	-1	4.4		30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Toluene	1	0	Avg	0.6828	0.7706	0.7403	0.6772	0.6904	0.6415	0.5319	0.7970	0.692	5.95	0.990	1.00	12	0.40	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,1,2-Tetrachloroeth	1	0	Avg	0.3070	0.2877	0.3038	0.2966	0.2902	0.2491	0.1977	0.2416	0.272	6.85	0.982	1.00	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Chlorobenzene	1	0	Avg	0.7976	0.8339	0.8457	0.7846	0.7815	0.7148	0.5879	0.9010	0.781	6.81	0.989	1.00	12	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Butyl acrylate	1	0	Avg	1.6052	1.3828	1.5425	1.6706	1.7794	1.8110	1.5570	1.5117	1.61	7.08	0.994	0.999	8.8	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Amyl acetate	1	0	Avg	1.5159	1.4883	1.4992	1.5563	1.5915	1.6486	1.4381	1.7194	1.56	7.21	0.995	0.999	5.9	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromoforn	1	0	Avg	0.6271	0.5919	0.5878	0.6542	0.6845	0.7037	0.6046	0.5022	0.620	7.32	0.994	0.999	10	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethylbenzene	1	0	Qua	0.4180	0.5272	0.4661	0.4576	0.4263	0.3883	0.2876	0.7641	0.467	6.86	0.973	1.00	30	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2,2-Tetrachloroeth	1	0	Avg	0.8183	0.8485	0.7869	0.7779	0.7957	0.8385	0.7389	0.9074	0.814	7.56	0.996	0.999	6.3	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromofluorobenzene	1	0	Avg	1.0959	1.1597	1.1029	1.1113	1.1162	1.1789	1.2399	1.1227	1.14	7.50	-1	-1	4.0		30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Styrene	1	0	Avg	1.5345	1.5950	1.6236	1.5425	1.4887	1.3460	1.0307	1.5201	1.46	7.17	0.978	1.00	13	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
m&g-Xylenes	1	0	Avg	0.7379	0.8464	0.7884	0.7681	0.7430	0.6943	0.5179	0.7611	0.734	6.92	0.975	1.00	12	0.10	40.00	10.00	20.00	100.0	200.0	500.0	1000.0	2000.0
o-Xylene	1	0	Avg	0.8126	0.8517	0.8296	0.7886	0.7604	0.6981	0.5399	0.8705	0.769	7.17	0.981	1.00	14	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,4-Dichloro-2-b	1	0	Avg	0.3441	0.3071	0.3336	0.3315	0.3433	0.3754	0.3174	0.4246	0.347	7.58	0.993	0.999	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichlorobenzene	1	0	Avg	1.0101	1.0712	1.0769	0.9851	1.0164	0.9717	0.8002	1.1173	1.01	8.20	0.990	1.00	9.6	0.60	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,4-Dichlorobenzene	1	0	Avg	1.0277	1.1248	1.1420	1.0236	1.0100	0.9794	0.8246	1.2033	1.04	8.26	0.992	1.00	11	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dichlorobenzene	1	0	Avg	1.0735	1.2126	1.1057	1.0399	1.0207	0.9837	0.8465	1.2189	1.06	8.51	0.994	1.00	11	0.40	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Isopropylbenzene	1	0	Avg	1.5183	1.7023	1.6267	1.5670	1.5930	1.6460	1.3891	1.5483	1.57	7.38	0.993	0.999	6.0	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Cyclohexanone	1	0	Avg	0.1098	0.0897	0.1013	0.0896	0.1135	0.1014	0.1024	0.1443	0.107	7.48	0.999	0.999	16		100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5000.0
Camphene	1	0	Avg	0.4735	0.4945	0.4767	0.4240	0.4336	0.4774	0.3841	0.6747	0.480	7.58	0.988	0.998	18		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2,2,3-Trichloropropane	1	0	Avg	1.0119	1.0942	1.1257	1.0239	1.0429	1.0250	0.8356	0.9908	1.02	7.60	0.989	0.999	8.5		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
-Chlorotoluene	1	0	Avg	0.9887	1.1707	1.0530	0.9426	0.9333	0.8217	0.6481	1.1072	0.958	7.72	0.983	1.00	17		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00

Flags

a - failed the min of criteria

c - failed the minimum correlation coeff criteria(if applicable)

Avg Rsd: 10.4

Note: Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

8082413 0077

Level #	Compound	Data File	Cal Identifier	Analysis Date/Time	Level #	Compound	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations
1	p-Ethyltoluene	3M132624.D	CAL @ 20 PPB	07/13/18 21:31	2	p-Ethyltoluene	3M132622.D	CAL @ 5 PPB	07/13/18 20:58	Lvl1 Lvl2 Lvl3 Lvl4 Lvl5 Lvl6 Lvl7 Lvl8 Lvl9
3	4-Chlorotoluene	3M132623.D	CAL @ 10 PPB	07/13/18 21:14	4	4-Chlorotoluene	3M132634.D	CAL @ 50 PPB	07/14/18 00:22	
5	n-Propylbenzene	3M132631.D	CAL @ 100 PPB	07/13/18 23:28	6	n-Propylbenzene	3M132628.D	CAL @ 250 PPB	07/13/18 22:37	
7	Bromobenzene	3M132625.D	CAL @ 500 PPB	07/13/18 21:48	8	Bromobenzene	3M132621.D	CAL @ 1 PPB	07/13/18 20:41	
9	1,3,5-Trimethylbenzen	3M132620.D	CAL @ 0.5 PPB	07/13/18 20:24		1,3,5-Trimethylbenzen				
	Butyl methacrylate					Butyl methacrylate				
	t-Butylbenzene					t-Butylbenzene				
	1,2,4-Trimethylbenzen					1,2,4-Trimethylbenzen				
	sec-Butylbenzene					sec-Butylbenzene				
	4-Isopropyltoluene					4-Isopropyltoluene				
	n-Butylbenzene					n-Butylbenzene				
	p-Diethylbenzene					p-Diethylbenzene				
	1,2,4,5-Tetramethylbe					1,2,4,5-Tetramethylbe				
	1,2-Dibromo-3-Chloro					1,2-Dibromo-3-Chloro				
	Camphor					Camphor				
	Hexachlorobutadiene					Hexachlorobutadiene				
	1,2,4-Trichlorobenzen					1,2,4-Trichlorobenzen				
	1,2,3-Trichlorobenzen					1,2,3-Trichlorobenzen				
	Napthalene					Napthalene				

Flags
a - failed the min rf criteria
c - failed the minimum correlation coeff criteria (if applicable)

Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 10.4

8082413 0078

SampleID : CAL @ 20 PPB
 Data File: 3M132624.D
 Acq On : 07/13/18 21:31

Operator : WP
 Sam Mult : 1 Vial# : 31
 Misc : A,5ML

Qt Meth : 3M A0713.M
 Qt On : 07/16/18 14:44
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.940	96	334343	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.778	117	251682	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.226	152	127867	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.520	111	86646	32.20	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	107.33%	
39) 1,2-Dichloroethane-d4	4.736	67	60902	29.94	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	99.80%	
66) Toluene-d8	5.907	98	317359	28.24	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	94.13%	
76) Bromofluorobenzene	7.487	174	140140	32.11	ug/l	-0.02
Spiked Amount	30.000		Recovery	=	107.03%	
Target Compounds						
5) Chlorodifluoromethane	1.642	51	78254	17.2294	ug/l	52
6) Dichlorodifluoromethane	1.608	85	18572	17.6931	ug/l	92
7) Chloromethane	1.792	50	36023	19.2388	ug/l	83
8) Bromomethane	2.129	94	14767m	16.8501	ug/l	
9) Vinyl Chloride	1.842	62	28279	17.7614	ug/l	98
10) Chloroethane	2.207	64	17991	22.5509	ug/l	99
11) Trichlorofluoromethane	2.417	101	56075	23.2934	ug/l	88
12) Ethyl ether	2.645	59	54476	20.8698	ug/l	91
13) Furan	2.675	39	125309	19.6563	ug/l	98
14) 1,1,2-Trichloro-1,2,2-...	2.826	101	29878	23.9893	ug/l	92
15) Methylene Chloride	3.228	84	56062	21.1605	ug/l	85
16) Acrolein	2.753	56	48805	92.5368	ug/l	99
17) Acrylonitrile	3.420	53	22331	20.7485	ug/l	94
18) Iodomethane	2.970	142	54812	19.4373	ug/l	95
19) Acetone	2.874	43	107674	123.1897	ug/l	99
20) Carbon Disulfide	3.036	76	106427	14.2745	ug/l	100
21) t-Butyl Alcohol	3.294	59	31114	102.4984	ug/l	69
22) n-Hexane	3.667	57	23394	18.1740	ug/l	77
23) Di-isopropyl-ether	3.829	45	209955	21.4028	ug/l	89
24) 1,1-Dichloroethene	2.844	61	70545	19.7375	ug/l	93
25) Methyl Acetate	3.138	43	80263	21.2917	ug/l	100
26) Methyl-t-butyl ether	3.444	73	137844	20.1230	ug/l	65
27) 1,1-Dichloroethane	3.799	63	93347	19.6350	ug/l	94
28) trans-1,2-Dichloroethene	3.450	96	46023	18.8862	ug/l	91
29) Ethyl-t-butyl ether	4.087	59	179785	18.4103	ug/l	98
30) cis-1,2-Dichloroethene	4.213	61	108853	20.7027	ug/l	94
31) Bromochloromethane	4.375	49	69205m	20.2552	ug/l	
32) 2,2-Dichloropropane	4.213	77	73595	20.1201	ug/l	97
33) Ethyl acetate	4.237	43	80076m	20.1731	ug/l	
34) 1,4-Dioxane	5.391	88	29400	1324.2638	ug/l	74
35) 1,1-Dichloropropene	4.646	75	67049	18.5837	ug/l	99
36) Chloroform	4.411	83	101895	20.9284	ug/l	86
38) Cyclohexane	4.592	56	51847	19.2666	ug/l	87
40) 1,2-Dichloroethane	4.784	62	96416	21.7939	ug/l	97
41) 2-Butanone	4.213	43	33173m	20.1123	ug/l	
42) 1,1,1-Trichloroethane	4.544	97	77328	18.6133	ug/l	99
43) Carbon Tetrachloride	4.652	117	61407	21.4767	ug/l	93
44) Vinyl Acetate	3.823	43	158113	18.3175	ug/l	100
45) Bromodichloromethane	5.469	83	78963	19.1935	ug/l	99
46) Methylcyclohexane	5.300	83	31316	16.4288	ug/l	97
47) Dibromomethane	5.391	174	55664	26.4076	ug/l	95
48) 1,2-Dichloropropane	5.312	63	61165	19.5019	ug/l	99
49) Trichloroethene	5.168	130	55492	20.4323	ug/l	86
50) Benzene	4.778	78	205910	21.7070	ug/l	100
51) tert-Amyl methyl ether	4.826	73	172890	20.2983	ug/l	74
53) Iso-propylacetate	4.778	43	158303	21.2410	ug/l	97
54) Methyl methacrylate	5.342	41	85100	18.3145	ug/l	91
55) Dibromochloromethane	6.430	129	63019	21.5819	ug/l	94
56) 2-Chloroethylvinylether	5.625	63	40257	18.1199	ug/l	78
57) cis-1,3-Dichloropropene	5.733	75	101721	19.6056	ug/l	93
58) trans-1,3-Dichloropropene	6.051	75	91733	19.1503	ug/l	98
59) Ethyl methacrylate	6.075	41	84556	17.3991	ug/l	80
60) 1,1,2-Trichloroethane	6.171	97	53644	18.8801	ug/l	97
61) 1,2-Dibromoethane	6.514	107	56422	18.4445	ug/l	89
62) 1,3-Dichloropropane	6.280	76	95170	20.1487	ug/l	94
63) 4-Methyl-2-Pentanone	5.805	43	74119	17.9074	ug/l	92
64) 2-Hexanone	6.298	43	53584	18.5034	ug/l	90
65) Tetrachloroethene	6.280	164	42604	25.0430	ug/l	97
67) Toluene	5.943	92	114569	17.7536	ug/l	99

SampleID : CAL @ 20 PPB
 Data File: 3M132624.D
 Acq On : 07/13/18 21:31

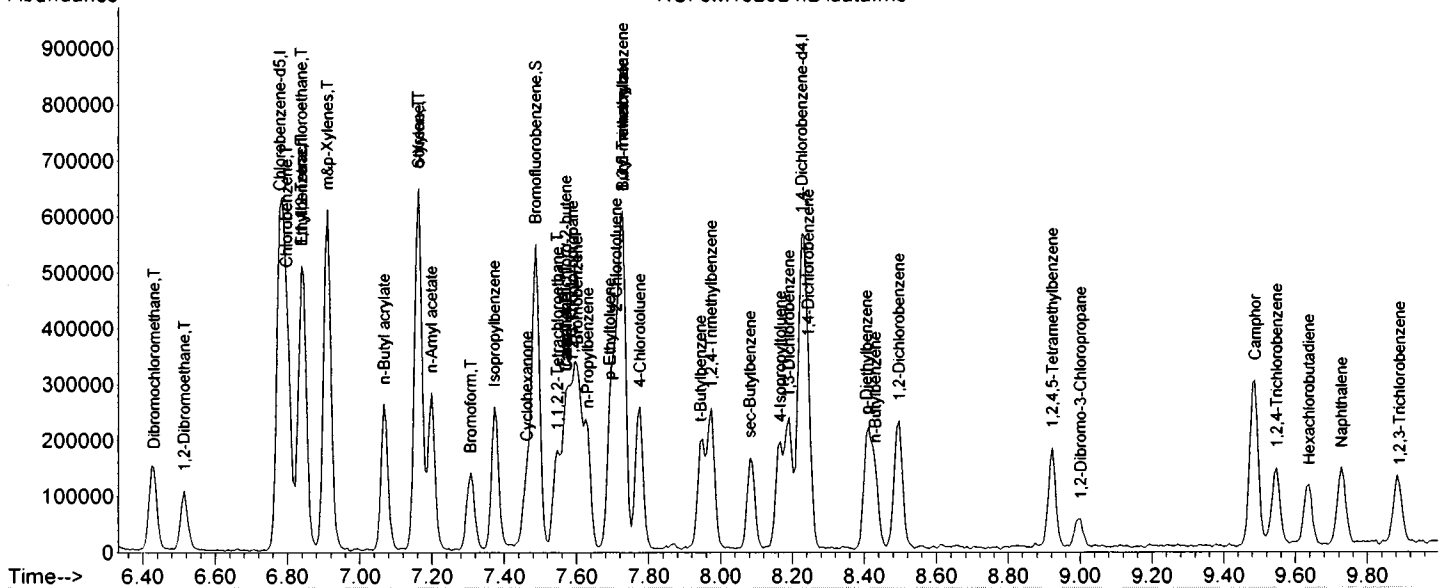
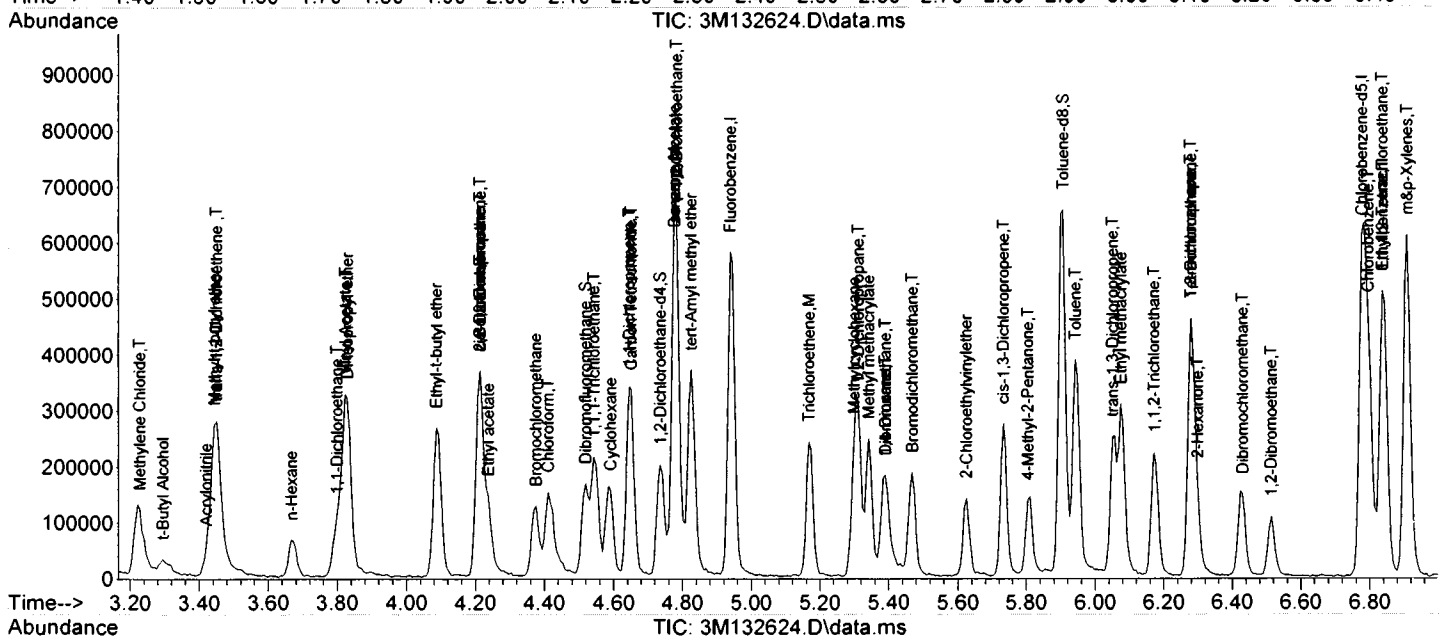
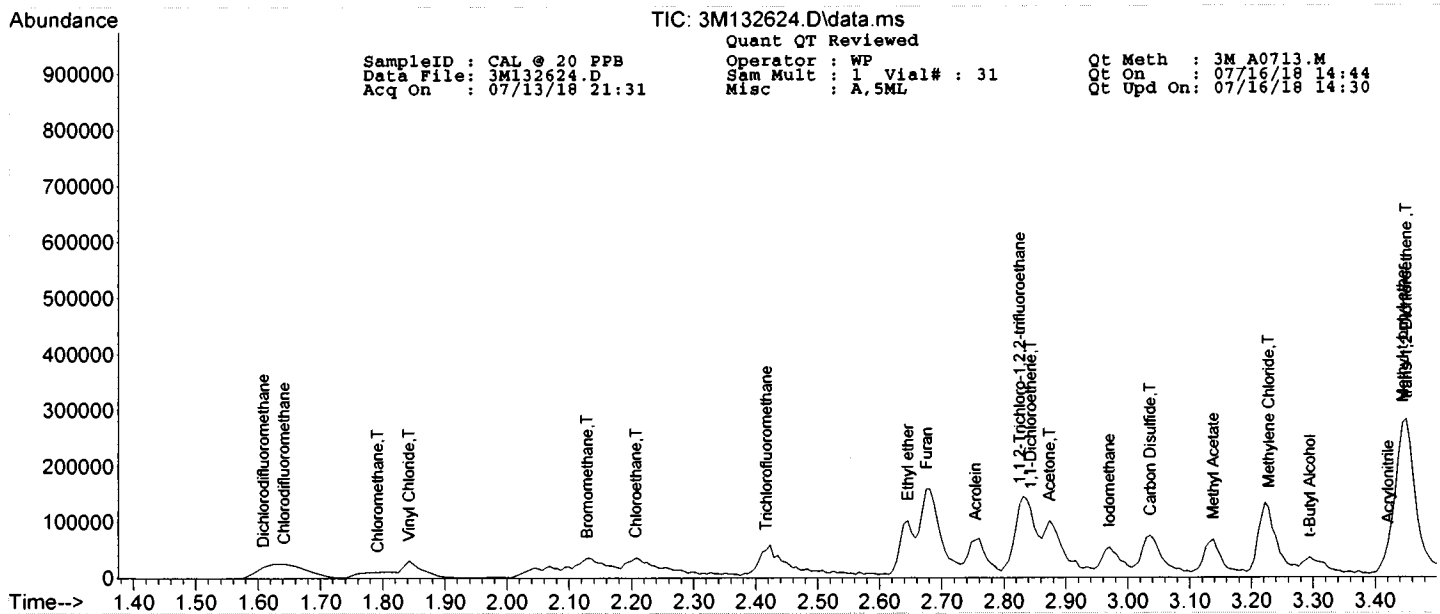
Operator : WP
 Sam Mult : 1 Vial# : 31
 Misc : A,5ML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:44
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.838	133	51517	21.2798	ug/l	76
69)	Chlorobenzene	6.796	112	133827	20.2897	ug/l	97
71)	n-Butyl acrylate	7.066	55	136841	15.0959	ug/l	94
72)	n-Amyl acetate	7.199	43	129226	15.8444	ug/l	87
73)	Bromoform	7.307	173	53465	21.4888	ug/l	91
74)	Ethylbenzene	6.838	106	35632	15.9007	ug/l	77
75)	1,1,2,2-Tetrachloroethane	7.547	83	69756	15.2456	ug/l	97
77)	Styrene	7.163	104	130812	16.3830	ug/l	97
78)	m&p-Xylenes	6.910	106	125814	31.0463	ug/l	90
79)	o-Xylene	7.163	106	69272	16.8027	ug/l	72
80)	trans-1,4-Dichloro-2-b...	7.571	53	29333	18.4904	ug/l	66
81)	1,3-Dichlorobenzene	8.190	146	86107	18.9321	ug/l	87
82)	1,4-Dichlorobenzene	8.244	146	87611	18.5355	ug/l	93
83)	1,2-Dichlorobenzene	8.496	146	91513	18.8363	ug/l	89
84)	Isopropylbenzene	7.373	105	129434	14.9409	ug/l	95
85)	Cyclohexanone	7.463	55	46822	212.2626	ug/l	91
86)	Camphene	7.571	93	40363	15.1918	ug/l	99
87)	1,2,3-Trichloropropane	7.589	75	86265	16.8075	ug/l	93
88)	2-Chlorotoluene	7.709	91	84288	17.1954	ug/l	94
89)	p-Ethyltoluene	7.691	105	136420	15.2570	ug/l	83
90)	4-Chlorotoluene	7.775	91	88464	16.2081	ug/l	94
91)	n-Propylbenzene	7.631	91	132414	13.9945	ug/l	95
92)	Bromobenzene	7.601	77	137291	15.9170	ug/l	95
93)	1,3,5-Trimethylbenzene	7.727	105	101715m	17.9291	ug/l	
94)	Butyl methacrylate	7.727	41	108647	17.5870	ug/l	77
95)	t-Butylbenzene	7.944	119	89956	14.7509	ug/l	85
96)	1,2,4-Trimethylbenzene	7.974	105	117036	15.3711	ug/l	90
97)	sec-Butylbenzene	8.082	105	94887	13.3151	ug/l	95
98)	4-Isopropyltoluene	8.166	119	85565	14.3506	ug/l	91
99)	n-Butylbenzene	8.430	91	93442	13.6160	ug/l	90
100)	p-Diethylbenzene	8.406	119	54016	13.9959	ug/l	95
101)	1,2,4,5-Tetramethylben...	8.923	119	80436	15.8918	ug/l	89
102)	1,2-Dibromo-3-Chloropr...	9.001	157	14481	15.8441	ug/l	62
103)	Camphor	9.487	95	64838	168.1269	ug/l	96
104)	Hexachlorobutadiene	9.637	225	26810	17.1107	ug/l	96
105)	1,2,4-Trichlorobenzene	9.547	180	46298	19.4122	ug/l	95
106)	1,2,3-Trichlorobenzene	9.890	180	42816	18.9693	ug/l	93
107)	Naphthalene	9.728	128	101444	21.9667	ug/l	100

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



SampleID : CAL @ 5 PPB
Data File: 3M132622.D
Acq On : 07/13/18 20:58

Operator : WP
Sam Mult : 1 Vial# : 29
Misc : A, 5ML

Qt Meth : 3M A0
Qt On : 07/16/18 14:47
Qt Upd On: 07/16/18 14:30

8082413 0081

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.946	96	326196	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.785	117	261678	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.226	152	126198	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.520	111	85428	32.54	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	108.47%	
39) 1,2-Dichloroethane-d4	4.736	67	65437	32.97	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	109.90%	
66) Toluene-d8	5.908	98	324147	27.74	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	92.47%	
76) Bromofluorobenzene	7.487	174	146354	33.97	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	113.23%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.642	51	25610	5.7795	ug/l	41
6) Dichlorodifluoromethane	1.608	85	3940	3.8473	ug/l	92
7) Chloromethane	1.792	50	9191	5.0312	ug/l	76
8) Bromomethane	2.129	94	3930m	4.5964	ug/l	
9) Vinyl Chloride	1.842	62	7849	5.0529	ug/l	94
10) Chloroethane	2.201	64	4263	5.4769	ug/l	92
11) Trichlorofluoromethane	2.424	101	16465m	7.0103	ug/l	
12) Ethyl ether	2.652	59	13504	5.3026	ug/l	93
13) Furan	2.682	39	35790	5.7543	ug/l	88
14) 1,1,2-Trichloro-1,2,2-...	2.832	101	8109	6.6734	ug/l	87
15) Methylene Chloride	3.228	84	16118	6.2357	ug/l	93
16) Acrolein	2.754	56	13063	25.3867	ug/l	92
17) Acrylonitrile	3.421	53	5472	5.2112	ug/l	65
18) Iodomethane	2.970	142	12440	4.5216	ug/l	89
19) Acetone	2.880	43	29024	34.0357	ug/l	100
20) Carbon Disulfide	3.036	76	27038	3.7170	ug/l	100
21) t-Butyl Alcohol	3.301	59	7347	24.8076	ug/l	99
22) n-Hexane	3.673	57	6849	5.4536	ug/l	85
23) Di-isopropyl-ether	3.829	45	50426	5.2688	ug/l	98
24) 1,1-Dichloroethene	2.838	61	18872	5.4120	ug/l	89
25) Methyl Acetate	3.138	43	21785	5.9233	ug/l	100
26) Methyl-t-butyl ether	3.445	73	38657	5.7842	ug/l	67
27) 1,1-Dichloroethane	3.799	63	25188m	5.4305	ug/l	
28) trans-1,2-Dichloroethene	3.457	96	13240m	5.5689	ug/l	
29) Ethyl-t-butyl ether	4.093	59	45307	4.7554	ug/l	97
30) cis-1,2-Dichloroethene	4.214	61	26917	5.2472	ug/l	79
31) Bromochloromethane	4.376	49	18050	5.4149	ug/l	82
32) 2,2-Dichloropropane	4.220	77	19383	5.4315	ug/l	93
33) Ethyl acetate	4.238	43	16731m	4.3202	ug/l	
34) 1,4-Dioxane	5.385	88	7573m	349.6300	ug/l	
35) 1,1-Dichloropropene	4.652	75	19378	5.5051	ug/l	96
36) Chloroform	4.418	83	26230m	5.5220	ug/l	
38) Cyclohexane	4.586	56	12707	4.8399	ug/l	99
40) 1,2-Dichloroethane	4.784	62	26196	6.0692	ug/l	95
41) 2-Butanone	4.214	43	9657m	6.0011	ug/l	
42) 1,1,1-Trichloroethane	4.550	97	22289	5.4991	ug/l	97
43) Carbon Tetrachloride	4.652	117	14792	5.3026	ug/l	80
44) Vinyl Acetate	3.829	43	40665	4.8287	ug/l	100
45) Bromodichloromethane	5.475	83	20997	5.2312	ug/l	95
46) Methylcyclohexane	5.295	83	9166	4.9287	ug/l	95
47) Dibromomethane	5.391	174	14106	6.8592	ug/l	90
48) 1,2-Dichloropropane	5.313	63	15473	5.0566	ug/l	96
49) Trichloroethene	5.175	130	14551	5.4915	ug/l	87
50) Benzene	4.778	78	55473	5.9940	ug/l	100
51) tert-Amyl methyl ether	4.826	73	42948	5.1683	ug/l	75
53) Iso-propylacetate	4.778	43	36734	4.7407	ug/l	92
54) Methyl methacrylate	5.343	41	20128	4.1663	ug/l	87
55) Dibromochloromethane	6.430	129	14482	4.7701	ug/l	95
56) 2-Chloroethylvinylether	5.625	63	8411	3.6412	ug/l	91
57) cis-1,3-Dichloropropene	5.739	75	24041	4.4566	ug/l	78
58) trans-1,3-Dichloropropene	6.058	75	26198	5.2602	ug/l	91
59) Ethyl methacrylate	6.076	41	21596	4.2741	ug/l	92
60) 1,1,2-Trichloroethane	6.178	97	14141	4.7868	ug/l	82
61) 1,2-Dibromoethane	6.514	107	13152	4.1352	ug/l	79
62) 1,3-Dichloropropane	6.280	76	25195	5.1303	ug/l	90
63) 4-Methyl-2-Pentanone	5.805	43	18412	4.2785	ug/l	92
64) 2-Hexanone	6.298	43	12845	4.2662	ug/l	84
65) Tetrachloroethene	6.286	164	12634	7.1427	ug/l	79
67) Toluene	5.950	92	33610	5.0092	ug/l	97

SampleID : CAL @ 5 PPB
 Data File : 3M132622.D
 Acq On : 07/13/18 20:58

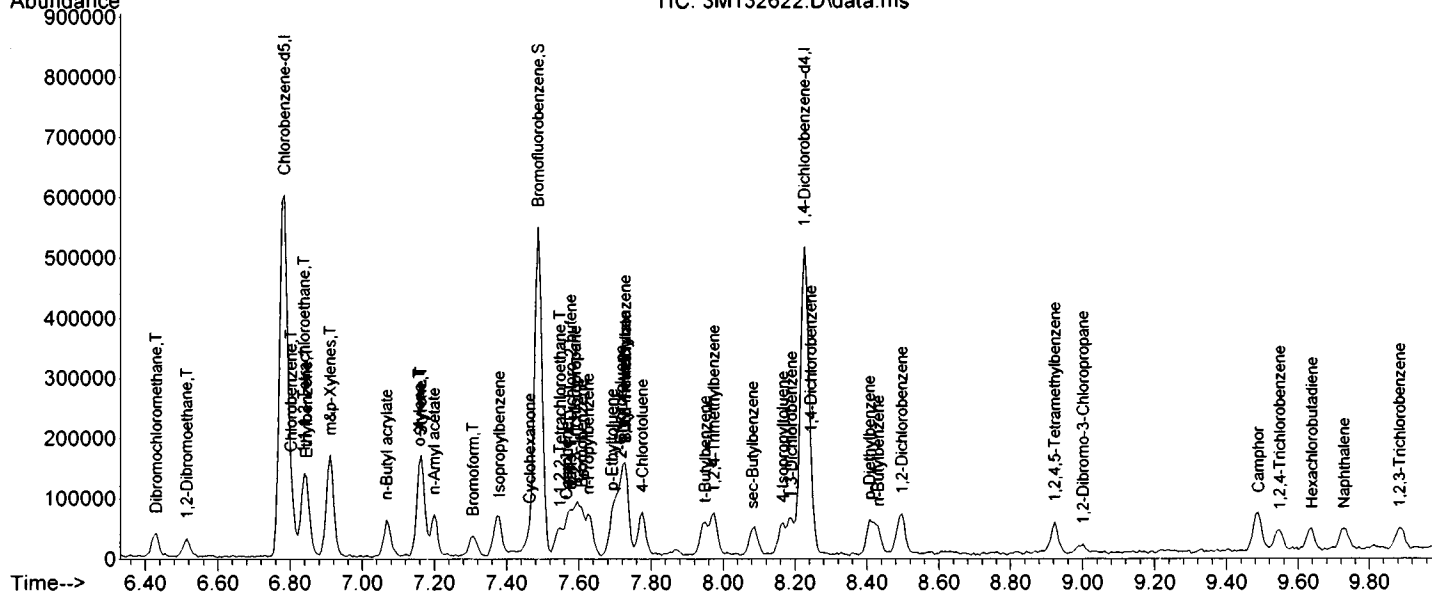
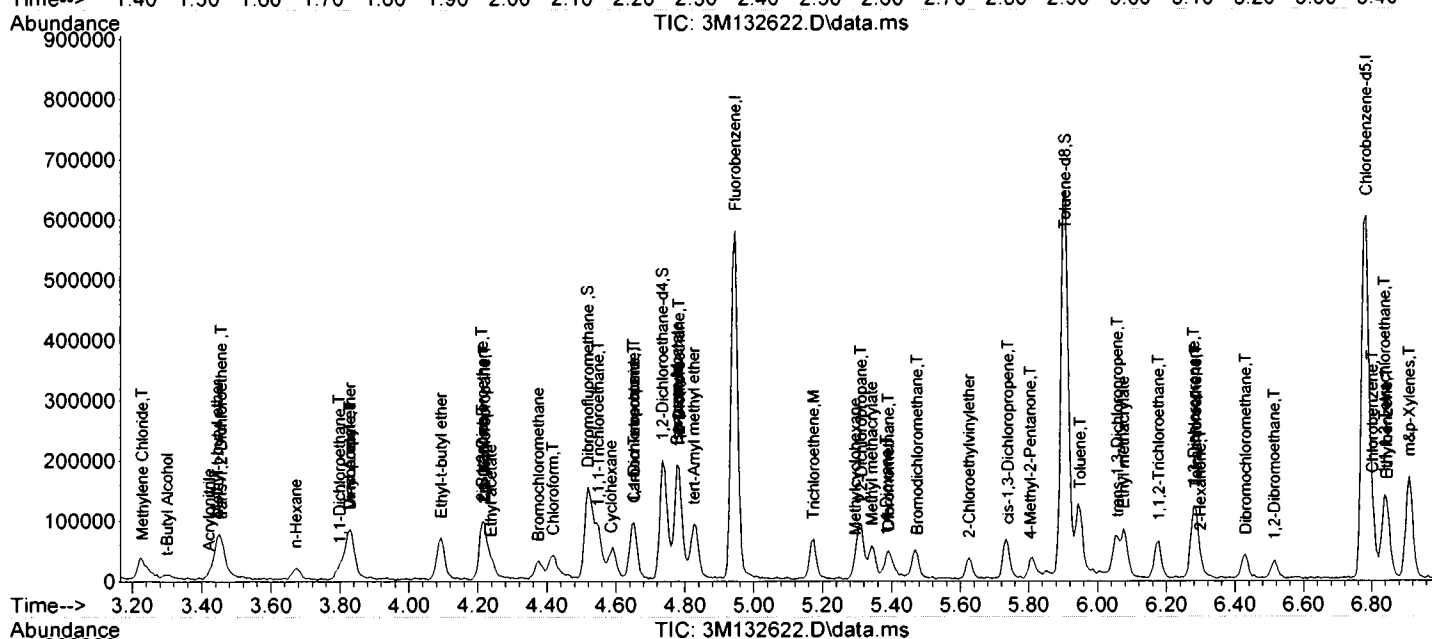
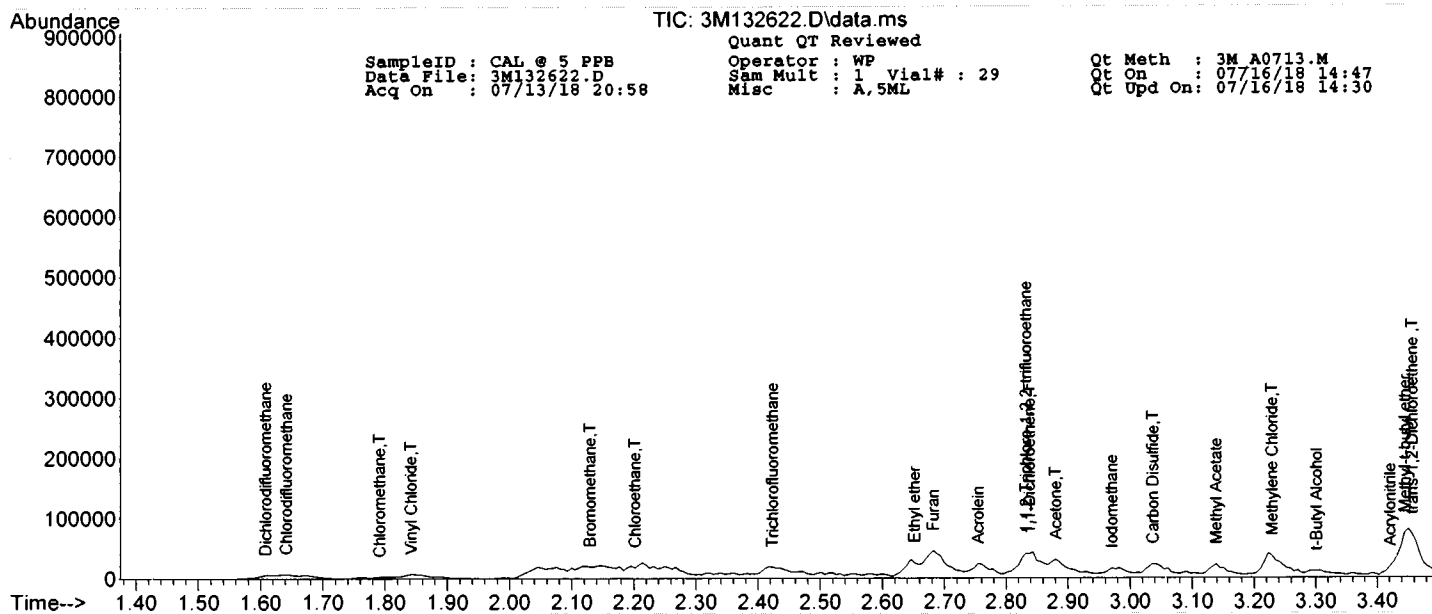
Operator : WP
 Sam Mult : 1 Vial# : 29
 Misc : A,5ML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:47
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.839	133	12548	4.9851	ug/l	98
69)	Chlorobenzene	6.803	112	36371	5.3036	ug/l	91
71)	n-Butyl acrylate	7.067	55	29086	3.2511	ug/l	90
72)	n-Amyl acetate	7.199	43	31305	3.8891	ug/l	83
73)	Bromoform	7.307	173	12451	5.0705	ug/l	80
74)	Ethylbenzene	6.845	106	11089	5.0139	ug/l	80
75)	1,1,2,2-Tetrachloroethane	7.547	83	17848	3.9524	ug/l	78
77)	Styrene	7.163	104	33549	4.2573	ug/l	98
78)	m&p-Xylenes	6.911	106	35605	8.9022	ug/l	94
79)	o-Xylene	7.157	106	17914	4.4027	ug/l	65
80)	trans-1,4-Dichloro-2-b...	7.577	53	6461	4.1266	ug/l	71
81)	1,3-Dichlorobenzene	8.190	146	22532	5.0196	ug/l	85
82)	1,4-Dichlorobenzene	8.244	146	23659	5.0716	ug/l	87
83)	1,2-Dichlorobenzene	8.497	146	25505	5.3192	ug/l	89
84)	Isopropylbenzene	7.379	105	35805	4.1877	ug/l	91
85)	Cyclohexanone	7.463	55	9442	43.3704	ug/l	96
86)	Camphene	7.565	93	10402	3.9669	ug/l	94
87)	1,2,3-Trichloropropane	7.590	75	23016	4.5436	ug/l	95
88)	2-Chlorotoluene	7.716	91	24624	5.0899	ug/l	92
89)	p-Ethyltoluene	7.692	105	36870	4.1780	ug/l	82
90)	4-Chlorotoluene	7.776	91	22904	4.2519	ug/l	90
91)	n-Propylbenzene	7.626	91	38172	4.0876	ug/l	94
92)	Bromobenzene	7.608	77	36344	4.2693	ug/l	96
93)	1,3,5-Trimethylbenzene	7.728	105	31146	5.5626	ug/l	96
94)	Butyl methacrylate	7.728	41	25642	4.2056	ug/l	81
95)	t-Butylbenzene	7.950	119	25512	4.2388	ug/l	86
96)	1,2,4-Trimethylbenzene	7.974	105	30087	4.0038	ug/l	87
97)	sec-Butylbenzene	8.082	105	26991	3.8376	ug/l	98
98)	4-Isopropyltoluene	8.166	119	21615	3.6731	ug/l	91
99)	n-Butylbenzene	8.430	91	24332	3.5925	ug/l	91
100)	p-Diethylbenzene	8.406	119	15646m	4.1076	ug/l	
101)	1,2,4,5-Tetramethylben...	8.923	119	21974	4.3988	ug/l	91
102)	1,2-Dibromo-3-Chloropr...	9.001	157	3827	4.2426	ug/l	61
103)	Camphor	9.488	95	13843	36.3700	ug/l	93
104)	Hexachlorobutadiene	9.638	225	8292	5.3621	ug/l	96
105)	1,2,4-Trichlorobenzene	9.548	180	12197	5.1817	ug/l	93
106)	1,2,3-Trichlorobenzene	9.884	180	11701	5.2526	ug/l	93
107)	Naphthalene	9.728	128	26185	5.7451	ug/l	100

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



8082413 0084

SampleID : CAL @ 10 PPB
Data File: 3M132623.D
Acq On : 07/13/18 21:14

Operator : WP
Sam Mult : 1 Vial# : 30
Misc : A,5ML

Qt Meth : 3M A01221
Qt On : 07/16/18 14:45
Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.945	96	314063	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.783	117	261884	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.225	152	127378	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.519	111	89627	35.45	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	118.17%	
39) 1,2-Dichloroethane-d4	4.735	67	61802	32.35	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	107.83%	
66) Toluene-d8	5.906	98	341556	29.20	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.33%	
76) Bromofluorobenzene	7.492	174	140494	32.31	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	107.70%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.642	51	41608	9.7525	ug/l	52
6) Dichlorodifluoromethane	1.609	85	9925	10.0659	ug/l	97
7) Chloromethane	1.809	50	19465	11.0670	ug/l	83
8) Bromomethane	2.134	94	7647	9.2892	ug/l	99
9) Vinyl Chloride	1.842	62	16256	10.8693	ug/l	93
10) Chloroethane	2.212	64	8626	11.5105	ug/l	74
11) Trichlorofluoromethane	2.422	101	27733	12.2641	ug/l	93
12) Ethyl ether	2.645	59	26984	11.0051	ug/l	96
13) Furan	2.681	39	69258	11.5655	ug/l	89
14) 1,1,2-Trichloro-1,2,2-...	2.831	101	13901	11.8819	ug/l	89
15) Methylene Chloride	3.227	84	28613	11.4973	ug/l	88
16) Acrolein	2.759	56	25522	51.5158	ug/l	79
17) Acrylonitrile	3.425	53	11828	11.6994	ug/l	86
18) Iodomethane	2.975	142	26019	9.8226	ug/l	98
19) Acetone	2.879	43	52202	63.5808	ug/l	94
20) Carbon Disulfide	3.035	76	52848	7.5460	ug/l	100
21) t-Butyl Alcohol	3.299	59	14480m	50.7814	ug/l	
22) n-Hexane	3.672	57	11057m	9.1445	ug/l	
23) Di-isopropyl-ether	3.828	45	111105	12.0574	ug/l	91
24) 1,1-Dichloroethene	2.843	61	35942	10.7054	ug/l	90
25) Methyl Acetate	3.137	43	40499	11.4371	ug/l	100
26) Methyl-t-butyl ether	3.449	73	73407	11.4082	ug/l	65
27) 1,1-Dichloroethane	3.804	63	47867	10.7187	ug/l	97
28) trans-1,2-Dichloroethene	3.455	96	26010	11.3628	ug/l	82
29) Ethyl-t-butyl ether	4.092	59	97292	10.6062	ug/l	97
30) cis-1,2-Dichloroethene	4.212	61	56954	11.5315	ug/l	88
31) Bromochloromethane	4.375	49	35666m	11.1129	ug/l	
32) 2,2-Dichloropropane	4.212	77	40446	11.7715	ug/l	97
33) Ethyl acetate	4.242	43	45274m	12.1421	ug/l	
34) 1,4-Dioxane	5.402	88	16706m	801.0786	ug/l	
35) 1,1-Dichloropropene	4.645	75	33758	9.9607	ug/l	93
36) Chloroform	4.417	83	52393	11.4560	ug/l	82
38) Cyclohexane	4.591	56	25590	10.1234	ug/l	90
40) 1,2-Dichloroethane	4.783	62	50947	12.2597	ug/l	99
41) 2-Butanone	4.212	43	13644m	8.8063	ug/l	
42) 1,1,1-Trichloroethane	4.549	97	40135	10.2845	ug/l	97
43) Carbon Tetrachloride	4.657	117	32449	12.0816	ug/l	85
44) Vinyl Acetate	3.828	43	79447	9.7983	ug/l	100
45) Bromodichloromethane	5.468	83	41510	10.7413	ug/l	90
46) Methylcyclohexane	5.300	83	16958	9.4708	ug/l	95
47) Dibromomethane	5.390	174	29814	15.0574	ug/l	89
48) 1,2-Dichloropropane	5.312	63	34835	11.8240	ug/l	90
49) Trichloroethene	5.167	130	29990	11.7554	ug/l	87
50) Benzene	4.777	78	101853	11.4307	ug/l	100
51) tert-Amyl methyl ether	4.825	73	83472	10.4329	ug/l	76
53) Iso-propylacetate	4.777	43	77272	9.9644	ug/l	97
54) Methyl methacrylate	5.342	41	46816	9.6828	ug/l	96
55) Dibromochloromethane	6.429	129	30066	9.8955	ug/l	92
56) 2-Chloroethylvinylether	5.624	63	20447	8.8448	ug/l	80
57) cis-1,3-Dichloropropene	5.732	75	49805	9.2254	ug/l	98
58) trans-1,3-Dichloropropene	6.057	75	46566	9.3425	ug/l	84
59) Ethyl methacrylate	6.081	41	43149	8.5329	ug/l	82
60) 1,1,2-Trichloroethane	6.171	97	29439	9.9575	ug/l	79
61) 1,2-Dibromoethane	6.513	107	27168	8.5353	ug/l	80
62) 1,3-Dichloropropane	6.279	76	49695	10.1112	ug/l	84
63) 4-Methyl-2-Pentanone	5.810	43	39550	9.1832	ug/l	93
64) 2-Hexanone	6.297	43	27387	9.0888	ug/l	80
65) Tetrachloroethene	6.279	164	23157	13.0816	ug/l	79
67) Toluene	5.942	92	64625	9.6242	ug/l	97

SampleID : CAL @ 10 PPB
 Data File: 3M132623.D
 Acq On : 07/13/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 30
 Misc : A,SML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:45
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GCMSData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.837	133	26527	10.5305	ug/l	95
69)	Chlorobenzene	6.801	112	73829	10.7573	ug/l	95
71)	n-Butyl acrylate	7.066	55	65496	7.2531	ug/l	100
72)	n-Amyl acetate	7.198	43	63658	7.8351	ug/l	85
73)	Bromoform	7.306	173	24958	10.0697	ug/l	94
74)	Ethylbenzene	6.843	106	19792	8.8660	ug/l	89
75)	1,1,2,2-Tetrachloroethane	7.546	83	33412	7.3304	ug/l	93
77)	Styrene	7.162	104	68937	8.6669	ug/l	99
78)	m&p-Xylenes	6.910	106	66950	16.5842	ug/l	92
79)	o-Xylene	7.162	106	35225	8.5770	ug/l	79
80)	trans-1,4-Dichloro-2-b...	7.570	53	14168	8.9653	ug/l	59
81)	1,3-Dichlorobenzene	8.189	146	45727	10.0925	ug/l	85
82)	1,4-Dichlorobenzene	8.243	146	48489	10.2980	ug/l	92
83)	1,2-Dichlorobenzene	8.495	146	46950	9.7009	ug/l	88
84)	Isopropylbenzene	7.378	105	69069	8.0034	ug/l	92
85)	Cyclohexanone	7.462	55	21516	97.9150	ug/l	95
86)	Camphene	7.570	93	20241	7.6475	ug/l	94
87)	1,2,3-Trichloropropane	7.588	75	47800	9.3489	ug/l	91
88)	2-Chlorotoluene	7.708	91	44712	9.1566	ug/l	94
89)	p-Ethyltoluene	7.696	105	72910	8.1854	ug/l	79
90)	4-Chlorotoluene	7.774	91	46760	8.6001	ug/l	92
91)	n-Propylbenzene	7.630	91	73191	7.7650	ug/l	96
92)	Bromobenzene	7.606	77	75672	8.8068	ug/l	92
93)	1,3,5-Trimethylbenzene	7.726	105	48701	8.6174	ug/l	81
94)	Butyl methacrylate	7.726	41	54372	8.8351	ug/l	83
95)	t-Butylbenzene	7.943	119	46773	7.6993	ug/l	88
96)	1,2,4-Trimethylbenzene	7.973	105	62751	8.2732	ug/l	86
97)	sec-Butylbenzene	8.087	105	51783	7.2944	ug/l	99
98)	4-Isopropyltoluene	8.165	119	45799	7.7107	ug/l	92
99)	n-Butylbenzene	8.429	91	47886	7.0046	ug/l	85
100)	p-Diethylbenzene	8.411	119	28468m	7.4046	ug/l	
101)	1,2,4,5-Tetramethylben...	8.922	119	42276	8.3846	ug/l	85
102)	1,2-Dibromo-3-Chloropr...	8.994	157	7257	7.9706	ug/l	62
103)	Camphor	9.486	95	32028	83.3684	ug/l	99
104)	Hexachlorobutadiene	9.631	225	14526	9.3064	ug/l	95
105)	1,2,4-Trichlorobenzene	9.547	180	24256	10.2093	ug/l	95
106)	1,2,3-Trichlorobenzene	9.889	180	22018	9.7923	ug/l	95
107)	Naphthalene	9.727	128	49210	10.6968	ug/l	100

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

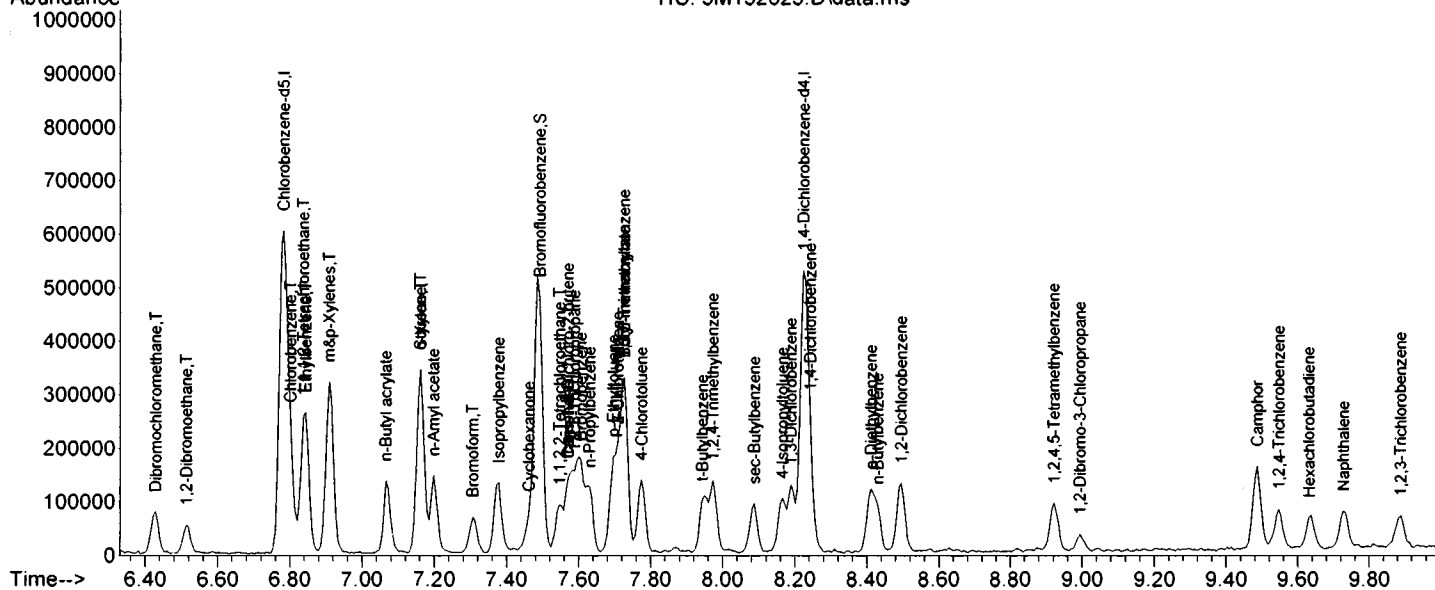
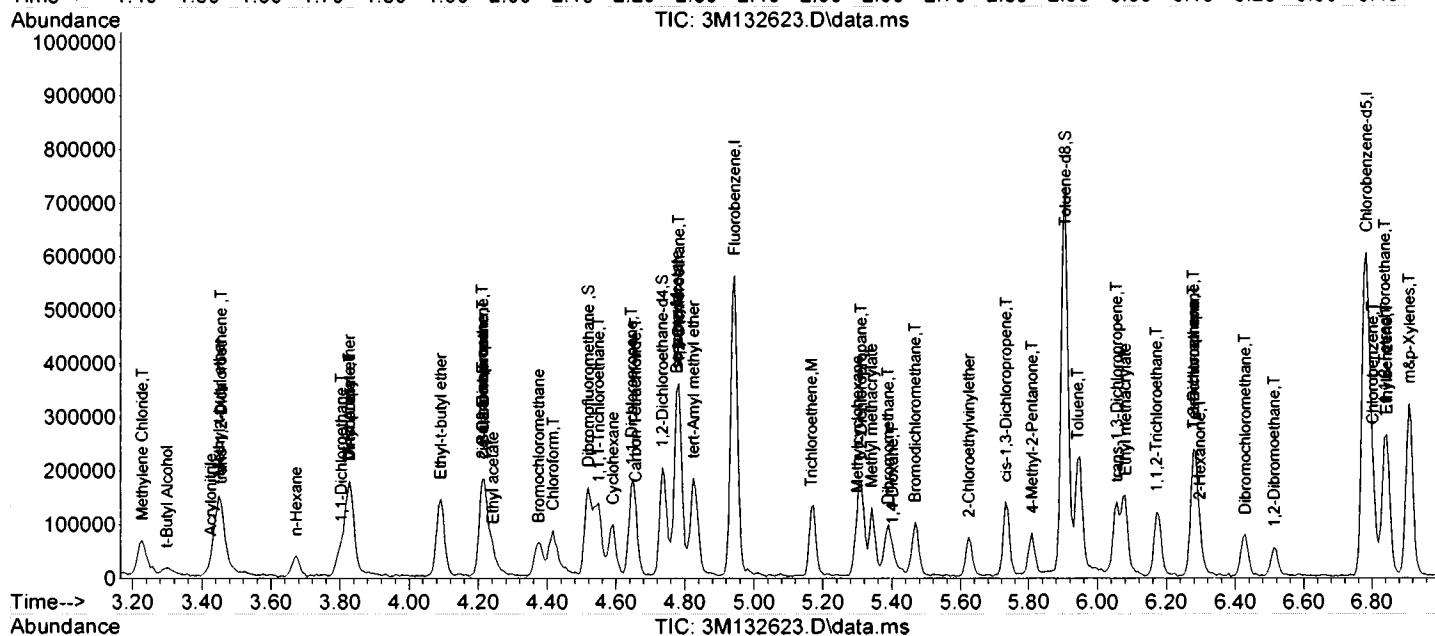
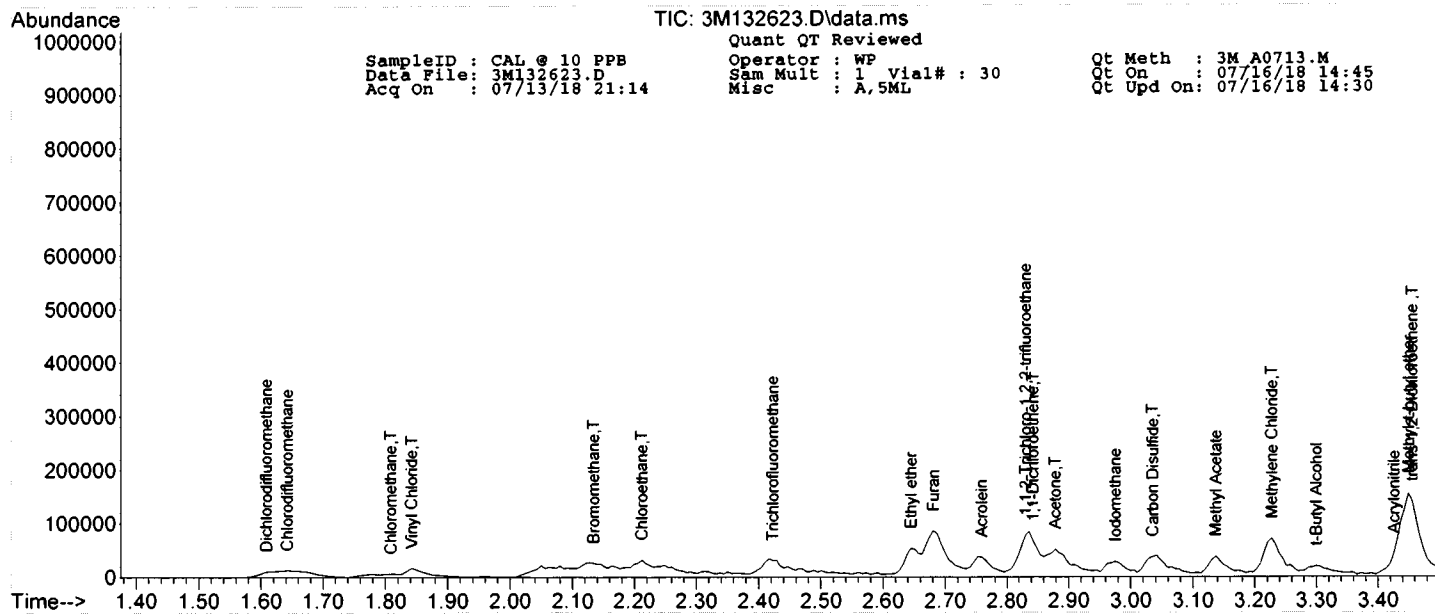
TIC: 3M132623.D\data.ms

Quant QT Reviewed

SampleID : CAL @ 10 PPB
 Data File: 3M132623.D
 Acq On : 07/13/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 30
 Misc : A, 5ML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:45
 Qt Upd On: 07/16/18 14:30



SampleID : CAL @ 50 PPB
Data File: 3M132634.D
Acq On : 07/14/18 00:22

Operator : WP
Sam Mult : 1 Vial# : 41
Misc : A,SML

Qt Meth : 3M_A0
Qt On : 07/16/18 14:35
Qt Upd On: 07/16/18 14:30

8082413 0087

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.945	96	327811	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.783	117	257776	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.231	152	126573	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.525	111	87960	33.33	ug/l	0.00
Spiked Amount 30.000			Recovery	=	111.10%	
39) 1,2-Dichloroethane-d4	4.741	67	61785	30.98	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.27%	
66) Toluene-d8	5.906	98	330915	28.75	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.83%	
76) Bromofluorobenzene	7.492	174	140668	32.56	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	108.53%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.647	51	201463	45.2405	ug/l	52
6) Dichlorodifluoromethane	1.597	85	47865	46.5086	ug/l	85
7) Chloromethane	1.797	50	80604	43.9061	ug/l	88
8) Bromomethane	2.128	94	38524	44.8343	ug/l	96
9) Vinyl Chloride	1.847	62	72766	46.6134	ug/l	91
10) Chloroethane	2.206	64	38250	48.9000	ug/l	81
11) Trichlorofluoromethane	2.416	101	143579	60.8308	ug/l	86
12) Ethyl ether	2.645	59	133048	51.9865	ug/l	86
13) Furan	2.681	39	338408	54.1412	ug/l	89
14) 1,1,2-Trichloro-1,2,2-...	2.831	101	65041	53.2625	ug/l	96
15) Methylene Chloride	3.227	84	134491	51.7750	ug/l	91
16) Acrolein	2.759	56	118829	229.7953	ug/l	87
17) Acrylonitrile	3.426	53	57969	54.9341	ug/l	88
18) Iodomethane	2.975	142	136141	49.2400	ug/l	99
19) Acetone	2.879	43	247557	288.8733	ug/l	93
20) Carbon Disulfide	3.035	76	272431	37.2679	ug/l	100
21) t-Butyl Alcohol	3.299	59	72532m	243.7022	ug/l	
22) n-Hexane	3.672	57	53048m	42.0324	ug/l	
23) Di-isopropyl-ether	3.828	45	523095	54.3867	ug/l	92
24) 1,1-Dichloroethene	2.843	61	182895	52.1911	ug/l	97
25) Methyl Acetate	3.137	43	197426	53.4155	ug/l	100
26) Methyl-t-butyl ether	3.444	73	358601	53.3930	ug/l	66
27) 1,1-Dichloroethane	3.798	63	239881	51.4630	ug/l	98
28) trans-1,2-Dichloroethene	3.456	96	115005	48.1343	ug/l	94
29) Ethyl-t-butyl ether	4.092	59	448754	46.8690	ug/l	100
30) cis-1,2-Dichloroethene	4.212	61	263268	51.0686	ug/l	95
31) Bromochloromethane	4.375	49	167621	50.0376	ug/l	76
32) 2,2-Dichloropropane	4.218	77	165706	46.2050	ug/l	96
33) Ethyl acetate	4.236	43	204686m	52.5929	ug/l	
34) 1,4-Dioxane	5.390	88	71127	3267.6113	ug/l	76
35) 1,1-Dichloropropene	4.651	75	164743	46.5710	ug/l	95
36) Chloroform	4.417	83	257859	54.0174	ug/l	80
38) Cyclohexane	4.591	56	126887	48.0913	ug/l	85
40) 1,2-Dichloroethane	4.789	62	232345	53.5658	ug/l	97
41) 2-Butanone	4.212	43	73599m	45.5112	ug/l	
42) 1,1,1-Trichloroethane	4.549	97	199684	49.0228	ug/l	97
43) Carbon Tetrachloride	4.657	117	153752	54.8452	ug/l	94
44) Vinyl Acetate	3.828	43	385450	45.5444	ug/l	100
45) Bromodichloromethane	5.474	83	204821	50.7777	ug/l	98
46) Methylcyclohexane	5.300	83	76180	40.7613	ug/l	97
47) Dibromomethane	5.396	174	129812	62.8112	ug/l	92
48) 1,2-Dichloropropane	5.318	63	150513	48.9458	ug/l	91
49) Trichloroethene	5.174	130	143597	53.9263	ug/l	86
50) Benzene	4.783	78	477988	51.3935	ug/l	100
51) tert-Amyl methyl ether	4.831	73	404827	48.4761	ug/l	72
53) Iso-propylacetate	4.783	43	383256	50.2093	ug/l	94
54) Methyl methacrylate	5.348	41	212846	44.7240	ug/l	94
55) Dibromochloromethane	6.429	129	160791	53.7637	ug/l	98
56) 2-Chloroethylvinylether	5.624	63	103049	45.2865	ug/l	77
57) cis-1,3-Dichloropropene	5.738	75	241000	45.3519	ug/l	89
58) trans-1,3-Dichloropropene	6.057	75	225451	45.9529	ug/l	96
59) Ethyl methacrylate	6.081	41	221053	44.4108	ug/l	83
60) 1,1,2-Trichloroethane	6.177	97	133539	45.8883	ug/l	87
61) 1,2-Dibromoethane	6.513	107	136800	43.6630	ug/l	89
62) 1,3-Dichloropropane	6.285	76	231314	47.8144	ug/l	99
63) 4-Methyl-2-Pentanone	5.810	43	192336	45.3705	ug/l	93
64) 2-Hexanone	6.303	43	136914	46.1610	ug/l	94
65) Tetrachloroethene	6.285	164	96960	55.6465	ug/l	97
67) Toluene	5.948	92	290949	44.0195	ug/l	97

SampleID : CAL @ 50 PPB
 Data File: 3M132634.D
 Acq On : 07/14/18 00:22

Operator : WP
 Sam Mult : 1 Vial# : 41
 Misc : A,5ML

Qt Meth : 3M A0713.M
 Qt On : 07/16/18 14:35
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.837	133	127457	51.4031	ug/l	81
69) Chlorobenzene	6.801	112	337088	49.8981	ug/l	94
71) n-Butyl acrylate	7.072	55	352425	39.2760	ug/l	95
72) n-Amyl acetate	7.204	43	328327	40.6677	ug/l	88
73) Bromoform	7.312	173	138026	56.0429	ug/l	95
74) Ethylbenzene	6.849	106	96552	43.5265	ug/l	83
75) 1,1,2,2-Tetrachloroethane	7.546	83	164117	36.2355	ug/l	94
77) Styrene	7.168	104	325399	41.1699	ug/l	95
78) m&p-Xylenes	6.916	106	324109	80.7959	ug/l	87
79) o-Xylene	7.162	106	166364	40.7659	ug/l	86
80) trans-1,4-Dichloro-2-b...	7.576	53	69950	44.5447	ug/l	53
81) 1,3-Dichlorobenzene	8.195	146	207822	46.1604	ug/l	88
82) 1,4-Dichlorobenzene	8.243	146	215940	46.1525	ug/l	94
83) 1,2-Dichlorobenzene	8.501	146	219378	45.6165	ug/l	89
84) Isopropylbenzene	7.378	105	330567	38.5483	ug/l	93
85) Cyclohexanone	7.468	55	94555	433.0374	ug/l	98
86) Camphene	7.576	93	89458	34.0144	ug/l	97
87) 1,2,3-Trichloropropane	7.594	75	216011	42.5169	ug/l	90
88) 2-Chlorotoluene	7.714	91	198855	40.9826	ug/l	95
89) p-Ethyltoluene	7.696	105	342562	38.7032	ug/l	83
90) 4-Chlorotoluene	7.781	91	222208	41.1285	ug/l	93
91) n-Propylbenzene	7.630	91	350489	37.4209	ug/l	96
92) Bromobenzene	7.606	77	344607	40.3608	ug/l	93
93) 1,3,5-Trimethylbenzene	7.732	105	240189	42.7705	ug/l	92
94) Butyl methacrylate	7.732	41	254238	41.5749	ug/l	86
95) t-Butylbenzene	7.955	119	220659	36.5535	ug/l	86
96) 1,2,4-Trimethylbenzene	7.979	105	287785	38.1832	ug/l	89
97) sec-Butylbenzene	8.087	105	245910	34.8602	ug/l	95
98) 4-Isopropyltoluene	8.165	119	211523	35.8383	ug/l	92
99) n-Butylbenzene	8.429	91	225104	33.1367	ug/l	89
100) p-Diethylbenzene	8.411	119	139371	36.4812	ug/l	93
101) 1,2,4,5-Tetramethylben...	8.922	119	212587	42.4303	ug/l	92
102) 1,2-Dibromo-3-Chloropr...	9.000	157	38831	42.9204	ug/l	66
103) Camphor	9.487	95	155442	407.1865	ug/l	93
104) Hexachlorobutadiene	9.637	225	68364	44.0775	ug/l	96
105) 1,2,4-Trichlorobenzene	9.553	180	109526	46.3923	ug/l	95
106) 1,2,3-Trichlorobenzene	9.889	180	104684	46.8535	ug/l	94
107) Naphthalene	9.733	128	248992	54.4679	ug/l	100

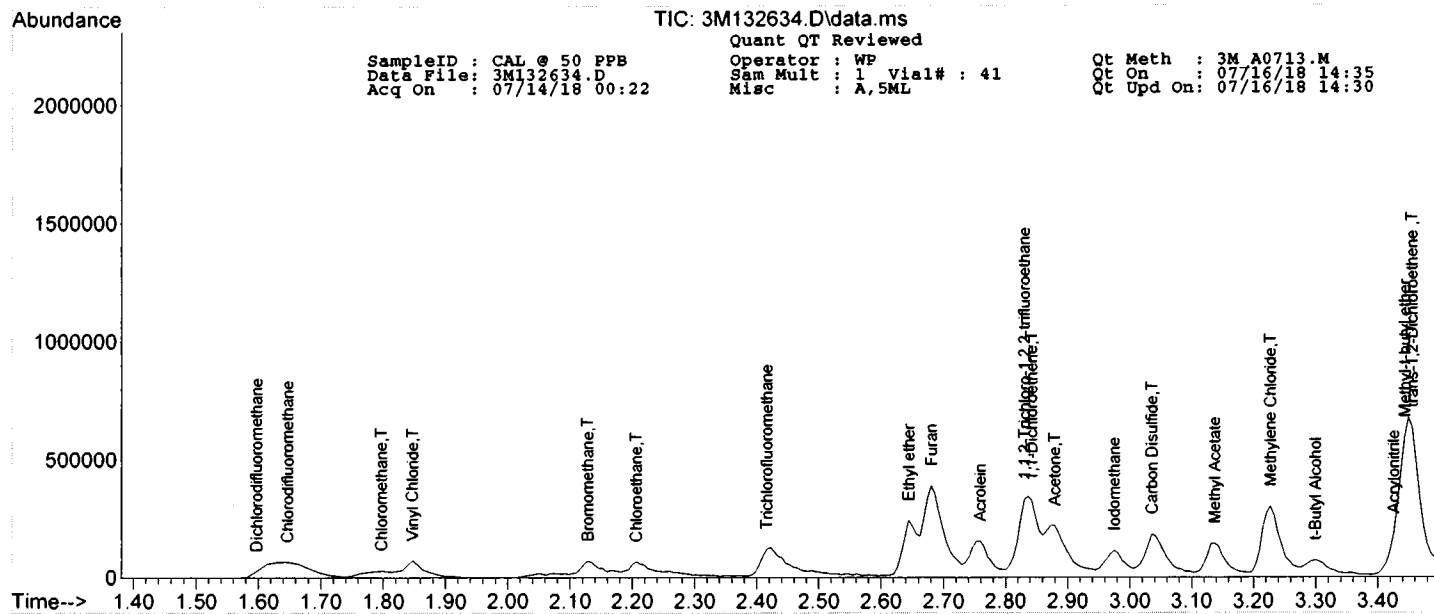
(#) = qualifier out of range (m) = manual integration (+) = signals summed

TIC: 3M132634.D\data.ms

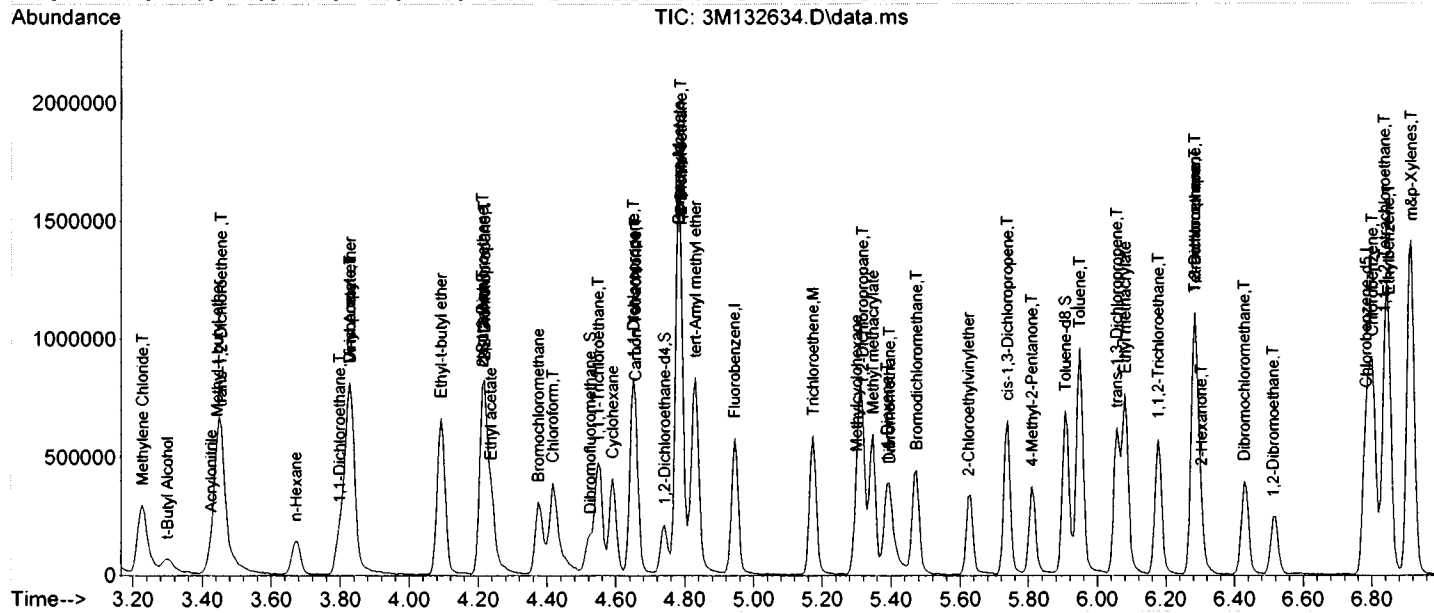
SampleID : CAL @ 50 PPB
 Data File: 3M132634.D
 Acq On : 07/14/18 00:22

Quant QT Reviewed
 Operator : WP
 Sam Mult : 1 Vial# : 41
 Misc : A,5ML

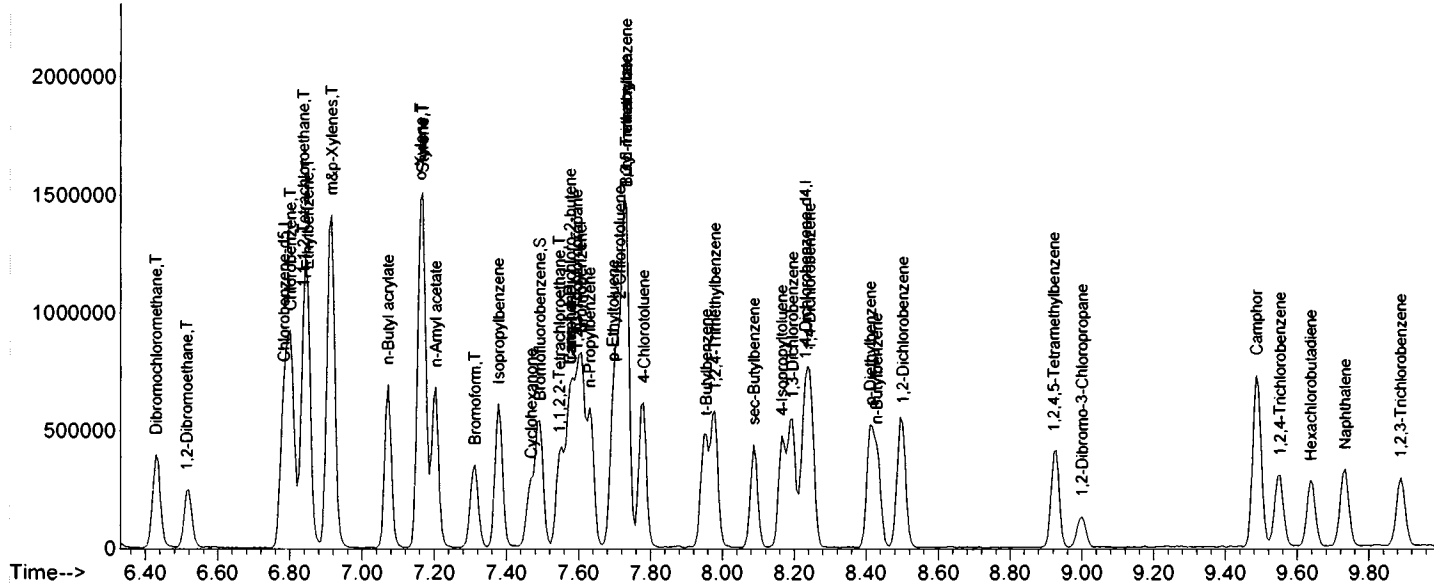
Or Meth : 3M_A0713.M
 Or On : 07/16/18 14:35
 Or Upd On: 07/16/18 14:30



TIC: 3M132634.D\data.ms



TIC: 3M132634.D\data.ms



8082413 0090

SampleID : CAL @ 100 PPB

Operator : WP

Qt Meth : 3M A0713.M

Data File: 3M132631.D

Sam Mult : 1 Vial# : 38

Qt On : 07/16/18 14:34

Acq On : 07/13/18 23:28

Misc : A,5ML

Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\

Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.945	96	321193	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.777	117	245256	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.225	152	120410	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.519	111	81437	31.50	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	105.00%	
39) 1,2-Dichloroethane-d4	4.741	67	61532	31.49	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.97%	
66) Toluene-d8	5.906	98	324314	29.61	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.70%	
76) Bromofluorobenzene	7.492	174	134406	32.70	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	109.00%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.659	51	412582	94.5583	ug/l	50
6) Dichlorodifluoromethane	1.609	85	91776	91.0126	ug/l	91
7) Chloromethane	1.792	50	155697	86.5577	ug/l	75
8) Bromomethane	2.128	94	75328m	89.4732	ug/l	
9) Vinyl Chloride	1.842	62	147239	96.2636	ug/l	98
10) Chloroethane	2.212	64	81070	105.7780	ug/l	84
11) Trichlorofluoromethane	2.416	101	274101	118.5225	ug/l	85
12) Ethyl ether	2.645	59	264325	105.4090	ug/l	86
13) Furan	2.681	39	641741	104.7864	ug/l	92
14) 1,1,2-Trichloro-1,2,2-...	2.831	101	132422	110.6756	ug/l	94
15) Methylene Chloride	3.221	84	271516	106.6791	ug/l	94
16) Acrolein	2.753	56	225732	445.5221	ug/l	95
17) Acrylonitrile	3.425	53	113081	109.3688	ug/l	96
18) Iodomethane	2.975	142	269218	99.3782	ug/l	97
19) Acetone	2.879	43	512043	609.8122	ug/l	94
20) Carbon Disulfide	3.041	76	537265	75.0110	ug/l	100
21) t-Butyl Alcohol	3.299	59	149497	512.6485	ug/l	77
22) n-Hexane	3.672	57	106876m	86.4276	ug/l	
23) Di-isopropyl-ether	3.828	45	983722	104.3860	ug/l	91
24) 1,1-Dichloroethene	2.843	61	363624	105.9022	ug/l	100
25) Methyl Acetate	3.137	43	386288	106.6675	ug/l	100
26) Methyl-t-butyl ether	3.449	73	679844	103.3093	ug/l	65
27) 1,1-Dichloroethane	3.804	63	450851	98.7164	ug/l	96
28) trans-1,2-Dichloroethene	3.455	96	228270	97.5089	ug/l	94
29) Ethyl-t-butyl ether	4.092	59	885988	94.4414	ug/l	98
30) cis-1,2-Dichloroethene	4.212	61	496794	98.3534	ug/l	96
31) Bromochloromethane	4.375	49	318350m	96.9907	ug/l	
32) 2,2-Dichloropropane	4.212	77	328299	93.4281	ug/l	94
33) Ethyl acetate	4.236	43	377431m	98.9769	ug/l	
34) 1,4-Dioxane	5.390	88	146034	6847.1105	ug/l	78
35) 1,1-Dichloropropene	4.645	75	309857	89.3978	ug/l	95
36) Chloroform	4.417	83	477211	102.0280	ug/l	87
38) Cyclohexane	4.591	56	243012	94.0014	ug/l	88
40) 1,2-Dichloroethane	4.783	62	429634	101.0906	ug/l	92
41) 2-Butanone	4.212	43	136458m	86.1198	ug/l	
42) 1,1,1-Trichloroethane	4.549	97	384129	96.2475	ug/l	98
43) Carbon Tetrachloride	4.657	117	284809	103.6882	ug/l	97
44) Vinyl Acetate	3.822	43	723712	87.2751	ug/l	100
45) Bromodichloromethane	5.468	83	408939	103.4701	ug/l	92
46) Methylcyclohexane	5.300	83	156401	85.4092	ug/l	96
47) Dibromomethane	5.390	174	245493	121.2325	ug/l	94
48) 1,2-Dichloropropane	5.312	63	291317	96.6863	ug/l	94
49) Trichloroethene	5.173	130	264440	101.3537	ug/l	87
50) Benzene	4.783	78	866420	95.0773	ug/l	100
51) tert-Amyl methyl ether	4.831	73	782922	95.6829	ug/l	73
53) Iso-propylacetate	4.783	43	725896	99.9523	ug/l	96
54) Methyl methacrylate	5.342	41	446559	98.6226	ug/l	96
55) Dibromochloromethane	6.429	129	319843	112.4053	ug/l	89
56) 2-Chloroethylvinylether	5.624	63	203107	93.8151	ug/l	83
57) cis-1,3-Dichloropropene	5.732	75	492424	97.3959	ug/l	92
58) trans-1,3-Dichloropropene	6.051	75	461349	98.8355	ug/l	96
59) Ethyl methacrylate	6.081	41	418372	88.3442	ug/l	80
60) 1,1,2-Trichloroethane	6.177	97	254387	91.8780	ug/l	89
61) 1,2-Dibromoethane	6.513	107	272113	91.2850	ug/l	97
62) 1,3-Dichloropropane	6.279	76	425860	92.5223	ug/l	99
63) 4-Methyl-2-Pentanone	5.810	43	381352	94.5502	ug/l	90
64) 2-Hexanone	6.297	43	262642	93.0709	ug/l	91
65) Tetrachloroethene	6.285	164	177402	107.0105	ug/l	94
67) Toluene	5.948	92	564460	89.7604	ug/l	98

SampleID : CAL @ 100 PPB
 Data File: 3M132631.D
 Acq On : 07/13/18 23:28

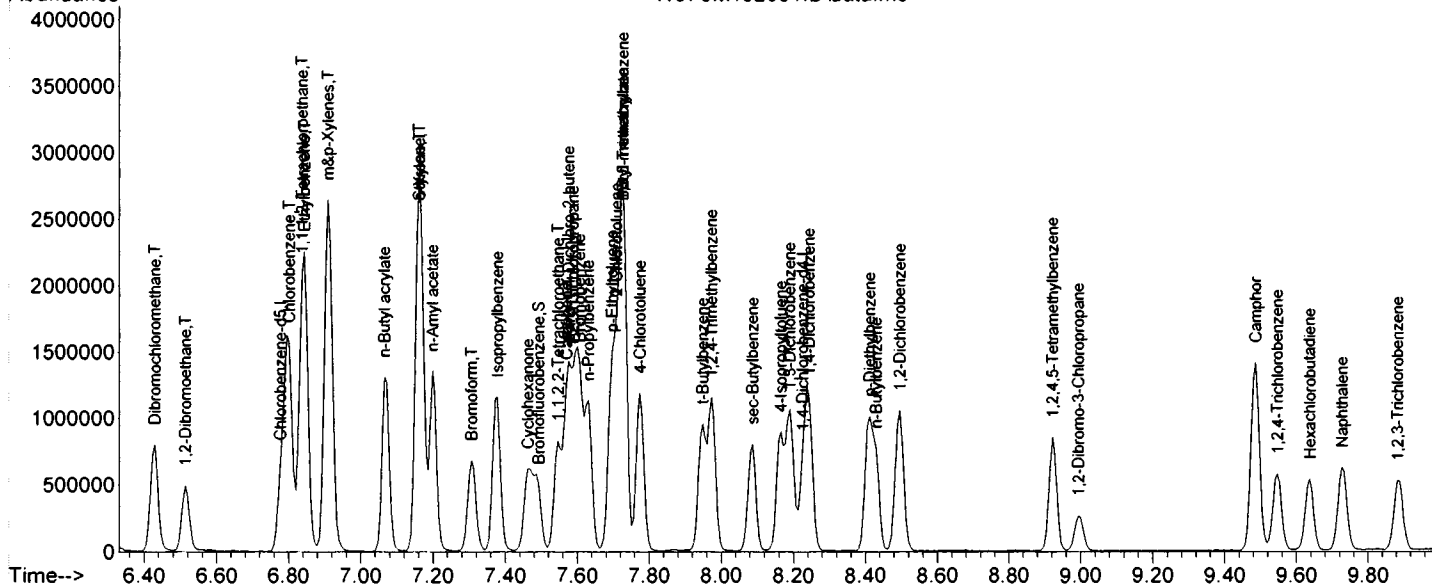
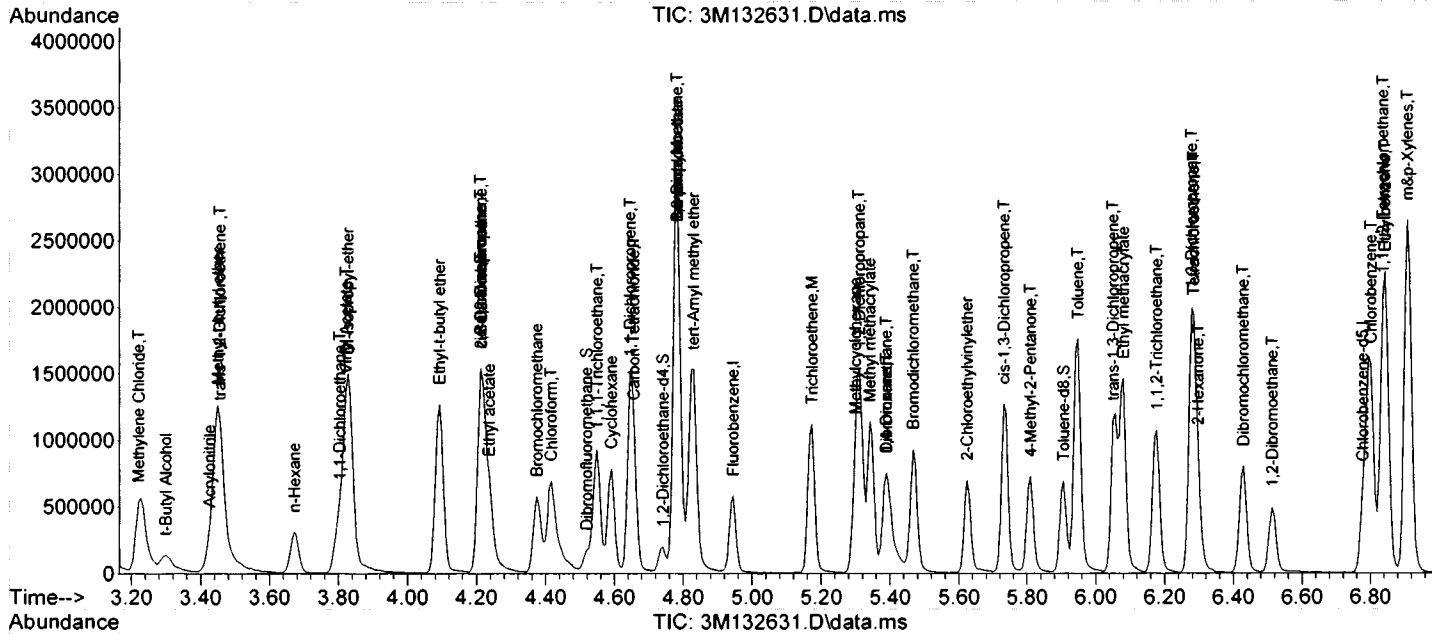
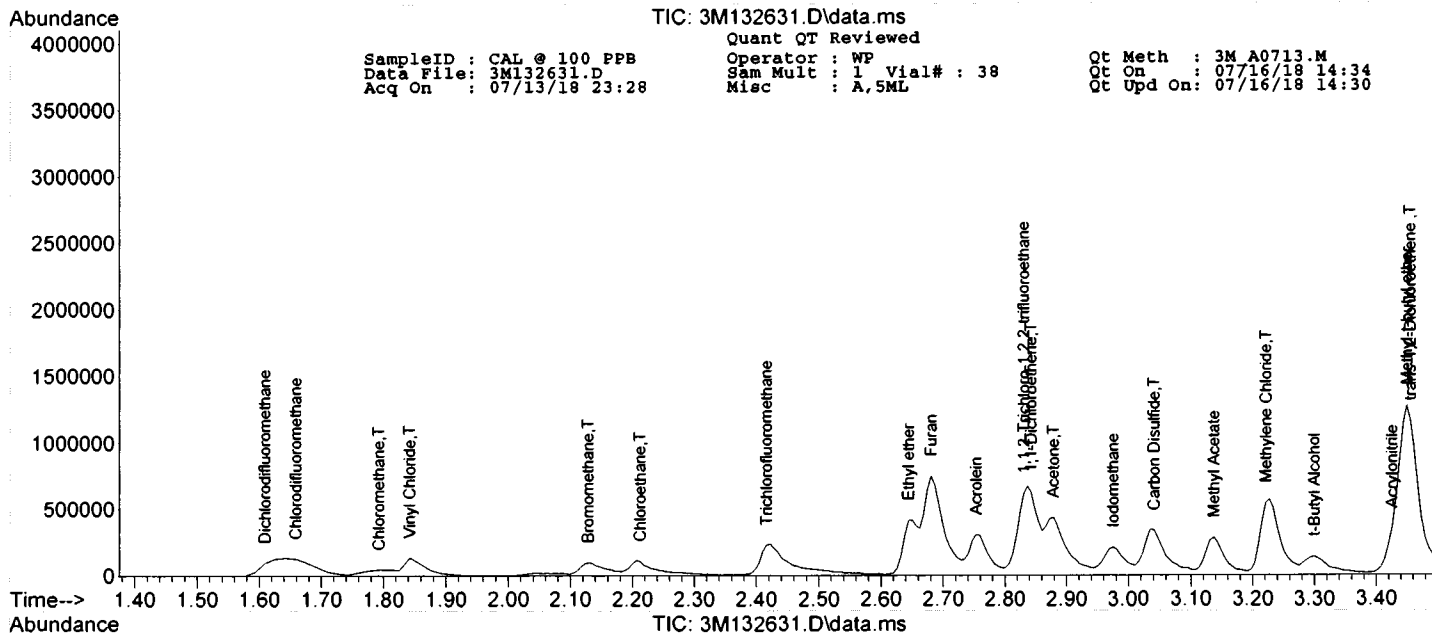
Operator : WP
 Sam Mult : 1 Vial# : 38
 Misc : A,5ML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:34
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.837	133	237259	100.5707	ug/l	86
69) Chlorobenzene	6.801	112	638893	99.4013	ug/l	98
71) n-Butyl acrylate	7.066	55	714219	83.6702	ug/l	97
72) n-Amyl acetate	7.198	43	638782	83.1715	ug/l	88
73) Bromoform	7.306	173	274768	117.2746	ug/l	93
74) Ethylbenzene	6.843	106	171136	81.0985	ug/l	85
75) 1,1,2,2-Tetrachloroethane	7.546	83	319366	74.1222	ug/l	90
77) Styrene	7.162	104	597518	79.4682	ug/l	98
78) m&p-Xylenes	6.909	106	596498	156.3096	ug/l	90
79) o-Xylene	7.162	106	305204	78.6152	ug/l	82
80) trans-1,4-Dichloro-2-b...	7.576	53	137790	92.2368	ug/l	55
81) 1,3-Dichlorobenzene	8.189	146	407956	95.2510	ug/l	86
82) 1,4-Dichlorobenzene	8.243	146	405409	91.0823	ug/l	95
83) 1,2-Dichlorobenzene	8.495	146	409706	89.5530	ug/l	89
84) Isopropylbenzene	7.378	105	639387	78.3769	ug/l	95
85) Cyclohexanone	7.462	55	227812	1096.7207	ug/l	98
86) Camphene	7.570	93	174069	69.5735	ug/l	98
87) 1,2,3-Trichloropropane	7.588	75	418587	86.6064	ug/l	89
88) 2-Chlorotoluene	7.708	91	374594	81.1525	ug/l	96
89) p-Ethyltoluene	7.696	105	699978	83.1325	ug/l	76
90) 4-Chlorotoluene	7.774	91	412672	80.2909	ug/l	93
91) n-Propylbenzene	7.630	91	669399	75.1282	ug/l	95
92) Bromobenzene	7.606	77	664218	81.7758	ug/l	91
93) 1,3,5-Trimethylbenzene	7.726	105	391585	73.2985	ug/l	79
94) Butyl methacrylate	7.726	41	493941	84.9073	ug/l	84
95) t-Butylbenzene	7.949	119	430292	74.9288	ug/l	87
96) 1,2,4-Trimethylbenzene	7.973	105	543528	75.8061	ug/l	87
97) sec-Butylbenzene	8.087	105	475049	70.7899	ug/l	97
98) 4-Isopropyltoluene	8.165	119	413487	73.6428	ug/l	93
99) n-Butylbenzene	8.429	91	438489	67.8520	ug/l	90
100) p-Diethylbenzene	8.411	119	269523	74.1603	ug/l	92
101) 1,2,4,5-Tetramethylben...	8.922	119	404633	84.8945	ug/l	90
102) 1,2-Dibromo-3-Chloropr...	8.994	157	73701	85.6322	ug/l	69
103) Camphor	9.486	95	303432	835.5354	ug/l	92
104) Hexachlorobutadiene	9.637	225	129994	88.1031	ug/l	95
105) 1,2,4-Trichlorobenzene	9.547	180	207467	92.3755	ug/l	95
106) 1,2,3-Trichlorobenzene	9.883	180	189820	89.3063	ug/l	93
107) Naphthalene	9.727	128	493881	113.5681	ug/l	100

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



SampleID : CAL @ 250 PPB
Data File : 3M132628.D
Acq On : 07/13/18 22:37

Operator : WP
Sam Mult : 1 Vial# : 35
Misc : A,SML

Qt Meth : 3M A07
Qt On : 07/16/18 14:32
Qt Upd On: 07/16/18 14:30

8082413 0093

Data Path : G:\GCMSData\2018\GCMS_3\Data\07-13-18\
Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.945	96	334590	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.784	117	242058	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.225	152	110343	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.519	111	85422	31.72	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	105.73%	
39) 1,2-Dichloroethane-d4	4.735	67	60279	29.61	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.70%	
66) Toluene-d8	5.907	98	335838	31.07	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.57%	
76) Bromofluorobenzene	7.492	174	130090	34.54	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	115.13%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.631	51	1058085	232.7894	ug/l	53
6) Dichlorodifluoromethane	1.597	85	261086	248.5474	ug/l	86
7) Chloromethane	1.797	50	421127	224.7458	ug/l	76
8) Bromomethane	2.122	94	135631	154.6496	ug/l	84
9) Vinyl Chloride	1.847	62	375828	235.8749	ug/l	96
10) Chloroethane	2.200	64	181376	227.1789	ug/l	93
11) Trichlorofluoromethane	2.410	101	730111	303.0624	ug/l	90
12) Ethyl ether	2.645	59	616050	235.8352	ug/l	84
13) Furan	2.675	39	1611853	252.6525	ug/l	87
14) 1,1,2-Trichloro-1,2,2-...	2.825	101	328350	263.4401	ug/l	94
15) Methylene Chloride	3.221	84	644766	243.1864	ug/l	91
16) Acrolein	2.753	56	595695	1128.6342	ug/l	98
17) Acrylonitrile	3.420	53	270906	251.5218	ug/l	97
18) Iodomethane	2.969	142	678599	240.4658	ug/l	93
19) Acetone	2.879	43	1255650	1435.5271	ug/l	95
20) Carbon Disulfide	3.035	76	1385968	185.7559	ug/l	100
21) t-Butyl Alcohol	3.300	59	404606	1331.9031	ug/l	78
22) n-Hexane	3.666	57	307132	238.4243	ug/l	76
23) Di-isopropyl-ether	3.828	45	2328842	237.2264	ug/l	91
24) 1,1-Dichloroethene	2.837	61	903093	252.4864	ug/l	95
25) Methyl Acetate	3.131	43	994582	263.6419	ug/l	100
26) Methyl-t-butyl ether	3.444	73	1568131	228.7524	ug/l	65
27) 1,1-Dichloroethane	3.798	63	1134269	238.4106	ug/l	94
28) trans-1,2-Dichloroethene	3.456	96	540500	221.6381	ug/l	95
29) Ethyl-t-butyl ether	4.092	59	2083091	213.1551	ug/l	99
30) cis-1,2-Dichloroethene	4.213	61	1168596	222.0907	ug/l	91
31) Bromochloromethane	4.369	49	807851	236.2706	ug/l	72
32) 2,2-Dichloropropane	4.213	77	799352	218.3731	ug/l	96
33) Ethyl acetate	4.237	43	921857m	232.0667	ug/l	
34) 1,4-Dioxane	5.390	88	369403	16626.7316	ug/l	75
35) 1,1-Dichloropropene	4.645	75	738458	204.5241	ug/l	97
36) Chloroform	4.417	83	1207203	247.7663	ug/l	89
38) Cyclohexane	4.585	56	663972	246.5526	ug/l	87
40) 1,2-Dichloroethane	4.783	62	957062	216.1748	ug/l	95
41) 2-Butanone	4.207	43	357544m	216.6140	ug/l	
42) 1,1,1-Trichloroethane	4.549	97	939281	225.9233	ug/l	97
43) Carbon Tetrachloride	4.651	117	678364	237.0781	ug/l	91
44) Vinyl Acetate	3.822	43	1778663	205.9070	ug/l	100
45) Bromodichloromethane	5.468	83	1008249	244.8935	ug/l	95
46) Methylcyclohexane	5.300	83	402000	210.7386	ug/l	95
47) Dibromomethane	5.390	174	559547	265.2587	ug/l	93
48) 1,2-Dichloropropane	5.312	63	707173	225.3086	ug/l	95
49) Trichloroethene	5.168	130	633532	233.0957	ug/l	87
50) Benzene	4.777	78	1850151	194.8985	ug/l	100
51) tert-Amyl methyl ether	4.831	73	1762536	206.7793	ug/l	75
53) Iso-propylacetate	4.777	43	1605932	224.0504	ug/l	94
54) Methyl methacrylate	5.342	41	1096436	245.3473	ug/l	98
55) Dibromochloromethane	6.429	129	769769	274.1010	ug/l	100
56) 2-Chloroethylvinylether	5.624	63	511990	239.6126	ug/l	82
57) cis-1,3-Dichloropropene	5.732	75	1193931	239.2660	ug/l	93
58) trans-1,3-Dichloropropene	6.051	75	1120493	243.2164	ug/l	100
59) Ethyl methacrylate	6.081	41	1022984	218.8691	ug/l	85
60) 1,1,2-Trichloroethane	6.177	97	610517	223.4162	ug/l	91
61) 1,2-Dibromoethane	6.513	107	663065	225.3752	ug/l	93
62) 1,3-Dichloropropane	6.279	76	970788	213.6998	ug/l	99
63) 4-Methyl-2-Pentanone	5.810	43	963949	242.1533	ug/l	92
64) 2-Hexanone	6.297	43	651048	233.7561	ug/l	90
65) Tetrachloroethene	6.285	164	368580	225.2683	ug/l	99
67) Toluene	5.949	92	1294051	208.4985	ug/l	97

SampleID : CAL @ 250 PPB
 Data File: 3M132628.D
 Acq On : 07/13/18 22:37

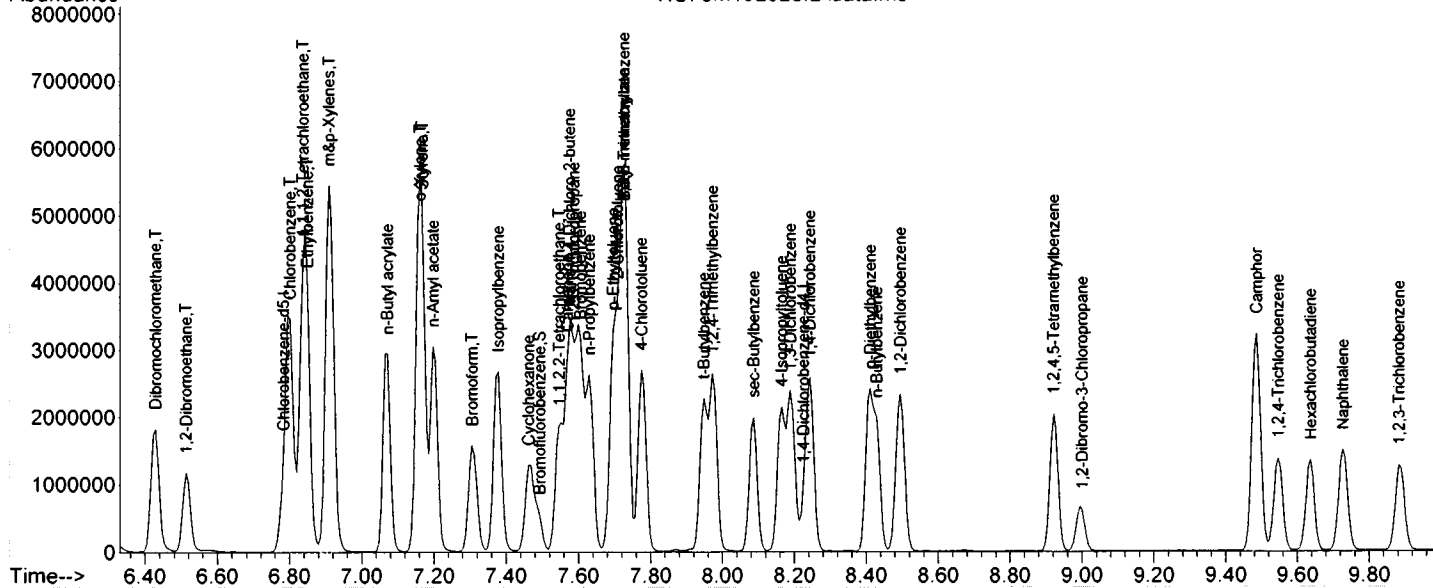
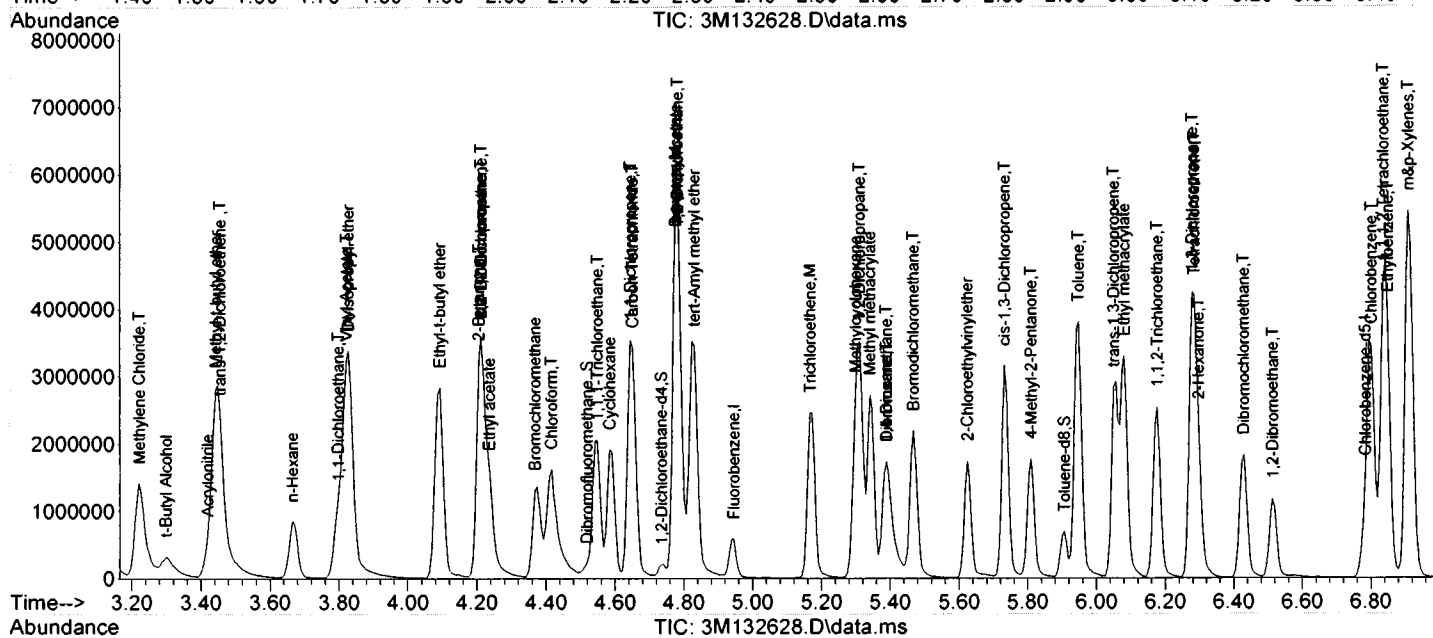
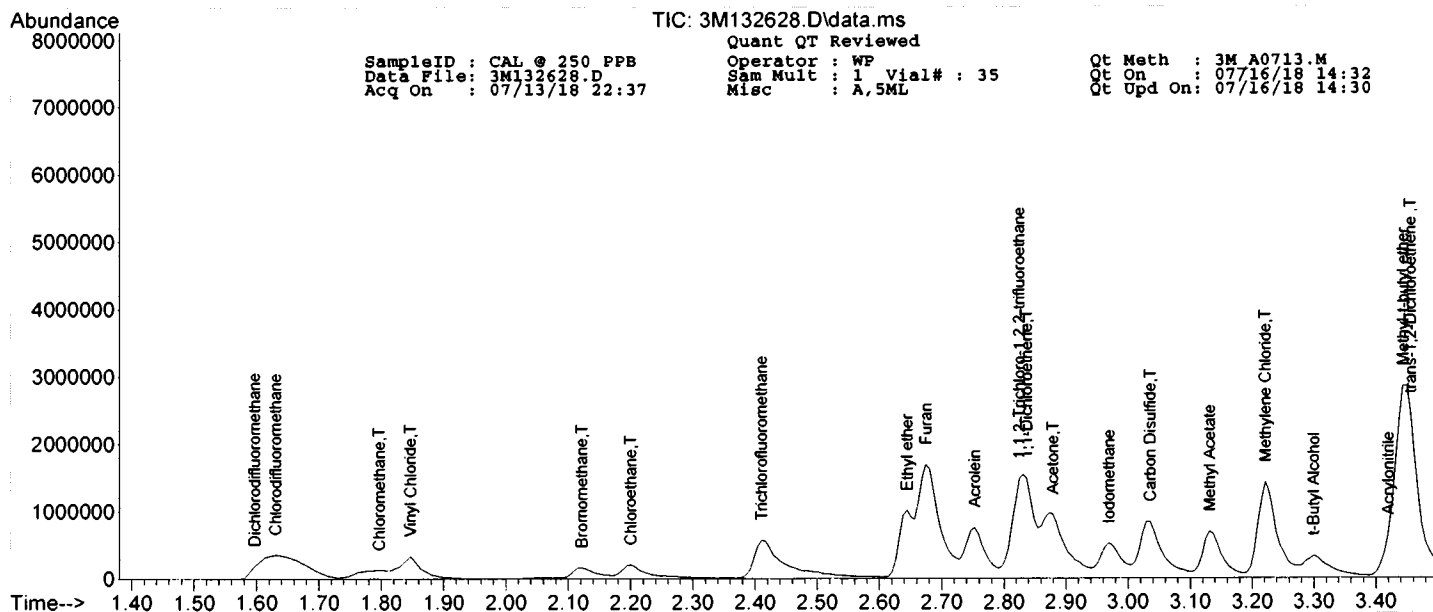
Operator : WP
 Sam Mult : 1 Vial# : 35
 Misc : A,5ML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:32
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.838	133	502508	215.8202	ug/l	90
69) Chlorobenzene	6.802	112	1441904	227.3005	ug/l	96
71) n-Butyl acrylate	7.072	55	1665290	212.8861	ug/l	98
72) n-Amyl acetate	7.198	43	1515937	215.3877	ug/l	89
73) Bromoform	7.306	173	647067	301.3734	ug/l	95
74) Ethylbenzene	6.850	106	357120	184.6729	ug/l	85
75) 1,1,2,2-Tetrachloroethane	7.546	83	771049	195.2807	ug/l	89
77) Styrene	7.168	104	1237699	179.6285	ug/l	98
78) m&p-Xylenes	6.910	106	1276975	365.1546	ug/l	85
79) o-Xylene	7.162	106	641982	180.4500	ug/l	75
80) trans-1,4-Dichloro-2-b...	7.576	53	345198	252.1578	ug/l	61
81) 1,3-Dichlorobenzene	8.189	146	893532	227.6586	ug/l	90
82) 1,4-Dichlorobenzene	8.243	146	900666	220.8117	ug/l	95
83) 1,2-Dichlorobenzene	8.496	146	904575	215.7595	ug/l	91
84) Isopropylbenzene	7.378	105	1513570	202.4625	ug/l	95
85) Cyclohexanone	7.462	55	466411	2450.2252	ug/l	98
86) Camphene	7.570	93	439027	191.4834	ug/l	95
87) 1,2,3-Trichloropropane	7.588	75	942598	212.8180	ug/l	87
88) 2-Chlorotoluene	7.709	91	755590	178.6262	ug/l	96
89) p-Ethyltoluene	7.697	105	1542760	199.9413	ug/l	77
90) 4-Chlorotoluene	7.775	91	908405	192.8673	ug/l	94
91) n-Propylbenzene	7.631	91	1595045	195.3479	ug/l	96
92) Bromobenzene	7.607	77	1459249	196.0475	ug/l	88
93) 1,3,5-Trimethylbenzene	7.727	105	843246	172.2429	ug/l	81
94) Butyl methacrylate	7.727	41	1085638	203.6445	ug/l	80
95) t-Butylbenzene	7.949	119	1038943	197.4217	ug/l	88
96) 1,2,4-Trimethylbenzene	7.973	105	1259043	191.6200	ug/l	88
97) sec-Butylbenzene	8.087	105	1182193	192.2378	ug/l	98
98) 4-Isopropyltoluene	8.165	119	997769	193.9172	ug/l	93
99) n-Butylbenzene	8.429	91	1095773	185.0302	ug/l	90
100) p-Diethylbenzene	8.411	119	642772	192.9969	ug/l	95
101) 1,2,4,5-Tetramethylben...	8.922	119	1025238	234.7257	ug/l	91
102) 1,2-Dibromo-3-Chloropr...	9.000	157	182034	230.7990	ug/l	70
103) Camphor	9.487	95	722468	2170.9002	ug/l	93
104) Hexachlorobutadiene	9.637	225	328252	242.7689	ug/l	96
105) 1,2,4-Trichlorobenzene	9.547	180	486158	236.2125	ug/l	95
106) 1,2,3-Trichlorobenzene	9.883	180	464128	238.2844	ug/l	95
107) Naphthalene	9.727	128	1165680	292.5036	ug/l	100

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



8082413 0096

SampleID : CAL @ 500 PPB
 Data File: 3M132625.D
 Acq On : 07/13/18 21:48

Operator : WP
 Sam Mult : 1 Vial# : 32
 Misc : A,5ML

Qt Meth : 3M A0127M
 Qt On : 07/16/18 14:30
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.945	96	319125	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.784	117	231944	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.225	152	107063	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.519	111	80006	31.15	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.83%	
39) 1,2-Dichloroethane-d4	4.735	67	53357	27.48	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	91.60%	
66) Toluene-d8	5.907	98	325447	31.42	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	104.73%	
76) Bromofluorobenzene	7.492	174	132757	36.32	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	121.07%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.659	51	1994432	460.0595	ug/l	54
6) Dichlorodifluoromethane	1.609	85	502161	501.2111	ug/l	90
7) Chloromethane	1.809	50	780254	436.5828	ug/l	82
8) Bromomethane	2.110	94	161326m	192.8618	ug/l	
9) Vinyl Chloride	1.842	62	722817	475.6342	ug/l	95
10) Chloroethane	2.188	64	260737	342.4072	ug/l	93
11) Trichlorofluoromethane	2.404	101	1330465	579.0270	ug/l	89
12) Ethyl ether	2.645	59	1129177	453.2177	ug/l	87
13) Furan	2.675	39	2846536	467.8072	ug/l	88
14) 1,1,2-Trichloro-1,2,2-...	2.825	101	550591	463.1547	ug/l	94
15) Methylene Chloride	3.221	84	1142617	451.8456	ug/l	91
16) Acrolein	2.753	56	1057381	2100.4526	ug/l	99
17) Acrylonitrile	3.420	53	499774	486.4999	ug/l	96
18) Iodomethane	2.969	142	1240759	460.9773	ug/l	98
19) Acetone	2.879	43	2247530	2694.0175	ug/l	91
20) Carbon Disulfide	3.029	76	2480539	348.5681	ug/l	100
21) t-Butyl Alcohol	3.311	59	740985	2557.4188	ug/l	81
22) n-Hexane	3.666	57	534880m	435.3453	ug/l	
23) Di-isopropyl-ether	3.828	45	3684077	393.4629	ug/l	93
24) 1,1-Dichloroethene	2.831	61	1614214	473.1716	ug/l	99
25) Methyl Acetate	3.131	43	1769808	491.8721	ug/l	100
26) Methyl-t-butyl ether	3.444	73	2543886	389.0748	ug/l	65
27) 1,1-Dichloroethane	3.798	63	1977899	435.8787	ug/l	97
28) trans-1,2-Dichloroethene	3.456	96	911101	391.7124	ug/l	98
29) Ethyl-t-butyl ether	4.092	59	3346867	359.0692	ug/l	99
30) cis-1,2-Dichloroethene	4.213	61	1950436	388.6421	ug/l	92
31) Bromochloromethane	4.369	49	1424553	436.8266	ug/l	70
32) 2,2-Dichloropropane	4.219	77	1267824	363.1384	ug/l	93
33) Ethyl acetate	4.237	43	1633372m	431.1085	ug/l	
34) 1,4-Dioxane	5.390	88	632444	29845.6248	ug/l	72
35) 1,1-Dichloropropene	4.645	75	1151164	334.2782	ug/l	96
36) Chloroform	4.417	83	2100381	451.9726	ug/l	86
38) Cyclohexane	4.591	56	1110858	432.4844	ug/l	88
40) 1,2-Dichloroethane	4.789	62	1537802	364.1813	ug/l	94
41) 2-Butanone	4.213	43	510027m	323.9682	ug/l	
42) 1,1,1-Trichloroethane	4.549	97	1549790	390.8323	ug/l	99
43) Carbon Tetrachloride	4.657	117	1096908	401.9305	ug/l	93
44) Vinyl Acetate	3.822	43	2914332	353.7274	ug/l	100
45) Bromodichloromethane	5.468	83	1663649	423.6657	ug/l	95
46) Methylcyclohexane	5.300	83	652440	358.6004	ug/l	95
47) Dibromomethane	5.390	174	886704	440.7212	ug/l	95
48) 1,2-Dichloropropane	5.312	63	1110045	370.8044	ug/l	91
49) Trichloroethene	5.174	130	1001896	386.4919	ug/l	86
50) Benzene	4.777	78	2731736	301.7118	ug/l	100
51) tert-Amyl methyl ether	4.831	73	2873780	353.4881	ug/l	74
53) Iso-propylacetate	4.783	43	2395975	348.8488	ug/l	94
54) Methyl methacrylate	5.342	41	1880553	439.1570	ug/l	97
55) Dibromochloromethane	6.429	129	1280065	475.6840	ug/l	93
56) 2-Chloroethylvinylether	5.624	63	888439	433.9223	ug/l	82
57) cis-1,3-Dichloropropene	5.732	75	1962433	410.4241	ug/l	91
58) trans-1,3-Dichloropropene	6.057	75	1820427	412.3758	ug/l	95
59) Ethyl methacrylate	6.081	41	1693571	378.1423	ug/l	88
60) 1,1,2-Trichloroethane	6.177	97	1025372	391.5927	ug/l	90
61) 1,2-Dibromoethane	6.513	107	1102520	391.0865	ug/l	83
62) 1,3-Dichloropropane	6.279	76	1491843	342.7197	ug/l	98
63) 4-Methyl-2-Pentanone	5.810	43	1715408	449.7179	ug/l	94
64) 2-Hexanone	6.297	43	1114307	417.5333	ug/l	91
65) Tetrachloroethene	6.285	164	522543	333.2933	ug/l	96
67) Toluene	5.949	92	2056443	345.7838	ug/l	95

SampleID : CAL @ 500 PPB
 Data File: 3M132625.D
 Acq On : 07/13/18 21:48

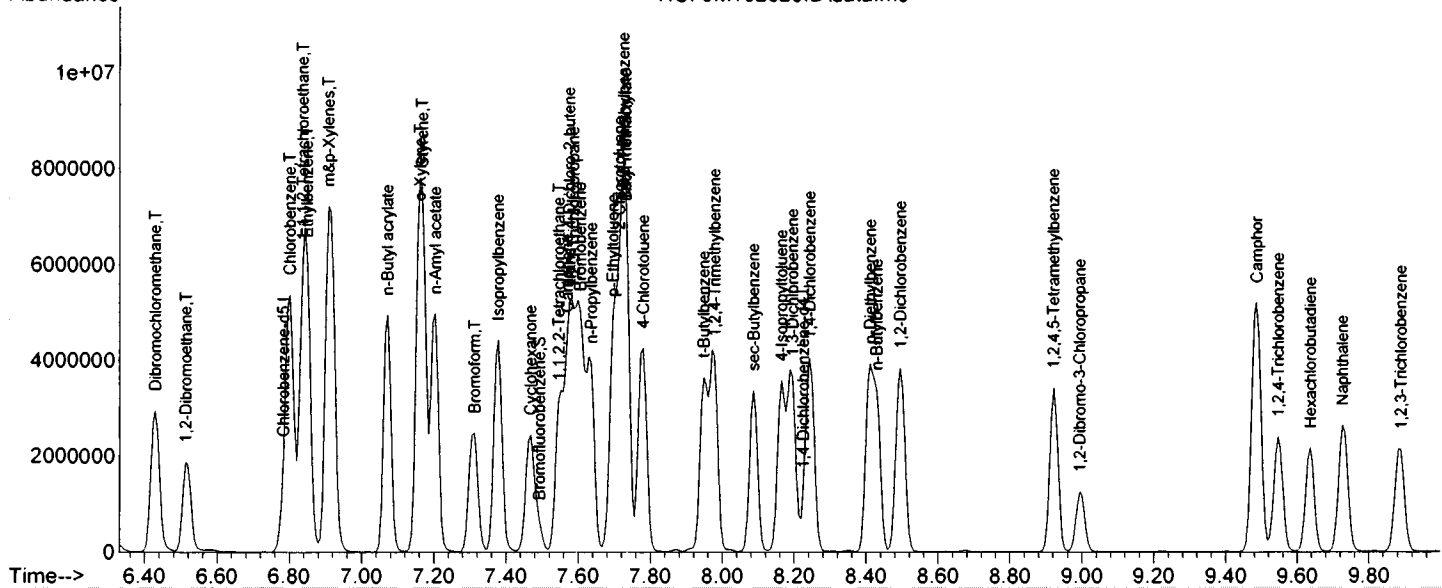
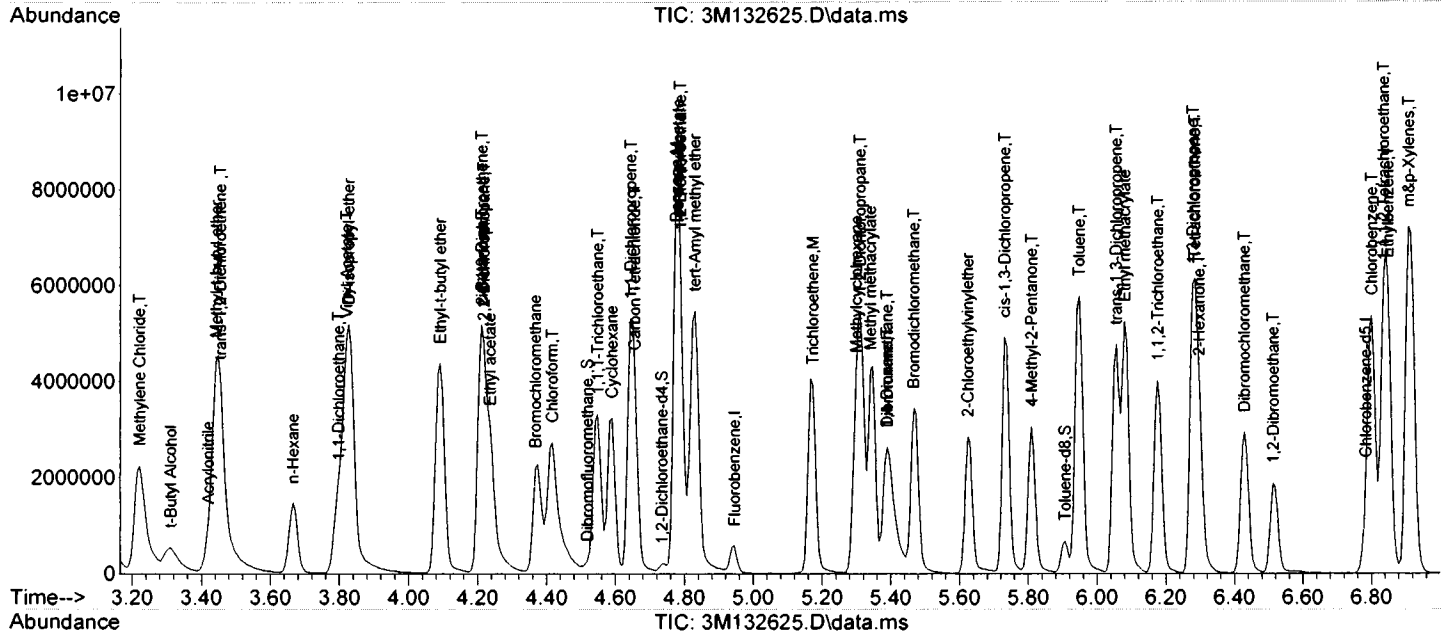
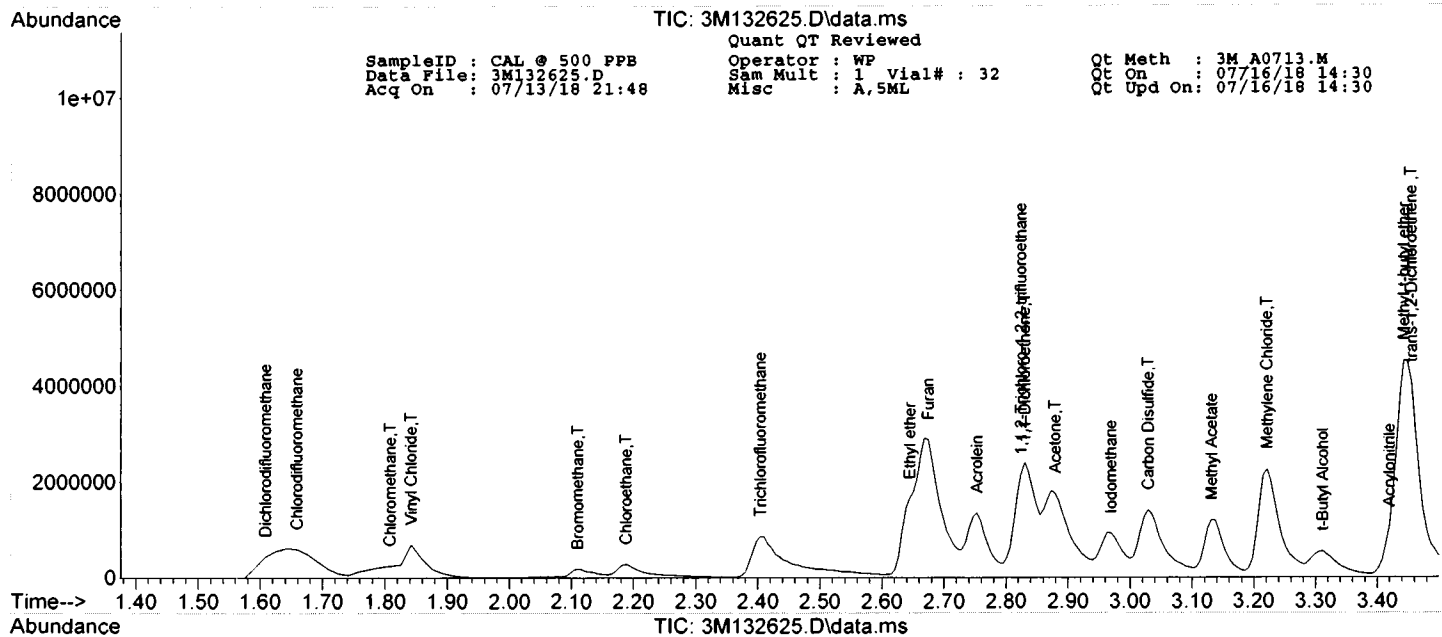
Operator : WP
 Sam Mult : 1 Vial# : 32
 Misc : A,SML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:30
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.838	133	764424	342.6255	ug/l	88
69)	Chlorobenzene	6.802	112	2272681	373.8857	ug/l	93
71)	n-Butyl acrylate	7.072	55	2778426	366.0678	ug/l	98
72)	n-Amyl acetate	7.204	43	2566150	375.7744	ug/l	88
73)	Bromoform	7.312	173	1078948	517.9187	ug/l	95
74)	Ethylbenzene	6.850	106	513280	273.5576	ug/l	82
75)	1,1,2,2-Tetrachloroethane	7.546	83	1318483	344.1574	ug/l	91
77)	Styrene	7.168	104	1839185	275.1003	ug/l	95
78)	m&p-Xylenes	6.910	106	1848588	544.8035	ug/l	86
79)	o-Xylene	7.162	106	963545	279.1332	ug/l	75
80)	trans-1,4-Dichloro-2-b...	7.576	53	566360	426.3852	ug/l	64
81)	1,3-Dichlorobenzene	8.195	146	1428004	374.9806	ug/l	92
82)	1,4-Dichlorobenzene	8.243	146	1471476	371.8064	ug/l	95
83)	1,2-Dichlorobenzene	8.495	146	1510544	371.3335	ug/l	93
84)	Isopropylbenzene	7.378	105	2478811	341.7361	ug/l	95
85)	Cyclohexanone	7.468	55	913679	4946.9354	ug/l	97
86)	Camphene	7.570	93	685451	308.1213	ug/l	94
87)	1,2,3-Trichloropropane	7.588	75	1491134	346.9795	ug/l	86
88)	2-Chlorotoluene	7.715	91	1156529	281.7870	ug/l	97
89)	p-Ethyltoluene	7.697	105	2293742	306.3755	ug/l	84
90)	4-Chlorotoluene	7.781	91	1389945	304.1459	ug/l	94
91)	n-Propylbenzene	7.636	91	2551568	322.0685	ug/l	95
92)	Bromobenzene	7.606	77	2332837	323.0143	ug/l	87
93)	1,3,5-Trimethylbenzene	7.727	105	1218072m	256.4280	ug/l	
94)	Butyl methacrylate	7.733	41	1671085	323.0662	ug/l	77
95)	t-Butylbenzene	7.949	119	1671784	327.4076	ug/l	89
96)	1,2,4-Trimethylbenzene	7.979	105	2037306	319.5670	ug/l	87
97)	sec-Butylbenzene	8.087	105	2025403	339.4433	ug/l	97
98)	4-Isopropyltoluene	8.165	119	1623715	325.2382	ug/l	94
99)	n-Butylbenzene	8.429	91	1835567	319.4461	ug/l	92
100)	p-Diethylbenzene	8.411	119	1082712	335.0516	ug/l	93
101)	1,2,4,5-Tetramethylben...	8.922	119	1714726	404.6095	ug/l	92
102)	1,2-Dibromo-3-Chloropr...	8.994	157	341448	446.1814	ug/l	72
103)	Camphor	9.487	95	1220553	3779.9257	ug/l	93
104)	Hexachlorobutadiene	9.637	225	537029	409.3443	ug/l	96
105)	1,2,4-Trichlorobenzene	9.547	180	832352	416.8097	ug/l	96
106)	1,2,3-Trichlorobenzene	9.889	180	810951	429.0994	ug/l	95
107)	Naphthalene	9.727	128	2100080	543.1166	ug/l	100

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



SampleID : CAL @ 1 PPB
 Data File: 3M132621.D
 Acq On : 07/13/18 20:41

Operator : WP
 Sam Mult : 1 Vial# : 28
 Misc : A, SML

Qt Meth : 3M A0
 Qt On : 07/16/18 14:49
 Qt Upd On: 07/16/18 14:30

8082413 0099

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.946	96	322366	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	262629	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.226	152	125201	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.520	111	84913	32.72	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	109.07%	
39) 1,2-Dichloroethane-d4	4.736	67	59987	30.59	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.97%	
66) Toluene-d8	5.907	98	329725	28.11	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	93.70%	
76) Bromofluorobenzene	7.487	174	140574	32.89	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	109.63%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.647	51	6580	1.5026	ug/l	36
6) Dichlorodifluoromethane	1.597	85	785m	0.7756	ug/l	
7) Chloromethane	1.763	50	1097m	0.6076	ug/l	
8) Bromomethane	2.129	94	630m	0.7456	ug/l	
9) Vinyl Chloride	1.847	62	1711	1.1146	ug/l	44
10) Chloroethane	2.207	64	1186	1.5418	ug/l	95
11) Trichlorofluoromethane	2.417	101	2179m	0.9388	ug/l	
12) Ethyl ether	2.645	59	2358	0.9369	ug/l	93
13) Furan	2.681	39	6888	1.1206	ug/l	85
14) 1,1,2-Trichloro-1,2,2-...	2.832	101	1317	1.0967	ug/l	71
15) Methylene Chloride	3.228	84	2228	0.8722	ug/l	79
16) Acrolein	2.754	56	2525	4.9654	ug/l	60
17) Acrylonitrile	3.426	53	1010	0.9733	ug/l	81
18) Iodomethane	2.982	142	2710	0.9967	ug/l	90
19) Acetone	2.880	43	5638	6.6901	ug/l	82
20) Carbon Disulfide	3.042	76	5786	0.8049	ug/l	100
21) t-Butyl Alcohol	3.282	59	1665m	5.6888	ug/l	
22) n-Hexane	3.673	57	1391m	1.1208	ug/l	
23) Di-isopropyl-ether	3.823	45	11463	1.2120	ug/l	86
24) 1,1-Dichloroethene	2.838	61	3280	0.9518	ug/l	76
25) Methyl Acetate	3.132	43	5192	1.4285	ug/l	100
26) Methyl-t-butyl ether	3.450	73	6363	0.9634	ug/l	57
27) 1,1-Dichloroethane	3.799	63	5208	1.1362	ug/l	69
28) trans-1,2-Dichloroethene	3.450	96	2899	1.2338	ug/l	59
29) Ethyl-t-butyl ether	4.093	59	9644	1.0243	ug/l	93
30) cis-1,2-Dichloroethene	4.213	61	5115	1.0090	ug/l	82
31) Bromochloromethane	4.375	49	3414m	1.0363	ug/l	
32) 2,2-Dichloropropane	4.225	77	3742	1.0610	ug/l	50
33) Ethyl acetate	4.231	43	4149	1.0841	ug/l	93
34) 1,4-Dioxane	5.385	88	1181m	55.1722	ug/l	
35) 1,1-Dichloropropene	4.652	75	3413	0.9811	ug/l	97
36) Chloroform	4.423	83	5026m	1.0707	ug/l	
38) Cyclohexane	4.592	56	2559	0.9863	ug/l	87
40) 1,2-Dichloroethane	4.784	62	5887	1.3801	ug/l	89
41) 2-Butanone	4.213	43	1902m	1.1960	ug/l	
42) 1,1,1-Trichloroethane	4.550	97	3971	0.9914	ug/l	85
43) Carbon Tetrachloride	4.658	117	2645	0.9594	ug/l	95
44) Vinyl Acetate	3.829	43	8771	1.0539	ug/l	100
45) Bromodichloromethane	5.469	83	4059	1.0233	ug/l	99
46) Methylcyclohexane	5.301	83	1795	0.9767	ug/l	98
47) Dibromomethane	5.391	174	2751	1.3536	ug/l	73
48) 1,2-Dichloropropane	5.313	63	2601	0.8601	ug/l	96
49) Trichloroethene	5.174	130	3091	1.1804	ug/l	59
50) Benzene	4.778	78	10122	1.1067	ug/l	100
51) tert-Amyl methyl ether	4.832	73	8399	1.0227	ug/l	79
53) Iso-propylacetate	4.778	43	9013	1.1590	ug/l	98
54) Methyl methacrylate	5.343	41	5589	1.1527	ug/l	86
55) Dibromochloromethane	6.430	129	2845	0.9337	ug/l	70
56) 2-Chloroethylvinylether	5.625	63	1914	0.8256	ug/l	80
57) cis-1,3-Dichloropropene	5.733	75	5138	0.9490	ug/l	87
58) trans-1,3-Dichloropropene	6.057	75	4125	0.8252	ug/l	85
59) Ethyl methacrylate	6.081	41	4118	0.8120	ug/l	78
60) 1,1,2-Trichloroethane	6.178	97	3627m	1.2233	ug/l	
61) 1,2-Dibromoethane	6.514	107	2436	0.7631	ug/l	91
62) 1,3-Dichloropropane	6.280	76	5552	1.1264	ug/l	54
63) 4-Methyl-2-Pentanone	5.811	43	3710	0.8590	ug/l	64
64) 2-Hexanone	6.298	43	2891	0.9567	ug/l	65
65) Tetrachloroethene	6.274	164	2240	1.2618	ug/l	67
67) Toluene	5.949	92	6978	1.0362	ug/l	75

SampleID : CAL @ 1 PPB
 Data File: 3M132621.D
 Acq On : 07/13/18 20:41

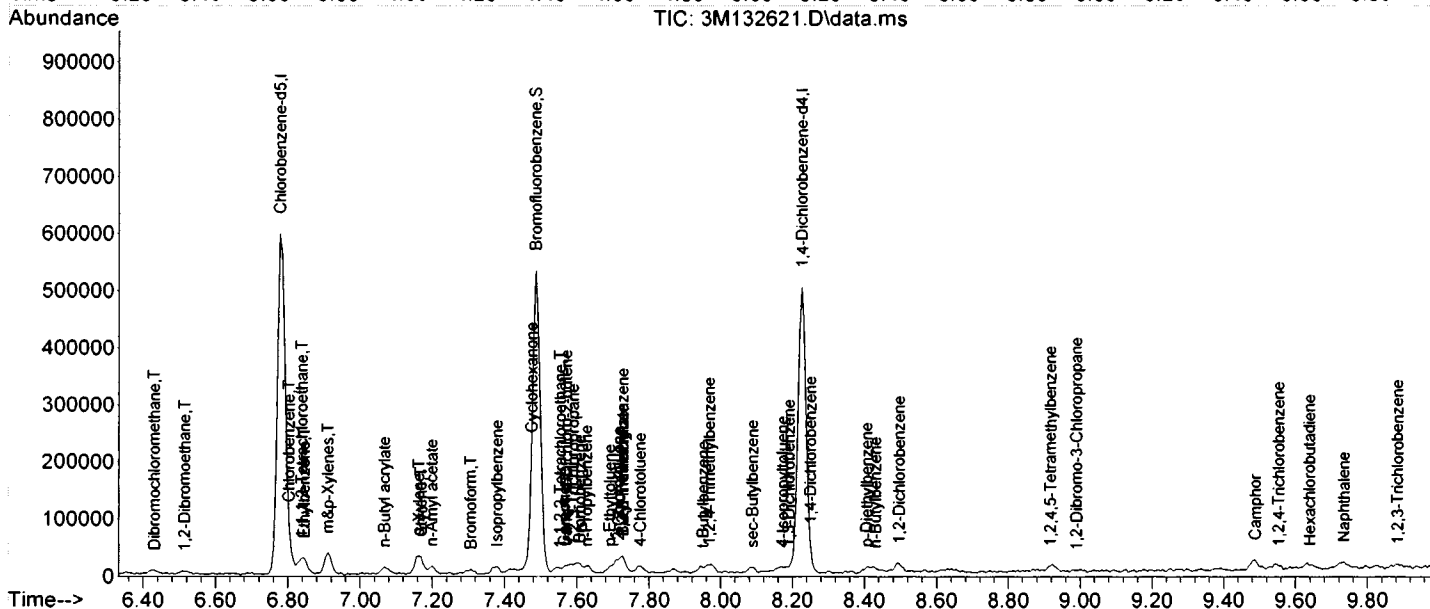
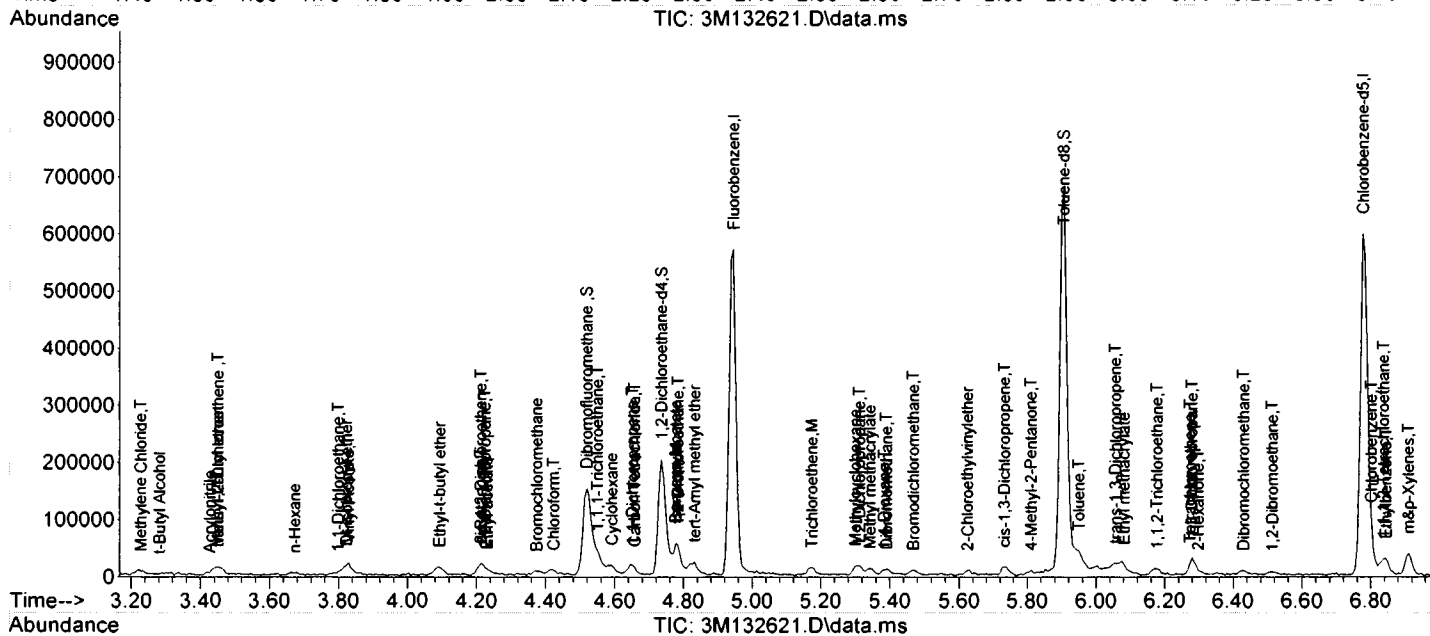
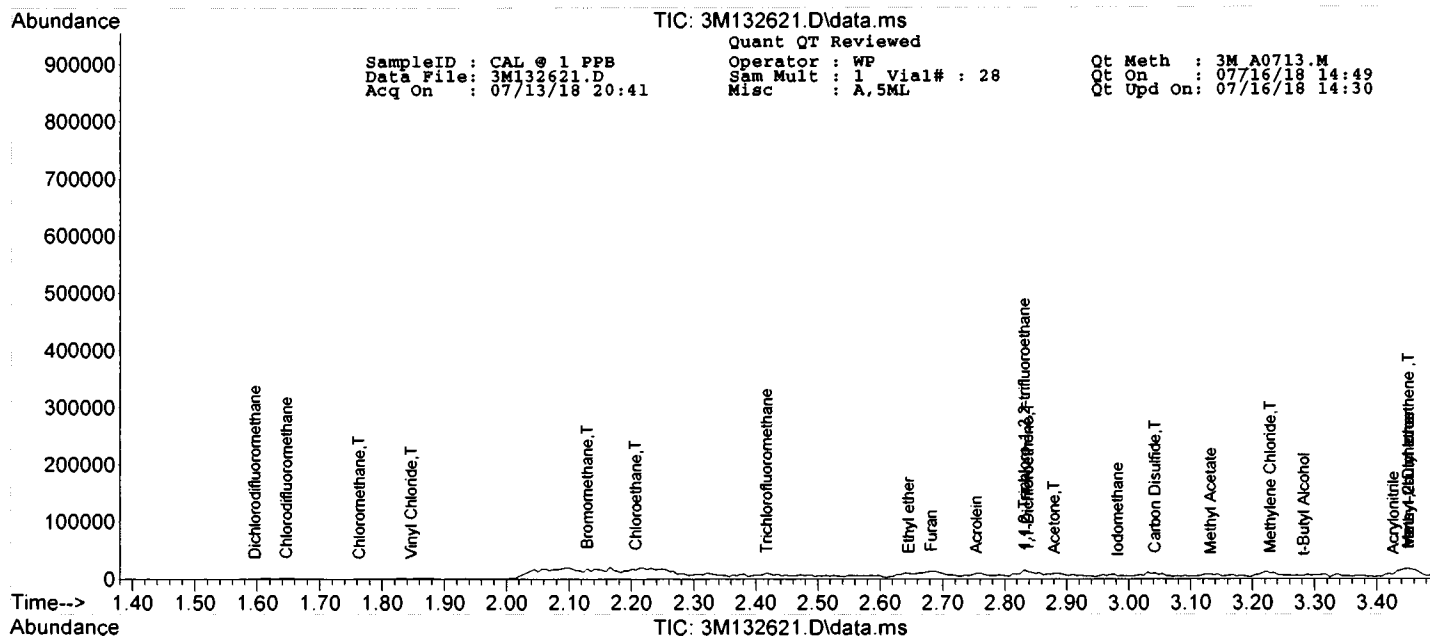
Operator : WP
 Sam Mult : 1 Vial# : 28
 Misc : A, SML

Qt Meth : 3M A0713.M
 Qt On : 07/16/18 14:49
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.838	133	2115m	0.8372	ug/l	
69) Chlorobenzene	6.802	112	7888	1.1461	ug/l	78
71) n-Butyl acrylate	7.067	55	6309	0.7108	ug/l	86
72) n-Amyl acetate	7.199	43	7176	0.8986	ug/l	97
73) Bromoform	7.307	173	2096	0.8604	ug/l	58
74) Ethylbenzene	6.844	106	3189m	1.4534	ug/l	
75) 1,1,2,2-Tetrachloroethane	7.553	83	3787	0.8453	ug/l	76
77) Styrene	7.169	104	6344	0.8114	ug/l	81
78) m&p-Xylenes	6.910	106	6353	1.6011	ug/l	89
79) o-Xylene	7.163	106	3633	0.9000	ug/l	45
80) trans-1,4-Dichloro-2-b...	7.571	53	1772	1.1408	ug/l	96
81) 1,3-Dichlorobenzene	8.190	146	4663m	1.0471	ug/l	
82) 1,4-Dichlorobenzene	8.250	146	5022	1.0851	ug/l	73
83) 1,2-Dichlorobenzene	8.496	146	5087	1.0694	ug/l	92
84) Isopropylbenzene	7.379	105	6462	0.7618	ug/l	93
85) Cyclohexanone	7.475	55	3013	13.9500	ug/l	68
86) Camphene	7.565	93	2816	1.0825	ug/l	79
87) 1,2,3-Trichloropropane	7.589	75	4135	0.8228	ug/l	90
88) 2-Chlorotoluene	7.715	91	4621	0.9628	ug/l	99
89) p-Ethyltoluene	7.691	105	7413	0.8467	ug/l	87
90) 4-Chlorotoluene	7.775	91	5115	0.9571	ug/l	93
91) n-Propylbenzene	7.625	91	6992	0.7547	ug/l	90
92) Bromobenzene	7.607	77	7803	0.9239	ug/l	90
93) 1,3,5-Trimethylbenzene	7.727	105	4018	0.7233	ug/l	55
94) Butyl methacrylate	7.727	41	4387	0.7253	ug/l	82
95) t-Butylbenzene	7.950	119	5012	0.8394	ug/l	70
96) 1,2,4-Trimethylbenzene	7.968	105	5530	0.7418	ug/l	92
97) sec-Butylbenzene	8.088	105	5602	0.8028	ug/l	86
98) 4-Isopropyltoluene	8.172	119	4598	0.7876	ug/l	91
99) n-Butylbenzene	8.430	91	5065	0.7538	ug/l	74
100) p-Diethylbenzene	8.406	119	2760m	0.7304	ug/l	
101) 1,2,4,5-Tetramethylben...	8.917	119	5710	1.1522	ug/l	88
102) 1,2-Dibromo-3-Chloropr...	8.989	157	744	0.8314	ug/l	36
103) Camphor	9.487	95	3673	9.7270	ug/l	84
104) Hexachlorobutadiene	9.638	225	2118	1.3805	ug/l	75
105) 1,2,4-Trichlorobenzene	9.553	180	2635	1.1283	ug/l	89
106) 1,2,3-Trichlorobenzene	9.884	180	2716	1.2289	ug/l	81
107) Naphthalene	9.734	128	6516	1.4410	ug/l	100

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



SampleID : CAL @ 0.5 PPB
 Data File: 3M132620.D
 Acq On : 07/13/18 20:24

Operator : WP
 Sam Mult : 1 Vial# : 27
 Misc : A,5ML

Qt Meth : 3M A012
 Qt On : 07/16/18 14:53
 Qt Upd On: 07/16/18 14:30

8082413 0102

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.946	96	347928	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.784	117	273171	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.226	152	132705	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.520	111	90140	32.19	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	107.30%	
39) 1,2-Dichloroethane-d4	4.736	67	65877	31.12	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.73%	
66) Toluene-d8	5.907	98	349468	28.65	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.50%	
76) Bromofluorobenzene	7.487	174	151332	33.41	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	111.37%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	0.000		0	N.D.	d	
6) Dichlorodifluoromethane	0.000		0	N.D.	d	
7) Chloromethane	0.000		0	N.D.	d	
8) Bromomethane	0.000		0	N.D.	d	
9) Vinyl Chloride	0.000		0	N.D.	d	
10) Chloroethane	0.000		0	N.D.	d	
11) Trichlorofluoromethane	0.000		0	N.D.	d	
12) Ethyl ether	0.000		0	N.D.	d	
13) Furan	0.000		0	N.D.	d	
14) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.	d	
15) Methylene Chloride	0.000		0	N.D.	d	
16) Acrolein	0.000		0	N.D.	d	
17) Acrylonitrile	0.000		0	N.D.	d	
18) Iodomethane	0.000		0	N.D.	d	
19) Acetone	0.000		0	N.D.	d	
20) Carbon Disulfide	0.000		0	N.D.	d	
21) t-Butyl Alcohol	0.000		0	N.D.	d	
22) n-Hexane	0.000		0	N.D.	d	
23) Di-isopropyl-ether	0.000		0	N.D.	d	
24) 1,1-Dichloroethene	0.000		0	N.D.	d	
25) Methyl Acetate	0.000		0	N.D.	d	
26) Methyl-t-butyl ether	3.450	73	3682m	0.5165	ug/l	
27) 1,1-Dichloroethane	0.000		0	N.D.	d	
28) trans-1,2-Dichloroethene	0.000		0	N.D.	d	
29) Ethyl-t-butyl ether	0.000		0	N.D.	d	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	d	
31) Bromochloromethane	0.000		0	N.D.	d	
32) 2,2-Dichloropropane	0.000		0	N.D.	d	
33) Ethyl acetate	0.000		0	N.D.	d	
34) 1,4-Dioxane	0.000		0	N.D.	d	
35) 1,1-Dichloropropene	0.000		0	N.D.	d	
36) Chloroform	0.000		0	N.D.	d	
38) Cyclohexane	0.000		0	N.D.	d	
40) 1,2-Dichloroethane	4.784	62	2721m	0.5910	ug/l	
41) 2-Butanone	0.000		0	N.D.	d	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
43) Carbon Tetrachloride	0.000		0	N.D.	d	
44) Vinyl Acetate	0.000		0	N.D.	d	
45) Bromodichloromethane	0.000		0	N.D.	d	
46) Methylcyclohexane	0.000		0	N.D.	d	
47) Dibromomethane	0.000		0	N.D.	d	
48) 1,2-Dichloropropane	0.000		0	N.D.	d	
49) Trichloroethene	0.000		0	N.D.	d	
50) Benzene	4.778	78	5726m	0.5801	ug/l	
51) tert-Amyl methyl ether	0.000		0	N.D.	d	
53) Iso-propylacetate	0.000		0	N.D.	d	
54) Methyl methacrylate	0.000		0	N.D.	d	
55) Dibromochloromethane	0.000		0	N.D.	d	
56) 2-Chloroethylvinylether	0.000		0	N.D.	d	
57) cis-1,3-Dichloropropene	0.000		0	N.D.	d	
58) trans-1,3-Dichloropropene	0.000		0	N.D.	d	
59) Ethyl methacrylate	0.000		0	N.D.	d	
60) 1,1,2-Trichloroethane	0.000		0	N.D.	d	
61) 1,2-Dibromoethane	0.000		0	N.D.	d	
62) 1,3-Dichloropropane	0.000		0	N.D.	d	
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	d	
64) 2-Hexanone	0.000		0	N.D.	d	
65) Tetrachloroethene	0.000		0	N.D.	d	
67) Toluene	0.000		0	N.D.	d	

SampleID : CAL @ 0.5 PPB
 Data File: 3M132620.D
 Acq On : 07/13/18 20:24

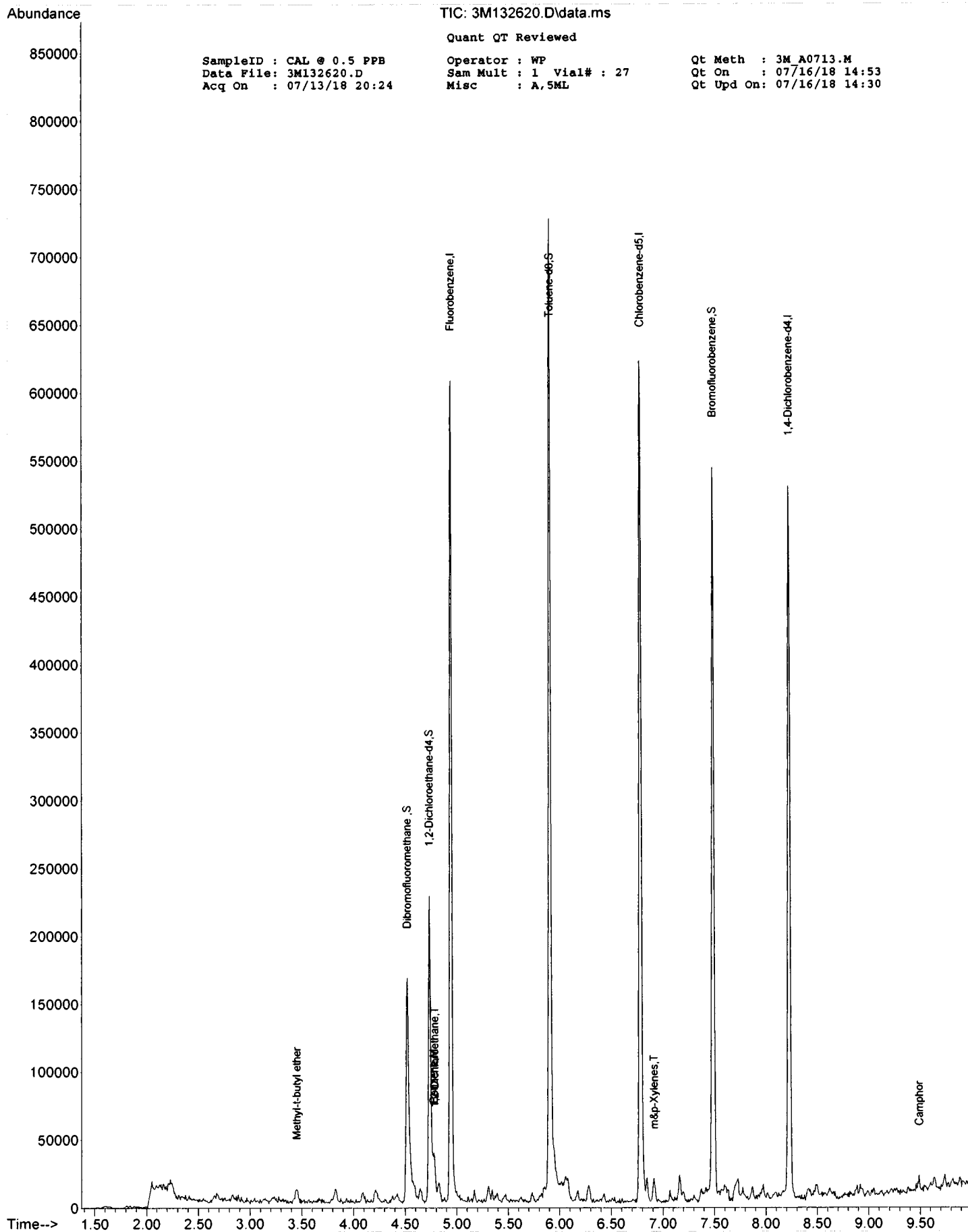
Operator : WP
 Sam Mult : 1 Vial# : 27
 Misc : A,SML

Qt Meth : 3M_A0713.M
 Qt On : 07/16/18 14:53
 Qt Upd On: 07/16/18 14:30

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d	
69) Chlorobenzene	0.000		0	N.D.	d	
71) n-Butyl acrylate	0.000		0	N.D.	d	
72) n-Amyl acetate	0.000		0	N.D.	d	
73) Bromoform	0.000		0	N.D.	d	
74) Ethylbenzene	0.000		0	N.D.	d	
75) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	d	
77) Styrene	0.000		0	N.D.	d	
78) m&p-Xylenes	6.910	106	3297	0.7839	ug/l	89
79) o-Xylene	0.000		0	N.D.	d	
80) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d	
81) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
82) 1,4-Dichlorobenzene	0.000		0	N.D.	d	
83) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
84) Isopropylbenzene	0.000		0	N.D.	d	
85) Cyclohexanone	0.000		0	N.D.	d	
86) Camphene	0.000		0	N.D.	d	
87) 1,2,3-Trichloropropane	0.000		0	N.D.	d	
88) 2-Chlorotoluene	0.000		0	N.D.	d	
89) p-Ethyltoluene	0.000		0	N.D.	d	
90) 4-Chlorotoluene	0.000		0	N.D.	d	
91) n-Propylbenzene	0.000		0	N.D.	d	
92) Bromobenzene	0.000		0	N.D.	d	
93) 1,3,5-Trimethylbenzene	0.000		0	N.D.	d	
94) Butyl methacrylate	0.000		0	N.D.	d	
95) t-Butylbenzene	0.000		0	N.D.	d	
96) 1,2,4-Trimethylbenzene	0.000		0	N.D.	d	
97) sec-Butylbenzene	0.000		0	N.D.	d	
98) 4-Isopropyltoluene	0.000		0	N.D.	d	
99) n-Butylbenzene	0.000		0	N.D.	d	
100) p-Diethylbenzene	0.000		0	N.D.	d	
101) 1,2,4,5-Tetramethylben...	0.000		0	N.D.	d	
102) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d	
103) Camphor	9.487	95	1595m	3.9851	ug/l	
104) Hexachlorobutadiene	0.000		0	N.D.	d	
105) 1,2,4-Trichlorobenzene	0.000		0	N.D.	d	
106) 1,2,3-Trichlorobenzene	0.000		0	N.D.	d	
107) Naphthalene	0.000		0	N.D.	d	

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



Level #	Data File	Cal Identifier	Analysis Date/Time								Level #	Data File	Cal Identifier	Analysis Date/Time													
			RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8				RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
1	3M135197.D	CAL @ 20 PPB																									
3	3M135196.D	CAL @ 10 PPB																									
5	3M135204.D	CAL @ 100 PPB																									
7	3M135198.D	CAL @ 500 PPB																									
9	3M135193.D	CAL @ 0.5 PPB																									
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9	
Chlorodifluoromethane	1	0	Avg	0.3458	0.4021	0.3841	0.3280	0.3394	0.3353	0.3298	0.4149	---	0.360	1.56	1.00	1.00	9.7	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Dichlorodifluorometha	1	0	Avg	0.1878	0.2231	0.2074	0.1888	0.2010	0.1844	0.2011	0.1884	---	0.198	1.53	0.998	0.999	6.6	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Chloromethane	1	0	Avg	0.2713	0.3547	0.3128	0.2530	0.2462	0.2433	0.2458	0.3443	---	0.284	1.71	1.00	1.00	16	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Bromomethane	1	0	Avg	0.0868	0.1104	0.0875	0.0943	0.0884	0.0776	---	0.0842	---	0.0899	2.06	0.996	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	---	1.00	
Vinyl Chloride	1	0	Avg	0.1803	0.1596	0.2061	0.1725	0.1544	0.1718	0.1653	0.1509	---	0.170	1.78	0.999	0.999	10	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Chloroethane	1	0	Avg	0.0710	0.0749	0.0893	0.0793	0.0744	0.0698	0.0588	0.0730	---	0.0738	2.15	0.992	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Trichlorofluoromethan	1	0	Avg	0.2697	0.2620	0.2859	0.2607	0.2628	0.2558	0.2456	0.2917	---	0.267	2.35	1.00	1.00	5.7	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Ethyl ether	1	0	Avg	0.1996	0.2056	0.2254	0.2229	0.2245	0.2195	0.2044	0.2589	---	0.220	2.58	0.999	1.00	8.5	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Furan	1	0	Avg	0.4869	0.5652	0.5491	0.5505	0.5479	0.5338	0.4968	0.5336	---	0.533	2.62	0.999	1.00	5.1	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,1,2-Trichloro-1,2,2-tr	1	0	Avg	0.0966	0.0990	0.1196	0.0999	0.0925	0.0907	0.0838	0.1454	---	0.103	2.78	0.998	1.00	19	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Methylene Chloride	1	0	Avg	0.2345	0.2686	0.2613	0.2357	0.2397	0.2271	0.2207	0.2990	---	0.248	3.17	1.00	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Acrolein	1	0	Avg	0.0315	0.0366	0.0404	0.0371	0.0384	0.0361	0.0353	0.0258	---	0.0352	2.70	1.00	1.00	13		100.0	25.00	50.00	250.0	500.0	1250.	2500.	5.00	
Acrylonitrile	1	0	Avg	0.0911	0.0939	0.0986	0.0870	0.0969	0.0954	0.0924	0.1072	---	0.0953	3.38	1.00	1.00	6.3		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Iodomethane	1	0	Avg	0.2345	0.2394	0.2693	0.2523	0.2622	0.2401	0.2315	0.2602	---	0.249	2.92	0.999	1.00	5.7		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Acetone	1	0	Avg	0.0802	0.0851	0.0876	0.0862	0.0773	0.0825	0.0823	0.1178	---	0.0874	2.83	1.00	1.00	15	0.10	100.0	25.00	50.00	250.0	500.0	1250.	2500.	5.00	
Carbon Disulfide	1	0	Avg	0.5954	0.6682	0.6691	0.5934	0.6047	0.5969	0.5664	0.7520	---	0.631	2.98	0.999	1.00	9.7	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
t-Butyl Alcohol	1	0	Avg	0.0157	0.0152	0.0201	0.0206	0.0194	0.0203	0.0210	0.0188	---	0.0189	3.26	1.00	1.00	12		100.0	25.00	50.00	250.0	500.0	1250.	2500.	5.00	
n-Hexane	1	0	Avg	0.0628	0.0825	0.0761	0.0690	0.0735	0.0743	0.0756	0.1046	---	0.0773	3.62	1.00	1.00	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Di-isopropyl-ether	1	0	Avg	0.7042	0.7266	0.7739	0.7904	0.7971	0.7340	0.6542	0.6545	---	0.729	3.79	0.996	1.00	7.7		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,1-Dichloroethene	1	0	Avg	0.3015	0.3359	0.3578	0.3302	0.3239	0.3139	0.3008	0.3485	---	0.327	2.78	0.999	1.00	6.4	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Methyl Acetate	1	0	Avg	0.2627	0.3391	0.3377	0.2989	0.2987	0.2988	0.2920	0.2650	---	0.299	3.09	1.00	1.00	9.5	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Methyl-t-butyl ether	1	0	Avg	0.4360	0.5094	0.4964	0.5095	0.4877	0.4650	0.4221	0.4261	0.2978	---	0.450	3.40	0.997	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1-Dichloroethane	1	0	Avg	0.3981	0.4756	0.4514	0.4114	0.4095	0.3930	0.3748	0.4649	---	0.422	3.76	0.999	1.00	8.7	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
trans-1,2-Dichloroeth	1	0	Avg	0.2065	0.2387	0.2201	0.2062	0.2061	0.1963	0.1801	0.2065	---	0.208	3.41	0.998	1.00	8.2	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Ethyl-t-butyl ether	1	0	Avg	0.6156	0.6199	0.6798	0.7022	0.6706	0.6564	0.5835	0.4551	---	0.623	4.06	0.996	1.00	13	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
cis-1,2-Dichloroethene	1	0	Avg	0.3922	0.4934	0.4595	0.4223	0.4251	0.3958	0.3579	0.3569	---	0.413	4.18	0.997	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Bromochloromethane	1	0	Avg	0.2775	0.2506	0.2891	0.2872	0.2881	0.2765	0.2642	0.2275	---	0.270	4.34	0.999	1.00	8.0		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
2,2-Dichloropropane	1	0	Avg	0.2422	0.2876	0.2837	0.2365	0.2354	0.2242	0.2095	0.2677	---	0.248	4.19	0.999	1.00	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Ethyl acetate	1	0	Avg	0.2453	0.2800	0.2732	0.3093	0.2951	0.2851	0.2706	0.1601	---	0.265	4.21	0.999	1.00	17		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,4-Dioxane	1	0	Avg	0.0021	0.0018	0.0027	0.0026	0.0025	0.0024	0.0023	0.0014	---	0.00227	5.38	0.999	1.00	19		100.0	25.00	50.00	250.0	500.0	1250.	2500.	50.00	
1,1-Dichloropropene	1	0	Avg	0.2684	0.3126	0.3128	0.2909	0.2876	0.2555	0.2259	0.3185	---	0.284	4.63	0.995	1.00	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Chloroform	1	0	Avg	0.3829	0.4306	0.4779	0.4184	0.4090	0.3930	0.3740	0.4156	---	0.413	4.39	0.999	1.00	7.9	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Dibromofluoromethan	1	0	Avg	0.2577	0.2674	0.2733	0.2592	0.2662	0.2387	0.2540	0.2703	0.2628	---	0.261	4.49	---	1.00	4.0		30.00	30.00	30.00	30.00	30.00	30.00	30.00	
Cyclohexane	1	0	Avg	0.1795	0.1756	0.1950	0.1921	0.1994	0.1975	0.1858	0.1498	---	0.184	4.57	0.999	1.00	8.9	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2-Dichloroethane-d4	1	0	Avg	0.1695	0.1950	0.1764	0.1747	0.1782	0.1729	0.1691	0.1728	0.1986	---	0.179	4.72	---	1.00	6.0		30.00	30.00	30.00	30.00	30.00	30.00	30.00	
1,2-Dichloroethane	1	0	Avg	0.3449	0.3875	0.4131	0.3636	0.3454	0.3099	0.2677	0.4507	0.3929	---	0.364	4.77	0.993											

Flags

a - failed the min of criteria

c - failed the minimum correlation coeff criteria (if applicable)

Avg Rsd: 10.8

Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fti = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations																		
								Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9										
1	3M135197.D	CAL @ 20 PPB	08/28/18 22:06	2	3M135195.D	CAL @ 5 PPB	08/28/18 21:31																			
3	3M135196.D	CAL @ 10 PPB	08/28/18 21:48	4	3M135207.D	CAL @ 50 PPB	08/29/18 00:59																			
5	3M135204.D	CAL @ 100 PPB	08/29/18 00:07	6	3M135201.D	CAL @ 250 PPB	08/28/18 23:13																			
7	3M135198.D	CAL @ 500 PPB	08/28/18 22:20	8	3M135194.D	CAL @ 1 PPB	08/28/18 21:14																			
9	3M135193.D	CAL @ 0.5 PPB	08/28/18 20:56																							
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
Methylcyclohexane	1	0	Avg	0.1198	0.1273	0.1395	0.1387	0.1450	0.1376	0.1279	0.1159	---	0.1315	5.29	0.998	1.00	7.9	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromomethane	1	0	Avg	0.2273	0.2534	0.2657	0.2251	0.2059	0.1890	0.1637	0.2955	---	0.2285	5.38	0.994	1.00	19	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dichloropropane	1	0	Avg	0.2455	0.2626	0.2797	0.2464	0.2483	0.2337	0.2122	0.2519	---	0.2485	5.30	0.997	1.00	8.0	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Trichloroethene	1	0	Avg	0.2225	0.2569	0.2717	0.2357	0.2361	0.2235	0.2001	0.2236	---	0.2345	5.16	0.997	1.00	9.5	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Benzene	1	0	Avg	0.8329	0.9353	1.0408	0.8511	0.8156	0.7022	0.5789	0.8842	0.7319	0.8194	4.76	0.987	1.00	17	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
tert-Amyl methyl ether	1	0	Avg	0.5483	0.5797	0.6358	0.6124	0.6175	0.5850	0.4897	0.5530	---	0.5784	4.81	0.991	1.00	8.1	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Iso-propylacetate	1	0	Avg	0.5895	0.6402	0.6582	0.6998	0.6854	0.6113	0.5377	0.6383	---	0.6334	4.77	0.994	1.00	8.3	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Methyl methacrylate	1	0	Avg	0.3150	0.3526	0.3689	0.3767	0.3862	0.3759	0.3734	0.4021	---	0.3695	5.34	1.00	1.00	7.0	0.50 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromochloromethane	1	0	Avg	0.3021	0.3616	0.3278	0.3205	0.3327	0.3258	0.3109	0.2880	---	0.3216	6.42	0.999	1.00	6.9	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Chloroethylvinyl ether	1	0	Avg	0.1704	0.1284	0.1544	0.2028	0.1954	0.2050	0.2085	0.1356	---	0.1755	5.61	1.00	1.00	19	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
cis-1,3-Dichloropropene	1	0	Avg	0.4532	0.4402	0.5044	0.4690	0.5007	0.4858	0.4589	0.3413	---	0.4575	5.73	0.999	1.00	11	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,3-Dichloropropene	1	0	Avg	0.4142	0.4510	0.4244	0.4490	0.4667	0.4488	0.4336	0.3796	---	0.4336	6.04	1.00	1.00	6.3	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethyl methacrylate	1	0	Avg	0.3033	0.2864	0.3348	0.3635	0.3652	0.3621	0.3513	0.3168	---	0.3356	6.07	1.00	1.00	9.0	0.50 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2-Trichloroethane	1	0	Avg	0.2854	0.3162	0.3164	0.2829	0.2886	0.2699	0.2533	0.2543	---	0.2836	6.16	0.999	1.00	8.6	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dibromomethane	1	0	Avg	0.2764	0.2780	0.3285	0.2957	0.3043	0.2895	0.2743	0.2295	---	0.2856	5.51	0.999	1.00	10	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichloropropane	1	0	Avg	0.4857	0.5622	0.5469	0.5037	0.4966	0.4482	0.3893	0.5070	---	0.4936	6.27	0.994	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
4-Methyl-2-Pentanone	1	0	Avg	0.2855	0.2991	0.2811	0.3411	0.3537	0.3564	0.3596	0.3271	---	0.3265	5.80	1.00	1.00	10	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Hexanone	1	0	Avg	0.1996	0.2197	0.2477	0.2348	0.2425	0.2399	0.2377	0.2544	---	0.2356	6.30	1.00	1.00	7.4	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Tetrachloroethene	1	0	Avg	0.2295	0.2855	0.2448	0.2156	0.2108	0.1755	0.1501	0.2421	---	0.2196	6.28	0.991	0.999	19	0.20 a	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Toluene-d8	1	0	Avg	1.2578	1.2714	1.2615	1.2660	1.2717	1.2951	1.3404	1.2592	1.2299	1.2755	5.89	-1	-1	2.4	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Toluene	1	0	Avg	0.6174	0.7089	0.7326	0.6410	0.6451	0.6035	0.5387	0.7152	---	0.6505	5.94	0.996	1.00	10	0.40	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,1,2-Tetrachloroeth	1	0	Avg	0.2837	0.3066	0.3095	0.2683	0.2680	0.2370	0.2021	0.2407	---	0.2656	6.83	0.992	1.00	14	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Chlorobenzene	1	0	Avg	0.6902	0.7842	0.7566	0.6909	0.6934	0.6394	0.5665	0.7817	---	0.7006	6.80	0.996	1.00	11	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Butyl acrylate	1	0	Qua	0.9795	0.7261	1.0118	1.2255	1.2474	1.3833	1.3476	0.8415	---	1.1077	0.07	1.00	1.00	22	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Amyl acetate	1	0	Avg	1.0669	0.9167	1.2181	1.2732	1.2937	1.3820	1.3241	0.8549	---	1.1777	0.20	0.999	1.00	17	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromoforn	1	0	Avg	0.5392	0.5147	0.6258	0.5702	0.5795	0.6370	0.6006	0.4905	---	0.5707	7.31	0.999	0.999	9.1	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethylbenzene	1	0	Avg	0.4032	0.3886	0.4547	0.4361	0.3929	0.3939	0.3421	0.3297	---	0.3936	8.84	0.995	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2,2-Tetrachloroeth	1	0	Avg	0.6839	0.7820	0.7837	0.7544	0.7408	0.7976	0.7872	0.8974	---	0.7787	7.54	1.00	1.00	7.8	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromofluorobenzene	1	0	Avg	1.0410	0.9983	1.0850	1.0706	1.0220	1.1632	1.2657	1.0152	1.0320	1.0877	7.49	-1	-1	8.0	0.30	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Styrene	1	0	Avg	1.3063	1.1385	1.4801	1.4110	1.3646	1.3590	1.1486	1.0067	---	1.2877	7.16	0.993	1.00	13	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
m,p-Xylenes	1	0	Avg	0.6477	0.6350	0.7670	0.7320	0.6649	0.6697	0.5638	0.5507	0.4914	0.6366	6.91	0.992	1.00	14	0.10	40.00	10.00	20.00	100.0	200.0	500.0	1.00	
o-Xylene	1	0	Avg	0.6929	0.7306	0.7996	0.7338	0.7170	0.7121	0.6069	0.6742	---	0.7087	7.16	0.993	1.00	7.8	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,4-Dichloro-2-b	1	0	Qua	0.1914	0.2068	0.2682	0.2658	0.2616	0.2910	0.2777	0.1029	---	0.2337	7.58	0.999	0.999	27	0.60	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichlorobenzene	1	0	Avg	0.9317	0.9431	1.1052	0.9121	0.9350	0.9398	0.8512	1.0334	---	0.9568	8.19	0.998	1.00	8.2	0.60	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,4-Dichlorobenzene	1	0	Avg	0.9744	1.0277	1.0893	0.9399	0.9317	0.9466	0.8787																

Flags

a - failed the min of criteria

c - failed the minimum correlation coeff criteria(if applicable)

Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound.

8082413 0107

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations																		
1	3M135197.D	CAL @ 20 PPB	08/28/18 22:06	2	3M135195.D	CAL @ 5 PPB	08/28/18 21:31	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9										
3	3M135196.D	CAL @ 10 PPB	08/28/18 21:48	4	3M135207.D	CAL @ 50 PPB	08/29/18 00:59																			
5	3M135204.D	CAL @ 100 PPB	08/29/18 00:07	6	3M135201.D	CAL @ 250 PPB	08/28/18 23:13																			
7	3M135198.D	CAL @ 500 PPB	08/28/18 22:20	8	3M135194.D	CAL @ 1 PPB	08/28/18 21:14																			
9	3M135193.D	CAL @ 0.5 PPB	08/28/18 20:56																							
Compound	Col	Mr	Ft	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9
p-Ethyltoluene	1	0	Avg	1.3887	1.2526	1.5738	1.6634	1.4806	1.6222	1.4429	1.3968	----	1.487.69	0.997	0.999	9.3		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
4-Chlorotoluene	1	0	Avg	0.9411	0.8462	1.0742	0.9347	0.9659	0.9715	0.8311	0.8816	----	0.9317.77	0.994	1.00	8.4		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
n-Propylbenzene	1	0	Avg	1.5361	1.4403	1.6669	1.5942	1.5603	1.6710	1.5370	1.6289	----	1.587.63	0.998	1.00	4.9		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Bromobenzene	1	0	Avg	1.3377	1.3876	1.4664	1.4693	1.4254	1.4895	1.3522	1.4929	----	1.437.60	0.998	1.00	4.3		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,3,5-Trimethylbenzen	1	0	Avg	1.1507	1.0525	1.3085	0.9807	1.1040	0.9382	0.7642	0.7856	----	1.017.73	0.986	1.00	18		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Butyl methacrylate	1	0	Avg	0.8611	0.7447	0.8801	1.0053	1.0324	1.0323	0.9304	0.7881	----	0.9097.73	0.997	1.00	12	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
t-Butylbenzene	1	0	Avg	0.9271	0.8038	0.9977	1.0282	1.0110	1.1095	1.0322	0.7091	----	0.9527.95	0.999	0.999	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4-Trimethylbenzen	1	0	Avg	1.2198	1.0722	1.3152	1.3063	1.3562	1.3713	1.2400	1.0436	----	1.247.97	0.997	1.00	10		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
sec-Butylbenzene	1	0	Avg	1.0367	1.0087	1.1711	1.1849	1.1892	1.2872	1.2312	1.0808	----	1.158.09	0.999	1.00	8.5		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
4-Isopropyltoluene	1	0	Avg	0.8822	0.8424	1.0313	1.0345	1.0556	1.1125	1.0177	0.8447	----	0.9788.17	0.998	1.00	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
n-Butylbenzene	1	0	Avg	1.0251	0.8661	1.1156	1.1061	1.1233	1.2207	1.1399	1.0347	----	1.088.43	0.999	0.999	9.8		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
p-Diethylbenzene	1	0	Avg	0.5198	0.4702	0.6020	0.5995	0.6152	0.6687	0.6241	0.4835	----	0.5738.41	0.999	0.999	13		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4,5-Tetramethylbe	1	0	Avg	0.8941	0.7173	0.9867	1.0258	1.0629	1.1674	1.1034	0.7817	----	0.9678.92	0.999	0.999	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2-Dibromo-3-Chloro	1	0	Avg	0.1721	0.1652	0.1787	0.1757	0.1950	0.2029	0.2075	0.1264	----	0.1788.99	1.00	1.00	14	0.05	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Camphor	1	0	Qua	0.0524	0.0463	0.0593	0.0702	0.0694	0.0757	0.0708	0.0477	0.0226	0.05729.49	0.999	0.999	30		200.0	50.00	100.0	500.0	1000.	2500.	5000.	10.00	5.00
Hexachlorobutadiene	1	0	Avg	0.3727	0.3546	0.4437	0.3974	0.3743	0.3931	0.3728	0.4520	----	0.3959.64	0.999	1.00	8.9		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4-Trichlorobenzen	1	0	Avg	0.5766	0.5906	0.6440	0.5782	0.5784	0.5964	0.5586	0.6222	----	0.5939.55	0.999	1.00	4.7	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,3-Trichlorobenzen	1	0	Avg	0.5469	0.5764	0.5988	0.5353	0.5422	0.5635	0.5505	0.8613	----	0.5979.89	1.00	1.00	18		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Naphthalene	1	0	Avg	1.0962	0.9396	1.2102	1.3056	1.2838	1.4378	1.3948	1.1230	----	1.229.73	0.999	0.999	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	

Flags

a - failed the min of criteria

c - failed the minimum correlation coeff criteria(if applicable)

Note:

Avg Rsd: 10.8

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Ft = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound.

8082413 0108

SampleID : CAL @ 20 PPB
 Data File : 3M135197.D
 Acq On : 08/28/18 22:06

Operator : WP
 Sam Mult : 1 Vial# : 8
 Misc : A,SML

Qt Meth : 3M A082413
 Qt On : 08/29/18 06:59
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.927	96	348836	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	271557	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.225	152	138891	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	89896	29.52	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.40%	
39) 1,2-Dichloroethane-d4	4.717	67	59127	27.20	ug/l	0.00
Spiked Amount 30.000			Recovery	=	90.67%	
66) Toluene-d8	5.895	98	341564	28.94	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.47%	
76) Bromofluorobenzene	7.486	174	144587	27.37	ug/l	0.00
Spiked Amount 30.000			Recovery	=	91.23%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.560	51	80424	16.5639	ug/l	93
6) Dichlorodifluoromethane	1.526	85	43695	43.8844	ug/l	79
7) Chloromethane	1.710	50	63097	35.8950	ug/l	77
8) Bromomethane	2.062	94	20202	26.4541	ug/l	95
9) Vinyl Chloride	1.776	62	41929	25.5930	ug/l	99
10) Chloroethane	2.146	64	16528	18.5897	ug/l	99
11) Trichlorofluoromethane	2.350	101	62737m	21.0251	ug/l	
12) Ethyl ether	2.585	59	46433	16.8702	ug/l	79
13) Furan	2.621	39	113249	16.0480	ug/l	99
14) 1,1,2-Trichloro-1,2,2-...	2.777	101	22472	15.4213	ug/l	97
15) Methylene Chloride	3.173	84	54546	19.0064	ug/l	97
16) Acrolein	2.705	56	36736	71.0439	ug/l	90
17) Acrylonitrile	3.378	53	21199	17.9915	ug/l	91
18) Iodomethane	2.915	142	54536	19.2143	ug/l	95
19) Acetone	2.825	43	93344	83.5224	ug/l	92
20) Carbon Disulfide	2.981	76	138469	23.9245	ug/l	100
21) t-Butyl Alcohol	3.258	59	18277	55.8966	ug/l	72
22) n-Hexane	3.624	57	14614m	11.5087	ug/l	
23) Di-isopropyl-ether	3.792	45	163775	15.2232	ug/l	99
24) 1,1-Dichloroethene	2.783	61	70131	18.4586	ug/l	93
25) Methyl Acetate	3.089	43	61104	13.8177	ug/l	100
26) Methyl-t-butyl ether	3.402	73	101402	14.0408	ug/l	70
27) 1,1-Dichloroethane	3.756	63	92589	18.3957	ug/l	84
28) trans-1,2-Dichloroethene	3.408	96	48045	18.8122	ug/l	89
29) Ethyl-t-butyl ether	4.062	59	143167	15.1723	ug/l	98
30) cis-1,2-Dichloroethene	4.183	61	91217	16.8016	ug/l	85
31) Bromochloromethane	4.345	49	64549m	18.0337	ug/l	
32) 2,2-Dichloropropane	4.189	77	56329	15.1605	ug/l	97
33) Ethyl acetate	4.213	43	57060m	13.7723	ug/l	
34) 1,4-Dioxane	5.378	88	24725	803.4143	ug/l	94
35) 1,1-Dichloropropene	4.627	75	62419	18.1234	ug/l	93
36) Chloroform	4.387	83	89065	16.7727	ug/l	93
38) Cyclohexane	4.567	56	41765	15.4891	ug/l	83
40) 1,2-Dichloroethane	4.765	62	80230	16.0167	ug/l	87
41) 2-Butanone	4.201	43	31080m	19.0907	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	71322	17.1431	ug/l	98
43) Carbon Tetrachloride	4.633	117	57569	18.8549	ug/l	85
44) Vinyl Acetate	3.786	43	122531	15.0544	ug/l	100
45) Bromodichloromethane	5.456	83	74798	17.4684	ug/l	93
46) Methylcyclohexane	5.288	83	27864	16.1031	ug/l	98
47) Dibromomethane	5.378	174	52882	19.3086	ug/l	88
48) 1,2-Dichloropropane	5.300	63	57099	18.3251	ug/l	92
49) Trichloroethene	5.156	130	51756	17.6616	ug/l	87
50) Benzene	4.759	78	193696	19.4506	ug/l	100
51) tert-Amyl methyl ether	4.807	73	127529	15.1557	ug/l	79
53) Iso-propylacetate	4.765	43	106728	13.6775	ug/l	100
54) Methyl methacrylate	5.336	41	57035	11.9587	ug/l	94
55) Dibromochloromethane	6.423	129	54692	16.9287	ug/l	96
56) 2-Chloroethylvinylether	5.612	63	30862	14.6833	ug/l	72
57) cis-1,3-Dichloropropene	5.726	75	82054	15.8415	ug/l	90
58) trans-1,3-Dichloropropene	6.045	75	74989	15.5300	ug/l	100
59) Ethyl methacrylate	6.075	41	54921	12.3341	ug/l	75
60) 1,1,2-Trichloroethane	6.165	97	51669	17.6625	ug/l	84
61) 1,2-Dibromoethane	6.513	107	50048	17.7460	ug/l	90
62) 1,3-Dichloropropane	6.273	76	87945	18.1818	ug/l	96
63) 4-Methyl-2-Pentanone	5.804	43	51696	12.7745	ug/l	97
64) 2-Hexanone	6.297	43	36147	12.7337	ug/l	75
65) Tetrachloroethene	6.279	164	41548	20.1168	ug/l	84
67) Toluene	5.937	92	111776	17.8573	ug/l	92

SampleID : CAL @ 20 PPB
 Data File: 3M135197.D
 Acq On : 08/28/18 22:06

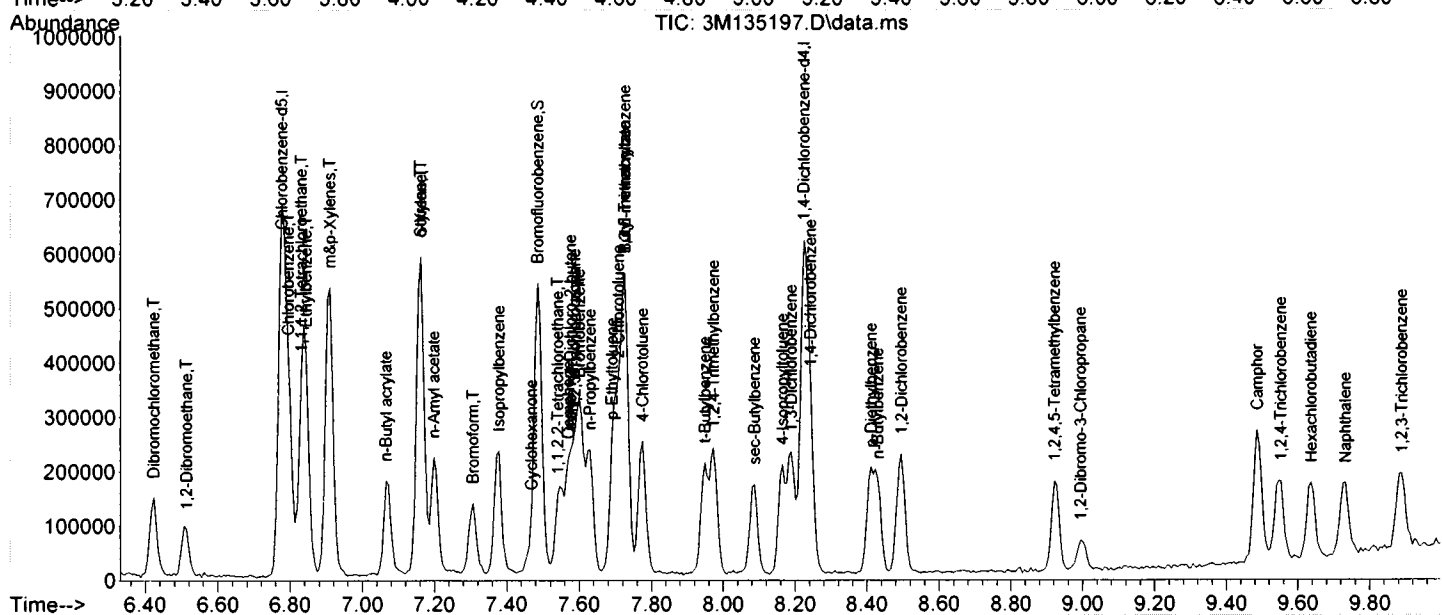
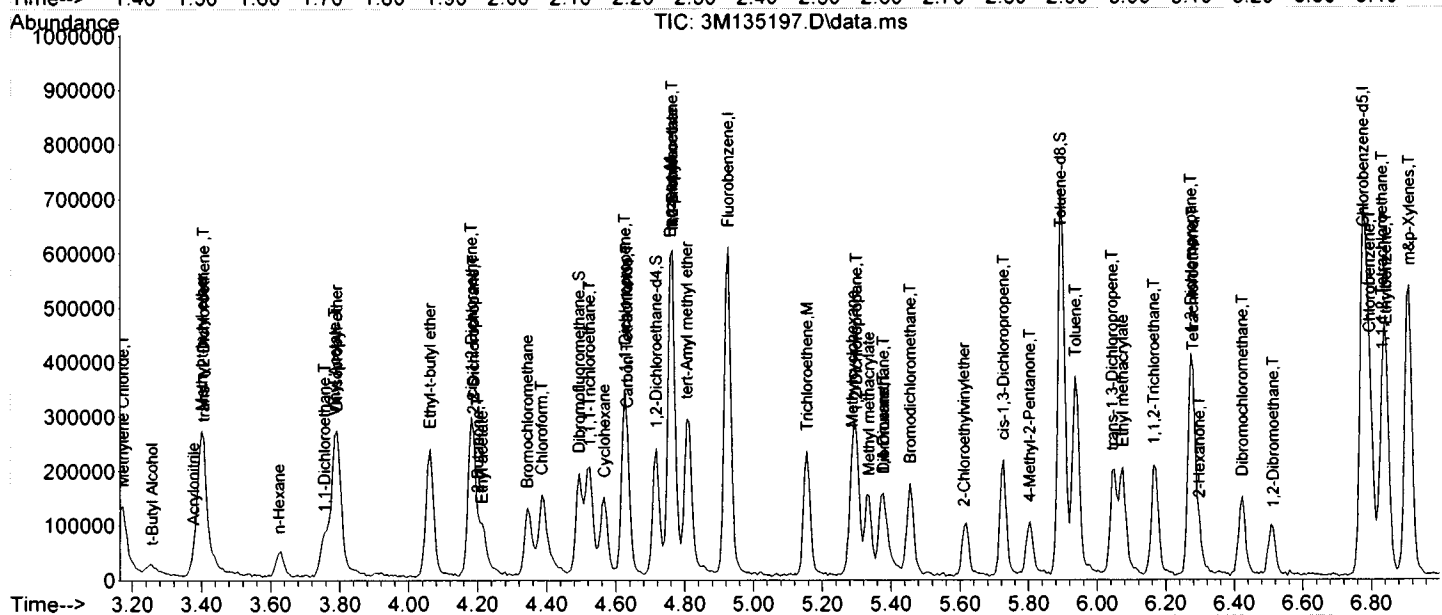
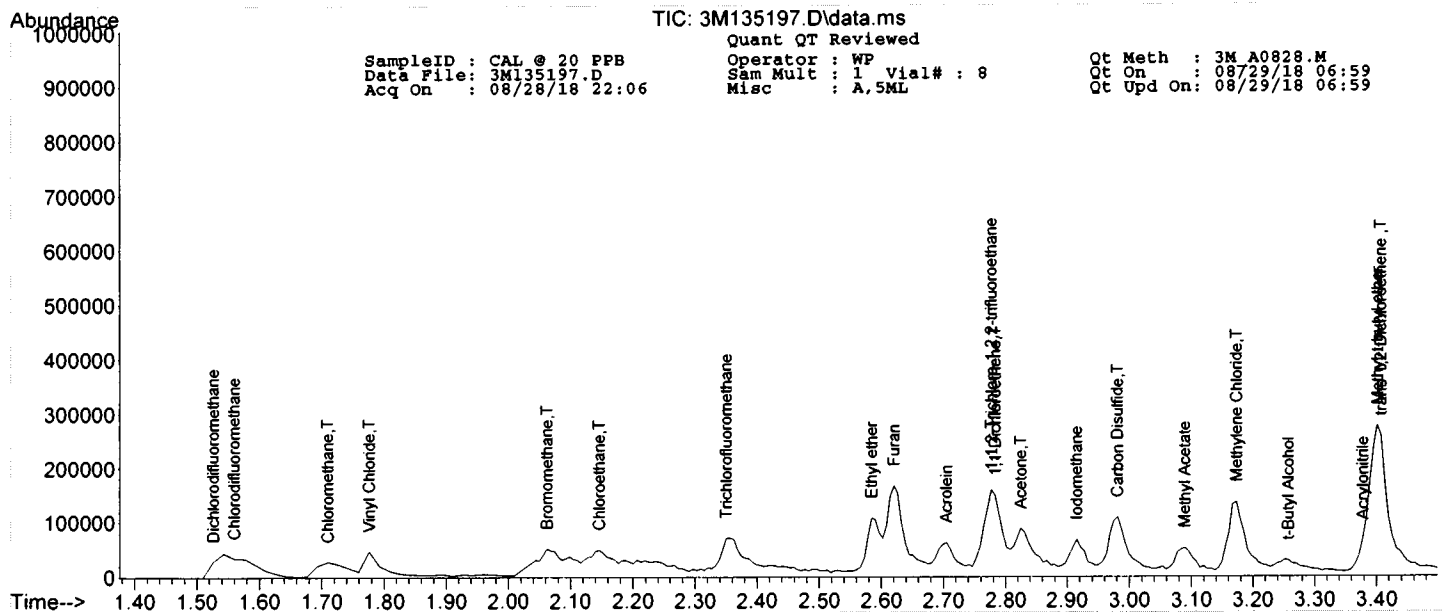
Operator : WP
 Sam Mult : 1 Vial# : 8
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 06:59
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	51360	20.8796	ug/l	86
69)	Chlorobenzene	6.796	112	124968	17.6793	ug/l	95
71)	n-Butyl acrylate	7.066	55	90696	12.1861	ug/l	96
72)	n-Amyl acetate	7.198	43	98792	13.7032	ug/l	82
73)	Bromoform	7.306	173	49932	17.4079	ug/l	98
74)	Ethylbenzene	6.844	106	37336	17.2705	ug/l	69
75)	1,1,2,2-Tetrachloroethane	7.540	83	63329	16.8037	ug/l	97
77)	Styrene	7.162	104	120963	17.8937	ug/l	100
78)	m&p-Xylenes	6.910	106	119954	35.3160	ug/l	94
79)	o-Xylene	7.162	106	64158	18.0217	ug/l	67
80)	trans-1,4-Dichloro-2-b...	7.577	53	17728	11.0301	ug/l	44
81)	1,3-Dichlorobenzene	8.189	146	86271	18.5202	ug/l	87
82)	1,4-Dichlorobenzene	8.243	146	90227	18.7037	ug/l	90
83)	1,2-Dichlorobenzene	8.496	146	84656	17.2061	ug/l	85
84)	Isopropylbenzene	7.378	105	117671	16.1490	ug/l	94
85)	Cyclohexanone	7.468	55	12194	24.7197	ug/l	91
86)	Camphene	7.571	93	31993	14.4009	ug/l	94
87)	1,2,3-Trichloropropane	7.589	75	77658	16.4642	ug/l	93
88)	2-Chlorotoluene	7.709	91	79280	17.8712	ug/l	95
89)	p-Ethyltoluene	7.691	105	128591	16.8618	ug/l	81
90)	4-Chlorotoluene	7.775	91	87144	18.1381	ug/l	93
91)	n-Propylbenzene	7.631	91	142234	18.5335	ug/l	94
92)	Bromobenzene	7.601	77	123869	16.2483	ug/l	96
93)	1,3,5-Trimethylbenzene	7.727	105	106550	21.6666	ug/l	95
94)	Butyl methacrylate	7.727	41	79740	14.6921	ug/l	85
95)	t-Butylbenzene	7.949	119	85850	16.9431	ug/l	85
96)	1,2,4-Trimethylbenzene	7.973	105	112946	18.0115	ug/l	89
97)	sec-Butylbenzene	8.087	105	95998	17.0515	ug/l	95
98)	4-Isopropyltoluene	8.165	119	81692	17.1317	ug/l	91
99)	n-Butylbenzene	8.430	91	94921	18.2766	ug/l	92
100)	p-Diethylbenzene	8.412	119	48139	15.5560	ug/l	90
101)	1,2,4,5-Tetramethylben...	8.922	119	82796	16.9433	ug/l	96
102)	1,2-Dibromo-3-Chloropr...	8.994	157	15935	18.8852	ug/l	65
103)	Camphor	9.487	95	48533	140.0446	ug/l	99
104)	Hexachlorobutadiene	9.637	225	34518	20.8244	ug/l	94
105)	1,2,4-Trichlorobenzene	9.553	180	53391	21.1750	ug/l	97
106)	1,2,3-Trichlorobenzene	9.889	180	50642	21.0541	ug/l	94
107)	Naphthalene	9.733	128	101504	17.5208	ug/l	100

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



SampleID : CAL @ 5 PPB
 Data File: 3MI35195.D
 Acq On : 08/28/18 21:31

Operator : WP
 Sam Mult : 1 Vial# : 6
 Misc : A,SML

Qt Meth : 3M A082413 0111
 Qt On : 08/29/18 07:10
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.928	96	319828	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.784	117	245445	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.231	152	132618	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.501	111	85538	30.64	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.13%	
39) 1,2-Dichloroethane-d4	4.717	67	62385	31.30	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.33%	
66) Toluene-d8	5.901	98	312059	29.25	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.50%	
76) Bromofluorobenzene	7.499	174	132401	26.25	ug/l	0.01
Spiked Amount 30.000			Recovery	=	87.50%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.565	51	21438	4.8158	ug/l	94
6) Dichlorodifluoromethane	1.531	85	11896	13.0312	ug/l	100
7) Chloromethane	1.715	50	18910	11.7333	ug/l	73
8) Bromomethane	2.062	94	5885	8.4052	ug/l	51
9) Vinyl Chloride	1.781	62	8512	5.6669	ug/l	55
10) Chloroethane	2.140	64	3993	4.8984	ug/l	76
11) Trichlorofluoromethane	2.351	101	13970	5.1064	ug/l	65
12) Ethyl ether	2.591	59	10962	4.3440	ug/l	87
13) Furan	2.621	39	30131	4.6570	ug/l	92
14) 1,1,2-Trichloro-1,2,2-...	2.765	101	5280	3.9520	ug/l	91
15) Methylene Chloride	3.174	84	14320	5.4423	ug/l	88
16) Acrolein	2.705	56	9780	20.6290	ug/l	82
17) Acrylonitrile	3.378	53	5007	4.6348	ug/l	59
18) Iodomethane	2.915	142	12765	4.9053	ug/l	69
19) Acetone	2.837	43	22682	22.1362	ug/l	95
20) Carbon Disulfide	2.975	76	35621	6.7128	ug/l	100
21) t-Butyl Alcohol	3.264	59	4067	13.5662	ug/l	91
22) n-Hexane	3.624	57	4399	3.7785	ug/l	75
23) Di-isopropyl-ether	3.798	45	38732	3.9268	ug/l	91
24) 1,1-Dichloroethene	2.789	61	17907	5.1406	ug/l	95
25) Methyl Acetate	3.083	43	18078	4.4588	ug/l	100
26) Methyl-t-butyl ether	3.408	73	27155	4.1011	ug/l	68
27) 1,1-Dichloroethane	3.762	63	25353	5.4940	ug/l	87
28) trans-1,2-Dichloroethene	3.414	96	12727	5.4353	ug/l	70
29) Ethyl-t-butyl ether	4.069	59	33046	3.8197	ug/l	95
30) cis-1,2-Dichloroethene	4.183	61	26303	5.2843	ug/l	91
31) Bromochloromethane	4.351	49	13358	4.0704	ug/l	73
32) 2,2-Dichloropropane	4.189	77	15333	4.5010	ug/l	83
33) Ethyl acetate	4.219	43	14927m	3.9296	ug/l	
34) 1,4-Dioxane	5.390	88	4963	175.8945	ug/l	95
35) 1,1-Dichloropropene	4.627	75	16663	5.2769	ug/l	93
36) Chloroform	4.387	83	22958	4.7156	ug/l	81
38) Cyclohexane	4.567	56	9363	3.7873	ug/l	97
40) 1,2-Dichloroethane	4.765	62	20657	4.4979	ug/l	97
41) 2-Butanone	4.195	43	5491m	3.6787	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	18977	4.9751	ug/l	99
43) Carbon Tetrachloride	4.639	117	13772	4.9197	ug/l	71
44) Vinyl Acetate	3.792	43	32641	4.3741	ug/l	100
45) Bromodichloromethane	5.462	83	19017	4.8441	ug/l	100
46) Methylcyclohexane	5.294	83	6790	4.2800	ug/l	83
47) Dibromomethane	5.390	174	13509	5.3799	ug/l	70
48) 1,2-Dichloropropane	5.300	63	14001	4.9010	ug/l	97
49) Trichloroethene	5.162	130	13697	5.0980	ug/l	77
50) Benzene	4.765	78	49859	5.4609	ug/l	100
51) tert-Amyl methyl ether	4.813	73	30902	4.0055	ug/l	80
53) Iso-propylacetate	4.765	43	26192	3.7137	ug/l	95
54) Methyl methacrylate	5.336	41	14427	3.3468	ug/l	96
55) Dibromochloromethane	6.429	129	14794	5.0663	ug/l	88
56) 2-Chloroethylvinylether	5.618	63	5254	2.7656	ug/l	67
57) cis-1,3-Dichloropropene	5.733	75	18008	3.8465	ug/l	74
58) trans-1,3-Dichloropropene	6.051	75	18450	4.2274	ug/l	91
59) Ethyl methacrylate	6.081	41	11716	2.9111	ug/l	80
60) 1,1,2-Trichloroethane	6.171	97	12935	4.8921	ug/l	83
61) 1,2-Dibromoethane	6.507	107	11373	4.4617	ug/l	90
62) 1,3-Dichloropropane	6.279	76	22999	5.2607	ug/l	80
63) 4-Methyl-2-Pentanone	5.805	43	12237	3.3456	ug/l	86
64) 2-Hexanone	6.303	43	8990	3.5039	ug/l	92
65) Tetrachloroethene	6.285	164	11681	6.2574	ug/l	53
67) Toluene	5.943	92	29003	5.1264	ug/l	84

SampleID : CAL @ 5 PPB
 Data File: 3M135195.D
 Acq On : 08/28/18 21:31

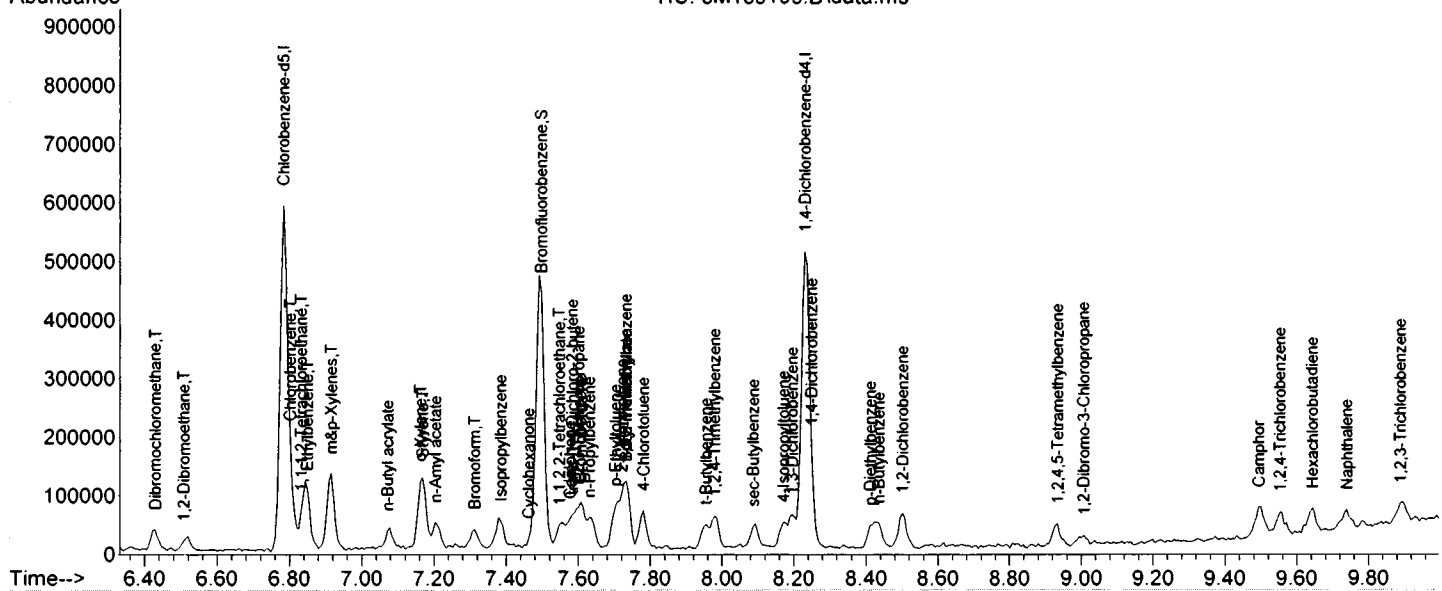
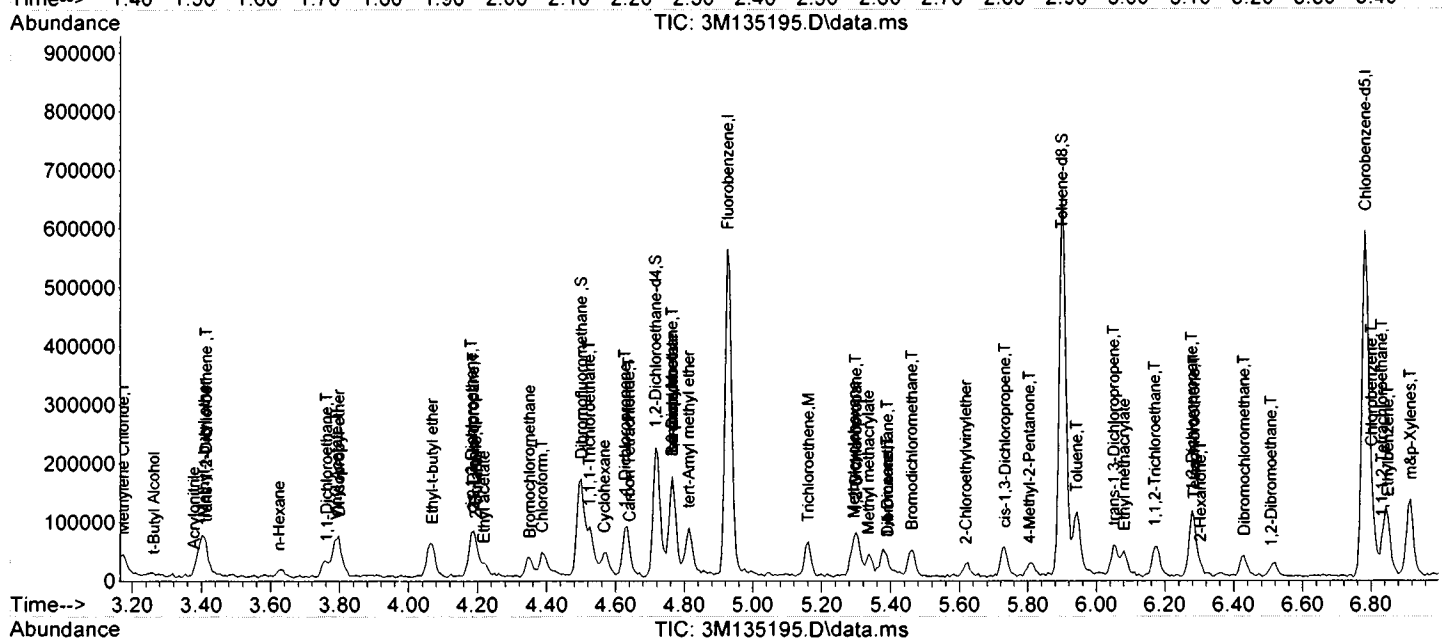
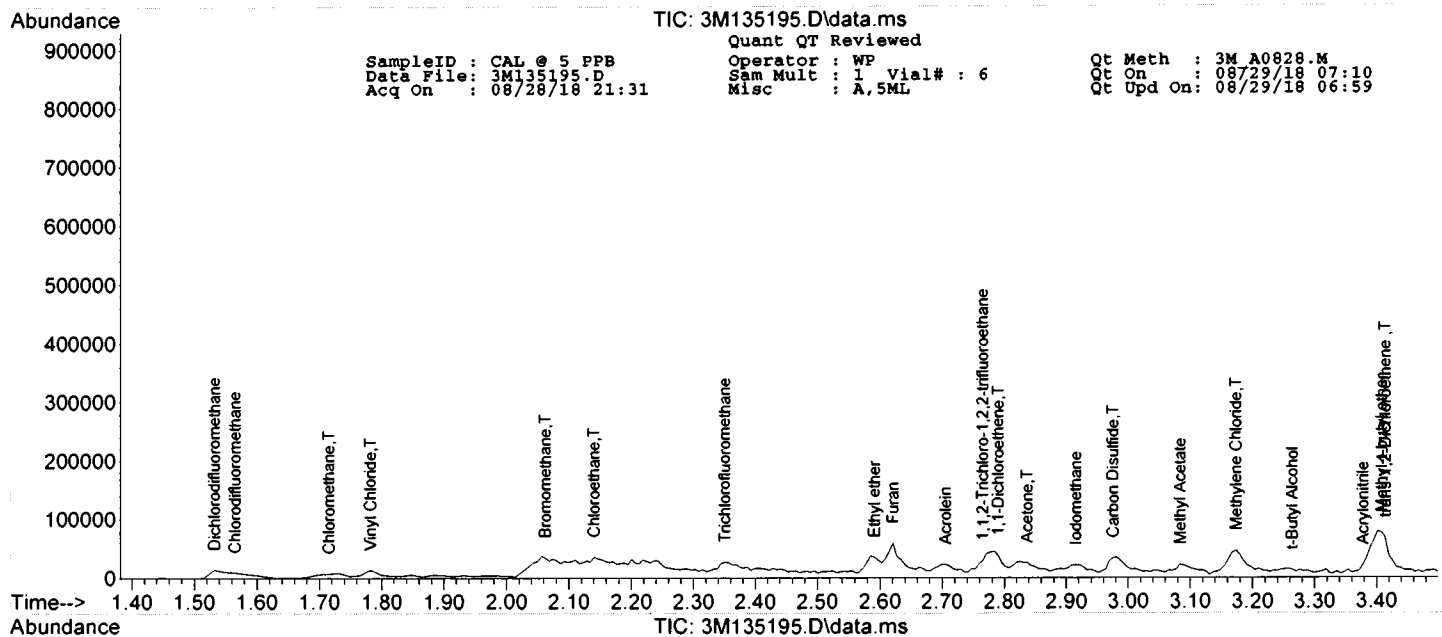
Operator : WP
 Sam Mult : 1 Vial# : 6
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:10
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	12545	5.6425	ug/l	83
69)	Chlorobenzene	6.802	112	32080	5.0212	ug/l	88
71)	n-Butyl acrylate	7.072	55	16049	2.2584	ug/l	90
72)	n-Amyl acetate	7.204	43	20263	2.9436	ug/l	79
73)	Bromoform	7.312	173	11377	4.1540	ug/l	94
74)	Ethylbenzene	6.850	106	8590	4.1614	ug/l	73
75)	1,1,2,2-Tetrachloroethane	7.547	83	17285	4.8033	ug/l	76
77)	Styrene	7.168	104	25165	3.8987	ug/l	85
78)	m&p-Xylenes	6.916	106	28075	8.6566	ug/l	97
79)	o-Xylene	7.162	106	16149	4.7507	ug/l	56
80)	trans-1,4-Dichloro-2-b...	7.583	53	4573	2.9798	ug/l	48
81)	1,3-Dichlorobenzene	8.195	146	20847	4.6870	ug/l	86
82)	1,4-Dichlorobenzene	8.249	146	22717	4.9319	ug/l	95
83)	1,2-Dichlorobenzene	8.502	146	22572	4.8047	ug/l	86
84)	Isopropylbenzene	7.384	105	26790	3.8505	ug/l	92
85)	Cyclohexanone	7.463	55	2745	5.8279	ug/l	82
86)	Camphene	7.577	93	7455	3.5144	ug/l	87
87)	1,2,3-Trichloropropane	7.601	75	19383	4.3038	ug/l	96
88)	2-Chlorotoluene	7.721	91	19880	4.6933	ug/l	95
89)	p-Ethyltoluene	7.703	105	27687	3.8023	ug/l	84
90)	4-Chlorotoluene	7.781	91	18704	4.0772	ug/l	84
91)	n-Propylbenzene	7.631	91	31836	4.3445	ug/l	100
92)	Bromobenzene	7.607	77	30671	4.2135	ug/l	94
93)	1,3,5-Trimethylbenzene	7.733	105	23265	4.9546	ug/l	93
94)	Butyl methacrylate	7.733	41	16460	3.1762	ug/l	79
95)	t-Butylbenzene	7.955	119	17768	3.6725	ug/l	92
96)	1,2,4-Trimethylbenzene	7.979	105	23699	3.9580	ug/l	84
97)	sec-Butylbenzene	8.087	105	22296	4.1476	ug/l	92
98)	4-Isopropyltoluene	8.171	119	18621	4.0897	ug/l	96
99)	n-Butylbenzene	8.436	91	19144	3.8604	ug/l	93
100)	p-Diethylbenzene	8.412	119	10393	3.5173	ug/l	# 2
101)	1,2,4,5-Tetramethylben...	8.934	119	15855	3.3980	ug/l	71
102)	1,2-Dibromo-3-Chloropr...	9.006	157	3653	4.5341	ug/l	75
103)	Camphor	9.493	95	10240	30.9457	ug/l	95
104)	Hexachlorobutadiene	9.643	225	7838	4.9523	ug/l	74
105)	1,2,4-Trichlorobenzene	9.553	180	13054	5.4221	ug/l	91
106)	1,2,3-Trichlorobenzene	9.889	180	12741	5.5475	ug/l	97
107)	Naphthalene	9.739	128	20768	3.7544	ug/l	100

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



SampleID : CAL @ 10 PPB
Data File: 3M135196.D
Acq On : 08/28/18 21:48

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A,5ML

Qt Meth : 3M A082413
Qt On : 08/29/18 07:13
Qt Upd On: 08/29/18 06:59

8082413 0114

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	325044	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	260231	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.226	152	127392	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	88865	31.32	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.40%	
39) 1,2-Dichloroethane-d4	4.712	67	57364	28.32	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.40%	
66) Toluene-d8	5.895	98	328293	29.02	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.73%	
76) Bromofluorobenzene	7.487	174	138229	28.53	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.10%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.574	51	41624	9.2003	ug/l	92
6) Dichlorodifluoromethane	1.524	85	22481	24.2311	ug/l	94
7) Chloromethane	1.708	50	33901	20.6975	ug/l	70
8) Bromomethane	2.057	94	9484	13.3281	ug/l	88
9) Vinyl Chloride	1.774	62	22331	14.6283	ug/l	93
10) Chloroethane	2.141	64	9682	11.6868	ug/l	80
11) Trichlorofluoromethane	2.351	101	30983	11.1434	ug/l	74
12) Ethyl ether	2.585	59	24425	9.5237	ug/l	95
13) Furan	2.621	39	59504	9.0492	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	12964	9.5477	ug/l	92
15) Methylene Chloride	3.168	84	28313	10.5877	ug/l	85
16) Acrolein	2.699	56	21937	45.5293	ug/l	86
17) Acrylonitrile	3.378	53	10683	9.7302	ug/l	83
18) Iodomethane	2.910	142	29186	11.0356	ug/l	99
19) Acetone	2.825	43	47470	45.5843	ug/l	95
20) Carbon Disulfide	2.976	76	72500	13.4434	ug/l	100
21) t-Butyl Alcohol	3.258	59	10893	35.7526	ug/l	62
22) n-Hexane	3.630	57	8249	6.9717	ug/l	76
23) Di-isopropyl-ether	3.793	45	83853	8.3648	ug/l	97
24) 1,1-Dichloroethene	2.783	61	38771	10.9516	ug/l	95
25) Methyl Acetate	3.084	43	36597	8.8816	ug/l	100
26) Methyl-t-butyl ether	3.402	73	53792	7.9936	ug/l	72
27) 1,1-Dichloroethane	3.757	63	48916	10.4301	ug/l	91
28) trans-1,2-Dichloroethene	3.408	96	23853	10.0234	ug/l	94
29) Ethyl-t-butyl ether	4.063	59	73659	8.3775	ug/l	96
30) cis-1,2-Dichloroethene	4.183	61	49786	9.8415	ug/l	99
31) Bromochloromethane	4.345	49	31326	9.3924	ug/l	75
32) 2,2-Dichloropropane	4.183	77	30747	8.8810	ug/l	96
33) Ethyl acetate	4.213	43	29609m	7.6697	ug/l	
34) 1,4-Dioxane	5.384	88	14837	517.4025	ug/l	94
35) 1,1-Dichloropropene	4.622	75	33900	10.5634	ug/l	96
36) Chloroform	4.387	83	51789	10.4668	ug/l	97
38) Cyclohexane	4.568	56	21132	8.4107	ug/l	86
40) 1,2-Dichloroethane	4.760	62	44767	9.5912	ug/l	83
41) 2-Butanone	4.183	43	10140m	6.6843	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	37624	9.7053	ug/l	98
43) Carbon Tetrachloride	4.634	117	32216	11.3237	ug/l	88
44) Vinyl Acetate	3.793	43	61494	8.1083	ug/l	100
45) Bromodichloromethane	5.457	83	37844	9.4850	ug/l	90
46) Methylcyclohexane	5.282	83	15118	9.3765	ug/l	95
47) Dibromomethane	5.378	174	28797	11.2842	ug/l	89
48) 1,2-Dichloropropane	5.300	63	30309	10.4392	ug/l	97
49) Trichloroethene	5.156	130	29446	10.7839	ug/l	85
50) Benzene	4.760	78	112772	12.1533	ug/l	100
51) tert-Amyl methyl ether	4.814	73	68897	8.7871	ug/l	82
53) Iso-propylacetate	4.760	43	57095	7.6353	ug/l	97
54) Methyl methacrylate	5.330	41	32001	7.0018	ug/l	95
55) Dibromochloromethane	6.424	129	28442	9.1868	ug/l	88
56) 2-Chloroethylvinylether	5.619	63	13401	6.6533	ug/l	74
57) cis-1,3-Dichloropropene	5.727	75	43755	8.8151	ug/l	87
58) trans-1,3-Dichloropropene	6.045	75	36817	7.9565	ug/l	95
59) Ethyl methacrylate	6.075	41	29044	6.8066	ug/l	83
60) 1,1,2-Trichloroethane	6.165	97	27450	9.7919	ug/l	94
61) 1,2-Dibromoethane	6.508	107	28503	10.5465	ug/l	90
62) 1,3-Dichloropropane	6.273	76	47443	10.2353	ug/l	99
63) 4-Methyl-2-Pentanone	5.799	43	24386	6.2882	ug/l	90
64) 2-Hexanone	6.292	43	21489	7.8995	ug/l	92
65) Tetrachloroethene	6.273	164	21242	10.7326	ug/l	93
67) Toluene	5.937	92	63553	10.5951	ug/l	91

SampleID : CAL @ 10 PPB
 Data File: 3M135196.D
 Acq On : 08/28/18 21:48

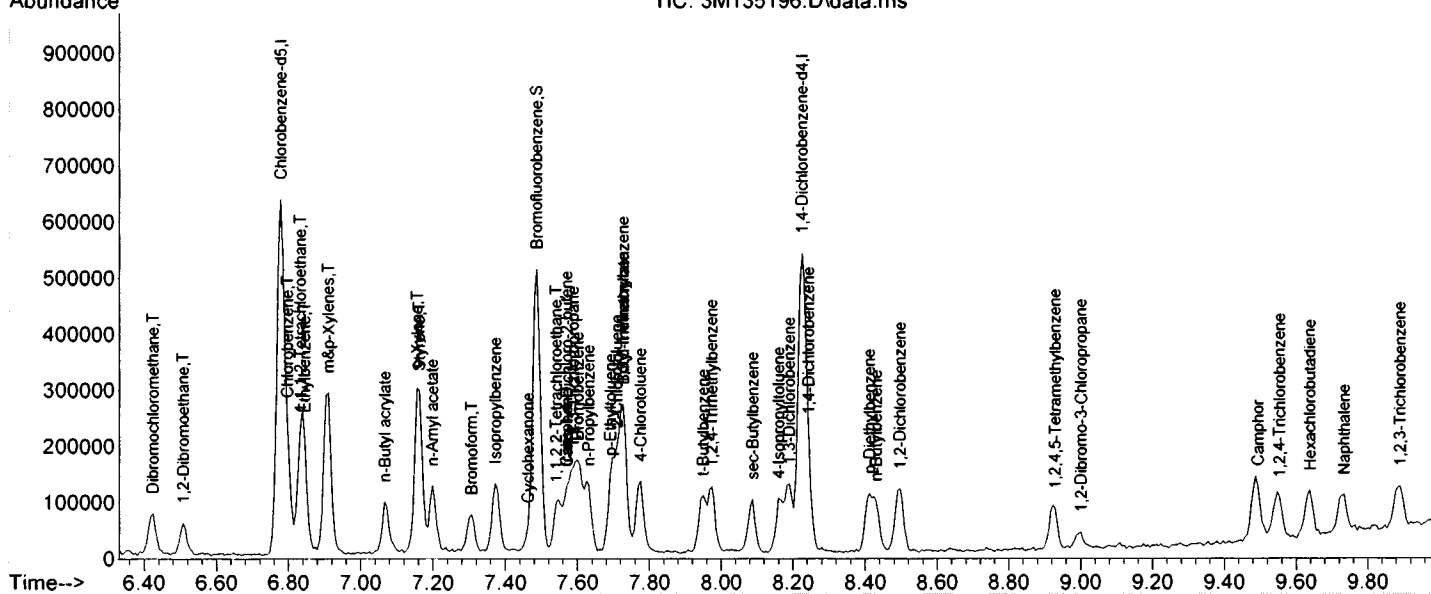
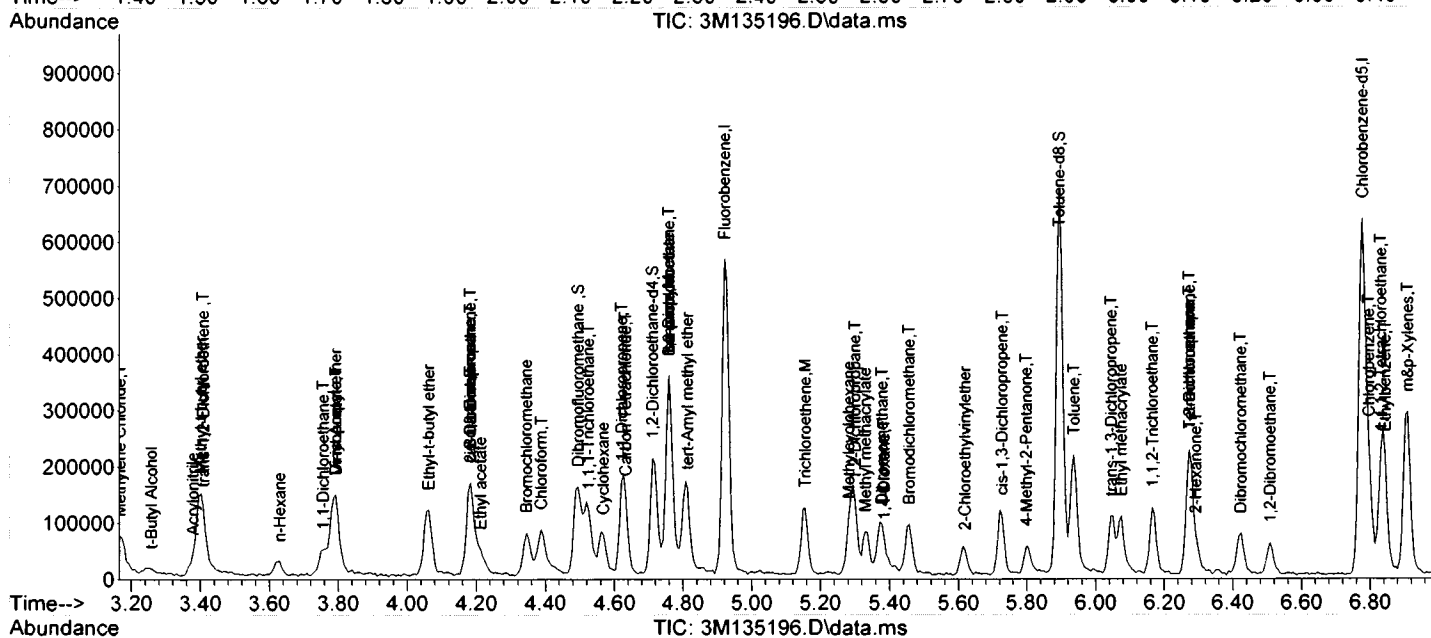
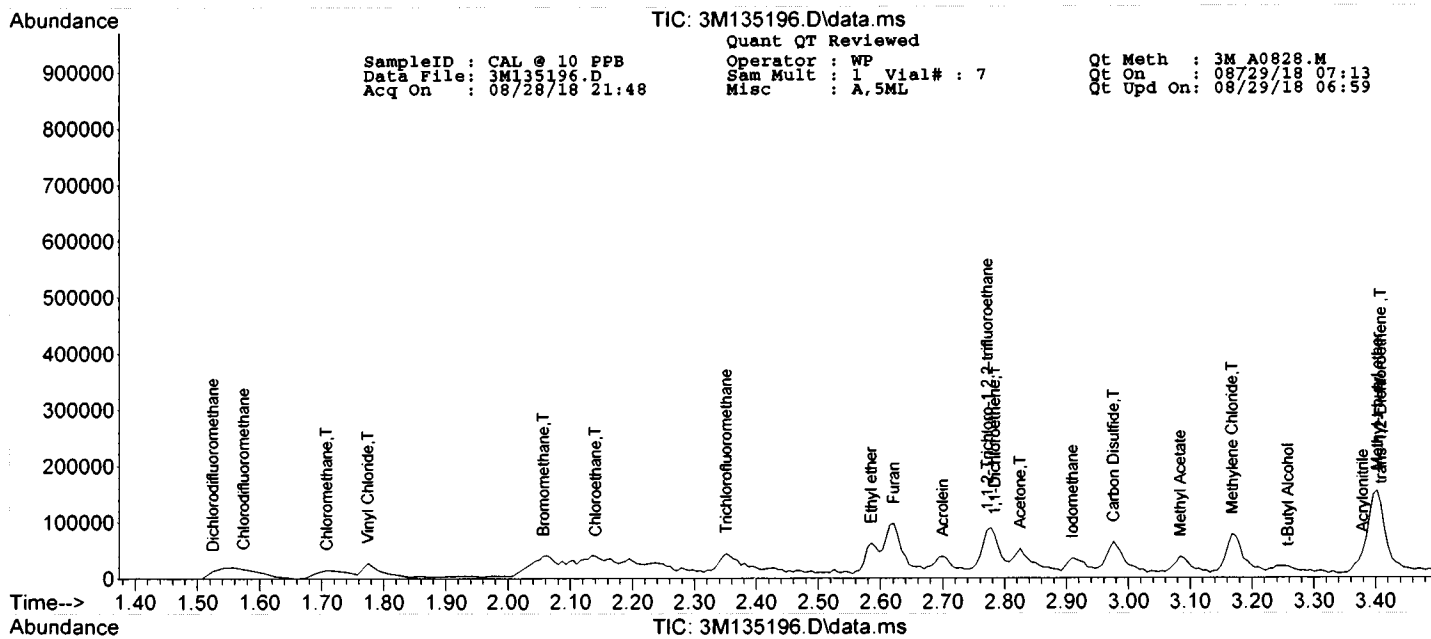
Operator : WP
 Sam Mult : 1 Vial# : 7
 Misc : A,SML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:13
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	26849	11.3901	ug/l	75
69)	Chlorobenzene	6.796	112	65633	9.6893	ug/l	87
71)	n-Butyl acrylate	7.066	55	42968	6.2944	ug/l	99
72)	n-Amyl acetate	7.199	43	51726	7.8224	ug/l	87
73)	Bromoform	7.307	173	26576	10.1016	ug/l	97
74)	Ethylbenzene	6.844	106	19312	9.7395	ug/l	80
75)	1,1,2,2-Tetrachloroethane	7.541	83	33281	9.6279	ug/l	84
77)	Styrene	7.163	104	62855	10.1372	ug/l	86
78)	m&p-Xylenes	6.910	106	65143	20.9101	ug/l	92
79)	o-Xylene	7.157	106	33957	10.3993	ug/l	83
80)	trans-1,4-Dichloro-2-b...	7.571	53	11390	7.7264	ug/l	68
81)	1,3-Dichlorobenzene	8.190	146	46932	10.9846	ug/l	88
82)	1,4-Dichlorobenzene	8.244	146	46256	10.4542	ug/l	91
83)	1,2-Dichlorobenzene	8.496	146	44728	9.9114	ug/l	91
84)	Isopropylbenzene	7.373	105	61166	9.1520	ug/l	93
85)	Cyclohexanone	7.463	55	7428	16.4173	ug/l	94
86)	Camphene	7.571	93	16957	8.3218	ug/l	93
87)	1,2,3-Trichloropropane	7.589	75	42761	9.8840	ug/l	98
88)	2-Chlorotoluene	7.709	91	38096	9.3627	ug/l	97
89)	p-Ethyltoluene	7.691	105	66830	9.5543	ug/l	83
90)	4-Chlorotoluene	7.775	91	45616	10.3515	ug/l	94
91)	n-Propylbenzene	7.631	91	70787	10.0563	ug/l	92
92)	Bromobenzene	7.601	77	62272	8.9057	ug/l	94
93)	1,3,5-Trimethylbenzene	7.727	105	55565	12.3188	ug/l	86
94)	Butyl methacrylate	7.727	41	37373	7.5076	ug/l	88
95)	t-Butylbenzene	7.949	119	42369	9.1166	ug/l	85
96)	1,2,4-Trimethylbenzene	7.973	105	55849	9.7101	ug/l	86
97)	sec-Butylbenzene	8.088	105	49730	9.6305	ug/l	93
98)	4-Isopropyltoluene	8.160	119	43794	10.0131	ug/l	89
99)	n-Butylbenzene	8.430	91	47376	9.9454	ug/l	90
100)	p-Diethylbenzene	8.412	119	25566	9.0073	ug/l	# 2
101)	1,2,4,5-Tetramethylben...	8.929	119	41903	9.3490	ug/l	94
102)	1,2-Dibromo-3-Chloropr...	9.001	157	7589	9.8059	ug/l	75
103)	Camphor	9.493	95	25221	79.3457	ug/l	86
104)	Hexachlorobutadiene	9.637	225	18844	12.3946	ug/l	94
105)	1,2,4-Trichlorobenzene	9.553	180	27347	11.8249	ug/l	95
106)	1,2,3-Trichlorobenzene	9.890	180	25430	11.5267	ug/l	93
107)	Naphthalene	9.733	128	51393	9.6718	ug/l	100

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



SampleID : CAL @ 50 PPB
 Data File: 3M135207.D
 Acq On : 08/29/18 00:59

Operator : WP
 Sam Mult : 1 Vial# : 17
 Misc : A,SML

Qt Meth : 3M A082413 0117
 Qt On : 08/29/18 07:44
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	364929	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	291020	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.226	152	140551	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	94590	29.69	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.97%		
39) 1,2-Dichloroethane-d4	4.717	67	63787	28.05	ug/l	0.00
Spiked Amount 30.000			Recovery =	93.50%		
66) Toluene-d8	5.895	98	368433	29.13	ug/l	0.00
Spiked Amount 30.000			Recovery =	97.10%		
76) Bromofluorobenzene	7.487	174	150475	28.15	ug/l	0.00
Spiked Amount 30.000			Recovery =	93.83%		
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.560	51	199524	39.2813	ug/l	97
6) Dichlorodifluoromethane	1.527	85	114852	110.2630	ug/l	94
7) Chloromethane	1.710	50	153883	83.6814	ug/l	80
8) Bromomethane	2.068	94	57369	71.8106	ug/l	95
9) Vinyl Chloride	1.776	62	104916	61.2155	ug/l	96
10) Chloroethane	2.140	64	48249	51.8744	ug/l	97
11) Trichlorofluoromethane	2.351	101	158613	50.8120	ug/l	95
12) Ethyl ether	2.585	59	135587	47.0894	ug/l	88
13) Furan	2.621	39	334837	45.3559	ug/l	94
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	60799	39.8831	ug/l	89
15) Methylene Chloride	3.174	84	143384	47.7584	ug/l	93
16) Acrolein	2.699	56	112948	208.7980	ug/l	92
17) Acrylonitrile	3.378	53	52954	42.9599	ug/l	92
18) Iodomethane	2.915	142	153487	51.6923	ug/l	97
19) Acetone	2.825	43	262128	224.2038	ug/l	84
20) Carbon Disulfide	2.981	76	360951	59.6145	ug/l	100
21) t-Butyl Alcohol	3.252	59	62920	183.9425	ug/l	87
22) n-Hexane	3.630	57	42001m	31.6177	ug/l	
23) Di-isopropyl-ether	3.792	45	480766	42.7175	ug/l	91
24) 1,1-Dichloroethene	2.783	61	200865	50.5367	ug/l	96
25) Methyl Acetate	3.084	43	181844	39.3079	ug/l	100
26) Methyl-t-butyl ether	3.396	73	309943	41.0241	ug/l	68
27) 1,1-Dichloroethane	3.756	63	250269	47.5311	ug/l	94
28) trans-1,2-Dichloroethene	3.402	96	125439	46.9502	ug/l	90
29) Ethyl-t-butyl ether	4.063	59	427123	43.2687	ug/l	97
30) cis-1,2-Dichloroethene	4.183	61	256899	45.2324	ug/l	85
31) Bromochloromethane	4.345	49	174710	46.6579	ug/l	79
32) 2,2-Dichloropropane	4.183	77	143883	37.0172	ug/l	96
33) Ethyl acetate	4.213	43	188132m	43.4059	ug/l	
34) 1,4-Dioxane	5.378	88	81388	2527.9971	ug/l	84
35) 1,1-Dichloropropene	4.621	75	176939	49.1088	ug/l	99
36) Chloroform	4.387	83	254519	45.8174	ug/l	80
38) Cyclohexane	4.567	56	116895	41.4403	ug/l	90
40) 1,2-Dichloroethane	4.766	62	221189	42.2098	ug/l	96
41) 2-Butanone	4.183	43	75322m	44.2258	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	199988	45.9497	ug/l	98
43) Carbon Tetrachloride	4.633	117	154350	48.3233	ug/l	88
44) Vinyl Acetate	3.786	43	334807	39.3211	ug/l	100
45) Bromodichloromethane	5.456	83	206830	46.1730	ug/l	93
46) Methylcyclohexane	5.282	83	84366	46.6064	ug/l	96
47) Dibromomethane	5.378	174	136938	47.7948	ug/l	85
48) 1,2-Dichloropropane	5.300	63	149862	45.9751	ug/l	91
49) Trichloroethene	5.156	130	143379	46.7700	ug/l	90
50) Benzene	4.760	78	517699	49.6939	ug/l	100
51) tert-Amyl methyl ether	4.808	73	372524	42.3188	ug/l	78
53) Iso-propylacetate	4.766	43	339454	40.5926	ug/l	96
54) Methyl methacrylate	5.330	41	182739	35.7529	ug/l	96
55) Dibromochloromethane	6.423	129	155494	44.9110	ug/l	95
56) 2-Chloroethylvinylether	5.613	63	98370	43.6718	ug/l	81
57) cis-1,3-Dichloropropene	5.727	75	227503	40.9848	ug/l	94
58) trans-1,3-Dichloropropene	6.051	75	217795	42.0882	ug/l	100
59) Ethyl methacrylate	6.075	41	176313	36.9481	ug/l	78
60) 1,1,2-Trichloroethane	6.171	97	137247	43.7787	ug/l	85
61) 1,2-Dibromoethane	6.508	107	143439	47.4592	ug/l	99
62) 1,3-Dichloropropane	6.273	76	244339	47.1364	ug/l	100
63) 4-Methyl-2-Pentanone	5.805	43	165467	38.1537	ug/l	86
64) 2-Hexanone	6.291	43	113927	37.4497	ug/l	93
65) Tetrachloroethene	6.273	164	104603	47.2598	ug/l	94
67) Toluene	5.937	92	310920	46.3504	ug/l	91

SampleID : CAL @ 50 PPB
 Data File: 3M135207.D
 Acq On : 08/29/18 00:59

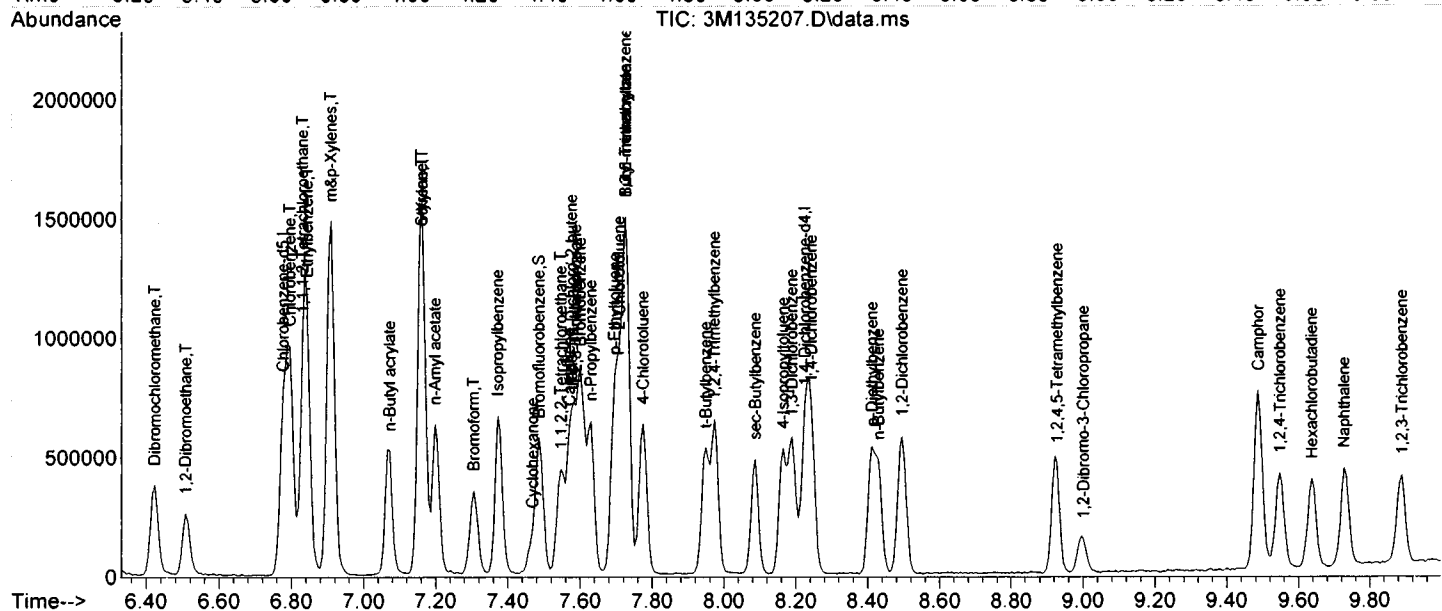
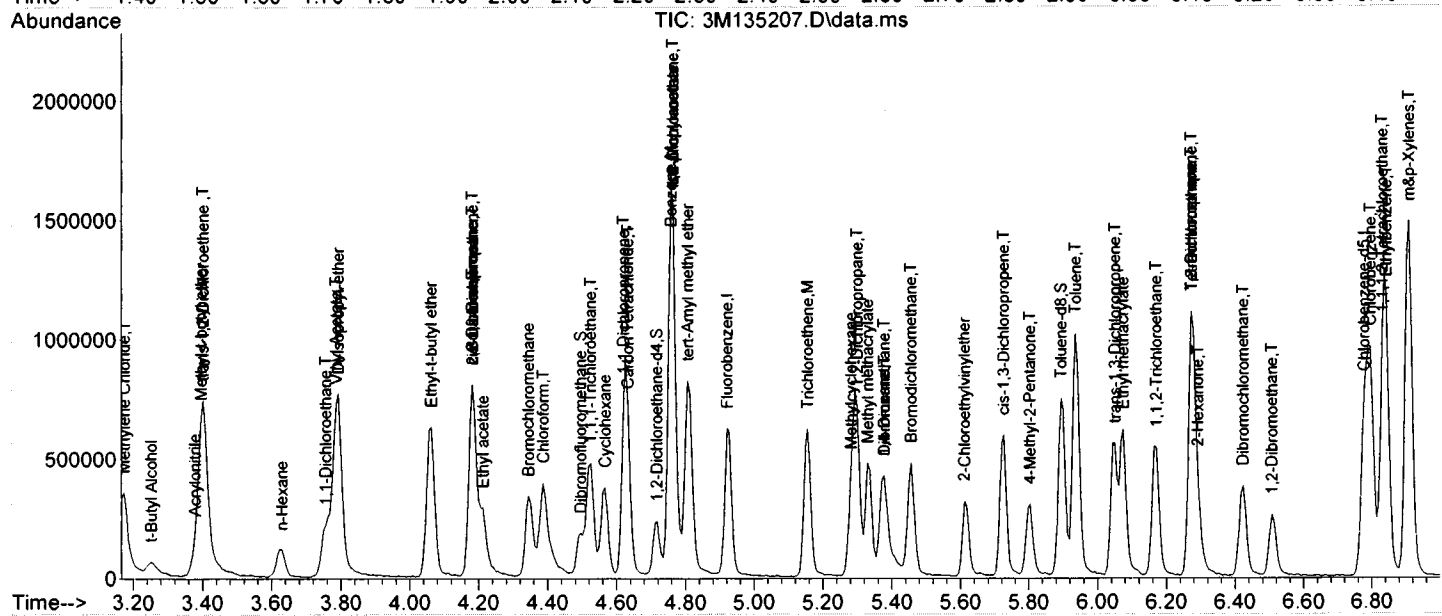
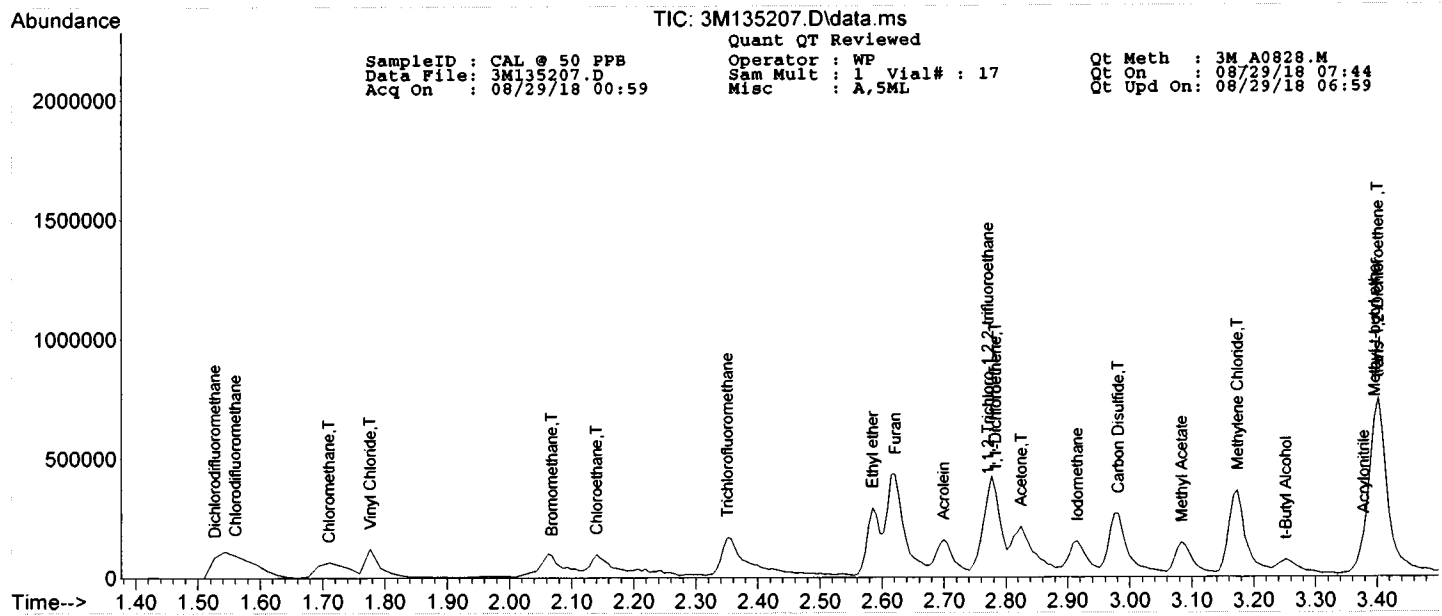
Operator : WP
 Sam Mult : 1 Vial# : 17
 Misc : A,SML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:44
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	130152	49.3725	ug/l	94
69)	Chlorobenzene	6.796	112	335131	44.2405	ug/l	92
71)	n-Butyl acrylate	7.072	55	287081	38.1171	ug/l	96
72)	n-Amyl acetate	7.198	43	298266	40.8831	ug/l	86
73)	Bromoform	7.306	173	133574	46.0182	ug/l	99
74)	Ethylbenzene	6.844	106	102163	46.6995	ug/l	80
75)	1,1,2,2-Tetrachloroethane	7.547	83	176741	46.3425	ug/l	99
77)	Styrene	7.162	104	330546	48.3191	ug/l	100
78)	m&p-Xylenes	6.910	106	342956	99.7781	ug/l	88
79)	o-Xylene	7.162	106	171896	47.7145	ug/l	75
80)	trans-1,4-Dichloro-2-b...	7.577	53	62275	38.2890	ug/l	62
81)	1,3-Dichlorobenzene	8.190	146	213670	45.3279	ug/l	90
82)	1,4-Dichlorobenzene	8.244	146	220186	45.1045	ug/l	92
83)	1,2-Dichlorobenzene	8.496	146	229413	46.0769	ug/l	88
84)	Isopropylbenzene	7.373	105	351406	47.6568	ug/l	96
85)	Cyclohexanone	7.469	55	42266	84.6697	ug/l	92
86)	Camphene	7.571	93	88427	39.3332	ug/l	98
87)	1,2,3-Trichloropropane	7.589	75	212587	44.5381	ug/l	92
88)	2-Chlorotoluene	7.709	91	219616	48.9209	ug/l	95
89)	p-Ethyltoluene	7.697	105	389663	50.4921	ug/l	80
90)	4-Chlorotoluene	7.775	91	218975	45.0390	ug/l	89
91)	n-Propylbenzene	7.631	91	373456	48.0877	ug/l	94
92)	Bromobenzene	7.601	77	344207	44.6175	ug/l	95
93)	1,3,5-Trimethylbenzene	7.727	105	229735	46.1640	ug/l	72
94)	Butyl methacrylate	7.727	41	235507	42.8798	ug/l	85
95)	t-Butylbenzene	7.949	119	240869	46.9756	ug/l	87
96)	1,2,4-Trimethylbenzene	7.973	105	306008	48.2226	ug/l	89
97)	sec-Butylbenzene	8.087	105	277564	48.7196	ug/l	98
98)	4-Isopropyltoluene	8.165	119	242350	50.2233	ug/l	89
99)	n-Butylbenzene	8.430	91	259106	49.3004	ug/l	91
100)	p-Diethylbenzene	8.412	119	140456	44.8519	ug/l	92
101)	1,2,4,5-Tetramethylben...	8.928	119	240307	48.5954	ug/l	89
102)	1,2-Dibromo-3-Chloropr...	9.000	157	41165	48.2101	ug/l	66
103)	Camphor	9.487	95	164513	469.1046	ug/l	92
104)	Hexachlorobutadiene	9.637	225	93102	55.5041	ug/l	96
105)	1,2,4-Trichlorobenzene	9.547	180	135457	53.0881	ug/l	95
106)	1,2,3-Trichlorobenzene	9.889	180	125414	51.5243	ug/l	93
107)	Naphthalene	9.727	128	305853	52.1704	ug/l	100

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



SampleID : CAL @ 100 PPB
Data File: 3M135204.D
Acq On : 08/29/18 00:07

Operator : WP
Sam Mult : 1 Vial# : 14
Misc : A,SML

Qt Meth : 3M A082413 0120
Qt On : 08/29/18 07:43
Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.928	96	361835	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	279763	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.226	152	139195	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.489	111	96320	30.50	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.67%	
39) 1,2-Dichloroethane-d4	4.718	67	64513	28.61	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.37%	
66) Toluene-d8	5.895	98	355801	29.26	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.53%	
76) Bromofluorobenzene	7.487	174	142261	26.87	ug/l	0.00
Spiked Amount 30.000			Recovery	=	89.57%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.547	51	409431	81.2960	ug/l	99
6) Dichlorodifluoromethane	1.530	85	242508	234.8093	ug/l	90
7) Chloromethane	1.697	50	296964	162.8695	ug/l	81
8) Bromomethane	2.057	94	106672	134.6666	ug/l	70
9) Vinyl Chloride	1.780	62	186273	109.6144	ug/l	98
10) Chloroethane	2.141	64	89749	97.3177	ug/l	95
11) Trichlorofluoromethane	2.351	101	316978	102.4129	ug/l	88
12) Ethyl ether	2.585	59	270788	94.8489	ug/l	87
13) Furan	2.615	39	660827	90.2788	ug/l	94
14) 1,1,2-Trichloro-1,2,2-...	2.765	101	111661	73.8740	ug/l	95
15) Methylene Chloride	3.168	84	289129	97.1267	ug/l	95
16) Acrolein	2.699	56	231715	432.0159	ug/l	91
17) Acrylonitrile	3.372	53	116869	95.6228	ug/l	99
18) Iodomethane	2.910	142	316326	107.4451	ug/l	100
19) Acetone	2.819	43	466706	402.5971	ug/l	89
20) Carbon Disulfide	2.976	76	729369	121.4922	ug/l	100
21) t-Butyl Alcohol	3.252	59	117056	345.1318	ug/l	87
22) n-Hexane	3.624	57	88734m	67.3688	ug/l	
23) Di-isopropyl-ether	3.793	45	961459	86.1591	ug/l	93
24) 1,1-Dichloroethene	2.777	61	390705	99.1401	ug/l	94
25) Methyl Acetate	3.078	43	360335	78.5570	ug/l	100
26) Methyl-t-butyl ether	3.396	73	588232	78.5242	ug/l	69
27) 1,1-Dichloroethane	3.757	63	493907	94.6049	ug/l	99
28) trans-1,2-Dichloroethene	3.402	96	248621	93.8513	ug/l	98
29) Ethyl-t-butyl ether	4.057	59	808845	82.6388	ug/l	99
30) cis-1,2-Dichloroethene	4.177	61	512782	91.0578	ug/l	90
31) Bromochloromethane	4.345	49	347510m	93.5993	ug/l	
32) 2,2-Dichloropropane	4.183	77	283964	73.6810	ug/l	90
33) Ethyl acetate	4.207	43	355946m	82.8263	ug/l	
34) 1,4-Dioxane	5.372	88	151336	4740.8504	ug/l	77
35) 1,1-Dichloropropene	4.622	75	346892	97.1020	ug/l	97
36) Chloroform	4.387	83	493357	89.5713	ug/l	84
38) Cyclohexane	4.561	56	240547	86.0053	ug/l	92
40) 1,2-Dichloroethane	4.766	62	416641	80.1881	ug/l	97
41) 2-Butanone	4.183	43	150093m	88.8816	ug/l	
42) 1,1,1-Trichloroethane	4.519	97	383867	88.9524	ug/l	95
43) Carbon Tetrachloride	4.628	117	294401	92.9580	ug/l	93
44) Vinyl Acetate	3.787	43	714658	84.6500	ug/l	100
45) Bromodichloromethane	5.456	83	398963	89.8267	ug/l	98
46) Methylcyclohexane	5.282	83	174919	97.4570	ug/l	94
47) Dibromomethane	5.378	174	248341	87.4184	ug/l	93
48) 1,2-Dichloropropane	5.300	63	299478	92.6603	ug/l	100
49) Trichloroethene	5.156	130	284786	93.6911	ug/l	90
50) Benzene	4.760	78	983820	95.2444	ug/l	100
51) tert-Amyl methyl ether	4.808	73	744827	85.3360	ug/l	75
53) Iso-propylacetate	4.760	43	639237	79.5170	ug/l	95
54) Methyl methacrylate	5.330	41	360154	73.2994	ug/l	95
55) Dibromochloromethane	6.424	129	310277	93.2226	ug/l	91
56) 2-Chloroethylvinylether	5.613	63	182270	84.1756	ug/l	86
57) cis-1,3-Dichloropropene	5.721	75	466933	87.5029	ug/l	90
58) trans-1,3-Dichloropropene	6.045	75	435222	87.4894	ug/l	100
59) Ethyl methacrylate	6.069	41	340573	74.2421	ug/l	78
60) 1,1,2-Trichloroethane	6.165	97	269162	89.3113	ug/l	87
61) 1,2-Dibromoethane	6.508	107	283778	97.6707	ug/l	89
62) 1,3-Dichloropropane	6.273	76	463171	92.9475	ug/l	99
63) 4-Methyl-2-Pentanone	5.799	43	329923	79.1352	ug/l	91
64) 2-Hexanone	6.291	43	226149	77.3302	ug/l	85
65) Tetrachloroethene	6.273	164	196628	92.4113	ug/l	93
67) Toluene	5.937	92	601587	93.2901	ug/l	100

SampleID : CAL @ 100 PPB
 Data File: 3M135204.D
 Acq On : 08/29/18 00:07

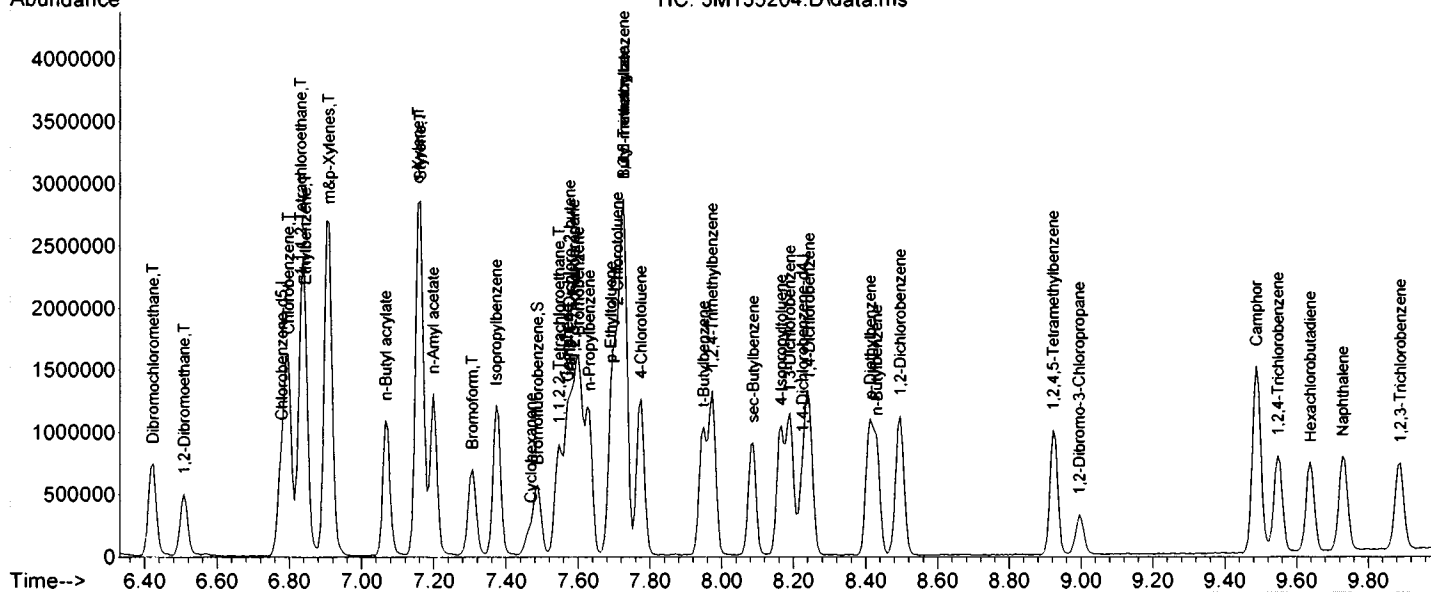
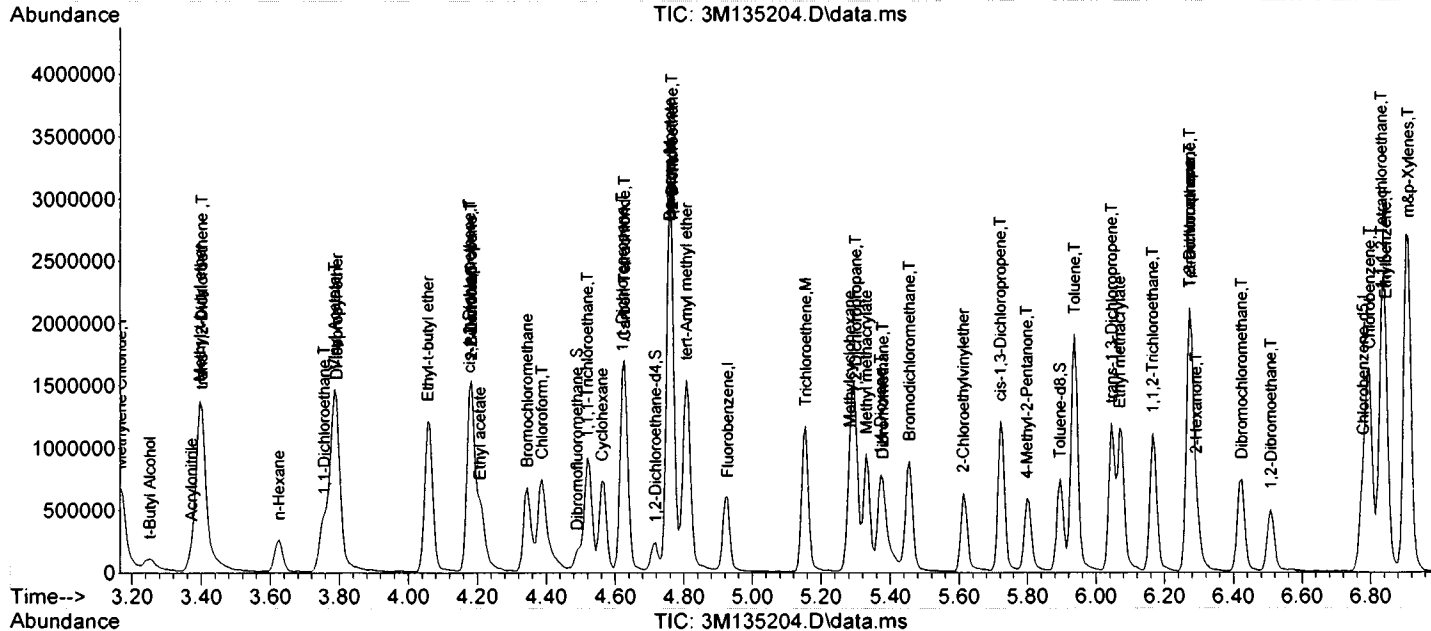
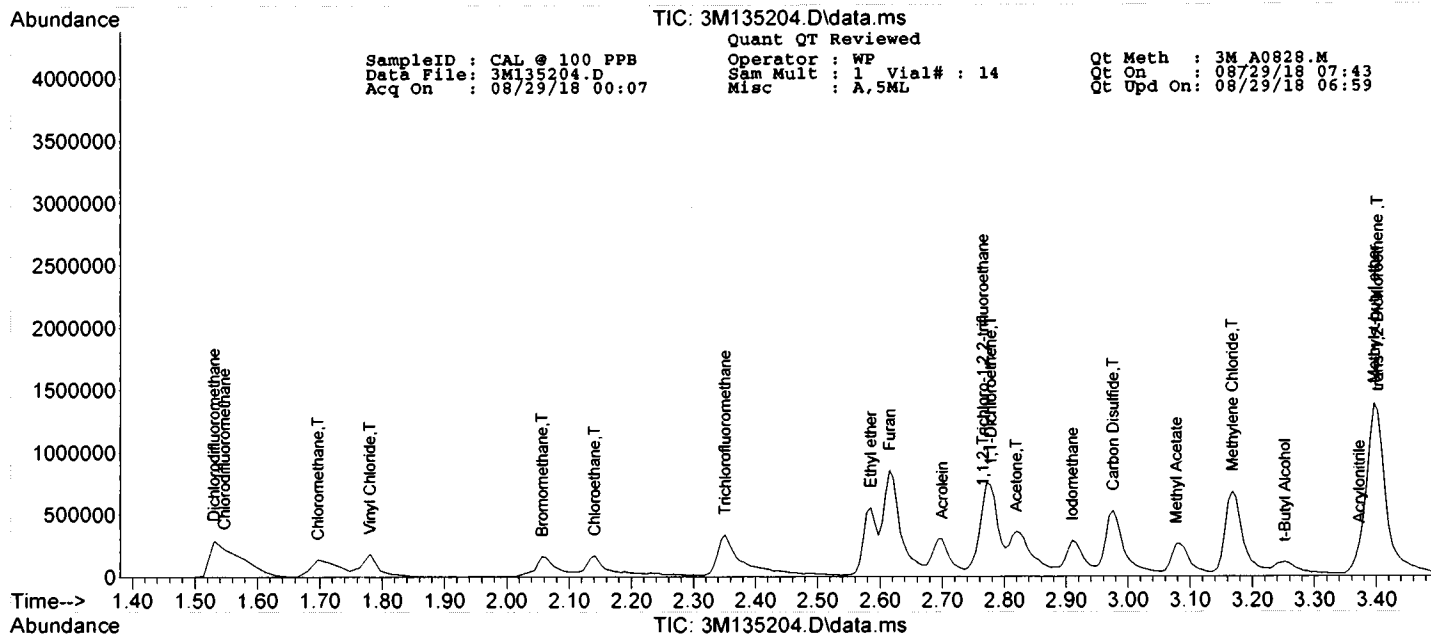
Operator : WP
 Sam Mult : 1 Vial# : 14
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:43
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	249972	98.6412	ug/l	87
69)	Chlorobenzene	6.796	112	646687	88.8039	ug/l	98
71)	n-Butyl acrylate	7.066	55	578785	77.5966	ug/l	97
72)	n-Amyl acetate	7.198	43	600282	83.0817	ug/l	87
73)	Bromoform	7.307	173	268896	93.5410	ug/l	87
74)	Ethylbenzene	6.844	106	182338	84.1601	ug/l	83
75)	1,1,2,2-Tetrachloroethane	7.547	83	343722	91.0038	ug/l	95
77)	Styrene	7.162	104	633153	93.4558	ug/l	100
78)	m&p-Xylenes	6.910	106	617090	181.2823	ug/l	88
79)	o-Xylene	7.156	106	332699	93.2495	ug/l	84
80)	trans-1,4-Dichloro-2-b...	7.577	53	121391	75.3627	ug/l	58
81)	1,3-Dichlorobenzene	8.190	146	433842	92.9317	ug/l	87
82)	1,4-Dichlorobenzene	8.244	146	432320	89.4223	ug/l	92
83)	1,2-Dichlorobenzene	8.496	146	442047	89.6488	ug/l	89
84)	Isopropylbenzene	7.373	105	667566	91.4156	ug/l	92
85)	Cyclohexanone	7.469	55	70306	142.2131	ug/l	97
86)	Camphene	7.571	93	170447	76.5551	ug/l	99
87)	1,2,3-Trichloropropane	7.589	75	404771	85.6278	ug/l	92
88)	2-Chlorotoluene	7.709	91	411858	92.6377	ug/l	95
89)	p-Ethyltoluene	7.691	105	686980	89.8852	ug/l	85
90)	4-Chlorotoluene	7.775	91	448192	93.0826	ug/l	92
91)	n-Propylbenzene	7.631	91	723990	94.1320	ug/l	96
92)	Bromobenzene	7.601	77	661404	86.5691	ug/l	93
93)	1,3,5-Trimethylbenzene	7.727	105	512249	103.9365	ug/l	89
94)	Butyl methacrylate	7.727	41	479046	88.0716	ug/l	84
95)	t-Butylbenzene	7.949	119	469089	92.3756	ug/l	86
96)	1,2,4-Trimethylbenzene	7.973	105	629283	100.1324	ug/l	91
97)	sec-Butylbenzene	8.088	105	551802	97.7989	ug/l	96
98)	4-Isopropyltoluene	8.166	119	489808	102.4939	ug/l	91
99)	n-Butylbenzene	8.430	91	521225	100.1401	ug/l	91
100)	p-Diethylbenzene	8.412	119	285480	92.0506	ug/l	93
101)	1,2,4,5-Tetramethylben...	8.922	119	493189	100.7052	ug/l	89
102)	1,2-Dibromo-3-Chloropr...	8.995	157	90498	107.0185	ug/l	59
103)	Camphor	9.487	95	322380	928.2134	ug/l	95
104)	Hexachlorobutadiene	9.637	225	173687	104.5547	ug/l	97
105)	1,2,4-Trichlorobenzene	9.547	180	268399	106.2152	ug/l	95
106)	1,2,3-Trichlorobenzene	9.890	180	251598	104.3719	ug/l	94
107)	Naphthalene	9.727	128	595670	102.5953	ug/l	100

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



SampleID : CAL @ 250 PPB
Data File: 3M135201.D
Acq On : 08/28/18 23:13

Operator : WP
Sam Mult : 1 Vial# : 11
Misc : A, SML

Qt Meth : 3M_A0 **8062413 0123**
Qt On : 08/29/18 07:41
Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	364809	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	283230	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.225	152	122633	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	87079	27.35	ug/l	0.00
Spiked Amount 30.000			Recovery =	91.17%		
39) 1,2-Dichloroethane-d4	4.717	67	63095	27.76	ug/l	0.00
Spiked Amount 30.000			Recovery =	92.53%		
66) Toluene-d8	5.895	98	366813	29.80	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.33%		
76) Bromofluorobenzene	7.493	174	142647	30.59	ug/l	0.00
Spiked Amount 30.000			Recovery =	101.97%		
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.558	51	1019530	200.7861	ug/l	94
6) Dichlorodifluoromethane	1.525	85	560591	538.3694	ug/l	87
7) Chloromethane	1.708	50	739660	402.3586	ug/l	83
8) Bromomethane	2.056	94	236166	295.7139	ug/l	76
9) Vinyl Chloride	1.775	62	522414	304.9141	ug/l	94
10) Chloroethane	2.134	64	212370	228.4023	ug/l	99
11) Trichlorofluoromethane	2.351	101	777654	249.2052	ug/l	88
12) Ethyl ether	2.585	59	667533	231.9107	ug/l	85
13) Furan	2.615	39	1622800	219.8912	ug/l	92
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	275757	180.9513	ug/l	94
15) Methylene Chloride	3.168	84	690428	230.0438	ug/l	94
16) Acrolein	2.699	56	549256	1015.6999	ug/l	94
17) Acrylonitrile	3.372	53	290013	235.3557	ug/l	97
18) Iodomethane	2.915	142	730190	245.9986	ug/l	99
19) Acetone	2.825	43	1255293	1074.0325	ug/l	91
20) Carbon Disulfide	2.975	76	1814623	299.8007	ug/l	100
21) t-Butyl Alcohol	3.252	59	308902	903.3520	ug/l	79
22) n-Hexane	3.624	57	225879	170.0942	ug/l	79
23) Di-isopropyl-ether	3.792	45	2231697	198.3584	ug/l	93
24) 1,1-Dichloroethene	2.777	61	954421	240.2069	ug/l	98
25) Methyl Acetate	3.084	43	908408	196.4284	ug/l	100
26) Methyl-t-butyl ether	3.396	73	1413648	187.1722	ug/l	67
27) 1,1-Dichloroethane	3.756	63	1194906	227.0111	ug/l	98
28) trans-1,2-Dichloroethene	3.402	96	597055	223.5435	ug/l	93
29) Ethyl-t-butyl ether	4.063	59	1995674	202.2336	ug/l	99
30) cis-1,2-Dichloroethene	4.183	61	1203511	211.9726	ug/l	86
31) Bromochloromethane	4.345	49	840848	224.6300	ug/l	79
32) 2,2-Dichloropropane	4.183	77	681624	175.4213	ug/l	92
33) Ethyl acetate	4.213	43	866961m	200.0915	ug/l	
34) 1,4-Dioxane	5.378	88	370377	11508.0843	ug/l	78
35) 1,1-Dichloropropene	4.621	75	776961	215.7138	ug/l	97
36) Chloroform	4.387	83	1194938	215.1782	ug/l	85
38) Cyclohexane	4.567	56	600678	213.0158	ug/l	86
40) 1,2-Dichloroethane	4.765	62	942120	179.8454	ug/l	93
41) 2-Butanone	4.183	43	379504m	222.9015	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	919266	211.2824	ug/l	97
43) Carbon Tetrachloride	4.633	117	700635	219.4240	ug/l	92
44) Vinyl Acetate	3.786	43	1656025	194.5541	ug/l	100
45) Bromodichloromethane	5.456	83	990248	221.1371	ug/l	93
46) Methylcyclohexane	5.282	83	418421	231.2249	ug/l	96
47) Dibromomethane	5.378	174	574632	200.6268	ug/l	95
48) 1,2-Dichloropropane	5.300	63	710645	218.0855	ug/l	93
49) Trichloroethene	5.156	130	679459	221.7115	ug/l	88
50) Benzene	4.759	78	2134936	204.9999	ug/l	100
51) tert-Amyl methyl ether	4.808	73	1778667	202.1233	ug/l	75
53) Iso-propylacetate	4.765	43	1442899	177.2903	ug/l	97
54) Methyl methacrylate	5.330	41	887440	178.4030	ug/l	94
55) Dibromochloromethane	6.423	129	768981	228.2119	ug/l	94
56) 2-Chloroethylvinylether	5.612	63	483902	220.7391	ug/l	81
57) cis-1,3-Dichloropropene	5.727	75	1146827	212.2837	ug/l	94
58) trans-1,3-Dichloropropene	6.045	75	1059434	210.3631	ug/l	97
59) Ethyl methacrylate	6.075	41	854845	184.0680	ug/l	81
60) 1,1,2-Trichloroethane	6.171	97	637090	208.8067	ug/l	87
61) 1,2-Dibromoethane	6.507	107	683336	232.3116	ug/l	91
62) 1,3-Dichloropropane	6.273	76	1058031	209.7229	ug/l	98
63) 4-Methyl-2-Pentanone	5.799	43	841331	199.3312	ug/l	93
64) 2-Hexanone	6.291	43	566368	191.2952	ug/l	88
65) Tetrachloroethene	6.273	164	414396	192.3740	ug/l	94
67) Toluene	5.937	92	1424426	218.1865	ug/l	97

SampleID : CAL @ 250 PPB
 Data File: 3M135201.D
 Acq On : 08/28/18 23:13

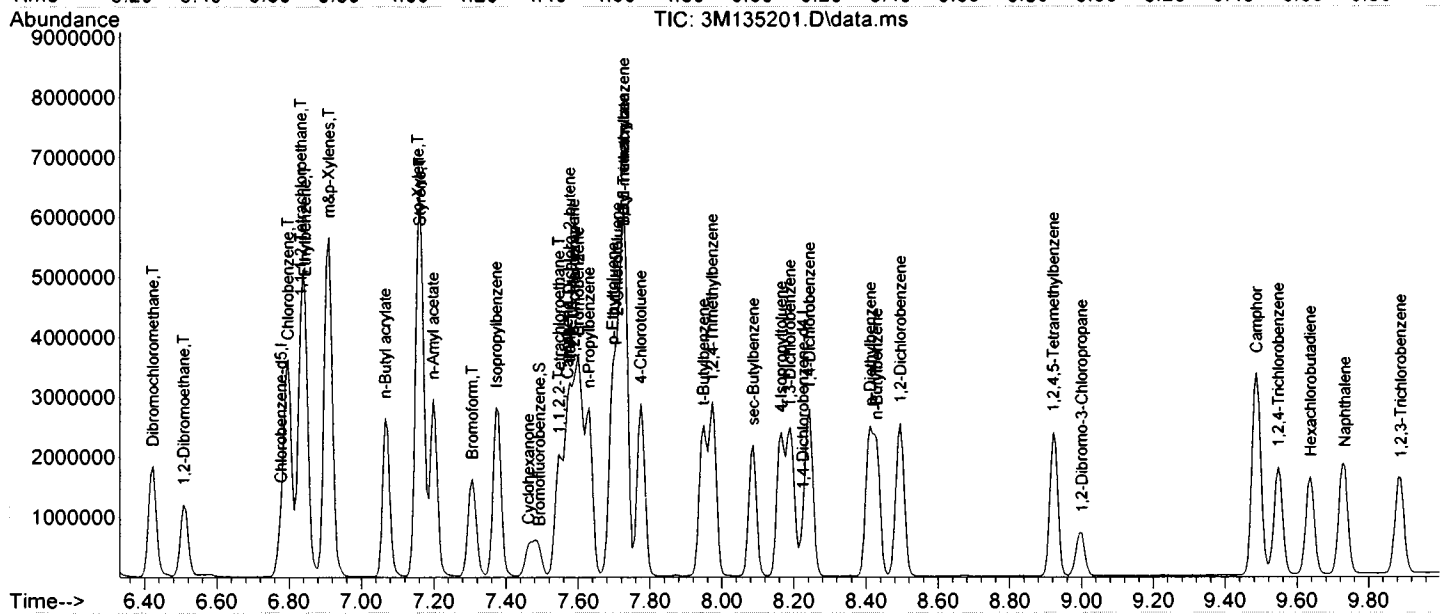
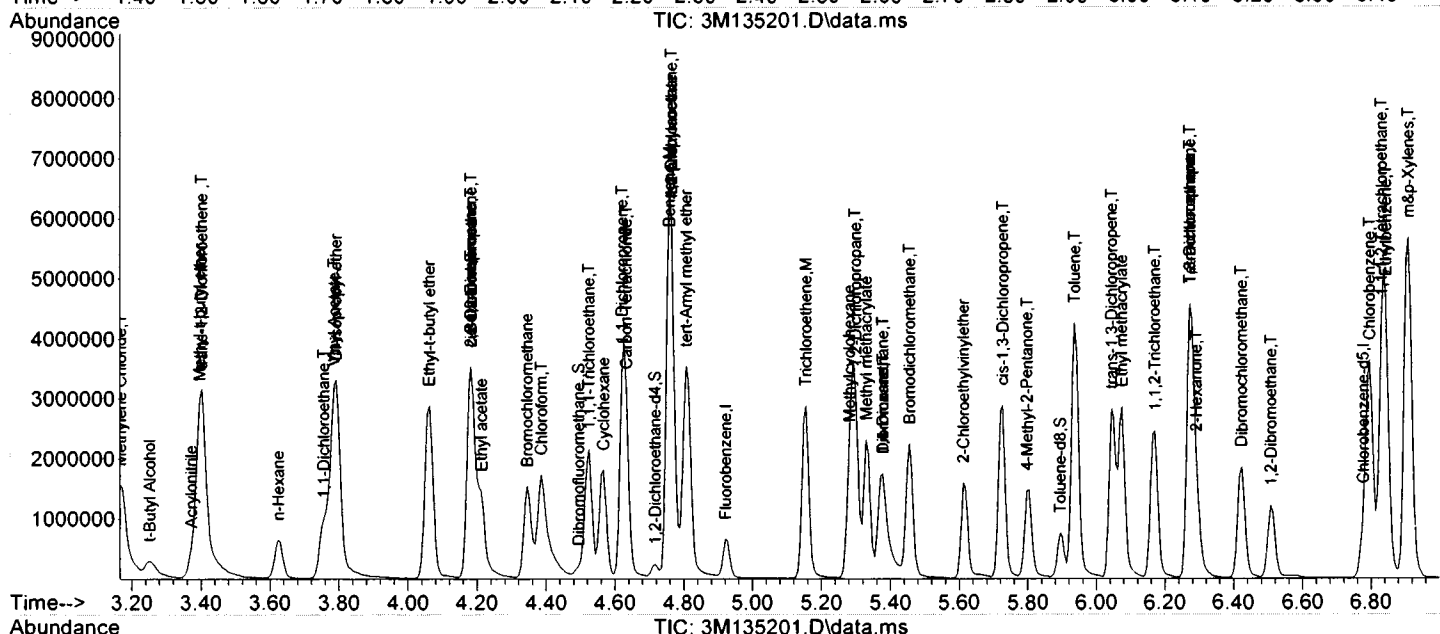
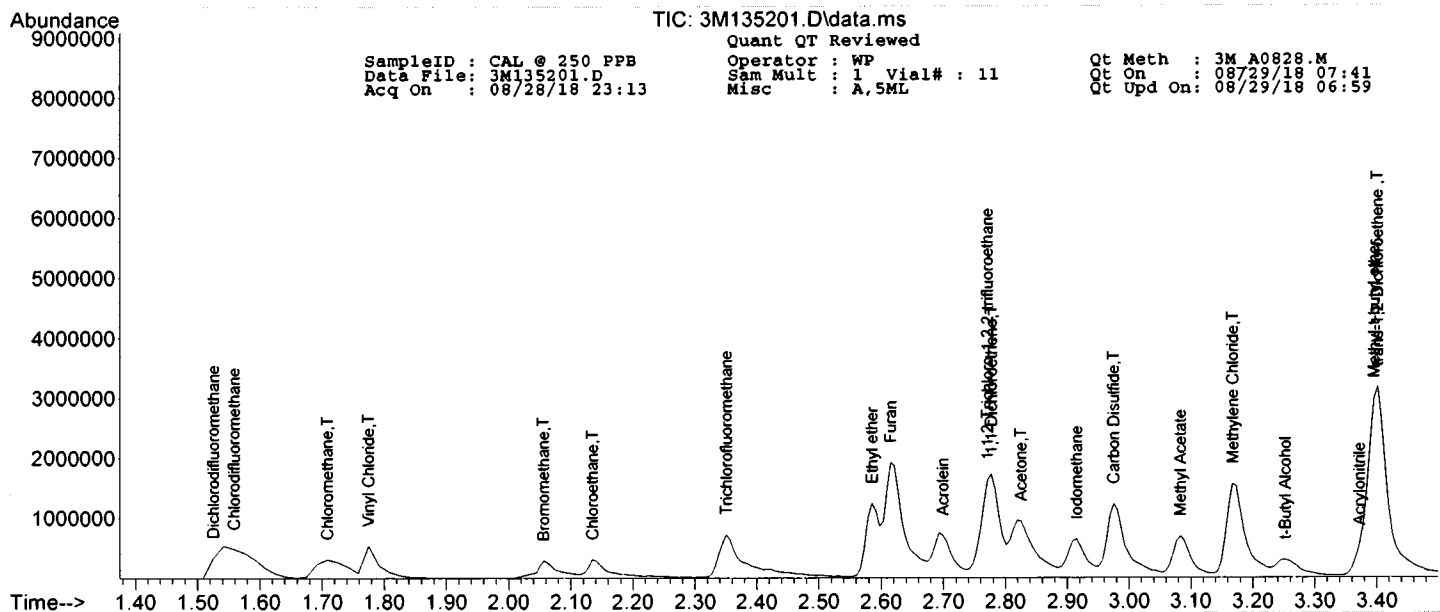
Operator : WP
 Sam Mult : 1 Vial# : 11
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:41
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.832	133	559567	218.1073	ug/l	91
69) Chlorobenzene	6.796	112	1509165	204.7037	ug/l	93
71) n-Butyl acrylate	7.066	55	1413745	215.1358	ug/l	97
72) n-Amyl acetate	7.198	43	1412360	221.8768	ug/l	85
73) Bromoform	7.306	173	650998	257.0476	ug/l	93
74) Ethylbenzene	6.844	106	402606	210.9237	ug/l	82
75) 1,1,2,2-Tetrachloroethane	7.547	83	815096	244.9500	ug/l	94
77) Styrene	7.162	104	1388896	232.6931	ug/l	97
78) m&p-Xylenes	6.910	106	1368944	456.4665	ug/l	76
79) o-Xylene	7.156	106	727818	231.5444	ug/l	74
80) trans-1,4-Dichloro-2-b...	7.577	53	297450	209.6044	ug/l	59
81) 1,3-Dichlorobenzene	8.189	146	960432	233.5153	ug/l	88
82) 1,4-Dichlorobenzene	8.243	146	967435	227.1320	ug/l	94
83) 1,2-Dichlorobenzene	8.496	146	989017	227.6648	ug/l	91
84) Isopropylbenzene	7.372	105	1596274	248.1132	ug/l	93
85) Cyclohexanone	7.463	55	187868	431.3367	ug/l	97
86) Camphene	7.571	93	431423	219.9402	ug/l	98
87) 1,2,3-Trichloropropane	7.589	75	952512	228.7137	ug/l	92
88) 2-Chlorotoluene	7.709	91	859927	219.5423	ug/l	96
89) p-Ethyltoluene	7.697	105	1657794	246.2017	ug/l	79
90) 4-Chlorotoluene	7.775	91	992832	234.0435	ug/l	92
91) n-Propylbenzene	7.631	91	1707707	252.0196	ug/l	96
92) Bromobenzene	7.601	77	1522257	226.1519	ug/l	90
93) 1,3,5-Trimethylbenzene	7.727	105	958794	220.8150	ug/l	77
94) Butyl methacrylate	7.727	41	1054996	220.1537	ug/l	85
95) t-Butylbenzene	7.949	119	1133856	253.4405	ug/l	86
96) 1,2,4-Trimethylbenzene	7.973	105	1401451	253.1178	ug/l	88
97) sec-Butylbenzene	8.087	105	1315473	264.6360	ug/l	98
98) 4-Isopropyltoluene	8.165	119	1136957	270.0428	ug/l	92
99) n-Butylbenzene	8.430	91	1247567	272.0589	ug/l	92
100) p-Diethylbenzene	8.412	119	683388	250.1119	ug/l	92
101) 1,2,4,5-Tetramethylben...	8.922	119	1193073	276.5171	ug/l	89
102) 1,2-Dibromo-3-Chloropr...	9.000	157	207359	278.3294	ug/l	65
103) Camphor	9.487	95	773932	2529.2912	ug/l	94
104) Hexachlorobutadiene	9.637	225	401794	274.5340	ug/l	94
105) 1,2,4-Trichlorobenzene	9.547	180	609514	273.7826	ug/l	96
106) 1,2,3-Trichlorobenzene	9.889	180	575870	271.1548	ug/l	93
107) Naphthalene	9.733	128	1469352	287.2526	ug/l	100

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



8082413 0126

SampleID : CAL @ 500 PPB
 Data File: 3M135198.D
 Acq On : 08/28/18 22:20

Operator : WP
 Sam Mult : 1 Vial# : 9
 Misc : A,5ML

Qt Meth : 3M A082413.M
 Qt On : 08/29/18 07:39
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	358738	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.779	117	270646	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.226	152	116121	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	91146	29.11	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.03%	
39) 1,2-Dichloroethane-d4	4.718	67	60684	27.15	ug/l	0.00
Spiked Amount 30.000			Recovery	=	90.50%	
66) Toluene-d8	5.896	98	362787	30.84	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.80%	
76) Bromofluorobenzene	7.493	174	146975	33.28	ug/l	0.00
Spiked Amount 30.000			Recovery	=	110.93%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.558	51	1972308	394.9994	ug/l	98
6) Dichlorodifluoromethane	1.525	85	1202626	1174.4999	ug/l	88
7) Chloromethane	1.708	50	1470152	813.2639	ug/l	81
8) Bromomethane	2.045	94	284298	362.0065	ug/l	88
9) Vinyl Chloride	1.775	62	988718	586.8449	ug/l	94
10) Chloroethane	2.129	64	351667	384.6157	ug/l	99
11) Trichlorofluoromethane	2.345	101	1468579	478.5818	ug/l	90
12) Ethyl ether	2.586	59	1222082	431.7542	ug/l	84
13) Furan	2.616	39	2970552	409.3249	ug/l	92
14) 1,1,2-Trichloro-1,2,2-...	2.760	101	501586	334.7101	ug/l	90
15) Methylene Chloride	3.168	84	1320121	447.2950	ug/l	94
16) Acrolein	2.694	56	1057217	1988.1213	ug/l	98
17) Acrylonitrile	3.373	53	552554	456.0055	ug/l	99
18) Iodomethane	2.910	142	1384253	474.2424	ug/l	96
19) Acetone	2.820	43	2461571	2141.7700	ug/l	89
20) Carbon Disulfide	2.970	76	3386883	569.0293	ug/l	100
21) t-Butyl Alcohol	3.253	59	629979	1873.4863	ug/l	85
22) n-Hexane	3.619	57	452468	346.4892	ug/l	# 76
23) Di-isopropyl-ether	3.793	45	3911947	353.5872	ug/l	94
24) 1,1-Dichloroethene	2.772	61	1798546	460.3151	ug/l	98
25) Methyl Acetate	3.078	43	1746378	384.0163	ug/l	100
26) Methyl-t-butyl ether	3.397	73	2524224	339.8726	ug/l	68
27) 1,1-Dichloroethane	3.757	63	2240898	432.9360	ug/l	99
28) trans-1,2-Dichloroethene	3.403	96	1077116	410.1081	ug/l	98
29) Ethyl-t-butyl ether	4.063	59	3488877	359.5320	ug/l	98
30) cis-1,2-Dichloroethene	4.178	61	2140191	383.3278	ug/l	85
31) Bromochloromethane	4.346	49	1579862	429.1978	ug/l	75
32) 2,2-Dichloropropane	4.184	77	1252777	327.8682	ug/l	92
33) Ethyl acetate	4.208	43	1618476m	379.8600	ug/l	
34) 1,4-Dioxane	5.379	88	702053	22182.8370	ug/l	72
35) 1,1-Dichloropropene	4.622	75	1351022	381.4427	ug/l	95
36) Chloroform	4.388	83	2236461	409.5457	ug/l	89
38) Cyclohexane	4.562	56	1111269	400.7536	ug/l	88
40) 1,2-Dichloroethane	4.766	62	1601062	310.8060	ug/l	95
41) 2-Butanone	4.184	43	723733m	432.2780	ug/l	
42) 1,1,1-Trichloroethane	4.526	97	1687386	394.3889	ug/l	99
43) Carbon Tetrachloride	4.634	117	1231022	392.0544	ug/l	98
44) Vinyl Acetate	3.781	43	3041507	363.3713	ug/l	100
45) Bromodichloromethane	5.457	83	1774238	402.9190	ug/l	96
46) Methylcyclohexane	5.283	83	764919	429.8577	ug/l	98
47) Dibromomethane	5.373	174	978812	347.5255	ug/l	94
48) 1,2-Dichloropropane	5.301	63	1268993	396.0239	ug/l	94
49) Trichloroethene	5.157	130	1196771	397.1222	ug/l	90
50) Benzene	4.760	78	3461439	337.9976	ug/l	100
51) tert-Amyl methyl ether	4.808	73	2928209	338.3856	ug/l	79
53) Iso-propylacetate	4.766	43	2425745	311.9118	ug/l	96
54) Methyl methacrylate	5.331	41	1684671	354.4180	ug/l	95
55) Dibromochloromethane	6.424	129	1402561	435.5943	ug/l	95
56) 2-Chloroethylvinylether	5.613	63	940892	449.1582	ug/l	83
57) cis-1,3-Dichloropropene	5.727	75	2070001	400.9840	ug/l	94
58) trans-1,3-Dichloropropene	6.046	75	1956212	406.4893	ug/l	95
59) Ethyl methacrylate	6.076	41	1585050	357.1671	ug/l	83
60) 1,1,2-Trichloroethane	6.172	97	1142792	391.9661	ug/l	88
61) 1,2-Dibromoethane	6.508	107	1237640	440.3202	ug/l	89
62) 1,3-Dichloropropane	6.274	76	1756077	364.2744	ug/l	100
63) 4-Methyl-2-Pentanone	5.805	43	1622435	402.2660	ug/l	93
64) 2-Hexanone	6.298	43	1072573	379.1141	ug/l	88
65) Tetrachloroethene	6.274	164	677165	328.9751	ug/l	85
67) Toluene	5.938	92	2430235	389.5596	ug/l	91

SampleID : CAL @ 500 PPB
 Data File: 3M135198.D
 Acq On : 08/28/18 22:20

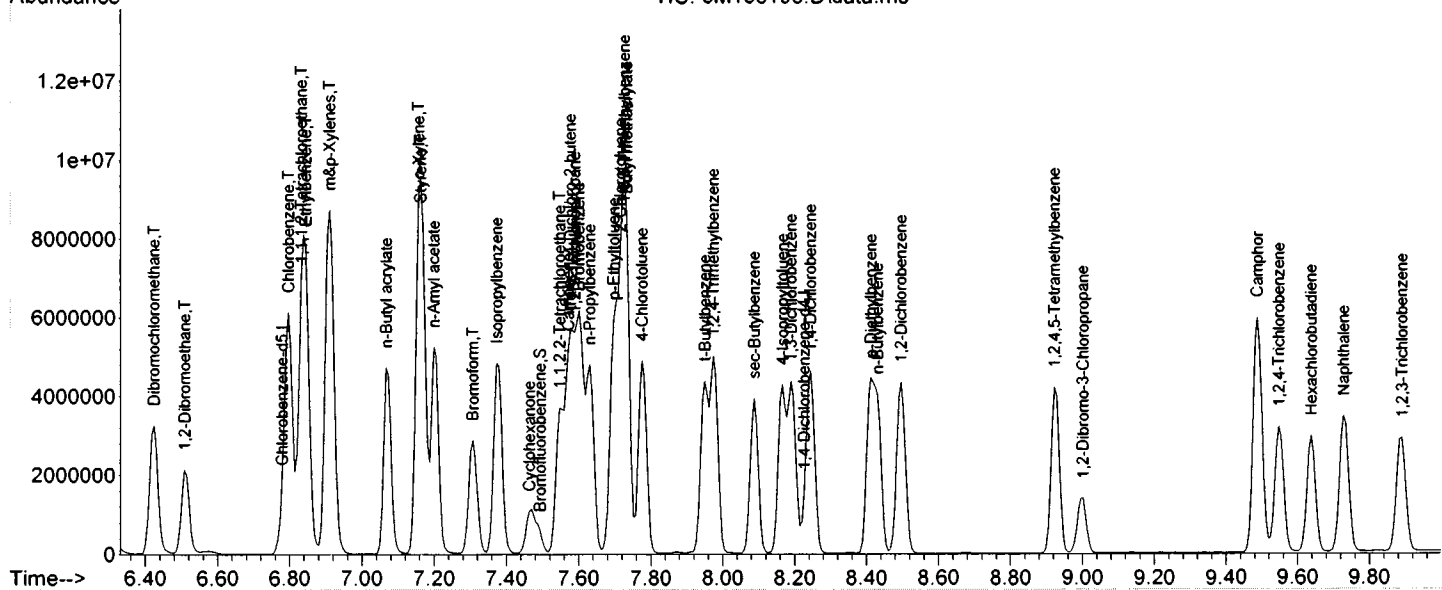
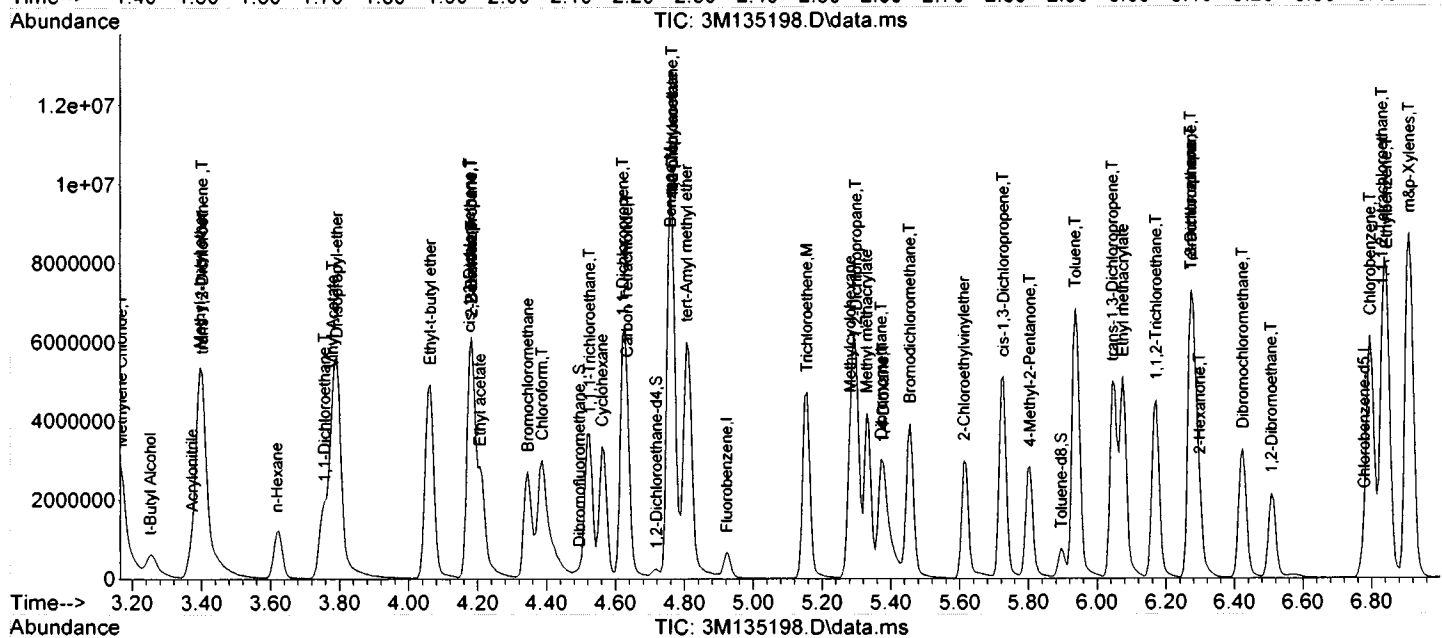
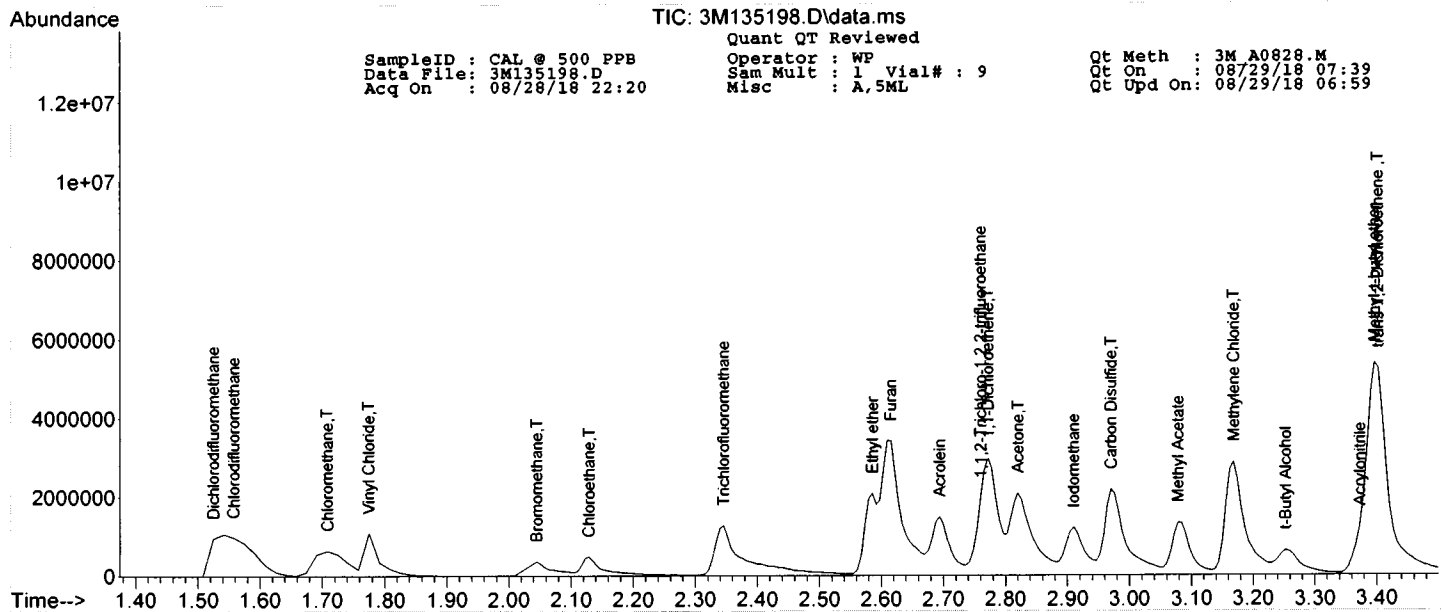
Operator : WP
 Sam Mult : 1 Vial# : 9
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:39
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.833	133	911613	371.8487	ug/l	91
69)	Chlorobenzene	6.797	112	2555609	362.7613	ug/l	92
71)	n-Butyl acrylate	7.067	55	2608135	419.1488	ug/l	98
72)	n-Amyl acetate	7.199	43	2562725	425.1723	ug/l	86
73)	Bromoform	7.307	173	1162512	484.7613	ug/l	97
74)	Ethylbenzene	6.845	106	662182	366.3693	ug/l	74
75)	1,1,2,2-Tetrachloroethane	7.548	83	1523560	483.5316	ug/l	94
77)	Styrene	7.163	104	2223012	393.3255	ug/l	96
78)	m&p-Xylenes	6.911	106	2182398	768.5175	ug/l	78
79)	o-Xylene	7.157	106	1174688	394.6667	ug/l	75
80)	trans-1,4-Dichloro-2-b...	7.578	53	537490	399.9940	ug/l	61
81)	1,3-Dichlorobenzene	8.190	146	1647491	423.0273	ug/l	90
82)	1,4-Dichlorobenzene	8.244	146	1700628	421.6601	ug/l	94
83)	1,2-Dichlorobenzene	8.497	146	1694501	411.9367	ug/l	91
84)	Isopropylbenzene	7.373	105	2756179	452.4247	ug/l	94
85)	Cyclohexanone	7.463	55	401455	973.4128	ug/l	97
86)	Camphene	7.572	93	761147	409.7947	ug/l	98
87)	1,2,3-Trichloropropane	7.590	75	1654170	419.4676	ug/l	90
88)	2-Chlorotoluene	7.716	91	1363328	367.5815	ug/l	96
89)	p-Ethyltoluene	7.698	105	2792548	437.9835	ug/l	78
90)	4-Chlorotoluene	7.776	91	1608555	400.4546	ug/l	93
91)	n-Propylbenzene	7.632	91	2974658	463.6119	ug/l	94
92)	Bromobenzene	7.602	77	2617117	410.6123	ug/l	88
93)	1,3,5-Trimethylbenzene	7.728	105	1479040	359.7325	ug/l	78
94)	Butyl methacrylate	7.734	41	1800773	396.8539	ug/l	81
95)	t-Butylbenzene	7.950	119	1997829	471.5991	ug/l	87
96)	1,2,4-Trimethylbenzene	7.974	105	2399950	457.7660	ug/l	86
97)	sec-Butylbenzene	8.088	105	2382956	506.2669	ug/l	97
98)	4-Isopropyltoluene	8.166	119	1969709	494.0686	ug/l	94
99)	n-Butylbenzene	8.431	91	2206278	508.1079	ug/l	93
100)	p-Diethylbenzene	8.413	119	1208017	466.9138	ug/l	94
101)	1,2,4,5-Tetramethylben...	8.923	119	2135549	522.7104	ug/l	90
102)	1,2-Dibromo-3-Chloropr...	9.001	157	401724	569.4566	ug/l	68
103)	Camphor	9.488	95	1371276	4732.7927	ug/l	95
104)	Hexachlorobutadiene	9.638	225	721652	520.7354	ug/l	95
105)	1,2,4-Trichlorobenzene	9.548	180	1081085	512.8361	ug/l	96
106)	1,2,3-Trichlorobenzene	9.890	180	1065466	529.8208	ug/l	95
107)	Naphthalene	9.728	128	2699540	557.3455	ug/l	100

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



SampleID : CAL @ 1 PPB
 Data File: 3M135194.D
 Acq On : 08/28/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 5
 Misc : A,SML

Qt Meth : 3M_A08
 Qt On : 08/29/18 07:02
 Qt Upd On: 08/29/18 06:59

3082413 0129

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.928	96	344461	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	264299	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.226	152	131479	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	93139	30.98	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.27%	
39) 1,2-Dichloroethane-d4	4.717	67	59542	27.74	ug/l	0.00
Spiked Amount 30.000			Recovery	=	92.47%	
66) Toluene-d8	5.895	98	332820	28.97	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.57%	
76) Bromofluorobenzene	7.493	174	133489	26.70	ug/l	0.00
Spiked Amount 30.000			Recovery	=	89.00%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.592	51	4764	0.9936	ug/l	81
6) Dichlorodifluoromethane	1.542	85	2164	2.2010	ug/l	# 35
7) Chloromethane	1.725	50	3954m	2.2779	ug/l	
8) Bromomethane	2.068	94	967	1.2823	ug/l	97
9) Vinyl Chloride	1.775	62	1733	1.0712	ug/l	77
10) Chloroethane	2.159	64	839m	0.9556	ug/l	
11) Trichlorofluoromethane	2.357	101	3350	1.1369	ug/l	64
12) Ethyl ether	2.591	59	2973	1.0939	ug/l	91
13) Furan	2.615	39	6127	0.8793	ug/l	86
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	1670	1.1606	ug/l	83
15) Methylene Chloride	3.174	84	3434	1.2118	ug/l	65
16) Acrolein	2.711	56	1484m	2.9064	ug/l	
17) Acrylonitrile	3.384	53	1231	1.0580	ug/l	90
18) Iodomethane	2.927	142	2988	1.0661	ug/l	59
19) Acetone	2.831	43	6767	6.1319	ug/l	95
20) Carbon Disulfide	2.975	76	8635	1.5109	ug/l	100
21) t-Butyl Alcohol	3.246	59	1080	3.3449	ug/l	50
22) n-Hexane	3.630	57	1202m	0.9586	ug/l	
23) Di-isopropyl-ether	3.798	45	7515	0.7074	ug/l	86
24) 1,1-Dichloroethene	2.771	61	4002	1.0667	ug/l	83
25) Methyl Acetate	3.096	43	3043	0.6969	ug/l	100
26) Methyl-t-butyl ether	3.396	73	4927	0.6909	ug/l	70
27) 1,1-Dichloroethane	3.756	63	5338	1.0740	ug/l	93
28) trans-1,2-Dichloroethene	3.408	96	2372	0.9406	ug/l	64
29) Ethyl-t-butyl ether	4.063	59	5226	0.5609	ug/l	84
30) cis-1,2-Dichloroethene	4.183	61	4098	0.7644	ug/l	72
31) Bromochloromethane	4.339	49	2613	0.7393	ug/l	# 43
32) 2,2-Dichloropropane	4.183	77	3074	0.8379	ug/l	86
33) Ethyl acetate	4.225	43	1839m	0.4495	ug/l	
34) 1,4-Dioxane	5.378	88	839m	27.6087	ug/l	
35) 1,1-Dichloropropene	4.633	75	3658	1.0756	ug/l	82
36) Chloroform	4.393	83	4772	0.9101	ug/l	90
38) Cyclohexane	4.567	56	1720	0.6460	ug/l	67
40) 1,2-Dichloroethane	4.766	62	5176	1.0464	ug/l	76
41) 2-Butanone	4.219	43	949m	0.5903	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	4272	1.0399	ug/l	96
43) Carbon Tetrachloride	4.633	117	3626	1.2027	ug/l	94
44) Vinyl Acetate	3.798	43	6111	0.7603	ug/l	100
45) Bromodichloromethane	5.456	83	3264	0.7720	ug/l	59
46) Methylcyclohexane	5.282	83	1331	0.7790	ug/l	81
47) Dibromomethane	5.378	174	3393	1.2546	ug/l	75
48) 1,2-Dichloropropane	5.300	63	2893	0.9403	ug/l	68
49) Trichloroethene	5.150	130	2568	0.8875	ug/l	64
50) Benzene	4.766	78	10153	1.0325	ug/l	100
51) tert-Amyl methyl ether	4.808	73	6350	0.7642	ug/l	75
53) Iso-propylacetate	4.766	43	5624	0.7405	ug/l	85
54) Methyl methacrylate	5.342	41	3543	0.7633	ug/l	95
55) Dibromochloromethane	6.423	129	2538	0.8072	ug/l	# 37
56) 2-Chloroethylvinylether	5.625	63	1195m	0.5842	ug/l	
57) cis-1,3-Dichloropropene	5.727	75	3007	0.5965	ug/l	97
58) trans-1,3-Dichloropropene	6.057	75	3345	0.7118	ug/l	80
59) Ethyl methacrylate	6.075	41	2791	0.6440	ug/l	100
60) 1,1,2-Trichloroethane	6.171	97	2241	0.7871	ug/l	86
61) 1,2-Dibromoethane	6.508	107	2022	0.7367	ug/l	90
62) 1,3-Dichloropropane	6.279	76	4467	0.9489	ug/l	88
63) 4-Methyl-2-Pentanone	5.799	43	2882	0.7317	ug/l	77
64) 2-Hexanone	6.291	43	2242	0.8115	ug/l	96
65) Tetrachloroethene	6.279	164	2133	1.0611	ug/l	67
67) Toluene	5.943	92	6301	1.0343	ug/l	74

SampleID : CAL @ 1 PPB
 Data File: 3M135194.D
 Acq On : 08/28/18 21:14

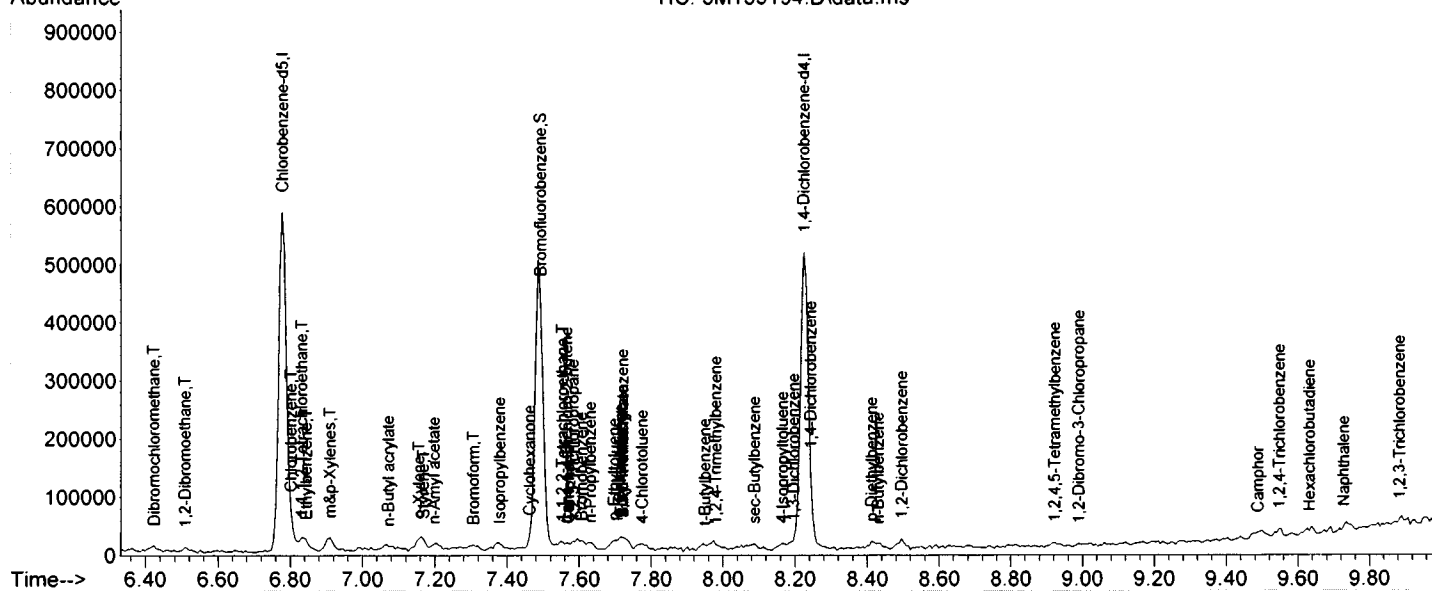
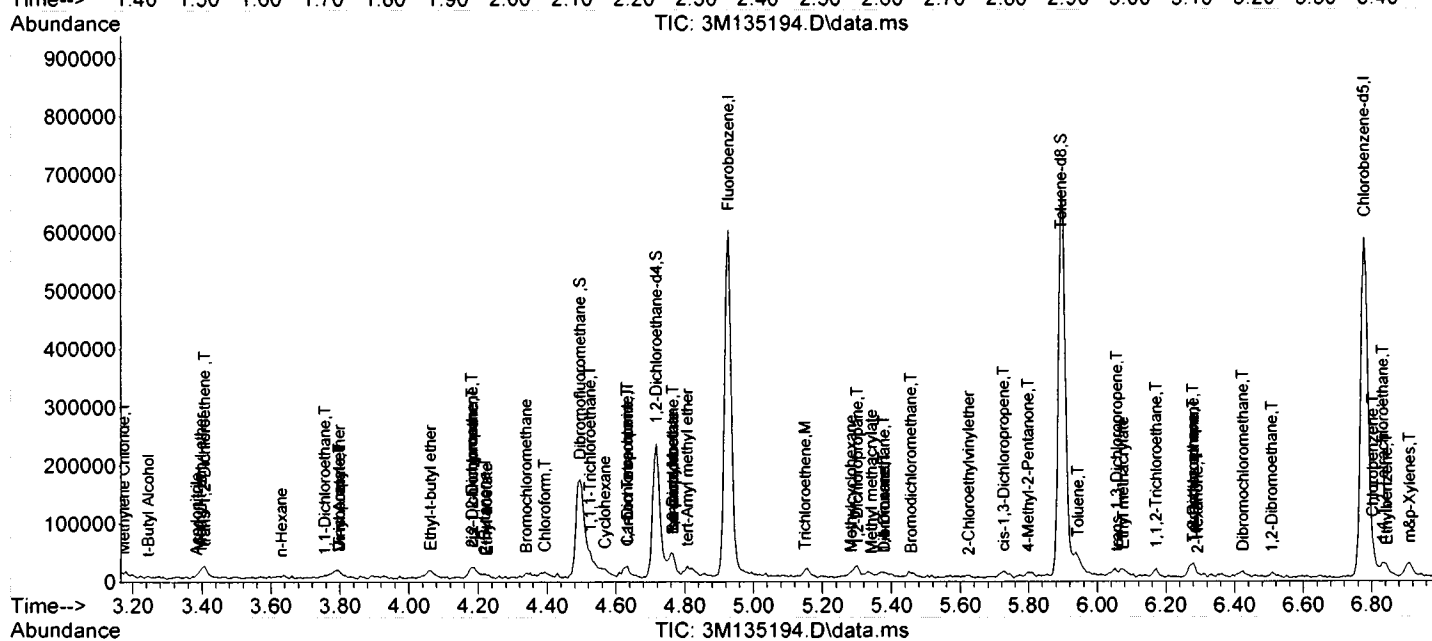
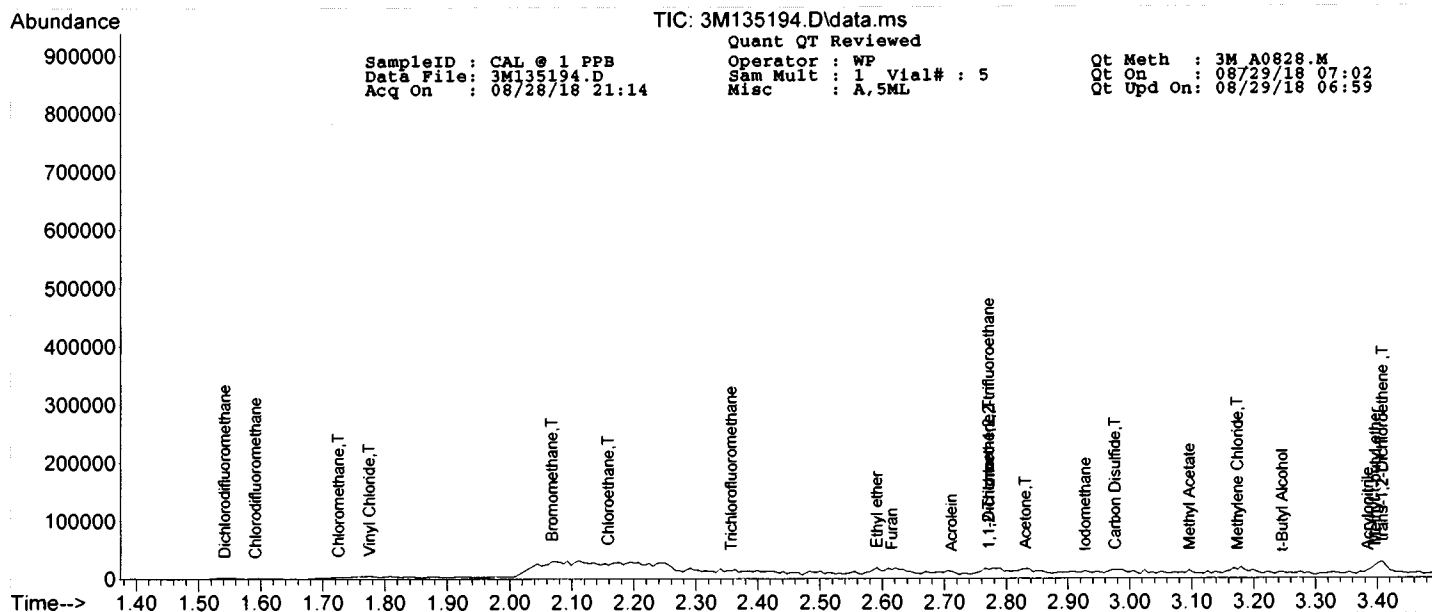
Operator : WP
 Sam Mult : 1 Vial# : 5
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:02
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.832	133	2121	0.8859	ug/l	75
69)	Chlorobenzene	6.802	112	6887	1.0011	ug/l	97
71)	n-Butyl acrylate	7.072	55	3688m	0.5235	ug/l	
72)	n-Amyl acetate	7.198	43	3747	0.5490	ug/l	87
73)	Bromoform	7.306	173	2150	0.7918	ug/l	88
74)	Ethylbenzene	6.844	106	1445	0.7061	ug/l	81
75)	1,1,2,2-Tetrachloroethane	7.553	83	3933	1.1024	ug/l	84
77)	Styrene	7.168	104	4412	0.6894	ug/l	95
78)	m&p-Xylenes	6.910	106	4827	1.5012	ug/l	64
79)	o-Xylene	7.156	106	2955	0.8768	ug/l	78
80)	trans-1,4-Dichloro-2-b...	7.565	53	451m	0.2964	ug/l	
81)	1,3-Dichlorobenzene	8.195	146	4529	1.0271	ug/l	# 73
82)	1,4-Dichlorobenzene	8.244	146	5522	1.2092	ug/l	90
83)	1,2-Dichlorobenzene	8.496	146	5481	1.1768	ug/l	76
84)	Isopropylbenzene	7.379	105	4818	0.6985	ug/l	88
85)	Cyclohexanone	7.463	55	1012m	2.1672	ug/l	
86)	Camphene	7.571	93	1853	0.8811	ug/l	69
87)	1,2,3-Trichloropropane	7.583	75	3716	0.8322	ug/l	92
88)	2-Chlorotoluene	7.715	91	4691	1.1171	ug/l	90
89)	p-Ethyltoluene	7.697	105	6122	0.8480	ug/l	79
90)	4-Chlorotoluene	7.775	91	3864	0.8496	ug/l	91
91)	n-Propylbenzene	7.631	91	7139	0.9827	ug/l	99
92)	Bromobenzene	7.607	77	6543	0.9067	ug/l	88
93)	1,3,5-Trimethylbenzene	7.721	105	3443m	0.7396	ug/l	
94)	Butyl methacrylate	7.721	41	3454	0.6723	ug/l	82
95)	t-Butylbenzene	7.949	119	3108	0.6480	ug/l	86
96)	1,2,4-Trimethylbenzene	7.979	105	4574	0.7705	ug/l	77
97)	sec-Butylbenzene	8.087	105	4737	0.8888	ug/l	89
98)	4-Isopropyltoluene	8.165	119	3702	0.8201	ug/l	81
99)	n-Butylbenzene	8.430	91	4535	0.9224	ug/l	96
100)	p-Diethylbenzene	8.412	119	2119	0.7234	ug/l	# 2
101)	1,2,4,5-Tetramethylben...	8.922	119	3426	0.7406	ug/l	# 54
102)	1,2-Dibromo-3-Chloropr...	8.988	157	554	0.6936	ug/l	90
103)	Camphor	9.487	95	2092	6.3769	ug/l	93
104)	Hexachlorobutadiene	9.631	225	1981	1.2625	ug/l	# 72
105)	1,2,4-Trichlorobenzene	9.547	180	2727	1.1425	ug/l	# 64
106)	1,2,3-Trichlorobenzene	9.883	180	3775	1.6579	ug/l	# 78
107)	Naphthalene	9.727	128	4922	0.8975	ug/l	100

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



SampleID : CAL @ 0.5 PPB
 Data File: 3M135193.D
 Acq On : 08/28/18 20:56

Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,5ML

Qt Meth : 3M_A082413 0132
 Qt On : 08/29/18 07:07
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	330751	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	261228	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.232	152	125194	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	86935	30.11	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.37%	
39) 1,2-Dichloroethane-d4	4.718	67	65711	31.88	ug/l	0.00
Spiked Amount 30.000			Recovery	=	106.27%	
66) Toluene-d8	5.895	98	321295	28.30	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.33%	
76) Bromofluorobenzene	7.487	174	129204	27.14	ug/l	0.00
Spiked Amount 30.000			Recovery	=	90.47%	
Target Compounds						
5) Chlorodifluoromethane	0.000		0	N.D.	d	
6) Dichlorodifluoromethane	0.000		0	N.D.	d	
7) Chloromethane	0.000		0	N.D.	d	
8) Bromomethane	0.000		0	N.D.	d	
9) Vinyl Chloride	0.000		0	N.D.	d	
10) Chloroethane	0.000		0	N.D.	d	
11) Trichlorofluoromethane	0.000		0	N.D.	d	
12) Ethyl ether	0.000		0	N.D.	d	
13) Furan	0.000		0	N.D.	d	
14) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.	d	
15) Methylene Chloride	0.000		0	N.D.	d	
16) Acrolein	0.000		0	N.D.	d	
17) Acrylonitrile	0.000		0	N.D.	d	
18) Iodomethane	0.000		0	N.D.	d	
19) Acetone	0.000		0	N.D.	d	
20) Carbon Disulfide	0.000		0	N.D.	d	
21) t-Butyl Alcohol	0.000		0	N.D.	d	
22) n-Hexane	0.000		0	N.D.	d	
23) Di-isopropyl-ether	0.000		0	N.D.	d	
24) 1,1-Dichloroethene	0.000		0	N.D.	d	
25) Methyl Acetate	0.000		0	N.D.	d	
26) Methyl-t-butyl ether	3.390	73	1642	0.2398	ug/l # 48	
27) 1,1-Dichloroethane	0.000		0	N.D.	d	
28) trans-1,2-Dichloroethene	0.000		0	N.D.	d	
29) Ethyl-t-butyl ether	0.000		0	N.D.	d	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	d	
31) Bromochloromethane	0.000		0	N.D.	d	
32) 2,2-Dichloropropane	0.000		0	N.D.	d	
33) Ethyl acetate	0.000		0	N.D.	d	
34) 1,4-Dioxane	0.000		0	N.D.	d	
35) 1,1-Dichloropropene	0.000		0	N.D.	d	
36) Chloroform	0.000		0	N.D.	d	
38) Cyclohexane	0.000		0	N.D.	d	
40) 1,2-Dichloroethane	4.760	62	2166	0.4561	ug/l 80	
41) 2-Butanone	0.000		0	N.D.	d	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
43) Carbon Tetrachloride	0.000		0	N.D.	d	
44) Vinyl Acetate	0.000		0	N.D.	d	
45) Bromodichloromethane	0.000		0	N.D.	d	
46) Methylcyclohexane	0.000		0	N.D.	d	
47) Dibromomethane	0.000		0	N.D.	d	
48) 1,2-Dichloropropane	0.000		0	N.D.	d	
49) Trichloroethene	0.000		0	N.D.	d	
50) Benzene	4.754	78	4035	0.4273	ug/l 100	
51) tert-Amyl methyl ether	0.000		0	N.D.	d	
53) Iso-propylacetate	0.000		0	N.D.	d	
54) Methyl methacrylate	0.000		0	N.D.	d	
55) Dibromochloromethane	0.000		0	N.D.	d	
56) 2-Chloroethylvinylether	0.000		0	N.D.	d	
57) cis-1,3-Dichloropropene	0.000		0	N.D.	d	
58) trans-1,3-Dichloropropene	0.000		0	N.D.	d	
59) Ethyl methacrylate	0.000		0	N.D.	d	
60) 1,1,2-Trichloroethane	0.000		0	N.D.	d	
61) 1,2-Dibromoethane	0.000		0	N.D.	d	
62) 1,3-Dichloropropane	0.000		0	N.D.	d	
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	d	
64) 2-Hexanone	0.000		0	N.D.	d	
65) Tetrachloroethene	0.000		0	N.D.	d	
67) Toluene	0.000		0	N.D.	d	

SampleID : CAL @ 0.5 PPB
 Data File: 3M135193.D
 Acq On : 08/28/18 20:56

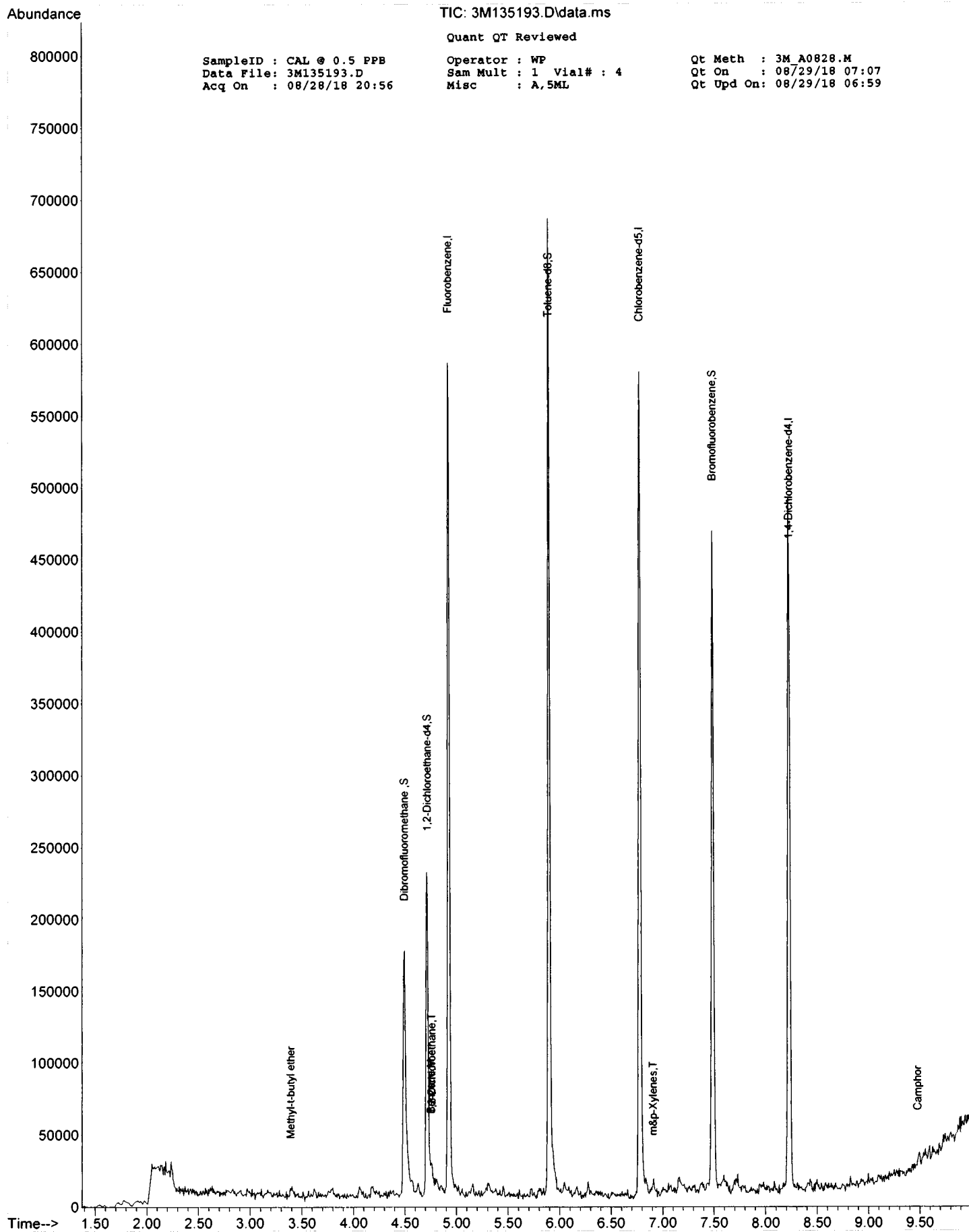
Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,5ML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 07:07
 Qt Upd On: 08/29/18 06:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\08-2818\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d	
69) Chlorobenzene	0.000		0	N.D.	d	
71) n-Butyl acrylate	0.000		0	N.D.	d	
72) n-Amyl acetate	0.000		0	N.D.	d	
73) Bromoform	0.000		0	N.D.	d	
74) Ethylbenzene	0.000		0	N.D.	d	
75) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	d	
77) Styrene	0.000		0	N.D.	d	
78) m&p-Xylenes	6.904	106	2051	0.6699	ug/l	97
79) o-Xylene	0.000		0	N.D.	d	
80) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d	
81) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
82) 1,4-Dichlorobenzene	0.000		0	N.D.	d	
83) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
84) Isopropylbenzene	0.000		0	N.D.	d	
85) Cyclohexanone	0.000		0	N.D.	d	
86) Camphene	0.000		0	N.D.	d	
87) 1,2,3-Trichloropropane	0.000		0	N.D.	d	
88) 2-Chlorotoluene	0.000		0	N.D.	d	
89) p-Ethyltoluene	0.000		0	N.D.	d	
90) 4-Chlorotoluene	0.000		0	N.D.	d	
91) n-Propylbenzene	0.000		0	N.D.	d	
92) Bromobenzene	0.000		0	N.D.	d	
93) 1,3,5-Trimethylbenzene	0.000		0	N.D.	d	
94) Butyl methacrylate	0.000		0	N.D.	d	
95) t-Butylbenzene	0.000		0	N.D.	d	
96) 1,2,4-Trimethylbenzene	0.000		0	N.D.	d	
97) sec-Butylbenzene	0.000		0	N.D.	d	
98) 4-Isopropyltoluene	0.000		0	N.D.	d	
99) n-Butylbenzene	0.000		0	N.D.	d	
100) p-Diethylbenzene	0.000		0	N.D.	d	
101) 1,2,4,5-Tetramethylben...	0.000		0	N.D.	d	
102) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d	
103) Camphor	9.475	95	473m	1.5142	ug/l	
104) Hexachlorobutadiene	0.000		0	N.D.	d	
105) 1,2,4-Trichlorobenzene	0.000		0	N.D.	d	
106) 1,2,3-Trichlorobenzene	0.000		0	N.D.	d	
107) Naphthalene	0.000		0	N.D.	d	

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



Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
Chlorodifluoromethane	1	0		19.6633	20	98		70	130
Dichlorodifluoromethane	1	0		20.3578	20	102		50	150
Chloromethane	1	0		21.2338	20	106		70	130
Bromomethane	1	0		20.5451	20	103		70	130
Vinyl Chloride	1	0		19.6663	20	98		70	130
Chloroethane	1	0		20.2219	20	101		70	130
Trichlorofluoromethane	1	0		19.6498	20	98		70	130
Ethyl ether	1	0		19.4383	20	97		70	130
Furan	1	0		19.6926	20	98		70	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0		18.425	20	92		70	130
Methylene Chloride	1	0		19.8296	20	99		70	130
Acrolein	1	0		98.4815	100	98		50	150
Acrylonitrile	1	0		22.7191	20	114		50	150
Iodomethane	1	0		19.6693	20	98		70	130
Acetone	1	0		97.9206	100	98		50	150
Carbon Disulfide	1	0		19.3965	20	97		70	130
t-Butyl Alcohol	1	0		92.5391	100	93		50	150
n-Hexane	1	0		17.15	20	86		70	130
Di-isopropyl-ether	1	0		20.4567	20	102		70	130
1,1-Dichloroethene	1	0		21.3834	20	107		70	130
Methyl Acetate	1	0		20.6362	20	103		70	130
Methyl-t-butyl ether	1	0		22.2594	20	111		70	130
1,1-Dichloroethane	1	0		19.8729	20	99		70	130
trans-1,2-Dichloroethene	1	0		19.6929	20	98		70	130
Ethyl-t-butyl ether	1	0		21.0493	20	105		70	130
cis-1,2-Dichloroethene	1	0		20.1962	20	101		70	130
Bromochloromethane	1	0		19.5259	20	98		70	130
2,2-Dichloropropane	1	0		19.071	20	95		70	130
Ethyl acetate	1	0		18.131	20	91		70	130
1,4-Dioxane	1	0		978.2558	1000	98		70	130
1,1-Dichloropropene	1	0		21.4264	20	107		70	130
Chloroform	1	0		20.1532	20	101		70	130
Cyclohexane	1	0		19.7054	20	99		70	130
1,2-Dichloroethane	1	0		19.911	20	100		70	130
2-Butanone	1	0		22.2925	20	111		70	130
1,1,1-Trichloroethane	1	0		20.517	20	103		70	130
Carbon Tetrachloride	1	0		20.375	20	102		70	130
Vinyl Acetate	1	0		19.6141	20	98		70	130
Bromodichloromethane	1	0		19.8187	20	99		70	130
Methylcyclohexane	1	0		19.2981	20	96		70	130
Dibromomethane	1	0		20.8004	20	104		70	130
1,2-Dichloropropane	1	0		20.1475	20	101		70	130
Trichloroethene	1	0		19.9328	20	100		70	130
Benzene	1	0		21.1696	20	106		70	130
Iso-propylacetate	1	0		20.8772	20	104		70	130
Methyl methacrylate	1	0		18.8172	20	94		70	130
Dibromochloromethane	1	0		20.4573	20	102		70	130
2-Chloroethylvinylether	1	0		20.1348	20	101		70	130
cis-1,3-Dichloropropene	1	0		20.6	20	103		70	130
trans-1,3-Dichloropropene	1	0		20.0741	20	100		70	130
Ethyl methacrylate	1	0		20.4422	20	102		70	130
1,1,2-Trichloroethane	1	0		19.8621	20	99		70	130
1,2-Dibromoethane	1	0		20.9264	20	105		70	130
1,3-Dichloropropane	1	0		20.132	20	101		70	130
4-Methyl-2-Pentanone	1	0		19.4179	20	97		70	130
2-Hexanone	1	0		20.3271	20	102		70	130
Tetrachloroethene	1	0		21.8154	20	109		70	130
Toluene	1	0		19.9568	20	100		70	130
1,1,1,2-Tetrachloroethane	1	0		23.7644	20	119		70	130
Chlorobenzene	1	0		21.1497	20	106		70	130
n-Butyl acrylate	1	0		20.2882	20	101		70	130
n-Amvl acetate	1	0		19.7269	20	99		70	130
Bromoform	1	0		21.3515	20	107		70	130
Ethylbenzene	1	0		21.0489	20	105		70	130
1,1,2,2-Tetrachloroethane	1	0		19.9989	20	100		70	130
Styrene	1	0		22.0854	20	110		70	130
m&p-Xylenes	1	0		44.1667	40	110		70	130
o-Xylene	1	0		22.427	20	112		70	130
trans-1,4-Dichloro-2-butene	1	0		19.5904	20	98		70	130
1,3-Dichlorobenzene	1	0		20.6437	20	103		70	130
1,4-Dichlorobenzene	1	0		20.4075	20	102		70	130
1,2-Dichlorobenzene	1	0		19.9193	20	100		70	130
Isopropylbenzene	1	0		20.5897	20	103		70	130
1,2,3-Trichloropropane	1	0		20.9646	20	105		70	130
2-Chlorotoluene	1	0		21.4749	20	107		70	130
4-Chlorotoluene	1	0		20.0216	20	100		70	130
n-Propylbenzene	1	0		19.9234	20	100		70	130
Bromobenzene	1	0		20.7166	20	104		70	130
1,3,5-Trimethylbenzene	1	0		21.4189	20	107		70	130
Butyl methacrylate	1	0		20.2041	20	101		70	130
t-Butylbenzene	1	0		19.3466	20	97		70	130
1,2,4-Trimethylbenzene	1	0		20.2629	20	101		70	130
sec-Butylbenzene	1	0		18.9659	20	95		70	130
4-Isopropyltoluene	1	0		19.4565	20	97		70	130
n-Butylbenzene	1	0		19.2109	20	96		70	130
1,2-Dibromo-3-Chloropropane	1	0		19.9102	20	100		70	130
Hexachlorobutadiene	1	0		17.3307	20	87		70	130
1,2,4-Trichlorobenzene	1	0		20.2733	20	101		70	130
1,2,3-Trichlorobenzene	1	0		19.862	20	99		70	130
Naphthalene	1	0		19.262	20	96		70	130

Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
Chlorodifluoromethane	1	0		16.6398	20	83		70	130
Dichlorodifluoromethane	1	0		23.8394	20	119		50	150
Chloromethane	1	0		18.403	20	92		70	130
Bromomethane	1	0		22.0969	20	110		70	130
Vinyl Chloride	1	0		19.325	20	97		70	130
Chloroethane	1	0		22.3784	20	112		70	130
Trichlorofluoromethane	1	0		19.1831	20	96		70	130
Ethyl ether	1	0		18.1136	20	91		70	130
Furan	1	0		18.0799	20	90		70	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0		21.6131	20	108		70	130
Methylene Chloride	1	0		18.2155	20	91		70	130
Acrolein	1	0		104.8028	100	105		50	150
Acrylonitrile	1	0		20.4634	20	102		50	150
Iodomethane	1	0		21.217	20	106		70	130
Acetone	1	0		95.1749	100	95		50	150
Carbon Disulfide	1	0		18.6889	20	93		70	130
t-Butyl Alcohol	1	0		83.4473	100	83		50	150
n-Hexane	1	0		21.8638	20	109		70	130
Di-isopropyl-ether	1	0		21.4825	20	107		70	130
1,1-Dichloroethene	1	0		18.593	20	93		70	130
Methyl Acetate	1	0		20.0324	20	100		70	130
Methyl-t-butyl ether	1	0		22.4674	20	112		70	130
1,1-Dichloroethane	1	0		17.6169	20	88		70	130
trans-1,2-Dichloroethene	1	0		19.092	20	95		70	130
Ethyl-t-butyl ether	1	0		20.8667	20	104		70	130
cis-1,2-Dichloroethene	1	0		19.3547	20	97		70	130
Bromochloromethane	1	0		16.4855	20	82		70	130
2,2-Dichloropropane	1	0		18.6678	20	93		70	130
Ethyl acetate	1	0		29.985	20	150	*	70	130
1,4-Dioxane	1	0		837.8328	1000	84		70	130
1,1-Dichloropropene	1	0		19.626	20	98		70	130
Chloroform	1	0		19.1762	20	96		70	130
Cyclohexane	1	0		19.2553	20	96		70	130
1,2-Dichloroethane	1	0		21.1203	20	106		70	130
2-Butanone	1	0		70.0532	20	350	*	70	130
1,1,1-Trichloroethane	1	0		19.9367	20	100		70	130
Carbon Tetrachloride	1	0		18.8199	20	94		70	130
Vinyl Acetate	1	0		20.7032	20	104		70	130
Bromodichloromethane	1	0		19.7942	20	99		70	130
Methylcyclohexane	1	0		19.3482	20	97		70	130
Dibromomethane	1	0		19.5671	20	98		70	130
1,2-Dichloropropane	1	0		18.4379	20	92		70	130
Trichloroethene	1	0		20.559	20	103		70	130
Benzene	1	0		20.464	20	102		70	130
Iso-propylacetate	1	0		19.3232	20	97		70	130
Methyl methacrylate	1	0		18.2216	20	91		70	130
Dibromochloromethane	1	0		20.196	20	101		70	130
2-Chloroethylvinylether	1	0		18.6127	20	93		70	130
cis-1,3-Dichloropropene	1	0		20.0837	20	100		70	130
trans-1,3-Dichloropropene	1	0		18.8705	20	94		70	130
Ethyl methacrylate	1	0		19.4493	20	97		70	130
1,1,2-Trichloroethane	1	0		19.9034	20	100		70	130
1,2-Dibromoethane	1	0		20.6751	20	103		70	130
1,3-Dichloropropane	1	0		20.1701	20	101		70	130
4-Methyl-2-Pentanone	1	0		18.5769	20	93		70	130
2-Hexanone	1	0		17.5502	20	88		70	130
Tetrachloroethene	1	0		20.5325	20	103		70	130
Toluene	1	0		19.9661	20	100		70	130
1,1,1,2-Tetrachloroethane	1	0		20.6878	20	103		70	130
Chlorobenzene	1	0		19.1813	20	96		70	130
n-Butyl acrylate	1	0		15.6868	20	78		70	130
n-Amyl acetate	1	0		19.21	20	96		70	130
Bromoform	1	0		18.3309	20	92		70	130
Ethylbenzene	1	0		22.4461	20	112		70	130
1,1,2,2-Tetrachloroethane	1	0		19.1803	20	96		70	130
Styrene	1	0		22.0051	20	110		70	130
m&p-Xylenes	1	0		44.7884	40	112		70	130
o-Xylene	1	0		20.6129	20	103		70	130
trans-1,4-Dichloro-2-butene	1	0		16.6664	20	83		70	130
1,3-Dichlorobenzene	1	0		20.1758	20	101		70	130
1,4-Dichlorobenzene	1	0		19.3462	20	97		70	130
1,2-Dichlorobenzene	1	0		19.7125	20	99		70	130
Isopropylbenzene	1	0		20.0084	20	100		70	130
1,2,3-Trichloropropane	1	0		19.3323	20	97		70	130
2-Chlorotoluene	1	0		20.4413	20	102		70	130
4-Chlorotoluene	1	0		20.38	20	102		70	130
n-Propylbenzene	1	0		20.0239	20	100		70	130
Bromobenzene	1	0		20.0682	20	100		70	130
1,3,5-Trimethylbenzene	1	0		23.8552	20	119		70	130
Butyl methacrylate	1	0		20.8786	20	104		70	130
t-Butylbenzene	1	0		20.5461	20	103		70	130
1,2,4-Trimethylbenzene	1	0		20.7133	20	104		70	130
sec-Butylbenzene	1	0		19.5364	20	98		70	130
4-Isopropyltoluene	1	0		19.7197	20	99		70	130
n-Butylbenzene	1	0		20.2073	20	101		70	130
1,2-Dibromo-3-Chloropropane	1	0		17.8834	20	89		70	130
Hexachlorobutadiene	1	0		21.6992	20	108		70	130
1,2,4-Trichlorobenzene	1	0		20.6196	20	103		70	130
1,2,3-Trichlorobenzene	1	0		19.1541	20	96		70	130
Naphthalene	1	0		19.0357	20	95		70	130

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/27/2018 8:51:00 AData File: 3M135076.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.95	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.61	18.54	20	20	0.1	0.418	0.355	7.31	
Dichlorodifluoromethane	1	0		1.55	22.21	20	20	0.1	0.086	0.095	11.06	
Chloromethane	1	0		1.75	25.21	20	20	0.1	0.151	0.191	26.04	C1
Bromomethane	1	0		2.09	16.41	20	20	0.1	0.066	0.054	17.93	
Vinyl Chloride	1	0		1.80	22.32	20	20	0.1	0.141	0.157	11.61	
Chloroethane	1	0		2.17	21.60	20	20	0.1	0.076	0.086	7.99	
Trichlorofluoromethane	1	0		2.38	16.83	20	20	0.1	0.257	0.216	15.87	
Ethyl ether	1	0		2.61	17.12	20	20	0.5	0.237	0.203	14.42	
Furan	1	0		2.65	19.99	20	20	0.5	0.607	0.606	0.07	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.79	16.69	20	20	0.1	0.125	0.105	16.55	
Methylene Chloride	1	0		3.20	20.41	20	20	0.1	0.247	0.252	2.05	
Acrolein	1	0		2.73	69.17	100	20		0.044	0.031	30.83	C1
Acrylonitrile	1	0		3.41	21.75	20	20		0.101	0.110	8.73	
Iodomethane	1	0		2.94	16.30	20	20		0.244	0.199	18.52	
Acetone	1	0		2.86	87.17	100	20	0.1	0.096	0.084	12.83	
Carbon Disulfide	1	0		3.01	23.11	20	20	0.1	0.498	0.575	15.54	
t-Butyl Alcohol	1	0		3.29	68.42	100	20		0.028	0.019	31.58	C1
n-Hexane	1	0		3.66	15.98	20	20		0.109	0.087	20.10	
Di-isopropyl-ether	1	0		3.82	19.61	20	20		0.925	0.907	1.95	
1,1-Dichloroethene	1	0		2.81	17.22	20	20	0.1	0.327	0.281	13.89	
Methyl Acetate	1	0		3.12	19.60	20	20	0.1	0.380	0.373	2.00	
Methyl-t-butyl ether	1	0		3.43	16.33	20	20	0.1	0.621	0.507	18.33	
1,1-Dichloroethane	1	0		3.79	21.71	20	20	0.2	0.433	0.470	8.53	
trans-1,2-Dichloroethene	1	0		3.44	21.18	20	20	0.1	0.220	0.233	5.91	
Ethyl-t-butyl ether	1	0		4.09	18.04	20	20	0.5	0.812	0.732	9.82	
cis-1,2-Dichloroethene	1	0		4.21	21.21	20	20	0.1	0.467	0.495	6.07	
Bromochloromethane	1	0		4.37	21.81	20	20		0.308	0.336	9.05	
2,2-Dichloropropane	1	0		4.21	21.28	20	20		0.320	0.340	6.40	
Ethyl acetate	1	0		4.24	20.25	20	20		0.356	0.361	1.25	
1,4-Dioxane	1	0		5.40	896.91	1000	20		0.003	0.002	10.31	
1,1-Dichloropropene	1	0		4.65	21.78	20	20		0.296	0.323	8.92	
Chloroform	1	0		4.41	20.66	20	20	0.2	0.457	0.472	3.32	
Dibromofluoromethane	1	0	S	4.51	33.12	30	**		0.262	0.289	10.41	
Cyclohexane	1	0		4.59	17.00	20	20	0.1	0.232	0.197	15.00	
1,2-Dichloroethane-d4	1	0	S	4.74	31.60	30	**		0.187	0.197	5.32	
1,2-Dichloroethane	1	0		4.78	20.90	20	20	0.1	0.431	0.450	4.50	
2-Butanone	1	0		4.23	16.96	20	20	0.1	0.140	0.119	15.20	
1,1,1-Trichloroethane	1	0		4.54	19.57	20	20	0.1	0.358	0.350	2.15	
Carbon Tetrachloride	1	0		4.65	20.81	20	20	0.1	0.263	0.273	4.04	
Vinyl Acetate	1	0		3.82	20.62	20	20		0.700	0.722	3.10	
Bromodichloromethane	1	0		5.48	20.94	20	20	0.2	0.368	0.386	4.72	
Methylcyclohexane	1	0		5.31	20.90	20	20	0.1	0.149	0.155	4.49	
Dibromomethane	1	0		5.40	15.99	20	20		0.236	0.188	20.03	
1,2-Dichloropropane	1	0		5.32	22.25	20	20	0.1	0.268	0.298	11.24	
Trichloroethene	1	0		5.18	18.90	20	20	0.2	0.252	0.238	5.52	
Benzene	1	0		4.78	23.33	20	20	0.5	0.856	0.999	16.65	
tert-Amyl methyl ether	1	0		4.83	19.01	20	20		0.724	0.688	4.95	
Chlorobenzene-d5	1	0	I	6.80	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.79	16.13	20	20	0.5	0.862	0.695	19.33	
Methyl methacrylate	1	0		5.36	16.67	20	20	0.5	0.527	0.439	16.65	
Dibromochloromethane	1	0		6.44	16.35	20	20	0.1	0.357	0.292	18.27	

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Form7

8082413 0138

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/27/2018 8:51:00 AData File: 3M135076.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.64	14.35	20	20		0.232	0.167	28.24	C1
cis-1,3-Dichloropropene	1	0		5.75	15.95	20	20	0.2	0.572	0.456	20.24	
trans-1,3-Dichloropropene	1	0		6.07	15.44	20	20	0.1	0.533	0.412	22.79	C1
Ethyl methacrylate	1	0		6.09	14.90	20	20	0.5	0.492	0.366	25.50	C1
1,1,2-Trichloroethane	1	0		6.19	17.12	20	20	0.1	0.323	0.277	14.38	
1,2-Dibromoethane	1	0		6.53	16.17	20	20	0.1	0.312	0.252	19.14	
1,3-Dichloropropane	1	0		6.30	19.01	20	20		0.534	0.508	4.93	
4-Methyl-2-Pentanone	1	0		5.82	16.59	20	20	0.1	0.447	0.371	17.06	
2-Hexanone	1	0		6.32	16.27	20	20	0.1	0.314	0.255	18.65	
Tetrachloroethene	1	0		6.30	15.60	20	20	0.2	0.228	0.180	21.98	C1
Toluene-d8	1	0	S	5.92	27.70	30	**		1.304	1.204	7.68	
Toluene	1	0		5.96	17.80	20	20	0.4	0.692	0.615	11.02	
1,1,1,2-Tetrachloroethane	1	0		6.86	18.19	20	20		0.272	0.247	9.04	
Chlorobenzene	1	0		6.81	17.03	20	20	0.5	0.781	0.665	14.85	
1,4-Dichlorobenzene-d4	1	0	I	8.24	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.09	16.00	20	20	0.5	1.608	1.286	20.01	
n-Amyl acetate	1	0		7.22	16.83	20	20	0.5	1.557	1.311	15.83	
Bromoform	1	0		7.33	14.99	20	20	0.1	0.620	0.464	25.07	C1
Ethylbenzene	1	0		6.86	16.02	20	20	0.1	0.467	0.379	19.89	
1,1,2,2-Tetrachloroethane	1	0		7.57	19.75	20	20	0.1	0.814	0.804	1.23	
Bromofluorobenzene	1	0	S	7.51	26.57	30	**		1.141	1.010	11.45	
Styrene	1	0		7.18	18.48	20	20	0.3	1.460	1.349	7.62	
m&p-Xylenes	1	0		6.93	38.51	40	20	0.1	0.734	0.706	3.73	
o-Xylene	1	0		7.18	19.20	20	20	0.3	0.769	0.738	3.98	
trans-1,4-Dichloro-2-butene	1	0		7.60	17.10	20	20		0.347	0.297	14.51	
1,3-Dichlorobenzene	1	0		8.21	18.30	20	20	0.6	1.006	0.921	8.49	
1,4-Dichlorobenzene	1	0		8.26	17.05	20	20	0.5	1.042	0.888	14.73	
1,2-Dichlorobenzene	1	0		8.51	16.44	20	20	0.4	1.063	0.874	17.80	
Isopropylbenzene	1	0		7.40	17.56	20	20	0.1	1.574	1.382	12.20	
Cyclohexanone	1	0		7.49	84.70	100	20		0.107	0.090	15.30	
Camphene	1	0		7.59	19.05	20	20		0.480	0.457	4.75	
1,2,3-Trichloropropane	1	0		7.61	18.67	20	20		1.019	0.951	6.63	
2-Chlorotoluene	1	0		7.73	18.85	20	20		0.958	0.903	5.74	
p-Ethyltoluene	1	0		7.72	19.53	20	20		1.647	1.608	2.37	
4-Chlorotoluene	1	0		7.80	17.15	20	20		1.038	0.890	14.25	
n-Propylbenzene	1	0		7.65	20.21	20	20		1.658	1.675	1.05	
Bromobenzene	1	0		7.63	19.44	20	20		1.647	1.601	2.79	
1,3,5-Trimethylbenzene	1	0		7.75	19.85	20	20		1.062	1.103	0.74	
Butyl methacrylate	1	0		7.75	18.92	20	20	0.5	1.172	1.109	5.40	
t-Butylbenzene	1	0		7.97	18.26	20	20		1.094	0.999	8.72	
1,2,4-Trimethylbenzene	1	0		7.99	18.77	20	20		1.354	1.271	6.16	
sec-Butylbenzene	1	0		8.11	19.46	20	20		1.216	1.183	2.68	
4-Isopropyltoluene	1	0		8.18	18.40	20	20		1.030	0.948	8.00	
n-Butylbenzene	1	0		8.45	20.79	20	20		1.122	1.166	3.97	
p-Diethylbenzene	1	0		8.43	18.21	20	20		0.668	0.609	8.93	
1,2,4,5-Tetramethylbenzene	1	0		8.95	19.31	20	20		1.056	1.019	3.47	
1,2-Dibromo-3-Chloropropane	1	0		9.03	19.85	20	20	0.05	0.182	0.181	0.75	
Camphor	1	0		9.51	174.84	200	20		0.075	0.065	12.58	
Hexachlorobutadiene	1	0		9.66	17.65	20	20		0.358	0.316	11.75	
1,2,4-Trichlorobenzene	1	0		9.57	18.79	20	20	0.2	0.545	0.512	6.05	
1,2,3-Trichlorobenzene	1	0		9.91	18.73	20	20		0.520	0.486	6.36	
Naphthalene	1	0		9.75	17.52	20	20		1.251	1.096	12.39	

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
CI-Compound %Diff exceeds limits

Page 2 of 2

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M135076.D
Acq On : 08/27/18 08:51

Operator : SG
Sam Mult : 1 Vial# : 6
Misc : A,5ML

Qt Meth : 3M A0708
Qt On : 08/27/18 09:12
Qt Upd On: 07/16/18 14:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-27-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.947	96	199957	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.797	117	185506	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.244	152	85672	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.514	111	57813	33.12	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	110.40%	
39) 1,2-Dichloroethane-d4	4.742	67	39368	31.60	ug/l	0.00
Spiked Amount 30.000			Recovery	=	105.33%	
66) Toluene-d8	5.920	98	223317	27.70	ug/l	0.00
Spiked Amount 30.000			Recovery	=	92.33%	
76) Bromofluorobenzene	7.512	174	86554	26.57	ug/l	0.00
Spiked Amount 30.000			Recovery	=	88.57%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.613	51	47322m	18.5375	ug/l	
6) Dichlorodifluoromethane	1.546	85	12677	22.2116	ug/l	79
7) Chloromethane	1.746	50	25400m	25.2083	ug/l	
8) Bromomethane	2.093	94	7185	16.4138	ug/l	87
9) Vinyl Chloride	1.796	62	20962	22.3216	ug/l	87
10) Chloroethane	2.165	64	11421m	21.5981	ug/l	
11) Trichlorofluoromethane	2.376	101	28781m	16.8270	ug/l	
12) Ethyl ether	2.610	59	27004	17.1161	ug/l	78
13) Furan	2.652	39	80847	19.9865	ug/l	79
14) 1,1,2-Trichloro-1,2,2-...	2.790	101	13941	16.6901	ug/l	92
15) Methylene Chloride	3.205	84	33575	20.4097	ug/l	92
16) Acrolein	2.730	56	20503m	69.1731	ug/l	
17) Acrylonitrile	3.415	53	14688	21.7470	ug/l	93
18) Iodomethane	2.940	142	26514m	16.2967	ug/l	
19) Acetone	2.862	43	55840	87.1659	ug/l	98
20) Carbon Disulfide	3.006	76	76662m	23.1076	ug/l	
21) t-Butyl Alcohol	3.289	59	12823m	68.4156	ug/l	
22) n-Hexane	3.655	57	11631m	15.9794	ug/l	
23) Di-isopropyl-ether	3.823	45	120926	19.6094	ug/l	89
24) 1,1-Dichloroethene	2.808	61	37508	17.2226	ug/l	95
25) Methyl Acetate	3.121	43	49683	19.6002	ug/l	100
26) Methyl-t-butyl ether	3.433	73	67619	16.3342	ug/l	70
27) 1,1-Dichloroethane	3.787	63	62624	21.7062	ug/l	98
28) trans-1,2-Dichloroethene	3.439	96	31008	21.1812	ug/l	87
29) Ethyl-t-butyl ether	4.088	59	97556	18.0363	ug/l	94
30) cis-1,2-Dichloroethene	4.208	61	66020	21.2146	ug/l	88
31) Bromochloromethane	4.370	49	44750	21.8108	ug/l	79
32) 2,2-Dichloropropane	4.214	77	45321	21.2797	ug/l	96
33) Ethyl acetate	4.238	43	48093m	20.2507	ug/l	
34) 1,4-Dioxane	5.403	88	15822m	896.9110	ug/l	
35) 1,1-Dichloropropene	4.646	75	43005	21.7834	ug/l	92
36) Chloroform	4.412	83	62895	20.6632	ug/l	89
38) Cyclohexane	4.592	56	26276	17.0004	ug/l	92
40) 1,2-Dichloroethane	4.784	62	60008	20.8993	ug/l	88
41) 2-Butanone	4.226	43	15827m	16.9599	ug/l	
42) 1,1,1-Trichloroethane	4.544	97	46671	19.5703	ug/l	99
43) Carbon Tetrachloride	4.652	117	36419	20.8089	ug/l	66
44) Vinyl Acetate	3.817	43	96203	20.6201	ug/l	100
45) Bromodichloromethane	5.481	83	51408	20.9449	ug/l	89
46) Methylcyclohexane	5.307	83	20727	20.8971	ug/l	94
47) Dibromomethane	5.403	174	25108	15.9934	ug/l	92
48) 1,2-Dichloropropane	5.319	63	39735	22.2472	ug/l	100
49) Trichloroethene	5.181	130	31739	18.8950	ug/l	87
50) Benzene	4.784	78	133170	23.3294	ug/l	100
51) tert-Amyl methyl ether	4.833	73	91692	19.0100	ug/l	78
53) Iso-propylacetate	4.790	43	85999	16.1333	ug/l	97
54) Methyl methacrylate	5.355	41	54311	16.6699	ug/l	95
55) Dibromochloromethane	6.442	129	36077	16.3469	ug/l	89
56) 2-Chloroethylvinylether	5.637	63	20606	14.3515	ug/l	82
57) cis-1,3-Dichloropropene	5.746	75	56447m	15.9529	ug/l	
58) trans-1,3-Dichloropropene	6.070	75	50939	15.4428	ug/l	92
59) Ethyl methacrylate	6.094	41	45324	14.9005	ug/l	79
60) 1,1,2-Trichloroethane	6.190	97	34221	17.1245	ug/l	91
61) 1,2-Dibromoethane	6.532	107	31155	16.1713	ug/l	99
62) 1,3-Dichloropropane	6.298	76	62824	19.0132	ug/l	93
63) 4-Methyl-2-Pentanone	5.824	43	45855m	16.5873	ug/l	
64) 2-Hexanone	6.316	43	31551	16.2705	ug/l	94
65) Tetrachloroethene	6.298	164	22218	15.6034	ug/l	86
67) Toluene	5.962	92	76098	17.7968	ug/l	89

SampleID : CAL @ 20 PPB
 Data File: 3M135076.D
 Acq On : 08/27/18 08:51

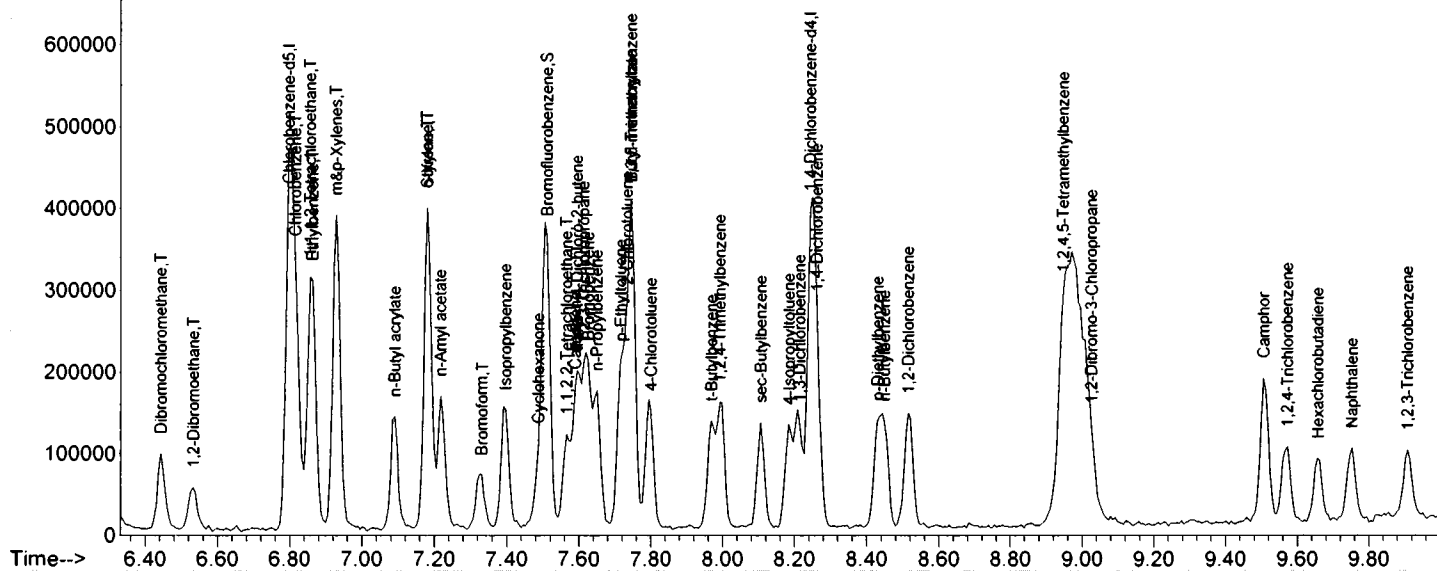
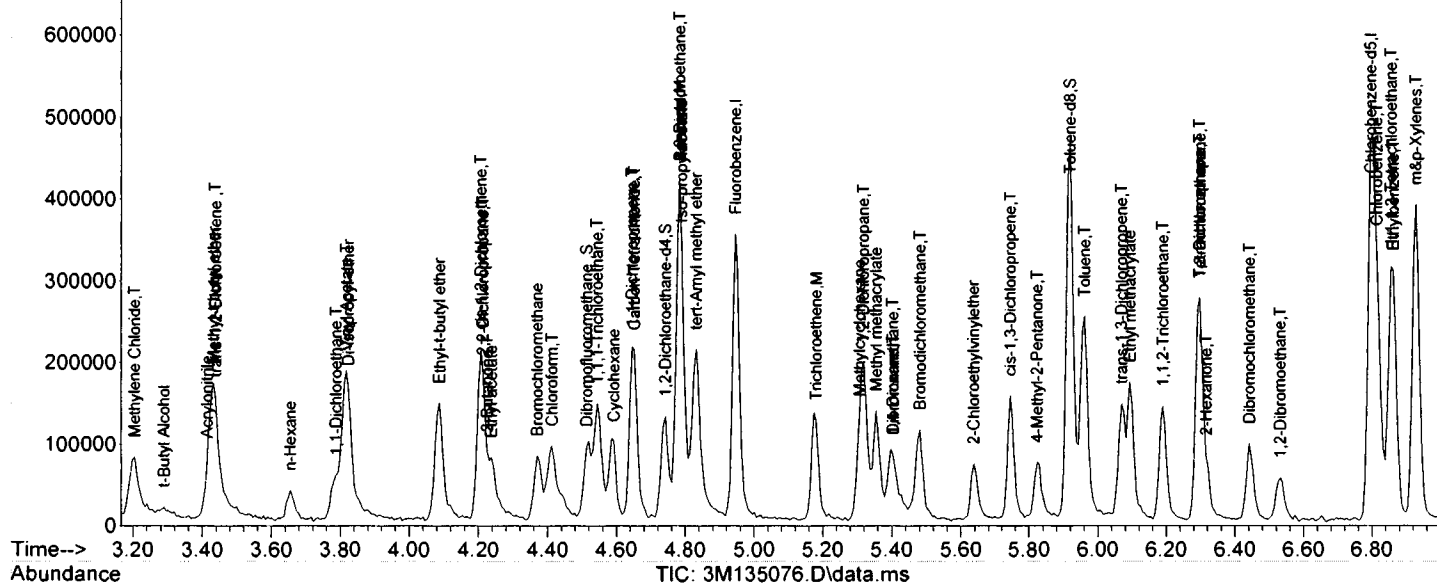
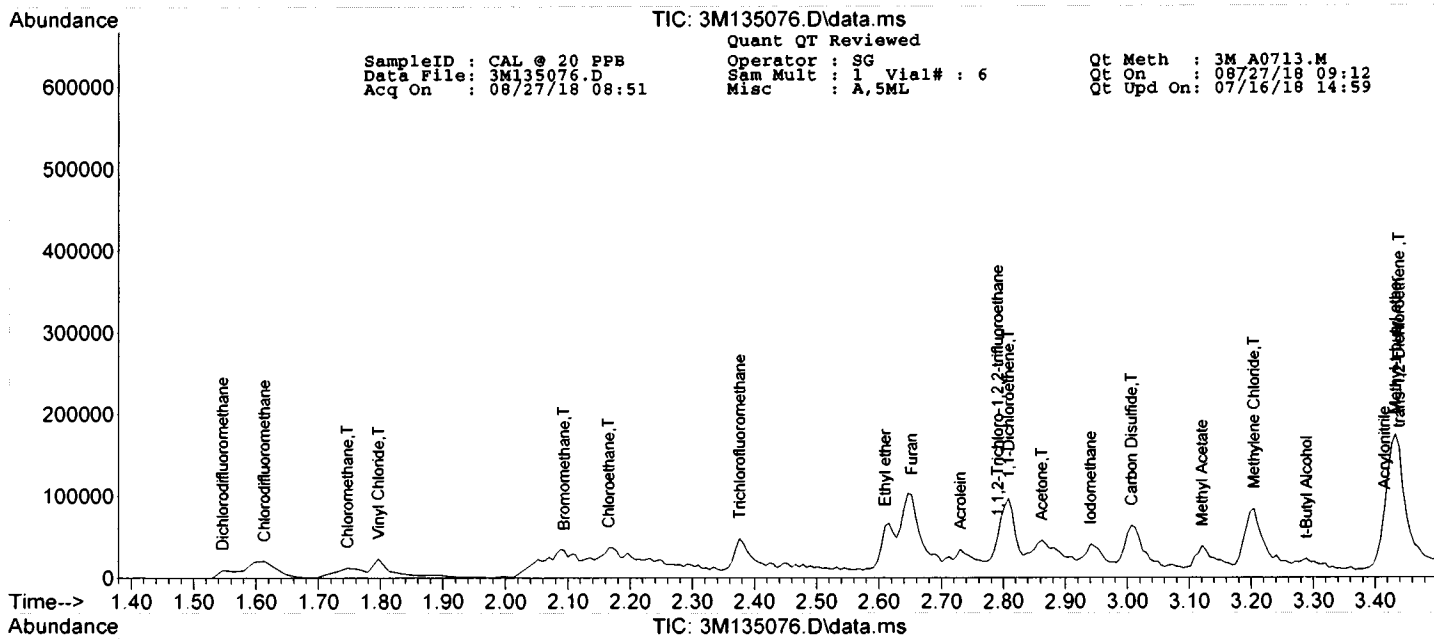
Operator : SG
 Sam Mult : 1 Vial# : 6
 Misc : A,5ML

Qt Meth : 3M_A0713.M
 Qt On : 08/27/18 09:12
 Qt Upd On: 07/16/18 14:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-27-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.857	133	30568	18.1914	ug/l	82
69)	Chlorobenzene	6.815	112	82231	17.0297	ug/l	96
71)	n-Butyl acrylate	7.091	55	73447m	15.9987	ug/l	
72)	n-Amyl acetate	7.217	43	74864	16.8348	ug/l	85
73)	Bromoform	7.331	173	26516	14.9868	ug/l	97
74)	Ethylbenzene	6.863	106	21656	16.0226	ug/l	97
75)	1,1,2,2-Tetrachloroethane	7.566	83	45920	19.7533	ug/l	86
77)	Styrene	7.181	104	77042	18.4761	ug/l	94
78)	m&p-Xylenes	6.929	106	80679	38.5081	ug/l	95
79)	o-Xylene	7.181	106	42171	19.2041	ug/l	69
80)	trans-1,4-Dichloro-2-b...	7.596	53	16950	17.0972	ug/l	62
81)	1,3-Dichlorobenzene	8.214	146	52585	18.3012	ug/l	89
82)	1,4-Dichlorobenzene	8.262	146	50746	17.0540	ug/l	95
83)	1,2-Dichlorobenzene	8.515	146	49896	16.4409	ug/l	93
84)	Isopropylbenzene	7.397	105	78928	17.5607	ug/l	96
85)	Cyclohexanone	7.488	55	25772	84.6994	ug/l	95
86)	Camphene	7.590	93	26106	19.0507	ug/l	93
87)	1,2,3-Trichloropropane	7.614	75	54330	18.6737	ug/l	94
88)	2-Chlorotoluene	7.734	91	51584	18.8513	ug/l	98
89)	p-Ethyltoluene	7.716	105	91853	19.5264	ug/l	74
90)	4-Chlorotoluene	7.800	91	50824	17.1498	ug/l	94
91)	n-Propylbenzene	7.650	91	95673	20.2106	ug/l	95
92)	Bromobenzene	7.626	77	91421	19.4414	ug/l	84
93)	1,3,5-Trimethylbenzene	7.746	105	62976	19.8529	ug/l	83
94)	Butyl methacrylate	7.746	41	63337	18.9191	ug/l	78
95)	t-Butylbenzene	7.968	119	57061	18.2569	ug/l	89
96)	1,2,4-Trimethylbenzene	7.992	105	72598	18.7689	ug/l	93
97)	sec-Butylbenzene	8.106	105	67592	19.4639	ug/l	98
98)	4-Isopropyltoluene	8.184	119	54121	18.4002	ug/l	96
99)	n-Butylbenzene	8.449	91	66612	20.7931	ug/l	95
100)	p-Diethylbenzene	8.431	119	34767m	18.2139	ug/l	
101)	1,2,4,5-Tetramethylben...	8.947	119	58194	19.3064	ug/l	97
102)	1,2-Dibromo-3-Chloropr...	9.025	157	10331	19.8494	ug/l	93
103)	Camphor	9.506	95	37374	174.8373	ug/l	94
104)	Hexachlorobutadiene	9.656	225	18047	17.6509	ug/l	95
105)	1,2,4-Trichlorobenzene	9.572	180	29223	18.7895	ug/l	97
106)	1,2,3-Trichlorobenzene	9.908	180	27786	18.7278	ug/l	94
107)	Naphthalene	9.752	128	62617	17.5226	ug/l	100

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



Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/29/2018 3:06:00 P

Data File: 3M135255.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.93	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.56	16.98	20	20	0.1	0.360	0.306	15.12	
Dichlorodifluoromethane	1	0		1.53	17.73	20	20	0.1	0.198	0.175	11.38	
Chloromethane	1	0		1.70	17.52	20	20	0.1	0.284	0.249	12.41	
Bromomethane	1	0		2.07	17.06	20	20	0.1	0.090	0.077	14.69	
Vinyl Chloride	1	0		1.78	18.68	20	20	0.1	0.170	0.159	6.58	
Chloroethane	1	0		2.15	21.70	20	20	0.1	0.074	0.080	8.48	
Trichlorofluoromethane	1	0		2.36	18.78	20	20	0.1	0.267	0.251	6.11	
Ethyl ether	1	0		2.59	19.01	20	20	0.5	0.220	0.209	4.97	
Furan	1	0		2.62	19.03	20	20	0.5	0.533	0.507	4.85	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.77	17.27	20	20	0.1	0.103	0.089	13.68	
Methylene Chloride	1	0		3.17	18.24	20	20	0.1	0.248	0.227	8.78	
Acrolein	1	0		2.70	103.34	100	20		0.035	0.036	3.34	
Acrylonitrile	1	0		3.38	15.63	20	20		0.095	0.074	21.87	C1
Iodomethane	1	0		2.91	20.13	20	20		0.249	0.250	0.66	
Acetone	1	0		2.82	91.99	100	20	0.1	0.087	0.080	8.01	
Carbon Disulfide	1	0		2.98	17.07	20	20	0.1	0.631	0.538	14.65	
t-Butyl Alcohol	1	0		3.26	94.70	100	20		0.019	0.018	5.30	
n-Hexane	1	0		3.63	18.52	20	20		0.077	0.072	7.39	
Di-isopropyl-ether	1	0		3.79	20.57	20	20		0.729	0.750	2.86	
1,1-Dichloroethene	1	0		2.78	20.01	20	20	0.1	0.327	0.327	0.06	
Methyl Acetate	1	0		3.08	16.79	20	20	0.1	0.299	0.251	16.03	
Methyl-t-butyl ether	1	0		3.40	20.54	20	20	0.1	0.450	0.463	2.70	
1,1-Dichloroethane	1	0		3.76	17.76	20	20	0.2	0.422	0.375	11.20	
trans-1,2-Dichloroethene	1	0		3.41	19.45	20	20	0.1	0.208	0.202	2.74	
Ethyl-t-butyl ether	1	0		4.06	20.83	20	20	0.5	0.623	0.649	4.15	
cis-1,2-Dichloroethene	1	0		4.18	20.08	20	20	0.1	0.413	0.415	0.39	
Bromochloromethane	1	0		4.35	20.59	20	20		0.270	0.278	2.95	
2,2-Dichloropropane	1	0		4.19	23.98	20	20		0.248	0.298	19.90	
Ethyl acetate	1	0		4.21	21.75	20	20		0.265	0.288	8.76	
1,4-Dioxane	1	0		5.38	1178.37	1000	20		0.002	0.003	17.84	
1,1-Dichloropropene	1	0		4.63	20.11	20	20		0.284	0.286	0.55	
Chloroform	1	0		4.39	18.85	20	20	0.2	0.413	0.389	5.75	
Dibromofluoromethane	1	0	S	4.49	30.04	30	**		0.261	0.261	0.13	
Cyclohexane	1	0		4.57	17.52	20	20	0.1	0.184	0.162	12.40	
1,2-Dichloroethane-d4	1	0	S	4.72	29.49	30	**		0.179	0.176	1.70	
1,2-Dichloroethane	1	0		4.76	19.99	20	20	0.1	0.364	0.364	0.03	
2-Butanone	1	0		4.19	16.80	20	20	0.1	0.113	0.095	16.00	
1,1,1-Trichloroethane	1	0		4.52	18.25	20	20	0.1	0.327	0.298	8.74	
Carbon Tetrachloride	1	0		4.63	19.91	20	20	0.1	0.257	0.255	0.47	
Vinyl Acetate	1	0		3.79	20.31	20	20		0.554	0.563	1.55	
Bromodichloromethane	1	0		5.46	19.59	20	20	0.2	0.326	0.319	2.05	
Methylcyclohexane	1	0		5.29	18.51	20	20	0.1	0.131	0.122	7.46	
Dibromomethane	1	0		5.38	19.37	20	20		0.228	0.221	3.17	
1,2-Dichloropropane	1	0		5.30	19.82	20	20	0.1	0.248	0.245	0.91	
Trichloroethene	1	0		5.16	19.14	20	20	0.2	0.234	0.224	4.29	
Benzene	1	0		4.76	20.68	20	20	0.5	0.819	0.847	3.38	
tert-Amyl methyl ether	1	0		4.81	19.86	20	20		0.578	0.574	0.68	
Chlorobenzene-d5	1	0	I	6.78	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.76	18.79	20	20	0.5	0.633	0.594	6.04	
Methyl methacrylate	1	0		5.34	17.01	20	20	0.5	0.369	0.314	14.93	
Dibromochloromethane	1	0		6.42	19.74	20	20	0.1	0.321	0.317	1.31	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/29/2018 3:06:00 P

Data File: 3M135255.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.62	20.00	20	20		0.175	0.175	0.02	
cis-1,3-Dichloropropene	1	0		5.73	21.21	20	20	0.2	0.457	0.484	6.05	
trans-1,3-Dichloropropene	1	0		6.04	19.54	20	20	0.1	0.433	0.424	2.29	
Ethyl methacrylate	1	0		6.07	18.46	20	20	0.5	0.335	0.310	7.68	
1,1,2-Trichloroethane	1	0		6.17	18.96	20	20	0.1	0.283	0.269	5.20	
1,2-Dibromoethane	1	0		6.51	19.48	20	20	0.1	0.285	0.277	2.58	
1,3-Dichloropropane	1	0		6.28	20.83	20	20		0.493	0.513	4.15	
4-Methyl-2-Pentanone	1	0		5.80	18.21	20	20	0.1	0.326	0.296	8.94	
2-Hexanone	1	0		6.30	16.16	20	20	0.1	0.235	0.190	19.19	
Tetrachloroethene	1	0		6.28	19.84	20	20	0.2	0.219	0.218	0.81	
Toluene-d8	1	0	S	5.90	29.48	30	**		1.273	1.251	1.72	
Toluene	1	0		5.94	19.94	20	20	0.4	0.650	0.649	0.28	
1,1,1,2-Tetrachloroethane	1	0		6.84	21.49	20	20		0.265	0.284	7.47	
Chlorobenzene	1	0		6.80	19.72	20	20	0.5	0.700	0.690	1.42	
1,4-Dichlorobenzene-d4	1	0	I	8.23	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.07	15.17	20	20	0.5	1.095	1.016	24.13	C1
n-Amyl acetate	1	0		7.20	19.60	20	20	0.5	1.166	1.143	2.02	
Bromoform	1	0		7.31	18.14	20	20	0.1	0.570	0.517	9.30	
Ethylbenzene	1	0		6.84	20.63	20	20	0.1	0.393	0.405	3.13	
1,1,2,2-Tetrachloroethane	1	0		7.55	17.82	20	20	0.1	0.778	0.693	10.92	
Bromofluorobenzene	1	0	S	7.49	28.50	30	**		1.077	1.023	5.01	
Styrene	1	0		7.16	20.54	20	20	0.3	1.277	1.311	2.71	
m&p-Xylenes	1	0		6.91	44.73	40	20	0.1	0.636	0.711	11.82	
o-Xylene	1	0		7.16	20.22	20	20	0.3	0.708	0.716	1.08	
trans-1,4-Dichloro-2-butene	1	0		7.58	17.93	20	20		0.233	0.256	10.35	
1,3-Dichlorobenzene	1	0		8.19	19.80	20	20	0.6	0.956	0.947	0.98	
1,4-Dichlorobenzene	1	0		8.24	19.56	20	20	0.5	1.006	0.984	2.18	
1,2-Dichlorobenzene	1	0		8.50	19.28	20	20	0.4	1.002	0.966	3.61	
Isopropylbenzene	1	0		7.38	20.27	20	20	0.1	1.368	1.387	1.33	
Cyclohexanone	1	0		7.47	79.08	100	20		0.035	0.025	20.92	C1
Camphene	1	0		7.57	19.35	20	20		0.383	0.371	3.25	
1,2,3-Trichloropropane	1	0		7.59	19.42	20	20		0.892	0.866	2.92	
2-Chlorotoluene	1	0		7.71	20.52	20	20		0.887	0.910	2.60	
p-Ethyltoluene	1	0		7.70	21.65	20	20		1.478	1.600	8.26	
4-Chlorotoluene	1	0		7.77	20.75	20	20		0.931	0.966	3.74	
n-Propylbenzene	1	0		7.63	19.57	20	20		1.579	1.545	2.15	
Bromobenzene	1	0		7.60	18.82	20	20		1.428	1.344	5.89	
1,3,5-Trimethylbenzene	1	0		7.73	21.20	20	20		1.011	1.071	6.01	
Butyl methacrylate	1	0		7.73	20.73	20	20	0.5	0.909	0.943	3.65	
t-Butylbenzene	1	0		7.95	20.89	20	20		0.952	0.995	4.47	
1,2,4-Trimethylbenzene	1	0		7.97	20.97	20	20		1.241	1.301	4.86	
sec-Butylbenzene	1	0		8.09	19.93	20	20		1.149	1.145	0.36	
4-Isopropyltoluene	1	0		8.16	20.84	20	20		0.978	1.018	4.18	
n-Butylbenzene	1	0		8.43	21.59	20	20		1.079	1.165	7.95	
p-Diethylbenzene	1	0		8.41	21.34	20	20		0.573	0.611	6.71	
1,2,4,5-Tetramethylbenzene	1	0		8.92	21.24	20	20		0.967	1.027	6.19	
1,2-Dibromo-3-Chloropropane	1	0		9.00	18.00	20	20	0.05	0.178	0.160	10.02	
Camphor	1	0		9.49	161.87	200	20		0.057	0.061	19.06	
Hexachlorobutadiene	1	0		9.64	19.24	20	20		0.395	0.380	3.80	
1,2,4-Trichlorobenzene	1	0		9.55	20.81	20	20	0.2	0.593	0.617	4.07	
1,2,3-Trichlorobenzene	1	0		9.89	20.27	20	20		0.597	0.605	1.36	
Naphthalene	1	0		9.73	19.20	20	20		1.224	1.175	4.00	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

Page 2 of 2

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

8082413 0144

SampleID : CAL @ 20 PPB
 Data File: 3M135255.D
 Acq On : 08/29/18 15:06

Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,5ML

Qt Meth : 3M A082413
 Qt On : 08/29/18 15:17
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.927	96	380214	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.777	117	291750	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.231	152	148545	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	99408	30.04	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.13%	
39) 1,2-Dichloroethane-d4	4.717	67	66764	29.49	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.30%	
66) Toluene-d8	5.900	98	364876	29.48	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.27%	
76) Bromofluorobenzene	7.492	174	151968	28.50	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.00%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.565	51	77447	16.9754	ug/l	97
6) Dichlorodifluoromethane	1.531	85	44436	17.7250	ug/l	89
7) Chloromethane	1.698	50	63045	17.5176	ug/l	71
8) Bromomethane	2.068	94	19446m	17.0625	ug/l	
9) Vinyl Chloride	1.781	62	40292	18.6849	ug/l	93
10) Chloroethane	2.146	64	20308	21.6966	ug/l	91
11) Trichlorofluoromethane	2.356	101	63499	18.7774	ug/l	72
12) Ethyl ether	2.590	59	53027	19.0064	ug/l	79
13) Furan	2.620	39	128548	19.0292	ug/l	91
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	22645	17.2650	ug/l	98
15) Methylene Chloride	3.173	84	57426	18.2433	ug/l	90
16) Acrolein	2.704	56	46115	103.3353	ug/l	87
17) Acrylonitrile	3.383	53	18880	15.6260	ug/l	79
18) Iodomethane	2.915	142	63464	20.1315	ug/l	98
19) Acetone	2.825	43	101921	91.9878	ug/l	81
20) Carbon Disulfide	2.981	76	136468	17.0699	ug/l	100
21) t-Butyl Alcohol	3.257	59	22713	94.7005	ug/l	69
22) n-Hexane	3.630	57	18158m	18.5229	ug/l	
23) Di-isopropyl-ether	3.792	45	190169	20.5713	ug/l	91
24) 1,1-Dichloroethene	2.783	61	82833	20.0113	ug/l	94
25) Methyl Acetate	3.083	43	63672	16.7931	ug/l	100
26) Methyl-t-butyl ether	3.401	73	117246	20.5407	ug/l	69
27) 1,1-Dichloroethane	3.762	63	95065	17.7591	ug/l	96
28) trans-1,2-Dichloroethene	3.407	96	51189	19.4530	ug/l	86
29) Ethyl-t-butyl ether	4.062	59	164453	20.8305	ug/l	99
30) cis-1,2-Dichloroethene	4.182	61	105074	20.0775	ug/l	85
31) Bromochloromethane	4.350	49	70491m	20.5898	ug/l	
32) 2,2-Dichloropropane	4.188	77	75489	23.9797	ug/l	96
33) Ethyl acetate	4.212	43	73024m	21.7515	ug/l	
34) 1,4-Dioxane	5.384	88	33900m	1178.3645	ug/l	
35) 1,1-Dichloropropene	4.627	75	72398	20.1095	ug/l	93
36) Chloroform	4.392	83	98604	18.8501	ug/l	87
38) Cyclohexane	4.567	56	40944	17.5200	ug/l	93
40) 1,2-Dichloroethane	4.765	62	92240	19.9933	ug/l	91
41) 2-Butanone	4.188	43	24140m	16.7991	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	75579	18.2528	ug/l	97
43) Carbon Tetrachloride	4.633	117	64751	19.9060	ug/l	84
44) Vinyl Acetate	3.792	43	142711	20.3097	ug/l	100
45) Bromodichloromethane	5.456	83	80852	19.5894	ug/l	91
46) Methylcyclohexane	5.287	83	30843	18.5073	ug/l	96
47) Dibromomethane	5.378	174	56018	19.3659	ug/l	93
48) 1,2-Dichloropropane	5.300	63	62180	19.8172	ug/l	94
49) Trichloroethene	5.155	130	56721	19.1417	ug/l	89
50) Benzene	4.759	78	214673	20.6751	ug/l	100
51) tert-Amyl methyl ether	4.813	73	145439	19.8630	ug/l	79
53) Iso-propylacetate	4.765	43	115603	18.7910	ug/l	97
54) Methyl methacrylate	5.336	41	61039m	17.0140	ug/l	
55) Dibromochloromethane	6.423	129	61656	19.7371	ug/l	91
56) 2-Chloroethylvinylether	5.618	63	34068	20.0048	ug/l	84
57) cis-1,3-Dichloropropene	5.726	75	94208	21.2105	ug/l	98
58) trans-1,3-Dichloropropene	6.044	75	82375	19.5417	ug/l	99
59) Ethyl methacrylate	6.074	41	60237	18.4643	ug/l	81
60) 1,1,2-Trichloroethane	6.171	97	52259	18.9607	ug/l	83
61) 1,2-Dibromoethane	6.507	107	53919	19.4839	ug/l	90
62) 1,3-Dichloropropane	6.279	76	99762	20.8291	ug/l	96
63) 4-Methyl-2-Pentanone	5.804	43	57651	18.2122	ug/l	94
64) 2-Hexanone	6.297	43	36871m	16.1612	ug/l	
65) Tetrachloroethene	6.279	164	42304	19.8377	ug/l	96
67) Toluene	5.936	92	126135	19.9439	ug/l	97

SampleID : CAL @ 20 PPB
 Data File: 3M135255.D
 Acq On : 08/29/18 15:06

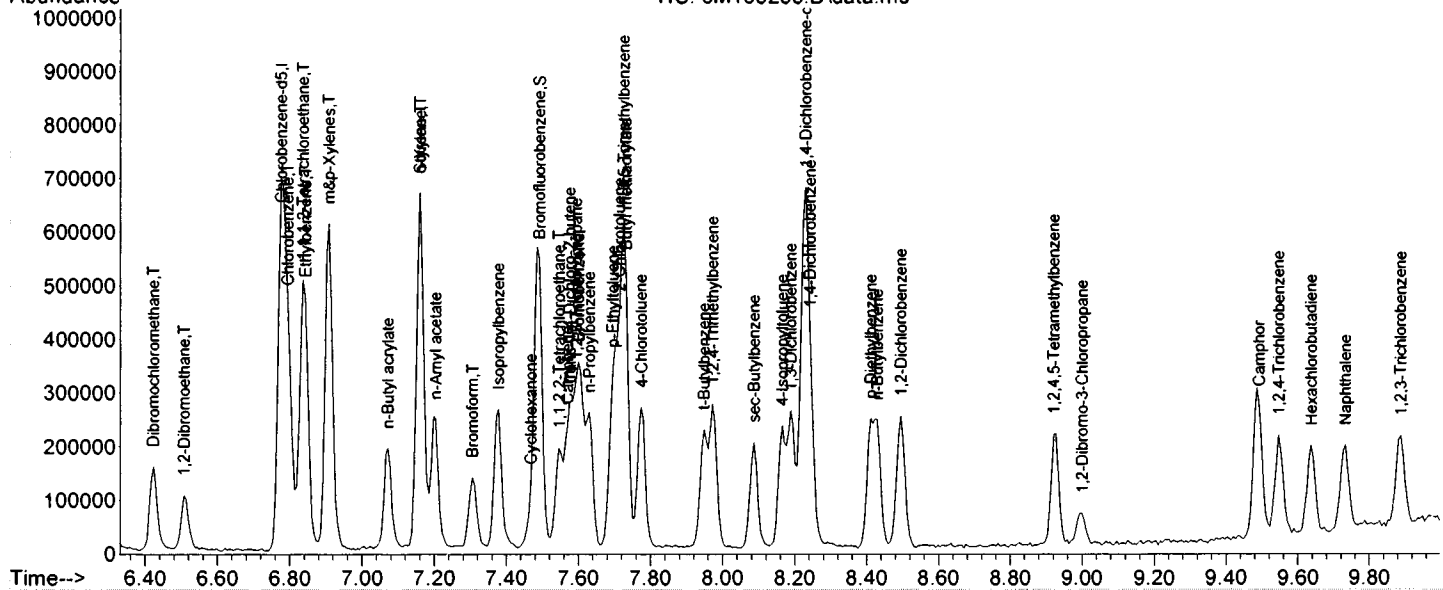
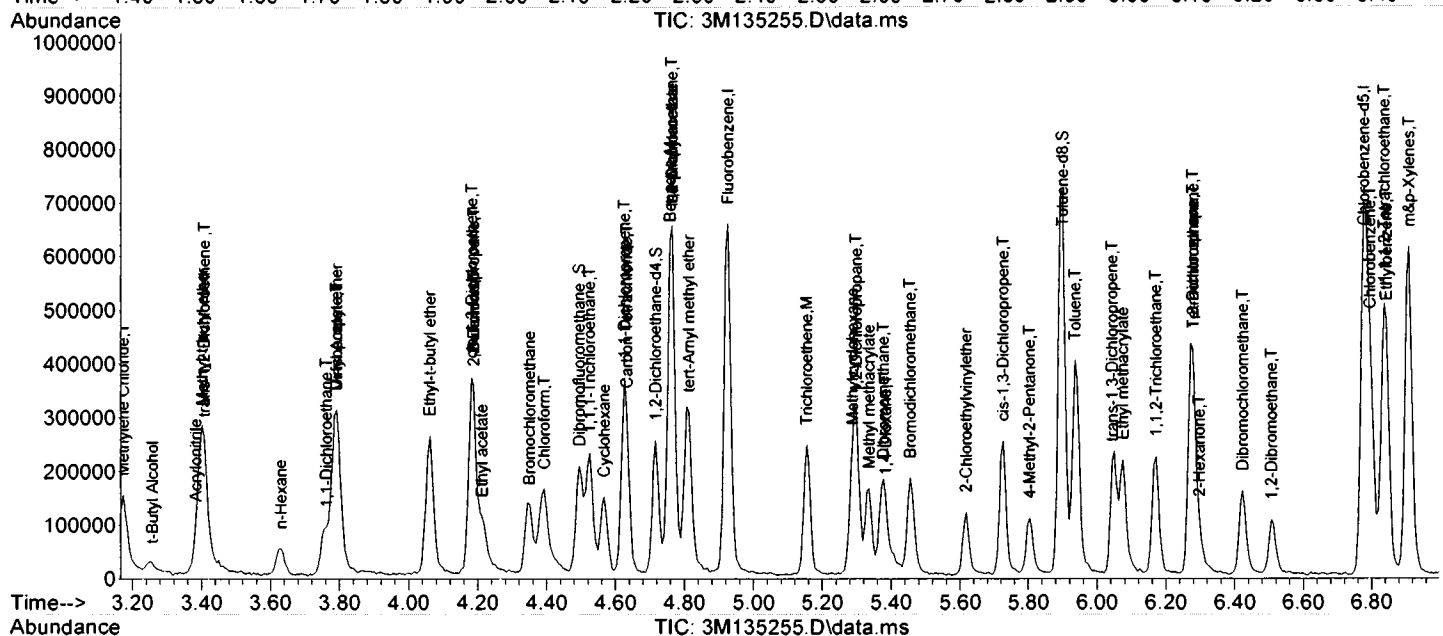
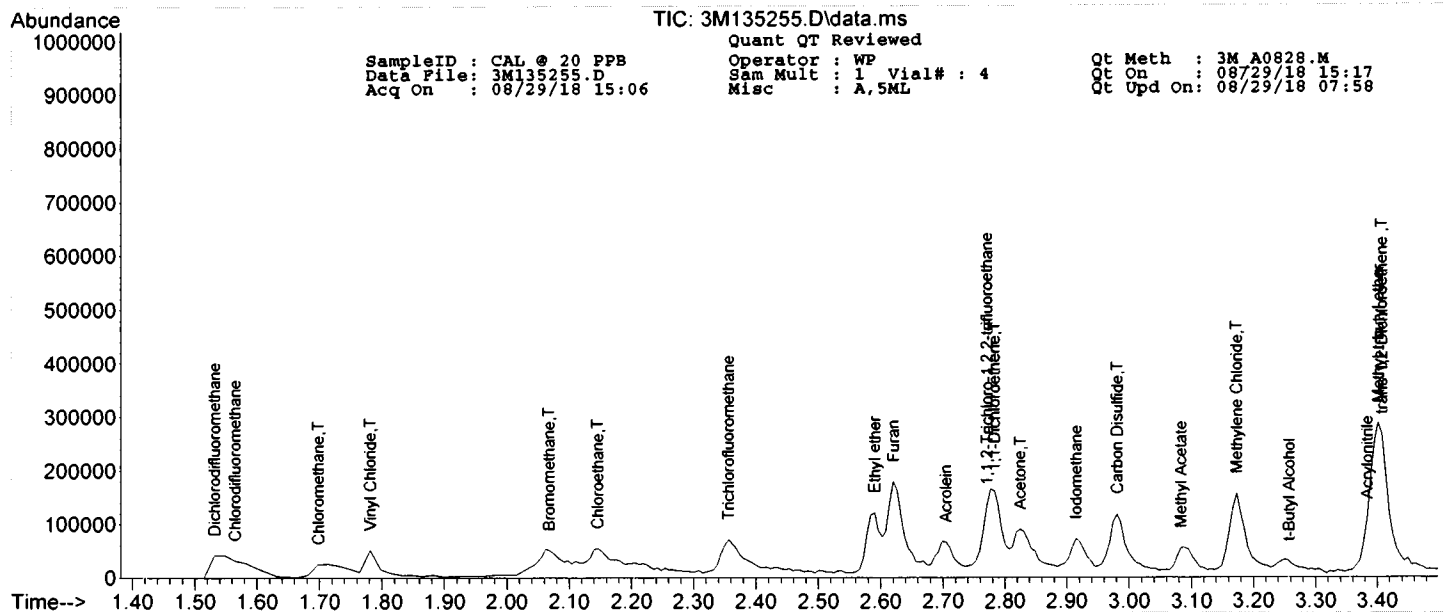
Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,SML

Qt Meth : 3M_A0828.M
 Qt On : 08/29/18 15:17
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GCMSData\2018\GCMS_3\Data\08-2918\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.837	133	55294	21.4942	ug/l	80
69) Chlorobenzene	6.795	112	134292	19.7157	ug/l	99
71) n-Butyl acrylate	7.072	55	100620	15.1743	ug/l	96
72) n-Amyl acetate	7.204	43	113161	19.5960	ug/l	84
73) Bromoform	7.306	173	51171	18.1391	ug/l	91
74) Ethylbenzene	6.843	106	40104	20.6250	ug/l	76
75) 1,1,2,2-Tetrachloroethane	7.546	83	68670	17.8166	ug/l	95
77) Styrene	7.162	104	129876	20.5417	ug/l	97
78) m&p-Xylenes	6.909	106	140825	44.7288	ug/l	78
79) o-Xylene	7.162	106	70912	20.2155	ug/l	96
80) trans-1,4-Dichloro-2-b...	7.576	53	25392	17.9296	ug/l	75
81) 1,3-Dichlorobenzene	8.189	146	93792	19.8042	ug/l	87
82) 1,4-Dichlorobenzene	8.243	146	97457	19.5635	ug/l	93
83) 1,2-Dichlorobenzene	8.495	146	95631	19.2778	ug/l	89
84) Isopropylbenzene	7.378	105	137324	20.2665	ug/l	93
85) Cyclohexanone	7.468	55	12279	79.0801	ug/l	87
86) Camphene	7.570	93	36712	19.3508	ug/l	96
87) 1,2,3-Trichloropropane	7.594	75	85773	19.4167	ug/l	96
88) 2-Chlorotoluene	7.714	91	90104	20.5207	ug/l	94
89) p-Ethyltoluene	7.696	105	158416	21.6516	ug/l	79
90) 4-Chlorotoluene	7.774	91	95624	20.7472	ug/l	90
91) n-Propylbenzene	7.630	91	153040	19.5696	ug/l	96
92) Bromobenzene	7.600	77	133057	18.8220	ug/l	96
93) 1,3,5-Trimethylbenzene	7.726	105	106090	21.2016	ug/l	76
94) Butyl methacrylate	7.732	41	93338	20.7298	ug/l	87
95) t-Butylbenzene	7.949	119	98526	20.8932	ug/l	84
96) 1,2,4-Trimethylbenzene	7.973	105	128826	20.9716	ug/l	89
97) sec-Butylbenzene	8.087	105	113358	19.9289	ug/l	96
98) 4-Isopropyltoluene	8.165	119	100861	20.8353	ug/l	92
99) n-Butylbenzene	8.429	91	115343	21.5892	ug/l	90
100) p-Diethylbenzene	8.411	119	60547	21.3429	ug/l	90
101) 1,2,4,5-Tetramethylben...	8.922	119	101739	21.2381	ug/l	93
102) 1,2-Dibromo-3-Chloropr...	9.000	157	15859	17.9969	ug/l	71
103) Camphor	9.492	95	60821	161.8741	ug/l	93
104) Hexachlorobutadiene	9.637	225	37643	19.2403	ug/l	92
105) 1,2,4-Trichlorobenzene	9.546	180	61129	20.8136	ug/l	95
106) 1,2,3-Trichlorobenzene	9.889	180	59918	20.2728	ug/l	96
107) Naphthalene	9.733	128	116356	19.2000	ug/l	100

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



Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/30/2018 9:14:00 P

Data File: 3M135364.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.92	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.56	17.37	20	20	0.1	0.360	0.313	13.16	
Dichlorodifluoromethane	1	0		1.54	16.95	20	20	0.1	0.198	0.168	15.27	
Chloromethane	1	0		1.71	17.24	20	20	0.1	0.284	0.245	13.79	
Bromomethane	1	0		2.07	22.21	20	20	0.1	0.090	0.100	11.05	
Vinyl Chloride	1	0		1.79	19.80	20	20	0.1	0.170	0.168	1.02	
Chloroethane	1	0		2.15	18.26	20	20	0.1	0.074	0.067	8.68	
Trichlorofluoromethane	1	0		2.36	18.09	20	20	0.1	0.267	0.241	9.55	
Ethyl ether	1	0		2.59	18.96	20	20	0.5	0.220	0.209	5.18	
Furan	1	0		2.63	17.81	20	20	0.5	0.533	0.475	10.94	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.78	18.95	20	20	0.1	0.103	0.098	5.27	
Methylene Chloride	1	0		3.17	19.89	20	20	0.1	0.248	0.247	0.57	
Acrolein	1	0		2.71	96.30	100	20		0.035	0.034	3.70	
Acrylonitrile	1	0		3.38	16.09	20	20		0.095	0.077	19.56	
Iodomethane	1	0		2.92	20.32	20	20		0.249	0.253	1.62	
Acetone	1	0		2.83	95.02	100	20	0.1	0.087	0.083	4.98	
Carbon Disulfide	1	0		2.99	17.59	20	20	0.1	0.631	0.555	12.07	
t-Butyl Alcohol	1	0		3.26	69.21	100	20		0.019	0.013	30.79	C1
n-Hexane	1	0		3.63	17.58	20	20		0.077	0.068	12.10	
Di-isopropyl-ether	1	0		3.79	19.60	20	20		0.729	0.715	2.00	
1,1-Dichloroethene	1	0		2.79	19.02	20	20	0.1	0.327	0.311	4.88	
Methyl Acetate	1	0		3.09	16.74	20	20	0.1	0.299	0.250	16.30	
Methyl-t-butyl ether	1	0		3.40	20.28	20	20	0.1	0.450	0.457	1.40	
1,1-Dichloroethane	1	0		3.76	19.23	20	20	0.2	0.422	0.406	3.85	
trans-1,2-Dichloroethene	1	0		3.41	21.98	20	20	0.1	0.208	0.228	9.92	
Ethyl-t-butyl ether	1	0		4.06	20.08	20	20	0.5	0.623	0.626	0.42	
cis-1,2-Dichloroethene	1	0		4.18	21.07	20	20	0.1	0.413	0.435	5.37	
Bromochloromethane	1	0		4.35	15.57	20	20		0.270	0.210	22.16	C1
2,2-Dichloropropane	1	0		4.18	23.57	20	20		0.248	0.293	17.83	
Ethyl acetate	1	0		4.21	19.47	20	20		0.265	0.258	2.66	
1,4-Dioxane	1	0		5.38	1033.11	1000	20		0.002	0.002	3.31	
1,1-Dichloropropene	1	0		4.62	18.91	20	20		0.284	0.269	5.47	
Chloroform	1	0		4.39	19.80	20	20	0.2	0.413	0.409	1.00	
Dibromofluoromethane	1	0	S	4.50	30.65	30	**		0.261	0.267	2.18	
Cyclohexane	1	0		4.56	17.20	20	20	0.1	0.184	0.159	13.99	
1,2-Dichloroethane-d4	1	0	S	4.71	27.15	30	**		0.179	0.162	9.49	
1,2-Dichloroethane	1	0		4.76	19.55	20	20	0.1	0.364	0.356	2.23	
2-Butanone	1	0		4.19	16.22	20	20	0.1	0.113	0.092	18.91	
1,1,1-Trichloroethane	1	0		4.52	19.84	20	20	0.1	0.327	0.324	0.79	
Carbon Tetrachloride	1	0		4.63	19.60	20	20	0.1	0.257	0.252	1.99	
Vinyl Acetate	1	0		3.79	19.22	20	20		0.554	0.533	3.89	
Bromodichloromethane	1	0		5.45	18.75	20	20	0.2	0.326	0.305	6.27	
Methylcyclohexane	1	0		5.29	19.69	20	20	0.1	0.131	0.129	1.54	
Dibromomethane	1	0		5.37	21.33	20	20		0.228	0.243	6.67	
1,2-Dichloropropane	1	0		5.30	18.84	20	20	0.1	0.248	0.233	5.82	
Trichloroethene	1	0		5.16	20.83	20	20	0.2	0.234	0.243	4.14	
Benzene	1	0		4.76	20.63	20	20	0.5	0.819	0.845	3.13	
tert-Amyl methyl ether	1	0		4.81	19.96	20	20		0.578	0.576	0.21	
Chlorobenzene-d5	1	0	I	6.77	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.77	17.30	20	20	0.5	0.633	0.547	13.50	
Methyl methacrylate	1	0		5.33	16.73	20	20	0.5	0.369	0.308	16.37	
Dibromochloromethane	1	0		6.42	20.32	20	20	0.1	0.321	0.326	1.61	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Form7

8082413 0148

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/30/2018 9:14:00 PData File: 3M135364.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.61	16.96	20	20		0.175	0.149	15.19	
cis-1,3-Dichloropropene	1	0		5.72	21.46	20	20	0.2	0.457	0.490	7.30	
trans-1,3-Dichloropropene	1	0		6.05	20.96	20	20	0.1	0.433	0.454	4.81	
Ethyl methacrylate	1	0		6.07	17.08	20	20	0.5	0.335	0.286	14.62	
1,1,2-Trichloroethane	1	0		6.16	20.27	20	20	0.1	0.283	0.287	1.33	
1,2-Dibromoethane	1	0		6.51	20.19	20	20	0.1	0.285	0.287	0.94	
1,3-Dichloropropane	1	0		6.27	21.07	20	20		0.493	0.519	5.35	
4-Methyl-2-Pentanone	1	0		5.80	16.07	20	20	0.1	0.326	0.262	19.64	
2-Hexanone	1	0		6.29	15.13	20	20	0.1	0.235	0.177	24.35	C1
Tetrachloroethene	1	0		6.27	22.17	20	20	0.2	0.219	0.243	10.85	
Toluene-d8	1	0	S	5.90	28.57	30	**		1.273	1.212	4.76	
Toluene	1	0		5.93	18.02	20	20	0.4	0.650	0.586	9.89	
1,1,1,2-Tetrachloroethane	1	0		6.83	21.56	20	20		0.265	0.285	7.78	
Chlorobenzene	1	0		6.79	19.25	20	20	0.5	0.700	0.674	3.76	
1,4-Dichlorobenzene-d4	1	0	I	8.22	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.06	13.31	20	20	0.5	1.095	0.891	33.47	C1
n-Amyl acetate	1	0		7.19	17.45	20	20	0.5	1.166	1.017	12.77	
Bromoform	1	0		7.30	17.71	20	20	0.1	0.570	0.504	11.45	
Ethylbenzene	1	0		6.84	20.11	20	20	0.1	0.393	0.395	0.57	
1,1,2,2-Tetrachloroethane	1	0		7.54	16.75	20	20	0.1	0.778	0.652	16.24	
Bromofluorobenzene	1	0	S	7.48	29.39	30	**		1.077	1.055	2.03	
Styrene	1	0		7.16	20.15	20	20	0.3	1.277	1.287	0.77	
m&p-Xylenes	1	0		6.90	41.05	40	20	0.1	0.636	0.652	2.61	
o-Xylene	1	0		7.15	20.55	20	20	0.3	0.708	0.728	2.74	
trans-1,4-Dichloro-2-butene	1	0		7.57	14.83	20	20		0.233	0.212	25.87	C1
1,3-Dichlorobenzene	1	0		8.18	19.93	20	20	0.6	0.956	0.953	0.33	
1,4-Dichlorobenzene	1	0		8.24	20.29	20	20	0.5	1.006	1.021	1.45	
1,2-Dichlorobenzene	1	0		8.49	20.40	20	20	0.4	1.002	1.022	2.00	
Isopropylbenzene	1	0		7.37	18.95	20	20	0.1	1.368	1.297	5.24	
Cyclohexanone	1	0		7.46	82.98	100	20		0.035	0.026	17.02	
Camphene	1	0		7.57	17.32	20	20		0.383	0.332	13.38	
1,2,3-Trichloropropane	1	0		7.59	18.32	20	20		0.892	0.817	8.40	
2-Chlorotoluene	1	0		7.70	19.21	20	20		0.887	0.852	3.97	
p-Ethyltoluene	1	0		7.69	18.80	20	20		1.478	1.389	6.01	
4-Chlorotoluene	1	0		7.77	19.43	20	20		0.931	0.904	2.85	
n-Propylbenzene	1	0		7.63	19.38	20	20		1.579	1.531	3.08	
Bromobenzene	1	0		7.60	18.40	20	20		1.428	1.314	7.98	
1,3,5-Trimethylbenzene	1	0		7.72	24.52	20	20		1.011	1.239	22.60	C1
Butyl methacrylate	1	0		7.72	19.49	20	20	0.5	0.909	0.886	2.55	
t-Butylbenzene	1	0		7.94	19.73	20	20		0.952	0.939	1.37	
1,2,4-Trimethylbenzene	1	0		7.97	20.56	20	20		1.241	1.276	2.82	
sec-Butylbenzene	1	0		8.08	19.60	20	20		1.149	1.126	1.98	
4-Isopropyltoluene	1	0		8.15	21.17	20	20		0.978	1.035	5.83	
n-Butylbenzene	1	0		8.42	20.60	20	20		1.079	1.111	3.00	
p-Diethylbenzene	1	0		8.40	19.80	20	20		0.573	0.567	0.99	
1,2,4,5-Tetramethylbenzene	1	0		8.92	19.96	20	20		0.967	0.966	0.19	
1,2-Dibromo-3-Chloropropane	1	0		8.99	16.67	20	20	0.05	0.178	0.148	16.65	
Camphor	1	0		9.48	143.56	200	20		0.057	0.054	28.22	C1
Hexachlorobutadiene	1	0		9.63	19.06	20	20		0.395	0.377	4.70	
1,2,4-Trichlorobenzene	1	0		9.54	19.81	20	20	0.2	0.593	0.588	0.93	
1,2,3-Trichlorobenzene	1	0		9.88	18.35	20	20		0.597	0.548	8.25	
Naphthalene	1	0		9.72	15.66	20	20		1.224	0.959	21.68	C1

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
CI-Compound %Diff exceeds limits

Page 2 of 2

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
 Data File: 3M135364.D
 Acq On : 08/30/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 3
 Misc : A,5ML

Qt Meth : 3M A082413 0149
 Qt On : 08/30/18 21:28
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.923	96	378561	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.773	117	285137	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.221	152	148488	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	100999	30.65	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.17%	
39) 1,2-Dichloroethane-d4	4.712	67	61207	27.15	ug/l	0.00
Spiked Amount 30.000			Recovery	=	90.50%	
66) Toluene-d8	5.896	98	345606	28.57	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.23%	
76) Bromofluorobenzene	7.482	174	156679	29.39	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.97%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.558	51	78893	17.3679	ug/l	92
6) Dichlorodifluoromethane	1.542	85	42301	16.9470	ug/l	81
7) Chloromethane	1.708	50	61780	17.2411	ug/l	80
8) Bromomethane	2.069	94	25202	22.2096	ug/l	97
9) Vinyl Chloride	1.792	62	42502	19.7959	ug/l	97
10) Chloroethane	2.147	64	17021	18.2642	ug/l	83
11) Trichlorofluoromethane	2.358	101	60910	18.0905	ug/l	83
12) Ethyl ether	2.592	59	52678	18.9638	ug/l	78
13) Furan	2.628	39	119801	17.8118	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.778	101	24741	18.9454	ug/l	89
15) Methylene Chloride	3.175	84	62327	19.8868	ug/l	92
16) Acrolein	2.706	56	42790	96.3032	ug/l	96
17) Acrylonitrile	3.385	53	19354	16.0882	ug/l	92
18) Iodomethane	2.922	142	63794	20.3245	ug/l	99
19) Acetone	2.832	43	104820	95.0174	ug/l	97
20) Carbon Disulfide	2.988	76	139983	17.5861	ug/l	100
21) t-Butyl Alcohol	3.265	59	16526	69.2051	ug/l	94
22) n-Hexane	3.631	57	17159m	17.5802	ug/l	
23) Di-isopropyl-ether	3.793	45	180395	19.5993	ug/l	95
24) 1,1-Dichloroethene	2.790	61	78406	19.0245	ug/l	82
25) Methyl Acetate	3.091	43	63194	16.7398	ug/l	100
26) Methyl-t-butyl ether	3.403	73	115256	20.2802	ug/l	69
27) 1,1-Dichloroethane	3.757	63	102493	19.2303	ug/l	96
28) trans-1,2-Dichloroethene	3.409	96	57597	21.9838	ug/l	88
29) Ethyl-t-butyl ether	4.064	59	157875	20.0846	ug/l	97
30) cis-1,2-Dichloroethene	4.184	61	109811	21.0743	ug/l	85
31) Bromochloromethane	4.346	49	53067	15.5681	ug/l	90
32) 2,2-Dichloropropane	4.184	77	73864	23.5660	ug/l	98
33) Ethyl acetate	4.214	43	65077m	19.4690	ug/l	
34) 1,4-Dioxane	5.379	88	29592	1033.1099	ug/l	80
35) 1,1-Dichloropropene	4.622	75	67766	18.9051	ug/l	93
36) Chloroform	4.388	83	103121	19.7997	ug/l	89
38) Cyclohexane	4.562	56	40028	17.2028	ug/l	100
40) 1,2-Dichloroethane	4.761	62	89820	19.5538	ug/l	96
41) 2-Butanone	4.190	43	23203m	16.2175	ug/l	
42) 1,1,1-Trichloroethane	4.520	97	81800	19.8415	ug/l	91
43) Carbon Tetrachloride	4.628	117	63486	19.6023	ug/l	93
44) Vinyl Acetate	3.793	43	134474	19.2210	ug/l	100
45) Bromodichloromethane	5.451	83	77033	18.7456	ug/l	91
46) Methylcyclohexane	5.289	83	32676	19.6928	ug/l	94
47) Dibromomethane	5.373	174	61443	21.3341	ug/l	98
48) 1,2-Dichloropropane	5.295	63	58844	18.8358	ug/l	91
49) Trichloroethene	5.157	130	61447	20.8271	ug/l	79
50) Benzene	4.761	78	213227	20.6255	ug/l	100
51) tert-Amyl methyl ether	4.809	73	145492	19.9570	ug/l	75
53) Iso-propylacetate	4.766	43	104016	17.2997	ug/l	96
54) Methyl methacrylate	5.331	41	58643	16.7252	ug/l	94
55) Dibromochloromethane	6.418	129	62042	20.3213	ug/l	98
56) 2-Chloroethylvinylether	5.613	63	28232	16.9624	ug/l	79
57) cis-1,3-Dichloropropene	5.722	75	93154	21.4596	ug/l	89
58) trans-1,3-Dichloropropene	6.046	75	86355	20.9610	ug/l	98
59) Ethyl methacrylate	6.070	41	54444	17.0756	ug/l	78
60) 1,1,2-Trichloroethane	6.160	97	54590	20.2658	ug/l	93
61) 1,2-Dibromoethane	6.509	107	54604	20.1890	ug/l	96
62) 1,3-Dichloropropane	6.268	76	98625	21.0693	ug/l	96
63) 4-Methyl-2-Pentanone	5.800	43	49724	16.0723	ug/l	96
64) 2-Hexanone	6.292	43	33736	15.1300	ug/l	95
65) Tetrachloroethene	6.274	164	46205	22.1695	ug/l	74
67) Toluene	5.932	92	111396	18.0219	ug/l	98

SampleID : CAL @ 20 PPB
 Data File: 3M135364.D
 Acq On : 08/30/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 3
 Misc : A, SML

Qt Meth : 3M_A0828.M
 Qt On : 08/30/18 21:28
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.827	133	54194	21.5552	ug/l	73
69) Chlorobenzene	6.791	112	128138	19.2485	ug/l	91
71) n-Butyl acrylate	7.061	55	88198	13.3066	ug/l	94
72) n-Amyl acetate	7.193	43	100710	17.4466	ug/l	85
73) Bromoform	7.301	173	49940	17.7096	ug/l	97
74) Ethylbenzene	6.839	106	39096	20.1143	ug/l	68
75) 1,1,2,2-Tetrachloroethane	7.542	83	64543	16.7523	ug/l	94
77) Styrene	7.157	104	127376	20.1540	ug/l	100
78) m&p-Xylenes	6.905	106	129179	41.0455	ug/l	89
79) o-Xylene	7.151	106	72047	20.5470	ug/l	66
80) trans-1,4-Dichloro-2-b...	7.572	53	20992	14.8259	ug/l	55
81) 1,3-Dichlorobenzene	8.184	146	94368	19.9335	ug/l	86
82) 1,4-Dichlorobenzene	8.239	146	101038	20.2901	ug/l	90
83) 1,2-Dichlorobenzene	8.491	146	101155	20.3992	ug/l	85
84) Isopropylbenzene	7.368	105	128362	18.9511	ug/l	92
85) Cyclohexanone	7.464	55	12886	82.9779	ug/l	99
86) Camphene	7.566	93	32854	17.3239	ug/l	99
87) 1,2,3-Trichloropropane	7.590	75	80896	18.3197	ug/l	92
88) 2-Chlorotoluene	7.704	91	84295	19.2051	ug/l	92
89) p-Ethyltoluene	7.692	105	137489	18.7986	ug/l	83
90) 4-Chlorotoluene	7.770	91	89520	19.4303	ug/l	91
91) n-Propylbenzene	7.626	91	151526	19.3834	ug/l	94
92) Bromobenzene	7.596	77	130057	18.4047	ug/l	96
93) 1,3,5-Trimethylbenzene	7.716	105	122648	24.5201	ug/l	90
94) Butyl methacrylate	7.722	41	87725	19.4907	ug/l	87
95) t-Butylbenzene	7.938	119	92988	19.7264	ug/l	84
96) 1,2,4-Trimethylbenzene	7.968	105	126278	20.5647	ug/l	91
97) sec-Butylbenzene	8.076	105	111471	19.6047	ug/l	97
98) 4-Isopropyltoluene	8.154	119	102420	21.1654	ug/l	90
99) n-Butylbenzene	8.419	91	110015	20.5998	ug/l	91
100) p-Diethylbenzene	8.401	119	56153	19.8017	ug/l	95
101) 1,2,4,5-Tetramethylben...	8.917	119	95591	19.9624	ug/l	88
102) 1,2-Dibromo-3-Chloropr...	8.989	157	14684	16.6699	ug/l	81
103) Camphor	9.482	95	53932	143.5598	ug/l	90
104) Hexachlorobutadiene	9.632	225	37277	19.0606	ug/l	93
105) 1,2,4-Trichlorobenzene	9.542	180	58170	19.8137	ug/l	96
106) 1,2,3-Trichlorobenzene	9.878	180	54216	18.3506	ug/l	95
107) Naphthalene	9.722	128	94896	15.6649	ug/l	100

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

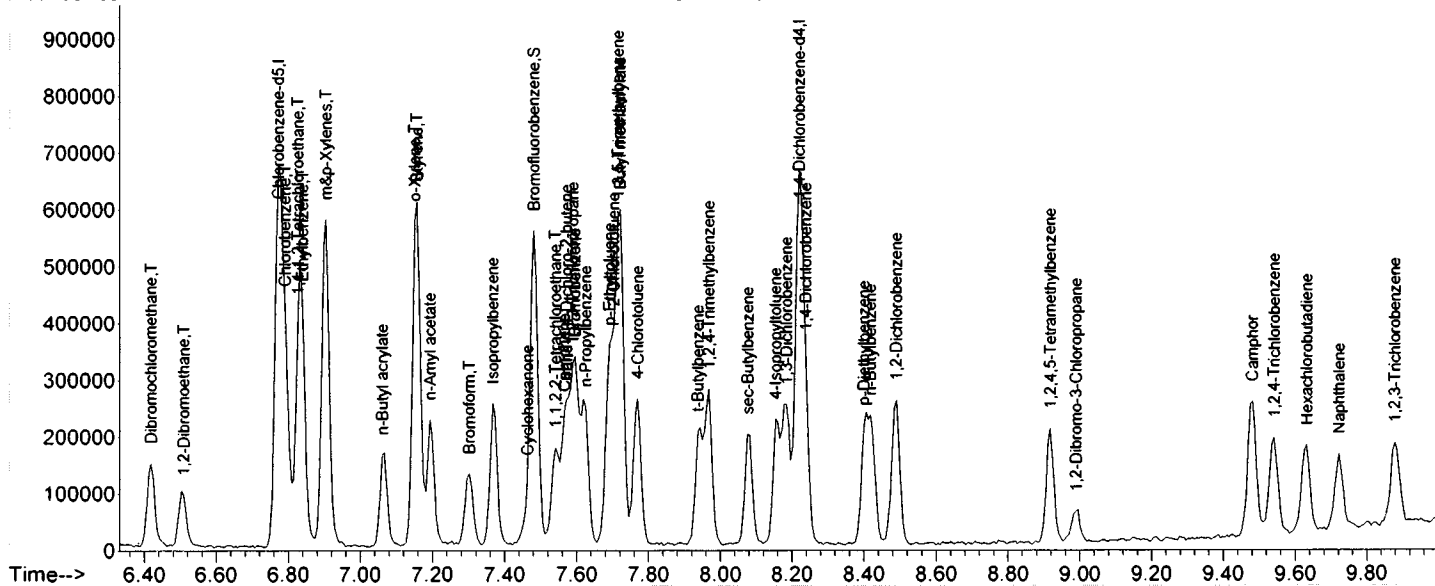
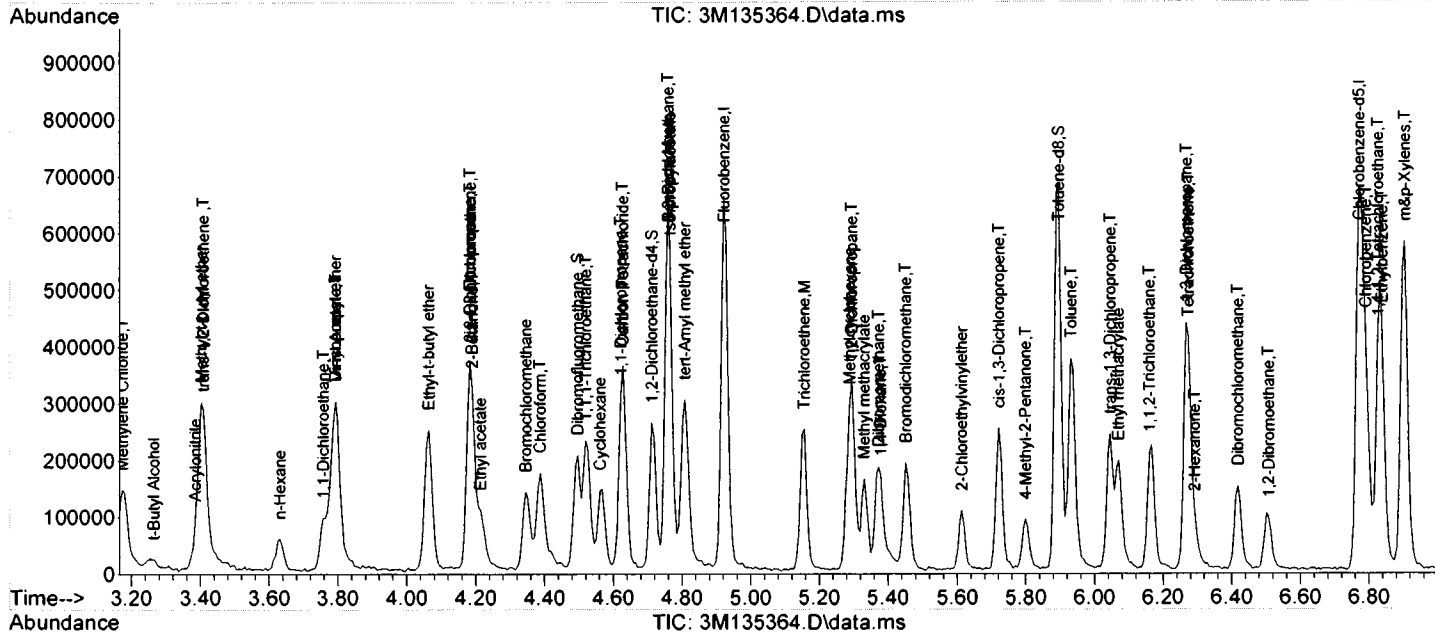
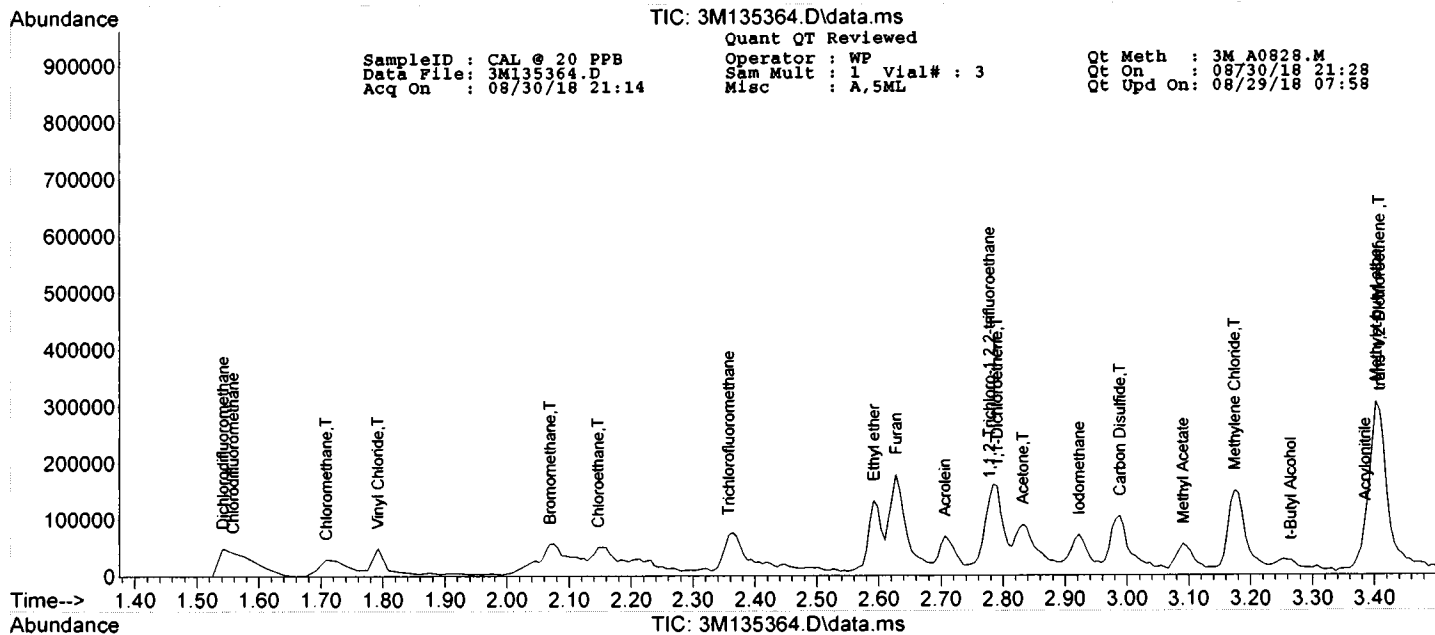
TIC: 3M135364.D\data.ms

Quant QT Reviewed

SampleID : CAL @ 20 PPB
 Data File: 3M135364.D
 Acq On : 08/30/18 21:14

Operator : WP
 Sam Mult : 1 Vial# : 3
 Misc : A, 5ML

Qt Meth : 3M A0828.M
 Qt On : 08/30/18 21:28
 Qt Upd On: 08/29/18 07:58



Form7

Continuing Calibration

8082413 0152

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 8/31/2018 10:13:00 PData File: 3M135452.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.91	30.00	30		**		0.000	0.00	
Chlorodifluoromethane	1	0		1.55	15.44	20	20	0.1	0.360	0.278	22.82	C1
Dichlorodifluoromethane	1	0		1.53	12.57	20	20	0.1	0.198	0.124	37.14	C1
Chloromethane	1	0		1.70	16.35	20	20	0.1	0.284	0.232	18.26	
Bromomethane	1	0		2.06	21.53	20	20	0.1	0.090	0.097	7.66	
Vinyl Chloride	1	0		1.78	16.76	20	20	0.1	0.170	0.143	16.20	
Chloroethane	1	0		2.14	19.43	20	20	0.1	0.074	0.072	2.84	
Trichlorofluoromethane	1	0		2.35	18.03	20	20	0.1	0.267	0.240	9.87	
Ethyl ether	1	0		2.58	18.36	20	20	0.5	0.220	0.202	8.20	
Furan	1	0		2.61	18.95	20	20	0.5	0.533	0.505	5.26	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.76	16.97	20	20	0.1	0.103	0.088	15.17	
Methylene Chloride	1	0		3.16	19.17	20	20	0.1	0.248	0.238	4.14	
Acrolein	1	0		2.70	97.53	100	20		0.035	0.034	2.47	
Acrylonitrile	1	0		3.37	16.40	20	20		0.095	0.078	18.00	
Iodomethane	1	0		2.91	18.96	20	20		0.249	0.236	5.19	
Acetone	1	0		2.82	83.79	100	20	0.1	0.087	0.073	16.21	
Carbon Disulfide	1	0		2.97	18.55	20	20	0.1	0.631	0.585	7.25	
t-Butyl Alcohol	1	0		3.25	77.63	100	20		0.019	0.015	22.38	C1
n-Hexane	1	0		3.61	16.19	20	20		0.077	0.063	19.06	
Di-isopropyl-ether	1	0		3.78	20.00	20	20		0.729	0.729	0.00	
1,1-Dichloroethene	1	0		2.77	18.71	20	20	0.1	0.327	0.306	6.43	
Methyl Acetate	1	0		3.08	16.75	20	20	0.1	0.299	0.251	16.26	
Methyl-t-butyl ether	1	0		3.39	20.95	20	20	0.1	0.450	0.472	4.74	
1,1-Dichloroethane	1	0		3.74	18.37	20	20	0.2	0.422	0.388	8.15	
trans-1,2-Dichloroethene	1	0		3.40	18.36	20	20	0.1	0.208	0.191	8.19	
Ethyl-t-butyl ether	1	0		4.05	20.30	20	20	0.5	0.623	0.632	1.50	
cis-1,2-Dichloroethene	1	0		4.17	19.66	20	20	0.1	0.413	0.406	1.70	
Bromochloromethane	1	0		4.33	15.54	20	20		0.270	0.210	22.31	C1
2,2-Dichloropropane	1	0		4.18	23.77	20	20		0.248	0.295	18.85	
Ethyl acetate	1	0		4.20	20.53	20	20		0.265	0.272	2.66	
1,4-Dioxane	1	0		5.37	928.54	1000	20		0.002	0.002	7.15	
1,1-Dichloropropene	1	0		4.61	19.32	20	20		0.284	0.274	3.41	
Chloroform	1	0		4.38	19.94	20	20	0.2	0.413	0.412	0.29	
Dibromofluoromethane	1	0	S	4.48	30.89	30		**	0.261	0.269	2.98	
Cyclohexane	1	0		4.55	18.18	20	20	0.1	0.184	0.168	9.12	
1,2-Dichloroethane-d4	1	0	S	4.70	30.54	30		**	0.179	0.182	1.81	
1,2-Dichloroethane	1	0		4.75	19.92	20	20	0.1	0.364	0.363	0.39	
2-Butanone	1	0		4.17	14.27	20	20	0.1	0.113	0.081	28.66	C1
1,1,1-Trichloroethane	1	0		4.51	18.76	20	20	0.1	0.327	0.306	6.19	
Carbon Tetrachloride	1	0		4.62	19.19	20	20	0.1	0.257	0.246	4.06	
Vinyl Acetate	1	0		3.77	19.98	20	20		0.554	0.554	0.08	
Bromodichloromethane	1	0		5.44	18.84	20	20	0.2	0.326	0.307	5.83	
Methylcyclohexane	1	0		5.28	19.39	20	20	0.1	0.131	0.127	3.05	
Dibromomethane	1	0		5.37	19.99	20	20		0.228	0.228	0.07	
1,2-Dichloropropane	1	0		5.29	18.29	20	20	0.1	0.248	0.226	8.57	
Trichloroethene	1	0		5.14	19.84	20	20	0.2	0.234	0.232	0.81	
Benzene	1	0		4.75	20.48	20	20	0.5	0.819	0.839	2.38	
tert-Amyl methyl ether	1	0		4.79	19.37	20	20		0.578	0.559	3.17	
Chlorobenzene-d5	1	0	I	6.77	30.00	30		**		0.000	0.00	
Iso-propylacetate	1	0		4.75	17.19	20	20	0.5	0.633	0.544	14.03	
Methyl methacrylate	1	0		5.32	15.08	20	20	0.5	0.369	0.278	24.61	C1
Dibromochloromethane	1	0		6.41	19.25	20	20	0.1	0.321	0.309	3.77	

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Calibration Name: CAL @ 20 PPB
 Cont Calibration Date/Time 8/31/2018 10:13:00 P

Data File: 3M135452.D
 Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.61	17.51	20	20		0.175	0.153	12.46	
cis-1,3-Dichloropropene	1	0		5.71	19.68	20	20	0.2	0.457	0.450	1.58	
trans-1,3-Dichloropropene	1	0		6.04	19.75	20	20	0.1	0.433	0.428	1.25	
Ethyl methacrylate	1	0		6.06	17.43	20	20	0.5	0.335	0.292	12.84	
1,1,2-Trichloroethane	1	0		6.15	18.69	20	20	0.1	0.283	0.265	6.56	
1,2-Dibromoethane	1	0		6.49	18.45	20	20	0.1	0.285	0.263	7.73	
1,3-Dichloropropane	1	0		6.26	19.44	20	20		0.493	0.479	2.79	
4-Methyl-2-Pentanone	1	0		5.79	14.79	20	20	0.1	0.326	0.241	26.07	C1
2-Hexanone	1	0		6.28	16.79	20	20	0.1	0.235	0.197	16.04	
Tetrachloroethene	1	0		6.26	21.05	20	20	0.2	0.219	0.231	5.24	
Toluene-d8	1	0	S	5.88	27.93	30	**		1.273	1.185	6.90	
Toluene	1	0		5.92	18.22	20	20	0.4	0.650	0.592	8.91	
1,1,1,2-Tetrachloroethane	1	0		6.82	20.51	20	20		0.265	0.271	2.54	
Chlorobenzene	1	0		6.78	19.34	20	20	0.5	0.700	0.677	3.29	
1,4-Dichlorobenzene-d4	1	0	I	8.21	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.05	13.49	20	20	0.5	1.095	0.903	32.56	C1
n-Amyl acetate	1	0		7.19	17.15	20	20	0.5	1.166	1.000	14.26	
Bromoform	1	0		7.29	16.10	20	20	0.1	0.570	0.459	19.52	
Ethylbenzene	1	0		6.83	21.53	20	20	0.1	0.393	0.423	7.63	
1,1,2,2-Tetrachloroethane	1	0		7.53	15.86	20	20	0.1	0.778	0.617	20.71	C1
Bromofluorobenzene	1	0	S	7.47	29.07	30	**		1.077	1.044	3.11	
Styrene	1	0		7.15	20.12	20	20	0.3	1.277	1.285	0.60	
m&p-Xylenes	1	0		6.90	42.23	40	20	0.1	0.636	0.671	5.57	
o-Xylene	1	0		7.14	19.25	20	20	0.3	0.708	0.682	3.76	
trans-1,4-Dichloro-2-butene	1	0		7.56	14.18	20	20		0.233	0.203	29.11	C1
1,3-Dichlorobenzene	1	0		8.18	20.14	20	20	0.6	0.956	0.963	0.72	
1,4-Dichlorobenzene	1	0		8.23	19.31	20	20	0.5	1.006	0.971	3.46	
1,2-Dichlorobenzene	1	0		8.48	19.95	20	20	0.4	1.002	0.999	0.25	
Isopropylbenzene	1	0		7.36	19.59	20	20	0.1	1.368	1.340	2.06	
Cyclohexanone	1	0		7.45	85.27	100	20		0.035	0.027	14.73	
Camphene	1	0		7.56	18.38	20	20		0.383	0.352	8.08	
1,2,3-Trichloropropane	1	0		7.58	16.25	20	20		0.892	0.725	18.77	
2-Chlorotoluene	1	0		7.70	18.70	20	20		0.887	0.829	6.50	
p-Ethyltoluene	1	0		7.68	19.66	20	20		1.478	1.453	1.68	
4-Chlorotoluene	1	0		7.76	19.28	20	20		0.931	0.897	3.61	
n-Propylbenzene	1	0		7.61	19.49	20	20		1.579	1.539	2.56	
Bromobenzene	1	0		7.59	17.74	20	20		1.428	1.266	11.32	
1,3,5-Trimethylbenzene	1	0		7.71	21.54	20	20		1.011	1.088	7.69	
Butyl methacrylate	1	0		7.71	19.10	20	20	0.5	0.909	0.868	4.51	
t-Butylbenzene	1	0		7.94	20.71	20	20		0.952	0.986	3.55	
1,2,4-Trimethylbenzene	1	0		7.96	19.53	20	20		1.241	1.212	2.33	
sec-Butylbenzene	1	0		8.07	18.96	20	20		1.149	1.089	5.21	
4-Isopropyltoluene	1	0		8.15	20.22	20	20		0.978	0.989	1.12	
n-Butylbenzene	1	0		8.41	21.45	20	20		1.079	1.157	7.25	
p-Diethylbenzene	1	0		8.39	20.45	20	20		0.573	0.586	2.24	
1,2,4,5-Tetramethylbenzene	1	0		8.91	19.85	20	20		0.967	0.960	0.73	
1,2-Dibromo-3-Chloropropane	1	0		8.98	17.56	20	20	0.05	0.178	0.156	12.20	
Camphor	1	0		9.47	126.03	200	20		0.057	0.048	36.99	C1
Hexachlorobutadiene	1	0		9.62	20.78	20	20		0.395	0.411	3.91	
1,2,4-Trichlorobenzene	1	0		9.53	19.92	20	20	0.2	0.593	0.591	0.39	
1,2,3-Trichlorobenzene	1	0		9.87	19.42	20	20		0.597	0.580	2.91	
Naphthalene	1	0		9.71	18.12	20	20		1.224	1.109	9.38	

S-Surrogate Compound
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
 C1-Compound %Diff exceeds limits

Page 2 of 2
 ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
 524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M135452.D
Acq On : 08/31/18 22:13

Operator : WP
Sam Mult : 1 Vial# : 4
Misc : A, SML

Qt Meth : 3M A082413 0154
Qt On : 08/31/18 22:33
Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.915	96	348690	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.765	117	271568	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.213	152	140193	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.482	111	93756	30.89	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	102.97%	
39) 1,2-Dichloroethane-d4	4.705	67	63419	30.54	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.80%	
66) Toluene-d8	5.882	98	321736	27.93	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	93.10%	
76) Bromofluorobenzene	7.474	174	146292	29.07	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.90%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.548	51	64588	15.4368	ug/l	81
6) Dichlorodifluoromethane	1.531	85	28906	12.5727	ug/l	90
7) Chloromethane	1.698	50	53959	16.3485	ug/l	86
8) Bromomethane	2.056	94	22506	21.5328	ug/l	75
9) Vinyl Chloride	1.781	62	33144	16.7597	ug/l	97
10) Chloroethane	2.140	64	16680	19.4316	ug/l	94
11) Trichlorofluoromethane	2.350	101	55905	18.0264	ug/l	88
12) Ethyl ether	2.578	59	46978	18.3606	ug/l	86
13) Furan	2.614	39	117384	18.9476	ug/l	99
14) 1,1,2-Trichloro-1,2,2-...	2.764	101	20408	16.9662	ug/l	90
15) Methylene Chloride	3.161	84	55348	19.1728	ug/l	88
16) Acrolein	2.698	56	39917	97.5333	ug/l	80
17) Acrylonitrile	3.371	53	18172	16.3997	ug/l	91
18) Iodomethane	2.909	142	54822	18.9623	ug/l	94
19) Acetone	2.818	43	85138	83.7874	ug/l	88
20) Carbon Disulfide	2.969	76	136010	18.5507	ug/l	100
21) t-Butyl Alcohol	3.245	59	17074	77.6250	ug/l	84
22) n-Hexane	3.611	57	14553m	16.1876	ug/l	
23) Di-isopropyl-ether	3.780	45	169551	19.9992	ug/l	89
24) 1,1-Dichloroethene	2.770	61	71040	18.7139	ug/l	94
25) Methyl Acetate	3.077	43	58238	16.7485	ug/l	100
26) Methyl-t-butyl ether	3.389	73	109657	20.9479	ug/l	68
27) 1,1-Dichloroethane	3.744	63	90185	18.3706	ug/l	95
28) trans-1,2-Dichloroethene	3.395	96	44310	18.3612	ug/l	96
29) Ethyl-t-butyl ether	4.050	59	146973	20.2994	ug/l	99
30) cis-1,2-Dichloroethene	4.170	61	94361	19.6606	ug/l	89
31) Bromochloromethane	4.332	49	48788	15.5389	ug/l	87
32) 2,2-Dichloropropane	4.176	77	68627	23.7708	ug/l	94
33) Ethyl acetate	4.200	43	63214m	20.5317	ug/l	
34) 1,4-Dioxane	5.365	88	24498	928.5370	ug/l	82
35) 1,1-Dichloropropene	4.615	75	63785	19.3188	ug/l	98
36) Chloroform	4.380	83	95668	19.9423	ug/l	88
38) Cyclohexane	4.555	56	38957	18.1768	ug/l	88
40) 1,2-Dichloroethane	4.753	62	84287	19.9211	ug/l	97
41) 2-Butanone	4.170	43	18802m	14.2673	ug/l	
42) 1,1,1-Trichloroethane	4.512	97	71243	18.7612	ug/l	92
43) Carbon Tetrachloride	4.621	117	57240	19.1878	ug/l	93
44) Vinyl Acetate	3.774	43	128775	19.9832	ug/l	100
45) Bromodichloromethane	5.444	83	71293	18.8350	ug/l	94
46) Methylcyclohexane	5.275	83	29634	19.3894	ug/l	99
47) Dibromomethane	5.365	174	53020	19.9865	ug/l	95
48) 1,2-Dichloropropane	5.287	63	52616	18.2851	ug/l	79
49) Trichloroethene	5.143	130	53910	19.8378	ug/l	87
50) Benzene	4.753	78	194972	20.4753	ug/l	100
51) tert-Amyl methyl ether	4.795	73	130043	19.3660	ug/l	77
53) Iso-propylacetate	4.753	43	98458	17.1935	ug/l	97
54) Methyl methacrylate	5.323	41	50351	15.0778	ug/l	87
55) Dibromochloromethane	6.411	129	55962	19.2457	ug/l	99
56) 2-Chloroethylvinylether	5.606	63	27754	17.5084	ug/l	95
57) cis-1,3-Dichloropropene	5.714	75	81383	19.6847	ug/l	88
58) trans-1,3-Dichloropropene	6.038	75	77493	19.7498	ug/l	100
59) Ethyl methacrylate	6.062	41	52934	17.4315	ug/l	71
60) 1,1,2-Trichloroethane	6.152	97	47946	18.6886	ug/l	94
61) 1,2-Dibromoethane	6.495	107	47536	18.4539	ug/l	100
62) 1,3-Dichloropropane	6.261	76	86681	19.4429	ug/l	98
63) 4-Methyl-2-Pentanone	5.792	43	43566	14.7855	ug/l	91
64) 2-Hexanone	6.285	43	35660	16.7919	ug/l	93
65) Tetrachloroethene	6.261	164	41780	21.0480	ug/l	96
67) Toluene	5.924	92	107244	18.2171	ug/l	83

SampleID : CAL @ 20 PPB
 Data File: 3M135452.D
 Acq On : 08/31/18 22:13

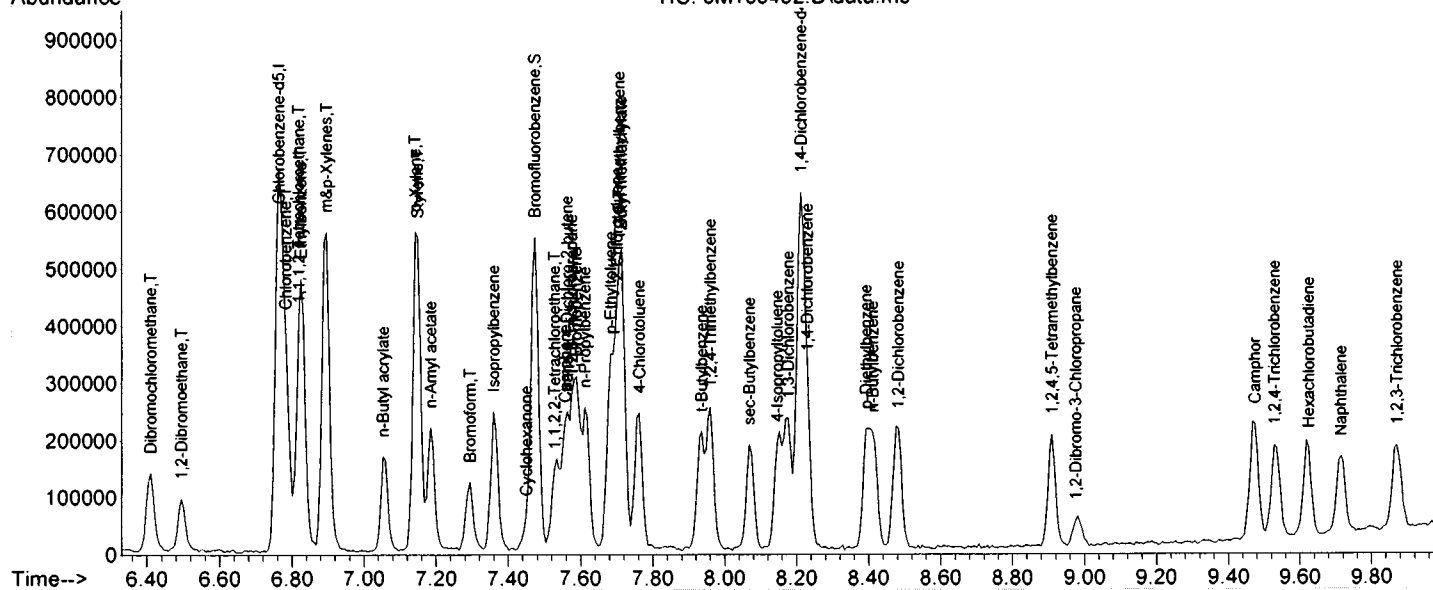
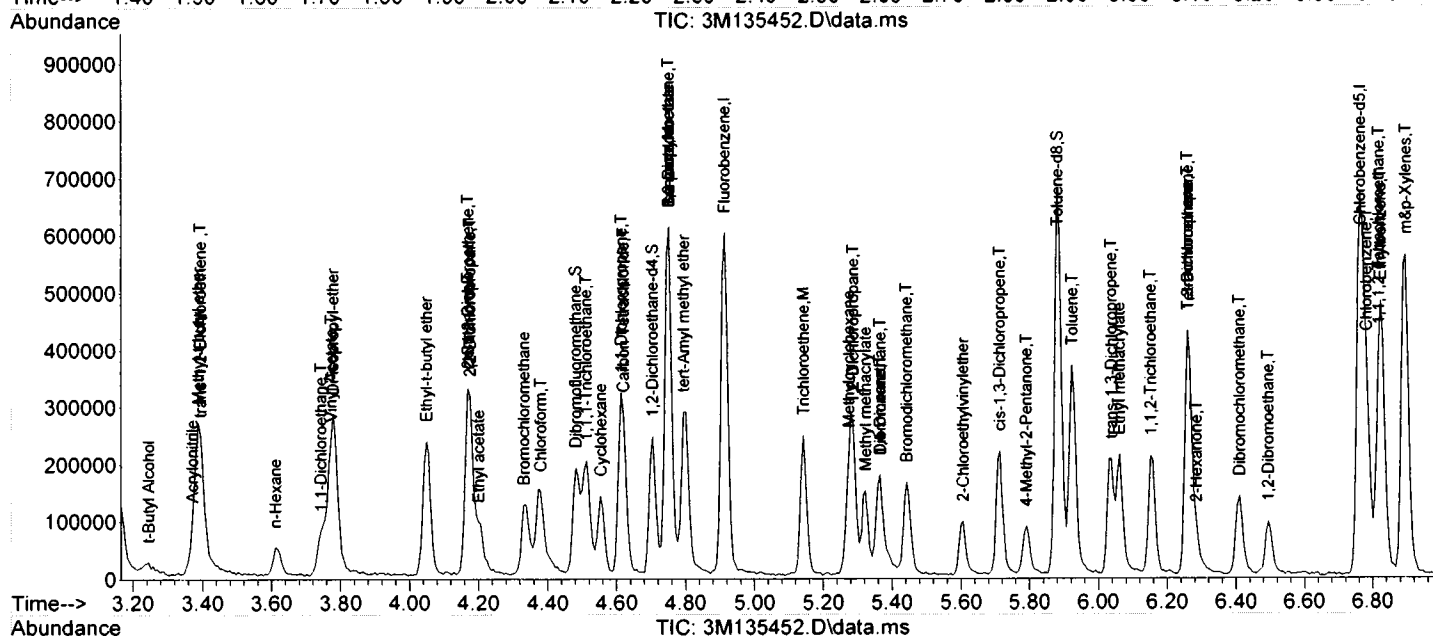
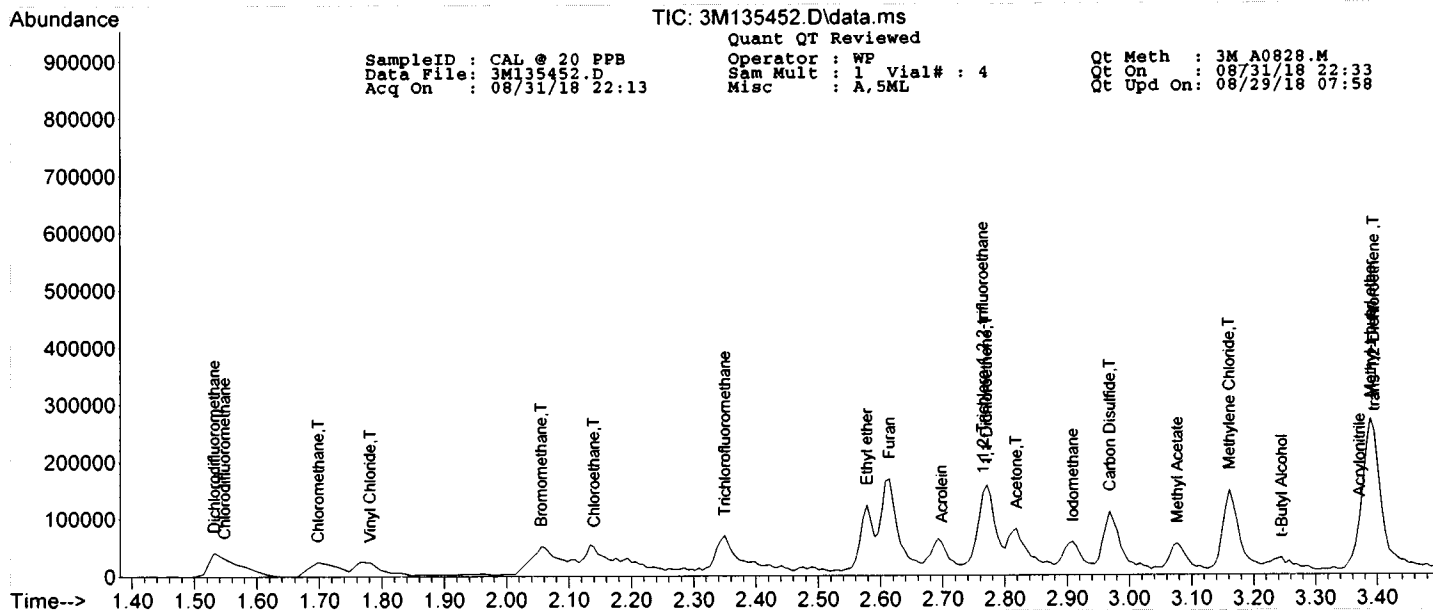
Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,SML

Qt Meth : 3M_A0828.M
 Qt On : 08/31/18 22:33
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.819	133	49109	20.5086	ug/l	87
69)	Chlorobenzene	6.783	112	122632	19.3418	ug/l	94
71)	n-Butyl acrylate	7.053	55	84409	13.4884	ug/l	92
72)	n-Amyl acetate	7.186	43	93460	17.1486	ug/l	82
73)	Bromoform	7.294	173	42853	16.0956	ug/l	93
74)	Ethylbenzene	6.825	106	39504	21.5268	ug/l	58
75)	1,1,2,2-Tetrachloroethane	7.528	83	57683	15.8576	ug/l	88
77)	Styrene	7.150	104	120056	20.1197	ug/l	99
78)	m&p-Xylenes	6.897	106	125479	42.2289	ug/l	92
79)	o-Xylene	7.144	106	63721	19.2477	ug/l	86
80)	trans-1,4-Dichloro-2-b...	7.564	53	18953	14.1773	ug/l	68
81)	1,3-Dichlorobenzene	8.177	146	90033	20.1431	ug/l	87
82)	1,4-Dichlorobenzene	8.231	146	90775	19.3078	ug/l	90
83)	1,2-Dichlorobenzene	8.483	146	93399	19.9496	ug/l	83
84)	Isopropylbenzene	7.360	105	125270	19.5889	ug/l	91
85)	Cyclohexanone	7.450	55	12506	85.2697	ug/l	83
86)	Camphene	7.558	93	32918	18.3847	ug/l	90
87)	1,2,3-Trichloropropane	7.576	75	67734	16.2467	ug/l	95
88)	2-Chlorotoluene	7.702	91	77496	18.7008	ug/l	96
89)	p-Ethyltoluene	7.684	105	135780	19.6633	ug/l	82
90)	4-Chlorotoluene	7.762	91	83856	19.2778	ug/l	92
91)	n-Propylbenzene	7.612	91	143830	19.4876	ug/l	95
92)	Bromobenzene	7.588	77	118327	17.7355	ug/l	93
93)	1,3,5-Trimethylbenzene	7.708	105	101716	21.5385	ug/l	83
94)	Butyl methacrylate	7.714	41	81155	19.0978	ug/l	83
95)	t-Butylbenzene	7.936	119	92168	20.7093	ug/l	83
96)	1,2,4-Trimethylbenzene	7.960	105	113247	19.5338	ug/l	87
97)	sec-Butylbenzene	8.069	105	101768	18.9572	ug/l	93
98)	4-Isopropyltoluene	8.147	119	92397	20.2239	ug/l	88
99)	n-Butylbenzene	8.411	91	108158	21.4504	ug/l	89
100)	p-Diethylbenzene	8.393	119	54749	20.4489	ug/l	88
101)	1,2,4,5-Tetramethylben...	8.910	119	89763	19.8544	ug/l	86
102)	1,2-Dibromo-3-Chloropr...	8.976	157	14604	17.5600	ug/l	66
103)	Camphor	9.474	95	44711	126.0277	ug/l	90
104)	Hexachlorobutadiene	9.624	225	38373	20.7819	ug/l	98
105)	1,2,4-Trichlorobenzene	9.528	180	55223	19.9228	ug/l	93
106)	1,2,3-Trichlorobenzene	9.871	180	54166	19.4185	ug/l	94
107)	Naphthalene	9.714	128	103655	18.1232	ug/l	100

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



GC/MS Volatile Data
Raw QC Data

Form 5

8082413 0158

Tune Name: BFB TUNE

Data File: 3M132618.D

Instrument: GCMS 3

Analysis Date: 07/13/18 19:52

Method: EPA 8260C

Tune Scan/Time Range: Scan 34

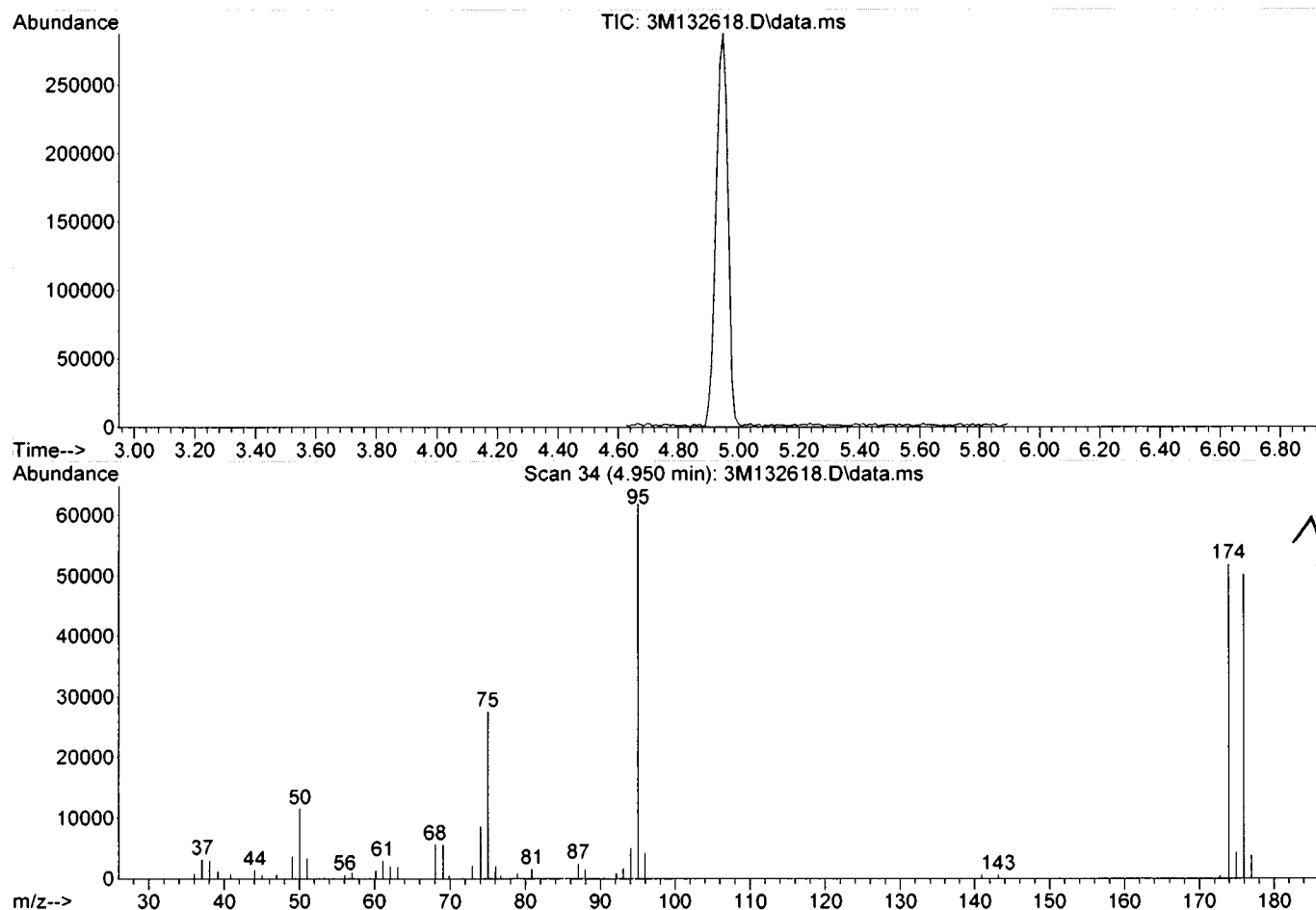
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	18.7	11574	PASS
75	95	30	60	44.6	27616	PASS
95	95	100	100	100.0	61856	PASS
96	95	5	9	7.0	4317	PASS
173	174	0.00	2	1.1	563	PASS
174	95	50	100	84.0	51952	PASS
175	174	5	9	8.3	4335	PASS
176	174	95	101	96.7	50232	PASS
177	176	5	9	7.7	3883	PASS

Data File	Sample Number	Analysis Date:
3M132620.D	CAL @ 0.5 PPB	07/13/18 20:24
3M132621.D	CAL @ 1 PPB	07/13/18 20:41
3M132622.D	CAL @ 5 PPB	07/13/18 20:58
3M132623.D	CAL @ 10 PPB	07/13/18 21:14
3M132624.D	CAL @ 20 PPB	07/13/18 21:31
3M132625.D	CAL @ 500 PPB	07/13/18 21:48
3M132628.D	CAL @ 250 PPB	07/13/18 22:37
3M132631.D	CAL @ 100 PPB	07/13/18 23:28
3M132634.D	CAL @ 50 PPB	07/14/18 00:22
3M132637.D	ICV	07/14/18 01:13
3M132643.D	DAILY BLANK	07/14/18 02:55
3M132644.D	AD05312-001	07/14/18 03:12
3M132645.D	AD05377-001	07/14/18 03:29
3M132646.D	AD05357-003	07/14/18 03:45
3M132647.D	AD05357-005	07/14/18 04:03
3M132648.D	MBS70502	07/14/18 04:19
3M132649.D	AD05357-008(MS)	07/14/18 04:36
3M132650.D	AD05357-008(MSD)	07/14/18 04:53
3M132651.D	AD05357-008	07/14/18 05:10
3M132652.D	AD05357-002	07/14/18 05:27
3M132653.D	AD05357-001	07/14/18 05:44
3M132654.D	AD05357-006	07/14/18 06:01
3M132655.D	AD05357-004	07/14/18 06:18
3M132656.D	AD05357-007	07/14/18 06:35
3M132657.D	MBS70503	07/14/18 06:51

Data Path : G:\GcMsData\2018\GCMS_3\Data\07-13-18\
Data File : 3M132618.D
Acq On : 13 Jul 2018 19:52
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0713.M
Title : @GCMS_3,ug,624,8260
Last Update : Mon Jul 16 14:57:47 2018



Spectrum Information: Scan 34

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	11574	PASS
75	95	30	60	44.6	27616	PASS
95	95	100	100	100.0	61856	PASS
96	95	5	9	7.0	4317	PASS
173	174	0.00	2	1.1	563	PASS
174	95	50	100	84.0	51952	PASS
175	174	5	9	8.3	4335	PASS
176	174	95	101	96.7	50232	PASS
177	176	5	9	7.7	3883	PASS

Form 5

8082413 0160

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M135074.D
Analysis Date: 08/27/18 08:24
Method: EPA 8260C

Tune Scan/Time Range: Average of 4.972 to 4.991 min

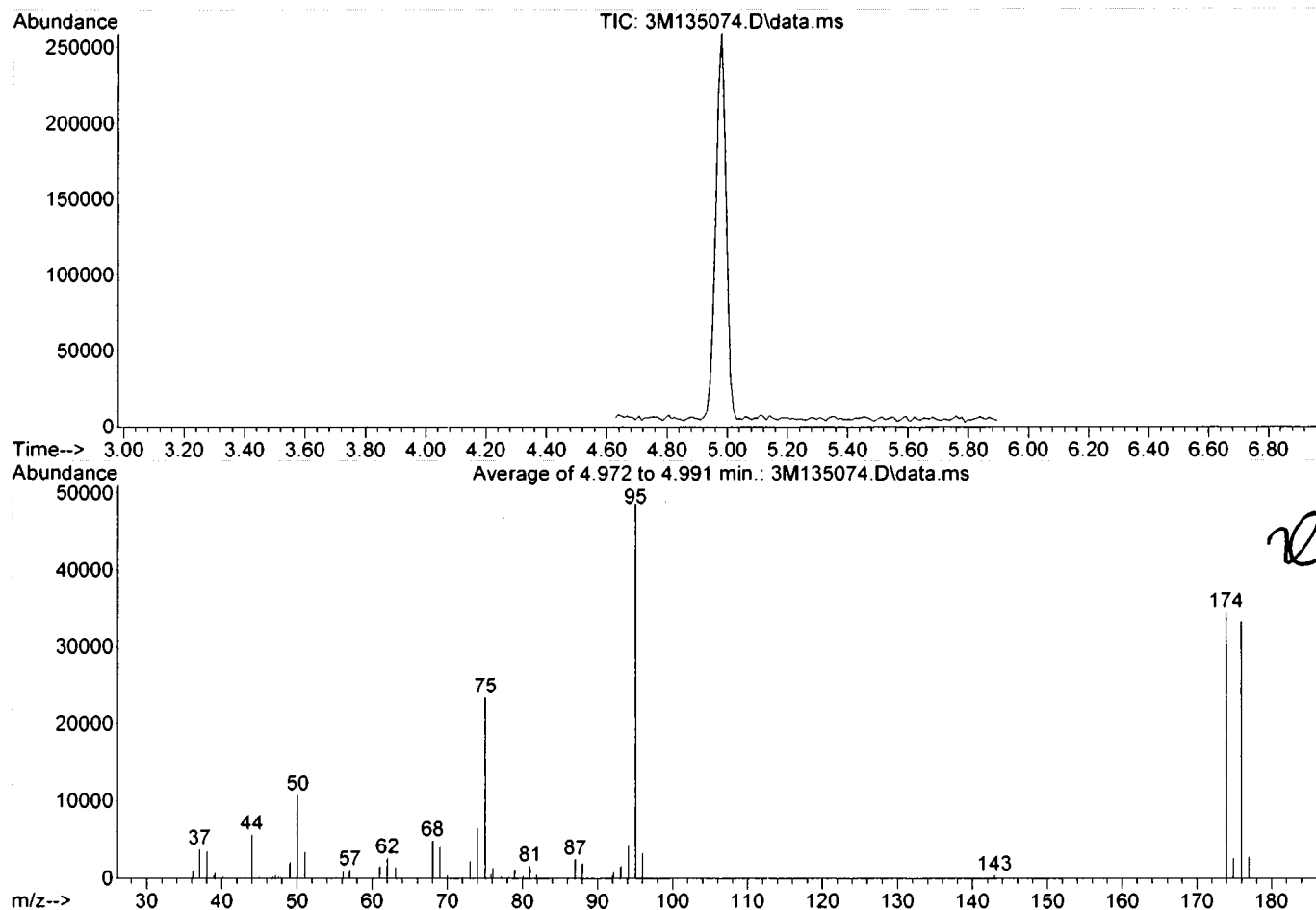
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	22.2	10794	PASS
75	95	30	60	48.4	23539	PASS
95	95	100	100	100.0	48656	PASS
96	95	5	9	6.8	3315	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.1	34571	PASS
175	174	5	9	7.6	2641	PASS
176	174	95	101	96.7	33424	PASS
177	176	5	9	8.5	2830	PASS

Data File	Sample Number	Analysis Date:
3M135076.D	CAL @ 20 PPB	08/27/18 08:51
3M135078.D	BLKHCL	08/27/18 09:25
3M135079.D	BLK	08/27/18 09:43
3M135081.D	DAILY BLANK	08/27/18 10:22
3M135082.D	DAILY BLANK	08/27/18 10:39
3M135083.D	BLK1585	08/27/18 10:56
3M135084.D	AD06125-003	08/27/18 11:16
3M135085.D	AD06125-004	08/27/18 11:33
3M135086.D	AD06136-002	08/27/18 11:50
3M135087.D	AD06125-011	08/27/18 12:07
3M135088.D	AD06125-002(20X)	08/27/18 12:25
3M135089.D	06125-008(20X)	08/27/18 12:42
3M135090.D	MBS71018	08/27/18 13:00
3M135091.D	AD06136-002	08/27/18 13:17
3M135092.D	AD06125-011	08/27/18 13:34
3M135093.D	06125-002(20X)	08/27/18 13:51
3M135094.D	AD06084-015	08/27/18 14:08
3M135095.D	AD06156-002	08/27/18 14:26
3M135096.D	AD06160-001	08/27/18 14:43
3M135097.D	AD06136-001	08/27/18 15:00
3M135098.D	AD06156-005(80uL	08/27/18 15:17
3M135099.D	AD06156-014(400u	08/27/18 15:34
3M135100.D	MBS71020	08/27/18 15:51
3M135101.D	AD06127-015(MS)	08/27/18 16:09
3M135102.D	AD06127-015(MSD	08/27/18 16:26
3M135103.D	AD06127-015	08/27/18 16:43
3M135104.D	06132-013	08/27/18 17:00
3M135105.D	AD06123-008(T)	08/27/18 17:17
3M135106.D	AD06123-010(T)	08/27/18 17:34
3M135107.D	AD06123-012(T)	08/27/18 17:51
3M135108.D	AD06123-008(T:M	08/27/18 18:09
3M135109.D	AD06123-008(T:M	08/27/18 18:26
3M135110.D	EF-1-V-286161082	08/27/18 18:43

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-27-18\
Data File : 3M135074.D
Acq On : 27 Aug 2018 8:24
Operator : SG
Sample : BFB TUNE
Misc : A, 5ML
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0713.M
Title : @GCMS_3,ug,624,8260
Last Update : Mon Jul 16 14:57:47 2018



Spectrum Information: Average of 4.972 to 4.991 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	10794	PASS
75	95	30	60	48.4	23539	PASS
95	95	100	100	100.0	48656	PASS
96	95	5	9	6.8	3315	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.1	34571	PASS
175	174	5	9	7.6	2641	PASS
176	174	95	101	96.7	33424	PASS
177	176	5	9	8.5	2830	PASS

Form 5

8082413 0162

Tune Name: BFB TUNE

Data File: 3M135190.D

Instrument: GCMS 3

Analysis Date: 08/28/18 20:11

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.907 to 4.976 min

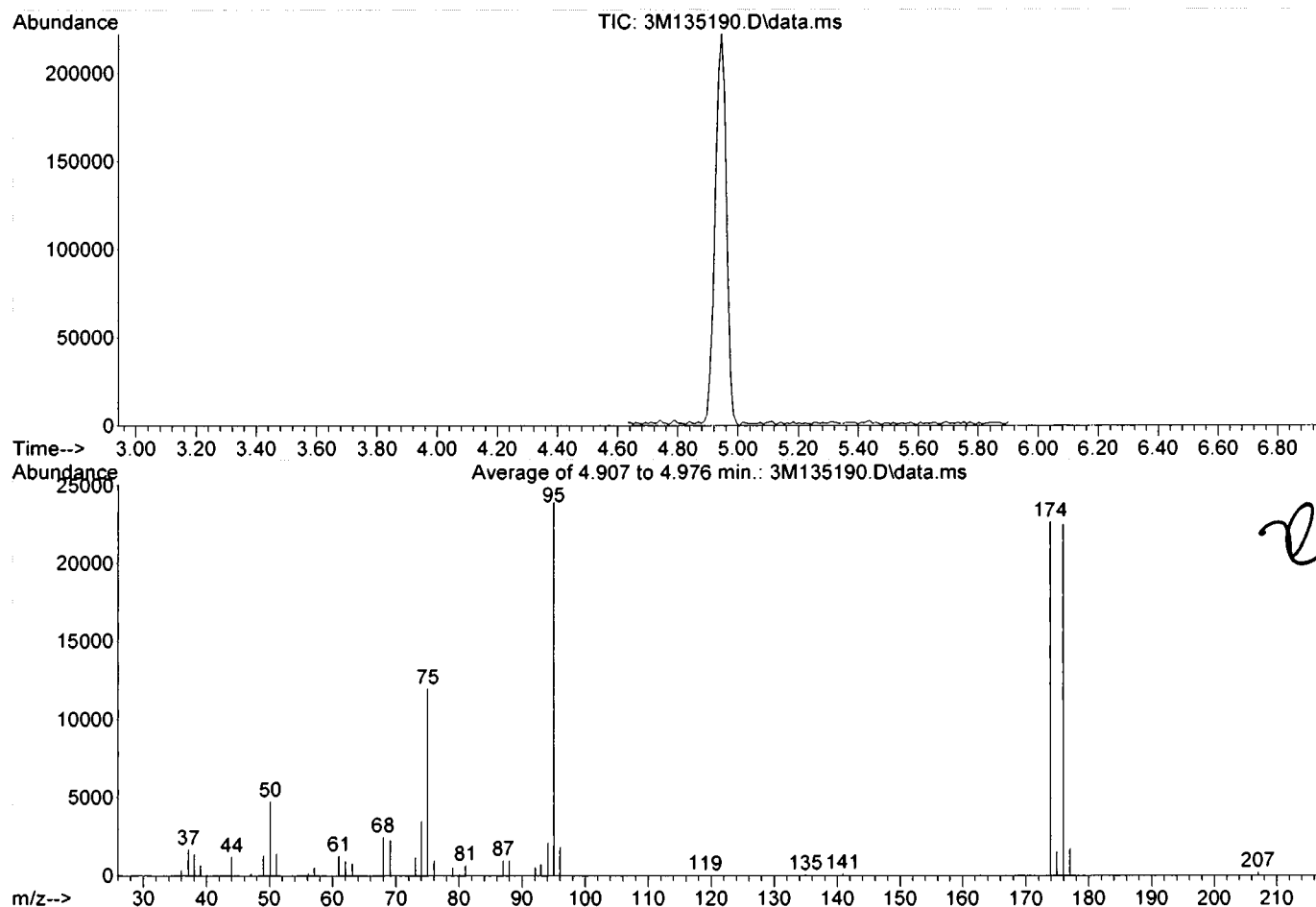
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	20.0	4773	PASS
75	95	30	60	50.2	12000	PASS
95	95	100	100	100.0	23917	PASS
96	95	5	9	7.8	1854	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	94.8	22676	PASS
175	174	5	9	6.9	1562	PASS
176	174	95	101	99.2	22494	PASS
177	176	5	9	7.7	1736	PASS

Data File	Sample Number	Analysis Date:
3M135192.D	BLK	08/28/18 20:38
3M135193.D	CAL @ 0.5 PPB	08/28/18 20:56
3M135194.D	CAL @ 1 PPB	08/28/18 21:14
3M135195.D	CAL @ 5 PPB	08/28/18 21:31
3M135196.D	CAL @ 10 PPB	08/28/18 21:48
3M135197.D	CAL @ 20 PPB	08/28/18 22:06
3M135198.D	CAL @ 500 PPB	08/28/18 22:20
3M135201.D	CAL @ 250 PPB	08/28/18 23:13
3M135204.D	CAL @ 100 PPB	08/29/18 00:07
3M135207.D	CAL @ 50 PPB	08/29/18 00:59
3M135210.D	ICV	08/29/18 01:50

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2818\
Data File : 3M135190.D
Acq On : 28 Aug 2018 20:11
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0713.M
Title : @GCMS_3,ug,624,8260
Last Update : Mon Jul 16 14:57:47 2018



Spectrum Information: Average of 4.907 to 4.976 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	4773	PASS
75	95	30	60	50.2	12000	PASS
95	95	100	100	100.0	23917	PASS
96	95	5	9	7.8	1854	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	94.8	22676	PASS
175	174	5	9	6.9	1562	PASS
176	174	95	101	99.2	22494	PASS
177	176	5	9	7.7	1736	PASS

Form 5

8082413 0164

Tune Name: BFB TUNE

Data File: 3M135254.D

Instrument: GCMS 3

Analysis Date: 08/29/18 14:56

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.877 to 4.995 min

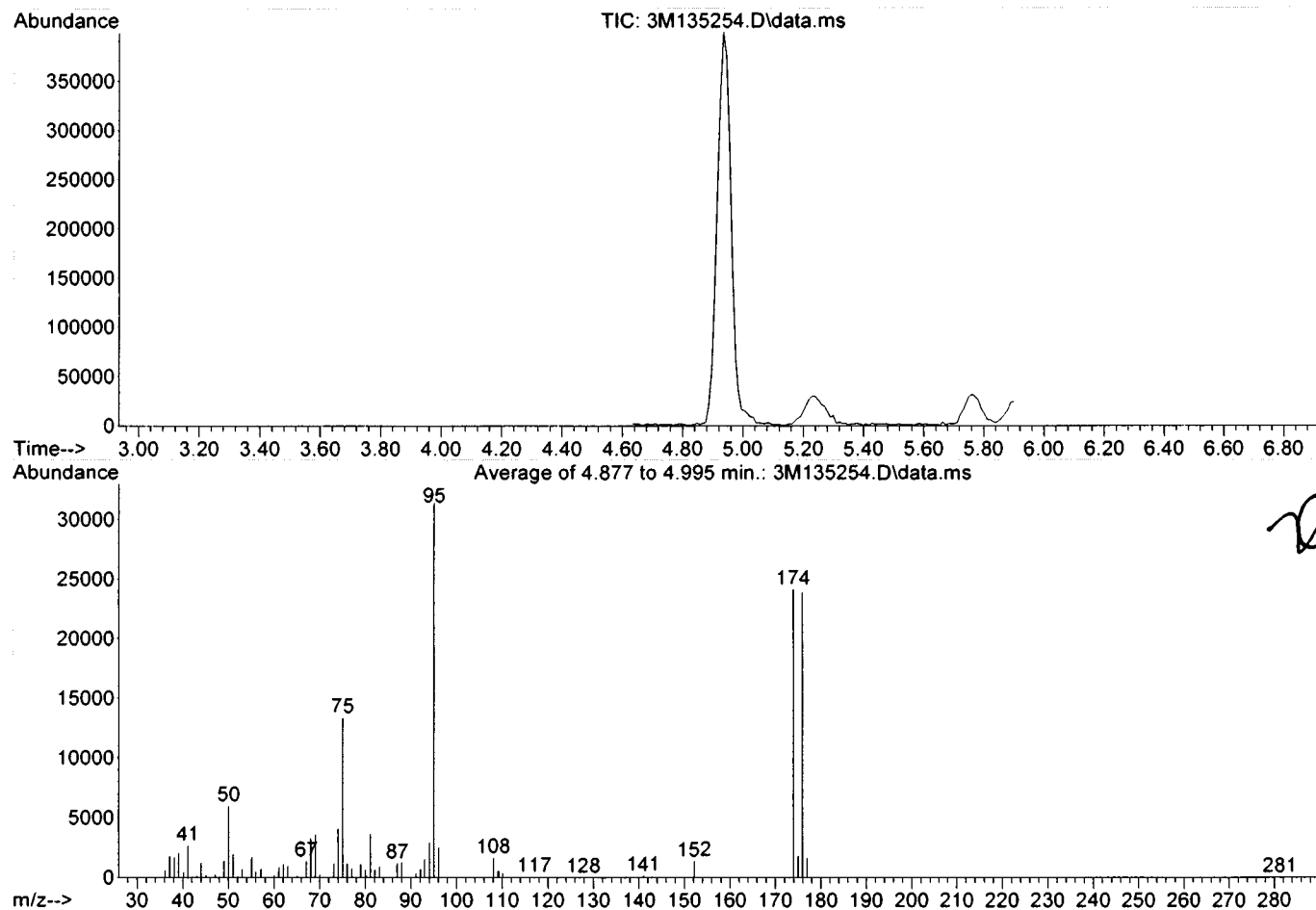
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.1	5990	PASS
75	95	30	60	42.6	13400	PASS
95	95	100	100	100.0	31423	PASS
96	95	5	9	8.0	2503	PASS
173	174	0.00	2	0.2	53	PASS
174	95	50	100	77.0	24180	PASS
175	174	5	9	7.6	1842	PASS
176	174	95	101	98.9	23925	PASS
177	176	5	9	7.0	1665	PASS

Data File	Sample Number	Analysis Date:
3M135255.D	CAL @ 20 PPB	08/29/18 15:06
3M135257.D	BLK	08/29/18 15:40
3M135258.D	DAILY BLANK	08/29/18 15:58
3M135259.D	DAILY BLANK	08/29/18 16:15
3M135260.D	AD06121-014	08/29/18 16:32
3M135261.D	06096-008	08/29/18 16:49
3M135262.D	06205-001	08/29/18 17:07
3M135263.D	AD06125-011	08/29/18 17:24
3M135264.D	AD06125-002(5X)	08/29/18 17:42
3M135265.D	AD06125-008(5X)	08/29/18 17:59
3M135267.D	MBS72636	08/29/18 18:16
3M135268.D	AD06186-001	08/29/18 18:33
3M135269.D	AD06146-001	08/29/18 18:50
3M135270.D	AD06125-003(MS)	08/29/18 19:08
3M135271.D	AD06125-003(MSD)	08/29/18 19:25
3M135272.D	06205-003	08/29/18 19:42
3M135273.D	AD06149-003	08/29/18 19:59
3M135274.D	AD06156-015	08/29/18 20:16
3M135275.D	AD06121-001	08/29/18 20:34
3M135276.D	AD06121-002	08/29/18 20:51
3M135277.D	AD06121-004	08/29/18 21:08
3M135278.D	AD06121-005	08/29/18 21:25
3M135279.D	AD06121-006	08/29/18 21:42
3M135280.D	AD06121-008	08/29/18 21:59
3M135281.D	AD06121-009	08/29/18 22:13
3M135282.D	AD06121-011	08/29/18 22:29
3M135283.D	AD06121-010	08/29/18 22:48
3M135284.D	AD06121-012	08/29/18 23:05
3M135285.D	AD06121-013	08/29/18 23:25
3M135286.D	AD06121-003	08/29/18 23:42
3M135287.D	MBS72638	08/29/18 23:59
3M135288.D	AD06204-002(MS)	08/30/18 00:16
3M135289.D	AD06204-002(MSD)	08/30/18 00:33
3M135290.D	AD06204-002	08/30/18 00:51
3M135291.D	AD06121-004	08/30/18 01:08
3M135292.D	AD06121-012	08/30/18 01:25
3M135293.D	AD06125-002(5X)	08/30/18 01:42
3M135294.D	AD06125-008(5X)	08/30/18 01:59
3M135295.D	AD06121-011(10X)	08/30/18 02:17
3M135296.D	AD06121-010(10X)	08/30/18 02:34
3M135297.D	AD06126-009	08/30/18 02:51
3M135298.D	AD06126-001	08/30/18 03:08
3M135299.D	BLK	08/30/18 03:24
3M135300.D	BLK	08/30/18 03:38
3M135301.D	BLK	08/30/18 03:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
 Data File : 3M135254.D
 Acq On : 29 Aug 2018 14:56
 Operator : WP
 Sample : BFB TUNE
 Misc : A,5ML
 ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0713.M
 Title : @GCMS_3,ug,624,8260
 Last Update : Mon Jul 16 14:57:47 2018



Spectrum Information: Average of 4.877 to 4.995 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	5990	PASS
75	95	30	60	42.6	13400	PASS
95	95	100	100	100.0	31423	PASS
96	95	5	9	8.0	2503	PASS
173	174	0.00	2	0.2	53	PASS
174	95	50	100	77.0	24180	PASS
175	174	5	9	7.6	1842	PASS
176	174	95	101	98.9	23925	PASS
177	176	5	9	7.0	1665	PASS

Form 5

8082413 0166

Tune Name: BFB TUNE

Data File: 3M135363.D

Instrument: GCMS 3

Analysis Date: 08/30/18 21:04

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.906 to 4.955 min

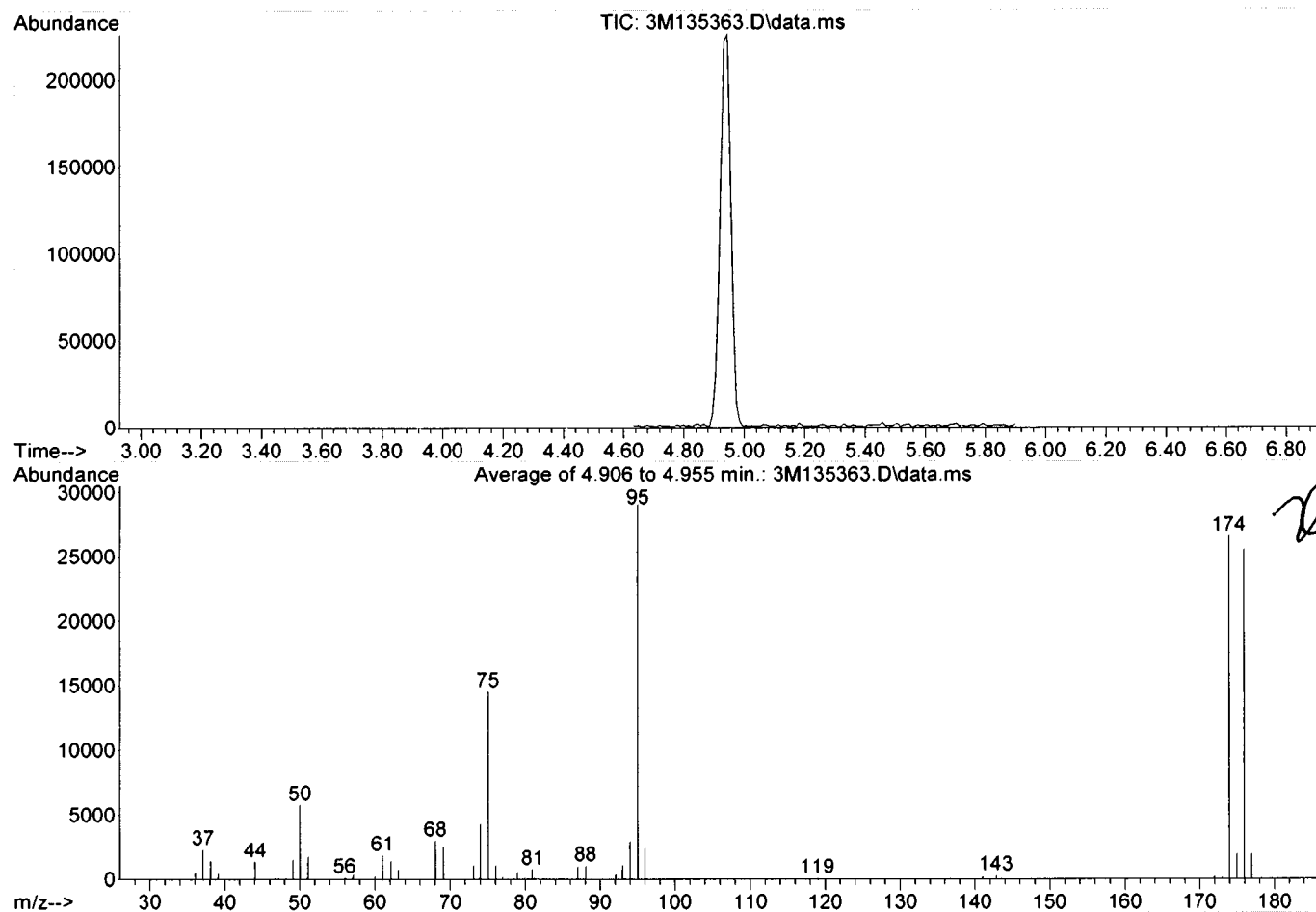
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.9	5765	PASS
75	95	30	60	50.0	14523	PASS
95	95	100	100	100.0	29040	PASS
96	95	5	9	8.3	2406	PASS
173	174	0.00	2	0.5	129	PASS
174	95	50	100	91.4	26555	PASS
175	174	5	9	7.3	1930	PASS
176	174	95	101	96.2	25551	PASS
177	176	5	9	7.7	1957	PASS

Data File	Sample Number	Analysis Date:
3M135364.D	CAL @ 20 PPB	08/30/18 21:14
3M135367.D	BLK	08/30/18 22:05
3M135368.D	DAILY BLANK	08/30/18 22:19
3M135369.D	AD06207-001(T)	08/30/18 22:37
3M135370.D	MBS72643	08/30/18 22:53
3M135371.D	EF-1-V-286161(083	08/30/18 23:18
3M135372.D	AD06207-001(T:M	08/30/18 23:37
3M135373.D	AD06207-001(T:M	08/30/18 23:55
3M135374.D	BLK	08/31/18 00:11
3M135375.D	AD06161-001	08/31/18 00:29
3M135376.D	AD06128-001	08/31/18 00:46
3M135377.D	AD06128-002	08/31/18 01:02
3M135378.D	AD06129-002	08/31/18 01:20
3M135379.D	AD06202-001	08/31/18 01:37
3M135380.D	AD06161-002	08/31/18 01:55
3M135381.D	AD06231-008	08/31/18 02:12
3M135382.D	DAILY BLANK	08/31/18 02:30
3M135383.D	AD06202-003	08/31/18 02:47
3M135384.D	AD06202-004	08/31/18 03:04
3M135385.D	AD06202-005	08/31/18 03:21
3M135386.D	AD06202-006	08/31/18 03:39
3M135387.D	AD06202-007	08/31/18 03:56
3M135388.D	AD06202-002	08/31/18 04:13
3M135389.D	AD06149-001	08/31/18 04:29
3M135390.D	AD06149-002	08/31/18 04:46
3M135391.D	AD06217-007	08/31/18 05:04
3M135392.D	AD06151-002	08/31/18 05:21
3M135393.D	AD06151-003	08/31/18 05:38
3M135394.D	AD06151-001	08/31/18 05:56
3M135395.D	AD06161-003	08/31/18 06:13
3M135396.D	AD06156-001	08/31/18 06:31
3M135397.D	AD06195-009	08/31/18 06:48
3M135398.D	AD06165-002	08/31/18 07:05
3M135399.D	AD06165-008	08/31/18 07:22
3M135400.D	AD06165-010	08/31/18 07:40
3M135401.D	AD06165-004	08/31/18 07:57
3M135402.D	MBS72652	08/31/18 08:14
3M135403.D	AD06165-002(MS)	08/31/18 08:31
3M135404.D	AD06165-002(MSD	08/31/18 08:48

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
Data File : 3M135363.D
Acq On : 30 Aug 2018 21:04
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0828.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Aug 29 07:55:10 2018



Spectrum Information: Average of 4.906 to 4.955 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	5765	PASS
75	95	30	60	50.0	14523	PASS
95	95	100	100	100.0	29040	PASS
96	95	5	9	8.3	2406	PASS
173	174	0.00	2	0.5	129	PASS
174	95	50	100	91.4	26555	PASS
175	174	5	9	7.3	1930	PASS
176	174	95	101	96.2	25551	PASS
177	176	5	9	7.7	1957	PASS

Form 5

8082413 0168

Tune Name: BFB TUNE

Data File: 3M135451.D

Instrument: GCMS 3

Analysis Date: 08/31/18 22:03

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.896 to 4.955 min

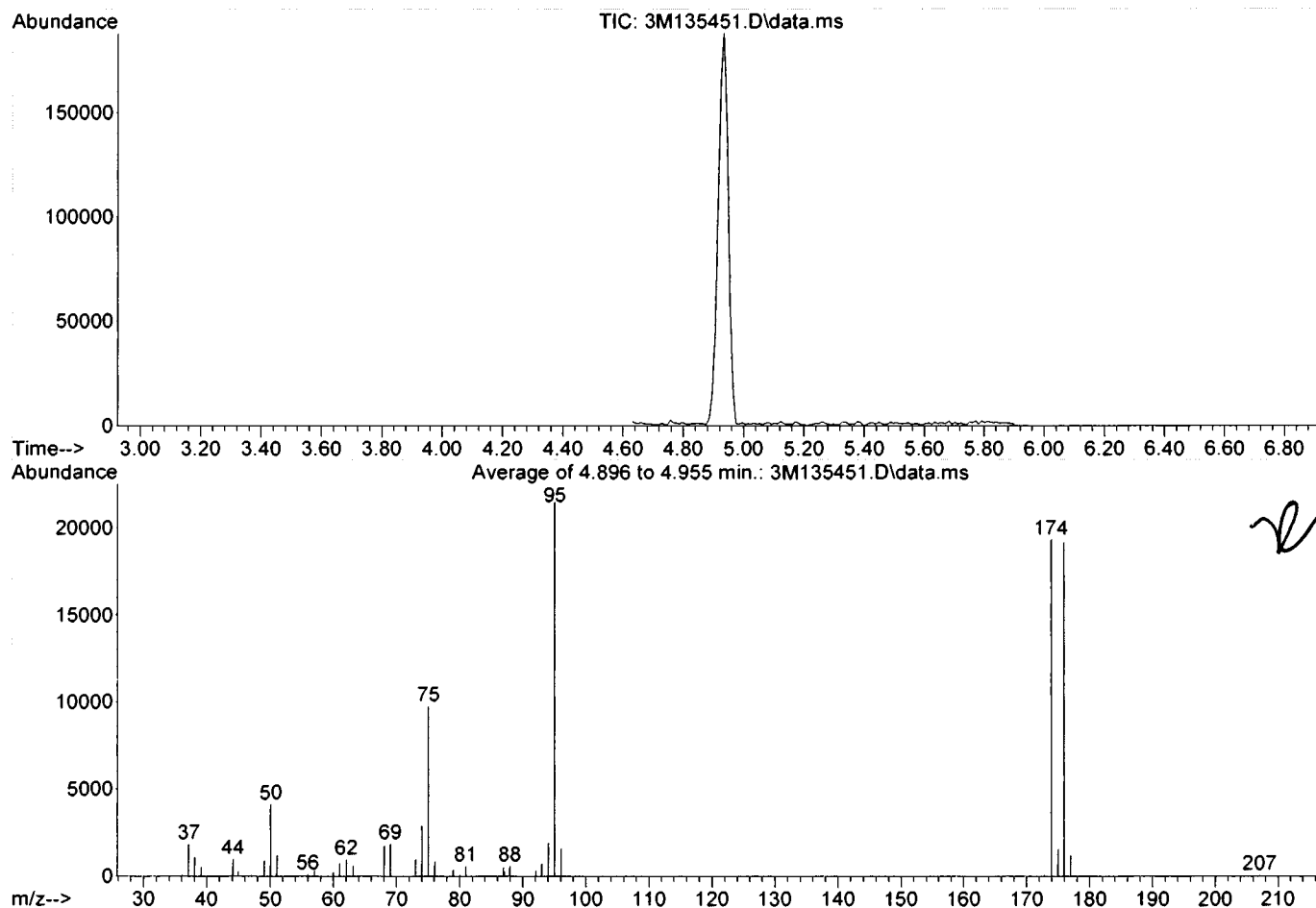
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	19.3	4142	PASS
75	95	30	60	45.5	9765	PASS
95	95	100	100	100.0	21476	PASS
96	95	5	9	7.5	1612	PASS
173	174	0.00	2	0.4	82	PASS
174	95	50	100	90.1	19357	PASS
175	174	5	9	8.1	1569	PASS
176	174	95	101	99.1	19182	PASS
177	176	5	9	6.4	1218	PASS

Data File	Sample Number	Analysis Date:
3M135452.D	CAL @ 20 PPB	08/31/18 22:13
3M135453.D	BLK	08/31/18 22:30
3M135454.D	DAILY BLANK	08/31/18 22:45
3M135455.D	DAILY BLANK	08/31/18 23:03
3M135456.D	AD06149-001	08/31/18 23:25
3M135457.D	AD06128-003	08/31/18 23:43
3M135458.D	MBS72659	09/01/18 00:01
3M135459.D	AD06149-001(MS)	09/01/18 00:18
3M135460.D	AD06149-001(MSD)	09/01/18 00:35
3M135461.D	BLK	09/01/18 00:53
3M135462.D	AD06169-013	09/01/18 01:10
3M135463.D	AD06169-008	09/01/18 01:27
3M135464.D	AD06222-008	09/01/18 01:44
3M135465.D	AD06222-001	09/01/18 02:01
3M135466.D	AD06216-008	09/01/18 02:18
3M135467.D	AD06216-007	09/01/18 02:36
3M135468.D	AD06216-006	09/01/18 02:53
3M135469.D	AD06216-005	09/01/18 03:10
3M135470.D	AD06216-004	09/01/18 03:27
3M135471.D	AD06216-003	09/01/18 03:44
3M135472.D	AD06216-002	09/01/18 04:02
3M135473.D	AD06169-009	09/01/18 04:19
3M135474.D	AD06169-010	09/01/18 04:36
3M135475.D	AD06169-011	09/01/18 04:53
3M135476.D	AD06169-006	09/01/18 05:10
3M135477.D	AD06169-005	09/01/18 05:27
3M135478.D	AD06169-007	09/01/18 05:45
3M135479.D	AD06169-001	09/01/18 06:02
3M135480.D	MBS72660	09/01/18 06:18
3M135481.D	AD06141-002(MS)	09/01/18 06:35
3M135482.D	AD06141-002(MSD)	09/01/18 06:53
3M135483.D	AD06141-002	09/01/18 07:09
3M135484.D	AD06165-002	09/01/18 07:26
3M135485.D	AD06204-016	09/01/18 07:43
3M135486.D	AD06204-002	09/01/18 08:00
3M135487.D	AD06204-012	09/01/18 08:18
3M135488.D	AD06227-018	09/01/18 08:35
3M135489.D	AD06227-066	09/01/18 08:52
3M135490.D	AD06227-014	09/01/18 09:09
3M135491.D	AD06126-001	09/01/18 09:26
3M135492.D	AD06126-006	09/01/18 09:44
3M135493.D	AD06126-008	09/01/18 10:01
3M135494.D	AD06165-005	09/01/18 10:18
3M135495.D	BLK	09/01/18 10:35
3M135496.D	BLK	09/01/18 10:53
3M135497.D	BLK	09/01/18 11:10

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
Data File : 3M135451.D
Acq On : 31 Aug 2018 22:03
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0828.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Aug 29 07:55:10 2018



Spectrum Information: Average of 4.896 to 4.955 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	4142	PASS
75	95	30	60	45.5	9765	PASS
95	95	100	100	100.0	21476	PASS
96	95	5	9	7.5	1612	PASS
173	174	0.00	2	0.4	82	PASS
174	95	50	100	90.1	19357	PASS
175	174	5	9	8.1	1569	PASS
176	174	95	101	99.1	19182	PASS
177	176	5	9	6.4	1218	PASS

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M135258.D

Analysis Date: 08/29/18 15:58

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U

Worksheet #: 477955

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : DAILY BLANK
Data File: 3M135258.D
Acq On : 08/29/18 15:58

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A,5ML

Qt Meth : 3M_A0828.M
Qt On : 08/29/18 16:24
Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.928	96	347053	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.778	117	263833	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.232	152	133537	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.496	111	89765	29.72	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.07%	
39) 1,2-Dichloroethane-d4	4.718	67	60950	29.49	ug/l	0.00
Spiked Amount	30.000		Recovery	=	98.30%	
66) Toluene-d8	5.901	98	323176	28.88	ug/l	0.00
Spiked Amount	30.000		Recovery	=	96.27%	
76) Bromofluorobenzene	7.487	174	137547	28.69	ug/l	0.00
Spiked Amount	30.000		Recovery	=	95.63%	
Target Compounds						Qvalue

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



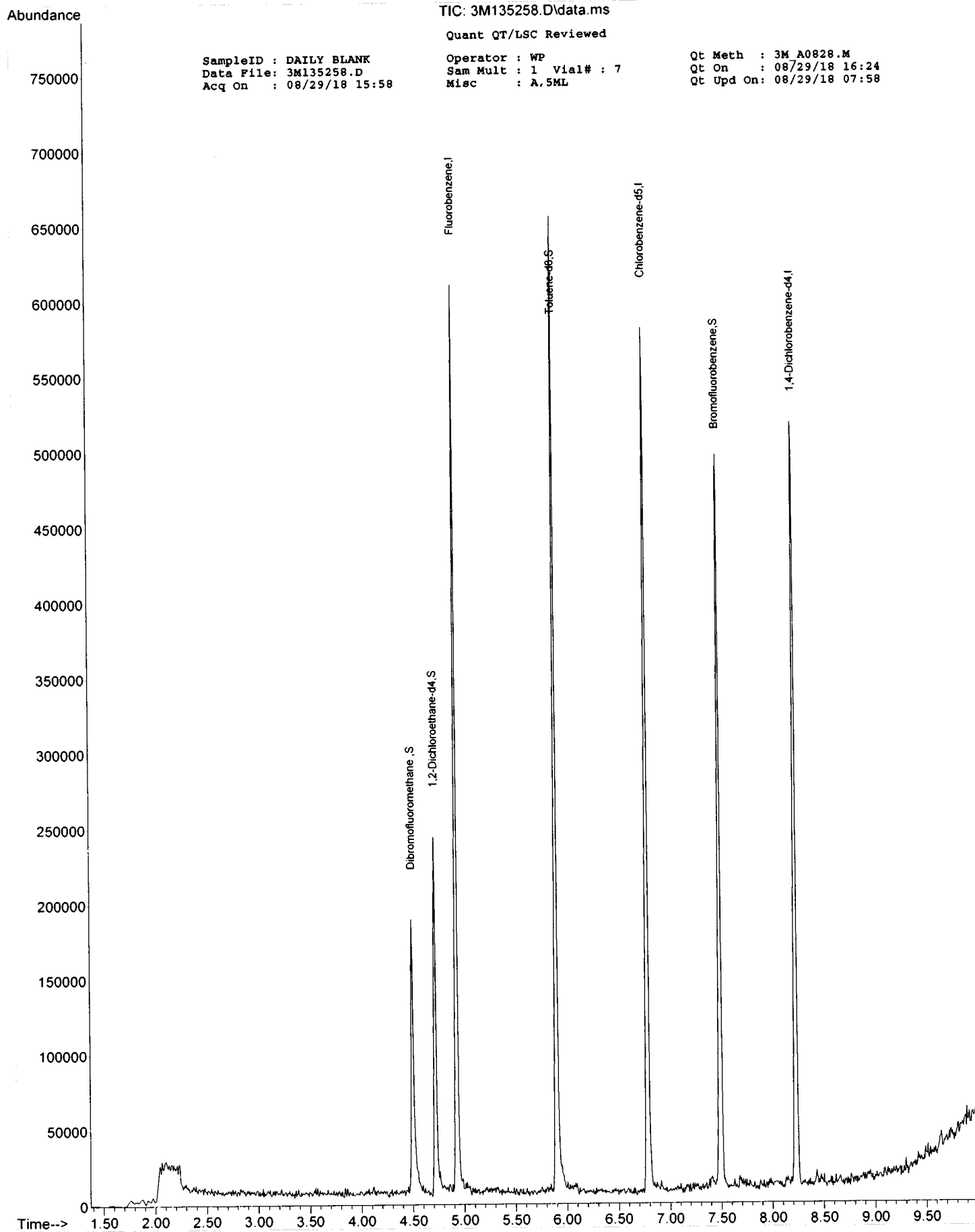
TIC: 3M135258.D\data.ms

Quant QT/LSC Reviewed

SampleID : DAILY BLANK
Data File: 3M135258.D
Acq On : 08/29/18 15:58

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A.5ML

Qt Meth : 3M A0828.M
Qt On : 08/29/18 16:24
Qt Upd On: 08/29/18 07:58



Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M135368.D

Analysis Date: 08/30/18 22:19

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U

Worksheet #: 477955

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : DAILY BLANK
Data File: 3M135368.D
Acq On : 08/30/18 22:19

Operator : WP
Sam Mult : 1 Vial# : 9
Misc : A,5ML

Qt Meth : 3M_A0828.M
Qt On : 08/31/18 07:38
Qt Upd On: 08/29/18 07:58

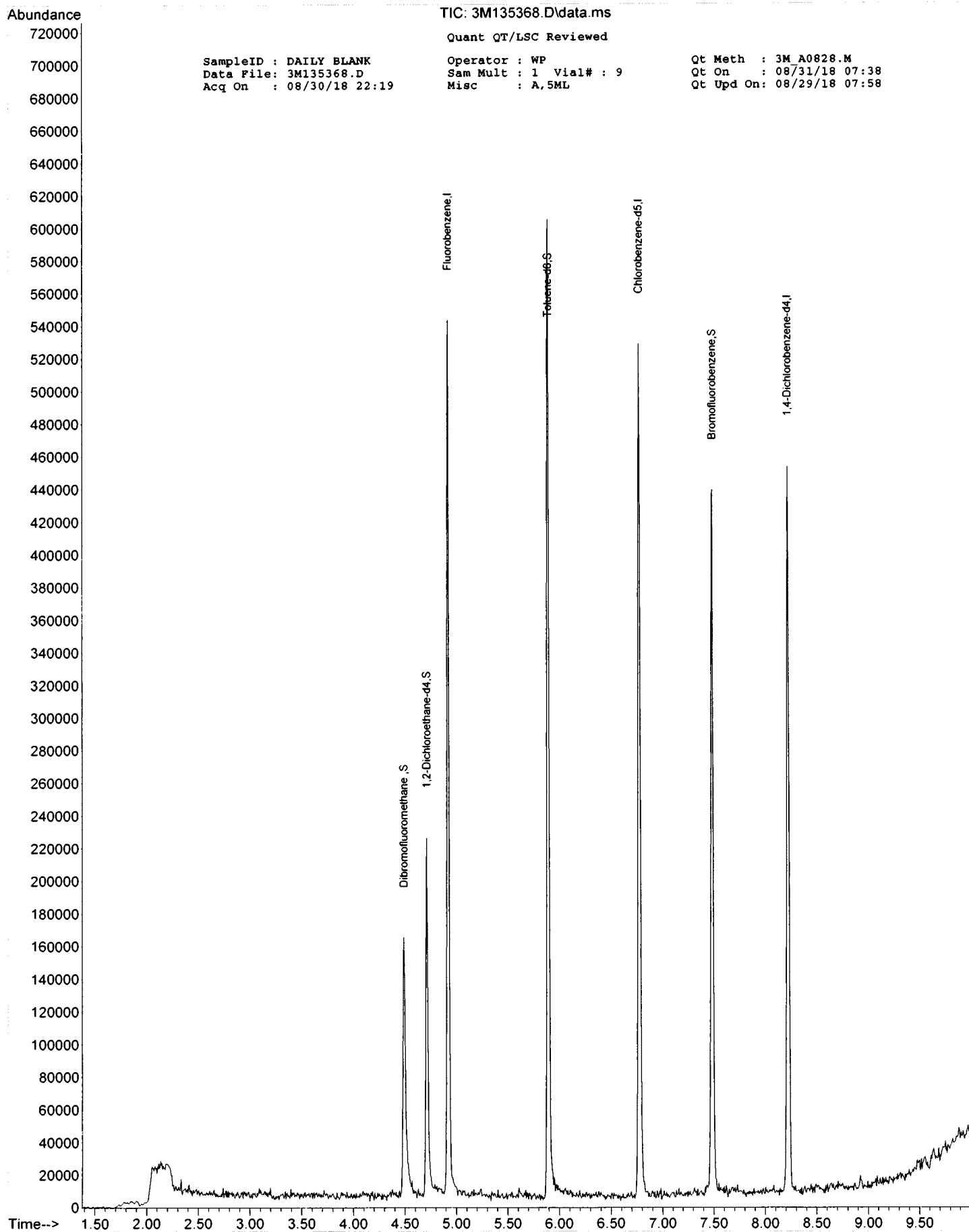
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Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	305396	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.772	117	240115	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.220	152	112552	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.489	111	79490	29.91	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.70%	
39) 1,2-Dichloroethane-d4	4.711	67	58097	31.95	ug/l	0.00
Spiked Amount	30.000		Recovery	=	106.50%	
66) Toluene-d8	5.895	98	293767	28.84	ug/l	0.00
Spiked Amount	30.000		Recovery	=	96.13%	
76) Bromofluorobenzene	7.487	174	124673	30.85	ug/l	0.00
Spiked Amount	30.000		Recovery	=	102.83%	
Target Compounds						Qvalue

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





Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M135455.D

Analysis Date: 08/31/18 23:03

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U

Worksheet #: 477955

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : DAILY BLANK
Data File: 3M135455.D
Acq On : 08/31/18 23:03

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A,5ML

Qt Meth : 3M_A0828.M
Qt On : 08/31/18 23:41
Qt Upd On: 08/29/18 07:58

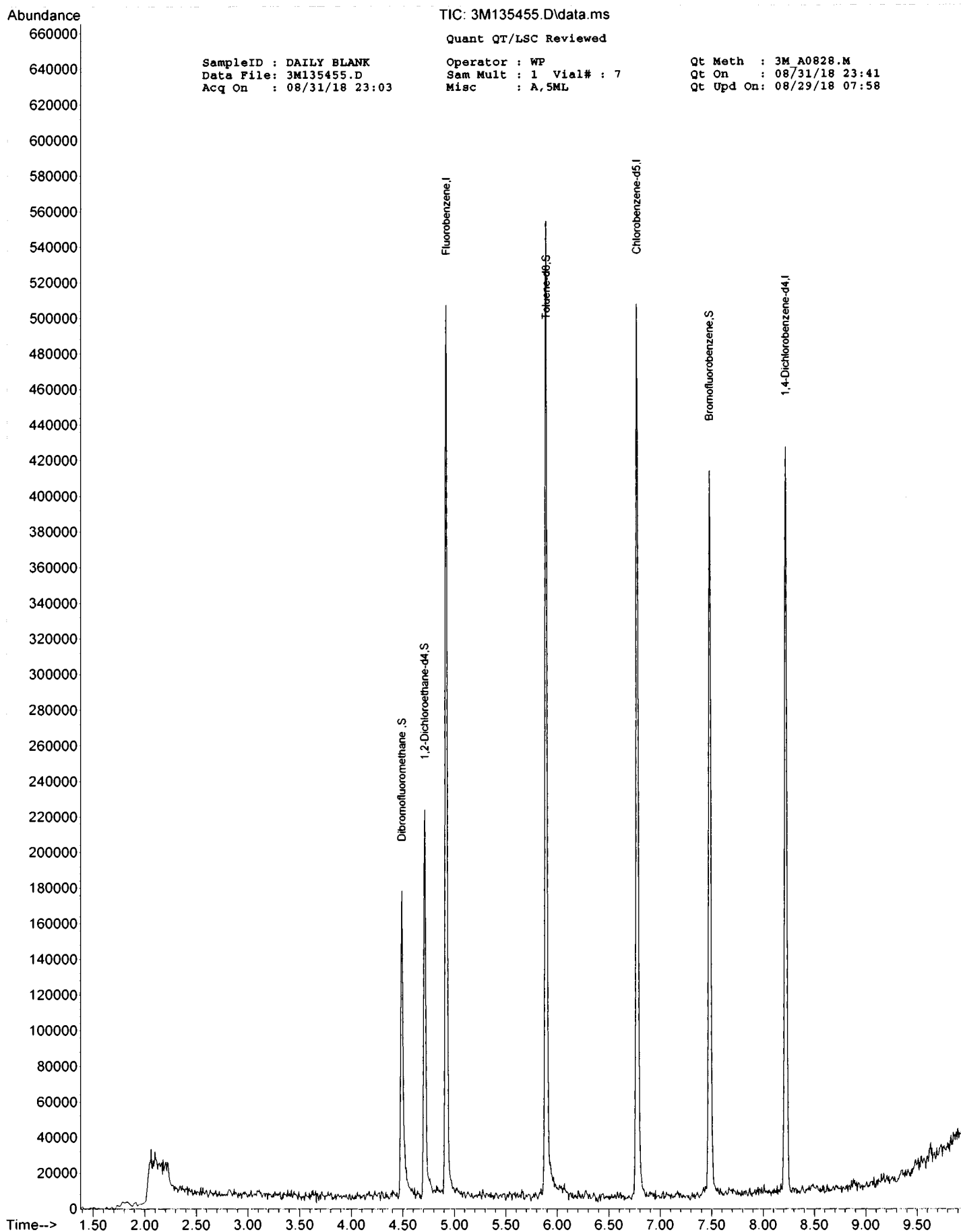
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Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.922	96	288415	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.773	117	228511	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.220	152	110066	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.490	111	77815	31.00	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.33%	
39) 1,2-Dichloroethane-d4	4.712	67	54226	31.57	ug/l	0.00
Spiked Amount 30.000			Recovery	=	105.23%	
66) Toluene-d8	5.896	98	275438	28.42	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.73%	
76) Bromofluorobenzene	7.481	174	110367	27.93	ug/l	0.00
Spiked Amount 30.000			Recovery	=	93.10%	
Target Compounds						Qvalue

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





Form3
Recovery Data Laboratory Limits
QC Batch: MBS72636

8082413 0179

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135267.D		MBS72636		8/29/2018 6:16:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	18.3092	0	20	92	50	150
Dichlorodifluoromethane	1	28.9006	0	20	145	50	150
Chloromethane	1	21.4477	0	20	107	50	150
Bromomethane	1	15.739	0	20	79	50	150
Vinyl Chloride	1	26.7047	0	20	134	50	150
Chloroethane	1	26.2349	0	20	131	50	150
Trichlorofluoromethane	1	23.9741	0	20	120	50	150
Ethyl ether	1	19.1734	0	20	96	50	150
Furan	1	21.038	0	20	105	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	27.2739	0	20	136	50	150
Methylene Chloride	1	21.2684	0	20	106	70	130
Acrolein	1	60.9139	0	100	61	50	150
Acrylonitrile	1	22.4996	0	20	112	50	150
Iodomethane	1	25.1056	0	20	126	50	150
Acetone	1	101.4382	0	100	101	50	150
Carbon Disulfide	1	23.3309	0	20	117	50	150
t-Butyl Alcohol	1	86.6265	0	100	87	50	150
n-Hexane	1	20.4591	0	20	102	70	130
Di-isopropyl-ether	1	22.7494	0	20	114	70	130
1,1-Dichloroethene	1	21.4132	0	20	107	70	130
Methyl Acetate	1	17.4728	0	20	87	50	150
Methyl-t-butyl ether	1	25.4583	0	20	127	70	130
1,1-Dichloroethane	1	20.2266	0	20	101	70	130
trans-1,2-Dichloroethene	1	23.5119	0	20	118	70	130
Ethyl-t-butyl ether	1	22.7358	0	20	114	70	130
cis-1,2-Dichloroethene	1	20.5131	0	20	103	70	130
Bromochloromethane	1	17.5893	0	20	88	70	130
2,2-Dichloropropane	1	7.7602	0	20	39*	70	130
Ethyl acetate	1	20.2866	0	20	101	50	150
1,4-Dioxane	1	805.5407	0	1000	81	50	150
1,1-Dichloropropene	1	22.5926	0	20	113	70	130
Chloroform	1	23.5007	0	20	118	70	130
Cyclohexane	1	22.4581	0	20	112	70	130
1,2-Dichloroethane	1	22.976	0	20	115	70	130
2-Butanone	1	19.8707	0	20	99	50	150
1,1,1-Trichloroethane	1	22.8007	0	20	114	70	130
Carbon Tetrachloride	1	22.9643	0	20	115	50	150
Vinyl Acetate	1	14.7517	0	20	74	50	150
Bromodichloromethane	1	21.9085	0	20	110	70	130
Methylcyclohexane	1	20.3504	0	20	102	70	130
Dibromomethane	1	23.6274	0	20	118	70	130
1,2-Dichloropropane	1	22.0092	0	20	110	70	130
Trichloroethene	1	31.124	0	20	156*	70	130
Benzene	1	23.6633	0	20	118	70	130
tert-Amyl methyl ether	1	20.5396	0	20	103	70	130
Iso-propylacetate	1	18.6876	0	20	93	70	130
Methyl methacrylate	1	15.4216	0	20	77	70	130
Dibromochloromethane	1	20.0998	0	20	100	70	130
2-Chloroethylvinylether	1	18.6085	0	20	93	70	130
cis-1,3-Dichloropropene	1	17.8531	0	20	89	70	130
trans-1,3-Dichloropropene	1	16.8093	0	20	84	70	130
Ethyl methacrylate	1	17.6706	0	20	88	70	130
1,1,2-Trichloroethane	1	20.5843	0	20	103	70	130
1,2-Dibromoethane	1	20.6489	0	20	103	70	130
1,3-Dichloropropane	1	21.6191	0	20	108	70	130
4-Methyl-2-Pentanone	1	18.9195	0	20	95	50	150
2-Hexanone	1	17.1429	0	20	86	50	150
Tetrachloroethene	1	25.0421	0	20	125	50	150
Toluene	1	21.8431	0	20	109	70	130
1,1,1,2-Tetrachloroethane	1	23.4198	0	20	117	70	130
Chlorobenzene	1	21.2563	0	20	106	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0180

QC Batch: MBS72636

n-Butyl acrylate	1	13.9546	0	20	70	70	130
n-Amyl acetate	1	16.6718	0	20	83	70	130
Bromoform	1	20.5286	0	20	103	70	130
Ethylbenzene	1	23.8	0	20	119	70	130
1,1,2,2-Tetrachloroethane	1	11.6769	0	20	58*	70	130
Styrene	1	22.9923	0	20	115	70	130
m&p-Xylenes	1	45.8979	0	40	115	70	130
o-Xylene	1	22.4773	0	20	112	70	130
trans-1,4-Dichloro-2-butene	1	11.5516	0	20	58	50	150
1,3-Dichlorobenzene	1	21.8356	0	20	109	70	130
1,4-Dichlorobenzene	1	20.4624	0	20	102	70	130
1,2-Dichlorobenzene	1	19.7245	0	20	99	70	130
Isopropylbenzene	1	21.7336	0	20	109	70	130
Cyclohexanone	1	79.5961	0	100	80	50	150
Camphene	1	19.4677	0	20	97	70	130
1,2,3-Trichloropropane	1	19.0067	0	20	95	70	130
2-Chlorotoluene	1	21.8292	0	20	109	70	130
p-Ethyltoluene	1	21.0048	0	20	105	70	130
4-Chlorotoluene	1	21.184	0	20	106	70	130
n-Propylbenzene	1	20.3748	0	20	102	70	130
Bromobenzene	1	20.2465	0	20	101	70	130
1,3,5-Trimethylbenzene	1	23.8559	0	20	119	70	130
Butyl methacrylate	1	20.1432	0	20	101	70	130
t-Butylbenzene	1	22.2009	0	20	111	70	130
1,2,4-Trimethylbenzene	1	20.9701	0	20	105	70	130
sec-Butylbenzene	1	20.4037	0	20	102	70	130
4-Isopropyltoluene	1	20.429	0	20	102	70	130
n-Butylbenzene	1	19.3431	0	20	97	70	130
p-Diethylbenzene	1	19.1645	0	20	96	70	130
1,2,4,5-Tetramethylbenzene	1	19.453	0	20	97	70	130
1,2-Dibromo-3-Chloropropane	1	19.3272	0	20	97	50	150
Camphor	1	145.9147	0	200	73	20	150
Hexachlorobutadiene	1	16.9502	0	20	85	50	150
1,2,4-Trichlorobenzene	1	18.4225	0	20	92	70	130
1,2,3-Trichlorobenzene	1	18.086	0	20	90	70	130
Naphthalene	1	17.9182	0	20	90	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

SampleID : MBS
Data File: 3M135267.D
Acq On : 08/29/18 18:16

Operator : WP
Sam Mult : 1 Vial# : 11
Misc : A,SML

Qt Meth : 3M_A08
Qt On : 08/29/18 19:02
Qt Upd On: 08/29/18 07:58

8082413 0181

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

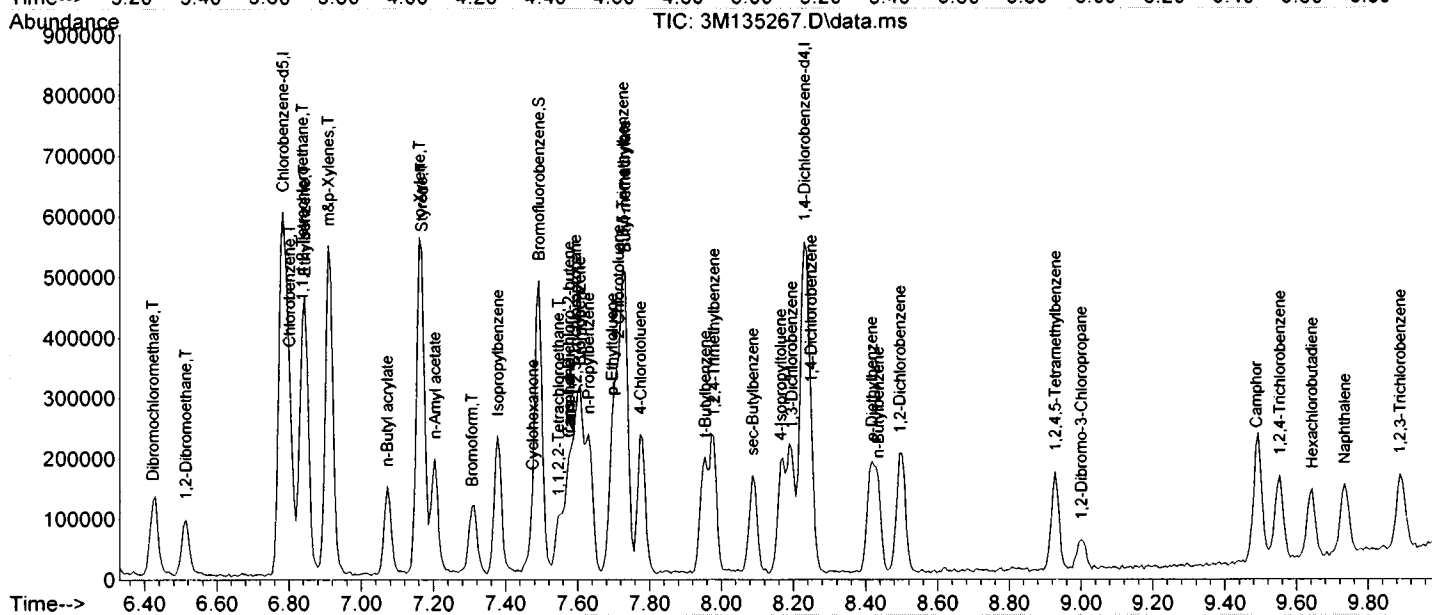
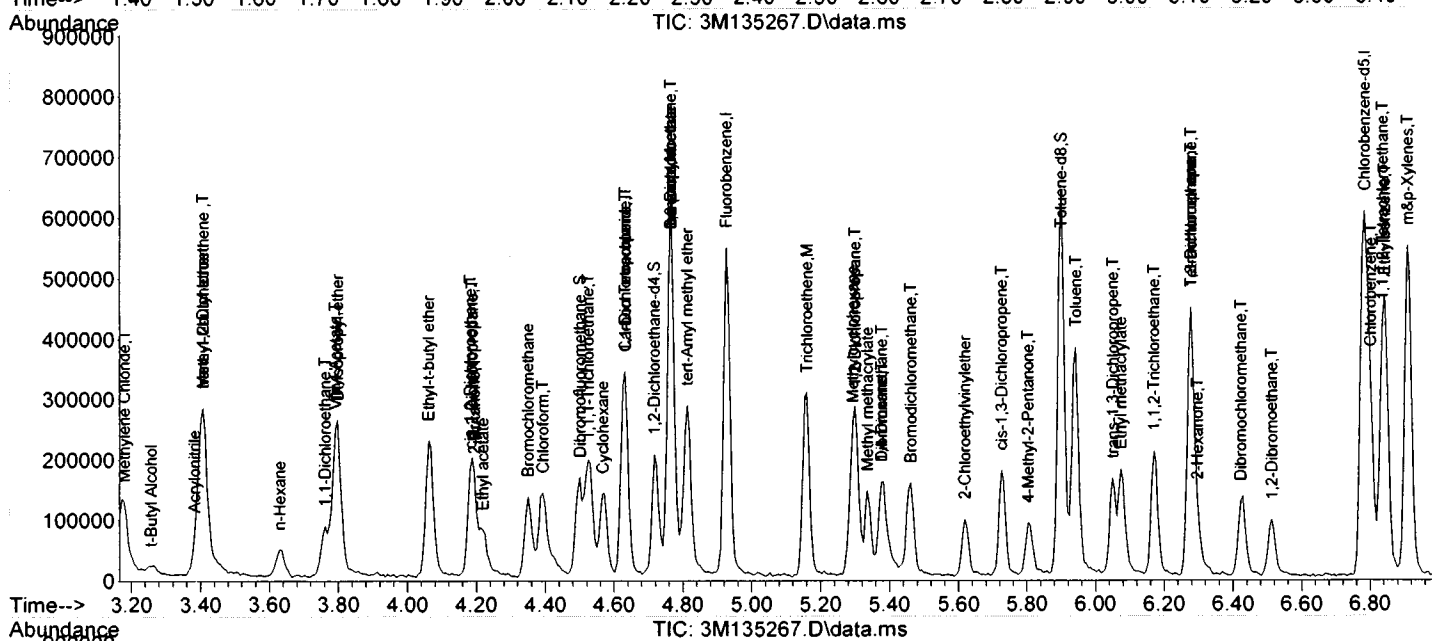
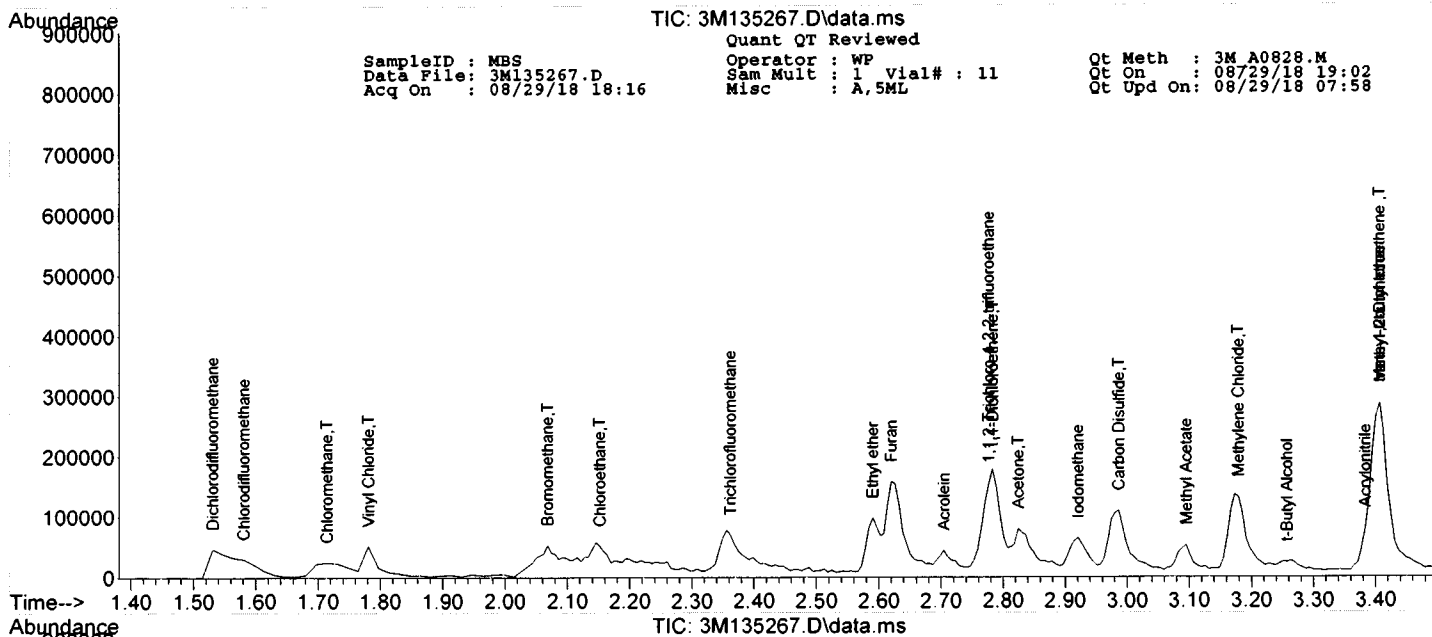
Internal Standards						
4) Fluorobenzene	4.927	96	300800	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.783	117	250358	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.231	152	121949	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.501	111	81347	31.07	ug/l	0.00
Spiked Amount 30.000			Recovery =	103.57%		
39) 1,2-Dichloroethane-d4	4.717	67	56145	31.35	ug/l	0.00
Spiked Amount 30.000			Recovery =	104.50%		
66) Toluene-d8	5.900	98	300361	28.28	ug/l	0.00
Spiked Amount 30.000			Recovery =	94.27%		
76) Bromofluorobenzene	7.492	174	128201	29.28	ug/l	0.00
Spiked Amount 30.000			Recovery =	97.60%		
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.581	51	66085	18.3092	ug/l	64
6) Dichlorodifluoromethane	1.531	85	57320	28.9006	ug/l	79
7) Chloromethane	1.714	50	61067	21.4477	ug/l	80
8) Bromomethane	2.068	94	14191	15.7390	ug/l	99
9) Vinyl Chloride	1.781	62	45558	26.7047	ug/l	99
10) Chloroethane	2.152	64	19427	26.2349	ug/l	91
11) Trichlorofluoromethane	2.362	101	64139	23.9741	ug/l	78
12) Ethyl ether	2.590	59	42320	19.1734	ug/l	85
13) Furan	2.620	39	112434	21.0380	ug/l	97
14) 1,1,2-Trichloro-1,2,2-...	2.777	101	28301	27.2739	ug/l	93
15) Methylene Chloride	3.179	84	52965	21.2684	ug/l	95
16) Acrolein	2.705	56	21506	60.9139	ug/l	78
17) Acrylonitrile	3.383	53	21507	22.4996	ug/l	98
18) Iodomethane	2.921	142	62614	25.1056	ug/l	88
19) Acetone	2.825	43	88917	101.4382	ug/l	85
20) Carbon Disulfide	2.987	76	147564	23.3309	ug/l	100
21) t-Butyl Alcohol	3.257	59	16437	86.6265	ug/l	78
22) n-Hexane	3.630	57	15867m	20.4591	ug/l	
23) Di-isopropyl-ether	3.798	45	166378	22.7494	ug/l	89
24) 1,1-Dichloroethene	2.783	61	70123	21.4132	ug/l	92
25) Methyl Acetate	3.095	43	52412	17.4728	ug/l	100
26) Methyl-t-butyl ether	3.407	73	114964	25.4583	ug/l	68
27) 1,1-Dichloroethane	3.762	63	85659	20.2266	ug/l	97
28) trans-1,2-Dichloroethene	3.407	96	48947	23.5119	ug/l	97
29) Ethyl-t-butyl ether	4.062	59	142005	22.7358	ug/l	99
30) cis-1,2-Dichloroethene	4.182	61	84931	20.5131	ug/l	78
31) Bromochloromethane	4.350	49	47641	17.5893	ug/l	86
32) 2,2-Dichloropropane	4.188	77	19327	7.7602	ug/l	86
33) Ethyl acetate	4.218	43	53881m	20.2866	ug/l	
34) 1,4-Dioxane	5.378	88	18334	805.5407	ug/l	98
35) 1,1-Dichloropropene	4.633	75	64349	22.5926	ug/l	97
36) Chloroform	4.393	83	97255	23.5007	ug/l	87
38) Cyclohexane	4.567	56	41522	22.4581	ug/l	91
40) 1,2-Dichloroethane	4.765	62	83861	22.9760	ug/l	97
41) 2-Butanone	4.194	43	22590m	19.8707	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	74691	22.8007	ug/l	86
43) Carbon Tetrachloride	4.633	117	59097	22.9643	ug/l	94
44) Vinyl Acetate	3.792	43	82006	14.7517	ug/l	100
45) Bromodichloromethane	5.462	83	71537	21.9085	ug/l	95
46) Methylcyclohexane	5.294	83	26831	20.3504	ug/l	96
47) Dibromomethane	5.378	174	54070	23.6274	ug/l	88
48) 1,2-Dichloropropane	5.300	63	54634	22.0092	ug/l	97
49) Trichloroethene	5.161	130	72964	31.1240	ug/l	86
50) Benzene	4.765	78	194382	23.6633	ug/l	100
51) tert-Amyl methyl ether	4.813	73	118981	20.5396	ug/l	80
53) Iso-propylacetate	4.765	43	98656	18.6876	ug/l	96
54) Methyl methacrylate	5.336	41	47477	15.4216	ug/l	90
55) Dibromochloromethane	6.423	129	53881	20.0998	ug/l	97
56) 2-Chloroethylvinylether	5.618	63	27194	18.6085	ug/l	88
57) cis-1,3-Dichloropropene	5.726	75	68046	17.8531	ug/l	93
58) trans-1,3-Dichloropropene	6.050	75	60804	16.8093	ug/l	98
59) Ethyl methacrylate	6.074	41	49469	17.6706	ug/l	81
60) 1,1,2-Trichloroethane	6.171	97	48685	20.5843	ug/l	82
61) 1,2-Dibromoethane	6.513	107	49036	20.6489	ug/l	95
62) 1,3-Dichloropropane	6.279	76	88855	21.6191	ug/l	99
63) 4-Methyl-2-Pentanone	5.804	43	51393	18.9195	ug/l	93
64) 2-Hexanone	6.297	43	33562	17.1429	ug/l	92
65) Tetrachloroethene	6.279	164	45826	25.0421	ug/l	94
67) Toluene	5.942	92	118547	21.8431	ug/l	93

SampleID : MBS Operator : WP Qt Meth : 3M_A0828.M
 Data File: 3M135267.D Sam Mult : 1 Vial# : 11 Qt On : 08/29/18 19:02
 Acq On : 08/29/18 18:16 Misc : A,SML Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-2918\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.837	133	51700	23.4198	ug/l	75
69)	Chlorobenzene	6.801	112	124244	21.2563	ug/l	91
71)	n-Butyl acrylate	7.072	55	75963	13.9546	ug/l	98
72)	n-Amyl acetate	7.204	43	79037	16.6718	ug/l	81
73)	Bromoform	7.306	173	47543	20.5286	ug/l	96
74)	Ethylbenzene	6.843	106	37992	23.8000	ug/l	67
75)	1,1,2,2-Tetrachloroethane	7.546	83	36948	11.6769	ug/l	81
77)	Styrene	7.168	104	119343	22.9923	ug/l	90
78)	m&p-Xylenes	6.909	106	118633	45.8979	ug/l	90
79)	o-Xylene	7.162	106	64729	22.4773	ug/l	85
80)	trans-1,4-Dichloro-2-b...	7.576	53	13435	11.5516	ug/l	73
81)	1,3-Dichlorobenzene	8.195	146	84897	21.8356	ug/l	86
82)	1,4-Dichlorobenzene	8.249	146	83684	20.4624	ug/l	93
83)	1,2-Dichlorobenzene	8.495	146	80328	19.7245	ug/l	87
84)	Isopropylbenzene	7.378	105	120898	21.7336	ug/l	94
85)	Cyclohexanone	7.474	55	10147	79.5961	ug/l	87
86)	Camphene	7.576	93	30321	19.4677	ug/l	99
87)	1,2,3-Trichloropropane	7.594	75	68929	19.0067	ug/l	99
88)	2-Chlorotoluene	7.714	91	78688	21.8292	ug/l	93
89)	p-Ethyltoluene	7.696	105	126168	21.0048	ug/l	83
90)	4-Chlorotoluene	7.774	91	80156	21.1840	ug/l	87
91)	n-Propylbenzene	7.630	91	130809	20.3748	ug/l	90
92)	Bromobenzene	7.606	77	117501	20.2465	ug/l	93
93)	1,3,5-Trimethylbenzene	7.726	105	97999	23.8559	ug/l	90
94)	Butyl methacrylate	7.732	41	74458	20.1432	ug/l	85
95)	t-Butylbenzene	7.955	119	85948	22.2009	ug/l	82
96)	1,2,4-Trimethylbenzene	7.979	105	105753	20.9701	ug/l	86
97)	sec-Butylbenzene	8.087	105	95279	20.4037	ug/l	96
98)	4-Isopropyltoluene	8.165	119	81188	20.4290	ug/l	91
99)	n-Butylbenzene	8.435	91	84840	19.3431	ug/l	93
100)	p-Diethylbenzene	8.417	119	44633m	19.1645	ug/l	
101)	1,2,4,5-Tetramethylben...	8.928	119	76503	19.4530	ug/l	86
102)	1,2-Dibromo-3-Chloropr...	9.000	157	13982	19.3272	ug/l	46
103)	Camphor	9.486	95	45018	145.9147	ug/l	95
104)	Hexachlorobutadiene	9.643	225	27225	16.9502	ug/l	95
105)	1,2,4-Trichlorobenzene	9.553	180	44419	18.4225	ug/l	95
106)	1,2,3-Trichlorobenzene	9.889	180	43884	18.0860	ug/l	93
107)	Naphthalene	9.733	128	89146	17.9182	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS72643

8082413 0184

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135370.D		MBS72643		8/30/2018 10:53:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.2891	0	20	81	50	150
Dichlorodifluoromethane	1	21.731	0	20	109	50	150
Chloromethane	1	19.8606	0	20	99	50	150
Bromomethane	1	22.4493	0	20	112	50	150
Vinyl Chloride	1	22.0122	0	20	110	50	150
Chloroethane	1	24.6427	0	20	123	50	150
Trichlorofluoromethane	1	22.704	0	20	114	50	150
Ethyl ether	1	18.5466	0	20	93	50	150
Furan	1	19.9847	0	20	100	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	25.4397	0	20	127	50	150
Methylene Chloride	1	19.8645	0	20	99	70	130
Acrolein	1	107.1988	0	100	107	50	150
Acrylonitrile	1	19.414	0	20	97	50	150
Iodomethane	1	23.0757	0	20	115	50	150
Acetone	1	100.1238	0	100	100	50	150
Carbon Disulfide	1	21.257	0	20	106	50	150
t-Butyl Alcohol	1	87.3015	0	100	87	50	150
n-Hexane	1	28.184	0	20	141 *	70	130
Di-isopropyl-ether	1	21.1031	0	20	106	70	130
1,1-Dichloroethene	1	19.7253	0	20	99	70	130
Methyl Acetate	1	19.454	0	20	97	50	150
Methyl-t-butyl ether	1	24.1333	0	20	121	70	130
1,1-Dichloroethane	1	18.768	0	20	94	70	130
trans-1,2-Dichloroethene	1	20.8842	0	20	104	70	130
Ethyl-t-butyl ether	1	21.3788	0	20	107	70	130
cis-1,2-Dichloroethene	1	21.3734	0	20	107	70	130
Bromochloromethane	1	21.0527	0	20	105	70	130
2,2-Dichloropropane	1	27.1187	0	20	136 *	70	130
Ethyl acetate	1	22.013	0	20	110	50	150
1,4-Dioxane	1	1014.247	0	1000	101	50	150
1,1-Dichloropropene	1	21.4552	0	20	107	70	130
Chloroform	1	21.1959	0	20	106	70	130
Cyclohexane	1	21.1813	0	20	106	70	130
1,2-Dichloroethane	1	21.3283	0	20	107	70	130
2-Butanone	1	19.3291	0	20	97	50	150
1,1,1-Trichloroethane	1	21.3249	0	20	107	70	130
Carbon Tetrachloride	1	22.2804	0	20	111	50	150
Vinyl Acetate	1	20.3151	0	20	102	50	150
Bromodichloromethane	1	20.8026	0	20	104	70	130
Methylcyclohexane	1	21.4577	0	20	107	70	130
Dibromomethane	1	22.0458	0	20	110	70	130
1,2-Dichloropropane	1	18.6286	0	20	93	70	130
Trichloroethene	1	22.9323	0	20	115	70	130
Benzene	1	22.9893	0	20	115	70	130
tert-Amyl methyl ether	1	21.6371	0	20	108	70	130
Iso-propylacetate	1	19.7438	0	20	99	70	130
Methyl methacrylate	1	17.9535	0	20	90	70	130
Dibromochloromethane	1	19.5349	0	20	98	70	130
2-Chloroethylvinylether	1	17.707	0	20	89	70	130
cis-1,3-Dichloropropene	1	19.8713	0	20	99	70	130
trans-1,3-Dichloropropene	1	19.0546	0	20	95	70	130
Ethyl methacrylate	1	16.3071	0	20	82	70	130
1,1,2-Trichloroethane	1	18.5602	0	20	93	70	130
1,2-Dibromoethane	1	18.7498	0	20	94	70	130
1,3-Dichloropropane	1	19.4105	0	20	97	70	130
4-Methyl-2-Pentanone	1	15.868	0	20	79	50	150
2-Hexanone	1	16.0015	0	20	80	50	150
Tetrachloroethene	1	23.178	0	20	116	50	150
Toluene	1	20.7388	0	20	104	70	130
1,1,1,2-Tetrachloroethane	1	20.685	0	20	103	70	130
Chlorobenzene	1	20.3294	0	20	102	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0185

QC Batch: MBS72643

n-Butyl acrylate	1	12.3053	0	20	62 *	70	130
n-Amyl acetate	1	17.7087	0	20	89	70	130
Bromoform	1	18.4596	0	20	92	70	130
Ethylbenzene	1	22.5858	0	20	113	70	130
1,1,2,2-Tetrachloroethane	1	16.7484	0	20	84	70	130
Styrene	1	21.1297	0	20	106	70	130
m&p-Xylenes	1	41.6258	0	40	104	70	130
o-Xylene	1	20.0626	0	20	100	70	130
trans-1,4-Dichloro-2-butene	1	17.2007	0	20	86	50	150
1,3-Dichlorobenzene	1	20.263	0	20	101	70	130
1,4-Dichlorobenzene	1	20.3497	0	20	102	70	130
1,2-Dichlorobenzene	1	19.6706	0	20	98	70	130
Isopropylbenzene	1	20.1742	0	20	101	70	130
Cyclohexanone	1	76.4585	0	100	76	50	150
Camphene	1	18.3086	0	20	92	70	130
1,2,3-Trichloropropane	1	18.3389	0	20	92	70	130
2-Chlorotoluene	1	20.0208	0	20	100	70	130
p-Ethyltoluene	1	18.892	0	20	94	70	130
4-Chlorotoluene	1	20.4584	0	20	102	70	130
n-Propylbenzene	1	20.3368	0	20	102	70	130
Bromobenzene	1	18.6559	0	20	93	70	130
1,3,5-Trimethylbenzene	1	24.9878	0	20	125	70	130
Butyl methacrylate	1	19.0288	0	20	95	70	130
t-Butylbenzene	1	21.1915	0	20	106	70	130
1,2,4-Trimethylbenzene	1	20.4494	0	20	102	70	130
sec-Butylbenzene	1	18.9589	0	20	95	70	130
4-Isopropyltoluene	1	20.5187	0	20	103	70	130
n-Butylbenzene	1	20.3908	0	20	102	70	130
p-Diethylbenzene	1	20.8147	0	20	104	70	130
1,2,4,5-Tetramethylbenzene	1	18.2283	0	20	91	70	130
1,2-Dibromo-3-Chloropropane	1	18.8495	0	20	94	50	150
Camphor	1	135.3244	0	200	68	20	150
Hexachlorobutadiene	1	17.1933	0	20	86	50	150
1,2,4-Trichlorobenzene	1	19.0198	0	20	95	70	130
1,2,3-Trichlorobenzene	1	17.1551	0	20	86	70	130
Naphthalene	1	14.9618	0	20	75	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

SampleID : MBS
Data File : 3M135370.D
Acq On : 08/30/18 22:53

Operator : WP
Sam Mult : 1 Vial# : 16
Misc : A,5ML!32

Qt Meth : 3M A08
Qt On : 08/30/18 23:21
Qt Upd On: 08/29/18 07:58

8082413 0186

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

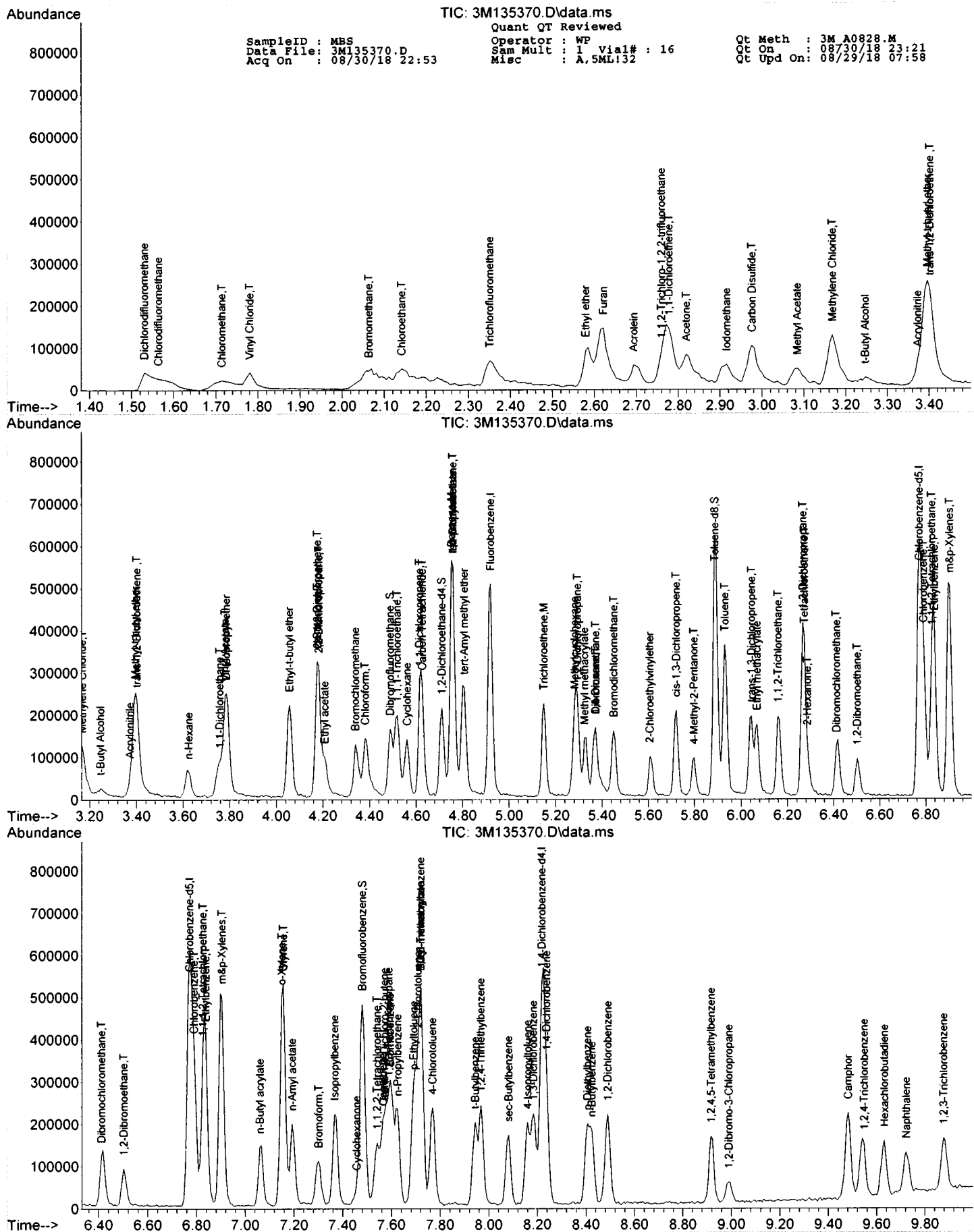
Internal Standards						
4) Fluorobenzene	4.922	96	300290	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.772	117	251746	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.220	152	126381	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.490	111	80487	30.80	ug/l	0.00
Spiked Amount 30.000			Recovery =	102.67%		
39) 1,2-Dichloroethane-d4	4.712	67	58756	32.86	ug/l	0.00
Spiked Amount 30.000			Recovery =	109.53%		
66) Toluene-d8	5.889	98	301102	28.20	ug/l	0.00
Spiked Amount 30.000			Recovery =	94.00%		
76) Bromofluorobenzene	7.481	174	134742	29.70	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.00%		
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.564	51	58694	16.2891	ug/l	82
6) Dichlorodifluoromethane	1.530	85	43027	21.7310	ug/l	89
7) Chloromethane	1.714	50	56452	19.8606	ug/l	81
8) Bromomethane	2.063	94	20207	22.4493	ug/l	94
9) Vinyl Chloride	1.780	62	37489	22.0122	ug/l	100
10) Chloroethane	2.141	64	18217	24.6427	ug/l	91
11) Trichlorofluoromethane	2.351	101	60638	22.7040	ug/l	82
12) Ethyl ether	2.579	59	40867	18.5466	ug/l	82
13) Furan	2.622	39	106624	19.9847	ug/l	95
14) 1,1,2-Trichloro-1,2,2-...	2.760	101	26353	25.4397	ug/l	95
15) Methylene Chloride	3.168	84	49385	19.8645	ug/l	97
16) Acrolein	2.694	56	37783	107.1988	ug/l	90
17) Acrylonitrile	3.372	53	18526	19.4140	ug/l	88
18) Iodomethane	2.916	142	57454	23.0757	ug/l	99
19) Acetone	2.820	43	87616	100.1238	ug/l	91
20) Carbon Disulfide	2.976	76	134219	21.2570	ug/l	100
21) t-Butyl Alcohol	3.246	59	16537	87.3015	ug/l	95
22) n-Hexane	3.625	57	21821	28.1840	ug/l	74
23) Di-isopropyl-ether	3.787	45	154076	21.1031	ug/l	96
24) 1,1-Dichloroethene	2.778	61	64486	19.7253	ug/l	94
25) Methyl Acetate	3.084	43	58256	19.4540	ug/l	100
26) Methyl-t-butyl ether	3.396	73	108796	24.1333	ug/l	69
27) 1,1-Dichloroethane	3.757	63	79347	18.7680	ug/l	82
28) trans-1,2-Dichloroethene	3.402	96	43403	20.8842	ug/l	91
29) Ethyl-t-butyl ether	4.057	59	133303	21.3788	ug/l	98
30) cis-1,2-Dichloroethene	4.177	61	88343	21.3734	ug/l	69
31) Bromochloromethane	4.340	49	56925	21.0527	ug/l	83
32) 2,2-Dichloropropane	4.183	77	67425	27.1187	ug/l	90
33) Ethyl acetate	4.207	43	58367m	22.0130	ug/l	
34) 1,4-Dioxane	5.373	88	23045	1014.2474	ug/l	91
35) 1,1-Dichloropropene	4.616	75	61006	21.4552	ug/l	89
36) Chloroform	4.382	83	87568	21.1959	ug/l	93
38) Cyclohexane	4.562	56	39095	21.1813	ug/l	90
40) 1,2-Dichloroethane	4.760	62	77715	21.3283	ug/l	97
41) 2-Butanone	4.177	43	21937m	19.3291	ug/l	
42) 1,1,1-Trichloroethane	4.520	97	69738	21.3249	ug/l	98
43) Carbon Tetrachloride	4.628	117	57240	22.2804	ug/l	87
44) Vinyl Acetate	3.781	43	112742	20.3151	ug/l	100
45) Bromodichloromethane	5.451	83	67811	20.8026	ug/l	93
46) Methylcyclohexane	5.283	83	28243	21.4577	ug/l	95
47) Dibromomethane	5.373	174	50365	22.0458	ug/l	93
48) 1,2-Dichloropropane	5.295	63	46164	18.6286	ug/l	94
49) Trichloroethene	5.150	130	53669	22.9323	ug/l	83
50) Benzene	4.754	78	188525	22.9893	ug/l	100
51) tert-Amyl methyl ether	4.808	73	125126	21.6371	ug/l	78
53) Iso-propylacetate	4.760	43	104810	19.7438	ug/l	97
54) Methyl methacrylate	5.325	41	55578	17.9535	ug/l	92
55) Dibromochloromethane	6.412	129	52657	19.5349	ug/l	94
56) 2-Chloroethylvinylether	5.607	63	26020	17.7070	ug/l	82
57) cis-1,3-Dichloropropene	5.721	75	76158	19.8713	ug/l	86
58) trans-1,3-Dichloropropene	6.046	75	69308	19.0546	ug/l	97
59) Ethyl methacrylate	6.070	41	45905	16.3071	ug/l	76
60) 1,1,2-Trichloroethane	6.160	97	44141	18.5602	ug/l	92
61) 1,2-Dibromoethane	6.502	107	44773	18.7498	ug/l	86
62) 1,3-Dichloropropane	6.268	76	80220	19.4105	ug/l	94
63) 4-Methyl-2-Pentanone	5.799	43	43343	15.8680	ug/l	95
64) 2-Hexanone	6.286	43	31501	16.0015	ug/l	90
65) Tetrachloroethene	6.274	164	42650	23.1780	ug/l	96
67) Toluene	5.931	92	113178	20.7388	ug/l	99

SampleID : MBS Operator : WP Qt Meth : 3M_A0828.M
 Data File: 3M135370.D Sam Mult : 1 Vial# : 16 Qt On : 08/30/18 23:21
 Acq On : 08/30/18 22:53 Misc : A,SML!32 Qt Upd On: 08/29/18 07:58

Data Path : G:\GCMSData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.826	133	45916	20.6850	ug/l	76
69) Chlorobenzene	6.790	112	119485	20.3294	ug/l	100
71) n-Butyl acrylate	7.061	55	69417	12.3053	ug/l	93
72) n-Amyl acetate	7.193	43	87004	17.7087	ug/l	85
73) Bromoform	7.301	173	44305	18.4596	ug/l	98
74) Ethylbenzene	6.838	106	37364	22.5858	ug/l	76
75) 1,1,2,2-Tetrachloroethane	7.541	83	54921	16.7484	ug/l	97
77) Styrene	7.157	104	113661	21.1297	ug/l	93
78) m&p-Xylenes	6.905	106	111501	41.6258	ug/l	86
79) o-Xylene	7.151	106	59875	20.0626	ug/l	60
80) trans-1,4-Dichloro-2-b...	7.571	53	20726	17.2007	ug/l	68
81) 1,3-Dichlorobenzene	8.184	146	81646	20.2630	ug/l	89
82) 1,4-Dichlorobenzene	8.238	146	86248	20.3497	ug/l	91
83) 1,2-Dichlorobenzene	8.490	146	83020	19.6706	ug/l	86
84) Isopropylbenzene	7.367	105	116302	20.1742	ug/l	94
85) Cyclohexanone	7.457	55	10097	76.4585	ug/l	98
86) Camphene	7.565	93	29552	18.3086	ug/l	99
87) 1,2,3-Trichloropropane	7.589	75	68924	18.3389	ug/l	98
88) 2-Chlorotoluene	7.709	91	74792	20.0208	ug/l	94
89) p-Ethyltoluene	7.691	105	117601	18.8920	ug/l	83
90) 4-Chlorotoluene	7.770	91	80224	20.4584	ug/l	93
91) n-Propylbenzene	7.625	91	135310	20.3368	ug/l	93
92) Bromobenzene	7.595	77	112205	18.6559	ug/l	94
93) 1,3,5-Trimethylbenzene	7.721	105	106379	24.9878	ug/l	87
94) Butyl methacrylate	7.721	41	72895	19.0288	ug/l	80
95) t-Butylbenzene	7.944	119	85022	21.1915	ug/l	84
96) 1,2,4-Trimethylbenzene	7.968	105	106875	20.4494	ug/l	86
97) sec-Butylbenzene	8.082	105	91750	18.9589	ug/l	91
98) 4-Isopropyltoluene	8.160	119	84508	20.5187	ug/l	89
99) n-Butylbenzene	8.424	91	92686	20.3908	ug/l	89
100) p-Diethylbenzene	8.406	119	50238	20.8147	ug/l	87
101) 1,2,4,5-Tetramethylben...	8.917	119	74292	18.2283	ug/l	85
102) 1,2-Dibromo-3-Chloropr...	8.989	157	14132	18.8495	ug/l	58
103) Camphor	9.482	95	43274	135.3244	ug/l	94
104) Hexachlorobutadiene	9.632	225	28619	17.1933	ug/l	91
105) 1,2,4-Trichlorobenzene	9.548	180	47526	19.0198	ug/l	95
106) 1,2,3-Trichlorobenzene	9.878	180	43138	17.1551	ug/l	95
107) Naphthalene	9.722	128	77143	14.9618	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0189

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135458.D		MBS72659		9/1/2018 12:01:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	13.5522	0	20	68	50	150
Dichlorodifluoromethane	1	15.7229	0	20	79	50	150
Chloromethane	1	16.5808	0	20	83	50	150
Bromomethane	1	21.3812	0	20	107	50	150
Vinyl Chloride	1	17.8246	0	20	89	50	150
Chloroethane	1	19.0299	0	20	95	50	150
Trichlorofluoromethane	1	14.8251	0	20	74	50	150
Ethyl ether	1	14.4018	0	20	72	50	150
Furan	1	15.6938	0	20	78	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.321	0	20	102	50	150
Methylene Chloride	1	16.4439	0	20	82	70	130
Acrolein	1	82.9241	0	100	83	50	150
Acrylonitrile	1	17.4037	0	20	87	50	150
Iodomethane	1	15.8213	0	20	79	50	150
Acetone	1	79.1022	0	100	79	50	150
Carbon Disulfide	1	18.083	0	20	90	50	150
t-Butyl Alcohol	1	71.3527	0	100	71	50	150
n-Hexane	1	22.4098	0	20	112	70	130
Di-isopropyl-ether	1	17.2812	0	20	86	70	130
1,1-Dichloroethene	1	16.9479	0	20	85	70	130
Methyl Acetate	1	15.1928	0	20	76	50	150
Methyl-t-butyl ether	1	18.8047	0	20	94	70	130
1,1-Dichloroethane	1	16.0836	0	20	80	70	130
trans-1,2-Dichloroethene	1	17.7826	0	20	89	70	130
Ethyl-t-butyl ether	1	17.1442	0	20	86	70	130
cis-1,2-Dichloroethene	1	17.7965	0	20	89	70	130
Bromochloromethane	1	14.664	0	20	73	70	130
2,2-Dichloropropane	1	21.031	0	20	105	70	130
Ethyl acetate	1	16.6722	0	20	83	50	150
1,4-Dioxane	1	726.1182	0	1000	73	50	150
1,1-Dichloropropene	1	17.0688	0	20	85	70	130
Chloroform	1	17.741	0	20	89	70	130
Cyclohexane	1	15.5628	0	20	78	70	130
1,2-Dichloroethane	1	17.0683	0	20	85	70	130
2-Butanone	1	38.3828	0	20	192*	50	150
1,1,1-Trichloroethane	1	16.7075	0	20	84	70	130
Carbon Tetrachloride	1	17.4833	0	20	87	50	150
Vinyl Acetate	1	16.5135	0	20	83	50	150
Bromodichloromethane	1	16.8028	0	20	84	70	130
Methylcyclohexane	1	17.7416	0	20	89	70	130
Dibromomethane	1	18.3867	0	20	92	70	130
1,2-Dichloropropane	1	16.89	0	20	84	70	130
Trichloroethene	1	19.3501	0	20	97	70	130
Benzene	1	17.6849	0	20	88	70	130
tert-Amyl methyl ether	1	16.6789	0	20	83	70	130
Iso-propylacetate	1	13.7571	0	20	69*	70	130
Methyl methacrylate	1	14.4779	0	20	72	70	130
Dibromochloromethane	1	16.1792	0	20	81	70	130
2-Chloroethylvinylether	1	14.0243	0	20	70	70	130
cis-1,3-Dichloropropene	1	16.5676	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.4153	0	20	82	70	130
Ethyl methacrylate	1	15.0673	0	20	75	70	130
1,1,2-Trichloroethane	1	15.2181	0	20	76	70	130
1,2-Dibromoethane	1	16.6184	0	20	83	70	130
1,3-Dichloropropane	1	15.7669	0	20	79	70	130
4-Methyl-2-Pentanone	1	13.8061	0	20	69	50	150
2-Hexanone	1	14.0364	0	20	70	50	150
Tetrachloroethene	1	19.2248	0	20	96	50	150
Toluene	1	16.7201	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	17.0267	0	20	85	70	130
Chlorobenzene	1	16.858	0	20	84	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0190

QC Batch: MBS72659

n-Butyl acrylate	1	10.7308	0	20	54 *	70	130
n-Amyl acetate	1	14.1228	0	20	71	70	130
Bromoform	1	12.5739	0	20	63 *	70	130
Ethylbenzene	1	17.192	0	20	86	70	130
1,1,2,2-Tetrachloroethane	1	13.396	0	20	67 *	70	130
Styrene	1	17.3045	0	20	87	70	130
m&p-Xylenes	1	36.524	0	40	91	70	130
o-Xylene	1	17.3349	0	20	87	70	130
trans-1,4-Dichloro-2-butene	1	10.5561	0	20	53	50	150
1,3-Dichlorobenzene	1	16.6394	0	20	83	70	130
1,4-Dichlorobenzene	1	16.9343	0	20	85	70	130
1,2-Dichlorobenzene	1	15.4668	0	20	77	70	130
Isopropylbenzene	1	17.7117	0	20	89	70	130
Cyclohexanone	1	74.9592	0	100	75	50	150
Camphene	1	14.6832	0	20	73	70	130
1,2,3-Trichloropropane	1	13.4392	0	20	67 *	70	130
2-Chlorotoluene	1	16.8867	0	20	84	70	130
p-Ethyltoluene	1	16.6847	0	20	83	70	130
4-Chlorotoluene	1	16.963	0	20	85	70	130
n-Propylbenzene	1	16.4247	0	20	82	70	130
Bromobenzene	1	15.2878	0	20	76	70	130
1,3,5-Trimethylbenzene	1	19.0106	0	20	95	70	130
Butyl methacrylate	1	15.2759	0	20	76	70	130
t-Butylbenzene	1	17.7429	0	20	89	70	130
1,2,4-Trimethylbenzene	1	17.7331	0	20	89	70	130
sec-Butylbenzene	1	16.9616	0	20	85	70	130
4-Isopropyltoluene	1	17.2215	0	20	86	70	130
n-Butylbenzene	1	17.2489	0	20	86	70	130
p-Diethylbenzene	1	17.49	0	20	87	70	130
1,2,4,5-Tetramethylbenzene	1	19.9282	0	20	100	70	130
1,2-Dibromo-3-Chloropropane	1	13.8936	0	20	69	50	150
Camphor	1	99.5647	0	200	50	20	150
Hexachlorobutadiene	1	14.2084	0	20	71	50	150
1,2,4-Trichlorobenzene	1	15.3714	0	20	77	70	130
1,2,3-Trichlorobenzene	1	13.9124	0	20	70	70	130
Naphthalene	1	14.8858	0	20	74	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

SampleID : MBS
Data File: 3M135458.D
Acq On : 09/ 1/18 00:01

Operator : WP
Sam Mult: 1 Vial# : 10
Misc : A,5ML/2

Qt Meth : 3M A588-M
Qt On : 09/04/18 15:33
Qt Upd On: 08/29/18 07:58
8082413 0191

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

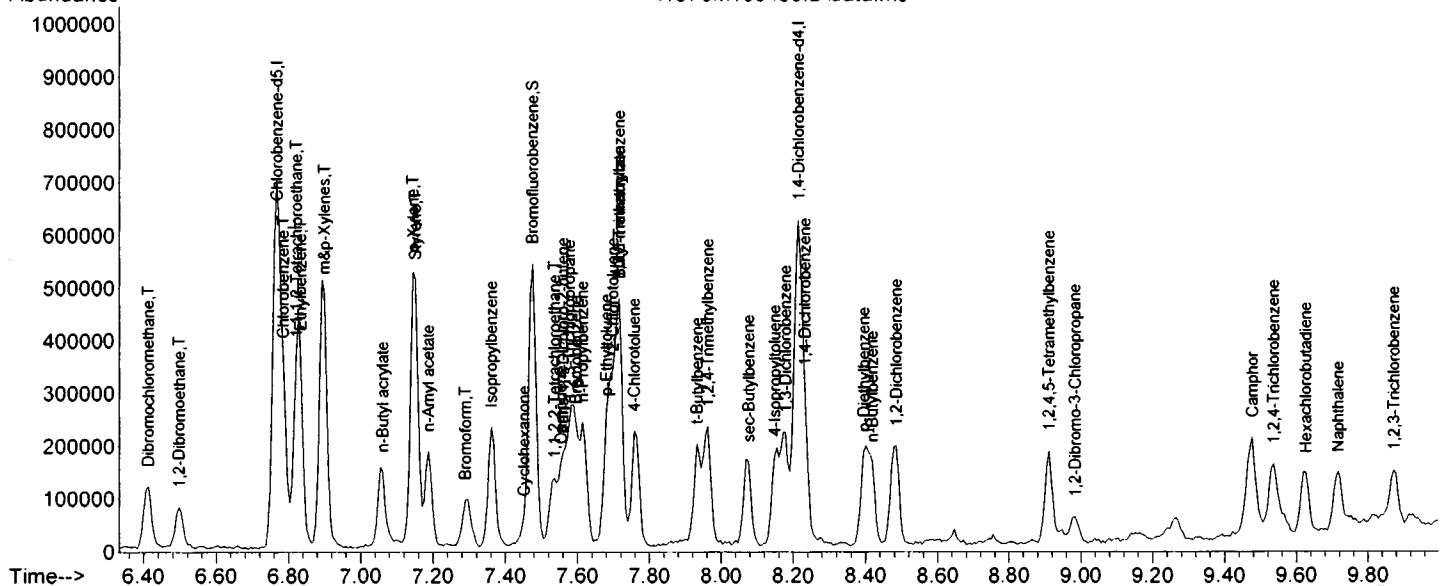
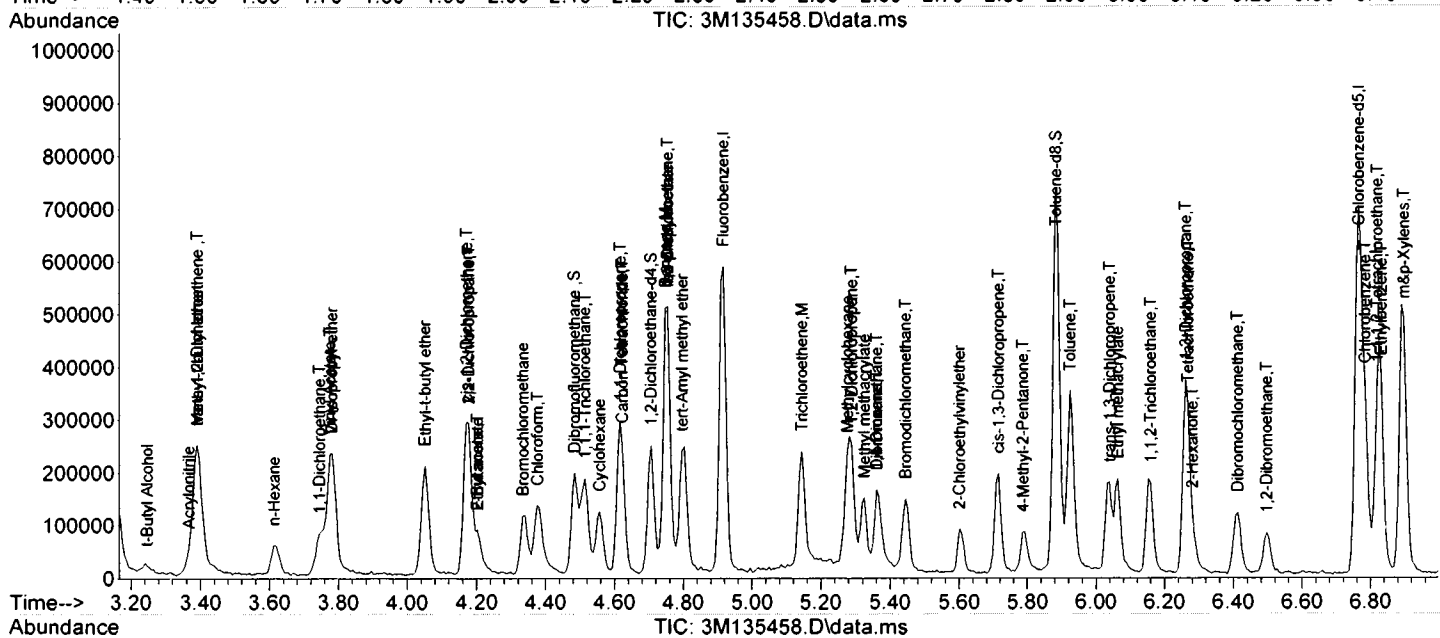
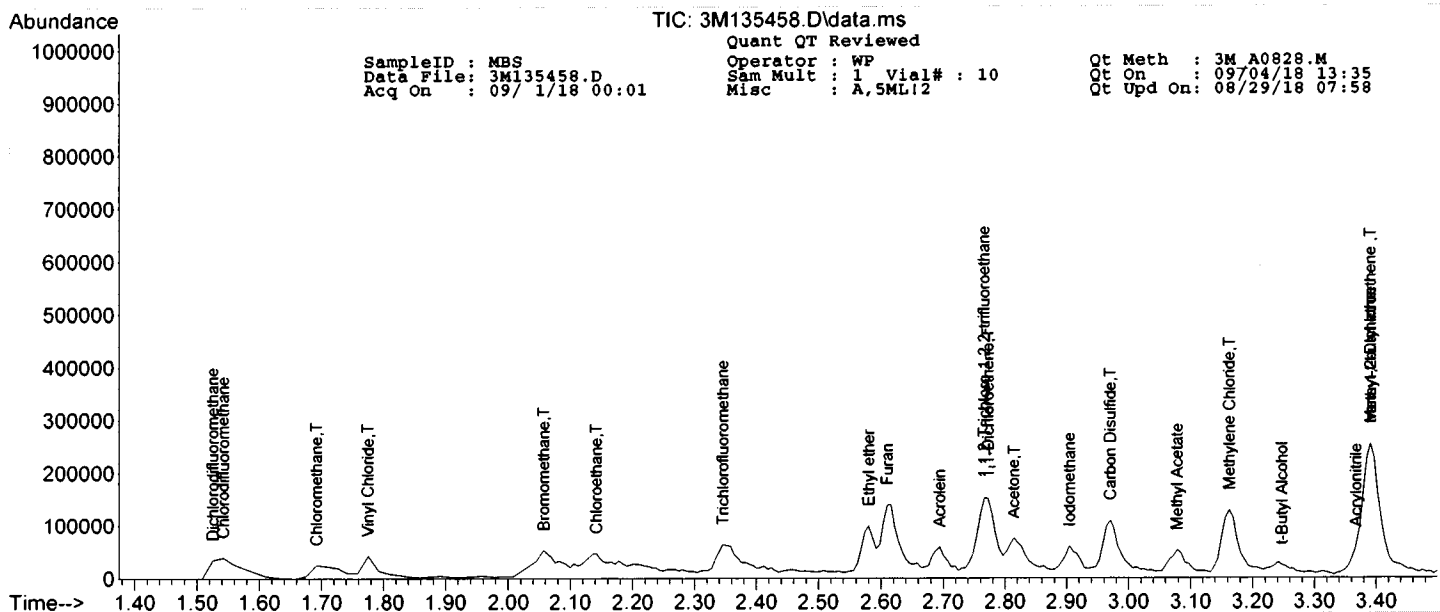
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
4) Fluorobenzene	4.917	96	346060	30.00	ug/l	-0.01	
52) Chlorobenzene-d5	6.767	117	282562	30.00	ug/l	-0.01	
70) 1,4-Dichlorobenzene-d4	8.215	152	147208	30.00	ug/l	-0.01	
System Monitoring Compounds							
37) Dibromofluoromethane	4.484	111	92048	30.56	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	101.87%		
39) 1,2-Dichloroethane-d4	4.707	67	57523	27.91	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	93.03%		
66) Toluene-d8	5.884	98	350574	29.25	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	97.50%		
76) Bromofluorobenzene	7.476	174	147466	27.90	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	93.00%		
Target Compounds							Qvalue
5) Chlorodifluoromethane	1.542	51	56275	13.5522	ug/l		95
6) Dichlorodifluoromethane	1.525	85	35876	15.7229	ug/l		84
7) Chloromethane	1.692	50	54313	16.5808	ug/l		64
8) Bromomethane	2.057	94	22179	21.3812	ug/l		96
9) Vinyl Chloride	1.775	62	34984	17.8246	ug/l		94
10) Chloroethane	2.142	64	16212	19.0299	ug/l		92
11) Trichlorofluoromethane	2.346	101	45630	14.8251	ug/l		87
12) Ethyl ether	2.580	59	36571	14.4018	ug/l		82
13) Furan	2.610	39	96493	15.6938	ug/l		93
14) 1,1,2-Trichloro-1,2,2-...	2.766	101	24259	20.3210	ug/l		98
15) Methylene Chloride	3.163	84	47112	16.4439	ug/l		88
16) Acrolein	2.694	56	33682	82.9241	ug/l		98
17) Acrylonitrile	3.367	53	19139	17.4037	ug/l		66
18) Iodomethane	2.904	142	45396	15.8213	ug/l		98
19) Acetone	2.814	43	79771	79.1022	ug/l		92
20) Carbon Disulfide	2.970	76	131581	18.0830	ug/l		100
21) t-Butyl Alcohol	3.247	59	15576	71.3527	ug/l		69
22) n-Hexane	3.613	57	19995	22.4098	ug/l		79
23) Di-isopropyl-ether	3.781	45	145403	17.2812	ug/l		94
24) 1,1-Dichloroethene	2.772	61	63851	16.9479	ug/l		93
25) Methyl Acetate	3.079	43	52430	15.1928	ug/l		100
26) Methyl-t-butyl ether	3.391	73	97695	18.8047	ug/l		68
27) 1,1-Dichloroethane	3.745	63	78362	16.0836	ug/l		99
28) trans-1,2-Dichloroethene	3.391	96	42590	17.7826	ug/l		80
29) Ethyl-t-butyl ether	4.052	59	123192	17.1442	ug/l		99
30) cis-1,2-Dichloroethene	4.172	61	84770	17.7965	ug/l		78
31) Bromochloromethane	4.334	49	45694	14.6640	ug/l		78
32) 2,2-Dichloropropane	4.178	77	60259	21.0310	ug/l		84
33) Ethyl acetate	4.202	43	50944	16.6722	ug/l		93
34) 1,4-Dioxane	5.361	88	19013	726.1182	ug/l		95
35) 1,1-Dichloropropene	4.616	75	55931	17.0688	ug/l		99
36) Chloroform	4.376	83	84466	17.7410	ug/l		77
38) Cyclohexane	4.556	56	33103	15.5628	ug/l		95
40) 1,2-Dichloroethane	4.755	62	71672	17.0683	ug/l		94
41) 2-Butanone	4.202	43	50201	38.3828	ug/l		58
42) 1,1,1-Trichloroethane	4.514	97	62966	16.7075	ug/l		93
43) Carbon Tetrachloride	4.622	117	51762	17.4833	ug/l		81
44) Vinyl Acetate	3.775	43	105613	16.5135	ug/l		100
45) Bromodichloromethane	5.445	83	63121	16.8028	ug/l		99
46) Methylcyclohexane	5.277	83	26911	17.7416	ug/l		97
47) Dibromomethane	5.361	174	48408	18.3867	ug/l		88
48) 1,2-Dichloropropane	5.289	63	48235	16.8900	ug/l		84
49) Trichloroethene	5.145	130	52188	19.3501	ug/l		81
50) Benzene	4.749	78	167131	17.6849	ug/l		100
51) tert-Amyl methyl ether	4.797	73	111154	16.6789	ug/l		77
53) Iso-propylacetate	4.755	43	81969	13.7571	ug/l		92
54) Methyl methacrylate	5.325	41	50305	14.4779	ug/l		92
55) Dibromochloromethane	6.412	129	48950	16.1792	ug/l		95
56) 2-Chloroethylvinylether	5.602	63	23131	14.0243	ug/l		82
57) cis-1,3-Dichloropropene	5.716	75	71269	16.5676	ug/l		93
58) trans-1,3-Dichloropropene	6.040	75	67017	16.4153	ug/l		97
59) Ethyl methacrylate	6.064	41	47607	15.0673	ug/l		78
60) 1,1,2-Trichloroethane	6.160	97	40623	15.2181	ug/l		80
61) 1,2-Dibromoethane	6.497	107	44541	16.6184	ug/l		96
62) 1,3-Dichloropropane	6.262	76	73138	15.7669	ug/l		92
63) 4-Methyl-2-Pentanone	5.788	43	42327	13.8061	ug/l		89
64) 2-Hexanone	6.280	43	31015	14.0364	ug/l		99
65) Tetrachloroethene	6.268	164	39706	19.2248	ug/l		85
67) Toluene	5.926	92	102416	16.7201	ug/l		95

SampleID : MBS Operator : WP Qt Meth : 3M A0828.M
 Data File: 3M135458.D Sam Mult : 1 Vial# : 10 Qt On : 09/04/18 13:35
 Acq On : 09/ 1/18 00:01 Misc : A,5ML!2 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.821	133	42422	17.0267	ug/l	93
69)	Chlorobenzene	6.785	112	111211	16.8580	ug/l	100
71)	n-Butyl acrylate	7.061	55	70509	10.7308	ug/l	95
72)	n-Amyl acetate	7.187	43	80821	14.1228	ug/l	85
73)	Bromoform	7.290	173	35152	12.5739	ug/l	97
74)	Ethylbenzene	6.833	106	33128	17.1920	ug/l	80
75)	1,1,2,2-Tetrachloroethane	7.536	83	51167	13.3960	ug/l	82
77)	Styrene	7.151	104	108424	17.3045	ug/l	93
78)	m&p-Xylenes	6.899	106	113958	36.5240	ug/l	81
79)	o-Xylene	7.145	106	60260	17.3349	ug/l	63
80)	trans-1,4-Dichloro-2-b...	7.560	53	14821	10.5561	ug/l	67
81)	1,3-Dichlorobenzene	8.179	146	78094	16.6394	ug/l	87
82)	1,4-Dichlorobenzene	8.233	146	83600	16.9343	ug/l	93
83)	1,2-Dichlorobenzene	8.485	146	76035	15.4668	ug/l	84
84)	Isopropylbenzene	7.362	105	118933	17.7117	ug/l	93
85)	Cyclohexanone	7.452	55	11528	74.9592	ug/l	81
86)	Camphene	7.554	93	27606	14.6832	ug/l	95
87)	1,2,3-Trichloropropane	7.578	75	58833	13.4392	ug/l	99
88)	2-Chlorotoluene	7.698	91	73480	16.8867	ug/l	95
89)	p-Ethyltoluene	7.680	105	120977	16.6847	ug/l	84
90)	4-Chlorotoluene	7.758	91	77479	16.9630	ug/l	93
91)	n-Propylbenzene	7.614	91	127290	16.4247	ug/l	91
92)	Bromobenzene	7.596	77	107100	15.2878	ug/l	94
93)	1,3,5-Trimethylbenzene	7.716	105	94270	19.0106	ug/l	91
94)	Butyl methacrylate	7.716	41	68162	15.2759	ug/l	83
95)	t-Butylbenzene	7.932	119	82917	17.7429	ug/l	84
96)	1,2,4-Trimethylbenzene	7.962	105	107952	17.7331	ug/l	90
97)	sec-Butylbenzene	8.076	105	95611	16.9616	ug/l	92
98)	4-Isopropyltoluene	8.148	119	82617	17.2215	ug/l	93
99)	n-Butylbenzene	8.419	91	91325	17.2489	ug/l	92
100)	p-Diethylbenzene	8.395	119	49170	17.4900	ug/l	91
101)	1,2,4,5-Tetramethylben...	8.911	119	94605	19.9282	ug/l	94
102)	1,2-Dibromo-3-Chloropr...	8.983	157	12133	13.8936	ug/l	60
103)	Camphor	9.476	95	37103	99.5647	ug/l	88
104)	Hexachlorobutadiene	9.626	225	27548	14.2084	ug/l	90
105)	1,2,4-Trichlorobenzene	9.536	180	44739	15.3714	ug/l	95
106)	1,2,3-Trichlorobenzene	9.873	180	40749	13.9124	ug/l	96
107)	Naphthalene	9.716	128	89399	14.8858	ug/l	100

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



Form3
RPD Data Laboratory Limits

8082413 0194

QC Batch: MBS72643

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M135373.D	AD06207-001(T:MSD)	8/30/2018 11:55:00 PM
Duplicate(If applicable): 3M135372.D	AD06207-001(T:MS)	8/30/2018 11:37:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	16.633	17.8018	6.8	30
Dichlorodifluoromethane	1	18.1605	16.7924	7.8	30
Chloromethane	1	17.4232	17.1079	1.8	30
Bromomethane	1	20.274	20.4601	0.91	30
Vinyl Chloride	1	20.4413	19.692	3.7	40
Chloroethane	1	22.083	22.6016	2.3	30
Trichlorofluoromethane	1	15.3438	17.2613	12	30
Ethyl ether	1	20.952	20.9294	0.11	30
Furan	1	15.5705	15.8147	1.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.1981	22.4427	5.7	30
Methylene Chloride	1	95.3171	99.9278	4.7	30
Acrolein	1	95.2617	87.3616	8.7	30
Acrylonitrile	1	16.6954	15.4415	7.8	30
Iodomethane	1	19.76	20.4012	3.2	30
Acetone	1	107.3838	98.1397	9	30
Carbon Disulfide	1	18.3139	18.3542	0.22	30
t-Butyl Alcohol	1	70.9629	73.6685	3.7	30
n-Hexane	1	23.9815	22.9015	4.6	30
Di-isopropyl-ether	1	17.5523	17.849	1.7	30
1,1-Dichloroethene	1	16.6524	17.9556	7.5	40
Methyl Acetate	1	22.5237	20.2968	10	30
Methyl-t-butyl ether	1	20.139	20.811	3.3	30
1,1-Dichloroethane	1	16.2759	16.1402	0.84	40
trans-1,2-Dichloroethene	1	18.9266	18.3972	2.8	30
Ethyl-t-butyl ether	1	17.77	17.877	0.6	30
cis-1,2-Dichloroethene	1	18.7553	18.7747	0.1	30
Bromochloromethane	1	17.7503	15.1076	16	30
2,2-Dichloropropane	1	23.3374	23.9117	2.4	30
Ethyl acetate	1	16.723	17.3516	3.7	30
1,4-Dioxane	1	954.2368	616.8495	43*	30
1,1-Dichloropropene	1	17.9946	17.4523	3.1	30
Chloroform	1	17.6596	18.6427	5.4	40
Cyclohexane	1	18.165	17.7778	2.2	30
1,2-Dichloroethane	1	17.8981	19.2794	7.4	40
2-Butanone	1	22.9965	24.3509	5.7	40
1,1,1-Trichloroethane	1	17.4751	18.7937	7.3	30
Carbon Tetrachloride	1	18.8548	17.5079	7.4	40
Vinyl Acetate	1	18.1238	17.7876	1.9	30
Bromodichloromethane	1	18.2704	18.1825	0.48	30
Methylcyclohexane	1	16.4502	19.1556	15	30
Dibromomethane	1	18.6098	17.8723	4	30
1,2-Dichloropropane	1	16.3485	16.9378	3.5	30
Trichloroethene	1	20.3681	19.0685	6.6	40
Benzene	1	18.353	18.0197	1.8	40
tert-Amyl methyl ether	1	18.1774	18.6353	2.5	30
Iso-propylacetate	1	174.1058	160.8147	7.9	30
Methyl methacrylate	1	15.0871	13.6509	10	30
Dibromochloromethane	1	17.8372	15.8811	12	30
2-Chloroethylvinylether	1	17.1575	15.0297	13	30
cis-1,3-Dichloropropene	1	21.2094	19.3941	8.9	30
trans-1,3-Dichloropropene	1	17.3104	16.3368	5.8	30
Ethyl methacrylate	1	15.397	14.897	3.3	30
1,1,2-Trichloroethane	1	17.46	16.471	5.8	30
1,2-Dibromoethane	1	17.8575	15.8881	12	30
1,3-Dichloropropane	1	17.4927	15.6822	11	30
4-Methyl-2-Pentanone	1	15.5976	14.8667	4.8	30
2-Hexanone	1	17.8617	16.7021	6.7	30
Tetrachloroethene	1	20.6828	18.7583	9.8	40
Toluene	1	18.7606	17.5585	6.6	40
1,1,1,2-Tetrachloroethane	1	19.0117	18.0553	5.2	30
Chlorobenzene	1	18.4482	17.9613	2.7	40
n-Butyl acrylate	1	12.1562	12.0646	0.76	30
n-Amyl acetate	1	15.3054	14.4172	6	30

Form3
RPD Data Laboratory Limits

8082413 0195

QC Batch: MBS72643

Bromoform	1	15.5509	15.1744	2.5	30
Ethylbenzene	1	18.438	20.5474	11	30
1,1,2,2-Tetrachloroethane	1	15.2154	15.4439	1.5	30
Styrene	1	18.5255	19.1952	3.6	30
m&p-Xylenes	1	39.5469	39.8158	0.68	30
o-Xylene	1	17.9448	18.8611	5	30
trans-1,4-Dichloro-2-butene	1	14.3193	14.936	4.2	30
1,3-Dichlorobenzene	1	17.4535	18.7052	6.9	30
1,4-Dichlorobenzene	1	17.2122	17.2416	0.17	40
1,2-Dichlorobenzene	1	17.0975	17.3424	1.4	40
Isopropylbenzene	1	16.825	18.46	9.3	30
Cyclohexanone	1	59.3524	60.9115	2.6	30
Camphene	1	16.1278	16.4746	2.1	30
1,2,3-Trichloropropane	1	16.2915	15.9808	1.9	30
2-Chlorotoluene	1	17.9896	18.0681	0.44	30
p-Ethyltoluene	1	17.0237	19.0221	11	30
4-Chlorotoluene	1	17.5905	18.9209	7.3	30
n-Propylbenzene	1	17.3249	18.0914	4.3	40
Bromobenzene	1	15.6678	16.3678	4.4	30
1,3,5-Trimethylbenzene	1	21.6983	20.3856	6.2	30
Butyl methacrylate	1	16.6789	16.7516	0.43	30
t-Butylbenzene	1	17.4297	19.0475	8.9	30
1,2,4-Trimethylbenzene	1	18.309	18.8285	2.8	30
sec-Butylbenzene	1	17.5086	18.2377	4.1	40
4-Isopropyltoluene	1	18.6533	18.7772	0.66	30
n-Butylbenzene	1	18.8731	19.2199	1.8	30
p-Diethylbenzene	1	18.1293	18.3148	1	30
1,2,4,5-Tetramethylbenzene	1	16.5757	17.6634	6.4	30
1,2-Dibromo-3-Chloropropane	1	15.7667	14.6832	7.1	30
Camphor	1	120.1715	108.03	11	30
Hexachlorobutadiene	1	16.542	17.017	2.8	30
1,2,4-Trichlorobenzene	1	18.4248	16.5155	11	30
1,2,3-Trichlorobenzene	1	17.2442	14.9709	14	30
Naphthalene	1	15.724	14.7769	6.2	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD06207-001(T)
 Data File: 3M135369.D
 Acq On : 08/30/18 22:37

Operator : WP
 Sam Mult : 1 Vial# : 15
 Misc : A,5ML!32

Qt Meth : 3M_A082413
 Qt On : 08/30/18 23:20
 Qt Upd On: 08/29/18 07:58

8082413 0196

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.934	96	338948	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.790	117	274903	30.00	ug/l	0.01
70) 1,4-Dichlorobenzene-d4	8.238	152	126915	30.00	ug/l	0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.501	111	93454	31.68	ug/l	0.00
Spiked Amount 30.000			Recovery	=	105.60%	
39) 1,2-Dichloroethane-d4	4.724	67	62369	30.90	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.00%	
66) Toluene-d8	5.907	98	334233	28.66	ug/l	0.01
Spiked Amount 30.000			Recovery	=	95.53%	
76) Bromofluorobenzene	7.499	174	135188	29.67	ug/l	0.01
Spiked Amount 30.000			Recovery	=	98.90%	
Target Compounds						Qvalue
41) 2-Butanone	4.195	43	6556m	5.1178	ug/l	

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



Abundance

TIC: 3M135369.D\data.ms

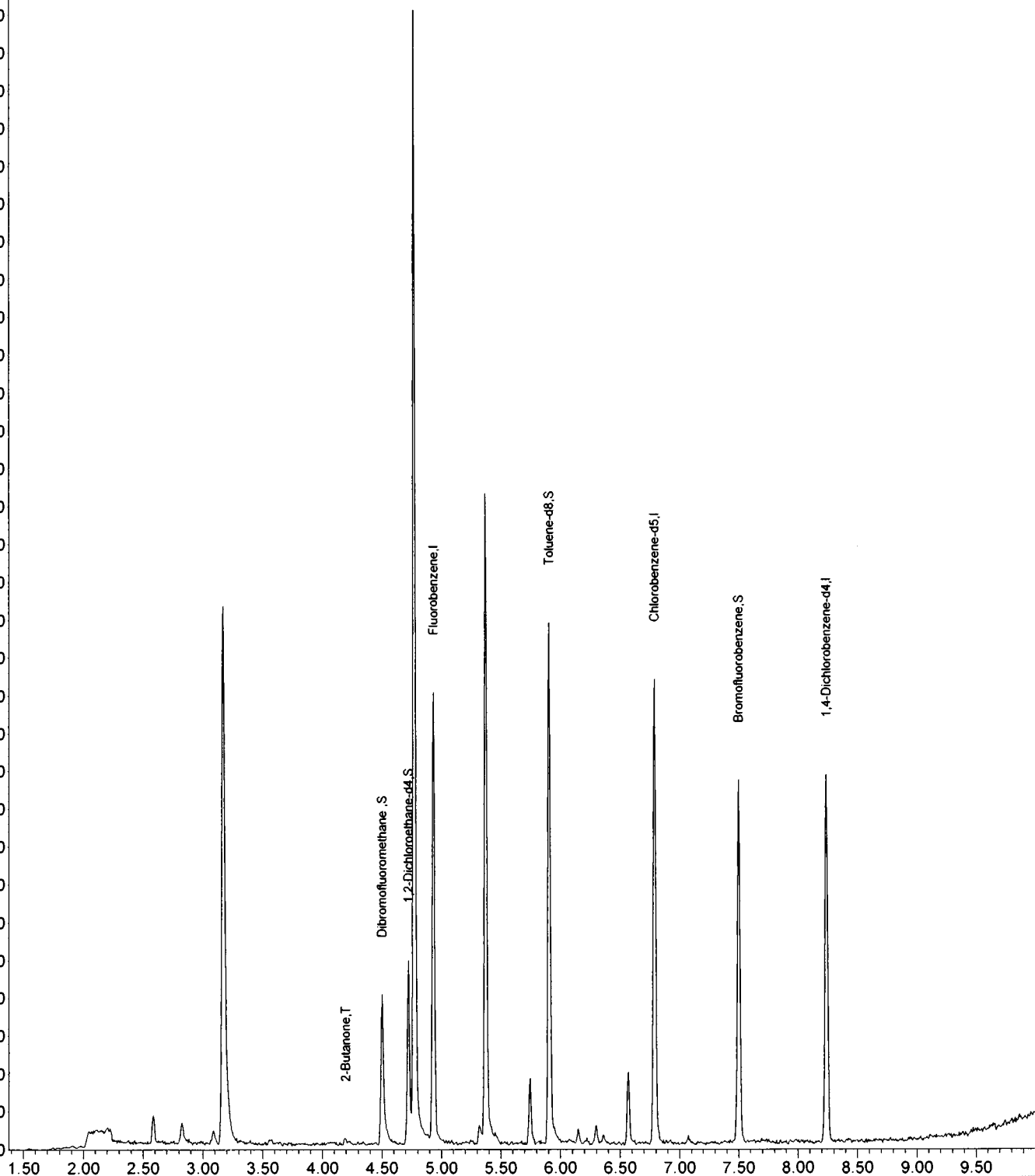
Quant QT Reviewed

SampleID : AD06207-001(T)
Data File: 3M135369.D
Acq On : 08/30/18 22:37

Operator : WP
Sam Mult : 1 Vial# : 15
Misc : A.5ML132

Qt Meth : 3M_A0828.M
Qt On : 08/30/18 23:20
Qt Upd On: 08/29/18 07:58

1800000
1750000
1700000
1650000
1600000
1550000
1500000
1450000
1400000
1350000
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1250000
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1050000
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650000
600000
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500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0



SampleID : AD06207-001(T:MS)
 Data File: 3M135372.D
 Acq On : 08/30/18 23:37

Operator : WP
 Sam Mult : 1 Vial# : 17
 Misc : A,5ML!32

Qt Meth : 3M_A0820.M
 Qt On : 08/31/18 07:39
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMSData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

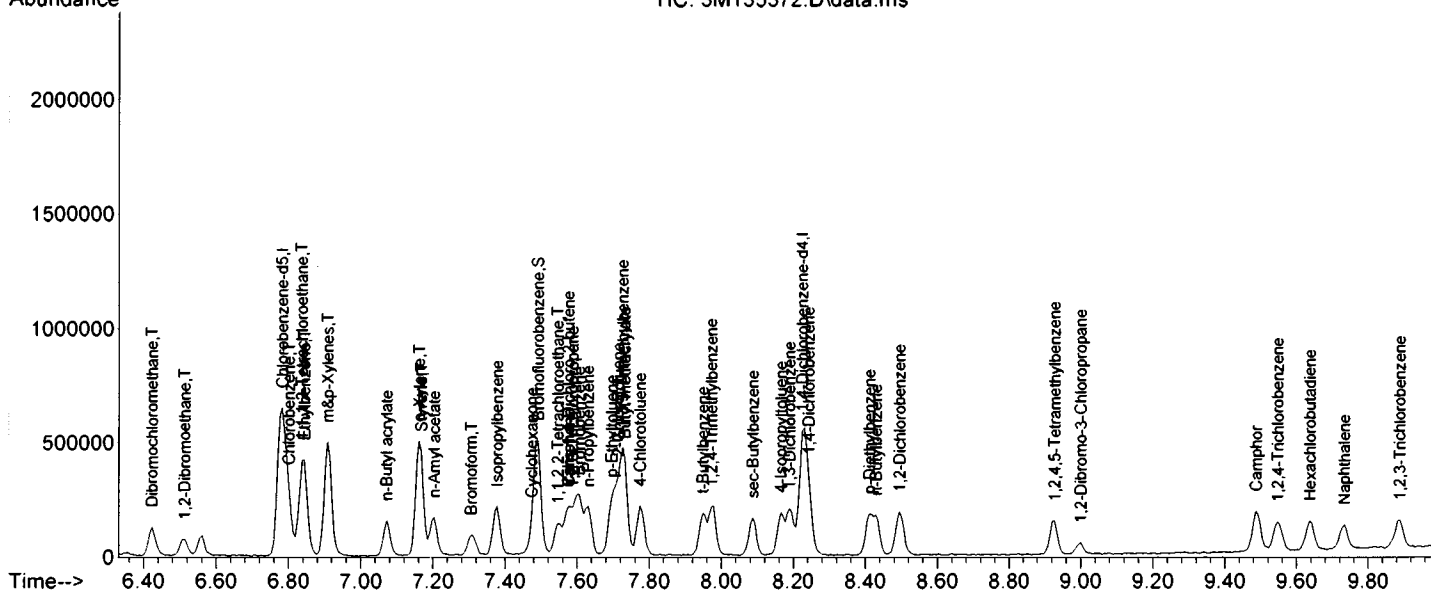
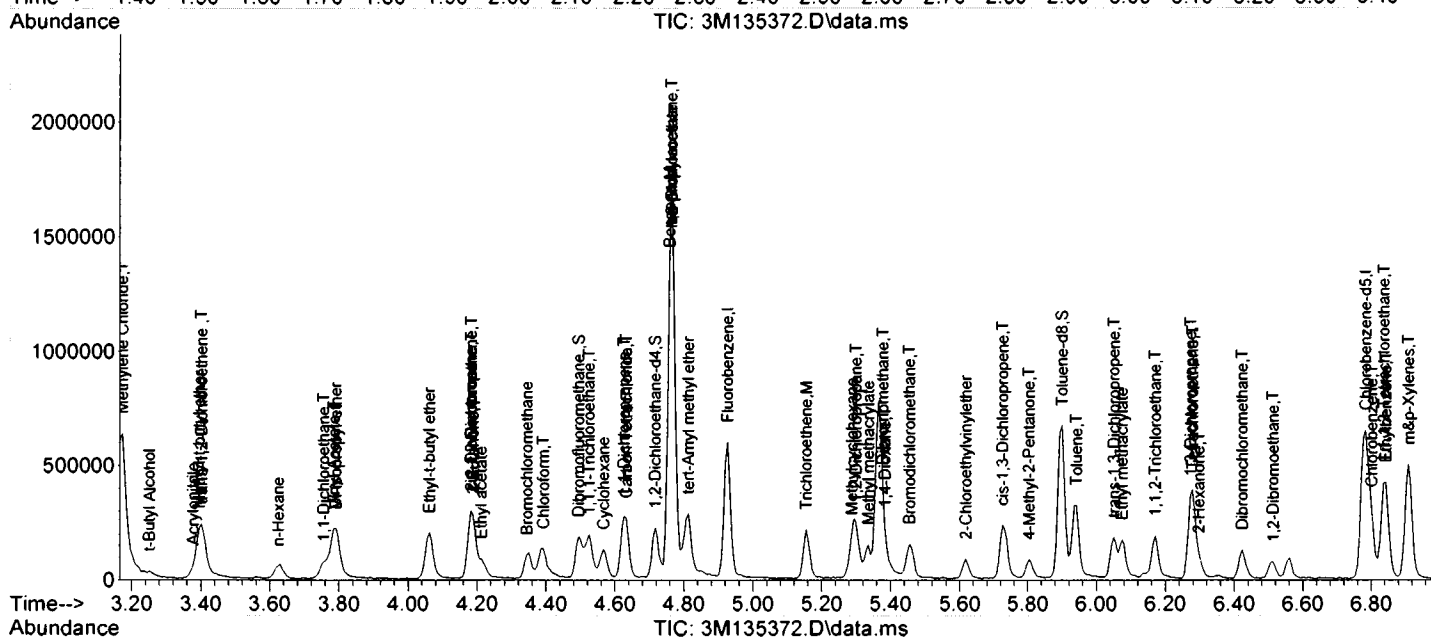
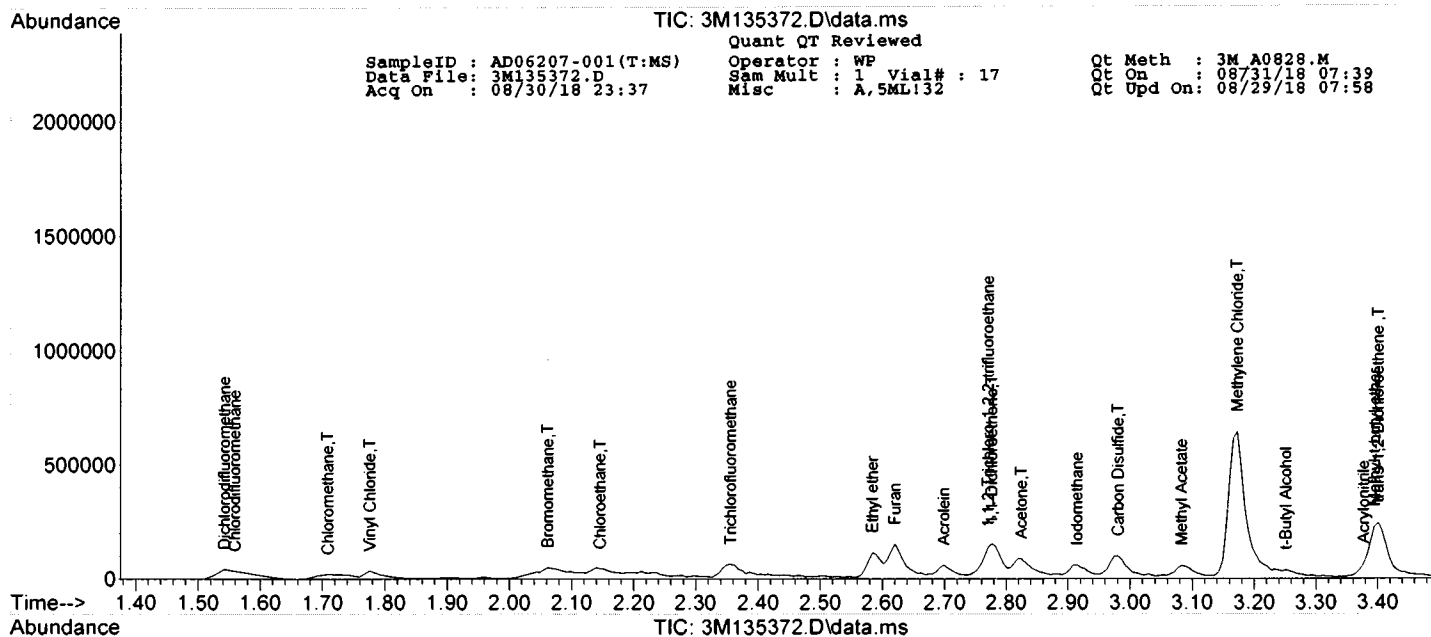
Internal Standards						
4) Fluorobenzene	4.927	96	324659	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.783	117	273588	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.225	152	130992	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.495	111	89855	31.80	ug/l	0.00
Spiked Amount	30.000		Recovery	=	106.00%	
39) 1,2-Dichloroethane-d4	4.717	67	58843	30.44	ug/l	0.00
Spiked Amount	30.000		Recovery	=	101.47%	
66) Toluene-d8	5.900	98	331569	28.57	ug/l	0.00
Spiked Amount	30.000		Recovery	=	95.23%	
76) Bromofluorobenzene	7.492	174	139920	29.75	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.17%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.559	51	69350	17.8018	ug/l	89
6) Dichlorodifluoromethane	1.542	85	35947	16.7924	ug/l	100
7) Chloromethane	1.709	50	52574	17.1079	ug/l	87
8) Bromomethane	2.062	94	19911	20.4601	ug/l	100
9) Vinyl Chloride	1.776	62	36259	19.6920	ug/l	94
10) Chloroethane	2.146	64	18064	22.6016	ug/l	82
11) Trichlorofluoromethane	2.356	101	49843	17.2613	ug/l	82
12) Ethyl ether	2.584	59	49860	20.9294	ug/l	95
13) Furan	2.620	39	91223	15.8147	ug/l	99
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	25135	22.4427	ug/l	99
15) Methylene Chloride	3.173	84	268590	99.9278	ug/l	97
16) Acrolein	2.699	56	33290	87.3616	ug/l	82
17) Acrylonitrile	3.377	53	15931	15.4415	ug/l	73
18) Iodomethane	2.915	142	54917	20.4012	ug/l	95
19) Acetone	2.825	43	92849	98.1397	ug/l	87
20) Carbon Disulfide	2.981	76	125295	18.3542	ug/l	100
21) t-Butyl Alcohol	3.251	59	15087	73.6685	ug/l	99
22) n-Hexane	3.624	57	19170m	22.9015	ug/l	
23) Di-isopropyl-ether	3.792	45	140893	17.8490	ug/l	99
24) 1,1-Dichloroethene	2.777	61	63464	17.9556	ug/l	93
25) Methyl Acetate	3.083	43	65712	20.2968	ug/l	100
26) Methyl-t-butyl ether	3.395	73	101432	20.8110	ug/l	67
27) 1,1-Dichloroethane	3.756	63	73775	16.1402	ug/l	92
28) trans-1,2-Dichloroethene	3.401	96	41337	18.3972	ug/l	87
29) Ethyl-t-butyl ether	4.062	59	120514	17.8770	ug/l	98
30) cis-1,2-Dichloroethene	4.182	61	83899	18.7747	ug/l	81
31) Bromochloromethane	4.344	49	44165	15.1076	ug/l	72
32) 2,2-Dichloropropane	4.182	77	64276	23.9117	ug/l	95
33) Ethyl acetate	4.212	43	49741m	17.3516	ug/l	
34) 1,4-Dioxane	5.384	88	15153	616.8495	ug/l	91
35) 1,1-Dichloropropene	4.627	75	53651	17.4523	ug/l	83
36) Chloroform	4.393	83	83270	18.6427	ug/l	85
38) Cyclohexane	4.567	56	35476	17.7778	ug/l	96
40) 1,2-Dichloroethane	4.765	62	75950	19.2794	ug/l	83
41) 2-Butanone	4.188	43	29879m	24.3509	ug/l	
42) 1,1,1-Trichloroethane	4.525	97	66448	18.7937	ug/l	99
43) Carbon Tetrachloride	4.633	117	48629	17.5079	ug/l	84
44) Vinyl Acetate	3.786	43	106726	17.7876	ug/l	100
45) Bromodichloromethane	5.456	83	64080	18.1825	ug/l	95
46) Methylcyclohexane	5.288	83	27259	19.1556	ug/l	96
47) Dibromomethane	5.378	174	44144	17.8723	ug/l	92
48) 1,2-Dichloropropane	5.300	63	45380	16.9378	ug/l	79
49) Trichloroethene	5.155	130	48248	19.0685	ug/l	79
50) Benzene	4.759	78	159764	18.0197	ug/l	100
51) tert-Amyl methyl ether	4.813	73	116512	18.6353	ug/l	77
53) Iso-propylacetate	4.765	43	927752	160.8147	ug/l	87
54) Methyl methacrylate	5.336	41	45925	13.6509	ug/l	85
55) Dibromochloromethane	6.423	129	46522	15.8811	ug/l	96
56) 2-Chloroethylvinylether	5.618	63	24002	15.0297	ug/l	81
57) cis-1,3-Dichloropropene	5.726	75	80778	19.3941	ug/l	88
58) trans-1,3-Dichloropropene	6.050	75	64578	16.3368	ug/l	97
59) Ethyl methacrylate	6.074	41	45574	14.8970	ug/l	76
60) 1,1,2-Trichloroethane	6.171	97	42571	16.4710	ug/l	85
61) 1,2-Dibromoethane	6.513	107	41231	15.8881	ug/l	80
62) 1,3-Dichloropropane	6.273	76	70435	15.6822	ug/l	99
63) 4-Methyl-2-Pentanone	5.804	43	44131	14.8667	ug/l	92
64) 2-Hexanone	6.297	43	35733	16.7021	ug/l	98
65) Tetrachloroethene	6.279	164	37512	18.7583	ug/l	100
67) Toluene	5.942	92	104136	17.5585	ug/l	94

SampleID : AD06207-001(T:MS) Operator : WP Qt Meth : 3M_A0828.M
 Data File: 3M135372.D Sam Mult : 1 Vial# : 17 Qt On : 08/31/18 07:39
 Acq On : 08/30/18 23:37 Misc : A,5ML!32 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.837	133	43556	18.0553	ug/l	84
69)	Chlorobenzene	6.801	112	114726	17.9613	ug/l	95
71)	n-Butyl acrylate	7.072	55	70542	12.0646	ug/l	95
72)	n-Amyl acetate	7.204	43	73417	14.4172	ug/l	77
73)	Bromoform	7.306	173	37749	15.1744	ug/l	93
74)	Ethylbenzene	6.843	106	35232	20.5474	ug/l	70
75)	1,1,2,2-Tetrachloroethane	7.546	83	52491	15.4439	ug/l	91
77)	Styrene	7.168	104	107022	19.1952	ug/l	88
78)	m&p-Xylenes	6.909	106	110544	39.8158	ug/l	86
79)	o-Xylene	7.162	106	58343	18.8611	ug/l	77
80)	trans-1,4-Dichloro-2-b...	7.576	53	18656	14.9360	ug/l	66
81)	1,3-Dichlorobenzene	8.189	146	78119	18.7052	ug/l	84
82)	1,4-Dichlorobenzene	8.243	146	75741	17.2416	ug/l	91
83)	1,2-Dichlorobenzene	8.495	146	75864	17.3424	ug/l	87
84)	Isopropylbenzene	7.378	105	110303	18.4600	ug/l	93
85)	Cyclohexanone	7.474	55	8320	60.9115	ug/l	95
86)	Camphene	7.576	93	27562	16.4746	ug/l	86
87)	1,2,3-Trichloropropane	7.588	75	62253	15.9808	ug/l	98
88)	2-Chlorotoluene	7.714	91	69960	18.0681	ug/l	91
89)	p-Ethyltoluene	7.696	105	122731	19.0221	ug/l	75
90)	4-Chlorotoluene	7.774	91	76902	18.9209	ug/l	90
91)	n-Propylbenzene	7.630	91	124762	18.0914	ug/l	94
92)	Bromobenzene	7.606	77	102035	16.3678	ug/l	94
93)	1,3,5-Trimethylbenzene	7.726	105	89953	20.3856	ug/l	78
94)	Butyl methacrylate	7.732	41	66513	16.7516	ug/l	87
95)	t-Butylbenzene	7.949	119	79208	19.0475	ug/l	82
96)	1,2,4-Trimethylbenzene	7.973	105	101994	18.8285	ug/l	85
97)	sec-Butylbenzene	8.087	105	91480	18.2377	ug/l	92
98)	4-Isopropyltoluene	8.165	119	80157	18.7772	ug/l	91
99)	n-Butylbenzene	8.429	91	90551	19.2199	ug/l	91
100)	p-Diethylbenzene	8.411	119	45817m	18.3148	ug/l	
101)	1,2,4,5-Tetramethylben...	8.928	119	74616	17.6634	ug/l	93
102)	1,2-Dibromo-3-Chloropr...	9.000	157	11410	14.6832	ug/l	58
103)	Camphor	9.486	95	35819	108.0300	ug/l	97
104)	Hexachlorobutadiene	9.637	225	29359	17.0170	ug/l	89
105)	1,2,4-Trichlorobenzene	9.546	180	42774	16.5155	ug/l	92
106)	1,2,3-Trichlorobenzene	9.889	180	39019	14.9709	ug/l	95
107)	Naphthalene	9.733	128	78969	14.7769	ug/l	100

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



SampleID : AD06207-001(T:MSD)
 Data File: 3M135373.D
 Acq On : 08/30/18 23:55

Operator : WP
 Sam Mult : 1 Vial# : 18
 Misc : A,SML132

Qt Meth : 3M A08
 Qt On : 08/31/18 07:39
 Qt Upd On: 08/29/18 07:58

8082413 0201

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

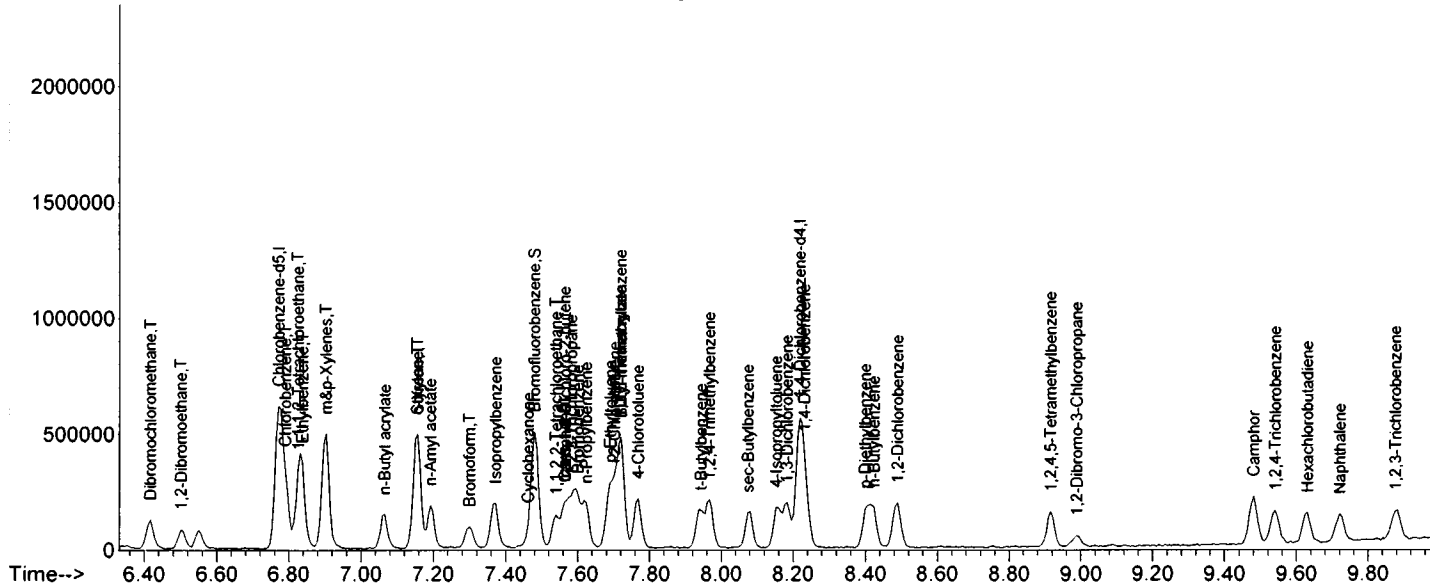
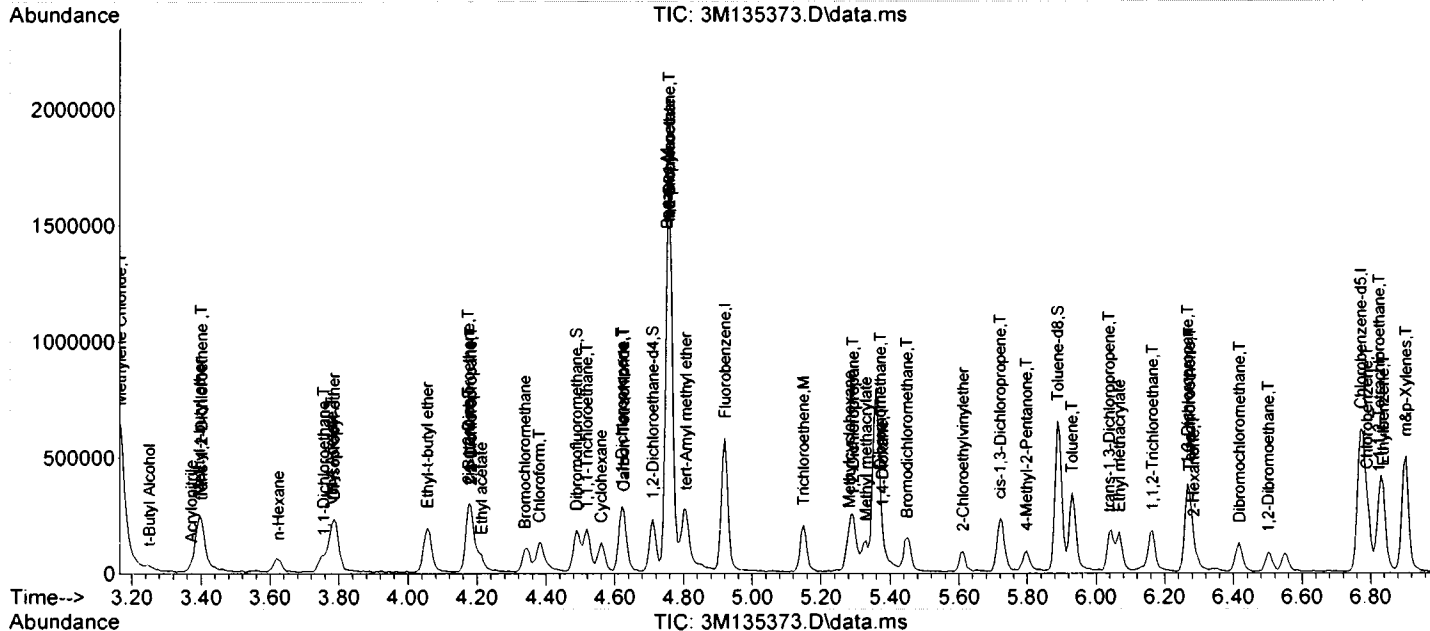
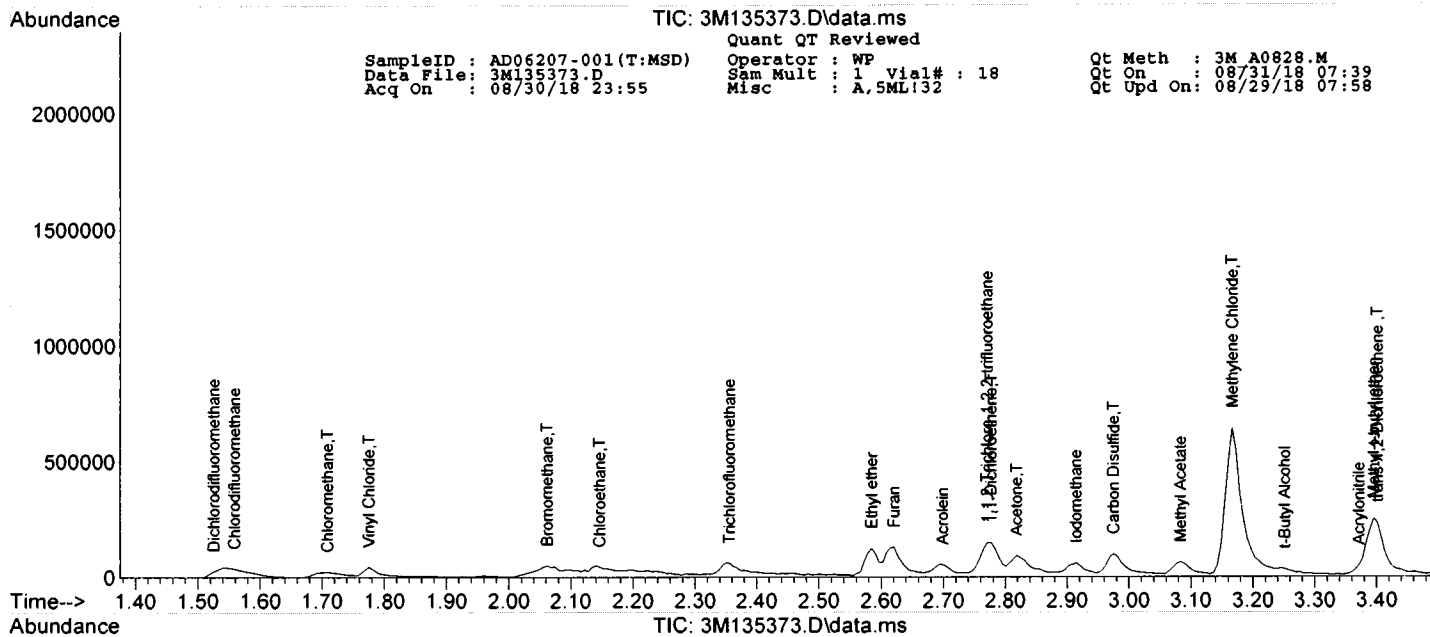
Internal Standards						
4) Fluorobenzene	4.921	96	325532	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.771	117	253198	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.219	152	134542	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.489	111	85298	30.11	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.37%	
39) 1,2-Dichloroethane-d4	4.711	67	56139	28.96	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.53%	
66) Toluene-d8	5.888	98	316528	29.47	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.23%	
76) Bromofluorobenzene	7.480	174	136438	28.25	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.17%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.559	51	64971	16.6330	ug/l	99
6) Dichlorodifluoromethane	1.525	85	38980	18.1605	ug/l	99
7) Chloromethane	1.709	50	53687	17.4232	ug/l	81
8) Bromomethane	2.062	94	19783	20.2740	ug/l	81
9) Vinyl Chloride	1.775	62	37740	20.4413	ug/l	97
10) Chloroethane	2.146	64	17697	22.0830	ug/l	91
11) Trichlorofluoromethane	2.356	101	44425	15.3438	ug/l	80
12) Ethyl ether	2.585	59	50048	20.9520	ug/l	89
13) Furan	2.621	39	90056	15.5705	ug/l	98
14) 1,1,2-Trichloro-1,2,2-...	2.771	101	23805	21.1981	ug/l	96
15) Methylene Chloride	3.167	84	256886	95.3171	ug/l	94
16) Acrolein	2.699	56	36398	95.2617	ug/l	83
17) Acrylonitrile	3.371	53	17271	16.6954	ug/l	74
18) Iodomethane	2.915	142	53334	19.7600	ug/l	87
19) Acetone	2.819	43	101868	107.3838	ug/l	91
20) Carbon Disulfide	2.975	76	125356	18.3139	ug/l	100
21) t-Butyl Alcohol	3.251	59	14572	70.9629	ug/l	83
22) n-Hexane	3.624	57	20128m	23.9815	ug/l	
23) Di-isopropyl-ether	3.786	45	138924	17.5523	ug/l	98
24) 1,1-Dichloroethene	2.777	61	59016	16.6524	ug/l	95
25) Methyl Acetate	3.083	43	73118	22.5237	ug/l	100
26) Methyl-t-butyl ether	3.395	73	98421	20.1390	ug/l	69
27) 1,1-Dichloroethane	3.756	63	74595	16.2759	ug/l	91
28) trans-1,2-Dichloroethene	3.401	96	42641	18.9266	ug/l	82
29) Ethyl-t-butyl ether	4.056	59	120115	17.7700	ug/l	99
30) cis-1,2-Dichloroethene	4.176	61	84038	18.7553	ug/l	86
31) Bromochloromethane	4.339	49	52030	17.7503	ug/l	70
32) 2,2-Dichloropropane	4.182	77	62901	23.3374	ug/l	88
33) Ethyl acetate	4.212	43	48068m	16.7230	ug/l	
34) 1,4-Dioxane	5.378	88	23504	954.2368	ug/l	84
35) 1,1-Dichloropropene	4.621	75	55467	17.9946	ug/l	98
36) Chloroform	4.381	83	79091	17.6596	ug/l	83
38) Cyclohexane	4.561	56	36346	18.1650	ug/l	85
40) 1,2-Dichloroethane	4.759	62	70698	17.8981	ug/l	95
41) 2-Butanone	4.176	43	28293m	22.9965	ug/l	
42) 1,1,1-Trichloroethane	4.519	97	61952	17.4751	ug/l	97
43) Carbon Tetrachloride	4.627	117	52511	18.8548	ug/l	89
44) Vinyl Acetate	3.780	43	109036	18.1238	ug/l	100
45) Bromodichloromethane	5.450	83	64563	18.2704	ug/l	96
46) Methylcyclohexane	5.282	83	23472	16.4502	ug/l	91
47) Dibromomethane	5.372	174	46089	18.6098	ug/l	96
48) 1,2-Dichloropropane	5.294	63	43919	16.3485	ug/l	90
49) Trichloroethene	5.149	130	51675	20.3681	ug/l	77
50) Benzene	4.753	78	163156	18.3530	ug/l	100
51) tert-Amyl methyl ether	4.807	73	113955	18.1774	ug/l	77
53) Iso-propylacetate	4.759	43	929571	174.1058	ug/l	86
54) Methyl methacrylate	5.330	41	46974	15.0871	ug/l	97
55) Dibromochloromethane	6.417	129	48358	17.8372	ug/l	93
56) 2-Chloroethylvinylether	5.612	63	25358	17.1575	ug/l	86
57) cis-1,3-Dichloropropene	5.720	75	81755	21.2094	ug/l	90
58) trans-1,3-Dichloropropene	6.039	75	63327	17.3104	ug/l	99
59) Ethyl methacrylate	6.069	41	43593	15.3970	ug/l	74
60) 1,1,2-Trichloroethane	6.165	97	41764	17.4600	ug/l	89
61) 1,2-Dibromoethane	6.501	107	42888	17.8575	ug/l	95
62) 1,3-Dichloropropane	6.267	76	72711	17.4927	ug/l	96
63) 4-Methyl-2-Pentanone	5.798	43	42850	15.5976	ug/l	91
64) 2-Hexanone	6.285	43	35366	17.8617	ug/l	90
65) Tetrachloroethene	6.273	164	38278	20.6828	ug/l	82
67) Toluene	5.930	92	102973	18.7606	ug/l	93

SampleID : AD06207-001(T:MSD) Operator : WP Qt Meth : 3M_A0828.M
 Data File: 3M135373.D Sam Mult : 1 Vial# : 18 Qt On : 08/31/18 07:39
 Acq On : 08/30/18 23:55 Misc : A,5ML!32 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3018\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.825	133	42445	19.0117	ug/l	88
69)	Chlorobenzene	6.789	112	109054	18.4482	ug/l	94
71)	n-Butyl acrylate	7.066	55	73004	12.1562	ug/l	99
72)	n-Amyl acetate	7.192	43	80052	15.3054	ug/l	83
73)	Bromoform	7.300	173	39734	15.5509	ug/l	96
74)	Ethylbenzene	6.837	106	32472	18.4380	ug/l	78
75)	1,1,2,2-Tetrachloroethane	7.540	83	53116	15.2154	ug/l	85
77)	Styrene	7.156	104	106087	18.5255	ug/l	82
78)	m&p-Xylenes	6.904	106	112773	39.5469	ug/l	87
79)	o-Xylene	7.156	106	57013	17.9448	ug/l	63
80)	trans-1,4-Dichloro-2-b...	7.564	53	18371	14.3193	ug/l	67
81)	1,3-Dichlorobenzene	8.183	146	74867	17.4535	ug/l	85
82)	1,4-Dichlorobenzene	8.231	146	77661	17.2122	ug/l	93
83)	1,2-Dichlorobenzene	8.489	146	76820	17.0975	ug/l	86
84)	Isopropylbenzene	7.372	105	103258	16.8250	ug/l	91
85)	Cyclohexanone	7.462	55	8325	59.3524	ug/l	92
86)	Camphene	7.564	93	27713	16.1278	ug/l	98
87)	1,2,3-Trichloropropane	7.582	75	65183	16.2915	ug/l	98
88)	2-Chlorotoluene	7.702	91	71544	17.9896	ug/l	93
89)	p-Ethyltoluene	7.690	105	112814	17.0237	ug/l	85
90)	4-Chlorotoluene	7.769	91	73432	17.5905	ug/l	89
91)	n-Propylbenzene	7.624	91	122714	17.3249	ug/l	93
92)	Bromobenzene	7.600	77	100318	15.6678	ug/l	96
93)	1,3,5-Trimethylbenzene	7.720	105	98340	21.6983	ug/l	90
94)	Butyl methacrylate	7.720	41	68019	16.6789	ug/l	86
95)	t-Butylbenzene	7.943	119	74445	17.4297	ug/l	82
96)	1,2,4-Trimethylbenzene	7.967	105	101868	18.3090	ug/l	90
97)	sec-Butylbenzene	8.075	105	90203	17.5086	ug/l	96
98)	4-Isopropyltoluene	8.153	119	81786	18.6533	ug/l	93
99)	n-Butylbenzene	8.423	91	91327	18.8731	ug/l	92
100)	p-Diethylbenzene	8.399	119	46582	18.1293	ug/l	87
101)	1,2,4,5-Tetramethylben...	8.916	119	71919	16.5757	ug/l	85
102)	1,2-Dibromo-3-Chloropr...	8.988	157	12584	15.7667	ug/l	70
103)	Camphor	9.481	95	40918	120.1715	ug/l	94
104)	Hexachlorobutadiene	9.631	225	29313	16.5420	ug/l	92
105)	1,2,4-Trichlorobenzene	9.541	180	49012	18.4248	ug/l	91
106)	1,2,3-Trichlorobenzene	9.877	180	46162	17.2442	ug/l	93
107)	Naphthalene	9.721	128	86308	15.7240	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0204

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135459.D		AD06149-001(MS)		9/1/2018 12:18:00 AM			
Non Spike(If applicable): 3M135456.D		AD06149-001		8/31/2018 11:25:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	17.6574	0	20	88	50	150
Dichlorodifluoromethane	1	20.7916	0	20	104	50	150
Chloromethane	1	20.0329	0	20	100	50	150
Bromomethane	1	23.6975	0	20	118	50	150
Vinyl Chloride	1	19.259	0	20	96	50	150
Chloroethane	1	26.0784	0	20	130	50	150
Trichlorofluoromethane	1	20.1948	0	20	101	50	150
Ethyl ether	1	17.6991	0	20	88	50	150
Furan	1	19.2229	0	20	96	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	25.1594	0	20	126	50	150
Methylene Chloride	1	20.0953	0	20	100	70	130
Acrolein	1	99.5726	0	100	100	50	150
Acrylonitrile	1	19.0784	0	20	95	50	150
Iodomethane	1	22.6086	0	20	113	50	150
Acetone	1	89.5736	0	100	90	50	150
Carbon Disulfide	1	22.6511	0	20	113	50	150
t-Butyl Alcohol	1	90.1312	0	100	90	50	150
n-Hexane	1	29.2087	0	20	146 *	70	130
Di-isopropyl-ether	1	21.0058	0	20	105	70	130
1,1-Dichloroethene	1	21.3572	0	20	107	70	130
Methyl Acetate	1	18.0109	0	20	90	50	150
Methyl-t-butyl ether	1	24.4497	0	20	122	70	130
1,1-Dichloroethane	1	19.7038	0	20	99	70	130
trans-1,2-Dichloroethene	1	21.7528	0	20	109	70	130
Ethyl-t-butyl ether	1	21.2589	0	20	106	70	130
cis-1,2-Dichloroethene	1	21.6381	1.7879	20	99	70	130
Bromochloromethane	1	22.1018	0	20	111	70	130
2,2-Dichloropropane	1	27.5347	0	20	138 *	70	130
Ethyl acetate	1	20.8274	0	20	104	50	150
1,4-Dioxane	1	868.9053	0	1000	87	50	150
1,1-Dichloropropene	1	22.4561	0	20	112	70	130
Chloroform	1	20.3043	0	20	102	70	130
Cyclohexane	1	20.6712	0	20	103	70	130
1,2-Dichloroethane	1	22.0981	0	20	110	70	130
2-Butanone	1	17.2796	0	20	86	50	150
1,1,1-Trichloroethane	1	21.2019	0	20	106	70	130
Carbon Tetrachloride	1	20.8103	0	20	104	50	150
Vinyl Acetate	1	21.8952	0	20	109	50	150
Bromodichloromethane	1	21.0839	0	20	105	70	130
Methylcyclohexane	1	22.3194	0	20	112	70	130
Dibromomethane	1	21.2783	0	20	106	70	130
1,2-Dichloropropane	1	20.2728	0	20	101	70	130
Trichloroethene	1	23.0453	0	20	115	70	130
Benzene	1	21.9037	0	20	110	70	130
tert-Amyl methyl ether	1	20.2829	0	20	101	70	130
Iso-propylacetate	1	17.6467	0	20	88	70	130
Methyl methacrylate	1	18.2194	0	20	91	70	130
Dibromochloromethane	1	20.3007	0	20	102	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	20.4587	0	20	102	70	130
trans-1,3-Dichloropropene	1	19.2298	0	20	96	70	130
Ethyl methacrylate	1	17.7023	0	20	89	70	130
1,1,2-Trichloroethane	1	17.9407	0	20	90	70	130
1,2-Dibromoethane	1	19.6598	0	20	98	70	130
1,3-Dichloropropane	1	20.6013	0	20	103	70	130
4-Methyl-2-Pentanone	1	16.9757	0	20	85	50	150
2-Hexanone	1	14.9058	0	20	75	50	150
Tetrachloroethene	1	22.7206	1.0733	20	108	50	150
Toluene	1	20.2964	0	20	101	70	130
1,1,1,2-Tetrachloroethane	1	22.1455	0	20	111	70	130
Chlorobenzene	1	20.8237	0	20	104	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0205

QC Batch: MBS72659

n-Butyl acrylate	1	13.8059	0	20	69*	70	130
n-Amyl acetate	1	17.0757	0	20	85	70	130
Bromoform	1	16.5842	0	20	83	70	130
Ethylbenzene	1	19.374	0	20	97	70	130
1,1,2,2-Tetrachloroethane	1	17.1531	0	20	86	70	130
Styrene	1	21.9487	0	20	110	70	130
m&p-Xylenes	1	45.8788	0	40	115	70	130
o-Xylene	1	19.7284	0	20	99	70	130
trans-1,4-Dichloro-2-butene	1	11.8882	0	20	59	50	150
1,3-Dichlorobenzene	1	19.9134	0	20	100	70	130
1,4-Dichlorobenzene	1	19.9966	0	20	100	70	130
1,2-Dichlorobenzene	1	19.2116	0	20	96	70	130
Isopropylbenzene	1	20.4084	0	20	102	70	130
Cyclohexanone	1	67.3271	0	100	67	50	150
Camphene	1	13.8376	0	20	69*	70	130
1,2,3-Trichloropropane	1	17.2183	0	20	86	70	130
2-Chlorotoluene	1	20.9179	0	20	105	70	130
p-Ethyltoluene	1	19.2093	0	20	96	70	130
4-Chlorotoluene	1	20.8642	0	20	104	70	130
n-Propylbenzene	1	20.9767	0	20	105	70	130
Bromobenzene	1	17.8614	0	20	89	70	130
1,3,5-Trimethylbenzene	1	22.3824	0	20	112	70	130
Butyl methacrylate	1	18.6048	0	20	93	70	130
t-Butylbenzene	1	21.427	0	20	107	70	130
1,2,4-Trimethylbenzene	1	20.8081	0	20	104	70	130
sec-Butylbenzene	1	20.5568	0	20	103	70	130
4-Isopropyltoluene	1	20.7591	0	20	104	70	130
n-Butylbenzene	1	20.5329	0	20	103	70	130
p-Diethylbenzene	1	19.913	0	20	100	70	130
1,2,4,5-Tetramethylbenzene	1	22.3172	0	20	112	70	130
1,2-Dibromo-3-Chloropropane	1	18.5097	0	20	93	50	150
Camphor	1	145.0191	0	200	73	20	150
Hexachlorobutadiene	1	19.4223	0	20	97	50	150
1,2,4-Trichlorobenzene	1	21.915	0	20	110	70	130
1,2,3-Trichlorobenzene	1	18.9809	0	20	95	70	130
Naphthalene	1	19.8874	0	20	99	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS72659

8082413 0206

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M135460.D		AD06149-001(MSD)		9/1/2018 12:35:00 AM			
Non Spike(If applicable): 3M135456.D		AD06149-001		8/31/2018 11:25:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	16.9531	0	20	85	50	150
Dichlorodifluoromethane	1	17.7481	0	20	89	50	150
Chloromethane	1	17.8867	0	20	89	50	150
Bromomethane	1	22.9145	0	20	115	50	150
Vinyl Chloride	1	20.8829	0	20	104	50	150
Chloroethane	1	23.7535	0	20	119	50	150
Trichlorofluoromethane	1	19.8447	0	20	99	50	150
Ethyl ether	1	16.4965	0	20	82	50	150
Furan	1	17.1282	0	20	86	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	23.9636	0	20	120	50	150
Methylene Chloride	1	19.1858	0	20	96	70	130
Acrolein	1	94.0037	0	100	94	50	150
Acrylonitrile	1	19.8859	0	20	99	50	150
Iodomethane	1	20.963	0	20	105	50	150
Acetone	1	85.825	0	100	86	50	150
Carbon Disulfide	1	21.0142	0	20	105	50	150
t-Butyl Alcohol	1	89.2852	0	100	89	50	150
n-Hexane	1	25.0608	0	20	125	70	130
Di-isopropyl-ether	1	20.6334	0	20	103	70	130
1,1-Dichloroethene	1	20.2234	0	20	101	70	130
Methyl Acetate	1	17.6084	0	20	88	50	150
Methyl-t-butyl ether	1	22.2078	0	20	111	70	130
1,1-Dichloroethane	1	17.86	0	20	89	70	130
trans-1,2-Dichloroethene	1	18.5821	0	20	93	70	130
Ethyl-t-butyl ether	1	20.4411	0	20	102	70	130
cis-1,2-Dichloroethene	1	20.5804	1.7879	20	94	70	130
Bromochloromethane	1	20.2389	0	20	101	70	130
2,2-Dichloropropane	1	24.7466	0	20	124	70	130
Ethyl acetate	1	19.5314	0	20	98	50	150
1,4-Dioxane	1	1105.152	0	1000	111	50	150
1,1-Dichloropropene	1	19.8804	0	20	99	70	130
Chloroform	1	19.6281	0	20	98	70	130
Cyclohexane	1	19.4515	0	20	97	70	130
1,2-Dichloroethane	1	21.0295	0	20	105	70	130
2-Butanone	1	21.6653	0	20	108	50	150
1,1,1-Trichloroethane	1	20.8741	0	20	104	70	130
Carbon Tetrachloride	1	20.0589	0	20	100	50	150
Vinyl Acetate	1	20.1648	0	20	101	50	150
Bromodichloromethane	1	20.0018	0	20	100	70	130
Methylcyclohexane	1	20.8224	0	20	104	70	130
Dibromomethane	1	19.089	0	20	95	70	130
1,2-Dichloropropane	1	18.9926	0	20	95	70	130
Trichloroethene	1	21.1498	0	20	106	70	130
Benzene	1	20.1899	0	20	101	70	130
tert-Amyl methyl ether	1	20.5816	0	20	103	70	130
Iso-propylacetate	1	16.4545	0	20	82	70	130
Methyl methacrylate	1	16.5497	0	20	83	70	130
Dibromochloromethane	1	18.4679	0	20	92	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	17.3921	0	20	87	70	130
trans-1,3-Dichloropropene	1	18.094	0	20	90	70	130
Ethyl methacrylate	1	16.5817	0	20	83	70	130
1,1,2-Trichloroethane	1	17.665	0	20	88	70	130
1,2-Dibromoethane	1	18.2435	0	20	91	70	130
1,3-Dichloropropane	1	17.9995	0	20	90	70	130
4-Methyl-2-Pentanone	1	15.6898	0	20	78	50	150
2-Hexanone	1	16.162	0	20	81	50	150
Tetrachloroethene	1	20.4749	1.0733	20	97	50	150
Toluene	1	18.2632	0	20	91	70	130
1,1,1,2-Tetrachloroethane	1	19.0055	0	20	95	70	130
Chlorobenzene	1	19.5306	0	20	98	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

8082413 0207

QC Batch: MBS72659

n-Butyl acrylate	1	12.7453	0	20	64 *	70	130
n-Amyl acetate	1	16.3424	0	20	82	70	130
Bromoform	1	15.8911	0	20	79	70	130
Ethylbenzene	1	20.0281	0	20	100	70	130
1,1,2,2-Tetrachloroethane	1	16.506	0	20	83	70	130
Styrene	1	20.0596	0	20	100	70	130
m&p-Xylenes	1	44.4387	0	40	111	70	130
o-Xylene	1	20.8429	0	20	104	70	130
trans-1,4-Dichloro-2-butene	1	12.494	0	20	62	50	150
1,3-Dichlorobenzene	1	18.2641	0	20	91	70	130
1,4-Dichlorobenzene	1	19.1157	0	20	96	70	130
1,2-Dichlorobenzene	1	19.4657	0	20	97	70	130
Isopropylbenzene	1	20.4032	0	20	102	70	130
Cyclohexanone	1	56.1403	0	100	56	50	150
Camphene	1	12.1754	0	20	61 *	70	130
1,2,3-Trichloropropane	1	16.0383	0	20	80	70	130
2-Chlorotoluene	1	21.059	0	20	105	70	130
p-Ethyltoluene	1	18.6058	0	20	93	70	130
4-Chlorotoluene	1	19.141	0	20	96	70	130
n-Propylbenzene	1	18.9945	0	20	95	70	130
Bromobenzene	1	18.0707	0	20	90	70	130
1,3,5-Trimethylbenzene	1	21.2021	0	20	106	70	130
Butyl methacrylate	1	15.7648	0	20	79	70	130
t-Butylbenzene	1	20.1606	0	20	101	70	130
1,2,4-Trimethylbenzene	1	20.9881	0	20	105	70	130
sec-Butylbenzene	1	20.0146	0	20	100	70	130
4-Isopropyltoluene	1	20.6396	0	20	103	70	130
n-Butylbenzene	1	20.5696	0	20	103	70	130
p-Diethylbenzene	1	20.7978	0	20	104	70	130
1,2,4,5-Tetramethylbenzene	1	20.5983	0	20	103	70	130
1,2-Dibromo-3-Chloropropane	1	18.5079	0	20	93	50	150
Camphor	1	131.4294	0	200	66	20	150
Hexachlorobutadiene	1	19.4612	0	20	97	50	150
1,2,4-Trichlorobenzene	1	19.3165	0	20	97	70	130
1,2,3-Trichlorobenzene	1	18.4308	0	20	92	70	130
Naphthalene	1	20.2598	0	20	101	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

8082413 0208

QC Batch: MBS72659

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M135460.D	AD06149-001(MSD)	9/1/2018 12:35:00 AM
Duplicate(If applicable): 3M135459.D	AD06149-001(MS)	9/1/2018 12:18:00 AM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Chlorodifluoromethane	1	16.9531	17.6574	4.1	30
Dichlorodifluoromethane	1	17.7481	20.7916	16	30
Chloromethane	1	17.8867	20.0329	11	30
Bromomethane	1	22.9145	23.6975	3.4	30
Vinyl Chloride	1	20.8829	19.259	8.1	40
Chloroethane	1	23.7535	26.0784	9.3	30
Trichlorofluoromethane	1	19.8447	20.1948	1.7	30
Ethyl ether	1	16.4965	17.6991	7	30
Furan	1	17.1282	19.2229	12	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	23.9636	25.1594	4.9	30
Methylene Chloride	1	19.1858	20.0953	4.6	30
Acrolein	1	94.0037	99.5726	5.8	30
Acrylonitrile	1	19.8859	19.0784	4.1	30
Iodomethane	1	20.963	22.6086	7.6	30
Acetone	1	85.825	89.5736	4.3	30
Carbon Disulfide	1	21.0142	22.6511	7.5	30
t-Butyl Alcohol	1	89.2852	90.1312	0.94	30
n-Hexane	1	25.0608	29.2087	15	30
Di-isopropyl-ether	1	20.6334	21.0058	1.8	30
1,1-Dichloroethene	1	20.2234	21.3572	5.5	40
Methyl Acetate	1	17.6084	18.0109	2.3	30
Methyl-t-butyl ether	1	22.2078	24.4497	9.6	30
1,1-Dichloroethane	1	17.86	19.7038	9.8	40
trans-1,2-Dichloroethene	1	18.5821	21.7528	16	30
Ethyl-t-butyl ether	1	20.4411	21.2589	3.9	30
cis-1,2-Dichloroethene	1	20.5804	21.6381	5	30
Bromochloromethane	1	20.2389	22.1018	8.8	30
2,2-Dichloropropane	1	24.7466	27.5347	11	30
Ethyl acetate	1	19.5314	20.8274	6.4	30
1,4-Dioxane	1	1105.152	868.9053	24	30
1,1-Dichloropropene	1	19.8804	22.4561	12	30
Chloroform	1	19.6281	20.3043	3.4	40
Cyclohexane	1	19.4515	20.6712	6.1	30
1,2-Dichloroethane	1	21.0295	22.0981	5	40
2-Butanone	1	21.6653	17.2796	23	40
1,1,1-Trichloroethane	1	20.8741	21.2019	1.6	30
Carbon Tetrachloride	1	20.0589	20.8103	3.7	40
Vinyl Acetate	1	20.1648	21.8952	8.2	30
Bromodichloromethane	1	20.0018	21.0839	5.3	30
Methylcyclohexane	1	20.8224	22.3194	6.9	30
Dibromomethane	1	19.089	21.2783	11	30
1,2-Dichloropropane	1	18.9926	20.2728	6.5	30
Trichloroethene	1	21.1498	23.0453	8.6	40
Benzene	1	20.1899	21.9037	8.1	40
tert-Amyl methyl ether	1	20.5816	20.2829	1.5	30
Iso-propylacetate	1	16.4545	17.6467	7	30
Methyl methacrylate	1	16.5497	18.2194	9.6	30
Dibromochloromethane	1	18.4679	20.3007	9.5	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	17.3921	20.4587	16	30
trans-1,3-Dichloropropene	1	18.094	19.2298	6.1	30
Ethyl methacrylate	1	16.5817	17.7023	6.5	30
1,1,2-Trichloroethane	1	17.665	17.9407	1.5	30
1,2-Dibromoethane	1	18.2435	19.6598	7.5	30
1,3-Dichloropropane	1	17.9995	20.6013	13	30
4-Methyl-2-Pentanone	1	15.6898	16.9757	7.9	30
2-Hexanone	1	16.162	14.9058	8.1	30
Tetrachloroethene	1	20.4749	22.7206	10	40
Toluene	1	18.2632	20.2964	11	40
1,1,1,2-Tetrachloroethane	1	19.0055	22.1455	15	30
Chlorobenzene	1	19.5306	20.8237	6.4	40
n-Butyl acrylate	1	12.7453	13.8059	8	30
n-Amyl acetate	1	16.3424	17.0757	4.4	30

Form3
RPD Data Laboratory Limits

8082413 0209

QC Batch: MBS72659

Bromoform	1	15.8911	16.5842	4.3	30
Ethylbenzene	1	20.0281	19.374	3.3	30
1,1,2,2-Tetrachloroethane	1	16.506	17.1531	3.8	30
Styrene	1	20.0596	21.9487	9	30
m&p-Xylenes	1	44.4387	45.8788	3.2	30
o-Xylene	1	20.8429	19.7284	5.5	30
trans-1,4-Dichloro-2-butene	1	12.494	11.8882	5	30
1,3-Dichlorobenzene	1	18.2641	19.9134	8.6	30
1,4-Dichlorobenzene	1	19.1157	19.9966	4.5	40
1,2-Dichlorobenzene	1	19.4657	19.2116	1.3	40
Isopropylbenzene	1	20.4032	20.4084	0.03	30
Cyclohexanone	1	56.1403	67.3271	18	30
Camphene	1	12.1754	13.8376	13	30
1,2,3-Trichloropropane	1	16.0383	17.2183	7.1	30
2-Chlorotoluene	1	21.059	20.9179	0.67	30
p-Ethyltoluene	1	18.6058	19.2093	3.2	30
4-Chlorotoluene	1	19.141	20.8642	8.6	30
n-Propylbenzene	1	18.9945	20.9767	9.9	40
Bromobenzene	1	18.0707	17.8614	1.2	30
1,3,5-Trimethylbenzene	1	21.2021	22.3824	5.4	30
Butyl methacrylate	1	15.7648	18.6048	17	30
t-Butylbenzene	1	20.1606	21.427	6.1	30
1,2,4-Trimethylbenzene	1	20.9881	20.8081	0.86	30
sec-Butylbenzene	1	20.0146	20.5568	2.7	40
4-Isopropyltoluene	1	20.6396	20.7591	0.58	30
n-Butylbenzene	1	20.5696	20.5329	0.18	30
p-Diethylbenzene	1	20.7978	19.913	4.3	30
1,2,4,5-Tetramethylbenzene	1	20.5983	22.3172	8	30
1,2-Dibromo-3-Chloropropane	1	18.5079	18.5097	0.01	30
Camphor	1	131.4294	145.0191	9.8	30
Hexachlorobutadiene	1	19.4612	19.4223	0.2	30
1,2,4-Trichlorobenzene	1	19.3165	21.915	13	30
1,2,3-Trichlorobenzene	1	18.4308	18.9809	2.9	30
Naphthalene	1	20.2598	19.8874	1.9	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD06149-001
 Data File: 3M135456.D
 Acq On : 08/31/18 23:25

Operator : WP
 Sam Mult : 1 Vial# : 8
 Misc : A,5ML!1

Qt Meth : 3M_A08
 Qt On : 08/31/18 23:46
 Qt Upd On: 08/29/18 07:58

8082413 0210

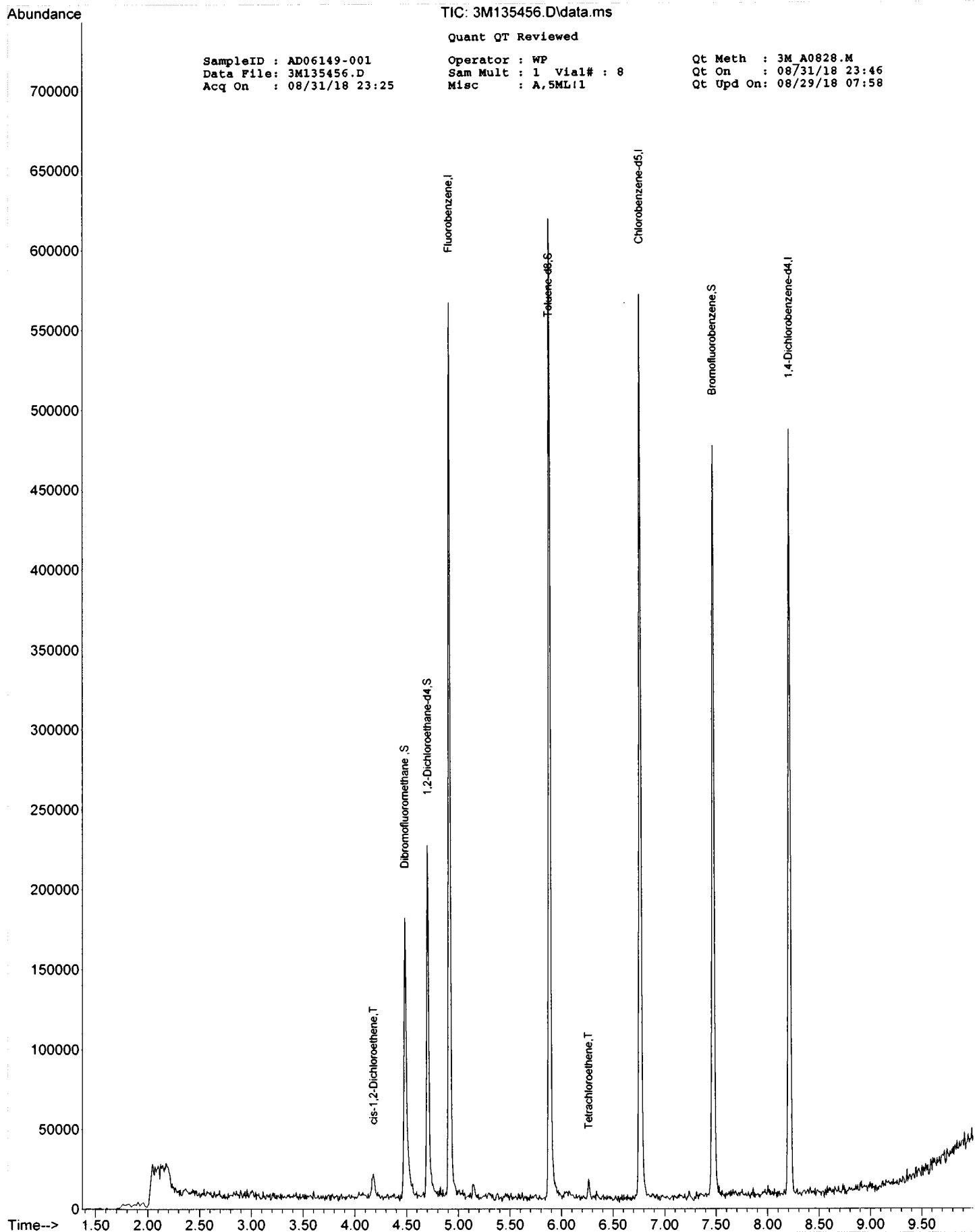
Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.916	96	317479	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.766	117	252386	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.214	152	127343	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.484	111	88528	32.04	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	106.80%	
39) 1,2-Dichloroethane-d4	4.706	67	59543	31.50	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	105.00%	
66) Toluene-d8	5.883	98	288660	26.96	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	89.87%	
76) Bromofluorobenzene	7.475	174	127819	27.96	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	93.20%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.177	61	7813	1.7879	ug/l	66
65) Tetrachloroethene	6.262	164	1980	1.0733	ug/l	76

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





SampleID : AD06149-001(MS)
 Data File: 3M135459.D
 Acq On : 09/ 1/18 00:18

Operator : WP
 Sam Mult : 1 Vial# : 11
 Misc : A,SML!1

Qt Meth : 3M_A08
 Qt On : 09/04/18 13:35
 Qt Upd On: 08/29/18 07:58

8082413 0212

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.916	96	294257	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.767	117	238431	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.214	152	124257	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.484	111	79393	31.00	ug/l	-0.01
Spiked Amount 30.000			Recovery = 103.33%			
39) 1,2-Dichloroethane-d4	4.706	67	53421	30.49	ug/l	-0.01
Spiked Amount 30.000			Recovery = 101.63%			
66) Toluene-d8	5.884	98	290987	28.77	ug/l	-0.01
Spiked Amount 30.000			Recovery = 95.90%			
76) Bromofluorobenzene	7.475	174	125572	28.15	ug/l	-0.01
Spiked Amount 30.000			Recovery = 93.83%			
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.544	51	62346	17.6574	ug/l	94
6) Dichlorodifluoromethane	1.528	85	40340	20.7916	ug/l	85
7) Chloromethane	1.694	50	55798	20.0329	ug/l	88
8) Bromomethane	2.057	94	20902	23.6975	ug/l	90
9) Vinyl Chloride	1.778	62	32141	19.2590	ug/l	88
10) Chloroethane	2.135	64	18891	26.0784	ug/l	85
11) Trichlorofluoromethane	2.345	101	52853	20.1948	ug/l	81
12) Ethyl ether	2.580	59	38216	17.6991	ug/l	85
13) Furan	2.610	39	100499	19.2229	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.760	101	25539	25.1594	ug/l	93
15) Methylene Chloride	3.162	84	48955	20.0953	ug/l	98
16) Acrolein	2.688	56	34390	99.5726	ug/l	88
17) Acrylonitrile	3.367	53	17840	19.0784	ug/l	99
18) Iodomethane	2.904	142	55160	22.6086	ug/l	88
19) Acetone	2.820	43	76809	89.5736	ug/l	100
20) Carbon Disulfide	2.964	76	140148	22.6511	ug/l	100
21) t-Butyl Alcohol	3.241	59	16730	90.1312	ug/l	98
22) n-Hexane	3.613	57	22160m	29.2087	ug/l	
23) Di-isopropyl-ether	3.781	45	150285	21.0058	ug/l	95
24) 1,1-Dichloroethene	2.772	61	68418	21.3572	ug/l	93
25) Methyl Acetate	3.072	43	52851	18.0109	ug/l	100
26) Methyl-t-butyl ether	3.385	73	108008	24.4497	ug/l	67
27) 1,1-Dichloroethane	3.745	63	81630	19.7038	ug/l	95
28) trans-1,2-Dichloroethene	3.391	96	44300	21.7528	ug/l	88
29) Ethyl-t-butyl ether	4.045	59	129892	21.2589	ug/l	99
30) cis-1,2-Dichloroethene	4.172	61	87640	21.6381	ug/l	92
31) Bromochloromethane	4.334	49	58561	22.1018	ug/l	82
32) 2,2-Dichloropropane	4.178	77	67084	27.5347	ug/l	92
33) Ethyl acetate	4.202	43	54114m	20.8274	ug/l	
34) 1,4-Dioxane	5.373	88	19346	868.9053	ug/l	77
35) 1,1-Dichloropropene	4.616	75	62569	22.4561	ug/l	95
36) Chloroform	4.376	83	82199	20.3043	ug/l	97
38) Cyclohexane	4.556	56	37387	20.6712	ug/l	91
40) 1,2-Dichloroethane	4.754	62	78902	22.0981	ug/l	94
41) 2-Butanone	4.178	43	19217m	17.2796	ug/l	
42) 1,1,1-Trichloroethane	4.514	97	67943	21.2019	ug/l	92
43) Carbon Tetrachloride	4.622	117	52389	20.8103	ug/l	87
44) Vinyl Acetate	3.775	43	119070	21.8952	ug/l	100
45) Bromodichloromethane	5.445	83	67347	21.0839	ug/l	98
46) Methylcyclohexane	5.277	83	28787	22.3194	ug/l	98
47) Dibromomethane	5.367	174	47635	21.2783	ug/l	85
48) 1,2-Dichloropropane	5.289	63	49229	20.2728	ug/l	95
49) Trichloroethene	5.145	130	52850	23.0453	ug/l	77
50) Benzene	4.748	78	176014	21.9037	ug/l	100
51) tert-Amyl methyl ether	4.802	73	114938	20.2829	ug/l	81
53) Iso-propylacetate	4.754	43	88723	17.6467	ug/l	98
54) Methyl methacrylate	5.325	41	53418	18.2194	ug/l	97
55) Dibromochloromethane	6.406	129	51827	20.3007	ug/l	94
57) cis-1,3-Dichloropropene	5.715	75	74262	20.4587	ug/l	87
58) trans-1,3-Dichloropropene	6.040	75	66246	19.2298	ug/l	95
59) Ethyl methacrylate	6.064	41	47197	17.7023	ug/l	76
60) 1,1,2-Trichloroethane	6.160	97	40411	17.9407	ug/l	90
61) 1,2-Dibromoethane	6.496	107	44463	19.6598	ug/l	86
62) 1,3-Dichloropropane	6.262	76	80638	20.6013	ug/l	92
63) 4-Methyl-2-Pentanone	5.787	43	43916	16.9757	ug/l	100
64) 2-Hexanone	6.286	43	27792	14.9058	ug/l	77
65) Tetrachloroethene	6.268	164	39597	22.7206	ug/l	87
67) Toluene	5.926	92	104905	20.2964	ug/l	94
68) 1,1,1,2-Tetrachloroethane	6.821	133	46558	22.1455	ug/l	82

SampleID : AD06149-001(MS)
 Data File: 3M135459.D
 Acq On : 09/ 1/18 00:18

Operator : WP
 Sam Mult : 1 Vial# : 11
 Misc : A,SML!1

Qt Meth : 3M_A0828.M
 Qt On : 09/04/18 13:35
 Qt Upd On: 08/29/18 07:58

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.785	112	115917	20.8237	ug/l	99
71) n-Butyl acrylate	7.055	55	76576	13.8059	ug/l	97
72) n-Amyl acetate	7.187	43	82484	17.0757	ug/l	83
73) Bromoform	7.289	173	39135	16.5842	ug/l	97
74) Ethylbenzene	6.827	106	31512	19.3740	ug/l	85
75) 1,1,2,2-Tetrachloroethane	7.536	83	55303	17.1531	ug/l	94
77) Styrene	7.151	104	116082	21.9487	ug/l	95
78) m&p-Xylenes	6.893	106	120828	45.8788	ug/l	81
79) o-Xylene	7.145	106	57888	19.7284	ug/l	77
80) trans-1,4-Dichloro-2-b...	7.560	53	14088	11.8882	ug/l	66
81) 1,3-Dichlorobenzene	8.178	146	78889	19.9134	ug/l	85
82) 1,4-Dichlorobenzene	8.226	146	83327	19.9966	ug/l	91
83) 1,2-Dichlorobenzene	8.479	146	79720	19.2116	ug/l	88
84) Isopropylbenzene	7.361	105	115675	20.4084	ug/l	95
85) Cyclohexanone	7.457	55	8731	67.3271	ug/l	78
86) Camphene	7.554	93	21960	13.8376	ug/l	94
87) 1,2,3-Trichloropropane	7.578	75	63625	17.2183	ug/l	99
88) 2-Chlorotoluene	7.698	91	76830	20.9179	ug/l	93
89) p-Ethyltoluene	7.680	105	117567	19.2093	ug/l	85
90) 4-Chlorotoluene	7.764	91	80440	20.8642	ug/l	93
91) n-Propylbenzene	7.614	91	137222	20.9767	ug/l	97
92) Bromobenzene	7.590	77	105621	17.8614	ug/l	92
93) 1,3,5-Trimethylbenzene	7.710	105	93686	22.3824	ug/l	89
94) Butyl methacrylate	7.716	41	70073	18.6048	ug/l	84
95) t-Butylbenzene	7.932	119	84522	21.4270	ug/l	86
96) 1,2,4-Trimethylbenzene	7.962	105	106922	20.8081	ug/l	88
97) sec-Butylbenzene	8.070	105	97811	20.5568	ug/l	95
98) 4-Isopropyltoluene	8.148	119	84061	20.7591	ug/l	95
99) n-Butylbenzene	8.419	91	91763	20.5329	ug/l	91
100) p-Diethylbenzene	8.401	119	47254	19.9130	ug/l	89
101) 1,2,4,5-Tetramethylben...	8.911	119	89428	22.3172	ug/l	94
102) 1,2-Dibromo-3-Chloropr...	8.983	157	13644	18.5097	ug/l	59
103) Camphor	9.470	95	45589	145.0191	ug/l	89
104) Hexachlorobutadiene	9.620	225	31786	19.4223	ug/l	96
105) 1,2,4-Trichlorobenzene	9.536	180	53840	21.9150	ug/l	95
106) 1,2,3-Trichlorobenzene	9.878	180	46927	18.9809	ug/l	91
107) Naphthalene	9.710	128	100816	19.8874	ug/l	100

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

TIC: 3M135459.D\data.ms

Quant QT Reviewed

SampleID : AD06149-001 (MS)

Operator : WP

Data File : 3M135459.D

Sam Mult : 1 Vial# : 11

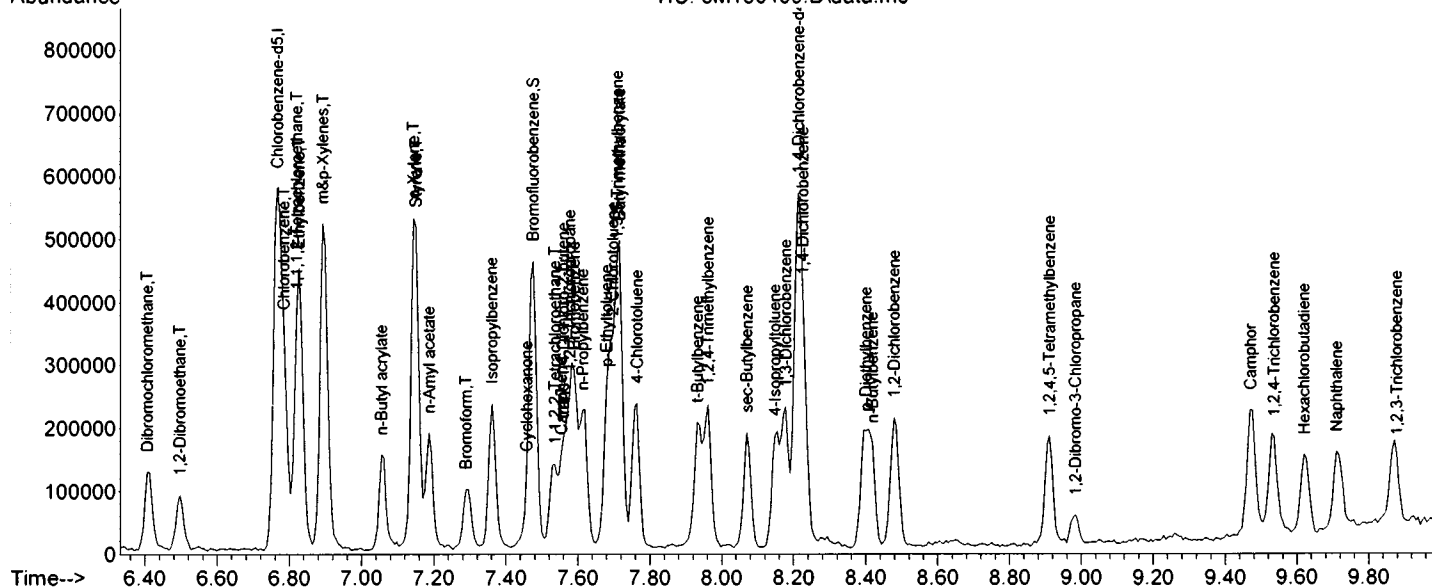
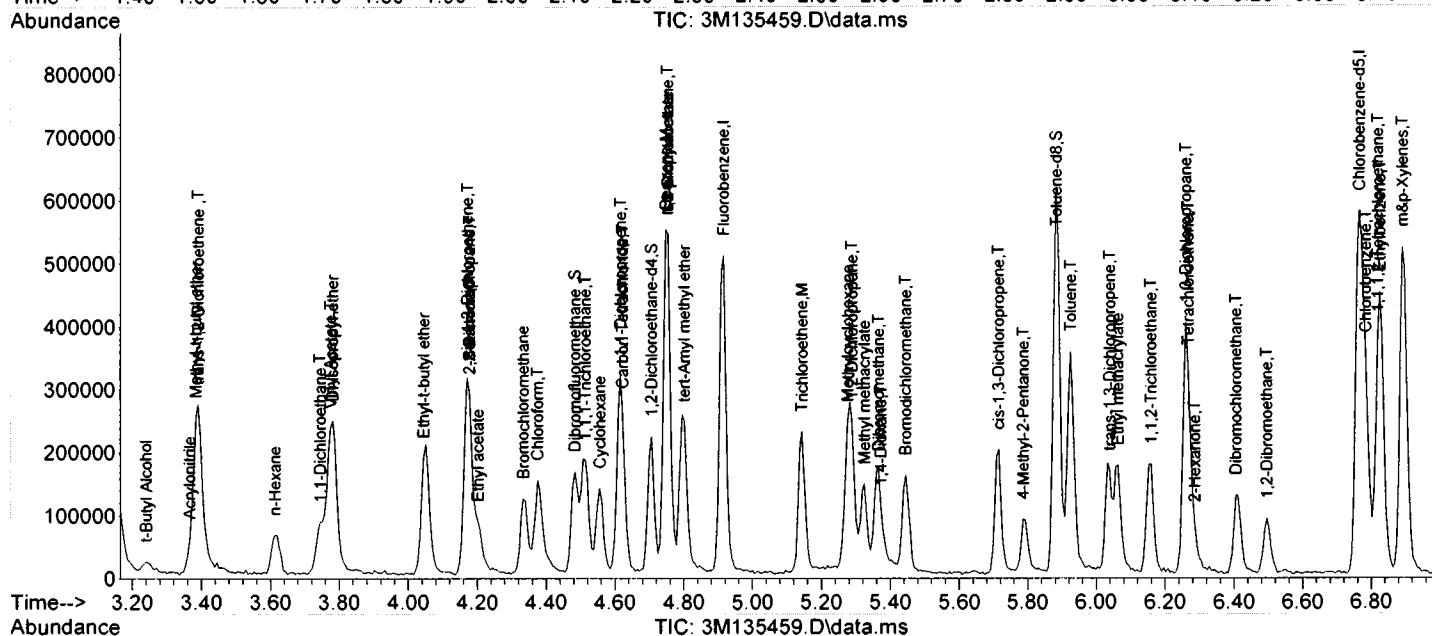
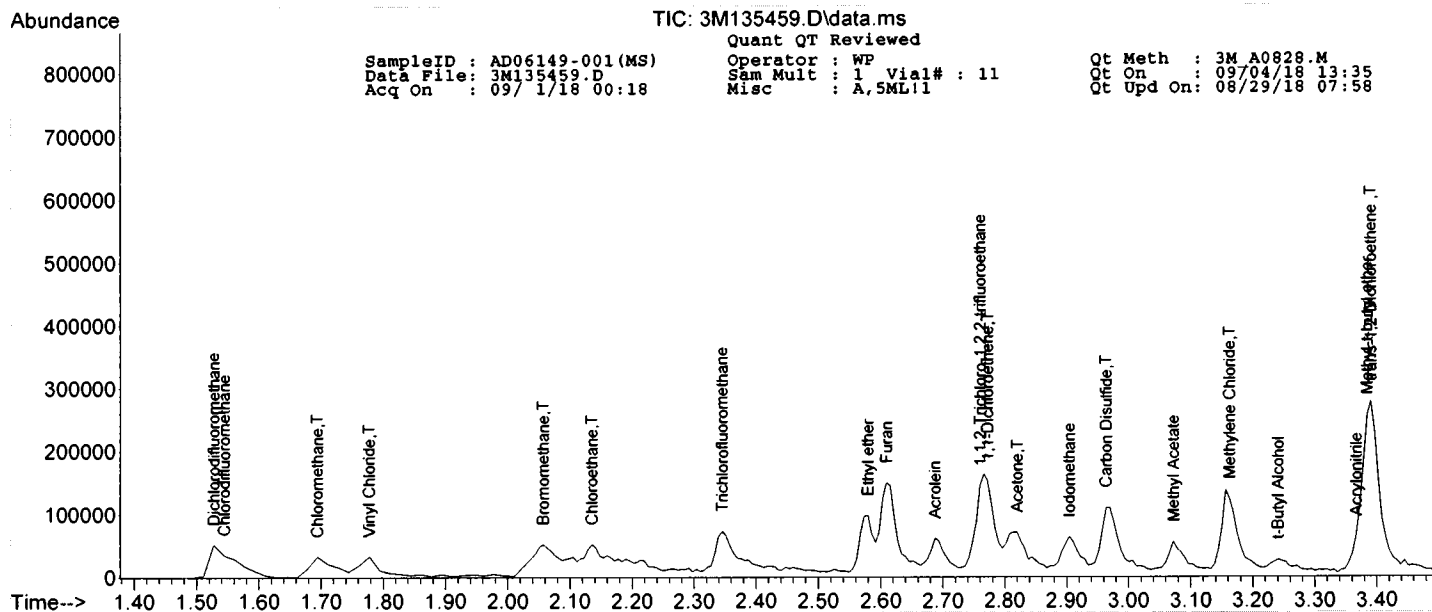
Acq On : 09/1/18 00:18

Misc : A, 5ML11

Qr Meth : 3M_A0828.M

Qr On : 09/04/18 13:35

Qr Upd On : 08/29/18 07:58



SampleID : AD06149-001(MSD)
Data File: 3M135460.D
Acq On : 09/ 1/18 00:35

Operator : WP
Sam Mult : 1 Vial# : 12
Misc : A,SML!1

Qt Meth : 3M_A08340
Qt On : 09/04/18 13:35
Qt Upd On: 08/29/18 07:58

8082413 0215

Data Path : G:\GcMsData\2018\GCMS_3\Data\08-3118\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.916	96	317517	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.766	117	267823	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.214	152	133259	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.483	111	90763	32.84	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	109.47%	
39) 1,2-Dichloroethane-d4	4.706	67	58727	31.06	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.53%	
66) Toluene-d8	5.883	98	320930	28.25	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.17%	
76) Bromofluorobenzene	7.475	174	141478	29.57	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.57%	
Target Compounds						Qvalue
5) Chlorodifluoromethane	1.558	51	64591	16.9531	ug/l	97
6) Dichlorodifluoromethane	1.525	85	37157	17.7481	ug/l	96
7) Chloromethane	1.691	50	53758	17.8867	ug/l	83
8) Bromomethane	2.062	94	21809	22.9145	ug/l	85
9) Vinyl Chloride	1.775	62	37606	20.8829	ug/l	94
10) Chloroethane	2.135	64	18567	23.7535	ug/l	81
11) Trichlorofluoromethane	2.351	101	56042	19.8447	ug/l	91
12) Ethyl ether	2.579	59	38435	16.4965	ug/l	83
13) Furan	2.609	39	96626	17.1282	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.765	101	26248	23.9636	ug/l	98
15) Methylene Chloride	3.162	84	50434	19.1858	ug/l	93
16) Acrolein	2.687	56	35033	94.0037	ug/l	79
17) Acrylonitrile	3.360	53	20065	19.8859	ug/l	75
18) Iodomethane	2.903	142	55188	20.9630	ug/l	96
19) Acetone	2.813	43	79412	85.8250	ug/l	89
20) Carbon Disulfide	2.970	76	140298	21.0142	ug/l	100
21) t-Butyl Alcohol	3.246	59	17883	89.2852	ug/l	88
22) n-Hexane	3.624	57	20516	25.0608	ug/l	72
23) Di-isopropyl-ether	3.780	45	159289	20.6334	ug/l	93
24) 1,1-Dichloroethene	2.771	61	69907	20.2234	ug/l	98
25) Methyl Acetate	3.072	43	55754	17.6084	ug/l	100
26) Methyl-t-butyl ether	3.384	73	105859	22.2078	ug/l	68
27) 1,1-Dichloroethane	3.750	63	79840	17.8600	ug/l	96
28) trans-1,2-Dichloroethene	3.396	96	40834	18.5821	ug/l	86
29) Ethyl-t-butyl ether	4.051	59	134768	20.4411	ug/l	99
30) cis-1,2-Dichloroethene	4.171	61	89945	20.5804	ug/l	76
31) Bromochloromethane	4.339	49	57864	20.2389	ug/l	87
32) 2,2-Dichloropropane	4.171	77	65057	24.7466	ug/l	97
33) Ethyl acetate	4.207	43	54758m	19.5314	ug/l	
34) 1,4-Dioxane	5.372	88	26551	1105.1519	ug/l	89
35) 1,1-Dichloropropene	4.615	75	59771	19.8804	ug/l	94
36) Chloroform	4.375	83	85743	19.6281	ug/l	93
38) Cyclohexane	4.555	56	37962	19.4515	ug/l	89
40) 1,2-Dichloroethane	4.754	62	81022	21.0295	ug/l	91
41) 2-Butanone	4.177	43	25999m	21.6653	ug/l	
42) 1,1,1-Trichloroethane	4.513	97	72180	20.8741	ug/l	95
43) Carbon Tetrachloride	4.621	117	54489	20.0589	ug/l	82
44) Vinyl Acetate	3.774	43	118328	20.1648	ug/l	100
45) Bromodichloromethane	5.444	83	68941	20.0018	ug/l	96
46) Methylcyclohexane	5.276	83	28979	20.8224	ug/l	96
47) Dibromomethane	5.366	174	46112	19.0890	ug/l	97
48) 1,2-Dichloropropane	5.288	63	49766	18.9926	ug/l	86
49) Trichloroethene	5.144	130	52337	21.1498	ug/l	93
50) Benzene	4.748	78	175067	20.1899	ug/l	100
51) tert-Amyl methyl ether	4.802	73	125850	20.5816	ug/l	77
53) Iso-propylacetate	4.754	43	92927	16.4545	ug/l	96
54) Methyl methacrylate	5.324	41	54504	16.5497	ug/l	94
55) Dibromochloromethane	6.412	129	52960	18.4679	ug/l	94
57) cis-1,3-Dichloropropene	5.715	75	70913	17.3921	ug/l	94
58) trans-1,3-Dichloropropene	6.039	75	70017	18.0940	ug/l	99
59) Ethyl methacrylate	6.063	41	49659	16.5817	ug/l	77
60) 1,1,2-Trichloroethane	6.159	97	44695	17.6650	ug/l	83
61) 1,2-Dibromoethane	6.502	107	46346	18.2435	ug/l	89
62) 1,3-Dichloropropane	6.261	76	79139	17.9995	ug/l	99
63) 4-Methyl-2-Pentanone	5.787	43	45593	15.6898	ug/l	89
64) 2-Hexanone	6.279	43	33849	16.1620	ug/l	98
65) Tetrachloroethene	6.261	164	40082	20.4749	ug/l	96
67) Toluene	5.925	92	106033	18.2632	ug/l	87
68) 1,1,1,2-Tetrachloroethane	6.826	133	44882	19.0055	ug/l	79

SampleID : AD06149-001 (MSD)

Operator : WP

Qt Meth : 3M_A0828.M

Data File: 3M135460.D

Sam Mult : 1 Vial# : 12

Qt On : 09/04/18 13:35

Acq On : 09/ 1/18 00:35

Misc : A,SML!1

Qt Upd On: 08/29/18 07:58

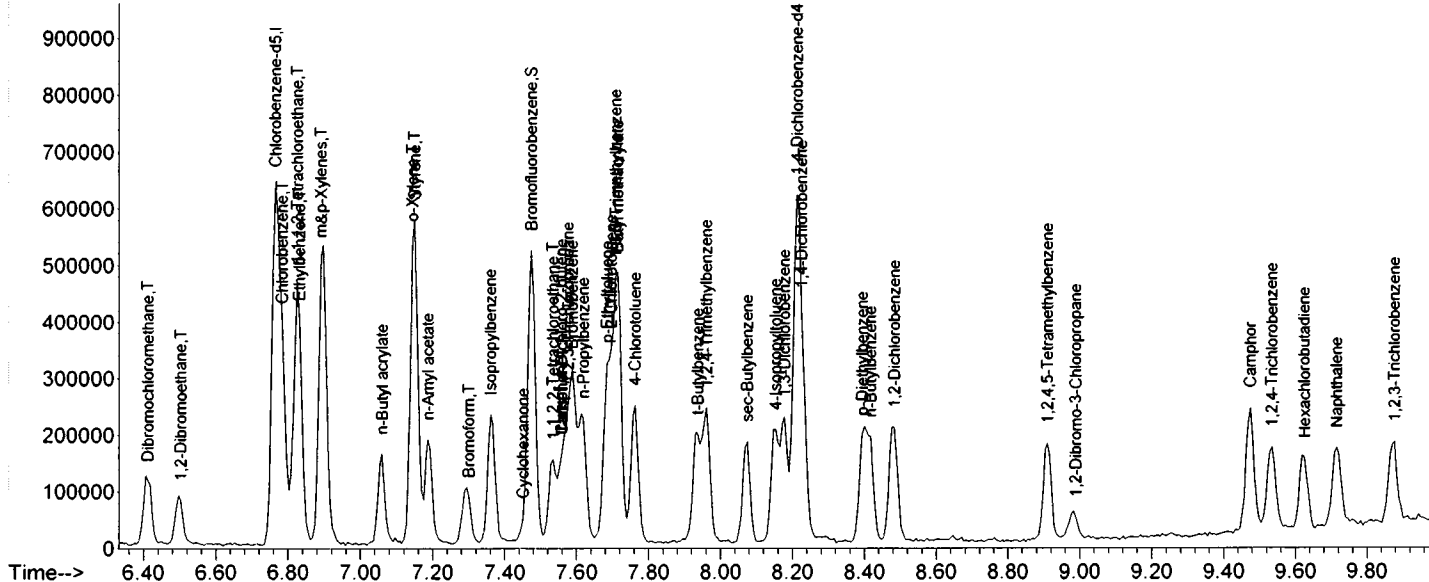
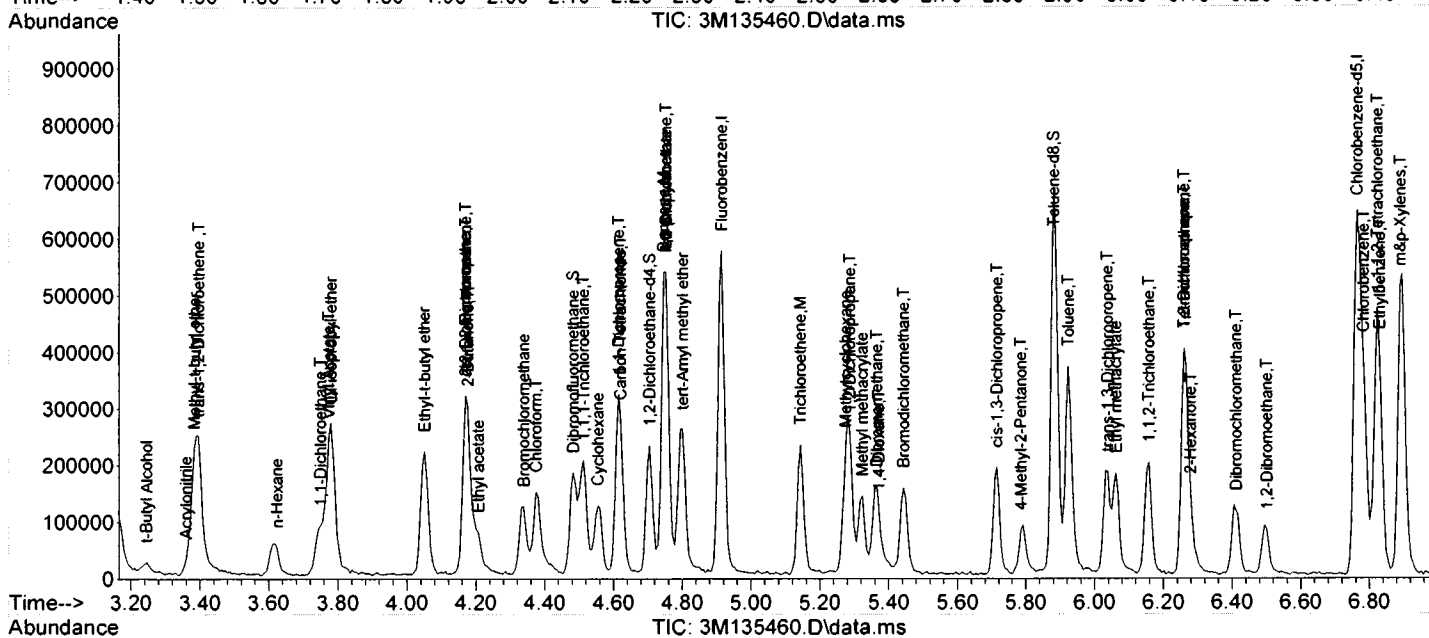
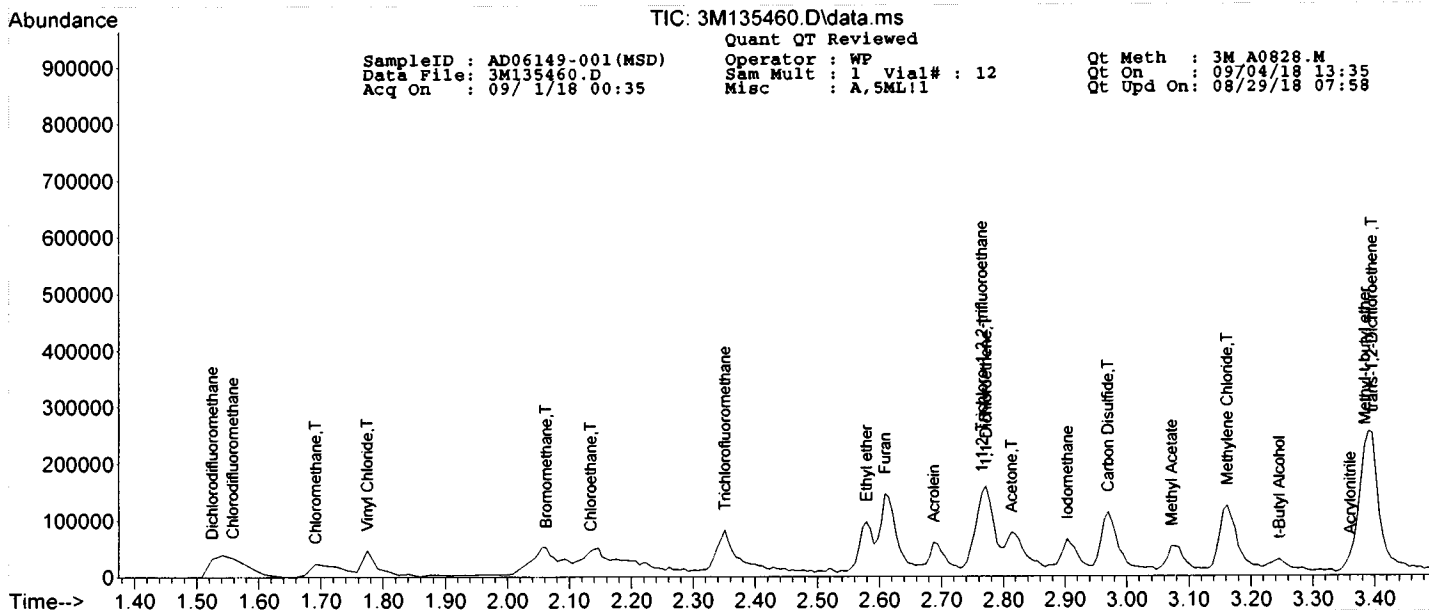
Data Path : G:\GCMSData\2018\GCMS_3\Data\08-3118\

Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.784	112	122121	19.5306	ug/l	98
71) n-Butyl acrylate	7.060	55	75813	12.7453	ug/l	95
72) n-Amyl acetate	7.186	43	84661	16.3424	ug/l	82
73) Bromoform	7.301	173	40216	15.8911	ug/l	94
74) Ethylbenzene	6.832	106	34936	20.0281	ug/l	82
75) 1,1,2,2-Tetrachloroethane	7.535	83	57072	16.5060	ug/l	87
77) Styrene	7.150	104	113777	20.0596	ug/l	88
78) m&p-Xylenes	6.892	106	125514	44.4387	ug/l	79
79) o-Xylene	7.144	106	65589	20.8429	ug/l	69
80) trans-1,4-Dichloro-2-b...	7.559	53	15878	12.4940	ug/l	75
81) 1,3-Dichlorobenzene	8.178	146	77597	18.2641	ug/l	88
82) 1,4-Dichlorobenzene	8.226	146	85427	19.1157	ug/l	92
83) 1,2-Dichlorobenzene	8.484	146	86626	19.4657	ug/l	85
84) Isopropylbenzene	7.361	105	124024	20.4032	ug/l	92
85) Cyclohexanone	7.451	55	7796	56.1403	ug/l	92
86) Camphene	7.559	93	20722	12.1754	ug/l	98
87) 1,2,3-Trichloropropane	7.577	75	63558	16.0383	ug/l	99
88) 2-Chlorotoluene	7.697	91	82952	21.0590	ug/l	94
89) p-Ethyltoluene	7.685	105	122123	18.6058	ug/l	82
90) 4-Chlorotoluene	7.763	91	79143	19.1410	ug/l	89
91) n-Propylbenzene	7.619	91	133257	18.9945	ug/l	92
92) Bromobenzene	7.589	77	114600	18.0707	ug/l	92
93) 1,3,5-Trimethylbenzene	7.709	105	95175	21.2021	ug/l	85
94) Butyl methacrylate	7.715	41	63678	15.7648	ug/l	95
95) t-Butylbenzene	7.937	119	85288	20.1606	ug/l	85
96) 1,2,4-Trimethylbenzene	7.961	105	115660	20.9881	ug/l	90
97) sec-Butylbenzene	8.075	105	102130	20.0146	ug/l	97
98) 4-Isopropyltoluene	8.154	119	89632	20.6396	ug/l	88
99) n-Butylbenzene	8.418	91	98587	20.5696	ug/l	92
100) p-Diethylbenzene	8.394	119	52929	20.7978	ug/l	91
101) 1,2,4,5-Tetramethylben...	8.910	119	88520	20.5983	ug/l	91
102) 1,2-Dibromo-3-Chloropr...	8.989	157	14631	18.5079	ug/l	55
103) Camphor	9.475	95	44318	131.4294	ug/l	100
104) Hexachlorobutadiene	9.625	225	34157	19.4612	ug/l	97
105) 1,2,4-Trichlorobenzene	9.535	180	50894	19.3165	ug/l	94
106) 1,2,3-Trichlorobenzene	9.878	180	48868	18.4308	ug/l	91
107) Naphthalene	9.715	128	110144	20.2598	ug/l	100

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



GC/MS Volatile Data
Logbook Data

Hampton-Clarke, Inc.

Volatile Sample Batching - GC/MS 3

8/20/18	8/22/18	8/22/18	8/23/18
Batch #: 72641	Batch #: 71031	Batch #: 71032	Batch #: 72653
MATRIX: AQC18	MATRIX: AQC18	MATRIX: M801	MATRIX: M801
MBS: 3m135326	MBS: 3m135222	MBS: 3m135223	MBS: 3m135418
MS: AOC6182-001	MS: AOC6187-009	MS: AOC6185-011	MS: AOC6184-001
MSD: -001	MSD: -009	MSD: -011	MSD: -001
1. AOC6182-001	1. AOC611-002	1. AOC6187-001	1. AOC6234-002
2. -002	2. AOC6187-001	2. -002	2.
3. AOC6187-001	3. -007	3. -009	3.
4. -002	4. -003	4. -010	4.
5. -003	5. -009	5. -016	5.
6. -004	6.	6.	6.
7. -005	7.	7.	7.
8. -006	8.	8.	8.
9. AOC6121-001	9.	9.	9.
10. -017	10.	10.	10.
11. AOC6129-001	11.	11.	11.
12. -002	12.	12.	12.
13. AOC6164-002	13.	13.	13.
14.	14.	14.	14.
15.	15.	15.	15.
16.	16.	16.	16.
17.	17.	17.	17.
18.	18.	18.	18.
19.	19.	19.	19.
20.	20.	20.	20.

8/23/18 (1)	8/23/18	8/23/18	9/14/18
Batch #: 72654	Batch #: 72659	Batch #: 72660	Batch #: 72666
MATRIX: AQC18	MATRIX: AQC18	MATRIX: M801	MATRIX: AQC18
MBS: 3m135419	MBS: 3m135458	MBS: 3m135480	MBS: 3m135528
MS: AOC6169-001	MS: AOC6149-001	MS: AOC6141-002	MS: AOC6252-001
MSD: -002	MSD: -001	MSD: -002	MS/MSD: -004
1. AOC6237-002	1. AOC6169-001	1.	1. AOC6169-009
2. AOC6255-001	2. -005	2.	2. AOC6219-007
3. AOC6169-002	3. -006	3.	3. -005
4. -003	4. -007	4.	4.
5. -004	5. -008	5.	5.
6. AOC6216-001	6. -010	6.	6.
7. AOC6234-001	7. -011	7.	7.
8.	8. -017	8.	8.
9.	9. AOC6219-002	9.	9.
10.	10. -004	10.	10.
11.	11. -006	11.	11.
12.	12. -007	12.	12.
13.	13. -008	13.	13.
14.	14. AOC6133-003	14.	14.
15.	15. AOC6149-001	15.	15.
16.	16.	16.	16.
17.	17.	17.	17.
18.	18.	18.	18.
19.	19.	19.	19.
20.	20.	20.	20.

Hampton-Clarke, Inc.

Volatile Sample Batching - GC/MS 3

Batch #: 71018	Batch #: 71020	Batch #: 71029	Batch #: 72018
MATRIX: A9 G18	MATRIX: MECH	MATRIX: A9 G18	MATRIX: A9 G18
MBS: Jm135090	MBS: Jm135100	MBS: Jm135106	MBS: Jm135267
MS: ADOG127-003	MS: ADOG127-015	MS: ADOG101-007	MS: ADOG125-003
MSD: -003	MSD: -015	MSD: -003	MSD: -003
1. ADOG126-002	1. ADOG126-001	1. ADOG107-002	1. ADOG196-001
2. ADOG127-003	2. ADOG104-016	2.	2. ADOG125-002
3. -010	3.	3.	3. -008
4. -012	4.	4.	4. -011
5. ADOG125-003	5.	5.	5. ADOG121-001
6. -004	6.	6.	6. -002
7.	7.	7.	7. -003
8.	8.	8.	8. -004
9.	9.	9.	9. -005
10.	10.	10.	10. -006
11.	11.	11.	11. -003
12.	12.	12.	12. -009
13.	13.	13.	13. -010
14.	14.	14.	14. -011
15.	15.	15.	15. -012
16.	16.	16.	16. -014
17.	17.	17.	17. ADOG146-001
18.	18.	18.	18. ADOG149-003
19.	19.	19.	19.
20.	20.	20.	20.

Batch #: 72018	Batch #: 72018	Batch #: 72018	Batch #: 72018
MATRIX: MECH	MATRIX: A9 G18	MATRIX: MECH	MATRIX: MECH
MBS: Jm135287	MBS: Jm135370	MBS: Jm135402	MBS: Jm135325
MS: ADOG204-002	MS: ADOG207-001	MS: ADOG165-002	MS: ADOG147-002
MSD: -002	MSD: -001	MSD: -002	MS/MSD: -002
1.	1. ADOG207-001	1.	1. ADOG147-001
2.	2. ADOG202-001	2.	2.
3.	3. -002	3.	3.
4.	4. -003	4.	4.
5.	5. -005	5.	5.
6.	6. -006	6.	6.
7.	7. -007	7.	7.
8.	8. ADOG129-002	8.	8.
9.	9. ADOG149-002	9.	9.
10.	10. ADOG151-001	10.	10.
11.	11. -002	11.	11.
12.	12. -003	12.	12.
13.	13. ADOG161-003	13.	13.
14.	14.	14.	14.
15.	15.	15.	15.
16.	16.	16.	16.
17.	17.	17.	17.
18.	18.	18.	18.
19.	19.	19.	19.
20.	20.	20.	20.



1-1-3M132618

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M132618	BFB TUNE		V-282201,V-281784,V-283523	WP 07/16/18						07/13 19:52
3M132620	CAL @ 0.5 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 20:24
3M132621	CAL @ 1 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 20:41
3M132622	CAL @ 5 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 20:58
3M132623	CAL @ 10 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 21:14
3M132624	CAL @ 20 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 21:31
3M132625	CAL @ 500 PPB		B25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 21:48
3M132628	CAL @ 250 PPB		B-25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 22:37
3M132631	CAL @ 100 PPB		B-25384	WP 07/16/18		Aqueous	1	1	624/826	07/13 23:28
3M132634	CAL @ 50 PPB					Aqueous	1	1	624/826	07/14 00:22
3M132637	ICV	IvoBnf	V-283687	WP 07/16/18		Aqueous	1	1	624/826	07/14 01:13
3M132643	DAILY BLANK		OK	WP 07/16/18		Methano	1	1	8260C	07/14 02:55
3M132644	AD05312-001		OK	WP 07/16/18	VO15-8260	Methano	1	1	8260C	07/14 03:12
3M132645	AD05377-001		OK	WP 07/16/18	VO15-8260	Methano	1	1	8260C	07/14 03:29
3M132646	AD05357-003		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 03:45
3M132647	AD05357-005		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 04:03
3M132648	MBS70502		OK MBS70502	WP 07/16/18		Methano	1	1	8260C	07/14 04:19
3M132649	AD05357-008(MS)		OK MBS70502	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 04:36
3M132650	AD05357-008(MSD)		OK MBS70502	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 04:53
3M132651	AD05357-008		RR-5G MBS70502	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 05:10
3M132652	AD05357-002		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 05:27
3M132653	AD05357-001		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 05:44
3M132654	AD05357-006		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 06:01
3M132655	AD05357-004		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 06:18
3M132656	AD05357-007		OK	WP 07/16/18	VO-8260	Methano	1	1	8260C	07/14 06:35
3M132657	MBS70503	S6S8Bnf	MBS70503			Aqueous	1	1	624/826	07/14 06:51

Area Not Checked	En	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Area Out	Esm	Solvent Extraction Date Missing/Not checked	CRN	Warning c30/c20 not checked
Blank 800 series missing	Ein	Tcin/Solvent Extraction Date Missing/Not checked	Cm	C30/C20 failed for enh
Blank 8000 series missing	Eln	Tcin Extraction Performed Outside of Hold	Fv	Fval Mix Failed
Blank Not Found/Assigned	Ev	Eval Time Exceeded	Fvnc	Fval Mix Not Checked
Calibration Column 1 Out (8000 Series)	Hh	Analysis Before Collection Date	Fvnc	Fval Mix missing ddi or endrin
Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMed (col1 and or col2) 8000 series
Calibration Column 2 Out (8000 Series)	I16 I26	Initial cal 800 series failed Column 1 and or 2	R18 R28	Rnd Out on MsMed (col1 and or col2) 8000 series
Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
800 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rin	Can't Calculate Diff
8000 series sample/blank did not have passing cal	Iv	Print with calint csv for init calibration check rfs	S8	800 series surrogate out
Endion Cal missing for sample (8000 series)	Iw	Initial cal warning ini cal file <= method	S8	8000 series surrogate out
Calibration Not Checked for sample/blank/eval	Ix	Initial Cal Files Not Updated Properly for a sample	Sa6 Sb6	Acid and nr.BN Surrogate Out (800 series)



RUN LOG

Instrument: GCMS-3 Year: 2018
Analysis: 80824130222

1-1-3M135074

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M135074	BFB TUNE		V-282201,V-281784,V-286209,V-286369	SG 08/27/18						08/27 08:24
3M135076	CAL @ 20 PPB		OK	SG 08/27/18		Aqueous	1	1	624\826	08/27 08:51
3M135078	BLKHCL	S6S8				Aqueous	1	1	624\826	08/27 09:25
3M135079	BLK					Aqueous	1	1	624\826	08/27 09:43
3M135081	DAILY BLANK		OK	WP 08/27/18		Methano	1	1	8260C	08/27 10:22
3M135082	DAILY BLANK		OK	WP 08/27/18		Aqueous	1	1	624\826	08/27 10:39
3M135083	BLK1585					Aqueous	1	1	624\826	08/27 10:56
3M135084	AD06125-003		OK MBS72636	WP 08/27/18	VO15-8260	Aqueous	1	1	8260C	08/27 11:16
3M135085	AD06125-004		OK	WP 08/27/18	VO15-8260	Aqueous	1	1	8260C	08/27 11:33
3M135086	AD06136-002	S8Ao	RR-1X	WP 08/27/18	VO-8260	Aqueous	1	1	8260C	08/27 11:50
3M135087	AD06125-011	S8	RR-1X	WP 08/27/18	VO15-8260	Aqueous	1	1	8260C	08/27 12:07
3M135088	AD06125-002(20X)	S8	RR-20X	WP 08/27/18	VO15-8260	Aqueous	1	20	8260C	08/27 12:25
3M135089	06125-008(20X)		ok	SG 08/28/18		Aqueous	1	20	624\826	08/27 12:42
3M135090	MBS71018		OK MBS71018	WP 08/27/18		Aqueous	1	1	624\826	08/27 13:00
3M135091	AD06136-002	S8AoOc	-a foamer,use 1st run	WP 08/27/18	VO-8260	Aqueous	1	1	8260C	08/27 13:17
3M135092	AD06125-011		USE 1st run	SG 08/28/18	VO15-8260	Aqueous	1	1	8260C	08/27 13:34
3M135093	06125-002(20X)		ok	SG 08/28/18		Aqueous	1	20	624\826	08/27 13:51
3M135094	AD06084-015		OK	WP 08/27/18	VO15-8260	Methano	1	1	8260C	08/27 14:08
3M135095	AD06156-002				VO15-8260	Methano	1	1	8260C	08/27 14:26
3M135096	AD06160-001		RR-5G	WP 08/27/18	VO15-8260	Methano	1	1	8260C	08/27 14:43
3M135097	AD06136-001		OK	WP 08/27/18	VO-8260	Methano	1	1	8260C	08/27 15:00
3M135098	AD06156-005(80uL)		OK	WP 08/27/18	VO15-8260	Methano	1	10	8260C	08/27 15:17
3M135099	AD06156-014(400u)		OK	WP 08/27/18	VO15-8260	Methano	1	2	8260C	08/27 15:34
3M135100	MBS71020		OK MBS71020	WP 08/27/18		Methano	1	1	8260C	08/27 15:51
3M135101	AD06127-015(MS)		OK MBS71020	WP 08/27/18	VO-PAPBS82	Methano	1	1	8260C	08/27 16:09
3M135102	AD06127-015(MSD)		OK MBS71020	WP 08/27/18	VO-PAPBS82	Methano	1	1	8260C	08/27 16:26
3M135103	AD06127-015		RR-5G MBS71020	WP 08/27/18	VO-PAPBS82	Methano	1	1	8260C	08/27 16:43
3M135104	06132-013		RR-5G	WP 08/27/18		Methano	1	0.130	8260C	08/27 17:00
3M135105	AD06123-008(T)		OK MBS71018	WP 08/27/18	VOTCLP-826	Aqueous	1	1	624\826	08/27 17:17
3M135106	AD06123-010(T)		OK	WP 08/27/18	VOTCLP-826	Aqueous	1	1	8260C	08/27 17:34
3M135107	AD06123-012(T)		OK	WP 08/27/18	VOTCLP-826	Aqueous	1	1	8260C	08/27 17:51
3M135108	AD06123-008(T:MS S6S8				VOTCLP-826	Aqueous	1	1	624\826	08/27 18:09
3M135109	AD06123-008(T:(M		OK MBS71018	WP 08/27/18	VOTCLP-826	Aqueous	1	1	624\826	08/27 18:26
3M135110	EF-1-V-286161(082					Aqueous	1	8241	8260C	08/27 18:43

Area Not Checked	En	Extraction Performed Past Hold	Ca	Warning Possible Carry Over
Area Out	EsM	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
Blank 8000 series missing	Ein	Tcin/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for enh
Blank 8000 series missing	Ein	Tcin Extraction Performed Outside of Hold	EUF	Eval Mix Failed
Blank Not Found/Assigned	Ev	Eval Time Exceeded	Eync	Eval Mix Not Checked
Calibration Column 1 Out (8000 Series)	HH	Analysis Before Collection Date	Fmc	Eval Mix missing ddt nr andrin
Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMsd (col1 and/or col2) 600 series
Calibration Column 2 Out (8000 Series)	I16 I26	Initial cal 8000 series failed Column 1 and/or 2	R18 R28	Rnd Out on MsMsd (col1 and/or col2) 8000 series
Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and/or 2	Rn	Retention Time Out Or %Diff Out
600 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Drift
8000 series sample/blank did not have passing cal	Iv	Prob with calnot csv for initial calibration check rfs	S6	800 series surrogate not
Endion Cal missing for sample (8000 series)	Iw	Initial cal warning: Ini cal file -> method	S8	8000 series surrogate not
Calibration Not Checked for sample/blank/eval	Iix	Initial Cal Files Not Updated Properly for a sample	Sa6 Sb6	Acid and/or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS 3 Year: 2018

8082413-0223

1-1-3M135190

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M135190.	BFB TUNE		V-282201,V-281784,V-286209	SG 08/29/18						08/28 20:11
3M135192.	BLK	IsCnBnfAnc				Aqueous 1	1	1	624\826	08/28 20:38
3M135193.	CAL @ 0.5 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 20:56
3M135194.	CAL @ 1 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 21:14
3M135195.	CAL @ 5 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 21:31
3M135196.	CAL @ 10 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 21:48
3M135197.	CAL @ 20 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 22:06
3M135198.	CAL @ 500 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 22:20
3M135201.	CAL @ 250 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/28 23:13
3M135204.	CAL @ 100 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/29 00:07
3M135207.	CAL @ 50 PPB		B-25607	SG 08/29/18		Aqueous 1	1	1	624\826	08/29 00:59
3M135210.	ICV	IsIvoBnf	V-286529	SG 08/29/18		Aqueous 1	1	1	624\826	08/29 01:50

Anc	Area Not Checked	Fo	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Fcm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
IRm	Blank 600 series missing	Ffn	ToluSolvent Extraction Date Missing/Not check'd	Cn	C30/C20 failed for enh
IRm	Blank 8000 series missing	Fto	Tolu Extraction Performed Outside of Hold	EvF	Eval Mix Failed
Bnf	Blank Not Found/Assigned	Fv	Eval Time Exceeded	Fvnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hb	Analysis Before Collection Date	Fvnc	Eval Mix missing dft or endfn
C18	Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMsd (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Rnd Out on MsMsd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
C6f	600 series sample/blank did not have missing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Dnft
C6f	8000 series sample/blank did not have missing cal	Iv	Pmb with calret csv for init calibration check rfs	S6	600 series surrogate out
Cme	Endion Cal missing for sample (8000 series)	Iw	Initial cal warning Ini cal file <> method	S8	8000 series surrogate out
ICn	Calibration Not Checked for sample/blank/eval	Ix	Initial Cal Files Not Updated Properly for a sample	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS 3 Year: 2018
8082413-0224

1-1-3M135254

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M135254.	BFB TUNE		V-282201,V-281784,V-286209,V-286530	SG 08/30/18						08/29 14:56
3M135255.	CAL @ 20 PPB		OK	WP 08/29/18		Aqueous 1	1		624\826	08/29 15:06
3M135257.	BLK					Aqueous 1	1		624\826	08/29 15:40
3M135258.	DAILY BLANK		OK	WP 08/29/18		Aqueous 1	1		624\826	08/29 15:58
3M135259.	DAILY BLANK		OK,OK,V-11808	WP 08/29/18,SG 08/30/18		Methano 1	1		8260C	08/29 16:15
3M135260.	AD06121-014		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 16:32
3M135261.	06096-008					Aqueous 1	1		624\826	08/29 16:49
3M135262.	06205-001		RR-5G	WP 08/29/18		Methano 1	0.128		8260C	08/29 17:07
3M135263.	AD06125-011		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 17:24
3M135264.	AD06125-002(5X)		RR-5X	SG 08/30/18	VO15-8260	Aqueous 1	5		8260C	08/29 17:42
3M135265.	AD06125-008(5X)		RR-5X	SG 08/30/18	VO15-8260	Aqueous 1	5		8260C	08/29 17:59
3M135267.	MBS72636	M16M18	OK MBS72636	WP 08/29/18		Aqueous 1	1		624\826	08/29 18:16
3M135268.	AD06186-001		OK	WP 08/29/18	VO-8260	Aqueous 1	1		8260C	08/29 18:33
3M135269.	AD06146-001		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 18:50
3M135270.	AD06125-003(MS)		OK MBS72636	WP 08/29/18	VO15-8260	Aqueous 1	1		624\826	08/29 19:08
3M135271.	AD06125-003(MSD)		OK MBS72636	WP 08/29/18	VO15-8260	Aqueous 1	1		624\826	08/29 19:25
3M135272.	06205-003		RR-5G	WP 08/29/18		Methano 1	0.128		8260C	08/29 19:42
3M135273.	AD06149-003		OK	WP 08/29/18	VO-8260	Aqueous 1	1		8260C	08/29 19:59
3M135274.	AD06156-015		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 20:16
3M135275.	AD06121-001		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 20:34
3M135276.	AD06121-002		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 20:51
3M135277.	AD06121-004		RR-1X,possible co	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 21:08
3M135278.	AD06121-005		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 21:25
3M135279.	AD06121-006		OK	WP 08/29/18	VO15-8260	Aqueous 1	1		8260C	08/29 21:42
3M135280.	AD06121-008		OK	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 21:59
3M135281.	AD06121-009		OK	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 22:13
3M135282.	AD06121-011	Ocf	RR-10X	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 22:29
3M135283.	AD06121-010	Ocf	RR-10X	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 22:48
3M135284.	AD06121-012		RR-1X	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 23:05
3M135285.	AD06121-013		RR-1X	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 23:25
3M135286.	AD06121-003		OK	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/29 23:42
3M135287.	MBS72638		OK MBS72638	SG 08/30/18		Methano 1	1		8260C	08/29 23:59
3M135288.	AD06204-002(MS)		OK MBS72638	SG 08/30/18	VO15-8260	Methano 1	1		8260C	08/30 00:16
3M135289.	AD06204-002(MSD)		OK MBS72638	SG 08/30/18	VO15-8260	Methano 1	1		8260C	08/30 00:33
3M135290.	AD06204-002		RR-5g MBS72638	SG 08/30/18	VO15-8260	Methano 1	1		8260C	08/30 00:51
3M135291.	AD06121-004		OK	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/30 01:08
3M135292.	AD06121-012		OK	SG 08/30/18	VO15-8260	Aqueous 1	1		8260C	08/30 01:25
3M135293.	AD06125-002(5X)		OK	SG 08/30/18	VO15-8260	Aqueous 1	5		8260C	08/30 01:42
3M135294.	AD06125-008(5X)		OK	SG 08/30/18	VO15-8260	Aqueous 1	5		8260C	08/30 01:59
3M135295.	AD06121-011(10X)		OK	SG 08/30/18	VO15-8260	Aqueous 1	10		8260C	08/30 02:17
3M135296.	AD06121-010(10X)		OK	SG 08/30/18	VO15-8260	Aqueous 1	10		8260C	08/30 02:34
3M135297.	AD06126-009		OK	SG 08/30/18	VO15-8260	Methano 1	1		8260C	08/30 02:51
3M135298.	AD06126-001	Ti8	RR-800uL	SG 08/30/18	VO15-8260	Methano 1	1		8260C	08/30 03:08
3M135299.	BLK	Ti8				Aqueous 1	1		624\826	08/30 03:24
3M135300.	BLK	Ti8				Aqueous 1	1		624\826	08/30 03:38
3M135301.	BLK	Ti8				Aqueous 1	1		624\826	08/30 03:58

Area Not Checked
Area Out
Blank 600 series missing
Blank 8000 series missing
Blank Not Found/Assigned
Calibration Column 1 Out (600 Series)
Calibration Column 1 Out (800 Series)
Calibration Column 2 Out (600 Series)
Calibration Column 2 Out (800 Series)
600 series sample/blank did not have passing cal
8000 series sample/blank did not have passing cal
Finding Cal missing for sample (8000 series)
Calibration Not Checked for sample/blank/eval

Extraction Performed Past Hold
Solvent Extraction Date Missing/Not checked
ToluSolvent Extraction Date Missing/Not checked
Tolu Extraction Performed Outside of Hold
Eval Time Exceeded
Analysis Before Collection Date
Sample Analyzed outside of hold time
Initial cal 600 series failed Column 1 and or 2
Initial cal 8000 series failed Column 1 and or 2
Initial Cal Not Checked
Pmb with calmt csv for init calibration check
Initial cal warning. Ini cal file < method
Initial Cal Files Not Updated Properly In a sample

Warning Possible Carry Over
Warning c30/c20 not checked
C30/C20 failed for enh
Eval Mix Failed
Eval Mix Not Checked
Eval Mix missing dft or endrin
Rnd Out on MSMSd (col1 and or col2) 600 series
Rnd Out on MSMSd (col1 and or col2) 8000 series
Retention Time Out Or %Diff Out
Can't Calculate Dft
600 series surrogate out
8000 series surrogate out
Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS 3 Year 2018
8082413-0225

1-1-3M135363

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M135363.	BFB TUNE		V-282201,V-281784,V-286209,V-286583	SG 08/31/18						08/30 21:04
3M135364.	CAL @ 20 PPB		ok	SG 08/31/18		Aqueous 1	1		624\826	08/30 21:14
3M135367.	BLK					Methano 1	1		8260C	08/30 22:05
3M135368.	DAILY BLANK		ok	SG 08/31/18		Aqueous 1	1		624\826	08/30 22:19
3M135369.	AD06207-001(T)		OK MBS72643	SG 08/31/18	VOTCLP-826	Aqueous 1	1		624\826	08/30 22:37
3M135370.	MBS72643	M16M18	OK MBS72643	SG 08/31/18		Aqueous 1	1		624\826	08/30 22:53
3M135371.	EF-1-V-286161(083		OK	SG 08/31/18		Aqueous 1		8301	8260C	08/30 23:18
3M135372.	AD06207-001(T:MSM16M18		OK MBS72643	SG 08/31/18	VOTCLP-826	Aqueous 1	1		624\826	08/30 23:37
3M135373.	AD06207-001(T:MSR16R18M16M		OK MBS72643	SG 08/31/18	VOTCLP-826	Aqueous 1	1		624\826	08/30 23:55
18										
3M135374.	BLK					Aqueous 1	1		624\826	08/31 00:11
3M135375.	AD06161-001		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 00:29
3M135376.	AD06128-001		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 00:46
3M135377.	AD06128-002		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 01:02
3M135378.	AD06129-002		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 01:20
3M135379.	AD06202-001		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 01:37
3M135380.	AD06161-002		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 01:55
3M135381.	AD06231-008		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 02:12
3M135382.	DAILY BLANK		OK,-11808	SG 08/31/18		Methano 1	1		8260C	08/31 02:30
3M135383.	AD06202-003		OK	SG 08/31/18	ERROR	Aqueous 1	1		624	08/31 02:47
3M135384.	AD06202-004		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 03:04
3M135385.	AD06202-005		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 03:21
3M135386.	AD06202-006		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 03:39
3M135387.	AD06202-007		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 03:56
3M135388.	AD06202-002		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 04:13
3M135389.	AD06149-001		RR-1X CO	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 04:29
3M135390.	AD06149-002		OK	SG 08/31/18	VO-8260	Aqueous 1	1		8260C	08/31 04:46
3M135391.	AD06217-007		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 05:04
3M135392.	AD06151-002		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 05:21
3M135393.	AD06151-003		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 05:38
3M135394.	AD06151-001		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 05:56
3M135395.	AD06161-003		OK	SG 08/31/18	VO15-8260	Aqueous 1	1		8260C	08/31 06:13
3M135396.	AD06156-001		OK	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 06:31
3M135397.	AD06195-009		OK	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 06:48
3M135398.	AD06165-002		RR-800uL CO MBS72652	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 07:05
3M135399.	AD06165-008		OK	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 07:22
3M135400.	AD06165-010				VO15-8260	Methano 1	1		8260C	08/31 07:40
3M135401.	AD06165-004		OK	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 07:57
3M135402.	MBS72652		OK MBS72652	SG 08/31/18		Methano 1	1		8260C	08/31 08:14
3M135403.	AD06165-002(MS)		OK MBS72652	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 08:31
3M135404.	AD06165-002(MSD)		OK MBS72652	SG 08/31/18	VO15-8260	Methano 1	1		8260C	08/31 08:48

Anc	Area Not Checked	Fo	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Fsm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
R6m	Blank 600 series missing	Fln	Tris/Solvent Extraction Date Missing/Not check'd	Cn	C30/C20 failed for enh
R8m	Blank 8000 series missing	Fto	Tris Extraction Performed Outside of Hold	EvF	Eval Mix Failed
Rnf	Blank Not Found/Assigned	Fv	Eval Time Exceeded	Evnc	Eval Mix Not Checked
IC16	Calibration Column 1 Out (600 Series)	Hb	Analysis Before Collection Date	Evrc	Eval Mix missing ddt or endrin
IC18	Calibration Column 1 Out (8000 Series)	Ho	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMst (col1 and or col2) 600 series
IC26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Rnd Out on MsMst (col1 and or col2) 8000 series
IC28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
CGf	600 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rto	Can't Calculate Drift
CGt	8000 series sample/blank did not have passing cal	Iv	Prob with calret csv for init calibration check rfs	S6	600 series surrogate out
Cme	Endrin Cal missing for sample (8000 series)	Iw	Initial cal warning: Ini cal file <= method	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/eval	Ix	Initial Cal Files Not Updated Properly for a sample	Sa6.Sb6	Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS 3 Year: 2018
8082413 0226

1-1-3M135451

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M135451	BFB TUNE		V-282201,V-281784,V-2286209,V-286840	WP 09/04/18						08/31 22:03
3M135452	CAL @ 20 PPB		OK	WP 09/04/18		Aqueous	1	1	624\826	08/31 22:13
3M135453	BLK					Aqueous	1	1	624\826	08/31 22:30
3M135454	DAILY BLANK		OK	WP 09/04/18		Methano	1	1	8260C	08/31 22:45
3M135455	DAILY BLANK		OK	WP 09/04/18		Aqueous	1	1	624\826	08/31 23:03
3M135456	AD06149-001		OK MBS72659	WP 09/04/18	VO-8260	Aqueous	1	1	624\826	08/31 23:25
3M135457	AD06128-003		OK	WP 09/04/18	VO15-8260	Aqueous	1	1	8260C	08/31 23:43
3M135458	MBS72659	M16M18	OK MBS72659	WP 09/04/18		Aqueous	1	1	624\826	09/01 00:01
3M135459	AD06149-001(MS)	M16M18	OK MBS72659	WP 09/04/18	VO-8260	Aqueous	1	1	624\826	09/01 00:18
3M135460	AD06149-001(MSD)	M16M18	OK MBS72659	WP 09/04/18	VO-8260	Aqueous	1	1	624\826	09/01 00:35
3M135461	BLK		-	WP 09/04/18		Aqueous	1	1	624\826	09/01 00:53
3M135462	AD06169-013		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 01:10
3M135463	AD06169-008		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 01:27
3M135464	AD06222-008		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 01:44
3M135465	AD06222-001		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 02:01
3M135466	AD06216-008		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 02:18
3M135467	AD06216-007		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 02:36
3M135468	AD06216-006		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 02:53
3M135469	AD06216-005		RR-1X,possible co	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 03:10
3M135470	AD06216-004		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 03:27
3M135471	AD06216-003		RR-1X,possible co	WP 09/04/18	VO-8260	Aqueous	1	1	624\826	09/01 03:44
3M135472	AD06216-002		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 04:02
3M135473	AD06169-009		RR-1X,possible co	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 04:19
3M135474	AD06169-010		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 04:36
3M135475	AD06169-011		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 04:53
3M135476	AD06169-006		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 05:10
3M135477	AD06169-005		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 05:27
3M135478	AD06169-007		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 05:45
3M135479	AD06169-001		OK	WP 09/04/18	VO-8260	Aqueous	1	1	8260C	09/01 06:02
3M135480	MBS72660		OK MBS72660	WP 09/04/18		Methano	1	1	8260C	09/01 06:18
3M135481	AD06141-002(MS)		OK MBS72660	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 06:35
3M135482	AD06141-002(MSD)		OK MBS72660	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 06:53
3M135483	AD06141-002		RR-5G MBS72660	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 07:09
3M135484	AD06165-002		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 07:26
3M135485	AD06204-016		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 07:43
3M135486	AD06204-002		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 08:00
3M135487	AD06204-012		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 08:18
3M135488	AD06227-018				VO15-8260	Methano	1	1	8260C	09/01 08:35
3M135489	AD06227-066				VO15-8260	Methano	1	1	8260C	09/01 08:52
3M135490	AD06227-014		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 09:09
3M135491	AD06126-001		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 09:26
3M135492	AD06126-006		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 09:44
3M135493	AD06126-008		OK	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 10:01
3M135494	AD06165-005	Ti8	RR-MEXT	WP 09/04/18	VO15-8260	Methano	1	1	8260C	09/01 10:18
3M135495	BLK	Ti8				Aqueous	1	1	624\826	09/01 10:35
3M135496	BLK	Ti8				Aqueous	1	1	624\826	09/01 10:53
3M135497	BLK	Ti8				Aqueous	1	1	624\826	09/01 11:10

Area Not Checked	En	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Area Out	Fsm	Solvent Extraction Date Missing/Not checked	CRN	Warning c30/c20 not checked
Blank 8000 series missing	Flm	Trin/Solvent Extraction Date Missing/Not checked	Crn	C30/C20 failed for enh
Blank 8000 series missing	Elm	Trin Extraction Performed Outside of Hold	Fvnc	Eval Mix Failed
Blank Not Found/Assigned	Ev	Eval Time Exceeded	Fvnc	Eval Mix Not Checked
Calibration Column 1 Out (8000 Series)	Hb	Analysis Before Collection Date	Fvnc	Eval Mix missing ddt or endrin
Calibration Column 1 Out (8000 Series)	Hc	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMet (col1 and or col2) 8000 series
Calibration Column 2 Out (8000 Series)	I16 I26	Initial cal 8000 series failed Column 1 and or 2	R18 R28	Rnd Out on MsMet (col1 and or col2) 8000 series
Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Ro	Retention Time Out Or %Diff Out
800 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rin	Can't Calculate Ddt
8000 series sample/blank did not have passing cal	Iv	Pinh with calmt csv for init calibration check rfs	S8	800 series surrogate out
Final Cal missing for sample (8000 series)	Iw	Initial cal warning: Init cal file <> method	S8	8000 series surrogate out
Calibration Not Checked for sample/blank/eval	Ix	Initial Cal Files Not Updated Properly for a sample	Sa8 Sb6	Acid and/or BN Surrogate Out (8000 series)

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-261014



Prepared By: Revolus, Jean		Department: Organics		ApprovedBy: jean	
Description: VOA ADD MIX		BatchNumber:		ApproveDate: 03/06/18	
Prep Date: 8/4/2017		Concentration: 5000 ppm		Checked: Yes	
Expiration Date: 8/4/2018		Final Volume: 10 ml			
Veritech					
Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc	
2889	1,2,4,5-TETRAMETHYLBENZENE	50 mg	NEAT	5000 ppm	
9626	p-Ethyltoluene	50 mg	Neat	5000 ppm	
10966	Cyclohexanone	250 mg	NEAT neat	25000 ppm	
11024	METHYL Alcohol		neat neat		
9642	p-Diethylbenzene	50 mg	Neat	5000 ppm	

Veritech Lot Number: V-261028



Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: akmal	
Description: VOA ADD MIX(2nd Source)		BatchNumber:	ApproveDate: 08/08/17	
Prep Date: 8/4/2017		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 8/4/2018		Final Volume: 10 ml		

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
2889	1,2,4,5-TETRAMETHYLBENZENE	50 mg	NEAT	5000 ppm
9626	p-Ethyltoluene	50 mg	Neat	5000 ppm
10966	Cyclohexanone	250 mg	NEAT neat	25000 ppm
9642	p-Diethylbenzene	50 mg	Neat	5000 ppm
11024	METHYL Alcohol		neat neat	

Veritech Lot Number: V-261034



Prepared By: Revolus, Jean

Description: Voa Extra Add Mix

Prep Date: 8/7/2017

Expiration Date: 8/7/2018

Department: Organics

BatchNumber:

Concentration: 2000-20000 p

Final Volume: 10 ml

ApprovedBy: jean

ApproveDate: 03/06/18

Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
8784	Methyl Methacrylate	20 mg	neat neat	2000 ppm
11024	METHYL Alcohol	10 ml	neat neat	
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
8787	n-Butyl Acrylate	20 mg	neat neat	2000 ppm
9627	Butyl methacrylate	20 mg	Neat	2000 ppm
10271	Ethyl methacrylate	20 mg	Neat neat	2000 ppm
8809	n-Amyl Acetate	20 mg	neat neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
8782	Ethyl Acetate	20 mg	neat neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-261036



Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: akmal	
Description: Voa Extra Add Mix(2nd Source)		BatchNumber:	ApproveDate: 08/08/17	
Prep Date: 8/7/2017		Concentration: 2000-20000 p	Checked: Yes	
Expiration Date: 8/7/2018		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
8784	Methyl Methacrylate	20 mg	neat neat	2000 ppm
10271	Ethyl methacrylate	20 mg	Neat neat	2000 ppm
9627	Butyl methacrylate	20 mg	Neat	2000 ppm
8787	n-Butyl Acrylate	20 mg	neat neat	2000 ppm
11024	METHYL Alcohol	10 ml	neat neat	
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
8809	n-Amyl Acetate	20 mg	neat neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
8782	Ethyl Acetate	20 mg	neat neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Lot Number: V-276980



Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: jean	
Description: Ethyl ether/Furan Mix		BatchNumber:	ApproveDate: 04/05/18	
Prep Date: 4/4/2018		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 4/4/2019		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11587	Furan	50 mg	NEAT neat	5000 ppm
11576	Ethyl Ether	50 mg	NEAT neat	5000 ppm
11535	Methyl Alcohol	10 ml	neat neat	

Veritech Lot Number: V-276981



Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: jean	
Description: Ethyl ether/Furan Mix(2nd Source)		BatchNumber:	ApproveDate: 04/05/18	
Prep Date: 4/4/2018		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 4/4/2019		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11587	Furan	50 mg	NEAT neat	5000 ppm
11576	Ethyl Ether	50 mg	NEAT neat	5000 ppm
11535	Methyl Alcohol	10 ml	neat neat	

Veritech Lot Number: V-279852



Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: akmal	
Description: 200ppm VOA Working Std		BatchNumber:	ApproveDate: 05/25/18	
Prep Date: 5/17/2018		Concentration: VARIOUS pp	Checked: Yes	
Expiration Date: 7/31/2018		Final Volume: 1 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
10865	methyl alcohol	220 ul	neat neat	neat
11278	502.2 Cal Mix #1(Gases)	100 ul	2000 ppm	200 ppm
10515	502.2 CAL2000 Mega Mix	100 ul	2000 ppm	200 ppm
11306	8260 Calibration Mix 2	100 ul	2000 ppm	200 ppm
11693	Custom VOC Standard	100 ul	VARIOUS	various ppm
11634	tert-Amyl Methyl Ether (TAME)	100 ul	2000 ppm	200 ppm
V-261014	VOA ADD MIX	40 ul	5000 ppm	various ppm
V-276980	Ethyl ether/Furan Mix	40 ul	5000 ppm	200 ppm
V-261034	Voa Extra Add Mix	100 ul	2000-20000 p	200 ppm
10517	Ethyl-tert-Butyl Ether(ETBE)	100 ul	2000 ppm	200 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-279854



Prepared By: Goring, Shawn Department: Organics ApprovedBy: akmal
 Description: 20ppm VOA Working Std BatchNumber: ApproveDate: 05/25/18
 Prep Date: 5/17/2018 Concentration: VARIOUS pp Checked: Yes
 Expiration Date: 7/31/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11172	METHYL ALCOHOL	900 ul	neat neat	neat
V-279852	200ppm VOA Working Std	100 ul	VARIOUS pp	200 ppm

Veritech Lot Number: V-279855



Prepared By: Goring, Shawn Department: Organics ApprovedBy: akmal
 Description: 20ppm Freon VOA Working Std BatchNumber: ApproveDate: 05/25/18
 Prep Date: 5/17/2018 Concentration: VARIOUS pp Checked: Yes
 Expiration Date: 11/17/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11172	METHYL ALCOHOL	900 ul	neat neat	neat
11637	Chlorodifluoromethane	100 ul	200 ppm	200 ppm

Veritech Lot Number: V-281784



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: VOA WORKING INT/SURR MIX BatchNumber: ApproveDate: 07/10/18
 Prep Date: 6/15/2018 Concentration: 150 ppm Checked: Yes
 Expiration Date: 12/15/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11535	Methyl Alcohol	88 ml	neat neat	
11279	8260A Surrogate Mix	6 ml	2500 ppm	150 ppm
11280	8260A Internal Standard Mix	6 ml	2500 ppm	150 ppm

Veritech Lot Number: V-282201



Prepared By: Goring, Shawn Department: Organics ApprovedBy: akmal
 Description: BFB Tune Mix BatchNumber: ApproveDate: 07/10/18
 Prep Date: 6/18/2018 Concentration: 50 ppm Checked: Yes
 Expiration Date: 12/15/2018 Final Volume: 1.5 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-281784	VOA WORKING INT/SURR MIX	500 ul	150 ppm	50 ppm
11535	Methyl Alcohol	1000 ul	neat neat	

Veritech Lot Number: V-283523



Prepared By: Goring, Shawn Department: Organics ApprovedBy: akmal
 Description: MBS BatchNumber: ApproveDate: 07/17/18
 Prep Date: 7/11/2018 Concentration: 100 ppm Checked: Yes
 Expiration Date: 8/4/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
10865	methyl alcohol	610 ul	neat neat	neat neat
11844	502.2 Cal Mix#1(Gases)	50 ul	2000 ppm	100 ppm
11843	502.2 Cal2000 Mega-Mix	50 ul	2000 ppm	100 ppm
11594	SS 8260 Cal Mix 2(ICV 2ND LOT)	50 ul	2000 ppm	100 ppm
11694	Custom VOC Standard(2nd Source)	50 ul	VARIOUS	various ppm
11308	tert-Amyl methyl ether	50 ul	2000 ppm	100 ppm
V-261028	VOA ADD MIX(2nd Source)	20 ul	5000 ppm	various ppm
V-261036	Voa Extra Add Mix(2nd Source)	50 ul	2000-20000 p	100-1000 pp
V-276981	Ethyl ether/Furan Mix(2nd Source)	20 ul	5000 ppm	100 ppm
11674	Ethyl-tert-Butyl Ether(ETBE)	50 ul	2000 ppm	100 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-283524



Prepared By: Goring, Shawn

Department: Organics

ApprovedBy: akmal

Description: 200ppm VOA Working Std

BatchNumber:

ApproveDate: 07/17/18

Prep Date: 7/11/2018

Concentration: VARIOUS pp

Checked: Yes

Expiration Date: 8/4/2018

Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
10865	methyl alcohol	220 ul	neat neat	neat
11278	502.2 Cal Mix #1(Gases)	100 ul	2000 ppm	200 ppm
11334	502.2 CAL2000 MEGA MIX	100 ul	2000 ppm	200 ppm
11306	8260 Calibration Mix 2	100 ul	2000 ppm	200 ppm
11693	Custom VOC Standard	100 ul	VARIOUS	various ppm
11634	tert-Amyl Methyl Ether (TAME)	100 ul	2000 ppm	200 ppm
V-261014	VOA ADD MIX	40 ul	5000 ppm	various ppm
V-261034	Voa Extra Add Mix	100 ul	2000-20000 p	200 ppm
V-276980	Ethyl ether/Furan Mix	40 ul	5000 ppm	200 ppm
10698	Ethyl-tert-Butyl Ether(ETBE)	100 ul	2000 ppm	200 ppm

Veritech Lot Number: V-283678



Prepared By: Previlon, Wilner

Department: Organics

ApprovedBy: akmal

Description: 624/8260 CAL @ 250 PPB

BatchNumber: B-25384

ApproveDate: 07/17/18

Prep Date: 7/13/2018

Concentration: VARIOUS ppb

Checked: Yes

Expiration Date: 7/20/2018

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283524	200ppm VOA Working Std	125 ul	VARIOUS pp	250 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	125 ul	200 ppm	250 ppb

Veritech Lot Number: V-283679



Prepared By: Previlon, Wilner

Department: Organics

ApprovedBy: akmal

Description: 624/8260 CAL @ 100 PPB

BatchNumber: B-25384

ApproveDate: 07/17/18

Prep Date: 7/13/2018

Concentration: VARIOUS ppb

Checked: Yes

Expiration Date: 7/20/2018

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283524	200ppm VOA Working Std	50 ul	VARIOUS pp	100 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	50 ul	200 ppm	100 ppb

Veritech Lot Number: V-283680



Prepared By: Previlon, Wilner

Department: Organics

ApprovedBy: akmal

Description: 624/8260 CAL @ 50 PPB

BatchNumber: B-25384

ApproveDate: 07/17/18

Prep Date: 7/13/2018

Concentration: VARIOUS ppb

Checked: Yes

Expiration Date: 7/20/2018

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283524	200ppm VOA Working Std	25 ul	VARIOUS pp	50 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	25 ul	200 ppm	50 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-283681

Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 20 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283524	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Lot Number: V-283682

Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 10 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-279854	20ppm VOA Working Std	50 ul	VARIOUS pp	10 ppb
9712	P&T Water	100 ml	Neat neat	
V-279855	20ppm Freon VOA Working Std	50 ul	VARIOUS pp	10 ppb

Veritech Lot Number: V-283683

Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 5 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-279854	20ppm VOA Working Std	25 ul	VARIOUS pp	5 ppb
9712	P&T Water	100 ml	Neat neat	
V-279855	20ppm Freon VOA Working Std	25 ul	VARIOUS pp	5 ppb

Veritech Lot Number: V-283684

Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 1 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-279854	20ppm VOA Working Std	5 ul	VARIOUS pp	1 ppb
9712	P&T Water	100 ml	Neat neat	
V-279855	20ppm Freon VOA Working Std	5 ul	VARIOUS pp	1 ppb

Veritech Lot Number: V-283685

Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 0.5 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-279854	20ppm VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb
9712	P&T Water	100 ml	Neat neat	
V-279855	20ppm Freon VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-283686



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 624/8260 CAL @ 500 PPB BatchNumber: B-25384 ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283524	200ppm VOA Working Std	250 ul	VARIOUS pp	500 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	250 ul	200 ppm	500 ppb

Veritech Lot Number: V-283687



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: ICV CAL @ 20 PPB BatchNumber: ApproveDate: 07/17/18
 Prep Date: 7/13/2018 Concentration: VARIOUS ppb Checked: Yes
 Expiration Date: 7/20/2018 Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-283523	MBS	20 ul	100 ppm	20 ppb
9712	P&T Water	100 ml	Neat neat	neat
11076	Chlorodifluoromethane(Freon #22)	10 ul	0.2 mg/ml	20 ppb

Veritech Lot Number: V-286162



Prepared By: Revolus, Jean Department: Organics ApprovedBy: jean
 Description: VOA ADD MIX BatchNumber: ApproveDate: 08/27/18
 Prep Date: 8/22/2018 Concentration: 5000 ppm Checked: Yes
 Expiration Date: 8/22/2019 Final Volume: 10 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
2889	1,2,4,5-TETRAMETHYLBENZENE	50 mg	NEAT	5000 ppm
9626	p-Ethyltoluene	50 mg	Neat	5000 ppm
9642	p-Diethylbenzene	50 mg	Neat	5000 ppm
11535	Methyl Alcohol		neat neat	
10966	Cyclohexanone	250 mg	NEAT neat	25000 ppm

Veritech Lot Number: V-286163



Prepared By: Revolus, Jean Department: Organics ApprovedBy: jean
 Description: Voa Extra Add Mix BatchNumber: ApproveDate: 08/27/18
 Prep Date: 8/22/2018 Concentration: 2000-20000 p Checked: Yes
 Expiration Date: 8/23/2019 Final Volume: 10 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11935	Ethyl acetate	20 mg	Neat	2000 ppm
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
11535	Methyl Alcohol	10 ml	neat neat	
11578	n-Amyl Acetate	20 mg	NEAT neat	2000 ppm
11931	Methyl methacrylate	20 mg	Neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
11933	n-Butyl acrylate	20 mg	Neat	2000 ppm
11930	Ethyl methacrylate	20 mg	Neat	2000 ppm
11932	Butyl methacrylate	20 mg	Neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286164



Prepared By: Revolus, Jean
 Description: Voa Extra Add Mix(2nd Source)
 Prep Date: 8/22/2018
 Expiration Date: 8/22/2019

Department: Organics
 BatchNumber:
 Concentration: 2000-20000 p
 Final Volume: 10 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11935	Ethyl acetate	20 mg	Neat	2000 ppm
11535	Methyl Alcohol	10 ml	neat neat	
11578	n-Amyl Acetate	20 mg	NEAT neat	2000 ppm
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
11931	Methyl methacrylate	20 mg	Neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
11933	n-Butyl acrylate	20 mg	Neat	2000 ppm
11930	Ethyl methacrylate	20 mg	Neat	2000 ppm
11932	Butyl methacrylate	20 mg	Neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Lot Number: V-286197



Prepared By: Previlon, Wilner
 Description: 200ppm VOA Working Std
 Prep Date: 8/22/2018
 Expiration Date: 11/14/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS pp
 Final Volume: 1 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	220 ul	neat neat	neat
11278	502.2 Cal Mix #1(Gases)	100 ul	2000 ppm	200 ppm
11843	502.2 Cal2000 Mega-Mix	100 ul	2000 ppm	200 ppm
11790	8260 CAL MIX #2	100 ul	2000 ppm	200 ppm
11693	Custom VOC Standard	100 ul	VARIOUS	various ppm
11634	tert-Amyl Methyl Ether (TAME)	100 ul	2000 ppm	200 ppm
V-286162	VOA ADD MIX	40 ul	5000 ppm	various ppm
V-286163	Voa Extra Add Mix	100 ul	2000-20000 p	200 ppm
V-276980	Ethyl ether/Furan Mix	40 ul	5000 ppm	200 ppm
11633	Ethyl-tert-Butyl Ether (ETBE)	100 ul	2000 ppm	200 ppm

Veritech Lot Number: V-286209



Prepared By: Previlon, Wilner
 Description: MBS
 Prep Date: 8/22/2018
 Expiration Date: 10/31/2018

Department: Organics
 BatchNumber:
 Concentration: 100 ppm
 Final Volume: 1 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	610 ul	neat neat	neat neat
11844	502.2 Cal Mix#1(Gases)	50 ul	2000 ppm	100 ppm
11843	502.2 Cal2000 Mega-Mix	50 ul	2000 ppm	100 ppm
11594	SS 8260 Cal Mix 2(ICV 2ND LOT)	50 ul	2000 ppm	100 ppm
11694	Custom VOC Standard(2nd Source)	50 ul	VARIOUS	various ppm
11308	tert-Amyl methyl ether	50 ul	2000 ppm	100 ppm
V-286162	VOA ADD MIX	20 ul	5000 ppm	various ppm
V-286164	Voa Extra Add Mix(2nd Source)	50 ul	2000-20000 p	100-1000 pp
V-276981	Ethyl ether/Furan Mix(2nd Source)	20 ul	5000 ppm	100 ppm
11674	Ethyl-tert-Butyl Ether(ETBE)	50 ul	2000 ppm	100 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286369

Prepared By: Goring, Shawn
 Description: CAL @ 20 PPB
 Prep Date: 8/27/2018
 Expiration Date: 9/3/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Lot Number: V-286518

Prepared By: Goring, Shawn
 Description: 20ppm VOA Working Std
 Prep Date: 8/28/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS pp
 Final Volume: 1 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	900 ul	neat neat	neat
V-286197	200ppm VOA Working Std	100 ul	VARIOUS pp	200 ppm

Veritech Lot Number: V-286519

Prepared By: Goring, Shawn
 Description: 20ppm Freon VOA Working Std
 Prep Date: 8/28/2018
 Expiration Date: 1/4/2019

Department: Organics
 BatchNumber:
 Concentration: VARIOUS pp
 Final Volume: 1 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	900 ul	neat neat	neat
11637	Chlorodifluoromethane	100 ul	200 ppm	200 ppm

Veritech Lot Number: V-286520

Prepared By: Goring, Shawn
 Description: 624/8260 CAL @ 250 PPB
 Prep Date: 8/28/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber: B-25607
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	125 ul	VARIOUS pp	250 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	125 ul	200 ppm	250 ppb

Veritech Lot Number: V-286521

Prepared By: Goring, Shawn
 Description: 624/8260 CAL @ 100 PPB
 Prep Date: 8/28/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber: B-25607
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	50 ul	VARIOUS pp	100 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	50 ul	200 ppm	100 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286522

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: jean	
Description: 624/8260 CAL @ 50 PPB		BatchNumber: B-25607	ApproveDate: 09/06/18	
Prep Date: 8/28/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 9/4/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	25 ul	VARIOUS pp	50 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	25 ul	200 ppm	50 ppb

Veritech Lot Number: V-286523

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: jean	
Description: 624/8260 CAL @ 20 PPB		BatchNumber: B-25607	ApproveDate: 09/06/18	
Prep Date: 8/28/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 9/4/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Lot Number: V-286524

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: jean	
Description: 624/8260 CAL @ 10 PPB		BatchNumber: B-25607	ApproveDate: 09/06/18	
Prep Date: 8/28/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 9/4/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286518	20ppm VOA Working Std	50 ul	VARIOUS pp	10 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	50 ul	VARIOUS pp	10 ppb

Veritech Lot Number: V-286525

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: jean	
Description: 624/8260 CAL @ 5 PPB		BatchNumber: B-25607	ApproveDate: 09/06/18	
Prep Date: 8/28/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 9/4/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286518	20ppm VOA Working Std	25 ul	VARIOUS pp	5 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	25 ul	VARIOUS pp	5 ppb

Veritech Lot Number: V-286526

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: jean	
Description: 624/8260 CAL @ 1 PPB		BatchNumber: B-25607	ApproveDate: 09/06/18	
Prep Date: 8/28/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 9/4/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286518	20ppm VOA Working Std	5 ul	VARIOUS pp	1 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	5 ul	VARIOUS pp	1 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286527



Prepared By: Goring, Shawn
 Description: 624/8260 CAL @ 0.5 PPB
 Prep Date: 8/28/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber: B-25607
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286518	20ppm VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb

Veritech Lot Number: V-286528



Prepared By: Goring, Shawn
 Description: 624/8260 CAL @ 500 PPB
 Prep Date: 8/28/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber: B-25607
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	250 ul	VARIOUS pp	500 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	250 ul	200 ppm	500 ppb

Veritech Lot Number: V-286529



Prepared By: Goring, Shawn
 Description: ICV CAL @ 20 PPB
 Prep Date: 8/29/2018
 Expiration Date: 9/3/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286209	MBS	20 ul	100 ppm	20 ppb
9712	P&T Water	100 ml	Neat neat	neat
11076	Chlorodifluoromethane(Freon #22)	10 ul	0.2 mg/ml	20 ppb

Veritech Lot Number: V-286530

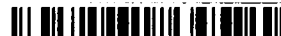


Prepared By: Goring, Shawn
 Description: CAL @ 20 PPB
 Prep Date: 8/29/2018
 Expiration Date: 9/4/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Lot Number: V-286583



Prepared By: Goring, Shawn
 Description: CAL @ 20 PPB
 Prep Date: 8/30/2018
 Expiration Date: 9/5/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS ppb
 Final Volume: 100 ml
 ApprovedBy: jean
 ApproveDate: 09/06/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286840



Prepared By: Previlon, Wilner

Department: Organics

ApprovedBy: jean

Description: CAL @ 20 PPB

BatchNumber:

ApproveDate: 09/06/18

Prep Date: 8/31/2018

Concentration: VARIOUS ppb

Checked: Yes

Expiration Date: 9/6/2018

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-286197	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 2889



Description
1,2,4,5-TETRAMETHYLBENZENE

ApprovedBy: jean
 ApproveDate: 07/30/09
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
ACROS ORGANI	409390050	A0214190	11/20/07	11/30/20	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1ML	NEAT	

Veritech Control/Receipt Number: 8781



Description
Camphene

ApprovedBy: akmal
 ApproveDate: 06/19/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Chem Service	N-11395-1G	2868400	06/19/14	12/31/19	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
2	1g	neat	neat

Veritech Control/Receipt Number: 8782



Description
Ethyl Acetate

ApprovedBy: akmal
 ApproveDate: 06/19/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Chem Service	N-11881-1G	2787200	06/19/14	09/30/18	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	neat	neat

Veritech Control/Receipt Number: 8784



Description
Methyl Methacrylate

ApprovedBy: akmal
 ApproveDate: 06/19/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Chem Service	N-12443-1G	2762100	06/19/14	10/31/18	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
5	1g	neat	neat

Veritech Control/Receipt Number: 8787



Description
n-Butyl Acrylate

ApprovedBy: akmal
 ApproveDate: 06/19/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Chem Service	N-12513-1G	2865800	06/19/14	02/28/19	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
10	1g	neat	neat

Veritech Control/Receipt Number: 8809



Description
n-Amyl Acetate

ApprovedBy: akmal
 ApproveDate: 07/07/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
ChemService	N-12508-1G	2708400	07/07/14	01/31/19	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	neat	neat

Veritech Control/Receipt Number: 9626



Description
p-Ethyltoluene

ApprovedBy: jean
 ApproveDate: 08/04/15
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-12776-1G	3381600	08/04/15	11/30/21	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 9627



Description
Butyl methacrylate

ApprovedBy: jean
ApproveDate: 08/04/15
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Chem Service N-11371-1G 2127700 08/04/15 11/30/18 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
1 1g Neat

Veritech Control/Receipt Number: 9641



Description
d-Camphor

ApprovedBy: jean
ApproveDate: 08/11/15
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
CHEM SERVICE N-11556-1G 3256300 08/11/15 10/31/20 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
2 1g Neat

Veritech Control/Receipt Number: 9642



Description
p-Diethylbenzene

ApprovedBy: jean
ApproveDate: 08/11/15
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
CHEM SERVICE N-12771-100MG 4233000 08/11/15 08/31/20 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
4 100m Neat

Veritech Control/Receipt Number: 9712



Description
P&T Water

ApprovedBy:
ApproveDate:
Checked: No

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Veritech N/A N/A 09/28/15 09/28/20 Goring, Shawn

Num of Volume
Cont /Cont Conc: Units:
1 N/A Neat Neat

Veritech Control/Receipt Number: 10271



Description
Ethyl methacrylate

ApprovedBy: akmal
ApproveDate: 06/14/16
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Chem Service N11903-1g 4592300 06/14/16 12/31/19 Hamid, Akmal

Num of Volume
Cont /Cont Conc: Units:
1 1g Neat Neat

Veritech Control/Receipt Number: 10515



Description
502.2 CAL2000 Mega Mix

ApprovedBy: Jean
ApproveDate: 11/17/16
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30431 A0120695 11/01/16 07/31/18 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 10517



Description
Ethyl-tert-Butyl Ether(ETBE)

ApprovedBy: Jean
ApproveDate: 11/17/16
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30628 A0116348 11/01/16 01/31/21 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
3 1ml 2000 PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 10698



Description
Ethyl-tert-Butyl Ether(ETBE)

ApprovedBy: akmal
 ApproveDate: 01/12/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Restek	30628	A0123131	01/12/17	11/30/21	Hamid, Akmal	5	1ml	2000	ppm

Veritech Control/Receipt Number: 10865



Description
methyl alcohol

ApprovedBy: akmal
 ApproveDate: 04/06/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Tedia	MP1924	16080704	04/05/17	09/12/18	Lopez, Jose	24	6L	neat	neat

Veritech Control/Receipt Number: 10964



Description
Isopropyl Acetate

ApprovedBy: akmal
 ApproveDate: 05/30/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Chem Service Inc	N-12223-1G	6037900	05/26/17	02/28/20	Hamid, Akmal	1	1G	NEAT	NEAT

Veritech Control/Receipt Number: 10966



Description
Cyclohexanone

ApprovedBy: akmal
 ApproveDate: 05/30/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Chem Service Inc	N-11531-1G	6255400	05/26/17	10/31/19	Hamid, Akmal	1	1G	NEAT	NEAT

Veritech Control/Receipt Number: 11024



Description
METHYL Alcohol

ApprovedBy: akmal
 ApproveDate: 06/27/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
TEDIA	MP1924	17030507	06/23/17	04/05/19	Burwell, John	30	1 L	neat	neat

Veritech Control/Receipt Number: 11076



Description
Chlorodifluoromethane(Freon #22)

ApprovedBy: akmal
 ApproveDate: 07/17/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
AccuStandard	M-REF-03	215011021	07/14/17	01/05/25	Hamid, Akmal	15	1ML	0.2	MG/ML

Veritech Control/Receipt Number: 11172



Description
METHYL ALCOHOL

ApprovedBy: akmal
 ApproveDate: 09/19/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Tedia	MP1924	17070285	09/18/17	08/14/19	Lopez, Jose	30	1L	neat	neat

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11278



Description
502.2 Cal Mix #1(Gases)

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
RESTEK	30042	A0130478	11/16/17	05/31/24	Revolus, Jean	7	1ml	2000	PPM

Veritech Control/Receipt Number: 11279



Description
8260A Surrogate Mix

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
RESTEK	30240	A0127037	11/16/17	04/30/22	Revolus, Jean	12	1ml	2500	PPM

Veritech Control/Receipt Number: 11280



Description
8260A Internal Standard Mix

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
RESTEK	30241	A0131578	11/16/17	10/31/22	Revolus, Jean	12	1ml	2500	PPM

Veritech Control/Receipt Number: 11306



Description
8260 Calibration Mix 2

ApprovedBy: akmal
ApproveDate: 12/01/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	46831-U	LC24043V	12/01/17	11/30/19	Hamid, Akmal	3	1ML	2000	PPM

Veritech Control/Receipt Number: 11308



Description
tert-Amyl methyl ether

ApprovedBy: akmal
ApproveDate: 12/01/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	506737	XA16639V	12/01/17	10/31/18	Hamid, Akmal	3	1ML	2000	PPM

Veritech Control/Receipt Number: 11334



Description
502.2 CAL2000 MEGA MIX

ApprovedBy: jean
ApproveDate: 12/19/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
RESTEK	30431	A0129144	12/19/17	07/31/19	Revolus, Jean	5	1ml	2000	PPM

Veritech Control/Receipt Number: 11535



Description
Methyl Alcohol

ApprovedBy: akmal
ApproveDate: 06/19/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Tedia	MP1924	18010456	03/08/18	01/17/20	Lopez, Jose	42	1L	neat	neat

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11576



Description
Ethyl Ether

ApprovedBy: akmal
ApproveDate: 04/03/18
Checked: Yes

Manufacturer
Chem Service

Catalog Num:
N-11897-1G

Lot Num:
6802700

Date Rec:
04/03/18

Exp Date:
04/30/20

Rec By:
Hamid, Akmal

Num of
Cont 1

Volume
/Cont 1G

Conc:
NEAT

Units:
NEAT

Veritech Control/Receipt Number: 11578



Description
n-Amyl Acetate

ApprovedBy: akmal
ApproveDate: 04/03/18
Checked: Yes

Manufacturer
Chem Service

Catalog Num:
N-12508-1G

Lot Num:
6972800

Date Rec:
04/03/18

Exp Date:
02/27/21

Rec By:
Hamid, Akmal

Num of
Cont 1

Volume
/Cont 1G

Conc:
NEAT

Units:
NEAT

Veritech Control/Receipt Number: 11587



Description
Furan

ApprovedBy: akmal
ApproveDate: 04/05/18
Checked: Yes

Manufacturer
Aldrich

Catalog Num:
185922

Lot Num:
SHBG4510V

Date Rec:
04/05/18

Exp Date:
08/31/25

Rec By:
Hamid, Akmal

Num of
Cont 1

Volume
/Cont 5ML

Conc:
NEAT

Units:
NEAT

Veritech Control/Receipt Number: 11594



Description
SS 8260 Cal Mix 2(ICV 2ND LOT)

ApprovedBy: akmal
ApproveDate: 04/09/18
Checked: Yes

Manufacturer
Supelco

Catalog Num:
46831-U

Lot Num:
LC24460V

Date Rec:
04/09/18

Exp Date:
11/30/19

Rec By:
Hamid, Akmal

Num of
Cont 2

Volume
/Cont 1ML

Conc:
2000

Units:
PPM

Veritech Control/Receipt Number: 11633



Description
Ethyl-tert-Butyl Ether (ETBE)

ApprovedBy: jean
ApproveDate: 05/01/18
Checked: Yes

Manufacturer
RESTEK

Catalog Num:
30628

Lot Num:
A0131084

Date Rec:
05/01/18

Exp Date:
09/30/22

Rec By:
Revolus, Jean

Num of
Cont 5

Volume
/Cont 1ml

Conc:
2000

Units:
PPM

Veritech Control/Receipt Number: 11634



Description
tert-Amyl Methyl Ether (TAME)

ApprovedBy: jean
ApproveDate: 05/01/18
Checked: Yes

Manufacturer
RESTEK

Catalog Num:
30629

Lot Num:
A0104857

Date Rec:
05/01/18

Exp Date:
07/31/19

Rec By:
Revolus, Jean

Num of
Cont 5

Volume
/Cont 1ml

Conc:
2000

Units:
PPM

Veritech Control/Receipt Number: 11637



Description
Chlorodifluoromethane

ApprovedBy: jean
ApproveDate: 05/07/18
Checked: Yes

Manufacturer
ACCUSTANDAR

Catalog Num:
M-REF-03

Lot Num:
217071159

Date Rec:
05/02/18

Exp Date:
07/12/27

Rec By:
Revolus, Jean

Num of
Cont 20

Volume
/Cont 1ml

Conc:
200

Units:
PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11674



Description
Ethyl-tert-Butyl Ether(ETBE)

ApprovedBy: jean
ApproveDate: 05/14/18
Checked: Yes

Manufacturer: RESTEK Catalog Num: 30628 Lot Num: A0137814 Date Rec: 05/10/18 Exp Date: 05/31/23 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: 2000 Units: PPM

Veritech Control/Receipt Number: 11693



Description
Custom VOC Standard

ApprovedBy: jean
ApproveDate: 05/16/18
Checked: Yes

Manufacturer: ACCUSTANDAR Catalog Num: S-16418 Lot Num: 218051016 Date Rec: 05/16/18 Exp Date: 11/14/18 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: VARIOU Units:

Veritech Control/Receipt Number: 11694



Description
Custom VOC Standard(2nd Source)

ApprovedBy: jean
ApproveDate: 05/16/18
Checked: Yes

Manufacturer: ACCUSTANDAR Catalog Num: S-16418 Lot Num: 218051222 Date Rec: 05/16/18 Exp Date: 11/14/18 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: VARIOU Units:

Veritech Control/Receipt Number: 11790



Description
8260 CAL MIX #2

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer: SUPELCO Catalog Num: 46831-U Lot Num: LC24460V Date Rec: 06/20/18 Exp Date: 11/30/19 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: 2000 Units: PPM

Veritech Control/Receipt Number: 11808



Description
Methyl Alcohol

ApprovedBy: akmal
ApproveDate: 07/05/18
Checked: Yes

Manufacturer: Tedia Catalog Num: MP1924 Lot Num: 18030409 Date Rec: 06/25/18 Exp Date: 03/16/20 Rec By: Lopez, Jose

Num of Cont: 42 Volume /Cont: 1L Conc: neat Units: neat

Veritech Control/Receipt Number: 11843



Description
502.2 Cal2000 Mega-Mix

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer: RESTEK Catalog Num: 30431 Lot Num: A0139221 Date Rec: 07/12/18 Exp Date: 06/30/20 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: 2000 Units: PPM

Veritech Control/Receipt Number: 11844



Description
502.2 Cal Mix#1(Gases)

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer: RESTEK Catalog Num: 30042 Lot Num: A0136734 Date Rec: 07/12/18 Exp Date: 12/31/24 Rec By: Revolus, Jean

Num of Cont: 5 Volume /Cont: 1ml Conc: 2000 Units: PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11930



Description
Ethyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-11903-1G	6051800	08/22/18	12/31/19	Revolus, Jean	1	1g	Neat	

Veritech Control/Receipt Number: 11931



Description
Methyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-12443-1G	7530100	08/22/18	03/31/21	Revolus, Jean	1	1g	Neat	

Veritech Control/Receipt Number: 11932



Description
Butyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-11371-1G	4695500	08/22/18	01/31/23	Revolus, Jean	1	1g	Neat	

Veritech Control/Receipt Number: 11933



Description
n-Butyl acrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-12513-1G	7528400	08/22/18	12/31/20	Revolus, Jean	1	1g	Neat	

Veritech Control/Receipt Number: 11935



Description
Ethyl acetate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-11881-1G	7518400	08/22/18	05/31/22	Revolus, Jean	1	1g	Neat	



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